

Omega Local Highways Phase 1 Outline Business Case



Quality information

Prepared by

██████████
Senior Consultant

Checked by

██████████
Principal Consultant

Approved by

██████████
Regional Director

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1. INTRODUCTION

1.1 Purpose

- 1.1.1 This document forms the Outline Business Case (OBC) for the Omega Local Highways Phase 1 scheme promoted by Warrington Borough Council (WBC). The scheme comprises highway capacity improvements to the junctions of Lingley Green Avenue/Omega Boulevard and Great Sankey Neighbourhood Hub/Lingley Green Avenue and improvements to walking and cycling facilities.
- 1.1.2 The scheme has been identified by WBC and Cheshire and Warrington Local Enterprise Partnership (C&W LEP) as one of a number of strategically important infrastructure projects which will support regional growth. Phases 2 and 3 of the Omega Local Highways Scheme (not subject to this business case) include the partial dualling of Burtonwood Road (Phase 2a), improvements to the A57/Lingley Green Avenue (Phase 2b) and the Burtonwood Road/Westbrook Way (Phase 3a and 3c) and Whittle Avenue/Lingley Green Avenue junctions (Phase 3b).
- 1.1.3 The C&W LEP will use the contents of this OBC to ensure it meets the Programme Assurance and Accountability Framework and to facilitate the approval and release of funding to WBC to progress the delivery of the scheme towards Full Business Case.

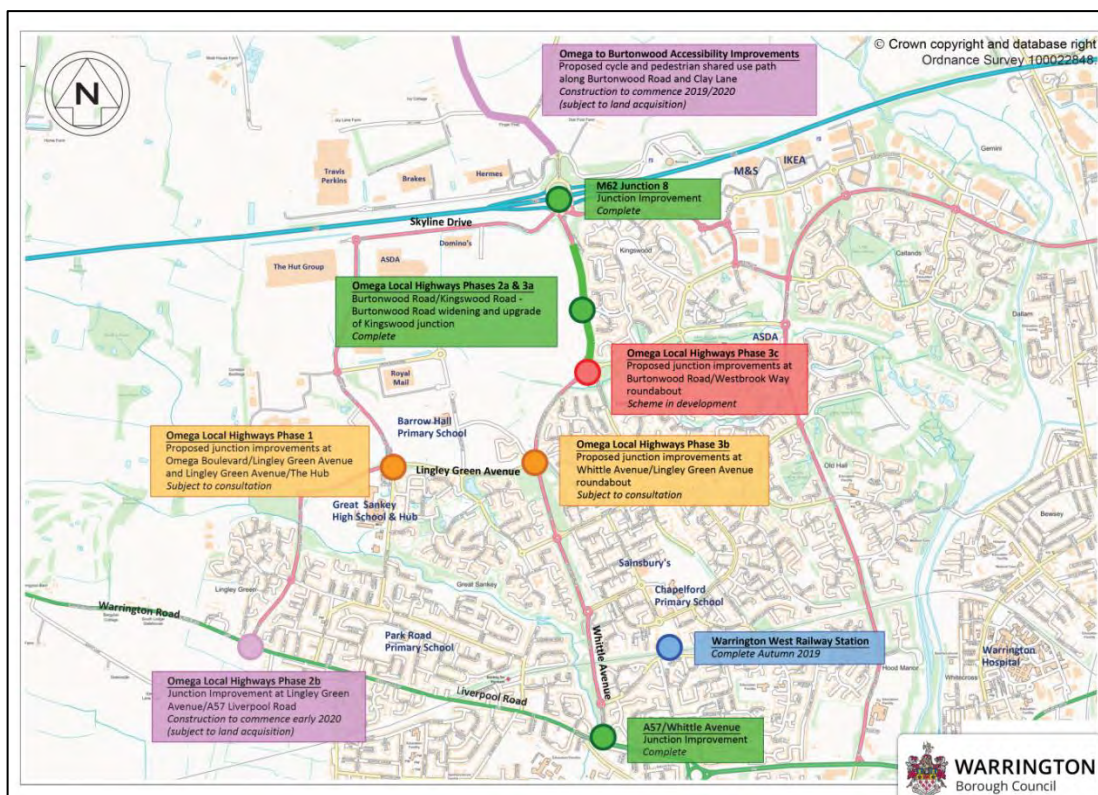
1.2 Scheme Context

- 1.2.1 In Autumn 2012, the Department for Transport (DfT) announced a new approach to funding for local major transport schemes in England (outside London). This approach devolved major scheme funding decisions to 38 Local Transport Bodies (LTB). Each LTB was provided indicative funding allocations and the opportunity to prioritise schemes within their local area.
- 1.2.2 The Cheshire and Warrington Local Transport Body (CWLTB) is a strategic partnership that brings together the three local authorities of Cheshire East Council, Cheshire West and Chester Council and WBC, along with the C&W LEP, and key stakeholders, such as Highways England and Network Rail in an advisory role.
- 1.2.3 Within this context, in order to achieve the strategic and wider objectives of the Cheshire and Warrington Strategic Economic Plan (SEP), the C&W LEP developed an Integrated Transport Investment Programme of capital projects for the region. The latest round of investment within the Cheshire and Warrington region was announced in January 2017 through the Local Growth Fund (LGF) 3.
- 1.2.4 Three Warrington transport projects were identified, namely:
 - Warrington East Phase 2: comprises improvement to College Place roundabout, a second phase of improvements to the Oakwood Gate junction, a new bus gate to improve access to Woolston Grange and partial widening of Birchwood Way north of the Moss Gate junction (total value: £13.3m; LGF contribution: £6.9m); and
 - Omega Local Highways Phase 1: includes a Major junction improvement at Lingley Green Avenue/Omega Boulevard (total value: £6.5m; LGF contribution: £4.3m) (subject of this Business Case)¹; and
 - Joint Cheshire and Warrington Sustainable Travel project: deliver a new shared pedestrian and cycling route from Burtonwood to Omega, enable improvements on the Trans-Pennine Trail and a promenade route along the Mersey adjacent to Chester Road, linking the Trans- Pennine Trail to the town centre (total value: £7.7m; LGF contribution: £5m).

¹ Note: Since submission to LGF, the scheme cost has been revised to £4.1 million.

1.2.5 The Omega Local Highways Phase 1 scheme (subject of this business case) forms part of a collection of local highway phased improvements within north-west Warrington presented in **Figure 1** below:

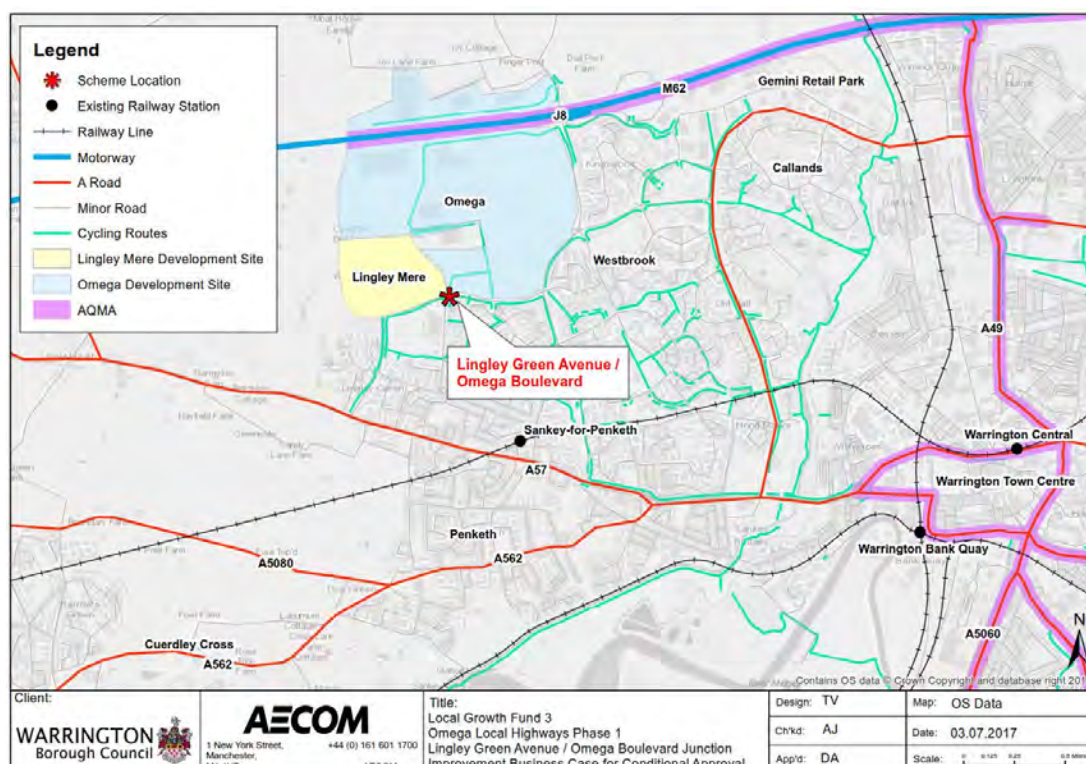
Figure 1: Scheme Context



1.3 Scheme Definition and Impacts

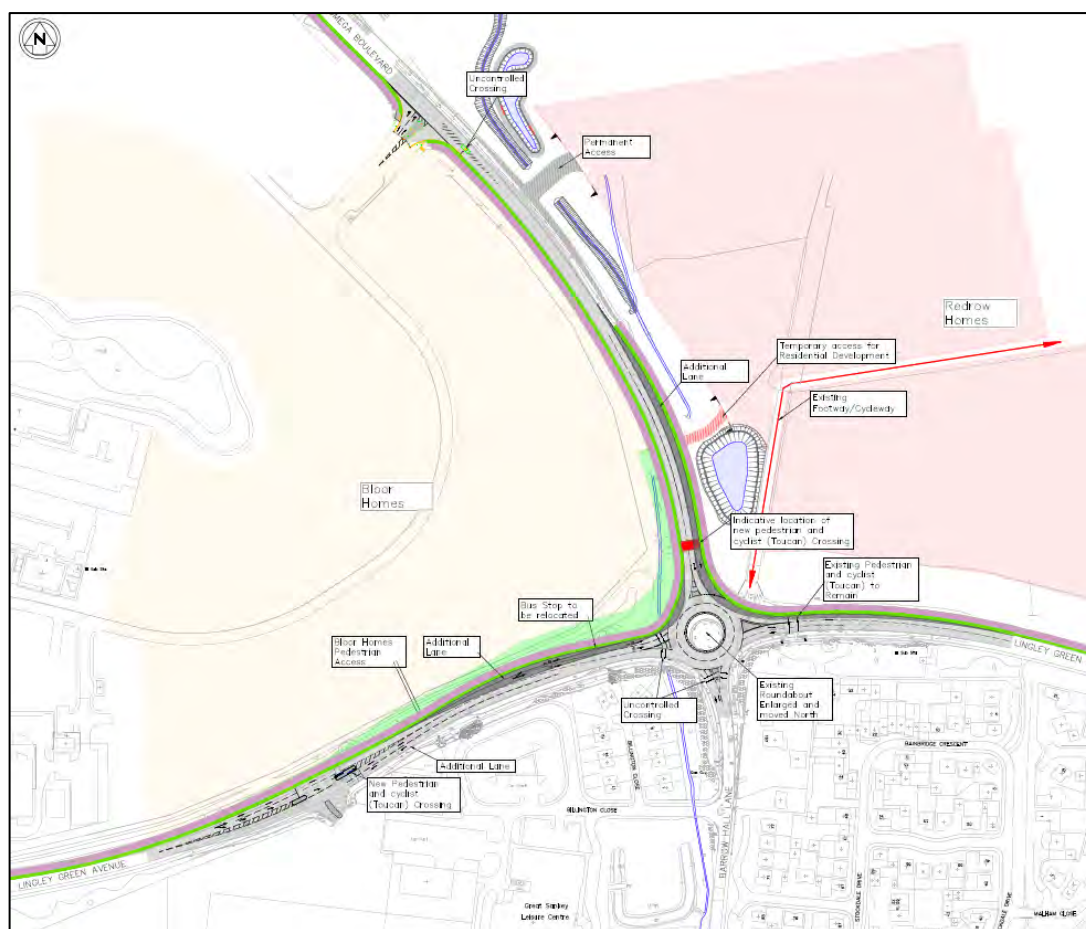
- 1.3.1 The scheme represents a package of highway capacity and walking and cycling improvements at Omega Boulevard/ Lingley Green Avenue and Lingley Green Avenue / Great Sankey neighbourhood Hub (see **Figure 2**).
- 1.3.2 The current Omega Boulevard / Lingley Green Avenue junction is a small roundabout with single lane approaches, with only limited flaring to two lanes at the stop line. The junction will become a major node within the local road network for the area and will be part of the strategic route linking the A57 with M62 J8. The junction is bounded to the east by the Omega development site and the west by Lingley Mere development site - significant growth areas in the local authority. Recently, both developments have gained planning consent, in addition to previously consented office and commercial development on nearby sites.

Figure 2: Scheme Location



- 1.3.3 Following an extensive option assessment process, the preferred scope of works has been defined as an enlarged roundabout and widening of approaches at Lingley Green Avenue / Omega Boulevard, as well as widening of the junction of Lingley Green Avenue / The Hub to create a left turn lane into The Hub development. New shared foot/cycle paths and toucan crossings are also proposed (**Figure 3**).

Figure 3: Preliminary Design for Consultation



1.3.4 Key outcomes of the scheme in land use, business and transport terms include:

Land-use terms:

- Release land for development that increases employment opportunities;
- Release land for new housing; and
- Ensure that existing occupiers do not need to relocate elsewhere.

Business terms:

- Business productivity and efficiency improvements;
- Ease of recruitment and retention; and
- Land owners ability to unlock land for redevelopment.

Transport terms:

- Reduced congestion;
- Reduced peak journey times;
- Improved reliability of public transport services including bus journey times; and
- Accommodate a safer environment for walking and cycling at junctions.

1.4 Report Structure

- 1.4.1 This OBC has been prepared using an evidence-based approach, aligned to Government's 'Five Case' model, as set out in the Green Book. This approach will provide WBC with confidence, that investment in the improvements at Omega Boulevard/Lingley Green Avenue is worth pursuing and that significant assurance has been provided regarding the ability of the WBC to deliver the works.
- 1.4.2 Following this chapter, the OBC is structured around the 'Five Case' Business Model as follows:
- **Chapter 2:** presents the Strategic Case for the scheme. This outlines the justification for the scheme, identifies the problems that the scheme is aiming to resolve, sets the key objectives and identifies the scheme options;
 - **Chapter 3:** presents the Economic Case demonstrating the value for money for the scheme including the impact on the economy, environment and society, based on an appraisal framework consistent with the DfT business case guidance;
 - **Chapter 4:** presents the 'Financial Case', including an assessment of affordability, overall scheme costs and funding certainty. It outlines how the costs and the scheme are to be funded/financed, including the structuring of any borrowing and the position of the relevant parties;
 - **Chapter 5:** presents the 'Commercial Case', including a summary of the procurement strategy, pricing and payment mechanisms and risk allocations; and
 - **Chapter 6:** presents the 'Management Case', with clear proposals for governance, project planning, risk management, stakeholder management and evaluation.

2. STRATEGIC CASE

2.1 Introduction

- 2.1.1 The core elements of the Strategic Case include the identification of the need for intervention, demonstrating the scheme is required to address **future forecast transport constraints**, development of key aims and objectives and identification and analysis of the potential highway scheme options.
- 2.1.2 Within this context, the case presents a clear link between the scheme objectives and the underlying business strategy at a national, sub-national, regional and local level. The substantial benefits (both in transport and regeneration terms) that the scheme will deliver, and the alignment of the scheme's objective with national priorities, confirm that investment is needed to support future growth in the area.

Compliance with the Department for Transport (DfT) Requirements for the Strategic Case

- 2.1.3 The DfT's guidance document, 'The Transport Business Case: Strategic Case', outlines the areas that should be covered as part of the business case documentation. **Table 1** shows where the relevant information can be found in this chapter.

Table 1: Strategic Case sub-sections

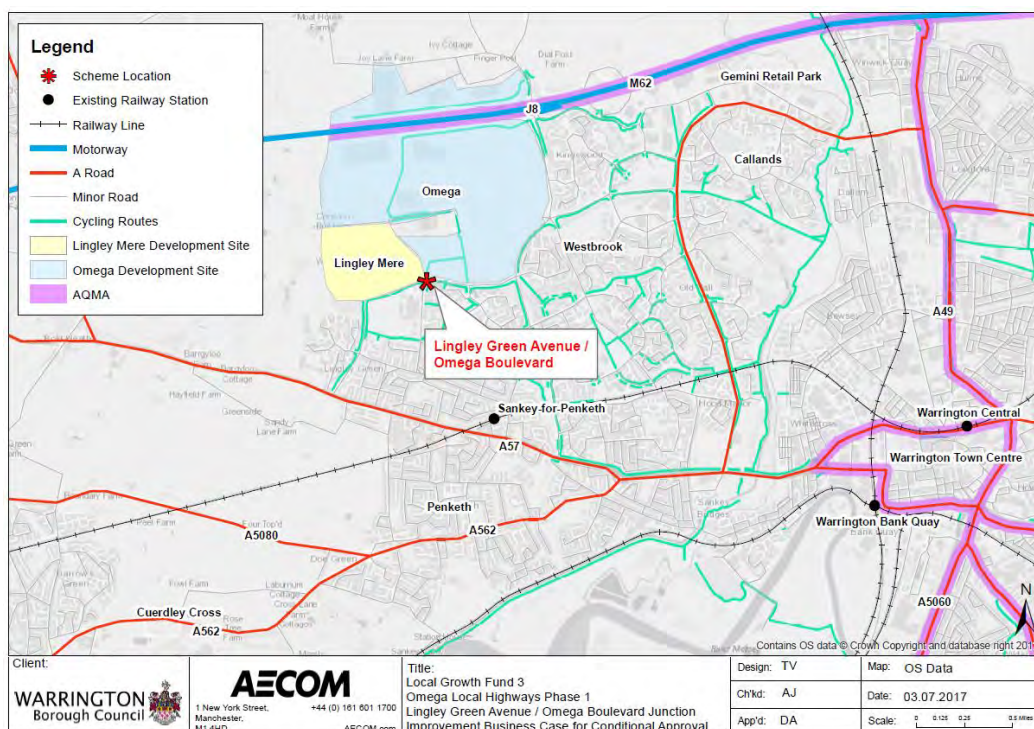
Sub-Section	DfT requirements	Status	In section
Introduction	Outline approach taken to assess Strategic case and the study area	Completed	2.1 and 2.2
Business Strategy	Provide the context for the business case by describing the strategic aims and responsibilities of the organisation responsible for the proposal	Completed	2.3
Problem identified	Describe the problems including the evidence base underpinning this? Justification for intervention?	Completed	2.4
Impact of not changing	What is the impact of not changing?	Completed	2.5
Internal drivers for change	What is the driving need to change e.g. improved technology, new business/ service development as a result of policy? (Non-compulsory)	Completed	2.6
External drivers for change	What is the driving need to change e.g. legislation, pressure from public/ other departments? (Non-compulsory)	Completed	2.6
Objectives	Establish specific, measurable, achievable, realistic and time-bound objectives that will solve the problem identified. Ensure that they align with the organisation's strategic aims	Completed	2.7
Measures for success	Set out what constitutes successful delivery of the objectives	Completed	2.8
Options	Set out all the options identified (including low cost alternative) and evaluate their impact on the proposal's objectives and wider public policy objectives. Risks associated with each option should be identified as should any risks common to all options	Completed	2.9

Sub-Section	DfT requirements	Status	In section
Scope	Explain what the project will deliver and also what is out of scope	Completed	2.10
Constraints	High level internal/external constraints e.g. technological environment, capability to deliver in-house major contracts with provider, etc.	Completed	2.11
Interdependencies	Internal/ External factors upon which the successful delivery of project are dependent	Completed	2.12
Stakeholders	Outline the main stakeholder groups and their contribution to the project. Note any potential conflicts between different stakeholder groups and their demands	Completed	2.13

2.2 Scheme Location

- 2.2.1 The Lingley Green Avenue/Omega Boulevard Junction is located in north-west Warrington.
- 2.2.2 Lingley Green Avenue provides a key connection between the M62 Motorway and Liverpool Road (A57) providing access to the Lingley Mere and the Omega development sites. These development sites are located at the heart of the Atlantic Gateway with strong road links to Manchester and Liverpool and the associated ports on the Mersey and Manchester Ship canal.
- 2.2.3 The area immediately shares a boundary with St Helens Borough Council and abuts the Liverpool City Region.
- 2.2.4 The scheme falls within the C&W LEP area, which covers the boroughs of Warrington, Cheshire West and Chester, and Cheshire East.
- 2.2.5 **Figure 4** below illustrates the location of the junction within the context of north-west Warrington.

Figure 4: Existing Transport Network



2.3 Business Strategy

Statutory Responsibilities

- 2.3.1 WBC has clear network management and maintenance responsibilities that are defined within the Transport Management Act 2004 and the Highways Act 1980.
- 2.3.2 The Traffic Management Act (TMA) 2004 was introduced to tackle congestion and disruption on the road network, placing responsibility on the local authority to secure and facilitate the expeditious movement of traffic on their roads and the roads of nearby authorities.
- 2.3.3 The Highways Act 1980 outlines the duties of WBC as the local highway authority which include:
 - To maintain all highways classed as being “maintainable at public expense”;
 - To maintain records of all “highways maintainable at public expense” within area of control; and
 - To regulate the activities of developers in relation to their highways.

Relevance to the scheme

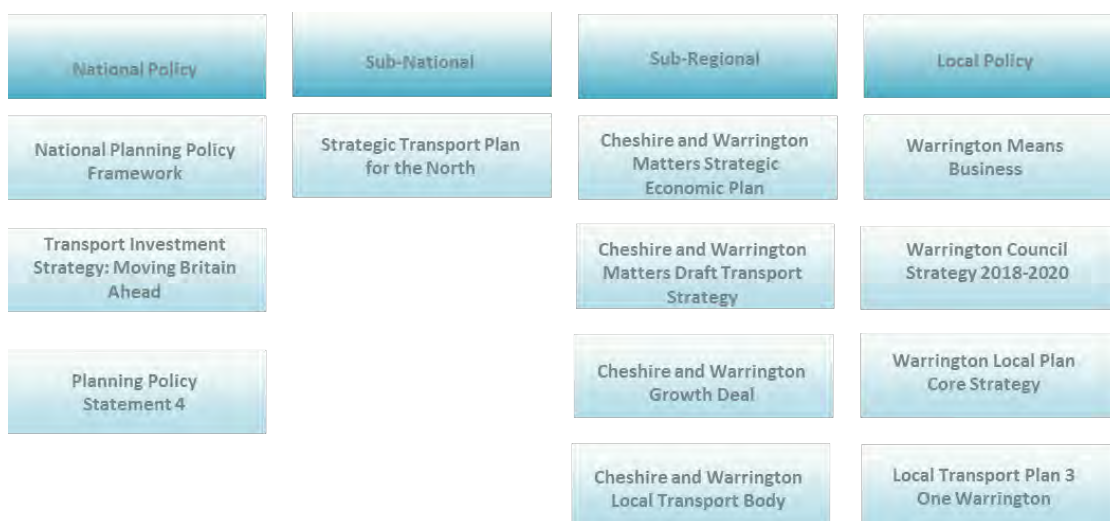
Traffic Management Act: In line with their network management duty, WBC is tasked with establishing processes (so far as reasonably practicable) to identify problems which are contributing to, or have the potential to cause congestion. The Strategic Case provides an assessment of the problems contributing to congestion within north-west Warrington and builds on the analysis presented as part of the successful Local Growth Deal funding application.

Highways Act 1980: WBC will be tasked with the continued ongoing management of the upgraded asset once delivered. This is addressed through the Financial and Management Case in further detail. The effective management and maintenance of highway and transport infrastructure and assets as tasked to Warrington, supports wider economic growth and prosperity of an area, particular given the strategic importance for employment and housing growth in north-west Warrington.

Policy Context

- 2.3.4 This section outlines the key policy documents that are driving change in Warrington, and those which the scheme is anticipated to support. These include national, sub-regional and local policy considerations which are presented in **Figure 5** below.

Figure 5: Policy for consideration



National Policy

National Planning Policy Framework (NPPF), Department for Communities and Local Government

- 2.3.5 The revised NPPF was updated on the 19th February 2019 and sets out the Government's planning policies for England and how they are expected to be applied. The NPPF identifies three mutually dependent dimensions to achieving sustainable development including the economy, environment and society. These are the three tenets against which major transport infrastructure projects are currently assessed in planning terms.
- 2.3.6 The NPPF outlines a focus on building a strong and competitive economy, acknowledging the role of transport in facilitating development and contributing to wider economic growth, sustainability and health objectives.

Relevance to the scheme

The planned improvements directly contribute to the aims of the NPPF, addressing congestion as a key barrier to investment in the area, and enhancing network resilience. The scheme also supports the development opportunities on the Omega and Lingley Mere development sites, and promotes the use of sustainable transport through improved conditions for pedestrians and cyclists to access local amenities and education provision.

Transport Investment Strategy: Moving Britain Ahead, Department for Transport

- 2.3.7 The Transport Investment Strategy, released in July 2017, sets out a new long-term approach for government infrastructure spending. The strategy includes the following key objectives:
- create a more reliable, less congested, and better connected transport network that works for the users who rely on it;
 - build a stronger, more balanced economy by enhancing productivity and responding to local growth priorities;
 - enhance the global competitiveness by making Britain a more attractive place to trade and invest; and
 - support the creation of housing.

Relevance to the scheme

The scheme aims to provide productivity and connectivity improvements for north-west Warrington by tackling a future pinch point adjacent the Omega and Lingley Mere development sites. The scheme will directly support delivery of new homes, as well as support existing and future employment sites.

Planning Policy Statement 4: Planning for Sustainable Economic Growth, Department for Communities and Local Government

- 2.3.8 To achieve the overarching objective for sustainable economic growth, the Government's objectives for planning are to:
- build prosperous communities by improving economic performance of cities, towns, regions, sub-regions and local areas;
 - reduce the gap in economic growth between regions, promoting regeneration and tackling deprivation;
 - deliver sustainable patterns of development;
 - promote the vitality and viability of town and other centres as important places for the community; and
 - raise the quality of life and environment.

Relevance to the scheme

Through protecting and facilitating car-borne accessibility to and from north-west Warrington the planned junction improvement scheme:

- supports the business sectors and residents prospering on the site to enhance to viability of the area;
- protects and develops key distribution networks across the region;
- supports sustainable development of further land available in north-west Warrington thereby making efficient and effective use of land within the borough; and
- contributes to growth of the North West economy.

Sub-National Policy

Strategic Transport Plan for the North, Transport for the North

- 2.3.9 Transport for the North (TfN) was established in 2014 to bring together local representatives from across the north of England with the aim of fostering better transport links in order to accelerate economic growth through influencing financial and transport decisions.
- 2.3.10 In January 2018, TfN released the draft Strategic Transport Plan (STP) for the North which sets out the case for strategic transport infrastructure investment through to 2050. Subsequent revision to the Plan was released in February 2019, alongside seven Strategic Development Corridors (SDCs) for the North related to key movements and the needs of industrial sectors. **Such is the strategic significance of Omega’s location; the area fits within three of TfN’s SDCs; Central Pennines; Southern Pennines; and West and Wales.**
- 2.3.11 TfN’s vision and Pan-Northern Transport Objectives are summarised below:
- **Vision:** A thriving North of England, where modern transport connections drive economic growth and support excellent quality of life.
 - **Objective 1:** Increase efficiency, reliability and resilience in the transport system.
 - **Objective 2:** Transforming economic performance.
 - **Objective 3:** Improve access to opportunities across the North.
 - **Objective 4:** Promote and support the built and natural environment.

Relevance to the scheme

The Plan seeks to support major economic centres by determining interventions that best support businesses, with improved connectivity able to facilitate more face-to-face interaction, and support stronger service and product markets. Within this context the Plan recognises that existing road links are not always efficient, resilient, or reliable enough to support key connections for businesses. Warrington is a major economic centre of the North. Adjacent to the Omega Boulevard / Lingley Green Avenue junction are two major employment areas including:

- **Omega development site:** comprises 233 hectares (575 acres) of mixed use development land, comprising a large part of the former RAF/USAF Burtonwood Airbase, north and south of the M62 motorway, immediately west of M62 Junction 8.
- **Lingley Mere development site:** will provide a total of 1.25m sq ft. of business space and related amenity facility and is being delivered by Muse who are partnering with United Utilities to generate new office space to occupiers requirements alongside bespoke commercial and leisure facilities. The site also includes 275 direct homes to be supported by the scheme.

Both of these sites benefit from being prime strategic positions with access to a number of key transport connections. Omega is strategically located on both sides of the M62 at Junction 8, approximately 3 miles north of Warrington Town Centre (as the crow flies). Lingley Mere is located between Junctions 7 and 8 of the M62. It is this location, together

with services provided, that means the site features within three of TfN's corridor studies.

The scheme ensures that access to these key development sites, as well as up to 1,000 new residential dwellings in the surrounding area, are not constrained by congestion, ensuring that the transport connections provided enable north-west Warrington's regionally significant businesses to thrive.

Sub-Regional Policy

Cheshire and Warrington Matters – A Strategic Economic Plan and Growth Plan for Cheshire and Warrington

2.3.12 In July 2017, C&W LEP published its refreshed Strategic Economic Plan which sets out the revised growth ambition shared across the Cheshire and Warrington sub-region including;

- to growth the Cheshire and Warrington economy's GVA £50 billion per annum by 2040.
- to create 120,000 jobs (net additional); and
- to build up to 127,000 new homes

2.3.13 The SEP is a high-level, strategic road map to achieve Cheshire and Warrington's growth ambitions, and will be supported by more detailed, practical thinking in the form of supporting delivery plans and strategies, including a Transport Strategy.

2.3.14 The SEP identifies the following six transport and connectivity objectives:

- Improve connections to support development of priority employment sites including those within the Cheshire Science Corridor;
- Improve connections to neighbouring sub-regions, including international gateways to ensure that business has connectivity to global markets and to facilitate the economic benefits of both out and in commuting that takes place daily;
- Resolve pinch points and congestion in the transport network, both road and rail, which act as barriers to growth if left unaddressed. Delays and unpredictable journey times affect business activity directly (e.g. the supply of components to the automotive sector) and indirectly, and influences commuting flows;
- Address network resilience issues to deliver predictable and efficient journey times to support business productivity;
- Make best use of the existing road (e.g. smart motorways) and rail network (e.g. electrification) to capitalise on existing infrastructure, offering efficient mechanisms for improvement and helping deliver best value for money from investment; and
- Ensure that the maximum benefit is gained in economic and connectivity terms from the development of the HS2 Hub Station at Crewe.

Relevance the scheme

Transport and connectivity are central to ensuring that aspirations for growth within Cheshire and Warrington are met. The refresh of the SEP identifies that the success of the Cheshire and Warrington economy, is in part, down to a significant level of inward commuting, highlight the importance of maintaining and enhancing local and strategic road and rail networks. Therefore, to achieve the growth aspirations, there will be a need to deliver transport investment schemes which drive growth and productivity, plus tackle congestion on the local and strategic road network and thereby supporting connectivity, maximise housing growth with a broader housing offer to support the region's economic aspirations, and maximise infrastructure growth assets including property and place.

Improvements to the Omega Boulevard / Lingley Green Avenue junction would support significant residential and employment growth; and private sector investment, providing an important contribution towards Cheshire and Warrington's growth aspirations for the coming years.

Cheshire and Warrington Matters – Strategic Economic Plan Draft Transport Strategy (Draft)

- 2.3.15 The draft Transport Strategy (2018) identifies the transport investment priorities needed to accommodate additional demand for movement anticipated to support Cheshire and Warrington’s growth aspirations (aligned to the SEP).
- 2.3.16 The draft Transport Strategy is multi-modal and seeks to make the best use of existing networks including targeted improvements to improve road access to key developments, and tackling congestion pinch points.
- 2.3.17 To support the identification of priority interventions, the draft Transport Strategy identifies the key transport challenges for the transport network that need to be addressed including:
- Congestion of strategic routes;
 - Accommodating development growth;
 - Cross boundary movements;
 - Movements within the borough;
 - Sub regional movements;
 - Dominance of the car for mode share;
 - Low bus use;
 - Rural connectivity;
 - Accommodating development growth;
 - Modernising local rail services;
 - Increasing levels of cycling and walking; and
 - Digital connectivity.

Relevance to the scheme

Improved connectivity is a central and recurring theme of the SEP and draft Transport Strategy. The draft Transport Strategy identifies a focus for tackling pinch points, as well as improving the reliability and accessibility to the wider transport network to improve internal movements within the sub-region and to open up key development land to support growth. Given its location and current constraints, improvements at the Omega Boulevard / Lingley Green Avenue junction will be essential to support the future development (commercial and residential) aspirations for west Warrington. The Omega Local Highways scheme (subject of this business case) is identified as a short term priority under development within the strategy.

Cheshire and Warrington Growth Deal

- 2.3.18 In July 2014, the Government announced the first wave of Growth Deals which provide the LEPs money from the Local Growth Fund (LGF) for projects that benefit the local area and economy. The LGF allocates spending across transport, housing and skills over the six year period to 2020-21.

Relevance to the scheme

The latest round LGF included funding for the Omega Local Highways Phase 1 – the subject of this OBC. The funding announcement described the scheme as a major junction improvement at Lingley Green Avenue/Omega Boulevard with a total value of £6.5m; and a LGF contribution of £4.3m. The LGF factsheet is included at **Appendix A**.

Cheshire and Warrington Local Transport Body (CWLTB)

- 2.3.19 The CWLTB is a strategic partnership that has been established with a primary goal to ensure that the sub-region's transport investments support and enable economic growth and regeneration. The LTB brings together the three local authorities (Cheshire East Council, Cheshire West and Chester Council and Warrington Borough Council) along with the Cheshire and Warrington Enterprise Partnership, and key stakeholders, such as the Highways Agency, DfT and Network Rail in an advisory role.
- 2.3.20 The CWLTB's single strategic objective is *to improve transport infrastructure to secure significant connectivity gains in the support of economic growth and prosperity.*
- 2.3.21 As well as supporting economic growth, it is recognised that transport investment must also contribute towards wider social and environmental objectives.

Relevance to the scheme

This transport investment will support economic growth enabling Warrington to remain attractive to new employers, businesses and potential development including new housing. Enhanced reliability and predictability of journeys on the north-west Warrington local road network via the Omega Boulevard / Lingley Green Avenue junction would also provide for a better quality of life for people who live on or around the corridor.

Local Policy

Warrington Council Strategy 2018-20

- 2.3.22 The Strategy, 'Growing a Strong Warrington' outlines the Council's vision to 2020. The Council pledge to create opportunities for the vulnerable, support a growing economy, support an active and resilient community, and foster a strength of place with the towns cultural, historic and heritage assets.

Relevance to the scheme

'Growing a strong economy for all' identifies the need to lever investment into the borough as a priority to promote the area as a place to do business including ensuring there are sufficient new homes to meet local needs. The strategy seeks to use capital investment to encourage additional investment and infrastructure improvement works to stimulate further economic growth that is inclusive and sustainable.

With regard to the scheme, this is achievable as the proposed junction improvement will have a positive impact on business productivity and efficiency; ease of recruitment and retention and supporting landowners to unlock land for redevelopment, unlocking jobs and opportunities in Warrington. Specifically, this will support private sector investment estimated at several £100m - The Hut Group have invested £80m alone. Furthermore the scheme will benefit both existing and future residents through the delivery of 675 new homes directly linked to the improvements, as well as a further 1,000 homes in the wider area, whilst ensuring the local road network is able to accommodate the growth.

Warrington Local Plan

- 2.3.23 The Proposed Submission Version Local Plan 2019 was approved for consultation by Full Council on 25 March 2019. The consultation will run until 17 June 2019 and proposes;
- 18,900 new homes by 2037 with 945 per year over the period;
 - almost 90% of the borough's Green Belt will be preserved;
 - 362 hectares of employment land including at Omega (Western extension);
 - 20% of affordable housing to be developed in inner Warrington and 30% developed elsewhere in the borough; and
 - 1/5 homes will be built for elderly residents in line with an aging population.

- 2.3.24 The focus of the plan is to provide new development in Inner Warrington and the south east of the borough including the Waterfront development (policy MD1) and the mixed use Garden Suburb urban extension (policy MD2). Warrington is envisaged to remain a key economic driver for the surrounding area within its pivotal location as part of the ‘Atlantic Gateway’, which provides significant advantage to residents and businesses from logistics and manufacturing to clean energy.

Relevance to the scheme

Omega and Lingley Mere are key locations for ongoing economic development within the borough with major future development.

The Plan identifies employment land supply at Omega is 31.20ha. The draft Local Plan also identifies the cross-boundary spatial plans by St. Helens Council with regard to Omega Westward Extension², which combined together totals over 62ha of planned or allocated development at Omega for industrial or warehouse development.

The Local Plan proposes a ‘community hub’ in the Omega Boulevard area along with existing planned housing at Lingley Green.

Omega will contribute to the borough’s future development and contribute to economic opportunity and growth in the wider sub region. The ongoing phasing of development of the site is to be complemented with timely necessary and agreed mitigation measures and infrastructure – the Omega Boulevard /Lingley Green Avenue junction is one such improvement required.

Local Transport Plan 3 - One Warrington: One Future Local Transport Plan

- 2.3.25 The LTP3 complements the Local Plan, setting out a strategic framework to guide future provision of transport services for Warrington between 2011 and 2030. The plan focuses on transport issues with the most importance at local level and is structured around seven core themes including: active travel; public transport; cleaner fuels; managing motorised travel; smarter choices; safety and security; asset management; network and freight management.
- 2.3.26 Local priorities identified include:
- Reduction of the impact of traffic on air quality;
 - Improvements to accessibility for disadvantaged groups; and
 - Improved road safety.
- 2.3.27 Warrington is currently developing its fourth LTP (LTP4). Consultation is programmed to continue through to June 2019.

Relevance to the scheme

Schemes put forward through the LTP3 Implementation Plan are assessed against the transport plan objectives, to ensure a holistic approach, where schemes meet a range of policy objectives. An assessment of the scheme against the Plan’s objectives highlights clear alignment with the following:

- Enables the regeneration of the Borough and supports economic growth: supports substantial growth at Omega and Lingley Mere, both employment and residential, which is further explored in this chapter;
- Maintains the highway, minimises congestion for all modes of travel and enables Warrington’s ‘smart growth’: addresses future transport constraints for travel via Warrington West;
- Improves neighbourhoods and residential areas: As per above, supports the delivery

² Note the St. Helens Council Local Plan Submission Draft (2020-2035), currently undergoing public consultation until May 2019, includes the allocation of employment land to accommodate the expansion of Omega to the west of the existing development curtilage. Spatial policy EA1 (31.22ha) is proposed to be allocated for the Omega South Western Extension whilst policy ES01 (29.98ha) Omega North Western Extension is proposed to be safeguarded.

of significant new housing at Omega and Lingley Mere, as well as the wider area;

- Improves safety and security for all modes of travel: The addition of new pedestrian and cycling crossing facilities improves sustainable mode safety across the junction;
- Reduces the impact of traffic on air quality in Warrington and helps to reduce carbon emissions and tackle climate change: sustainable mode improvements at the junction support WBC's policy aspirations; and
- Makes Warrington safer, sustainable and healthier: As per above, new pedestrian and cycling facilities aims to support an increase in active travel supporting wider public health objectives.

Warrington Means Business

2.3.28 The first refresh of Warrington Means Business, released in 2017, sets out WBC's and Warrington and Co's continued programme and intent to drive, progress, encourage and facilitate future economic growth for Warrington, reinforcing the area as a strong national driver of prosperity.

2.3.29 The key programme components of Warrington Means Business include:

- Regenerate and develop the town centre
- Create the best in new business locations and support existing business areas;
- Provide new infrastructure to enhance Warrington's connectivity and to support growth, as well as improving network resilience and tackling congestion;
- Provide a skilled local workforce to fuel the new job creation and enable local people to benefit from Warrington's economic success;
- Provide new market orientated and affordable homes to support economic growth;
- Be business friendly in all our regulatory functions, reduce bureaucracy and actively support businesses to thrive;
- Create new places and essential community facilities; and
- Promote low carbon, sustainable solutions that provide long term resilience for our businesses and communities.

Relevance to the scheme

Warrington West is identified as an area of economic growth. The document highlights the need for a package of transportation measures to support the rapid development of Warrington West (Omega, Lingley Mere, Chapelford Urban Village etc.) from both a commercial and residential perspective including:

- Skyline Drive (now complete)
- Improvements to Junction 8, M62: (now complete); and
- Improvements to local roads in association with the development of Omega and Lingley Mere (addressed in part through submission of this CABG); and
- Warrington West railway station.

2.4 Problems Identified

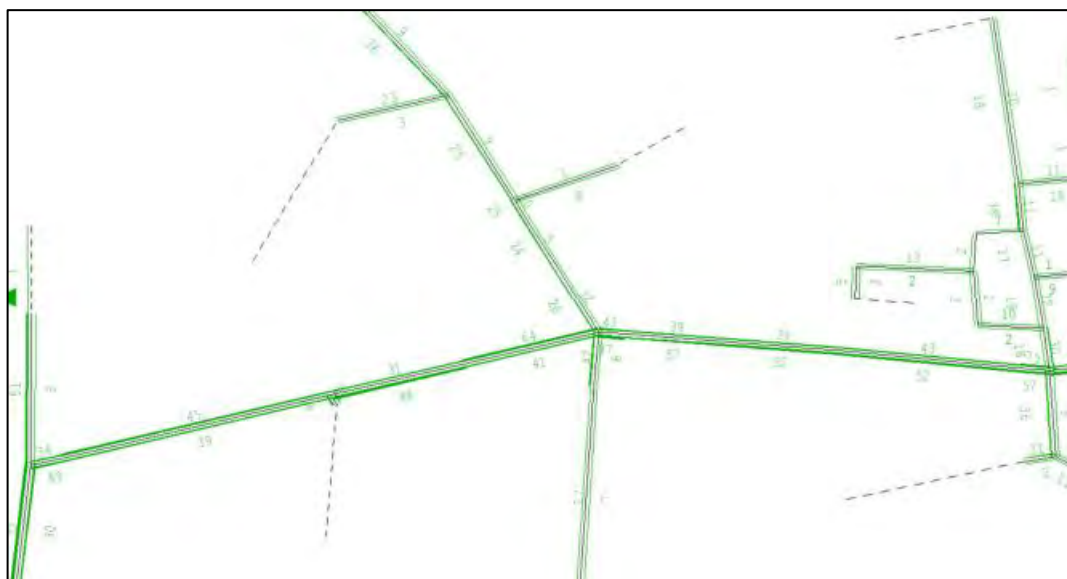
Network Operation

Current Performance of Junction

Volume over capacity

- 2.4.1 This section sets out an assessment of the forecast network performance in terms of volume over capacity (VoC) for the Omega Boulevard junction and the Great Sankey Neighbourhood Hub / Lingley Green Avenue junction, in the future years of 2021 and 2036, if the junctions remained as they are with the exception of agreed section 106 works. These works comprise widening to two lanes on the Omega Boulevard approach to the Omega Boulevard roundabout and new toucan crossings on Omega Boulevard and Lingley Green Avenue to the east of the Hub access i.e. the Do-minimum scenario.
- 2.4.2 The assessment considers if a link is forecast to operate with a VoC of 85% or above, it is operating over capacity. The 85% value allows for daily variations in traffic flows which are experienced on most typical highway network.
- 2.4.3 In the 2021 AM peak, the Lingley Green Avenue westbound approach arm to the Omega Boulevard roundabout is forecast to be approaching capacity with a VoC of 78%. This increases to a **VoC of 97% in 2036** demonstrating the need for mitigation at the junction to ensure growth is not constrained by congestion in the future.
- 2.4.4 The westbound Lingley Green Avenue approach to the Sankey Hub Junction is forecast to operate with a VoC of 83% in 2021, highlighting the arm is forecast to be approaching capacity. By 2036, this is **forecast to breach the 85% ratio**, further emphasising the need for investment to address future forecast capacity issues.

Figure 6: Forecast Volume over Capacity % at the Omega Boulevard Roundabout and Sankey Hub Junction AM Peak, 2036



- 2.4.5 The 2036 PM forecasts offer similar evidence to the AM peak.
- 2.4.6 Lingley Green Avenue westbound approaches to the Omega Boulevard roundabout and Great Sankey Neighbourhood Hub junction are both forecast to operate with a VoC of 81% and 83% respectively, highlighting that this section of the network is also to be **approaching capacity**.
- 2.4.7 The Lingley Green Avenue eastbound approach to the Omega Boulevard roundabout is forecast to operate with a VoC of 74 approaching the 85% threshold, and **any further future development could lead to it operating above capacity**.

2.4.8 Further forecasts for the AM, IP and PM peak for both 2021 and 2036 are set out in the Forecasting Report (**Appendix C**).

Total Delay

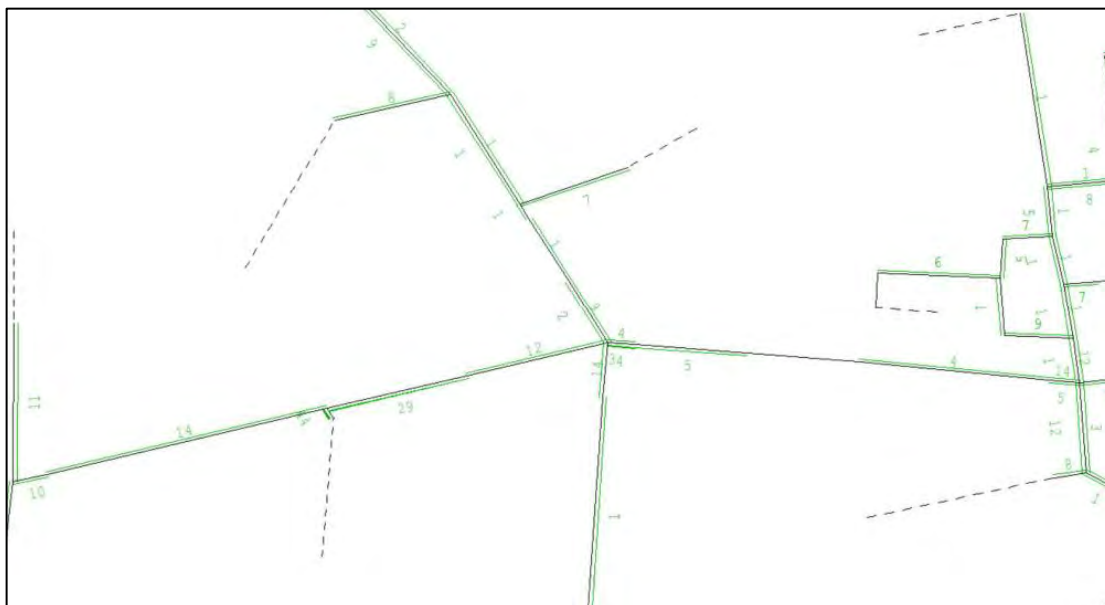
2.4.9 In addition to VoC, an assessment of the forecast network performance in terms of total delay for the Omega Boulevard junction and the Great Sankey Neighbourhood Hub / Lingley Green Avenue junctions has been undertaken, for the future years of 2021 and 2036 in the do-minimum scenario.

2.4.10 **Figure 7** Error! Reference source not found. presents the forecast total delay in seconds at the Omega Boulevard roundabout and Sankey Hub signalised junction for the future year 2036 AM Peak period. It shows significant delay of 34 seconds at Lingley Green Avenue westbound approach to the Omega Boulevard roundabout junction.

2.4.11 The Lingley Green Avenue westbound approach to the Great Sankey Neighbourhood Hub signalised junction is forecast to experience 29 seconds of total delay per PCU.

2.4.12 If travelling in a westbound direction through both junctions the two delays would account for over a minute in journey time. This compares with a total delay per PCU of 42 seconds in the 2021 AM peak, emphasising the worsening conditions at the junction in the 2036 future scenario without intervention.

Figure 7: Forecast Total Delay in Seconds at the Omega Boulevard Roundabout and Sankey Hub Junction AM Peak, 2036



2.4.13 In the 2036 PM peak, the following observations were made:

- Sankey Hub at the junction with Lingley Green Avenue is forecast to experience a delay of 27 seconds on the Lingley Green Avenue westbound approach; and
- The Omega Boulevard roundabout is forecast to experience similar levels of delay on all arms. However, the Lingley Green Avenue westbound approach is forecast to experience the highest delay of 16 seconds.

Queue Length Survey

2.4.14 A queue length survey was undertaken over two days during June and July 2017 for the Omega Boulevard/Lingley Green Avenue junction. Barrow Hall Lane was surveyed on 13 July 2017 while the remaining three arms: Omega Boulevard; Lingley Green Avenue East and Lingley Green Avenue West were surveyed on 21 June 2017.

2.4.15 The results highlight the maximum recorded queue was on the approach to the junction from Omega Boulevard. Separately, as with the VoC and Total Delay assessments set out above, an assessment of queue lengths in 2021 and 2036 is reported in the Forecasting Report (**Appendix C**).

Traffic incidents and safety

2.4.16 Reported personal injury accidents data from the STATS19 database, covering the period 2012 to 2017 were reviewed. The area covered by the data and the location of each incident is shown in **Figure 8**; while the details of the accidents reported are summarised in **Table 2**.

Figure 8: Reported Accidents by Severity

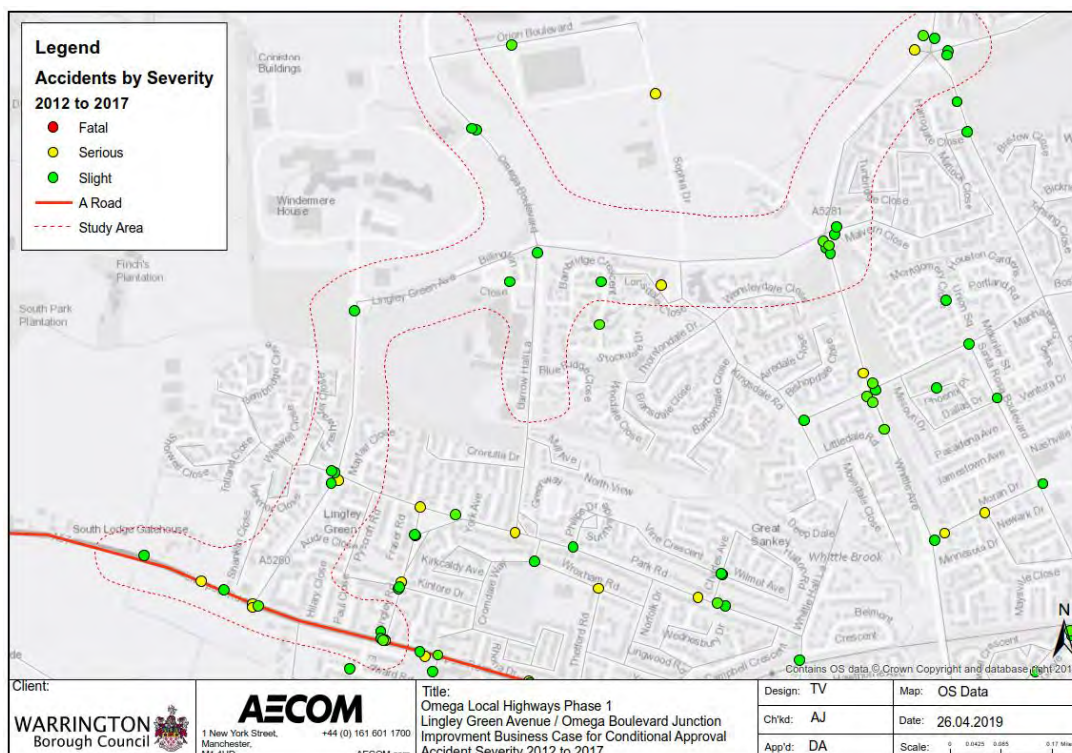


Table 2: Reported Accidents by Year and Severity within the Study Area

Year	Serious Accidents	Slight Accidents	Total Accidents
2012	3	6	9
2013	1	5	6
2014	1	6	7
2015	0	2	2
2016	1	4	5
2017	1	5	6
Total	7	23	29
Annual Mean	1.2	4.6	5.8

2.4.17 It can be seen from **Table 2** that an average of 5.8 personal injury incidents have occurred per year within the VISSIM model analysis area (marked by red dotted line in **Figure 8**) between 2012 and 2017, with approximately one per year categorised as serious. No fatal accidents were recorded in the study area. With regard to the Omega Boulevard / Lingley Green Avenue junction itself, there was one slight injury accident over the five year period to 2017, occurring in 2014.

Development

2.4.18 As per guidance in TAG Unit M4, an Uncertainty Log of all known developments within the study area was developed and agreed with WBC. The developments have been classified in accordance with guidance based on the categories specified in Table A2 of TAG Unit M4, a summary is provided in **Table 3**.

Table 3: Table A2 of TAG Unit M4

Probability of the Input	Status	Trip Purpose
Near certain: The outcome will happen or there is a high probability that it will happen.	Intent announced by proponent to regulatory agencies. Approved development proposals. Projects under construction.	This should form part of the core scenario.
More than likely: The outcome is likely to happen but there is some uncertainty.	Submission of planning or consent application imminent. Development application within the consent process.	This could form part of the core scenario [Refer to Section Developing the Core Scenario].
Reasonably foreseeable: The outcome may happen, but there is significant uncertainty.	Identified within a development plan. Not directly associated with the transport strategy/scheme but may occur if the strategy/scheme is implemented. Development conditional upon the transport strategy/scheme proceeding. Or, a committed policy goal, subject to tests (e.g. of deliverability) whose outcomes are subject to significant uncertainty.	These should be excluded from the core scenario but may form part of the alternative scenarios.
Hypothetical: There is considerable uncertainty whether the outcome will ever happen.	Conjecture based upon currently available information. Discussed on a conceptual basis. One of a number of possible inputs in an initial consultation process. Or, a policy aspiration.	These should be excluded from the core scenario but may form part of the alternative scenarios.

2.4.19 **Table 4** sets out the uncertainty log highlighting there is considerable demand for future growth in the area as evidenced by recent planning applications for Omega and Lingley Mere (including both residential and employment opportunities).

2.4.20 The scheme directly supports 675 homes at Omega and Lingley Mere and a further 1,000 other homes in the area; in excess of 100,000sqm of office and 55,000sqm of industrial/logistics on Omega; and private sector investment estimate at £100m.

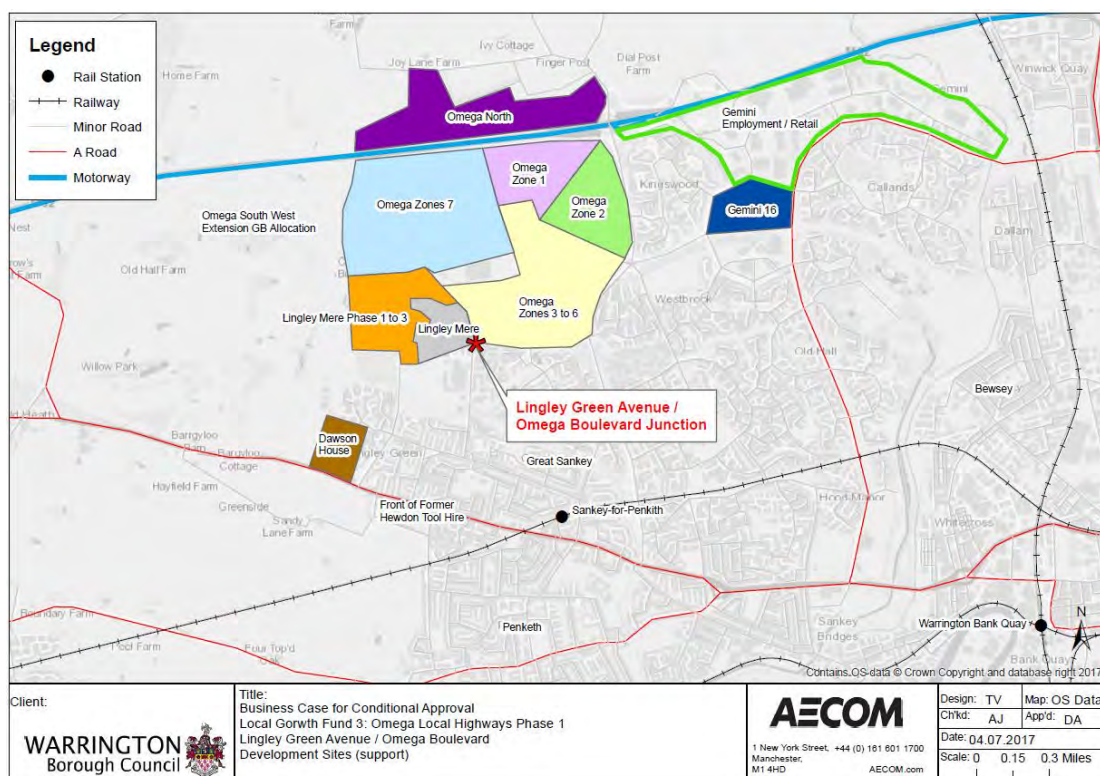
2.4.21 The scheme would provide significant indirect benefits to be felt by businesses and employees across the area, with access to and from these major commercial development sites significantly improved for many journeys. This would therefore increase the attractiveness of the Omega development and Lingley Mere Business Park and have a positive impact on job creation and growth of GVA.

2.4.22 As development in the area has increased in recent years, the constraints of the local road network have become more acute with congestion and delays worsening. Within the context of the development growth set out in **Table 4**, it is anticipated that significant strain on the local network will need to be addressed.

Table 4: Residential and Employment Development Opportunities – Uncertainty Log

Development Name		TAG Unit M4 Classification	Land Use	Employment Size	Residential Units Total (including direct)
Omega	Plot 1 (c) Travis Perkins	Near Certain	B1, B8	58,751sqm (B1) 6,503sqm (B8)	
	Zone 7	Near Certain	B2, B8	233,480sqm (B2, B8)	-
	Phase 2 (S.73)	Near Certain	B1, B2, B8	74,260sqm (B1); 16,722sqm (B2); 39,018sqm (B8)	-
	1&4 Lockhead Road Brakes/Hermes	Near Certain	B1, B2, B8	11,700sqm 13,200sqm	-
	Zone 3 & 6	Near Certain	Employment / Residential	Small retail/ restaurant units	1,100 (400)
	Omega North Extension (GB Release)	More than likely	Employment	13 Ha	-
	OMEGA West Extension (St Helens)	More than likely	Employment	30 Ha	-
Kingswood	Kingswood 8	Near Certain	Residential	-	99 (0)
Lingley Mere	Phase 1	Near Certain	B1	10,908 (B1)	-
	Phase 3	Near Certain	B1, B2, B8	800sqm (B1); 1,600sqm (B2); 13,000sqm (B8)	-
	Residential	Near Certain	Residential	-	275 (275)
Chapelford	Chapelford 15	Near Certain	Residential	-	190 (0)
Gemini	Gemini 8	Near Certain	B1, B2, B8	11,288sqm 7,339sqm	-
	Gemini 16	Near Certain	Residential	-	170 (0)
		Reasonably Foreseeable	Employment	2.2 Ha	-
Other	Dawson House Development	Committed	Residential	-	147 (0)
	Barrow Hall Primary School	Committed	School	As per TA	-
	Sycamore Lane Community Primary School	Reasonably Foreseeable	Residential	-	60 (0)
	Bewsey Old Hall	Reasonably Foreseeable	Residential	-	48 (0)
	Long Meadow	Reasonably Foreseeable	Residential	-	30 (0)
	Boulting Electrical Systems	Reasonably Foreseeable	Residential	-	8 (0)
	Rear of former Hewden Tool Hire	Reasonably Foreseeable	Residential	-	11 (0)
	Land to the rear of the Sportsman Pub – Penketh	Reasonably Foreseeable	Residential	-	12 (0)
	Warrington Waterfront	Reasonably Foreseeable	Residential	-	92 (0)

Figure 9: Residential and Employment Development Opportunities



2.5 Impact of not changing

2.5.1 There are four key impacts identified with not delivering the scheme and these follow on from the problems identified section (2.4) of the OBC including:

- Transportation;
- Housing;
- Employment; and
- Environment.

Transportation

- Increased congestion at the Omega Boulevard/Lingley Green Avenue roundabout and adjacent Great Sankey Neighbourhood Hub junction is highlighting by forecast increases in VoC for key movements;
- Increased total delay leading to increased peak journey times through the junction;
- Decreased reliability of public transport services including bus journey times through the junctions in future year scenarios; and
- Continued barriers to walking and cycling with lack of crossing infrastructure impeding aspirations for a higher amount of sustainable travel within the study area.

Housing

- Compromise housing supply and sustainable development: the scheme directly supports delivery of new homes at Omega and Lingley Mere as well as indirectly supporting access to additional new homes in the area. Improvements to the local road network and walking and cycling facilities are required to mitigate the increase in trips generated by these housing sites. This is documented through two separate s106 Agreements with Omega Warrington Limited and Lingley Mere (see **Appendix M and N**). The proposed scheme is linked to the planning conditions for the new housing - without the scheme the developments will not be brought forward. This has wider consequences for Warrington's housing allocations as set out in the Local Plan.

Employment

- Omega is a Strategic Employment Location, and together with Lingley Mere proposes significant new jobs for the area, together with substantial private sector investment. Without improvements to the local road network, future congestion levels may impact on the viability and attractiveness of the site for existing businesses. Furthermore, as set out above, the scheme is a planning requirement within two s106 Agreements and is therefore required to facilitate further growth of the Omega site. This has wider consequences for Warrington’s employment allocations as set out in the Local Plan.

Environment

- Increased congestion at the Omega Boulevard roundabout and adjacent Great Sankey Neighbourhood junction in the future forecast years has the potential to increase greenhouse gas emissions of transportation, which accounts for approximately a quarter of the UK’s carbon dioxide (CO₂) emissions. Increased stop/start traffic will lead to a worsening of CO₂ and NO_x levels for the area. The scheme is predicted to result in a reduction of approximately 56 thousand tonnes of CO₂ emissions over a 60 year period.

2.5.2 The Economic Case also includes a summary of the key benefits for the scheme, set out against the Appraisal Summary Table criteria; benefits that would not be compromised without the delivery of the scheme.

2.6 Internal / External Drivers for Change

Internal Drivers

2.6.1 The scheme has been developed in the context of WBC strategic business priorities. **Table 5** outlines these ‘drivers for change’ and further justifies the development of the scheme.

Table 5: Internal Drivers for Change

Internal Driver	Comment
Corporate priorities and Local Policy	As outlined within the policy section of the Strategic Case (2.3), the scheme contributes to the delivery of WBC’s local priorities.
Public Accountability for delivery and reputational risk	Details of the scheme have been presented to the public via public consultation and Local Growth Fund announcements through the Local Growth Fund. WBC has both a corporate and public responsibility to deliver the proposed improvement as supported through the Local Growth Fund to ensure the efficient movement of traffic on the local road network.
Delivery of improvements to air quality	Nested within the Local Transport Plan 3, a need to reduce the traffic impact on air quality, to help reduce carbon emissions and tackle climate change is identified. This meets the requirements of DEFRA, an external organisation and driver for change. WBC has a duty to manage the influences on deteriorating air quality; transport is a significant contributor to poor air quality. In 2018, WBC also published an Air Quality Action Plan which included sustainable transport infrastructure in West Warrington. The provision of the junction improvements including walking and cycling provides further support to this plan.
Statutory obligations under the Traffic Management Act and Highways Act	<u>Traffic Management Act</u> : WBC is tasked with establishing processes (so far as reasonably practicable) to identify problems which are contributing to, or have the potential to cause congestion. <u>Highways Act 1980</u> : WBC is tasked with the continued ongoing management of the local highway network including any upgraded asset once delivered.

External Drivers

- 2.6.2 Organisations outside of WBC have interests in seeing the junction improvement scheme delivered. Some organisations have an influence on the development of the scheme, in both positive and negative ways. **Table 6** provides a summary of the external drivers for change.

Table 6: External Drivers for Change

External Driver	Comment
Promote economic growth in Cheshire and Warrington (C&W LEP)	The C&W LEP has a Strategic Economic Plan (SEP) that contains a plan programme for advancing the economic development of Chester East, Cheshire West and Chester, and Warrington.
Maximise land development and delivery of housing (C&W LEP & Developers)	Omega and Lingley Mere development sites have planning consent. Expansion/growth in terms of the development and to ensure that the delivery of new housing and employment is not seen as the next “bottleneck” for traffic in the area. Adjacent access opportunities off Omega Boulevard into development sites.
Public accountability for delivery	Details of the scheme have been presented to the public via public consultation and Local Growth Fund announcements through the Local Growth Fund. There is now a public expectation that the scheme is delivered. Public consultation for the scheme took place 23 rd April -20 th May 2019.

2.7 Objectives

- 2.7.1 Through relieving congestion, reducing delays, improving journey time and improving local access the scheme will increase attractiveness of the area to both businesses and new residents; enabling growth and development which will contribute to achievement of both the strategic imperatives and transport objectives as set out in the C&W LEP SEP.
- 2.7.2 In land-use terms this means the primary aims of the scheme are to:
- Release land for development that increases employment opportunities;
 - Release land for new housing; and
 - Ensure that existing occupiers do not need to relocate elsewhere.
- 2.7.3 In transport terms this means the primary aims of the scheme are to:
- Reduce congestion;
 - Reduce peak journey times;
 - Improve bus journey times; and
 - Accommodate a safer environment for walking and cycling at junctions.
- 2.7.4 The scheme objectives directly relate to the aims identified above, and seek to address the problems discussed in early sections of this chapter. The objectives determined for the scheme are listed with supporting indicators below:

Objective 1: Unlock and deliver development opportunities for homes and jobs to support economic growth in Warrington.

- Indicator 1.1 – Directly support the delivery of new homes at Lingley Mere and Omega; and
- Indicator 1.2 – Facilitate/support job creation and housing growth within north-west Warrington, namely the Omega and Lingley Mere development sites.

Objective 2: Enhance the current network performance to accommodate anticipated development within north-west Warrington.

- Indicator 2.1 – Provide enhanced reliability and predictability of journeys on the north-west Warrington local road network via the Omega Boulevard / Lingley Green Avenue junction (between Park Road, Orion Boulevard and Whittle Avenue); and

- Indicator 2.2 – Average delay per PCU of the Omega Boulevard / Lingley Green Avenue junction are not increased as development at Lingley Mere and Omega is realised.

Objective 3: Support improvements to quality of life factors in Warrington.

- Indicator 3.1 – Facilitate growth in the number of cyclists and pedestrians using the Omega Phase 1 walking and cycling improvements and in the west Warrington area.

2.7.5 To improve transparency of decision-making, the project objectives are accompanied by an Investment Logic Map (ILM) that shows a clear rationale for the investment including short, medium and long term outcomes (**Appendix B**).

2.8 Measures for Success

2.8.1 Following the development of the objectives, it is necessary to establish what outcomes demonstrate a level of success. To establish the measures reference has been made to the short, medium and long term outcomes identified within the investment logic map contained at **Appendix B**. The successful delivery of the scheme will be monitored as part of the post-opening scheme evaluation, further details of which are discussed in the Monitoring and Evaluation Plan set out in the **Management Case**. **Table 7** below sets out the agreed measures for success for the scheme.

Table 7: Measures for Success

Objective 1: Unlock and deliver development opportunities for homes and jobs to support economic growth in Warrington.					
Indicator	Measure	Target	Baseline	Completion	Data
Directly support the delivery of new homes at Lingley Mere and Omega	Number of houses (no.)	↑	-	675 new dwellings: 400 – Omega; 275 Lingley Mere	Planning Completions
Facilitate/support job creation and housing growth within north-west Warrington, namely the Omega and Lingley Mere development sites.	Number of jobs / Employment space (m ²)	↑	Onsite: Omega North and South site – plots: 7b ASDA, 1c Travis Perkins, Zone 7 The Hut, Zone 7 Plastic Omnium and 1&4 Lockheed Road, Brakes/ Hermes, Dominos and Amazon	New employment (jobs) to be confirmed at FBC stage prior to commencement onsite	Planning Completions
Objective 2: Enhance the current network performance to accommodate anticipated development within north-west Warrington					
Provide enhanced reliability and predictability of journeys on the north-west Warrington local road network via the Omega Boulevard / Lingley Green Avenue junction (between Park Road, Orion Boulevard and Whittle Avenue)	Peak hour journey times for key routes (min)	► / ↓	<ol style="list-style-type: none"> 1. Orion Boulevard – Park Road (via Lingley Green Avenue) 2. Park Road – Whittle Avenue (via Lingley Green Avenue) 3. Orion Boulevard – Whittle Avenue (via Lingley Green Avenue) 		Trafficmaster journey time data

Average delay per PCU of the Omega Boulevard / Lingley Green Avenue junction are not increased as development at Lingley Mere and Omega is realised	Peak hour average delays per PCU over the section.	➡	1. Overall junction delay	No increase in average delay per PCU.	Trafficmaster data and traffic counts (PCUs)
Objective 3: Support improvements to quality of life factors in Warrington.					
Facilitate growth in the number of cyclists and pedestrians using the Omega Phase 1 walking and cycling improvements and in the west Warrington area	Volume of cyclists and pedestrians (no.)	↑	Total cyclists using the junction during the AM Peak E.g. 8am – 9am = 4 in July 2017. Pedestrian numbers to be calculated from baseline monitoring at FBC stage.	Increase in the number of pedestrians and cyclists observed at the junction during the AM Peak (8am - 9am)	Traffic Counts / Survey

2.9 Options

2.9.1 The initial option identification stage defined four potential junction layouts, including:

- Option 1 - Roundabout with bypass lanes for left turn movements to and from Omega Boulevard: The existing roundabout would remain as is but would benefit from bypass lanes for left turning traffic into and out of Omega Boulevard. The bypass lanes would benefit from pedestrian crossings on either side of Omega Boulevard;
- Option 2 - Signal Junction Option 1: convert the existing roundabout into a simple signalised junction, with a two lane approach on all four arms;
- Option 3 - Signal Junction Option 2: convert the existing roundabout into a larger signalised junction than is proposed in Signalised Junction Option 1. This option includes a three lane approach on the Lingley Green Avenue eastbound and Omega Boulevard arms; and
- Option 4 - Signal Junction Option 3: largest of the proposed signal options. The option would convert the existing roundabout into a significant sized signalised junction. The Omega Boulevard and Lingley Green Avenue eastbound approach arms would benefit from four lane approaches, whilst the Lingley Green westbound and Barrow Hall Lane approaches would benefit from two lane approaches.

2.9.2 The appended Forecasting Report (**Appendix C**) presents an assessment of each option in terms of VoC, Total Delay and Average queues. In summary it highlights:

- Option 1: The two most heavily impacted approach arms are the Omega Boulevard and Lingley Green Avenue westbound approaches. These two arms are forecast to experience an increase in actual flow, particularly in 2036, and whilst the added capacity of the bypass lanes improves the overall VoC (some operational benefit), it is not able to keep the total delay from increasing significantly. Providing segregated bypass lanes for movements in and out of Omega Boulevard requires pedestrians to cross into a central reserve then cross the main carriageway. Pedestrians and cyclists crossing Omega Boulevard would have to use three separate crossings and would experience a noticeable increase in crossing time. This may discourage trips on foot/bicycle and could result in pedestrians crossing without waiting for the green signal, which in turn could increase the likelihood of collisions between pedestrians, cyclists and vehicles.

- Option 2: forecast increases in queues and delays represent a significant deterioration in the quality and utility of this junction, and as such this option does not offer any benefits over the Do-Minimum scenario.
- Option 3: forecast increases in queues and delays represent a significant deterioration in the quality and utility of this junction, and as such this option does not offer any benefits over the Do-Minimum scenario
- Option 4: forecast to result in the largest reductions in delays of all the signal options. However, the proposed signals are still forecast to increase delays and queues on almost all arms of the junction. Whilst the delays are not as high as the delays seen in the other signal options (Option 2 and 3), they still represent a marked deterioration in the junction’s performance in comparison to the DM scenario.

1.1 Following an initial assessment of the four options, other areas of consideration were also assessed, these included:

- Public Support;
- Land Take;
- Pedestrian Accessibility;
- Affordability; and
- A high level value for money exercise was completed which included the production of a Benefit to Cost Ratio (BCR).

1.2 **Table 8** presents a summary of the assessment of the four initial options presented as a matrix. The matrix is colour coded to replicate a ‘traffic light’ assessment. Green represents a positive assessment, amber is positive but there remain some risks and red indicates the assessment deems the design is unsuitable.

Table 8: Initial Scheme Assessment Matrix

Option	Description	Public Perception	Operational Performance	Land Take	Pedestrian Accessibility	Affordability	Value for Money
1	Roundabout with Slip Lanes	✓	✓	✓	✗	✓	0.6
2	Signals Option 1	✗	✗	✓	✓	✓	Negative
3	Signals Option 2	✗	✗	✓	✓	✗	Negative
4	Signals Option 3	✗	✗	✓	✓	✗	Negative

- 2.9.3 Despite the traffic signal options scoring well against pedestrian accessibility, the traffic signal options did not provide an operational benefit over the DM scenario.
- 2.9.4 Option 1 which included the provision of bypass lanes was forecast to provide a minor operational benefit compared to the Do-Minimum. However, pedestrian accessibility would have been severely impacted as a result of requiring three crossings on the Omega Boulevard approach arm.
- 2.9.5 In light of the above, **none of the initial options were considered suitable.**
- 2.9.6 Given the roundabout with bypass lanes had provided some positive operational results, a further enlarged roundabout option was developed operating with an increased Inscribed Circle Diameter (ICD) to 44m. Following a further assessment against the same operational and wider option assessment criteria, this scheme was assessed to provide beneficial outcomes for the local road network.
- 2.9.7 It was determined that both Lingley Green Avenue approach arms would benefit from two approach lanes approximately 60m in length. As per the DM network the existing pedestrian crossing on the westbound Lingley Green arm would remain and a new pedestrian crossing would be provided approximately 29m north of the junction on Omega Boulevard.
- 2.9.8 Upon completion of the enlarged roundabout assessment, it was also noted that the scheme could be improved to offer further benefits if improvements could be provided for the westbound movements towards the Great Sankey Neighbourhood Hub junction. Therefore, the scheme was modified to reflect the addition of a left turn lane at the Sankey Hub junction in addition to the enlargement of the Omega Boulevard roundabout. The westbound approach arm to the Sankey Hub junction benefits from two approach lanes, one for ahead traffic and one for left turners.
- 2.9.9 The pedestrian accessibility benefits are assessed as strong with the introduction of a new pedestrian and cyclist (toucan) crossing facilities on both the Omega Boulevard arm of the roundabout, and on the Lingley Green Avenue in the vicinity of the Great Sankey Neighbourhood Hub junction. Toucan crossings offer the following benefits:
- Pedestrians are given a clear signal when to cross;
 - Cyclists are allowed to ride across the crossing without having to dismount;
 - They reduce the chance of pedestrians and cyclists feeling uncomfortable while they are crossing Lingley Green Avenue and Omega Boulevard, with a red light always shown to vehicle users when somebody is crossing (vehicles given clear signal when to stop for pedestrians); and
 - Offers an opportunity to maintain vehicle traffic flow in busy pedestrian periods where as an alternative crossing type (i.e. zebra crossing) may cause further delays compromising the operation of the junctions.
- 2.9.10 The subsequent assessment is presented below:

Table 9: Further Scheme Assessment Matrix

Option	Description	Public Perception	Operational Performance	Land Take	Pedestrian Accessibility	Affordability	Value for Money
5	Enlarged Roundabout		✓	✓	✓	✓	Medium
6	Enlarged Roundabout and Additional Lane to Sankey Hub		✓	✓	✓	✓	High

2.9.11 As the initial options were not considered suitable, only one option was available to be taken forward for appraisal within the Economic Case (Option 6). Commentary on the operational performance of the preferred option against VoC, total delay and average queues is presented in the Economic Case.

Assessment against the Scheme Objectives

2.9.12 A standalone qualitative assessment of the performance of the scheme options has been undertaken against the identified scheme objectives. **Table 8** summarises the performance of each route using a 4 point scale with three ticks representing strong alignment against an objective and no ticks representing no alignment with an objective.

Table 10: Scheme Objective Assessment

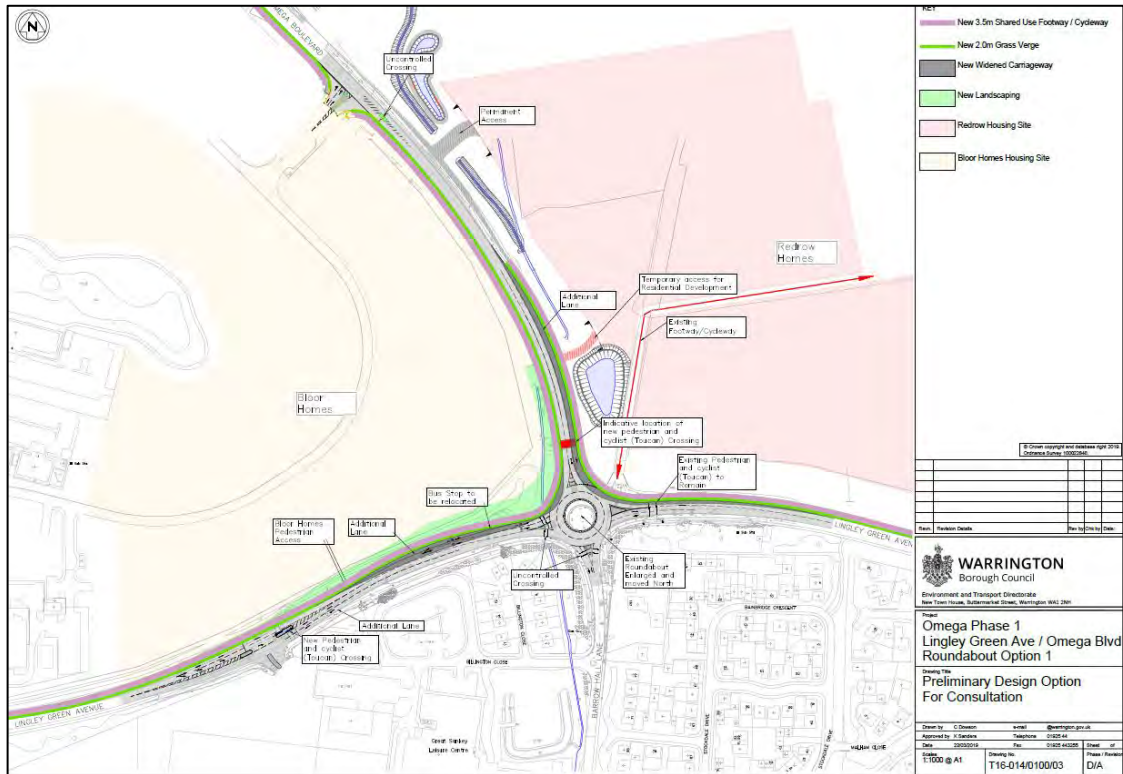
Objectives		Assessment
Objective 1	Unlock and deliver development opportunities for homes and jobs to support economic growth in Warrington.	✓✓✓
Objective 2	Enhance the current network performance to accommodate anticipated development within north-west Warrington	✓✓
Objective 3	Support improvements to quality of life factors in Warrington	✓✓

2.9.13 The assessment highlights a strong alignment with the scheme objectives, particularly with regard to Objective 1, providing direct support for the delivery of 675 new homes as well as a further 1,000 in the wider area. The scheme will also support a significant quantum of new employment opportunities. The scheme is also anticipated to facilitate growth in the number of cyclists and pedestrians using the Omega Boulevard / Lingley Green Avenue junction and travelling through north-west Warrington, through improved walking and cycling facilities (i.e. toucan crossing facilities).

2.10 Scope

- 2.10.1 The preferred scope of works has been defined as an enlarged roundabout and approaches (except Barrow Hall Lane) at the junction of Lingley Green Avenue / Omega Boulevard, as well as widening of the junction of Lingley Green Avenue / The Hub to create a left turn lane into The Hub development.
- 2.10.2 The scheme includes improved cycling and pedestrian crossing facilities on Lingley Green Avenue and Omega Boulevard.
- 2.10.3 The scheme design is included below:

Figure 10: Preliminary Design for Consultation



- 2.10.4 As part of the detailed design stage, the scheme will value engineered where possible to reduce the cost of the scheme whilst retaining the benefits.

2.11 Constraints

- 2.11.1 The following section provides a high level overview of the constraints which may present a risk toward scheme delivery:

Land Ownership

- 2.11.2 Both Omega Warrington Limited and Lingley Mere have demonstrated their commitment to the scheme with s106 contributions (financial and land). The core elements of the scheme do not require land acquisition, however, land is required for some sections of the proposed shared foot and cycle paths adjacent to Lingley Green Avenue eastbound and Omega Boulevard northbound which is still to be completed, the risk relating to this is considered to be low as the core elements of the scheme could be delivered without further land acquisition. Land acquisition is to be finalised by November 2019 without use of Compulsory Purchase Order powers.

Target Costs

- 2.11.3 The costs presented in this OBC do not represent the finalised target scheme costs. These will be included as part of the FBC following engagement with the Delivery Partner.

Project Resources and Governance

- 2.11.4 Internal constraints relate to resources necessary to provide schemes development construction.
- 2.11.5 To ensure the progression of the scheme is in line with the project programme, WBC are utilising support and guidance from external consultants and contractors to successfully project manage and deliver this scheme from conception through to construction.
- 2.11.6 WBC's internal delivery experience / capability, combined with the ability to procure support means resourcing is not considered a material risk to the delivery of the scheme.

Statutory Processes

- 2.11.7 Whilst formal planning permission is not required, WBC will apply for a Lawful Development Certificate (LDC). The LDC will be applied for in July 2019 with the outcome anticipated for September 2019.
- 2.11.8 Any traffic regulation orders required will be obtained and will be captured in the programme and governance arrangements for the scheme to provide assurance that major actions with a material impact are subject to adequate review and control. Environmental investigations are currently being undertaken as part of the scheme design process and will identify any requirements following this process.

Funding

Internal funding is limited to the amount presented through the Financial Case. The contributions from Omega and Lingley Mere have been costed based on providing individual elements of the scheme, namely contribution to utilities diversions to facilitate local widening on Omega Boulevard, the provision of toucan crossings and shared foot and cycle paths in the vicinity of the improvements. As set out in the Financial Case, the funding sources for the scheme has been fully confirmed in relation to the funding requirement.

Consultation

- 2.11.9 WBC held a number of public consultation events mid 2016 for the M62 Junction 8 scheme. Key issues raised through the consultation included a need for more capacity on local routes to cope with the additional traffic, with specific concern regarding the impact of the proposed development (particularly at the Omega and Lingley Mere sites) on surrounding roads such as Lingley Green Avenue and Burtonwood Road. An extract from the consultation material is presented below identifying that the Omega Boulevard/Lingley Mere junction formed part of the consultation with regard to future plans identified.

Figure 11: M62 Junction 8 Consultation Material (2016)

M62, JUNCTION 8

Ongoing improvements to Warrington's Transport network

The improvement plans for Junction 8 have been designed to take into account how the junction will operate over the next 10-15 years. The performance of the junction will be monitored and if further improvements are required, these will be considered in due course. However, the council is aware that this scheme alone will not deliver the changes to the transport network needed to create and preserve this area as a high quality place to live and work. These plans are just one of a number of wider transport improvement schemes proposed for west Warrington.

Future plans

- Warrington West rail station at the southern end of Chapel Fold will be served by three trains per hour to Warrington, Liverpool and Manchester.
- Improvements at other local junctions include:
 - Westbrook Way / Burtonwood Road/Whittle Avenue
 - Whittle Avenue / Lingley Green Avenue
 - Omega Boulevard / Lingley Green Avenue
 - Liverpool Road / Lingley Green Avenue
 - Burtonwood Road / Kingswood Road
- Major improvements and enhancements to pedestrian and cycling networks have already been made in the area, but we understand even more improvements can be made to make jobs, homes, schools and community facilities easier to get to.

Continuing travel advice and support

The council also continues to provide dedicated support to employers, schools and residents to promote the take-up of greener, sustainable modes of travel. As an example, a great deal of success has already been made in promoting cycling to and from Omega North, the warehousing and logistics businesses on the site are reporting strong numbers of workers who now cycle to work.

Growing a Strong Warrington

2.11.10 Public consultation also took place more recently between 23rd April and 20th May 2019 on the Omega Phase 1 and 3b schemes. The proposals were publicised by a range of media including, leaflet drop to c.2000 homes and businesses in the vicinity of the improvements, press release, email to those who have opted in to receive West Warrington Highways updates, social media, public exhibition events and dedicated web pages. An extract of the 2019 consultation material is provided below, including identifying the three drop in sessions undertaken.

Figure 12: M62 Junction 8 Consultation Material (2016)

West Warrington Junction Improvements

Find out more

We will be holding public exhibitions to explain the draft proposals at the following dates and times:

Date	Time	Place
2 May 2019	11.00 -13.00	The Food Hall, Lingley Mere Business Park, Lingley Green Ave, WA5 3UU
3 May 2019	16.00 - 20.00	Great Sankey Neighbourhood Hub, Barrow Hall Lane, WA5 3AA
4 May 2019	10.00 - 13.00	Great Sankey Neighbourhood Hub, Barrow Hall Lane, WA5 3AA

Officers from the Council's transport team will be on hand to answer any questions you might have.

If you are unable to attend these events, the plans will be available online from 23rd April.

Visit warrington.gov.uk/consultations

There is an online feedback form which you can complete to let us know your views on the project. The closing date for feedback is the 20th May 2019.

If you require additional information, please contact the project delivery team at WWH@warrington.gov.uk

West Warrington Junction Improvements

Public consultation

Improvements are proposed at the junctions of Omega Boulevard/Lingley Green Avenue and Whittle Avenue/Lingley Green Avenue. The proposed improvements will provide:

- An increase in highway capacity through road widening
- New pedestrian and cyclist crossings
- Additional shared foot and cycle paths

These improvements, alongside a suite of West Warrington improvements presented overleaf are required to accommodate future development in the area and improve sustainable travel options.

This leaflet explains where you can find out more information about the improvements to the junctions of Omega Boulevard/Lingley Green Avenue and Whittle Avenue/Lingley Green Avenue and how to comment on the proposals.

2.11.11 A dedicated website is also available for the scheme at:

https://www.warrington.gov.uk/info/201362/warrington_west/2397/omega_local_highways_phase_1

2.11.12 Feedback from the 2019 consultation is set out in section 2.13 below, as well as the Management Case.

Other Constraints

2.11.13 In addition to the items discussed above, other constraints include:

- phasing of works to accommodate improvements to Liverpool Road/Lingley Green Avenue and Whittle Ave/Lingley Green Avenue; and
- changes to political, public and business backing for the project.

2.12 Interdependencies

2.12.1 Internal and external factors exist within the project environment that needs to be met to ensure the successful delivery of the projects scope and objectives. The critical path identifies the key factors and milestones that need to be met in order to ensure successful project delivery.

Table 11: Project Programme (highlighting key milestones)

Key Project Milestone	Date
Detailed Design	November 2019
Target Cost Submission	January 2020
FBC Approval	February 2020
Contract Award	February 2020
Construction (onsite)	March – December 2020

2.12.2 In addition to the internal project decision points that inform the programme critical path, there are a number of external project interdependencies that connect the scheme to other projects in north-west Warrington area which are discussed below.

External Developments

2.12.3 Adjacent site owners including Lingley Mere Business Park Development Company and Omega Warrington Ltd are proactively continuing to take forward development, directly enabled by the project but not within its control. The progression of this scheme is closely related to wider development proposals and WBC as the planning authority will be required to ensure continuity between scheme designs enabling appropriate development of the local road network.

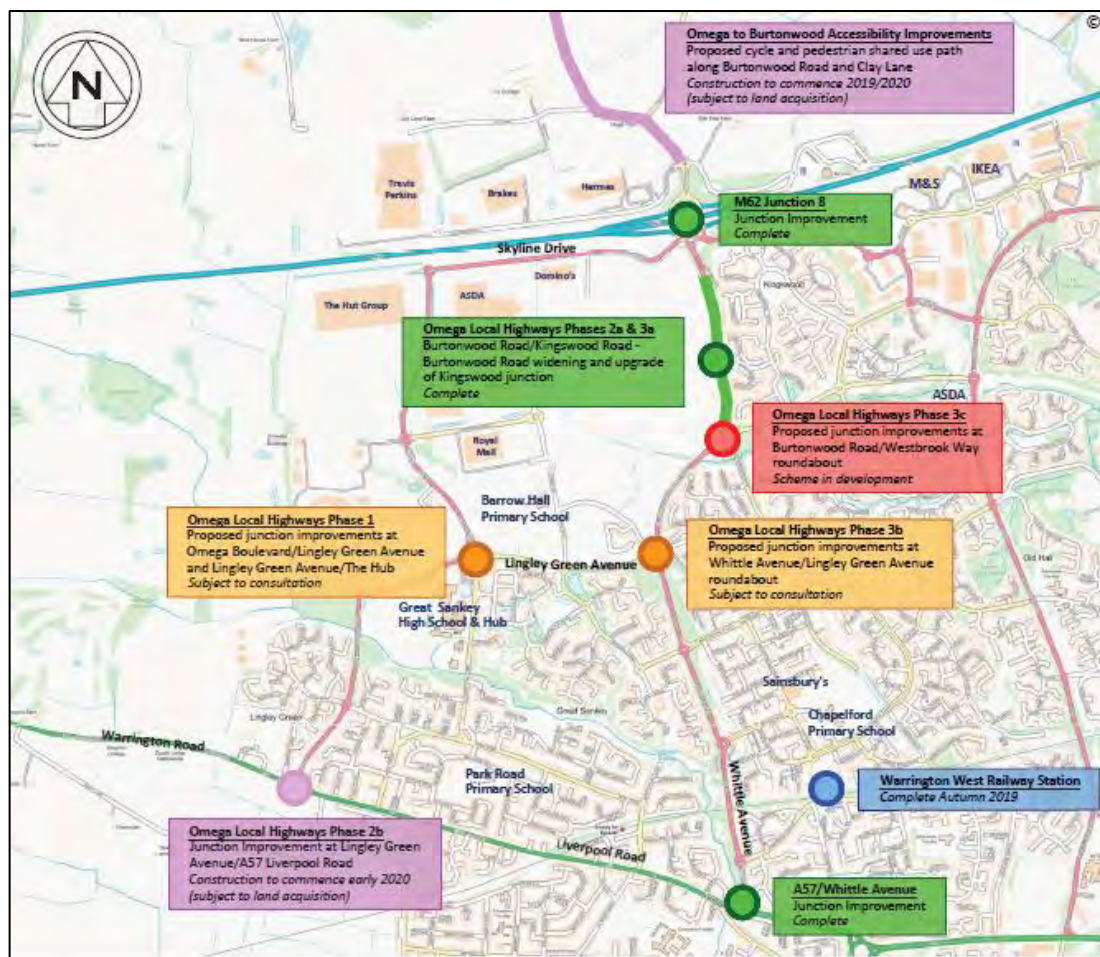
Warrington Borough Council Infrastructure Pipeline

2.12.4 A number of transport improvements (**Figure 13**) are proposed or in construction within the vicinity of the proposed works which will require phasing appropriately to minimise network disruption:

- NPIF Scheme: Lingley Green Avenue / A57 Liverpool Road anticipated to start end of 2019/early 2020.
- Whittle Avenue/Lingley Green Avenue, expected to commence Autumn 2019
- Warrington West Railway Station: anticipated completion Summer 2019.
- Burtonwood Road/Westbrook Way, expected to start end of 2021/ early 2022

2.12.5 It is also notable that the proposed Delivery Partner / Principal Contractor for this scheme is the same as that proposed for other works within the area (i.e. Balfour Beatty is currently delivering Warrington West). This provides an opportunity for the contractor to consider/apply lessons learnt from adjacent works within their Construction Management Plan.

Figure 13: Infrastructure Improvement Proposals in North West Warrington



2.13 Stakeholders

2.13.1 The need for a scheme at this location has been recently discussed in the public domain as part of the statutory planning process for the Lingley Mere and Omega developments. Furthermore, the announcement of Local Growth Funding for the scheme means the proposed upgrade is within the public domain. In addition, a dedicated web page (<https://www.warrington.gov.uk/info/201362/warrington-west/2397/omega-local-highways-phase-1>) for the improvements was set up in 2018 and has been updated as the project has progressed.

2.13.2 Both Omega Warrington Limited and Lingley Mere have demonstrated their commitment to the scheme with s106 contributions including significant areas of land.

2.13.3 The key stakeholders and their interests in the Lingley Green Avenue / Omega Boulevard Junction improvement scheme are as follows:

- **Local businesses and residents:** end user of the asset with an interest in the operation of the junction and impact on congestion. To be called upon to provide feedback during public consultation. With reference to the consultation undertaken in May/June 2019, the following observations were made:
 - o Three events attended by 143 people;
 - o Consultation questionnaire was completed by 69 people;

- The questionnaire asked to what extent consultees supported changes to the junction to increase highway capacity and improve traffic flow. The majority (45%) of respondents strongly agreed or agreed, 43% strongly disagreed or disagreed, 10% neither agreed or disagreed and 2% did not answer the question;
 - Of those that left comments on the proposed scheme, it is important to note only 50% of comments related to the scheme with the non-scheme specific comments relating to unwanted disruption, volume of HGVs on the local network and speeding highlighting wider considerations/influences. Furthermore, it is also noteworthy that the scheme is forecast to address a future operational constraint on the junction associated with approved plans for residential and employment growth rather than address existing congestion/delay experienced by motorists, pedestrians and cyclists;
 - Respondents were supportive of changes to improve facilities for pedestrians and cyclists, with 58% of respondents strongly agreeing or agreeing with this principle. Of the remaining responses 29% strongly disagreed or disagreed, 12% neither agreed or disagreed and 1% did not answer the question; and
 - Further details on key themes raised, and how comments are to be addressed / considered through detailed design is set out in the Management Case.
- **Political Support:** Local Ward members were briefed on the scheme as part of the consultation undertaken in May/June 2019 and raised no issues with the scheme.
 - **Warrington Borough Council:** promoting organisation / partial funder for the junction improvement scheme. Council will manage the development and delivery of the scheme. WBC also has an interest in the ongoing management and maintenance of the asset. WBC's Executive Board (now known as the Cabinet) have accepted the LEP contribution to the scheme and agreed a budget for enabling works within the April 2018 Exec Board Report. The Board approvals in April 2017 and 2018 highlight political support for the scheme. WBC are a signatory to the s106 agreement with Lingley Mere and Omega Warrington Limited (October and December 2016) which both include a commitment to the construction of the scheme to facilitate the developments (see **Appendix M and N**);
 - **Lingley Mere Business Park Development Company:** partnership between United Utilities and Muse Developments. United Utilities headquarters are located at Lingley Mere Business Park and is one of the largest employers in the Borough. Muse Developments has a focus on regeneration projects including commercial, residential and mixed use;
 - **Omega Warrington Ltd (OWL):** joint venture between Miller Developments and KUC Properties Ltd (part of The Royal Bank of Scotland Real Estate Asset Management) which has an interest in the development of the adjacent site;
 - **Cheshire and Warrington Local Enterprise Partnership:** work in partnership with local government, businesses, educational institutes and other public, private and community sector organisations to drive economic growth, transform the economy, and deliver new housing and jobs. This scheme is to be partially funding through the Local Growth Fund 3;
 - **Cheshire and Warrington Local Transport Board:** primarily responsible for ensuring transport infrastructure and connectivity investment opportunities support LEP economic growth ambitions.

2.13.4 The Management Case provides further detail regarding the Communication and Stakeholder Management approach for the scheme including consultation undertaken to date.

3. THE ECONOMIC CASE

3.1 Introduction

3.1.1 This chapter presents the 'Economic Case' for the scheme. It outlines the value for money of the preferred option, considering both monetised and non-monetised impacts in terms of their economic, environmental, social and distributional impacts.

Outline Approach to assessing Value for Money

3.1.2 The 'Economic Case' assesses the impacts of the proposed option, culminating in the preparation of a Value for Money statement. This fulfils HM Treasury requirements for appraisal and is used to demonstrate Value for Money in the use of taxpayers' money.

3.1.3 Aligned with HM Treasury's appraisal requirements, the impacts considered are not limited to those directly impacting on the measured economy, or to those which can be monetised. The economic, environmental and social impacts are also examined using qualitative and quantitative information.

3.1.4 The Value for Money statement is formed on the basis of four standard output tables in WebTAG. These include:

- Transport Economy Efficiency Table (TEE Table) presenting the majority of the present value benefits;
- Public Accounts Table (PA Table) presenting the majority of the present value costs;
- Analysis of Monetised Costs and Benefits Table (AMCB Table) presenting the net present value and benefit cost ration; and
- Appraisal Summary Table (AST) detailing the non-monetised benefits and costs.

Compliance with DfT requirements for The Economic Case

3.1.5 The DfT's guidance document, 'The Transport Business Case: Economic Case', outlines the areas that should be covered as part of the documentation. **Table 12** shows where the information on these areas can be found in this document.

Table 12: Compliance with DfT requirements for The Economic Case

Component	Description	Status	In Section
Introduction	Outline approach to assessing value for money	Completed	1.1
Options Appraised	A list of options (set out in The Strategic Case) that have been appraised	Completed	1.2
Assumptions	WebTAG sets out assumptions that should be used in the conduct of transport studies. List any further assumptions supporting the analysis.	Completed	1.3
Appraisal Summary Table	See WebTAG for detailed guidance on producing the Appraisal Summary Table	Completed	1.4
Value for Money Statement	See Value for Money guidance on producing the VfM statement	Completed	1.6
Sensitivity and Risk Profile	Set out how changes in different variables affect the Net Present Value/Net Present Cost. The risk profile should show how likely it is that these changes will happen	Completed	1.7

3.2 Options Appraised

3.2.1 As set out in the Strategic Case, a number of potential junction layouts were initially proposed. These included:

- Option 1: Roundabout with bypass lanes for left turn movements to and from Omega Boulevard;
- Option 2: Signal Junction Option 1;
- Option 3: Signal Junction Option 2 (larger than option 1); and
- Option 4: Signal Junction Option 3 (larger than option 2).

3.2.2 Despite the traffic signal options scoring well against pedestrian accessibility, the largest junction option did not provide an operational benefit over the DM scenario.

3.2.3 Option 1 which included the provision of bypass lanes was forecast to provide an operational benefit compared to the Do-Minimum. However, pedestrian accessibility would have been severely impacted as a result of requiring three crossings on the Omega Boulevard approach arm.

3.2.4 In light of the above, **none of the initial options were considered suitable**.

3.2.5 Given the roundabout with bypass lanes had provided some positive operational results, a further enlarged roundabout option was developed operating with an increased Inscribed Circle Diameter (ICD) to 44m. This scheme was assessed to provide beneficial outcomes for the local road network.

3.2.6 Both Lingley Green Avenue approach arms would benefit from two approach lanes approximately 60m in length. As per the DM network the existing pedestrian crossing on the westbound Lingley Green arm would remain and a pedestrian crossing would be provided approximately 29m north of the junction on Omega Boulevard.

3.2.7 Upon completion of the enlarged roundabout assessment, it was also noted that the scheme could be improved to offer further benefits if improvements could be provided for the westbound movements towards the Great Sankey Hub junction. Therefore, the scheme was modified to reflect the addition of a left turn lane at the Great Sankey Neighbourhood Hub junction in addition to the enlargement of the Omega Boulevard roundabout. The westbound approach arm to the Sankey Hub junction benefits from two approach lanes, one for ahead traffic and one for left turners.

3.2.8 As the initial options were not considered suitable, **only one option was available to be taken forward for appraisal within the Economic Case**.

3.3 Assumptions

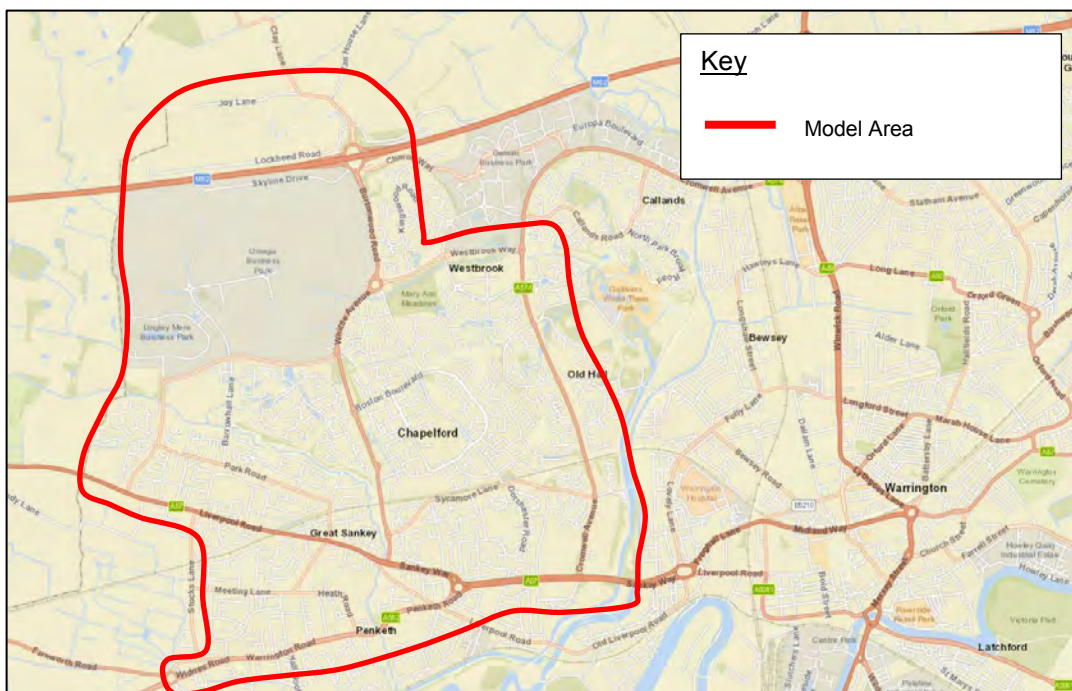
Model

3.3.1 To assess the benefits of the scheme, a bespoke SATURN based model using v11.3.12 has been developed for the OMEGA area (West Warrington SATURN model – WWSM).

3.3.2 The WWSM model area stretches from the M62 Junction 8 to the north, to the A57 Liverpool Road/Sankey Way in the south. The alternative key routes of Skyline Drive and Lingley Avenue are captured, as is Whittle Avenue. Capturing the key routes which converge at the Omega Boulevard Roundabout ensure the model is able to reflect route choice across the network. The WWSM model area is defined in **Figure 14**.

3.3.3 Further detail on the model development is included in the Forecasting Report included at **Appendix C**.

Figure 14: West Warrington SATURN Model Area



Annualisation Factors

3.3.4 Annualisation factors have been derived to convert modelled results (representing a modelled peak hour or modelled average hour) into annual results. The factors have been calculated using the results from Automatic Traffic Counters (ATC) located within the modelled area. These have been used to calculate factors to scale peak hours to peak periods. **Table 13** outlines the annualisation factors which have been assumed as part of this appraisal to convert the modelled periods to annual costs and benefits and were applied in TUBA.

Table 13: TUBA Annualisation factors

Period	Hours/day	Days/year	Annualisation Factor
AM Peak	2.42	253	613
Inter Peak	6	253	1518
PM Peak	2.47	253	627

3.3.5 The assessment periods represent a 10.9 hour day for 253 days of the year, thus covering 2,758 out of the 8,760 hours in the year and as such represent a conservative estimate of the potential overall benefits for the scheme.

Constraining to TEMPRO

- 3.3.6 Given the level of development within the OMEGA area, it was agreed with C&W LEP that the future year matrix totals for all scenarios would not be constrained to TEMPRO. Constraining the assessments to TEMPRO would potentially lead to the levels of traffic significantly lower than predicted. The scheme is located at an important decision point which impacts wider rerouting within the network. Any reduction in traffic forecasts could result in an unrealistic traffic routing and an unrealistic assessment of benefits.

Committed Schemes

- 3.3.7 The following committed highways schemes have been identified and coded in all future year models:

- M62 Junction 8 Improvements (now complete);
- Lingley Green Avenue/Burtonwood Road Roundabout Improvements;
- Lingley Green Avenue/Whittle Avenue Roundabout Improvements;
- NPIF Lingley Green/A57 Liverpool Road.;
- Sankey Hub Signalised Junction;
- S106 Widening to two lanes on the Omega Boulevard approach to the Omega Boulevard roundabout.

- 3.3.8 In addition to the committed highway schemes, WBC identified Toucan crossings will be provided at the following locations:

- Sankey Hub Signalised Junction – A Toucan crossing will be incorporated to the east of the junction to provide connectivity across Lingley Green Avenue. It has been assumed the pedestrian stage will be called six times per hour;
- To provide connectivity for pedestrians across Omega Boulevard a Toucan crossing will be located 29m north of the roundabout junction. It is assumed the crossing will be called six times per hour during the AM and PM peak periods.

- 3.3.9 The Toucan crossings have been coded in to all future year models.

- 3.3.10 Further details including plans are included in the Forecasting Report at **Appendix C**.

Present Value Benefits

- 3.3.11 The Present Value of Benefits (PVB) is derived from the model forecasts and TUBA outputs for user time savings, user charges and revenue.

- 3.3.12 Single values for user time savings, user charges and indirect taxation for each user class have been extracted from the TUBA output files representing the whole appraisal period. This takes account of the varying values of operating cost and time by purpose. The national purpose splits included as TUBA defaults will be applied to the car matrices. These single values are not required to go through further manipulation as they have already been through a WebTAG based process within TUBA.

Present Value of Costs

- 3.3.13 The Present Value of Costs (PVC) is derived by building up and summing the following cost elements over the 60 year appraisal period – this is shown in **Table 14**, with the adjustments outlined overleaf.

Capital costs

- Provided by WBC in 2019/20 values: £4.094 million;
 - o Note: The above costs were adjusted to exclude the Omega S106 widening works costs as the benefits are already captured within the Do-Minimum scenario. The adjustment also excluded the cycling infrastructure elements as the economic appraisal does not quantify these benefits. The adjusted overall cost for inclusion within the BCR calculations is £2.2 million.
- Optimism Bias applied to this cost at the rate of 15% as per WebTAG guidance in Unit A1.2 corresponding to stage 2 recommendations³;
- Adjusted to account for market prices using a factor of 1.19;
- Supervision and preparation costs have been applied at default TUBA proportions of 9%. and
- Adjusted to 2010 prices within TUBA using the 2019 GDP deflator value of 116.22 from the WebTAG Databook⁴.

Table 14: PVC Calculation

	£,000
Total scheme cost (2019/2020 values)	4,094
Adjusted scheme cost (removal of Omega S106 widening and cycling infrastructure elements)	2,205
Adjusted scheme cost including Optimism Bias (+15%)	2,536
Adjustments scheme cost PVC (including discounting)	1,841

3.3.14 The spend profile for the scheme is shown in **Table 15**.

Table 15: Spend Profile

Year	Construction	Land	Supervision	Preparation
2020	100%	100%	100%	100%

Maintenance and renewal

3.3.15 No changes to maintenance and renewal costs have been assumed at this stage.

Indirect tax revenues

3.3.16 This relates to the taxation levied on goods and services including excises, duties and VAT. When a scheme is implemented, a variety of changes in speed and distance could occur. These changes affect the amount of fuel being used and therefore affect the amount of taxes the Government receives. The overall change in tax is known as Indirect Taxes.

³ Table 8, WebTAG Unit A1.2, July 2017

⁴ WebTAG Data Book, November 2018 V1.11

Accidents

- 3.3.17 A review of existing accidents has been undertaken for the scheme study area defined in the Strategic Case chapter. A quantitative assessment of the impact in terms of accidents using Cost and Benefit to Accidents – Light Touch (COBALT) has not been completed – this approach was agreed with independent reviewer in the course of completing the Appraisal Specification Report.

3.4 Appraisal Summary Table

- 3.4.1 This section assesses the preferred option against the DfT's Appraisal Framework. A standard approach to the assessment of costs and benefits relating to the scheme has been adopted, informed by DfT guidance and requirements. The AST is designed to provide decision takers with a concise overview of impacts of the scheme against three objectives defined in WebTAG:

- Environment;
- Society; and
- Economy.

- 3.4.2 For each of these factors, benefits are ranked on a seven point scale depending on their level of impact and benefit. The ranking system is as follows:

- Strong beneficial;
- Moderate beneficial;
- Slight beneficial;
- Neutral;
- Slight adverse;
- Moderate adverse; and
- Strong adverse.

- 3.4.3 **Table 16 to Table 18** provide a summary of the sub-impacts for the Environment, Society and Economy objectives, outlining the rationale for each impact identified. The AST is provided in the WebTAG spreadsheet template in **Appendix F**.

Table 16: Impact on the Economy

WebTAG Criteria	Assessment Area Description	Preferred option	Assessment Commentary
Business Users and Transport Providers	Assessment of the extent to which journeys can be made within a reasonable time and at a reasonable cost, focussing on improvement to end to end journey times and money costs for business and transport providers.	Slight Beneficial	It is anticipated that the scheme will contribute to a slight beneficial outcome, enhancing journey times / connectivity via Omega Boulevard between firms and labour markets driving and unlocking economic growth for the Warrington West area. Generalised travel time savings for business users, will also support increased employment opportunities.
Reliability impact on Business users	Qualitative assessment of reliability impact for business trips based on design and specification prepared as part of the business case for conditional approval.	Slight Beneficial	Corridor improvement, whereby changes to Omega Boulevard junction together with Great Sankey Neighbourhood Hub, offers a benefits for the southern area of Omega. Key reliability benefits for arms of the junction which experience the largest flows. Lingley Green Avenue westbound is forecast to experience the largest reduction in Total Delay during the 2036 AM peak period, a reduction of 42 seconds.
Regeneration	Qualitative estimation of the change in accessibility to jobs as a result of a transport intervention. Review of potential residential and commercial development opportunities for the study area.	Moderate Beneficial	The scheme directly supports 675 housing at Omega and Lingley Mere and a further 1,000 other homes in the area; in excess of 100,000sqm of office and 55,000sqm of logistics on Omega; and private sector investment estimate at £100m. The scheme would provide significant indirect benefits to be felt by businesses and employees across the area, with access to and from these major commercial development sites significantly improved. There is also potential positive impact on job creation and growth of GVA.
Wider Impacts	Wider impacts considered include agglomeration impacts; output change in imperfectly competitive markets; and Tax Revenue arising from labour markets. A transport scheme is likely to have an impact on agglomeration where it increases accessibility to an economic centre or large employment centre.	Neutral	The scheme supports the West Warrington area, particularly for Omega and Lingley Mere, by ensuring accessibility between firms and workers is not constrained by growth surrounding the local road network. The scale of the scheme is considered unlikely to offer significant changes to agglomeration and therefore it has been determined that this classification area is not required to be assessed and as such assessed as Neutral.

Table 17: Impact on the Environment

WebTAG Assessment Area	Assessment Area Description	Preferred Scheme Option	Assessment Commentary
Noise	Desktop and GIS based identification of likelihood and severity of noise impact on receptors as a result of the intervention.	Neutral	Potential noise sources are likely to be construction from the scheme. This is anticipated to be short term only. Given the predicted changes in development and background flows, and the scale of the scheme relative to existing, the enlarged roundabout and changes to Great Sankey Neighbourhood Hub are not forecast to have a measurable impact on operational noise.
Air Quality	Desktop and GIS based identification of likelihood and severity of air quality impact on receptors as a result of the intervention.	Slight Beneficial	In 2018, WBC published an Air Quality Action Plan that covers 17 measures to address air quality including infrastructure improvements. Of note for the Warrington West area, the measures include the Burtonwood to Omega Cycling/Walking link, as well as a requirement to deliver a Local Cycling and Walking Infrastructure Plan to sit underneath the forthcoming LTP4. The preferred scheme includes new shared pedestrian/cycle paths and toucan crossings that will add to the sustainable travel measures/provision proposed for the area supporting Council's aspirations for improvements to air quality.
Greenhouse gases	WebTAG guidance uses carbon dioxide (CO ₂) as the key indicator of the impact on climate change. An assessment using change in car kilometres has been used.	Slight Beneficial	The scheme has the potential to influence greenhouse gas emissions of transportation, which accounts for approximately a quarter of the UK's carbon dioxide (CO ₂) emissions. The scheme is predicted to result in a reduction of approximately 56 thousand tonnes of CO ₂ emissions over a 60 year period.
Landscape	Landscape 'is both the physical and cultural (i.e. its use and management) characteristics of the land itself and the way in which we perceive those characteristics.... to give a sense of place.' ⁵	Neutral	The core elements of the scheme do not require additional land acquisition on top of what has already been agreed via the planning process, and will be delivered within the amended highway boundary. However, land is required for some sections of the proposed shared foot and cycle paths adjacent to Lingley Green Avenue eastbound and Omega Boulevard northbound which is still to be completed. The scheme could be delivered with limited impact to landscape values which is reflected with a Neutral assessment outcome.

⁵ Department for Transport (January 2014) TAG Unit A.3 Environmental Impact Appraisal

WebTAG Assessment Area	Assessment Area Description	Preferred Scheme Option	Assessment Commentary
			New landscaping is proposed as part of the scheme on North-West corner of junction (Lingley Green Avenue (EB) / Omega Boulevard (NB)).
Townscape	TAG Unit A3 Environment Impact Appraisal describes Townscape as the physical and social characteristics of the built and non-built urban environment and the way in which we perceive those characteristics.	Neutral	<p>The scale and type of scheme proposed relative to the existing condition and highway boundary is unlikely to have a measurable impact on townscape. The scheme is not visually intrusive nor has an adverse effect or conflict with policy towards enhancing urban environments.</p> <p>The scheme will however directly support 675 new houses at Omega and Lingley Mere enhancing the physical and social characteristics of the Warrington West area.</p>
Historic Environment	The man-made historic environment comprises: buildings (individually or in association) of architectural or historic significance such as parks, gardens, other designed landscapes or public spaces, remnant historic landscapes and archaeological complexes; and sites. The appraisal also considers that the historic environment includes the sense of identity and place which the combination of these features provides.	Neutral	The scheme is not in conflict with, and does not contribute to policies for the protection or enhancement of the historic environment. Furthermore, it has no appreciable impacts on any known or potential historic environmental assets and does not result in severance or loss of integrity, context or understanding within a historic landscape. Given the above, the proposed scheme has been assessed as neutral.
Biodiversity	Estimation of the impact for biodiversity informed by desktop and GIS based identification of likelihood and severity.	Neutral	No observable impact.
Water Environment	Estimation of water environment features informed by desktop and GIS based identification of likelihood and severity of impact.	Neutral	No significant impact – insufficient magnitude to affect use/change flood risk.

Table 18: Impact on Society

WebTAG Assessment Area	Assessment Area Description	Preferred Scheme Option	Assessment Commentary
Commuting and Other users	Assessment of journey time savings and the impact of connectivity for non-work and non-commuting journeys. The assessment is informed by TUBA outputs for each option.	Moderate Beneficial	Observed to offer commuting and other users journey time savings. The consumer users (commuting and other) appraised benefits respectively are reported as 2,011 and 1,491 (£,000 in 2010 values over 60 year appraisal period).
Reliability impact on Commuting and Other users	Qualitative assessment of reliability impact for commuting trips based on design and specification prepared as part of FBC for conditional approval.	Slight Beneficial	The preferred scheme option offers an opportunity to support enhanced reliability and predictability for vehicle journeys through the Omega Boulevard/Lingley Green Avenue and Great Sankey Neighbourhood Hub/Lingley Green Avenue junctions , in forecast years 2021 and 2036 forecast , amidst the potential growth forecast on surrounding sites.
Physical activity	Transport and the physical environment of cities both play a major role in the amount of physical activity that people do on a day-to-day basis. The physical activity impact is concerned with the impacts of changes in physical activity (cycling and walking) on health. Transport can affect levels of physical activity both through the promotion of active modes over motorised transport but also through the provision of infrastructure to promote walking and cycling.	Slight Beneficial	The scheme provides a new pedestrian and cyclist (toucan) crossing at Great Sankey Neighbourhood Hub as well as across Omega Boulevard. These new crossings will improve access between the new residential sites and local schools and also improve access for current residents. The improved pedestrian and cycling infrastructure has the opportunity to promote active travel between employment and residential areas in west Warrington.
Journey quality	WebTAG Unit A4.1 defines journey quality as ‘a measure of the real and perceived physical and social environment experienced while travelling’. It can be affected both by	Slight Beneficial	Congestion is a major contributor to driver stress and frustration, influenced by an inability to travel at a constant speed due to the volume of traffic and slow moving vehicles. Reductions in average queues are forecast for the Omega Boulevard Roundabout and Great Sankey Neighbourhood Hub junction , thus improving journey quality for users.

WebTAG Assessment Area	Assessment Area Description	Preferred Scheme Option	Assessment Commentary
	travellers and by network providers and operators. The assessment undertaken for journey quality has been prepared against three main categories including traveller care; travellers' views; and traveller stress.		The scheme is designed to current standards. Appropriate signage would be included to promote changes to the junction following delivery.
Accidents	Accidents occur across all modes of transport. Transport interventions may alter the risk of individuals being killed or injured as a result of accidents.	Neutral	Reported personal injury accidents data from the STATS19 database, covering the period 2012 to 2017 were reviewed as part of the Strategic Case. An average of 5.8 personal injury incidents have occurred per year within the VISSIM model analysis area during this period, with approximately one per year categorised as serious. No fatal accidents were recorded in the study area. With regard to the Omega Boulevard / Lingley Green Avenue junction itself, there was one slight injury accident over the five year period to 2017, occurring in 2014. The enlarged roundabout is not forecast to change the risk profile for accidents; however the additional of new toucan crossing facilities is observed to present beneficial outcomes for pedestrians. COBALT has not been completed.
Security	A person's perception of personal safety can ultimately determine whether or not they choose to use a mode of travel. There are no formal guidelines for road users to assess security impacts; however defined indicators pertinent to rail developments have been applied where appropriate. The review against personal safety is therefore limited to scheme characteristics to ensure no security risk is introduced through project development.	Neutral	The scheme is expected to support improvements to traffic movement through west Warrington; however it is noted that traffic congestion is not currently identified as a security risk. There are no proposed changes to security for bus/ public transport users as part of the scheme. The assessment concluded no specific security measures are anticipated to be introduced through project development.

WebTAG Assessment Area	Assessment Area Description	Preferred Scheme Option	Assessment Commentary
Access to Services	Accessibility links closely with severance; however the appraisal focusses mainly on accessibility to key employment areas, healthcare facilities, educational institutions, services and social networks.	Slight Beneficial	<p>The enlarged roundabout and modifications to Great Sankey Hub junction supports access to key employment areas, as well as new residential dwellings, and community services (e.g. Great Sankey Neighbourhood Hub, schools – Great Sankey High School etc.)</p> <p>A bus stop on Lingley Green Avenue is to be relocated.</p>
Affordability	The monetary costs of travel can be a major barrier to mobility for certain groups of people, with particularly acute effects on their ability to access key destinations. The assessment qualitatively reviews the impact of the scheme on the affordability of the transport system to users.	Neutral	<p>The scheme includes no provision to change or the intention to introduce parking charges, road user charges, public transport fare changes, or public transport concession availability which may affect affordability.</p> <p>Volume over Capacity: Due to the provision of an additional lane, the Lingley Green Avenue westbound approach to Great Sankey Neighbourhood Hub junction is forecast to experience a significant reduction over the DM in the order of 50% in all scenarios assessed.</p>
Severance	TAG Unit A4.1 Social Impact Appraisal defines severance as “ <i>the separation of residents from facilities and services they use within their community caused by substantial changes in transport infrastructure or by changes in traffic flows.</i> ” Severance is an issue where vehicle flows “ <i>significantly impede pedestrian movement or where infrastructure presents a physical barrier to movement.</i> ”	Slight Beneficial	<p>The scheme provides improvements to severance with the delivery of new pedestrian and cyclist (toucan) crossing at Great Sankey Hub as well as across Omega Boulevard. The scheme design will enhance connectivity and reduce impediments between pedestrians/cyclists and potential residential/employment opportunities.</p>

WebTAG Assessment Area	Assessment Area Description	Preferred Scheme Option	Assessment Commentary
<p>Option and Non-Use Values</p>	<p>Option and Non-Use Values should be assessed if the scheme includes measures that will substantially change the availability of transport services within the study area (e.g. the opening of a rail station or changes to bus services).</p> <p>Option Values are defined as the willingness-to-pay to preserve the option of using a transport service for trips not yet anticipated or currently undertaken by other modes, over and above the expected value of any such future use.</p> <p>Non-use values are the values that are placed on the continued existence of a service (i.e. transport facility), regardless of any possibility of future use by the individual in question.</p>	<p>Neutral</p>	<p>There will be insignificant change to the availability of transport services for the study area. The assessment determined that this classification area was not required to be assessed and as such assessed as Neutral.</p>

3.4.4 The assessment discussed in **Table 16** to **Table 18** is further summarised below.

Table 19: Summary of AST Assessment

Parameters		Assessment Score
Economy	Business users & transport providers	Slight Beneficial
	Reliability impact on Business users	Slight Beneficial
	Regeneration	Moderate Beneficial
	Wider Impacts	Neutral
Environmental	Noise	Neutral
	Air Quality	Slight Beneficial
	Greenhouse gases	Slight Beneficial
	Landscape	Neutral
	Townscape	Neutral
	Historic Environment / Cultural Heritage	Neutral
	Biodiversity	Neutral
	Water Environment	Neutral
Social	Commuting and Other users	Moderate Beneficial
	Reliability impact on Commuting and Other users	Slight Beneficial
	Physical activity	Slight Beneficial
	Journey quality	Slight Beneficial
	Accidents	Neutral
	Security	Neutral
	Access to services	Slight Beneficial
	Affordability	Neutral
	Severance	Slight Beneficial
	Option and non-use values	Neutral

3.5 Scheme Appraisal: Assessment of Economic Impacts

Forecast Junction Performance

3.5.1 **Volume over capacity (VoC):** Table 20 presents the forecast VoC for the Omega Boulevard roundabout junction operating as an enlarged roundabout junction combined with an additional approach lane to the Great Sankey Neighbourhood Hub signalised junction. The most significant percentage changes are experienced on the Lingley Green Avenue. Due to the provision of an additional lane, the Lingley Green Avenue WB approach to Great Sankey Neighbourhood Hub junction is forecast to experience a significant reduction in VoC over the DM of around 50%. Minor changes in VoC are forecast on the other approaches (i.e. Omega Boulevard and Barrow Hall Lane). The proposed improvements are predicted to allow the junction to operate within capacity in the forecast years

Table 20: Preferred scheme - Forecast VoC compared with Do-Minimum Scenario

Approach Arm VoC	2021		2036	
	AM % Change	PM % Change	AM % Change	PM % Change
Omega Boulevard Roundabout				
Omega Boulevard	-5%	-2%	0%	-5%
Lingley Green Avenue WB	-29%	-18%	-38%	-31%
Barrow Hall Lane	0%	0%	-4%	-2%
Lingley Green Avenue EB	-24%	-29%	-26%	-31%
Great Sankey Neighbourhood Hub Junction				
Lingley Green Avenue WB	-49%	-50%	-47%	-49%
Great Sankey Neighbourhood Hub	0%	0%	0%	0%
Lingley Green Avenue EB	0%	-3%	0%	-1%

3.5.2 **Total Delay:** Table 21 presents the forecast Total Delays in seconds. It highlights a circa 23 second delay improvement versus the DM for approach arm Lingley Green WB in 2036 AM (or 67% reduction in total delay). The provision of an additional lane the Lingley Green Avenue westbound approach to Great Sankey Hub junction also leads to significant total delay savings in the 2036 scenario for the Lingley Green Avenue WB and EB links assessed.

Table 21: Preferred scheme – Total Delays in seconds compared with Do-Minimum Scenario

Approach Arm Total Delays	2021		2036	
	AM % Change	PM % Change	AM % Change	PM % Change
Omega Boulevard Roundabout				
Omega Boulevard	2%	4%	5%	1%
Lingley Green Avenue WB	-30%	-14%	-67%	-35%
Barrow Hall Lane	5%	6%	4%	5%
Lingley Green Avenue EB	-19%	-25%	-23%	-29%

Approach Arm Total Delays	2021		2036	
	AM % Change	PM % Change	AM % Change	PM % Change
Great Sankey Neighbourhood Hub Junction				
Lingley Green Avenue WB	-40%	-36%	-41%	-41%
Great Sankey Neighbourhood Hub	0%	0%	0%	0%
Lingley Green Avenue EB	-23%	-8%	-21%	-8%

3.5.3 **Actual Flows:** Table 22 presents the forecast actual flows in PCUs. Operating as an enlarged roundabout, the Omega Boulevard junction is forecast not to experience a significant difference in Actual Flows for any of the approach arms. Despite the changes in flows not being significant, there are subtle changes across all arms of the junction, with actual flows forecast to increase on both the Lingley Green Avenue approach arms. The forecast traffic flows demonstrate, unlike the traffic signal options, the proposed junction is forecast not to unduly impact traffic routing within the local area.

Table 22: Preferred scheme - Forecast Actual Flows in PCUs compared with Do-Minimum

Approach Arm Actual Flows	2021		2036	
	AM % Change	PM % Change	AM % Change	PM % Change
Omega Boulevard Roundabout				
Omega Boulevard	-24%	-5%	0%	-18%
Lingley Green Avenue WB	12%	9%	6%	10%
Barrow Hall Lane	0%	-1%	-11%	-12%
Lingley Green Avenue EB	0%	0%	6%	2%
Great Sankey Hub Junction				
Lingley Green Avenue WB	1%	1%	5%	2%
Great Sankey Neighbourhood Hub	0%	0%	0%	0%
Lingley Green Avenue EB	0%	0%	3%	3%

3.5.4 **Average Queues:** Table 23 presents the forecast average queues in PCUs for the Omega Boulevard roundabout junction operating as an enlarged roundabout combined with an additional approach lane to the Great Sankey Neighbourhood Hub signalised junction. The Omega Boulevard Junction is forecast to experience reductions of up to 94% versus the DM on the Lingley Green Avenue WB arm (2026 AM peak); while the Great Sankey Hub junction is forecast to experience reductions in average queues of up to 24% in the forecast future years. The forecast reduction in average queue is small (as absolute values) but it does indicate a benefit to the area.

Table 23: Preferred scheme - Forecast Average Queues in PCUs compared with Do Minimum

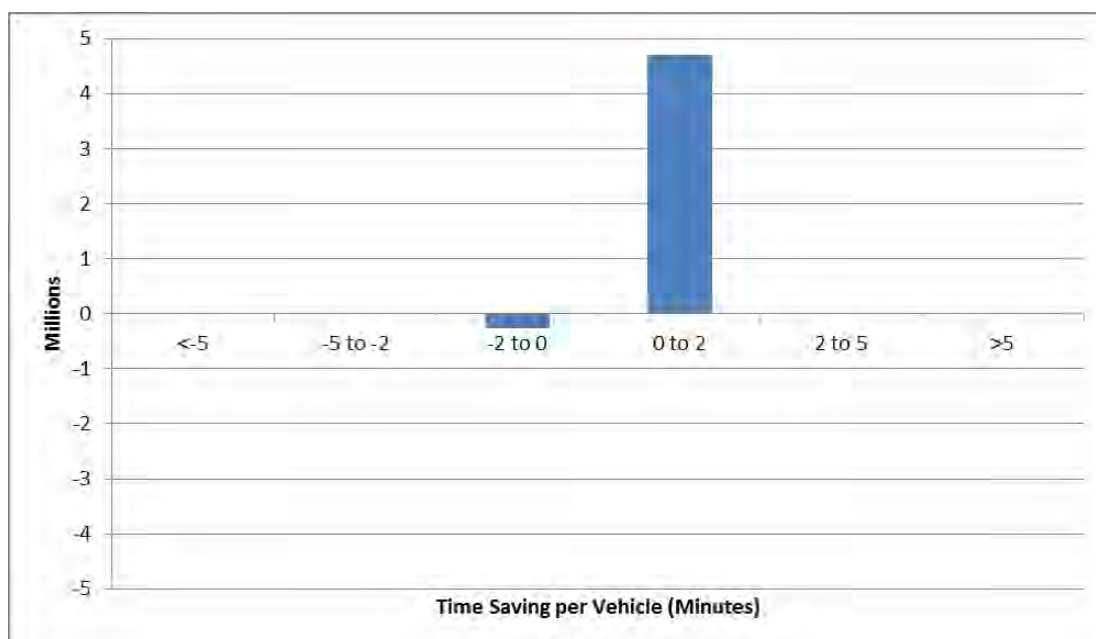
Approach Arm Average Queues	2021		2036	
	AM % Change	PM % Change	AM % Change	PM % Change
Omega Boulevard Roundabout				
Omega Boulevard	-25%	-11%	0%	-20%
Lingley Green Avenue WB	-82%	-60%	-94%	-82%
Barrow Hall Lane	-7%	-33%	-17%	0%
Lingley Green Avenue EB	-64%	-75%	-68%	-75%
Great Sankey Hub Junction				
Lingley Green Avenue WB	-22%	-21%	-18%	-22%
A577 Manchester Rd	0%	0%	0%	0%
Lingley Green Avenue EB	-24%	-8%	-21%	-4%

3.5.5 **Forecast Junction Performance Summary:** The preferred scheme including improvements at Omega Boulevard and Great Sankey Neighbourhood Hub junctions are forecast to offer significant benefits in junction operation over the DM scenario. Separately the two interventions perform well; however, combined they create corridor improvements which would deliver cumulative benefits for west Warrington. The enlarged roundabout does not unduly impact traffic routing and provides key benefits to the arms of the junction which experience the largest flows, namely Lingley Green Avenue.

Distribution of Benefits

3.5.6 **Figure 15** shows the total benefits by level of time saving for the preferred option. The results show that the majority of benefits accrue to trips with time savings less than 2 minutes.

Figure 15: Distribution of Time Benefits (£ millions) – Preferred Option (Core Scenario)



Transport Economic Efficiency Table

- 3.5.7 The TEE Table incorporates the majority of the monetised benefits. It considers the benefits to the user of the transport system due to the implementation of the scheme. The TEE Table is a standard WebTAG appraisal table which shows the monetised changes to the transport economy.
- 3.5.8 The TEE table is disaggregated into 'Consumer', and 'Business' sections to reflect and demonstrate the benefits and costs for different user groups for the following:
- User Time Savings;
 - User Charge Impacts; and
 - Operator Revenue.
- 3.5.9 Full WebTAG-formatted TEE Tables are within **Appendix H**. A summary of the PVB derived from the TEE Tables is shown in **Table 24**.

Table 24: Summary of Present Value Benefits

TEE Table	All Modes	Cars and LGVs	Goods Vehicles
Travel Time			
Business	953	516	437
Commuting	1,933	1,933	0
Other	1,410	1,410	0
<u>Sub-Total</u>	4,296	3,859	437
Vehicle Operating Costs			
Business	107	38	68
Commuting	78	78	0
Other	81	81	0
<u>Sub-Total</u>	266	197	68
Revenue	0	0	0
<u>Sub-Total</u>	266	197	68
Total	4,562	4,056	505

All figures in the table are in £'000 and in 2010 prices discounted to 2010 over a 60 year assessment period.

Public Accounts Table

- 3.5.10 The economic appraisal takes into account the effects to Public Accounts.
- 3.5.11 The PA table is within the standard WebTAG appraisal suite. The appraisal has determined the effects to public accounts over the appraisal period with regard to:
- Revenue;
 - Operating costs;
 - Investment costs; and
 - Indirect tax revenues.
- 3.5.12 The PA Table has been populated with the appropriate PVC and PVB elements for the 60 year appraisal period. Full WebTAG-standard formatted Public Account Tables are within **Appendix G**.

Table 25: Summary of Public Accounts Table

PA Table	Preferred Option
Local Government Funding	
Revenue	0
Operating Costs	0
Investment Costs	1,841
Developer and other contributions	0
Grant/Subsidy Payments	0
Net Impact	1,841
Central Government Funding: Transport	
Revenue	0
Operating Costs	0
Investment Costs	0
Developer and other contributions	0
Net Impact	0
Central Government Funding: Non-Transport	
Indirect Tax Revenues	122
Totals	
Broad Transport Budget	1,841
Wider Public Finances	122

All figures in the table are in £'000 and in 2010 prices discounted to 2010 over a 60 year assessment period.

Analysis of Monetised Costs and Benefits

3.5.13 The final stage of appraisal is to calculate the Net Present Value (NPV) and initial Benefit to Cost Ratio (BCR) of the options. The WebTAG appraisal table for AMCB is used in combination with the TEE table and PA table in order to determine the PVB and PVC. The BCR is given by dividing the PVB by the PVC. It therefore indicates how much benefit is obtained for each unit of cost, with a BCR greater than 1 demonstrating that the benefits outweigh the costs⁶. A summary of the AMCB Table is included at **Table 26**. Full WebTAG formatted AMCBs are within **Appendix I**.

Table 26: Summary of Analysis of Monetised Costs and Benefits

AMCB Summary	Preferred Option
Environmental (Noise, Local Air Quality, Greenhouse gases, Infrastructure)	56
Consumer Users (Commuting)	2,011
Consumer Users (Other)	1,491
Business Users and Providers	1,060
Wider Public Finances (Indirect Tax Revenue)	-122
Present Value of benefits (PVB)	4,496
Broad Transport Budget	0
Present Value of Costs (PVC)	1,841
Net Present Value (NPV) (NPV) = (PVB) - (PVC)	2,655
Initial Benefit to Cost Ratio (BCR)	2.44

All figures in the table are in £'000 and in 2010 prices discounted to 2010 over a 60 year assessment period.

3.6 Value for Money Statement

3.6.1 The current BCR and Value for Money category for the appraised options is outlined in **Table 27**.

Table 27: Value for Money Summary

Value for Money Summary	Preferred Option
Present Value of Benefits (PVB)	4,496
Present Value Costs (PVC)	1,841
Net Present Value (NPV)	2,655
Benefit to Cost Ratio (BCR) (Preferred) ⁷	2.44
Value for Money Category	High

All figures in the table are in £'000 and in 2010 prices discounted to 2010 over a 60 year assessment period.

⁶ Department for Transport, TAG A1.1 Cost-Benefit Analysis (January 2014)

⁷ Department for Transport, Value for money Categories: Poor - <1.0; Low - 1.0 to 1.5; Medium - 1.5 to 2.0; High - 2.0 to 4.0; Very High - >4.0

3.6.2 The table shows that the preferred option has BCR of 2.44, which equates to ‘High’ value for money. Further supporting the above, are key social and economic benefits, namely regeneration attributed to scheme directly supporting some 675 new homes at Lingley Mere and Omega; as well as severance and physical activity benefits associated with delivery of new cycling and crossing facilities for the junction.

3.7 Sensitivity and Risk Profile

High and Low Growth Scenario

3.7.1 A High and Low Growth sensitivity scenario was assessed for the preferred option in line with TAG Unit M4 guidance to test the robustness of the scheme benefits and overall network performance metrics.

3.7.2 Following TAG Unit M4 guidance the alternative matrices for the HG and LG scenarios were developed by adding or subtracting the derived demand after applying the growth factors given by the following formulae:

The proportion of base year demand to be added is based on a parameter P. The proportion is calculated as follows:

Between 1 and 36 years after the base year, the proportion of base year demand should rise from P to 6*P in proportion with the square root of the years.

Source: TAG Unit M4.2.2

$$B^{high} = B+U*A \quad \& \quad B^{low} = B-U*A$$

Where,

B is a matrix cell in the forecast year;

A is a matrix cell in the base year;

U is the range appropriate for the given future year.

Source: TAG Unit M4, Box 1

3.7.3 TAG Unit M4 defines the value of P as 2.5%, for highway demand at the national level, reflecting uncertainty around annual forecasts from the National Transport Model (NTM). The corresponding factors for each forecast year are outlined in **Table 28**.

Table 28: High and Low Growth Factors

Forecasting Year	U (Growth Factor)
2021	5%
2036	11%

- 3.7.4 The forecasting report included at **Appendix C** presents analysis pertaining to changes in VoC, total delay, total flows and average queue lengths. The results indicate the sensitivity test model is forecast to experience a similar level of operational performance to the Core model. However, the level of delay within the DM sensitivity test is forecast to be higher. Re-routing of southbound traffic to Omega Boulevard is forecast to be favourable as the re-routing is likely to be driven by forecast increases in delay on the Lingley Green Avenue arm.
- 3.7.5 Despite these changes in the DM model, the DS model forecasts very similar results to the Core scenario. The comparable levels of delay and queue length indicate that the scheme is adaptable to provide the comparable levels of benefits in either case.
- 3.7.6 **Table 29** presents the change in BCR under the low and high growth scenarios. It highlights in a low growth scenario the scheme would provide a BCR of 1.86, representing 'Medium' Value for Money; while under a high growth scenario, the scheme would still represent 'High' Value for Money.

Table 29: Sensitivity Test: High and Low Growth Scenario BCR Summary

AMCB Summary	Low Growth Scenario	Core	High Growth Scenario
PVB	3,432	4,496	4,536
PVC	1,841	1,841	1,841
NPV	1,591	2,655	2,695
BCR	1.86	2.44	2.46

All costs and benefits are in £'000s in 2010 prices and values

Alternative Masterplan scenario

- 3.7.7 WBC has indicated that consideration may be given to a revised masterplan for the OMEGA site. Therefore, to ensure the preferred scheme continues to provide a benefit in light of such potential revisions, an additional sensitivity test has been completed. Informed by discussions with OWL, the forecasting exercise for the OMEGA development has been revised to incorporate potential changes. Such assumptions are indicative and only for the purpose of illustrating the potential impact to value for money and junction performance. The forecast assumptions underpinning this sensitivity test are therefore subject to change, and would need to be reviewed should a revised masterplan be progressed before final funding determination for the scheme. The assessment highlights the preferred scheme would remain 'High' Value for Money with a BCR of 3.03.

Table 30: Sensitivity Test: Revised Masterplan Scenario BCR Summary

AMCB Summary	Core	Potential Revised Masterplan Scenario
PVB	4,496	5,577
PVC	1,841	1,841
NPV	2,655	3,736
BCR	2.44	3.03

All costs and benefits are in £'000s in 2010 prices and values

Change in costs and benefits

3.7.8 An assessment has been carried out with regard to the sensitivity of the result to variations in PVB and PVC to test the robustness of the analysis to over or underestimates of these inputs. Three tests are considered:

- A reduction of 10% in benefits;
- An increase of 10% in costs; and
- Both the above together.

3.7.9 The results are shown in **Table 31**. The conclusion from an examination of the results is that even in the worst case test (increase in cost by 10% and decrease in benefits of 10%) the BCR remains at least 2.00 confirming that the scheme provides 'High' value for money.

Table 31: Sensitivity Test: High and Low Growth Scenario BCR Summary

Sensitivity Test	PVB	PVC	NPV	BCR
Reported preferred option	4,496	1,841	2,655	2.44
PVC + 10%	4,496	2,025	2,471	2.22
PVB - 10%	4,056	1,841	2,205	2.20
PVC +10% and PVB -10%	4,056	2,025	2,021	2.00

All costs and benefits are in £'000s in 2010 prices and values

4. FINANCIAL CASE

4.1 Introduction

4.1.1 This chapter presents The Financial Case for the Omega Local Highways Phase 1 scheme. It outlines an estimate of capital costs, their breakdown and levels of risk. The Financial Case focuses on the funding arrangements including the spend profile to ensure the affordability of the scheme.

Compliance with DfT requirements for The Financial Case

4.1.2 The DfT's guidance document, 'The Transport Business Case: Financial Case', outlines the areas that should be covered as part of the documentation. **Table 32** shows where the information on these areas can be found in this document.

Table 32: Compliance with DfT requirements for The Financial Case

Component	DfT requirements	Status	In Section
Introduction	Outline the approach taken to assess affordability	Completed	1.1
Costs	Provide details of: <ul style="list-style-type: none"> • Expected whole life costs; • When they will occur; • Breakdown and profile of costs by those parties on whom they fall; and • Any risk allowance that may be needed (in the event of things going wrong). 	Completed	1.2
Budget/Funding Cover	Provide analysis of the budget/funding cover for the project. Set out, if relevant, details of other funding sources (e.g. third party contributions, fees)	Completed	1.3

4.2 Costs

4.2.1 Detailed cost estimates for the scheme have been prepared by WBC. The cost is considered proportionate and affordable to the scale of the issues identified in the Strategic Case and the predicted benefits of the scheme assessed in the Economic Case.

Assumptions

4.2.2 Key assumptions include:

- Construction will begin in **March 2020** and be complete in **December 2020** (9 month programme);
- In accordance with WebTAG guidance, **optimism bias is not included** in the Financial Case cost breakdown and does not form part of the funding request. It is included in the Economic Case for the purposes of economic appraisal.
- All rates have been **costed to represent 2019/20 values** and with construction to commence in 2019/20 – therefore no inflation is included within the estimate.

Base Costs

4.2.3 The total outturn cost for the scheme is estimated at **£4.094 million** including risk.

4.2.4 A risk register has been prepared for the scheme and is used to inform and obtain the Quantified Risk Assessment (QRA) value. This sets out clear assumptions for where risk has been accounted for and at what value. WBC prepared the scheme QRA which is attached at **Appendix D**. The development of the QRA is based on experience of similar schemes, as well as through well-established experience working with Balfour Beatty on the SCAPE framework – the same Delivery Partner proposed for this project. The Balfour Beatty QRA methodology/template has been used to develop the QRA. The QRA has calculated risk to be **£583,700**. Through the contracting process, following the approval of this OBC, the QRA developed by WBC will be independently reviewed and updated by the Delivery Partner providing further assurance relating to risk.

4.2.5 **Table 33** provides a summarised breakdown of the cost estimate by key elements, with further detail set out in **Appendix E**.

Table 33: Cost Estimate (£m)

Cost Item	Preferred Option (£m)
Design	0.369
WBC Project Management	0.189
Statutory Undertakers	0.875
Construction	1.832
Miscellaneous (including Property and Land, Legal, Tree Clearance, TROs, TTROs, Monitoring and Evaluation etc.)	0.245
Base Cost (excluding risk)	3.510
Risk (QRA Value)	0.584
Total Scheme Cost (including QRA value)	4.094

Capital Construction Cost Profile

4.2.6 The capital construction cost profile for the preferred option is shown in **Table 34**.

Table 34: Capital Construction Cost Profile (including QRA) (£m)

Cost (£m)	Sunk Costs	2019/20	2020/21	2024/25	Total
Preferred option	0.154	1.000	2.930	0.010	4.094

Maintenance Costs

4.2.7 The ongoing operation and maintenance liabilities for the scheme lie with WBC in accordance with their network management and maintenance responsibilities as defined within the Traffic Management Act 2004 and the Highways Act 1980. The maintenance costs will be covered by WBC's own maintenance budget; therefore the costs will not form part of the funding request.

4.2.8 No maintenance and renewal costs have been prepared at this stage. These will be referenced at FBC stage.

4.3 Budget / Funding Cover

4.3.1 This section sets out how much funding is being sought, including annual profile from the C&W LEP, via third parties and how much is being contributed by WBC.

Table 35: Funding Sources (£m)

Funding Source	2017/18	2018/2019	2019/2020	2020/21	2021/22+	Total
C&W LEP – Local Growth Deal Funding	0.064	0.090	1.000	1.895	0.000	3.049
Omega Developer Contribution	0.000	0.000	0.000	0.875	0.000	0.875
Lingley Mere Developer Contribution	0.000	0.000	0.000	0.160	0.000	0.160
WBC	0.000	0.000	0.000	0.000	0.010	0.010
Total Scheme Cost	0.064	0.090	1.000	2.930	0.010	4.094

Cheshire and Warrington LEP

4.3.2 C&W LEP have committed Local Growth Deal funding of **£3,048,789**.

In January 2017, Government announced the allocation of £43.28 million from the Local Growth Fund for Cheshire and Warrington to help create jobs, support businesses and encourage growth through investment in transport and skills in the sub-region. The £43.3 million included three transport schemes for Warrington, one of which is the Omega Local Highway Schemes Phase 1 scheme (£4.3 million Local Growth Funding contribution).⁸ Value engineering of the scheme since submission has provided a saving towards the C&W LEP contribution for this scheme.

Third Parties

4.3.3 Private sector contributions from Omega Warrington Limited and Lingley Mere towards the costs of the scheme are set out below:

- Lingley Mere developer: **£160,000**; and
- Omega Warrington Ltd: **£875,000** (For stats diversions on Omega Boulevard arm).

4.3.4 The total developer contributions by each party have been confirmed through s106 agreements:

- Lingley Mere: dated 7th October 2016 (see **Appendix M**); and
- Omega Warrington Ltd: dated 20th December 2016 (see **Appendix N**).

Warrington Borough Council

4.3.5 The total budget for monitoring and evaluation is £50,000. WBC will be responsible monitoring and evaluation activities including baseline activities (prior to commencement of works), and reporting in 2021/22 (one year post-delivery) and in 2024/25 (four years post-delivery).

4.3.6 WBC will fund monitoring and evaluation costs beyond 2020/21 when Growth Deal monies are not available. This equates to £10,000 for reporting in 2024/25. The remaining monitoring and evaluation costs (£40,000) are captured through the C&W LEP and third party funding contributions in earlier years of the spend profile.

4.3.7 The scheme budget was approved by the Councils Executive Board (now known as Cabinet) in April 2018.

4.3.8 As part of the WBC internal approvals process, the Section 151 Officer is required to endorse Capital Programme papers put forward for Cabinet approval. This was undertaken as part of the April 2018 Executive Board paper, which requires Section 151 Officer sign off. It is noted this was also for a higher costed scheme value, with further option assessment and value engineering subsequently leading to a revised scheme cost of £4.094 million. Within the context of the Section 151 sign off requirements, it is also important to recognise that the amount of WBC contribution for this scheme is £10,000.

⁸ Cheshire and Warrington LEP (2017) <http://www.871candwep.co.uk/latest-news/43-3m-cash-boost-for-cheshire-warrington-to-help-create-local-jobs-and-growth/>, Accessed 26 May 2017;

5. THE COMMERCIAL CASE

5.1 Introduction

5.1.1 This chapter presents the Commercial Case for the Omega Local Highways Phase 1 scheme. It demonstrates the commercial viability of the scheme which, combined with overall economic benefits to society (the Economic Case), are key factors in project financing. It presents the benefits of the proposed procurement strategy, sets out the proposed contract, evidence of risk allocation and transfer, as well as details of any personnel implications arising from the scheme.

Compliance with DfT requirements for The Commercial Case

5.1.2 The DfT's guidance document⁹ outlines the areas that should be covered as part of the Commercial Case. **Table 36** illustrates how this chapter fulfils DfT's requirements.

Table 36: Compliance with DfT requirements for The Commercial Case

Component	Description	Status	In Section
Introduction	Outline the approach to assess commercial viability.	Completed	1.1
Output Based Specification	Summarise the requirement in terms of outcomes and outputs.	Completed	1.2
Procurement Strategy	Detail procurement/purchasing options including how they will secure the economic, social and environmental factors outlined in the economic case.	Completed	1.3
Sourcing options	Explain the options for sources of provision of services to meet the business need e.g. partnerships, framework, existing supplier arrangements, with rationale for selecting preferred sourcing option.	Outlined	1.4
Payment Mechanisms	Set out the proposed payment mechanisms that will be negotiated with the providers e.g. linked to performance and availability, providing incentives for alternative revenue streams.	Outlined	1.5
Pricing Framework and charging mechanism	To include incentives, deductions and performance targets.	Outlined	1.5
Risk allocation and transfer	Present an assessment of how the types of risk might be apportioned or shared, with risks allocated to the party best placed to manage them subject to achieving value for money.	Outlined	1.6
Contract length	Set out scenarios for contract length (with rationale) and proposed key contractual clauses.	Outlined	1.7

⁹ The Transport Business Case, Department for Transport, January 2013

Component	Description	Status	In Section
Human resource issues	Personnel/people management/trade union implications, where applicable, including TUPE regulations.	Outlined	1.8
Contract management	Provide a high level view of implementation timescales. Detail additional support for in service management during roll-out / closure. Set out arrangements for managing contract through project / service delivery.	Outlined	1.9

5.2 Output Based Specification

5.2.1 The Commercial Case is based on number of strategic objectives and outcomes against which alternative procurement options are considered. These include:

- Achieve cost certainty, or certainty that the scheme can be delivered within the available funding constraints - there is a fixed amount of funding available from the C&W LEP and third parties, with the remainder being contributed by WBC. All risks on cost overruns remain with WBC;
- Minimise further preparation costs with respect to scheme design;
- Obtain contractor input to risk management and appraisals, including mitigation measures, to capitalise at an early stage on opportunities to reduce construction risk and improve out-turn certainty thereby reducing risks to a level that is As Low As Reasonably Practicable; and
- Ensure contractor and stakeholder engagement throughout the whole process from early-planning to full scheme delivery.

5.2.2 The primary objectives underpinning the Commercial Case and that the preferred procurement strategy must deliver are:

- Deliver the scheme within the available funding;
- Ensure full commitment to the project;
- Delivery of the scheme to programme;
- Ensure Best Value is delivered;
- Offer an affordable 'whole life' cost solution;
- Confidence in delivery: WBC will be expected to engage with a contractor with a proven track record of stakeholder engagement, innovation and value engineering solutions on similar projects;
- Work standard: the junction improvement works to the highway network will be expected to be delivered in line with construction design standards defined within the contract;
- Reduce risks to a level that is As Low As Reasonably Practicable;
- Provide contractor input to the design, risk assessment and delivery programme; and
- Minimise disruption – delivery of the scheme to minimise disruption caused to the highway network.

5.2.3 Following the completion of the option assessment and a value for money assessment of the junction improvement options, a scheme specification has been developed that represents the key outputs that are required to support the objectives of the scheme, namely:

- an enlarged roundabout and approaches at Lingley Green Avenue / Omega Boulevard, as well as widening of the junction of Lingley Green Avenue / The Hub to create a left turn lane into The Hub development. New shared foot/cycle paths and toucan crossings are also proposed. A plan of the preferred scheme is included in the Introduction chapter of this OBC.

5.3 Procurement Strategy

5.3.1 Procurement is an integral part of the project management process. The procurement strategy has been designed to ensure:

- Value for Money: WBC is under a duty to secure value for money in all of its transactions;
- Compliance with legislation: a wide variety of UK and European Union statutes and regulations apply to procurement; and
- Avoidance of fraud and corruption: procurement must be visible and tightly controlled to limit potential fraud and avoid any suggestion of corruption.

5.3.2 The management of the development and delivery of the works are to be the responsibility of WBC. The Council's procurement activities are governed by Contract Procedure Rules (CPRs) which are mandatory and comply with European legislative requirements. The procurement strategy will be managed in accordance with CPRs and the WBC Corporate Procurement Guide, with day to day management of consultants undertaken by the Project Management Team.

5.3.3 The following procurement routes have been considered:

- Option 1: Traditional, procurement, construction, separate maintenance - WBC would complete a full detailed design followed by tendering for a Contractor, who is passed the design to construct;
- Option 2: Design and Build (D&B) construction, separate maintenance - WBC submits for tender the design developed during the statutory processes and passes it to the Contractor to tender the detailed design and construction; and
- Option 3: Early contractor Involvement (ECI), separate maintenance - Delivery contractor appointed prior to preliminary design stage.

Table 37: Procurement Options: Advantages and Disadvantages

Procurement Option	Advantages	Disadvantages
Option 1: Traditional	Increased WBC control over specification and quality.	Risk resulting from design is carried by the WBC.
Option 2: D&B	<p>Opportunities for design / construction efficiencies, and collaboration during the design and construction phases.</p> <p>Design solutions can be directed towards specific Contractor methods aiding buildability and potential for value engineering.</p> <p>Risk from detailed design is carried by the Contractor appointed for D&B.</p>	Potential that the contract amount may be higher to reflect an increase in contractor risks.

Procurement Option	Advantages	Disadvantages
	WBC develops a detailed knowledge of risk, enabling a more informed negotiation of risk transfer at tender/final contract stage.	
Option 3: ECI	<p>Allows for early supplier engagement on a partnering basis.</p> <p>Transfer a greater degree of design and other construction risk to the contractor. Risk register developed in partnership with supplier. Opportunity to share risk to most appropriate party.</p> <p>Contractor is better placed to manage risk, having been involved from an early stage in the design process.</p> <p>Enable design and construction efficiencies realised through collaboration during the design and construction phases</p> <p>Access to contractor experience early on in scheme development – relating to buildability, sequencing and subcontractor selection</p>	<p>Target cost for the main construction works is generally negotiated rather than competitively tendered, which may impact on the value for money of the construction contract.</p> <p>A level of certainty for scheme funding is required in order to progress Early Contractor Involvement.</p> <p>Involves open book cost management and in-house skills to manage.</p>

Recommended Procurement Option – Delivery

- 5.3.4 WBC has determined that Option 1 is the preferred procurement approach. Initial design work has been undertaken to inform the OBC specification and scheme costs. WBC will be responsible for procuring the full detailed design, followed by tendering for a Contractor, rather than procuring on a D&B basis.
- 5.3.5 Whilst this means WBC retains the risk of the design being fit for purpose, this also increases WBC’s control over the design. The scale of the scheme and WBC’s experience of similar schemes lends itself to this procurement route. Warrington’s experience with design ensures this is an efficient and deliverable procurement route.
- 5.3.6 Private Finance Initiative (PFI) was not considered as an option in the above assessment owing to the small scale of the intervention and current Government policy which is not to progress new projects under PFI¹⁰. Furthermore, in this instance, there was suitable opportunity for funding to be sourced through Government allocations (Growth Deal), developer contributions and Council capital borrowing, minimising the complexity and need for wider private finance.

¹⁰ HM Treasury - Budget 2018 Private Finance Initiative (PFI) and Private Finance 2 (PF2)

5.4 Sourcing Options

5.4.1 In order to make an informed choice with regard to the sourcing strategy for the Omega Local Highways Phase 1 scheme, consideration has been given to best practice and WBC resource capacity and capability. The following section outlines the potential sourcing options considered by WBC. In each of these cases, the relative advantages and disadvantages are outlined.

Option 1: Open or Restricted Tender – OJEU

5.4.2 The Official Journal of the European Union (OJEU) works contract threshold as of 1st January 2018 is £4.5 million. The value of the scheme is marginally less than this value at **£4.1m**.

5.4.3 WBC may competitively tender (open or restricted) using an OJEU notice. An open tender relates to where anyone may tender; while a restricted tender relates to the process where pre-qualification is used to whittle down the open market to a pre-determined number of tenderers.

5.4.4 **Open Tender:** The minimum time limit for submission of tenders is 35 days from the publication date of the contract notice. If a prior information notice was published, this time limit can be reduced to 15 days.

5.4.5 **Restricted Tender:** Any business may ask to participate in a restricted procedure, but only those who are pre-selected will be invited to submit a tender. The time limit to request participation is 37 days from the publication of the contract notice. WBC would then have the opportunity to select at least 5 candidates with the required capabilities who would be given a further 40 days to submit a tender. This time limit can be reduced to 36 days, if a prior information notice has been published.

5.4.6 An assessment of the OJEU tenders submitted would then need to be undertaken, with the selected tender offering the best value for money, whilst also meeting the requirements of the OJEU notice. Any contractor procured via this route would need to demonstrate relevant experience, value for money and the capability to deliver the scheme within the required timescales.

5.4.7 There is a mandatory 10 day 'standstill' period, during which unsuccessful tenderers may challenge the intention to award to the preferred contractor.

Advantages

- An open tender allows for increased competition due to the potentially high volume of responses leading to potentially more competitive prices;
- Organisations of all sizes have the opportunity to submit a tender, increasing the opportunity for a number of innovative proposals/solutions;
- Compared to restricted tender, the overall timescale of an open OJEU is reduced (no pre-qualification stage);
- Opportunities for design / construction efficiencies, and collaboration during the design and construction phases through Design and Build OJEU specification;
- The contract can be drafted to enable WBC to transfer various risks to the contractor; and
- Well established and proven forms of contract are available.

Disadvantages

- Resource implications of a potentially lengthy tender evaluation (due to a high volume of responses);
- No opportunity to discuss/refine bids;
- An open tender may result in some providing poor quality bids due to the fact there is an increased chance of being unsuccessful and a limited timescale; and
- Increased risk of challenge due to more responses and time invested/transaction costs in preparing a tender.

Option 2: SCAPE National Civil Engineering and Infrastructure Framework

- 5.4.8 SCAPE is an organisation originally set up by a group of Local Authorities in 2006 to deliver greater value for money in the procurement of major building works. They have since diversified in to other areas setting up national frameworks for services such as facilities management, project management, QS services and minor works. The SCAPE Group Ltd is still a local authority owned company. These frameworks are open to all public sector bodies but are specifically tailored towards Local Government Authorities.
- 5.4.9 Recently they have brought forward an OJEU compliant 4 year Civils and Infrastructure framework with a notional value of £2.1 billion. The successful contractor appointed to the SCAPE Framework in October 2018 is Balfour Beatty, a nationally recognised construction company with more than 100 years of experience in complex infrastructure projects.
- 5.4.10 Balfour Beatty was previously appointed to the original National Civil Engineering and infrastructure framework in 2015 which ran until January 2019. As part of that four year appointment, Balfour secured over 130 projects worth a combined value of £1.5 billion revenue in sectors including major highways and local roads.
- 5.4.11 Through the framework, Balfour Beatty can deliver works valued from £1 million to £40 million and above. The Framework covers services including site investigation, site clearance, site preparation, foundations, roads, bridges, structures, pipelines and tunnels, as the provision of associated mechanical, electrical and minor building works. The framework provides for a balance of risk, control and cost certainty to enable value for money to be achieved.
- 5.4.12 The SCAPE Framework has been scrutinised by WBC's Procurement Team who have approved this delivery pathway. In early 2015, SCAPE Group provided a briefing to WBC regarding the framework. WBC lead project and service managers and colleagues from the procurement team were in attendance at this briefing. It was noted that this method of procurement could offer immediate advantages to the delivery of several projects. The WBC Procurement Team has confirmed that the Framework complies with all procurement legislation. The SCAPE Access Agreement was signed between SCAPE System Build Limited t/a SCAPE Group and WBC on the 30th March 2015, and applies to all frameworks administered by SCAPE both current and future replacements (**Appendix J**). In entering into the Agreement with SCAPE Group, WBC has approved the delivery pathway.

Advantages

- Nationally competitively tendered framework on fixed overheads, profit and preliminaries basis;
- Potential to involve the contractor (Balfour Beatty), who has proven experience relating to buildability, sequencing and subcontractor selection, for pre-contract services on a competitive basis (Early contractor involvement);
- Retain client involvement in the pre-selection and appointment of subcontractors;
- Sub contracted works packages are carried out via an open book process which allows the Client a level of scrutiny and control over who is appointed to carry out works packages;
- Enable design and construction efficiencies realised through collaboration during the design and construction phases;
- Allowing the contractor to take the scheme forward on a design and build basis will remove a significant liability from WBC as any risks associated with design around build ability and outputs are then borne by the contractor. Currently WBC is underwriting all of these risks;
- The commercial management of the various design consultants, which may be resource intensive, is passed to the contractor, who by their very nature, are more able to drive efficiencies from this process;
- SCAPE procures a significant volume of projects and services enabling the framework to command highly competitive and fixed rates;

- Designed to achieve measurable time, quality, cost and community benefits on every project and commission including use of local suppliers;
- Significant financial; and time savings will be realised by not having to carry out protracted OJEU procurements for each individual project; and
- This method of procurement is recognised as being able to deliver projects quicker throughout all phases of development as well as a potentially more “efficient” design.

Disadvantages

- Potential that the value for money from the main construction contract may be impacted by awarding the contract to a single supplier.
- Dependence on a single supplier and their associated supply chain.

Option 3: Other open framework agreements

5.4.13 Many framework agreements awarded by central government departments and other local authorities are enabled for use by the WBC. These cover a range of supplies and services. For WBC, the Transportation and Public Realm Consultancy Services Framework (TPRCSF) is an established procurement route for services often used by Council.

5.4.14 The TPRCSF has been established since 2014, following the execution of a previous multi-consultant framework from 2008-2013. The framework provides for the fast and efficient provision of personnel and expertise up to value of the OJEU funding limits. The TPRCSF consists of a panel of approved consultants who may be engaged by WBC to provide multi-disciplinary professional and technical advice, design, guidance, negotiation and assistance on construction projects and other services. For instance, support on the business case, engineering design of the scheme, public consultation and stakeholder management and/or cost estimation services. WBC has a strong and effective working relationship with the four leading transport consultancies under its TPRCSF.

Advantages

- Well established procurement method that WBC has utilised through initial stages of project development.

Disadvantages

- Absence of a single framework to provide full range of services required; and
- Typically, the TPRCSF is targeted at support through the development phase, taking the scheme through to preliminary design and identification of delivery contractor, rather than delivery a scheme of this scale.

Highways Term Maintenance Contractor

5.4.15 The Highways Term maintenance contract was awarded in 2014. The Contractor is responsible for providing public works, which include, but are not limited to, various programmed and reactive works connected with the highway infrastructure and environment in the Warrington local authority area, as well as works which create or improve transportation assets. The contractor may also provide services connected with the maintenance of assets in the interest of safety and amenity; response services to react to emergency situations and civil contingencies, planned works, carriageway and footway patching, barrier repairs, winter maintenance, schemes and major projects.

Advantages

- Retained contractor available

Disadvantages

- The contract is more focused around maintenance works and has not been used for a project of this scale.
- Major scheme of this nature may present significant risk for WBC compared to typical works commissioned via the Highways Term Maintenance Contract.

Recommended Sourcing Option – Delivery

- 5.4.16 The use of existing Highways Term Maintenance Contract (Option 1) was not recommended. Warrington has approximately 948km of roads and the existing services provided by the contractor in relation to programmed infrastructure maintenance and reactive works should remain the focus of the contractor. It was determined that the proposed scheme was more suited to either an OJEU procurement or via the SCAPE framework, to ensure value for money and appropriate expertise were secured. Furthermore restricting access to the Highways Term Contract may impact both delivery capability as well as competition in the market for this type of work moving forward.
- 5.4.17 The OJEU sourcing route, whilst a legitimate route, is not preferred, due to the proposed timescales and efficiencies offered via alternative sourcing routes. The recommended approach is to utilise the SCAPE framework sourcing route.
- 5.4.18 As part of their first appointment to the SCAPE framework, Balfour Beatty has proven that they have delivered successfully on other schemes for WBC such as the Birchwood Pinch Point Project and Junction 8, M62. These projects were delivered on time, to budget and within the specified quality parameters.
- 5.4.19 The use of the SCAPE Framework has allowed WBC and Balfour Beatty to demonstrate their ability to deliver within tight timescales and gives certainty around budget. This will be critical to meet the timeframes for release of LEP funding for the project. The success provides assurance and confidence that the scheme can be delivered via the SCAPE Framework.
- 5.4.20 This sourcing approach also highlights the added value Balfour Beatty has been able to contribute toward WBC infrastructure projects. The SCAPE Framework is also being used for a number of other WBC projects including:
- Warrington West railway station;
 - Omega Local Highways Phase 2;
 - Warrington East Phase 2 project; and
 - Centre Park Link.
- 5.4.21 Evidence of the governance approval of the procurement route for the Omega Local Highways Phase 1 scheme and the associated delivery contract will be appended to the FBC.
- 5.4.22 Use of the Transportation and Public Realm Consultancy Services Framework will also be used to supplement Council advisory support services to the main contract, for instance to provide business case development and review services.

5.5 Payment Mechanisms / Pricing Framework and Charging Mechanisms

- 5.5.1 The scheme will utilise two contracts to facilitate the delivery of the project:
- SCAPE national Civil Engineering and Infrastructure Framework 2019-2023; and
 - Transportation and Public Realm Consultancy Services Framework 2018-2021.
- 5.5.2 The contract value for the delivery of the scheme will be set out in the Delivery contract between the Principal Contractor (Balfour Beatty) and WBC. This has yet to be agreed.
- 5.5.3 This contract will be finalised as soon as reasonably practicable after the confirmation of full funding from WBC and C&W LEP at OBC approval stage.
- 5.5.4 The confirmed Delivery contract will be reported back to the C&W LEP through the FBC (and appended).
- 5.5.5 Payment mechanisms to Balfour Beatty will be set out in the contract schedule.
- 5.5.6 Generally the SCAPE framework includes two main payment areas:
- Contractor and their agent payments; and
 - SCAPE Procure Management Team payments.
- 5.5.7 The fee for using the SCAPE framework is set at 0.5% of the total contract value which is recovered on a pro rata spend basis for any chargeable works which are undertaken.
- 5.5.8 It is envisaged that the payments direct to the contractors or contractors agents will be based on fee quotations or the target contract cost. This will be confirmed through the contract schedule.
- 5.5.9 Where funding is drawn down from partial funding contributed by C&W LEP, WBC will pay the contractor and provide the evidence of expenditure on valid scheme delivery works to C&W LEP.
- 5.5.10 Further details of the agreed pricing framework and charging mechanisms will be provided at FBC following the execution of the Delivery Contract with the Principal Contractor. WBC's previous experience with Balfour Beatty through the SCAPE framework (i.e. Warrington West station; Omega Local Highways Phase 2; Warrington East Phase 2; and Centre Park Link) means that the likely pricing framework and charging mechanisms are well understood.

5.6 Risk Allocation and Transfer

- 5.6.1 The scheme risks associated with the Omega Local Highways Phase 1 scheme have been considered and included as part of the detailed QRA, managed by WBC.
- 5.6.2 A further summary of the key project risks is provided within the Risk Management Strategy section of the Management Case.
- 5.6.3 Risks have been identified, recorded and managed throughout the scheme development phase (to OBC stage). This will continue to be an ongoing task through to practical completion.
- 5.6.4 The development of the QRA is based on experience of similar schemes, as well as through well-established experience working with Balfour Beatty on the SCAPE framework – the same Delivery Partner proposed for this project. The Balfour Beatty QRA methodology/template has been used to develop the QRA.
- 5.6.5 As part of this process, an owner has been allocated to each risk. Where appropriate, the aim is to eliminate the identified risk, or prepare relevant mitigation measures to manage and reduce the impact of the risk.
- 5.6.6 WBC has sought to attribute all project risks to a nominated party that can best demonstrate value for money in managing the risk. This is covered through the apportionment of the QRA values.

5.6.7 WBC assigned risks with a cost impact include:

- Construction risk for WBC within the QRA has been determined based on design creep, differences to ground conditions from those expected, presence of protected species, suitability of temporary traffic management arrangements, cost increases above C4 quotes for statutory undertaker's diversions, unchartered services encountered and overall scope increases during construction.

5.6.8 The top three Balfour Beatty risks, with a cost impact in the QRA, relates to:

- Various construction health and safety related factors
- Weather events causing work stoppages/delay; and
- Take off of quantities being incorrect.

5.6.9 As WBC are procuring the design direct rather than on a D&B basis, WBC will retain the risk of the design being fit for purpose.

5.6.10 Through the contracting process, following the approval of this OBC, the QRA developed by WBC will be independently reviewed by the Delivery Partner providing further assurance relating to risk.

5.6.11 The overall QRA value is £583,700 (May 2019) and this has been included in the funding requirement within the Financial Case.

5.7 Contract Length

5.7.1 The Omega Local Highways Phase 1 scheme will be procured under the SCAPE National Civil Engineering and Infrastructure Framework. The contract to be signed with Balfour Beatty is a NEC4 Contract.

5.7.2 It is envisaged that the Stage 4/5 delivery agreement will cover the construction period and subsequent defects period through to close out. The construction works are programmed to start date in **March 2020**. The contract will include approximately **9 months for construction activities** and a **subsequent defects period out to February 2021**.

5.7.3 The contract length will be formally agreed as soon as reasonably practicable after the confirmation of full funding from WBC and C&W LEP at OBC approval stage through detailed development of the programme with the contractor.

5.7.4 The contract length will be reported back to the C&W LEP at FBC stage.

5.8 Human Resources Issues

- 5.8.1 A significant human resource requirement is need to ensure effective delivery of the project. This includes human resource requirements across the WBC client team, the design team and the contractor team. The project team structure is included in the Management Case.
- 5.8.2 WBC will be responsible for oversight of the project on the client side of the delivery arrangement.
- 5.8.3 The Scheme Designer will undertake the majority of the work over the Pre-Construction Stage. This will require professional inputs from the following (but not limited to) skilled professionals:
- Project Manager;
 - Principal Civil Engineer;
 - Highway Design Engineer;
 - Structural Engineer;
 - Geotechnical Engineer;
 - Environmental Assessment Lead;
 - Landscape Designer; and
 - CDM Lead.
- 5.8.4 The Scheme Contractor has been appointed through the SCAPE Framework. The Contractor will be responsible for liaising with the Scheme Designer via Early Contractor Involvement (ECI) to ensure that the scheme design can progress to the Construction Phase, in addition to undertaking the necessary on site investigations to inform the Construction Phase. The professional inputs here include (but not limited to):
- Contract Manager;
 - Quantity Surveyor;
 - Site Agent;
 - Project Planner; and
 - Design Manager.
- 5.8.5 There are no TUPE implications for the project as no public sector staff will be transferring to a different organisation during delivery.

5.9 Contract Management

- 5.9.1 WBC will directly manage the contract with Balfour Beatty. Duty holders under NEC suite of contracts, namely the Project Manager and Supervisor will be nominated to individuals who will manage and monitor activities of the Construction Team, both practically and commercially. The Programme Manager is Tom Shuttleworth, Infrastructure Delivery Service Manager at WBC, who also acts at the NEC Project Manager for the scheme.
- 5.9.2 The Project Manager will provide continuity from scheme development, through to detailed design, construction and final account settlement.
- 5.9.3 The Framework Agreement between Balfour Beatty and SCAPE Group covers all agreed amendments to the standard NEC4 contract in Schedule 3.
- 5.9.4 As part of the FBC, a Construction Management Plan will be prepared in partnership with the appointed Principal Contractor. This will set out the approach to managing the construction works, to ensure that any possible impacts that may arise from the works have been appropriately identified, managed and minimised. It is not considered appropriate to have agreed this plan prior to the engagement of the Principal Contractor. Development in partnership with the Principal Contractor will ensure buy in and ownership throughout delivery.

6. THE MANAGEMENT CASE

6.1 Introduction

6.1.1 This chapter describes how the Omega Local Highways Phase 1 scheme will be managed and delivered. In accordance with DfT requirements, it presents details of project planning, governance structure, risk management, communications and stakeholder management, benefits realisation and assurance.

Compliance with DfT requirements for The Management Case

6.1.2 The DfT's guidance document, 'The Transport Business Case: Management Case', outlines the areas that should be covered. **Table 38** shows where the information on these areas can be found in this document.

Table 38: Compliance with DfT guidance for The Management Case

Issue	Description	Status	In section
Introduction	Outline the approach taken to assess if the proposal is deliverable.	Completed	1.1
Evidence of similar projects	If possible, provide evidence of similar projects that have been successful, to support the recommended project approach. If no similar project approach. If no similar projects are available for comparison, outline the basis of assumptions for delivery of this project e.g. comparison with industry averages for this kind of work	Completed	1.2
Project dependencies	Set out deliverables and decisions that are provided/ received from other projects.	Completed	1.3
Governance, organisational structures & roles	Describe key roles, lines of accountability and how they are resourced.	Completed	1.4
Project plan	Plan with key milestones and progress, including critical plan.	Completed	1.5
Assurance & approvals plan	Plan with key assurance and approval milestones.	Completed	1.6
Communications and stakeholder management	Development communications strategy for the project.	Completed	1.7
Project reporting	Describe reporting arrangements.	Completed	1.8
Risk management strategy	Arrangements for risk management and its effectiveness so far.	Completed	1.9

Issue	Description	Status	In section
Benefits realisation plan	Set out approach to managing realisation of benefits.	Outlined	1.10
Monitoring and evaluation	Summarise outline arrangements for monitoring and evaluating the intervention.	Outlined	1.11
Options	Summarise overall approach for project management at this stage of the project.	Completed	1.12

6.2 Evidence of similar projects

- 6.2.1 The promoter for this scheme, WBC has extensive relevant experience delivering projects similar to the Omega Local Highways Phase 1 scheme. This includes highway infrastructure schemes, local junction improvements, and sustainable transport measures – all of which are relevant to the proposed improvements.
- 6.2.2 The examples outlined below are for historic and planned infrastructure to provide confidence that WBC can deliver the scheme on time and within budget.

Warrington East Transport Strategy Phase 1: Birchwood Pinch Point

- 6.2.3 This **£5.23 million junction improvement** along the A574 Birchwood Way corridor at the Oakwood (‘dog bone’) and Moss Gate roundabouts, together with a new bus only link between Ordance Avenue and Faraday Street was delivered through funding secured as part of the Cheshire and Warrington Growth Deal, with contributions from WBC and Birchwood Park.

Figure 16: Birchwood Pinch Point



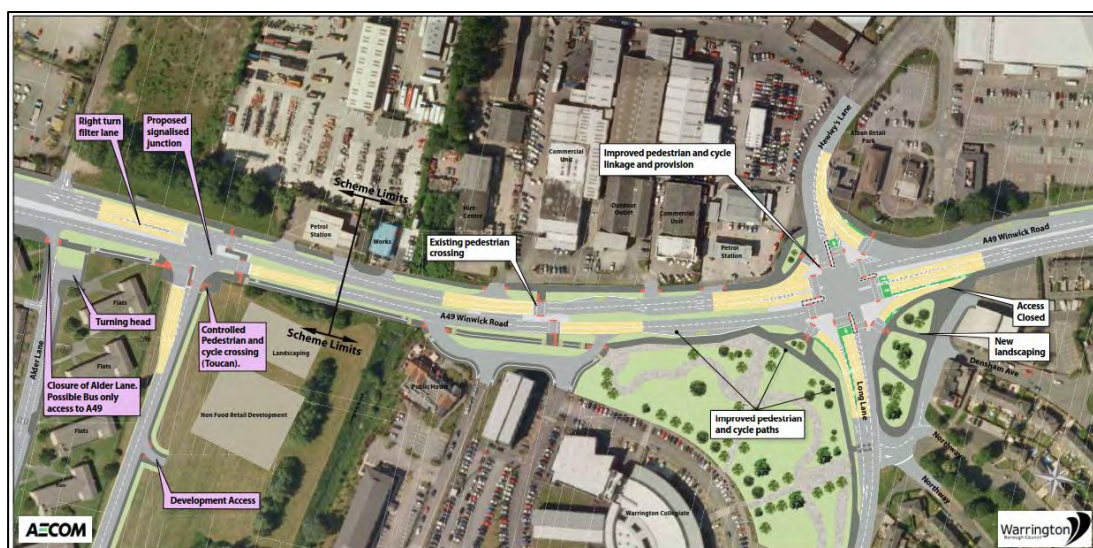
- 6.2.4 The Birchwood Pinch Point project draws significant parallels to the scheme, demonstrating a proven funding source and governance mechanism. The scheme highlights a previous example of where partial funding has been appropriately managed from C&W LEP.

- 6.2.5 This project was delivered by Balfour Beatty and successfully managed through the SCAPE National Civil Engineering and Infrastructure Framework.
- 6.2.6 Traffic management was undertaken successfully during construction, something that will also be critical for this scheme given the importance of the route to the Omega development site and as a key access route to the M62.
- 6.2.7 The project also delivered outcomes that align with the strategic objectives for the scheme including addressing delay, improving journey time and improving access to an important development/employment sites.

A49 Winwick Road / A50 Long Lane Junction Improvement Scheme

- 6.2.8 The scheme included the complete removal of an overcapacity roundabout and replacement with a higher capacity and more efficient traffic signal junction, which provides for all vehicle and pedestrian movements.

Figure 17: A49 Winwick Road / A50 Long Lane Junction Improvement Scheme



- 6.2.9 The scheme was aimed at addressing significant problems experienced at the junction including:
 - Poor movement of traffic both north and south along the A49 and coming out of Long Lane leading to high levels of congestion;
 - Poor accessibility for bus services, pedestrians and cyclists; and
 - Poor road safety record in terms of an above average cyclist casualty rate.
- 6.2.10 Half the funding was from the Local Transport Plan, spread over the last year of the LTP2 and early years of the LTP3, with the other half of the cost met by developer contributions from the Orford Park Project and Carrington Wire development.
- 6.2.11 The scheme was delivered on time and to budget. Since the scheme was implemented, traffic conditions on the busy A49 have improved considerably.

Centre Park Link

6.2.12 A FBC for the Centre Park Link scheme was submitted and approved by the C&W LEP in December 2018 (OBC with conditional approval received in April 2017). The project proposes a new bridge crossing across the River Mersey from Chester Road, just north of Gainsborough Road. This proposed crossing would join onto an extended Slutchers Lane leading from Wilson Patten Street. A new signal controlled junction is to be constructed at each end of the new link on Chester Road and Wilson Patten Street.

Figure 18: Centre Park Link



6.2.13 The scheme is funded by the both C&W LEP and WBC using devolved major scheme funding allocated through the LEP. WBC is responsible for making all payments to relevant project partners to facilitate delivery of the scheme with the C&W LEP Board the executive authority.

6.2.14 The main construction works will start in mid-2019 and progress to completion in late 2020. Enabling works have commenced as of April 2019. The construction team comprises the lead contractor Balfour Beatty, in partnership with Ramboll UK and WBC. Key roles include the Balfour Beatty Project Director and Project Manager, Ramboll UK Scheme Design Manager and WBC site Supervisor, Clerk of Works and Technical Lead. The construction team is responsible for the delivery of the project onsite.

6.2.15 Transport Programme Board reviews Monthly Status Reports on progress, cost variations, issues and risks, and the overall programme for all capital transport projects, including Centre Park Link.

M62 Junction 8

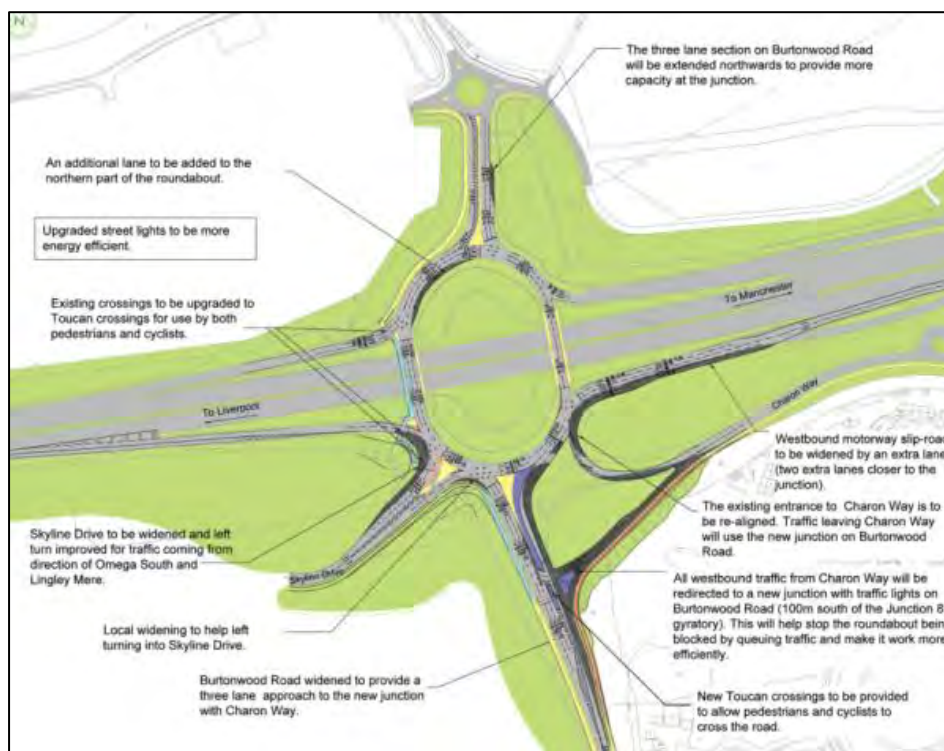
6.2.16 This **£11m** scheme involved the upgrade of Junction 8 of the M62 to meet the planning conditions required to unlock development on the Omega site, whilst improving traffic flow along the M62. The scheme includes:

- widened circulatory carriageways on the southern part of the roundabout to increase storage capacity;
- widened westbound off slip to increase storage capacity and prevent queuing back onto the main M62 carriageway;
- partial dualling of Burtonwood Road southbound; and
- diversion of Charon Way to a new junction on Burtonwood Road in order to improve the operation of the roundabout by increasing the storage capacity on the circulatory carriageway.

6.2.17 This project was constructed by Balfour Beatty using the SCAPE National Civil Engineering and Infrastructure Framework (completed on 23 May 2018 following an 18 month construction programme).

6.2.18 The close proximity of the two schemes means there are a number of lessons learnt relating to traffic management that can be applied to the construction of the Omega phase 1 scheme.

Figure 19: M62 Junction 8



6.3 Project dependencies

6.3.1 A programme has been produced highlighting the steps that need to be undertaken to deliver the project and the links that exist between key tasks. The programme is further discussed in **section 1.5**.

6.3.2 The key project dependencies include:

- Confirmation of detailed design (September 2019);
- Agreement to the contract (February 2020) once the target price (January 2020) for the project has been agreed;
- Appropriate project resource recruited to enable the client side management of the project – see Human Resource section of the Commercial Case for key roles to support delivery. The core client side team for the project is already in place;
- Confirmation of the developer contribution to the scheme including:
 - o Lingley Mere developer: £160k; and
 - o Omega Warrington Ltd: £875k (For stats diversions on Omega Boulevard arm).
- Timing/phasing of the construction needs to be co-ordinated with the neighbouring junction improvements to A57/Lingley Green Avenue scheme and Whittle Avenue/Lingley Green Avenue. WBC is seeking to avoid overlapping construction phases to reduce disruption to the network;
- Outcomes of the public consultation (undertaken May 2019), will be considered alongside detailed scheme design;
- Whilst the core scheme does not require land acquisition, the cycle lanes which have been added to further improve the scheme require some land acquisition, which is to be completed (November 2019); and
- Whilst formal planning permission is not required, WBC will apply for a Certificate of Lawful Development (CLD). The CLD will be applied for in July 2019 with the outcome anticipated in September 2019. Environmental investigations are currently being undertaken as part of the design process and any requirements will be identified following completion of this work.

6.4 Governance, organisational structures & roles

6.4.1 **Approach to Programme/Project Management:** good practice involves formal Programme and Project Management. The scheme is to be delivered as an individual project although it is recognised that there may be interdependencies relating to other infrastructure works undertaken on the highway network. PRINCE 2 is used as the key project management methodology for this project.

Cheshire and Warrington Enterprise Partnership (C&W LEP)

6.4.2 Given the scheme is to be delivered from both LEP and WBC funding, there is a need to recognise that both these organisations have independent governance structures. This section outlines the overarching governance for the C&W LEP, the organisational structure and role of the Performance and Investment (P&I) Committee in relation to the scheme.

6.4.3 The C&W LEP determines local economic priorities to lead economic growth and job creation within the local area. As part of this, the LEP maintains the highest standards of probity in the way that it discusses and makes decisions on how the funding devolved to it by Government is spent.

6.4.4 **Approach to Governance:** To satisfy funding conditions, the scheme will also be delivered in accordance with the C&W LEP Growth Programme Assurance and Accountability Framework. This framework provides a mechanism for the Accountable body (WBC), the LEP and key stakeholders to be clear about their responsibilities and to ensure good governance. The framework supports the development and delivery of a rigorously appraised and prioritised investment programme for Cheshire and Warrington which aligns to the LEP’s strategic priorities, enabling programmes and intervention priorities which positions the sub-region to take maximum advantage of funding opportunities which may arise. The Governance structure for the C&W LEP is outlined in **Figure 20** below.

Figure 20: C&W LEP Governance Structure



6.4.5 **LEP Executive Board:** The Board sets the corporate and strategic direction of the organisation. The financial proposition of the scheme enables the decision for investment to be delegated to the P&I Committee.

6.4.6 **Performance and Investment Committee:** The purpose of the P&I Committee is to hold the LEP Executive Board to account for programme delivery and performance and to ensure that projects put forward for funding support the LEP’s strategic priorities and offer value for money. With regard to this scheme, as stated above, the P&I Committee has the delegated authority to approve funding. The key areas of responsibility for the P&I Committee include:

- providing scrutiny and oversight to schemes funded;
- monitoring performance of the programme during the year;
- ensuring that the processes set out in the LEP’s Assurance and Accountability Framework are adhered to;
- reviewing and providing critical challenge to projects put forward for funding or endorsement by the LEP; and
- approving projects put forward for funding under Local Growth Fund which fall within the financial limits delegated to the Committee (the scheme was awarded funding through Local Growth Funding Round 3).

6.4.7 **Funding:** The devolved major scheme funding allocated through the Local Growth Deal is held by C&W LEP. WBC will be responsible for making all payments to relevant project partners to facilitate delivery of the scheme, and once payments are made will provide the LEP with the relevant claim forms to draw funding. In accordance with the LEP Assurance and Accountability Framework, WBC will be required to apply to the P&I Committee for funding release at OBC. This OBC seeks approval to progress procurement for the scheme. WBC will account for all expenditure associated with LEP funding and provide statements, in accordance with the Assurance Framework, to maintain accountability and ensure effective governance and public scrutiny.

Warrington Borough Council

6.4.8 This section describes the governance arrangements, organisational structures and roles within WBC that provide the framework within which the scheme will be managed and delivered.

6.4.9 The current governance arrangement for the delivery of the scheme is illustrated in **Figure 21** with further detail pertaining to the roles and reporting responsibilities within the Project Team presented in **Figure 22**.

6.4.10 **Sponsorship:** The sponsoring organisation for the delivery of the Omega Local Highways Phase 1 scheme is WBC.

6.4.11 **Executive Board:** The Executive Board is a fully elected board chaired by the Chief Executive Officer. The Board reviews overall project progress, providing a forum to determine appropriate strategies to address key issues. The Executive Board is responsible for providing corporate and strategic direction to the project. Executive Governance specifically:

- Provides any necessary approvals from one delivery stage to the next;
- Approves the appointment and/or spending over £250,000;
- Provides strategic direction, when required, to the relevant Programme Boards;
- Reviews and challenges the delivery of the scheme in relation to time, cost and quality requirements; and
- Provides formal briefings to senior C&W LEP Board members.

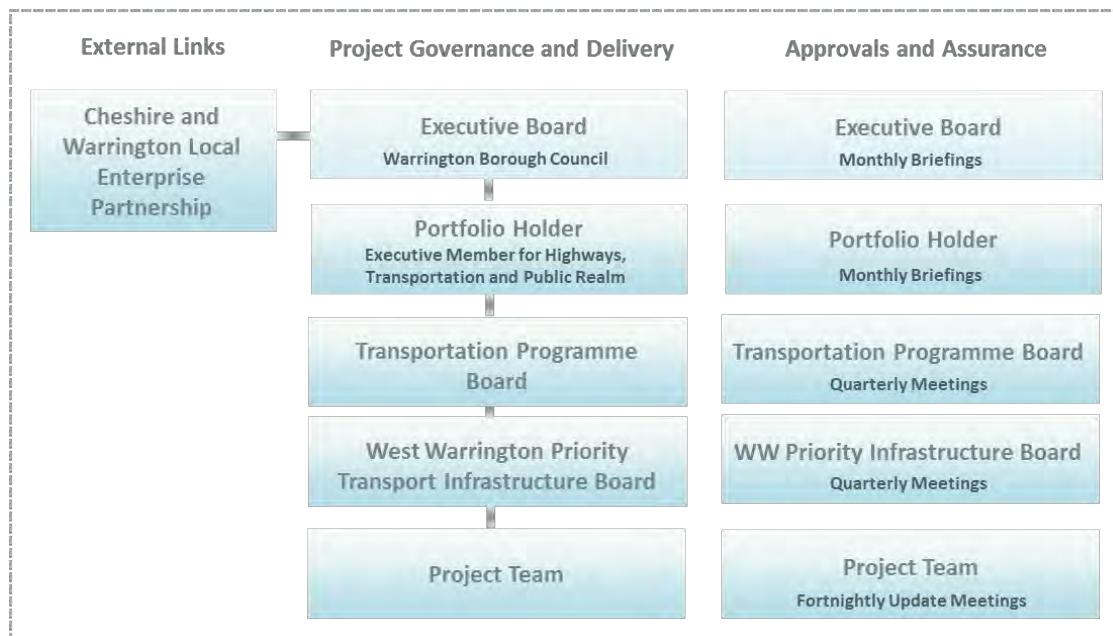
6.4.12 **Portfolio Holder:** The Portfolio Holder is the Elected Member Hans Mundry, Executive Member for Highways, Transportation and Public Realm. The Portfolio Holder sits in the Executive Board. Monthly briefings are held with the Portfolio Holder to discuss current scheme progress and potential future schemes.

6.4.13 **Transport Programme Board:** The Transport Programme Board is chaired by David Boyer and attended by the Senior Responsible Officer (SRO), Scheme Promoter and the Programme Manager. The Transport Programme Board reviews Quarterly Status Reports on progress, cost variations, issues and risks, and the overall program for all capital transport projects to ensure the project is delivered to budget, time and quality.

6.4.14 **West Warrington Priority Transport Infrastructure Project Board:** This board is chaired by the Client Project Manager (Alan Dickin). The West Warrington Board includes the internal project team (and external project team as required). Scheme progress and any risks or issues are discussed at this meeting.

6.4.15 **Project Team:** The Project Manager is supported by the project team which is made up of three key areas including the construction team, client team and client support team. These teams incorporate persons with specialist skills necessary to ensure that effective progress takes place for procurement, finance, legal, risk and project controls.

Figure 21: Governance Arrangements for Omega Local Highways Phase 1 scheme at WBC



6.4.16 **Senior Responsible Officer:** The SRO has overall accountability for ensuring that the scheme meets its objectives and delivers the projected benefits. The SRO is a key leadership figure in WBC, with the necessary authority to make key decisions and drive the project forward throughout the life of the project. The SRO (David Boyer, Director of Environment and Transport) chairs the Transport Programme Board.

6.4.17 **Scheme Promoter:** The Scheme Promoter (Stephen Hunter) is responsible for the progression of the scheme, ensuring that both the key strategic objectives for the Programme and Project Managers are well defined. They are considered to be the key contact for the scheme at a senior operational level.

6.4.18 **Programme Manager:** Tom Shuttleworth is responsible for planning, designing and proactively monitoring the progress of the construction works. This includes resolving issues identified by the contractor and managing interfaces between scheme components.

6.4.19 **Project Manager:** Client Project Manager (Alan Dickin) and Delivery Project Manager (Paul Lawrenson) are responsible for overseeing the delivery of the works, including the ongoing management of risks and issues on a day-to-day basis. Furthermore the Project Manager is responsible for preparing project reviews, cost schedules and the production of monthly update reports in accordance with WBC's Project and Programme Management Processes.

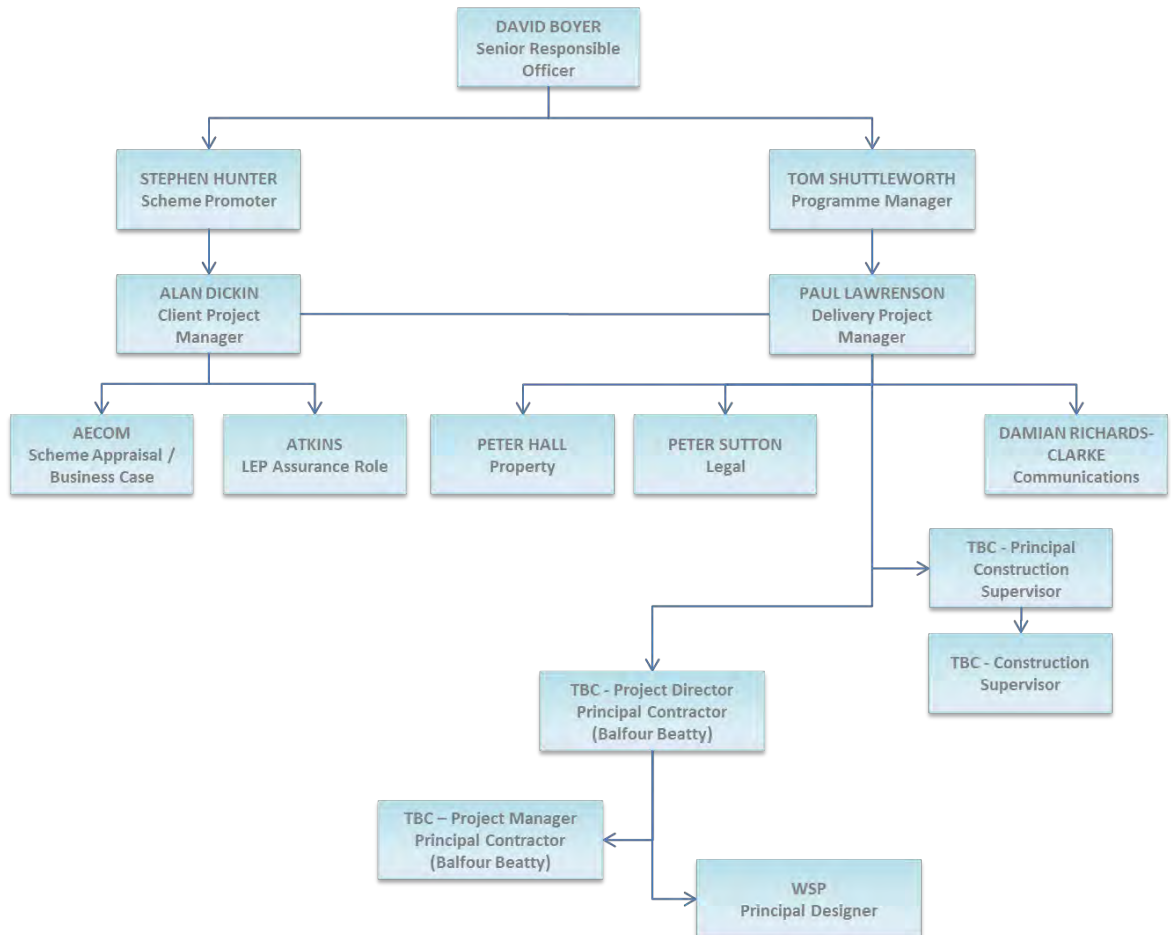
6.4.20 **Construction Team:** The construction team is proposed to comprise the lead contractor Balfour Beatty, in partnership with WBC. Based on previous delivery experience with Balfour Beatty the key roles are anticipated to include the Balfour Beatty Project Director and Project Manager, Principal Designer and Principal Construction Supervisor. The construction team will be responsible for the delivery of the project onsite. The Principal Designer is WSP. The exact roles of the construction team will be further developed as part of the contractual process following the approval of the OBC.

6.4.21 **Client Team:** The Client team comprises WBC staff and is responsible for:

- Legal: Legal Advice relating to funding and delivery agreements;
- Property: Advice relating to land ownership issues; and
- Communication: To ensure the scheme is effectively communicated to key stakeholders in accordance with the agreed Stakeholder and Communication Plan.

6.4.22 **Client Support Team:** The Client Support Team comprises consultants directly engaged by WBC to provide independent advice to the Client Team relating to scheme appraisal, design, business case development and consultation.

Figure 22: Project Team Organigram



Financial Delegation and Responsibilities

6.4.23 **Table 39** outlines the financial approval tree for decisions relating to the scheme.

Table 39: Financial delegation and responsibilities

Role	Financial delegation and responsibility
C&W LEP Performance and Investment Committee	Approval authority for the release of C&W LEP funding to WBC to enable commencement of procurement following submission of OBC and the delivery of the scheme following approval of the FBC. P&I Committee is to act with delegated authority on behalf of the C&W LEP Board for this scheme.
WBC Executive Board	Approval authority for all financial decisions greater than £250,000.
Senior Responsible Officer	Responsible for the overall success of the scheme including contract
Project Manager	Responsible for the commissioning of day to day work and approval of invoices. Project management in line with PRINCE 2.

6.5 Programme and Project Plan

6.5.1 **Table 40** sets out the key milestones associated with the delivery of the scheme.

Table 40: Key Project Milestones

Key Project Milestone	Date
Lingley Mere s106 Agreement Signed – Developer Contribution	October 2016
OWL s106 Agreement Signed – Developer Contribution	December 2016
Executive Board – Stage 2 Funding Approval	April 2017
Stage 2: Receive and agree brief with TfW	April 2017
Draft junction options	August 2017
MMTM complete and validated	September 2019
Executive Board – Stage 3 Funding Approval	April 2018
Stage 2: Option testing, costs review - draft agreed layout	January 2019
Stage 3: Agree Final Concept Designs	April 2019
Stage 3: Public Consultation	May 2019
WBC submission of OBC to C&W LEP	June 2019
C&W LEP P&I Committee: OBC approval	July 2019
Stage 3: Detailed Design	November 2019
Stage 3: Full design tender pack to WBC	November 2019
Stage 3: EA Approval	August 2019
Certificate of Lawful Development	September 2019
WBC TAA check	December 2019
Complete land acquisitions	November 2019
Target Cost Submission	January 2020
FBC to C&WLEP P&I committee	February 2020
Executive Board - Stage 4 Main Contract Award	February 2020
Enabling works completed	March 2020
Stage 4: Construction Commences	March 2020
Stage 4: Construction Complete	December 2020
Stage 5: Project Completion	February 2021

- 6.5.2 A programme is included at **Appendix O**.
- 6.5.3 WBC intends to use the PRINCE2 approach to project management to deliver the scheme. The PRINCE2 approach has informed the development of the team structure and the overall development of the Management Case.

6.6 Assurance and Approvals Plan

Warrington Borough Council

Assurance Role

- 6.6.1 Project assurance responsibilities have been defined by the Board and sits within the Client team.

Financial Management

- 6.6.2 All financial approvals will be undertaken in accordance with WBC's defined scheme authorities as outlined in **Table 39**; therefore contracts greater than £250,000 will require Executive Board Approval.
- 6.6.3 According to the WBC Corporate Procurement Guide, there is a requirement for individual directorates to maintain a contracts register, detailing all contracts the directorate holds above £50,000 in value. Where contracts valued at £50,000 or above are awarded, the project team must inform the Central Commissioning and Procurement Team to ensure the Central Contracts Register is maintained. The project will comply with WBC's Corporate Procurement Guide to provide assurance that contracts are engaged and managed in line with legislation.
- 6.6.4 The SRO, together with the Project Management Team will endeavour to contain the cost of any commission or contract works within the approved value. The SRO and/or Programme Manager will notify the relevant Board as soon as it becomes evident that the approved contract value may or will be varied. This will include advising the quantum of the variation, together with potential options and recommendations to realign deliverables within the budget where possible.

LEP Growth Programme Assurance and Accountability Framework

- 6.6.5 As partial funding is provided by C&W LEP, the scheme will also be progressed in line with the LEP Growth Programme Assurance and Accountability Framework.
- 6.6.6 Within this framework, C&W LEP has scope to engage an Independent Technical Advisor on their behalf, to provide scrutiny of the Business Case and Value for Money appraisal. This ensures the documentation is robust and prepared in accordance with relevant guidance. C&W LEP has engaged Atkins to fulfil this role.
- 6.6.7 The C&W LEP P&I Committee, in accordance with the Assurance and Accountability Framework will be responsible for approving partial funding from C&W LEP for the scheme. The financial authority to approve the funding has been delegated to this Committee.

Approvals Plan

- 6.6.8 The progression of the scheme is subject to the following approvals:

Table 41: Approvals Plan

Milestone	Estimated Date
Submission of OBC / C&W LEP P&I Approval	June / July 2019
WBC Executive Board - Stage 4 Main Contract Award	February 2020
Submission of FBC / C&W LEP P&I Approval	February 2020

6.7 Communications and Stakeholder Management

6.7.1 Public and stakeholder consultation is essential to ensure that the various aspirations / views of the general public, residents and key stakeholders are taken into account throughout development and delivery of the project and to manage the communication and flow of information relating to the scheme.

6.7.2 Consultation enables the project team to understand key issues and mitigate potential objections, to optimise the technical solution and maximise the scheme benefits. A managed approach is currently being undertaken to stakeholder engagement ensuring the focus is the customer. This will ensure the benefits of the scheme are clearly communicated and understood. It will also guide the level and type of communications required at different stages and to ensure stakeholder involvement and input is included at appropriate times.

Stakeholder Engagement Plan

Consultation Objectives

6.7.3 To inform the communication and stakeholder management, the following key objectives have been defined:

- To raise awareness and understanding of the scheme, with particular reference to the future benefits of the scheme attributable to growth in the area;
- To enable the public to discuss the scheme with a member of the project team through a variety of communication mediums;
- To understand whether the principles of the scheme were supported or not supported by the public; and
- To provide the Executive Board with feedback regarding public thoughts about the project.

Key Stakeholders

6.7.4 A summary of key stakeholders and their role within the delivery programme is shown in **Table 42** below.

Table 42: Stakeholders by Role

Stakeholder	Role
Businesses / Nearby Services	Businesses will benefit from enhanced connectivity. Early engagement will also support businesses to ensure they maximise new opportunities. Support for the project will be solicited from local businesses through public consultation activities.

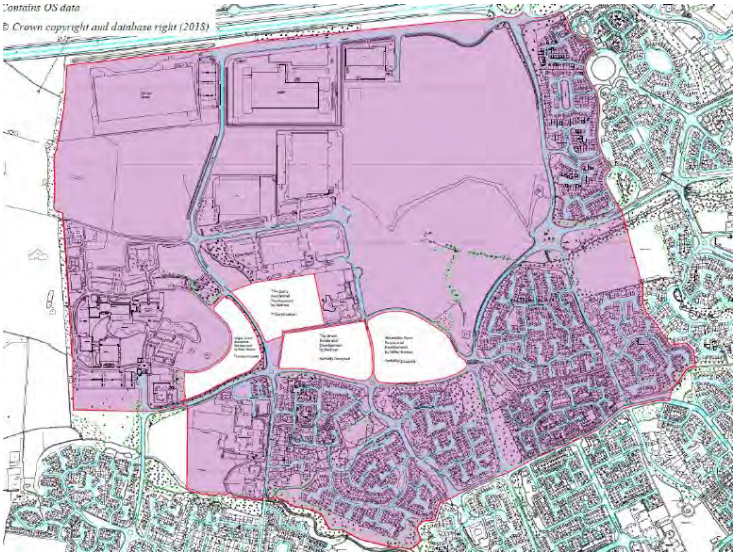
Stakeholder	Role
Community	The community are the end user of the asset and will be called upon to provide feedback during scheme development to ensure the delivered outcomes meet their aspirations and expectations.
Warrington Borough Council	The proposed scheme is located within Warrington. As the scheme promoter, WBC will manage the development and delivery of the scheme. The Council is responsible for funding the scheme along with contributions from C&W LEP and the private industry (developer contributions). WBC will be responsible for ongoing management and maintenance of the asset. As the network manager, WBC is responsible for ensuring the completed works promotes the expeditious movement of traffic through the town centre.
Cheshire and Warrington Local Enterprise Partnership	C&W LEP works in partnership with local government, businesses, educational institutes and other public, private and community sector organisations to drive economic growth, transform the economy, and deliver new housing and jobs. This scheme is to be partially funding through the C&W LEP Growth Deal. The C&W LEP P&I Committee is responsible for approving the Business Case and release of Growth Deal funding to support the delivery of the scheme.
Construction Partner	Construction partner is to be engaged through the SCAPE National Civil Engineering and Infrastructure Framework to design and delivery the scheme.
Developer Contributions	As the scheme is partially funded through developer contributions, WBC will engage with the respective land owners to advise of works proposed. The signed Section 106 Agreements setting out the contributions toward the scheme are included at Appendix M and N .

Public Consultation

6.7.5 Public consultation took place between 23rd April and 20th May 2019. The proposals were publicised by a range of media including, leaflets, press releases, email, social media, public exhibition events and dedicated web pages. An extract of the consultation material is included in the Strategic Case. The WBC Executive Member for Highways, Transportation and Public Realm, and Ward Councillors were briefed on the consultation approach on the 2nd April 2019. A summary of the consultation activity is presented below:

Table 43: Stakeholders by Role

Stakeholder	Role
Email	Emails were sent to public and stakeholders who have requested to be informed by email of public consultations within the West Warrington area, to invite feedback for the proposed works. Local Councillors and Parish councils received separate notifications by email.
Questionnaire	A link to a feedback questionnaire was posted on the website, with consultation documentation and paper copies also available at the drop-in event.

Stakeholder	Role
Social Media	A schedule of posts was published in advance of the consultation. Posts contained information about the project, the consultation events and reminders for people to have their say.
Leaflets	Consultation leaflets were on display at the consultation venues in advance of the events.
Press Releases	A Press release to publicise the scheme and consultation events was issued to the Warrington Guardian and Warrington Worldwide.
Events	Drop-in events were attended by WBC Officers.
Website	A dedicated website for the scheme is available at: https://www.warrington.gov.uk/info/201362/warrington-west/2397/omega-local-highways-phase-1
Direct mail	<p>Leaflets with details of the project, the consultation events and 'have your say' details were distributed to approximately 2,000 residents and businesses in the vicinity of the junctions. The area of distribution is shown in below:</p> <p>Figure 23: Leaflet Distribution Area</p> 

- 6.7.6 The following paragraphs set out the key outputs from the three public consultation events undertaken in May 2019. The events were attended by 143 people. As set out above, a consultation questionnaire was available online and at the consultation events for the public to give their feedback on the proposals - this was completed by 69 people.
- 6.7.7 The questionnaire asked to what extent consultees supported changes to the junction to increase highway capacity and improve traffic flow. The majority (45%) of respondents strongly agreed or agreed, 43% strongly disagreed or disagreed, 10% neither agreed or disagreed and 2% did not answer the question.
- 6.7.8 Of those that left comments on the proposed scheme only 50% of comments related to the scheme with the non-scheme specific comments relating to unwanted disruption, volume of HGVs on the local network and speeding. This highlights the strong interdependencies for the scheme within the wider development context for the west Warrington area.
- 6.7.9 Common scheme related comments included:
- Why is the carriageway widening tying back into 1 lane? With respondents asking why the whole of Lingley Green Avenue and Omega Boulevard will not be dualled and queries regarding the effectiveness of widening over a relatively short distance.
 - Concern over impact of scheme on Barrow Hall Lane, with residents citing the road is heavily used by HGVs.
 - Need for clear road markings and signage.
 - Concern the new toucan crossings will slow traffic when called.
- 6.7.10 In response to the comments above, ANPR surveys are to be commissioned to establish the volume and routing of HGVs using Barrow Hall Lane. In addition, road markings and signage are to be reviewed as part of the detailed design of the scheme. Furthermore, comments relating to unwanted disruption during construction will be considered through the Construction Management Plan, developed with the Principal Contractor, which will seek to minimise disruption as far as reasonably practicable.
- 6.7.11 Respondents were supportive of changes to improve facilities for pedestrians and cyclists, with **58% of respondents strongly agreeing or agreeing** with this principle. Of the remaining responses 29% strongly disagreed or disagreed, 12% neither agreed or disagreed and 1% did not answer the question. Limited comments were received regarding the proposed pedestrian and cyclist improvements; of those received the most common was related to concern that toucan crossings will slow down traffic. The consultation drawings showed indicative locations of new toucan crossings, the location of which is to be determined as part of the detailed design process. Toucan crossings will not be removed from the proposals; these are the subject of Omega and Lingley Mere s106 planning obligations.

6.8 Project Reporting

Delivery Reporting

- 6.8.1 The Programme Manager is responsible for the accurate, timely and appropriate communications of information within the Project Team. This includes ensuring that the Project Sponsor and SRO are up-to-date with relevant delivery information from a Project Team level.
- 6.8.2 The Programme Manager and SRO are responsible for keeping the Transport Programme Board up-to-date with project developments. This includes ensuring the relevant Boards are aware of how the scheme is tracking against the outlined scheme objectives.
- 6.8.3 The SRO is responsible for ensuring the Executive Board is provided appropriate information and that they are across the relevant issues in order that they may provide necessary guidance on project decisions.
- 6.8.4 As part of the monthly project reporting process, the Project Managers are required to update the project team on the spend to date and highlight any early warnings of changes in cost/scope that might impact budget.

C&W LEP Reporting

- 6.8.5 As the sub-regional funding body, the C&W LEP has a responsibility to ensure that the funding provided for the scheme is used appropriately. WBC will report ongoing progress through meetings, particularly on budget, spending, key risks, progress to programme and key issues. The FBC will provide evidence of the reporting updates for this scheme, following on from the approval of this OBC (subject of this document).

WBC Reporting

- 6.8.6 WBC funding approvals are reported via the Executive Board (now known as Cabinet). Reporting to date has included:
- Stage 2: Funding Approval (Executive Board) – April 2017
 - Stage 3: Funding Approval (Executive Board) – April 2018
- 6.8.7 Further reports to the Executive Board are programmed for February 2020 to approve/execute the Stage 4 main contract.
- 6.8.8 Other internal WBC reporting requirements are captured in **Figure 21** and include quarterly reports to the West Warrington Priority Infrastructure Board and the Transportation Programme Board, as well as quarterly Capital Programme reports. The relevant Boards will be responsible for the approval of the Detailed Design.

Monitoring and Evaluation

- 6.8.9 With regard to monitoring and evaluation, it is proposed that reporting would take place at 12 months after opening and 4 years after opening.
- 6.8.10 In essence the reports would be concise and cover the following:
- Summary of the approach and the methodology;
 - Detail of the interventions;
 - An assessment of progress against success indicators;
 - An assessment of contribution to the objectives; and

- Final conclusions and lessons learnt.

6.8.11 It is expected that the monitoring and evaluation of this package will seek to align with existing reporting for the wider WBC transport infrastructure pipeline such as Centre Park Link, M62 Junction 8 Improvements, and the NPIF schemes. This will ensure consistency across C&W LEP and WBC projects between measured outputs and identification of impacts.

6.9 Risk Management Strategy

Approach

6.9.1 The management of risk and uncertainty will be key to the successful delivery of the scheme, as it will identify threats to project delivery and enable effective risk management actions to be assigned. A risk management strategy will be developed to demonstrate:

- A continuous approach to the risk management process;
- A thorough approach to the identification of risks;
- Active risk avoidance and mitigation;
- Effective communication of risks throughout the project team, and where necessary, escalation to Project Board level to ensure that issues can be managed with an appropriate level of authority; and
- Delivery of the scheme objectives to cost, quality and time.

6.9.2 Balfour Beatty's risk management process is outline below in **Figure 24** and **Figure 25** below.

Figure 24: Risk Management Process - Construction UK (Part 1)

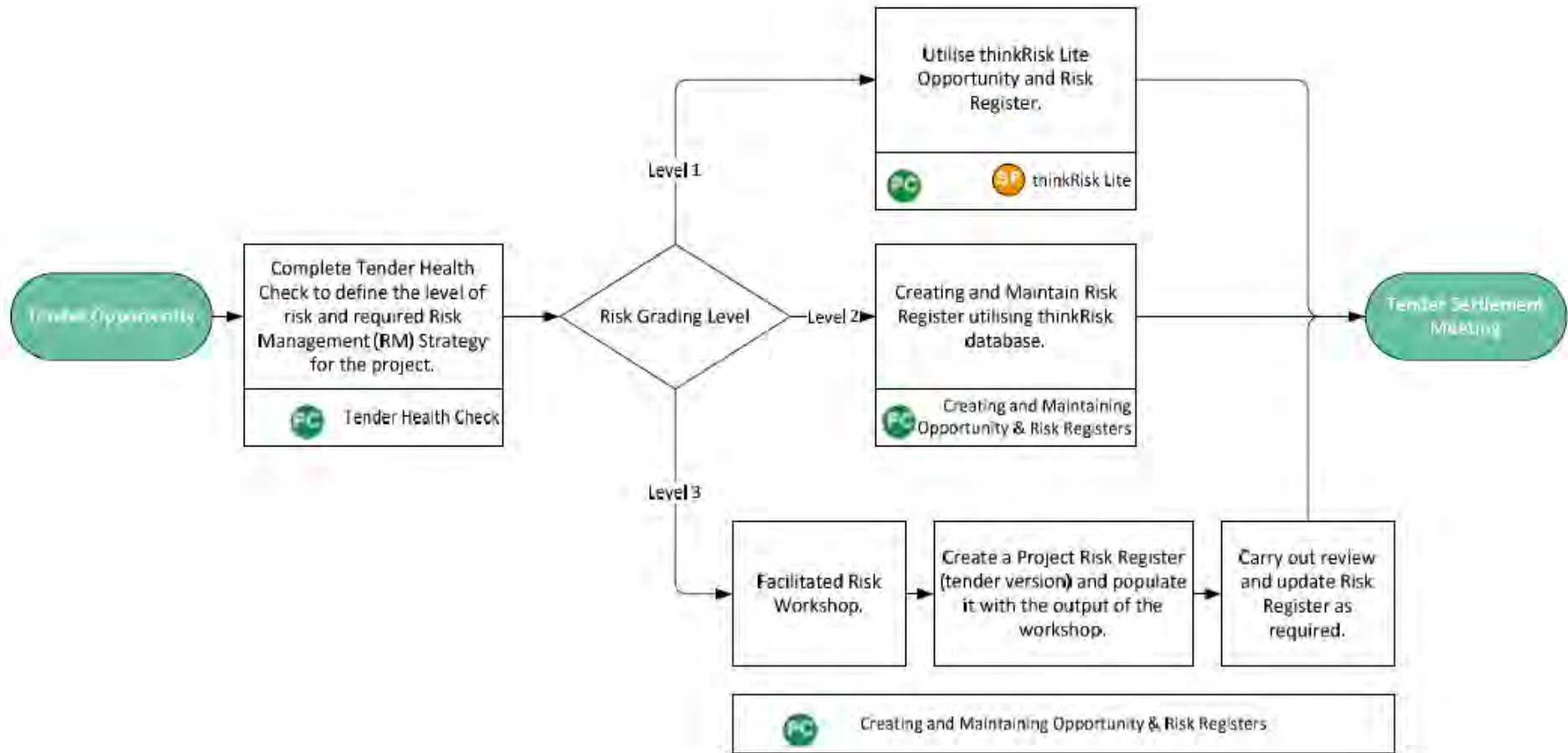
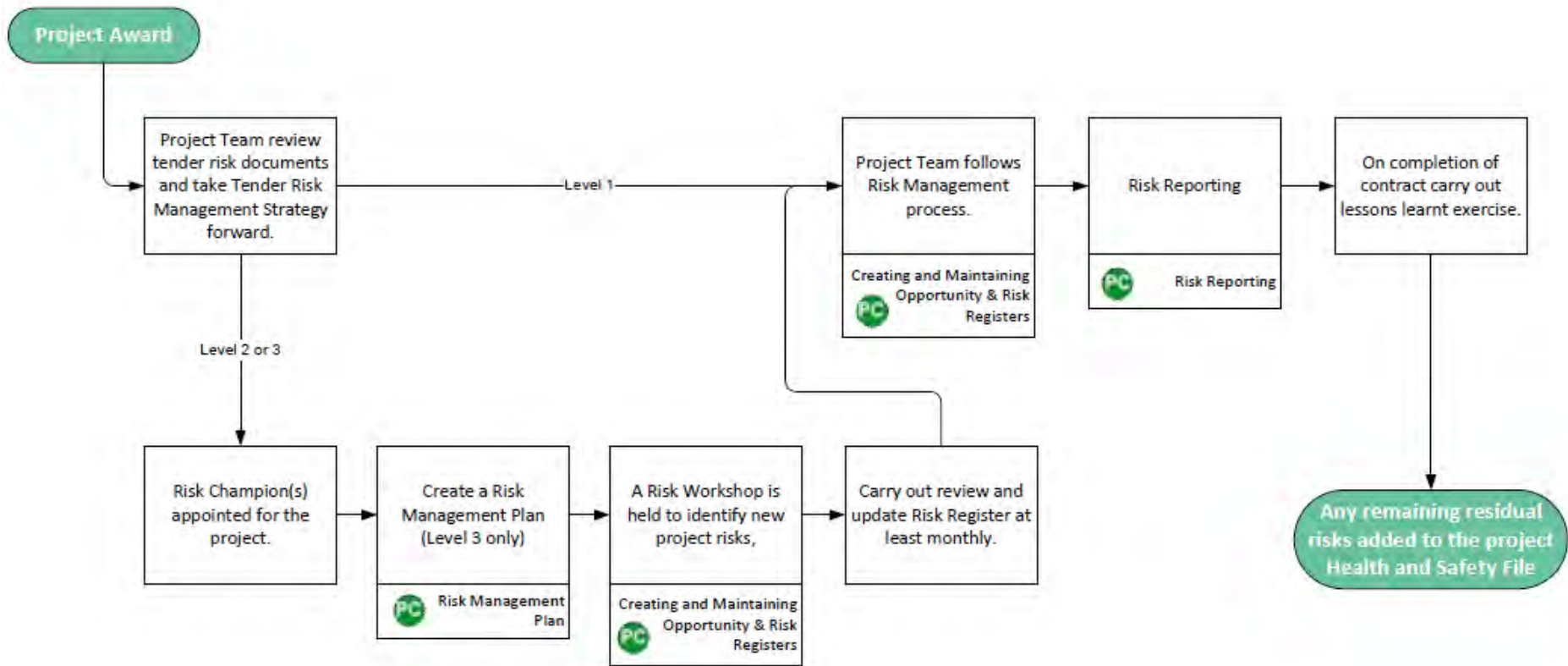


Figure 25: Risk Management Process - Construction UK (Part 2)



Ownership

6.9.3 The overall Risk Management Strategy will be owned by the SRO. However the day to day management of the strategy and project risk will be managed by the delivery partner as the project progresses from OBC to FBC.

Risk Register

6.9.4 The current risk and opportunity register includes the following information:

- Risk owners;
- Current Status;
- Current Action;
- 'By When' Dates;
- Possible Delays;
- Quantitative Cost Calculation;
- Event;
- Cause;
- Consequence;
- Mitigation; and
- Likelihood.

6.9.5 The table below outlines a selection of key risks (both by value and severity) identified for the project. Further risks are included within the completed QRA included at **Appendix D**. Through the contracting process, following the approval of this OBC, the QRA developed by WBC will be independently reviewed and updated by the Delivery Partner providing further assurance relating to risk. The current QRA value is £583,700.

Table 44: Key Project Risks

Risk Register ID	Risk	Description	Owner	Severity	Mitigation Measure
21	Scope Creep	Scope creep increases during design and construction	WBC		Scope to be managed by the Project Board in accordance with change management processes and approvals defined.
32-33	Service Diversion	Increase in service diversion costs	WBC		Get specialist consultants involved and liaise with SUs early
49	Programme – Service diversions	Service diversions take longer	WBC		Programme and monitor design, consents and approvals
3	Unchartered services	Damage to existing and uncharted services underground	WBC/PC		All excavation operations carried out under operation of 'Permit to Dig' and under supervision by an appointed qualified & experienced Supervisor. Appointed Supervisor to inspect excavations at the start of each day, when anything changes and prior to any works taking place.

Risk Register ID	Risk	Description	Owner	Severity	Mitigation Measure
2	HSE	Interface between construction traffic and travelling public	PC		Ensure construction traffic on public roads is minimised and plant interfaces with the travelling public are well maintained and signed.
11	HSE – Services known	Damage to existing services underground - Known Service	WBC		All excavation operations carried out under operation of 'Permit to Dig' and under supervision by an appointed qualified & experienced Supervisor. Appointed Supervisor to inspect excavations at the start of each day, when anything changes and prior to any works taking place after a period of absence. Use of additional vacuum excavation methods on Known Services
38	Cost	Quantities increase	PC		Experienced Principal Contractor to support construction

Note: PC = Principal Contractor

Risk Reviewing and Reporting

- 6.9.6 Risks are to be up-to-date at all times to facilitate reporting. Active risks and actions are updated to support monthly reporting requirements. As the project progresses to the next stage, updates will be undertaken through a joint risk and opportunity forum including the appointed Principal Designer, Project Manager and appropriate members of the Construction Team, Client Team and Client Support Team.
- 6.9.7 In addition to monthly reporting tasks, risk reviews will be undertaken ahead of any major gateways or following any significant changes.

Escalation of Risks

- 6.9.8 The process for escalation of risks is outlined below to demonstrate accountability levels within WBC. Where an individual does not have appropriate accountability, the risk would need to be escalated and managed at a higher level. Risks may also require escalation if they cannot be resolved within the Construction or Client team or if the risk has wider impacts beyond the project. Risk escalation levels are shown below. Risks flow upwards from 1-4:
1. Project Manager;
 2. Programme Manager;
 3. SRO;
 4. West Warrington Priority Transport Infrastructure Project Board;
 5. Transportation Programme Board; and
 6. Executive Board.

6.10 Benefits Realisation Plan

6.10.1 According to the DfT Benefit Management Framework, “benefits are the justification for most investments as they are the measure of the improvement that will be enjoyed by the organisation.”

6.10.2 A draft Benefit Realisation Plan has been prepared for the scheme as part of this OBC and is included at **Appendix L**. The plan is intrinsically linked to the Monitoring and Evaluation Plan discussed separately within the Management Case. The Benefit Realisation Plan will be finalised as part of the FBC.

6.10.3 The Plan sets out the overall approach and framework that the scheme will use to manage the realisation and delivery of the benefits. The plan ensures:

- Benefits are identified and clearly defined, linked back to the scheme objectives;
- WBC as the promoting authority is committed to the identified benefits and their realisation;
- Benefits process is actively managed;
- Benefits are realised, tracked and effectively resourced – further detail provided within the Monitoring and Evaluation Plan (**Appendix K**);
- The roles and responsibilities of those involved in benefit realisation are outlined;
- The current and future data requirements including measurement methods and steps that will be used to monitor and assess the realisation of the benefits are identified; and
- When and how reviews and assessment concerned with measuring benefits realisation will be carried out, and who is to be involved.

Benefits

6.10.4 The anticipated benefits for the scheme are as follows:

- **Benefit 1:** High quality, upgraded highway junctions providing additional capacity through north west Warrington;
- **Benefit 2:** Sustainable housing and business growth at Lingley Green and Omega owing to the attractiveness of Warrington as a place to invest;
- **Benefit 3:** Improved journey times predictability and reliability leading to a reduction in forecast future congestion for the junction;
- **Benefit 4:** Improved access to key strategic employment opportunities, making WBC a more attractive place to invest; and
- **Benefit 5:** Improved sustainable travel opportunities within the north-west Warrington area.

Ownership

6.10.5 The overall Benefits Realisation Plan will be owned by the SRO.

6.10.6 The responsibility for individual benefits will be defined and delegated to appropriate members of staff within WBC following scheme approval. Until the responsibilities are delegated, the ownership remains with the SRO. Once the responsibilities for each Benefit are delegated, the owners will be responsible for tracking and reporting on delivery of the benefits to the SRO.

Benefit Profiling

6.10.7 Profiling of the benefits has been prepared providing alignment with the scheme objectives, the benefit recipient, high level frequency of monitoring (opening year, 1 year from completion) combined with planned start and end dates, data sources, and data collection methods. Baseline data and targets will be reviewed and finalised as part of the FBC.

6.11 Monitoring and Evaluation

6.11.1 Monitoring and evaluation is required by WBC and C&W LEP to demonstrate that funding provided for the scheme represents value for money to the taxpayer and to ensure the scheme meets its core objectives as set out in the Strategic Case.

6.11.2 The monitoring and evaluation undertaken as part of this scheme will support the following evaluation objectives:

- provide accountability for the scheme investment;
- provide evidence that can support the prioritisation and delivery of future spending decisions regarding transport infrastructure within WBC and the broader C&W LEP area;
- learn about which schemes deliver cost-effective transport solutions;
- enhance the operational effectiveness of existing schemes or future schemes to be delivered through partial C&W LEP funding;
- generate knowledge about the success of the scheme in achieving its stated objectives and benefits; and
- improve future initiatives based on lessons learnt.

6.11.3 The monitoring and evaluation plan has been developed to meet the requirement of the DfT published guidance¹¹ and the C&W LEP Assurance Framework.¹²

6.11.4 DfT guidance is designed to make the process as consistent and proportionate as possible across infrastructure schemes delivered. In accordance with the guidance, the scheme with an outturn cost of below £50 million will include only standard monitoring activities.

6.11.5 The measures which fall within 'standard monitoring' are:

- Scheme build;
- Delivered scheme;
- Costs;
- Scheme Objectives;
- Travel demand;
- Travel times and reliability of travel times;
- Impacts on the economy; and
- Carbon impacts.

¹¹ DfT (2012) Monitoring and Evaluation Framework for Local Authority Major Schemes

¹² CWEP (2015) Growth Programme Assurance and Accountability Framework

6.11.6 The Monitoring and Evaluation reports prepared will be disseminated within the Authority to contribute to the knowledge base upon which future decisions regarding transport investment are taken within the borough.¹³ Furthermore, the results of the evaluation will be published on the C&W LEP website to ensure transparency and accountability agenda.

6.11.7 A draft Monitoring and Evaluation Plan has been prepared at this OBC stage and will be finalised as part of the FBC (**Appendix K**).

A budget of **£50,000** has been identified for monitoring and evaluation work.

6.12 Options

6.12.1 The PRINCE2 approach to project management is the adopted project management option with TfW and the client group. The TfW service has 50% of staff trained to a minimum of Prince2 Foundation level, with further project managers qualified up to Practitioner level.

6.12.2 No other options for project management were considered as this is the adopted approach of TfW.

¹³ HM Treasury (2003) The Green Book: Appraisal and Evaluation in Central Government

