Project Lifecycle – Outline Business Case Template

Project Name: Coventry North Transport Package

Revision History (to be completed by the Applicant)

Please keep record of the document's Revision History using the table below:

	Version Number	File Name	Date submitted	Summary of changes made compared to previous version (please refer to previously received feedback and how issues have been addressed)
Current Version	V2.0	Coventry North Transport Package OBC v2.0		Edits following CCC final review
Previous Versions	V0.1	Coventry North Transport Package OBC v0.1	N/A	Initial draft, submitted to CCC in Jan 2021.
	V1.0	Coventry North Transport Package OBC v1.0		Edits following CCC initial review

Review History (to be completed by the Reviewer/Approver)

Name of Reviewer	Role	Date Business Case Reviewed	Summary of decision – whether approved or not – if not approved please explain the reason for non-approval and the additional evidence that would be needed for approval

Applicant Details

Applicant Details			
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Ward (base location of lead organisation):	St Michael's, Coventry		
Other organisations involved in project bid:	N/A		

Content of the Business Case

Content of the Business Case	
Section A	Status of Business Case Development
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Section A: Status of Business Case Development

Section A1: Status & Progress to-date

1. Progress achieved prior to Bid. What has been achieved so far within the project?

Coventry City Council (CCC) developed an Options Appraisal Report (OAR) for a programme of transport improvements located in the north of Coventry; the Coventry North Transport Package. The OAR included a long list of improvement options for the area, which were then sifted to produce a shortlist of the best performing options for each element of the package. Approval and development funding were secured through the West Midlands Combined Authority (WMCA) assurance process. Funding has been secured to develop two key elements of the Coventry North Transport Package; the Keresley Link Road and M6 Junction 3, to Full Business Case stage. Following approval of this document, work will commence on developing individual Full Business Cases for each of these elements.

2. Has this project been subject to any other Assurance Frameworks (e.g. LEP Assurance Framework)? If so, please provide details, including information on:

a) name of Assurance Framework/ relevant organisation;

b) funding requested under that Assurance Framework;

c) timing (e.g. date of submission/approval); and,

d) outcomes (i.e. ongoing, approved, conditional, or rejected).

The project has not been subject to any other assurance frameworks.

Section B: Project Description and Background

1. Please refer to the SOC Section B, Q.1 for project description and include any updates or changes here.

The Connecting Coventry UK Central Plus (UKC+) Programme is designed to enable Coventry and the West Midlands to capitalise on the opportunities for growth and wider economic development presented by High Speed 2 and the Midlands Engine strategy. This entails transforming the quality of transport infrastructure and services, thus supporting the goals and ambition of the West Midlands Combined Authority so that:

1. Transport costs to business are minimised (and the benefits passed through to consumers in terms of lower prices);
2. Businesses are encouraged to invest in the area and develop clusters of economic activity (in conjunction with the Universities); and
3. People are able to access a wider range of educational and employment opportunities and thereby increase their levels of productivity.

The Coventry North Package aims to transform connectivity within north Coventry and the surrounding area of Warwickshire and unlock the economic opportunities that will be created by the resurgence of the West Midlands, including the arrival of HS2 and the new Birmingham Interchange station, the major employment development at UK Central, Coventry being the UK's City of Culture 2021 and the Commonwealth Games being held in Birmingham and Coventry in 2022.

The Coventry North Package features five main scheme proposals that could be implemented as listed below:

- Provision of a Keresley Link Road to provide an effective intervention that both distributes traffic resulting from the Keresley SUE development and provides a more strategic route through north-west Coventry, linking the A45 with the A444. This also provides opportunity to enhance walking, cycling and public transport connectivity around the North West area of Coventry ;
- Improvements to M6 Junction 3 in the form of a combination of a hamburger arrangement and a free-flow lane;
- A new link road at Hawkesbury, connecting Blackhorse Road to Stephenson Road, enabling the closure of the Blackhorse Road level crossing and thus improving rail capacity;
- Addition of free-flow lane at the A444-Rowley's Green junction, connecting Winding House Lane to the A444 NB, improving the strategic link through from the A45 and Keresley; and
- New cycleways provided serving the north-west of the city of Coventry.

Of these, the Keresley Link Road is at a more advanced stage of development, with detailed designs undertaken. As such, there is more certainty over this scheme throughout the five cases, compared with the other schemes proposed as part of the Package. The remaining schemes are much earlier in their development, and as such more high-level assumptions have been required to provide the cases for these schemes in this document.

There are several planned developments throughout the Coventry North area, all of which will put pressure on the local transport network in terms of increased residential and employment populations. Indeed, the Coventry Local Plan and the Nuneaton and Bedworth Local Plan identifies a number of sites in the study area, including:

- Keresley Sustainable Urban Extension (3,100 dwellings and 2,500sq.m. of retail space)
- Eastern Green Sustainable Urban Extension (approx. 2,250 dwellings and 15 hectares of employment land, plus new grade separated junction on A45)
- Lyons Park (19 remaining hectares of employment land, plus an adjacent site for 475 dwellings)
- Whitmore Park (8 hectares of employment land and ~500 dwellings)
- Dunbar Avenue (1.5 hectares of employment land)
- Prologis Park (Potential extension with further five hectares of employment land);
- Rowley's Green Lane (18 hectares of employment land and 200 dwellings); and
- Further development of the Bermuda Park employment site in Nuneaton

The various proposed developments require provision of transport infrastructure in order to meet the forecast travel demand, whilst mitigating problems such as traffic congestion, road safety and adverse environmental impacts. It is expected that the transport infrastructure improvements will unlock significant additional growth potential in the north west of the city, as well as creating benefits on the existing network.

The arrival of the HS2 Interchange and the ambitious proposals for development at UK Central will inevitably influence development of their surrounding areas. With Phase 1 of HS2 due to start operating between 2028 - 2031 and UK Central opening up 140 hectares of mixed development site, the areas located in close proximity to UK Central and HS2 will experience sharp increases in traveller numbers, both from private and public modes of transport.

Coventry being named the City of Culture 2021 and Birmingham winning the right to host the 2022 Commonwealth Games, with events to be held across the West Midlands region, including at the National Exhibition Centre at UK Central and Coventry (Ricoh) Arena in north Coventry, will also result in significant increases in travel demand on the local network for the duration of the events.

The major travel opportunities offered by these developments will alter the travel dynamics across Coventry and surrounding areas, inevitably increasing the level of traffic in these areas.

Currently, Coventry, Nuneaton & Bedworth and North Warwickshire are primarily connected only by congested motorway links and two busy A-class roads – the A444 and A45. The secondary and minor road network between the A444 and A45 is likely to come under severe pressure as a result of travel demand both locally and for travel to HS2 and UK Central. Therefore, there is a need to consider multi-modal options for transport infrastructure and service improvements; and the scope for further spatial / economic development beyond that which is outlined in the various Local Plans. The Coventry North Transport Package, focussed around the Keresley Link Road, aim to provide the infrastructure to deliver this development, and provide connection between the key routes in the north of Coventry.

Purpose of the OBC

The key purpose of the OBC is to:

- Revisit the assumptions and main findings reported at the Initial Proposal Stage;
- Establish the preferred option; and,
- Put in place the arrangements for the procurement of the scheme.

The OBC aims to ensure that only projects that meet the needs of the West Midlands – as defined in the WMCA SEP - are taken through to the Full Business Case stage. The core of the OBC is the options analysis, which should demonstrate that the preferred option is optimally designed to meet the WMCA's investment criteria.

At this stage, project sponsors are expected to have:

- Established the preferred scheme option;
- Utilised at least the basic expectations for different types of specific project appraisal (as listed in the appendix); and,
- Put in place the arrangements for the procurement of the scheme.

Section C: Strategic Case for Change and fit to WMCA Strategic Economic Plan Themes

Section C1: Overview and Rationale

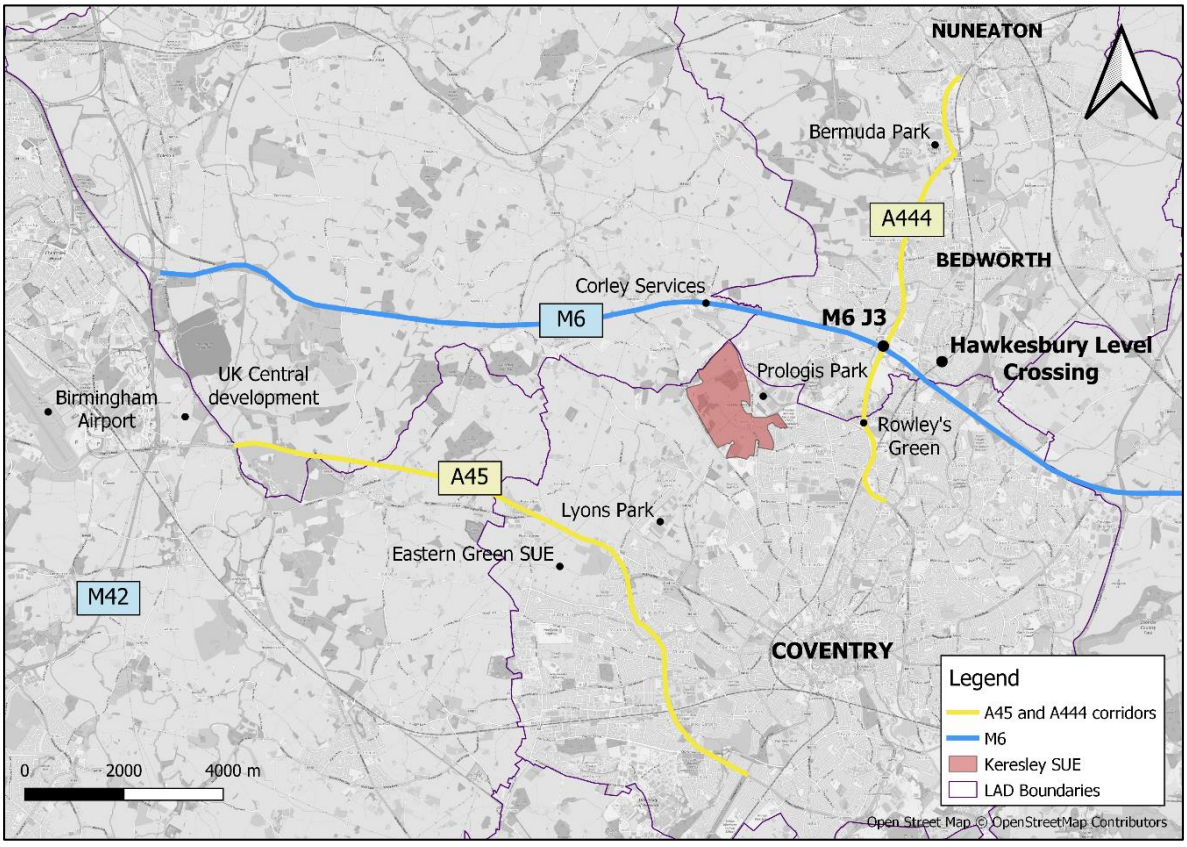
- **Please refer to the SOC Section C1: Overview and Rationale Qs 1-3 and include any updates or changes here.**

Please summarise the project being proposed and for what aspect funding is being sought

The Coventry North Transport Package encompasses a series of transport interventions to the north of Coventry which aim to provide the necessary infrastructure to facilitate planned developments and enable future growth in the area. This package considers options around the proposed Keresley Link Road, designed to serve the Keresley Sustainable Urban Extension (SUE) development in North-West Coventry, improvements to M6 Junction 3 and the nearby A444 corridor, and the removal of the Hawkesbury Level crossing to increase rail capacity in the region as core elements. Furthermore, the package considers wider public and sustainable transport, and other supporting interventions, which address the demand for short distance travel within Coventry and ensure local access to developments in the area is maintained.

A map of the study area is provided in Figure C1.1 below.

Figure C1.1: Coventry North Transport Package Study Area



The Coventry North Package is part of a wider programme of development to enable Coventry and the West Midlands to capitalise on opportunities for economic development and regeneration presented by HS2 and the Midlands Engine Strategy, as well as the UK Central development near Solihull. Improving the quality and accessibility of transport and infrastructure is a key tenet of this programme, supporting both the objectives of the CCC Local Plan and WMCA Local Transport Plan, which can be articulated as follows:

- To support businesses to grow and underpin economic growth;
- To develop a dynamic city centre in Coventry;
- To improve access to opportunities by enhancing the accessible transport network; and
- To tackle climate change through reduced emissions, creating an attractive, cleaner and greener Coventry

The intended transport package has a series of desired 'outcome objectives', developed in line with CCC's Local Plan objectives, the emerging refreshed WMCA Local Transport Plan Objectives and key national strategies including the Department for Transport's Transport Decarbonisation Plan and Gear Change: A bold vision for walking and cycling. These can be broken down at a national, sub-regional and local level, as summarised in Figure C1.2 below.

Figure C1.2: Coventry North Transport Package Objectives by National, Sub-regional and Local level

National	Sub-regional	Local
• Help unlock opportunities created by national schemes and events (HS2 and UK Central); • Improve the efficiency and operation of the Strategic Road Network (SRN), specifically the M6.	• Improve connectivity between the A45 and M6; • Improve journey resilience along the A444 corridor connecting Coventry and Bedworth/Nuneaton; • Enable greater rail connections to/from Coventry; and • Provide greater access to growth sites (e.g: universities and employment sites) in the area).	• Reduce local vehicle congestion on nearby highways; • Support and enable strategic housing growth sites and other local plan allocations; • Improve the health and wellbeing of the local population via greater active travel; • Mitigate the impact of traffic on local communities; and • Reduce the environmental impact of traffic.

A long list of options has been considered to form the overall Coventry North Transport Package and sifted based on the assessment of each against the outcome objectives established in Figure C1.2. Each element of the overall package is explored in further detail below, with the accompanying Option Appraisal Report (OAR) provided in Appendix I8. The package constitutes immediate priorities and accompanying schemes (the subject of this funding request). However, through the appraisal process numerous long-term major schemes have also been identified, which have the potential to further enhance travel behaviour in Coventry and the local area. These long-term major schemes are not included within the Package that is the subject of this business case. However, they could provide a long term solution for Coventry and wider regions, facilitating economic development and housing supply.

Keresley Link Road – Immediate Priority (1)

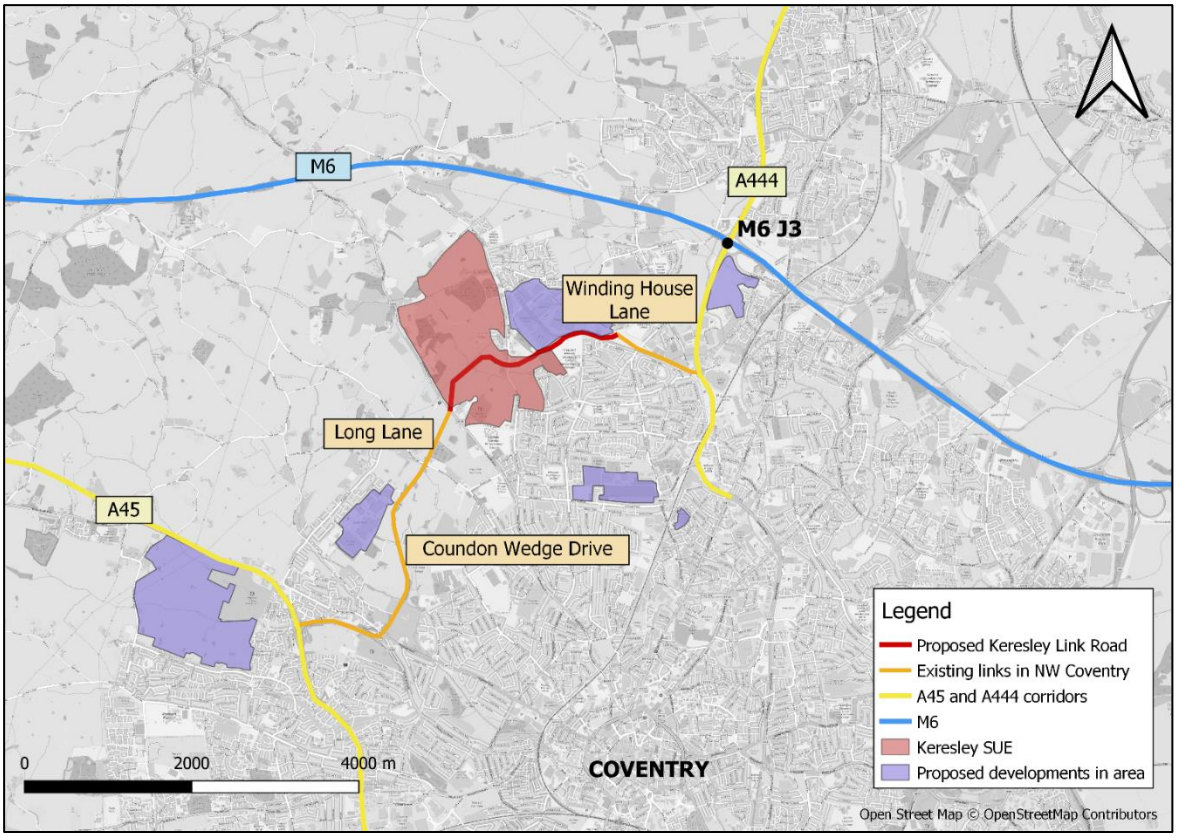
One of the major elements of the overall proposed Coventry North Transport Package is the provision of a link road which aims to provide the following outcomes and objectives:

- A new route to take existing orbital journeys away from unsuitable residential routes;

- Provide a key strategic link between the west and north of Coventry for both sustainable methods and vehicular traffic;
- Provide a sustainable transport corridor enhancing cycling connectivity through the Keresley SUE, offering improved connectivity to surrounding areas including Prologis Park and Arena areas; and
- The effective distribution of traffic on to a range of radial routes, spreading the load rather than forcing traffic onto congested routes.

Figure C1.3 provides a map of the proposed Keresley Link Road alignment in the context of north Coventry.

Figure C1.3: Proposed Keresley Link Road



The Coventry North area features two major A-Roads within the city itself; the A45, which runs west from the south of the city towards the M42/Birmingham Airport/the National Exhibition Centre, and the A444, which runs north from the city centre towards M6 Junction 3, Bedworth and Nuneaton. The A45 is a two-lane dual carriageway with grade-separated junctions and a national speed limit of 60mph. The A444 is also largely a two-lane dual carriageway, with some sections of three lanes close to major junctions. In the Coventry North area, it passes through a junction with Holbrook Way, and a major at-grade signalised roundabout at Rowley's Green, next to the Ricoh Arena. It meets the M6 at the Exhall Interchange, a signalised roundabout. Between these two key strategic links in the city, there is currently no orbital route, meaning traffic wishing to travel between the A45 and A444 must use unsuitable local routes, such as Long Lane, Tamworth Road and The Scotchill.

The scheme proposes to tie the Link Road into the existing Long Lane / Tamworth Road junction to the south west of the SUE site although the existing priority junction will require improvement to take account of the fourth arm. It is envisaged this junction will take the form of a roundabout junction, likely with a double roundabout option. To the west of this junction the Link Road connects to the A4114 and A45 via Long Lane and the B4076.

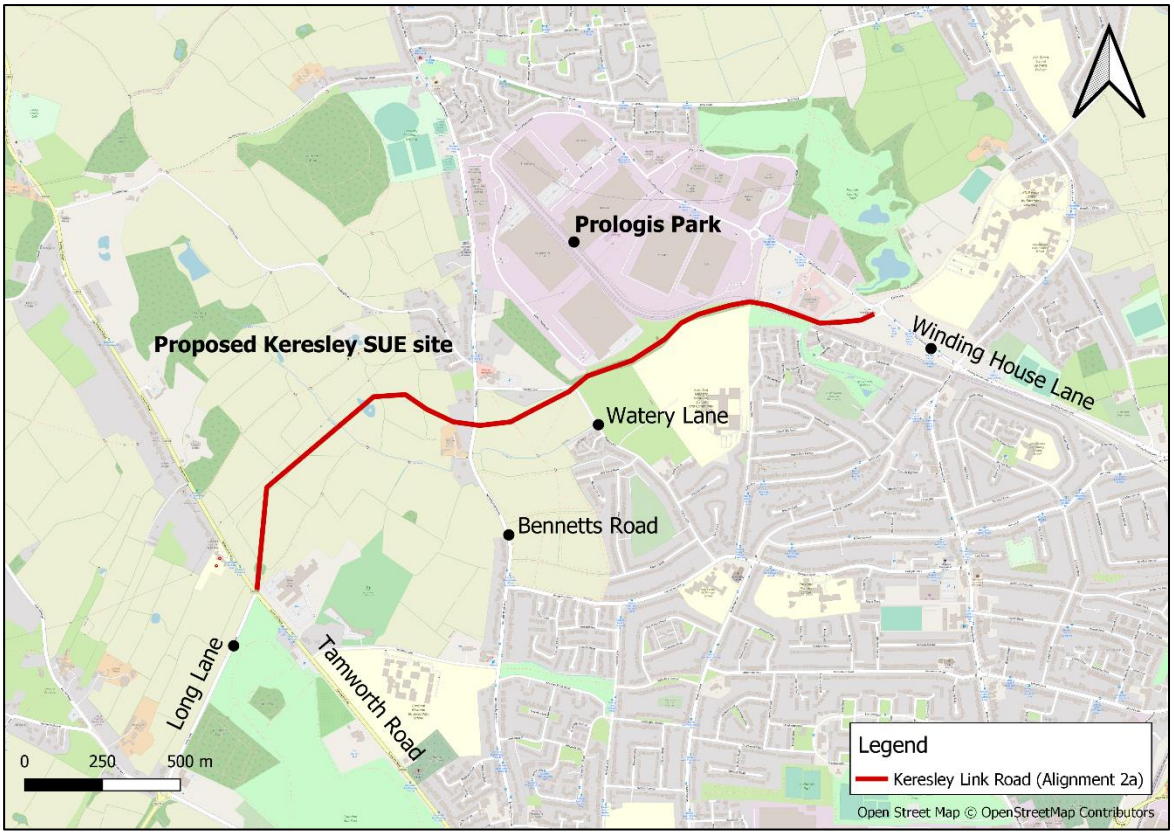
An intermediate junction is located along the course of the Link Road, where it meets Bennetts Road. It is envisaged that this junction will be a signalised crossroads, with safe crossing points incorporating the proposed cycleways that will run alongside the Link Road.

To the east the proposed link road ties into the Central Boulevard / Winding House Lane / Exhall Grange roundabout junction which is located on the edge of the Prologis Park industrial development. Winding House Lane joins to the A444 at the Rowley's Green junction, and the A444 in turn connects to the M6 at Junction 3.

Therefore, the proposed Link Road connects two strategic links across the north of the city. At present there is not an obvious route between Long Lane and the A444. The existing available routes requires travel through densely populated residential areas which are currently under significant pressure in terms of vehicular traffic capacity.

Figure C1.4 provides an overview of the proposed Keresley Link Road alignment.

Figure C1.4: Proposed Keresley Link Road Alignment



A related but separate scheme that comprises part of the Coventry North Transport Package is a proposed **upgrade to the A444 Rowley's Green roundabout**. The A444 is part of the Major Road Network, and the junction at Rowley's Green (outside of the Ricoh Arena) is one of the key interchanges in north Coventry. The proposed upgrade would see the addition of a free-flow left turn slip running eastbound from Winding House Lane to the A444 northbound. With additional journeys running along the length of the Keresley Link Road towards the A444 northbound and M6 Junction 3, the free-flow slip at Rowley's Green would reduce delay at this major signalised roundabout. This would further enhance the strategic route through from the A45 to the A444 shown in Figure C1.3, enabling better connectivity from the Keresley SUE and south-west of the city to Nuneaton, Bedworth and the M6.

M6 Junction 3 – Immediate Priority (2)

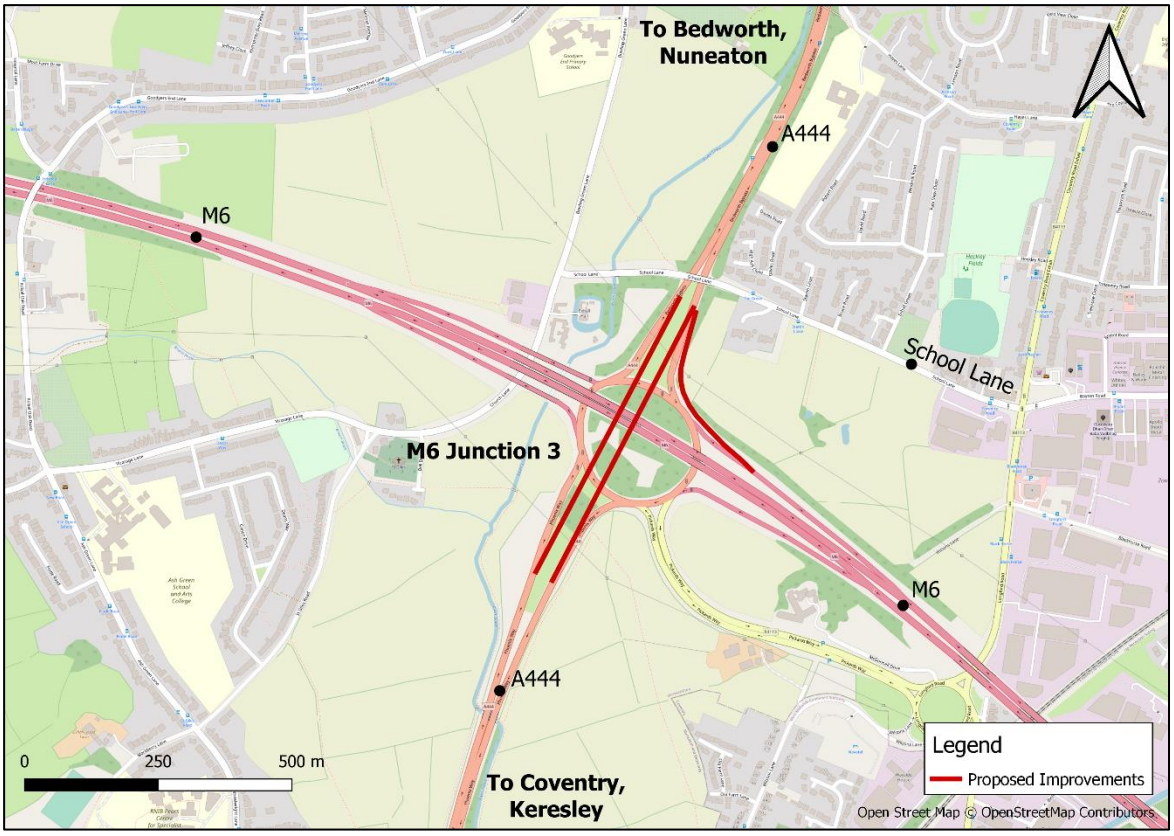
The M6 is a key route on the strategic road network (SRN) linking Coventry with Birmingham and the wider West Midlands region. Improvements at M6 Junction 3 are considered necessary to facilitate the provision of the Keresley Link Road, to ensure that any local traffic generated as a result of developments in the area does not result in a loss of regional connectivity. The following outcomes and objectives are proposed for improvements at M6 Junction 3:

- Facilitate increased traffic associated with proposed developments established in the Coventry and Nuneaton and Bedworth Local Plans;

- Provide an uninterrupted connection between sections of the A444 north and south of the M6;
- Improve access to the M6 from surrounding areas such as Nuneaton, Bedworth, Longford and Coventry; and
- Enhance and maintain connectivity to Birmingham International Airport and HS2 Interchange at UK Central.

Intervention at M6 J3 will take the form of a combination of a free flow lane in the north-east of the junction (connecting the A444 SB to the M6 EB) and a hamburger arrangement for the A444 mainline, as shown in Figure C1.5.

Figure C1.5: Proposed M6 J3 Improvements



Hawkesbury Level Crossing & Provision of Cycleways – Accompanying schemes

The remaining elements of the Coventry North Transport Package are designed to facilitate short term developments in the area and to support an increase in rail capacity in the region through the removal of the Hawkesbury Level Crossing on Blackhorse Road. The provision of a new link road at Hawkesbury, connecting Blackhorse Road to Stephenson Road, would enable the closure of Blackhorse Road and the level crossing, with improvement in rail capacity as a result. This rail capacity enhancement is important when considering the aspirations of Midlands Connect to establish direct rail connections between Coventry and Leicester, which will pass through this section and requires line speeds to increase to 60 mph.

The traffic assessment found this scheme to have a largely neutral impact on traffic in the area with the Link Road proposed to skirt the new development on the Golf Course site at Hawkesbury. The feasibility assessment recommended that the most cost-effective method would be the use a new tunnel under the railway, as opposed to using the existing pedestrian bridge, modifications to which would likely be challenging and expensive. The existing bridge would be retained for use as access for active modes.

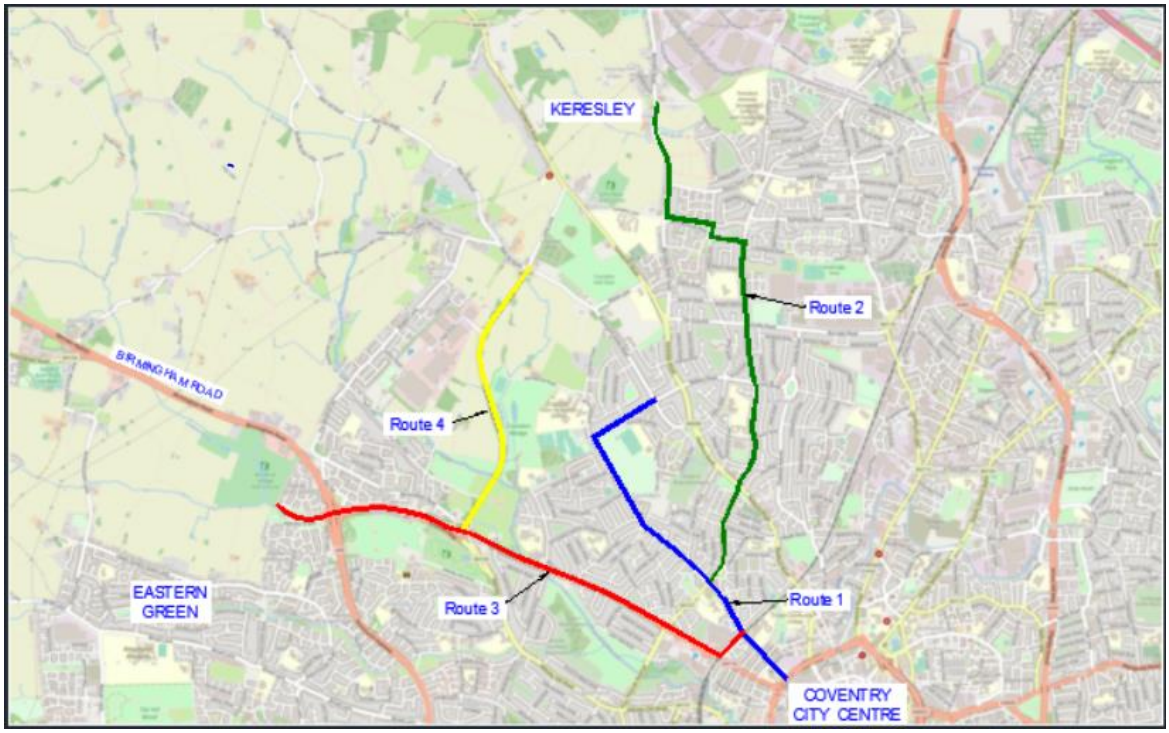
The other accompanying scheme that would assist in the achievement of the Outcome Objectives would be new cycleways serving the north-west of the city. These cycleways were found by the feasibility assessment to be deliverable with modest time, cost and environmental impacts in the construction phase, and would assist in the uptake of active modes throughout the region of the

city. Furthermore, this will help to provide the local community with safer, better routes to and from employment and residential sites, enabling increased physical activity and improved health throughout the region.

Four routes were identified in previous studies as part of CCC's Local Air Quality Action Plan (LAQAP), as shown in Figure C1.6 and as summarised below. Routes 1 to 3 were shortlisted as part of the Coventry North Transport Package.

- Route 1 – Coundon Cycle Route (Coundon Road). This route has already received LAQAP funding and is currently under construction.
- Route 2 – Link from Route 1 to Keresley Development (KLR) / Bennetts Road
- Route 3 – Route from city centre to Eastern Green – via Holyhead Road
- Route 4 – Link from Long Lane to Holyhead Road

Figure C1.6: Cycleways



Long-term major schemes

In the long-term, two more major interventions could be investigated to support the Outcome Objectives and enhance the transport network in North Coventry. Firstly, a new link road and junction on the M6, either at Corley, or at a greenfield site as recommended by the Feasibility Appraisal Report for deliverability reasons, should be investigated in terms of potential value-for-money:

- Whilst this scheme provided significant benefits in terms of vehicle minutes in the package modelling undertaken in CASM, it would be a major intervention, incorporating potential costs, engineering and environmental challenges beyond the scope of the high-level feasibility appraisal undertaken at this stage.
- Combined with the significant re-routing of traffic on the SRN caused by the new junction, it was decided that at this stage, a package of interventions with more localised impacts should be prioritised to facilitate the delivery of the development sites within the adopted Local Plans.
- Importantly, the data to date indicates that the new link road and junction on the M6 would be compatible with the Keresley Link Road, as the new link road would attract more

strategic/long distance trips, whereas the benefits of the Keresley Link Road mainly occur within the Coventry area.

- The new link road would help to unlock new employment and housing opportunities, particularly given its close proximity to UK Central, and should therefore be considered for future Local Plan periods.
- In the short to medium term, improvements at the existing M6 Junction 3 are still proposed, as these are required to accommodate the forecast local growth in traffic from planned development. The new junction on the M6 would benefit more strategic trips, and therefore improvements at both are mutually beneficial.

Given the significant strategic benefits shown by the package modelling, as well as the ability to unlock further land parcels, the scheme should be investigated further, outside of the scope at this stage in the design process.

The other long-term intervention that has been considered is the addition of a VLR or Bus Rapid Transit system line along the currently unused railway line at Rowley's Green. These schemes would provide a significant boost to public transport in North Coventry, and would be feasible for delivery with moderate time, cost and environmental impacts, according to the feasibility appraisal.

What aspect is funding being sought for?

The focus of the Package covers the core (immediate priorities and accompanying schemes) elements with funding sought to include development costs (including land purchase costs, designs and surveys) and construction costs (including highway infrastructure, external works, sustainable transport infrastructure and contractors' preliminaries).

Approval of this Outline Business Case will allow the Project to progress to the next stage of scheme development, with schemes designed and appraised in more detail, in isolation as opposed to as part of the Package. Development funding has been secured to develop Full Business Cases for the Kersley Link Road and M6 J3 elements of the Package, and approval of this application will enable work to commence on these two elements of the package initially.

What is the rationale for intervention? And why are public funds necessary? What opportunity or barrier will this investment unlock? Please refer to Chapter 3 of HMT Green Book for more detail on the 'rationale for intervention'.

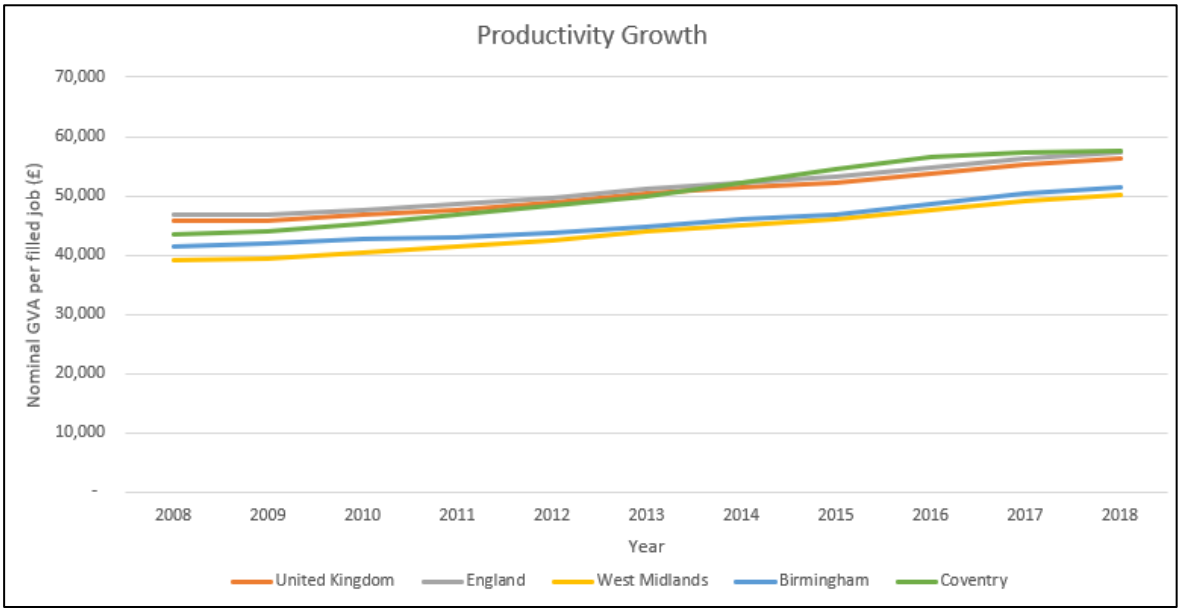
Central Government is driving an approach to investment that focusses on raising living standards and productivity. It recognises that good transport infrastructure does not just reduce delays; it can also raise productivity by enabling towns and cities to achieve agglomeration effects, and so support the rebalancing of the economy. In its Strategic Economic Plan 'Making our mark', the West Midlands Combined Authority sets out its mission, vision and objectives to improve the quality of life for everyone who lives and works in the West Midlands. Progress in delivering the vision will be tracked through a number of SMART objectives. The SEP's Strategy is stated as:

> *"Rapid acceleration in growth, employment and productivity through targeted actions in key sectors, enhanced innovation incubation and skills development alongside public sector reform."*

Transport is not seen as a means to its own end, instead it, including the Coventry North Transport Package, is seen as an enabler across the mission statements. It provides access to jobs and education – access to key development sites, enabling access to HS2 per se and the wider connectivity that will give from and to the West Midlands. It also supports improved access to employment and training through reduced journey times (extending catchments) and can encourage regeneration through the provision of high-quality transport links to development sites.

Figure C1.7 below demonstrates the nominal gross value added (the value of the amount of goods and services that have been produced less the cost of all inputs that are directly to that production) per filled job both nationally and regionally, a measurement of labour productivity.

Figure C1.7: Productivity Growth in the last decade, national and regional comparators



Source: Office for National Statistics

Whilst it can be seen that productivity has increased in Coventry over the past decade, it remains that it is still aligned with the national average, whilst the West Midlands is 11% below. Transport and its links to widening the labour market pool is a key enabler and in the absence of schemes such as the Coventry North Package, there is a risk that reduction in regional productivity disparities fails to be achieved. Indeed, in accordance with the Central Government directives, there is a drive by the devolved regional authorities to bridge this productivity gap, with the ultimate aim of the region becoming a net contributor to the UK economy. In this event, it is crucial that productivity gains made in Coventry over the past decade are maintained

As evidenced by Midlands Connect (a pan-Midlands partnership of local transport authorities, Local Enterprise Partnerships, local business representatives and the Department for Transport (DfT) and its key delivery bodies), transport has an important role to play in delivering economic growth. The Midlands Connect Partnership and the DfT have developed a transport strategy for the Midlands that identifies the major infrastructure projects needed to improve the connectivity of the region's key locations in a bid to help drive economic growth. The Midlands Connect Transport Strategy[1] highlights how transport interventions can unlock growth in the region, where there is a growing body of evidence showing how investment in transport can drive economic growth both directly and indirectly. Initial analysis by Midlands Connect suggests that for every £1 spent on transport in the Midlands, at least £2 of economic benefits will be generated. The Strategy seeks to maximise these effects by delivering investment that overcomes barriers to growth through providing the efficient, reliable strategic road and rail networks with the capacity, connectivity and resilience to directly raise productivity and remove transport as a barrier to growth.

It highlights that removing transport barriers to unlock economic growth includes the provision of sufficient peak period rail capacity to city centres, broadening labour markets by reducing journey times, the provision of a transport system that is resilient to incidents, events and maintenance.

The scheme will contribute to increasing the Region's productivity by contributing to the provision of an efficient transport network, with sufficient capacity and resilience which can maintain and support economic growth. Specifically, the scheme will improve connectivity between the local highway network and the strategic road network (SRN) within an area experiencing significant growth currently and in future years.

[1] Midlands Connect Strategy: Powering the Midlands Engine (March 2017)

The Coventry and Warwickshire Local Enterprise Partnership Strategic Economic Plan (CWLEP SEP) was refreshed in 2016, with a focus on addressing the regions productivity gap. A series of 'activity pillars' were identified, including the unlocking of new housing and employment sites, which includes the provision of up to 76,000 new homes by 2030, as well supporting an additional 94,500 jobs. The SEP highlights the importance of investment on the A444 between Nuneaton and Coventry to the sub-regional economy and acknowledges that it is forecast to come under significant pressure over the next 10-15 years as a result of the proposed housing and potential employment growth. This further investment is important to ensure that economic growth is fully unlocked and that all associated economic opportunities across the region are fully maximised.

Whilst the scheme will, in its own right, provide significant capacity and safety benefits at key locations within the package, it will ultimately connect the north of Coventry with UK Central and the HS2 hub. This significant improvement in accessibility will ensure that the economic opportunities presented by HS2 are fully maximised across the region. The following section summarises the rationale for the scheme.

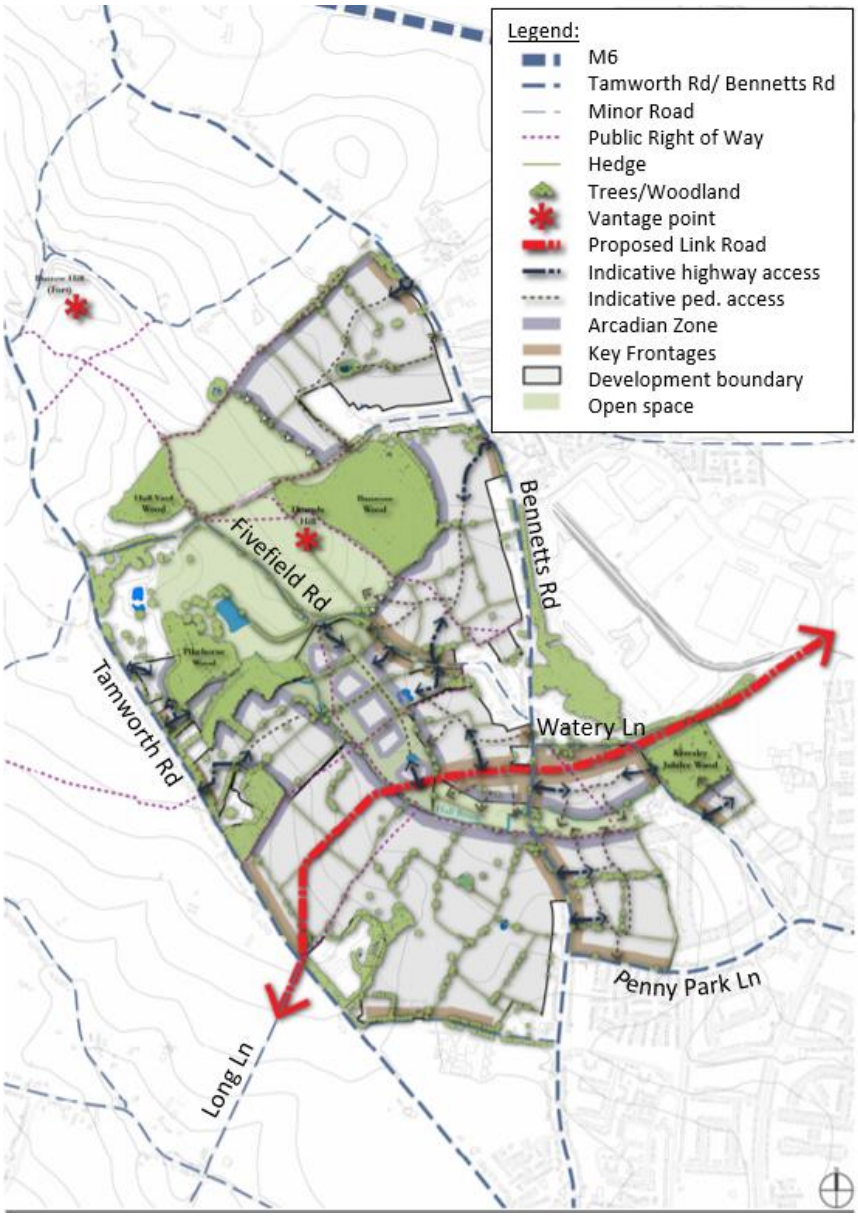
Development Proposals

The predominant strategic driver of the Coventry North Transport Package is largely a result of the development proposals in place in the area. Notably, there are substantial residential allocations in the Coventry North area as part of the Coventry Local Plan, and the area is forecast to experience significant housing growth over the forthcoming Local Plan period. The Keresley SUE is one of the largest proposed developments in Coventry, with the 2017 Coventry Local Plan setting out the proposed allocation of land at Keresley, north-west Coventry, for development of:

- Approximately 3,100 homes (in five phases complete by 2031);
- Approximately 2,500sq.m of retail space split across two local centres, to be located at the northern and southern ends of the development;
- 1x 2 'Form of Entry' (FE) Primary School, and contributions towards an 8FE Secondary School;
- A new distributor link road connecting Long Lane and Winding House Lane; and
- Surrounding junction improvements as appropriate.

An indicative SUE Masterplan plot is shown in Figure C1.8. The Keresley SUE thus represents a substantial development for the city, with the Keresley Link Road specifically presenting an opportunity for a key strategic link through the north-west area of Coventry, linking Long Lane through to the A444 and M6 J3.

Figure C1.8: Keresley Sustainable Urban Extension Masterplan



Source: Sustainable Urban Extension Residential Design Guidance Supplementary Planning Document Appendix 1 (Keresley), Coventry City Council, August 2019

In addition, the Eastern Green development will see a further approx. 2,250 homes and 15 hectares of employment land developed adjacent to the A45, and, as part of the Nuneaton and Bedworth Borough Plan, land off Rowley's Green Lane will be developed with a further 200 homes and 18 hectares of employment land.

These are in addition to further expansion of existing employment sites in the area. Prologis Park is a significant industrial development adjacent to the proposed Keresley SUE site, currently home to several major employers, including DHL and The Co-Operative, and with a further extension proposed on the northern edge of the site. Lyons Park on Coundon Wedge Drive is another significant industrial area, with Amazon and Jaguar Land Rover among employers on the site. Bermuda Park at the northern end of the A444 corridor is a further major employment growth site, hosting employers such as Dairy Crest, Hermes and DX. The employment growth in the local area will be boosted further by the UK Central development near Solihull, a major retail and business development attached to a High-Speed 2 (HS2) interchange, that will bring significant investment and jobs growth to the region. This is detailed further below.

These proposed developments will place the existing transport network under substantial pressure, with in particular the linkages through from the A45 to the west of the city, along Coundon Wedge

Drive and Long Lane, and along the A444 corridor through the Rowley's Green junction, M6 Junction 3, and north to Bermuda Park in Nuneaton.

Looking Ahead

Developments and events in the wider Coventry and West Midlands area, will place the strategic network in Coventry under further pressure. These developments include the UK Central development proposal for up to 140 hectares of mixed development near Solihull, HS2 Phase 1, the Coventry City of Culture 2021 and the 2022 Birmingham Commonwealth Games. The travel demand resulting from these wider developments will serve to add pressure across travel mode, and the transport network will play an important role in the latter two events, helping people to travel into the region to attend events. Each development and event are summarised in further detail below.

UK Central

UK Central (UKC) is a significant multi sector development in a strategic location that has the potential to create 100,000 jobs by 2040. It includes the Jaguar Land Rover site, Birmingham Airport, Birmingham Business Park, National Exhibition Centre, and Arden Cross Site for HS2. It is expected to bring international businesses into the area and the new HS2 Birmingham Interchange will bring high speed links around the country. This will create an increase in jobs in the corridor as new businesses set up there and the existing businesses grow. The Jaguar Land Rover will also be connected to the UK Central hub. This will widen the geographic scope of companies based in these locations.

HS2

As the largest infrastructure project in Europe, HS2 will be an economic catalyst for the Midlands. The HS2 Connectivity Package supports the HS2 Growth Strategy's vision to harness the unrivalled connectivity and investment of HS2 to create a step change in the Midlands' economic performance, driving growth and significantly improving outcomes for people, businesses and places.

The purpose of the HS2 Connectivity Package is to ensure the benefits from HS2 are spread as far as possible across the region, enabling existing businesses to expand and providing opportunities for new businesses. Providing new or enhanced connections to HS2 station, bringing wider populations to within 45 minutes of one of the two regional HS2 stations at Curzon or Interchange, the schemes proposed within the Connectivity Package also improve public transport opportunities across the West Midlands. Supporting regeneration opportunities and boosting links to employment and education, these transport services will contribute to regional growth ambitions within Coventry and the wider West Midlands region.

Coventry City of Culture

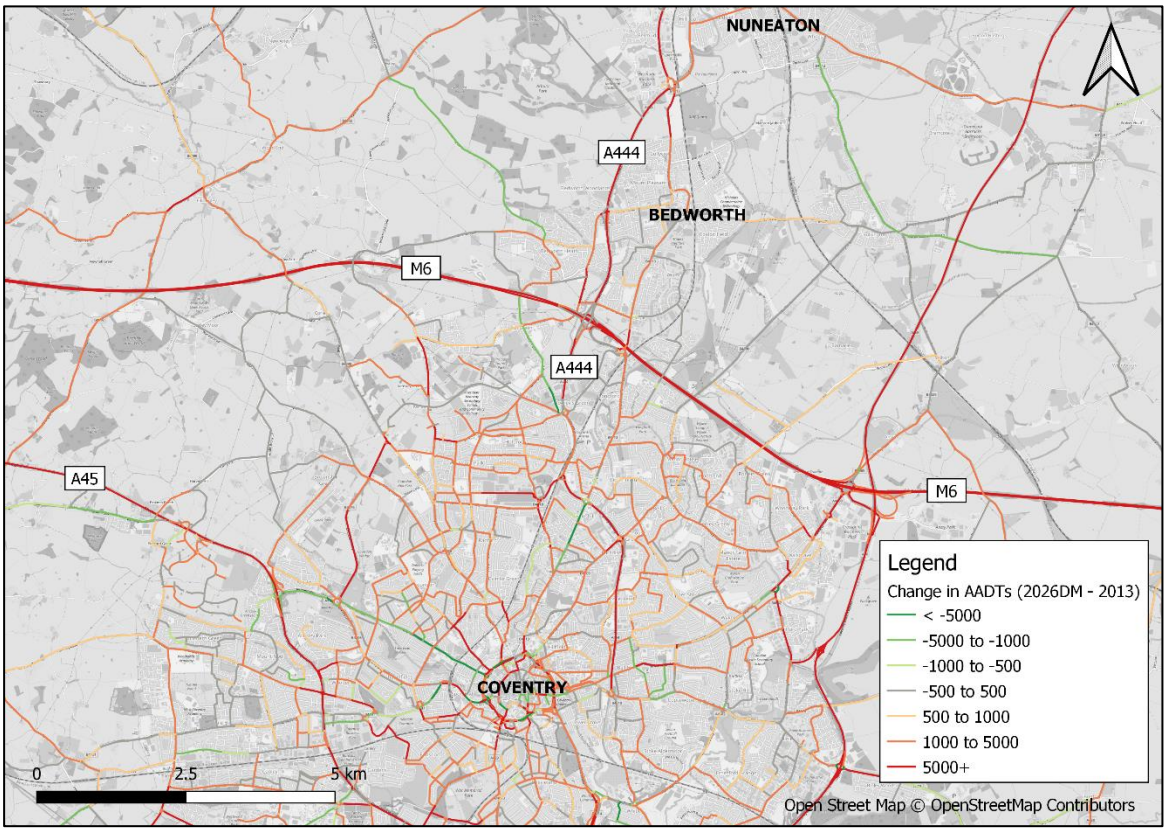
Coventry was selected as the UK City of Culture for 2021 in which will attract a substantial amount of investment and footfall into city as it showcases itself as a city of innovation and diversity. This will generate future economic growth and development in decades to come.

Network Performance

The above summarised developments and events in the north Coventry area will have a significant impact on the transport network in the area. In particular, road traffic is forecast to increase substantially throughout most of the area, as shown in Figure C1.9. This shows the forecast change

in Annual Average Daily Traffic flow (two-way traffic flow per 24 hour period), from the 2013 Base year in the Coventry Area Strategic Model (CASM), to the 2026 Forecast year, Do-Minimum scenario. This scenario represents forecast 2026 conditions, with no changes to the forecast scenario except for the addition of the Keresley development. This shows significant (1000+ vehicle) increases across much of the Coventry North area, with increases of over 5,000 vehicles on the A45, A444 and M6, the three key links in the Coventry North area. This magnitude of increases in traffic will place significant strain on the network, with overcapacity junctions and significant congestion resulting. This strengthens the case for a package of multi-modal interventions to improve transport capacity and connectivity in the area.

Figure C1.9: Change in AADTs, 2013 Base to 2026 Do-Minimum Scenario



Why are public funds necessary?

The scheme aims to address the potential market failure of existing transport infrastructure that does not operate to the required operational or safety standards. The highway network is unlikely to be able to meet forecast demand and provide the necessary level of access for people to employment and educational opportunities, as well as housing.

Whilst some developer contribution funding has been secured for the Kersley Link Road element of the Package, forward public funds is required to enable CCC to deliver the remainder of this element of the Package in advance of the majority of the development being delivered. It is then anticipated that CCC will then seek to recover these costs from further developer contributions.

Engagement is currently taking place with developers regarding funding for other elements of the Package, notably the M6 J3 improvements and cycleways. However, it is anticipated that these contributions will not be sufficient to cover the entire costs of these elements. As such, public funding is required to ensure that full funding is obtained, enabling the benefits set out in Table C1.9 to be derived.

Public sector investment is therefore essential to ensure early delivery of the infrastructure that is necessary to facilitate housing and employment growth in the neighbouring areas and is critical to deliver the desired economic growth within this area.

Summary

The overall rationale for the Coventry North Transport Package scheme is to enhance and maintain connectivity in line with development proposals, therefore contributing to closing the region's productivity gap through increased economic growth. The Package provides linkages between the local network and the Strategic Road Network, especially for key employment and development sites, as well as identified housing sites such as the Keresley SUE.

The transport infrastructure improvements proposed within the Coventry North Transport Package will help to ensure good levels of connectivity are available for people accessing high profile events which are being held in the region over the coming years, following on from major events such as the UK City of Culture celebrations in Coventry in 2021, and the 2022 Commonwealth Games, held across the West Midlands.

What are the benefits of this project? Over what timeframe are they expected to accrue? How will the benefits be measured? Please outline the quantitative (monetised and non-monetised) benefits and the qualitative benefits. Note that apportionment of benefits should link directly to apportionment of WMCA funding (relative to other funding sources).

The sub-region has a significant amount of development planned over the next twenty years. However, without further investment to ensure an efficient transport network is provided and maintained to enable people to access both existing and planned key employment and housing sites, the full potential of wider developments across the region will not be achieved.

Improvements to transport networks can be converted to monetised economic benefits by multiplying the reduction in journey times for various road users (for example commuters and people travelling on business) by their "values of time". The sum of these monetised journey time saving benefits form an essential part of the economic case – expressed as the Benefit to Cost Ratio (BCR) and the total Net Present Value (NPV).

Table C1.10 below summarises the expected benefits of the Coventry North Transport Package, how such benefits could be quantified and the timeframe in which they are expected to be accrued.

Table C1.10: Coventry North Transport Package – Expected Benefits

Benefits	Quantifiable measure of success	Monetised	Timeframe accrued
Remove barriers to growth, job creation and economic development by improving accessibility in the area to access key employment and housing sites	Reduced delays for traffic observed through journey time improvements	Yes	Short to Long Term
Cater for increased transport demand enabling further development	Provide increased highway capacity for projected future growth in travel demand coinciding with employment and housing developments in the area	No	Short to Long Term
Improve air quality	Reduction in emissions achieved through lower levels of congestion	Yes	Short to Long Term
Increase the use of active modes	Potential increase in walking and cycling in the vicinity to housing and employment sites as a result of improved active travel infrastructure	No	Short to Long Term

Using the guidance established in the 'Logic Mapping: Hints and Tips for better transport evaluations[2]' developed by the Tavistock Institute to accompany Department for Transport evaluation guidance, a logic map has been produced which outlines the underlying context and evidence base that provides rationale for the scheme. The inputs, and immediate outputs are then linked, before the direct outcomes, and overall impact are set out, demonstrating how the improvement measures achieve the overall objectives derived for the scheme. The rationale for each element of the logic map is as follows:

- **Scheme Objectives:** the objectives listed are as defined in the strategic case for the scheme and the project proposed. This has a key focus on delivering transport infrastructure that facilitates national, regional and local growth.
- **Inputs:** in addition to central and local government finance as well as contractor resource, the logic map also highlights the need to meet key stakeholder requirements – in particular

2 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/3817/logicmapping.pdf

the various conditions required by other government organisations and land/access requirements for local businesses;

- **Outputs:** the key output is the provision of high-quality transport infrastructure within the north west area of Coventry including the Keresley Link Road, improvements to the M6 Junction 3, the removal of the Hawkesbury Level Crossing and the provision of cycleway to the north west of the city; and
- **Outcomes and Impacts:** the key direct outcome from the scheme relates to the regional economy, where the transport package must ensure that connectivity between Coventry and the wider West Midlands region is maintained. This will ensure that there is no loss of investment or potential business activity as a result of substantial redevelopments in the local area and wider region.

This is provided in Figure C1.11 overleaf.

Figure C1.11: Coventry North Transport Package – Logic Map

Context

The Coventry North Package aims to transform connectivity within North Coventry and the surrounding area of Warwickshire and unlock the economic opportunities that will be created by the arrival of HS2 and the new Birmingham Interchange station, the major employment development at UK Central, Coventry hosting the City of Culture 2021 and the Commonwealth Games held in Birmingham in 2022.

There are a number of planned developments throughout the Coventry North area, all of which will put pressure on the local transport network, in terms of increased residential and employment populations. A number of key sites have been identified within the study area; all of which providing a substantial allocation of housing and employment land.

Currently, Coventry, Nuneaton & Bedworth and North Warwickshire are primarily connected only by congested motorway links and two very busy A-class roads – the A444 and A46. The secondary and minor road network between the A444 and A46 is likely to come under severe pressure as a result of travel demand both locally and for travel to HS2 and UK Central.

The various proposed developments require provision of transport infrastructure in order to meet the forecasted travel demand, whilst mitigating problems such as congestion, road safety and adverse environmental impacts. This will ensure that the North Coventry and the surrounding area of Warwickshire is able to maintain its existing function and to adapt to the additional pressures that growth will bring, ensuring that the full benefits of other investment in the region are fully felt.

Input

Support from Coventry City Council, professional services, contractors and other key stakeholders

Funding from WMCA, Local authority contribution and developer contributions.

Output

The provision of the Keresley Link Road to provide an effective intervention that both distributes traffic resulting from the Keresley SUE development, and provides a more strategic route through north-west Coventry, linking the A45 with the A444.

Intervention at M6 Junction 3 in the form of a combination of free flow lanes and hamburger arrangement.

To facilitate better rail connections to and from Coventry, a new link road at Hawkesbury level crossing will be provided, connecting Blackhorse Road to Stephenson Road. This will enable the closure of Blackhorse Road and improve rail capacity as a result.

New cycleways will also be provided serving the north-west of the city, assisting in the uptake of active modes through the region of the city.

Outcomes

A more efficient operation of the SRN junction via the hamburger layout, which will reduce delays incurred through the junction and minimise the likelihood of traffic queuing back along the M6 mainline.

Improved road safety for all road users via the provision of segregated cycleways in the north-west of the city will further enhance road safety by separating cyclist and vehicular movement.

Assist in mitigating the localised road network against the potential construction impacts of HS2 and planned residential and employment developments, due to the improved operational efficiency and increase in capacity at a key junction on the SRN, and the provision of a link road which serves the new Keresley SUE development, improving capacity on the local road network.

The provision of cycleways will also encourage a reduction in the use of private vehicles, thereby encouraging a step change to active travel modes and supporting access to planned residential and employment developments by cycling.

Reduction in the risk of an accident along the M6 at this location as the likelihood of queuing/ slow moving traffic on the M6 resulting from queues backed up along the M6 mainline is reduced.

A more resilient (M6) strategic road network due to the likelihood of traffic queuing back along the slip roads to the M6 mainline being minimised, resulting in a more free-flowing mainline.

More reliable journey times through the junction and on local roads as queues are minimised due to the improved operational efficiency and increase in capacity provided within the package.

Improved access to/ from the SRN to the local road network which supports key employment and development sites that are proposed in the north west area of Coventry.

Impacts

Employment opportunities increase as existing businesses grow and new businesses are attracted to the area.

Facilitate housing growth to help meet regional targets as the local transport infrastructure is able to accommodate the additional demand that this generates.

Boost business integration & productivity via a reduction in operating costs as the highway network becomes more efficient & reliable.

Economic growth is encouraged, contributing to the overall GVA of the West Midlands.

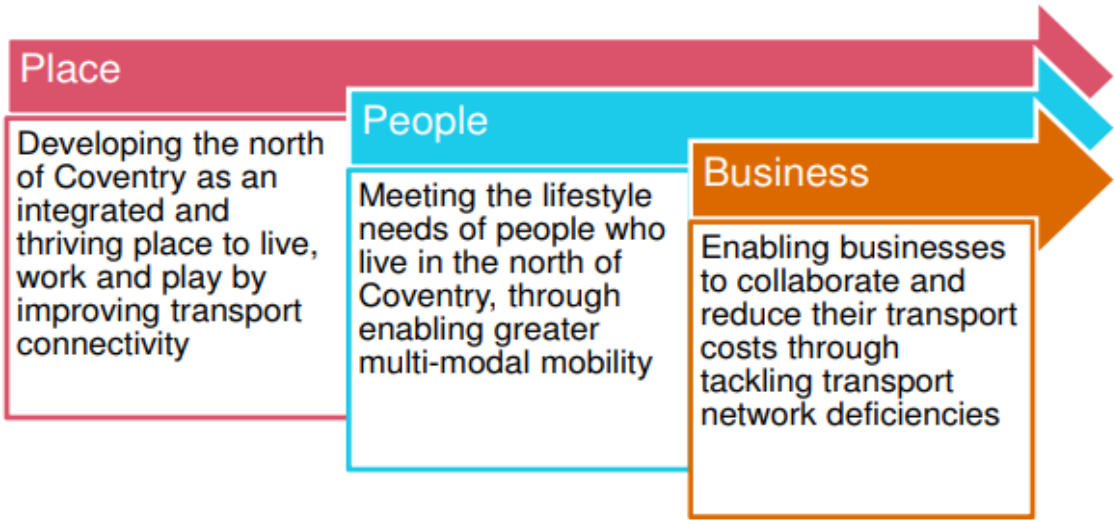
A Monitoring and Evaluation Plan will be developed at Full Business Case (FBC) stage in line with the WMCA Transport for West Midlands Monitoring and Evaluation Framework. Monitoring and evaluation are fundamental to assessing public sector policy and project interventions in the UK against the DfT's appraisal objectives and the objectives of the scheme. Evaluation delivers on the following objectives:

- Provide accountability for the investment;
- Evidence future spending decisions;
- Learn about which schemes deliver cost-effective transport solutions;
- Enhance the operational effectiveness of existing schemes or future schemes; and
- Improve future initiatives based on learning.

Is this a predominantly 'People', 'Place', or 'Business' based project? I.e. does it target a particular cohort, geographical location, or business sector?

The WMCA SEP has eight priority actions, focussed through three core delivery channels, and supported by three cross-cutting principles. 'People' is defined as having a focus on skills, employability, communities, and public services, 'business' focuses on the economy and business competitiveness, while 'place' focusses on housing, connectivity, and land sites. The scheme outcomes and impacts fall across all of the delivery channels, are summarised in Figure C1.12 and explored in further detail below.

Figure C1.12: Coventry North Transport Package – Strategic Vision for Place, People and Business



In the first instance the project is focussed on place – using improved transport infrastructure to better connect people and businesses. By providing a new strategic route through the north-west of Coventry (via the Keresley Link Road) and by minimising queues and delays at M6 Junction 3, the scheme will contribute to the provision of an increase in regional network resilience, thereby providing improved linkages across the wider region. At a local level the scheme will enhance connectivity to key trip attractors in the area. Specifically, the scheme will, directly or indirectly:

- Contribute to the delivery of new housing in the localised area that will enable local communities to be better connected with local and sub-regional employment opportunities, in the corridor from M6 Junction 3 to UK Central;
- Improve access to employment areas in other parts of the city in order to deliver their expansion plans and connect research and employment facilities for the purpose of encouraging greater levels of co-operation and;

- Enable delivery of employment opportunities in the north of Coventry that will enable local communities to be better connected with local and sub-regional employment opportunities.

It is essential that a place-based approach is supported by enabling people to live and develop their lives around a greater range of educational and employment opportunities. All people should be able to use the transport system – irrespective of factors such as age, income, gender, racial origin or religious belief. Furthermore, all people should be able to use the full range of transport modes and be strongly encouraged to use healthy and environmentally sustainable options where possible. The project will provide new transport capacity to meet people's needs that will:

- Enable safer and more efficient journeys to a wider range of destinations, thereby increasing the range of education and employment opportunities both within the north of Coventry and the wider Warwickshire and West Midlands areas;
- Provide new routes for all modes of transport – private motor vehicle, public transport, walking and cycling; and
- Enable existing routes that are relieved of traffic to be re-designed to provide a more efficient and safer environment for all users of public transport and non-monetised modes of travel

Finally the scheme will indirectly contribute to business productivity, both through cost savings and contributing to the generation of higher value jobs. The Coventry North Transport package will address the needs of business for efficient, reliable, safe and resilient transport links between their premises and customers by:

- Enabling a wide range of potential employees to access job opportunities;
- Fostering greater business to business collaboration (economic agglomeration) by reducing the effective distance between various locations within the south of Coventry and the wider West Midlands;
- Increasing the number of opportunities for smaller and medium sized businesses (in particular) to access supply chain opportunities with larger firms (such as Jaguar Land Rover);
- Unlocking opportunities for expansion and improving connectivity to the University of Warwick and Jaguar Land Rover to support economic growth; and
- Reducing overall costs of transport to businesses, and enabling greater levels of profit to be generated and re-invested for future growth plans

Notably, the Coventry Local Plan allocates 3,100 dwellings at the Keresley Sustainable Urban Extension. The Coventry North Package will seek to support this and other developments in the area by facilitating access to the Strategic Road Network (SRN), thus enabling Keresley to take full advantage of geographic location and strategic connectivity to UK Central and the HS2 Interchange station, the 140 hectare Arden Cross development site, Birmingham Airport, the National Exhibition Centre, the Jaguar Land Rover factory in Solihull and a unique concentration of global businesses in the Midlands.

Section C2: Strategic Economic Plan

1. Please refer to the SOC Section C2: Strategic Economic Plan Qs 1-3 and include any updates or changes here.

The WMCA Strategic Economic Plan identifies the below priority programme areas:

HS2 Growth: A programme to maximise the benefits of the largest infrastructure project in Europe for a decade to drive economic growth across the Midlands.

New Manufacturing Excellence: action to build on the fact that the West Midlands is home to one of the biggest concentrations of high value manufacturing businesses in Europe, and ensure that our global companies are supplied by clusters of local businesses;

Digital and Creative: a programme to ensure that the level of business start-ups, growth and survival matches the best in the country with a particular focus on the digital and creative sectors;

Environmental Technologies: Action to secure environmental improvements and contribute to low carbon sustainability and by doing so enable the growth of the environmental technologies sector.

Housing: action to accelerate the delivery of current housing plan and enable an increase in the level of house building to support the level of growth envisaged in this SEP;

Skills for the Supply Chain and Employment for All: a programme of activity to ensure that the skills of businesses are met and that everybody has the opportunity to benefit from economic growth;

Medical and life sciences: action to enable the growth of the health and care sectors in ways that improves the health and wellbeing of the area, reduces demands on public services and enables economic growth;

Exploiting the economic geography: making the most of the scale and diversity of the West Midlands geography to enable economic growth and community wellbeing.

The WMCA Strategic Economic Plan (SEP) states that an efficient and resilient transport system will underpin future economic success, with significant investment helping to widen labour markets, unlock high value growth clusters and support regeneration / place-making initiatives. The priority programme areas deemed of pertinence to the Coventry North Transport Package are highlighted above and explored in further detail below.

HS2 Growth

The SEP proposes to maximise the connectivity benefits of HS2 (including a 38-minute journey time from Birmingham Interchange to London) and deliver 104,000 new or safeguarded jobs and an additional £14 billion Gross Valued Added (GVA) to the West Midlands economy. Furthermore, the ambition is that Birmingham City Centre and UK Central will be developed as hubs for a fully integrated transport network.

A key element of the Coventry North Transport Package is to connect the development sites in Keresley and the wider area of north Coventry with the strategic road network, and subsequently with UK Central and the HS2 Birmingham Interchange station. This will support the development of the sub regional agglomeration area of Warwickshire, Coventry and Solihull. Maintained regional connectivity between Coventry and the wider West Midlands will enable the significant economic benefits of HS2 to be realised; providing access for residents of Coventry to access jobs created as a result and improving journey times to other key strategic national destinations on the High Speed 2 network.

New Manufacturing Excellence

The West Midlands is already the destination of one of the largest concentrations of high value manufacturing businesses in Europe, with global companies being supplied by clusters of local business. The SEP aims to strengthen this competitive advantage, with particular priorities being:

- **Identify further strategic development sites;**
- **Maintain a pipeline of smaller development sites;**
- **Promote transport and digital connectivity; and**
- **Maintain connectivity advantages by tackling congestion.**

The Coventry North Transport Package supports the Midlands' advanced manufacturing economy by promoting transport connectivity between Keresley SUE, UK Central and the south / west of Coventry. Keresley SUE and north Coventry residents and businesses will face less congestion and fast route options generated to key employment, business, supply and educational destinations such as UK Central, the University of Warwick, Coventry University and manufacturing businesses in the Midlands, most notably Jaguar Land Rover.

Housing

A key strategic driver of the Coventry North Transport Package is to provide high quality transport infrastructure to facilitate the housing developments proposed in the area. Notably, it supports the Coventry Local Plan allocation at Keresley as well as the proposed development sites such as the Eastern Green SUE, Lyons Park, Whitmore Park and Dunbar Avenue. The scheme will enhance connectivity, ensuring that the opportunities presented by the aforementioned housing developments are maximised.

Exploiting the economic geography

The SEP sets out how the economic geography of the West Midlands – based around the three Gateway / business hub cities of Birmingham, Wolverhampton and Coventry and their sub areas – is a fundamental enabler of growth.

The role of transport connectivity in developing this economic geography is vital, and the SEP outlines two key 'transport propositions':

- **Supporting the key economic links between the wider area and the core of the conurbation; and**
- **Maximising the economic potential of UK Central, reinforcing the role of the three cities as gateways to the West Midlands – including links between Coventry and UK Central**

The central location of the West Midlands, lying at the heart of the road and rail networks of the UK, ensures that it plays a vital role as a major transport hub. Improvements to transport infrastructure in the area, such as the Coventry North Transport Package, will serve to enhance connectivity and solidify its position as a hugely important economic asset to the country. New and improved transport infrastructure and services will link and provide better access to UK Central and Coventry from the broader West Midlands including north Coventry.

Whilst it is vital that these settlements remain their own distinctive identify, their growing economic and spatial relationship with Coventry and UK Central will be delivered through improved strategic transport connectivity.

Which of the WMCA's growth objectives will the project address?

A list of the WMCA's growth objectives that the Package will address is provided below.

Economic Impact

Economic Growth - To improve GVA for the region in line with the UK Average

The Coventry North Transport Package will increase productivity and GVA in the region by improving connectivity between key business, education and research sites (in particular UK Central) thus enabling agglomeration, and by reducing transport costs to businesses and employers. The Package will achieve this in the following ways:

- The Keresley Link Road will improve connectivity and access from northern Coventry to employment, leisure and shopping destinations in Coventry, UK Central and Birmingham, increasing economic output;
- Enhancing the operational performance and safety at the M6 Junction 3 on the strategic road network will contribute to reducing congestion and provide more reliable journey times, thereby making the area more attractive to inward investment. By improving the connectivity between the SRN and the local highway network, the accessibility of key housing development sites and employment sites in the area will be enhanced.

- Furthermore, the improved linkages between the key employment sites, the University of Warwick and housing developments will assist in developing the north of Coventry as a place where people can live and work.
- Intra-city journeys within Coventry will experience journey time improvements. The Keresley Link Road will alleviate pressure on local roads within Coventry, allowing improvements for current and new journeys on other local routes. These will translate into productivity gains for local commuter and business travellers, as a well as leisure trips;
- Freight traffic will benefit from significantly improved journey times with maintained connectivity

Business Competitiveness - To improve the productivity (GVA) of our businesses focusing on our growth sectors

The Package will reduce the cost to businesses by making the transport of goods, services and labour faster and more reliable, and also increase the effective density of the area to the north of Coventry by enabling more people and businesses to become better linked. This will improve productivity and lead to increased GVA.

Increased employment rate in target growth sectors

Coventry is the destination for many Advanced Manufacturing and Engineering, Automotive and Technological sectors, all of which are expected to expand in the coming years. Improved access to these opportunities, which the Package will enable, will help to ensure that the employment rate in these growing sectors is achieved.

Infrastructure - improve the quantity of high quality, readily available development sites; turning brownfield sites to high quality locations that meet our housing and business needs

The Coventry North Transport Package proposes the provision of high-quality transport infrastructure in order to unlock housing development, including at Keresley SUE. This development site needs to be seamlessly integrated into wider transport networks, including the strategic road network as well as walking and cycling routes. The Keresley Link Road will help to accelerate the delivery of the Keresley site, which comprises the retention of medieval ponds, ancient woodlands and hedgerows, and the creation of a publicly accessible green corridor, enhancing connectivity for pedestrians and cyclists. Whilst the location of the Keresley SUE is a greenfield site, the components of the scheme will directly enable development by increasing access to the site.

Accessibility - To improve the connectivity of people and business to jobs and markets

Improvements to transport connectivity and capacity will increase the overall size of the Midlands labour market. The scheme will support the development of key sites within the local area and housing developments by improving connectivity between the SRN and the local road network. This will ensure people have improved accessibility to economic opportunities and educational facilities. Furthermore, with improvements at the M6 Junction 3, this element of the package will ultimately ensure access to UK Central/the new HS2 hub station, including Birmingham Airport which is located within the HS2 hub. This is a key international gateway and the improved connectivity to it is crucial for the region's economy, offering the potential for businesses to maximise international opportunities. Combined, the scheme will support in increasing the overall size of labour markets and give employers a wider choice of potential employees.

Social Impact

Health & Wellbeing - We will have reduced our health inequalities and improved the health and wellbeing of our population including mental health

Sustainable transport infrastructure constitutes a key element of the Coventry North Transport Package. Although not quantified, it is reasonable to expect that there will be an uplift in the number of pedestrian and cyclist journeys as a result of the scheme due to the environment being more pleasant and accommodating to active modes. By providing high quality segregated cycle routes alongside the Link Road, connecting into the development sites at Keresley and into the cycle networks being provided as part of these developments, the Keresley Link Road scheme will provide enhanced opportunities for residents of the new development, and for residents of existing adjoining communities, to walk and cycle for local journeys. Subsequently, this will have secondary positive impacts on health and wellbeing.

Fiscal Impact

Income & Expenditure – We will be a net contributor to the UK exchequer, no longer a public services cost centre

Enhancing economic growth and improving employment opportunities in the West Midlands, which the Coventry North Transport Package will support as aforementioned, will allow the region to increase the level of tax that is collected at the local level.

What are the expected tangible Outputs/Outcomes to be realised (net additional)?

When the scheme is fully operational, it will improve the connectivity of the SRN and the local highway network. This will enhance and support the accessibility of key development sites in the local area, thereby indirectly contributing to the region's economic growth. In addition, by facilitating new development at these employment sites and at housing sites such as the Keresley SUE the scheme will indirectly contribute to the creation of construction jobs on these developments.

Section C3: Public Service Reform

1. Please refer to the SOC Section C3: Public Service Reform Q1 and include any updates or changes here.

Please state if and how your project impacts any of the following WMCA Public Service Reform (PSR) key programme areas:

- Troubled Individuals
- Mental Health
- Offending and Devolution of Youth Justice
- Employment and Skills

The project will support the WMCA's Social Value Policy. This policy provides a consistent and collaborative approach to social value within the West Midlands with the vision to create, deliver and sustain greater community benefits through the use of social value within the region. This will primarily be achieved by creating social value through the objectives of the WMCA Procurement Strategy 2017-2020 and sustaining social value outcomes through alignment and delivery of funding and capacity, with Combined Authority priorities focused on service delivery to communities. These priorities would, for instance, include those outlined within the Strategic Economic Plan, such as WMCA Public Service Reform (PSR) – Transforming Lives within the West Midlands Programme, which has prioritised key areas of needs within the communities of West Midlands alongside other programmes.

Increasing opportunities for employment through wider economic growth will support these four key programme areas. Improvements to transport infrastructure can increase independence and opportunity for those with complex needs, whilst increased employment opportunities can support those re-entering society from the criminal justice system. As detailed in Section C1, investment in

transport infrastructure in Coventry will support employment and skills objectives through improved connectivity to key employment sites within the area, increasing productivity and reducing barriers and costs of doing business.

Social value requirements are also built into the procurement process for construction contracts awarded by the City Council, most recently relating to public realm works in the city centre and within the Local Air Quality Action Plan package of works. These require the contractor to commit to social value initiatives including working with the local communities and taking on apprentices.

Section C4: Stakeholder Involvement

1. Stakeholder Involvement: List the Key stakeholders and their Interest areas? (Include a Stakeholder Map if have one)

The key stakeholders and their interest in the Coventry North Transport Package are summarised as follows:

- Coventry City Council (CCC – Client and Local Highway Authority): promoting organisation;
- Warwickshire County Council (WCC –Local Highway Authority): key interest in the scheme with local highway improvements proposed at M6 J3, around Hawkesbury, and at Winding House Lane.
- National Highways: key stakeholder interest and supporter of the scheme with improvements on the strategic road network as part of the Coventry North Transport Package
- Department for Transport (DfT): key interest in the scheme, particularly at M6 J3;
- Coventry and Warwickshire LEP: key interest in the scheme;
- West Midlands Combined Authority: key interest in the scheme and funding body;
- Solihull Metropolitan Borough Council: key interest in the scheme;
- North Warwickshire District Council: key interest in the scheme;
- Nuneaton and Bedworth Borough Council: key interest in the scheme;
- Network Rail: key stakeholder interest due to Package interface, in particular at Hawkesbury;
- Homes England: key interest in scheme, particularly at Keresley;
- HS2: key stakeholder interest, particularly with regards to connectivity in the West Midlands to the proposed Interchange station
- UK Central: key interest in the scheme;
- Developers, notably developers of the Keresley SUE and Prologis Park: key interest in the scheme as potential funding partner and
- Local Parish Councils: key interest in the scheme.

2. Stakeholder Involvement: What stakeholder consultation has been undertaken/support received? What stakeholder consultation remains to be undertaken?

Given the early stage of development of many of the schemes included in the final Coventry North Transport Package, stakeholder engagement and consultation will largely take place in later stages of the scheme development.

However, stakeholders including WCC and National Highways were engaged early in the scheme development process, during the option development, where they were given a platform to suggest and provide feedback on options for testing. Both WCC and National Highways have also undertaken separate studies into the M6 Junction 3 scheme.

Given the range of key stakeholders listed in Section C4.1, an active and managed stakeholder engagement procedure will need to take place throughout both scheme development and scheme delivery phases, to ensure a successful Package that progresses smoothly, and ultimately satisfies all stakeholders.

Section C5: Strategic Issues/Risks

1. What are the Strategic Issues preventing successful delivery of the project? What is being done to mitigate and/or manage these issues

Interaction with developers, at Keresley and Hawkesbury in particular, will be crucial to the successful delivery of the Package. At Keresley, there are multiple developers of the Keresley SUE, plus the private interests of Prologis to consider. The interaction between the respective developers and CCC will be vital to deliver the scheme in a high-quality and cost-effective manner. Specifically, procurement and funding arrangements for the scheme at Keresley will be subject to negotiations with the developers. In order to manage this process and mitigate the complex nature of negotiations with multiple developers, CCC have engaged with developers throughout on the proposed Link Road, its latest designs and potential conflicts with developer's priorities.

At Hawkesbury, planning permission has been granted for Terra Strategic to develop the plot at Hawkesbury Golf Course. The layout of development that has been approved may conflict with the high-level illustrative alignment used for the proposed Hawkesbury Link Road as part of the Coventry North Package. However, the proposed layout of development does not necessarily preclude a Link Road through to Stephenson Road. It will therefore be important that CCC, in partnership with WCC, make the case for the Link Road as beneficial not just to existing residents in the area, but also future residents of the Hawkesbury Golf Course development.

2. What are the Strategic Risks that could prevent successful delivery of the project? What is being done to mitigate and/or manage these risks?

Table C5.1 summarises the strategic risks that could prevent a successful delivery of the Coventry North Transport Package. Many of these strategic risks can be effectively managed through careful stakeholder and/or public engagement and consultation. A full risk register of all project risks can be found in Appendix I1.

Table C5.1: Strategic Risks

Risk ID	Risk	Risk Owner	Pre-Mitigation Risk (Max: 16)	Potential Mitigation	Post-Mitigation Risk (Max: 16)
4	Interaction with developers at Keresley and Hawkesbury causing delay or disruption to construction	CCC	8	Engage with developers throughout process	6
2	Network Rail hinder Keresley Link Road and Hawkesbury link aspects of scheme, leading to scheme re-design or substantial delay	CCC	9	Early engagement and consistent management of relationship with Network Rail in order to obtain appropriate approvals.	4
7	Interaction with National Highways and WCC at M6 J3 (Technical Approval required)	CCC	9	Engage National Highways throughout process, ensuring buy-in and clear planning of construction	3
1	Prologis Park hinder Keresley Link Road planning/construction,	CCC	6	Early engagement with Prologis	3

	leading to re-design or construction delays				
5	Landowner disputes at M6 J3 (North-East of junction) cause delay to construction	CCC	6	Identify and engage early with landowner	3
6	Scheme-related traffic management causing local hostility to schemes	CCC/ National Highways	6	Collaboratively plan traffic management with input from all stakeholders (incl. National Highways)	3

3. Summarise any project dependencies that the project has or if there are other projects/initiatives that are dependent on this delivery. State the impact to the project if these are not met. What is being done to mitigate and/or manage these dependencies?

One key interdependency for the project are the planned improvements at M6 J3 being prepared by Warwickshire County Council in liaison with National Highways. These improvements to the traffic control signals on the gyratory, along with a widening of the B4113 arm at the junction, are expected to take place on a more immediate timeline, prior to the construction of the J3 improvements that form part of the Coventry North Transport Package. Because of this phasing of works at the junction, the WCC improvements were included in both the Do-Minimum and Do-Something scenarios in the modelling of the Package, and in preliminary discussions between CCC and WCC there is an expectation that the WCC improvements will not impede or prevent the delivery of the intended Coventry North improvements. It will be important that regular communication is carried out between all interested parties at the junction to ensure that the two sets of improvements, including their design and construction phasing, are aligned.

Whilst not strictly dependent on the delivery of the scheme package, another area in which there is a close interaction of major developments is at Keresley and Hawkesbury, where the planned links as part of the Coventry North Transport Package, whilst primarily intended to help connect and distribute traffic in the north of the city, will form a secondary function as development access. As such, it is recognised that the improvements within the Package will help to facilitate these developments. In addition, there is a need to deliver the Kersley Link Road in advance of the majority of the development in order to minimise the impact of development traffic on the existing highway network. As with M6 J3, the specific design of the schemes, as well as construction phasing and appropriate approvals will need to be carefully planned and managed, with buy-in from the developers at the Keresley SUE and Hawkesbury Golf Course from the start of the planning process.

4. Define any constraints that may impact the success of the project, e.g. resource, legal, 3rd party agreement constraints. What is being done to mitigate and/or manage these constraints?

Land Ownership

The land required to deliver various elements of the package falls under several ownerships. It is intended to complete the land acquisition through negotiation, although the option of acquiring through Compulsory Purchase Order is available. Failure to secure the land acquisition by negotiation, requiring the CPO process to be initiated, is a programme risk, but is considered to be a low risk at present.

Planning Application/ Approval

The exact nature of the planning approval required for the component Package schemes will emerge as the Package progresses through the scheme development process. However, it is considered unlikely that planning approval will be a constraint on development of the Package schemes.

Agreements with third parties

Given the complexity and location of the component schemes in the Package, formal agreements will need to be reached between CCC and several third parties that oversee the management of different parts of the local transport network. This may include:

- Warwickshire County Council in relation to M6 Junction 3 and Hawkesbury schemes;
- National Highways in relation to gaining technical approval at M6 Junction 3;
- Network Rail Approvals at Hawkesbury Level Crossing; and.
- Department for Transport in relation to the Keresley Link Road due to the need to remove the railway line status.

Some of these agreements will require additional evidence to be produced to provide assurance to the third party that the proposed scheme is cost-effective and beneficial to their network. Early engagement with these third parties will mitigate the risk of not receiving approval from the appropriate parties.

Formal agreements with developers, at Keresley and potentially other sites, will also be required to ensure the appropriate management of risk for CCC and cost-effective delivery of the Package components. Negotiations with developers at Keresley have already commenced, and this proactive engagement will help to bring about a successful agreement between CCC and the relevant parties.

Section C6: Alignment with a Broader Programme

1. Programme Alignment: Has the planning and delivery of the wider programme suffered setbacks that will affect this project (e.g. delay of other projects on which this project is dependent?) How is this being addressed?

Not required as the Coventry North Transport Package has no alignment with any broader programme.

Section D: Economic Case - Options Appraisal

Section D1: Short List of Options considered

1. **Scheme Options: Please describe the options that have been considered in selecting the project proposal. This should include a minimum of 3 options : -**
   - A **reference case option** (the position in terms of outputs that would occur if the project did not proceed);
   - The **proposed option** (as set out in Section A); and
   - An **alternative option** (which may be based on changes to the scale, scope and cost of the proposed option). Please outline if there are multiple alternative options.

The Reference Case option, which represents the outcomes if the proposed package of schemes did not proceed, was defined for the purpose of modelling as the 'Do-Minimum' scenario. This utilised the existing reference case forecast scenario in CASM, which includes all foreseeable highway schemes and local plan developments, as agreed with CCC.

One change to the standard forecast Do-Minimum scenario is the inclusion of the Keresley SUE development, from 2026. This was included with basic site access of sufficient capacity to enable zone loading, but without a fully-connected link road. The only other change is the inclusion of WCC's proposed improvements at M6 Junction 3, specifically the widening of the B4113 arm from two to three lanes.

In terms of options of scheme packages, full details of these is provided in the Options Appraisal Report (Appendix I2), including details of the different alignments of the Keresley Link Road that were scoped as part of the options appraisal. Through a shortlisting processing, a set of six packages were defined and tested, with the final, preferred package (the 'Proposed Option') being an amended version of the most successful of these tested packages. This amendment followed the Feasibility Appraisal Report into the options, which found all-direction slips at M6 J3 to be infeasible, along with a bridge on Blackhorse Road at Hawkesbury (see Appendix I3). Table D1.1 shows details of the Reference Case, Proposed Option, and the six Alternative Options tested as part of the option selection process. Full details of these are included in the Options Appraisal Report (Appendix I2).

Table D1.1: Scheme Option Summary

Option Name:	Description:	Total Cost:	Amount requested:	Top Three Outputs
Reference Case	Full build-out of Keresley SUE by 2026, with basic site access. WCC improvements at M6 Junction 3	N/A	N/A	N/A
Proposed Option (Package 3_A1)	- Keresley Link Road (Alignment 2a) - Free-flow left turn slip and hamburger arrangement at M6 J3 - Link from Stockley Rd to Stephenson Rd at Hawkesbury, along with closure of Blackhorse Rd - Free-flow left turn slip at Rowley's Green A444 junction (from Winding House Lane to A444 NB) - New cycleways to NW of Coventry	£37.8m (Outturn, excl. cycleways)	£34.8m	- Improved connectivity between the A45 and M6 - Help unlock opportunities created by national schemes and events (HS2 and UK Central) - Improve rail connectivity, with removal of Hawkesbury Level Crossing
Alternative Option 1 (Package 1)	- Partial Keresley Link Road - New M6 Jct at Corley plus Link Road to Eastern Green - Incorporation of Very Light Rail at Rowley's Green - Bermuda Park & Ride service to Keresley - North-facing slip roads onto A444 at Newtown Rd	>£50m	N/A	See Table D1.4
Alternative Option 2 (Package 2)	- Keresley Link Road (Alignment 2) - New M6 Jct at B4102 plus Link Road to Meriden - Bridge on Blackhorse Rd - New cycleways to NW of Coventry - Station accessibility improvements at local rail stations	>£50m	N/A	See Table D1.4
Alternative Option 3 (Package 3)	- Keresley Link Road (Alignment 2) - Free-flow left turn slips at M6 J3 - Bridge on Blackhorse Rd - Free-flow left turn slip at Rowley's Green A444 junction (from Winding House Lane to A444 NB) - Incorporation of Bus Rapid Transit system at Rowley's Green - New cycleways to NW of Coventry	>£50m	N/A	See Table D1.4
Alternative Option 4 (Package 4)	- Keresley Link Road (Alignment 2) - Hamburger arrangement at M6 J3 - Link from Stockley Rd to Stephenson Rd at Hawkesbury, along with closure of Blackhorse Rd - Flyover for A444 mainline at Rowley's Green	>£50m	N/A	See Table D1.4

	- Bermuda Park & Ride service to Keresley - Station accessibility improvements at local rail stations - North-facing slip roads onto A444 at Newtown Rd			
Alternative Option 5 (Package 5)	- Keresley Link Road (Alignment 2a) - Closure of B4113 arm at M6 J3 - Link from Stockley Rd to Stephenson Rd at Hawkesbury, along with closure of Blackhorse Rd - Hamburger arrangement at Rowley's Green junction - New cycleways to NW of Coventry - Bermuda Park & Ride service to Keresley - North-facing slip roads onto A444 at Newtown Rd	£10m-£50m	N/A	See Table D1.4
Alternative Option 6 (Package 6)	- Keresley Link Road (Alignment 2a) - Tunnel for A444 mainline at M6 J3 - Optimisation of level crossing signals at Hawkesbury - Free-flow left turn slip at Rowley's Green A444 junction (from Winding House Lane to A444 NB) - Station accessibility improvements at local rail stations	>£50m	N/A	See Table D1.4

Please outline the main advantages and disadvantages of the three options, and how they fit with your project objectives, and explain why the proposed option has been selected below.

Table D1.2: Option Advantages and Disadvantages

Option Name:	Advantages:	Disadvantages:	Fit with Project Objectives:
Reference Case	- Basic site access provided for Keresley SUE development. - Minor improvement in capacity from widening of B4113 arm at M6 J3.	- Significant challenges caused by increased demand on network, without accompanying improvement in network. **See Section D3.1**	- Does not fulfil any of the project objectives
Proposed Option	**See Table D1.3**	- No direct strategic link between the A45 and M6 (would require new M6 junction) - A444 mainline not completely free-flowing at either Rowley's Green or M6 J3 (would require flyover/tunnel)	**See Table D1.3**
Alternative Options	**See Table D1.4**		

Table D1.3: Preferred package benefits and fit with project objectives

Level	Objective	Relevant sifting criterion	Preferred package benefits
National	Help unlock opportunities created by national schemes and events (HS2 and UK Central)	Qualitative measure of the potential change in the resilience of the M6 and A45, reflecting improved capacity provided on local network.	Addition of Keresley Link Road and upgrades at M6 J3 improve resilience of A45 and M6
	To improve the efficiency and operation of the Strategic Road Network, specifically the M6	Average journey time between M6 Junction 2 and Junction 4	Upgrades at J3 reduce likelihood of queueing onto M6 mainline
		Change in the likelihood of queuing onto mainline from M6 J3	
Sub-Regional	To improve connectivity between A45 and M6	Improvements in connectivity in north-west Coventry	Keresley Link Road and left-turn slip at Rowley's Green provides clear strategic route through NW Coventry
	Improve journey resilience along A444 corridor connecting Coventry to Nuneaton and Bedworth	Likely change in vehicle delays on the A444 between Foleshill Road and Bermuda Park	Improved A444 journey times resulting from J3 upgrade.
	Enable greater rail connections along Leamington Spa-Leicester rail corridor	Changes in access to local rail stations	More regular rail services enabled by removal of Blackhorse Level Crossing
		Qualitative assessment of improvements to capacity resulting from optimisation of Hawkesbury Level Crossing	
	To provide greater access to growth sites (eg: universities and employment sites) in area	Qualitative assessment of connectivity to major strategic growth sites; Prologis Park, Lyons Park and local university sites (Coventry University and University of Warwick)	Keresley Link Road provides link between Prologis, Lyons Park, and through to A45/A46
Local	Reduce local vehicle congestion on nearby highways	The extent to which an option provides an alternative to motor vehicle travel	Cycleways to NW of city, enhanced walking routes for local journeys and potential for VLR/Bus Rapid Transit at Rowley's Green
		Qualitative assessment of extent to which additional highway capacity has been provided	Additional capacity via Keresley Link Road, Rowley's Green left-turn and M6 J3 upgrades.
	Enhance mass-transit corridor in North Coventry area	The extent to which an option increases public transport uptake in city	Potential for VLR/Bus Rapid Transit at Rowley's Green
	Support and enable strategic housing growth sites and other local plan allocations	Qualitative assessment based upon the proximity to identified growth sites outlined in the Coventry Local Plan, with consideration given to the size and proposed timeline of development	Keresley Link Road and Hawkesbury link provides distribution and access for new developments, deliverable over shorter timescale.

	Improve health and wellbeing via greater active travel	Extent to which option increases active travel uptake	Cycleways to NW of city provide significant boost to city's cycle network.
	Mitigate impact of traffic on local communities	Qualitative assessment of impacts relating to safety, air quality, noise and severance.	All preferred options avoid significant major environmental impacts
	Reduce environmental impact of traffic	Qualitative assessment of impacts relating to biodiversity, landscape, heritage, flood risk)	

Table D1.4: Overview of alternative package performance against outcome objectives

Level	Objective	P1	P2	P3	P3_1	P4	P5	P6
National	Help unlock opportunities created by national schemes and events (HS2 and UK Central)	✓	✓	✓	✓	✓		✓
	To improve the efficiency and operation of the Strategic Road Network, specifically the M6	✓	✓	✓	✓	✓		✓
Sub-Regional	To improve connectivity between A45 and M6	✓	✓	✓	✓	✓	✓	✓
	Improve journey resilience along A444 corridor connecting Coventry to Nuneaton and Bedworth	✓		✓	✓	✓		✓
	Enable greater rail connections along Leamington Spa-Leicester rail corridor		✓	✓	✓	✓	✓	✓
	To provide greater access to growth sites (eg: universities and employment sites) in area	✓	✓	✓	✓	✓	✓	✓
Local	Reduce local vehicle congestion on nearby highways	✓	✓	✓	✓	✓		✓
	Enhance mass-transit corridor in North Coventry area	✓		✓	✓	✓	✓	
	Support and enable strategic housing growth sites and other local plan allocations	✓	✓	✓	✓	✓		✓
	Improve health and wellbeing via greater active travel		✓	✓	✓	✓	✓	✓
	Mitigate impact of traffic on local communities			✓	✓			✓
	Reduce environmental impact of traffic			✓	✓			

2. Specify the Preferred Option, with supporting justification for selection.

This is specified in full detail in Section 5.5 of the Options Appraisal Report (Appendix I2). A summary is provided here.

The preferred package (a variant of Package 3) provides significant transport benefits through small or medium-scale interventions, avoiding the high costs and timescales of a major intervention on the Strategic Road Network (SRN), such as a new junction west of M6 J3.

- **Alignment 2a of the Keresley Link Road** provides an effective intervention that both distributes traffic resulting from the Keresley SUE development, and provides a more strategic route through north-west Coventry, linking the A45 with the A444. It is a more effective traffic intervention than Alignment 2 that was originally tested as part of Package 3, due to the closure of Watery Lane that prevents routing via the Holbrooks residential area. It is also the preferred option from a feasibility

perspective, adopting a smoother alignment, and avoiding a significant crossing of a Local High Pressure (LHP) gas main.

- Intervention at M6 J3 will take the form of a combination of **free-flow lanes and a hamburger arrangement**. Following feedback from the feasibility appraisal, the free-flow lanes will only be located on the North-East corner of the junction, where the A444 SB meets the M6 EB. This was the only feasible additional slip due to existing constraints on the western side of the junction. Given this limitation to this option, it will be combined with a second option, the hamburger arrangement, that also showed some capacity improvements for only a moderate investment cost, timescale and environmental implication. The combination of these schemes is feasible and is forecast to produce significant traffic benefits at the junction.
- Away from the Core area of options, the addition of a **left-turn slip at the A444-Rowley's Green** junction will help to reduce delay at this key junction, and provide a link between the Keresley Link Road, and M6 J3. This could be achieved with only a modest investment of time and cost.
- To facilitate better rail connections to and from Coventry, the package will include **a new link road at Hawkesbury level crossing, connecting Blackhorse Road to Stephenson Road.** This would enable the closure of Blackhorse Road, and improvement in rail capacity as a result. The traffic assessment found this scheme to have a largely neutral impact on traffic in the area. In terms of the Link Road, this would skirt the new development on the Golf Course site at Hawkesbury, and, following the feasibility assessment, would be most cost effective by using a new tunnel under the railway, as opposed to using the existing pedestrian bridge, modifications to which would likely be challenging and expensive.
- The other accompanying scheme that would assist in the achievement of the Outcome Objectives would be new **cycleways serving the north-west of the city**. All of these cycleways were found by the feasibility assessment to be deliverable with modest time, cost and environmental impacts in the construction phase, and would assist in the uptake of active modes throughout the region of the city. The Coundon Cycleway has already received LAQAP funding and is currently under construction.

The Coventry North Transport Package as a whole will provide improved infrastructure that will help to facilitate access to key employment and housing developments that are planned in the area over the coming years. This will additionally help to cater for increased demand, enabling further development and economic activity to take place. The active travel elements proposed will serve to encouraged increased walking and cycling that will turn improve health and wellbeing for residents of the city, whilst also enhancing air quality and supporting the net zero agenda.

3. How will the preferred option be delivered? What are the service delivery options that have been considered? Please outline the pros and cons of each option below and state which your preferred delivery option is.

Coventry City Council has a proven track record for delivery and is therefore confident that this project can be completed within proposed timescales and milestones. The scale and types of works are familiar to those delivering them. For those schemes that sit outside of CCC's boundaries, a WCC-led procurement route would be the most likely outcome. WCC have a well-established procurement method that WCC has utilised and refined for a significant period of time, and as a result can be seen as a reliable, low-risk option for procurement.

Whilst specific procurement methods have not been confirmed at this stage in scheme development, across the package of schemes, a number of delivery options will be considered, as follows:

Direct Labour Organisation (DLO)

The DLO are directly employed by Coventry City Council and have experience of delivering a number of high profile, high quality city centre public realm schemes, new cycleway schemes such as the Coundon Cycle Route, alongside highway improvement works. The DLO offer flexibility in terms of contract management, as although the preferred option for project management is to manage the works in line with NEC3, the advantage of using the Council's own labour force means that if unforeseen events occur on site or there is a need to instigate a change in design the Council won't encounter expensive compensation events, but will just pay for the cost of the change.

which offers better value for money.

There are already several OJEU compliant procured frameworks in place under the DLO for provision of sub-contractors, materials and plant that will be utilised on the elements of work the DLO deliver.
The DLO are not set up to deliver more complex structural schemes and do have a limited capacity.

Full OJEU Compliant Open Tender

This option could take up to 6 months and is therefore the highest risk procurement option if timescales are constrained. This process would not allow procurement of a contractor for early contractor engagement to provide programming and buildability advice at the outset, which would be critical for a programme with challenging timescales.

Calling off an existing OJEU compliant framework

This option would expedite the procurement process and is a tried and tested successful delivery model when delivering infrastructure works to a challenging programme which has already gone through a rigorous OJEU compliant process. The frameworks available have been let by various public sector bodies and buying consortiums and cover a range of design and construction categories. The delivery model for the works will involve procurement of a contractor early in the design process to assist with early contractor involvement and help shape the design and ensure a buildable solution, which this approach would facilitate. The advantage of utilising an existing framework rather than open tender procedure is that the procurement process can be expedited, which is advantageous particularly where the contractor can be secured to add value at the design stage which would be desirable for this project. In addition to value for money being instilled into the frameworks through the initial framework procurement activity, contractors and consultants are still incentivised to price competitively under framework call offs, as the majority of frameworks allow for further competition to be undertaken between providers, ensuring further that value for money is achieved.

Coventry City Council has access to the Scape Civil Engineering Framework, which provides significant benefits in terms of early contractor involvement as well as having a number of Key Performance Indicators which require Balfour Beatty as the Scape Civil Engineering Framework contractor to deliver significant social value (circa £1.2m) through delivering projects in the local community such as:

- Delivering through the local supply chain and SME's.
- Creating opportunities for local employment, including apprentices, graduates and work placements.
- Supporting local communities through STEM engagement with schools, supporting care leavers and creating opportunities for disadvantaged people.
- Improving skills local people and employability skills for young people.
- Providing local volunteer days to support local organisations and charities.
- Diverting waste from landfill and reducing carbon emissions.

The Scape Civil Engineering Framework has previously been used for the Local Air Quality Action Plan Package of works worth £20million. In order to mitigate any potential risk that through a single source contract the final cost could be higher than via a competitive process, an independent due diligence is typically conducted on work estimates, to indicate that costs are deemed to be of an appropriate order.

Design and Build Contract

A design and build contract would integrate the completion of any detailed design of the scheme and its construction. However, to be fully effective this option would require funding, legal permissions and statutory approvals to be in place in advance of the contract release. This may not be feasible given the project programme that would need to be met in order to achieve completion in line with the HS2 construction. To meet this programme the design element of the Contract would need to be progressed at risk and alongside the other workstreams.

Preferred Delivery Option

The preferred procurement option for delivery will likely take a hybrid approach, reflecting the diversity, complexity and locations of the component schemes in the Package. The most likely approach would see CCC pursue one of the above-mentioned procurement routes for those schemes inside CCC's boundaries,

specifically the Keresley Link Road, Rowley's Green upgrade and the new cycleways. At Keresley, this procurement would have to take account of the developer's interests and timescales for build out of the Keresley SUE.

For those schemes that sit outside of CCC's boundaries, a WCC-led procurement route would be the most likely outcome. This has been the case with previous schemes, including the A46 Stoneleigh Junction scheme, which is being led by WCC, in partnership with CCC and National Highways. The WCC Construction Framework Contract includes six major contractors, and a completed works package would be issued for tender through a mini-competition process. The Framework has pre-assessed and approved contractors who can, through mini-competition process be appointed to complete construction works, on the basis of a financial competitive process. The contract would be NEC3 Option A and all OJEU requirements have previously been completed as part of the Framework selection process. This is a well-established procurement method that WCC has utilised and refined for a significant period of time, and as a result can be seen as a reliable, low-risk option for procurement.

4. Are there any Issues to be resolved before your preferred option may proceed? Specify key Issues, and state resolution plan for each Issue.

The issues to be resolved before the preferred option can proceed are summarised below.

Design
Approval of this Outline Business Case will enable detailed design to take place for the Coventry North Transport Package. This will be progressed and elements which are to be part of the Strategic Road Network (the M6 Junction 3 improvements) are subject to the National Highways Technical Assurance process. This process is rigorous involving workshops between the design team and National Highways officers to thoroughly examine all aspects of the scheme design, and particularly the interface between the local and strategic road networks. This process will take a significant amount of time within the delivery programme and it is expected that should this OBC be approved, the detailed design process will be initiated in due course. This output is critical for both the procurement and funding applications. At Full Business Case stage, each element of the Coventry North Transport Package will be taken forward separately due to the different timescales and partners involved.

Procurement
As noted above, the preferred procurement route for the scheme will vary among the component Package schemes and will be arrived at as the schemes progress in their development. The resulting cost estimates provided for the works will be used to support the business case justification for the project for input to the funding application. The cost estimate will be independently verified prior to contract award, and delegated authority to receive a tender price and to eventually award the contract has been approved by CCC Cabinet or WCC Cabinet as appropriate.

Land
At this stage in the design process, it has been determined that land is required as part of the improvements to Kersley Link Road and M6 Junction 3. Land assembly will be delivered through negotiation, although the option of acquiring it through Compulsory Purchase Order may be available following approval from CCC or WCC Cabinet. These formal acquisitions can only be completed once the full funding package is in place, and thus will be evaluated further should the scheme progress to detailed design and Full Business Case stage.

Budget
The current cost estimate for the project is £37.8 million. Full scheme funding will vary across the scheme components, with some potential sources of funding identified below:

- West Midlands Combined Authority City Region Sustainable Transport Settlement
- Warwickshire County Council
- National Highways
- Homes England Contribution
- DfT Major Route Network Large Local Major Schemes Fund

- DfT Rail Network Enhancements Pipeline
- (Private) Developer Contributions via Section 106
    - Including £3.1m confirmed contribution from Taylor Wimpey

For the purposes of the appraisal detailed in Section F, it has been assumed that the funding split is a 'worst-case' scenario where the only private contribution is the confirmed contribution from Taylor Wimpey. Given a reasonable expectation of further private contributions to the funding of the Package, the Benefit-Cost Ratio calculated based upon these assumptions can be considered conservative. Once funding sources are confirmed, this would provide a high degree of certainty that the project can proceed once final contract costs are received, given that the existing cost estimates feature significant levels of contingency.

It is possible at this stage that there may be a further requirement for public funding in the absence of S106 contributions, to cover the entire cost of the remaining cycleways element of the Package. However, as the cycling benefits have not been quantified, the costs have been excluded from the estimate provided above. Furthermore, as previously deliberated, whilst it is expected that further S106 contributions will be secured, forward funding is required for the Keresley Link Road to enable it to be delivered in advance of the majority of the development.

The project will be managed as part of robust programme governance. This involves monthly monitoring of programme and finances at Programme Board level. There will be commercial support in place to manage costs, working closely with project managers and the Council's finance team. A planner will also be in place to support management of scheme programmes.

The project will be managed in line with NEC4 contract management principles, which will involve early warnings to be raised for any potential events that could trigger time and/or cost overruns, which would ultimately require a project manager decision whether to proceed. If an unforeseen event occurs on site that leads to a cost or time overrun, the contingency budget would be utilised. If the costs exceed the contingency budget, the Council would seek to reduce the scope of works elsewhere on the project or within the wider programme to ensure the overarching programme is still deliverable within the secure funding envelope.

Timescale and Phasing
It should be noted that the component schemes in the Package are at different stages of development, with the Keresley Link Road the most developed of the schemes. As a result, upon approval of this OBC for the Package, CCC will pursue the further development of the component schemes on an individual basis, to provide more bespoke preparation and planning for each scheme, with development funding secured to progress the Keresley Link Road and M6 J3 as individual submissions. As previously discussed with the WMCA, the outcome of this Package OBC will likely be a series of Full Business Cases setting out in greater detail the Value for Money and planned procurement and funding of each individual scheme.

5. What are the associated Top 5 Risks of your preferred option:
(Quantification, Ownership, & Mitigation for each).

The full Risk Register is included in Appendix I1.

Table D1.5: Risk Register Extract; Top Five Risks by Post-Mitigation Score

Risk ID	Risk	Risk Owner	Pre-Mitigation Risk (Max: 16)	Potential Mitigation	Post-Mitigation Risk (Max: 16)
4	Interaction with developers at Keresley and Hawkesbury causing delay or disruption to construction	CCC	8	Engage with developers throughout process	6
10	Drainage risk requires additional design work at Hawkesbury underbridge	Design partner	6	Undertake detailed surveys and incorporate extra allowance for drainage in design at site. Consider also impact during construction (pumping required)	4
12	Local opposition to changes to the road network, including potential closures	CCC/ Consultation partner	8	Ensure early and effective consultation with local residents and stakeholders to understand issues.	4
2	Network Rail hinder Keresley Link Road and Hawkesbury link aspects of scheme, leading to scheme re-design or substantial delay	CCC	9	Early engagement and consistent management of relationship with Network Rail in order to obtain appropriate approvals.	4
7	Interaction with National Highways at M6 J3 (Technical Approval required)	CCC	9	Engage National Highways throughout process, ensuring buy-in and clear planning of construction	3

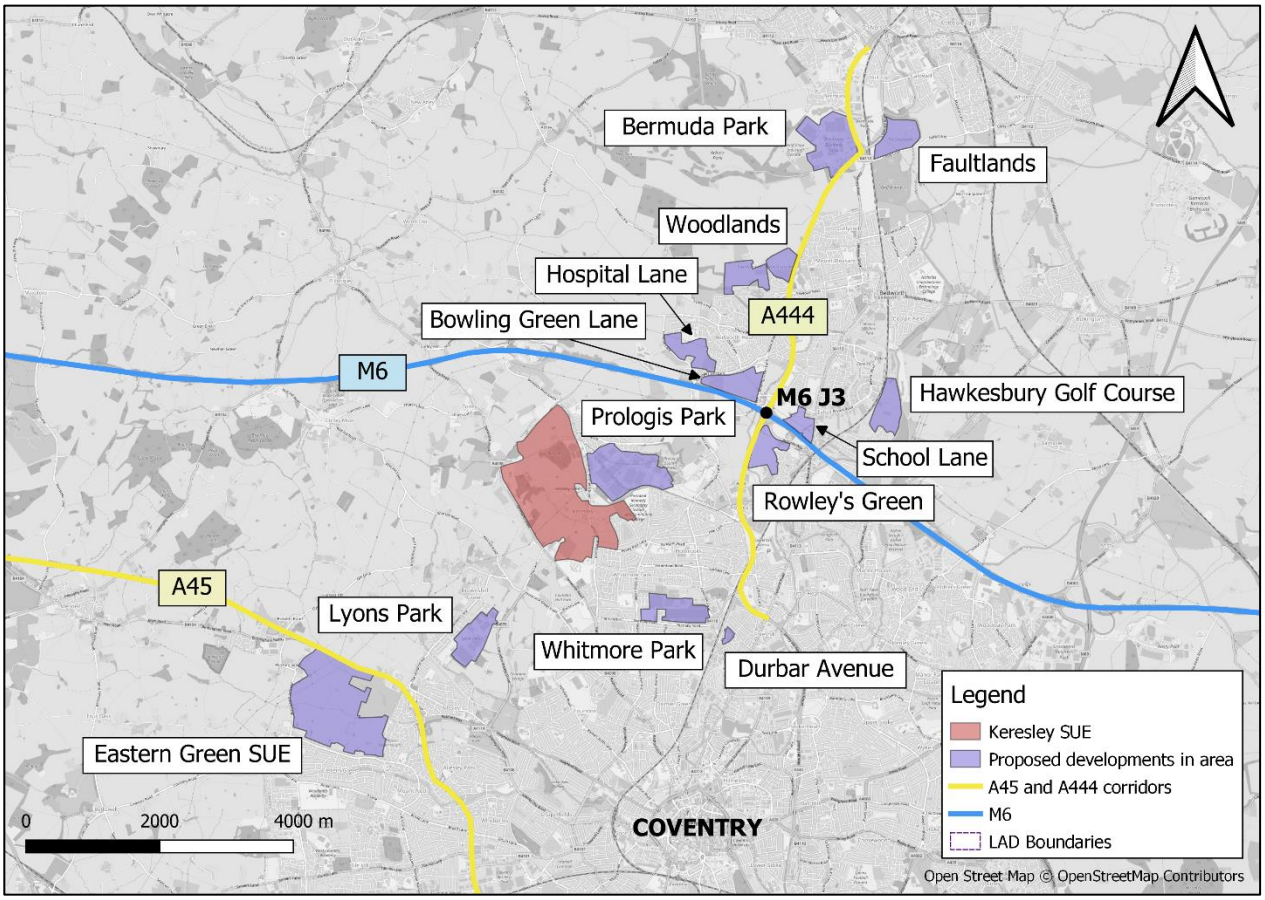
Section D2: Demand and Project Need

1. Please provide evidence of the demand for this project and the outcomes it is intended to achieve/deliver

As referenced in Section C (Strategic Case), the Coventry North area will face significant increases in travel demand in coming years as residential and employment developments in the area place additional strain on the transport network. Specifically, those allocations outlined in the Coventry Local Plan and Nuneaton and Bedworth Borough Plans are:

- Keresley SUE (3,100 dwellings and 2,500sq.m. of retail space);
- Eastern Green SUE (approx. 2,250 dwellings and 15 hectares of employment land, plus new grade-separated junction on A45);
- Lyons Park (19 remaining hectares of employment land, plus an adjacent site for 475 dwellings);
- Whitmore Park (8 hectares of employment land and ~ 500 dwellings);
- Durbar Avenue (1.5 hectares of employment land);
- Prologis Park (Potential extension with further five hectares of employment land);
- Rowley's Green Lane (18 hectares of employment land and 200 dwellings);
- Bowling Green Lane (24 hectares of employment land);
- Hospital Lane (space for 398 dwellings);
- School Lane (220 dwellings and two hectares of employment land);
- Former Hawkesbury Golf Course (212 dwellings);
- Bedworth Woodlands (689 dwellings);
- Faultlands (22 hectares of employment land); and
- Further development of the Bermuda Park employment site in Nuneaton.

Figure D2.1: Planned developments in Coventry North study area

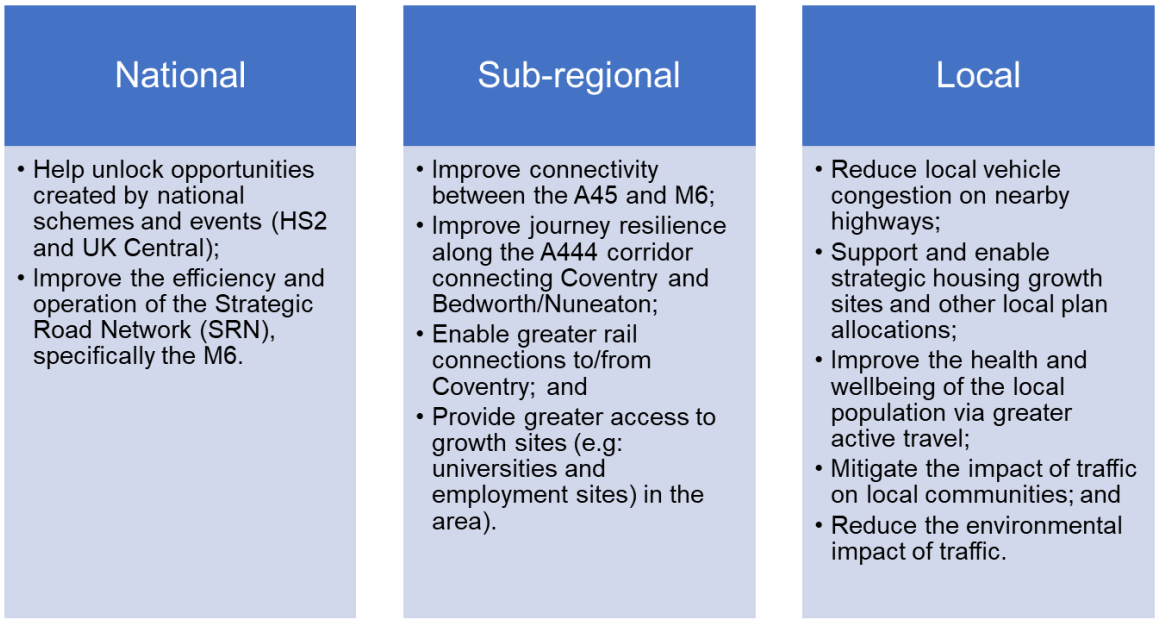


These planned developments, shown in Figure D2.1, will place the existing transport network under substantial pressure, in particular the linkages through from the A45 to the west of the city, along Coundon Wedge Drive and Long Lane, and along the A444 corridor through the Rowley's Green junction, M6 Junction 3, and north to Bermuda Park in Nuneaton.

In addition, developments and events in the wider Coventry and West Midlands area will place the strategic network in Coventry under further pressure. These developments include the UK Central development proposal for up to 140 hectares of mixed development near Solihull, and construction activity for HS2 Phase 1. The travel demand resulting from these wider developments will serve to add pressure across travel modes.

As a result, the Coventry North Transport Package is designed to meet the increased demands placed on the transport network in north Coventry by these developments. As set out in Section C (Strategic Case), the specific outcome objectives of the package have been discussed and agreed with local stakeholders. These Outcome Objectives are re-summarised for ease in Figure D2.2.

Figure D2.2: Coventry North Transport Package Objectives by National, Sub-regional and Local level



As can be seen in the Outcome Objectives, the Coventry North Transport Package aims not just to meet the demands placed on the transport network in the area over the coming years, but do this with attention to the wider objectives (relating to health, environment etc.) of both Coventry City Council and WMCA.

2. Outline any market testing which has been undertaken to evidence the demand case. If no market testing has been conducted please explain why not.

In order to demonstrate the consequences of the additional development sites highlighted in D2.1, detailed highway traffic modelling has been undertaken using the Coventry Area Strategic Model (CASM). Two model scenarios were tested, across two forecast years (2026 and 2041).

- One scenario represented the reference case 'Do-Minimum' scenario, which demonstrated the impacts of the additional developments in the area on the transport network, with no additional highway schemes beyond those that are reasonably foreseeable. Both the highway scheme and development uncertainty logs were agreed with CCC before modelling.
- The second scenario represents the 'Do-Something' case, with the Coventry North Package in place, improving the capacity and connectivity of the transport network in the area. Note that this only covered the highway elements of the Package.

In addition to the information provided by analysing these model scenarios in isolation, the comparison of these two scenarios provides further evidence as to the demand case for the package of schemes.

Outputs from the model runs were used and applied to generate monetised economic benefits using the TUBA software package, and monetised accident benefits using the COBALT software package. The analysis undertaken has helped build a clear case for the project need.

Section D3: Additionality

1. Please describe the "counterfactual" case (i.e. the "but for" or "reference case"), and explain what assumptions have been made in defining both the counterfactual and the investment case/preferred option.

Reference Case (Do-Minimum)

- Standard CASM forecast land use assumptions, which cover all developments planned under the Coventry Local Plan, plus any additionally agreed developments during original CASM forecast development.
- Background growth assumptions are in line with original model runs, with growth constrained to levels from National Trip End Model v7.2
- Standard CASM forecast highway scheme assumptions (see Forecasting Report), which covers all reasonably foreseeable major schemes in the Coventry area.
- Features inclusion of the Keresley SUE development, with basic site access (featuring sufficient capacity to load all trips onto the network). This consists of 3,100 dwellings, with 2,300 of these built-out by 2026, and utilises CASM-standard trip rates to produce an overall number of trips to and from the site.
- Features inclusion of WCC improvements at M6 J3, due for completion prior to 2026. This took the form of widen of the B4113 arm at the Exhall Interchange to three lanes. Signal improvements were not coded into the model due to difficulties in reflecting the addition of Microprocessor Optimised Vehicle Actuation (MOVA) at the junction.

Investment Case (Do-Something)

- As per reference case, with following additional assumptions:
- Keresley Link Road:
    - Based upon the Alignment 2a design used in the Refreshed Keresley Link Road Masterplan V2.0 (Atkins, July 2020). This features the stopping up of Watery Lane.
    - The link was coded with a 30mph speed limit and includes simple priority junction site accesses for the Keresley SUE development zones. The junction with Bennetts Lane was signalised, and a double-roundabout design was used at the junction with the B4098/Long Lane. The traffic signals at Winding House Lane/Wheelwright Lane were optimised to account for the significant increase in traffic travelling east-west along this Winding House Lane
- M6 J3:
    - The hamburger option added a continuation of the A444 mainline through the Exhall Interchange, with the addition of traffic signals on the gyratory to control operation of the junction. This included some reallocation of lanes to incorporate the new mainline links where appropriate. In the north-east of the junction, the free-flow slip was incorporated, at a 60mph speed limit.
- Hawkesbury:
    - The new link was added connecting Stockley Road with Stephenson Road, with a 30mph speed limit. Blackhorse Road was stopped up, with the removal of traffic signals at the western end of this road (where it meets the B4113) and a priority junction added at the junction of Stockley Road and Blackhorse Road. Priority was given to the new link.
- Rowley's Green:
    - The free -flow left-turn lane was coded as a single lane, with a give-way on merging with the A444 mainline.
    - Cycleways serving the north-west of the city. It is not possible to model active mode interventions in CASM, and it was not considered proportionate at this stage to undertake separate active mode appraisal, so the proposed cycleways were excluded from modelling. However, the assumed design of these cycleways is included in the Coventry North Feasibility Appraisal Report (Appendix I3).

2. Please use the tables to outline key assumptions on catalytic effects. For guidance, please see the Green Book section on 'Additionality', and the Homes and Communities Agency Additionality Guide – 2014.

The relevant wider economic impacts considered for this scheme include the gross value added (GVA) impacts for the capital delivery facilitated by the proposed intervention. The impacts were assessed following research evidence and guidance on additionality analysis and the approach set out in the DfT TAG chapter A2. Wherever possible, impacts were assessed from varying geographic perspectives (i.e. local/regional and national) and the results are discussed below.

Construction Impacts – Overview

Construction projects generally result in positive economic impacts for the local area in which the infrastructure is built. In addition to the direct purchase of construction materials for the overall package, many of the construction workers employed on the project are likely to be local to the area, who will spend their income derived from their work on the project on goods and services within Coventry and the surrounding area. This results in a 'trickle down' effect, in which an increase in local spending can stimulate further economic activity (jobs, expenditure or income) associated with additional local income, local supplier purchases and longer-term development effects through the multiplier effect.

Nonetheless, the quantification of such impacts and how they may materialise in the local economy should follow a structured and robust approach and be clearly evidenced in consideration of their additionality; the extent to which the intervention concerned will bring additional benefits over and above what would have occurred anyway in its absence. If similar impacts would happen elsewhere such as the neighbouring districts of Solihull or Birmingham to name but two, then these forecast economic impacts in terms of additional employment and income would not be deemed as net additional, and therefore would reduce the overall economic benefits that could be claimed for the construction impacts of the scheme. The methodology that was used to estimate the net additionality of the project is discussed in the following sub-section.

Construction Impacts – Methodology

Using the guidance set out in the Homes and Communities Agency: Additionality Guide[3] and Department for Business, Innovation and Skills: Research to improve the assessment of additionality[4], the local economic impacts from spending during the construction period was estimated in terms of its Gross Value Added (GVA). In order to estimate the net additionality and thus GVA impacts, it is necessary to account for various mechanisms that may reduce the original gross benefits of the scheme. This is summarised in Figure D3.1, with Table D3.1 providing the recommend mean regional and sub-regional values for these mechanisms based on a body of evidence observed within the aforementioned guidance and research evidence.

[3] Replaced in January 2018 by Homes England and the Regulator of Social Housing
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/378177/additionality_guide_2014_full.pdf

[4] The Department for Business, Innovation & Skills (BIS) merged with the Department of Energy and Climate Change (DECC) to form the Department for Business, Energy and Industrial Strategy (BEIS)
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/191512/Research_to_improve_the_assessment_of_additionality.pdf

Figure D3.1 – Additionality Components

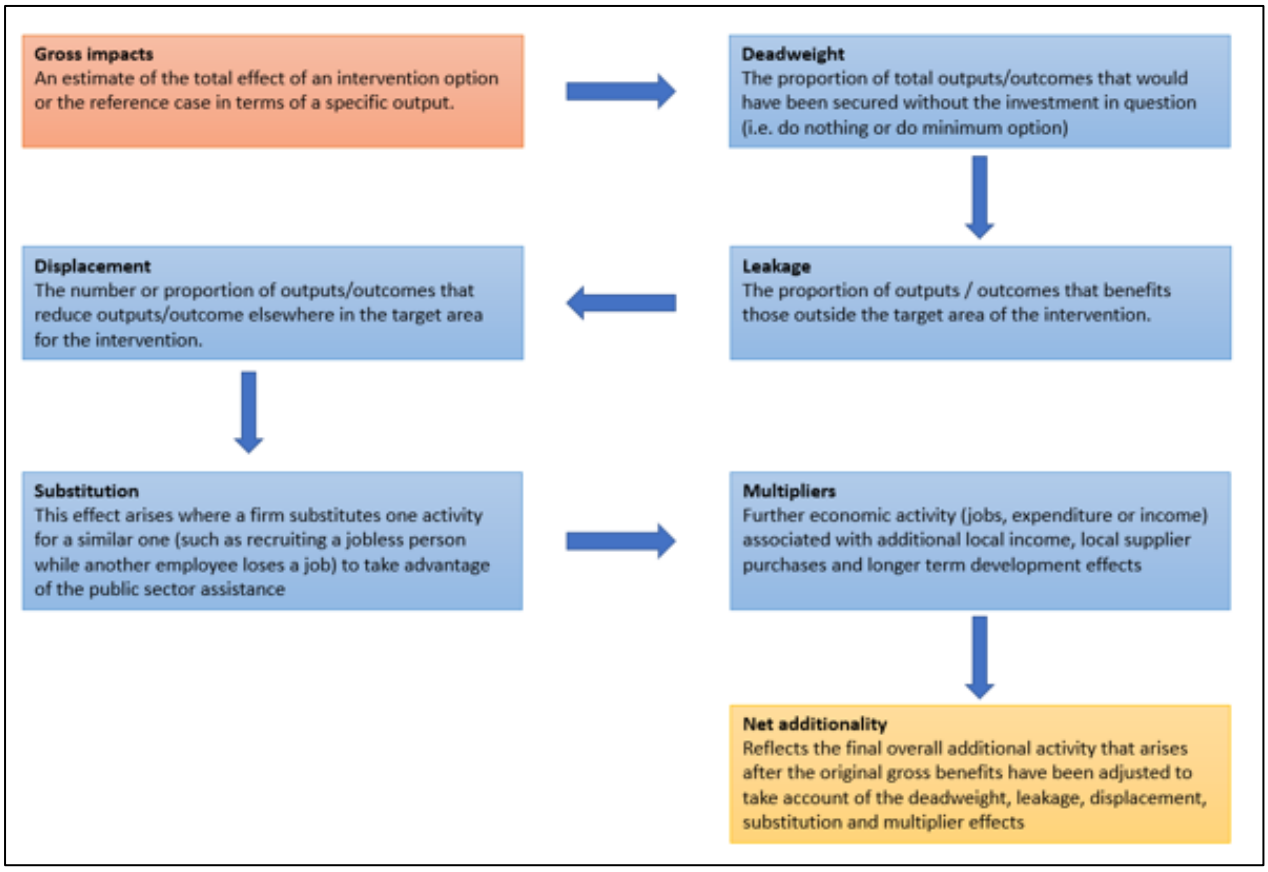


Table D3.1: Regional Additionality Values used for the assessment of the scheme construction impacts based on research evaluation of regeneration through physical infrastructure interventions

Additionality Component	Recommended Regional Value (Mean)	Number of interventions observed – Regional value	Recommended sub-regional Value (Mean)	Number of interventions observed – Sub-regional value
Deadweight	33.9%	82	7.5%	39
Leakage	10.4%	63	14.1%	9
Displacement	37.4%	85	38.7%	41
Substitution	2.2%	32	2.7%	37
Multipliers	1.40	80	1.33%	35

Using these recommend values for each mechanism, this enables a net additionality of the scheme to be estimated using the formula below. This result is then applied to the total scheme construction cost (excluding land allowances) to derive its GVA impacts.

$$AI = (1 - dw) \times (1 - L) \times (1 - Dp) \times (1 - S) \times M$$

where dw is deadweight, L is leakage, Dp is displacement, S is substitution and M is multiplier.

Construction Impacts – Results

Using the methodology explained in the previous section, it is estimated that the construction impacts of the scheme would result in a regional gross value added of circa £13m which is approximately 50% of the total construction cost of the scheme.

On a sub-regional level, the construction impacts of the scheme are estimated to result in gross value added of approximately £15.7m, which is approximately 60% of the total construction cost of the scheme.

In general, it is expected that the construction of transport projects may affect the distribution of labour demand in a specific industry or location but does not lead to a change in the national supply of labour. That is, the capital delivery in construction is expected to have economic impacts at the local and regional geography up to West Midlands level (as quantified through the sub-regional and regional additionality and any associated multiplier effects in Table D3.1), which will strengthen the strategic case and economic narrative of the proposed intervention. However, these are generally assumed to have no net national employment impact (following the advice in the DfT TAG guidance), as the opportunity cost of public investment in one construction scheme is foregone investment in another.

Therefore, the estimated construction impacts on the local economy will not form part of the value for money assessment for the scheme, however, it forms part of the narrative on the potential local economic impacts from the scheme and can be used to strengthen the strategic case for justifying the investment.

3. Comparing the outcomes of the "investment case" and the "counterfactual", please outline the additional benefits of the project.

The investment case has been compared with a counterfactual option as detailed in Section D3.1, above. In contrast to the counterfactual case, the investment case will generate additional benefits that are not accounted for in the economic appraisal previously discussed in Section D1.

Commercial Case

Section E: Commercial case – External Procurement (if appropriate)

1. If private development partners will be required to deliver project outputs, at what stage are discussions/negotiations?

It is planned that CCC will deliver the Keresley Link Road. An initial section of the Link Road is being developed utilising the developer contribution from Taylor Wimpey. However, CCC are seeking forward funding to bring forward the remainder of the Link Road in advance of the majority of the development. CCC will then seek to recover these costs via further developer contributions, as further stages of the development come forward.

Private partners for other schemes will be investigated further. WCC are seeking some developer contributions towards the cost of the development of the M6 J3 improvement, and there is also potential for the remaining cycleways to be at least partly funded by S106 contributions.

2. Detail any 3rd party services that will be used to deliver this project, e.g. Legal, Finance, other consultancy

CCC will require the following 3rd party services to be able to successfully deliver the Coventry North Transport Package.

TfWM

Transport for West Midlands will remain a close partner through the development and delivery of the project to ensure that the package successfully delivers in maintaining network resilience in the region.

Warwickshire County Council and National Highways

WCC and National Highways will be key partners in the delivery of the M6 J3 improvement element of the Package.

Network Rail

Network Rail will support the improvements proposed as part of the Hawkesbury Level crossing, given its interaction with the railway.

Professional Service providers including overall project management and technical assurance

Dedicated Project Management support will be from within the Coventry City Council Transport Strategy Team who will continue to work with colleagues across the Council to deliver this project. These teams could be supported by specialist resources available through the West Midlands Shared Professional Services Contract with a Tier 1 provider (Atkins) and mini-competition to Tier 2 (Atkins, WSP, Aecom and Jacobs), or via other frameworks as appropriate.

3. Summarise procurement requirements in terms of outputs.

(Inc.: Work to be procured; potential value; who will lead)

At the current stage, it is anticipated that the following specialist services and procurement will be required to support implementation and delivery of the preferred option.

Full Business Case Development

As part of developing the business case for the Coventry North Transport Package from OBC to FBC stage, CCC will require specialist consultancy support to develop the detailed design. It is anticipated that the Project Manager at CCC will lead on the procurement of these services building on current OBC management.

Delivery of Preferred Option

The anticipated procurement requirement includes project management, technical assurance; specification support and procurement support as a package from a professional specialist services provider, independent of infrastructure suppliers. A tender process will be undertaken to secure a single delivery contractor to deliver highway improvements as part of the scheme, with an assessment of tenders undertaken based upon a quality/price submission to select the most appropriate contractor. This tender assessment will also include tender interviews.

Who will lead on the procurement for the Coventry North Transport Package?

The procurement process will be led by the procurement team at Coventry City Council supported by the Project Manager and any third-party services where required. The procurement outputs will continue to be refined and confirmed as the Coventry North Transport Package progresses to FBC stage using soft market testing, once a detailed specification is created and the delivery route is confirmed.

4. Will your Procurement trigger the OJEU process?

The exact procurement route to be pursued will not only differ between schemes, but is yet to be confirmed, given the early stage of development for many of the component Package schemes. As a result, procurement of the construction contact may trigger the OJEU process, however the route to use an existing framework, such as the CCS Framework Lot 3 (£10-£30M) or similar, is also available.

5. Outline the sourcing options: with a rationale for your preferred option.

As discussed in Section D1.3, there are several procurement options for sourcing contractors to undertake the works on this project. For ease of reference, these are summarised again as follows:

Direct Labour Organisation

The DLO are directly employed by Coventry City Council and have experience of delivering a number of high profile, high quality city centre public realm schemes, alongside highway improvement works. The DLO offer flexibility in terms of contract management, as although the preferred option for project management is to manage the works in line with NEC3, the advantage of using the Council's own labour force means that if unforeseen events occur on site or there is a need to instigate a change in design the Council won't encounter expensive compensation events, but will just pay for the cost of the change which offers better value for money.

There are already several OJEU compliant procured frameworks in place under the DLO for provision of sub-contractors, materials and plant that will be utilised on the elements of work the DLO deliver. The DLO are not set up to deliver more complex structural schemes and do have a limited capacity.

Full OJEU Compliant Open Tender

This option could take up to 6 months and is therefore the highest risk procurement option if timescales are constrained. This process would not allow us to procure a contractor for early contractor engagement to provide programming and buildability advice at the outset, which would be critical for a programme with challenging timescales.

Calling off an existing OJEU compliant framework

This option would expedite the procurement process and is a tried and tested successful delivery model when delivering infrastructure works to a challenging programme which has already gone through a rigorous OJEU compliant process. The frameworks available have been let by various public sector bodies and buying consortiums and cover a range of design and construction categories. The delivery model for the works will involve procurement of a contractor early in the design process to assist with early contractor involvement and help shape the design and ensure a

buildable solution, which this approach would facilitate. The advantage of utilising an existing framework rather than open tender procedure is that the procurement process can be expedited, which is advantageous particularly where the contractor can be secured to add value at the design stage which would be desirable for this project. In addition to value for money being instilled into the frameworks through the initial framework procurement activity, contractors and consultants are still incentivised to price competitively under framework call offs, as the majority of frameworks allow for further competition to be undertaken between providers, ensuring further that value for money is achieved.

Coventry City Council has access to the Scape Civil Engineering Framework, which provides significant benefits in terms of early contractor involvement as well as having a number of Key Performance Indicators which require Balfour Beatty as the Scape Civil Engineering Framework contractor to deliver significant social value (circa £1.2m) through delivering projects in the local community such as:

- Delivering through the local supply chain and SME's.
- Creating opportunities for local employment, including apprentices, graduates and work placements.
- Supporting local communities through STEM engagement with schools, supporting care leavers and creating opportunities for disadvantaged people.
- Improving skills local people and employability skills for young people.
- Providing local volunteer days to support local organisations and charities.
- Diverting waste from landfill and reducing carbon emissions.

In order to mitigate any potential risk that through a single source contract the final cost could be higher than via a competitive process, an independent due diligence is typically conducted on work estimates, to indicate that costs are deemed to be of an appropriate order.

Design and Build Contract

A design and build contract would integrate the completion of any detailed design of the scheme and its construction. However, to be fully effective this option would require funding, legal permissions and statutory approvals to be in place in advance of the contract release. To meet this programme the design element of the Contract would need to be progressed at risk and alongside the other workstreams.

Preferred Option and Rationale

As referenced in Section D1.3, the preferred procurement option for delivery will likely take a hybrid approach, reflecting the diversity, complexity and locations of the component schemes in the package. The most likely approach would see CCC pursue one of the above-mentioned procurement routes for those schemes inside CCC's boundaries, and follow a WCC-led procurement route, potentially the WCC Construction Framework Contract, on those schemes outside of CCC's boundaries.

6. Are there any Personnel Implications, Inc. TUPE?

There are no personnel implications associated with the proposed package.

7. Outline the Procurement Project Plan and Timescales, including statutory and other consents.

At this stage in the development of the component schemes, a procurement timetable cannot be accurately forecasted for all elements of the Package. However, scheme development funding has been secured for the Keresley Link Road and the M6 Junction 3 improvement. Hence, Full Business Cases will be developed for these two elements of the Package upon approval of this document. In addition is should be noted that the first stage of the Kersley Link Road is being built by Taylor Woodrow as part of their development.

A procurement project plan and the associated timescales will emerge as the schemes develop, initially through FBCs and funding applications. Similarly, given uncertainty surrounding the procurement methods to be used for the component schemes, there are at present no plans related to statutory consents.

8. Please provide evidence of planning permission and other relevant statutory permissions (e.g. submit a copy of decision notice or committee resolution with this application), or a clear explanation of the timeframe for achieving this and how it fits with broader planning strategy.

Statutory permissions will be sought in due course, as the development of the Package progresses, and the exact nature, location and complexity of the component schemes emerges. However, it is recognised that the first section of the Keresley Link Road has secured planning approval within the Taylor Woodrow element of the SUE.

Section F: - Financial Analysis of the recommended Option

Section F1: Costs and Cost Assumptions

1. Please outline any assumptions made about inflation. Please outline the assumptions made about the discount rate to calculate your NPV (please use HMT Green Book for guidance, or explain why an alternative approach has been considered).

In line with HMT Green Book, all values have been adjusted for inflation, and are expressed in real prices. That is, the prices, which in the cost estimates were expressed in either 2019 or 2021 nominal prices, have had background levels of inflation (either RPI or TPI dependent on cost type minus the GDP deflator) removed, and their values converted to express them in terms of 2010 prices. This has been done using the published RPI, TPI and GDP deflator statistics from the ONS.

Once inflation has been removed, the costs have been discounted, accounting for people's social time preferences (i.e. that people value benefits today higher than benefits tomorrow). In line with HMT Green Book, this has been applied to the real prices, post-inflation adjustment.

The full process of conversion of nominal cost estimate to Net Present Value as has been applied is as follows:

- Receipt of base year cost estimate (in 2019 or 2021 nominal prices);
- Remove background inflation (RPI or TPI minus GDP Deflator);
- Values converted to 2010 prices;
- Add Optimism Bias (See F1.2);
- Convert to market prices (Removing VAT); and
- Discount to present values (using standard 3.5% discount rate to 30 years from current year, and 3.0% after this).

2. Please outline the assumptions made about Optimism Bias (see Glossary included in the Assurance Framework document) and/or Contingency.

(Outline the areas where contingency has been applied, the level of the contingency in each case and the reason for the contingency in each case.)

Contingency

The following contingency/risk budget was included with the cost estimates of the different scheme elements:

- Keresley Link Road: 25%
- Rowley's Green: 30%
- M6 J3: 30%
- Hawkesbury Level Crossing: 40%

These reflect the relative challenges of delivering each of the package elements, and the uplifts have been expressed in the same price base as the cost estimates themselves. As a result, in the process of converting these costs to Present Value Costs (PVC) **for economic appraisal**, these have gone through the same adjustment process outlined in Section F1.1.

Optimism Bias

Optimism Bias has been applied as part of the conversion to PVC, as detailed in Section F1.1. Optimism Bias has been applied based upon DfT TAG Unit A1.2 guidance, with Stage 1 Road scheme rates of Optimism Bias applied to each of the scheme elements, with the exception of the Hawkesbury link road scheme, which has had the Stage 1 Bridges/Tunnels rate applied, reflecting its relative complexity. See Table F1.1 for the TAG guidance on recommended levels of Optimism Bias. Despite the schemes being submitted for Outline Business Case (Stage 2), the recommended Optimism Bias for Stage 1 Road projects has been applied to reflect the considerable remaining complexities of delivering the package.

Table F.1: Recommended Optimism Bias Uplifts

Table 8 Recommended optimism bias uplifts for different projects at different stages of the life of a transport project

Category	Types of projects	Stage 1	Stage 2	Stage 3
Roads	Motorway, Trunk roads, Local roads, Bicycle facilities, Pedestrian facilities, Park and ride, Bus lane schemes, Guided buses on wheels	44%**	15%	3%**
Light rail	Metro, Light rail, Guided buses on tracks	66%**	40%	6%**
Conventional rail[2]	Network rail enhancement projects	64%*	18%*	4%*
Fixed links	Bridges and Tunnels	66%**	23%	6%**
Building projects	Stations and Terminal buildings	51%**	-	4%**
IT projects	IT system development	200%**	-	10%**

Sources: Flyvbjerg (2004), UCL (2015)* and Mott MacDonald (2002)**

Source: Department for Transport TAG Unit A1.2 Scheme Costs

3. Using the table below, please outline the expected Project Costs £m. Please also state the prices used – e.g. real Q2 2016 prices; nominal prices; etc. Please provide further breakdown of costs where appropriate.

Note that columns 3-10 of the following table show the breakdown of outturn costs in 2020 Q4 prices, excluding optimism bias in line with the HMT Green Book. The 'PVC' column shows the Present Value Costs in 2010 prices, discounted to 2010, in line with DfT guidance. The figures in this column **include** optimism bias, as would be expected for presentation of costs for the Economic Case. Private contributions from developers are **excluded** from the PVC column for ease of presentation, reflecting that they offset the full cost recorded to the public sector in line with DfT guidance. These costs do not include a cost estimate for the proposed cycleways serving north-west Coventry, given the benefits arising from these routes have not been quantified at this stage.

Table F1.2: Project cost profile (Outturn costs in 2020 Q4 prices except PVC column)

	PVC £m	Total £m	2019 /20 £m	2020 /21 £m	2021 /22 £m	2022 /23 £m	2023 /24 £m	2024 /25 £m	2025 /26 £m	2026 /27 £m
Capital Costs (include scheme development and lifecycle costs)	**£23.4**	**£30.6**	**£0.0**	**£0.0**	**£2.2**	**£3.9**	**£4.1**	**£4.9**	**£7.0**	**£8.4**
Preparatory costs	£1.8	£2.1	£0.0	£0.0	£0.1	£0.2	£0.2	£0.2	£0.5	£0.9
Construction	£20.0	£26.2	£0.0	£0.0	£1.9	£3.4	£3.6	£4.3	£6.0	£7.0
Supervision	£1.7	£2.3	£0.0	£0.0	£0.2	£0.3	£0.3	£0.4	£0.6	£0.5
Revenue Costs	**£0.0**	**£0.0**	**£0.0**	**£0.0**	**£0.0**	**£0.0**	**£0.0**	**£0.0**	**£0.0**	**£0.0**
In-kind Costs	**£0.0**	**£0.0**	**£0.0**	**£0.0**	**£0.0**	**£0.0**	**£0.0**	**£0.0**	**£0.0**	**£0.0**
Contingency	**£5.6**	**£7.2**	**£0.0**	**£0.0**	**£0.5**	**£0.9**	**£0.9**	**£1.1**	**£1.7**	**£2.2**
Total Costs / Funding Requirement	**£29.1**	**£37.8**	**£0.0**	**£0.0**	**£2.7**	**£4.8**	**£5.1**	**£6.0**	**£8.7**	**£10.6**

4. Are there any costs that are uncertain (e.g. costs of land purchases etc.)? If so how does your analysis take account of this uncertainty?

Given the early stage of scheme development for many of the package elements, many of the potential costs of the scheme are uncertain. To account for this uncertainty, two approaches have been taken, both in the cost estimates, and in the interpretation and conversion of these estimates for presentation in the business case.

Firstly, many of the uncertain costs have been excluded entirely from the cost estimates, as it is unknown whether or not these costs will apply to the individual package elements. These exclusions and assumptions are summarised below:

- Exclusions:
  - Local Authority Fees;
  - Legal and Agency Fees;
  - Finance charges;
  - Development taxes;
  - Land and Land Acquisition Costs;
  - Section 106/278 Agreement Costs;
  - VAT;
  - Ecological/conservation works;
  - Surveys and archaeological surveys; and
  - Contaminated land treatment
- Assumptions:
  - With exception of Keresley Link Road, all cost estimates were produced using an Order of Cost Estimate method, generating quantities from indicative layouts and data/measurements from Google Maps.
  - Keresley Link Road was estimated based upon the latest design.
  - Full assumptions are included with the individual cost estimates

Secondly, simple risk/contingency uplifts have been included in each of the package element cost estimates, to account for a) uncertainty in the costs of those priced elements and b) uncertainty in the realisation of those currently excluded costs.

The following contingency/risk budget was included with the cost estimates of the different scheme elements, reflecting the likelihood and magnitude of additional, unaccounted for costs:

- Keresley Link Road: 25%
- Rowley's Green: 30%
- M6 J3: 30%
- Hawkesbury Level Crossing: 40%

The full cost estimates are shown in Appendix I4.

Section F2: Funding, Financing and Assumptions

1. Please describe the funding sources that will be used to fund this project and, where applicable, state the funding gap and what is proposed to bridge it.

At this stage, it has been assumed that funding across all of the schemes excluding the Keresley Link Road and M6 Junction 3 will be funded entirely by public bodies. This is a worst-case (for the public purse) assumption, for it is possible that at one or more of these schemes, private developers may contribute through Section 106 agreements.

At Keresley, 25% of the expected outturn scheme cost has been negotiated to be contributed by Taylor Wimpey, the developers of one section of the Keresley SUE. Forward public funding is required to enable CCC to deliver the remainder of the scheme in advance of the majority of the development being delivered. It is then anticipated that CCC will then seek to recover these costs from further developer contributions.

Full scheme funding will vary across the scheme components. For simplicity at this stage, given the early stage of development of the Package, funding sources have been assigned to the component Package schemes as follows:

- West Midlands Combined Authority City Region Sustainable Transport Settlement:
  - **Keresley Link Road** (forward funding) and **Rowley's Green Upgrade**
- DfT Major Route Network Large Local Major Schemes Fund:
  - **M6 Junction 3**
- DfT Rail Network Enhancements Pipeline:
  - **Hawkesbury Level Crossing removal**
- Private Sector Contributions via Section 106
  - **Keresley Link Road** (confirmed contribution from Taylor Wimpey)
  - **M6 Junction 3**

It should be noted that the above listed funding sources are not the only sources of funding possible for the Package but have been allocated to the separate schemes as a representative funding package. Exact funding sources including potential other funding sources not listed here, such as contributions from Homes England, will be considered at a later stage of scheme development. The breakdown of costs in this section do not include a cost estimate for the proposed cycleways serving north-west Coventry, given the benefits arising from these routes have not been quantified at this stage. As discussed, there is some potential to secure S106 contributions towards the remaining cycleways, however these have yet to be secured and dependant on the amounts received, there may still be a requirement for further public funding for these.

2. Please outline the risks, uncertainties and dependencies associated with these funding sources, and how they will be mitigated and managed.

At Keresley, 25% of the expected outturn scheme cost has been negotiated to be contributed by Taylor Wimpey, the developers of one section of the Keresley SUE. Forward public funding is required to enable CCC to deliver the remainder of the scheme in advance of the majority of the development being delivered. It is then anticipated that CCC will then seek to recover these costs from further developer contributions. The specific mechanism of such an agreement between CCC, WMCA and the developers at Keresley would require separate, detailed discussion to ensure the terms of the agreement are acceptable to all involved parties.

Away from Keresley, as stated in Section C5.1, the interaction with developers at Hawkesbury may influence funding for this element of the package. Given the possibility of private contributions to the scheme at Hawkesbury, the specific nature of any contributions, the terms of the contribution and impacts for public funding from the WMCA will have to be discussed as early as possible in the scheme development. Given the location of Hawkesbury within WCC's boundaries, WCC will also play a key role in any funding discussions.

Another risk is related to the amount of funding potentially available following the Comprehensive Spending Review and how this may impact Homes England and National Highways budgets. As such, various funding sources are actively being explored for each individual element of the Package.

3. Using the table below, please outline the expected funding profile, broken down by individual funding sources (NB this should reflect the sources of revenue that will ultimately pay for the project – it should not include financing (i.e. borrowing) arrangements). If funding comes from the Project Sponsor Capital/Revenue Budget, please attempt to identify the origin(s) of this funding.

As in Section F1.3, the costs presented here are outturn costs in 2020 Q4 prices excluding optimism bias, with the exception of the PVC column, which is in 2010 prices discounted to 2010, including optimism bias allowance. Note that private contributions from developers are **excluded** from the PVC column for ease of presentation, reflecting that they offset the full cost recorded to the public sector in line with DfT guidance.

Table F2.1: Project funding profile (Outturn costs in 2020 Q4 prices except PVC column)

Funding Source	PVC £m	Total £m	2019 /20 £m	2020 /21 £m	2021 /22 £m	2022 /23 £m	2023 /24 £m	2024 /25 £m	2025 /26 £m	2026 /27 £m
Capital Funding										
WMCA City Region Sustainable Transport Settlement	**£9.9**	**£11.7**	£0.0	£0.0	£1.3	£2.1	£2.3	£3.0	£3.0	£0.0
DfT MRN LLMS Fund	**£11.5**	**£14.5**	£0.0	£0.0	£0.6	£1.3	£1.4	£1.4	£3.7	£6.1
DfT Rail Network Enhancements Pipeline	**£7.7**	**£8.6**	£0.0	£0.0	£0.4	£0.8	£0.8	£0.8	£1.3	£4.4
Private sector contributions	**N/A**	**£3.1**	£0.0	£0.0	£0.4	£0.6	£0.6	£0.8	£0.7	£0.0
Total Capital Funding	**£29.1**	**£37.8**	**£0.0**	**£0.0**	**£2.7**	**£4.8**	**£5.1**	**£6.0**	**£8.7**	**£10.6**

4. Please describe how the project will be financed (i.e. how the upfront cost of the scheme will be defrayed as they occur) (e.g. borrowing arrangements, use of capital reserves etc.)

As stated in Section F2.2, it is likely that the Keresley Link Road will be funded by private developer contributions, via Section 106 agreements. However, apart from the £3.1million secured from Taylor Wimpey which is being used to develop the initial section of the Link Road, these are unlikely to be received until the housing development at the Keresley SUE has been fully built-out. Therefore, in order to provide the benefits of the Keresley Link Road up-front, serving the traffic generated by the SUE (as well as providing the wider strategic redistribution of traffic in the area), up-front funding will be required from a public funding source.

As a result, it is expected that the public funding (currently assumed to be the WMCA City Region Sustainable Transport Settlement) will be provided up-front at the start of the Link Road construction period. This will then be repaid from the Section 106 agreements with private developers, once all Keresley SUE developments are complete. As per Section F2.2, the specific mechanism of such an agreement between CCC, WMCA and the developers at Keresley would require separate, detailed discussion to ensure the terms of the agreement are acceptable to all involved parties. This would be expected to take place as the scheme progresses through the WMCA Assurance Framework steps.

5. Please outline assumptions around the cost of borrowing (i.e. interest rates)

At present there has been no borrowing assumed in the financing of the Package. This reflects the fact that there are no confirmed plans for borrowing in funding and financing the Package. However, should this be required, the exact terms of this borrowing, interest rates and length of terms will be confirmed and communicated to the WMCA.

6. Where the scheme is financed through borrowing, please outline the borrowing and repayment profile using the table below (this applies to any form of finance that needs to be *paid back* e.g. to a Bank, to the WMCA, to the EU etc.):

N/A (No borrowing assumed)

Section F3: Cashflow

1. Please provide an updated cashflow that demonstrates the net cash position of the scheme (the net cash position should be positive in any given year). To the extent that there is excess cash, please state how that cash will be used.

As with previous tables in this section, private sector developer contributions have been excluded from the PVC calculations. Note they still contribute £3.1m to the actual, outturn cost of the Package.

Table F3.1: Project cashflow profile (Outturn costs in 2020 Q4 prices except PVC column)

	% of Total PVC	PVC £m	Total £m	2019 /20 £m	2020 /21 £m	2021 /22 £m	2022 /23 £m	2023 /24 £m	2024 /25 £m	2025 /26 £m	2026 /27 £m
Preparatory costs	6%	£1.8	£2.1	£0.0	£0.0	£0.1	£0.2	£0.2	£0.2	£0.5	£0.9
Construction	69%	£20.0	£26.2	£0.0	£0.0	£1.9	£3.4	£3.6	£4.3	£6.0	£7.0
Supervision	6%	£1.7	£2.3	£0.0	£0.0	£0.2	£0.3	£0.3	£0.4	£0.6	£0.5
Contingency	19%	£5.6	£7.2	£0.0	£0.0	£0.5	£0.9	£0.9	£1.1	£1.7	£2.2
Total Project Cost	**100%**	**£29.1**	**£37.8**	**£0.0**	**£0.0**	**£2.7**	**£4.8**	**£5.1**	**£6.0**	**£8.7**	**£10.6**
WMCA City Region Sustainable Transport Settlement	34%	£9.9	£11.7	£0.0	£0.0	£1.3	£2.1	£2.3	£3.0	£3.0	£0.0
DfT MRN LLMS Fund	39%	£11.5	£14.5	£0.0	£0.0	£0.6	£1.3	£1.4	£1.4	£3.7	£6.1
DfT Rail Network Enhancements Pipeline	27%	£7.7	£8.6	£0.0	£0.0	£0.4	£0.8	£0.8	£0.8	£1.3	£4.4
Private sector contributions	N/A	N/A	£3.1	£0.0	£0.0	£0.4	£0.6	£0.6	£0.8	£0.7	£0.0
Total Project Funding	**100%**	**£29.1**	**£37.8**	**£0.0**	**£0.0**	**£2.7**	**£4.8**	**£5.1**	**£6.0**	**£8.7**	**£10.6**
Net Cash Position		**£0.0**	**£0.0**	**£0.0**	**£0.0**	**£0.0**	**£0.0**	**£0.0**	**£0.0**	**£0.0**	**£0.0**

2. Project slippage – is there provision for dealing with the financing of any time or cost overruns?

At this stage in the scheme development, simple risk/contingency uplifts have been included in each of the package element cost estimates, to account for uncertainty in potential cost overruns.

The following contingency/risk budget was included with the cost estimates of the different scheme elements, reflecting the likelihood and magnitude of additional, unaccounted for costs:

- Keresley Link Road: 25%
- Rowley's Green: 30%
- M6 J3: 30%
- Hawkesbury Level Crossing: 40%

Whilst at this stage these uplifts have been included as simple percentages of the total cost estimate, as the scheme develops, more bespoke methods, such as Quantified Risk Assessments, can be applied to provide accurate risk budgets for each of the package elements.

Section F4: Benefits Profiling

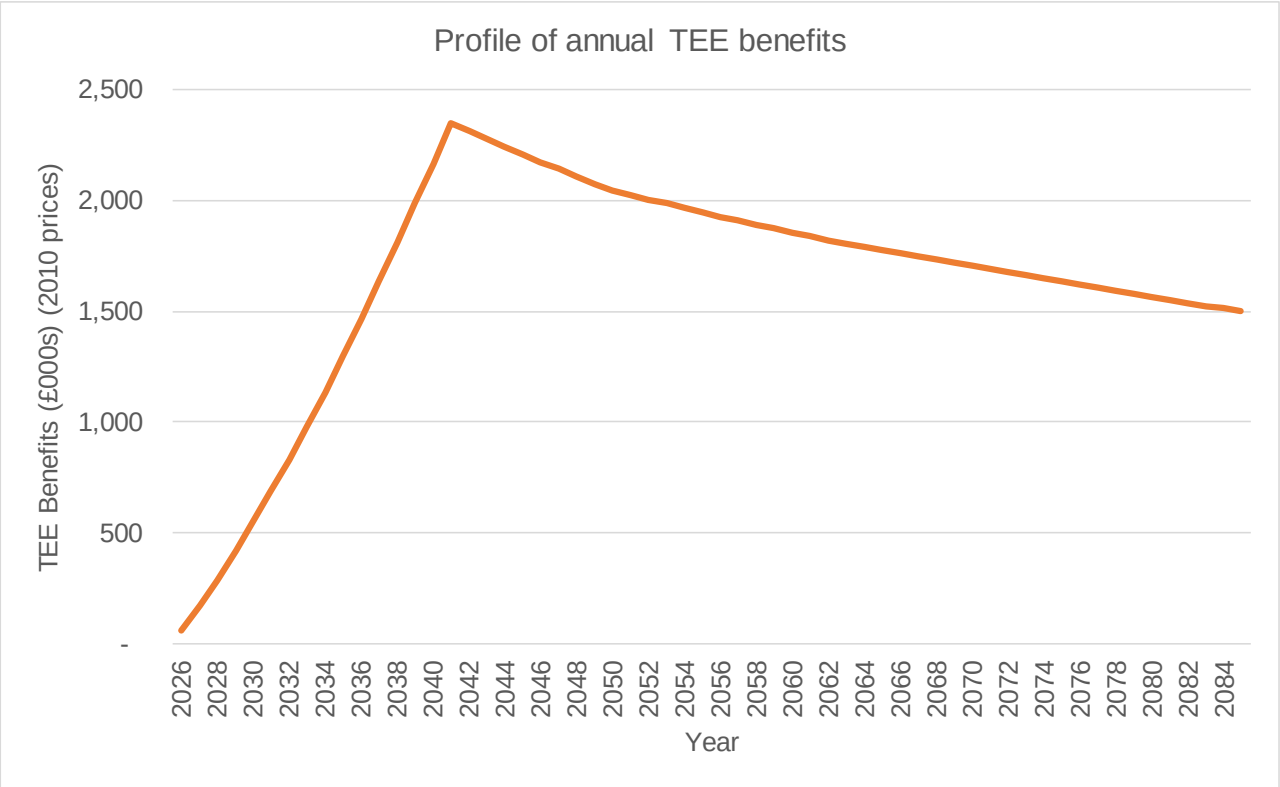
1. Please use the table below to profile the benefits resulting from the project:

The quantitative benefits of the scheme will be further developed as the scheme progresses; this will include the quantification of noise and air quality benefits. To date, the initial assessment has been based purely upon highway journey time and vehicle operating costs savings, plus accident benefits. This currently produces Present Value Benefits (PVB) of **£105.8m** (2010 prices discounted to 2010). The majority of these benefits can be attributed to journey time savings.

Combined with the PVC of **£29.1m**, set out in Section F1.3, above, this indicates that the Coventry North Transport Package has a Benefit-Cost Ratio of **3.6, representing high value for money in line with the TAG 'value for money framework'.**

The profile of these benefits over the 60-year appraisal lifetime of the project is displayed in Figure F4.1, below. Note this covers only the Transport Economic Efficiency (TEE) benefits, and excludes the accident benefits. This shows the expected pattern, with benefits in the second modelled year (2041) higher than in the first modelled year (2026) due to the greater level of congestion on the traffic network. The benefits then gradually decrease across the rest of the appraisal period, due to discounting (see Section F1.1).

Figure F4.1: Scheme benefits over appraisal period (£000s)



Please outline the quantitative (monetised and non-monetised) benefits and the qualitative benefits. For guidance please refer to the 'Benefits Realisation Management' section of the Green Book. Please align your analysis to the outcomes outlined in your Initial Proposal, but consider broader benefits too if relevant. Please also note that the apportionment of benefits should be directly linked to the apportionment of WMCA funding in achievement of the project outcomes.

The current economic assessment has examined transport economic efficiency benefits and accident benefits, quantified and monetised using the TUBA and COBALT software pieces respectively. The breakdown of these two elements, and the total Present Value Benefits (2010 prices discounted to 2010) is displayed in Table F4.1.

Table F4.1: Present Value Benefits (2010 prices discounted to 2010)

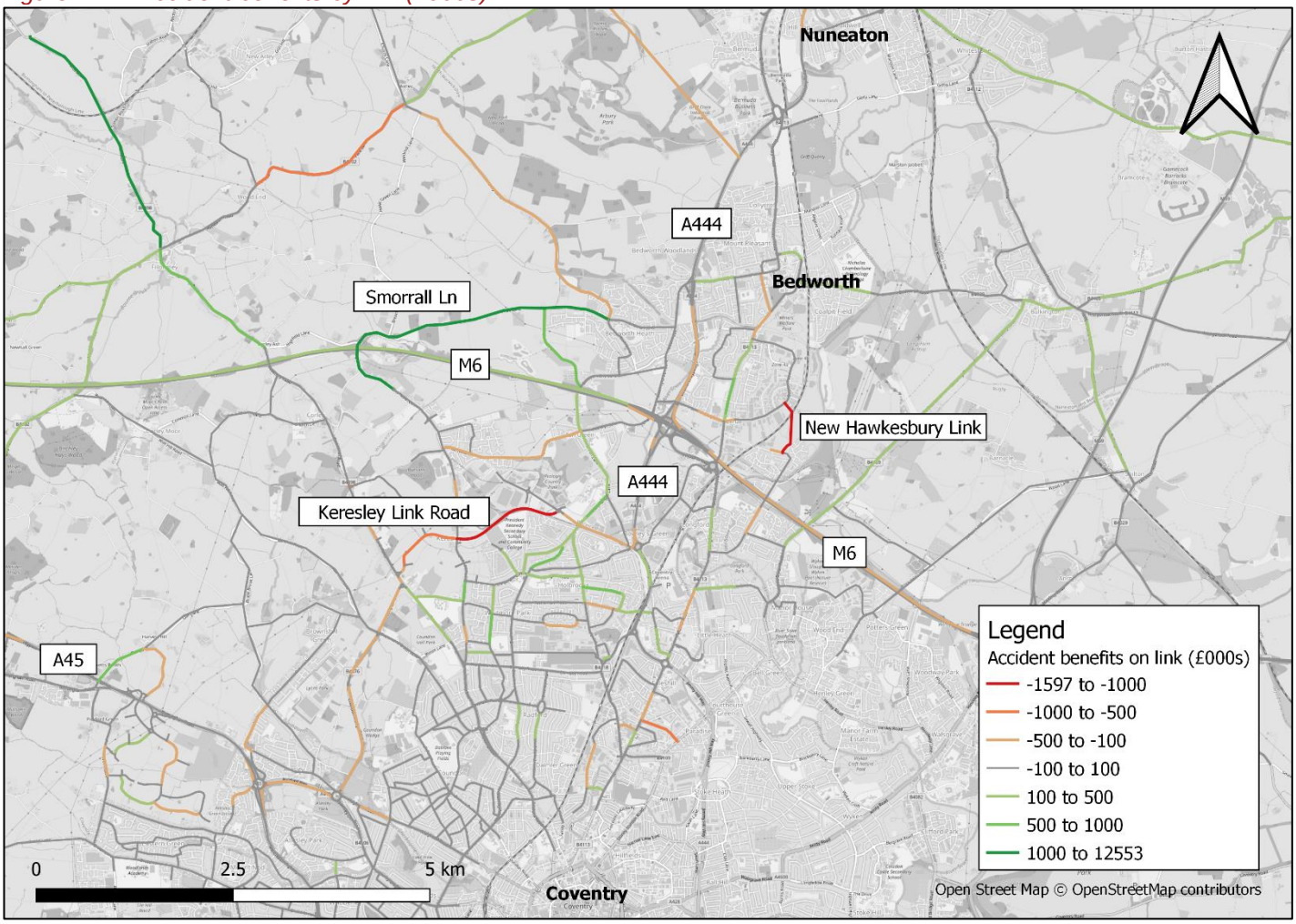
Area	Element	Present Value Benefit (£000s)
Transport Economic Efficiency		
Commuting	Travel Time	23,510
	Vehicle Operating Costs	2,379
Other	Travel Time	41,252
	Vehicle Operating Costs	6,822
Business	Travel Time	2,975
	Vehicle Operating Costs	21,418
Greenhouse Gases		2,324
Indirect Taxes		-9,009
Accident Benefits		14,095
Total		**105,766**

As can be seen, the overall PVB of **£105.8m** is made up of several elements. Travel time benefits (benefits to users resulting from improvements in journey times) make up the largest component of the benefits, particularly benefits to Other users (non-commuting and business). Vehicle Operating Cost benefits are particularly high for business users,

driven by LGV and HGV benefits. There is a small benefit (£2.3m) in terms of greenhouse gases, and a disbenefit in terms of Indirect Taxes, due to an overall reduction in vehicle kilometres causing a drop in government tax receipts.

£14m of benefits result from reductions in accidents on the local road network. In particular, the role of the Keresley Link Road in taking Keresley SUE traffic away from Bennetts Road and Smorrall Lane and onto safer, more modern roads has driven these benefits, as shown in Figure F4.2. The Link Road itself and the new link at Hawkesbury show accident disbenefits, as a consequence of being new (additional) links, but their role in redistributing traffic leads to net benefits throughout the Holbrooks and Exhall areas of Coventry.

Figure F4.2: Accident benefits by link (£000s)



Modelled journey times were monitored across ten routes, as shown in Figure F4.3 and Figure F4.4, with results shown in Table F4.2.

Figure F4.3: Journey Time Routes (North Warwickshire scale)

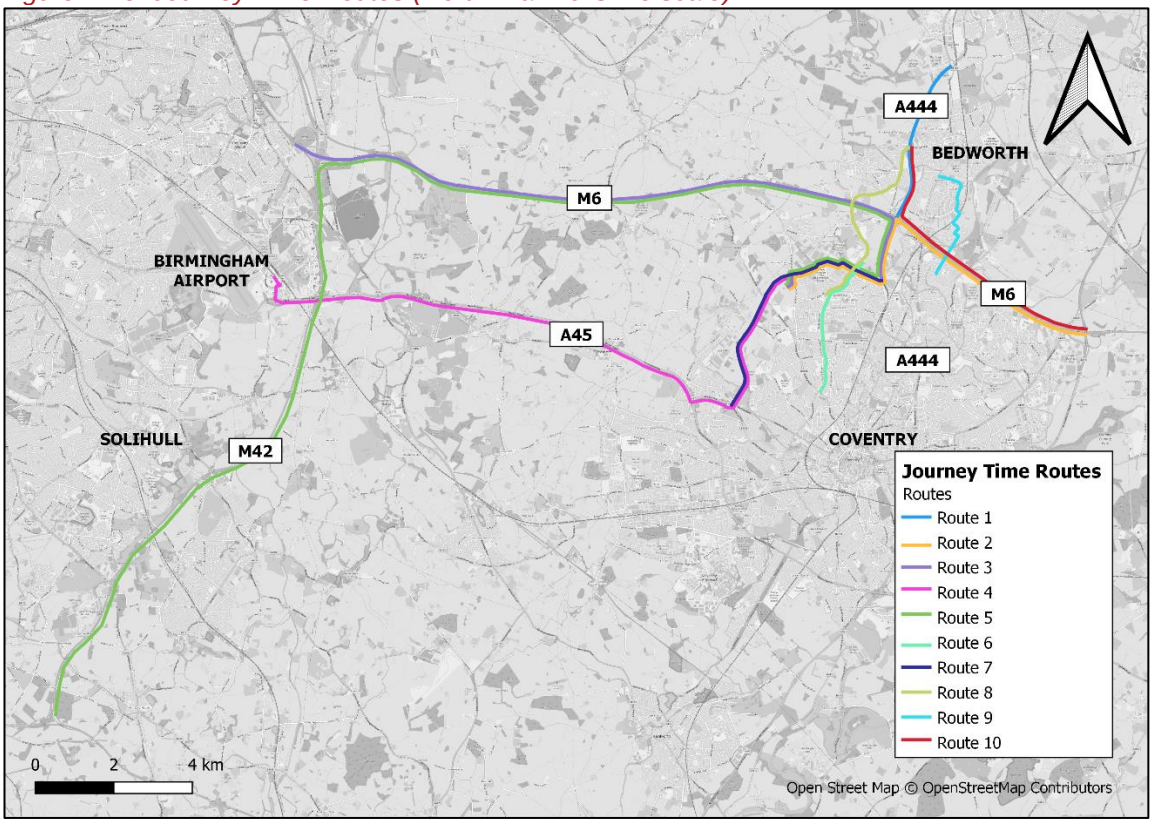


Figure F4.4: Journey Time Routes (Coventry scale)

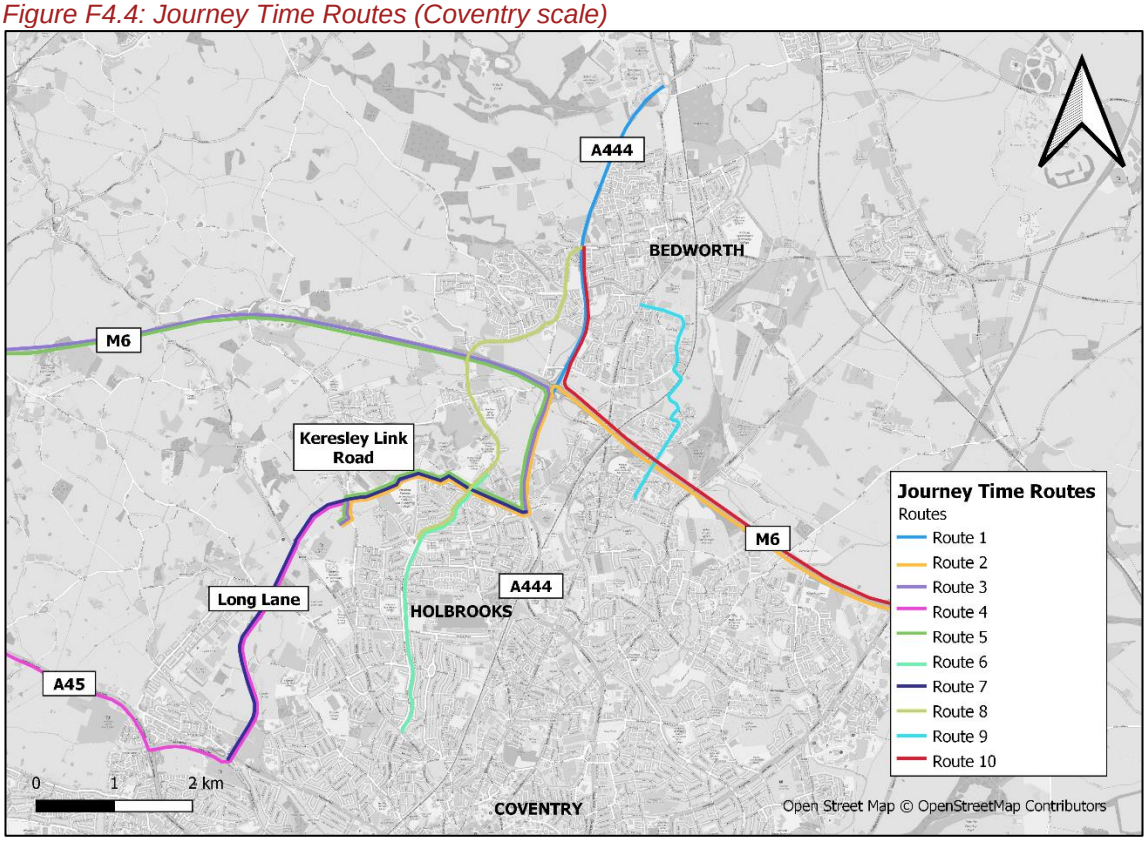


Table F4.2: Change in journey time, Do-Minimum vs Do-Something scenarios (2041)

Route number	Route name	AM				PM			
		Journey time (mm:ss)		Difference (DS-DM)		Journey time (mm:ss)		Difference (DS-DM)	
		DM	DS	Difference (s)	%	DM	DS	Difference (s)	%
Route 1	Keresley to A444 Bermuda	10:59	10:35	-00:24	-3.7%	12:28	11:08	-01:20	-10.7%
Route 2	Keresley to M6 J2	12:25	12:01	-00:24	-3.2%	13:43	12:26	-01:16	-9.3%
Route 3	Keresley to M6 J4	18:14	17:50	-00:24	-2.2%	18:19	17:02	-01:17	-7.0%
Route 4	Keresley to Birmingham Int.	20:13	18:33	-01:39	-8.2%	19:40	17:53	-01:47	-9.1%
Route 5	M42 J3a to M6 J2	26:58	26:59	00:01	0.1%	27:37	27:38	00:01	0.1%
Route 6	Beake Ave to Wheelwright Ln	07:11	06:53	-00:18	-4.2%	06:46	07:03	00:17	4.2%
Route 7	Holyhead Rd to A444 Rowley's Green	11:09	10:18	-00:51	-7.7%	10:45	10:24	-00:21	-3.3%
Route 8	Parkville Hway to Newtown Rd	08:23	08:06	-00:17	-3.4%	09:08	09:16	00:08	1.5%
Route 9	Colliery Ln to Jackers Rd	18:14	04:18	-13:56	-76.4%	18:12	04:17	-13:55	-76.4%
Route 10	A444 Newtown Rd to M6 J2	05:42	05:05	-00:36	-10.6%	05:55	05:00	-00:54	-15.3%

The table shows that across the local area, the majority of routes show benefits in terms of travel time, comparing Do-Something and Do-Minimum scenarios. Of note are Route 7, which runs from the A45 through to the A444, utilising the Keresley Link Road in the Do-Something scenario, and Route 4, running west along the A45 to Birmingham, a key corridor with the development of HS2 in coming years. Both of these feature quicker journey times once the package of schemes are in place. Note that Route 9 utilises a different route in the Do-Something scenario, along the new Hawkesbury Link, avoiding the signals at Blackhorse Road. This explains the very significant journey time benefits for this route.

In the PM, Routes 6 and 8 feature small increases in journey time (of 17 and 8 seconds respectively). These are impacted by the signalised junction at Winding House Lane-Wheelwright Lane, which in the Do-Something scenario are optimised to favour the East-West movement from Keresley to Rowley's Green. Improvements at that junction, such as conversion to a roundabout, could be considered as a future measure to mitigate this impact, but would require detailed junction modelling to establish the exact impacts.

It should be noted that the benefits resulting from the proposed cycleways to north-west Coventry have not been quantified at this stage. However, there is an expectation that these would encourage cycling in the area, as a result of providing the local community with safer, better routes to and from employment and residential sites. It should also be noted that benefits accruing to train operating companies (TOCs) and rail passengers arising from the removal of the Hawkesbury Level Crossing have not been quantified at present, to maintain proportionality of the appraisal. However, there is an expectation that this package element would enable increased rail services along the line, leading to benefits for both passengers and TOCs. These benefits will be in addition to those expected following the Nuneaton to Coventry and Coventry to Leicester rail upgrades and service enhancements.

Alongside the quantifiable benefits of the scheme, the scheme will also generate a number of non-quantifiable, qualitative benefits. These are summarised against the Outcome Objectives of the project, in Table F4.3.

Table F4.3: Outcome Objectives and expected scheme benefits

Level	Objective	Relevant sifting criterion	Preferred package benefits
National	Help unlock opportunities created by national schemes and events (HS2 and UK Central)	Qualitative measure of the potential change in the resilience of the M6 and A45, reflecting improved capacity provided on local network.	One measure of the improved capacity on the A45 and M6 are the improved journey times, both from Keresley along the M6 in both directions (Routes 2 and 3), and along the A45 to Birmingham (Route 4).
	To improve the efficiency and operation of the Strategic Road Network, specifically the M6	Average journey time between M6 Junction 2 and Junction 4	Specific impact of upgrades on slip roads require detailed junction modelling, but CASM modelling suggests improvements in times on M6, both from Keresley and Bedworth.
		Change in the likelihood of queuing onto mainline from M6 J3	
Sub-Regional	To improve connectivity between A45 and M6	Improvements in connectivity in north-west Coventry	Keresley Link Road and left-turn slip at Rowley's Green provides clear strategic route through NW Coventry. This is evidenced by both the journey time information on Route 7, and from the accident benefits plot, which shows the consequences of this shift away from local routes in Holbrooks to the Link Road.
	Improve journey resilience along A444 corridor connecting Coventry to Nuneaton and Bedworth	Likely change in vehicle delays on the A444 between Foleshill Road and Bermuda Park	Route 1 (Keresley to Bermuda) shows journey time improvements in the AM and PM peaks.
	Enable greater rail connections along Leamington Spa-Leicester rail corridor	Changes in access to local rail stations	More regular rail services enabled by removal of Blackhorse Level Crossing
		Qualitative assessment of improvements to capacity resulting from optimisation of Hawkesbury Level Crossing	
	To provide greater access to growth sites (eg: universities and employment sites) in area	Qualitative assessment of connectivity to major strategic growth sites; Prologis Park, Lyons Park and local university sites (Coventry University and University of Warwick)	Significant TEE benefits suggest travel time and operating cost benefits throughout the local area.
Local	Reduce local vehicle congestion on nearby highways	The extent to which an option provides an alternative to motor vehicle travel	Feasible options for non-car measures in NW of city, including cycleways, and potential for VLR/Bus Rapid Transit at Rowley's Green
		Qualitative assessment of extent to which additional highway capacity has been provided	Additional capacity via Keresley Link Road, Rowley's Green left-turn and M6 J3 upgrades evidenced by journey time improvements across most routes.

	Enhance mass-transit corridor in North Coventry area	The extent to which an option increases public transport uptake in city	Potential for VLR/Bus Rapid Transit at Rowley's Green
	Support and enable strategic housing growth sites and other local plan allocations	Qualitative assessment based upon the proximity to identified growth sites outlined in the Coventry Local Plan, with consideration given to the size and proposed timeline of development	Keresley Link Road and Hawkesbury link provides distribution and access for new developments.
	Improve health and wellbeing via greater active travel	Extent to which option increases active travel uptake	Cycleways to NW of city provide significant boost to city's cycle network.
	Mitigate impact of traffic on local communities	Qualitative assessment of impacts relating to safety, air quality, noise and severance.	Clear effect of moving traffic away from local, residential routes, to the more strategic Keresley Link Road-Rowley's Green route. Environmental constraints were considered when choosing options, and all preferred options avoid significant major environmental impacts
	Reduce environmental impact of traffic	Qualitative assessment of impacts relating to biodiversity, landscape, heritage, flood risk)	

CONFIRMATION BY APPLICANT:

Please confirm that the funding requested is sufficient to deliver the Project as detailed above.

The proposed funding request outlined in this business case is based upon the cost estimates of the schemes detailed above.

Regarding the proposed cycleways serving north-west Coventry, whilst the benefits of these routes have not been quantified and monetised, there is an expectation that they would produce reasonable benefits for the local community in terms of active mode connectivity and safety. Given the quantified (highway) elements produce significant Value for Money (VfM) at present, it is reasonable to assume that the addition of the cycleways to this would not diminish this VfM significantly. Even taking just the potential costs of the cycle schemes into account, the cycleways could feature a PVC of up to £6m *without any accompanying benefits*, and the overall package would still produce a Benefit-Cost Ratio (BCR) of over 3, representing high value for money in line with the TAG 'value for money framework'.

Section G: Programme Management Case - Achievability of Project Components

Section G1: Project Plan (Extract of Key Milestones)

1. Please set out the Key Project Milestones, including those Milestones shown below. (Or extract Key Milestones view from your Gantt chart & insert the picture here).

Given the current stage of development of the Coventry North Transport Package, and the uncertainty around the delivery of the component Package schemes, it has not been considered suitable to provide detailed dates for key project milestones. This reflects the fact that the different elements of the Package may be developed separately or as part of an ongoing Package; they may develop at different timescales; and other project uncertainties and dependencies may influence the likely dates of milestones.

For the purposes of the appraisal, construction has been assumed to take place between FY2021/22 and FY 2026/27, with an opening year for the Package (in TUBA) of 2026. However, whilst a current 'best estimate' of likely dates, these construction timescales are indicative, designed to allow representative discounting of costs and benefits for the appraisal purpose.

As the Package progresses in development, CCC will provide up-to-date information on likely milestones and delivery dates to WMCA.

2. Please provide an updated Gantt chart.

As per Section G2.1, it is not possible at this early stage of Package development to provide definitive timescales for key delivery dates.

Section G2: Risk Monitoring and Management

1. Please refer to SOC Section G2: Risks and Issues Qs 1-4 and include any updates or changes here i.e. highlight any additional risks that were not identified in the Initial Proposal submission.

Through the development of the package of schemes throughout 2020, the risks related to the delivery of the package have extended substantially beyond those just related to the Keresley Link Road. In particular, risks at M6 J3 and Hawkesbury, where there is interface with National Highways and Network Rail respectively, plus the introduction of interface with developers at Hawkesbury adds substantial strategic risk to the risk register (Appendix I1).

Additionally, construction risks at all of the 'new' package sites have been added to the Risk Register. These range from specific risks, such as land requirements for the slip road at M6 J3, to more generally applicable risks, such as the need for detailed environmental and structural surveys at all sites to avoid later costs.

Table G2.1 shows the top five risks by post-mitigation risk score, all of which are additional to the risks of developing the Keresley Link Road only.

Table G2.1: Risk Register extract (Top 5 risks by Post-Mitigation Risk)

Risk ID	Risk	Risk Owner	Pre-Mitigation Risk (Max: 16)	Potential Mitigation	Post-Mitigation Risk (Max: 16)
4	Interaction with developers at Keresley and Hawkesbury causing delay or disruption to construction	CCC	8	Engage with developers throughout process	6
10	Drainage risk requires additional design work at Hawkesbury underbridge	Design partner	6	Undertake detailed surveys and incorporate extra allowance for drainage in design at site. Consider also impact during construction (pumping required)	4
12	Local opposition to changes to the road network, including potential closures	CCC/ Consultation partner	8	Ensure early and effective consultation with local residents and stakeholders to understand issues.	4
2	Network Rail hinder Keresley Link Road and Hawkesbury link aspects of scheme, leading to scheme re-design or substantial delay	CCC	9	Early engagement and consistent management of relationship with Network Rail in order to obtain appropriate approvals.	3
7	Interaction with National Highways at M6 J3 (Technical Approval required)	CCC	9	Engage National Highways throughout process, ensuring buy-in and clear planning of construction	3

Section G3: Freedom of Information

1. Please indicate whether any information in this proforma is considered exempt from release under Section 41 of the Freedom of Information Act 2000. Please outline why if so.

None of the information contained within this Outline Business Case is considered exempt from release under Section 41 of the Freedom of Information Act.

Section G4: State Aid Condition

1. Please indicate how your project complies with State aid Regulations without contravening the State Aid Legislation. Please outline what advice (e.g. legal advice) you have had in relation to State Aid.

- Funding received from the WMCA will be to CCC, and hence not representing a transfer of public funds to an “undertaking”/market provider, and will be used to improve the value of assets

(local highway network) belonging to CCC and other public bodies (again, not a transfer of resources to an undertaking). • Monies will be used to procure works and services from undertakings (so there will be a transfer of resources). However, these undertakings will be appointed pursuant to competitive procurement exercises (so no unfair 'selection' of them) and paid at the market rate (so not subsidised/advantaged). • Grant monies will be used to acquire land through CPO. Case law has established that compensation paid as damages for expropriation does not constitute aid. N.B. Purchase of the land buy private treaty at market value would not constitute aid either. • End users/passengers will be indirectly advantaged by the aid but not on a selective basis it's open to all the public, therefore no unlawful aid. • Other local business interests will be indirectly advantaged. However, the infrastructure improvements advantage all local business and therefore do not provide a selective advantage which distorts the market but will research further. The Coventry North Transport Package will deliver general public interest works through the replacement of an existing facility.		
2. All applicants need to take steps to satisfy themselves that any WMCA funding approved does not amount to unlawful State Aid. Further confirmation to this effect will be requested at the Full Business Case stage. A declaration of compliance with EU State Aid regulations will be required prior to any WMCA funding being provided. If your project is awarded funds from the WMCA it will be subject to a condition requiring the repayment of any WMCA funding in the event that the European Commission determines that the funding constitutes unlawful State Aid. Please confirm your acceptance to this condition by ticking the appropriate box:	**Yes**	~~*No*~~

Section H: Conclusion

1. Please clearly state the desired action that your Business Case supports. Please outline.

The following paragraphs summarise the key information reported in this OBC documents, for each of the five cases, and sets out the desired action this business case will support.

Strategic Case

The Strategic Case demonstrates how the Coventry North Transport Package will support and align with the objectives and visions of key local, regional and national policy documents including the WMCA Strategic Economic Plan. The strategic need is clear given the planned allocation of housing and employment land due to be delivered in the coming years, with the current network unable to accommodate the traffic growth generating from these developments without the intervention proposed within the preferred option. In the event that the scheme is not delivered, this will limit the positive impact of significant schemes and projects taking place in the region in the coming years, including HS2, and the legacy impacts of the City of Culture 2021 and the Commonwealth Games in 2022.

Economic & Financial Cases

The Economic Case demonstrates that the scheme covers its costs and has the potential to generate wider economic impacts within the region, which are not reported in the Value for Money assessment.

A cost benefit analysis was undertaken, using TUBA, to demonstrate to WMCA that the scheme will deliver an appropriate amount of benefits compared to the cost of implementing the preferred options. The Present Value of Benefits (PVB) has been calculated to be **£105.8m**, largely driven by travel time benefits, and including £14m resulting from accident benefits. The Present Value of Costs (PVC) has been calculated to be **£29.1m**, which includes the capital costs for the scheme.

At this stage of business case development, PVB and PVC were used to calculate a BCR. The Coventry North Transport Package has a BCR value of **3.6, representing high value for money in line with the TAG 'value for money framework'.**

Including the proposed cycleways, currently not quantified/monetised, in the VfM calculations, suggests that, even excluding any benefits arising from the cycleways, the routes could cost up to a PVC of £6m, and the resulting BCR would still be greater than 3, still representing high VfM.

The Financial Case assessed the proposed funding sources for the Coventry North Transport Package to provide confidence that the project can be delivered within the proposed costs. An assessment of the costs indicates a nominal investment cost of **£37.8m.**

Commercial and Management Cases

The Commercial and Management cases aim to demonstrate the proposed procurement processes and personnel implications resulting from the scheme alongside the project programme and key risks associated with the Coventry North Transport Package. The details reported in the Commercial and Management cases will continue to be refined during the development of the FBC, and as the delivery specification of the preferred options within the Package becomes more defined.

Desired Actions and Next Steps

Following submission of this OBC document to WMCA, CCC will develop separate Full Business Cases for each element of the Coventry North Transport Package. Development funding has already been secured to develop Full Business Cases for two key elements of the Package; the Keresley Link Road and M6 J3.

Declaration

To be completed by the Business Case Applicant:

I hereby confirm that the information provided in this form is complete and, to the best of my knowledge, accurate.

I acknowledge that the West Midlands Combined Authority may seek to verify the information set forth herein, and agree to provide further information where it is available.

I acknowledge that any funding agreement reached with the WMCA is provisional until approved by the West Midlands Combined Authority Board and confirmed in writing.

Signed ……..

Date ……..

Name ……

Position ……..

Organisation/Company ……

Certificate of Approval

To be completed by WMCA staff:

I have read and understood the information provided by the applicant in this **Initial Proposal/Outline Business Case/Full Business Case** and confirm that the application has been evaluated in accordance with the West Midlands Combined Authority Assurance Framework and Project Lifecycle.

Appraisal Panel Decision: **Approve / Reject** Signed…… … Date…… Name…… … Position……	**Investment Advisory Group** Decision: **Approve / Reject** Signed…… … Date …… Name…… … Position……
Management Board Decision: **Approve / Reject** Signed…….. Date ……..…….. Name…….. Position……..……..	**Board** Decision: **Approve / Reject** Signed…….. Date …….. Name……..…… .

	Position……. .

Section I: Appendices

NB: Reflecting the current development of the Coventry North Transport Package, and the fact that the component schemes vary significantly in their nature, some of the standard WMCA appendices, such as a stakeholder map, evidence of planning permission and a breakdown of project costs by month, have not been included.

I1: Risk Register
I2: Options Appraisal Report
I3: Feasibility Appraisal Report
I4: Scheme Cost Estimates