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PARKSIDE LINK ROAD

OPTION APPRAISAL REPORT

RAMBOLL

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OPTION APPRAISAL REPORT

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APPENDICES

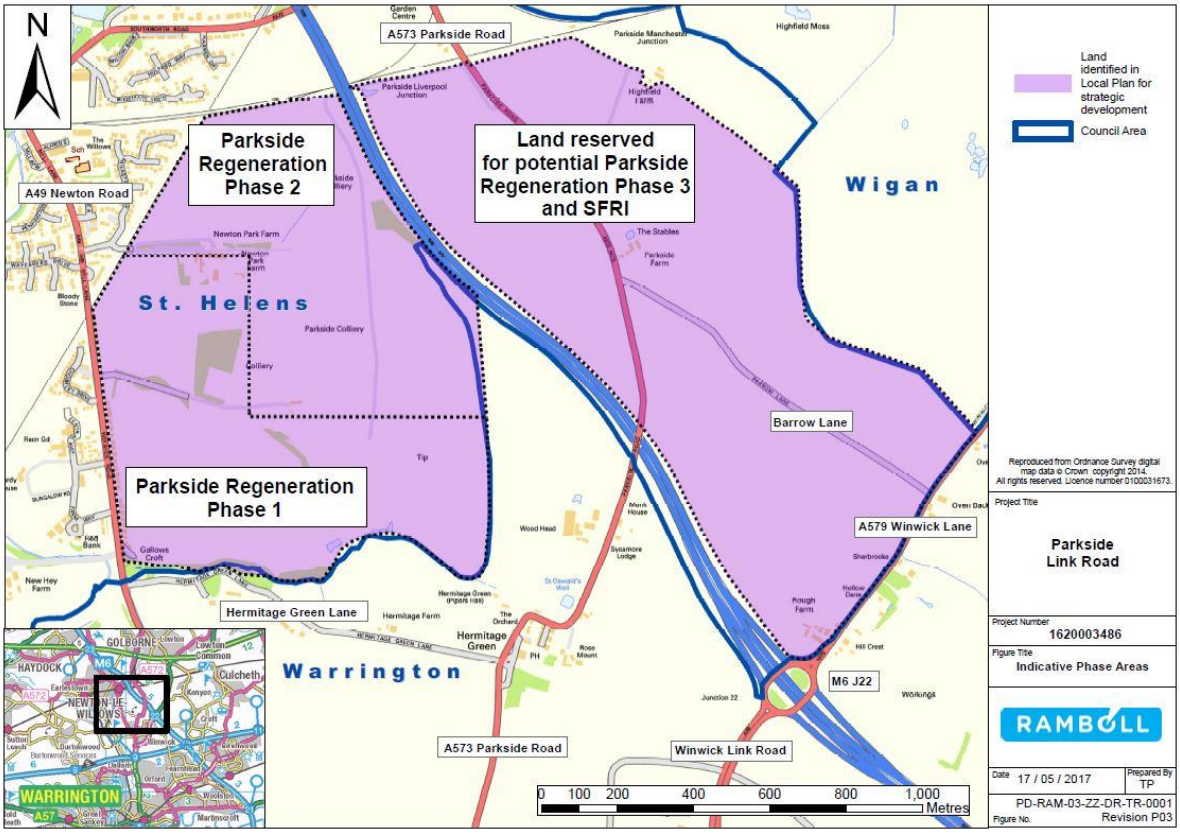
1. INTRODUCTION

Ramboll UK have been appointed by Balfour Beatty to deliver the Parkside Link Road scheme for planning on behalf of St. Helens Metropolitan Borough Council (SHMBC). This Options Appraisal Report (OAR) is to support the development of the route, establishing the need for a link road and recommending the best route to go forward for pre-engagement with stakeholders and consultation with the public.

1.1 Site Location

The proposed Parkside Link Road is located within both the Boroughs of St. Helens Metropolitan Borough Council and Warrington Borough Council. The Link Road will enable access to the Parkside Regeneration Site (Phase 1 and Phase 2) and the Parkside SFRI site (Phase 3) as identified in Figure 1.1 below. It benefits from a strategic location adjacent to the M6 and close to M62. The site will also play a strategic role in creating a M6 growth corridor and is perfectly poised to take advantage of regional developments such as the Liverpool 2 initiative and Atlantic Gateway at the Port of Liverpool, as well as opportunities that come from being part of both the Northern Powerhouse and the Liverpool City Region (LCR).

Figure 1.1: Parkside Regeneration Scheme



1.2 Background to the Scheme

Following the decommissioning of Parkside Colliery during the 1990's, there has been significant interest from both the private and public sector in bringing the site and adjoining land forward for employment and distribution use. The site benefits from a strategic location adjacent to the M6 and M62. Parkside Regeneration is a joint venture between St. Helens Council and developers Langtree (JV). It is proposed to transform the derelict Parkside Colliery site located on the south-eastern edge of Newton-le-Willows (west site), into a new employment park.

In addition, there is a further aspiration to develop land to the east of the M6 J22 as a Strategic Rail Freight Interchange (SRFI) which is the only site that has the potential to receive trains from all directions; North – South via the West Coast Main Line and East – West via the Chat Moss/Trans Pennine Line.

The current development sites identified could increase the potential development floorspace, creating over 7,700 gross jobs based on HCA Employment Density Guide 2015 values. If the SRFI were to come to fruition, a further major jobs boost would occur.

The Parkside Link Road would facilitate the proposed developments identified above.

1.3 Purpose of this Report

This report documents the procedures and processes followed and the outcome of the Options Appraisal undertaken to identify the preferred option.

2. PLANNING AND APPRAISAL PROCESS

2.1 Transport Policy and Planning

The **National Policy Statement for National Networks (NPS**) sets out Government policies for both nationally significant road and rail infrastructure projects for England. It will deliver national networks that meet the country's long-term needs; supporting a prosperous and competitive economy and improving overall quality of life, as part of a wider transport system. This means:

- Networks with the capacity and connectivity and resilience to support national and local economic activity and facilitate growth and create jobs
- Networks which support and improve journey quality, reliability and safety
- Networks which support the delivery of environmental goals and the move to a low carbon economy
- Networks which join up our communities and link effectively to each other

In relation to railways, the need for an expanded network of SRFIs in the UK and states the railway network must:

"provide for the transport of freight across the country, and to and from ports, in order to help meet environmental goals and improve quality of life"

The **National Planning Policy Framework** is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision taking. For plan making, this means local planning authorities should positively seek opportunities to meet the development needs of the area.

It also specifically supports the development of rail freight terminals to help achieve sustainable development and states that local authorities should develop strategies for the provision of viable infrastructure necessary to support sustainable development, including large scale facilities such as rail freight interchanges.

The **Transport for the North Freight and Logistics Report** focuses on the increased use of rail freight through improved availability of train paths and development of rail freight interchanges. Parkside is specifically recognised by the Report as a potential site for a SRFI in the North West.

The **Liverpool City Region (LCR) Growth Strategy** highlights the vision for the LCR to be a global logistics hub and competitive city region at the heart of the Northern Powerhouse. The development of logistics sites, multimodal facilities and buildings will play a crucial role in meeting this vision and fulfilling demand generated from increased port based freight associated with the SuperPort vision. For the full economic potential of SuperPort to be unlocked, the Growth Strategy also emphasises the need to better integrate logistics across a number of modes, as will be achieved through the Parkside SRFI.

The **Liverpool City Region's 'A Transport Plan for Growth'** identifies three transport priorities:

- Growth
- Low Carbon
- Access to opportunity

These have been established to support and enable wider strategic priorities of which one is freight and logistics.

By taking long-distance HGV traffic off congested motorways and moving freight traffic to a more sustainable form of transport such as rail, Parkside supports both transport and strategic priorities.

The **St. Helens Local Plan Core Strategy (2012)** and its replacement emerging **St. Helens Local Plan 2018-2033 Preferred Options** contains policies which identify that the Parkside site and immediately adjacent land is a strategic location with potential to facilitate the development of an SRFI. It states that the Council believes a deliverable and viable SRFI can be developed on the site.

The emerging **St. Helens Local Plan 2018-2013 Preferred Options – Spatial Vision**, contains a vision which will set out how the Borough and the places within it should develop. It should be locally distinctive, realistic and in the best interests of local people, businesses and the environment.

The Parkside Development site and specific Strategic Policies that mention it by name are:

- Policy LPA04 – A Strong and Sustainable Economy
- Policy LPA04.1 – Strategic Employment Sites
- Policy LPA 10 – Development of Strategic Rail Freight Interchange

The proposed Parkside Link Road will contribute and support the above policies and strategies through improving local connectivity, delivering employment opportunities and facilitating the opportunity for developing the SRFI site.

2.2 Project Objectives

From the current national, regional and local policies and strategies that are applicable, specific project objectives were identified and agreed with St. Helens Council. These are as follows:

- Enhanced highways access between the Parkside site and both the strategic highway networks
- Enhanced highways access between the Parkside site and both the local highway networks
- Improving connectivity for future commuters who will work at the site as well as improving the efficiency of freight movements to and from the site

- Deliver more efficient logistics and development in close proximity to existing and proposed national sea, road and rail infrastructure supporting the LCR Growth Plan objectives
- Serve and allow for optimum alignment of the Strategic Rail Freight Interchange

These project objectives, with the assistance of St. Helens Council and major stakeholders, were used to develop the Transport Planning Objectives (TPOs). These TPOs were used to assess each of the proposed routes.

2.3 Transport Planning Objectives

- TPO1 – Improve Road Safety
- TPO2 – Improve Journey Time Reliability
- TPO3 – Enhance highway access between Parkside site and both the strategic highway networks
- TPO4 – Enhance highway access between Parkside site and both the local highway networks
- TPO5 – Improving connectivity for future commuters who will work the site as well as improving the efficiency of freight movements to and from the site
- TPO6 – Enhance highway access between Parkside site and both the strategic highway networks
- TPO7 – Serve and allow for optimum alignment of the Strategic Rail Freight Interchange
- TPO8 – Improve Pedestrian and Cycling Access

The Appraisal Process that is used to assess transport projects in England is the Department of Transport, transport analysis guidance WebTAG together with recommendations in Design Manual for Roads and Bridges (DMRB).

The main assessment appraisals considered besides Transport Planning Objectives are **Engineering, Economy, Environment** and **Society**. The assessments have produced an Appraisal Summary Table (AST) for each route option based on a seven-point scale presented in Table 2.1 of beneficial, neutral, or adverse impacts where applicable.

Table 2.1: Key scale of Appraisal Benefits and Disbenefits

bbb	bb	b	n	d	dd	ddd
Significant Benefit	Moderate Benefit	Slight Benefit	Neutral	Slight Disbenefit	Moderate Disbenefit	Significant Disbenefit

The results of the appraisals for all route options considered are set out in the Appraisal Summary Tables (AST) in Appendix 1 and summarised in the assessment chapters.

3. EXISTING CONDITIONS

3.1 Description of Locality

Located on the east side of the Borough of St. Helens on the south eastern edge of Newton-le-Willows, the study area is bounded by the local authorities of Warrington and Wigan. The land under consideration for development, and for which the Parkside Link Road is to service, consists of the decommissioned Parkside Colliery which is largely waste ground (since the 1990's) and arable agricultural land.

The area is currently designated as Green Belt but under the emerging St. Helens Local Plan 2018 – 2033 this designation is being withdrawn. The land has the nationally strategic M6 motorway passing through it and close by is the M62. The A49 bounds the west side of the site, A573 passes through the area and on the south east side is the A579 that links to the M6

Junction 22. Other strategic transport networks are the West Coast Main Line to the north west of the site and running east west north adjacent to the area is the Chat Moss/Trans Pennine railway line linking Liverpool with Manchester.

Two footpaths pass through the area east of the M6 linking up with the footpath network in the adjacent local authority Wigan Council.

There are residential properties that bound the west side of the site as part of Newton-le-Willows and there are two villages close by Hermitage Green and Winwick.

The topography of the area is relatively flat between 20m and 35m AOD.

3.2 Existing Highway Network

The area is bounded to the south by the M62, Winwick Link Road and A579 Winwick Lane/Newton Road to the south east, A580 East Lancs Road to the north and the A49 Newton-le-Willows to Winwick to the west. The M6 bisects the area from north west to south east, with the M6 junction 22 within the area, linking Winwick Link Road and A579 Winwick Lane/Newton Road. Within this core area there are a number of key links to the proposed development sites and these are found along the following routes and boundaries:

- **A49** – a key local north / south route through Newton-le-Willows to the west of the proposed development linking East Lancs Road and the M6 in the north west with the M62 in the south via Winwick
- **Winwick Link Road > Winwick Lane/Newton Road** – a key local eastern route linking the M62 in the south to the M6 (J22) and East Lancs Road to the north east
- **A572 Southworth Road > Newton Road** – a key local west / east route connecting Newton-le-Willows in the west with East Lancs Road (Golborne) in the east
- **A573 Parkside Road > Warrington Road** – local north / south A-road route adjacent to the east of the proposed development linking East Lancs Road in the north to M62 in the south via Winwick Link Road roundabout
- **A580 East Lancs Road** – a primary strategic A-road on the northern boundary of the proposed development linking Liverpool in the west to Manchester in the East
- **M62** – a major strategic motorway link forming the southern boundary of the study area linking Liverpool to Manchester, Leeds and Hull
- **M6** – a major strategic motorway link dissecting the study area from north west to south east linking Scotland and the north of England to the Midlands and the south of England

There are minor lanes and roads whilst these are not strategically important they serve a vital local function by connecting the small communities:

- **Hermitage Green Lane** from near Gallows Croft **A49** to Hermitage Green and **the A573**
- **Waterworks Lane** and **Highfield Lane,** connect Winwick to Winwick Link Road and Southworth Lane & Myddleton Lane

There are a number of public rights of way footpaths to the east of the proposed development on Barrow Lane which is a public right of way linking Parkside Road to Winwick Lane. There is a footpath from Parkside Road following a north easterly direction linking up with footpaths in Lowton Heath.

3.3 Traffic Flows

The site area is located in close proximity to the M6 and M62 motorway however, the local network is consistently congested during AM and PM peak periods around Winwick and J9 M62

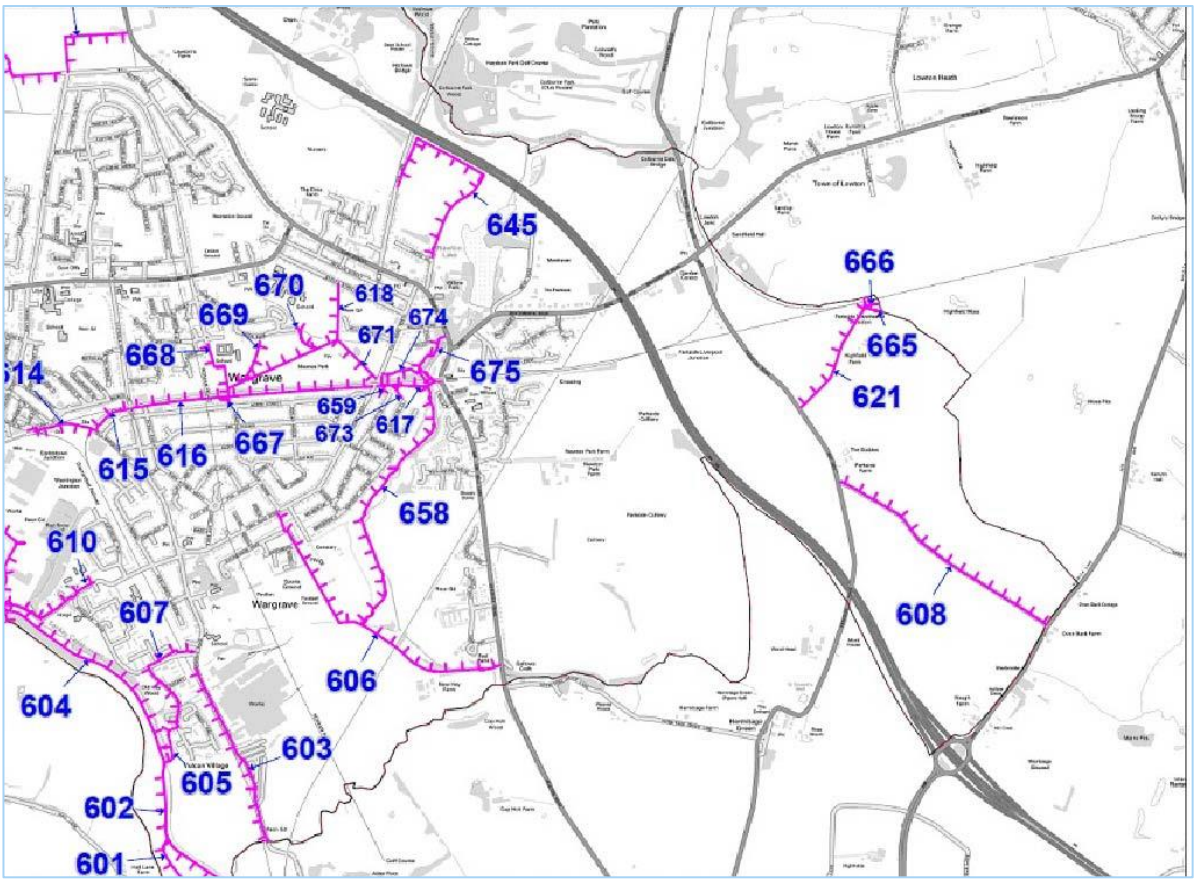
resulting in delays to journey times. There is additional congestion on the highway network in Lowton at the series of signalised junction on the A580, and the A49 through Newton-le-Willows which is also congested during peak periods.

3.4 Pedestrians, Cyclists, Equestrians and Community Effects

Based on a review of Ordnance Survey maps and online sources, no PRoW cross the scheme area. This has been confirmed when compared against the 'working copy' of the definitive PRoW map obtained from SHMBC, as shown in Figure 3.1. There is potential for PRoW number 608 to be used temporarily through the construction phase of the scheme.

No bridleways are thought to be located in close proximity to the proposed Scheme. It is understood that the former Parkside Colliery site is used by the public but that there is no public right of way and this land is under private ownership.

Figure 3.1: Definitive Public Right of Way (PRoW) Map, source: SHMBC



There are no key community facilities, such as schools or hospitals, within close proximity to the scheme.

3.5 Land Use

Historical maps indicate the site area to the east of the M6 has remained largely agricultural land with a number of farms on or very close to the proposed scheme.

The site area west of the M6 was largely agricultural land with a number of ponds and marshy areas until Parkside Colliery was developed in early to mid-1960s. Numerous railway sidings were located to the east of the colliery buildings which were orientated north-south extending

beneath the scheme area. An electrical substation was constructed on the south side of the former colliery which is still present. The majority of structures associated with the former colliery appear to have been located to the north of the site.

The area between the former colliery and Parkside Road has remained agricultural land.

3.6 Water Features and Drainage

The topography of the land falls generally from the north east of the site to the south west. It is relatively even surface without major incisive valleys carrying large rivers or brooks or ponds. To the south east of the site (A579) and east of the M6 there is a small brook away from the site that eventually drains into the River Mersey. In the south east corner, adjacent to Hermitage Green Lane, there is a small brook flowing westward that eventually discharges into Newton Brook on the west side of the A49. Newton Brook discharges into a Sankey Brook and thereon to the River Mersey. For more details refer to section 7.8 'Water Environment'.

3.7 Hydrogeology

The Environment Agency provides the following aquifer classifications for the site area:

- Chester Pebble Bed Formation, Kinnerton Sandstone and Collyhurst Sandstone – Principal aquifer, this underlies the majority of the Scheme
- Pennine Middle Coal Measures Formation and Glaciofluvial deposits – Secondary A aquifer
- Manchester Marl – Secondary B aquifer
- Glacial Till – Secondary (undifferentiated) aquifer

Principal aquifers are layers of rock or drift deposits that have high intergranular and/or fracture permeability, meaning they usually provide a high level of water storage and may support water supply and/or river base flow on a strategic scale.

Secondary A aquifers are permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.

Secondary B aquifers are predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering.

3.8 Hydrology

Oswalds Brook is located within the site area; the brook is understood to be fed from springs in the area of Hermitage Green (close to where St Oswald's Well and a mill were historically located) and field drains. The Environment Agency website indicates Oswalds Brook is 'main river' so it will be the responsibility of the Environment Agency.

A number of surface water drains and drainage ditches have been observed in and around the former Parkside Colliery.

No surface water features other than field drains have been identified in the area to the east of the M6.

3.9 Waste Management and Landfills

The Environment Agency website shows two historical landfills and one authorised landfill within the site area.

Newton Brook is a historical landfill is indicated as having received waste from December 1961 to December 1971. Barrow Pit is also a historical landfill which is located to the south / south east of Winwick Lane. This landfill accepted inert and industrial waste and is indicated as having first received waste in October 1968 but no end date is indicated.

Southworth Quarry Landfill is an existing authorised landfill which also located to the south / south east of Winwick Lane.

3.10 Landfill/Ground Gas and Radon

A number of potential sources of gas (such as methane and carbon dioxide) have been identified relating to the made ground/fill, infilled ponds, former mine workings and landfills.

Two passive gas vents are located in the area of the former Parkside Colliery approximately 200m north of the proposed scheme at the location of two former mine shafts.

An area where up to 1-3 % of homes are above the action level for radon has been identified within the site area. However, as the development comprises a road scheme the potential risks from gas and radon are considered to be very low following development.

3.11 Statutory Undertakers

Utility records the have identified the following services are located within the works area:

- Underground high voltage electricity cables in and out of Sub-Station
- Underground high voltage electricity cables (Network Rail supply)
- Overhead power cables and pylons
- Gas main (A49 Winwink Road)
- Water mains
- Underground and overhead telecom cables

The reviewed records do not include methane pipework or belowground drainage that may be present within the site.

4. SCHEME OPTIONS

A workshop was undertaken to identify a number of route options which have a reasonable chance of implementation. The following six route options have been identified and consist of the following:

- Yellow Route
- Blue Route
- Green Route
- Cyan Route
- Purple Route
- Brown Route

4.1 Yellow Route

4.1.1 Description

The yellow route will provide an offline highway from the M6 J22 connecting the new link road and Winwick Lane via a new offline roundabout. The route continues across the existing M6 overbridge on Parkside Road to a new roundabout providing access to the Parkside Regeneration site and onto the A49 via a new signalised junction.

4.1.2 Engineering Overview

The 3.3km new carriageway construction consists of:

- 1.5km of single carriageway
- 1.1km of single carriageway incorporating a 3.5m wide right turn lane
- 0.3km of dual carriageway from J22 to new off-line roundabout
- 0.25km of single carriageway from new off-line roundabout to Winwick Lane
- 0.1km of single carriageway with two lane approach to signalised junction

The existing carriageway over the M6 will be upgraded:

- 0.2km of the A573 upgraded single carriageway

Two on-line signal controlled junctions are:

- A49 junction with proposed link road
- A573 junction with proposed link road

Two off-line roundabouts are:

- 3 arm roundabout off A573. All arms are single carriageways
- 3 arm roundabout off Winwick Lane. Arms consist of dual carriageway connecting to J22, new link road and single carriageway tie-in to Winwick Lane. Two minor arms will maintain access to existing properties

Footway/Cycleway:

- 3km of footway/cycleway will be provided adjacent to the link road running through the development site. These footway and cycleway facilities are located on both sides of the development link road giving spatial provision for all future development on the site
- A further 1.8km of footways will be provided adjacent to the new link road away from the development site ensuring continuity of existing footways and improving pedestrian connectivity to the development site

The estimated construction cost of the yellow route is **£31,856,776.**

4.2 Blue Route

4.2.1 Description

The blue route consists of an all movement signalised junction from Winwick Link Road connecting to Parkside Road via a roundabout, just south of the M6 overbridge. The road then continues to the west through the Parkside Regeneration site connecting into the A49 via a signalised junction.

4.2.2 Engineering Overview

The 2.0km new carriageway construction consists of:

- 1.2km of single carriageway
- 0.73km of single carriageway incorporating a 3.5m wide right turn lane
- 0.1km of single carriageway with two lane approach to new roundabout

Two on-line signal controlled junctions are:

- A49 junction with proposed link road
- Winwick Link Road (dual carriageway) junction with proposed link road

One on-line roundabout consists of:

- 4 arm roundabout on A573 immediately south of M6 overbridge. A573 is a single carriageway with the proposed arms being single carriageways

Footway/Cycleway:

- 3km of footway/cycleway will be provided adjacent to the link road running through the development site. These footway and cycleway facilities are located on both side of the development link road giving spatial provision for all future development on the site
- A further 0.6km of footway will be provided adjacent to the new link road away from of the development site providing improved pedestrian connectivity to the development site

The estimated construction cost of the blue route is **£18,834,200.**

4.3 Green Route

4.3.1 Description

The green route consists of an all movement signalised junction from Winwick Link Road connecting to Parkside Road via a roundabout. The road then continues to the west through the Parkside Regeneration site connecting into the A49 via a signalised junction.

4.3.2 Engineering Overview

The 2.2km new carriageway construction consists of:

- 1.47km of 7.3m single carriageway
- 0.73km of single carriageway incorporating a 3.5m wide right turn lane

Two on-line signal controlled junctions are:

- A49 junction with proposed link road
- Winwick Link Road (dual carriageway) junction with proposed link road

One on-line roundabout consists of:

- 4 arm roundabout on A573 south of M6 overbridge. A573 is single carriageway with the proposed arms being single carriageways

Footway/Cycleway:

- 3km of footway/cycleway will be provided adjacent to the link road running through the development site. These footway and cycleway facilities are located on both sides of the development link road giving spatial provision for all future development on the site
- A further 0.7km of footway will be provided adjacent to the new link road away from of the development site providing improved pedestrian connectivity to the development site

The estimated construction cost of the green route is **£20,129,808.**

4.4 Cyan Route

4.4.1 Description

The cyan route would deliver a reconfigured junction at the M6 J22/Winwick Lane, connecting to Parkside Road via a roundabout to the north. A new bridge across the M6 would provide access to a further roundabout connecting back onto Parkside Road and to the Parkside Regeneration site and A49 via a signalised junction.

4.4.2 Engineering Overview

The 3.1km new carriageway construction consists of:

- 2.4km of single carriageway
- 0.73km of 10.8m single carriageway incorporating a 3.5m wide right turn lane

The proposed structure over the M6 will be carry:

- 7.3m single carriageway

On-line signal controlled junction:

- A49 junction with proposed link road

On-line priority junction:

- A573 junction with proposed link road

Two off-line roundabouts are:

- 3 arm roundabout. All arms are single carriageways
- 3 arm roundabout. Two arms are single carriageways connecting to Winwick Lane and J22, the third arm is the proposed link road

One on-line roundabout:

- 3 arm roundabout on the A573 north of the M6. The existing road is a single carriageway and the two new arms are both proposed single carriageway link roads

Footway/Cycleway:

- 2.4km of footway/cycleway will be provided adjacent to the link road running through the development site. These footway and cycleway facilities are located on both sides of the development link road giving spatial provision for all future development on the site

- A further 2km of footways will be provided adjacent to the new link road away from the development site ensuring continuity of existing footways and improving pedestrian connectivity to the development site

The estimated construction cost of the cyan route is **£38,048,740**

4.5 Purple Route

4.5.1 Description

The purple route would provide an offline highway from the M6 J22 connecting the new link road and Winwick Lane via a new roundabout. A second roundabout to the north would provide access to Parkside Road. The route would cross the existing M6 overbridge on Parkside Road and connect to the new link road via a second roundabout to the south of the M6 bridge, this would then continue west through the Parkside Regeneration site connecting into the A49 via a signalised junction.

4.5.2 Engineering Overview

The 2.3km new carriageway construction consists of:

- 1.5km of single carriageway
- 0.73km of single carriageway incorporating a 3.5m wide right turn lane
- 0.1km of single carriageway with two lane approach to signalised junction

The existing carriageway over the M6 will be upgraded:

- 0.2km of the A573 realigned and upgraded single carriageway

Two on-line signal controlled junctions are:

- A49 junction with proposed link road
- A573 junction with proposed link road

Two on-line roundabouts are:

- 3 arm roundabout on the A573 north of the M6. The existing road is a single carriageway and the two new arms are both proposed single carriageway link roads
- 3 arm roundabout on Winwick Lane. The existing road is a single carriageway and the new link road is a single carriageway link road

Footway/Cycleway:

- 3km of footway/cycleway will be provided adjacent to the Link Road running through the development site. These footway and cycleway facilities are located on both side of the development Link Road giving spatial provision for all future development on the site
- A further 1.9km of footways will be provided adjacent to new link roads away of the development site ensuring continuity of existing footways and improving pedestrian connectivity to the development site

The estimated construction cost of the purple route is **£28,882,352**

4.6 Brown Route

4.6.1 Description

The brown route would deliver a reconfigured junction at the M6 J22/Winwick Lane, connecting to Parkside Road via a roundabout. The route would provide access from Parkside Road to the land to the east of the M6, connecting to the Parkside Regeneration site, and A49, via a box tunnel under the M6.

4.6.2 Engineering Overview

The 2.6km new carriageway construction consists of:

- 2.6km single carriageway

The proposed tunnel under the M6 will carry:

- Single carriageway road providing access to the site

Two on-line roundabouts are:

- 3 arm roundabout. The new arm is a single carriageway link road connecting in to A573
- 3 arm roundabout. The new arm is a single carriageway link road connecting in to A573

One off-line roundabout:

- 2 arm roundabout both arms are proposed single carriageway link roads
- 3 arm roundabout. Two arms are single carriageway links connecting in to Winwick Lane and J22, the third arm is single carriageway link road

Footway/Cycleway:

- 2.6km of footway will be provided adjacent to the new link road leading to the development site

The estimated construction cost of the brown route is **£32,841,308.**

5. ENGINEERING ASSESSMENT

5.1 Engineering Standards

The engineering standards and cross sections adopted for the initial options development are in accordance with Design Manual for Roads and Bridges (DMRB), The Manual of Contract Documents for Highway Works (MCDHW) and relevant Interim Advice Notes (IANs).

Highway design parameters used to assess all the Options are:

- Design Speed 70kph
- Super elevation 3.5%
- Stopping Sight Distance 120m

These have been used to compare the relative strengths and weaknesses of each route.

5.2 Departures and Relaxations from Standards

For the following routes, the Departures and Relaxations are:

- Yellow Route – Three Departures from Standard. Two of the Departures occur on the main access road into the Parkside Regeneration Phase 1site, from the A49 junction. The third Departure occurs at the tie-in to A573 Parkside Road

- Blue Route – Four Departures from Standard. Two of the Departures occur on the main access road into the Parkside Regeneration Phase 1site. The remaining two departures are from A579 Winwick Link Road to A573 Parkside Road

- Green Route – Six Departures from Standard. Two of the Departures occur on the main access road into the Parkside Regeneration Phase 1site, from the A49 junction. The remaining four departures are on the link roads East and West of the A573 Parkside Road

- Cyan Route – Five Departures from Standard and One Relaxation. Two Departures occur on the main access road into the Parkside Regeneration Phase 1site, from the A49 junction. One departure is on the link road West of the A573 Parkside Road, the remaining departures and relaxation are on the link road between the A573 Parkside Road and Winwick Lane

- Purple – Three Departures from Standard. Two of the Departures occur on the main access road into the Parkside Regeneration Phase 1 site. The third departure is on the link road between the A573 Parkside Road and Winwick Lane

- Brown – Six Departures from Standard and three Relaxations. Two Departures occur on the link road off the A573. The remaining four departures are on the link road between the A573 Parkside Road and Winwick Lane. The three relaxations are on the link road off the A573

To Note: At the next Stage the Yellow Route would have further detail design carried out and be the subject of a Road Safety Audit in accordance with the standard in DMRB.

5.3 Traffic Flows

All options have been designed to accommodate the predicted traffic flows in the design year 2030.

5.4 Footpaths

The Purple Route is the only option that adversely affects a footpath. That is the footpath along Barrow Lane (Private Road).

5.5 Drainage Strategy

The strategy to be adopted will be based upon using the principles under Sustainable Drainage System (SUDs). This will involve using storage lagoons, filter drains and swales to ensure that the run-off from the site is controlled and meets the Environmental Agency requirements.

5.6 Earthworks

There is likely to be a requirement for a significant cutting (up to 7 metres deep) through the spoil heap forming the eastern edge of the former colliery, with the exception of the brown route. Test data suggest that this material will be re-usable for forming embankments, for example where required to maintain the alignment and tie-in with the A573 and A49 to the south.

Based on visual observations and material composition, side slopes of 1(v):2(h) are likely to be achievable in the proposed cutting through the spoil, as well as the other minor cuttings throughout the scheme, assuming that suitable slope drainage is installed if/where required.

5.7 Statutory Undertakers

Any divisionary works required will be agreed with Statutory Undertakers.

5.8 Engineering Summary

The engineering standards and cross sections adopted for the initial route options development are in accordance with Design Manual for Roads and Bridges (DMRB), The Manual of Contract Documents for Highway Works (MCDHW) and relevant Interim Advice Notes (IANs).

Highway design standards used for developing the route options are presented in section 6.1 and have been used to compare the relative strengths and weaknesses of each route particularly assessing the Departures/Relaxations.

The carriageway provision for the scheme designs is in accordance with DMRB and the Technical Directives and Advice Notes and all options are capable of carrying the predicted traffic flows derived from the SATURN traffic model developed for this project.

Junction provision is in accordance with current standards reflecting the expected modelled traffic flows.

There are Departures/Relaxations on all the route options, however they are not considered detrimental enough to change or abandon the route for further consideration. These issues will be considered at the next stages and will be the subject of Road Safety Audits as the project progresses.

New structures to support the new or improved highway will be designed in accordance with DMRB and the structures technical approval authorities in accordance with good practice. Overall the structures needed for any of the routes can be provided using current technical techniques.

The ground conditions of the study area, whilst some areas have been altered because of previous industrial activity, the problems that have been left are such that technically they are not insurmountable.

Drainage design will be based upon the use Sustainable Drainage (SUD's) principles with a number of storage lagoons to collect and hold any carriageway runoff.

It is considered that technically, overall there are no insurmountable engineering problems.

6. ECONOMIC ASSESSMENT

6.1 Introduction

The method of appraisal used to assess the economic assessment of the six route options is in accordance with WebTAG guidance together with recommendations in the Design Manual for Roads and Bridges (DMRB). The assessments appraise the six route options using actual (base year traffic counts) and predicted traffic volumes (modelled future year flows) on the road

network within the study area and the resultant assessments are presented below and in the ASTs for each route in Appendix 1.

6.2 Base Year Traffic Counts

The base year for the scheme is 2015 and base year traffic flows have been derived from recorded automatic traffic counts undertaken in 2015 and 2017. Traffic count data recorded in 2017 has been factored to 2015 levels and these counts have been used as a basis to develop a base year 2015 SATURN traffic model of the study area from which the traffic and economic assessments for all outlined route options have been based.

6.3 Do Minimum

The 'Do Minimum' network on which the 'Do Something' options have been assessed against, is based on the proposed highway improvements in the study area and includes a number of online improvements already identified Stage 1.

'Do Minimum' is work that would be carried out within the study area regardless of whether or not one of the options (a 'Do Something' scheme) is constructed. 'Do Minimum' work can include traffic management measures, road proposals and new developments within the network (other than the scheme under consideration).

6.4 Future Year Traffic Flows

Traffic flows have been predicted for the Opening Year 2020 and the Design Year 2030. The Opening Year is the year the selected option is expected to be constructed and operational. The Design Year is the future year traffic flows that the options will be designed too. The overall growth in traffic predicted for the period 2015-2020 is 6.1% (base year to opening year) and for the period 2015-2030 is 15.2% (base year to design year).

6.5 Economic Performance

The economic performance of the options has been assessed using TUBA (Transport User Benefit Appraisal). The assessment assumes a 60 Year appraisal period and standard national economic parameters for values of time and vehicle operating costs. Traffic growth is based on local growth trends and forecast planning and development assumptions.

Table 6.1 summarises the results of the operational costs and benefits of the scheme options and evaluates the overall economic performance of the all six options resulting in a Benefit to Cost Ratio (BCR) for each route.

Table 6.1: TUBA Appraisal Summary Table

	Yellow	Blue	Green	Cyan	Purple	Brown
	Costs (£m)	**Costs (£m)**	**Costs (£m)**	**Costs (£m)**	**Costs (£m)**	**Costs (£m)**
Land Costs in 2017 prices	*£9,000*	*£9,000*	*£9,000*	*£9,000*	*£9,000*	*£9,000*
Scheme Costs in 2017 prices	*£31,857*	*£18,834*	*£20,130*	*£38,049*	*£28,882*	*£32,841*
Analysis of Monetised Costs and Benefits						
Greenhouse Gases	£4,217	£2,891	£3,000	£2,637	£3,931	£777
Economic Efficiency: Consumer Users, Commuting	£28,611	£27,713	£29,720	£27,236	£27,508	£17,735
Economic Efficiency: Consumer Users, Other	£47,122	£26,023	£27,763	£29,126	£46,928	£18,788
Economic Efficiency: Business Users and Providers	£107,227	£89,839	£93,362	£70,869	£104,499	£22,043
Wider Public Finances (Indirect Taxation Revenues)	-£8,499	-£5,490	-£6,094	-£5,274	-£7,885	-£1,645
Value for Money Summary						
Present Value of Costs (PVC)	£35,514	£24,968	£26,006	£40,359	£33,016	£36,187
Present Value of Benefits (PVB)	£178,678	£140,617	£147,751	£124,594	£174,981	£57,698
Net Present Value (NPV)	£143,164	£115,649	£121,745	£84,235	£141,965	£21,511
Benefit to Cost Ratio (BCR)	**5.031**	**5.632**	**5.681**	**3.087**	**5.300**	**1.594**

All costs in 2010 prices discounted to 2010

6.6 Traffic and Economic Summary

The TUBA analysis summarised above indicates that all scheme options represent Value for Money in terms of traffic related benefits. All show Benefit to Cost Ratios (BCR) greater than 1.5. However, the Yellow Scheme produces the highest level of potential benefits, having a Present Value of Benefits (PVB) of £178,678,000 compared to the lowest performing option (Brown) that has a PVB of £57,698,000.

The Blue and Green options, aligned to the west of M6, show the cheapest Construction Costs, but lower benefits compared to the Yellow Scheme. This results in a slightly greater calculation of BCR (5.6) than for the Yellow Scheme which has a BCR value of 5.0.

The Yellow Scheme provides the greatest overall benefit for all options considered and shows the highest value for money over the 60 year period of the appraisal.

7. ENVIRONMENTAL ASSESSMENT

7.1 Introduction

The environmental impact of the proposed routes has been assessed using WebTAG unit A.3 and a summary of the impacts is presented below and in the Appraisal Summary Table in Appendix 1.

7.2 Noise

There are residential properties in the vicinity of the proposed options but no receptors such as schools or hospitals have been identified in the vicinity of the Parkside site. There is a secure children's unit at the western end of the options study area but this is believed to be closed. The options cross either derelict former industrial land or agricultural fields where background noise levels would be expected to be low, however, the presence of the M6 motorway which bisects the options study area will result in higher background noise levels (including at night time) than

might be expected. Impacts could arise at residential properties along Parkside Road, Hermitage Green and Winwick Lane. All of the routes would have similar effects at the A49 Mill Lane/Winwick Lane and across the former Parkside Colliery where they converge. East of the colliery site the yellow, blue, cyan and purple routes pass close to Woodhead Farm and properties on A573 Parkside Road and A579 Winwick Lane. The blue and green routes would not affect properties on A579 Winwick Lane but they are closer to the small settlement of Hermitage Green. In this regard the brown route affects the fewest properties but quantitative assessment, based on the predicted traffic flows, is required to confirm the impacts in detail.

7.3 Air Quality

There are residential properties within 200m of the options study area and impacts could arise on A49 Mill Lane/Winwick Lane, A573 Parkside Road and A579 Winwick Lane. It is considered that all of the routes would have similar effects at the A49 Mill Lane/Winwick Lane and across the former Parkside Colliery where they converge. East of the colliery site the yellow, blue, cyan and purple routes pass close to Woodhead Farm and properties on A573 Parkside Road and A579 Winwick Lane. The blue and green routes would not affect properties on A579 Winwick Lane but they are closer to the small settlement of Hermitage Green. In this regard the brown route affects the fewest properties but quantitative assessment, based on the predicted traffic flows, is required to confirm the impacts in detail. No designated ecological receptors are likely to be affected.

7.4 Landscape

The study area comprises large scale farmland and the former Parkside Colliery bounded by the settlements of Newton-le-Willows, Golborne and Winwick. The landscape is characterised by scattered farms and residential properties in a predominantly open landscape bisected by the M6 motorway. The study area lies in the SHMBC and WBC green belts, although SHMBC are consulting on removing the green belt designation in the area of the Scheme and this is the assumption that has been used in the assessment at this stage. The study area is visually contained by the existing settlements and vegetation. Most views are local and distant views are limited. Sensitive visual receptors comprise residential dwellings (within 500m), settlements (within 2km), scattered farmsteads with open views across farmland, the Public Right of Way network and road users on existing local roads. The nature and scale of the proposed options may have impacts on land cover, landscape character, landscape quality and views. Visual receptors are expected to range from high to low sensitivity with the highest sensitivity being the PRoW network and residential properties. All of the routes except the brown route cross the WBC green belt, although the green and blue routes cross the greatest distance, the brown route lies entirely within the SHMBC green belt area. The yellow, blue, cyan and purple routes all pass close to Woodhead Farm, which is a listed building, whilst the green route also passes close to St. Owald's well, a Scheduled Ancient Monument. There could be adverse effects on the setting of these features.

7.5 Townscape

The options study area principally comprises farmland and land formerly occupied by Parkside Colliery but the study area is bounded by the settlements of Newton-le-Willows, Golborne and Winwick. Overall, effects on townscape if they do arise are unlikely to be significant.

7.6 Historic Environment

There are no world heritage sites, or registered parks and gardens in the study area. There are two scheduled monuments; St Oswald's Well (also a Grade II listed building) and Bowl Barrow. There is no Grade I or Grade II* listed buildings in the study area but there are ten Grade II

listed buildings. There are a number of non-designated heritage assets that predominantly date to the post medieval period and are of low heritage significance. East of the M6 motorway there were post medieval enclosures but these have been lost and the landscape character is now 20th century fields. This area has a moderate to high potential for heritage assets. Known assets include locally listed buildings at Rough Farm and Oven Back Farm. West of the M6 motorway the former Parkside Colliery has negligible potential for heritage assets but the rest of this area has a moderate potential for heritage assets, particularly from the post medieval period and potentially including the Red Bank Civil War Battle Site. The yellow, blue, cyan and purple routes all pass close to Woodhead Farm, which is a listed building whilst the green route also passes close to St. Owald's Well, a Scheduled Ancient Monument. There could be adverse effects on the setting of these features.

The routes which extend to the east of the M6 involve the loss, or partial loss of Rough Farm which is locally listed. For the purposes of this assessment it has been assumed there will be complete loss for the yellow and purple routes and partial loss for the cyan and brown routes.

7.7 Biodiversity

There are ten nationally designated sites within 2km of the options study area and a further two within 5km. There are two internationally designated sites within 10km comprising the Manchester Mosses (5.4km SE) and Rixton Clay Pits (7.6km SE) Special Areas of Conservation. The closest nationally designated site is Highfield Moss Site of Special Scientific Interest (500m from the brown route). There are two Local Nature Reserves within 5km of the study area and several others in the wider area. Six non-statutory locally designated wildlife sites are located within 2km of the Scheme and of these Gallows Croft Local Wildlife Site (LWS) and Newton Brook LWS are close to the Scheme. There are no ancient woodlands, priority habitats, Tree Preservation Orders or veteran trees in the study area. All of the routes would involve the loss of hedgerows and to varying degrees trees and could affect habitat used by farmland birds. Bat commuting and foraging routes may be present west of the M6 in the Study area and effects on these from all routes would need to be considered. Great crested newts have been identified in the pond at Woodhead Farm, close to the yellow, blue, cyan and purple routes, and in a series of ponds in the south of the study area, east of the M6. The latter could be affected by routes east of the motorway. It has not been possible to gain access to the waterbody at St. Oswald's Well which is close to the pond at Woodhead Farm, and if great crested newts are present at this location then similar effects could arise on the green route. Bats and barn owls may be using Rough Farm for roosting and nesting respectively and, if this is the case, then loss of the farm buildings could potentially have a significant impact on the yellow, cyan, purple and brown routes. The green and blue routes would not involve any effects on Rough Farm. The brown route crosses the location of an existing pond, this is not shown on recent mapping but a site survey has shown that it is still present and, on the basis of the current route, this habitat would be lost. Impacts on invertebrates and reptiles are most likely to arise on the former colliery site and are likely to be similar between all of the routes. The invasive weeds, Japanese knotweed and Himalayan balsam were also noted in the study area.

7.8 Water Environment

The options study area sits astride two watershed catchments, broadly divided into the areas east and west of the M6. The eastern catchment comprises Cockshot Brook and its tributaries. There are two unnamed drainage ditches in this area which flow into Cockshot Brook, this then flows south to join Spittle Brook, close to Junction 21A of the M6 approximately 2.5km south of the site. The western catchment comprises Newton Brook and its tributaries. A small watercourse (variously known as Hermitage Green Brook or Oswalds Brook) is shown rising south of the study area close to the hamlet of Hermitage Green. It is understood to be an Environment Agency Main River. This brook flows west beneath the A49 to join with Newton Brook

(approximately 20m west of the A49). A second tributary about 300m in length joins the Brook at the south eastern corner of the former Parkside colliery site. There is a network of ponds and watercourses on the former Parkside Colliery; these showed signs of pollution. From the study area Newton Brook flows broadly south, though Newton-le-Willows to join Sankey Brook approximately 1.8km to the southwest of the proposed scheme. A number of ponds, not connected to watercourse, have been noted in the wider landscape. The Scheme area is in Flood Zone 1 (low risk of tidal and fluvial flooding). Large parts of Newton-Le-Willows to the northwest are at a high risk of fluvial flooding from Newton Brook and the Hermitage Green Brook/Oswalds Brook channel and very small parts of the study area are susceptible to surface water flooding. Additional run off from roads and pavements could have a detrimental effect but these will be mitigated through surface water attenuation.

7.9 Environmental Summary

In terms of noise and air quality the potential for adverse effects to arise has been identified although at this stage there are not considered to be significant differences between the routes.

The landscape of the study area comprises large scale farmland and the former Parkside Colliery bounded by the settlements of Newton-le-Willows, Golborne and Winwick. Whilst the landscape is predominantly open, the study area is visually contained by the existing settlements and vegetation and most views are local and distant views are limited. The study area lies in the SHMBC and WBC green belts, although SHMBC are consulting on removing the green belt designation. All of the routes except the brown route cross the WBC green belt though the green and blue routes cross the greatest distance. The yellow, blue, cyan and purple routes all pass close to Woodhead Farm, which is a listed building whilst the green route also passes close to St. Oswald's Well, a Scheduled Ancient Monument. There could be adverse effects on the setting of these features; these would not arise to the same degree for the brown route. In terms of townscape, no significant effects are expected.

With regard to the historic environment there are two scheduled monuments in the study area; St. Oswald's Well (also a Grade II listed building) and Bowl Barrow, together with ten Grade II listed buildings and a number of non-designated heritage assets including locally listed buildings at Rough Farm and Oven Back Farm. The yellow, blue, cyan and purple routes all pass close to Woodhead Farm, which is a listed building whilst the green route also passes close to St. Oswald's Well. There could be adverse effects on the setting of these features. The routes east of the M6 involve the loss, or partial loss of Rough Farm which is locally listed.

The closest nationally designated site is Highfield Moss Site of Special Scientific Interest (500m from the brown route). Six non-statutory locally designated wildlife sites are located within 2km of the Scheme and Gallows Croft Local Wildlife Site (LWS) and Newton Brook LWS are close to the Scheme. All of the routes involve the loss of hedgerows and to varying degrees trees, and could affect habitat used by farmland birds. Bat commuting and foraging routes west of the M6 may be affected. Great crested newts have been identified in the pond at Woodhead Farm, close to the yellow, blue, cyan and purple routes, and in ponds in the south of the study area, east of the M6 which could be affected by routes east of the motorway. Bats and barn owls may be using Rough Farm for roosting and nesting respectively and, if this is the case, then impacts could arise on the yellow, cyan, purple and brown routes from loss of buildings at this site. The brown route crosses an existing pond and, on the basis of the current route, this habitat would be lost.

In terms of water environment, there would be effects associated with surface run off associated with the project, though these would be attenuated. Overall, the effects are considered to be similar between routes though different catchments would be affected.

8. SOCIAL ASSESSMENT

8.1 Introduction

The social impact of the scheme options have been assessed using guidance set out within WebTAG unit A4.1. Social Impacts consider the impact of transport on people – both local residents, and users of the transport network.

The purpose of the assessment and appraisal is to provide a greater understanding of where the benefits and disbenefits of the scheme route options will be distributed and who these benefits/disbenefits will impact on the most.

The social impacts considered for this appraisal are:

- Physical activity
- Security
- Severance
- Journey quality

Some social impacts have been scoped out of the full assessment or were anticipated to produce neutral impacts, so a quantitative approach was not deemed proportionate to the study. The assessment has produced an Appraisal Summary Table (AST) for each route option based the seven-point scale of beneficial, neutral, or adverse impacts shown in Table 2.1. The completed ASTs can be found in Appendix 1 and summarised below.

8.2 Physical Activity

It is recognised that transport and the physical environment both play a major role in the amount of physical activity that people do on a day-to-day basis. Transport can affect levels of physical activity through the promotion of active modes over motorised transport.

All options provide a 3m wide shared cycle and footway each side of the carriage along the southern internal access road within the Parkside site which links the eastern A49 access with the western boundary of the site. For all options (except the Brown route), this shared cycle and footway continues but as a single sided cycle / footway along the northern side of the carriageway from the western site boundary to Parkside Road. Cycleways have only been provided either side of the carriageway within the site as it is considered that the main population of people who would access the site on foot or cycle would come from the main access with the A49 to the east and therefore walking and cycling facilities would be to a good standard from this location and offer a benefit for pedestrians or cyclists.

For all options there will be a 2m wide footway along one side of the carriageway for the entirety of the routes outside the site boundary which will link to existing footways with DMRB standard crossing facilities at all junctions. There are only a few residential properties and farms on the land to the east and north of the site, therefore it has been considered that there would be little demand for cycleways once the routes join on to Parkside Road and therefore footways have been considered to be sufficient for routes past this point.

The Brown route runs along the land to the west of the M6 and provides a 2m wide footway along it entire route until it enters the site. No cycleway will be provided on the route until the route enters the site.

8.3 Security

This indicator considers changes in the perception of security, as well as actual changes to the level of security. A qualitative assessment was undertaken, looking at pedestrian access; provision of lighting and visibility; landscaping; or formal or informal surveillance.

Transport interventions can impact upon the personal security of transport users or other persons. The principal security impacts on road users relate to situations where they are required to leave their vehicle (e.g. car parks) or where they are forced to stop or travel at low speeds. For freight users, security impacts relate to both the security of drivers and goods carried.

The aim would be to achieve no reduction in personal security. To achieve this, suitable measures would be required, such as appropriate landscaping, lighting and provision or access to emergency call points.

All route options are designed to DMRB standards and although exact lighting and surveillance conditions on the route options have yet to be determined, this may change at future stages.

The significance of the impact is deemed to be neutral for all options.

8.4 Severance

The severance impacts of a transport scheme indicate the extent to which the scheme impedes residents' access to local community facilities and services. WebTAG unit A4.1 requires an assessment of those using non-motorised modes, particularly pedestrians.

The appraisal is only concerned with the effects on non-road-users. It considers both physical barriers and perceived barriers, such as the need to take a detour to reach a safe place to cross a busy road. Severance is classed as severe if it results in people reorganising their activities to avoid making pedestrian journeys.

Assessment of severance in this context focuses on two key questions:

- Does the scheme infrastructure for the option cause or remove a physical barrier to residents?
- Do changes in traffic flows resulting from the scheme options cause or remove a barrier to residents?

All the options will affect public rights of way, however these are not considered to be main routes used by pedestrians and others to access significant community facilities.

The Yellow, Purple, Cyan and Brown routes involve reconfiguring and cutting off a section of Winwick Lane from the network and although this is considered a severance, the impact is mitigated with new vehicular and pedestrian accesses linking on to the new highway junctions on Winwick. These new links will include improved footways and crossing facilities.

The Blue and Green routes will 'sever' Golborne Lane/Parkside Road, but the new junctions formed will provide good crossing facilities designed to DMRB standards to allow ease of crossing for pedestrians or cyclists.

The options are likely to bring positive impacts for pedestrians accessing the site, and at this stage there are no identified changes which negatively impact pedestrian movements across the

study area. Overall the impact of all options in terms of severance is negligible and is considered a neutral impact.

8.5 Journey Quality

WebTAG unit A4.1 defines journey quality as 'a measure of the real and perceived physical and social environment experienced while travelling'. The main journey quality impacts would be experienced by existing users of the local roads (A49, Parkside Road, Winwick Lane), some of whom would switch to the new link road.

There could also be journey quality impacts on users of local roads (pedestrians, cyclists and drivers) as a result of significant changes in traffic flows or the design of the scheme option infrastructure.

WebTAG unit 4.1 identifies three main categories of journey quality impact:

- Traveller care (cleanliness, facilities, information)
- Travellers' views
- Traveller stress (frustration, fear of accidents and route uncertainty)

Traveller care is not applicable to this assessment because the scheme options would have no impact on this aspect of journey quality.

There would be a slight benefit for all routes for traveller views as all six routes will pass through pleasant open farm land, compared to the more congested urban / residential areas along the A49 and other local routes.

The improved journey times is likely to reduce stress for all routes to Parkside Road, with Blue and Green performing better if travelling to the M6 via J22 as the routes provide shorter distances to travel, less junctions and more direct routes. Yellow, Cyan and Purple will result in longer distances, extra junctions and more turns to get to Winwick Lane/M6 J22 from the Parkside site, but these slightly less convenient routes will benefit safety with lower speeds. The Brown route performs less well due to the amount of junctions and the less convenient route. All routes will be clearly signed to reduce any route uncertainty.

8.6 Social Impact Summary

The options would all generally provide a slight benefit to the society issues, with the Blue and Green routes performing best followed by Yellow, Cyan and Purple, which all have similar performance, and the Brown route performing the worst.

It has been determined the options will result in a slight benefit for physical activity for all options, with the blue and green routes performing a little better as they offer a more direct route and link in to good quality existing infrastructure.

Journey quality impacts would be a moderate benefit for Blue and Green, slight benefit for Yellow, Cyan and Purple and neutral for Brown.

There would be a neutral impact for security as the routes will travel across quiet rural areas and security features will be included in all designs to DMRB standards.

Yellow, Cyan, Purple and Brown would involve severing Winwick Lane, but any severance would be mitigated by linking the existing severed road back in to the new highway designs. The options wouldn't make a material impact for severance as the reconfigured road layouts would

still link in to the road network just the new layouts would be a little less convenient for residents on Winwick Lane compared to the existing situation.

9. WEBTAG APPRAISAL SUMMARY

The table 9.1 below summarises the initial high level WebTAG assessment undertaken for each of the route options. Overall the yellow route was been identified as the preferred option, in the main, due to the high economic benefit that the scheme will deliver through enabling full development of the site, improved journey times and accessibility. These initial findings have been supported by the more detailed assessment undertaken and presented in this report.

Table 9.1: WebTAG Summary Table

	Yellow	Blue	Green	Cyan	Purple	Brown
Transport Planning Objectives						
TPO 1 - Improve Road Safety	bb	bb	bb	bb	bb	bb
TPO 2 - Improve Journey Time Reliability	bb	bb	bb	bb	bb	bb
TPO 3 - Enhanced highways access between the Parkside site and both the strategic highway networks.	bbb	bbb	bbb	bbb	bbb	b
TPO 4 - Enhanced highways access between the Parkside site and both the local highway networks.	bbb	bbb	bbb	bbb	bbb	b
TPO 5 - Improving connectivity for future commuters who will work the site as well as improving the efficiency of freight movements to and from the site.	bbb	b	b	bbb	bbb	bb
TPO 6 - Deliver more efficient logistics and development in close proximity to existing and proposed national sea, road and rail infrastructure supporting the LCR Growth Plan objectives	bbb	b	b	bbb	n	bb
TPO 7 - Serve, and allow for optimum alignment of the Strategic Rail Freight Interchange.	bbb	b	b	bbb	ddd	bb
TPO 8 - Improve Pedestrian and Cycling Access	b	b	b	b	b	b
Society						
Transport Safety	b	bb	bb	b	b	b
Personal Security	b	b	b	b	b	b
Permeability	n	n	n	n	n	n
Physical Fitness	n	n	n	n	n	n
Social Inclusion	n	n	n	n	n	n
Environment						
Noise	d	d	d	d	d	d
Local Air Quality	dd	dd	dd	d	n	d
Greenhouse Gas Emissions	d	d	d	dd	d	dd
Landscape / Townscape	dd	dd	dd	d	d	d
Biodiversity	n	d	d	n	n	dd
Soil	dd	d	d	d	dd	d
Heritage	d	d	d	n	n	n
Water Environment	n	n	n	n	n	n

	Yellow	Blue	Green	Cyan	Purple	Brown
Economy						
Benefit	bbb	bb	bb	b	b	n
Cost	dd	dd	dd	ddd	dd	ddd
BCR	bbb	bb	bb	n	b	n
TEE	bbb	bb	bb	n	b	n
EALI	bbb	bbb	bbb	bbb	bbb	bbb
Deliverability / Risk						
Acceptance of HE	dd	d	d	ddd	d	ddd
Objections by third parties	dd	d	d	ddd	dd	ddd
Requirement for agreement with WBC	d	dd	dd	d	d	d
Ease of construction	dd	d	dd	ddd	dd	ddd

KEY	bbb	bb	b	n	d	dd	ddd
	Significant Benefit	Moderate Benefit	Slight Benefit	Neutral	Slight Disbenefit	Moderate Disbenefit	Significant Disbenefit

10. CONCLUSIONS AND RECOMMENDATIONS

10.1 Conclusion

The Option Appraisal Report has summarised the assessment of the six routes designed to enable access to the Parkside Regeneration site, improving journey times and accessibility.

The six routes (yellow, brown, blue, cyan, purple and green) have been assessed against the following objectives:

- TPO1 – Improve Road Safety
- TPO2 – Improve Journey Time Reliability
- TPO3 – Enhance highway access between Parkside site and both the strategic highway networks
- TPO4 – Enhance highway access between Parkside site and both the local highway networks
- TPO5 – Improving connectivity for future commuters who will work the site as well as improving the efficiency of freight movements to and from the site
- TPO6 – Enhance highway access between Parkside site and both the strategic highway networks
- TPO7 – Serve and allow for optimum alignment of the Strategic Rail Freight Interchange
- TPO8 – Improve Pedestrian and Cycling Access

These routes were all assessed against the scheme objectives and WebTAG guidance for Environment, Economy and Society. The majority of these routes offer similar benefits/disbenefits at this stage. All had similar environmental and social impacts due to the close proximity of the route options and the similarity in surrounding landscape.

However, the green and blue routes were viewed less favourably as they did not meet the scheme objectives to enable the development of the SRFI.

The brown route required a box junction under the M6 and would provide a less strategic highway link.

The purple route would reduce the land available for development and therefore did not meet the scheme objective to deliver the SRFI.

The cyan route proposed a new overbridge which is not required and therefore does not offer best value for money.

Overall the yellow route best meets the transport planning objectives and assessments identified, providing the greatest financial return.

10.2 Recommendation

It is recommended that the yellow route goes forward as the preferred option for pre-planning engagement, public consultation and is further developed for the next stage planning application and approval.

APPENDIX 1
APPRAISAL SUMMARY TABLES

Appraisal Summary Table

Date produced:		Contact:	
		Name	
Name of scheme:	Parkside Link Road	Organisation	Ramboll UK
Description of scheme:	YELLOW ROUTE - The Link Road connects A49 to Parkside Road, south of Newton-le-Willows, and provides a further link from Parkside Road to Winwick Lane and M6 JUNCTION 22. It provides access to the Parkside Colliery development site, both west and east of M6.	Role	

	Impacts	Summary of key impacts	Assessment: Quantitative	Assessment: Qualitative	Monetary £(NPV)	Distributional 7-pt scale/ vulnerable grp
Economy	Business users & transport providers	Values calculated through TUBA assessment of changes in travel costs.	Value of journey time changes(£) — Net journey time changes (£): 0 to 2min £47.5m; 2 to 5min £55.2m; > 5min £48.1m	n/a	£150.8m	n/a
	Reliability impact on Business users	Not assessed	n/a	n/a	n/a	
	Regeneration	Not assessed	n/a	n/a	n/a	
	Wider Impacts	Not assessed	n/a	n/a	n/a	
Environmental	Noise	This route crosses the former Parkside Colliery on the same alignment as most of the other routes, except the brown route, and on this basis the impacts in this section will be similar. This route passes close to Woodhead Farm, Monk House and Sycamore Lodge and to properties on Winwick Lane where noise effects could arise. Cumulative effects with M6 are likely to be similar for all schemes.		Slight Disbenefit		
	Air Quality	This route crosses the former Parkside Colliery on the same alignment as most of the other routes, except the brown route, and on this basis the impacts in this section will be similar. This route is further from the small settlement of Hermitage Green than the green/blue routes but could affect properties on the A579 Winwick Lane. The route lies close to Woodhead Farm, Monk House and Sycamore Lodge.		Slight Disbenefit		
	Greenhouse gases	Greenhouse gases have been determined through TUBA assessment of changes in vehicle operating efficiencies and travel distances.	Change in non-traded carbon over 60y (CO_2e) £4.2m; Change in traded carbon over 60y (CO_2e) £0.0m	n/a	£4.2m	
	Landscape	This route crosses the former Parkside Colliery on the same alignment as most of the other routes, on this basis the visual effects of all the routes, except the brown route, are similar in this section. This route crosses approximately 400m of greenbelt identified by Warrington BC west of the M6. It also crosses land east of the M6 which is in the greenbelt, although the St Helens MBC local plan notes the intention to remove this designation. This route is further from the small settlement of Hermitage Green than the green/blue routes but passes close to Woodhead Farm. Cutting through the colliery spoil heap could produce a 'notch' in the skyline but it is considered that this could be mitigated through planting. East of the M6 this route lies in an area of open ground and would be subject to relatively extensive views. The yellow route is likely to result in the smallest loss of existing farmland.		Moderate Disbenefit		
	Townscape	It is not anticipated that this route will result in any significant effects on townscape. It could be argued that the road could 'create' townscape by opening up areas for development but this effect would be the same or similar for all routes.		Neutral		
	Historic Environment	This route crosses the former Parkside Colliery on the same alignment as most of the other routes, except the brown route, however, significant heritage and archaeological issues are not expected in this section. This route passes infront of Woodhead Farm, a listed building, where the setting could be affected. The route involves the loss of Rough Farm which is a locally listed structure. This route uses, in part, a section of existing road which would remove any impact on historic environment assets in this part of the route becuase there is no requirement for ground disturbance.		Slight Disbenefit		
	Biodiversity	All routes except the brown route follow the same route across the Parkside Colliery and would have similar impacts. The demolition of Rough Farm could result in the loss of bat roosts and barn owl nest areas. This route would involve the loss of hedgrows and potentially trees because of the need to re-align A579 Winwick Road. This route lies close to the pond immediately north of Woodhead Farm in which great crested newts have been recorded during surveys. Ponds at the quarry at the southern end of the route, east of the M6, have also been shown to contain great crested newts.		Moderate Disbenefit		
	Water Environment	This route crosses the former Parkside Colliery on a similar alignment to the other routes (except the brown route). Surface water would be attenuated and drained to the St Oswald's/Hermitage Green brook which links to the Newton Brook catchment which is prone to floooding. East of the M6 the drainage would enter the Cockshot Brook catchment, splitting the run off between the two catchments which woudl assist in reducing impacts. There would be a loss of farmland east of the M6 to provide atteuation ponds.		Slight Disbenefit		
Social	Commuting and Other users	n/a	Value of journey time changes(£) — Net journey time changes (£): 0 to 2min £47.2m; 2 to 5min £40.1m; > 5min £32.7m	n/a	£120.0m	
	Reliability impact on Commuting and Other users	n/a		n/a		
	Physical activity	A shared cycle and footway will run along both sides of the carriageway along the southern internal access road from the A49 access to the western site boundary of the Parkside site. The combined cycle and footway will continue from this boundary on to Parkside Road. From this point the remaining length of the route will provide a footway along one side of the carriagway for the entirety of the route with crossing facilities at all junctions until it ties in to existing infrastructure. The new cycleway / footway will provide improved crossing and pedestrian facilities to DMRB standards and the enhanced facilities could potentially persuade local users of the site to switch to active modes of travel. It has been determined that the route will provide a slight benefit for residents who live and work locally.		Slight Benefit		
	Journey quality	The proposed new road is to modern standards and will improve network flows in the vicinity and allow enhanced traffic movements between the A49 and Parkside Road, Winwick Lane and the M6. This route provides an improvement in traveller stress due to reduced fear of potential accidents and reduced frustration. Due to the layout of the design, traffic would need to undertake a few sharp left / righ turns at the proposed roundabouts and signal junction which would make it a little bit more stressful and longer journey times than the Green or Blue routes due to its length and the number of junctions and turns. It has been determined that the route would have a slight benefit on journey quality but would not perform better than the Green or Blue route.		Slight Benefit		
	Accidents	n/a		n/a		
	Security	The scheme includes lighting and good visibility to DMRB standards. The route passes across open fields so performs well for improved surveillance for cars and HGVs. This route provides a neutral security benefit for the lighting and visibility indicator.		Neutral Benefit		
	Access to services	n/a		n/a		
	Affordability	n/a		n/a		
	Severance	This route will sever Winwick Lane inbetween the M6 junction 22 and Barrow Lane. The new link will provide new enhanced footways that will tie in to the new roundabout, so the severance will be mitigated by linking the existing footway and road in to the new higways. This option has been determined to to provide a neutral severance impact.		Neutral Benefit		
	Option and non-use values	n/a		n/a		
Public Accounts	Cost to Broad Transport Budget	Transport budget determined through TUBA assessment			£35.5m	
	Indirect Tax Revenues	Tax Revenues determined through TUBA assessment			£8.50m	

Appraisal Summary Table

Date produced:		Contact:	
		Name	
Name of scheme:	Parkside Link Road	Organisation	Ramboll UK
Description of scheme:	BLUE ROUTE - The Link Road connects A49 to Parkside Road, south of Newton-le-Willows, and provides a further link from Parkside Road to Winwick Lane and M6 JUNCTION 22. It provides access to the Parkside Colliery development site, both west and east of M6.	Role	

Impacts		Summary of key impacts	Assessment			
			Quantitative	Qualitative	Monetary £(NPV)	Distributional 7-pt scale/ vulnerable grp
Economy	Business users & transport providers	Values calculated through TUBA assessment of changes in travel costs.	Value of journey time changes(£) / Net journey time changes (£): 0 to 2min £31.3m; 2 to 5min £30.6m; > 5min £105.9m	n/a	£167.8m	n/a
	Reliability impact on Business users	Not assessed	n/a	n/a	n/a	
	Regeneration	Not assessed	n/a	n/a	n/a	
	Wider Impacts	Not assessed	n/a	n/a	n/a	
Environmental	Noise	This route crosses the former Parkside Colliery on the same alignment as most of the other routes, except the brown route, and on this basis the impacts in this section will be similar. This route would not give rise to effects on A579 Winwick Lane, as it approaches the M6 from the west, however, it is closer to the small settlement of Hermitage Green (approximately equal distance as the green route). The route lies close to Woodhead Farm, Monk House and Sycamore Lodge where noise effects could arise. Cumulative effects with M6 are likely to be similar for all schemes.		Slight Disbenefit		
	Air Quality	This route crosses the former Parkside Colliery on the same alignment as most of the other routes, except the brown route, and on this basis the impacts in this section will be similar. This route is closer to the properties at the small settlement of Hermitage Green (approximatley equal distance as the green route) but would not give rise to effects on A579 Winwick Lane as it links to the M6 from the west. The route lies close to Woodhead Farm, Monk House and Sycamore Lodge.		Slight Disbenefit		
	Greenhouse gases		Change in non-traded carbon over 60y (CO2e) £2.9m; Change in traded carbon over 60y (CO2e) £0.0m	n/a	£2.9m	
	Landscape	This route crosses the former Parkside Colliery on the same alignment as most of the other routes, on this basis the visual effects of all the routes, except the brown route, are similar in this section. Beyond the colliery the whole of this route lies in the Warrington BC greenbelt, there is over twice the length in the Warrington BC route when compared to routes which cross the M6. This route, and the green route, lie closer to the small settlement of Hermitage Green than other routes and on ground that falls to the south west, it is likely this route would have a greater visual impact on Hermitage Green than the routes that pass north of Woodhead Farm. Notwithstanding this the route approaches the M6 from the west that means visual effects along the A579 Winwick Lane would not arise. Cutting through the colliery spoil heap could produce a 'notch' in the skyline but it is considered that this could be mitigated through planting. Overall, the landscape is made up of smaller parcels of land with hedges and trees, compared to the land east of the M6 which is more open in character.		Moderate Disbenefit		
	Townscape	This route lies closer to the small settlement of Hermitage Green than the other routes (except the green route) but it is not anticipated that the townscape would be affected. It could be argued that the road could 'create' townscape by opening up areas for development but this effect would be the same or similar for all routes.		Neutral		
	Historic Environment	This route crosses the former Parkside Colliery on the same alignment as most of the other routes, except the brown route, however, significant heritage and archaeological issues are not expected in this section. This route passes in front of Woodhead Farm, a listed building, where the setting could be affected. This route does not involve the loss of Rough Farm, a locally listed structure.		Slight Disbenefit		
	Biodiversity	All routes except the brown route follow the same route across the Parkside Colliery and would have similar impacts. This route would not result in the demolition of Rough Farm and the potential loss of bat roosts and barn owl nesting areas and would not involve the loss of hedgerow assoicated with the re-alignment of the A579 Winiwick Lane east of the M6. Notwithstanding this there would hedgerow, and potentially trees, lost at the tie in at Waterworks Lane and across the fields south of Parkside Road. There is evidence of bat activity west of the M6 in the denser network of trees and hedgerows, compared to the area east of the M6 where the more open habitat is likely to be less suitable and there could be greater fragmentation of habitat.		Slight Disbenefit		
	Water Environment	This route crosses the former Parkside Colliery on a similar alignment to the other routes (except the brown route). Surface water would be attenuated and drained to the St Oswald's/Hermitage Green brook which links to the Newton Brook catchment which is prone to flooding.This route lies close to St Oswald's well which marks the start of St Oswalds/Hermitage Green Brook and so there could be a greater risk of pollution events, though this is unlikely to be any different from the yellow and cyan routes west of the M6. This route would not need to drain into the Cockshott Brook catchment as it lies entirely west of the M6, but all of the run off would have to be accommodated in the Newton Brook catchment which is prone to flooding. There would be a loss of farmland west of the M6 to provide for attenuation ponds.		Slight Disbenefit		
Social	Commuting and Other users	n/a	Value of journey time changes(£) / Net journey time changes (£): 0 to 2min £32.4m; 2 to 5min £20.6m; > 5min £80.3m	n/a	£133.3m	
	Reliability impact on Commuting and Other users	n/a		n/a		
	Physical activity	A shared cycle and footway will run along both sides of the carriageway along the southern internal access road from the A49 access to the western site boundary of the Parkside site. The combined cycle and footway will continue from this boundary on to Parkside Road. From this point the remaining length of the route will provide a footway along one side of the carriagway for the entirety of the route with crossing facilities at all junctions until it ties in to existing infrastructure. The new cycleway / footway will provide improved crossing and pedestrian facilities to DMRB standards and the enhanced facilities could potentially persuade local users of the site to switch to active modes of travel. It has been determined that the route will provide a slight benefit for residents who live and work locally.		Slight Benefit		
	Journey quality	The proposed new road is to modern standards and will improve network flows in the vicinity and allow enhanced traffic movements between the A49 and Parkside Road, Winwick Lane and the M6. This route provides an improvement in traveller stress due to reduced fear of potential accidents and reduced frustration. This route is the most direct with smooth transitions and only one junction (not counting A49 junction). This route performs the best for journey quality and is determined to have a moderate benefit.		Moderate Benefit		
	Accidents	Not assessed		n/a		
	Security	The scheme includes lighting and good visibility to DMRB standards. The route passes across open fields so performs well for improved surveillance for cars and HGVs. This route provides a neutral security benefit for the lighting and visibility indicator.		Neutral Benefit		
	Access to services	n/a		n/a		
	Affordability	n/a		n/a		
	Severance	This route will cut through Parkside Lane effectively severing the link, but this 'severing' will be mitigated with a roundabout that provides enhanced footways and crossing facilities. This option has been determined to provide a neutral severance impact.		Neutral Benefit		
	Option and non-use values	n/a		n/a		
Public Accounts	Cost to Broad Transport Budget	Transport budget determined through TUBA assessment			£25.0m	
	Indirect Tax Revenues	Tax Revenues determined through TUBA assessment			£5.8m	

Appraisal Summary Table

Date produced:		Contact:	
		Name	
Name of scheme:	Parkside Link Road	Organisation	Ramboll UK
Description of scheme:	GREEN ROUTE - The Link Road connects A49 to Parkside Road, south of Newton-le-Willows, and provides a further link from Parkside Road to Winwick Lane and M6 JUNCTION 22. It provides access to the Parkside Colliery development site, both west and east of M6.	Role	

	Impacts	Summary of key impacts	Assessment: Quantitative	Assessment: Qualitative	Monetary £(NPV)	Distributional 7-pt scale/ vulnerable grp
Economy	Business users & transport providers	Values calculated through TUBA assessment of changes in travel costs.	Value of journey time changes(£) / Net journey time changes (£): 0 to 2min £30.3m; 2 to 5min £28.8m; > 5min £110.1m	n/a	£169.20	n/a
	Reliability impact on Business users	Not assessed	n/a	n/a	n/a	
	Regeneration	Not assessed	n/a	n/a	n/a	
	Wider Impacts	Not assessed	n/a	n/a	n/a	
Environmental	Noise	This route crosses the former Parkside Colliery on the same alignment as most of the other routes, except the brown route, and on this basis the impacts in this section will be similar. This route would not give rise to effects on A579 Winwick Lane, as it approaches the M6 from the west, however, it is closer to the small settlement of Hermitage Green (approximately equal distance as the blue route). This route lies close to Woodhead Farm and Sycamore Lodge. Cumulative effects with M6 are likely to be similar for all schemes.		Slight Disbenefit		
	Air Quality	This route crosses the former Parkside Colliery on the same alignment as most of the other routes, except the brown route, and on this basis the impacts in this section will be similar. This route is closer to the properties at the small settlement of Hermitage Green (approximatley equal distance as the blue route) but would not give rise to effects on A579 Winwick Lane as it links to the M6 from the west. The route lies close to Woodhead Farm and Sycamore Lodge.		Slight Disbenefit		
	Greenhouse gases		Change in non-traded carbon over 60y (CO2e) £3.0m; Change in traded carbon over 60y (CO2e) £0.0m	n/a	£3.0m	
	Landscape	This route crosses the former Parkside Colliery on the same alignment as most of the other routes, on this basis the visual effects of all the routes, except the brown route, are similar in this section. Beyond the colliery the whole of this route lies in the Warrington BC greenbelt, there is over twice the length in the Warrington BC route when compared to routes which cross the M6. This route, and the blue route, lie closer to the small settlement of Hermitage Green than other routes and on ground that falls to the south west, it is likely this route would have a greater visual impact on Hermitage Green than the routes that pass north of Woodhead Farm. Notwithstanding this the route approaches the M6 from the west that means visual effects along the A579 Winwick Lane would not arise. Becuase this route curves through the colliery waste tip this would reduce the tendency for a 'notch' to be formed in the skyline when compared to the other routes. Overall, the landscape is made up of smaller parcels of land with hedges and trees, compared to the land east of the M6 which is more open in character.		Moderate Disbenefit		
	Townscape	This route lies closer to the small settlement of Hermitage Green than the other routes (except the blue route) but it is not anticipated that the townscape would be affected. It could be argued that the road could 'create' townscape by opening up areas for development but this effect would be the same or similar for all routes.		Neutral		
	Historic Environment	This route crosses the former Parkside Colliery on the same alignment as most of the other routes, except the brown route, however, significant heritage and archaeological issues are not expected in this section. This route lies closer to the St Oswalds Well scheduled monument than any of the other routes but would not involve the loss of the locally listed buildings at Rough Farm. This route lies a similar distance from Woodhead Farm as the other routes (except the brown route) but is behind the farmhouse, rather than in front. There could be effects on the setting of both Woodhead Farm and St Oswald's well.		Slight Disbenefit		
	Biodiversity	All routes except the brown route follow the same route across the Parkside Colliery and would have similar impacts. This route would not result in the demolition of Rough Farm and the potential loss of bat roosts and barn owl nesting areas and would not involve the loss of hedgerow assoicated with the re-alignment of the A579 Winiwick Lane east of the M6. Notwithstanding this there would hedgerow, and potentially trees, lost at the tie in at Waterworks Lane and across the fields south of Parkside Road. There is evidence of bat activity west of the M6 in the denser network of trees and hedgerows, compared to the area east of the M6 where the more open habitat is likely to be less suitable, and there could be greater fragmentation of habitat.		Slight Disbenefit		
	Water Environment	This route crosses the former Parkside Colliery on a similar alignment to the other routes (except the brown route). Surface water would be attenuated and drained to the St Oswald's/Hermitage Green brook which links to the Newton Brook catchment which is prone to flooding. This route lies closest to St Oswald's well which marks the start of St Oswalds/Hermitage Green Brook and so there could be a greater risk of pollution events. This route would not need to drain into the Cockshott Brook catchment as it lies entirely west of the M6, but all of the run off would have to be accommodated in the Newton Brook catchment which is prone to flooding. There would be a loss of farmland west of the M6 to provide for attenuation ponds.		Slight Disbenefit		
Social	Commuting and Other users	n/a	Value of journey time changes(£) / Net journey time changes (£): 0 to 2min £30.9m; 2 to 5min £22.8m; > 5min £80.1m	n/a	£133.8m	
	Reliability impact on Commuting and Other users	n/a		n/a		
	Physical activity	A shared cycle and footway will run along both sides of the carriageway along the southern internal access road from the A49 access to the western site boundary of the Parkside site. The combined cycle and footway will continue from this boundary on to Parkside Road. From this point the remaining length of the route will provide a footway along one side of the carriagway for the entirety of the route with crossing facilities at all junctions until it ties in to existing infrastructure. The new cycle / footway will provide improved crossing and pedestrian facilities to DMRB standards and the enhanced facilities could potentially persuade local users of the site to switch to active modes of travel. It has been determined that the route will provide a slight benefit for residents who live and work locally.		Slight Benefit		
	Journey quality	The proposed new road is to modern standards and will improve network flows in the vicinity and allow enhanced traffic movements between the A49 and Parkside Road, Winwick Lane and the M6. This route provides an improvement in traveller stress due to reduced fear of potential accidents and reduced frustration. This route is the second most direct (similar to the Blue route) with only one junction (not coungting the A49 junction) and smooth transitions. This route performs the second best for journey quality and is determined to have a moderate benefit.		Moderate Benefit		
	Accidents	n/a		n/a		
	Security	The scheme includes lighting and good visibility to DMRB standards. The route passes across farm fields so performs well for improved surveillance for cars and HGVs. This route provides a neutral security benefit for the lighting and visibility indicator.		Neutral Benefit		
	Access to services	n/a		n/a		
	Affordability	n/a		n/a		
	Severance	This route will cut through Parkside Lane effectively 'severing' the link, but this 'severing' will be mitigated with roundabout and provided enhanced footways and crossing facilities. This option has been determined to provide a neutral severance impact.		Neutral Benefit		
	Option and non-use values	n/a		n/a		
Public Account	Cost to Broad Transport Budget	Transport budget determined through TUBA assessment			£26.0m	
	Indirect Tax Revenues	Tax Revenues determined through TUBA assessment			£6.1m	

Appraisal Summary Table

Date produced:		Contact:	
		Name	
Name of scheme:	Parkside Link Road	Organisation	Ramboll UK
Description of scheme:	CYAN ROUTE - The Link Road connects A49 to Parkside Road, south of Newton-le-Willows, and provides a further link from Parkside Road to Winwick Lane and M6 JUNCTION 22. It provides access to the Parkside Colliery development site, both west and east of M6.	Role	

	Impacts	Summary of key impacts	Assessment: Quantitative	Assessment: Qualitative	Monetary £(NPV)	Distributional 7-pt scale/ vulnerable grp
Economy	Business users & transport providers	Values calculated through TUBA assessment of changes in travel costs.	Value of journey time changes(£) / Net journey time changes (£): 0 to 2min £46.3m; 2 to 5min £26.2m; > 5min £44.4m	n/a	£116.9m	n/a
	Reliability impact on Business users	Not assessed	n/a	n/a	n/a	
	Regeneration	Not assessed	n/a	n/a	n/a	
	Wider Impacts	Not assessed	n/a	n/a	n/a	
Environmental	Noise	This route crosses the former Parkside Colliery on the same alignment as most of the other routes, except the brown route, and on this basis the impacts in this section will be similar. This route passes close to Woodhead Farm, Monk House and Sycamore Lodge and to properties on Winwick Lane where noise effects could arise. Cumulative effects with M6 are likely to be similar for all schemes.		Slight Disbenefit		
	Air Quality	This route crosses the former Parkside Colliery on the same alignment as most of the other routes, except the brown route, and on this basis the impacts in this section will be similar. This route is further from the small settlement of Hermitage Green than the green/blue routes but could affect properties on the A579 Winwick Lane. The route lies close to Woodhead Farm, Monk House and Sycamore Lodge.		Slight Disbenefit		
	Greenhouse gases		Change in non-traded carbon over 60y (CO2e) £2.6m; Change in traded carbon over 60y (CO2e) £0.0m	n/a	£2.6m	
	Landscape	This route crosses the former Parkside Colliery on the same alignment as most of the other routes, on this basis the visual effects of all the routes, except the brown route, are similar in this section. This route crosses approximately 400m of greenbelt identified by Warrington BC west of the M6. It also crosses land east of the M6 which is in the greenbelt, although the St Helens MBC local plan notes the intention to remove this designation. This route is further from the small settlement of Hermitage Green than the green/blue routes but passes close to Woodhead Farm. Cutting through the colliery spoil heap could produce a 'notch' in the skyline but it is considered that this could be mitigated through planting. On the eastern side of the M6 this route lies close to the existing M6 Corridor though the motorway is largely in cutting in this area.		Moderate Disbenefit		
	Townscape	It is not anticipated that this route will result in any significant effects on townscape. It could be argued that the road could 'create' townscape by opening up areas for development but this effect would be the same or similar for all routes.		Neutral		
	Historic Environment	This route crosses the former Parkside Colliery on the same alignment as most of the other routes, except the brown route, however, significant heritage and archaeological issues are not expected in this section. This route passes close to Woodhead Farm, a listed building, but does not involve the loss of Rough Farm, a locally listed building though the close proximity of the route to the farm could affect its setting.		Slight Disbenefit		
	Biodiversity	All routes except the brown route follow the same route across the Parkside Colliery and would have similar impacts. This route would not result in the complete demolition of Rough Farm and is likely to have smaller effects in terms of loss of bat roosts and barn owl nesting areas. This route lies close to the pond immediately north of Woodhead Farm in which great crested newts have been recorded during surveys. Ponds at the quarry at the southern end of the route, east of the M6, have also been shown to contain great crested newts.		Slight Disbenefit		
	Water Environment	This route crosses the former Parkside Colliery on a similar alignment to the other routes (except the brown route). Surface water would be attenuated and drained to the St Oswald's/Hermitage Green brook which links to the Newton Brook catchment which is prone to floooding. East of the M6 the drainage would enter the Cockshot Brook catchment, splitting the run off between the two catchments which would assist in reducing impacts. There would be a loss of farmland east of the M6 to provide attenuation ponds.		Slight Disbenefit		
Social	Commuting and Other users	n/a	Value of journey time changes(£) / Net journey time changes (£): 0 to 2min £42.8m; 2 to 5min £21.2m; > 5min £30.3m	n/a	£94.3m	
	Reliability impact on Commuting and Other users	n/a		n/a		
	Physical activity	A shared cycle and footway will run along both sides of the carriageway along the southern internal access road from the A49 access to the western site boundary of the Parkside site. The combined cycle and footway will continue from this boundary on to Parkside Road. From this point the remaining length of the route will provide a footway along one side of the carriagway for the entirety of the route with crossing facilities at all junctions until it ties in to existing infrastructure. The new cycle / footway will provide improved crossing and pedestrian facilities to DMRB standards and the enhanced facilities could potentially persuade local users of the site to switch to active modes of travel. It has been determined that the route will provide a slight benefit for residents who live and work locally.		Slight Benefit		
	Journey quality	The proposed new road is to modern standards and will improve network flows in the vicinity and allow enhanced traffic movements between the A49 and Parkside Road, Winwick Lane and the M6. This provides an improvement in traveller stress due to reduced fear of potential accidents and reduced frustration. This option is similar to the yellow option where traffic needs to cross the M6 by way of a new bridge, but the route is a little more direct for traffic travelling to/from the M6 J22 from the Parkside site. Journey quality for traffic travelling along Parkside Road would be reduced as the existing bridge across the M6 would be closed to cars / HGVs therefore traffic would need to reroute across the new bridge. This route has been determined to have a slight benefit for journey quality.		Slight Benefit		
	Accidents	n/a		n/a		
	Security	The scheme includes lighting and good visibility to DMRB standards. The route passes across open fields so performs well for improved surveillance for cars and HGVs. This route provides a neutral security benefit for the lighting and visibility indicator.		Neutral Benefit		
	Access to services	n/a		n/a		
	Affordability	n/a		n/a		
	Severance	This route will sever Parkside Road where it crosses M6 over the existing road bridge. Vehicle traffic travelling from Winwick Lane will have to use a new proposed bridge over the M6 to access the site and traffic travelling along Parkside Road would now have to cross the new bridge and cut back on to Parkside Road via the new access spur. Although vehicular traffic will be severed, the bridge will be delinked and used as a link for pedestrians and cyclists. The proposed scheme has been determined to provide a neutral severance impact.		Neutral Benefit		
	Option and non-use values	n/a		n/a		
Public Accounts	Cost to Broad Transport Budget	Transport budget determined through TUBA assessment			£40.6m	
	Indirect Tax Revenues	Tax Revenues determined through TUBA assessment			£5.3m	

Appraisal Summary Table

Date produced:		Contact:	
		Name	
Name of scheme:	Parkside Link Road	Organisation	Ramboll UK
Description of scheme:	PURPLE ROUTE - The Link Road connects A49 to Parkside Road, south of Newton-le-Willows, and provides a further link from Parkside Road to Winwick Lane and M6 JUNCTION 22. It provides access to the Parkside Colliery development site, both west and east of M6.	Role	

	Impacts	Summary of key impacts	Assessment			
			Quantitative	Qualitative	Monetary £(NPV)	Distributional 7-pt scale/ vulnerable grp
Economy	Business users & transport providers	Values calculated through TUBA assessment of changes in travel costs.	Value of journey time changes(£) / Net journey time changes (£): 0 to 2min £45.5m; 2 to 5min £54.5m; > 5min £46.1m	n/a	£146.1m	n/a
	Reliability impact on Business users	Not assessed	n/a	n/a	n/a	
	Regeneration	Not assessed	n/a	n/a	n/a	
	Wider Impacts	Not assessed	n/a	n/a	n/a	
Environmental	Noise	This route crosses the former Parkside Colliery on the same alignment as most of the other routes, except the brown route, and on this basis the impacts in this section will be similar. This route passes close to Woodhead Farm, Monk House and Sycamore Lodge and to properties on Winwick Lane where noise effects could arise. Cumulative effects with M6 are likely to be similar for all schemes.		Slight Disbenefit		
	Air Quality	This route crosses the former Parkside Colliery on the same alignment as most of the other routes, except the brown route, and on this basis the impacts in this section will be similar. This route is further from the small settelement of Hermitage Green than the green/blue routes but could affect properties on the A579 Winwick Lane. The route lies close to Woodhead Farm, Monk House and Sycamore Lodge.		Slight Disbenefit		
	Greenhouse gases		Change in non-traded carbon over 60y (CO_2e): £3.9m; Change in traded carbon over 60y (CO_2e): £0.0m	n/a	£3.9m	
	Landscape	This route crosses the former Parkside Colliery on the same alignment as most of the other routes and on this basis the visual effects of all the routes, except the brown route, are similar in this section. It also crosses some 400m of the Warrington BC greenbelt and passes close to Woodhead Farm. East of the M6 it crosses land which is in the St Helens MBC greenbelt, although the St Helens MBC local plan notes the intention to remove this designation. In this area the route lies in an area of open ground and would be subject to relatively extensive views.		Moderate Disbenefit		
	Townscape	It is not anticipated that this route will result in any significant effects on townscape. It could be argued that the road could 'create' townscape by opening up areas for development but this effect would be the same or similar for all routes.		Neutral		
	Historic Environment	This route crosses the former Parkside Colliery on the same alignment as most of the other routes, except the brown route, however, significant heritage and archaeological issues are not expected in this section. This route passes in front of Woodhead Farm, a listed building, where the setting could be affected. As this route follows the same route as the yellow route along the A579 Winwick Road to the M6 it also involves the loss of Rough Farm, a locally listed building. This route joins the A579 Winwick Road adjacent to Oven Back Farm which is also a locally listed structure and could adversely affect the setting.		Slight Disbenefit		
	Biodiversity	All routes except the brown route follow the same route across the Parkside Colliery and would have similar impacts. The demolition of Rough Farm could result in the loss of bat roosts and barn owl nest areas. This route would involve the loss of hedgrows and potentially trees because of the need to re-align A579 Winwick Road. Ponds at the quarry at the southern end of the route, east of the M6, have also been shown to contain great crested newts.		Moderate Disbenefit		
	Water Environment	This route crosses the former Parkside Colliery on a similar alignment to the other routes (except the brown route). Surface water would be attenuated and drained to the St Oswald's/Hermitage Green brook which links to the Newton Brook catchment which is prone to floooding. East of the M6 the drainage would enter the Cockshot Brook catchment, splitting the run off between the two catchments which would assist in reducing impacts. There would be a loss of farmland east of the M6 to provide attenuation ponds.		Slight Disbenefit		
Social	Commuting and Other users	n/a	Value of journey time changes(£) / Net journey time changes (£): 0 to 2min £44.1m; 2 to 5min £39.8m; > 5min £31.8m	n/a	£115.7m	
	Reliability impact on Commuting and Other users	n/a		n/a		
	Physical activity	A shared cycle and footway will run along both sides of the carriageway along the southern internal access road from the A49 access to the western site boundary of the Parkside site. The combined cycle and footway will continue from this boundary on to Parkside Road. From this point the remaining length of the route will provide a footway along one side of the carriagway for the entirety of the route with crossing facilities at all junctions until it ties in to existing infrastructure. The new cycle / footway will provide improved crossing and pedestrian facilities to DMRB standards and the enhanced facilities could potentially persuade local users of the site to switch to active modes of travel. It has been determined that the route will provide a slight benefit for residents who live and work locally.		Slight Benefit		
	Journey quality	The proposed new road is to modern standards and will improve network flows in the vicinity and allow enhanced traffic movements between the A49 and Parkside Road, Winwick Lane and the M6. This route provides an improvement in traveller stress due to reduced fear of potential accidents and reduced frustration. This route is similar to the yellow route whereby the layout of the design would mean traffic would need to undertake a few sharp left/righ tturns at the proposed roundabouts and signal junction which would make it a little bit more stressful and longer journey times than the Green or Blue routes due to its length and the number of junctions and turns. It has been determined that the route would have a slight benefit on journey quality but would not perform better than Green or Blue route.		Slight Benefit		
	Accidents	n/a		n/a		
	Security	The scheme includes lighting and good visibility to DMRB standards. The route passes across open fields so performs well for improved surveillance for cars and HGVs. This route provides a neutral security benefit for the lighting and visibility indicator.		Neutral Benefit		
	Access to services	n/a		n/a		
	Affordability	n/a		n/a		
	Severance	This route will sever Winwick Lane inbetween the M6 junction 22 and Barrow Lane with a new section of highway replacing this section of Winwick Lane. The new link will provide new enhanced footways that will tie in to the new roundabout on Barrow Lane, so the severance will be mitigated by linking the existing footway and road in to the new higway. The proposed scheme has been determined to to provide a neutral severance impact.		Neutral Benefit		
	Option and non-use values	n/a		n/a		
Public Accounts	Cost to Broad Transport Budget	Transport budget determined through TUBA assessment			£33.0m	
	Indirect Tax Revenues	Tax Revenues determined through TUBA assessment			£7.9m	

Appraisal Summary Table

Date produced:		Contact:	
		Name	
Name of scheme:	Parkside Link Road	Organisation	Ramboll UK
Description of scheme:	BROWN ROUTE - The Link Road connects A49 to Parkside Road, south of Newton-le-Willows, and provides a further link from Parkside Road to Winwick Lane and M6 JUNCTION 22. It provides access to the Parkside Colliery development site, both west and east of M6.	Role	

	Impacts	Summary of key impacts	Assessment			
			Quantitative	Qualitative	Monetary £(NPV)	Distributional 7-pt scale/ vulnerable grp
Economy	Business users & transport providers	Values calculated through TUBA assessment of changes in travel costs.	Value of journey time changes(£) Net journey time changes (£) 0 to 2min: £50.3m; 2 to 5min: £31.1m; > 5min: £93.8m	n/a	£175.2m	n/a
	Reliability impact on Business users	Not assessed	n/a	n/a	n/a	
	Regeneration	Not assessed	n/a	n/a	n/a	
	Wider Impacts	Not assessed	n/a	n/a	n/a	
Environmental	Noise	This route lies closest to the Highfield Moss SSSI (c.500m) though still at a distance where there are unlikely to be significant effects. Because this route is east of the M6 effects on Woodhead Farm would be largely removed but there could be effects on properties along A579 Winwick Lane although this route probably affects the fewest properties. Cumulative effects with M6 are likely to be similar for all schemes.		Slight Disbenefit		
	Air Quality	This route is closest to the Highfield Moss SSSI site (c.500m) though there are still unlikely to be significant effects. This route is remote from Hermitage Green and Woodhead Farm but does still affect some properties on the A579 Winwick Lane. This route affects the fewest properties.		Slight Disbenefit		
	Greenhouse gases		Change in non-traded carbon over 60y (CO2e): £0.8m Change in traded carbon over 60y (CO2e): £0.0m	n/a	£0.8m	
	Landscape	This route would cross the Parkside Colliery site north of the other routes. This route lies entirely within land in the St Helens MBC greenbelt and the St Helens MBC local plan notes the intention to remove this designation. East of the M6 this route lies closer to the existing M6 Corridor than all the other routes except the cyan route, although the motorway is largely in cutting in this area. The route is closer to receptors to the north of the scheme, both east and west of the M6, than other routes and so would have greater visual impacts in this area, this is likely to effect a wider number of receptors. This route would not require a cutting through the colliery spoil heap removing the risk of creating a 'notch' in the skyline. The brown route is likely to result in the greatest loss of existing farmland.		Slight Disbenefit		
	Townscape	It is not anticipated that this route will result in any significant effects on townscape. It could be argued that the road could 'create' townscape by opening up areas for development but this effect would be the same or similar for all routes.		Neutral		
	Historic Environment	This route will involve a section over the former Parkside Colliery but significant heritage and archaeological issues are not expected in this section. This route would have mich smaller effects on the setting of Woodhead Farm, a listed building, as it lies to the east of the M6. This route would involve only limited loss at Rough Farm, a locally listed building but the route will be close to this receptor and could affect its setting. This route involves a greater length of road in farmland with a proportionally larger risk of effects on unredorded archaeological remains.		Slight Disbenefit		
	Biodiversity	This route would not result in the complete demolition of Rough Farm and is likely to have smaller effects in terms of loss of bat roosts and barn owl nesting areas. This route lies crosses the location of a pond (at the northern end of this route) and although no great crested newts have been recorded in this area there would be a loss of habitat in this location. This route lies closest to the Highfield Moss SSSI (c.500m), though there is unlikely to be a significant effect. Although this route does not require the construction of a cutting in colliery spoil mound there would be impacts west of the M6 where the route ties into the Parkside development and east of the M6 where there is a pond (see above) and an area of scrub land. The Ponds at the quarry at the southern end of the route, east of the M6, have been shown to contain great crested newts.		Slight Disbenefit		
	Water Environment	This route lies entirely east of the M6 and would have to be drained to the Cockshott Brook to the south and northwards beyond the railway to the catchment there. As this route crosses the greatest extent of farmland there is likely to be a correspondingly larger loss of such land to attenuation ponds. The link beneath the M6 from the Parkside Colliery lies very close to, or in, an existing pond which could be adversely affected.		Slight Disbenefit		
Social	Commuting and Other users	n/a	Value of journey time changes(£) Net journey time changes (£) 0 to 2min: £50.0m; 2 to 5min: £29.4m; > 5min: £73.6m	n/a	£153.0m	
	Reliability impact on Commuting and Other users	n/a		n/a		
	Physical activity	A shared cycle and footway will only run within the site boundary. Once the route leaves the north of the site the road will only provide a pedestrain footway along one side of the carriageway. The new cycle / footway will provide improved crossing and pedestrian facilities to DMRB standards and will provide a slight benefit for residents that walk but cyclists will have to use the new access road therefore the physcial acitivty impact has been determined as neutral for this route.		Neutral Benefit		
	Journey quality	The proposed new road is to modern standards and will improve network flows in the vicinity. This provides an improvement in traveller stress due to reduced fear of potential accidents and reduced frustration. This route performs worse than all the other options in terms of journey times and jounrey quality. The junctions where the route links in to the development is tighter and involves two tight junctions. This option provides good options to develop access to the eastern area of the land but the assessment determines that the journey quality has a neutral impact.		Neutral Benefit		
	Accidents	n/a		n/a		
	Security	The scheme includes lighting and good visibility to DMRB standards. The route passes across open fields so performs well for improved surveillance for cars and HGVs. This route provides a neutral security benefit for the lighting and visibility indicator.		Neutral Benefit		
	Access to services	n/a		n/a		
	Affordability	n/a		n/a		
	Severance	This route will severe Winwick Lane inbetween the M6 junction 22 and Barrow Lane. The new link will provide new enhanced footways that will tie in to the new roundabout, so the severance will be		Neutral Benefit		
	Option and non-use values	n/a		n/a		
Public Accounts	Cost to Broad Transport Budget	Transport budget determined through TUBA assessment			£36.2m	
	Indirect Tax Revenues	Tax Revenues determined through TUBA assessment			£1.6m	