SEMMMS A6 TO M60 RELIEF ROAD

STRATEGIC OUTLINE BUSINESS CASE

Volume One: Main Report

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SEMMMS A6 TO M60 RELIEF ROAD STUDY

STRATEGIC OUTLINE BUSINESS CASE

Transport for Greater Manchester &
Stockport Metropolitan Borough Council

Volume One: Main Report

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EXECUTIVE SUMMARY

1 INTRODUCTION

1.1 BACKGROUND AND CONTEXT

1.1.1 In July 1998 the Government published ***A New Deal for Trunk Roads in England***, following a strategic review of the roads programme undertaken in association with the development of its new Transport Policy. The report established a Targeted Programme of Improvements to the trunk road network to be taken forward by the Highways Agency. The report also proposed a series of 'multi-modal' studies to address problems on the strategic trunk road network not covered by the short term Targeted Programme of Improvements.

1.1.2 The South East Manchester Multi-Modal Study (SEMMMS) was one of such studies. Recognising that transport problems and their solutions are not just limited to the trunk road network, the studies considered all modes of transport.

1.1.3 The SEMMMS study was commissioned because the following three road schemes were removed from the trunk roads programme along with the de-trunking of the A6 and the A523:

- The A6(M) Stockport North South Bypass;
- The A555 Manchester Airport Link Road West (MALRW); and
- The A555/A523 Poynton Bypass

1.1.4 These schemes have been identified in various plans since the 1930's[1] and residential and employment developments in this area have been predicated on these schemes being delivered. All three corridors are protected within the relevant local authority strategic plans. The schemes were previously assigned to the Highways Agency to deliver, and progress on these schemes included agreeing preferred routes and appropriate procedures for the A6(M) following a Public Inquiry in 1988.

1.1.5 The central section of the A555 Manchester Airport Eastern Link Road (MAELR) was completed in November 1995 as part of a local authority A34 bypass scheme, with contributions from the Highway Agency and developers, on the assumption that the rest of the route would be built shortly afterwards, with strong supporting evidence presented at Public Inquiry by the Highways Agency.

1.1.6 The original Highways Agency's proposals for the three remitted road schemes were for:

- The A6(M) to be built to motorway standard. The proposals included a complex arrangement of collector-distributor links to the Hazel Grove (the Stepping Hill Link Road) area as well as works between Offerton and Hazel Grove to facilitate a connection to a dual carriageway bypass of High Lane and Disley, a scheme which had previously been removed from the Government's road programme.
- The A555 MALRW scheme was for a fully grade separated dual carriageway and included major rebuilding and expansion of Junction 5 on the M56; and

[1] Hansard 02 March 2017, records show that it is actually more than 242 years since residents in and around Stockport first made representations to the House calling for a similar road to relieve local congestion on what was then known as the London road, which is now the A6.

- The A555/523 Poynton Bypass, a dual carriageway grade separated proposal, extending from the northern end of the Silk Road in Macclesfield to Poynton and including an east-west link between the extant A555 Handforth Bypass and the A6 (M) proposal at Macclesfield Road, Hazel Grove.

1.1.7 The objective for the study was to develop a long term (20 year) transport strategy that established an implementation plan of specific interventions to address the problems within the study area. The study area covered the following conurbations:

- All of Metropolitan Borough of Stockport;
- Parts of the City of Manchester;
- Parts of Tameside Metropolitan Borough;
- Parts of Macclesfield Borough; and
- Parts of High Peak Borough, Derbyshire.

1.1.8 The core objectives were defined and agreed as follows:

- The promotion of environmentally sustainable economic growth;
- The promotion of urban regeneration;
- The improvement of amenity, safety and health;
- The enhancement of the Regional Centre, town centres and local and village centres and the Airport; and
- The encouragement of the community and cultural life of neighbourhoods, and encouragement of social inclusion.

1.1.9 The South East Manchester Multi Modal Strategy (SEMMMS) reported in September 2001. It recommended a multi-modal programme for delivery to 2021 including, in particular, construction of the three highway schemes that were remitted to the study, as follows:

- A road between the M60 at Bredbury and the A6 at Hazel Grove, following the protected alignment for the A6(M). The construction of the Stepping Hill Link between the A6 north of Hazel Grove centre and the new road forms part of the recommendation. It is recommended that the north-south bypass be constructed to dual carriageway standard with a 40/50 mph design speed. Junctions should be at grade and most likely signal controlled;
- A bypass of Poynton is constructed. The bypass should comprise an east-west section linking the A555/A5102 junction north of Woodford to the A6 at Hazel Grove. Traffic modelling undertaken for the study indicates that a dual carriageway is more than likely required, but junctions can be accommodated at grade. For the north-south bypass of the A523 a single carriageway bypass is recommended from the existing A523 at Adlington, joining the east-west section of the bypass north of Woodford; and
- A reduced scale scheme is constructed in the MALRW corridor. Traffic modelling indicates that an at-grade dual carriageway linking the Airport roundabout at the end of the M56 spur to the western end of the A555 at Handforth is sufficient. An at-grade junction at Styal Road should be provided. Combined with other recommendations, there is the opportunity to introduce dedicated HGV/public transport lanes along the MALRW corridor.

1.1.10 Since then, a programme of work has been undertaken including quality bus corridors, accessibility improvements to bus stops and transport interchanges, the provision of yellow buses, as well as road space reallocation involving the creation of on-street cycle facilities and improvements to the pedestrian network. In particular, the MALRW proposal – now subsumed into the A6 to Manchester Airport Relief Road (A6MARR) scheme – is being delivered and is expected to open in spring 2018, and Cheshire East Council, working in partnership with

Stockport Council, has prioritised the Poynton Relief Road (PRR) scheme. A joint planning application for the PRR scheme was submitted in September 2016 which has been approved. Cheshire East Council is in the process of developing a Department for Transport (DfT) compliant business case for the PRR scheme which is anticipated to be submitted to the after a contractor has been appointed to construct the scheme and a final tendered price has been received.

1.1.11 The A6 to M60 Relief Road scheme is thus the final highway component of the original SEMMM Strategy which has delivered benefits to local communities across south-east Manchester through a range of new highway infrastructure, public transport and sustainable transport measures over the past 15 years.

1.1.12 The A6 southern approach to Greater Manchester, which will be the principal beneficiary of the Scheme, performs an important role carrying traffic from the Peak District and beyond into the city region. The A6 is part of the Greater Manchester Key Route Network. It is also part of the national Primary Route Network (PRN) and provides a strategic link between Greater Manchester and key towns in north Derbyshire including Buxton, Matlock and Chapel-en-le-Frith. It also serves New Mills, Whaley Bridge and a number of smaller settlements including High Lane and Disley. The A6 is a major access route for the Peak District National Park.

1.1.13 The A6, a key bus corridor into Manchester city centre, operates with the most frequent single bus service in Greater Manchester (the 192) carrying almost 10 million passengers every year, and plays a critical role in supporting sustainable economic growth and accessibility in Greater Manchester.

1.1.14 The mix of local and strategic traffic is one of the major causes of congestion on the highway network. Freight traffic from Derbyshire and the Peak District to the M60, distribution centres and other destinations across the North West, mixes with commuter and business traffic travelling between Cheshire and parts of Greater Manchester, and with local commuter and leisure trips in the centres along the south Manchester corridor. These travel patterns have a direct impact on the ability of the transport network to provide efficient connectivity and access to markets and jobs. It also means that the local communities that it passes through are faced with high volumes of traffic and heavy goods vehicles, creating problems in terms of air quality, noise and highway safety.

1.2 DESCRIPTION OF THE SCHEME

1.2.1 **Figure 1-1** and **Figure 1-2** show the proposed scheme to run in a broadly north-south alignment that will link into the A6MARR. **Figure 1-3** shows the proposed scheme within the context of the A6MARR.

1.2.2 The A6 to M60 Relief Road scheme will provide 8.5 km of new two-lane 50mph dual carriageway on a north - south route from the M60 Junction 25 at Bredbury (north east of Stockport) to the A6 near Hazel Grove (south east Stockport). It will also provide a link road to Stepping Hill of 1.1km allowing improved access to Stepping Hill Hospital.

1.2.3 The Scheme will allow road traffic to bypass the heavily congested routes to the M60 that presently pass through Hazel Grove, Stockport town centre, Offerton and Bredbury in both directions also bypassing local district centres. It will provide much needed connectivity for key strategic routes into the North, the North West, and the wider Greater Manchester conurbation and specifically, through connecting with the A6MARR, to Manchester Airport; including traffic from the A6, A523 and A34 – all of which are key routes for business, leisure travel and freight. It will also connect with the Poynton Relief Road and A34, providing improved access into East Cheshire towards Macclesfield and the Alderley Edge Science Triangle.

1.2.4 The Scheme will also provide additional connectivity to the proposed Trans-Pennine Tunnel route which, if constructed, will run under the Peak District from the Sheffield region to Greater

Manchester and enhance the transport connectivity and resilience between these two city regions.

1.2.5 The completed A6MARR scheme will also bypass and alleviate congestion in Bramhall, Cheadle Hulme, Handforth, Poynton, Wythenshawe, Gatley and Heald Green.

Figure 1-1: A6 to M60 Relief Road Northern Section

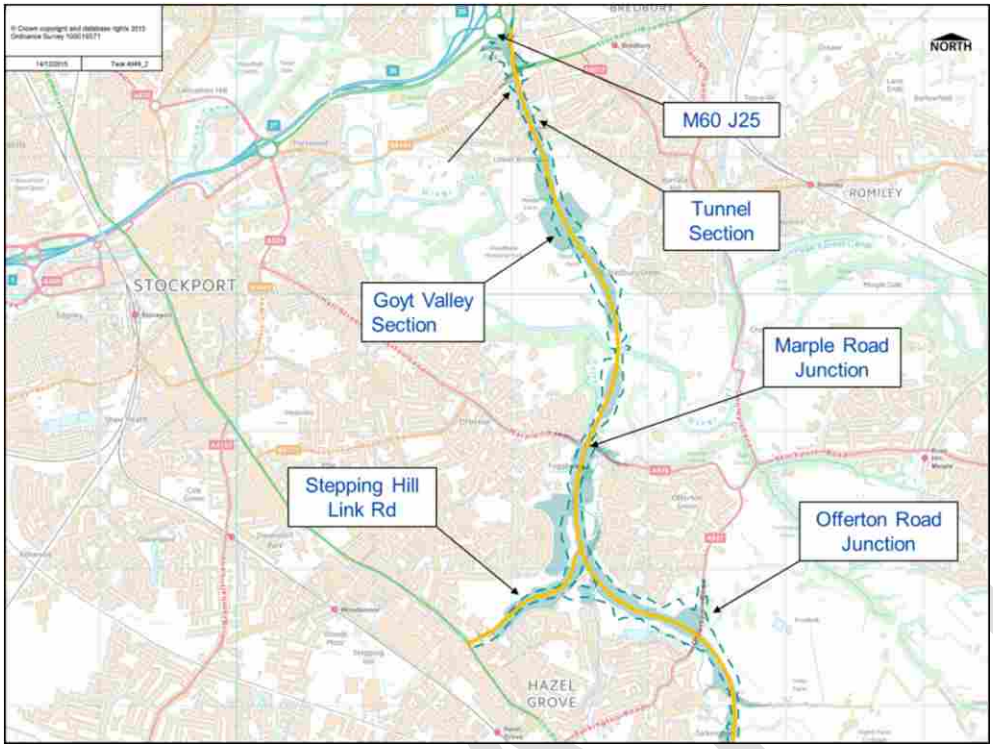


Figure 1-2: A6 to M60 Relief Road Southern Section

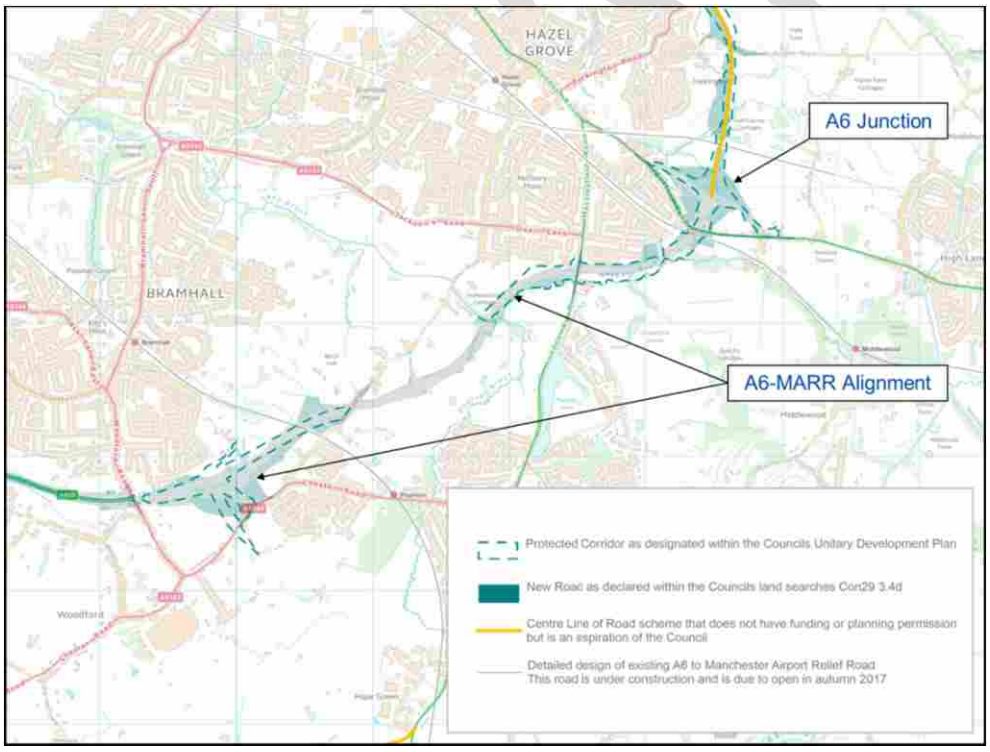
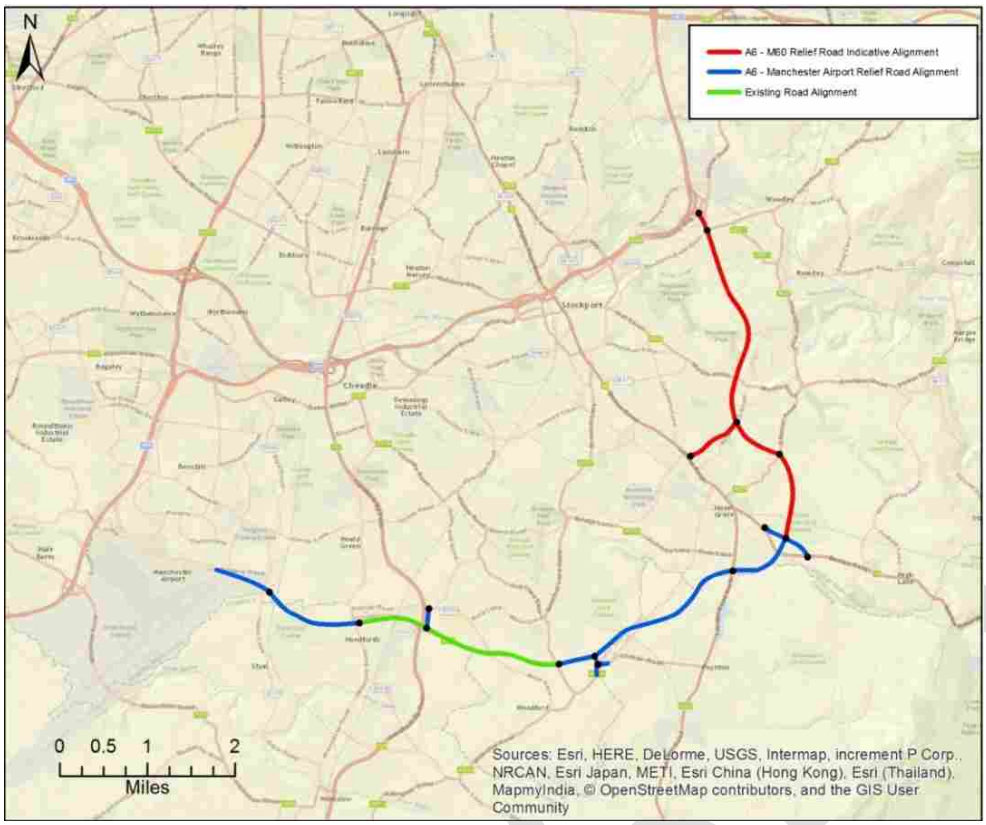


Figure 1-3: Scheme in Wider Context



1.2.6 The proposed Scheme will be consistent with the A6MARR scheme and comprises the following:

- A rural Dual 2 Lane All-Purpose (D2AP) carriageway for the mainline and a two-lane single (S2) carriageway for the Stepping Hill Link;
- A segregated cycle/pedestrian route adjacent to the new road and existing length of the A6MARR, A555, providing a new orbital link for the strategic cycle / pedestrian network;
- A package of complementary measures in accordance with the SEMMM Strategy that will maximise the scope of benefits by making the most efficient use of road space where there are forecast reductions in car traffic. These measures will prevent available road space from simply filling up with more cars and support public transport and active modes; and
- A package of mitigation measures will contribute to overall value for money by limiting any negative impacts resulting from the Scheme, including environmental and construction engineering mitigation to minimise the effect of the road on local communities and surrounding habitats.

1.2.7 There will be a requirement to construct a number of structures for the Scheme with the main structures including:

- Bridge over the Midland railway line – approximately 52m span;
- Bridge over the River Goyt – approximately 200m span;
- Bridges over the M60 northbound and southbound carriageways;
- Tunnel from Vernon Road to Stockport Road West – approximately 620m long; and
- Retaining wall at Crookilley Way – approximately 200m long.

1.3 PURPOSE OF THE SCHEME

1.3.1 Originally identified as integral to the successful delivery of the SEMMM Strategy mapped out in 2001, the traffic conditions that the Scheme was proposed to address have become worse over time. Congestion and poor journey time reliability are a major problem on the highway network in south Greater Manchester, impacting upon the thousands of commuters, business travellers and freight operators that rely upon it to provide access to jobs and business activity.

1.3.2 It also affects the ability of bus operators to meet the needs of public transport users, and the congestion in local town centres has environmental and societal implications, leading to poor air quality, increased risk of accidents, and reduced accessibility to education and employment opportunities.

1.3.3 The specific problems the SEMMMS road schemes were recommended to address were:

- **Problem 1:** There are particular congestion problems along the A6 and in the urban centres including Bredbury, Hazel Grove and Offerton, leading to delays to public transport and affecting accessibility;
- **Problem 2:** Unsafe conditions for pedestrians and cyclists through busy urban areas along the extent of the south Manchester corridor, with all non-motorised transport users facing severance and problems of safely accessing education, employment and leisure facilities;
- **Problem 3:** Poor connectivity along the south Manchester corridor, with a fragmented east-west highway network and lack of surface access to Manchester Airport, that acts as a barrier to economic growth and regeneration;
- **Problem 4:** Congestion on the local and strategic network, with average peak hour vehicle speeds of less than 10mph on most parts of the highway network and journey times that are longer than all other 'large' urban areas across the UK, including those in London; and
- **Problem 5:** Poor environmental conditions in the District and Local Centres along the south Manchester corridor, caused by the high volume of traffic passing through these towns to reach other destinations, leading to a number of locations in the study area being designated Air Quality Management Areas.

1.4 STATUS OF THE SCHEME

1.4.1 The Scheme is the final highway component of the wider SEMMM Strategy which has delivered benefits to local communities across south-east Manchester through a range of new highway infrastructure, public transport and sustainable transport measures over the past 15 years. From 2001 onwards, the three local authorities in the area (Cheshire East, Manchester and Stockport Councils) developed the SEMMMS Relief Road concept, originally developing a business case and funding submission for the scheme in 2004.

1.4.2 In July 2007, the DfT advised that while the SEMMMS Relief Road provided value for money, limited funding capabilities meant it was not possible to fund the Relief Road as a single scheme, such that consideration should be given to its phased delivery. Three potential phases of the scheme were identified by the local authorities, and were submitted to the DfT for consideration in 2007 / 08 as follows:

- M60 to the A6, including the Stepping Hill Link;
- A6 to Manchester Airport with Poynton Bypass; and
- A6 to Manchester Airport without Poynton Bypass (the A6MARR scheme).

1.4.3 Given these funding constraints the DfT and Local Authority Officer's jointly examined the key policy drivers in the area and agreed that the A6 to Manchester Airport section was the priority

scheme due to the potential economic impact on Manchester Airport (and therefore the City Region) of delaying access improvements, which in turn could constrain future economic growth. Accordingly, Government advised that the scheme should be delivered in three phases, namely:

- **Phase 1** - A6 in Hazel Grove to Manchester Airport Relief Road, or A6MARR;
- **Phase 2** - Poynton Relief Road; and
- **Phase 3** - A6 to M60 Relief Road - incorporating the proposed Stepping Hill link.

1.4.4 Phase 1 is currently under construction and is expected to open in spring 2018 with Phase 2 progressing through the planning and funding approvals process. In the March 2015 Budget Statement, the Government granted £350,000 to the GM Combined Authority (GMCA) to undertake a contemporary review of the case for the A6 to M60 Relief Road scheme – i.e. the former A6(M) and Stepping Hill Link Road which became Phase 3 of the SEMMMS Relief Road.

1.5 STUDY CONTEXT

1.5.1 This study is considered within the context of:

- the current economic profile of Greater Manchester, including current/known development plans in the relevant adjacent areas of Stockport, Tameside, Manchester, Cheshire East and High Peak, and including at Manchester Airport, and the implications of the Government's shared aspirations with GM to deliver a Northern Powerhouse. The Northern Powerhouse Independent Economic Review (NPIER), published by Transport for the North in June 2016, evidenced that a higher-performing and more unified Northern economy could add more than £97 billion to the UK economy and generate 850,000 new jobs by 2050. The Greater Manchester Spatial Framework (GMSF) is currently being prepared and is a joint plan to manage the supply of land for jobs and new homes across Greater Manchester up to 2035 in the most effective way to achieve the ambitions for the city region, based on a clear understanding of the role of places and the connections between them. The GMSF will be the overarching development plan within which Greater Manchester's ten local planning authorities can identify more detailed sites for jobs and homes in their own area;
- local transport policy in Greater Manchester, as articulated in the GM Transport Strategy 2040, which together with a five-year delivery plan, detailing the first stage of implementation from 2016 – 2021, make up the new statutory Greater Manchester Local Transport Plan (LTP4); and a refreshed SEMMM Strategy to 2040 which will inform how this scheme may fit within the wider transport provision within the south-east Manchester area; and
- national transport policy with implications for the study area, including the schemes and studies set out in the national Road Investment Strategy (RIS) and subsequent Highways England development programmes; HS2; the Northern Transport Strategy and development programme of work towards the production of a Strategic Transport Plan. The Strategic Transport Plan will be used to articulate how Government, Network Rail, Highways England and High Speed Two (HS2) Ltd work with Partners to deliver investment that can transform the economy of the North.

1.6 STRUCTURE OF THE BUSINESS CASE

1.6.1 Following this introduction, the structure of this strategic outline business case is set out as follows:

- **Chapter 2:** Strategic Case
- **Chapter 3:** Economic Case
- **Chapter 4:** Financial Case
- **Chapter 5:** Commercial Case

→ **Chapter 6:** Management Case

1.6.2 The business case is supported with supplementary supporting information set out in a series of Appendices included in Volume Two.

Summary

The South East Manchester Multi Modal Strategy (SEMMMS) was published in September 2001. It recommended a multi-modal programme for delivery to 2021. The A6 to M60 Relief Road scheme is the final major highway component of the original SEMMM Strategy.

The A6 to M60 Relief Road scheme will provide 8.5 km of new two-lane 50mph dual carriageway on a north - south route from the M60 Junction 25 at Bredbury (north east of Stockport) to the A6 near Hazel Grove (south east Stockport). It will also provide a 1.1km link road to Stepping Hill allowing improved access to Stepping Hill Hospital.

In the March 2015 Budget Statement, the Government granted £350,000 to the GM Combined Authority (GMCA) to undertake a contemporary review of the case for the A6 to M60 Relief Road scheme – i.e. the former A6(M) and Stepping Hill Link Road which became Phase 3 of the SEMMMS Relief Road. This Strategic Outline Business Case forms part of this review, structured in line with DfT requirements.

1.6.4 It should be noted that the document will be updated following on the outcome of the refresh of the SEMMMS Strategy to reflect the findings of the study.

2 STRATEGIC CASE

2.1 INTRODUCTION

2.1.1 This chapter presents ***The Strategic Case*** for the SEMMMS A6 to M60 Relief Road scheme. It identifies the major problems and thus requirement and justification for the Scheme, in addition to the broader implications for the Greater Manchester economy.

2.1.2 The purpose of the Strategic Case is to set out the strategic and policy context, demonstrate the need for the scheme and provide an assessment of the scheme options impact in addressing transport and wider policy requirements.

2.2 SCHEME OBJECTIVES

2.2.1 Originally identified as integral to the successful delivery of the SEMMM Strategy mapped out in 2001, the traffic conditions that the Scheme was proposed to address have become worse over time. Congestion and poor journey time reliability are a major problem on the highway network in south Greater Manchester, impacting upon the thousands of commuters, business travellers and freight operators that rely upon it to provide access to jobs and business activity.

2.2.2 It also affects the ability of bus operators to meet the needs of public transport users, and the congestion in local town centres has environmental and societal implications, leading to poor air quality, increased risk of accidents, and reduced accessibility to education and employment opportunities.

2.2.3 The major problems in the area and the original SEMMMS scheme objectives defined to address them are set out below.

- **Problem 1:** There are particular congestion problems along the A6 and in the urban centres including Bredbury, Hazel Grove and Offerton, leading to delays to public transport and affecting accessibility;
  - **Objective 1a:** Reduce the impact of traffic congestion on local businesses and communities; and
  - **Objective 1b:** Promote fairness through job creation and the regeneration of local communities.
- **Problem 2:** Unsafe conditions for pedestrians and cyclists through busy urban areas along the extent of the south Manchester corridor, with all non-motorised transport users facing severance and problems of safely accessing education, employment and leisure facilities;
  - **Objective 2:** Improve the safety of road users, pedestrians and cyclists through reducing the volume of through-traffic from residential areas and retail centres.
- **Problem 3:** Poor connectivity through the south Manchester corridor, with a fragmented east-west highway network and limited surface access to Manchester Airport, that acts as a barrier to economic growth and regeneration;
  - **Objective 3:** Increase employment and generate economic growth by providing efficient surface access and improved connectivity to, from and between Manchester Airport, local, town and district centres, and key areas of development and

regeneration (e.g. Manchester Airport Enterprise Zone).

→ **Problem 4:** Congestion on the local and strategic network, with average peak hour vehicle speeds of less than 10mph on most parts of the highway network and journey times that are longer than all other 'large' urban areas across the UK, including those in London. These problems will become significantly worse in the future if there is no highway improvement.

- **Objective 4:** Boost business integration and productivity through improved efficiency and reliability of the highway network; reduce the conflict between local and strategic traffic, and provide an improved route for freight and business travel.

→ **Problem 5:** Poor environmental conditions in the District and Local Centres along the south Manchester corridor, caused by the high volume of traffic passing through these towns to reach other destinations, leading to a number of locations in the study area being designated Air Quality Management Areas.

- **Objective 5:** Support lower carbon travel: re-allocate road space and seek other opportunities to provide improved facilities for pedestrians, cyclists and public transport.

2.2.4 The assessment and demonstration of need for the SEMMMS A6 to M60 Relief Road scheme will therefore follow a clear Logic Chain through ***The Strategic Case***. The Logic Chain approach demonstrates a clear progression from the scheme context through to the transport outcomes and higher level strategic impacts that will be delivered by the Scheme:

Figure 2-1: Logic chain for the Strategic Case

The Logic Chain approach demonstrates a clear progression from the scheme context through to the transport outcomes and higher level strategic impacts that will be delivered by the scheme.

2.2.5 Further detail of the process (logic mapping) by which the scheme outputs will deliver the primary objectives, including the wider and longer term impacts; such as land use development; better quality of life; environmental benefits; and economic benefits, is presented **Section 3.9** of ***The Economic Case***.

2.2.6 The Scheme is at an early point along a journey of a refreshed SEMMM Strategy to 2040 which will inform how the Scheme fits within the wider transport provision within the south-east Manchester area. Further detail of the SEMMMS Refresh to 2040 including new primary and enabling objectives aligned to the GM Transport Strategy to 2040 is described within **Section 2.6** of ***The Strategic Case***.

2.2.7 The specific, measureable outcomes that will be used to gauge the success of the A6 to M60 Relief Road scheme are described in **Section 6.11** of ***The Management Case***.

2.3 THE CHALLENGE/ DRIVER FOR CHANGE

2.3.1 Productivity – the efficiency of the economy - is still disappointing across the UK, and particularly so within the North of England. Productivity growth has been slow since the financial crisis, with

output per hour worked in the UK 18% below the average for the remaining six members of the G7 group of industrial nations[2]. The North of England's GVA (Gross Value Added) per capita has, over the last thirty years, been consistently about 25% below the average for the rest of England. If Greater Manchester's GVA per head were the same as the UK average, the city region's economy would be 20% larger, and generate an additional £10bn per annum.

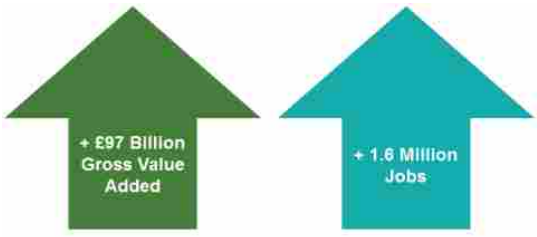
2.3.2 The North of England is home to over 15 million people – nearly a quarter of the UK's population and generates £304bn in economic output[3], but only accounting for one fifth of the national GVA. The Northern Transport Strategy report[4] (*The Northern Powerhouse: One Agenda, One Economy, One North*) recognises that individually, the economies of the city regions of the North are strong but, despite this, the North continues to lag behind London and the South East in terms of its economic performance. Unlike the rest of the UK, economic activity in the North of England is dispersed across a wide geography but is also concentrated within five dominant conurbations including: Greater Manchester, West Yorkshire, South Yorkshire, Merseyside and the North East. These conurbations are located in relatively close proximity, however poor connectivity across cities and modes acts as a constraint to growth. This means economic interactions are costly and there is less potential for gains from economic scale and agglomeration benefits that could boost productivity.

2.3.3 The *One North* report[5] commissioned by the City Regions of Leeds, Liverpool, Manchester, Newcastle and Sheffield sets out a strategic proposition for transport in the North, with the aim of transforming connectivity and maximising economic growth. Findings indicate that further improvements to the strategic highway network in the North will be needed in order to address the emerging air quality problems around specific sections and to complement HS2 plans in specific locations. One North states that better east-west connectivity would be an important growth multiplier for the North and nationally.

2.3.4 The recently published *Northern Powerhouse Independent Economic Review* (NPIER)[6] identifies a number of reasons that transport connectivity between cities is important for the North's growth prospects, these are:

- Access to well-paid jobs encourages investment in skills;
- Locations that are well connected to global markets, and have access to a well- qualified workforce, attract a higher level of foreign investment. Ten million people live within 40 miles of Greater Manchester, 2 million of these are graduates; and
- Firms are more likely to specialise and innovate in areas with deep and extensive labour markets.

2.3.5 The NPIER demonstrates that with the right level of investment, there is potential for a transformational uplift in economic growth in the north to equal growth levels of the UK average (including London). It highlights that better connectivity in the North's towns and cities is essential to creating a transformed integrated economy. The review shows that, if the North is supported by the right level of investment, there



[2] Canada, France, Germany, Italy, Japan and the United States.
[3] ONS. Statistical bulletin, regional gross value added (income approach), December 2014.
[4] Transport for the North (2015) The Northern Powerhouse: One Agenda, One Economy, One North.
[5] Leeds, Liverpool, Manchester, Newcastle and Sheffield city regions, One North: A Proposition for an Interconnected North, July 2014.
[6] Northern Powerhouse Independent Economic Review, SQW Ltd and Cambridge Economics Ltd, 2016.

could be a step change in growth of an additional £97 billion GVA and 1.56 million additional jobs, of which 850,000 would otherwise not exist.

2.3.6 As the largest economy in the North West and given the wide range of jobs available, Greater Manchester attracts labour from various parts of the North West and neighbouring regions - 10 million people live within 40 miles of Greater Manchester (2 million of these are graduates) Analysis of key commuter flows within the Greater Manchester Sub-Region highlight the high demand for travel to Manchester and the Regional Centre, but also the forecast increasing demand for travel within Greater Manchester. **Figure 2-2** and **Figure 2-3** below show commuter flows into and within Greater Manchester, based on 2010/11 annual population survey data.

Figure 2-2: Commuting Patterns to Greater Manchester

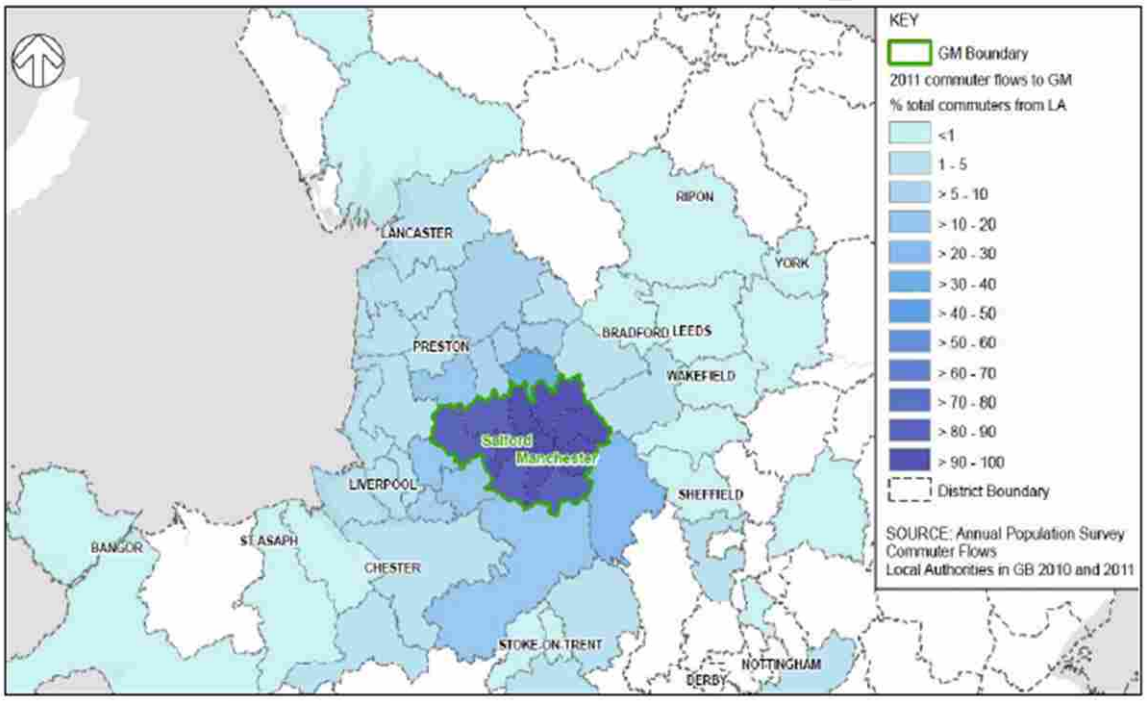
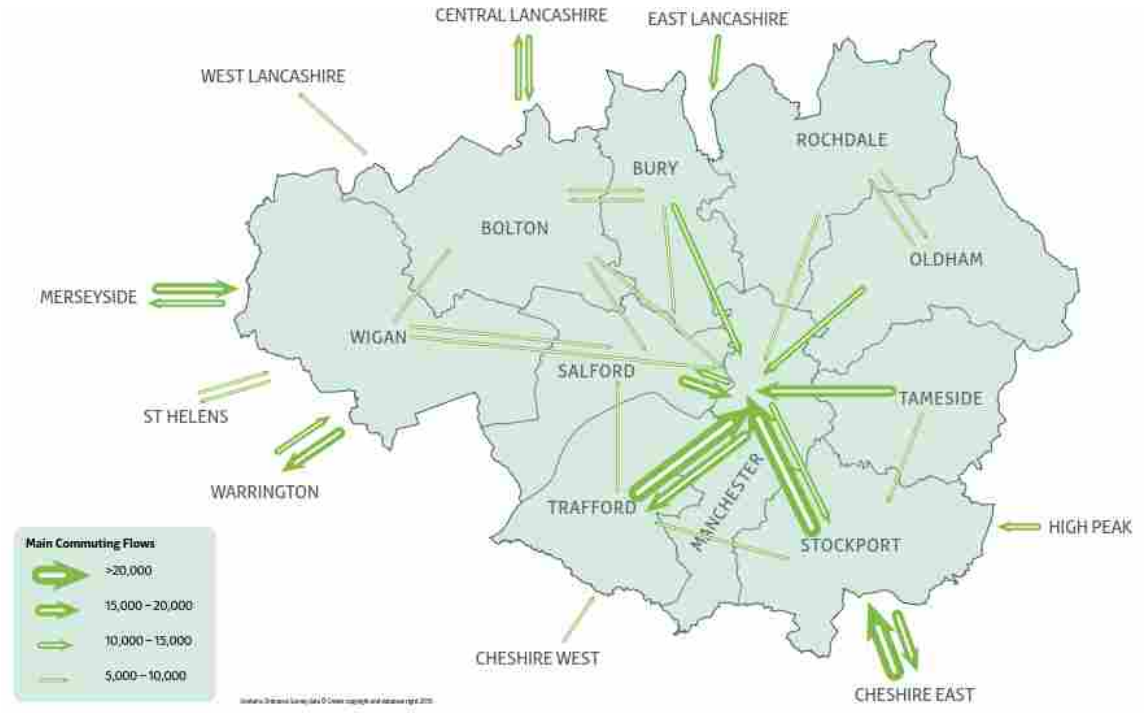


Figure 2-3: Main Commuting Flows 2011



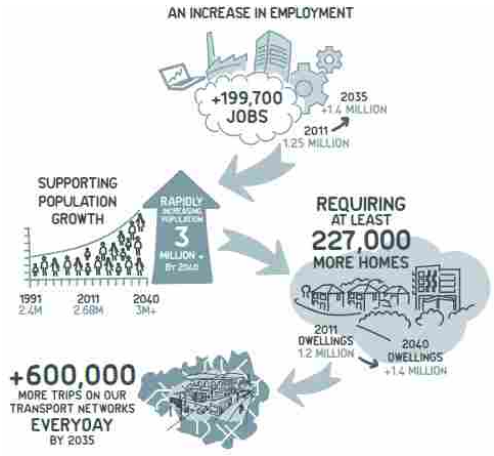
2.3.7 Despite the significant role played by the Regional Centre in city region's economic output, GM is a polycentric economic area. Recent work undertaken by the Centre for Cities found that 66% of the circa 150,000 of the knowledge-intensive business services (KIBS) based jobs in GM, which are critical to the UK's economic performance, are located in a variety of areas away from Manchester city centre.

2.3.8 This is reflected in the complex journey-to-work patterns that support the GM economy, for which around two-thirds of all commuters are still reliant on car travel, despite over 70% of commuting trips to Manchester city centre being made by modes other than car. With bus and cycle trips included, road based travel accounts for over 80% of commuting in GM. Moreover, Census 2011 data show that circa 50% of all GM residents now work in a local authority area other than the one that they live in; and 15% of GM jobs are taken up by commuters from outside the city region. Hence, well over 50% of GM jobs involve the employee travelling across at least one local authority boundary, in addition to commercial and logistics traffic that operates at both a city region and pan-Northern scale across GM.

2.3.9 This assessment highlights the importance of connectivity within the city region's highway system if it is to support a growth in growth-related travel demand that is necessary to achieve the productivity objectives in the Greater Manchester Strategy.

2.3.10 **Figure 2-3** shows that the largest commuting flow between districts within GM is a broadly north-south movement between Stockport and Manchester and the largest equivalent flow across the GM boundary is again a north-south movement between Cheshire East and Stockport. The A6 to M60 Relief Road scheme would directly facilitate these two largest commuting movements that support the GM economy.

2.3.11 To put this in to context, Greater Manchester has ambitious growth plans[7] over the coming 25 years (see inset), with major growth in employment (particularly in knowledge-based industries) leading to a rapidly increasing population and an urgent need to build over 11,000 new homes a year up to 2035.



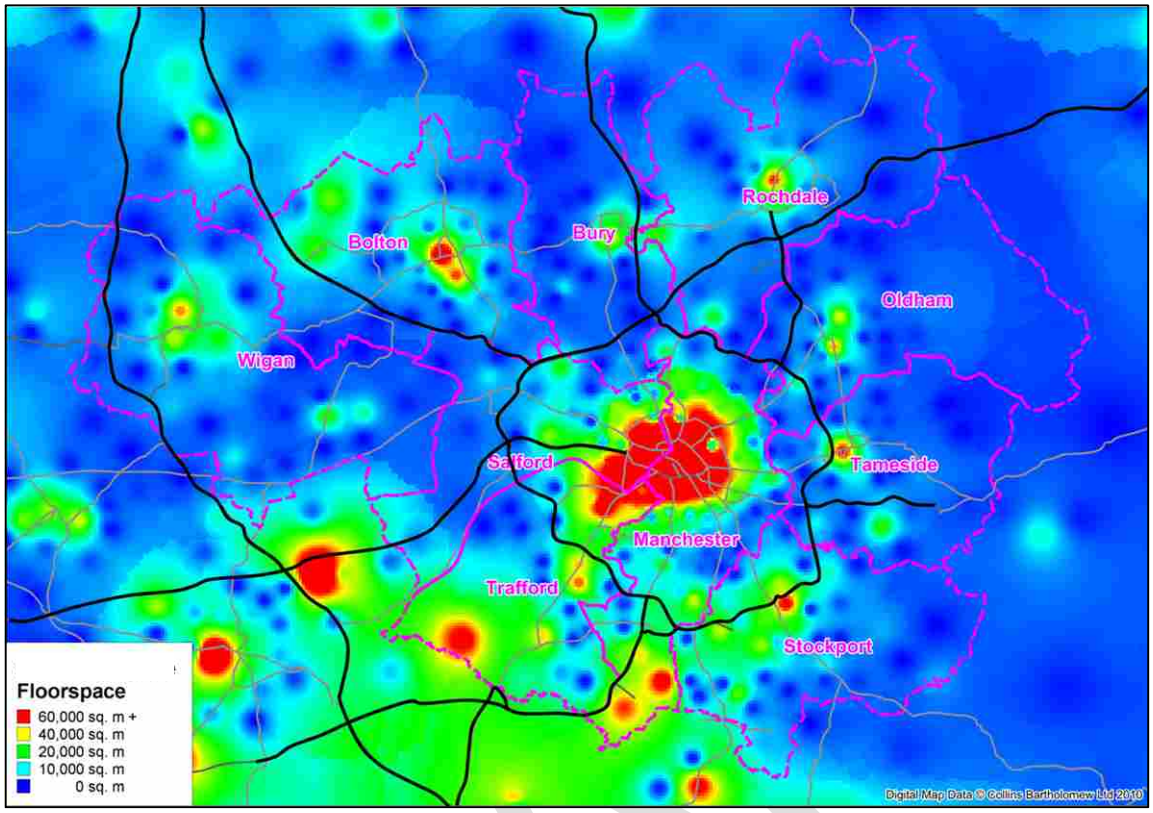
2.3.12 Since the decline of the region's historic manufacturing industry, Stockport has established itself as a key economic player in the Manchester City Region. Its strength as a business location is demonstrated in many ways:

- Stockport is able to sustain a higher than average rate of employment;
- Economic activity rates are markedly higher than both the regional and national averages showing that Stockport supports high levels of employment and enterprise;
- Stockport's knowledge driven economy combined with its high quality of life offer, has helped to attract above average numbers of managers and professionals to the Borough;
- Almost one third of working age residents are qualified to degree level, or equivalent. This results in the resident wage rate being higher than both the Greater Manchester and national average. The workplace wage rates follow a similar pattern;
- Stockport's economy supports the second largest workforce in Greater Manchester with 121,200 people employed within the Borough working in more than 11,000 businesses in a diverse range of sectors, from electronic engineering through to financial & professional services;
- Stockport is home to a productive workforce and is one of only four local authorities within Greater Manchester with higher productivity than the North West average;
- Stockport is estimated to be the third largest contributor in terms of GVA to the Greater Manchester Economy, with almost 11% of the City Region's Value Added generated in Stockport. Stockport is therefore a key contributor to the sub-regional economy; and
- Stockport currently has the second lowest rate of unemployment in Greater Manchester and is significantly lower than the regional and national rate.

2.3.13 As shown in **Figure 2-4** below, Stockport plays a central role in the South Manchester commercial property market, with some of the Greater Manchester's most attractive and successful industrial and office locations, such as Cheadle Royal Business Park, Bird Hall Lane and Kings Reach Business Park. Stockport town centre was also identified within the Greater Manchester Large Sites and Town Centres Study as the town centre in Greater Manchester South with the greatest potential for growth because of its critical mass and diversity of offer.

[7] Source: GM 2040 Full Strategy Document, February 2017

Figure 2-4: Concentration of Office Employment



Source: Valuation Office Agency

2.3.14 Building on this, Stockport Council has ambitious plans for growth across the Borough and redevelopment of its Town Centre and the M60 Gateway area now being delivered. Current pipeline investment in the town centre that the Council is enabling stands at £560 million.

2.3.15 A summary of the projected housing, population, and employment of GVA increases in the study area are presented below in **Figure 2-5**.

Figure 2-5: Summary of Local Trends

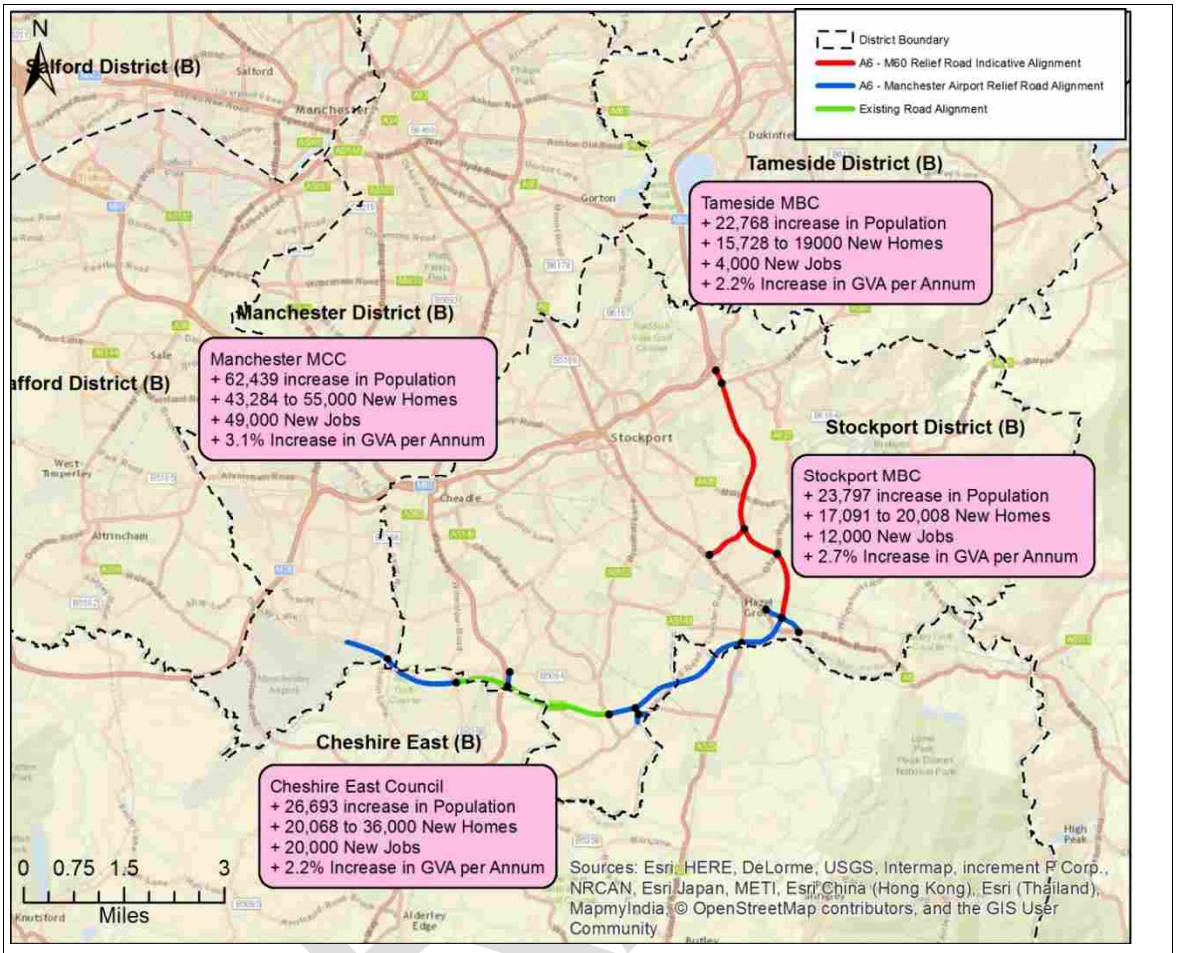


Figure 2-5 Note:

Population Trends Based on ONS Data

Household projections based on DCLG Datasets and emerging Local Plan Policies

Employment projects based on various existing sources

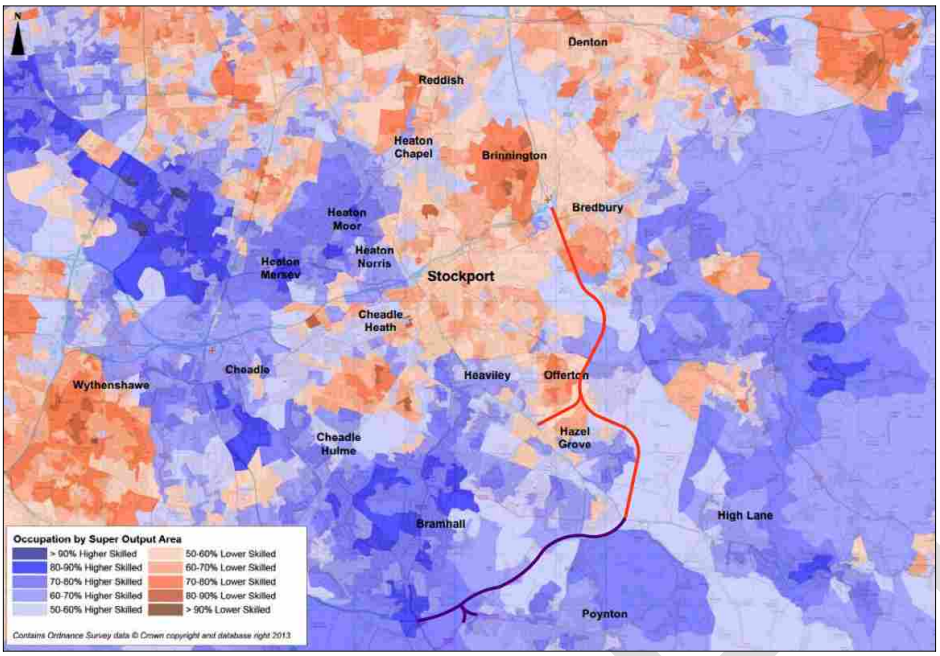
GVA forecast is based on Cheshire East Local Plan and Greater Manchester Forecasting Model.

2.3.16 The social profile across Stockport Borough is not, however, uniform. In terms of its residents, the town centre along with parts of Brinnington, Bredbury, Offerton, Cheadle and Heaton Moor are amongst the most deprived quintile based on national income deprivation indicator, while **Figure 2-6** overleaf presents a similar pattern in terms of the spatial distribution of higher/ lower skilled occupations.

2.3.17 Car availability is the most important factor affecting travel and is strongly related to income. Therefore, both the number of trips a person makes and the distance they travel are strongly influenced by that person's level of income. On average, people in the highest household income quintile group make 30% more trips than those in the lowest income quintile group and travel over 2 and a half times further.

2.3.18 Use of public transport is also related to income. From the lowest to highest income quintile, the average number of trips by bus decreases (111 bus trips per person per year in the lowest income quintile compared with 29 bus trips in the highest). However, rail use is highest in the top income quintile with just over 3 and a half times more rail trips than the lowest quintile.

Figure 2-6: Spatial Distribution of Higher/ Lower Skilled Occupations



(A6 to M60 Relief Road Scheme shown in Red. A6MARR shown in Dark Blue)

2.3.19 Transport is crucial in supporting these ambitious plans for growth for both GM and Stockport, including those set out in the Greater Manchester Spatial Framework – growth will both need and be driven by improved connectivity. This is true on both a local and pan-northern level; as Greater Manchester has a fundamental role to play at the heart of a successful, more connected, Northern Powerhouse.

2.3.20 A joined-up, whole-system approach to the management of the transport network is needed across all modes, an approach that must also extend to the management of congestion. Transport is critical to providing businesses with access to the skilled labour market they need to drive growth and productivity, and to connecting residents to the opportunities that growth brings.

2.3.21 The highway network is a vital part of a prosperous and forward-looking local economy: a high quality network is required to underpin growth and make neighbourhoods even more desirable places in which to live. Significant increases in the capacity of the public transport system (trains, trams and buses) are also required to capture and maximise the local benefits that strategic investment in HS2, East-West connectivity and Manchester Airport will bring.

2.3.22 Key transport-related challenges to support sustainable inclusive economic growth can be summarised as follows:

- → Growth will lead to thousands more trips on transport networks, which could result in significant highways congestion and overcrowding on public transport networks, ultimately choking off investment and damaging prosperity. Additional transport links will be needed to unlock growth areas, particularly as the scale of growth mean that sites on the edge of the urban area will need to be developed;
- → Access to skills and markets needs to be improved to allow people to take up the new jobs on offer, employers to recruit the best workers and businesses to deliver goods efficiently;
- → Journey time reliability on roads and public transport is essential, reducing the cost to business of delayed deliveries and employees arriving late. The cost of congestion in Greater Manchester has been estimated by TfGM to be £1.3 billion per year;
- → Transport networks need to be well maintained in order to function in the face of adverse

weather conditions (linked to climate change), ageing infrastructure and more intensive operation; and

- → The perception of Greater Manchester as a good place to live, invest and visit is vital to the economy requires the sort of efficient, seamless, intelligent and easy to use public transport system enjoyed by leading world cities, and urban areas that offer a safe, attractive and clean environment for walking and cycling.

2.4 THE CASE FOR THE A6 TO M60 RELIEF ROAD SCHEME

RATIONALE FOR THE A6 TO M60 RELIEF ROAD SCHEME

2.4.1 The A6 southern approach to Greater Manchester, which will be the principal beneficiary of the Scheme, performs an important role carrying traffic from the Peak District and beyond into the city region. The A6 is part of the national Primary Route Network (PRN), as well being identified within the TfGM Key Route Network (KRN) and the TfN Major Road Network (MRN), and provides a strategic link between Greater Manchester and key towns in north Derbyshire including Buxton, Matlock and Chapel-en-le-Frith. It also serves New Mills, Whaley Bridge and a number of smaller settlements including High Lane and Disley. The A6 is also a major access route for the Peak District National Park.

2.4.2 The A6, a key bus corridor into Manchester city centre, operates with the most frequent single bus service in Greater Manchester (the 192) carrying almost 10 million passengers every year, and plays a critical role in supporting sustainable economic growth and accessibility in Greater Manchester. Buses on the A6 have benefited from a bus Quality Partnership Scheme (QPS), for the section between Manchester and Hazel Grove. This scheme strives to maintain a high standard of service and travel experience for passengers including enhanced customer relations, improved security and cleanliness, improved reliability and punctuality, and Enhanced Environmentally-friendly Vehicles (EEVs). There is also a park-and-ride facility located in Hazel Grove which includes 400 free car parking spaces for bus users. The park-and-ride site offers bus links to Stepping Hill Hospital, Stockport and Manchester city centre.

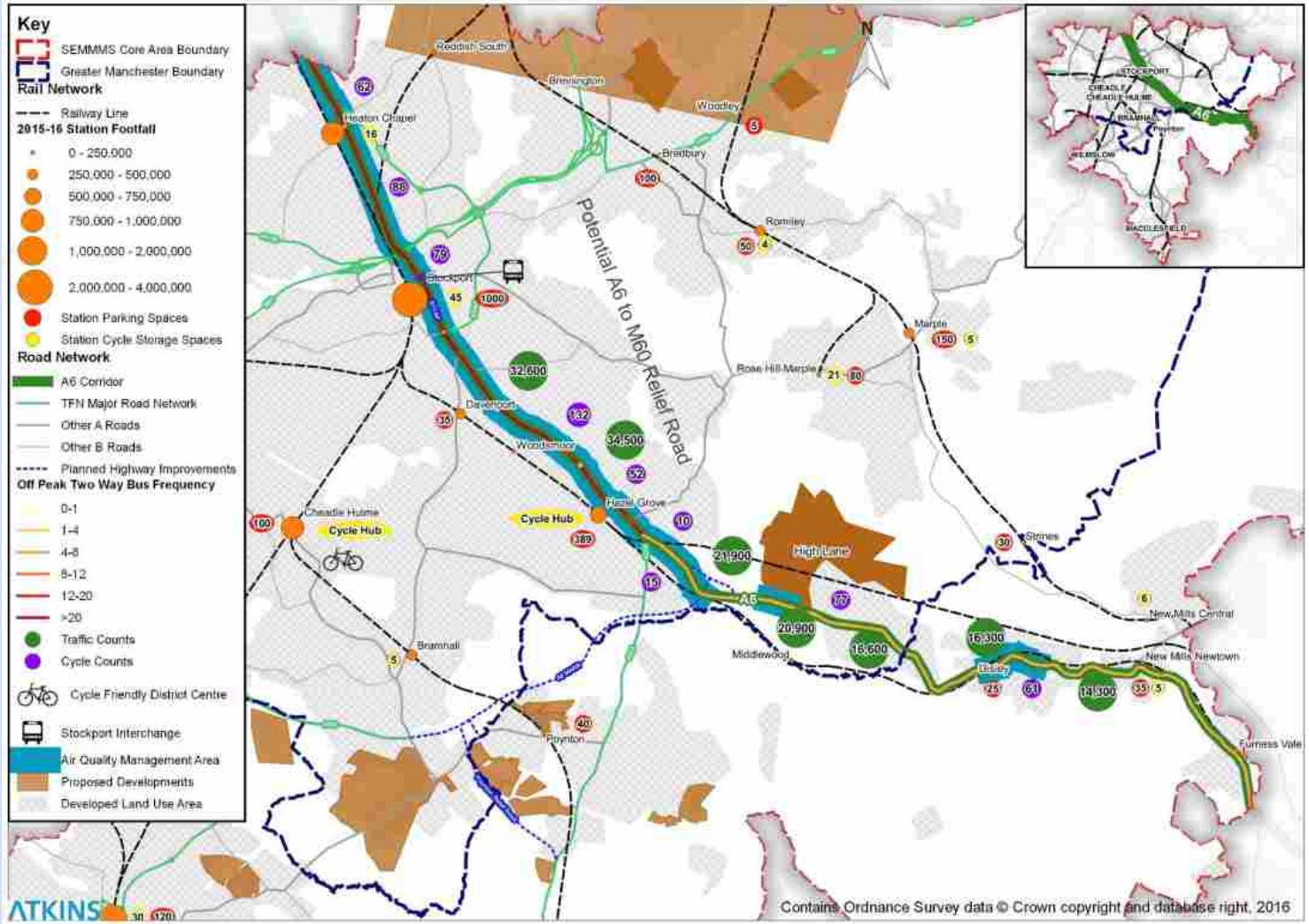
2.4.3 The mix of local and strategic traffic is one of the major causes of congestion on the highway network. Freight traffic from Derbyshire and the Peak District to the M60, distribution centres and other destinations across the North West, mixes with commuter and business traffic travelling between Cheshire and parts of Greater Manchester, and with local commuter and leisure trips in the centres along the south Manchester corridor. These travel patterns have a direct impact on the ability of the transport network to provide efficient connectivity and access to markets and jobs. It also means that the local communities that it passes through are faced with high volumes of traffic and heavy goods vehicles, creating problems in terms of air quality, noise and highway safety.

2.4.4 Demand on the route is driven by its radial route function into Greater Manchester, as well as its links to Stockport town centre, the M60 and the Peak District. Stepping Hill Hospital is Stockport NHS Foundation Trust's main hospital and is located off the A6 in Hazel Grove. The hospital employs over 5,000 members of staff making it the second largest employer in the Stockport Borough, and deals with in excess of half a million patients each year.

2.4.5 The corridor is also well served by rail services. The Buxton rail line runs parallel to the highway corridor, with seven stations located within the core study area near the A6. This includes Stockport rail station, which has 28 passenger calls per hour in the off-peak, including high frequency connections into central Manchester. There are fewer services calling at the other stations, although local services operate with reasonable frequency. All stations serving the corridor offer car parking, except for Woodsmoor and Middlewood stations. Rail demand at Hazel Grove is boosted by people driving from the south to benefit from the cheaper rail fares which are offer for travel within the Greater Manchester boundary.

2.4.6 A summary overview of the A6 corridor is provided in **Figure 2-7** overleaf.

Figure 2-7: A6 Corridor Overview



Source: SEMMMS Refresh to 2040

2.4.7 As stated in **Chapter 1**, the delivery of the SEMMMS road schemes was recommended to address five problems in relation to congestion and poor journey time reliability on the highway network in south Greater Manchester. The following sections examines Problems 1, 2 and 4 as they relate to current traffic and travel conditions in the study area for this scheme. For ease of reference, these are restated below:

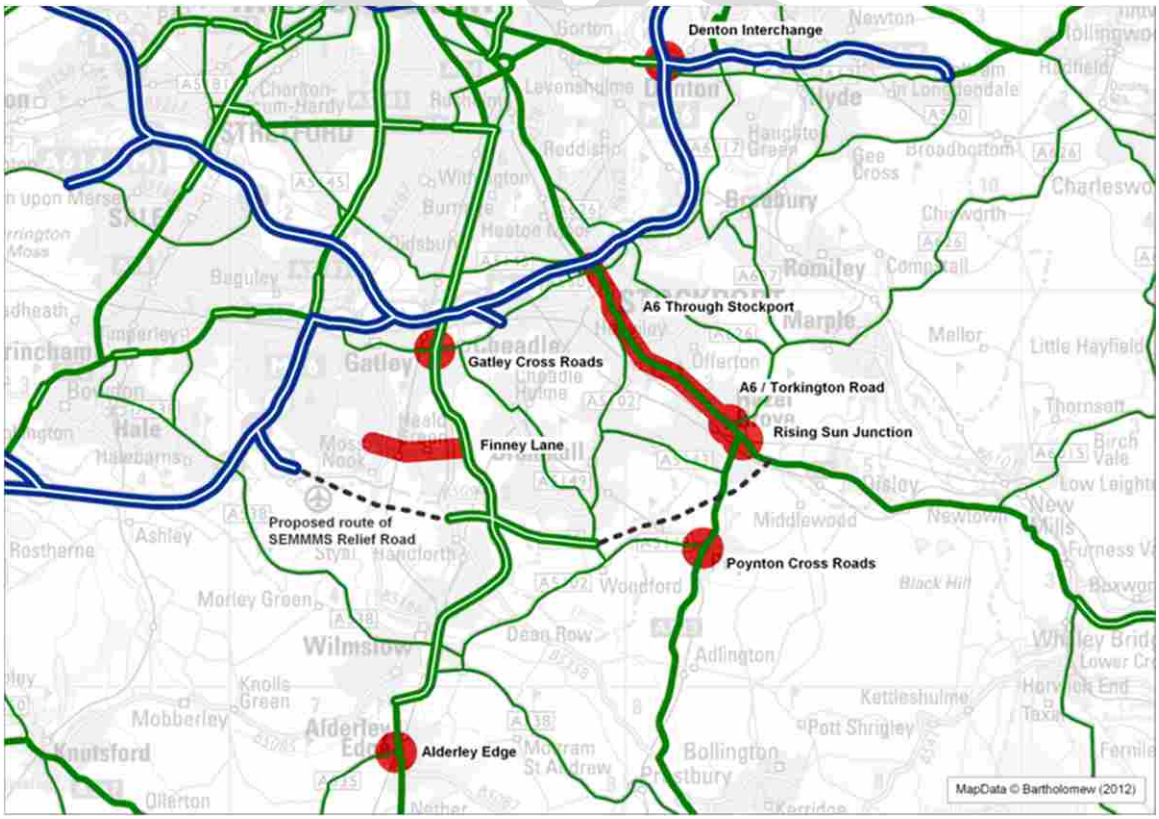
- **Problem 1:** There are particular congestion problems along the A6 and in the urban centres including Bredbury, Hazel Grove and Offerton, leading to delays to public transport and affecting accessibility;
- **Problem 2:** Unsafe conditions for pedestrians and cyclists through busy urban areas along the extent of the south Manchester corridor, with all non-motorised transport users facing severance and problems of safely accessing education, employment and leisure facilities; and
- **Problem 4:** Congestion on the local and strategic network, with average peak hour vehicle speeds of less than 10mph on most parts of the highway network and journey times that are longer than all other 'large' urban areas across the UK, including those in London.

ROAD TRAFFIC CONGESTION: THE SEMMMS PERSPECTIVE

2.4.8 The SEMMMS study, published in 2001, recognised that there were a number of locations in the area that experienced significant traffic congestion and associated environmental impacts. The key locations identified by the study are shown in **Figure 2-8** and the areas relevant to the A6 to M60 scheme are listed below:

- Hazel Grove at the A6/A523 intersection (Rising Sun) and the A6/A627 (Torkington Road);
- The M67/A57 interchange in Denton; and
- The A6 through Stockport.

Figure 2-8: Areas of Significant Congestion and Delay



*Extract from Appendices to the Proof of Evidence of Nasar Malik, A6MARR Public Inquiry

2.4.9 Stockport roads experiences significant congestion, with particular problems along the A6 during peak periods. The UK is currently in breach of the European Ambient Air Quality Directive 2008 (2008/50/EC) in respect of particulate matter (PM10) and Nitrogen Dioxide (NO2) and many of the largest urban areas, including Greater Manchester, have areas which fail to meet emission standards. In Greater Manchester these areas largely mirror the motorway and major local highway networks, many parts of which pass though densely populated urban communities. At the time of compiling this report Defra the Department of Environment Food and Rural Affairs issued a Draft UK Air Quality Plan for tackling NO2 (May 2017) and are awaiting comments at this time.

2.4.10 Stockport Council has declared an extensive Air Quality Management Area (AQMA). The existing concentration of road traffic on the M60, A6 and other roads in the borough generates significant levels of congestion and delay; this - combined with the topography of the area - results in AQMA problems. The AQMA around the Stockport Town Centre, M60 motorway and A6 through Hazel Grove are shown in **Figures 2.9** to **2.11**.

2.4.11 GM's growth aspirations and the likely increasing demand for travel will make the reduction of emissions a greater challenge in the future and it will be essential to increase the proportion of trips by sustainable modes as well as electric vehicle charging.

Figure 2-9: Stockport Town Centre & M60 AQMA

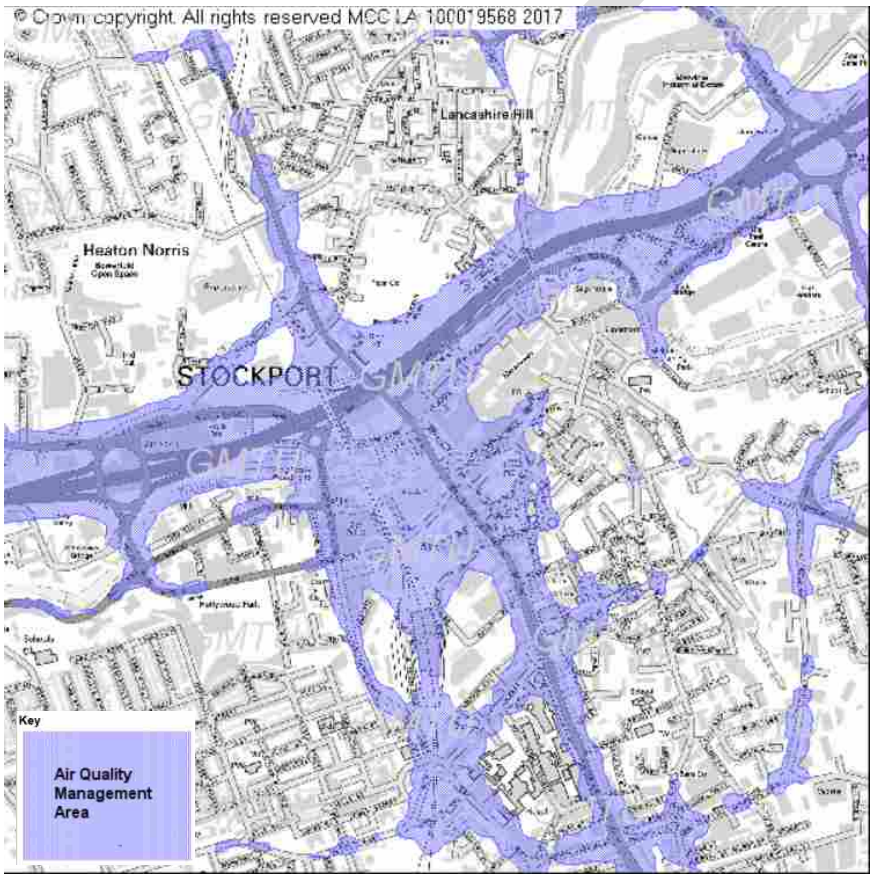


Figure 2-10: M60 Junction 25 and Bredbury AQMA

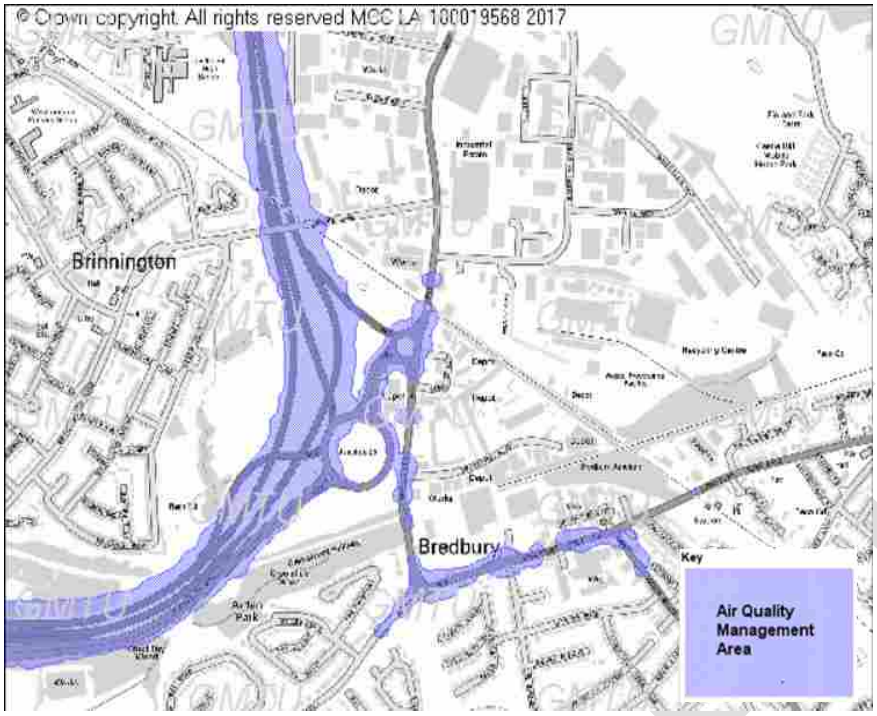
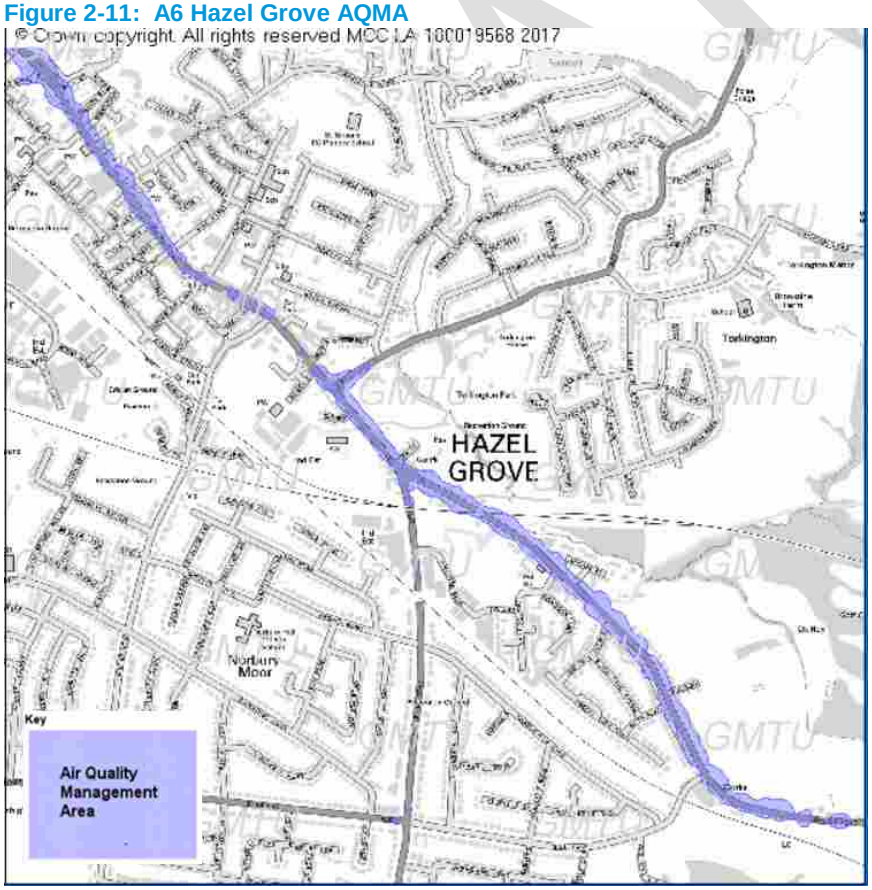


Figure 2-11: A6 Hazel Grove AQMA



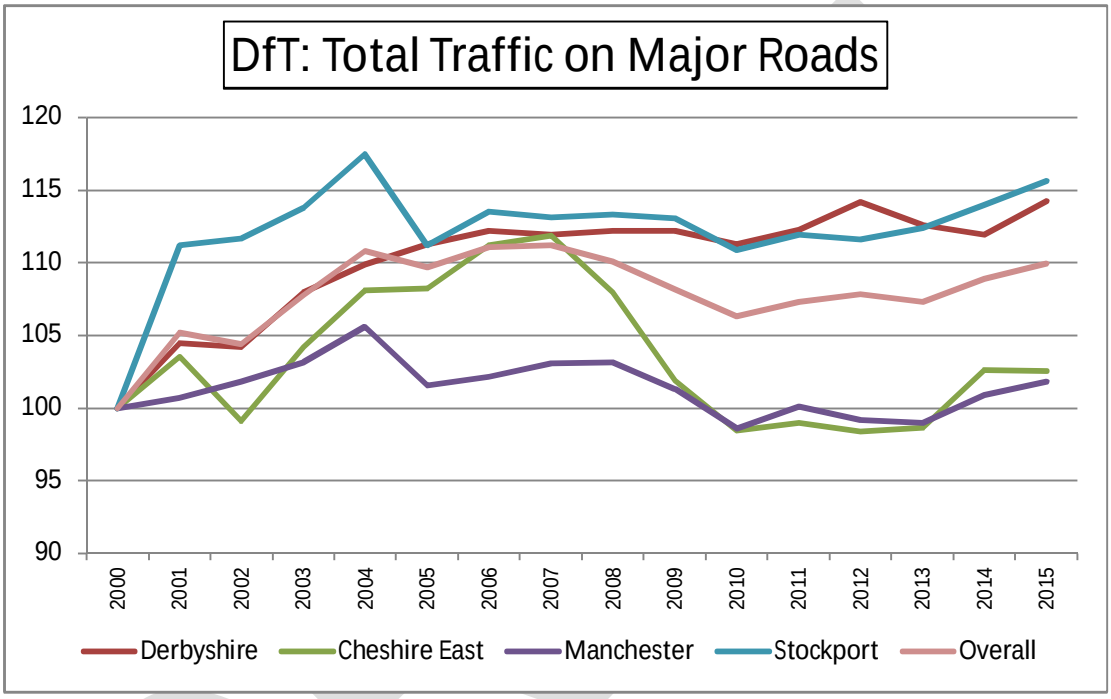
2.4.12 The A6 through Disley also forms an AQMA for Cheshire East Council, extending from the A6 Market Street/ Buxton Old Road crossroads eastwards to the junction with Redhouse Lane in the east.

CHANGE IN TRAFFIC LEVELS SINCE 2001

2.4.13 In order to understand how traffic congestion has changed since the publication of the SEMMM Strategy, it is important to see the change in traffic levels on major roads since 2000/2001. To examine the change in traffic over time, we have taken data from the DfT's traffic monitoring report[8].

2.4.14 **Figure 2-12** shows the total traffic growth on major roads in Stockport and the immediately adjacent local authority areas to the east and west of Stockport. It can be seen from **Figure 2-12** that traffic in Stockport has significantly out-stripped the growth in the adjacent authority areas.

Figure 2-12: Change in Total Traffic on Major Roads 2000 - 2015



CURRENT / RECENT TRAFFIC CONDITIONS

2.4.15 In order to better understand current traffic conditions on the road network in the vicinity of the scheme, **Figure 2-13** shows an overview of typical traffic conditions on the local and strategic road network during the morning peak hour. It can be seen that the highway network is suffering from severe stress, with particular problems along the A6 and in urban centres such as Hazel Grove, while the M60 through Stockport is heavily congested in the peak periods and given the physical constraints, there is limited scope for any capacity improvements. There is, therefore, a need to encourage traffic to use motorway junctions away from the town centre to limit any further impact of traffic growth on the M60 through Stockport town centre.

2.4.16 **Figure 2-14** to **Figure 2-16** show the average vehicle speeds in 2014-2015 for the morning peak, inter-peak and evening peak respectively. These diagrams shows that average vehicle speeds are below 10mph on many routes in the peak hours and remain below 10mph for much of the day along the A6 between Hazel Grove and Stockport town centre. There is also significant congestion, resulting in slow speeds between Hazel Grove and Bredbury and the access routes to Junction 25 of the M60 at Bredbury.

[8] http://www.dft.gov.uk/traffic-counts/area.php?region=North+West

Figure 2-13: Typical Morning Peak Hour Speeds

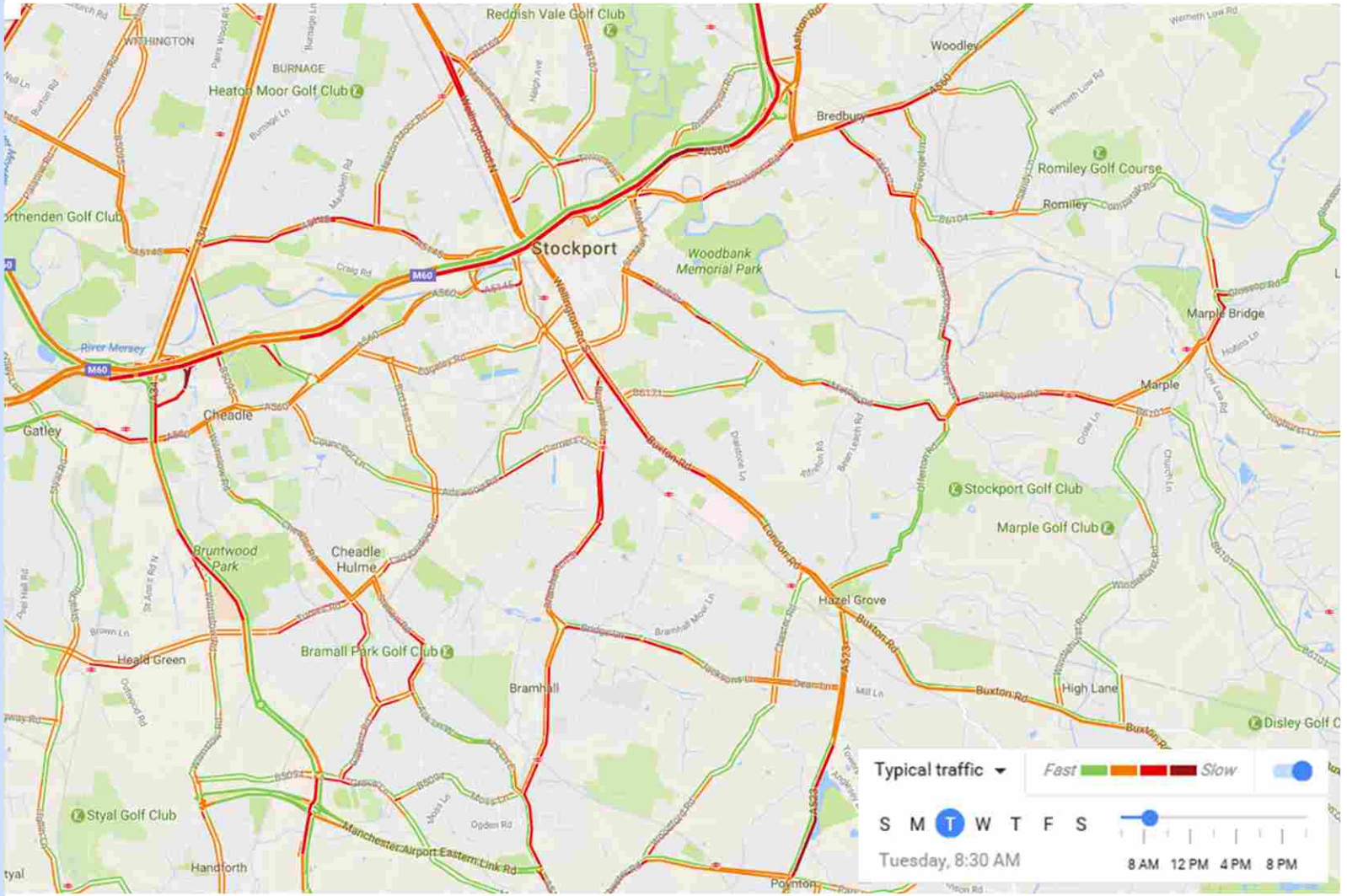


Figure 2-14: Stockport Morning Peak (08:00-09:00) Average Speed by Link – September 2014-August 2015

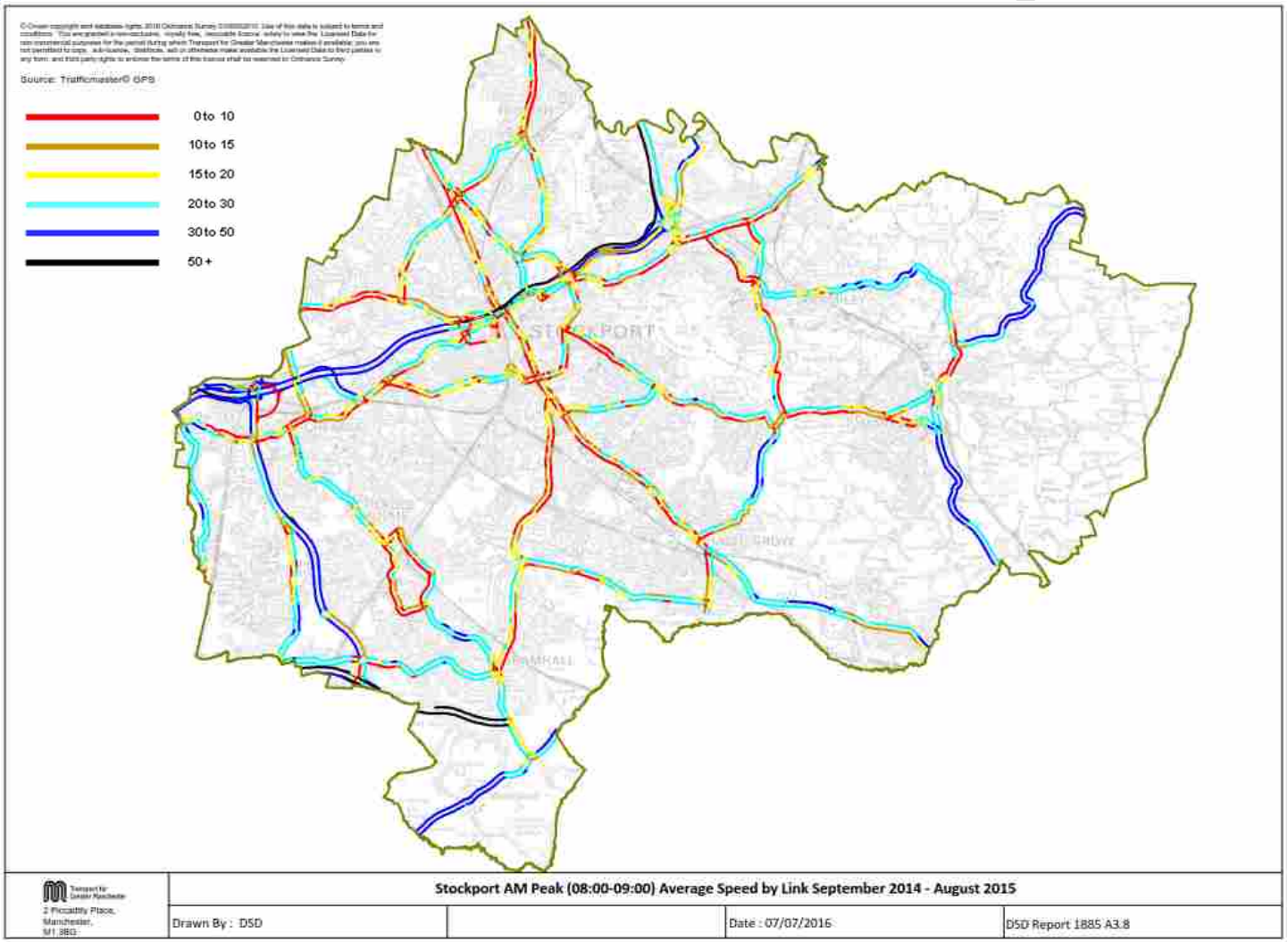


Figure 2-15: Stockport Inter Peak (10:00-16:00) Average Speed by Link – September 2014-August 2015

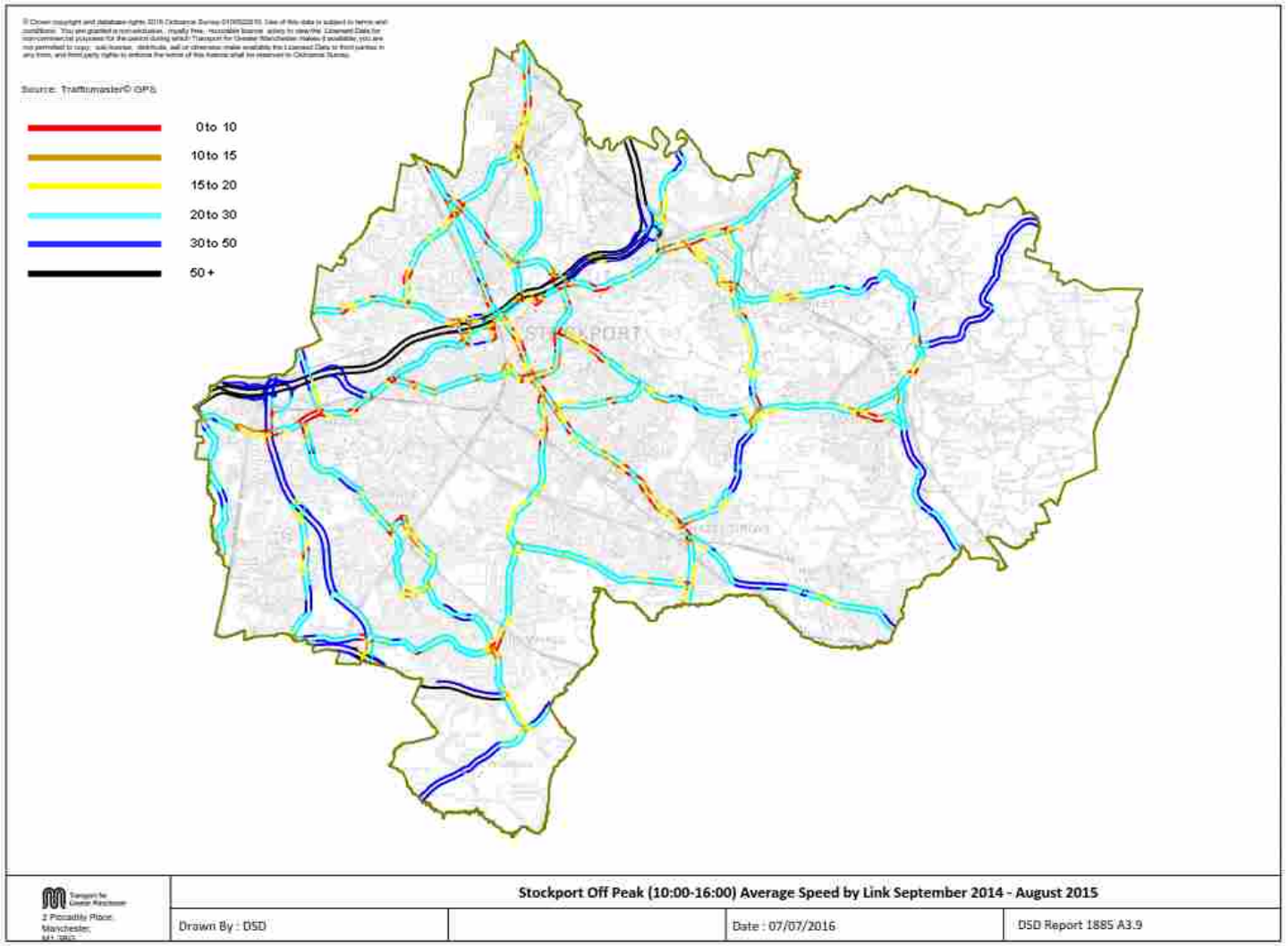
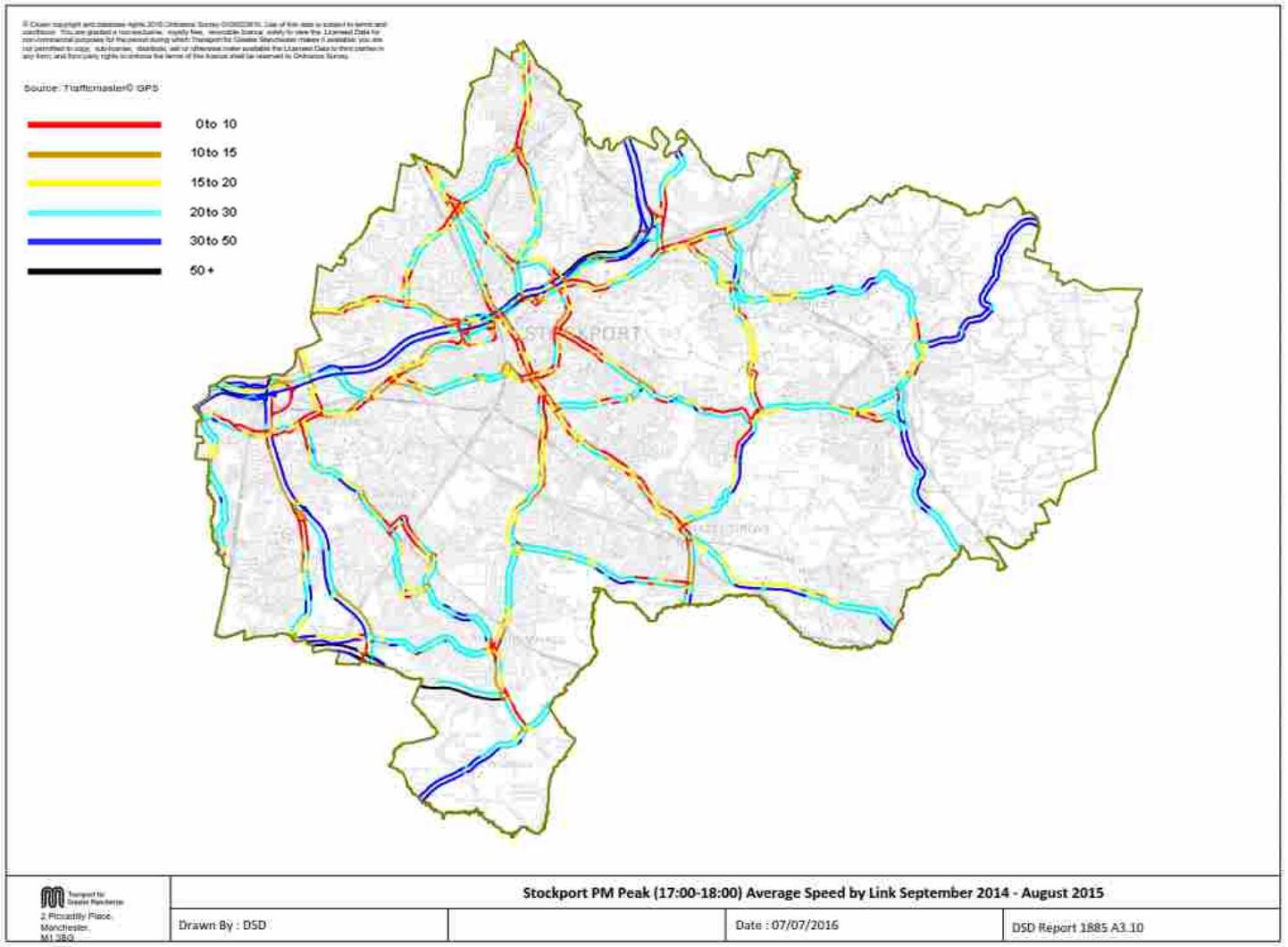
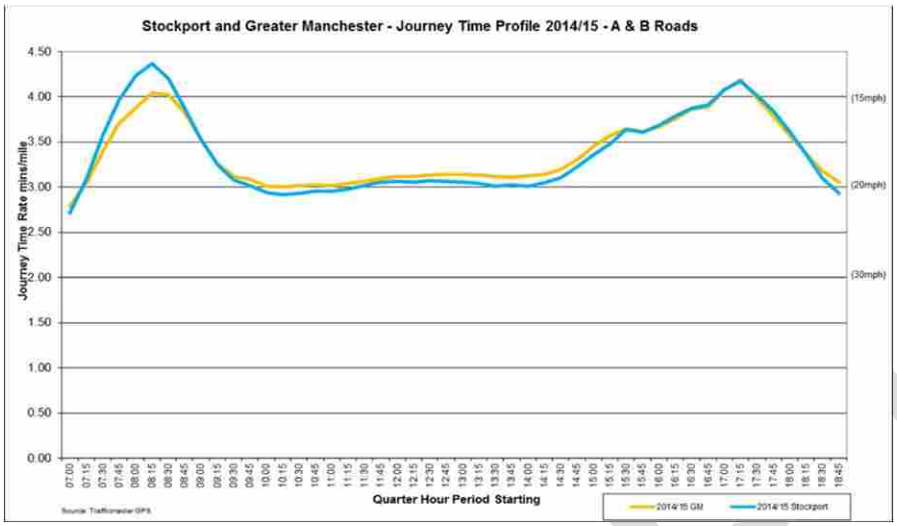


Figure 2-16: Stockport Evening Peak (17:00-18:00) Average Speed by Link – September 2014-August 2015



2.4.17 The journey time profile (minutes per mile) for Stockport across 'A' & 'B' roads shows a higher level of congestion in the morning peak compared to the GM conurbation average with average speeds falling well below 15 mph, as shown in **Figure 2-17**.

Figure 2-17: Stockport and GM Journey Time Profile 2014/15 for 'A' & 'B; Roads



2.4.18 TfGM's target for journey reliability is 90%. Evidence collected for the Key Route Network baseline studies shows in **Figures 2-19** and **2-20** the A6 performing poorly in term of journey reliability in both peak periods, and particularly the evening peak southbound.

ROAD TRAFFIC CONGESTION: THE NATIONAL CONTEXT

2.4.19 The road network in the study area is amongst the most congested in Greater Manchester. To put this into a national context, **Figure 2-18** presents a comparison of journey times on locally managed 'A' roads in Stockport with those across the largest urban areas in England. This shows that Stockport suffers from comparable levels of congestion to Liverpool and Birmingham and a greater level of congestion than Outer London, Newcastle-upon-Tyne, and Sheffield.

Figure 2-18: Average journey times (flow-weighted) during the weekday morning peak on locally managed 'A' roads: annually from 2006/07

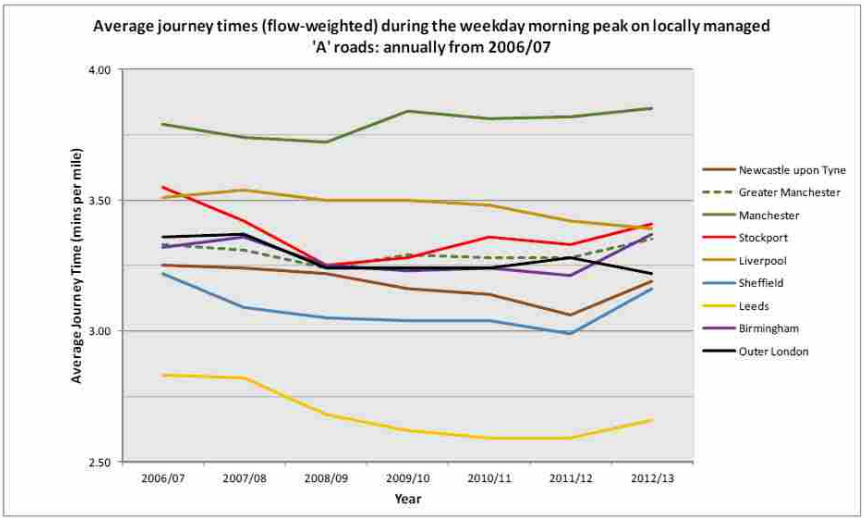
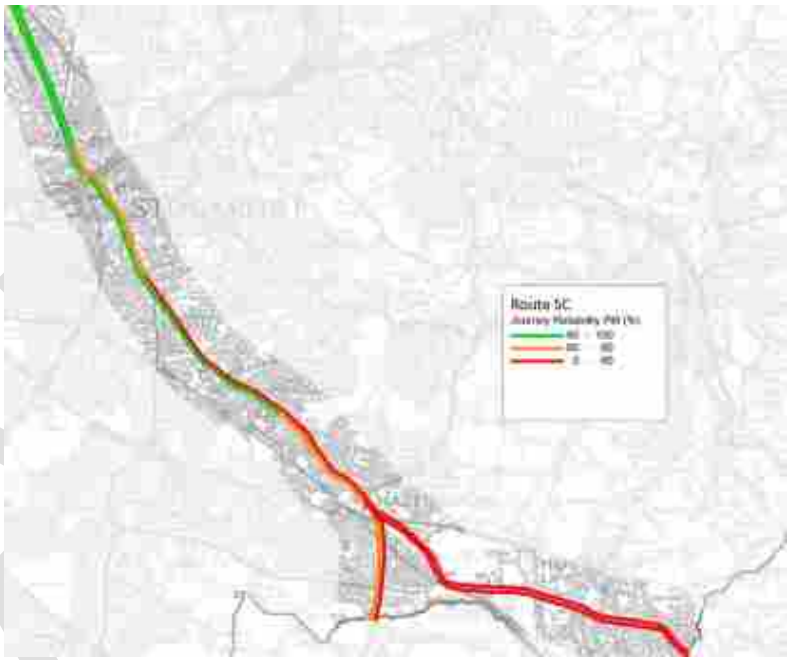


Figure 2-19: Journey Time Reliability – Morning Peak (May 2015)

Figure 2-20: Journey Time Reliability – Evening Peak (May 2015)



Source: KRN Baseline Studies: Southern Segment
TfGM Bluetooth Data May 2015

2.4.20 Returning to the key locations identified in the SEMMMS report (**Figure 2-6**, above):

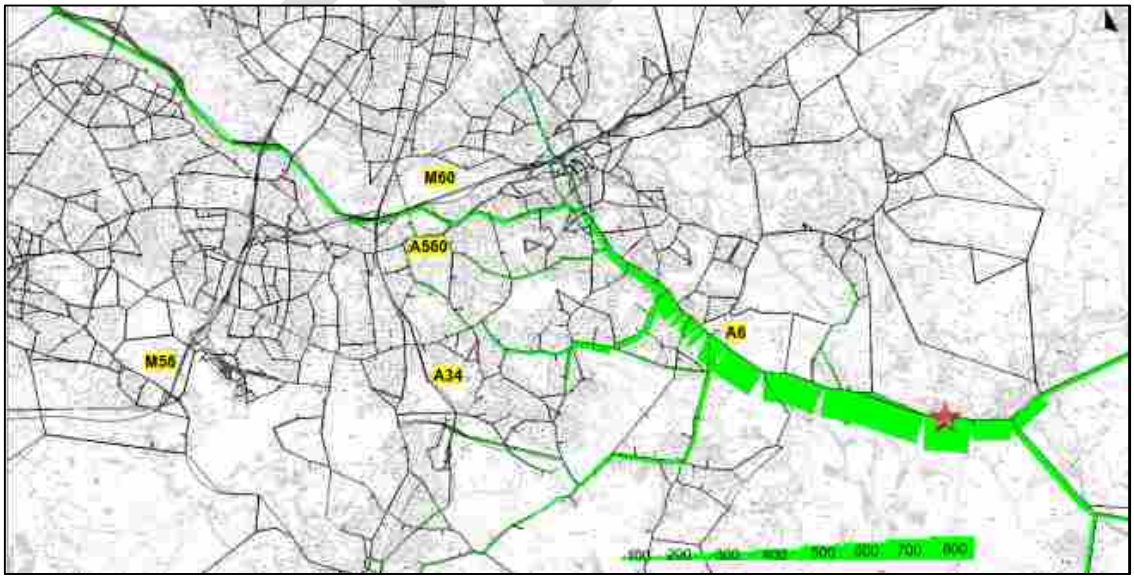
- The Alderley Edge bypass has been built, reducing the traffic problems in Alderley Edge village;
- The A67/A57 Denton Interchange is located on the M60 and not directly affected by the current SEMMMS road scheme proposal;
- The A6MARR is currently under construction and when open, this will resolve the traffic congestion along Finney Lane;
- The currently under development Poynton Relief Road will address the identified problems at Poynton cross-roads; and
- **The proposed A6 to M60 scheme is needed to resolve the traffic congestion problems along the A6.**

2.4.21 It is recognised that there is significant congestion daily, on the south-east quadrant of the M60 and Highways England has plans to implement a Smart motorway scheme along this section. The development of the A6 to M60 Relief Road scheme will need to operate in an integrated manner with the Smart motorway scheme. Discussions have been held with Highways England to ensure the two schemes are properly integrated and will be ongoing as both schemes develop.

JOURNEY PATTERNS ALONG THE A6

2.4.22 In addition to information on the actual traffic volumes and speeds, it is useful to understand the actual origins and destinations of traffic along the A6. **Figure 2-21** (below) presents the modelled journey pattern of west-northbound traffic on the A6, while **Figures 2-22** and **2-23** (overleaf) present the roadside interview postcode origins and destinations for light vehicles and goods vehicles using the A6 in a south-eastbound direction through Disley.

Figure 2-21: Routeing of Westbound Traffic on the A6 – 2009 Morning Peak



Source: Appendices to the Proof of Evidence of Nasar Malik, A6MARR Public Inquiry

2.4.23 The postcode plot for light vehicles shows that the majority of south-eastbound trips on the A6 through Disley originate from areas of Greater Manchester south of the M60 with a concentration from areas adjacent to the A6 through Stockport. This would imply that for longer distance commutes and leisure trips, car is not the mode of choice, with most people electing to use the train where practical, as people look to avoid traffic conditions on the A6. The dispersed nature of the origins and destinations for traffic that does use the A6, however, means that these

movements cannot be adequately catered for by public transport alternatives.

Figure 2-22: A6 Disley RSI Data – South-Eastbound Light Vehicles

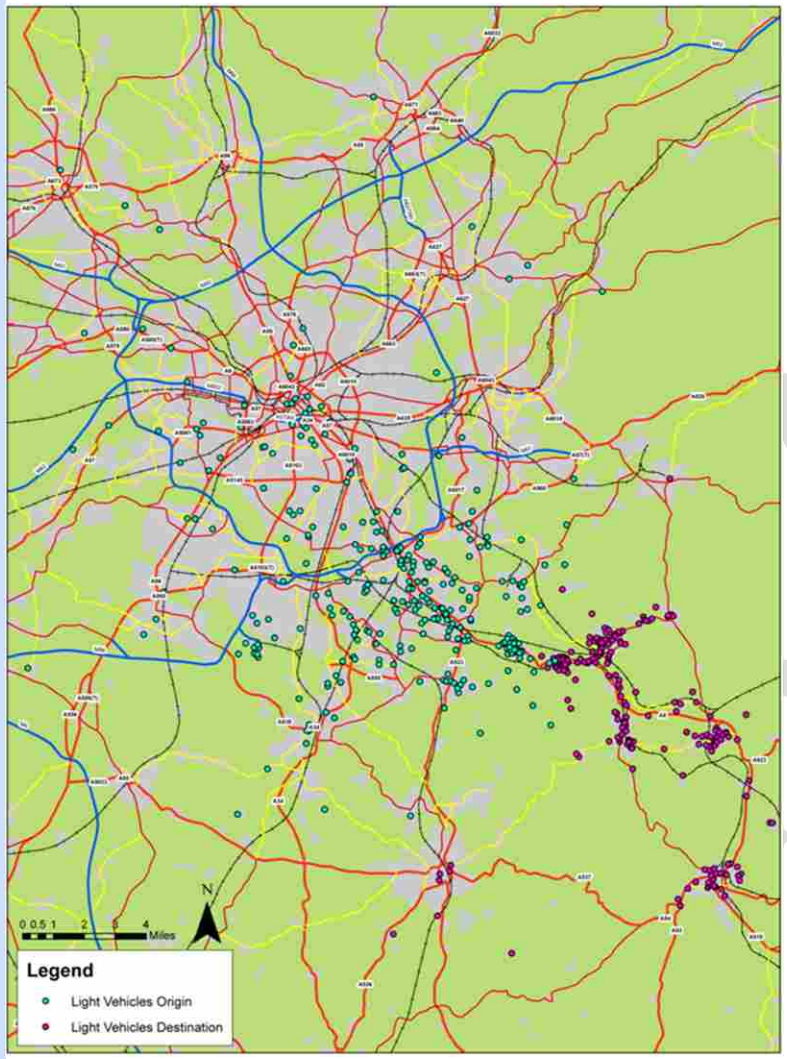
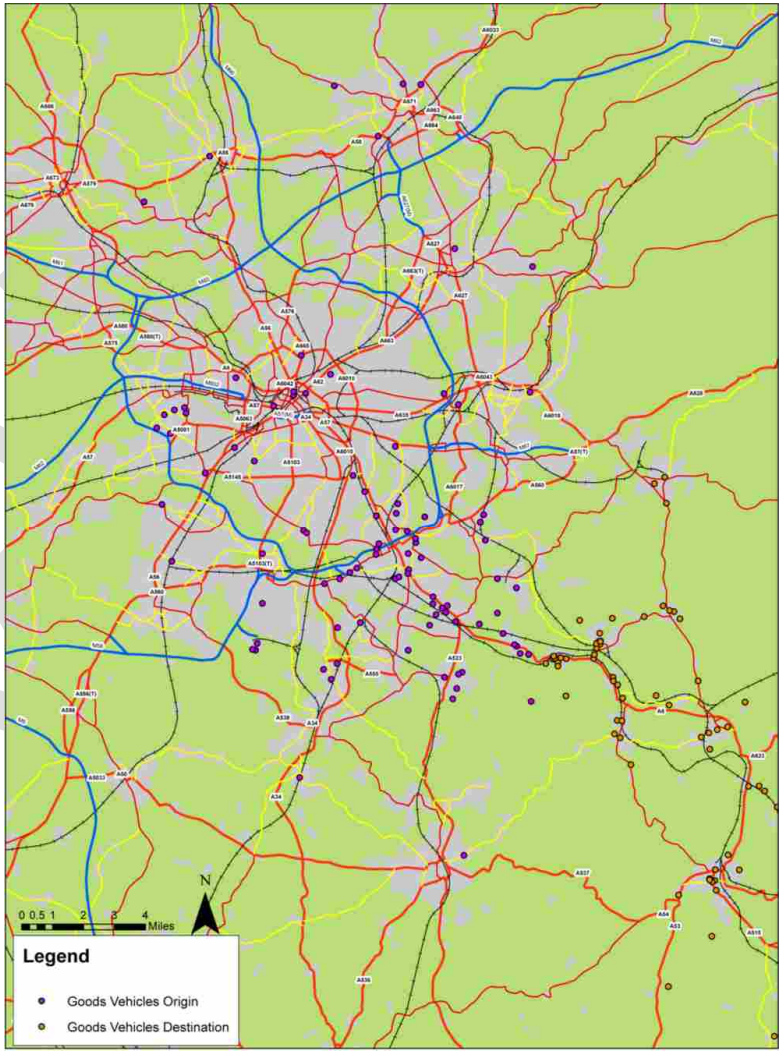


Figure 2-23: A6 Disley RSI Data – South-Eastbound Goods Vehicles



ROAD SAFETY

2.4.24 Accident data collated by Transport for Greater Manchester (TfGM) for the period 2013 to 2015 presents evidence of accident clusters across the local highway network within the Stockport Council local authority area.

2.4.25 **Figure 2-24** presents the location of all road injury accidents by severity type (slight, serious and fatal) across the highway network. This shows a concentration of accidents on the A6, notably between Hazel Grove and M60 motorway.

2.4.26 In terms of 'killed and seriously injured' (KSI), pedestrian and pedal cycle accidents, Figures 2-25 and 2-26 (which separately identify child and adult accidents) respectively show a concentration of KSI and pedestrian/ pedal cycle accidents on the A6 between the Hazel Grove and M60 motorway, mainly involving adults.

2.4.27 **Table 2-1** below summarises the accidents to have occurred within a 40m buffer of the A6 corridor, for the section within the SEMMMS Refresh core study area (see **Figure 2-34**).

Table 2-1: A6 Accident Summary (Aug 2011 to July 2016)

	2011*	2012	2013	2014	2015	2016*	Total	
Total Accidents	31	60	47	40	32	18	228	
Fatal	0	0	0	1	0	1	2	0.9%
Serious	5	10	4	8	6	6	39	17.1%
Slight	26	50	43	31	26	11	187	82.0%
Accidents involving cyclists	1	6	0	1	5	1	14	6.1%
Accidents involving pedestrians	12	14	13	8	9	7	640	28.1%

Source: STATS19 data sourced from TfGM and CEC
Note the date range used – 2011 and 2016 years are partial.

2.4.28 A number of key clusters are identified within the route, as follows:

- 44 incidents around Hazel Grove – Dialstone Lane to A523 Macclesfield Road (11% serious);
- 10 incidents at the A6/A5102 Bramhall Lane junction (10% serious);
- 36 incidents in the southern section through Stockport Town Centre – Longshut Lane to Exchange Street (3% fatal and 11% serious);
- 20 incidents in the northern section through Stockport Town Centre – Exchange Street to Belmont Way (15% serious); and
- 23 incidents around Heaton Chapel – Warwick Road to Milwain Drive (9% serious).

Figure 2-24: Road Injury Accidents in Stockport 2013-2015

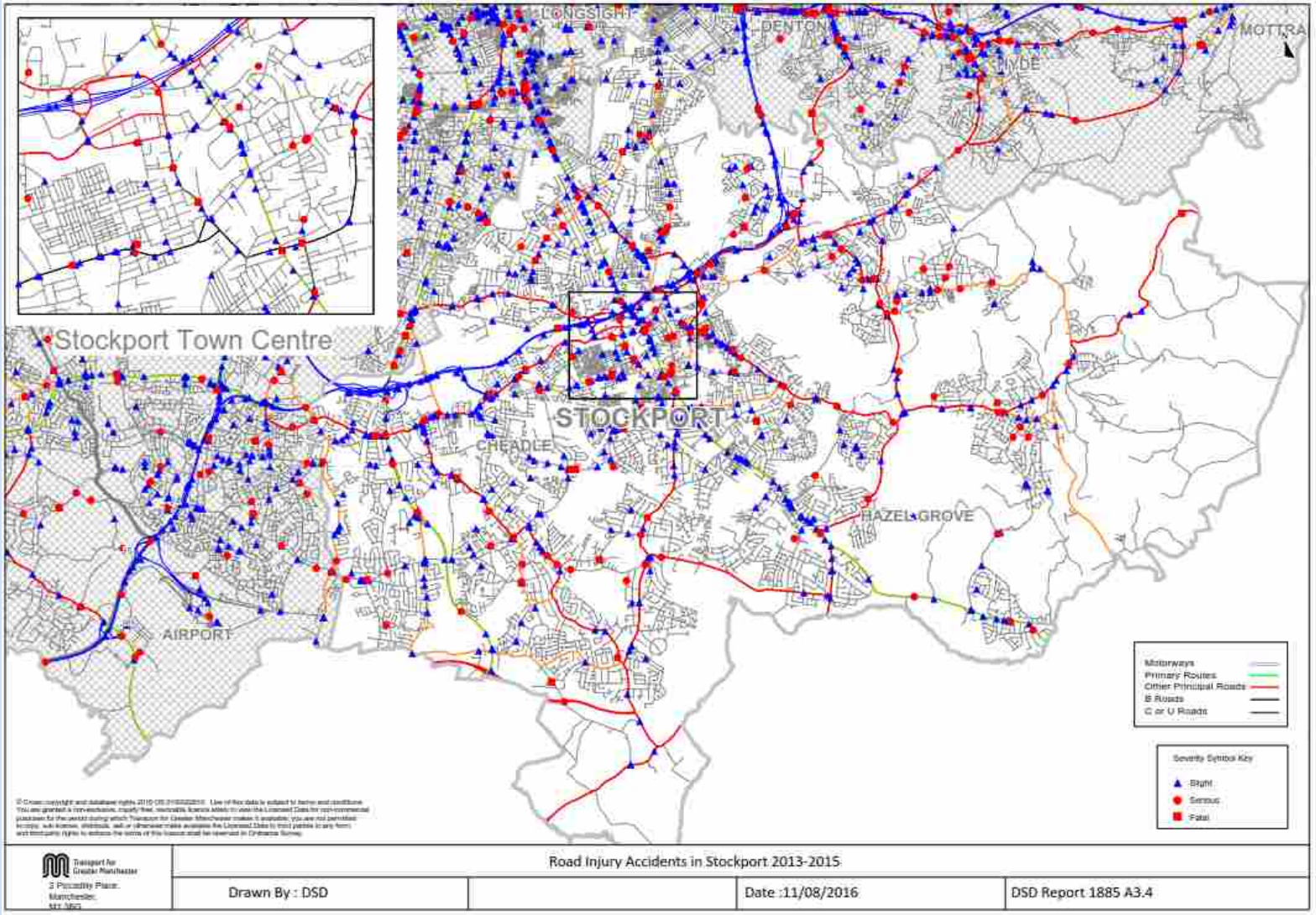


Figure 2-25: Child and Adult Killed and Seriously Injured Road Accidents in Stockport 2013-2015

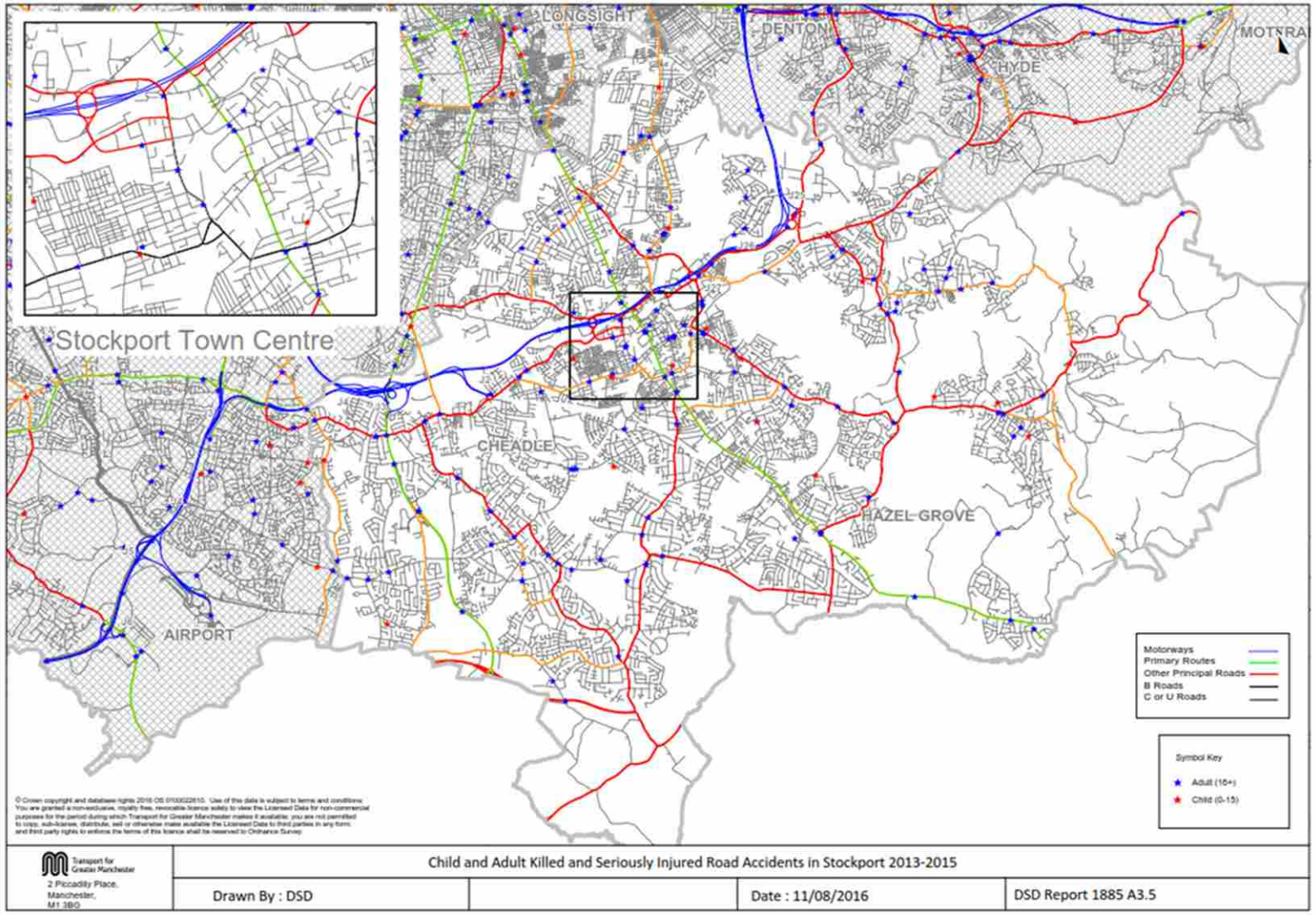
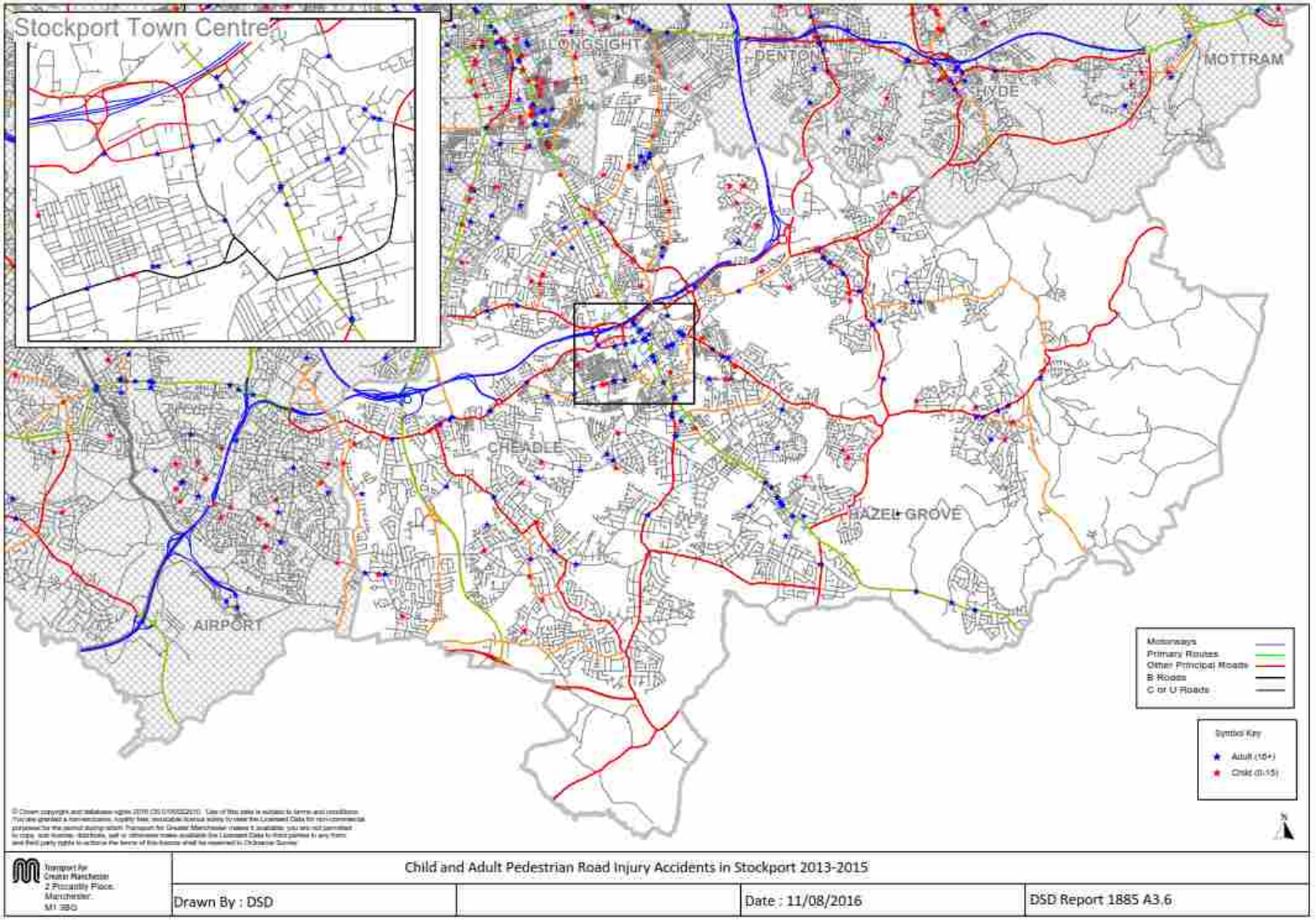


Figure 2-26: Child and Adult Pedestrian Road Injury Accidents in Stockport 2013-2015



WELLBEING AND LOW CARBON ECONOMY

2.4.29 Public health levels remain a worrying characteristic in many of the most deprived communities with ill health being one of the main causes of worklessness in Greater Manchester. Coronary heart disease and obesity, both of which are linked to inactivity, are priority local public health concerns - seven out of the ten Greater Manchester districts record Cardio Vascular Disease levels higher than the national average. Data collated through the 2012 Active People Survey (commissioned by Sport England) indicated that 21.5% of adults in the Stockport district were classified as obese. This compared to an average 24.2% across Greater Manchester and 23.0% for England as a whole. Amongst children, 17.1% of year 6 (age 10-11) children in Stockport were classified as obese, compared to 19.9% across Greater Manchester and 18.9% for England (as measured through the National Child Measurement Programme).

2.4.30 Increasing the levels of walking and cycling will be important in tackling these issues. Through targeted investment in infrastructure and supporting revenue activities, cycling numbers have increased by 17% since 2005 and in Manchester city centre, public transport, cycling and walking now account for 70% of morning trips, compared to 61% in 2002. A further challenge for Greater Manchester is therefore to continue to increase this trend of people utilising healthier modes of transport for their journeys. This will depend, to a large extent, on making the network safer for active travel and to build people's confidence in walking and cycling.

2.4.31 National carbon targets (Climate Change Act 2008) are for a 34% cut in emissions by 2020 (on 1990 base) and an 80% cut in emissions by 2050. However, the Greater Manchester Climate Change Strategy, adopted in 2011, contains a more ambitious target, of 48% in overall emissions between 1990 and 2020.

2.4.32 Greater Manchester's growth aspirations and the likely increasing demand for travel will make the reduction of emissions a greater challenge in the future and it will be essential to increase the proportion of trips by sustainable modes and encourage the adoption of more sustainable fuels.

2.4.33 The Greater Manchester Local Transport Plan (LTP), The Greater Manchester Low-Emission Strategy, Air Quality Action Plan and Climate Change and Low-Emission Implementation Plan have been developed in a bid to reduce health impacts from poor air quality in the Greater Manchester conurbation.

2.4.34 Collectively, they set out the actions and policies required to meet demanding environmental targets that will ensure the continued economic growth of the UK's foremost city regions does not come hand-in-hand with a rise in air pollution and carbon emissions. Measures include making more of the region's buses environmentally friendly, exploring the feasibility of a Clean Air Zone, increasing the number of electric vehicle charging points, more cycling infrastructure, and supporting sustainability in the freight and logistics sector.

2.4.35 GM Mayor Andy Burnham has also appointed Stockport Council leader Cllr Alex Ganotis to drive Greater Manchester's ambition to be a world-leading green city-region and lead on GM's efforts to improve and protect the environment, green spaces and air quality.

2.4.36 Mayor Burnham also plans to publish a new plan to tackle congestion and commission an urgent review of the condition and configuration of our busiest roads, working with businesses, road users and Transport for Greater Manchester to see what quick changes can be made to improve traffic flows.

2.4.37 The delivery of a comprehensive GM cycle strategy including infrastructure and support measures will ensure that cycling is a real option for commuters within a future low carbon economy. The target is to secure at least a three-fold increase in the levels of cycling across Greater Manchester by 2025, and to see the proportion of trips by bicycle increase to 10% over the next 12 years. The forecast reduction in traffic levels on the A6 as a result of the A6 to M60 Relief Road would make

the A6 a more attractive route for cycling.

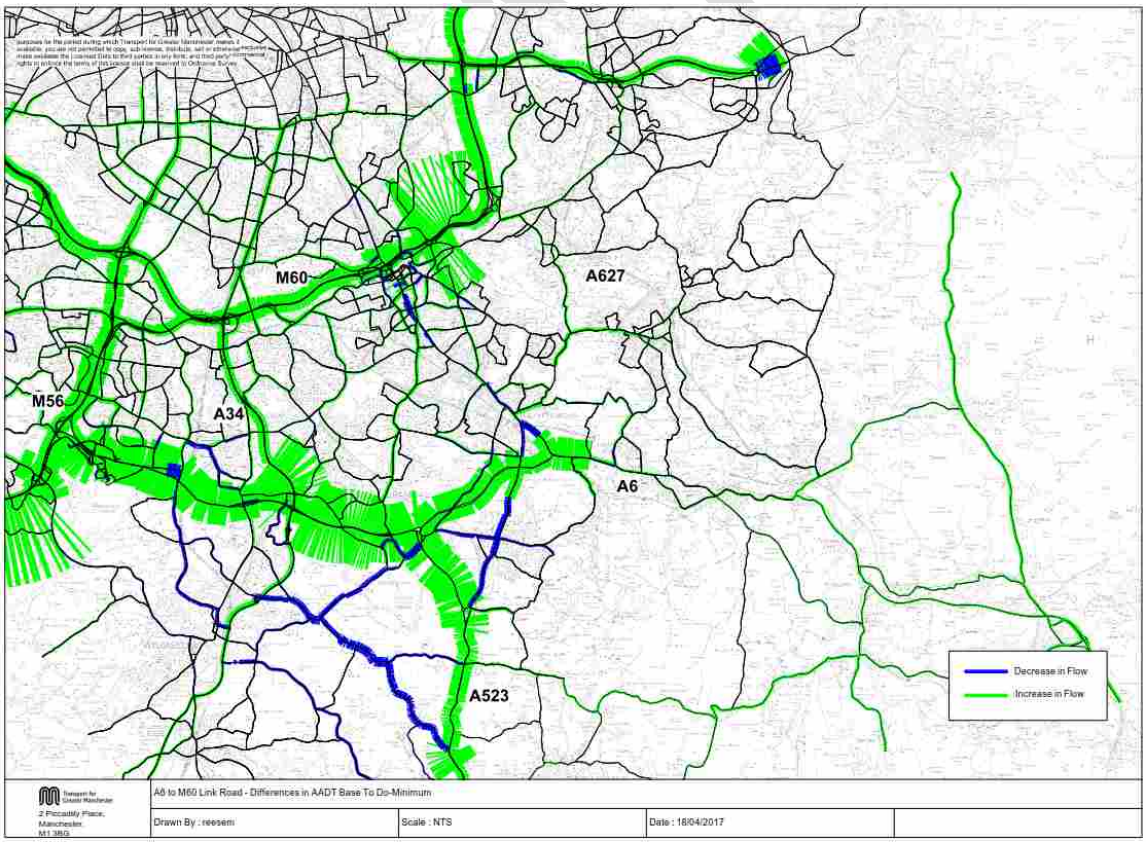
FUTURE TRAFFIC TRENDS

2.4.38 Phase 1 of the SEMMMS Road scheme, running between the A6 south-east of Hazel Grove to Manchester Airport, is currently under construction. This scheme, when complete, is expected to lead to a reduction in traffic flows along the A6 between Hazel Grove and the M60; the section that would be 'bypassed' by the proposed A6 to M60 Relief Road scheme. The A6MARR scheme is forecast to reduce flows along the A6 by between 15% and 25% over the day but with slightly smaller reductions during the peak hours.

2.4.39 Even with the reduction in traffic flows following the completion of the A6MARR scheme, this section of the A6 is predicted to be carrying over 30,000 vehicles per day through the residential and commercial areas of Hazel Grove. Thus, whilst there will be an improvement in conditions along the A6, the route is still expected to remain congested. The level of reduction in traffic predicted will be insufficient to reduce the A6 to a single running lane in each direction or to allow for any meaningful re-allocation of road space. This will require further intervention to reduce traffic levels.

2.4.40 As evidenced in **Figure 2-27** overleaf the traffic benefits associated with completion of SEMMMS Relief Road Phases 1 & 2: A6MARR and Poynton Relief Road schemes will have largely been eroded by 2024 compared to 2016 base year traffic flows.

Figure 2-27: A6 to M60 Relief Road – Differences on Annual Average Daily Traffic (2016 Base Year to 2024 Do-Minimum without A6 to M60)



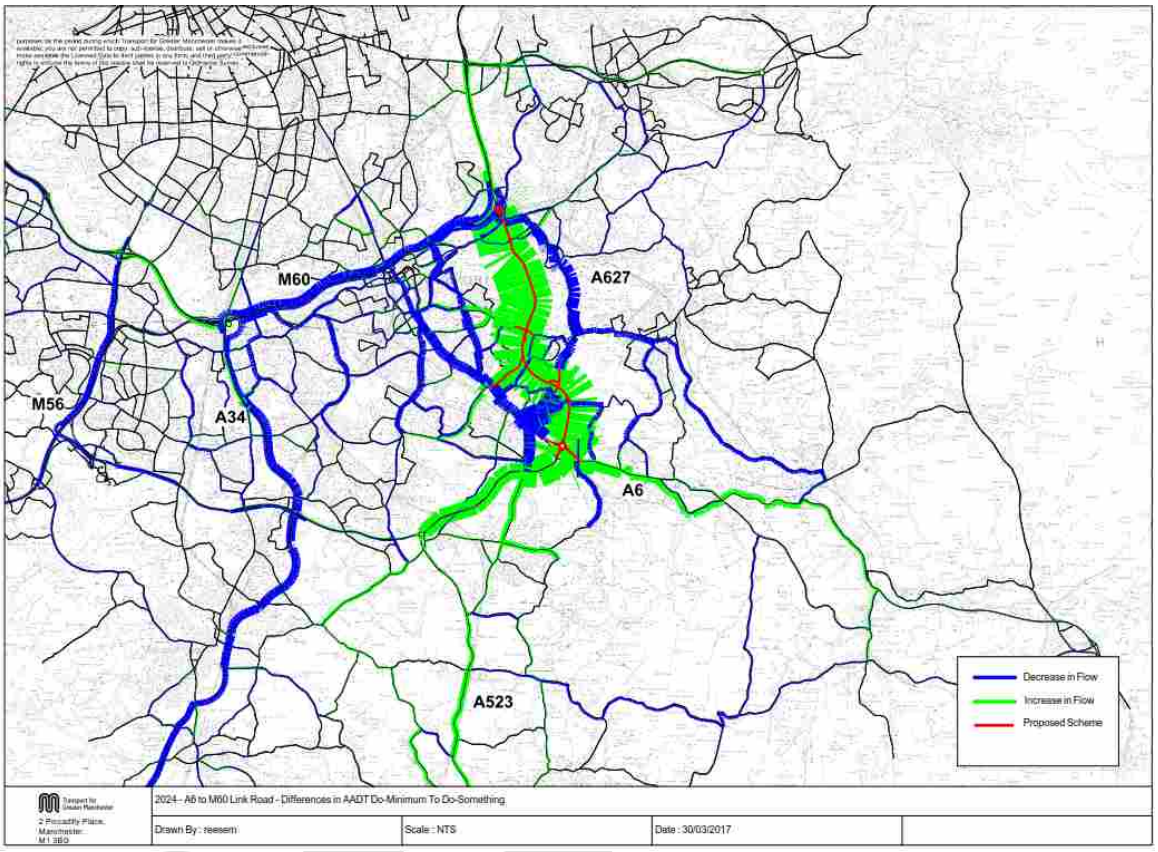
IMPACT OF THE A6 TO M60 RELIEF ROAD SCHEME

2.4.41 Completion of this final phase of the SEMMMS Relief Road scheme will provide:

- Improved access to M60 and strategic road network from south east Manchester including improved route options for road freight traffic;
- Improved access to Bredbury Park Industrial Estate.
- Improved access to the NHS and its health care services at Stepping Hill Hospital;
- Improved surface access to Manchester Airport, including the opportunity for high standard orbital public transport connections;
- Improved access to Stockport Town Centre through reduced travel times.
- Improved highway network resilience across south east Manchester better able to respond to accidents/ incidents;
- Reduced traffic volumes and associated delays through Stockport Town Centre and local centres which will reduce severance and improve the local built environment and safety;
- Improved traveller safety and wellbeing as more people utilise active modes due to the implementation of new dedicated cycling and pedestrian infrastructure; and
- Environmental mitigation measures designed to minimise the impact and enhance the benefits of the scheme.

2.4.42 The impact of the A6 to M60 Relief Road scheme on 2024 future year daily traffic flows is presented in **Figure 2-28** below. The plot shows flow differences represented by variable width bands, where the width of the band is proportional to the magnitude of the change. Increases in daily traffic flows are shown in green and decreases in blue.

Figure 2-28: A6 to M60 Relief Road – Differences on Annual Average Daily Traffic (2024 Do-Something with A6 to M60 minus Do-Minimum without A6 to M60)



2.4.43 Reduced traffic volumes are predicted on:

- M56/A5103 Princess Parkway between M56 Junction 6 and M60 Junction 5;
- M60 between Junction 27 at Bredbury and M56 Spur;
- A6 between Hazel Grove and M60;
- A34 south of M60;
- A523 Macclesfield Road between A555 (A6MARR) and A6 at Hazel Grove;
- A626 Stockport Road between A627 and Marple;
- A626/ B5465 St Marys Way between A6 and M60 Junction 27 at Portwood;
- A627 Offerton Road between A6 at Hazel Grove and A560 at Bredbury;
- A5102 Bramhall Lane between A6 and Bramhall;
- B6101 Strines Road between Marple and New Mills;
- Dialstone Lane between A6 and
- Windlehurst Road/ Hibbert Lane between High Lane and Marple.

2.4.44 Increased traffic volumes are predicted on:

- M60 between M56 spur and A5103 Princess Parkway;
- M60 between Junction 25 at Bredbury and Junction 24 at Denton;
- A6 between Hazel Grove and New Mills;
- A523 Macclesfield Road between A555 (A6MARR) and Poynton crossroads
- A523 London Road south of Poynton Relief Road
- A555 (A6MARR) between A6 and Poynton Relief Road.

THE CASE FOR THE A6 TO M60 SCHEME: SUMMARY

2.4.45 Traffic congestion, unreliable journey times and poor highway network resilience across south east Manchester. Examination of the DfT's traffic monitoring for major roads shows that there has been an approximately 15% increase in traffic on major roads in Stockport since the publication of the SEMMMS report. The growth in traffic levels in Stockport is significantly greater than the growth in adjacent local authority areas.

2.4.46 The existing highway network is acting as barrier to economic growth & regeneration, and in particular adjacent to the A6 in Stockport Town Centre. Traffic benefits associated with completion of SEMMMS Relief Road Phases 1 & 2: A6MARR and Poynton Relief Road schemes will have largely been eroded by 2024 compared to existing traffic levels.

2.4.47 The A6 is part of the national Primary Route Network (PRN), as well being identified within the TfGM Key Route Network (KRN) and the TfN Major Road Network (MRN), and provides a strategic link between Greater Manchester and key towns in north Derbyshire including Buxton, Matlock and Chapel-en-le-Frith. It also serves New Mills, Whaley Bridge and a number of smaller settlements including High Lane and Disley. The A6 is also a major access route for the Peak District National Park.

2.4.48 The mix of local and strategic traffic is one of the major causes of congestion on A6 through Stockport Town Centre and Hazel Grove, namely:

- A6 is a quality bus corridor operating the most frequent single bus service in Greater Manchester (the 192) and carrying almost 10 million passengers per year;
- Road freight traffic from Derbyshire/ Peak District to the M60, distribution centres and other destinations across the North West;
- Commuter and business travel between Cheshire and parts of Manchester; and
- Local commuting and leisure trips accessing the Peak District.

2.4.49 These travel patterns have a direct impact on the ability of the transport network to provide efficient connectivity and access to markets and jobs. It also means that the local communities that it passes through are faced with high volumes of traffic and heavy goods vehicles, creating a poor environment in terms of amenity, severance, air quality and noise and problems of highway safety for all road users.

2.4.50 The analysis of traffic speeds and delays confirms the very congested travel conditions on the study area road network. Comparison against journey times in other major cities shows that the local traffic conditions are amongst the worst nationally. Journey time reliability on roads and public transport is essential, reducing the cost to business of delayed deliveries and employees arriving late. The cost of congestion in Greater Manchester has been estimated by TfGM to be £1.3 billion per year.

2.4.51 The existing concentration of road traffic on the M60, the A6 and other roads in the borough

generates significant levels of congestion and delay; this - combined with the topography of the area - results in local air quality problems. National carbon targets are for a 34% cut in emissions by 2020 (on 1990 base) and an 80% cut in emissions by 2050. However, the Greater Manchester Climate Change Strategy, adopted in 2011, contains a more ambitious target, of 48% in overall emissions between 1990 and 2020. GM's growth aspirations and the likely increasing demand for travel will make the reduction of emissions a greater challenge in the future and it will be essential to increase the proportion of trips by sustainable modes.

2.4.52 The delivery of comprehensive GM cycle strategy including infrastructure and support measures will ensure that cycling is a real option for commuters within a future low carbon economy. The target is to secure at least a three-fold increase in the levels of cycling across Greater Manchester by 2025, and to see the proportion of trips by bicycle increase to 10% over the next 12 years.

2.4.53 Analysis of journey to work patterns shows that the movements between Stockport and Manchester and Stockport and Cheshire East are the two largest cross-boundary movements in the area. It is evident that the majority of through trips into the Regional Centre are already made by the good public transport services – some of which suffer from over-crowding.

2.4.54 Roadside interview data and select link analyses confirm this and show that the majority of traffic along the A6 south of Hazel Grove is accessing areas off the A6 or accessing the M60 motorway. The analysis shows the dispersed nature of origins and destinations, confirming that the majority of trips could not be catered for by the provision of any practical public transport alternative.

2.4.55 The road accidents statistics show a significant number of accidents along the A6 through Hazel Grove and Stockport town centre, as well as along east west routes such as the A560 through Cheadle and Finney Lane through Heald Green.

2.4.56 It is clear from the evidence presented that the problems which the SEMMMS Road Schemes were recommended to address, still remain and in many cases have become worse since the SEMMM Strategy was published in 2001. The A6 to M60 Relief Road scheme would remove unnecessary traffic from the A6, freeing up the road for public realm improvements as well as enabling more use by sustainable transport modes. The removal of a large volume of traffic from the A6 will reduce the current substantial severance caused to pedestrians and this in turn would improve road safety.

2.4.57 Based on the review of contemporary traffic and travel data, a compelling case remains for the A6 to M60 Relief Road scheme as set out in the original SEMMM Strategy.

2.5 POLICY/ STRATEGY ALIGNMENT

NATIONAL POLICY

2.5.1 The Department of Transport's (DfT) transport vision is as follows,

> "This government is investing to make journeys better: simpler, faster and more reliable. Our plan will support jobs, enable business growth, and bring our country closer together."

2.5.2 As part of this vision, the DfT have identified a number of objectives which transport investment should contribute towards. These are:

- **Boosting economic growth and opportunity** – Transport is essential to the economy, as it facilitates the movement of people and goods, and provides the connection between homes and businesses. Quality transport links can therefore be seen to increase consumer choice, reduce employment, and increase competition within the market;
- **Building a One Nation Britain** – Transport has the potential to combat current inequalities in economic growth between the South East and the rest of the UK. Increasing connectivity will provide improved access to the economy, and will facilitate the movement of people, goods and services throughout the country. Key to achieving this is a drive towards localism, which will provide local people with the opportunity to direct transport investment towards issues which will make a difference in their lives;
- **Improving journeys** – The reliability of the UK's transport system is at the heart of people's everyday travel experiences. Investment in transport will therefore aim to improve people's everyday experiences of travel, be it through the construction of new roads and railways to provide a network fit for the 21st century, the repair and maintenance of existing networks to ensure their continued suitability and reliability, or the modernisation of the existing network through the application of technologies such as Smart Ticketing or Smart Motorways; and
- **Providing safe, secure and sustainable transport** – It is of vital importance that the UK transport network is safe and secure so it can be accessed with confidence by all users. Safety and security of the transport network is an increasing issue due to a range of threats, such as terrorism, climate change, and extreme weather events. It is important to ensure the transport network is safe and resilient under all environmental, social and political conditions. This will be achieved through a range of measures which will promote new technologies and a strategy to ensure a secure, fit for purpose transport network is available to all users.

SUB-NATIONAL POLICY

2.5.3 Transport for the North is empowered by a pan-Northern Partnership representing political and business leaders from all areas of Northern England, working together with Highways England, Network Rail, HS2 Ltd and DfT. The North of England is home to internationally regarded assets, expertise, research and businesses that are pan-regional, highly productive and compete at a national and international scale. However, to date there has been a persistent economic gap between the North and the national average that necessitates a radical change in the economy of the North.

2.5.4 The *Northern Powerhouse Independent Economic Review*, published in June 2016, set out that by 2050, in a transformed North:

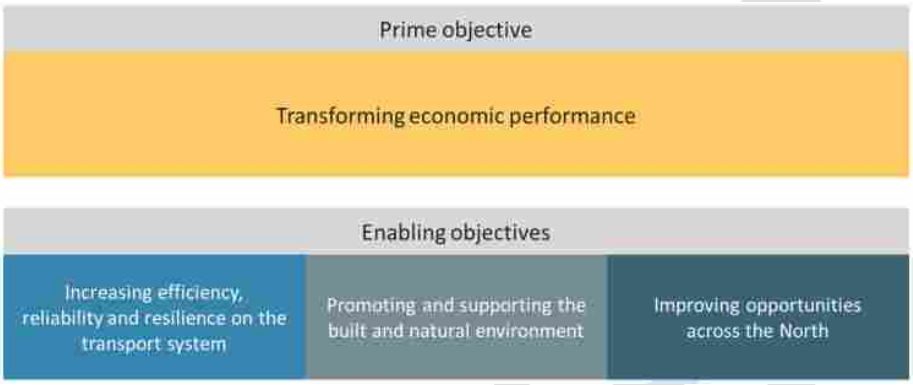
- GVA is projected to be 15% (£100 billion) higher than business as usual projections;
- Productivity would be 4% higher; and
- 850,000 additional jobs would be created.

2.5.5 The *Review* identified that improving connectivity is essential to seizing the economic prize,

identifying that co-ordinated planning and investment, across the North will create a more attractive and buoyant marketplace. The recommendation was the transformation of connectivity between and within the economic centres of the North through a long term investment programme; a programme that people and businesses can see as a firm commitment to create a stronger, more diverse and resilient place to live and do business.

2.5.6 In response to the Review, TfN is developing a Strategic Transport Plan and TfN Investment Programme for public consultation in autumn 2017. The plan is intended to be adopted in 2018. It will be TfN's principal policy document, and will become the plan of the statutory body once TfN becomes a Sub-National Transport Body (STB). The Strategic Transport Plan will be used to articulate how Government, Network Rail, Highways England and High Speed Two (HS2) Ltd work with Partners to deliver investment that can transform the economy of the North.

2.5.7 TfN has set the following prime and enabling objectives:



2.5.8 These objectives will be used to understand and drive the development of what interventions are required within the long term TfN Investment Programme.

GREATER MANCHESTER STRATEGY

2.5.9 The A6 to M60 Relief Road scheme is Phase 3 of the SEMMMS Relief Road and takes its place within the strategic context of Greater Manchester's increasingly interdependent economy and public service provision as well as its interdependent labour, housing, and retail markets.

2.5.10 The first Greater Manchester Strategy (GMS) was produced in 2009, in response to the Manchester Independent Economic Review[9], and subsequently refreshed and repositioned in 2013 to better reflect more challenging global economic conditions and the importance of the public service reform agenda to the achievement Greater Manchester's strategic ambitions.

2.5.11 The 2013 GMS, built on the twin pillars of Growth and Reform, set the strategic framework for policy development across Greater Manchester and has helped to place Greater Manchester at the forefront of the national debate on devolution. It set out a shared ambition to pioneer a new model of sustainable economic growth based around a more connected, talented and greener city region where all our residents are able to contribute to and benefit from sustained prosperity and enjoy a good quality of life. That ambition remains.

2.5.12 However, the context in which Greater Manchester operates has changed significantly since the

[9] The most robust analysis ever undertaken of a UK city, led by global experts - which concluded that Greater Manchester has the highest growth potential of any city region outside London.

GMS was last refreshed in 2013, and the Greater Manchester agenda has moved on considerably. On that basis, the GMCA agreed at its meeting in June 2016 to revisit and once again refresh Greater Manchester's strategic approach, reassessing the issues and opportunities that the GM strategy needs to address, and re-examining the interventions required to drive growth and reform across the conurbation.

2.5.13 In refreshing the GMS a 'big conversation' was launched, running throughout December 2016 and early January 2017, encouraging all stakeholders to play a part in the development of the refreshed strategy. A draft GMS has been prepared building on Greater Manchester's priorities around 'Growth and Reform' and 'People and Place' to reflect the things that, through the public conversation, it's residents, businesses and partners consider to be important to them. It also repositions Greater Manchester's strategic approach in the light of changes at a global, national and local level. Phase 2 of the public consultation was conducted between 27 February 2017 and 20 March 2017.

2.5.14 Since the 2013 GMS was published significant progress has been made against the strategic objectives set out in that strategy, with the GM devolution settlement being pivotal to this progress. GM has continued to invest heavily in its transport infrastructure, through the largest capital transport programme outside London, which includes spend on the A6MARR scheme.

2.5.15 GM's approach to investment is underpinned by an informed, integrated approach to strategic planning across the city region. Over the next two decades Greater Manchester will need to accommodate 200,000 new jobs, an additional 300,000 people and over 220,000 new homes. The Greater Manchester Spatial Framework (GMSF) will enable GM to manage its land supply in the most effective way to achieve the ambitions for the city region, based on a clear understanding of the role of places and the connections between them.

2.5.16 The draft GMS vision is:

> *"By 2040 Greater Manchester will be one of the world's leading city regions, reaping the benefits of sustainable and inclusive growth across a thriving Northern economy. It will be ever more self-reliant, connected, dynamic, inclusive, digitally-driven, productive, innovative and creative. A destination of choice to live, work, invest and visit, GM will be known for the high levels of happiness and quality of life our people enjoy. No one will be held back, and no one will be left behind: all will be able to contribute to and benefit fully from the continued success of Greater Manchester."*

2.5.17 Whilst the GMS provides a high level framework for action based on a robust evidence base and public consultation, more detailed plans, developed and led by city-region-wide partnerships, will set out the specific actions, interventions and investment required to deliver the strategic priorities if the overarching vision is to be achieved. These plans comprises a number of strategies including:

- The **Greater Manchester Spatial Framework**, which will allow GM to take an informed, integrated approach to spatial planning across the city region, based on a clear understanding of the role of places and the connections between them;
- **Transport 2040**, a new long-term transport strategy for Greater Manchester that will deliver world class connections that will support long-term sustainable economic growth and access to opportunities for all;
- A second **GM Transport Fund** to underpin an integrated whole-system approach to the management of the transport network and the delivery of GM transport priorities; and
- The **Northern Powerhouse Strategy**, which identifies skills, science and innovation and the development of a collaborative approach to promoting the Northern Powerhouse to foreign investors as priorities for further work by Northern Cities and Government.

GREATER MANCHESTER SPATIAL FRAMEWORK

2.5.18 The Greater Manchester Spatial Framework (GMSF) is currently being prepared and is a joint plan to manage the supply of land for jobs and new homes across Greater Manchester. The GMSF aims to ensure that there is the right land in the right places to deliver the homes and jobs needed within GM up to 2035. Built on a robust analysis of projected employment growth, including a sectoral analysis of key growth sectors, and an assessment of demographic change and the housing requirements arising from such change the GMSF will provide a clear perspective of land requirements, along with the critical infrastructure – transport, digital, energy, water and waste – required to support development. Importantly, the GMSF will address the environmental capacity of Greater Manchester, setting out how GM will enhance and protect the quality of the natural environment, conserve wildlife and tackle low carbon and flood risk issues, so that GM can accommodate growth sustainably.

2.5.19 The GMSF will be the overarching development plan within which Greater Manchester's ten local planning authorities can identify more detailed sites for jobs and homes in their own area. As such, the GMSF will not cover everything that a local plan would cover and individual districts will continue to produce their own local plans. Consultation on the first draft of the GMSF ended on 16 January 2017 and a revised draft is due to be published in June 2018

2.5.20 Following two informal consultations, in November 2014 on the scope of the plan and initial evidence base and in November 2015 encompassing the vision, strategy and strategic growth options (including a 'Call for Site), the draft plan was subject to specific challenges around GM's ambition for growth and the scale of growth needed to maximise GM's position as the engine for growth driving the Northern Powerhouse. Accordingly, the economic forecast was updated (Accelerated Growth Scenario (AGS) 2015) and tested against a range of factors including:

- The Northern Powerhouse Independent Economic Review;
- Forecasts produced by the leading forecasting houses as well as Oxford Economics (Cambridge Econometrics and Experian);
- Assumptions around resident employment rate; and
- The potential impacts of Brexit.

2.5.21 Having completed this additional work it was concluded that the ambition set out in the AGS 2015, whilst challenging, is robust and necessary to demonstrate a continuing role for GM in driving growth in the north of England. The AGS 2015 also delivers on Greater Manchester's ambition to increase the resident employment rate to ensure that more residents share in the benefits of economic growth:

- GVA growth of 2.5% year on year, giving an uplift of £5bn above baseline conditions by 2035;
- Additional 199,700 jobs; and
- Population growth of 294,800, which translates into 227,200 net new homes.

2.5.22 Key draft GMSF policies most relevant to this Scheme are:

- **Draft Policy SL2 – Main Town Centres (including Stockport):** The plan identifies the role of the main town centres as local economic drivers that need to continue to be developed, providing the primary focus for office, retail, leisure and cultural activity in their surrounding areas, along with residential development where it complements these functions.

  Stockport Council has ambitious plans for the redevelopment of its Town Centre, and the M60 Gateway area is now being delivered. Current pipeline investment in the town centre that the Council is enabling stands at £560 million. The Stockport Town Centre Access Plan (TCAP) is a package of measures which aims to transform the accessibility and connectivity to and around Stockport town centre. Considering access by all modes of travel, the plan aims to

ease congestion for general road traffic, buses and freight, and encourage walking and cycling. The scheme is being delivered in two phases that commenced in April 2015 and is scheduled to be completed by March 2020.

The A6 to M60 Relief Road scheme would enhance and complement the TCAP scheme through the removal of further traffic from the A6 that would enable the full potential for plans to enhance the public realm to be more feasible and make the corridor a more pleasant place to work, attract business and live.

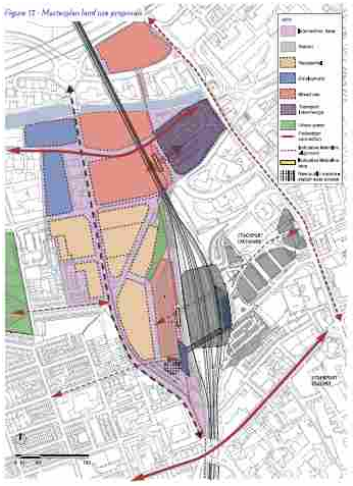
Already well under way is Stockport Exchange, a key strategic employment site that links Stockport rail station with the rest of the town centre. Combining Grade A office space, a 115 bedroom town centre Holiday Inn Express with excellent retail and leisure facilities and car parking, all set around extensive high quality public realm Stockport Exchange will create a modern office quarter in the heart of the town giving businesses and residents the chance to seize all the opportunities that Stockport can offer them.

Work on Phases One and Two of the development is already completed. Phase One saw the opening of a new 1,000 multi-storey car park and dedicated cycle centre, as well as highway and pedestrian access improvements.

Phase Two works, which began on site in 2015 were completed late 2016, have delivered the first 50,000 sq ft of commercial office buildings with ground floor retail, new public space, the hotel development and further highway and public transport improvements. The works include the closure of Station Road to vehicular traffic to enable provision of new public realm linking the station and new office development, along with a dedicated taxi parking and drop-off facility for the rail station.

The final phases of development will include a further three office buildings, extension of the open space and further improved accessibility for pedestrians by 2020.

Beyond this the Council has a vision to transform Stockport Station and the surrounding area into a modern facility that provides a welcoming environment for all passengers and visitors, strengthening it as a transport hub for the town centre and gateway to the southern part of Greater Manchester.



The recently completed Station Masterplan provides a framework for future development of the Station and its surrounding areas that will build upon and strengthen the Council's wider ambitions embodied within its Investing in Growth programme. The masterplan assumes:

- Potential for up to 1,500 dwellings;
- Redevelopment of Stockport Station and Stockport Interchange
- Circa 62,300 sqm of non-residential floorspace including, potentially, office, creative / workshop / enterprise space, retail space (ancillary to station and interchange) and manufacturing space.

The masterplan envisages a new predominantly residential mixed-use quarter to the west of Stockport Station and the concentration of development around transport hubs (both rail station and bus/transport interchange) providing competitive locations for a range of employment and other uses as part of the overall mix.

Other parallel studies are nearing completion, notably the production of an A6 Wellington Road Masterplan which will provide evidenced, prioritised and coordinated options for the future development of the A6 corridor over the next twenty years. Led by Stockport Council, the masterplan is being developed with close involvement from stakeholders including local businesses and TfGM.

The Masterplan provides an opportunity to re-evaluate the role of Wellington Road North and Wellington Road South as the A6 passes through the town centre between Belmont Way and the Blossoms Public House at Bramhall Lane; maximising the potential for transformational growth, defining new gateways into the town, unlocking developer investment opportunities and forging new connections between the town centre and residential communities to the west.

Whilst planned and potential future opportunities for reducing traffic levels on the A6 provide a key mechanism for the severance effects of the corridor to be reduced and journey times experienced to become more stable, it is equally important for the corridor to reflect evolving relationships between connectivity and place; connectivity demands between new attractors accessed off the route influencing requirements that any place making ambitions need to accommodate when seeking to 'civilise' the A6 for all users.

The A6 to M60 Relief Road could contribute to making any changes along the A6 more feasible by reducing traffic levels.

→ **Draft Policy SL4 – Airport Gateway:** Manchester Airport plays a pivotal role in providing access to international markets from Greater Manchester and across the North of England, and is therefore central to the success in delivering a Northern Powerhouse economy. It employs 21,500 people on site and contributes c.£900m each year to the North West economy. As the third busiest airport in the UK, and with c.8.9 million people living within a one hour drive time, and nearly 22 million within a two hour drive time, Manchester Airport is also a major asset for the whole of the UK.

The Airport already provides access to a range of international destinations, with over 70 airlines operating to around 200 destinations worldwide. Direct flights are operating or planned to important growth economies around the world: North America, the Emirates, Singapore, Hong Kong and mainland China. It also offers highly flexible, affordable short-haul access to European cities and attracts passengers from across the North, North Wales and parts of the Midlands. The Airport plays an important freight role, handling around 100,000 tonnes of cargo each year, much of it high value or time sensitive.

Manchester Airports Group (MAG) has ambitious plans to grow its passenger market from 24 million trips per annum in 2016 to 45 million, delivering over £2bn to the UK Economy and providing up to 60,000 jobs in the wider region. Unlike major UK airports in the south-east, Manchester Airport has spare runway capacity and therefore has enormous potential to rapidly expand its role without the need for major investment in potentially contentious new runway capacity. MAG is delivering a transformational £1bn investment plan into its Airport facilities to maintain and enhance its world-class position and to secure further new airlines and routes into Manchester.

However, the full potential of Manchester Airport will only be realised if surface access to the gateway matches the quality of the transformed Airport facilities and services. Connectivity improvements and demand management measures will also support sustainable economic growth at the Greater Manchester Enterprise Zone (GMEZ), and at Davenport Green (which has potential for office and residential development), both adjacent to the Airport.

The GMEZ comprises a number of sites, including Airport City North, which is expected to provide 200,000 m^2 of office/commercial and 50,000m^2 of industry over the next 20 years; the World Logistics Hub, with potential for 190,000m^2 of logistics; an advanced "Medipark" to the south of Wythenshawe Hospital with 100,000m^2 of biotechnology and healthcare and a string of other developments, which cover areas such as Roundthorn Industrial Estate, Wythenshawe Town Centre and Atlas Business Park. Davenport Green, the proposed

location of the Airport HS2 station, is another longstanding potential major development site to the west of the M56 which will require significant investment in sustainable transport.

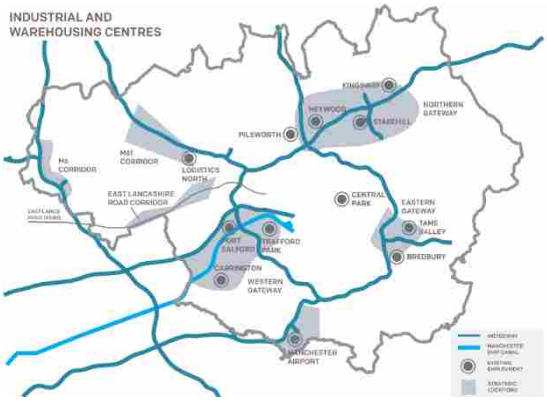
The expansion of the airport and the growth of the Enterprise Zone will be underpinned by improved local connectivity through improvements to the ground transport interchange, enhanced rail journey options through the Northern Hub investments and programmed highway investment. Further improvements through Northern Powerhouse Rail will also benefit this location. In addition to the Enterprise Zone development, the Airport Gateway Strategic Location offers the opportunity for the following further growth to be set within the high quality rural setting in the Timperley Wedge, which will be dependent on delivery of key infrastructure projects, including:

- Developing a new HS2 station immediately to the west of the airport, which in itself would significantly increase the economic potential of this area, and could influence the growth ambitions for Greater Manchester as a whole;
- Providing a western extension of Metrolink via the HS2 station to connect back to the existing line near Wythenshawe Hospital;
- Improvements to rail, bus and rapid transit links;
- **Improvements to local and strategic highway infrastructure;** and
- Improvements to local walking and cycling connectivity.

Delivering this level of transport infrastructure will ensure that the Airport Gateway becomes one of the most accessible locations by public transport in the country, helping to maximise its catchment area and securing a major increase in the use of public transport. Whilst the draft GMSF is not prescriptive the A6 to M60 Relief Road scheme, through its connection to the A6MARR scheme, would directly deliver a significant improvement in surface access to Manchester Airport and Airport City, as well as providing wider network resilience and some much needed relief to the M60 motorway between Bredbury and the M56 spur.

→ **Draft Policy SL7 – The Eastern Gateway:** representing a significant growth area for the east of the GM conurbation focused on existing employment land at Ashton Moss, new land to the north and west of Ashton Moss, a new Garden Village at Godley Green and expansion of the Bredbury Park Industrial Estate in Stockport, which would directly benefit from improved access following completion of the A6 to M60 Relief Road scheme, and which would further improve the industrial and warehousing provision in this part of Greater Manchester.

→ **Draft Policy GM2 – Industrial and Warehousing:** linked to Policy SL7 within the context of this Scheme, concerns proposals for a diverse portfolio of industrial and warehousing sites and premises across Greater Manchester that is considered necessary to meet the full range of market requirements from business start-ups to major inward investments and relocations. Included within the portfolio is expansion of the Bredbury Park Industrial Estate in Stockport. The draft GMSF considers Industrial and warehousing accommodation vital to a wide range of businesses across many economic sectors, while draft GMSF Figure 5.1 (extract inset) highlights the importance that these sites have 'excellent transport connections'.



→ **Draft Policy GM6 – Accessibility:** the plan sets out the spatial pattern of development across Greater Manchester for the next 20 years. Delivering the scale of growth set out in the draft GMSF will require a carefully prioritised programme of transport investment, incorporated into future Greater Manchester Transport Strategy delivery plans and supported

by a new transport fund. This business case sets out the case for the A6 to M60 Relief Road scheme to be part of this prioritised programme of transport investment, in order to address congestion, support the delivery of major sites and ensure that residents and businesses are able to take full advantage of the excellent global and inter-city connectivity.

Whilst the draft GMS is not prescriptive the *"**Measures to reduce congestion on the southern approaches*** [which include the A6 and A34 corridors in Stockport] ***to Greater Manchester**"* are identified as a priority area and for which the A6 corridor would directly benefit from the A6 to M60 Relief Road scheme.

2.5.23 Evidently, in terms of the housing and development assumptions contained within the draft GMSF, there is insufficient certainty at this stage upon which to update the traffic modelling (through the uncertainty log process) to reflect these plans. These are matters that will need to be taken account of as part of scheme development and during the preparation of an outline business case for the Scheme.

GREATER MANCHESTER TRANSPORT STRATEGY 2040

Introduction

2.5.24 The Greater Manchester Transport Strategy 2040 – developed by TfGM on behalf of the GMCA and Greater Manchester Local Enterprise Partnership (LEP) – focuses on creating an integrated, sustainable and well-coordinated transport system. Considering all types of travel, from short local trips to Greater Manchester's global connectivity, the Strategy shapes the future of transport as part of a radical, and ambitious, new approach to planning in support of the region's long-term needs and aspirations.

2.5.25 The publication of the final GM Transport Strategy 2040 in February 2017 follows a public consultation that closed on 26 September 2016, and which received nearly 1,800 responses – with over 70 per cent of respondents agreeing that the strategy helps to achieve long-term, sustainable economic growth for all, showing strong public support for future plans.

2.5.26 Alongside the GM Transport Strategy 2040 sits a five-year delivery plan, detailing the first stage of implementation from 2016 – 2021. Together these documents make up the new statutory Greater Manchester Local Transport Plan (LTP4)[10]. As part of the preparation of this suite of documentation, an Integrated Assessment was undertaken which incorporated the statutory requirements of a Strategic Environmental Assessment (SEA), Habitats Regulation Assessment (HRA), Equality Impact Assessment (EqIA) and Health Impact Assessment (HIA).

2.5.27 Progress on delivery will be reported on annually to ensure the policies and measures are working. This will also help to deliver the growth planned for by the Greater Manchester Spatial Framework (GMSF), which is currently being developed.

2.5.28 The GM Transport Strategy 2040 sets out a vision for the transport network that Greater Manchester needs by 2040 to have *"World class connections that support long-term sustainable economic growth and access to opportunities for all"*. Importantly, the 2040 Transport Strategy is not about simply predicting what the future might hold and responding accordingly - it's about

[10] Documents comprising LTP4:

http://www.tfgm.com/2040/Pages/strategy/assets/2017/1-17-0057-GM-2040-Executive-summary.pdf
http://www.tfgm.com/2040/Pages/strategy/assets/2017/2-17-0078-GM-2040-Full-Strategy-Document.pdf
http://www.tfgm.com/2040/Pages/strategy/assets/2017/3-2040-Delivery-Plan.pdf

helping to shape and create a successful, resilient city-region, ready to tackle the challenges, and opportunities, of the 21st century - such as a rapidly growing and ageing population, climate change and the need to improve productivity and reduce poverty and social inequality in the City Region. GM priority interventions range from transformational investment in HS2 and new, fast east-west rail connections across the North; to establishing Greater Manchester as a modern, pedestrian and cycle-friendly city-region.

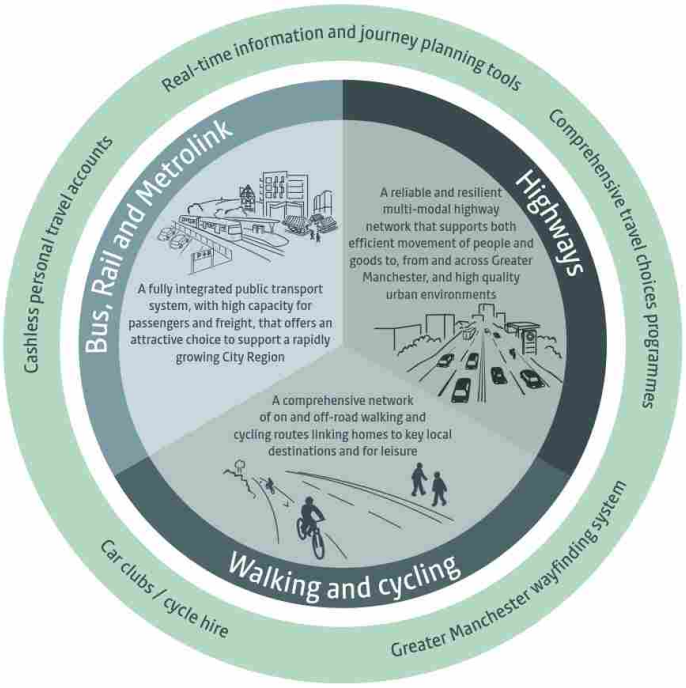
2.5.29 This holistic system-wide approach towards facilitating sustainable inclusive growth mirrors the philosophy set out in the original SEMMM Strategy and ongoing work being undertaken to inform the SEMMMS Refresh to 2040, of which the A6 to M60 Relief Road scheme remains an integral component.

2.5.30 The strategy has four key elements which represent the goals of the strategy, these are as follows:

- **To support sustainable economic growth** we need to: tackle congestion; improve access to skills and markets; make road journeys more reliable; ensure that transport networks are well maintained; and create the sort of efficient, seamless public transport system and attractive walking and cycling environments that are found in leading European cities;
- **To improve the quality of life** we need to: improve access to jobs, training, education, healthcare, shopping and recreation; improve health through more active travel; and improve safety and security on the network;
- **To protect the environment** we need to: increase the use of sustainable transport, reduce emissions; make the best use of existing infrastructure; and protect the natural and built environment; and
- **To develop an innovative city region**, we need to: embrace the potential of technology to improve performance and wellbeing; reduce costs and resource consumption; and improve the customer experience.

2.5.31 The GM Transport Strategy 2040 focuses principally on creating an integrated, well-co-ordinated transport system which supports a wide range of different travel needs. However, there are some modal principles which cut across the entire strategy and define specific aspirations for bus, rail, Metrolink, active travel and highways in Greater Manchester. These are summarised **Figure 2-29**.

Figure 2-29: Summary of Greater Manchester-wide Priorities and Principles



2.5.32 Specific transport proposals within the strategy are set out in relation to five 'spatial themes', representing the different types of travel in and around Greater Manchester. These cover proposals for residents, businesses (including movement of goods), and visitors to Greater Manchester. These are summarised in **Figure 2-30**.

.Figure 2-30: GM Transport Strategy 2040 – From Local Neighbourhoods to Global Markets

GM Transport Strategy 2040: Strategic Principles and Policies

GM Ambition: To deliver a consistently reliable and resilient network which focuses on the efficient and effective movement of people and goods to, from and across Greater Manchester but also respects the needs of the places it passes through.

2.5.33 The Greater Manchester Growth Deal in July 2014 included a commitment for Greater Manchester to identify a Key Route Network (KRN) of local authority roads for unified management in the interest of the growth agenda. The KRN will help strengthen the case for highway investment in Greater Manchester and is facilitating enhanced joint working arrangements with Highways England.

2.5.34 The KRN, shown in **Figure 2-31** overleaf, comprises over 600km of highways, which represent about 7% of all local authority roads by route and 48% of A and B roads in Greater Manchester. It carries around 64% of annual traffic using these A and B roads. The core of the KRN is provided by the Primary Route Network (marked in green on most road maps), which links places of traffic importance across the UK. To this base have been added other sections of network considered of strategic importance to Greater Manchester, including:

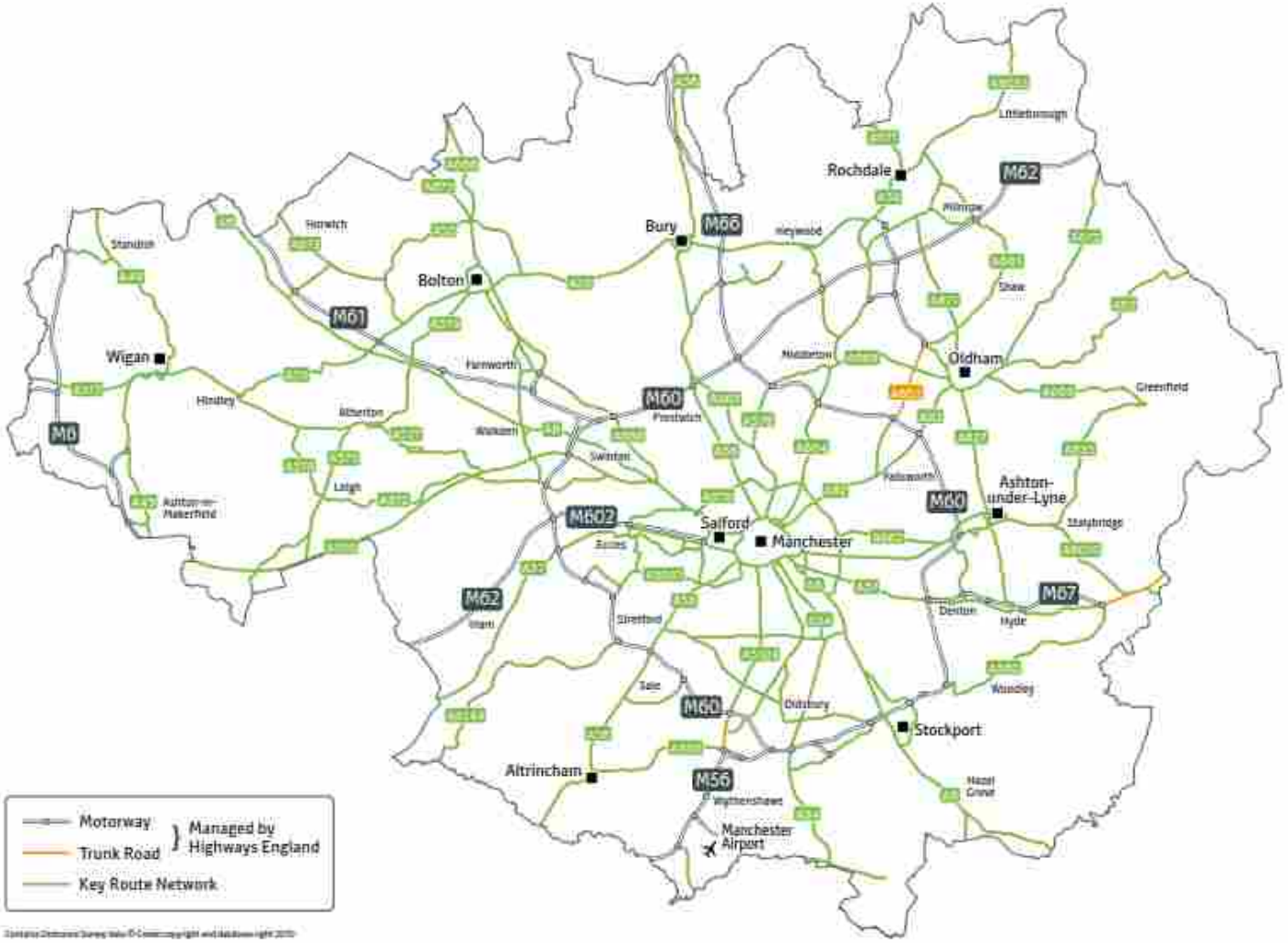
- Significant road links to strategic employment sites and to adjacent areas outside the Greater Manchester boundary;
- Bus priority corridors and high frequency bus routes;
- All road links serving motorway junctions; and
- Manchester Ship Canal crossings.

2.5.35 It is expected that all parts of SEMMMS Relief Roads in Greater Manchester, the A6MARR scheme, PRR scheme (GM part) and A6 to M60 Relief Road scheme would be included in the future Key Route Network for Greater Manchester (KRN).

2.5.36 The A6 is an integral part of the KRN traversing Greater Manchester in broadly a north-west to south-east direction from Horwich through the city centre on onwards to Stockport and Hazel Grove (the A6 southern approach to Greater Manchester).

2.5.37 The A6 southern approach, which will be the principal beneficiary of the Scheme, performs an important role carrying traffic from the Peak District and beyond into the city region. The A6 is part of the national Primary Route Network (PRN), as well being identified within the TfN Major Road Network (MRN), and provides a strategic link between Greater Manchester and key towns in north Derbyshire including Buxton, Matlock and Chapel-en-le-Frith. It also serves New Mills, Whaley Bridge and a number of smaller settlements including High Lane and Disley. The A6 is also a major access route for the Peak District National Park.

Figure 2-31: The Greater Manchester Key Route Network



2.5.38 The mix of local and strategic traffic is one of the major causes of congestion on the highway network. Freight traffic from Derbyshire and the Peak District to the M60, distribution centres and other destinations across the North West, mixes with commuter and business traffic travelling between Cheshire and parts of Greater Manchester, and with local commuter and leisure trips in the centres along the south Manchester corridor. These travel patterns have a direct impact on the ability of the transport network to provide efficient connectivity and access to markets and jobs. It also means that the local communities that it passes through are faced with high volumes of traffic and heavy goods vehicles, creating problems in terms of air quality, noise and highway safety.

2.5.39 Demand on the route is driven by its radial route function into Greater Manchester, as well as its links to Stockport town centre, the M60 and the Peak District. Stepping Hill Hospital is Stockport NHS Foundation Trust's main hospital and is located on the A6 in Hazel Grove. The hospital employs over 5,000 members of staff making it the second largest employer in the Stockport Borough, and deals with in excess of half a million patients each year.

2.5.40 In summary, the A6 southern approach is neither efficient nor effective in the movement of people and goods, and the environment through which it passes is poor. There is no scope for online measures to meaningfully improve the movement of people across all modes (pedestrians, cyclist, bus, car and good vehicles) or to enhance the environment of the places it passes through.

2.5.41 By way of illustration, the A6 through Hazel Grove currently carries high volumes of traffic, including a large proportion of heavy goods vehicles and high frequency bus services. These existing (and future) traffic levels coupled with the limited width of available carriageway through the district centre create significant problems in terms of on-street parking and servicing to the numerous retail and commercial properties that line the A6. It is not uncommon for delivery vehicles to block the nearside of the two lanes available leading to traffic delays not only during but outside of peak periods and at weekends. As a result, the pedestrian/ cycle environment through Hazel Grove is poor, and is an accident 'hot-spot' for pedestrian road injury accidents. All of these factors, coupled with the impact of congestion on noise, severance, vibration, and poor air quality, are adversely affecting the vitality of one of Stockport's key district centres.

2.5.42 The Stockport Town Centre Access Plan and delivery of an A6 Wellington Road Masterplan is evidence of the Council's ambition for transformational growth, defining new gateways into the town, unlocking developer investment opportunities and forging new connections between the town centre and residential communities to the west. A reduction in traffic brought about by a north-south bypass of Stockport will facilitate any plans to enhance the public realm to be realised and make the corridor a more pleasant place to work, attract business and live.

2.5.43 This approach to 'Link and Place' fully aligns with ***LTP4 Policy 17:*** ***We will seek to manage the road network in accordance with its function in specific locations, balancing the needs of cars and other motorised traffic (including buses, goods vehicles and powered two-wheelers) with those of cyclists, pedestrians, residents, shoppers and local businesses:***

> *"Such measures will, over time, change the look and feel of our local centres, facilitating more short distance trips that may be made on foot or by cycle rather than by car. The role of our roads in creating more attractive local places will increasingly be recognised rather than simply viewing them as transport links that facilitate rapid movement of high volumes of vehicles. Severance created by road traffic will also be reduced and the environment for local residents, businesses and their customers significantly improved."*

2.5.44 It is expected that part of the package of complementary measures for the Scheme will include the introduction of bus priority measures, where it is not currently feasible to do so, that will improve journey time reliability. This approach aligns with ***LTP4 Policy 18: Where feasible we will introduce appropriate bus priority measures on the highway network to improve reliability and will keep existing measures under review to ensure their effectiveness.***

2.5.45 The reduction in traffic volumes on the A6 southern approach brought about the proposed scheme will also support: ***GM Ambition: For Greater Manchester to be known for the quality of its urban areas, natural environments with transport emissions reduced to near zero, and new transport schemes delivering environmental enhancements whenever possible.***

2.5.46 Not only will the Scheme allow complementary measures to be implemented that improve the quality of the urban areas along the length of the bypassed section of A6, but as described in **Section 2.3** of report, it will have a positive impact on the local air pollution and carbon emissions that cause significant harm to health and the environment and, as a result, have an adverse impact on the economy, and in doing so aligns with ***LTP4 Policy 8: We will work with partners to reduce, as far as possible, the emissions from transport, particularly CO2, NO2, particulates and noise.***

2.5.47 Environmental considerations are quite rightly at forefront of the design / option appraisal process for the proposed A6 to M60 Relief Road scheme itself, to ensure that the scheme is as environmentally responsible as far as is reasonably practicable and by doing so align with ***LTP4 Policy 10: We will aim to minimise the impact of transport on the built and natural environment, (including townscape, the historic environment, cultural heritage, landscape, habitats and biodiversity, geodiversity, water quality, pollution, flood risk and use of resources) and will seek to deliver environmental enhancements and biodiversity net gain where possible.***

2.5.48 As a large transport scheme, the A6 to M60 Relief Road scheme will be subject to statutory Environmental Assessment, as required by the planning process.

2.5.49 The GM Transport Strategy 2040 places a strong emphasis on enabling people to travel more easily and safely on foot and by bicycle. Achieving this will help to increase levels of physical activity as well as reducing the significant numbers of very short car trips currently made the conurbation, making communities more attractive places to live, work and visit. This will, in turn, reduce harmful emissions and traffic noise.

2.5.50 This approach is embedded within the original SEMMM Strategy, will be replicated in the SEMMMS Refresh to 2040 and is an integral component of the A6 to M60 Relief Road scheme both through the provision of:

- A segregated cycle/pedestrian route adjacent to the new road and existing length of the A6MARR, A555, providing a new orbital link for the strategic cycle / pedestrian network; and
- As part of a package of complementary measures that in accordance with the SEMMM Strategy will maximise the scope of benefits by making the most efficient use of road space where there are forecast reductions in car traffic, such as the A6 southern approach.
- Include types of measures to be implemented on A6 - link to SEMMMS refesh

2.5.51 This approach is strongly supported by national policy, as set out in the DfT's Walking and Cycling Investment Strategy, 2016. The Government states the ambition to deliver by 2040:

- **Better Safety**: 'A safe and reliable way to travel for short journeys';
- **Better Mobility**: 'More people cycling and walking- easy, normal and enjoyable'; and
- **Better Streets**: 'Civilised places where people come first'.

2.5.52 The scheme will support the TfGM's Velocity 2025 strategy which looks to increase cycling usage across all of Greater Manchester. A major new network of strategic, integrated and – where possible – segregated cycle routes to employment centres, schools and leisure facilities.

2.5.53 The scheme would provide an additional strategic orbital route to link to the existing routes and enable better access to local and strategic employment sites.

2.5.54 As part of the scheme development process the Scheme will be "cycle proofed" in line with DfT Guidance and TfGMC policy, particularly in terms of:

- → Auditing the scheme to ensure that it promotes cycling wherever possible;
- → Following the GM Cycle Design guidance;
- → Following GM Station Travel Planning guidance; and
- → Following the sustainable travel elements of Planning for New Development guidance.

2.5.55 It is worth noting that for the A6MARR scheme, a Vulnerable Road User Group was set up to discuss and gather feedback on pedestrian, cycle and equestrian facilities, provision for disabled groups and Public Rights of Way. An independent Concise Cycle & Pedestrian Audit (COPECAT) of the A6MARR scheme was been carried out. COPECAT is a nationally recognised 'check-list' scheme that forms a part of the design process, and was used to inform the detailed design of the scheme. Similar processes would be adopted for this scheme.

2.5.56 This approach aligns with ***LTP4 Policy 20: We will work with partners to improve pedestrian and cycle facilities across Greater Manchester, including development of a strategic walking and cycling network, wayfinding and cycle parking***.

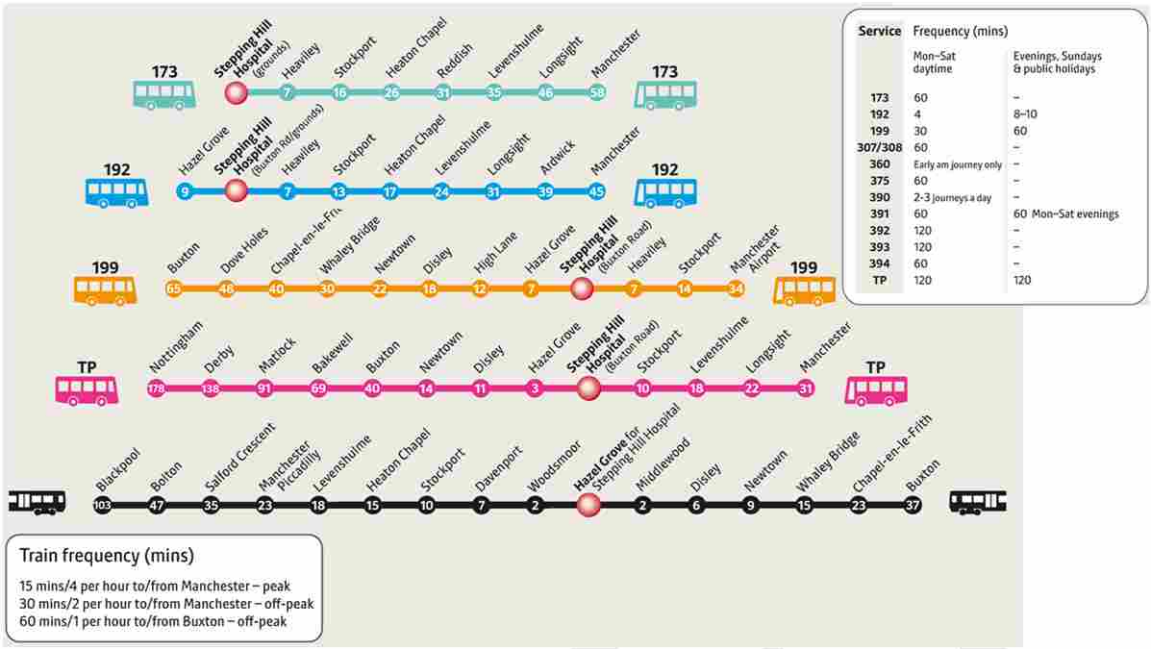
2.5.57 This in turn will help to support ***GM Ambition: To develop a transport system that supports people in leading active, healthy lives.***

2.5.58 As described in Section 2.3 of this report, transport can have a major impact on people's health. It provides access to healthcare and other services, enables people to visit friends and family, and links them with green spaces. On the negative side, motorised transport can make people less active, leading to obesity, increases the severity of collisions and produces damaging emissions which either affect health directly or through climate change.

2.5.59 In addition to the cycling & pedestrian measures described above the Scheme will provide a direct benefit in allowing improved access to Stepping Hill Hospital via the Stepping Hill link road spur. Stepping Hill Hospital is Stockport NHS Foundation Trust's main hospital, which looks after a population of approximately 350,000 people. The Trust provides acute hospital care for children and adults predominantly across Stockport and the High Peak area of Derbyshire.

2.5.60 Improved road access to the hospital will complement (and allow improvements to) its already good public transport access credentials[11]. There is a frequent bus service which brings you into the hospital grounds from all surrounding areas. There are also reliable local train services available- the closest stations are Woodsmoor (5 minutes' walk) and Hazel Grove (10 minutes' walk).

[11] Full list Stepping Hill Hospital public transport services: http://www.tfgm.com/Corporate/Documents/HospitalLeaflets/Stepping-Hill-Hospital.pdf



2.5.61 The Scheme aligns with ***LTP4 Policy 7:*** ***We will work with partners, including through Health Devolution, to deliver transport interventions that improve the health of GM residents, including: increasing levels of physical activity; improving access to healthcare; and reducing social isolation.***

GM Ambition: To enhance the role that freight plays in contributing to economic growth and ensure that it becomes increasingly sustainable, minimising its impact on the environment and on communities in Greater Manchester.

2.5.62 The economy depends on the efficient movement of freight - supplying goods for manufacturing, stock for retailers and other businesses, and home deliveries to residents. Nationally, the freight and logistics industry accounts for 9% of the country's GDP and 7% of total employment. The industry is almost entirely owned and operated by the private sector and is highly competitive. It has a strong interest in achieving low cost, on-time deliveries, and initiatives and interventions will only be adopted if they do not impose disproportionate additional costs.

2.5.63 The vast majority of freight is carried by road and these movements are a source of congestion, carbon emissions, poor air quality and noise as well as leading to conflict with vulnerable road users such as cyclists. Road freight is a significant contributor to poor air quality due to the dominance of diesel fuelled vehicles. This is a particular problem in congested areas, as heavy goods vehicle emissions are markedly worse at lower speeds.

2.5.64 The A6 southern approach, which will be the principal beneficiary of the Scheme, performs an important role carrying freight traffic from Derbyshire and the Peak District to the M60, distribution centres and other destinations across the North West. However, the mix of local and strategic traffic is one of the major causes of congestion along the A6 corridor. It also means that the local communities that it passes through are faced with high volumes of traffic and heavy goods vehicles, creating problems in terms of air quality, noise and highway safety:

- → Completion of the A6MARR scheme, will see a reduction in heavy goods vehicles between Hazel Grove and the M60 motorway for south to west journeys and vice versa;
- → Completion of the Stockport Town Centre Access Plan will see some reduction in heavy goods vehicles through the town centre; while
- → Completion of the proposed A6 to M60 Relief Road scheme would see a further reduction in

heavy goods vehicles between Hazel Grove and the M60 motorway for south to east journeys and vice versa, importantly in this context improved access to the Northern and Eastern Gateways including Bredbury Park Industrial Estate in Stockport.

2.5.65 The Scheme aligns with **LTP4 Policy 29: We will work, including through the GM Logistics Forum, to improve journey times and reliability for deliveries, and to reduce the environmental impact of logistics, including the promotion of mode shift.**

GM Transport Strategy 2040: Spatial Themes

Global Connectivity

GM Ambition: To support growth at the Airport and the adjacent Enterprise Zone by: bringing many more passengers within a 1hr and 2hr rail journey time; improving the reliability of the highway network; and ensuring that public transport services better meet the needs of airport passengers and employees. Fewer people will drive to work at the Airport, with transformed sustainable transport connectivity from across Greater Manchester and beyond.

2.5.66 The GM Transport Strategy 2040 vision highlights the importance of Greater Manchester's connectivity to global markets to enable the city region to compete effectively on the world stage and to rebalance the UK's economy. The Greater Manchester brand is already strong around the world and there is a huge opportunity to capitalise on this in terms of attracting further international inward investment and tourism.

2.5.67 Manchester Airport plays a pivotal role in facilitating access to international markets from Greater Manchester and across the north of England, and is therefore central to the success in delivering the Northern Powerhouse economy, contributing circa £1.7bn each year to the North West economy.

2.5.68 The GM vision cites the Airport's ambitious plans to grow its passenger market from 23 million trips per annum in 2015 to 45 million, delivering over £2bn to the UK Economy and providing up to 60,000 jobs in the wider region. Currently MAG is delivering a transformational £1bn investment plan into its Airport facilities to secure further new airlines and routes into Manchester.

2.5.69 The expansion of the airport and the growth of the Enterprise Zone will be underpinned by improved local connectivity through improvements to the ground transport interchange, enhanced rail journey options through the Northern Hub investments and programmed highway investment. Whilst there has already been significant investment in connectivity improvements to the Airport in recent years, such as the Metrolink line extension; major highways investment in schemes such as the SEMMMS A6MARR scheme and recently opened A556 Knutsford to Bowdon link road; and the Airport City Enterprise Cycleway, much more will need to be done.

2.5.70 Within the context of this Scheme, part of the key supporting evidence included within the GM Transport Strategy 2040 references that:

"If Manchester Airport reaches its goal of 45 million passengers per year and achieves its mode targets, there could be c.61% more car trips by airport workers than at present (the increase be somewhat lower if airport worker productivity significantly increases). This does not include additional traffic from Airport City, A556, A6MARR, Wythenshawe Hospital and HS2".

2.5.71 And goes on to confirm that:

"Vehicle flow data for M56 shows that airport traffic (staff and passenger car trips) do contribute to peak hour congestion and increasingly unpredictable journey times are forecast over the coming years on the motorways in the vicinity of the airport."

2.5.72 In terms of priority interventions for a Globally Connected relevant to this Scheme these include:

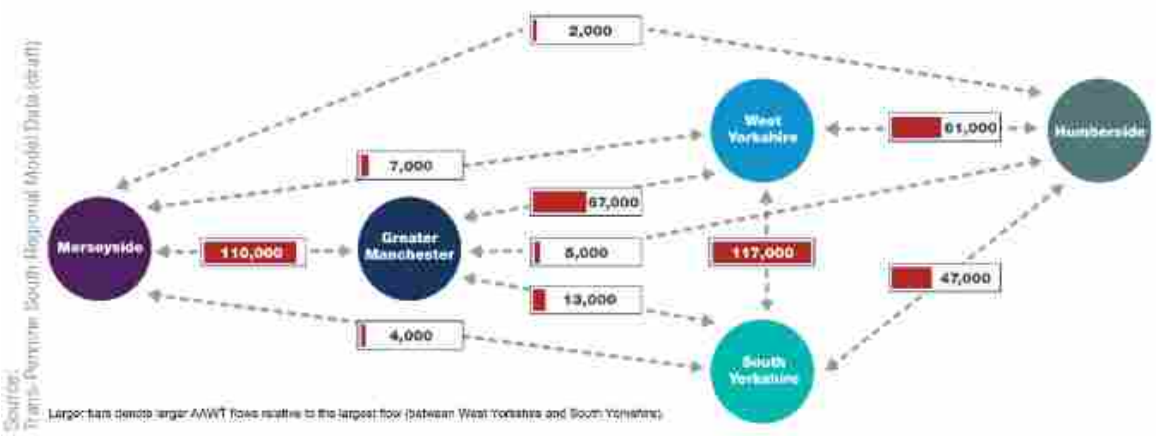
- **G.4 Tackling motorway congestion around the Airport and the north western part of the M60:** Through its connection to the A6MARR scheme, the A6 to M60 Relief Road would directly deliver a significant improvement in surface access to Manchester Airport and Airport City, and notwithstanding Highway England's plans for a M60 south-east quadrant Smart motorway scheme, provide additional network resilience and some much needed relief to the M60 motorway between Bredbury and the M56 spur;
- **G.5 A6 to Manchester Airport Relief Road (A6MARR):** This scheme would connect with Phase 1 of the SEMMMS Relief Road, A6MARR, which is expected to open in Spring 2018. This is to be followed by Phase 2 Poynton Relief Road with Phase 3 A6 to M60 Relief Road, comprising the final highway component of the original SEMMM Strategy; and
- **G.8 Better public transport links to the Airport and Port Salford areas from across GM, including better orbital connections:** Access to Manchester Airport from the A6 corridor by bus is currently poor. Skyline 199 operates a half hourly service between Buxton and Manchester Airport via Stockport Bus Station. Completion of A6MARR presents an opportunity to significantly reduce journey times to the Airport from the A6 at Hazel Grove with potential interchange facilities at the bus-based park-and-ride site in Hazel Grove, recently opened by Stagecoach Manchester in July 2015, as the first privately funded park-and-ride in the country. Completion of the A6 to M60 Relief Road scheme would present the opportunity for much better orbital connections with the Airport, which will support improved public transport services (and other sustainable modes) along the route including some of the Borough's lower skilled areas of Brinnington, Bredbury, Offerton and Hazel Grove who could be expected to gain the most benefit from better orbital public transport links with the Airport.

Delivering Better City-to-City Links

GM Ambition: To see an increasingly successful Northern Powerhouse economy, with Greater Manchester at its heart, supported by transformed connectivity between the major cities of the North of England, and to the Midlands, London and Scotland. There will be a step-change in quality, speed and reliability of our city-to-city rail links, allowing travel to Liverpool, Leeds and Sheffield in 30 minutes or less and to London in just over an hour. Motorway journey times will be more reliable. More freight will be moved by rail and water. Transformed infrastructure, smart ticketing and customer information will encourage more trans-northern journeys to be made by public transport.

2.5.73 The Greater Manchester City Region lies at the heart of the North, with the large conurbations of Liverpool, Leeds and Sheffield all within 45 miles of the Regional Centre. Ten million people live within 40 miles of Greater Manchester- 2 million of these are graduates. The constrained capacity, speed and reliability of existing city-to-city road and rail connections are preventing Greater Manchester from fulfilling its long-term potential. For example, by road, it takes 44 mins to travel 34 miles to Liverpool from Manchester, but 1hr 12 mins to travel 38 miles to Sheffield in uncongested conditions, with an average journey speed below 35 mph. This makes it comparatively the poorest connected of the city region pairs in the UK, resulting in a low number of existing movements between the two (see **Figure 2-32**).

Figure 2-32: Existing Trans-Pennine Movements (Average Annual Weekday Traffic, 2015), all trips



2.5.74 The Northern Transport Strategy has set out a vision for a core free-flow network of motorways and expressways increasingly offering reliable 'mile a minute' journey times. Central to achieving the vision is increased capacity and improved Trans-Pennine road links.

2.5.75 City-to-city links by road are provided primarily by the Strategic Road Network of motorways, supported by Greater Manchester's KRN of locally important roads, which will include the A6MARR and would, if constructed, the A6 to M60 Relief Road scheme.

2.5.76 The Strategic Road Network that links Greater Manchester to other northern cities contains some of the busiest and least reliable roads in the country. The M60, for example, which plays a vital part in the life of Greater Manchester, is ranked second only to the M25 in England with respect to peak period traffic flows. It is clear that the strategic highway network around Greater Manchester is particularly critical to the delivery of a more reliable northern highways network that can adequately support future movement of people and goods across the North of England.

2.5.77 Significant investment is already planned in Greater Manchester's strategic road network over the coming years, primarily through the Government's first 'Road Investment Strategy' (RIS1). In the period to 2020, RIS1 contains a number of improvements to the strategic road network to improve its performance and reliability, notably in the context of this Scheme:

- → The implementation of a Smart motorway scheme on the M60 between Junctions 24 - 27 and Junctions 1-4 (i.e. the entire length of the 'South East Quadrant' of the M60 between Denton Island and the M56); and
- → Implementation of a package of measures to improve reliability and resilience on the A57/A628/A616 corridor between the M67 at Mottram and the M1 north of Sheffield, including a new Mottram Relief Road.

2.5.78 Improved highway connectivity between the Manchester and Sheffield city regions is an important strategic transport priority for Greater Manchester. The Government's Road Investment Strategy (RIS)[12] published in 2015 highlighted the need to improve capacity and connectivity between Sheffield and Manchester in order to facilitate and promote economic growth as part of the Northern Powerhouse initiative, stating that: "*such a connection could have a dramatic impact on the economy of the North, particularly in combination with plans for high speed rail links*". A new strategic route between Manchester and Sheffield has the potential to:

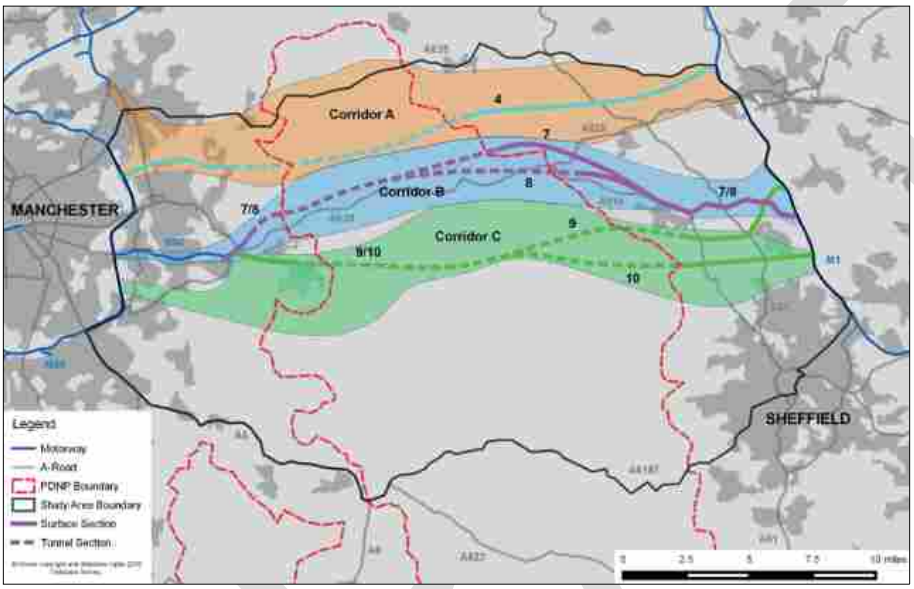
- → Improve the ability for people to travel between these two major cities;

[12] DfT Road Investment Strategy: Investment plan and statement of funds available, March 2015

- Promote growth (improving jobs, skills and employment opportunities);
- Improve capacity of the transport network;
- Improve safety for all road users;
- Offer greater resilience; and
- Reduce the impact of traffic on the high-quality environment of the Peak District National Park (PDNP).

2.5.79 Potential options for a strategic link have been developed[13], resulting in the identification of a shortlist of five better performing route options, shown in **Figure 2-33**.

Figure 2-33: Better Performing Trans Pennine Study Route Options



2.5.80 Initial findings of the Trans Pennine Tunnel study indicate:

- Increases in traffic movements on the M1 and M67/M60 where the proposed tunnel joins the existing networks;
- Lower traffic flows on the M62 and other existing cross Pennine routes;
- Predicted average journey time savings of 30 minutes and increased resilience and reliability across the Pennines; and
- Environmental benefits for the Peak District National Park.

2.5.81 The budget announcement on 16 March 2016 announced that £75 million of the £300 million identified in the Transport Development Fund will go toward accelerating three strategic studies focused on improvements in northern England, including the Trans Pennine Tunnel Study.

[13] Trans Pennine Tunnel Study – Stage 3 Report, November 2016

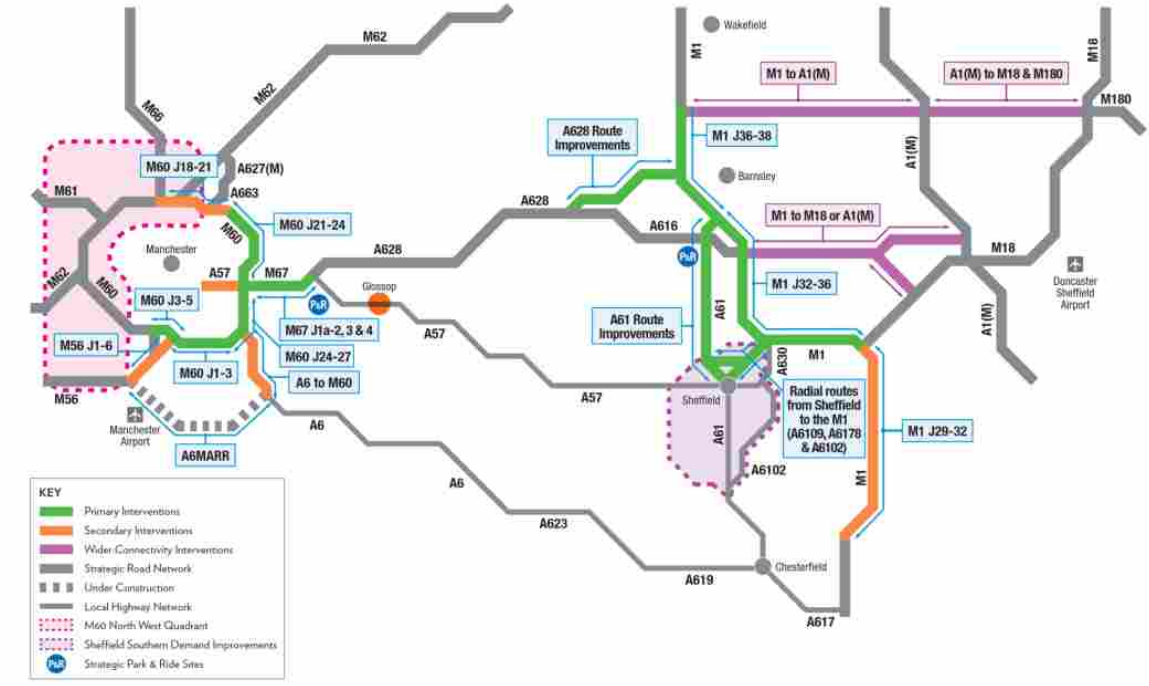
2.5.82 Alongside this, Transport for the North has commissioned a Trans Pennine Wider Transport Connectivity Assessment (WTCA), the key aim of which is to examine how the benefits and opportunities from improved trans-Pennine connectivity can be maximised by supporting investments in the surrounding transport network.

2.5.83 Given the existing constraints, and the distribution of traffic using the Tunnel, a preliminary view has been formed in relation to the interventions likely to be required to mitigate adverse traffic impacts on the adjoining highway network and to ensure that sufficient connectivity, accessibility and wider benefits are delivered by the Tunnel. Figure 7-2 of the Stage 1 Final Report, reproduced below as **Figure 2-34** is a schematic representation of this preliminary view.

2.5.84 In forming this preliminary view, the change in traffic volumes resulting from the TPT has been considered. However, a view has not been taken in terms of the network capacity issues that may arise as a result of background traffic growth between the present day and the Tunnel opening year of 2041. Similarly, no assessment has been undertaken, at this stage of the study, of the feasibility, impacts, affordability or value for money of any of the interventions; this will form part of the subsequent stages of the WTCA study.

2.5.85 The schematic diagram shows interventions colour-coded according to whether they are primary, secondary or wider connectivity interventions. The map also shows the strategic road network (SRN) and local highway network road sections within the area.

Figure 2-34: Wider Transport Connectivity Assessment: Illustrative Preliminary Interventions Map



Source: Figure 7-2, Trans Pennine Tunnel Wider Transport Connectivity Assessment Stage 1 Final Report, TfN

2.5.86 It is noteworthy that the A6 to M60 Relief Road scheme is included as a secondary intervention with the following rationale provided:

- → *New local link A6-M60 to provide a route for Tunnel traffic accessing areas of South Manchester, Manchester Airport and the Airport City Enterprise Zone*
- → *Would reduce or mitigate the impact on the M60 between J25 and J3*
- → *As with the eastern strategic links, the cost of this scheme may off-set the cost of more significant interventions along some of the most constrained sections of the M60*

2.5.87 The Northern Transport Strategy highlights the significant and growing role that freight and logistics will play in the Northern Powerhouse. Nationally, the freight and logistics industry accounts for 9% of the country's GDP and 7% of total employment. The industry is almost entirely owned and operated by the private sector and is highly competitive. It has a strong interest in achieving low cost, on-time deliveries, and initiatives and interventions will only be adopted if they do not impose disproportionate additional costs. As previously identified, the A6 southern approach, which will be the principal beneficiary of the Scheme, performs an important role in city-to-city freight traffic from Derbyshire and the Peak District to the M60, distribution centres and other destinations across the North West. However, the mix of local and strategic traffic is one of the major causes of congestion along the A6 corridor.

2.5.88 In terms of priority interventions for improving City-to-City Links relevant to this Scheme these include:

- **C.5 & C.7 Completion of Smart motorway schemes on M60, M62, M56 and M6 (committed schemes), and Further measures to tackle congestion on the motorway network identified by the NW Quadrant Study and other studies:** The A6 to M60 Relief Road scheme would complement Highway England's plans for a M60 south-east quadrant Smart motorway scheme as well as providing additional network resilience and some much needed relief to the M60 motorway between Bredbury and the M56 spur; and
- **C.9 Measures to improve reliability for trans-Pennine highways links:** The A6 to M60 Relief Road scheme would help to maximise the benefits and opportunities from improved trans-Pennine connectivity including improved route options for road freight traffic.

Travel across the Wider City Region

GM Ambition: That Greater Manchester's regenerated town centres are easy to get to, particularly by sustainable modes, and pleasant to walk around and spend time in. Journeys across the area, between centres or to other major destinations will be made easier through better and faster orbital links, reduced congestion, a more reliable bus network, more effective interchange and better-connected cycle routes. Road collisions will fall, year on year, moving towards our goal of reducing deaths and serious injuries as close as possible to zero. The significant new development expected in Greater Manchester will be accessible by sustainable modes of transport, so that the impact of the extra trips on the road network is reduced.

2.5.89 Beyond the Regional Centre, Greater Manchester is polycentric, with a diverse mix of town centres, employment areas, major hospitals, educational establishments and visitor attractions, which generate highly complex commuting, business, logistics and leisure travel patterns across the city-region and to/from neighbouring areas.

2.5.90 The range of work and business opportunities in Greater Manchester means that there are significant flows to and from neighbouring areas to the south, west and north in particular; flows into the east are more limited, with the Pennines reducing connectivity. Increasingly, business and commuter travel patterns will also be influenced by strategic developments: the growth potential of the Atlantic Gateway in the west; the growth of Manchester Airport and the arrival of HS2 in the south; the potential of the West Coast Main Line to boost the economy of the north west, via its link to HS2; and the potential for the east to develop additional roles in relation to Leeds and Sheffield as a result of 'Northern Powerhouse' connectivity. Improving travel across the city region is therefore an integral part of improving city-to-city links and links to global gateways.

2.5.91 Stockport is one of GM's eight main town centres (the others are Altrincham, Ashton-under-Lyne, Bolton, Bury, Oldham, Rochdale, and Wigan) that provide a critical mass of facilities and services and are the hubs of local public transport networks, making them highly sustainable locations.

2.5.92 All the centres, including Stockport, have regeneration strategies aimed at widening their appeal through a better quality 'offer', broadening the range of uses by including housing, recreational and community facilities and so increasing footfall to the retail areas. Transport has an important role to play in supporting this regeneration through provision of good quality public transport infrastructure and services, safe cycle and pedestrian routes, secure and convenient car parking, and access for servicing and deliveries. In addition, a more pleasant environment can be created for visitors by reducing the dominance of the car in key areas and improving pedestrian linkages across the centres. The A6 southern approach which passes through Stockport town centre exemplifies such a barrier.

2.5.93 The GM Transport Strategy 2040 identifies (through the GM Town Centres Study) that:

> *"Bolton and Stockport both have potential to be the focus for office and commercial growth in the north and south of the conurbation respectively and this will need to be supported by an improved transport offer. Both require improved public transport interchanges, and links from the interchanges into the town centre.* ***Stockport also needs improved connectivity across the centre, principally by taking traffic off the A6 and giving more priority to pedestrians, cyclists and public transport.****"*

2.5.94 The Stockport Town Centre Access Plan and development of an A6 Masterplan is evidence of the Council's ambition for transformational growth, defining new gateways into the town, unlocking developer investment opportunities and forging new connections between the town centre and residential communities to the west. A reduction in traffic brought about by a north-south bypass of Stockport will help support these.

2.5.95 In terms of priority interventions for the Wider City Region relevant to this Scheme these include:

- **W.6 Studies into the long-term transport challenges on southern approaches to Greater Manchester.** In the March 2015 Budget Statement, the Government granted £350,000 to the GM Combined Authority (GMCA) to undertake a contemporary review of the case for the A6 to M60 Relief Road scheme. This business case forms part of the A6 to M60 Feasibility Study which directly relates to this priority intervention, and which will need to be considered alongside the ongoing SEMMMS Refresh to 2040.
- **W.9 Provide infrastructure to serve new development areas, identified through GMSF.** As previously identified, this Scheme will support both the Airport Gateway as part of local highway infrastructure strategy and Eastern Gateway through improved access to Bredbury Park Industrial Estate.
- **W.10 Establish long term programme for improvement of facilities at, and access to, transport hubs.** Manchester Airport is the largest transport hub within Greater Manchester and its importance will grow further with the construction of the proposed HS2 Station at the Airport. The A6 to M60 Relief Road, through its connection to the A6MARR scheme, would directly deliver a significant improvement in surface access to Manchester Airport and Airport City, including the opportunity for high standard orbital public transport connections.
- **W.11 Improve maintenance and resilience of our key route network and local highways.** The Scheme, if constructed, would become part of a future GM KRN. In doing so it would substantially improve the resilience of the KRN and local highways in south east Manchester, both as an alternative route and by reducing traffic volumes and congestion on the A6 and local routes.
- **W.12 Improve the flow of traffic on key roads through measures to release bottlenecks and better manage demand at peak times.** The Scheme would alleviate a number of bottlenecks along the existing A6 southern approach that would in turn enable a package of complementary measures to be introduced in accordance with the SEMMM Strategy that would maximise the scope of benefits by making the most efficient use of road space where there are forecast reductions in car traffic. These measures would prevent available road space from simply filling up with more cars.

- **W.15 Provide much better pedestrian, cycle and public transport links across town centres, including severance by major roads.** The Scheme includes a segregated cycle/pedestrian route adjacent to the new road and existing length of the A6MARR, A555, which would provide a new orbital link for the strategic cycle / pedestrian network. Through the removal of traffic from the existing A6 southern approach, the Scheme would not only significantly reduce the impact of severance through a marked reduction in traffic flow but would enable pedestrian/ cycle facility improvements to be made along and across the bypassed section of A6.
- **W.16 – Measures to reduce impact of goods vehicles in centre, with better loading / unloading facilities.** Although the Scheme would not directly impact goods vehicles in the town centre, completion of the proposed A6 to M60 Relief Road scheme would see a reduction in heavy goods vehicles between Peak District/ Derbyshire and the M60 motorway for south to east journeys and vice versa, importantly in this context improved access to the Northern and Eastern Gateways including Bredbury Park Industrial Estate in Stockport.
- **W.17 Improved road safety at accident blackspots.** There is a concentration of killed and seriously injured and pedestrian/ pedal cycle accidents on the A6 between the Hazel Grove and M60 motorway. The Scheme would provide safety benefits both as a result of a reduction in traffic on the A6 and a better allocation of road space for vulnerable users.

2.5.96 Furthermore, the Scheme indirectly supports the following priority interventions:

- **W.3 New / enhanced interchanges in Ashton, Bolton, Stockport and Wigan town centres (committed schemes) and in other prioritised town centres, including Oldham Mumps (covered schemes).** The Scheme would indirectly support Stockport Interchange through improved access and reliability for bus services using the interchange due to the removal of traffic congestion from along the A6 potential for bus priority measures to be introduced as part of the package of complementary measures.
- **W.4 Improve accessibility and connectivity to and around Stockport town centre (committed schemes).** The Stockport Town Centre Access Plan and potential delivery of an A6 Masterplan will define new gateways into the town, unlocking developer investment opportunities and forging new connections between the town centre and residential communities to the west. A reduction in traffic on the A6 through the town centre brought about by a north-south bypass of Stockport would support plans to enhance the public realm to be realised and make the corridor a more pleasant place to work, attract business and live.

Conclusion

2.5.97 The A6 to M60 Relief Road scheme is able to demonstrate a very strong policy alignment with the GM Transport Strategy 2040. Delivering the scale of growth set out in the draft GMSF will require a carefully prioritised programme of transport investment, incorporated into future Greater Manchester Transport Strategy delivery plans and supported by a new transport fund. This strategic outline business case sets out the case for the A6 to M60 Relief Road scheme to be part of this prioritised programme of transport investment, in order to address congestion, support the delivery of major sites and ensure that residents and businesses are able to take full advantage of the excellent global and inter-city connectivity.

CHESHIRE EAST LOCAL PLAN

2.5.98 The Cheshire East Local Plan has been under development since 2010 and is now approved. The Cheshire East Local Plan mainly informs transport issues in the south of the SEMMMS area, centred upon the towns of Knutsford, Wilmslow and Macclesfield. The Cheshire East Local Plan argues that improvements to all forms of infrastructure will be necessary in order to mitigate current deficiencies, and to cater for growth and development aspirations between now and 2030. The challenge for the local plan, therefore, is to provide mitigation for current and future shortfalls in infrastructure, and to improve connectivity in order to support economic growth. This will be delivered through the following policies:

- **Sustainable Travel and Transport** – This policy seeks to reduce the need for travel in the first instance, while providing more sustainable alternatives (active travel and public transport) for those journeys which still need to take place. Better integration between different modes of public transport will be necessary in order to encourage a modal shift towards sustainable travel;
- **Enabling Business Growth Through Transport Infrastructure** – This policy aims to ensure transport infrastructure developments keep pace with business and housing growth, and compels the council to support unlocking the full benefits of HS2; and
- **Travel Plans and Transport Assessments** – major developments which are likely to generate a significant number of additional journeys must undergo a Transport Assessment, and where necessary, a Travel Plan to assess any requirements for further transport investment.

CHESHIRE EAST LOCAL TRANSPORT PLAN 3 (LTP3)

2.5.99 The Cheshire East LTP3 is a strategic plan for the development of transport within Cheshire East over the period 2011-2026, outlining the ways transport will contribute to and support the longer-term aspirations of the borough. It is the first to be developed by Cheshire East Council following the re-organisation of local government in Cheshire in April 2009. The overall policy aims outlined in the Cheshire East Local Transport Plan are as follows:

- Ensure a Sustainable Future;
- Create Conditions for Business Growth;
- Drive Out the Sources of Poor Health;
- Nurture Strong Communities;
- Support Our Children and Young People;
- Prepare for an Increasingly Older Population; and
- Unlock the Potential of Our Towns.

2.5.100 Interventions in through these policy aims is hoped to:

- Minimise congestion and improve the overall efficiency of the highway network;
- Improve accessibility to key services (employment, education, health, shopping and leisure) and reduce the need to travel;
- Improve maintenance of the highway and transport network;
- Support community involvement and decision-making;
- Support active and healthy lifestyles;
- Protect and enhance the local and global natural environment (including environmental assets such as biodiversity, geodiversity, soils and protected landscapes); and
- Improve road safety for all users and increase personal and community safety.

HIGH PEAK LOCAL PLAN

2.5.101 The Local Plan was adopted in 2016 and sets out High Peak Council's vision and strategy for the borough until 2031. As with other local plans, the scope of the document is mainly concerned with housing supply and planning issues within the High Peak area. However, Policy CF6 considers accessibility and transport issues. The overarching aim of this policy is to ensure that developments can be accessed in a safe and sustainable manner. This will be achieved by:

- **Delivering sustainable patterns of development** – ensuring that growth is properly managed, and is accompanied by accessibility improvements, and ensuring developments are located in easily accessible locations; and
- **Supporting transport infrastructure and services** – promoting transport improvements alongside key partners such as Highways England and Network Rail, supporting the use of rail for passenger and freight transport where possible, and ensuring that appropriate Travel Plans are completed for all developments to ensure appropriate access is provided.

DERBYSHIRE LOCAL TRANSPORT PLAN 3 (LTP3)

2.5.102 In April 2011, Derbyshire County Council published its third Local Transport Plan. The LTP3 sets out the transport vision, goals, challenges to be tackled and a strategy covering the period to 2026.

2.5.103 The vision aims to achieve a transport system that is both fair and efficient, promotes healthier lifestyles, safer communities, safeguards and enhances the natural environment and provides better access to jobs and services. At the same time, the strategy also aims to improve the choice and accessibility of transport, and aims to integrate economic, social and environmental needs.

2.5.104 The five transport goals are summarised as:

- Supporting a resilient local economy;
- Tackling climate change;
- Contributing to better safety, security and health;
- Promoting equality of opportunity; and
- Improving quality of life and promoting a healthy natural environment.

2.5.105 The plan puts emphasis on supporting a resilient local economy, contributing to better safety, security and health, and improving quality of life and promoting a healthy natural environment. It aims to achieve longer term benefits for climate change and measures to help people under the equality of opportunity goal.

2.6 SEMMMS REFRESH TO 2040

BACKGROUND

2.6.1 The South East Manchester Multi-Modal Study undertaken in 1998-2000, developed a 20-year Transport Strategy for the area that was approved in 2001. The study recommended that the SEMMM Strategy needed to be implemented in its entirety if its benefits were to be fully realised.

2.6.2 Since the completion of the study in 2002, approximately £63 million has been spent on SEMMMS projects including quality bus corridors, accessibility improvements to bus stops and transport interchanges, the provision of yellow buses as well as road space reallocation involving the creation of on-street cycle facilities and improvements to the pedestrian network. More recently, £290 million has been allocated to the A6 to Manchester Airport Relief Road (A6MARR)

scheme with construction commencing in March 2015 and due for completion in Spring 2018, £32 million to the Poynton Relief Road (PRR) scheme which was granted planning approval in January 2017, and a contemporary review of the case for the A6 to M60 Relief Road is currently underway through this study.

SCOPE

2.6.3 The SEMMMS Refresh to 2040 study is a joint study commissioned by Stockport Council and Cheshire East Council, in conjunction with Transport for Greater Manchester (TfGM). A successful fully integrated transport system is a key component of the economic ambitions for both Stockport and north Cheshire (the core constituents of the SEMMMS area) as well as the wider Greater Manchester region. If transport is to play its full part in both driving and supporting growth, the future development of the transport system must be designed in line with changing travel demands arising from changing patterns of economic activity.

2.6.4 The study will review the original SEMMM Strategy, ensure alignment with the latest national transport policy, sub-national transport strategy development, with the Greater Manchester Transport Strategy 2040 (GMTS 2040) and Cheshire East LTP. It is the intention to extend the SEMMMS Action Plan through to a period up to 2040.

2.6.5 A project steering group has been established including representation from key partners Highways England, Network Rail, Manchester Airports Group, Manchester City Council, Tameside Council, Derbyshire County Council, High Peak Borough Council and the Peak District National Park Authority.

SEMMMS DELIVERY TO DATE

2.6.6 **Table 2-2** overleaf provides a summary of the delivery of the SEMMMS Action Plan to date.

Completed SEMMMS Schemes

2.6.7 Many of the major elements of the Action Plan are now completed and open, including the Alderley Edge bypass and works at the Denton Interchange at M60 Junction 24. Proposals to enhance the quality of bus services through Quality Bus Partnerships have also been realised.

Table 2-2: Current Progress on Delivering Schemes Identified in SEMMMS

SEMMMS Final Report Table 7.1: Recommended Strategy — Summary					Scheme Progression		
Theme	**Measure**	**Agency**	**Cost**	**Timescale**	**Stage of Implementation**	**Notes**	**Other**
Roads	Alderley Edge Bypass	Cheshire County Council	£30m	2004-2006	Completed	2010/11	
Roads	A6 Reduced Scale Bypass (Bredbury — Hazel Grove)	Stockport MBC	£90m	2008-2012	Planning		
Roads	A555/S23 Reduced Scale Poynton Bypass (inc A523 improvements)	Cheshire County Council/Stockport MBC	£35m	2008-2012	Not to be constructed (not including A523 improvements)		
Roads	A555 Reduced Scale MALRW	Cheshire County Council/Manchester City Council/ Stockport MBC	£45m	2008-2012	Ongoing Construction	A6MARR	
Roads	M60/M67/A57 Denton Interchange	Highway Agency	£10m	2004-2007	Completed		2015
Metrolink	Stockport Extension	GMPTE	£90m	2008-2012			
Metrolink	Stockport-Rose Hill	GMPTE	£95m	2010-2015	Projects in development	Tram-train options being explored.	
Metrolink	Stockport-Airport	GMPTE	£70m	2010-2015			
Rail	Incremental Enhancements	GMPTE, Railtrack, TOCs, Local Authorities	£20m	2004-2006	Completed		
Rail	Orbital Services	GMPTE, Railtrack, TOCs, Local Authorities	£20m	2005-2009	Ongoing - tram-train initiative		
Rail	Urban Metro	GMPTE, Railtrack, TOCs, Local Authorities	£85m	2010-2015	Ongoing - through Northern Hub		
Rail	Eastern & Western Links	GMPTE, Railtrack, TOCs, Local Authorities	£320m	2010-2020	Ongoing - Mid-Cheshire Line Study		
Quality Bus	Area-wide QBCs	GMPTE, Local Authorities	£25m	2002-2006	completed	2010/11	see SEMMMS QBC report
Quality Bus	Enhanced QBCs	GMPTE, Local Authorities	£10m	2008-2012	completed	2010/12	see SEMMMS QBC report
Quality Bus	Network In-filling	Public Transport Authorities	£5m	per annum	completed	as part of GMPTE Integrate	
Use of Road Space	Area Wide Traffic Calming	Local Authorities	£20m	2002-2008	Complete/Ongoing Construction	as part of A6MARR	lots of small schemes
Use of Road Space	Maintenance and signing	Local Authorities	£20m	2002-2005	Complete/Ongoing Construction	as part of A6MARR	lots of small schemes
Freight	Signing, Routing Strategy, Freight QP	Local Authorities less Regional Bodies + goods vehicle operators	£10m	2002-2005	Implementation	Greater Manchester Freight and Logistics Strategy recommendad for approval (July 2016)	
Freight	Complement Road Investment	Local Authorities	Part of £10m above	2004-2012	unknown		
Transport Change	Established and Maintenance of Twenty Year Programme	GMPTE, Local Authorities	£70m	2001-2020	Ongoing	Inherent in SEMMMS Delivery	
Transport Change	Urban regeneration	Local Authorities	Part of £70m above	2002-2012	Complete/Ongoing Construction	as part of A6MARR	lots of small schemes

SEMMMS Relief Road

2.6.8 From 2001 onwards, the three local authorities in the area (Cheshire East, Manchester and Stockport Councils) developed the SEMMMS Relief Road concept, originally developing a business case and funding submission for the scheme in 2004.

2.6.9 In July 2007, the DfT advised that while the SEMMMS Relief Road provided value for money, limited funding capabilities meant it was not possible to fund the Relief Road as a single scheme, such that consideration should be given to its phased delivery. Three potential phases of the scheme were identified by the local authorities, and were submitted to the DfT for consideration in 2007/ 08 as follows:

- M60 to the A6, including the Stepping Hill Link;
- A6 to Manchester Airport with Poynton Bypass; and
- A6 to Manchester Airport without Poynton Bypass (the A6MARR scheme).

2.6.10 Given these funding constraints the DfT and Local Authority Officer's jointly examined the key policy drivers in the area and agreed that the A6 to Manchester Airport section was the priority scheme due to the potential economic impact on Manchester Airport (and therefore the City Region) of delaying access improvements, which in turn could constrain future economic growth. Accordingly, Government advised that the scheme should be delivered in three phases, namely:

- Phase 1 - A6 in Hazel Grove to Manchester Airport Relief Road, or A6MARR;
- Phase 2 - Poynton Relief Road; and
- Phase 3 - A6 to M60 Relief Road - incorporating the proposed Stepping Hill link.

SEMMMS Relief Road Phase 1: A6MARR

2.6.11 Confirmation of government funding for A6MARR to improve access to Manchester International Airport and the adjacent enterprise zone was announced in October 2013. Setting the importance of the scheme in context, Lord Deighton, chair of the HS2 Growth Taskforce and Commercial Secretary, said:

> "*This is another example of the government's willingness to unlock the key transport infrastructure vital to the regeneration of the economy.*
>
> *Making this funding available for new road links around Manchester Airport reflects this government's commitment to drive growth in the economy and reduce congestion on our roads. Manchester International Airport is the 4th largest airport in the UK and of crucial economic importance to the future prosperity of the north of England.*
>
> *The scheme will significantly improve access from the east not only to the airport but also the airport city enterprise zone. It will also relieve congestion in the south of the conurbation and support growth in the wider south Manchester corridor.*
>
> *A parallel shared cycle and pedestrian path and a package of complementary measures, which could include the widening of pavements and new bus lanes, will maximise the scope of potential benefits by making the most efficient use of road space in the areas where there are forecast reductions in car traffic."*

2.6.12 The government's announcement followed the decision of the GMCA to approve the funding package for A6MARR in summer 2013, a combination of £165 million of specific DfT capital grant, £105 million of additional capital grant funding from the Government through the Earn Back model, and £20 million of Local Transport Plan (LTP) funding. Following the confirmation of the Compulsory Purchase Order and Side Road Order, the Business Case received full approval from the DfT in March 2015, with works commencing in April 2015. The A6MARR scheme expected to open in Spring 2018.

SEMMMS Relief Road Phase 2: Poynton Relief Road

2.6.13 Poynton Relief Road is being developed by Cheshire East Council, working in partnership with Stockport Council.

2.6.14 A set of scheme objectives for the PRR scheme have been developed by Cheshire East Council, in partnership with Stockport Council. These objectives attempted to capture the strategic aspirations of SEMMMS as well as the local aims of the Poynton Relief Road scheme:

- To support the economic, physical and social regeneration of Poynton and the north of the area, in particular Macclesfield;
- Transfer Heavy Goods Vehicles (HGVs) onto more appropriate roads on the wider network and relieve existing traffic congestion in Poynton;
- Deliver a range of complementary measures on the A523 corridor to Macclesfield that address Road Safety, Congestion and Mitigation of the wider environmental impact of traffic;
- Boost business integration and productivity by improving the efficiency and reliability of the highway network, reducing the conflict between local and through traffic, by the improved route for freight and business travel; and
- Allow improvements to the highway network for public transport, walking and cycling.

2.6.15 Cheshire East Council has secured £22 million of funding through the Government's Local Growth Fund. The bid was part of the Cheshire and Warrington 'Growth Deal' which in total has received £142 million to improve connectivity and deliver growth across the region. A further £2 million has been contributed by the Greater Manchester Combined Authority (GMCA). Any funding shortfall would be guaranteed by Cheshire East Council and potential developer contributions.

2.6.16 A joint planning application for the scheme was submitted on 1 September 2016 which has been approved. Cheshire East Council is in the process of developing a DfT compliant business case for the PRR scheme which is anticipated to be submitted to the DfT in November 2017 after a contractor has been appointed to construct the scheme and a final tendered price has been received.

SEMMMS Relief Road Phase 3: A6 to M60 Relief Road

2.6.17 In the March 2015 Budget Statement, the Government granted £350,000 to the GMCA to undertake a contemporary review, across two stage, of the case for the A6 to M60 Relief Road scheme. Stage 1 of the review concerned a review of the previous outline business case with attention paid to current policy, economic context, contemporary travel and traffic data, highway design options and environmental review.

2.6.18 A large major funding bid towards further development costs of the Scheme was submitted to Government in July 2016 by the GMCA in light of the importance attached to the Scheme within the context of the Greater Manchester Growth Strategy, Greater Manchester Spatial Framework and Greater Manchester Transport Strategy 2040. Highways England supported the funding bid proposal due to the expected benefits for the M60 south east quadrant at Stockport and due to the opportunity to support wider economic growth. Letters of support from TfGM and GM LEP were submitted with the bid to the Government. No announcement has been forthcoming to date regarding the status of the large major funding bid application.

2.6.19 The Scheme was the subject of an adjournment debate in the House of Commons on 02 March 2017, motion made and question proposed by William Wragg MP (Hazel Grove). Responding the Parliamentary Under-Secretary for Transport (Andrew Jones) said of the Scheme:

"My hon. Friend asked whether we support the proposed scheme. Yes, we have shown

our support for it by providing Greater Manchester Combined Authority with £350,000 to fund a feasibility study for the route. That study, I understand, is due to be completed in May this year. It will then be for the combined authority and Stockport Metropolitan Borough Council to decide what to do next. They could decide to fund the scheme from their own or from third-party sources, or they could seek access to Government funds. If the study is sufficiently detailed, they could bid for funding from our large local majors fund—the vehicle to support schemes like this through the Department for Transport. That fund is designed to help councils to build transport schemes that are too large to be funded through the usual source of funding—the local growth fund—but not big enough to be classed as of national strategic importance. However, I have to warn my hon. Friend that this fund is very popular and likely to be oversubscribed—and this scheme will be an expensive one. Nevertheless, our support for the scheme shows that we are serious about working with local partners to deliver a world-class transport network to improve the lives of local people."

2.6.20 Continuing:

"We are also looking at future projects. We are running studies of the case for building a trans-Pennine tunnel between Manchester and Sheffield, and for improvements that could benefit the area of the M60 north-west quadrant and therefore the whole M60 route. The process is now under way to set the next road investment strategy, which will cover the period post 2020.

We are working closely with partners in Greater Manchester and Transport for the North to determine future priorities. I am sure my hon. Friend, with his customary diligence, has raised the matter with them, but I will certainly mention this debate next time I meet Transport for the North and highlight my hon. Friend's concerns, to make sure that they are firmly on its radar."

2.6.21 And concluding:

"I hope that I have been able to demonstrate that this Government are committed to improving transport in Manchester as a whole, including in south Manchester and in my hon. Friend's constituency. We have shown that support by providing significant funding for a wide range of improvements, as well as the specific funding for a feasibility study of the A6 to M60 scheme. He has made a great case—I would expect him to do so, as a local champion for his area—highlighting the benefits very clearly and showing great sensitivity to environmental concerns. I very much look forward to receiving a copy of the report once it has been completed. Once the promoters have looked at the study, I expect it—should they choose to seek our support—to arrive in the Department, where it will be considered and given a very good hearing."

2.6.22 This WebTAG-compliant strategic outline business case represents Stage 2 of the contemporary review of the case for the A6 to M60 Relief Road scheme.

2.6.23 There are also a range of other local area schemes which are on-going, or currently being constructed, including area-wide traffic calming, maintenance and signing, and urban regeneration schemes.

Other SEMMMS Schemes Ongoing

2.6.24 Three schemes from The original Action Plan included three tram extension schemes which would provide connections between Stockport, Rose Hill, and Manchester Airport. These schemes have now each been replaced by the tram-train strategy which has identified an alternative means of delivering the same public transport connectivity improvement as the SEMMMS Strategy was recommending. This tram-train strategy also incorporates the benefits and outcomes of the proposed orbital rail services. Metrolink/ tram-train remains a strong aspiration.

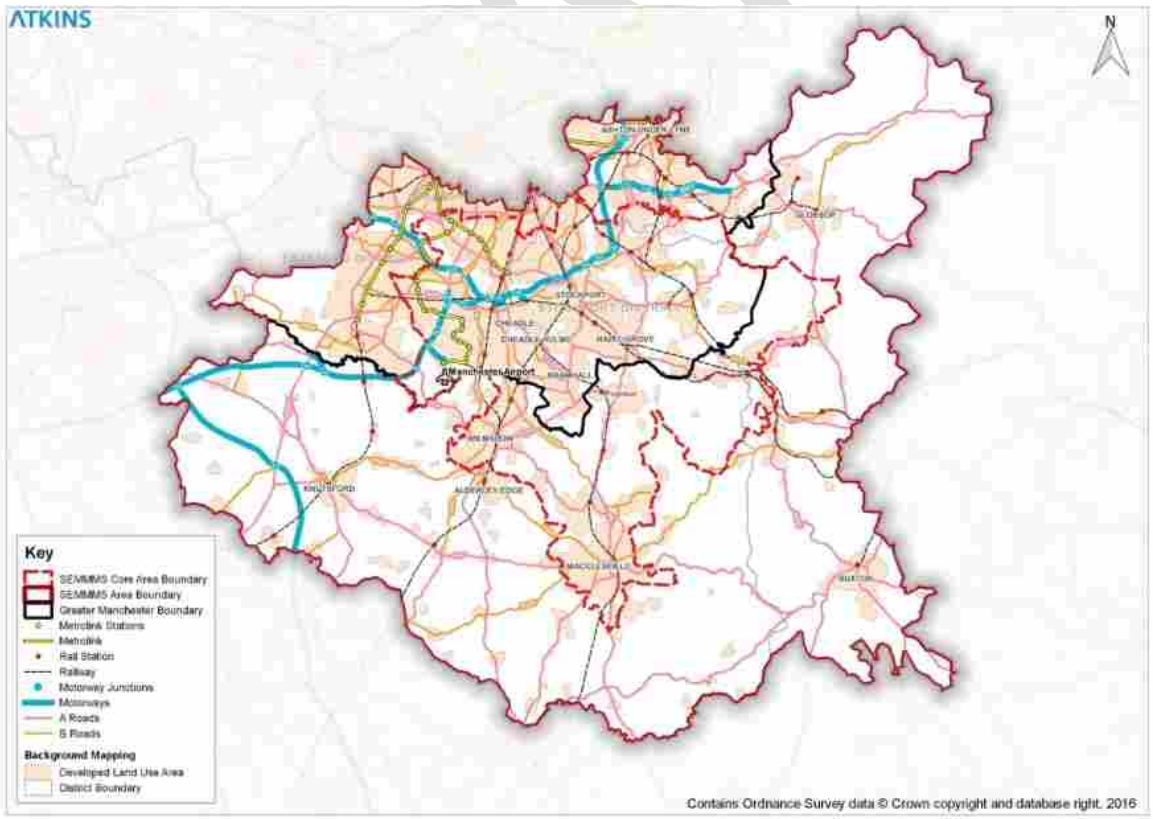
2.6.25 There are other rail schemes that are currently ongoing; plans for the urban metro is being prepared via Northern Hub, and plans for the Eastern and Western links are being prepared by the Mid-Cheshire Line study.

SEMMMS REFRESH STUDY AREA

2.6.26 The area of focus for the SEMMMS Refresh to 2040 study has been defined as covering a wide-reaching expanse to the south-east Manchester, which includes Stockport and north-east Cheshire, as well as parts of Derbyshire, High Peak, Tameside, Manchester and Trafford. The study considers an area which is broadly the same as the earlier SEMMMS Strategy, albeit with the boundaries slightly defined to account for more recent changes in land use.

2.6.27 A 'core' study area has been defined, which encapsulates the primary area of focus and interest for SEMMMS. The area is around 324 square kilometres and includes Stockport town centre, Wilmslow and Macclesfield, as well as a number of local and rural centres and concentrations of employment development. This core study area also incorporates Manchester Airport, and the wider Airport City development site. The area extends to include Marple and Disley to the west, and north Stockport to the north including Heaton Chapel. A 'wider' study area has also been designated, which expands over 1,143 square kilometres. This region includes a wider catchment of influence, where travel infrastructure and travel attractions (including employment) will have a direct influence on travel behaviours in the core study area. This wider region includes other major centres which lie on the periphery of the south-east Manchester area, including Ashton-under-Lyne, Glossop, Buxton, Knutsford, Alderley Edge and Trafford Park. The SEMMMS Refresh core and wider study areas are presented in **Figure 2-34** below.

Figure 2-35: SEMMMS Refresh Study – Core and Wider Study Areas



Source: SEMMMS Refresh to 2040

2.6.28 The plan demonstrates the diversity of the south-east Manchester area, highlighting the contrasts between the urban areas within the Greater Manchester boundary, and the more rural areas on

the periphery to the south and east where the area ties into Cheshire and edges of the Peak District.

2.6.29 It is recognised that there is substantial interaction between the core and wider study area, as well as a wider strategic importance to the SEMMMS region. A 'study area' was defined to help guide the work; however the national significance of the region is not to be overlooked. Greater Manchester is the largest economy in the North West, and acts as a substantial sub-regional attractor drawing in movements from the west (links from the M6, via the M56), south (including Cheshire) and the east (Derbyshire and Yorkshire).

2.6.30 The region includes M6 J19, the A556 and the M56, which act as the gateway corridor from the M6 spine into Greater Manchester. This is a key access route from the Midlands and South. Alongside the M56 at junctions 5 and 6 is Manchester Airport which is a nationally significant international gateway, and the largest UK airport outside of London. This hub has large plans to expand, as well as connectivity to the planned HS2 network with a station proposed on the western side of the M56.

SEMMMS REFRESH: LOOKING FORWARD TO 2040

2.6.31 The SEMMMS Refresh primary and enabling objectives, which are aligned to the modal principles and spatial themes of the GM Transport Strategy 2040 are set out in **Table 2-3** overleaf.

Table 2-3: SEMMMS Refresh Objectives

To set a framework for the future, the work to refresh the SEMMM Strategy has defined a vision for the transport network as follows:

"A transport network that supports inclusive sustainable economic growth, improves quality of life and protects the environment."

To realise this vision, there are **3 primary objectives** which the new strategy is seeking to deliver. This vision and these objectives align closely with the visions of TfGM's 2040 Strategy and Cheshire East's LTP.

Based on the evidence base, **10 enabling objectives** have been set which are principles which can guide the journey towards realising the outcomes from a transport and connectivity perspective.

i) Tackle congestion and improve journey time reliability, in particular on key corridors.	*ii) Improve transport capacity and accessibility to jobs and services in the regional centre, key centres, town / local centres, key employment areas and at Manchester Airport.*
iii) Promote an integrated public transport network that supports seamless travel.	*iv) Improve connectivity to surrounding key towns and cities through new and enhanced transport links.*
v) Improve safety, security, resilience and maintenance of the transport network.	*vi) Enhance and create new safe walking and cycling connections and encourage active travel to support healthy communities.*
vii) Enhance the quality of the built environment and contribute to creating successful streets, spaces, villages, towns and local centres.	*viii) Increase the use of sustainable transport and support the creation of a low emission future.*
ix) Exploit new technologies and innovative approaches where they can add value to the strategy.	*x) Provide improved accessibility to local health, education, leisure and retail services, for all age groups*

2.7 SCHEME INTERDEPENDENCIES

M60 SOUTH EAST QUADRANT

2.7.1 The M60 South East Quadrant Baseline Study was published by Highways England in 2015. The report details existing and future conditions in and around the south east quadrant of the M60. The study area includes the south east section of the M60 from south of Junction 24 to east of Junction 5. It reports the following:

- The M60 is approaching motorway lane capacity between M60 J27 and M60 J4, with a forecast 20% increase in traffic between 2009 and 2032;
- There are severe capacity issues on the M60 and M56 within the study area;
- There is insufficient mainline capacity forecast between J1 and M56 in particular;
- J1 and J25 are forecast to be particularly congested junctions;
- There are M60 traffic incident 'blackspots' around J25 and J2-3; and
- There are pedestrian and cycle incident 'blackspots' around J2 approach roundabouts and Stockport local roads.

2.7.2 The report recommends the reassignment of local traffic off the M60 through provision of improved alternative routes, such as A6MARR and the proposed A6 to M60 Relief Road scheme.

A6 MASTERPLAN

2.7.3 The A6 Wellington Road Masterplan forms part of Stockport Council's 'Investing in Growth' Vision, which includes a series of large scale, coordinated investment projects (including Stockport Town Centre Access Plan, Stockport Exchange and Stockport Station Masterplan) intended to revitalise Stockport town centre.

2.7.4 The Masterplan is being developed with close involvement from stakeholders including local businesses and TfGM and provides an opportunity to re-evaluate the role of Wellington Road North and Wellington Road South as the A6 passes through the town centre between Belmont Way and the Blossoms Public House at Bramhall Lane; maximising the potential for transformational growth, defining new gateways into the town, unlocking developer investment opportunities and forging new connections between the town centre and residential communities to the west.

2.7.5 Whilst planned and potential future opportunities for reducing traffic levels on the A6, most notably the Town Centre Access Plan and **A6 to M60 Relief Road scheme**, provide a key mechanism for the severance effects of the corridor to be reduced and journey times experienced to become more stable, it is equally important for the corridor to reflect evolving relationships between connectivity and place; connectivity demands between new attractors accessed off the route influencing requirements that any place making ambitions need to accommodate when seeking to 'civilise' the A6 for all users.

2.7.6 Within this context the overall aims of the Masterplan are to:

- Provide evidenced, prioritised and costed options for the future development of the A6 corridor based on a comprehensive demonstration of the route's strategic importance as a major gateway into Stockport town centre;
- Articulate the impact these options could have for the regeneration of Stockport town centre if the A6 is transformed into a driver of local economic growth;
- Create and enhance visual linkages between key current and planned future attractors accessed off the route; and

- Develop an associated wayfinding and public realm strategy that is complementary to these ambitions.

2.7.7 The objectives for the A6 Masterplan are to:

- Maximise economic value from existing assets and planned future investment (Economic Growth);
- Identify the next generation of catalytic regeneration opportunities to support economic growth of the town centre (Regeneration);
- Create a 'front door' gateway to Stockport that serves as an attractive destination in its own right (Place-Making);
- Improve connectivity and the legibility of links between key attractors through a coherent public realm strategy (Connectivity);
- Improve accessibility of the town centre for all modes (Accessibility)
- Reduce traffic dominance by exploiting opportunities afforded through the emerging TCAP proposals (Environment);
- Ensure deliverability through scalable solutions phased to align with private investment and funding opportunities (Affordability).

2.8 OPTION DEVELOPMENT

DEVELOPMENT OF THE PREFERRED OPTION

2.8.1 The scheme option described is the culmination of a large amount of analysis, review and revision over a number of years as part of the SEMMMS study starting in 2000/01. The study considered both highway and public transport interventions, and decided upon the original SEMMMS Relief Road linking the M60 north of Stockport to the M56 at Manchester Airport as a key element of the strategy's preferred approach.

2.8.2 The promoting authorities remain committed to the full scheme, but are following the DfT's advice (2007) of delivering the scheme in phases. The current under construction, A6 to Manchester Airport Relief Road (A6-MARR) is the first phase of the full scheme, the Poynton Relief Road is the second phase and this scheme the A6 to M60 Relief Road is the final (third) phase.

2.8.3 The original SEMMM Strategy report in 2001 established the case for a new relief road from the M60 to Manchester Airport, stating that the scheme has wider strategic transport benefits as traffic will be transferred from local roads to the new road schemes.

ROAD OPTIONS CONSIDERED

2.8.4 The following five broad options were considered for each of the three road schemes remitted to the study:

- Do not construct the scheme (do minimum);
- Construct the scheme as proposed at the time it was put on hold;
- Construct the road but at a lower standard;
- Construct the scheme but with provision for both private cars and dedicated facilities for goods vehicles and/ or public transport; or
- Construct a scheme for goods and / or public transport only.

2.8.5 Considering the road schemes in isolation, the assessment indicated that:

- Constructing all phases should be considered;
- Constructing only one or two, but not all to the design previously proposed would simply amplify the existing traffic problems; and
- Building a lower capacity scheme option could be a viable option.

OPTION SIFTING

2.8.6 The original SEMMMS study developed and tested six separate strategy options in order to arrive at a preferred strategy of interventions. The six strategy options consisted of a mix of road, heavy rail, light rail and Quality Bus interventions along with non-infrastructure options to address the transport problems of the study area.

2.8.7 They key elements of these strategy options are listed in **Table 2-4**. All options assumed the construction of Alderley Edge Bypass.

Table 2-4: Original SEMMMS Strategy Options

OPTION	ROAD	METROLINK	RAIL	QUALITY BUS
Red	Reduced: A6(M), A555/ A523 and MALRW	Airport – Wilmslow, Airport – Poynton, Hough End – Stockport	Urban Metro, Western Rail Link	New QBC Corridors

Option	Road	Metrolink	Rail	Quality Bus
Orange	Reduced: A555/ A523 and MALRW	Hough End – Stockport, Stockport – Rose Hill	Urban Metro, Eastern Rail Link, Western Rail Link	New QBC Corridors
Yellow	Reduced A6(M)	Hough End – Stockport, Stockport – Hazel Grove	Expanded Orbital Services: Stalybridge, Stockport	Do Minimum Corridors Enhanced
Green	Full Standard Road Schemes, A523 Dualling, A6 High Lane/ Disley Bypass	Hough End – Stockport,	Western Rail Link	New QBC Corridors
Blue	None	Airport – Poynton, Hough End – Stockport, Stockport – Hazel Grove	Urban Metro, Western Rail Link	New QBC Corridors
Violet	Reduced: A6(M), A555/ A523 and MALRW, A6 High Lane/ Disley Bypass	Hough End – Stockport, Stockport – Rose Hill, Stockport – Airport	Urban Metro, Western Rail Link	New QBC Corridors

2.8.8 This assessment led to the development of a recommended strategy that incorporated a substantial public transport investment in new infrastructure and services and also the construction of all three remitted road schemes but to a lower standard of provision.

2.8.9 In addition to the infrastructure interventions proposed, recommendations included road space reallocation, transport change measures and urban regeneration proposals. A number of public transport only options were considered but rejected because of the reasons described below:

- Heavy and light rail and guided bus options were all ruled out on cost grounds given the new infrastructure required to operate along the corridor. These options would cater only for a small proportion of the traffic given that they could serve only a limited number of the end-to-end journeys.
- Bus-based options on the existing highway network were considered unrealistic, since they would not be able to offer the journey time savings to generate a sufficient level of mode shift to produce a viable business case (bus services have been withdrawn from operation in the past due to the large level of subsidy required to maintain them). This meant that:
  - The problem of congestion in town and district centres would not be resolved;
  - Journey times may improve slightly if there is reasonable mode shift, but they will be insufficient to provide the step-change required to generate economic growth and employment; and
  - Other problems, such as poor air quality and noise, could potentially be exacerbated.
- Bus-based options also failed to address the need for improved freight connectivity to, from and across the Greater Manchester, south Manchester and Manchester Airport areas.

2.8.10 Having assessed a wide range of public transport interventions, the SEMMMS study recognised that many of the serious traffic congestion problems would only be addressed through the construction of the remitted road schemes. The proposed A6 to M60 Relief Road scheme has thus been developed following an extensive examination of alternative options and is only one element of an integrated package of investment.

2.8.11 The previous SEMMMS and A6MARR business case analysis demonstrate a significant increase in traffic volumes on north-south routes in the corridor reflecting congestion on east-west routes which is forcing many drivers to choose a longer journey along north-south roads and the M60 in order to complete an east-west journey.

2.8.12 The overall conclusion from this analysis is that a public transport only alternative could not:

- Cater for the very dispersed orbital movements in the SEMMMS Scheme corridor;
- Materially improve the level of congestion on the local road network due to the very limited reduction in traffic that could be achieved by any public transport scheme; or
- Improve public transport accessibility to all areas of the corridor due to the very congested road network.

2.8.13 All the assessments led to the conclusion that a new piece of highway infrastructure, providing alternative and direct access to Manchester Airport from the congested M60 will provide substantial journey time savings that allow businesses and employers to reach markets and jobs in the Airport City Enterprise Zone.

SCHEME DEVELOPMENT

Collection and Collation of Data

Historic information relating to the scheme has been gathered and reviewed where it is relevant to inform the Stage 2 design updates, which have been progressed. It is outside the scope of this phase of work to review/check the decisions that have been made historically.

Highway Design Review

2.8.14 A review of the key elements of the highway design covering the horizontal and vertical alignment has been undertaken and which has found no significant concerns towards the design compliancy of the preferred alignment.

2.8.15 It is recommended that further review of the alignment design would be required during later stages, to refine and develop the proposals.

Junction Strategies

2.8.16 The proposed junction layouts and capacity have been reviewed in line with the traffic forecasting, which has indicated that the proposed junctions are within acceptable parameters for this study.

2.8.17 It is recommended that further review of the junction designs would be required during later stages, following more detail operational assessment of junction performance. Any changes to the currently assumed land-use developments included within the uncertainty log, such as proposals contained within the draft GM Spatial Framework, would require the junction designs to be reviewed.

Interface with the A6 to Manchester Airport Relief Road

2.8.18 The A6 to Manchester Airport Relief Road (A6MARR) is currently being constructed to Dual 2 Lane All-Purpose (D2AP) standard and is planned to provide 10 km of new carriageway. The east-west route starts from the A6 near Hazel Grovel, via the 4 km of existing A555 to Manchester Airport and the link road to the M56.

2.8.19 The proposed A6 to M60 Relief Road scheme is intended to tie into the A6MARR at the location of the T-junction on the A6, approximately 260m east of Buxton Road. The form of the new junction will be determined following traffic modelling and public consultation.

M60 Junction 25 Smart Motorway Interface

2.8.20 Traffic forecasts for the scheme opening year of 2024 have been used to assess the

appropriateness of the current design layout for the altered Junction 25 at the M60 motorway. The traffic forecasts indicate that the proposed junction would operate within and therefore the design has not been revisited during this stage. Detailed engagement has not been possible with Highways England in relation to its requirements at the scheme interface with the M60 and therefore, there is a need to have this detailed engagement at the next stage of scheme development to ensure that Highways England is agreeable to the use of opening year traffic forecast for the assessment of junction capacity and design.

2.8.21 The following reviews have been undertaken:

- A technical review has been undertaken of the Design Freeze 4A version of the design;
- A review has been undertaken of a schematic layout provided by the Highways England Smart Motorways team, to understand the interaction between the two schemes as they currently stand; and
- Comments have been provided by Highways England's Asset Support Contractors, Balfour Beatty Mott MacDonald (BBMM), which have been reviewed and summarised.

High Level Review of Tunnel Options

2.8.22 A high level review has been carried out in relation to the proposed tunnel at the north end of the A6 to M60 relief road scheme.

High Level Review of Goyt Bridge Options

2.8.23 A high level review has been carried out in relation to the River Goyt crossing, as part of the A6 to M60 relief road scheme. The document considers overarching structural options for the crossing, and presents structural forms that might be considered as the scheme develops.

Enhanced review of pedestrian and cyclist provision

2.8.24 The development of Stockport Metropolitan Borough Council's cycle network is focused upon appropriately managing existing highway, right-of-way, permissive routes and creating new links within the existing network.

2.8.25 The A6 to M60 Relief Road Scheme will provide 8.5 km of new 2-lane 50mph dual carriageway on a north - south route from the M60 Junction 25 at Bredbury (north east of Stockport) to the A6 near Hazel Grove (south east Stockport). It will also provide a link road to Stepping Hill of 1.1km allowing improved access to Stepping Hill Hospital.

2.8.26 A review of the provisions proposed in the current version of the design for pedestrian and cyclists has been carried out.

2.8.27 It is recommended that further review of the provision be carried out during later stages, to refine and develop the proposals.

Land-take Review

2.8.28 The scope of work in relation to the review of land-take on the scheme at this stage of the scheme has been limited to identifying changes to the required land-take that would arise directly as a result of changes made to the design. The changes made to the design during this stage have not warranted a change to the land-take.

2.8.29 However, our review has identified the need for a full review of the land-take to be undertaken at a later stage, to assess the applicability of the currently identified land-take boundary.

2.8.30 The form of the proposed junction has remained fundamentally the same as the Design Freeze 4A layout, but the levels have been amended to take into account the scheme currently under construction.

2.9 STAKEHOLDER ENGAGEMENT

2.9.1 Consultation for SEMMMS was carried out through a Steering Group consisting of the promoting authorities and representatives from National and regional agencies such as (ex-) GONW, Highways Agency, and Strategic Rail Authority along with transport operators and other key non-transport groups.

2.9.2 A wider reference group of some one hundred relevant organisations representing the interests of groups across the area including businesses, community, environmental and residential groups. Wide public consultation on the SEMMMS Relief Road was carried out in Cheshire, Manchester and Stockport during 2003 and 2004 to gauge views for the road scheme options. Detailed consultation was also undertaken with a number of local groups, including groups representing environmentalists, walkers, cyclists and people with disabilities to generate, establish and develop a preferred option.

2.9.3 Currently the A6 to M60 Relief Road Scheme is supported by the original local authorities, TfGM, Highways England, Manchester Airport, the GM Combined Authority and GM LEP. Further public consultation will be undertaken should the scheme progress to the next stage.

2.9.4 Public support for the SEMMMS road schemes was originally established during the 2004 consultation. Stockport Council has acted proactively to maintain stakeholder interest and engagement over the time since the strategy was adopted.

2.9.5 Support for the A6MARR and Poynton Relief Road schemes was maintained during the subsequent consultations on those specific schemes and this illustrates the continuing support for the A6 to M60 section, at a similar level to that seen before. Comments were received during the consultation on the A6MARR expressing support for the A6 to M60.

2.9.6 William Wragg, Local MP for Hazel Grove, fully supports this scheme to alleviate congestion in Hazel Grove and to improve access to employment and the quality of life for his constituents. http://www.williamwragg.org.uk/news/a6-m60-update. The scheme is also supported by Mary Robinson. MP for Cheadle.

2.9.7 Highways England supports the proposal due to the benefits it confers upon the SE section of the M60 at Stockport. The trunk road network has a key role in supporting economic growth and the proposed scheme, with its direct connections to the M60, appears consistent with this agenda. Furthermore, the scheme has the potential to improve the operation and provide greater resilience to the trunk road network.

2.9.8 Letters of support from TfGM and GM LEP were submitted with the bid to the Government. Manchester Airport also supports the scheme because of the direct connectivity it provides to the Airport and the Enterprise Zone for business, passengers and employees.

Summary

Originally identified as integral to the successful delivery of the SEMMM Strategy mapped out in 2001, the traffic conditions that the Scheme was proposed to address have become worse over time. Congestion and poor journey time reliability are a major problem on the highway network in south Greater Manchester, impacting upon the thousands of commuters, business travellers and freight operators that rely upon it to provide access to jobs and business activity.

Examination of the DfT's traffic monitoring for major roads shows that there has been an approximately 15% increase in traffic on major roads in Stockport since the publication of the SEMMMS report. The growth in traffic levels in Stockport is significantly greater than the growth in adjacent local authority areas.

The existing highway network is acting as barrier to economic growth & regeneration, and in particular adjacent to the A6 in Stockport Town Centre. Traffic benefits associated with completion of SEMMMS Relief Road Phases 1 & 2: A6MARR and Poynton Relief Road schemes will have largely been eroded by 2024 compared to existing traffic levels.

Stockport plays a central role in the South Manchester commercial property market, with some of the Greater Manchester's most attractive and successful industrial and office locations. Stockport town centre was identified within the Greater Manchester Large Sites and Town Centres Study as the town centre in Greater Manchester South with the greatest potential for growth because of its critical mass and diversity of offer.

Building on this, Stockport Council has ambitious plans for growth across the Borough and redevelopment of its Town Centre and the M60 Gateway area now being delivered. Current pipeline investment in the town centre that the Council is enabling stands at £560 million.

Transport is crucial in supporting these ambitious plans for growth for both GM and Stockport, including those set out in the Greater Manchester Spatial Framework – growth will both need and be driven by improved connectivity. This is true on both a local and pan-northern level; as Greater Manchester has a fundamental role to play at the heart of a successful, more connected, Northern Powerhouse.

The A6 southern approach to Greater Manchester, which will be the principal beneficiary of the Scheme, performs an important role carrying traffic from the Peak District and beyond into the city region. The A6 is part of the national Primary Route Network, as well being identified within the TfGM Key Route Network and the TfN Major Road Network, and provides a strategic link between Greater Manchester and key towns in north Derbyshire including Buxton, Matlock and Chapel-en-le-Frith. It also serves New Mills, Whaley Bridge and a number of smaller settlements including High Lane and Disley. The A6 is also a major access route for the Peak District National Park.

The mix of local and strategic traffic is one of the major causes of congestion on A6 through Stockport Town Centre and Hazel Grove, namely:

- A6 is a quality bus corridor operating the most frequent single bus service in Greater Manchester;
- Road freight traffic from Derbyshire/ Peak District to the M60, distribution centres and other destinations across the North West;
- Commuter and business travel between Cheshire and parts of Manchester; and
- Local commuting and leisure trips accessing the Peak District.

These travel patterns have a direct impact on the ability of the transport network to provide efficient connectivity and access to markets and jobs. It also means that the local communities that it passes through are faced with high volumes of traffic and heavy goods vehicles, creating a poor environment in terms of amenity, severance, air quality and noise and problems of highway safety for all road users.

Demand on the route is driven by its radial route function into Greater Manchester, as well as its links to Stockport town centre, the M60 and the Peak District. Stepping Hill Hospital is Stockport NHS Foundation Trust's main hospital and is located on the A6 in Hazel Grove. The hospital employs over 5,000 members of staff making it the second largest employer in the Stockport Borough, and deals with in excess of half a million patients each year.

The largest commuting flow between districts within GM is a broadly north-south movement between Stockport and Manchester and the largest equivalent flow across the GM boundary is again a north-south movement between Cheshire East and Stockport. The A6 to M60 Relief Road scheme would directly facilitate these two largest commuting movements that support the GM economy.

Completion of this final phase of the SEMMMS Relief Road scheme will provide:

- Improved access to M60 and strategic road network from south east Manchester including improved route options for road freight traffic.
- Improved access to Bredbury Park Industrial Estate in the Eastern Gateway growth area and part of the portfolio of industrial and warehousing sites and premises across Greater Manchester that is considered necessary to meet the full range of market requirements from business start-ups to major inward investments and relocations.
- Improved access to the NHS and its health care services at Stepping Hill Hospital which looks after a population of approximately 350,000 people. The Trust provides acute hospital care for children and adults predominantly across Stockport and the High Peak area of Derbyshire.
- Improved surface access to Manchester Airport and Airport City, including the opportunity for high standard orbital public transport connections from some of Stockport's more deprived communities in areas of Brinnington, Bredbury, Offerton and Hazel Grove.
- Improved access to Stockport Town Centre through reduced travel times.
- Improved highway network resilience across south east Manchester better able to respond to accidents/ incidents.
- Reduced traffic volumes and associated delays through Stockport Town Centre and local centres which will reduce severance and improve the local built environment and safety. Creating the potential for road space to be reallocated and public realm measures to be implemented, including the catalyst for later stages of an A6 masterplan and associated regeneration of the town centre to make the corridor a more pleasant place to work, attract business and live.
- Improved traveller safety and wellbeing as more people utilise active modes due to the implementation of new dedicated cycling and pedestrian infrastructure.
- Environmental mitigation measures designed to minimise the impact and enhance the benefits of the scheme.

Accordingly, the A6 to M60 Relief Road scheme is able to demonstrate a very strong policy alignment with the GM Transport Strategy 2040. Delivering the scale of growth set out in the draft GMSF will require a carefully prioritised programme of transport investment, incorporated into future Greater Manchester Transport Strategy delivery plans and supported by a new transport fund. This business case sets out the case for the A6 to M60 Relief Road scheme to be part of this prioritised programme of transport investment, in order to address congestion, support the delivery of major sites and ensure that residents and businesses are able to take full advantage of the excellent global and inter-city connectivity.

Support for the SEMMMS road schemes was originally established during the 2004 consultation. Stockport Council has acted proactively to maintain stakeholder/ political interest and engagement over the time since the strategy was adopted. Letters of support from TfGM and GM LEP were submitted with the Large Local Majors bid to the Government in July 2016.

3 ECONOMIC CASE

3.1 INTRODUCTION

3.1.1 This chapter presents ***The Economic Case*** for the SEMMMS A6 to M60 Relief Road scheme. It confirms the value for money for all options appraised, considering both monetised and non-monetised impacts in terms of their economic, environmental, social and distributional impacts.

3.2 MODELLING OF SCHEME

3.2.1 The Full- A6 to M60 SATURN model has been used for the VfM assessment.

3.2.2 The model has been developed in line with TAG criteria. The model development is reported in the A6 to M60 Local Model Validation Report.

3.2.3 The following model years have been used:

- 2016 (base year);
- 2024 (scheme opening); and
- 2039 (15 years after opening).

3.2.4 An Uncertainty Log has been developed to ensure that future development up to 2039 is fully represented in the future year models.

3.2.5 The following time periods have been modelled:

- AM peak hour (0800 – 0900hrs);
- PM peak hour (1700 – 1800hrs); and
- Inter Peak hour (average hour for the time period 1000-1600hrs)

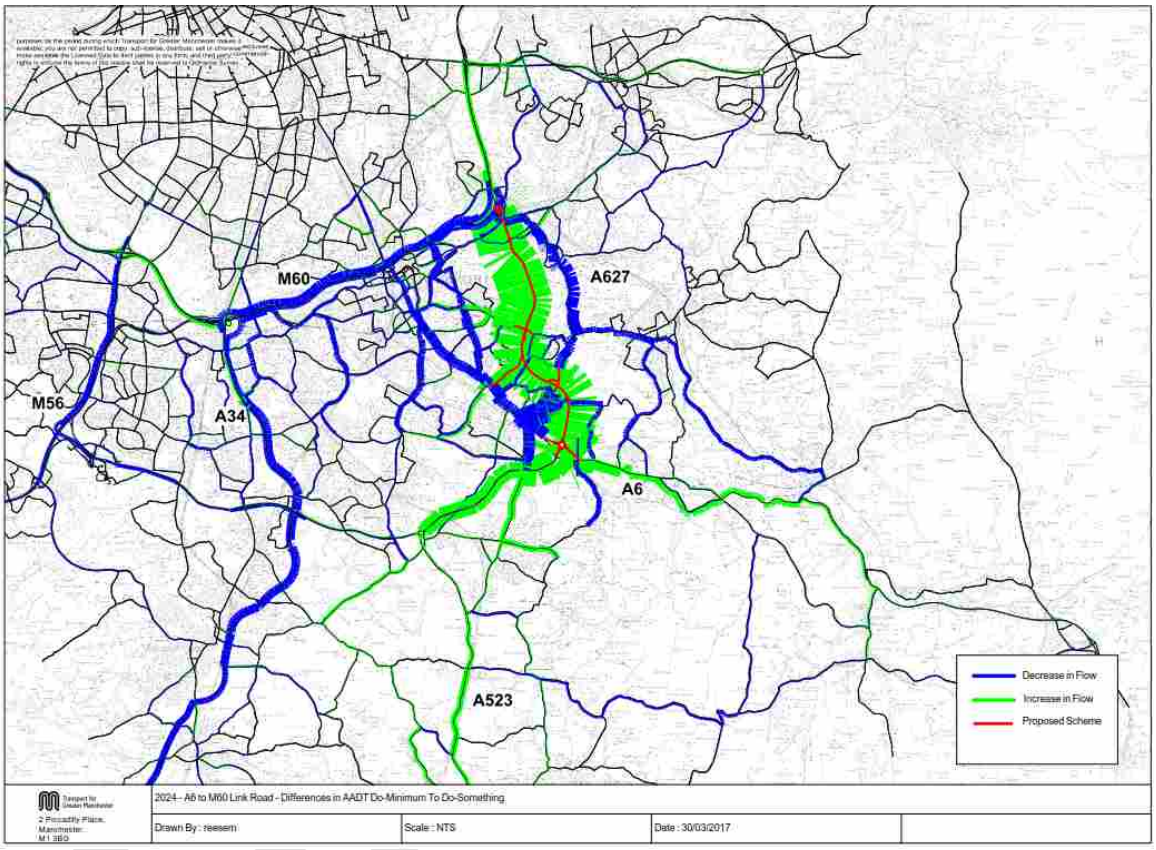
3.2.6 Matrices were aggregated to form five 'user classes', comprising:

- **UC1:** Commuting cars (home-to-work plus work-to-home car trips);
- **UC2:** Employer's business cars (home-based plus non-home-based employer's business car trips);
- **UC3:** Other cars (all other car trips);
- **UC4:** LGVs (all-purpose light goods vehicle trips); and
- **UC5:** OGVs (all-purpose other good vehicle trips).

3.3 SCHEME IMPACT

3.3.1 The impact of the A6 to M60 Relief Road scheme on 2024 future year daily traffic flows is presented in **Figure 3-1**. The plot shows flow differences represented by variable width bands, where the width of the band is proportional to the magnitude of the change. Increases in daily traffic flows are shown in green and decreases in blue.

Figure 3-1: A6 to M60 Relief Road – Differences on Annual Average Daily Traffic (2024 Do-Something with A6 to M60 minus Do-Minimum without A6 to M60)



3.3.2 Reduced traffic volumes are predicted on:

- M56/A5103 Princess Parkway between M56 junction 6 and M60 junction 5;
- M60 between junction 27 at Bredbury and M56 Spur;
- A6 between Hazel Grove and M60;
- A34 south of M60;
- A523 Macclesfield Road between A555 (A6MARR) and A6 at Hazel Grove;
- A626 Stockport Road between A627 and Marple;
- A626/ B5465 St Marys Way between A6 and M60 junction 27 at Portwood;
- A627 Offerton Road between A6 at Hazel Grove and A560 at Bredbury;
- A5102 Bramhall Lane between A6 and Bramhall;
- B6101 Strines Road between Marple and New Mills;
- Dialstone Lane between A6 and
- Windlehurst Road/ Hibbert Lane between High Lane and Marple.

3.3.3 Increased traffic volumes are predicted on:

- M60 between M56 spur and A5103 Princess Parkway;
- M60 between junction 25 at Bredbury and junction 24 at Denton;
- A6 between Hazel Grove and New Mills;
- A523 Macclesfield Road between A555 (A6MARR) and Poynton crossroads
- A523 London Road south of Poynton Relief Road
- A555 (A6MARR) between A6 and Poynton Relief Road.

3.3.4 Further details are presented in the Forecasting & Economic Assessment Report.

3.4 ECONOMIC APPRAISAL AND RESULTS

3.4.1 Full details of the calculation of monetised benefits are contained in the Forecasting & Economic Assessment Report.

TERMINOLOGY

3.4.2 The sum total of monetised benefits is represented by the Present Value of Benefits (PVB). For the purpose of this business case the PVB reflects changes in:

- Noise;
- Local air quality;
- Greenhouse gases;
- Travel time to highway users;
- Vehicle operating costs;
- Accident; and
- Indirect tax revenues.

3.4.3 For this SOBC, fixed trip matrix assumptions have been applied based on the most unbiased and realistic set of assumptions that form the central case. Based on a proportionate approach to scheme appraisal, benefits in terms of journey quality, non-motorised user savings and bus user travel time savings have not been monetised, as these are considered to represent a relatively small percentage of the overall benefits of the A6 to M60 Relief Road scheme.

3.4.4 Scheme costs have been calculated for the A6 to M60 Relief Road scheme, based on capital costs and the impact of the scheme on indirect tax revenues recouped by the government, and is represented by the Present Value of Costs (PVC).

3.4.5 The difference between the PVB and the PVC represents the Net Present Value (NPV) of the scheme.

3.4.6 The ratio of PVB to PVC produces the Benefit-Cost Ratio (BCR). The BCR provides an indication of the value for money of a particular scheme. The DfT guidance 'Value for Money Assessment: Advice Note for Local Transport Decision Makers' (December 2013) states that: "*the Initial BCR defines the initial Value for Money category. Proposals are judged to offer poor, low, medium, high and very high Value for Money based on the BCR boundaries. These categories include:*

- *Poor VfM if the BCR is below 1.0;*
- *Low VfM if the BCR is between 1.0 and 1.5;*
- *Medium VfM if the BCR is between 1.5 and 2.0;*

- *High VfM if the BCR is between 2.0 and 4.0; and*
- *Very High VfM if the BCR is greater than 4.0."*

3.4.7 The DfT guidance goes on to state that: *"the Value for Money assessment should then account for quantitative and qualitative information. The following sections of this advice note provide more advice on the use of this information, construction of the Adjusted BCR and final Value for Money categorisation."*

3.5 SCHEME BENEFITS

HIGHWAY USER BENEFITS

3.5.1 Highway user benefits of the A6 to M60 Relief Road scheme have quantified using the DfT's TUBA[14] software, which calculates monetised benefits and costs relating to travel time, vehicle operating costs, indirect tax revenue and reductions in carbon emissions.

3.5.2 The full A6-M60 model assignments have been cordoned before the economic appraisal of the scheme was undertaken to reduce the possibility of including user benefits accruing in areas remote from the scheme impact as a result of assignment 'noise'. It is should be acknowledged therefore that the benefits attributable to longer distance business travel (over 50km) will be under-stated, albeit any impact is unlikely to be significant.

3.5.3 The default economic parameters contained in the TUBA software have been used as the basis for the assessment. These parameters are based on DfT guidance and include data on the following:

- Values of time and value of time growth;
- Fuel costs, rates of fuel consumption and changes in vehicle efficiency over time;
- Vehicle occupancies;
- Journey purpose splits;
- Rates of taxation; and
- Carbon values for assessing the impact of the scheme on CO_2 emissions.

3.5.4 Following advice from DfT on other strategic studies, the economic benefits of the scheme are based on TUBA v1.9.8 Interim Release (August 2016) which takes into account the impact of varying the Value of Time by distance as defined in the WebTAG Data Book (v1.6) Forthcoming Change. DfT has recently completed a research project to provide up-to-date, robust and reliable values of time for use in transport appraisal and business cases. This research has found some significant changes to current values of time (TUBA v1.9.7), notably:

- The values of time for business travel vary more with distance than by mode of transport;
- The values for commuting have increased (by around 50%) and are similar to values for shorter business trips, reflecting the increasingly blurred boundaries between work and personal (travel) time; and
- The values for other non-work travel have fallen (by around 25%).

3.5.5 We expect TUBA v1.9.8 to be adopted guidance very shortly.

[14] TUBA - **T**ransport **U**ser **B**enefit **A**ppraisal (Economic Appraisal Software developed by Mott MacDonald on behalf of the Department for Transport)

3.5.6 Discounting is the technique of comparing costs and benefits that occur in different years and involves the conversion to present values, so that they can be compared. It is based on the principle that, generally, society prefers to receive goods and services now, rather than later, and to defer costs to future generations - this is known as 'social time reference'.

3.5.7 The DfT's current standard rate of discount has been applied to scheme costs and benefits for this appraisal. The current guidance suggests the following rates of discount, for schemes appraised over 60 years:

- 3.5% for the first 30 years of the appraisal period; and
- 3% for years 30-60 of the appraisal period.

3.5.8 Outputs from the SATURN traffic models were provided, giving details of demand, journey times, and trip distances to those trips. These were generated as matrices with average figures for each origin-destination pair and were provided for each modelled time period in 2024 and 2039 future years.

3.5.9 TUBA calculates benefits over a 60-year period, discounted to a particular base year of prices. The current base as defined in the DfT's WebTAG guidance is 2010. Based on this assessment the Scheme is predicted to deliver substantial travel benefits:

- For business and freight users the Scheme is predicted to generate £102.8m of benefits for car business users and £349.2m for road freight with 61% of benefits attributable to net journey time changes over 2 minutes. 89% of benefits relate to travel time savings and 11% relate to vehicle operating costs savings; and
- For commuters and other users the Scheme is predicted to generate a total of £417.2.m of benefits for commuters and £541.4m for other users with 59% of benefits attributable to net journey time changes over 2 minutes. 97% of benefits relate to travel times and 3% relate to vehicle operating costs savings.

3.5.10 A summary of the present value of transport economic efficiency benefits is provided in **Tables 3-1 and 3-2** below, and **Figures 3-2 to 3-4**.

Table 3-1: Present Value of Transport Economic Efficiency Benefits (£000s) by Distance Saving/ Purpose

Purpose	< -5 mins	-5 to -2 mins	-2 to 0 mins	0 to 2 mins	2 to 5 mins	>5 mins	Total
Business	-1204	-9597	-55467	232452	145995	139950	**452129**
Commuting	-114	-10819	-40605	214053	127443	127227	**417185**
Other	-511	-10576	-76347	295443	172744	160692	**541445**
Total	**-1829**	**-30992**	**-172419**	**741948**	**446182**	**427869**	**1410708**

Table 3-2: Present Value of Transport Economic Efficiency Benefits (£000s) by Type/ Time Period

Time Period	Time Benefits	VOC Fuel Benefits	Non-Fuel VOC Benefits	Total
AM Peak	380905	15344	5025	**401274**
PM Peak	419875	15918	3624	**439417**
Inter-Peak	298309	12962	6814	**318085**
Off-Peak	123490	5405	2841	**131736**
Weekend	113424	4440	2334	**120198**
Total	**1336003**	**54069**	**20638**	**1410708**

Figure 3-2: Travel Efficiency Benefits

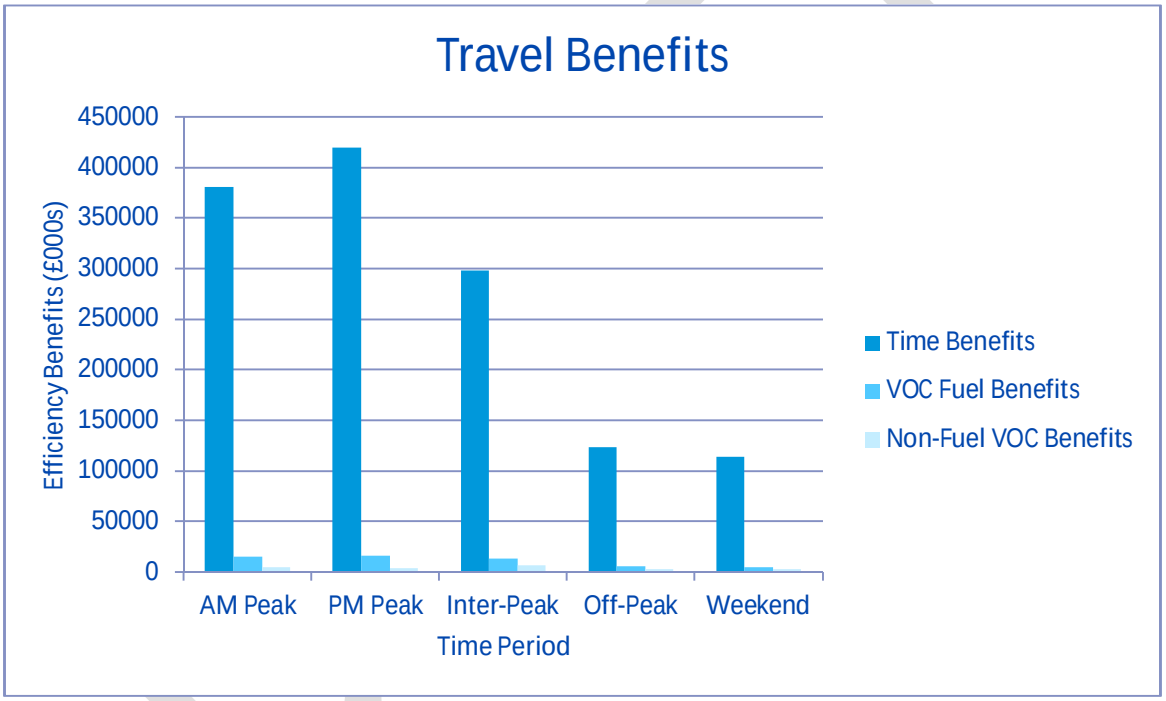


Figure 3-3: Travel Benefits by User Type

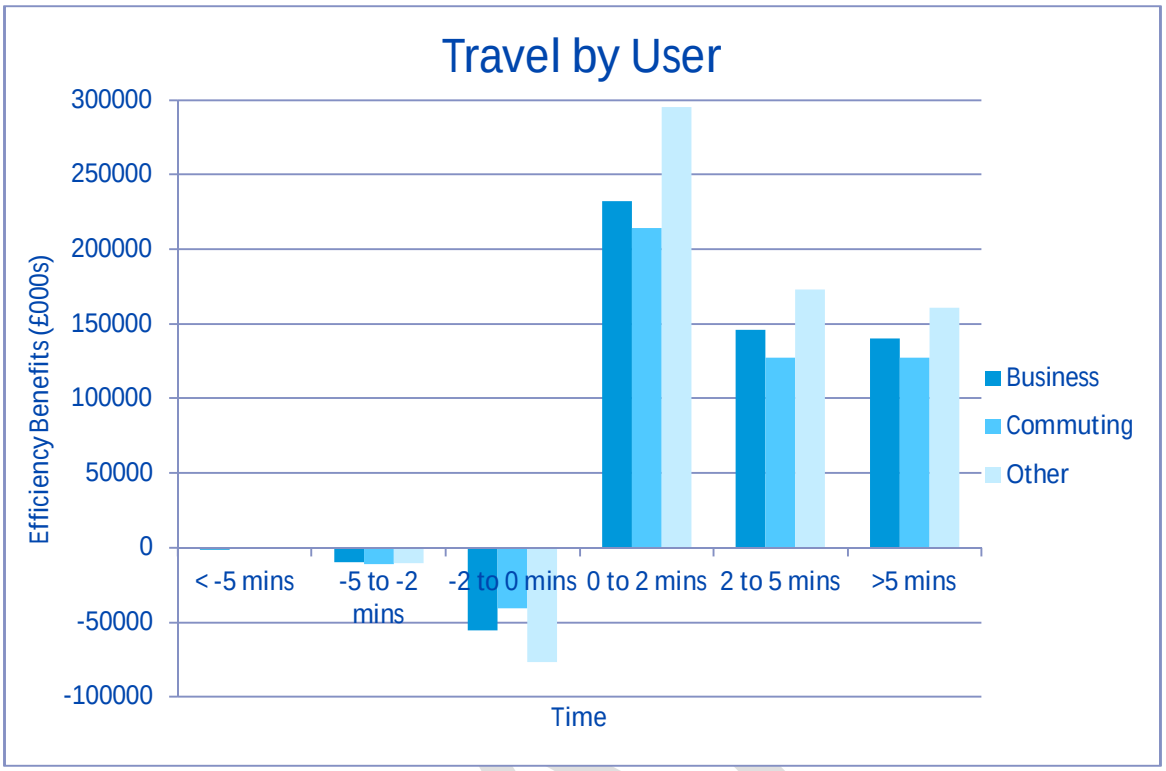
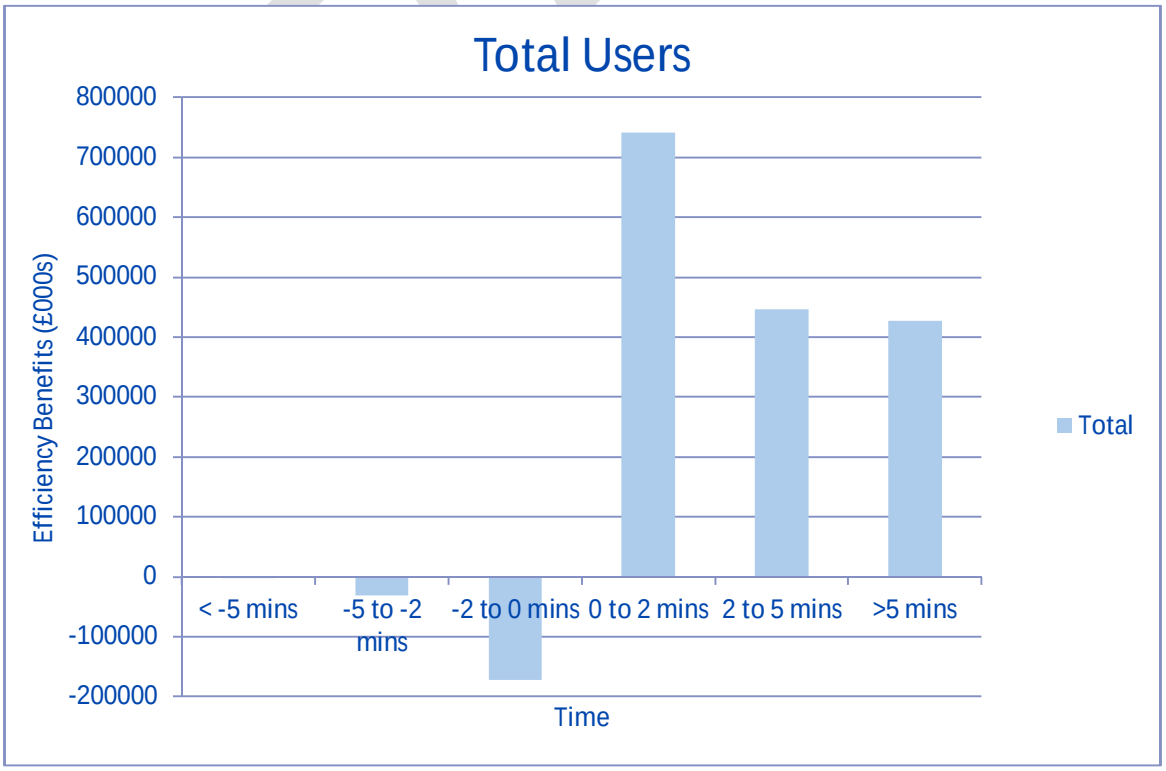


Figure 3-4: Total User Efficiency Benefits



ACCIDENT SAVINGS

3.5.11 COBALT[15] has been used to assess the safety aspects of the A6 to M60 Relief Road scheme. The Scheme will reduce traffic flows on existing routes and reduce the overall distance travelled on the highway network. Analysis of impacted links forecasts an economic benefit of £149,720 as a result of reduced accidents. This includes a reduction of 3,476 accidents over the project lifecycle, and a reduction of 25 fatalities, 431 serious injuries and 4,140 slight casualties.

Table 3-3: COBALT Results

Total Without-Scheme Accident Costs	£1,224,038
Total With-Scheme Accident Costs	£1,074,317
Total Accident Benefits Saved by Scheme	**£149,720**
Total Without-Scheme Accidents	27,221
Total With-Scheme Accidents	23,746
Total Accidents Saved by Scheme	**3,476**
Total Without-Scheme Casualties (Fatal)	218
(Serious)	3,311
(Slight)	32,760
Total With-Scheme Casualties (Fatal)	194
(Serious)	2,880
(Slight)	28,620
Total Casualties Saved by Scheme (Fatal)	**25**
(Serious)	**431**
(Slight)	**4,140**

SCHEME COSTS

Table 3-4: Cost Estimation Calculations

ITEM	NORTHERN SECTION (A6 TO M60)	SOUTHERN SECTION EXC. PBP	COMMENT
Total Capital Cost (with 25% Optimism Bias)	£385,722,265	£229,930,258	Estimates used in DfT submission 24/10/2007 TUBA 250B (2010)
Ratio of Southern to Northern Section Cost	1.678		
Latest A6MARR Outturn Forecast Cost		£229,981,847	Inflation between 2010 and present day mitigated through value engineering, more efficient delivery etc.
Pro-Rata cost of Northern Section (relative to A6MARR)	£385,808,808		Assuming A6MARR construction profile
Correction for application of 44% Optimism Bias	£58,642,939		
Estimated present day cost	£444,451,747		Assuming A6MARR delivery timescale

[15] COBALT (COst and Benefit to Accidents – Light Touch) is a computer program developed by the DfT to undertake the analysis of the impact on accidents as part of economic appraisal for a road scheme

ITEM	NORTHERN SECTION (A6 TO M60)	SOUTHERN SECTION EXC. PBP	COMMENT
Inflation Allowance	£32,801,070		1.2% pa to the assumed construction profile.
Estimated Outturn Scheme Cost	**£477,252,817**		

ECONOMIC APPRAISAL SUMMARY

3.5.12 The overall impact of the scheme can be expressed both in terms of its net present value (NPV) represented as PVB minus PVC, and Benefit to Cost Ratio (BCR) represented as PVB/PVC. The A6 to M60 Relief Road scheme has been estimated to have a **NPV of £1.05 billion** and **BCR of 4.07**.

3.5.13 Schemes such as the A6 to M60 Relief Road scheme with a BCR of over 4 are described as representing a very high value of money (VfM).

Table 3-5: A6 to M60 Relief Road Economic Appraisal Summary

TYPE	(£000s)
Greenhouse Gases	6,663
Local Air Quality	5,181
Noise	-6,194
Reliability	Not Monetised
Journey Quality	Not Monetised
Physical Activity	Not Monetised
Accidents	150
Economic Efficiency: Consumer Users (Commuting)	417,164
Economic Efficiency: Consumer Users (Other)	541,425
Economic Efficiency: Business Users and Providers	452,119
Wider Public Finances (Indirect Taxation Revenues)	-29,511
Present Value of Benefits (PVB)	**1,386,997**
Broad Transport Budget	340,980
Present Value of Costs (PVC)	**340,980**
Overall Benefits	
Net Present Value (NPV)	**1,046,017**
Benefit to Cost Ratio (BCR)	**4.07**

3.6 ENVIRONMENTAL IMPACTS

ECOLOGY

3.6.1 A desktop appraisal of the proposed scheme has been undertaken and determined that the scheme has the potential for a range of impacts upon biodiversity features or attributes.

3.6.2 Each feature/attribute has been reviewed in light of the practicalities of mitigation that may be employed through site design (avoidance measures) and/or specific mitigation, where avoidance

may not be possible. With mitigation a moderate adverse impact is possible upon SBIs within or adjacent to the scheme extent and to Poise Brook LNR, and therefore an overall assessment score of **Moderate Adverse** has been applied. In the absence of any mitigation considerations, the magnitude of potential impacts may be up to *very large adverse*.

3.6.3 The detail and extent of the Scheme's impacts cannot be fully assessed until further ecological assessments, including site surveys, have been conducted. Such surveys would be programmed during the design stage in order establish appropriate mitigation requirements. Should species be present, and impacts unavoidable, there may be a requirement for licences to be applied for from the relevant statutory body prior to start of works. Further survey of the scheme extent (including a suitable buffer) alongside the addition of suitable sensitive mitigation options is likely to reduce the overall impact of the Scheme.

3.6.4 The majority of receptors within 2km of the scheme extent are likely to be subject to minor or slight adverse impacts. This would include impacting protected species such as: otters, water voles, bat species and bird species. However this is dependent on the abundance of these species within or adjacent to the Scheme which would need to be confirmed through site surveys. Other designated sites within 10km are unlikely to be impacted directly as a part of the scheme. Impacts on protected species and habitats will have to be reviewed at the detailed assessment/ design stage with consideration given for the results of the up to date ecological surveys.

LANDSCAPE

3.6.5 The Scheme will introduce a major new road and traffic into areas of relatively tranquil countryside in the river valleys landscape character areas, which are of recognised quality and value. The Scheme would have a negative effect on landscape character areas, both in terms of character and visual amenity; that are recognised environmental and recreational resources in close proximity to a number of urban settlements. These resources have been protected and enhanced for these purposes over a number of years. However, the reduction of traffic along the A6 into Stockport town centre from the junction with the proposed scheme could create benefits to the tranquillity. Further, there would be irreplaceable loss of greenbelt land. An overall assessment score of **Moderate Adverse** has been applied to Landscape.

3.6.6 Although it will not be possible to fully integrate the scheme into the rural landscape it could be designed to incorporate environmental design measures that will blend with the surrounding landscape characteristics and landscape elements, and reduce visual impact.

3.6.7 Planning policy emphasises the importance of maintaining the countryside character of the river valleys, which includes the Tame Valley and Goyt Valley. The visual amenity of the receptors around the scheme: residents, recreational, educational and transient, are important and should be considered further as the scheme progresses.

3.6.8 Mitigation of the environmental impacts of the scheme will be necessary to protect and enhance the distinctive attributes of the rural landscape adjoining the scheme. Off-site landscape enhancement could include tree planting, hedgerow planting / reinforcement and species rich grassland. This would assist to reinforce the distinctive character of the adjoining landscape, particularly in the river valley character areas and help to screen the scheme where necessary.

TOWNSCAPE

3.6.9 The townscape comprises discrete areas of industrial, commercial and residential development, most of which dates from the mid to late 20th century. The scheme will not have a significant effect on the local pattern of the townscape. The overall assessment score of **Slight Adverse** effect has been applied to Townscape.

3.6.10 The quality of the townscape of Bredbury is ordinary and lacks local distinctiveness. The new

road will be close to residential properties where it will have an adverse impact on views and visual amenity. Industrial premises on the outskirts of the Bredbury Industrial Estate west of A6017 Ashton Road would be removed to accommodate the proposed M60 / A6 / A6017 at Junction 25.

3.6.11 The quality of the townscape of Offerton is ordinary and also lacks local distinctiveness. There will be a direct impact on a small number of residential properties on the eastern edge of Offerton and Foggbrook and the north western edge of Offerton Green adjacent to the scheme. The new road will be close to residential properties in adjoining areas at Offerton, Foggbrook and Offerton Green, where it will have an adverse impact on views and visual amenity.

3.6.12 The quality of the townscape of Hazel Grove is ordinary to good and exhibits local distinctiveness. There will be a direct impact on a small number of residential properties on the eastern edge of Torkington and the north eastern edge of Norbury Moor as a result of the scheme. Views of the new road would be widely available from residential properties on the eastern edge of both areas adjacent to the scheme, where it will have an adverse impact on views and visual amenity. The scheme will sever a number of well used public footpaths between Torkington and Newbury Moor and the adjoining countryside, which will reduce the extent of accessible open space for informal recreation. It would be expected that new links would be provided to connect severed footpaths to mitigate this impact.

3.6.13 New planting within the highway boundary will be necessary for landscape mitigation and consideration should be given to offsite tree and shrub planting, in agreement with the relevant landowners.

CULTURAL HERITAGE

3.6.14 There are 8 Grade II listed buildings, one Grade II listed boundary stone, one Grade II listed park and garden (Vernon Park) and one scheduled monument (a moated site north-west of Broadoak Farm) within the study area. There are also a range of non-designated heritage assets within the proposed scheme area such as public buildings, industrial remains and ridge and furrow.

3.6.15 The proposed Scheme has the potential to impact 3 Grade II listed buildings, one Grade II Registered Park and other non-designated assets. Before any mitigation or design amendments there will be a potential **Moderate Adverse** impact on the context of the Grade II listed Ridge cottages, a slight adverse impact on the context of Grade II listed Goyt Hall, the Barn west of Goyt Hall and a slight adverse impact upon the context of the Grade II Registered Park and Garden. However as the design develops these impacts are potentially mitigable which would likely reduce the impact. Further, the reduction of traffic along the A6 into Stockport town centre from the junction with the proposed Scheme may have a slight beneficial effect on the context or setting of the listed buildings.

3.6.16 There is also potential for previously unrecorded archaeology from the prehistoric to the modern period which may be subject to slight to moderate adverse impacts depending on their significance; although this is likely to be capable of mitigation.

3.6.17 There will be no physical impact on the condition of the Grade II listed assets, the Grade II listed park and garden or the scheduled monument. The impact on the condition of the non-designated assets is not determined at this stage. There will be no physical effect upon the complexity of the Grade II listed buildings Vernon Park or the Scheduled Monument. The impact on the complexity of non-designated assets is not determined at this stage.

WATER

3.6.18 The route is located within predominantly open Greenfield land and will cross a number of watercourses, including: the River Goyt, Poise Brook, Threaphurst Brook, Ochreley Brook and Ox

Hey Brook as well as several unnamed watercourses, field drains, ditches and dykes located throughout the study area. The Scheme passes through two notable areas of flood risk (Poise Brook in the vicinity of Bean Leach Road and River Goyt) and the crossing of the Poise Brook will require significant realignment and culverting of the watercourse. Measures to manage and mitigate potential impacts to flood risk, flood flow conveyance and biodiversity are still in development, hence there remains the potential for **Large Adverse** impacts.

3.6.19 As noted above, the crossing of the Poise Brook will require significant realignment and culverting. The crossing of the River Goyt will comprise a clear span bridge with relatively minimal impact. Other watercourse crossings are likely to comprise a culvert. The tunnel to the north of the scheme may require the realignment of a minor watercourse.

3.6.20 The route is located within the Poise Brook and the Goyt (Etherow to Mersey) catchments. Both catchments are monitored against the objectives of the Water Framework Directive, and are both assessed as having 'good' chemical quality. While the River Goyt presents 'moderate' ecological quality, Poise Brook shows a 'poor' ecological classification. Poise Brook flows through the Poise Brook Local Nature Reserve to the north-west of Offerton, which is designated as Ancient Woodland and a priority habitat.

3.6.21 The route is partially located in a groundwater source protection zone (SPZ). The SPZ relates to the large groundwater abstractions within Stockport town centre at its nearest point.

3.6.22 The majority of the Scheme and surrounding area lies within Flood Zone 1, where the annual probability of flood risk from fluvial, tidal and surface water sources is less than 0.1% (or 1 in 1,000 years). Review of surface water mapping indicates overland flow routes associated with the smaller watercourses that are crossed by the scheme. Areas of historical flooding within the proposed scheme include Offerton Road and Marple Road, with plausible flooding in Torkington Road.

3.6.23 It is possible that surface water runoff from the scheme will be discharged to the River Goyt, Poise Brook, Threaphurst Brook, Ochreley Brook or Ox Hey Brook. It is considered unlikely that smaller watercourses will receive surface water runoff. It is assumed that discharge will be limited to the equivalent Greenfield runoff rate and that runoff will be treated prior to discharge, although a slight risk to water quality may remain depending on the treatment systems installed.

AIR QUALITY AND GREENHOUSE GASES

3.6.24 The quality of the air in the area is currently monitored by the Greater Manchester Air Quality Management Area (AQMA); this AQMA covers large areas of Stockport's main roads. The proposed scheme crosses the declared AQMA a number of times.

3.6.25 The AQMA covers the north of the proposed route at the M60 – Manchester Outer Ring Road. Towards the north east of the ring road lie multiple commercial receptors at Bredbury Park Industrial Estate. Towards the north western edge of the ring road lie multiple residential receptors located on Northumberland Road and Brinnington Road. The northern part of the proposed route also runs through the AQMA on B6104 Stockport Rd West, following on to the A560-Stockport Rd West. There are multiple residential receptors on either side of the road.

3.6.26 The centre of the proposed route runs through the AQMA following the A626 Marple Road, there are multiple residential receptors in the vicinity.

3.6.27 The southern part of the proposed route crosses the AQMA at Offerton Road, there are multiple residential receptors to the west and Stockport Golf Course lies to the east. The southern edge of the proposed route crosses the A6-Buxton Rd AQMA; there are multiple residential receptors in the vicinity of the road.

3.6.28 The potential impacts associated with the operation of the Scheme on local and regional air quality have been assessed using the WebTAG Guidance (Unit A3.3 Air Quality Impacts, DfT, December 2015). The assessment has also taken into account forthcoming changes (release date to be confirmed) regarding the valuation of NO_X damage costs affecting Unit A3 of the WebTAG guidance and corresponding environmental worksheets.

3.6.29 The calculation of roadside pollutant concentrations followed the methodology set out in the Design Manual for Roads and Bridges (DMRB), Volume 11, Section 3, Part 1, Air Quality (DMRB 11.3.1, HA207/07) together with Interim Advice Note (IAN) 185/1.

3.6.30 The potential impacts associated with the operation of the Scheme on greenhouse gases have been assessed using the WebTAG Guidance (Unit A3.4 Greenhouse Gases, DfT, January 2014).

3.6.31 For PM_{10} it was found that 28,428 properties experience an improvement in air quality, 7,296 properties experience deterioration in air quality and 0 properties experience no change in air quality. The Net Total assessment score on all routes is -1,900.13. A maximum improvement in air quality of 1.7µg/m^3 is predicted at receptors alongside the following routes:

- A6 (south of Yew Tree Avenue and between southern and eastern SEMMMS slips);
- A523 (south of Macclesfield Road);
- A523 Macclesfield Road (north of the A555);
- A5143 (west of Macclesfield Road);
- Brookvale Arm/Slip;
- A627 (south and north of SEMMMS);
- A626 (east of the A627);
- Windlehurst Road/Torkington Lane;
- Bramhall Moor Lane;
- A6 (south of the A5102, north of Dialstone Lane,A5102 and M60);
- M60 (Junctions 3 to 1 and Tunnel Section);
- A34 (south of M60, A555 and A538 and north of the A555);
- B5095 (north and south of M60);
- A5102 (south of the A6);
- Norbury Hollow Road;
- A626 (south of the M60);
- Dialstone Lane;
- Lisburn Lane;
- B5465 St Marys Way (south of the A626); and
- A6 (south of the A523 Macclesfield Rd, north of SEMMMS).

3.6.32 A maximum deterioration in air quality of 2.7µg/m^3 is predicted at receptors alongside the following routes:

- SEMMMS (north and south of Fogbrook Junction);
- A6 (east of SEMMMS/Norwood Avenue);
- A555 (east and west of Macclesfield Road);
- A523 (south of the A555);

- A6 (north of A523 Macclesfield Road, south of Dialstone Lane);
- Commercial Road;
- A560 (east of Portwood Junction);
- SEMMMS Slip (south of the M60);and
- Hempshaw Lane/A626.

3.6.33 No exceedances of the AQS objective for PM_{10} are predicted within 2024, either with or without the Scheme.

3.6.34 For NO_2 it was also found that 28,428 properties experience an improvement in air quality, 7,296 properties experience deterioration in air quality, 0 properties experience no change in air quality. The Net Total assessment score on all routes is -4,127.79. The improvements in air quality were predicted at the same receptors as noted for PM_{10} with a maximum improvement in air quality of 3.7µg/m^3. Deteriorations in air quality were predicted at the same receptors as noted for PM_{10}, with a maximum deterioration in air quality of 4.8µg/m^3.

3.6.35 The AQS objective for annual mean NO_2 concentrations is predicted to be exceeded on the A560 east of the Portwood Junction at a distance of 20m from the road centre, however this (marginal) exceedance is predicted to occur both without and with the Scheme i.e. it is not caused by the Scheme itself. A560 east of the Portwood Junction falls within an area designated as an AQMA. Along all other links, including links which fall within areas currently designated as AQMAs, no exceedances are predicted to occur in 2024, either without or with the Scheme.

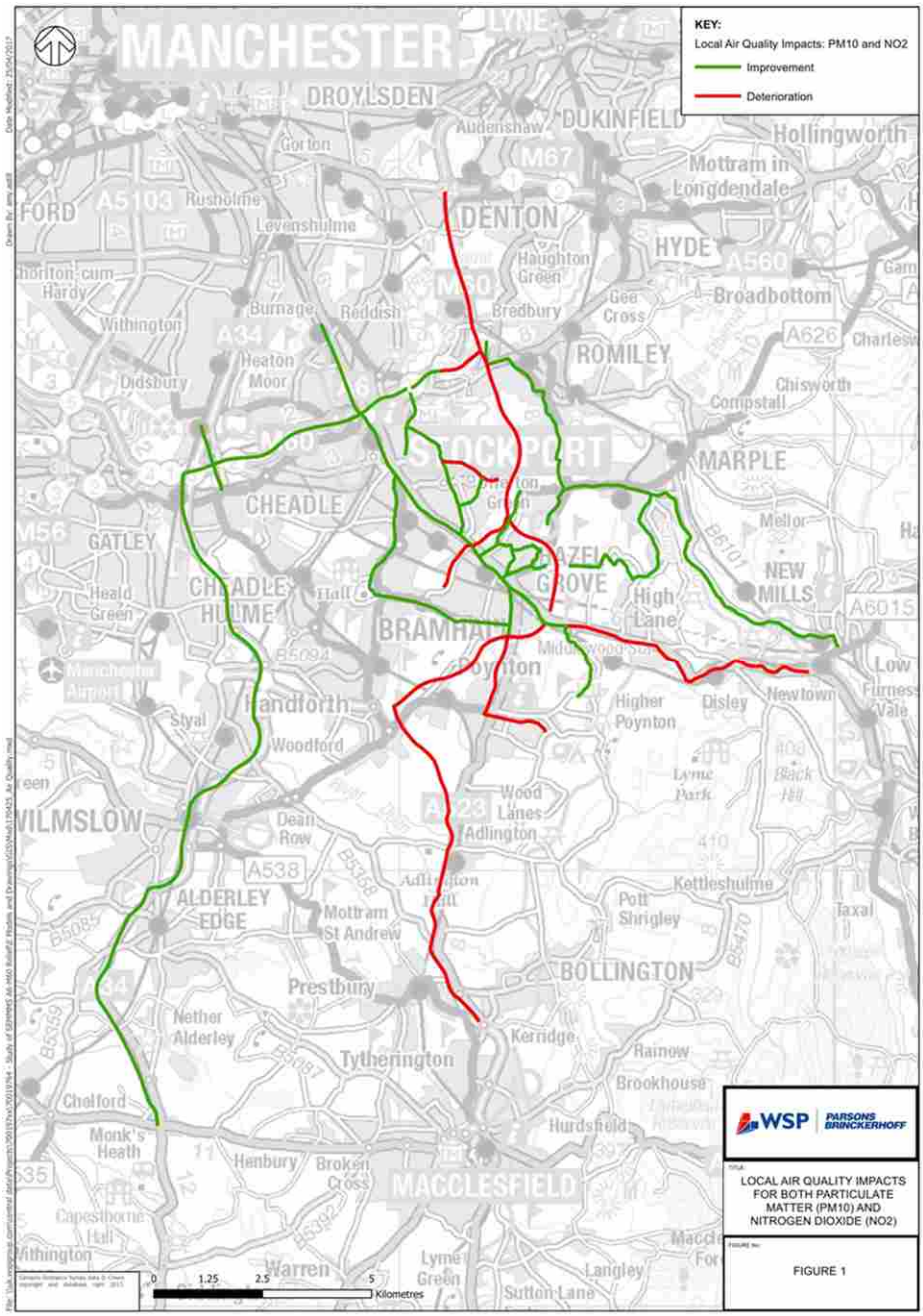
3.6.36 The local PM_{10} and NO_2 air quality impacts (including improvement and deterioration) associated with the Scheme are illustrated in **Figure 3-5**.

3.6.37 Vehicles emission rates, and therefore air quality, are predicted to improve with time. The updated DMRB spreadsheet utilises emission factors from the EFT v7 and inherent in the EFT is the assumption that emission rates will decrease over time due to likely future improvements in vehicle technologies.

3.6.38 By 2039, this exceedance is removed and the air quality objectives for NO_2 and PM_{10} are predicted to be met at all receptors locations (i.e. on all road links at 20m, 70m, 115m and 175m from the road centre).

3.6.39 The regional assessment considered the change in emissions of oxides of nitrogen between the 'with' and 'without' the Scheme scenarios. The Scheme is predicted to result in a net increase in emissions in the opening year and a slight decrease in emissions in the future year, with an estimated change in NOx emissions with the Scheme of 10.3 and -2.3 tonnes per year in the opening and future years respectively (0.8% and -0.2% of the emissions respectively).

Figure 3-5: Local Air Quality Impacts for both Particulate Matter (PM10) and Nitrogen Dioxide (NO2)



3.6.40 A positive Net Present Value (NPV) of £5,192,058 is predicted for the change in concentration of PM_{10} and a negative NPV of -£11,002 is predicted for the change in concentration of NO_X. This gives a total value of change in air quality as a positive NPV of £5,181,056.

3.6.41 An assessment of the changes in regional CO_2 concentrations has been undertaken to determine the change in regional CO_2 emissions occurring as a result of the operation of the Scheme.

3.6.42 The Scheme is predicted to result in a decrease in CO_2 emissions, both in the opening year (2024) and forecast year (2039), with an estimated change in CO_2 emissions with the Scheme of -11,340 tonnes in the opening year. The estimated change in CO_2 emissions over the 60 year appraisal period is -156,636 tonnes per year. A positive NPV of £6,663,151 is predicted in CO_2 equivalent emissions.

NOISE

3.6.43 The proposed route crosses the Manchester Agglomeration Noise Action Planning Important Area (NIA) at five locations, including towards the north western edge of the scheme boundary at Crookilley Way, where there are multiple residential receptors in close proximity to the NIA. Ashton Road following on to A560 Stockport Road West at the north east of the scheme boundary lies within the NIA. Commercial receptors are located to the north of the NIA at Bredbury Park Industrial Estate and residential receptors to the south.

3.6.44 The eastern edge of the scheme boundary at Marple Road is near the NIA. It has open space to the north and multiple residential receptors towards the south.

3.6.45 Towards the south eastern edge of the scheme boundary at Buxton Road the NIA is also in proximity, with some commercial and residential receptors in close proximity. Finally, the south western edge of the scheme boundary on Buxton Road, lies close to the NIA, with residential receptors in close proximity.

3.6.46 The completed WebTAG assessment has been undertaken following Section 2*: Noise impacts* of the Department for Transport TAG UNIT A3 *Environmental Impact Appraisal* document, dated December 2015. The assessment is based on the determination of receptor noise levels both 'with' and 'without' the scheme in place for both the 'year of opening' and a future 'design year'. Receptor noise levels have been determined with reference to the guidance detailed within the Design Manual for Roads and Bridges, Volume 11, Section 3, Part 7: HD 213/11: *Noise and Vibration*.

3.6.47 It is anticipated that the A34 between Congleton and the M60 and the M60 between J4 and J25 would benefit from a reduction in traffic flows and associated noise as a result of the development of the proposed Scheme. An increase in traffic and associated noise is anticipated on the A536 Congleton to Macclesfield, Dark Lane, Gawsworth Road, Priory Lane, Macclesfield Road, the A532, New Road, Prestbury Lane and Clifford Lane. The predicted distribution of noise level change is illustrated in **Figure 3-6**.

3.6.48 The routes that would be subject to a reduction in noise pass through/ in proximity to a greater number of receptors than the routes that would be subject to noise level increases. The overall NPV of the predicted change in the noise environment is -£6,193,879, of which -£2,496,625 is associated with sleep disturbance and the remainder -£3,697,254 is associated with impact on amenity, Acute Myocardial Infarction (AMI), stroke and dementia.

3.6.49 **Table 3-6** illustrates the predicted number of properties within each noise level change band. No receptors are identified to be subject to noise levels over 78dB as a result of the Scheme. Based on the assessment results, there is potential for up to approximately 200 properties to qualify for noise insulation, or a grant in respect there-of, under the Noise Insulation Regulations, although this should be considered an indicative number only.

Figure 3-6: Noise Level Change Plot (2024 With Relief Road minus 2024 Without Relief Road)

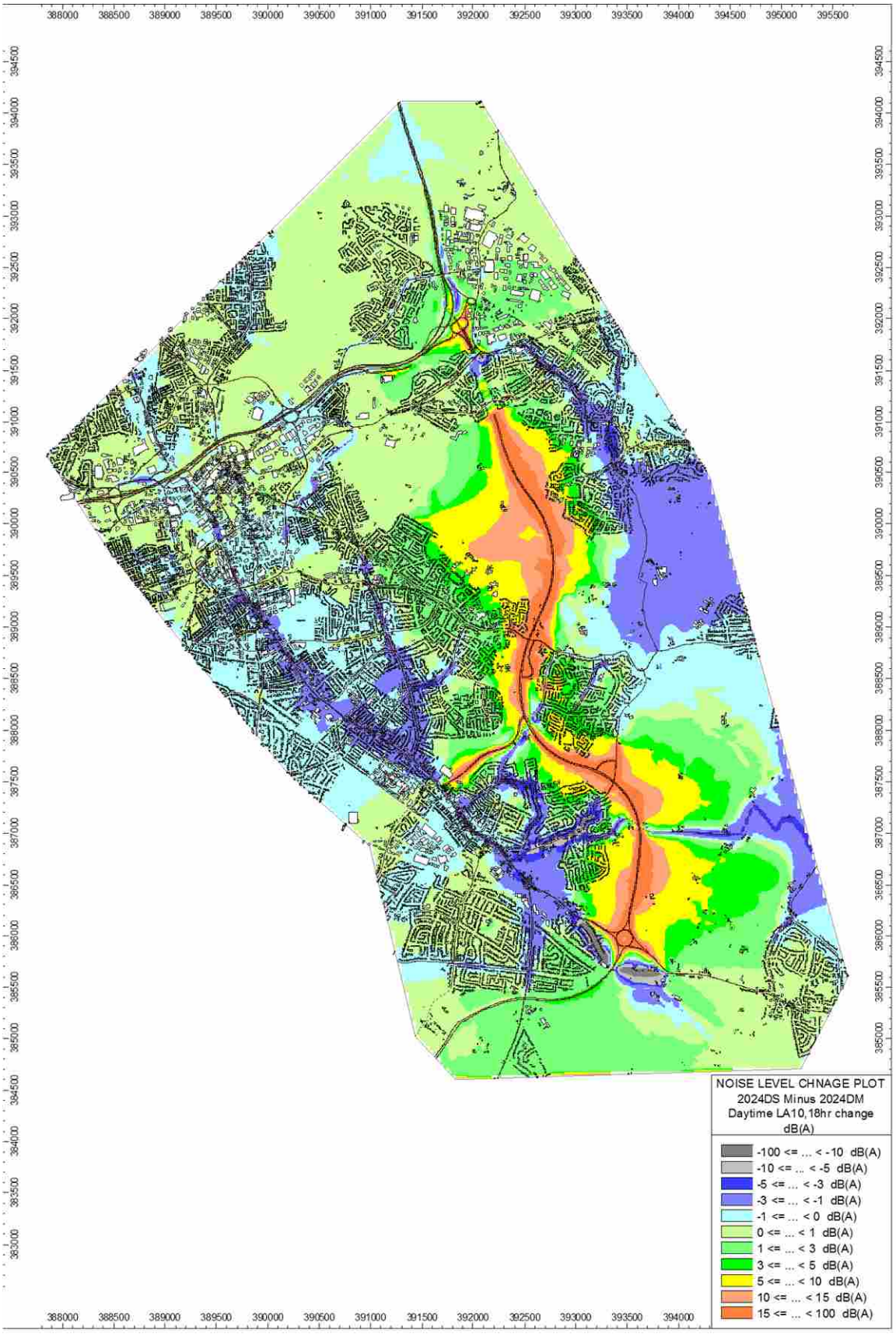


Table 3-6: Categorisation of dwelling noise level changes, 2035 With Relief Road minus 2035 Without Relief Road

	Noise Level Change Band (Worst Façade), LA10,18h dB(A)	Number of Dwellings
Decreases (Total 539 Dwellings)	-33dB > x > -36dB	0
	-30dB > x > -33dB	0
	-27dB > x > -30dB	0
	-24dB > x > -27dB	0
	-21dB > x > -24dB	0
	-18dB > x > -21dB	0
	-15dB > x > -18dB	0
	-12dB > x > -15dB	0
	-9dB > x > -12dB	0
	-6dB > x > -9dB	1
	-3dB > x > -6dB	538
	-3dB < x < +3dB	6279
Increases (total 1098 dwellings)	+3dB < x < +6dB	607
	+6dB < x < +9dB	167
	+9dB < x < +12dB	90
	+12dB < x < +15dB	51
	+15dB < x < +18dB	115
	+18dB < x < +21dB	38
	+21dB < x < +24dB	13
	+24dB < x < +27dB	4
	+27dB < x < +30dB	5
	+30dB < x < +33dB	8
	+33dB < x < +36dB	0
Do Something and Do Minimum noise levels (on which the changes are determined), which are less than 45dB(A) have been taken as 45dB(A). A sample of dwellings subject to large increases are situated within the route corridor and would be subject to compulsory purchase.		

3.6.50 Overall, a negative NPV value is predicted in accordance with DMRB guidance. This value represents a worst case scenario where the calculation of NPV is based on the highest increase and/or least beneficial decrease in noise levels at each receptor. The less adverse and/or more beneficial effects on receptors are not accounted for in this NPV value. As a result, it is anticipated that there will be many receptors across the study area, in particular in the vicinity of the A6, for which benefits will arise, but that are not reflected in the NPV assessment results. An overall benefit is also anticipated across the wider area, outside the area for which detailed noise level predictions have been undertaken, in particular on the A34 between Congleton and the M60 J3-4 and the M60 between J3-4 and J25.

3.6.51 As part of the scheme development, it is expected that the use of low noise surface materials and the provision of bunds and acoustic fences would substantially mitigate this potential impact.

3.7 DISTRIBUTIONAL IMPACTS

3.7.1 'Distributional' impacts relate to the extent to which there are differences in the way impacts affect different groups in society. For example, the noise impacts of an intervention will affect different groups of households, with some experiencing increases, and others decreases. Depending on the geographical locations of different groups of people, these groups will each experience different impacts.

3.7.2 Distributional Impact appraisal guidance note issued by TfGM in July 2014 outlines the requirements for appraisal of Greater Manchester local majors and is based on WebTAG Unit A4.2 Distributional Impact Appraisal which adopts a proportional approach and methodology. **Table 3-7** below shows this process.

Table 3-7: Distributional Impact Process

Step	Description	Output
1	**Screening Process:** Identification of likely impacts for each indicator.	Screening Proforma
2	**Assessment:** Confirmation of the area impacted by the transport intervention (assessment area); Identification of social groups in the assessment area; and Identification of amenities in the assessment area.	DIs social group statistics and amenities affected within assessment area
3	**Appraisal of Impacts:** Core analysis of the impacts; and Full appraisal of DIs and input into AST.	Appraisal worksheets and AST Inputs

SOCIAL GROUP PROFILING

3.7.3 Identification of the key social groups in the Scheme area requires an analysis of socio-demographic data to develop a profile of:

- The **transport users** that will experience changes in travel generalised costs resulting from the intervention;
- The **people living in those areas** identified as likely to be affected by the intervention; and
- The **people travelling in areas** identified as likely to be affected by the intervention.

3.7.4 Car availability is the most important factor affecting travel and car availability is strongly related to income. Therefore, both the number of trips a person makes and the distance they travel are strongly influenced by that person's level of income. On average, people in the highest household income quintile group make 30% more trips than those in the lowest income quintile group and travel over 2 and a half times further.

3.7.5 Use of public transport is also related to income. From the lowest to highest income quintile, the average number of trips by bus decreases (111 bus trips per person per year in the lowest income quintile compared with 29 bus trips in the highest). However, rail use is highest in the top income quintile with just over 3 and a half times more rail trips than the lowest quintile.

3.7.6 The social profile of key groups of interest, as defined in WebTAG and TfGM's Distributional Impacts Appraisal Guidance Not, is summarised below with reference to areas with the highest quintile (20%) of Output Areas (Census 2011 data) in Greater Manchester, and National Income Deprivation data (2010) in England:

1. **Residents aged under 16 (children):** There is a large concentration of young families in Brinnington, as well as pockets in areas to the east and south east of Stockport Town Centre which include; Bredbury, Romiley, Offerton and Hazel Grove. Similarly, there areas to the south west of Stockport Town Centre which include Cheadle and Cheadle Hulme. Generally the areas within the town centre, and the communities immediately surrounding the town centre are not areas with high concentrations of young families. Communities that would benefit from good access to amenities, educational facilities and NHS healthcare facilities at Stepping Hill Hospital.
2. **Residents aged 16-24 (young people):** There is a relatively high proportion of younger people (aged 16- 24) in the resident population of Stockport Town Centre, as well as many of the surrounding communities in the district Areas of Brinnington and Hazel Grove, for example, contain multiple highlighted Output Areas. Communities that would benefit from good access to amenities, educational facilities and new/ existing employment opportunities.
3. **Residents aged 70+:** There are multiple areas across the Stockport district where the proportion of older people (over 70) is high. These are predominantly to the east and south of Stockport Town Centre. Although there are a couple of Output Areas within the town centre itself, the resident population in the central areas tends to be younger. Communities that would benefit from good access to amenities and NHS healthcare facilities at Stepping Hill Hospital.
4. **Residents who are economically active but unemployed:** The proportion of economically active people who are unemployed is relatively high, with large concentrations in the Town Centre, Brinnington, along with pockets in Bredbury and around Adswood Road in Cheadle. Communities that would benefit from good access to new/ existing employment opportunities.
5. **Residents who are registered disabled or claiming Disability Living Allowance:** Areas where long-term health problems or disabilities are most prevalent include concentrations in the Town Centre, Brinnington, Bredbury and Romiley, Heavily and Offerton. Communities that benefit from good access to NHS healthcare facilities at Stepping Hill Hospital.
6. **Black and Minority Ethnic (BME) residents:** Greater Manchester's BME resident population is predominantly based outside of the Stockport district, with very few output areas in the Stockport district highlighted as being within the highest quintile.
7. **Households without a car:** Generally households with access to car is good across the borough. The notable exceptions are large concentrations in the Town Centre and Brinnington and a pocket in Offerton. Communities that would be benefit from good public transport connections and improvements to walking and cycling networks.
8. **Households with dependent children:** Apart for Stockport Town Centre itself there are relatively high proportions of households across the Borough which contain at least one dependent child. Communities that would benefit from good access to amenities, educational facilities and NHS healthcare facilities at Stepping Hill Hospital.
9. **Income Deprivation Indicator:** Stockport Town Centre along with concentrations in Brinnington, Bredbury, Offerton, Adswood and Cheadle are within the most deprived quintile for the national indicator. Communities that would benefit from good access to educational facilities and new/ existing employment opportunities.

INITIAL SCREENING PROFORMA

3.7.7 The initial screening proforma used to assess the A6 to M60 Relief Road impacts based on a TfGM-preferred format which observes the principles of WebTAG guidance is presented in **Table 3-8** overleaf.

Table 3-8: Initial Distributional Impact Screening Proforma

Indicator	Expected Scale of Impact	Key Geographical Areas and Impact Groups to be Affected	Link to Key Objectives and Expected Outcome	Approach to Demonstrating Impacts including Outputs
User Benefits	Large Beneficial	An area broadly encompassing the SEMMMS area shown in **Figure 2-34** in ***The Strategic Case***, for trips using links predicted to experience traffic changes shown in **Figure 3-1** of ***The Economic Case***. Income Groups	Congestion relief to key routes such as A6 through Stockport Town Centre and Hazel Grove. Improved access to M60 and strategic road network from south east Manchester. Improved highway network resilience across south east Manchester better able to respond to accidents/ incidents.	Need to examine the TUBA outputs to gain information on a zonal level which can be matched with socio-demographic boundaries. To enable an assessment of the user benefits against income mapping.
Noise	Adverse	Area adjacent to affected road network predicted to experience a change in noise levels shown in **Figure 3-6** of ***The Economic Case***. Income Groups Children under 16	Potential to reduce noise levels along existing road traffic routes in largely urban areas, including A6 between Hazel Grove and other local routes in the area. Potential adverse impacts immediately adjacent to the Scheme in comparatively quiet area. Any noise issues arising may be potentially mitigated against through the detailed design stage.	Need to assess the outputs from the noise assessment to ascertain the distribution of impacts across income groups and children in the area. Indices of Deprivation 2010, Census 2011, and schools data will be used alongside outputs from noise modelling.
Air Quality	Beneficial	Area adjacent to affected road network predicted to experience a change in local air quality shown in **Figure 3-5** of ***The Economic Case***. Income Groups Children under 16	Overall there is a significant net improvement in local air quality due to the Scheme. The Scheme is not predicted to result in any additional exceedances. Reduced impact of congestion on air quality on the local centre of Bredbury, Hazel Grove, Offerton & Stockport Town Centre	Need to assess the outputs from the air quality assessment to ascertain the distribution of impacts across income groups and children in the area. Indices of Deprivation 2010 and Census 2001 data will be used alongside outputs of air quality modelling.

Indicator	Expected Scale of Impact	Key Geographical Areas and Impact Groups to be Affected	Link to Key Objectives and Expected Outcome	Approach to Demonstrating Impacts including Outputs
Accidents	Slight Beneficial	Area encompassing road network links predicted to experience traffic changes shown in **Figure 3-1** of ***The Economic Case***. All vulnerable groups, specifically young children.	Reduction in overall distance travelled as a result of the Scheme. Reduction in road accidents as vehicular volumes are reduced along the A6 between Hazel Grove and Stockport Town Centre, A560 through Bredbury, A626 through Offerton and A627 through Romiley and Marple. Benefits across existing highway network will be counterbalanced to some degree through accidents on new road which will be subject to higher speed limit than the bypassed local routes.	Interrogation of STATS 19 accident records for a five year period to profile the casualties of accidents that occurred during this period. Undertake an analysis to identify any significant concentrations of vulnerable groups that might be impacted.
Security	Slight Beneficial	Area immediately adjacent to the Scheme. Older people, children, women, black and minority ethnic residents and people with disabilities.	Scheme is unlikely to have a material impact on personal security. Scheme will provide a segregated footway/ cycleway along the length of the route. A number of Public Rights of Way (PRoW), including footpaths and bridleways, will be directly affected by the construction of the Scheme. PRoW proposals taking account of any security implications will form an integral part of the Scheme.	GIS will be used to capture the socio-demographic profile of users likely to benefit from the improved cycle / pedestrian links.
Severance	Large beneficial	Area encompassing the Scheme and where links on the road network experience a net change of in two-way traffic flows of more than 10%.	Reduced severance as vehicular volumes are reduced along the A6 between Hazel Grove and Stockport Town Centre, A560 through Bredbury, A626 through Offerton and A627 through Romiley and Marple. Reduced traffic volumes on A6 will enable road space to be reallocated and public realm measures to be implemented. A number of PRoW, including footpaths and bridleways, will be directly affected by the construction of the Scheme. PRoW proposals will form an integral part of	GIS mapping will be used to present existing barriers to travel, and how these will be affected by the Scheme.

Indicator	Expected Scale of Impact	Key Geographical Areas and Impact Groups to be Affected	Link to Key Objectives and Expected Outcome	Approach to Demonstrating Impacts including Outputs
		Key vulnerable groups including older people, children, and people with disabilities. Households without a car.	the Scheme. A Vulnerable Road User Group will be set up to discuss and gather feedback on pedestrian, cycle and equestrian facilities, provision for disabled groups and PRoW	
Accessibility	Large beneficial	Area encompassing existing and potential future public transport corridors affected/ enabled by the Scheme, including A6 corridor, and catchment areas for Stepping Hill hospital, Stockport Town Centre, City Regional Centre and Manchester Airport. Income Groups. All users of the transport system, and all social groups.	Improved connectivity between residential areas and employment, education, healthcare, retail and other opportunities. Reduced impact of congestion on public transport journey time reliability/ punctuality traffic along the A6 corridor the local centres of Bredbury, Hazel Grove, Offerton & Stockport Town Centre. Improved access to NHS and its healthcare facilities at Stepping Hill hospital. Improved access to Stockport Town Centre through reduced travel times. Opportunity for high standard orbital public transport connections to Manchester Airport from Brinnington, Bredbury, Offerton and Hazel Grove.	Use will be made of Accession modelling GIS to present the distribution of time savings to key services and social groups.
Affordability	Neutral			

3.7.8 **Table 3-9** below out the groups of people to be identified in the analysis for each indicator.

Table 3-9: Scope of Socio-Demographic Analysis for DIs

		User Benefits	Noise	Air quality	Accidents	Security	Severance	Accessibility
Income Distribution	National Income Deprivation Quintiles	✓	✓	✓				✓
User Group	Pedestrians and Cyclists				✓		✓	
Social Group	Children (Under 16)		✓	✓	✓	✓	✓	✓
	Young People (16-24)				✓			✓
	Older People (over 70)				✓	✓	✓	✓
	People with Long-term Health Problems & Disabilities					✓	✓	✓
	Black and Minority Ethnic					✓		✓
	No Car Households						✓	✓
	Households with Dependent Children							✓

3.7.9 The initial screening has gained a broad understanding of the areas likely to experience impacts as a result of the Scheme. A more detailed examination will be required at the next stage of business case development to quantify the spatial impacts of the Scheme. The affected area is likely to vary depending on the individual DI indicator being appraised. The methodology used to determine an appropriate assessment area for each DI indicator will be explained as a part of the full appraisal.

3.8 DIRECT ECONOMY IMPACTS

3.8.1 Greater Manchester has consistently placed connectivity and transport investment at the heart of its economic strategy with a need to continue to focus investment on the city region's strategic transport network to enhance local, national and international connectivity. This investment strengthens and widens GM's labour market which is critical to its future success. The first Greater Manchester Strategy (GMS) was produced in 2009, in response to the Manchester Independent Economic Review (MIER) which highlighted that **"improvements to transport networks within the Manchester City Region would provide the largest economic payoff**".

3.8.2 The A6 to M60 Relief Road scheme has the potential to deliver wider economic benefits through:

- → Improved surface access to Manchester Airport and Airport City for both passengers, workers and employees of existing and future businesses comprising Airport Gateway including the potential for new/ improved orbital public transport services (and other sustainable modes) along the route to some of the Borough's more deprived areas of Brinnington, Bredbury, Offerton and Hazel Grove who could be expected to gain the most benefit from better orbital public transport links with the Airport;

- Improved route options for road freight traffic from Derbyshire/ Peak District to the M60 (for south to east journeys and vice versa), distribution centres and other destinations across the North West including the portfolio of industrial and warehousing sites within the GM Northern and Eastern Gateways such as Bredbury Park Industrial Estate in Stockport; and
- maximising the benefits and opportunities from improved trans-Pennine connectivity including improved route options for road freight traffic.

3.8.3 The GMSF consultation draft included allocations for 19,300 homes in the next two decades across Stockport with the bulk of new housing allocation on brownfield sites, with a town and city centre first approach. It is too early at this stage to determine whether any site allocations may be considered to be dependent development.

3.8.4 For the next stage in the business case development process the DfT's Wider Impacts of Transport Appraisal (WITA) program will be to capture impacts that are not already included in the conventional transport user benefit calculations from TUBA, namely, agglomeration; increased/decreased output in imperfectly competitive markets; and labour market impacts.

3.8.5 Similarly, ***The Strategic Case*** will be developed to provide a quantified assessment of new jobs and changes in Gross Value Added (GVA) that may be expected to accrue as a result of the Scheme i.e. the non-welfare measures of wider economic impact.

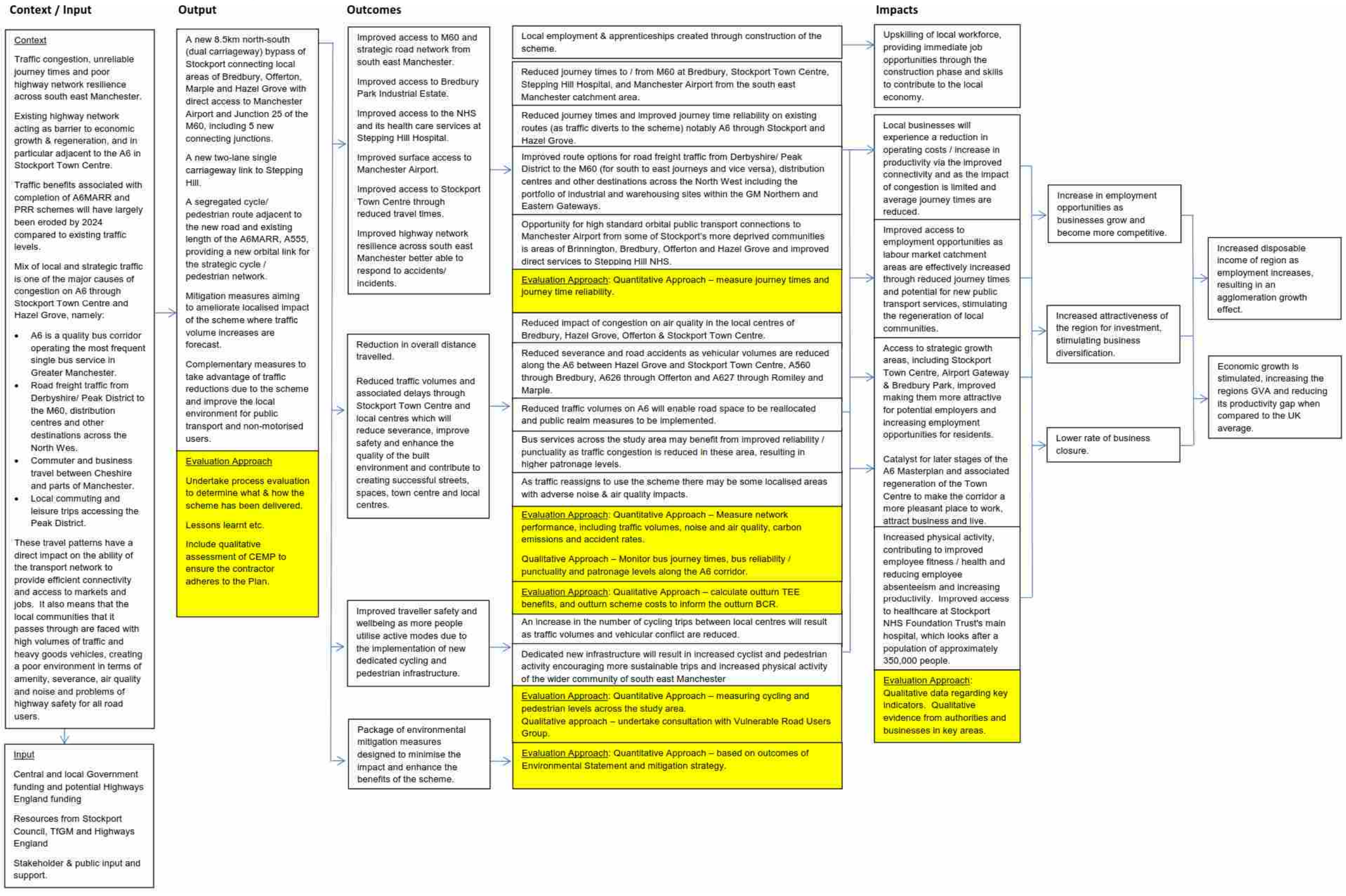
3.9 LOGIC MAP

3.9.1 Logic mapping is now considered an essential part of the evaluation process. It is a systematic and visual representation linking the key components of an intervention in order to produce a causal pathway. It includes:

- Inputs – what is being invested in terms of resources and activities
- Outputs – new & modified transport network that is being constructed
- Outcomes – short and medium-term results, such as changes in traffic flow levels and journey times
- Impacts – long-term results such as land use development, better quality of life, environmental benefits, and economic benefits.

3.9.2 The process of drawing up the intervention logic ensures that the decision about what to evaluate and even how to evaluate (in terms of the approach to be selected) is based on a sound analysis and explicit articulation of the anticipated scope and scale of the intervention in terms of input, output, outcomes and impacts. The scheme logic map shown in **Figure 3-7** overleaf provides a visual representation of the process by which the scheme outputs the wider and longer term impacts which are necessary if the scheme is to achieve the SEMMMS Refresh primary and enabling objectives set out in **Table 2-3** of ***The Strategic Case***.

Figure 3-7: A6 to M60 Relief Road Logic Map



3.10 APPRAISAL SUMMARY TABLE

3.10.1 The Appraisal Summary Table (AST) is designed to provide decision takers with a concise overview of impacts across the board. The results of the assessment of the A6 to M60 Relief Road scheme against the five objectives of Central Government and the supporting sub-objectives are presented in **Table 3-10** overleaf.

3.11 VALUE FOR MONEY STATEMENT

Monetised Benefits	The sum total of monetised benefits is represented by the Present Value of Benefits (PVB). Based on a proportionate approach to scheme appraisal for the purpose of this strategic outline business case the PVB reflects changes in: travel time to highway users; vehicle operating costs; accidents; noise; local air quality; greenhouse gases; and indirect tax revenues.
	PVB = £1.39 billion (2010 prices and values)
Costs	The capital cost of the scheme, including land, preparation and supervision costs is £385.8m at 2017 prices. Optimism bias has been applied at 44% totalling £58.6m with a further allowance of £32.8 million for inflation. The estimated outturn cost for the Scheme is £477.3 million.
	Present Value of Costs (PVC) = £341.0 million (2010 prices and values)
Initial Benefit to Cost Ratio (BCR)	Net Present Value (NPV) = £1.05 billion (2010 prices and values)
	Initial Benefit to Cost Ratio (BCR) = 4.07 which can be categorised as representing a very high VfM.
Non-monetised benefits / disbenefits	In addition to the monetised benefits the Scheme will deliver benefits in terms of; journey time reliability, physical activity, journey quality, access to services and severance. In contrast the Scheme is expected to have some adverse environmental impacts in terms of; landscape, historic environment, biodiversity and water environmental – impacts that will be minimised as far as practicable through preparation of an environmental statement and mitigation strategy. A package of complementary measures will be developed in accordance with the SEMMM Strategy that will maximise the scope of benefits by making the most efficient use of road space where there are forecast reductions in car traffic. These measures will prevent available road space from simply filling up with more cars. Similarly, a package of mitigation measures will be developed that contribute to the overall value for money by limiting any negative impacts resulting from the Scheme, including environmental and construction engineering mitigation to minimise the effect of the road on local communities and surrounding habitats.
Distributional Impacts (DI)	Stockport town centre is amongst the most deprived quintile based on the national income deprivation indicator, along with parts of Brinnington, Bredbury and Offerton - communities that will experience some of the largest positives impacts of the Scheme. Completion of the final phase of the SEMMMS Relief Road scheme presents the opportunity for high standard orbital public transport connections to the Airport from communities with a high proportion of households without a car.
Direct Economy Impacts (DEI)	The Scheme will improve surface access to Manchester Airport and Airport City. The improve route options for road freight traffic from Derbyshire/ Peak District to M60 distribution centres and other destination across the North West, and would help to maximise the benefits and opportunities from improved trans-Pennine connectivity. The Scheme will act as a catalyst for later stages of an A6 Masterplan and associated regeneration of the Town Centre as part of Stockport Council's Investing in Growth Programme; The Scheme will generate significant benefits through agglomeration, labour markets and increased productivity.
Value for Money Category	The overall VfM band for the A6 to M60 Relief Road scheme can be categorised as representing a very high VfM.

Table 3-10: Appraisal Summary Table

Appraisal Summary Table

Date produced:	18	5	17

Contact:	
Name	
Organisation	
Role	Promoter/Official

Name of scheme:	SEMMMS A6 to M60 Relief Road	
Description of scheme:	A new 11km north-south (dual carriageway) bypass of Stockport connecting local areas of Bredbury, Offerton, Marple and Hazel Grove with direct access to Manchester Airport and Junction 25 of the M60, including 5 new connecting junctions. The scheme also included a new two-lane single carriageway link to Stepping Hill Hopsital and a segregated cycle/ pedestrian route adjacent to the new road.	

Impacts		Summary of key impacts	Assessment: Quantitative	Qualitative	Monetary £(NPV)	Distributional 7-pt scale/ vulnerable grp
Economy	Business users & transport providers	Substantial travel benefits for business and freight users (£102.8m for car business users and £349.2m for road freight), as a result of additional network capacity and reduced congestion on existing routes, with 61% of benefits attributable to net journey time changes over 2 minutes. 89% of benefits relate to travel times and 11% relate to vehicle operating costs savings.	**Value of journey time changes(£)** £452,119,000 **Net journey time changes (£)** 0 to 2min: £176,985,000 / 2 to 5min: £136,398,000 / > 5min: £138,746,000	Large Beneficial	£452,119,000	
	Reliability impact on Business users	A new link to the the M60 motorway will improve highway network resilience across south east Manachester that is better able to respond to accidents/ incidents. Notwithstanding Highway England's plans for a M60 south-east quadrant Smart motorway scheme, the Scheme will provide some much needed relief to the M60 motorway between Bredbury and the M56 spur.		Beneficial	N/A	
	Regeneration	The Scheme will act as a catalyst for later stages of the A6 Masterplan and associated regeneration of the Town Centre as part of Stockport Council's Investing in Growth Programme.		Beneficial	N/A	
	Wider Impacts	The Scheme will improve surface access to Manchester Airport and Airport City. The improve route options for road freight traffic from Derbyshire/ Peak District to M60 distribution centres and other destination acroos the North West, and would help to maximise the benefits and opportunities from improved trans-Pennine connectivity. Manchester has consistently placed connectivity and transport investment at the heart of its economic strategy with a need to continue to focus investment on the city region's strategic transport network to enhance local, national and international connectivity. This investment strengthens and widens GM's labour market which is critical to its future success. The first Greater Manchester Strategy (GMS) was produced in 2009, in response to the Manchester Independent Economic Review (MIER) which highlighted that: ***"improvements to transport networks within the Manchester City Region would provide the largest economic payoff"***. The Scheme will generate benefits through agglomeration, labour markets and increased productivity.		Large Beneficial	N/A	
Environmental	Noise	Potential impacts to properties due to increases in noise in a comparatively quiet area. Conversely, there is potential to reduce noise levels along existing road traffic routes in largely urban areas, including A6 between Hazel Grove and Stockport and other notable routes linking through to the M60 J25. An overall benefit is anticipated across the wider area, outside the area for which detailed noise level predictions have currently been undertaken, in particular on the A34 between Congleton and the M60 J3-4 and the M60 between J3-4 and J25.	Increase in noise level - 1098 dwellings Decrease in noise level - 539 dwellings (When considering the worst affected facades only)	N/A	-£6,194,000	
	Air Quality	Overall there is a significant net improvement in local air quality due to the Scheme. The scheme does not result in any additional exceedances (there is an exceedance of the AQS objective for annual mean NO2 concentrations, however this occurs both without and with the Scheme i.e. is not caused by the Scheme itself). Regional air quality- there is an imperceptible impact on regional emissions for NOx.	Assessment Score (2024): PM10: -1900.13, NO2: - 4127.79. Assessment Score (2039): PM10: -1746.16, NO2: -2720.72. Change in NOx emissions due to Scheme (tonnes per year): 2024: 10.3 (0.8%), 2039: -2.3 (-0.2%). Less than a 1% change in total NOX emissions as a result of the Scheme.	N/A	Value of Change in PM10 concentration: NPV: £5,192,000. Value of Change in NOx Emissions: NPV: £-11,000. Total value of change in air quality: £5,181,000 (i.e. net positive)	
	Greenhouse gases	Overall there is a significant improvement in CO_2 emissions as a result of the Scheme.	Change in non-traded carbon over 60y (CO2e): -11,340 Change in traded carbon over 60y (CO2e): -156,636	N/A	Net Present Value of carbon dioxide equivalent emissions of proposal (£): £6,663,000 (i.e. net positive)	
	Landscape	Introduces traffic into areas of relatively tranquil countryside river valleys of quality and value. Loss of greenbelt land and difficult to integrate into the rural landscape. The reduction of traffic along the A6 into Stockport town centre from the junction with the proposed scheme could create benefits to the tranquility of this area. Impacts on character and visual amenity urban settlements and recreational resources. In part but not wholly mitigable.	N/A	Moderate Adverse	N/A	
	Townscape	Comprises discrete areas of mid to late 20th century industrial, commercial and residential development. Ordinary to good quality but lacks local distinctiveness. Direct impacts on a small number of residential properties on the eastern edge of Torkington, the north eastern edge of Norbury Moor and the western edge of Bredbury as a result of the scheme. The Scheme will sever a number of well used public footpaths between Torkington and Newbury Moor and the adjoining countryside, but this could be mitigable as the design progresses.	N/A	Slight Adverse	N/A	
	Historic Environment	Potential to impact on 3 Grade II listed buildings, one Grade II Registered Park and other non-designated assets, but potentially mitigable. Reduction of traffic along the A6 into Stockport town centre from the junction with the proposed scheme may have a slight benefcial effect on the context of the Grade II listed assets. Potential for adverse impacts on previously unrecorded archaeology from the prehistoric to the modern period.	N/A	Moderate Adverse	N/A	
	Biodiversity	Potential direct impacts, loss of ancient woodland, priority habitats and great crested newt terrestrial and aquatic habitat. Potential for the Scheme to significantly reduce its impact through innovative design, mitigation measures and compensation. Further survey information will be required to inform a detailed assessment of effects on ecological features.	N/A	Moderate Adverse	N/A	
	Water Environment	Direct impacts on two notable areas of flood risk and the crossing of the Poise Brook will require significant realignment and culverting of the watercourse. Measures to manage and mitigate potential impacts to flood risk, flood flow conveyance and biodiversity are unresolved but potentially mitigable. The route is also partially located in a groundwater source protection zone.	N/A	Large Adverse Impact	N/A	
Social	Commuting and Other users	Substantial travel benefits for commuters and other users as a result of additional network capacity and reduced congestion existing routes, with 59% of benefits attributable to net journey time changes over 2 minutes. 97% of benefits relate to travel times and 3% relate to vehicle operating costs savings.	**Value of journey time changes(£)** £958,589,000 **Net journey time changes (£)** 0 to 2min: £392,544,000 / 2 to 5min: £278,792,000 / > 5min: £287,294,000	N/A	£958,589,000	
	Reliability impact on Commuting and Other users	A new link to the the M60 motorway will improve highway network resilience across south east Manachester that is better able to respond to accidents/ incidents. The section of A6 bypassed currently experiences poor daily variability during peak periods which with the Scheme in place will experience a signifcant reduction in traffic volumes.	N/A	Beneficial	N/A	
	Physical activity	Provision of segregated footway/cycleway adjacent to new road with purpose built crossing facilities that will be integrated with the existing public rights of way network. As a result the Scheme will lead to increased physical activity, contributing to improved fitness/ health and reducing absenteeism and increasing productivity.	N/A	Beneficial	N/A	
	Journey quality	Provision of segregated footway/cycleway adjacent to new road, with clear signange and traveller facilities would be offered. There would be improvements to existing perceptions of the Scheme corridor.	N/A	Beneficial	N/A	
	Accidents	The Scheme will reduce traffic flows on existing routes and reduce the overall distance travelled on the highway network.	Scheme predicted to save a total of 3,476 accidents. Total casualties saved by scheme; 25 fatal, 431 serious and 4,140 slight.	Slight Beneficial	£145,000	
	Security	Minimal Impact	N/A	Neutral	N/A	
	Access to services	Scheme provides a new link and improved access to health care serives at Stepping Hill Hospital, Stockport NHS Foundation Trust's main hospital, which looks after a popluation of approximately 350,000 people. The Trust provides acute hospital care for children and adults predominantly across Stockport and the High Peak area of Derbyshire. Improved road access to the hospital will complement (and allow improvements to) its already good public transport	N/A	Beneficial	N/A	
	Affordability					
	Severance	The Scheme will reduce severance as vehicular volumes are reduced along the A6 between Hazel Grove and Stockport Town, A560 through Bredbury, A626 through Offerton and A627 through Romiley and Marple. GM Town Centre Study cites the need for "improved connectivity across the centre, principally by taking traffic off the A6 and giving more priority to pedestrians, cyclists and public transport". Reduce traffic volumes on A6 will enable road space to be reallocated and public realm measures to be implemented, and will act as catalyst for later stages of the A6 masterplan to be implemented which will make the corridor a more pleasant place to work, attract business and live.	N/A	Beneficial	N/A	
	Option and non-use values	Scheme will provide improved surface access to Manchester Airport creating the potential for high standard orbital public transport connections from some of Stockport's more deprived communites with low car ownership in areas of Brinnington, Bredbury, Offerton and Hazel Grove.	N/A	Slight Beneficial	N/A	
Public Accounts	Cost to Broad Transport Budget	Costs for all elements of the A6 to M60 Relief Road scheme plus optimism bias at 44% and adjustement for future inflation.			£340,980,000	
	Indirect Tax Revenues				-£29,511,000	

4 FINANCIAL CASE

4.1 INTRODUCTION

4.1.1 This section outlines the approach taken to assess the affordability for the SEMMMS A6 to M60 Relief Road Scheme and where applicable set out the indicative financial implications of the scheme (as set out in the economic case section) and the proposed deal (as described in the commercial case section).

4.2 ORIGINAL SEMMMS RELIEF ROAD COST ESTIMATE

4.2.1 The original cost estimate for the full SEMMMS Road Scheme was first prepared in 2003 and later updated in October 2007[16]. The cost estimate was broken down by various sections of scheme, including for the southern section excluding Poynton Relief Road and the northern section. The southern section excluding Poynton Relief Road is the currently under construction A6MARR scheme for which a robust outturn cost estimate is now available.

4.2.2 The 2007 cost estimates included a 25% optimism bias allowance and a summary is included in **Table 4-1** below:

Table 4-1: SEMMMS New Relief Road Scheme Costs, Economic Update Report, Oct 2007

ITEM	COMPLETE SCHEME	NORTHERN SECTION	SOUTHERN SECTION EXCL PRR
	Scheme Total	**North 1 to 9**	**South 7 to 17 exc. PBP**
Preparation	17,415,239	11,758,467	6,886,831
Supervision	14,035,293	9,492,043	5,547,716
Land acquisition and compensation	128,351,969	85,472,091	48,841,195
Construction	419,942,800	278,999,665	168,654,517
Total Capital Cost	579,745,300	385,722,265	229,930,258
Maintenance and Operation			
Ratio of Northern Section to Southern Section exc. PBP		1.678	

4.3 OVERALL SCHEME COST ESTIMATE

4.3.1 The following approach has been adopted to developing the cost estimate for the A6 to M60 Relief Road scheme appropriate to this stage in the scheme development/ business case process:

→ Use the outturn cost estimate for A6MARR scheme;

[16] Table 4.1 of the SEMMMS New Relief Road Scheme, Economic Update Report, dated 15 October 2007, Stockport Council.

- Apply the ratio of Northern Section (A6 to M60) to Southern Section excluding PRR to obtain an equivalent cost for the A6 to M60 Relief Road scheme;
- Apply a correction for 44% optimism bias;
- Apply inflation from 2017 to outturn based on the same construction period and profile as the A6MARR scheme.

4.3.2 The latest A6MARR outturn scheme cost estimate is commercially confidential and for this reason is not included within this report. The A6MARR scheme is expected to be completed in Spring 2018. These costs have, however, been made available to this study as the basis for deriving a best cost estimate for the A6 to M60 Relief Road scheme.

4.3.3 Based on the assumptions set out above, the outturn cost estimate for the A6 to M60 Relief Road scheme is **£477.25m**, and a full cost profile, over the proposed construction period is given in **Table 4-2** below. This includes an annual rate of inflation of 1.2% and an adjustment for 44% optimism bias.

Table 4-2: A6 to M60 Relief Road Scheme: Outturn Scheme Cost Estimate (£000s)

A6 to M60 Construction Period	Pre-construction	2020/21	2021/22	2022/23	2023/24	Post 2023/24	Total
Total	19,751	52,914	90,144	123,344	136,657	54,443	**477,253**

4.3.4 Maintenance costs are assumed to place a medium to long term ongoing maintenance liability on Stockport Council following adoption of the new highway e.g. resurfacing, renewal of the road, drainage clearance, lighting operation, structural inspections etc.

4.3.5 The Scheme would reduce traffic volumes on existing roads, which would have a positive impact upon the condition of these roads. At this stage, however, the cost implications of this are unknown, and have not been incorporated into a whole life VfM assessment.

4.4 COMPLEMENTARY AND MITIGATION MEASURES COST ESTIMATE

4.4.1 As part of the original SEMMMS Relief Road scheme development a comprehensive programme of complementary and mitigation works were drawn up to maximise opportunities to secure SEMMMS core objectives. Some of these measures are in the process of being implemented as part of the A6MARR scheme and the proposed Poynton Relief Road.

4.4.2 The measures aim to ameliorate the scheme's impact on local communities where there are predicted to be traffic increases, and seek opportunities to encourage walking, cycling and support to local centres where there are predicted to be reductions in traffic flow.

4.4.3 The proposed complementary and mitigation measures proposed for the SEMMMS Relief Road North section (A6 to M60) were originally costed at £7.7 million for Stockport areas and £0.5m for Cheshire areas (now Cheshire East), giving a total cost of £8.2 million. Updating these costs in the same manner as those adopted for the overall outturn scheme cost estimate yields a best outturn cost estimate of **circa £10.1 million** for complementary and mitigation works.

Table 4-3: Proposed Complementary and Mitigation Measures for Northern Section

Stockport Areas	Cheshire Areas	Total	Outturn Scheme Total
£7.7 million	£0.5 million	£8.2 million	£10.1 million

4.4.4 A full review of the individual complementary and mitigation measures will be carried out during the next stage of the scheme development to ascertain whether they remain justifiable and appropriate, and whether there is a need for further mitigation or opportunities for additional complementary measures.

4.5 FINANCIAL RISKS

4.5.1 A formal Quantified Risk Assessment has not been carried out as part of this feasibility study and Strategic Outline Business Case preparation. An allowance of 44% optimism bias is included within the outturn costs estimate along with an inflation assumption of 1.2% per annum.

4.5.2 Optimism bias is the demonstrated systematic tendency for appraisers to be overly optimistic about key parameters. As project-specific risks become better understood, quantified and valued, it will be possible to better capture the factors that contribute to optimism bias within the risk management process. The allowance for optimism bias will be the largest at this initial stage of the project (at Strategic Outline Business Case); will decrease in a more detailed business case (at Outline Business Case); and will be smallest in the presence of a fully detailed business case (at Full Business Case).

4.5.3 The *Supplementary Green Book Guidance on Optimism Bias (HM Treasury)* sets out the contributory factors to the upper bound optimism bias appropriate for each stage in the scheme development. For the A6MARR scheme at Outline Business Case a calculation of mitigation factors around Optimism Bias was undertaken in accordance with WebTAG and a scheme specific optimism bias figure of 27% was derived, was independently verified by EC Harris on behalf of TfGM and approved by DfT. We would expect a similar exercise to be carried out for the A6 to M60 Relief Road scheme at outline business case.

4.5.4 There are currently a number of different options associated with scheme structures including tunnel and bridge options. Whilst these have been subject to a high level review further investigation is required to fully understand which options would be most the cost effective in relation to the constraints of construction and the overall impacts and benefits of the scheme.

4.6 FUNDING STRATEGY

4.6.1 The expectation is that the Scheme would be jointly funded by specific Department for Transport capital grant, plus additional capital grant funding from the Government through the Earn Back model, and GMCA / Local Transport Plan (LTP) funding. At present no contributions are expected from local developers.

4.7 COST OF DEVELOPING OUTLINE BUSINESS CASE

4.7.1 The estimated costs for producing an Outline Business Case (OBC) and post OBC developments are provided below and brief details of the works that will be undertaken under each of the main technical headings follows after **Table 4-4**.

Table 4-4: Development Costs to Outline Business Case

COST HEADING	£ MILLION
Engineering design and Surveying	£1.50
Environmental surveys	£0.85
Traffic Data / User Survey Collection & Modelling	£0.50
Design support (Risk, QS, Commercial)	£0.20
Business Case	£0.40
Legal, property agent, land referencing	£0.25
Stakeholder management / communications plan	£0.25
Project management	£0.25
Evaluation plan	£0.10
Project Assurance	£0.10
Total	**£4.40**

* Post OBC Development / Preparation Costs – 2020/21 only (included in capex table)

COST HEADING	£ MILLION
Preparation for Planning Application, Orders, Full Business Case and Procurement of Construction	£1.50

ENGINEERING DESIGN & SURVEYING

4.7.2 Work under this area will include topographical surveys to develop a Ground Model for further engineering design of the scheme. The Engineering design will be progressed to a stage that includes preferred junction layouts and standards, confirming the land-take required and enabling more robust scheme cost estimates to be produced.

ENVIRONMENTAL SURVEYS

4.7.3 The previous environmental surveys are all substantially out of date now and therefore this work will include new environmental surveys that will enable to DMRB compliant Environmental Assessment to be completed.

TRAFFIC DATA / USER SURVEY COLLECTION & MODELLING

4.7.4 Additional data required to enhance the scheme traffic model will be collected and used to bring the models to present day. The uncertainty log will be updated to reflect the latest proposals for land-use developments across the study area.

4.7.5 Discussion with Highways England and local planning authorities will be undertaken to agree the level and scope of data collection and in developing the Uncertainty Log. Model calibration, validation will be undertaken and future year model forecasts will be produced including the use of the GM Variable Demand Model.

DESIGN SUPPORT (RISK, QS, COMMERCIAL)

4.7.6 This covers a wide range of activities to support the design and commercial aspects of the scheme including updating the scheme Risk Register, undertaking a Quantified Risk Assessment and developing scheme cost estimates.

OUTLINE BUSINESS CASE

4.7.7 This includes the production of the actual Outline Business Case submission document including all the necessary supporting documents.

LEGAL, PROPERTY AGENT, LAND REFERENCING

4.7.8 As the heading suggest, this will include the legal and ownership / referencing aspects related to the land that will be identified as required for the scheme.

STAKEHOLDER MANAGEMENT / COMMUNICATIONS PLAN

4.7.9 Significant stakeholder engagement activity will be required in the run-up to the FBC. This work will include the development of the Stakeholder Management & Communications Plan and the subsequent activities to ensure there is full and proper stakeholder and public engagement on the scheme proposals

SCHEME DEVELOPMENT BEYOND THE OUTLINE BUSINESS CASE

4.7.10 In addition to producing the OBC, costs will be incurred to continue to develop the scheme beyond OBC as per the scheme programme provided below. We estimate a cost of £1.5m in 2020/21 to cover activities including the preparation of a Planning Application, including a development of a detailed Transport Assessment and preparation for the publication of Side Road Orders and any potential local inquiry. Other activities will include preparation towards construction procurement and development of the Full Business Case (FBC), as shown in **Table 4-5**.

Table 4-5: Funding Requirement

	2017/18 OBC	2018/19 OBC	2019/20 OBC	2020/21 FBC	TOTAL
Total (millions)	£1.285	£1.500	£1.615	£1.500	£5.900

4.7.11 **Table 4-6** outlines how the OBC would be progressed over the subsequent years to 2019.

Table 4-6: Outline Business Case Activity 2017 to 2019

ACTIVITY	PROGRAMME DATES
Strategic Outline Business Case complete	April 2017
Outline Business Case Modelling	May 2017 – Autumn 2018
Highway modelling	
Multi-modal demand modelling / VDM	
Freight modelling	
Sensitivity tests	
Wider Economic Benefits	
Develop Outline Business Case (initial SMBC refresh)	May 2017 – Spring 2018
Highway Design & Costing	May 2017 – Spring 2019
Outline design and costing	April 2017

ACTIVITY	PROGRAMME DATES
Preferred highway option detailed design	May 2017 – Spring 2019
Development aligned with HE design programme	May 2018 – Spring 2019
Cost development	May 2017 – Spring 2019
Stakeholder Consultation	June 2017 – Spring 2019
Environment	May 2017 – Spring 2019
Scoping document	Spring 2017
Scoping Consultation	Autumn 2017
Update Site Surveys	Spring – Autumn 2018
Season specific ecology surveys	Spring – Autumn 2019
Environmental Impact Assessment	Winter 2018/19
Finalisation of Outline Business Case documentation	Winter 2018/19
Outline Business Case Submission	Spring 2019

Summary

The following approach has been adopted to developing the cost estimate for the A6 to M60 Relief Road scheme appropriate to this stage in the scheme development/ business case process:

- Use the outturn cost estimate for A6MARR scheme;
- Apply the ratio of Northern Section (A6 to M60) to Southern Section excluding PRR to obtain an equivalent cost for the A6 to M60 Relief Road scheme;
- Apply a correction for 44% optimism bias;
- Apply annual rate of inflation of 1.2% from 2017 to outturn based on the same construction period and profile as the A6MARR scheme.

Based on these assumptions the outturn cost estimate for the A6 to M60 Relief Road scheme is £477.25 million.

Maintenance costs are assumed to place a medium to long term ongoing maintenance liability on Stockport Council following adoption of the new highway e.g. resurfacing, renewal of the road, drainage clearance, lighting operation, structural inspections etc.

The expectation is that the Scheme would be jointly funded by specific Department for Transport capital grant, plus additional capital grant funding from the Government through the Earn Back model, and GMCA / Local Transport Plan (LTP) funding. At present no contributions are expected from local developers.

5 COMMERCIAL CASE

5.1 INTRODUCTION

5.1.1 This chapter presents ***The Commercial Case*** for the SEMMMS A6 to M60 Relief Road scheme. It provides evidence on the commercial viability of the scheme and the procurement strategy that will be used to engage the market. The outline approach taken and the proposed procurement strategy for the commercial case for the A6MARR scheme will be closely followed

5.1.2 Stockport Council has a strong track record in the procurement and delivery of major schemes with two notable examples of recent projects that are being delivered or are nearing completion include:

- A6MARR; and
- Stockport Town Centre Access Plan.

5.1.3 These are discussed in more detail in the **Section 6.2** of ***The Management Case***.

5.2 OUTLINE APPROACH

5.2.1 The commercial case has been developed following the outline approach below, it is likely that:

- Set the procurement objectives, outcomes and constraints;
- Identify potential procurement / purchasing options;
- Assess the procurement options in terms of pros and cons, as a rationale for selecting the preferred sourcing option;
- Confirm the preferred payment mechanism and pricing framework;
- Assess how different types of risk might be apportioned / shared, with risks allocated to the party best placed to manage them.

5.2.2 At this stage of business case development, the commercial case has been developed at a strategic level. Details on contract length, human resource issues and contract management will be finalised and updated subject to approval to proceed with the development of the outline business case.

5.3 OUTPUT BASED SPECIFICATION

5.3.1 The commercial case is based on a number of strategic objectives and outcomes, against which alternative procurement options / scenarios are assessed:

- Achieve cost certainty, or certainty that the Scheme can be delivered within the available funding constraints;
- Minimise further preparation costs with respect to scheme design;
- Obtain contractor experience and input to the design and construction programme to ensure the implementation programme is robust and achievable; and
- Obtain contractor input to risk management and appraisals, including mitigation measures, to capitalise at an early stage on opportunities to reduce construction risk and improve out-turn certainty.

5.3.2 The objectives have been split into those where the procurement strategy must deliver ('primary objectives') and those that it would be beneficial for the chosen procurement strategy to deliver ('secondary objectives').

5.3.3 The primary objectives underpinning ***The Commercial Case*** and which the preferred procurement strategy must deliver are:

- Deliver the Scheme within the available funding;
- Ensure all scheme promoters commit to the project in full;
- Ensure Best Value is delivered;
- Ensure that appropriate quality is delivered;
- Offer an affordable whole life cost solution; and
- Reduce risks to a level that is As Low As Reasonably Practicable (ALARP).

5.3.4 The secondary objectives underpinning ***The Commercial Case*** and which it would be beneficial for the preferred procurement strategy to deliver are:

- Engage the contractor in early-stage planning and development of the Scheme;
- Provide contractor input to the design, risk assessment and delivery programme;
- Engage the contractor in the planning public inquiry in respect of construction techniques, disruption and subsequent mitigation measures during the works; and
- Provide the scheme promoter(s) with affordable opportunities for change throughout the project life-cycle.

5.4 CONTRACT MANAGEMENT

5.4.1 At this early stage of business case development, the commercial case has been developed at a strategic level. Details on contract length and contract management will be outlined and updated during preparation of the outline business case. An early scheme activity programme is presented as part of ***The Management Case*** in **Table 6-1**.

5.4.2 It anticipated that the Scheme will be delivered utilising a standard contract such as the NEC3 (ECC) form of contract incorporating its strong Project Management ethos and approach which includes:

- **Risk Management:** a proactive approach to raise potential issues through 'Early Warnings' as soon as the parties become aware and therefore plan and manage risks effectively through risk reduction meetings and the monitoring of 'live' registers.
- **Change Management:** 'Compensation Events' and their impact on the project are dealt with proactively and forecasts are made at an early stage so the Project Management can timely reassess the delivery of the scheme and 'live' cost v budget position.
- **Programming:** the contract utilises a robust process for initial programming of the works and regular updates of the planned Completion reflecting progress to date and the impact of change.
- **Quality and defects:** the contract has a robust mechanism for ensuring the quality of works matches the requirements of the Works Information and where standards are not met 'defects' are notified and corrected by the Contractor.
- **Trust and Clarity:** the NEC3 promotes an environment of trust and cooperation between the parties to work together and resolve issues for the good of the project. The contract is

purposely drafted in a 'basic English' format which makes it user-friendly and a constant reference best-practice 'Project Management Manual' for the parties.

5.5 PROCUREMENT OPTIONS

5.5.1 Since funding is most likely to be secured through public funds; there are a number of procurement options available. The following three potential procurement strategies for the detailed design and construction stage of the project have been considered;

- Traditional design, procurement, construction, separate maintenance;
- Design and Build procurement, construction, separate maintenance;
- Early Contractor Involvement (ECI), procurement, construction, separate maintenance

5.5.2 In addition to the above a Private Finance Initiative (PFI) Design Build Operate and Maintain may be considered. PFI was discounted for the A6MARR scheme following preparation of a Quantitative Value for Money Appraisal Report in June 2010.

Traditional Design, Procurement, Construction

5.5.3 In general terms this strategy comprises the client completing a full detailed design followed by tendering for a Contractor, who is passed the design to construct. All risk resulting from the design is therefore carried by the Client.

5.5.4 In terms of programme, the detailed design would be completed following the end of the Public Inquiry, after which tenders could be prepared and a Contractor appointed.

5.5.5 Tenders could also be prepared in parallel with the planning process, which would keep the programme to construction as short as practicable. This would mean that it would be possible to go to tender within months of receiving planning powers and Conditional Approval of the business case.

5.5.6 Procurement could be started ahead of receiving the necessary powers and approvals. However, this would be a high risk strategy and is generally not supported by the Department for Transport and could be contrary to Local Authority Standing Orders.

5.5.7 One of the main benefits of the traditional approach to scheme delivery is that the promoter retains a high degree of control over specification and quality of finish. A traditional approach, however, generally leads to a lower level of risk transfer resulting in reduced cost certainty.

5.5.8 The Client retains the risk of quantity changes, as the tender is based upon an approximate set of quantities, which are re-measured. This could lead to an increase in project cost at outturn. Large changes in quantities could also justify changes in unit rates. The Client also carries the risk of unforeseen ground conditions and extreme weather conditions.

5.5.9 The scheme cost estimate, programme and buildability would be controlled by the promoters up to the point of contract award. Without the input of an experienced contractor at an early stage in the scheme's development it is more likely that non-transferable risks will be carried over to the construction stage. Should these risks materialise during the construction stage, the promoter would be liable to the increased costs generated, hence the reduced cost certainty associated with this procurement route.

5.5.10 As this type of contract has usually been won on the basis of the lowest tender submitted, outturn costs can be much higher (20%-30%) than the tender price, as the client carries most of the risk.

Advantages of Traditional Procurement

- Client is able to determine and control quality
- Design is carried out by Client's Designer with background in the project
- Tendering process is competitive
- Client has flexibility to control scope changes
- Tendering costs are lower than those for design and build
- Tendered sums will be lower than those for design and build as scope is well defined and Client carries most risks.
- Comparable in programme to Design and Build

Disadvantages of Traditional Procurement

- Poor record on cost certainty
- Claims become more likely as scheme complexity increases
- Large Client team needed to supervise construction
- Client carries much of the risk
- Contracts can be adversarial

Design and Build

5.5.11 This approach to the project offers the opportunity for the highest level of risk transfer from the Client to the Contractor.

5.5.12 This strategy involves a tendering process based upon a set of Client's Requirements, often accompanied by a preliminary design. These Requirements have to be carefully considered as they influence the project quality. Detailed, prescriptive requirements similar to a traditional specification can be used to control quality, but this may also restrict the Contractor's ability to bring innovation to the construction. Another approach is to use high-level requirements, e.g. "*design shall be in accordance with the Design Manual for Roads and Bridges (DMRB)"*. This encourages innovation, but the Contractor's interpretation of a DMRB clause may not be the same as the Client's and the tender would be based on the Contractor's view. The Contractor's opportunity for reducing costs through value engineering is linked to the flexibility in the Client's Requirements.

5.5.13 The Contractor's Designer would undertake some design to inform the Tender and usually submit his preliminary design with the Tender. It is expected that the appointment would not be made until after the scheme has gained statutory powers. Detailed design would start immediately after the tender process ends and the contract is awarded. Construction normally starts before detailed design is complete. Almost all risk resulting from the design is carried by the Contractor, but this depends upon the clarity of the Client's Requirements.

5.5.14 Value Engineering and buildability issues can be better addressed as it is likely that the design solutions would be developed by the Contractor Designer team, based upon the Contractor's methodology and approach rather than being solutions developed solely by the Designer.

5.5.15 This type of contract would be competitively tendered just prior to construction. The Contractor would own both the design and associated risk.

Advantages of Design and Build Procurement

- Reduced risk to Client
- Allows for competitive tender
- Comparable in programme terms with traditional approach
- Self-certification and elimination of re-measure reduces size of Client construction supervision team
- Tender preparation reduced in comparison to traditional approach as only a preliminary illustrative design, rather than a full detailed design, is issued to tenderers

Disadvantages of Design and Build Procurement

- Contractor controls quality within scope of Client's Requirements – therefore a well-developed Works Information to ensure client control over specification and quality is required
- Changes to scope can be difficult and costly
- Contractor's opportunity to maximise profit is through reducing costs which could affect quality
- Mobilisation includes a design period so contract may be longer
- Client does not necessarily share the benefits of value engineering and innovation, brought from Early Contractor Involvement.

Early Contractor Involvement

5.5.16 This strategy involves a Contractor becoming involved in the scheme during the design development stage, thus ensuring that the design taken into the statutory processes is as efficient and buildable as possible.

5.5.17 ECI can be implemented through a variety of approaches with the Contractor Designer team becoming involved at differing stages of the programme. This section will consider two approaches termed Full ECI and Staged ECI.

5.5.18 Full ECI comprises appointment of the Contractor Designer team prior to completion of the preliminary design upon which the statutory orders are based. The ECI team would prepare the preliminary design; take the scheme through the statutory process, detailed design and construction.

5.5.19 In both a Full ECI and Staged ECI approach, the Contractor's Designer could start early detailed design work during the statutory processes, allowing construction to start shortly after the statutory processes are complete. Early detailed design usually follows the Public Inquiry allowing the Client to consider any potential risks to progressing the scheme before committing to this expenditure. Early design has the potential to bring forward the scheme opening date in comparison to the other two strategies, if the ECI contract is awarded in parallel with the statutory processes.

5.5.20 As an alternative, Staged ECI offers the benefit of engaging a contractor early in the process through a 2 stage approach with additional contractor support sought outside the main contract. Due to programme constraints, only the Staged ECI approach will be appraised in this section.

5.5.21 The Staged ECI would include:

- Initial Contractor Support – Contractor appointed to provide buildability and risk advice in the early stages of the scheme.

- Stage 1 of the Main Contract – Tenders invited for a Contractor to provide support leading up to and during the Public Inquiry, design development and the development of a scheme cost.
- Stage 2 of the Main Contract – If the scheme cost developed is accepted, the Contractor appointed for Stage 1 is retained to complete the detailed design and construction of the scheme. It is important that contractors and designers involved in the initial contractor support period are not excluded from Stages 1 and 2 to ensure value is gained in the early stages. The most common form of ECI arrangements are based upon the negotiation of a Target Cost. However it would also be possible to utilise a Lump Sum arrangement for construction of the scheme.

5.5.22 With both Full and Staged ECI, management of the risk would be transferred to the Contractor, as he would be better placed to manage it, having been involved from an early stage in the design process. A risk sharing approach is adopted with the party best suited to managing the risk taking ownership. For example, it is common for the Client to directly retain risks associated with Statutory Undertakers, plant and diversions.

5.5.23 There are potentially additional costs associated with the ECI method of procurement as the Contractor is involved at an earlier stage. The Staged ECI approach strategy would allow these costs to be controlled.

5.5.24 During the initial contractor support period and Stage 1 of the main contract, the Contractor is generally paid on a time charge basis. This pays for the Contractor's expertise in planning and buildability advice, innovation and traffic management. In Stage 1 specifically, these costs are generally offset by the advantages bought by the Contractor gaining a clear understanding of how the scheme costs are built up.

5.5.25 Although rates are market tested, the target cost for Stage 2 is generally not competitively tendered. This is recognised as a potential shortcoming of the ECI procurement strategy.

5.5.26 The negative aspects of ECI could be better managed by a staged appointment and would have to be balanced against the benefits of the ECI process. Where unique or challenging engineering problems need to be solved, bringing the Contractor on board as early as possible helps to reduce the risk of not realising the objectives of the scheme.

Advantages of Staged ECI Procurement

- Risk and opportunities are shared. The Contractor is incentivised to reduce costs and manage risk
- Collaborative approach to scheme completion
- Early identification of value engineering opportunities; more scope for innovation
- Contractor support through the statutory process
- Optimal and complete solution presented at Public Inquiry; provides improved confidence
- Improved consideration of buildability and health and safety
- Offers best value solutions and avoids wastage
- Reduces overall project programme
- Builds earlier consensus with all stakeholders
- Provides continuity of key people and information capture
- Greater confidence in the sufficiency of price and programme
- Provides high performing team at start of construction
- Better forward planning of resource requirements

- Offers opportunity to deliver truly integrated solutions
- Contracts are less adversarial than other types as the Contractor will recover actual costs in Stage 2
- Allows a project to develop at a quicker pace; the projects gets started and completed sooner

Disadvantages of Staged ECI Procurement

- Potential for high contractor costs during the pre-Inquiry phase is minimised by employing the Contractor only for specific tasks
- Potential for reduced commercial tension in the build-up of the scheme cost in comparison to Design and Build
- Higher costs to the scheme during Stage 1

Operation and Maintenance

5.5.27 There are options with any of the above solutions to offer additional Operations and Maintenance contracts either separately or as part of the main contract. Defects and landscape aftercare for a period of up to five years are usually included in the main construction contract. This does not particularly address the issue of life cycle costs because the infrastructure assets involved in the scheme require little in the way of operational or maintenance intervention in this initial period.

5.5.28 However, operation and maintenance of the scheme needs to be considered in relation to the existing arrangements for highway maintenance and operation across the promoters' areas. The scale of additional work involved in the maintenance and operation of the A6 to M60 Relief Road may in reality be small compared to the existing road networks and offer little on its own in terms of scales of economy. It is therefore most likely that following the completion of the construction contract, operation and maintenance would revert to the local highway authority.

Contract Type

5.5.29 It is assumed that an NEC3 Engineering Construction Contract (ECC) would be utilised. The options considered below are a Priced Contract (Lump Sum) and a Target Cost Contract. Both of these options could be progressed with any of the procurement routes described thus far.

Priced Contract (Lump Sum)

5.5.30 A Priced Contract offers greater cost certainty but the quality achieved depends on the content of the Client's Requirements. Payments can be made against a milestone profile, and there are limited opportunities to increase the tendered price.

5.5.31 If the Client's Requirements are broad-brush indicators of the scheme requirements and there is freedom in the specification, the Contractor will have the flexibility to value engineer the scheme to reduce costs but will still be paid the tendered sum. The Client does not benefit from these initiatives if they are permitted within the Requirements. However, the Contractor also bears the risks of overspend if this is necessary to meet the Client's Requirements.

5.5.32 The Client does not share any value engineering benefits if these can be carried out within the terms of the Client's Requirements. This may discourage innovation and therefore Priced Contracts do not generally encourage a collaborative approach to solving problems. The Client has price certainty and has transferred risk to the Contractor. The Contractor has a fixed income, so there can be a reduced incentive to adopt a project team approach.

Target Cost Contract

5.5.33 A Target Cost Contract offers an incentive to the Contractor to deliver the project to a pre-determined target cost where any saving or cost overrun can be shared between the promoters and the Contractor. The percentage split of this "Pain/Gain" relationship would be determined during the detailed procurement process.

5.5.34 The Target Cost approach shares the risk and opportunity benefits between the Client and the Contractor. The agreed Target Cost would include those risks which the Client has transferred to the Contractor, and as the Contractor is paid Actual Costs plus a fee, the Client will pay for those risks if they materialise. If value savings reduce the actual cost below the Target, the savings are shared between the Client and the Contractor. It is therefore in the interests of all parties to drive costs down, and for the Client to be active in risk management as all benefit. Target Cost Contracts therefore tend to support collaborative working with a recognised process of change control.

Emerging Preferred Procurement Route

5.5.35 In order to facilitate risk sharing and an acceptable programme, only Design and Build and a Staged Early Contractor Involvement (ECI) approach are considered suitable for consideration for the A6 to M60 Relief Road scheme. The A6MARR scheme is being delivered by way of an ECI contract.

5.6 RISK REGISTER, TRANSFER AND MITIGATION

5.6.1 Throughout the early stage of scheme development risks have been identified, recorded and actively managed. A scheme risk register is presented as part of ***The Management Case*** in **Table 6-2**.

5.6.2 Where appropriate, risk owners have been allocated and tasked with eliminating risks, where possible, or identifying mitigation measures for residual risks. The same ethos will be taken through the next stage of business case development and towards scheme delivery.

5.6.3 Building on the lessons learnt from the A6MARR scheme there may be merit in appointing a contractors as a sub-consultant during the next phase of scheme development to develop the risk register and collate and cost, as accurately as possibly, the construction-related risks. For A6MARR this process informed a more competitive tendering process.

5.6.4 The scheme promoter will seek to attribute project risk to the party that can demonstrate value for money in managing that risk.

Summary

It is anticipated that the Scheme will be delivered utilising a standard contract such as the NEC3 (ECC) form of contract incorporating its strong Project Management ethos and approach which includes:

- Risk Management: a proactive approach to raise potential issues through 'Early Warnings' as soon as the parties become aware and therefore plan and manage risks effectively through risk reduction meetings and the monitoring of 'live' registers.
- Change Management: 'Compensation Events' and their impact on the project are dealt with proactively and forecasts are made at an early stage so the Project Management can timely reassess the delivery of the scheme and 'live' cost v budget position.
- Programming: the contract utilises a robust process for initial programming of the works and regular updates of the planned Completion reflecting progress to date and the impact of change.
- Quality and defects: the contract has a robust mechanism for ensuring the quality of works

matches the requirements of the Works Information and where standards are not met 'defects' are notified and corrected by the Contractor.

- Trust and Clarity: the NEC3 promotes an environment of trust and cooperation between the parties to work together and resolve issues for the good of the project. The contract is purposely drafted in a 'basic English' format which makes it user-friendly and a constant reference best-practice 'Project Management Manual' for the parties.

Since funding is most likely to be secured through public funds; there are a number of procurement options available. The following three potential procurement strategies for the detailed design and construction stage of the project have been considered;

- Traditional design, procurement, construction, separate maintenance;
- Design and Build procurement, construction, separate maintenance;
- Early Contractor Involvement (ECI), procurement, construction, separate maintenance

In addition to the above a Private Finance Initiative (PFI) Design Build Operate and Maintain may be considered. PFI was discounted for the A6MARR scheme following preparation of a Quantitative Value for Money Appraisal Report in June 2010.

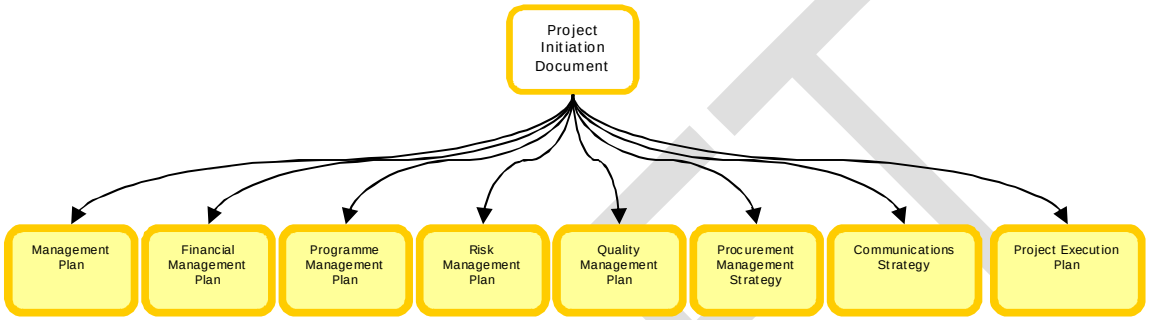
In order to facilitate risk sharing and an acceptable programme, only Design and Build and a Staged Early Contractor Involvement (ECI) approach are considered suitable for consideration for the A6 to M60 Relief Road scheme. The A6MARR scheme is being delivered by way of an ECI contract.

6 MANAGEMENT CASE

6.1 INTRODUCTION

6.1.1 This chapter presents ***The Management Case*** for the SEMMMS A6 to M60 Relief Road scheme and describes how the scheme will be managed and delivered.

6.1.2 The processes and procedures for the project development and delivery will be set out in the Project Initiation Documents (PIDs).



6.1.3 The methodology used to define the process and procedures necessary to manage this project will be based on the PRINCE2 methodology promoted by the Office of Government Commerce (OGC).

6.2 EVIDENCE OF SIMILAR PROJECTS

6.2.1 The promoters for this scheme have extensive relevant experience of delivering projects similar to the A6 to M60 Relief Road scheme, including major highway infrastructure schemes, local junction improvements, and sustainable transport measures – all of which are core elements of the A6 to M60 Relief Road scheme proposals.

6.2.2 Stockport Council has a strong track record in the procurement and delivery of major schemes with two notable examples of recent projects that are being delivered or are nearing completion include:

- A6 Manchester Airport Relied Road; and
- Stockport Town Centre Access Plan.

A6 TO MANCHESTER AIRPORT RELIEF ROAD

6.2.3 The A6 to Manchester Airport Relief Road (A6MARR) forms Phase 1 of the SEMMMS Relief Road. Funding for this large local major highway scheme was secured through a combination of £165 million of specific DfT capital grant, £105 million of additional capital grant funding from the Government through the Earn Back model, and £20 million of Local Transport Plan (LTP) funding.

6.2.4 Key milestones for the A6MARR scheme include:

- Negotiations with landowners affected by the A6MARR scheme commenced in early 2012;
- TfGM Gateway Review for conditional approval held during June 2012, in advance of major scheme business case submission to DfT;

- GMCA agreed in June 2012 that prioritised further scheme development should be undertaken on the A6MARR scheme reflecting its relatively advanced nature and its well-articulated economic potential;
- First phase of consultation held between October 2012 and January 2013 designed specifically to capture opinion on the A6MARR scheme along with people's views on junction options to help determine a preferred scheme;
- Programme Entry: Major scheme business case submission to DfT in November 2012;
- TfGM Gateway Review for conditional approval Action Tracker completed in January 2013;
- Second phase of consultation held between June and July 2013 to allow residents, businesses and road users to give their views on the emerging preferred scheme;
- GMCA conditional funding approval in July 2013;
- TfGM Gateway Review for conditional approval 'health-check' in September 2013 prior to appointment of a Contractor for the main works contract;
- DfT conditional funding approval in October 2013;
- Planning application submission in October 2013;
- Commencement of Compulsory Purchase Orders (CPO) and Side Road Orders (SRO) procedures in December 2013 in terms of the formal notifications made;
- Planning recommendation for approval from the three local planning authorities (LPAs), of Cheshire East Council (March 2014), Manchester City Council (February 2014), and Stockport Council (January 2014);
- Following referral of the planning application by the threes LPAs to the Secretary of State for Communities and Local Government confirmation was received in June 2014 that after careful consideration the scheme would not be called-in in for a Public Inquiry so the decisions of the three LPAs to grant the scheme planning permission could be confirmed in June/July 2014. There was no call from any party that the scheme should be subject to judicial review;
- CPO/SRO Local Public Inquiry in September/ October 2014;
- TfGM Gateway Review for full approval (G2) in December 2014;
- Notification from the Secretary of State for Transport that the CPO and SRO for A6MARR had been confirmed in January 2015;
- Tri-partite delivery agreement between the three promoting LPAs signed in January 15 confirming that there are no planning obstacles that might otherwise fetter or frustrate completion of the Relief Road.
- Full approval business case shift statement submission to DfT in January 2015;
- DfT full funding approval in March 2015;
- GMCA full funding approval in March 2015;
- Commencement of works in April 2015;
- Road is scheduled to open to traffic in Spring 2018 and is on course to be delivered within the £290 million funding limit.

6.2.5 The construction contract was awarded to a joint venture of Carillion Morgan Sindall (CMS JV) who retained AECOM/ Grontmij as their designers. The contract is NEC 3rd Edition Engineering Construction Contract Option C. CMS JV are committed to working with Stockport, Cheshire East

and Manchester City Councils to ensure that local communities are kept informed[17] throughout the construction of the scheme about the works and how they may affect businesses and residents.

STOCKPORT TOWN CENTRE ACCESS PLAN

6.2.6 Given the potential source of local transport funds for the A6 to M60 Relief Road scheme, the Greater Manchester Combined Authority (GMCA) has, through the Greater Manchester Transport Fund, demonstrated the governance, leadership and delivery mechanisms to provide major transport infrastructure. A key aspect of the early long-term transport strategy planning for Greater Manchester was the devolution of major scheme funding to GMCA. In preparation for this, work in July 2013 shortlisted future transport priorities for Greater Manchester. Following submission by each scheme promoter of a strategic outline business case based on the WebTAG "Five Cases" approach, the LTB presented a list of major scheme investment priorities to DfT for the period to 2018/19, in accordance with the requirements of the GMLTB Assurance Framework, including the £73 million Stockport Town Centre Access Plan (STCAP).

6.2.7 On 7 July 2014, the 39 Growth Deals for Local Enterprise Partnerships (LEPs) were announced, marking the culmination of months of negotiations between LEPs and central government, to allocate money available through the Local Growth Fund. Through this process the STCAP scheme was identified as a priority in the Greater Manchester Growth and Reform Plan 2014 to be introduced in phases over a five-year period from 2015.

6.2.8 Following government's announcement in July 2014, Ministers decided that the Department for Transport should retain approval oversight of a small number of large and/or complex local schemes. The Stockport Town Centre Access Plan Major Scheme is one of these.

6.2.9 Notwithstanding, and in the light of the further devolution arrangements for Greater Manchester announced by the Chancellor in Autumn 2014, DfT decided they did not wish to undertake a full assessment of the scheme. Instead they would take their assurance from the GMLEP, to be kept informed of their confirmation and methodologies used, to see the relevant documents, and to reserve the right to look further into the process in detail if they had concerns. Subject to scheme approvals DfT would then release the required funding at the start of each year it is required.

6.2.10 Key milestones for the STCAP scheme include:

- First consultation exercise held in Autumn 2014;
- Outline business case for conditional approval submitted to TfGM as part of the Gateway Review G1 process in December 2014;
- All required Phase 1 planning approvals obtained by December 2014;
- GMCA conditional funding approval in January 2015;
- Phase 1 full approval business case shift statement submitted to TfGM as part of the Gateway Review G2 process in February 2015;
- DfT grant funding letter in March 2015 confirmed that following receipt of the information provided regarding the STCAP scheme, Minsters agreed to leave the Full (final) Approval of the major scheme to the GMCA;
- GMCA full funding approval for Phase 1 in March 2015;

[17] http://www.semmms.info/semmms/managing-construction-impacts/

- Phase 1 construction works commenced in April 2015 and are on course to be delivered within their allocated funding limit;
- Second consultation exercise held in Autumn 2015, in conjunction with the Stockport Interchange project;
- All required Phase 2 planning approvals obtained by January 2017;
- Phase 2A full approval business case shift statement submitted to TfGM as part of the Gateway Review G2 process in February 2017;
- GMCA full funding approval for Phase 2A in March 2017;
- Phase 2A construction works commenced in April 2017;
- Phase 2B full approval business case shift statement submitted to TfGM as part of the Gateway Review G2 process in May 2017, and represents the final phase application for full funding approval;
- Outcome of GMCA full funding approval application for Phase 2b is expected in July 2017;
- Phase 2B construction works scheduled to commence in August 2017;
- All STCAP works are scheduled to be completed by March 2020.

6.2.11 The Stockport Town Centre Access Plan is being developed with close links to the Stockport Interchange by Stockport Council and TfGM and in co-ordination with the Stockport Exchange, Redrock and Aurora Stockport developments.

6.2.12 The majority of Phase 1 and 2 schemes are being delivered by the Stockport Strategic Alliance which is a Framework of Specialist Contractors and Consultants in partnership with the Council's Design and Project Management teams:

Framework Contractors:

- George Cox & Sons Ltd – Civils
- Solutions SK Ltd – Civils / Signing / Lighting
- Bethell Construction Ltd – Structures
- Tarmac Ltd – Surfacing
- Galliford Try Plc – Lining

Framework Consultants:

- Wilde Consulting Engineers
- Atkins Consulting Engineers
- AECOM Consulting Engineers

6.2.13 The exception to this is:

- Public Realm and Adopted Highway works for Stockport Exchange (Phase 2A Scheme 307) which has been designed and will be constructed by the Council's partner Muse Developments under a design and build contract, and
- Travis Brow Link Road (Phase 2B Scheme 801) which will be delivered through Highways England Lot 2 CDF Framework using NEC3 ECC Option A Lump Sum design & build contract.

6.2.14 Stockport Council and its contractors are committed to minimising the impact of the construction work on local residents and businesses, visitors and through users of Stockport town centre – a

full and comprehensive Communication Plan, is in place as part of the suite of management plans which support which support the Project Initiation Document.

6.2.15 Communications for the STCAP workstream sit under the wider Investing in Stockport programme of work. All STCAP communications will be coordinated within the Investing in Growth workstream.

6.3 PROGRAMME / PROJECT DEPENDENCIES

6.3.1 The scheme programme is dependent on the following:

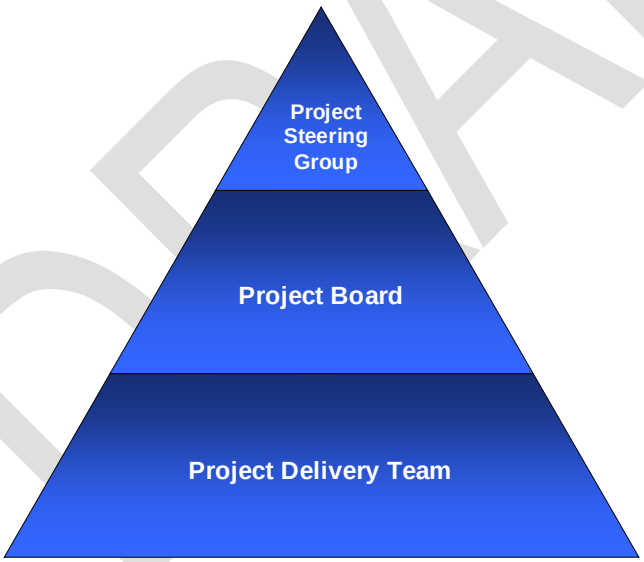
- Planning permission granted on behalf of Stockport Council;
- Successful public inquiry to acquire land under the highways act;
- Timely procurement of a capable supplier;
- Political backing and funding from each of the identified funding streams;
- Successful liaison with the local communities ensuring they are included in regular updates throughout the schemes development; and
- Successful integration of the scheme with the M60 Smart Motorway works.

6.4 PROJECT GOVERNANCE

6.4.1 The sponsoring organisation for subsequent phases of the A6 to M60 Relief Road scheme development will be Stockport Council supported by TfGM, an executive body of the GMCA.

6.4.2 In general terms the management of the project would be split up into three tiers consisting of the Project Steering Group, the Project Board and the Project Delivery Team.

Figure 6-1: Overall Management Structure



PROJECT STEERING GROUP

6.4.3 The Project Steering Group would provide a direct link to the necessary authority required to allow the scheme to progress at a number of key stages in the project lifecycle. The Project Steering Group would be responsible for approving major changes to the delivery programme and constituent/ fundamental elements of the project delivery including budget.

6.4.4 The remit of the Project Steering Group would be to:

- Provide strategic guidance to the project and its delivery;

- Obtain approval from for submission to the planning authority for formal planning application;
- Obtain approval for submission to the DfT for:
  - Outline Business Case to approve funding prior to gaining the necessary powers and consents, and commencement of procurement of contractor for construction; and
  - Full Approval Business Case to approve funding prior to commencement of construction.
- To approve the final scheme layout;
- To provide direction and guidance to the Project Board and ensure effective governance of the project;
- To work with the Project Board to create a suitable mandate for financial control that will satisfy the requirements of all funding parties; and
- Advise the Executive of progress and any revisions to the scheme (with particular respect to local issues) and any publicity (e.g. exhibitions, publication of information and public inquiry).

PROJECT BOARD

6.4.5 A Project Board working group would be drawn from senior officers from Stockport Council, TfGM and Highways England to provide the necessary governance and oversight of project delivery. Specific major highways advice will be provided as required by retained specialist consultants and framework contractors as best applicable and as required.

6.4.6 The Project Board would be responsible for setting the strategic direction of the project in line with the end-user requirements and authority provided by the funding body. The specific remit of the Project Board members would be to assist the Senior Responsible Owner (SRO), appointed by Stockport Council, in decision-making and ongoing progress of the project. The Project Board would be chaired by the SRO, who would take executive responsibility for decisions relating to the project.

6.4.7 The Project Board would be chaired by the SRO, who takes executive responsibility for decisions relating to the project. Project Board meetings would take place at least monthly or at such other times as the Project Board may agree. The Project Manager would be responsible for ensuring an accurate record of the meeting is made and that actions arising from the meetings are circulated to the Project Board as appropriate. Such minutes and actions would be produced within 2 weeks of the meetings and circulated to all members of the Project Board.

6.4.8 The Project Board may note during any meeting that particular information is not for wider project team distribution where this may affect the direction of the project or the Project Delivery Team or other staff involved in the project. Such information should be marked accordingly in the Project Board minutes during the meeting.

6.4.9 Key elements of the Project Board's remit would be to:

- Be responsible for the setting of the strategic direction of the project in line with the end-user requirements and authority provided by the GMCA;
- Be accountable for the achievement of the project objectives and the delivery of scheme benefits;
- Obtain and provide the SRO with stakeholder / technical input to decisions affecting the project;
- Assist the SRO in decision-making and on-going progress of the project, including authorising commencement of phases in the project, changes and completion of each phase;
- Agree all major plans;

- Approve all budgets and tolerances for time, quality and cost along with reporting and monitoring requirements;
- Report to the GMCA as appropriate on the progress of the project; and
- Have overall responsibility for managing risk on the project.

PROJECT DELIVERY TEAM

6.4.10 The Project Delivery Team would be responsible to the Project Board and specifically the Programme and Project Managers for the consideration and resolution of detailed project issues. The Project Delivery Team would consist of officers and consultants responsible for the development and delivery of the scheme capable of making decisions of a technical and, where appropriate, strategic nature. Delegations and responsibilities for these separate roles would be defined in a Management Plan.

6.4.11 The Project Manager would ensure that project progress meetings take place at least monthly throughout the project or at such other times as may be appropriate. The Project Manager is responsible for ensuring an accurate set of records is made of each meeting in a timely manner and issued to the Project Delivery Team including the Programme Manager and SRO not later than 2 weeks after each meeting. The minutes should include specific actions. Such records should seek to note non-compliance and exceptions to the plans, programmes and budgets previously agreed by the Project Board only. The records should not report all details of discussion unless of particular relevance to the Project Delivery Team.

6.4.12 The Programme Manager would be responsible for ensuring that meetings are held at the end of each Stage of the project. The Project Manager is responsible for producing accurate notes of the meeting and a report noting the achievement of the objectives and recommending to the Project Board and SRO that each Stage is signed-off. Where all actions are not fully completed in accordance with the project plans the Project Manager should report exceptions only complete with a subsequent action plan where appropriate to ensure that all outlying issues relating to the Stage will be closed out at the earliest opportunity.

6.4.13 End of Stage reports will be produced by the Project Manager not more than two weeks after the programmed end date of any Stage of the project.

QUALITY REPORTS

6.4.14 The Project Manager would be responsible for ensuring that quality audits are undertaken in accordance with the quality requirements of the project. The Project Manager would ensure that a quality compliance report is produced and presented to the Project Director and SRO for onward reporting to the Project Board. The quality compliance report shall note any non-compliance by exception along with the appropriate actions to be taken to ensure compliance is achieved at the earliest opportunity. The Project Manager would be responsible for ensuring that any non-compliance and the associated actions are communicated to the Project Delivery Team in a timely manner such that actions are implemented quickly and effectively.

6.5 PROJECT PLAN

6.5.1 At the next phase of scheme development a Programme Management Plan will be prepared describing the procedures that need to be followed for creating and maintaining the Programme to deliver the A6 to M60 Relief Road scheme. The Programme shall be dynamic such that the impact of the current project performance will be reflected in future scheduled work, enabling Programme adjustments to be made should the outcome indicate problems ahead.

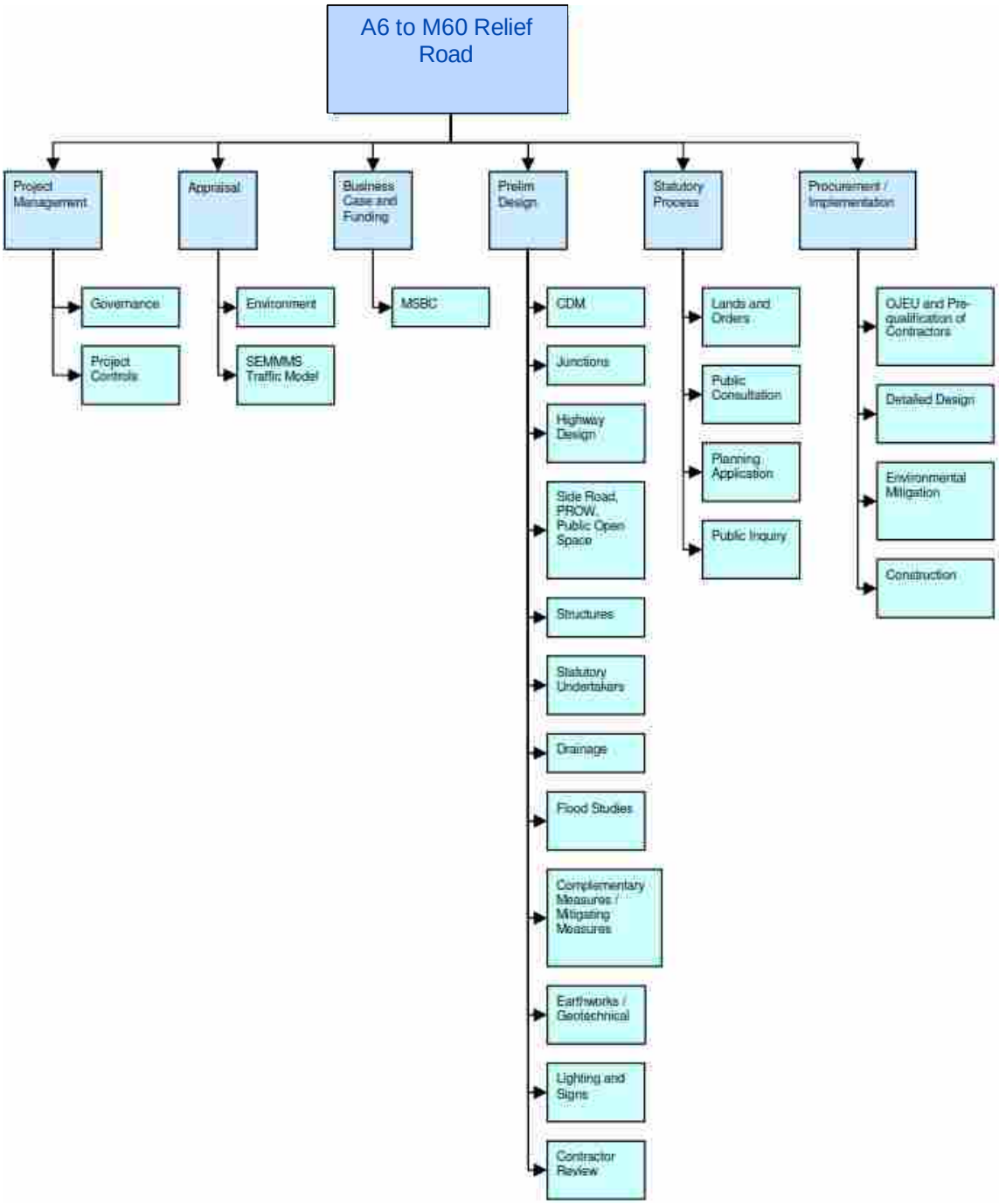
6.5.2 It is the aim of the Programme to provide full visibility of the current and future situation with respect to performance and will be used in conjunction with the Risk Management Plan to predict

the potential impacts of identified risks.

6.5.3 This document will also define the responsibilities of the Programme Manager and the inputs required from the other project work streams. Microsoft Project will be used for all scheduling.

6.5.4 The project structure for the A6 to M60 Relief Road scheme shown in **Figure 6-2** has been created by the use of the Work Breakdown Structure (WBS).

Figure 6-2: Project Structure



6.5.5 One Programme will be produced and this will be issued to the various workstreams for reference and reporting. The Programme will be updated and reviewed monthly, scheduling the key project milestones/activities.

6.5.6 **Table 6-1** sets out the anticipated scheme activity programme associated with delivery of the project.

Table 6-1: Scheme Activity Programme

ACTIVITY	PROGRAMME DATES
Scheme Design Freeze	Spring 2019
Outline Business Case submission	Spring 2019
Conditional Funding Approval	Summer 2019
Final Scheme Design Freeze	Autumn 2019
Planning Application	Autumn 2019
Draft Orders Publication	Autumn 2019
Public Inquiry	Winter 2019
Planning Confirmed	Spring 2020
Orders Made	Summer 2020
Procurement	Summer 2020
Final Funding Approval	Autumn 2020
Award of Main Contract and Notice to Proceed	Autumn/ Winter 2020
Road Open	Winter 2024
Scheme 1 year monitoring / evaluation	Winter 2025

6.5.7 General Programme management that will be followed on the A6 to M60 Relief Road scheme will include:

- Review and update of the Programme will be fortnightly (minimum). Activity duration will be the most likely time required to complete the task; optimism should be avoided.
- Reporting on the Programme will be monthly; it will be ascertained which, if any, activities have not been completed in accordance with the Programme, the reasons for this and the consequences of any delay. Constraints will be used only for external constraints (i.e. availability) or, where resource management is not utilised, for realistic start dates that differ from early dates. This will allow for a more representative baseline.
- The Programme for the following fortnight will then be discussed with the responsible person who will acknowledge the dependencies of their work and accept that the Programme is acceptable.
- Ownership of the work ahead will be established.
- To a less formal degree, the work Programmed for the next 2 months will also be reviewed.

6.6 ASSURANCE AND APPROVALS PLANS

6.6.1 Project assurance will be the responsibility of the Project Board who is responsible for reviewing and agreeing all project procedures and processes as set out within the PIDs. The Project Board will review and approve the content of each project deliverable.

6.6.2 Although it will be the responsibility of the Project Delivery Team manager(s) to ensure the quality of individual work packages, the Project Board will review and approve the content of each project deliverable. This role will be supported by the Project Manager and the core team.

6.6.3 In addition to the assurance provided by the Project Board, a Stage Gateway Review process will be utilised to provide external assurance and assistance to the SRO. The Gateway review

process will follow the TfGM project assurance model, provided by TfGM's Programme Management Services, which is fully compliant with Office of Government Commerce guidance, in accordance with the Assurance Plan.

6.7 PROJECT CONTROL PROCESS

6.7.1 The project control and approval process will be in accordance with the Quality Plan which will establish processes and procedures in accordance with ISO 9001 quality management systems. For environmental and safety management systems the project will be implemented in accordance with ISO 14000 and OHSAS 18001. This will ensure that all aspects of project development and implementation focus on best practice, in line with the promoting authority's own objectives and standards.

6.7.2 In terms of design and project implementation the scheme will adopt the Highways Agency's Design Manual for Roads and Bridges along with the Manual of Contract Documents for Highway Works. This will ensure that the project achieves the standards expected and supported by the DfT. The final designs will be captured in a Stage 2 Scheme Assessment Report, in line with the requirements of Departmental Standard TD 37/93.

QUALITY ACCEPTANCE CRITERIA

6.7.3 Detailed quality acceptance criteria will be described in the Quality Plan for the project. The responsibility for maintaining this will rest with the Project Manager. Specific procedures will be established for checking, independent reviews and approval.

6.7.4 Each work-stream will be responsible for the quality control of their individual deliverables and under the requirements of the ISO 9001:2000 accreditation, each work stream will be required to carry out internal and be subject to external auditing to maintain their accredited status.

6.7.5 In line with accepted practice the scheme will progress in clearly defined stages. During each stage, a set of key project deliverables in the form of products will be identified. A scheme Product Checklist will form part of the Quality Plan and set out the acceptance criteria for each product. At the end of each project stage a full review will be carried out to ensure that the scheme has made sufficient progress to move to the next stage. This process will be monitored by the Project Board.

RESPONSIBILITY FOR QUALITY

6.7.6 The overall responsibility for the quality of the project will rest with the SRO and Programme Manager. However, the responsibility for implementing relevant processes and procedures; the setting of acceptability criteria and the delivery of quality on the project rests with the Project Manager.

6.7.7 The Project Manager will be responsible for reporting at least quarterly to the Project Board on the quality of deliverables throughout the project. This process will include specific reporting on the performance of all project teams, consultants and contractors. Reporting will be by exception against the specified quality criteria.

CHANGE MANAGEMENT

6.7.8 The Change Management procedure will be covered in the Management Plan and will be managed by the Project Manager. Potential change or risk of change will be raised with the Project Manager and logged as an Issue within the Issue Log by the Risk Manager.

6.7.9 A Change Request Proposal deemed "significant" will be agreed by the Project Manager, "Major" changes will be agreed by the Project Delivery Team and "Critical" changes will be reported to

and agreed by the Project Board.

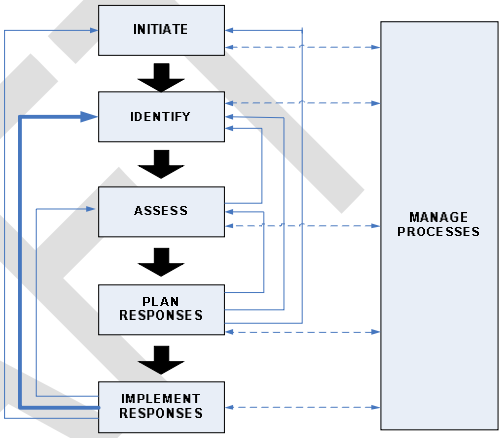
6.7.10 For the main construction contract, change control will be managed in accordance with contract procedures such as the Early Warning and Compensation Event procedures of the NEC3, ECC contract.

6.8 RISK MANAGEMENT

6.8.1 A proportionate level of risk assessment has been undertaken, at an appropriate level of detail for this feasibility study. As part of the next phase of scheme development the risk management strategy for the project will be set out in a Risk Management Plan. The Risk Management Plan will set out the overall strategy for actively managing risk to a level that is 'As Low As Reasonably Practicable' (ALARP) and ensuring that risk management is part of the development of the project.

6.8.2 The aims of the risk management plan process will be to allow all members of the A6 to M60 Relief Road project team to:

- identify risks and opportunities associated with the objectives of the project;
- capture and effectively assess risks and opportunities;
- develop focused management actions for each risk and opportunity;
- and undertake continuous proactive management of risks and the realisation of opportunities.



6.8.3 The risk management process is informed by BS:ISO31000 Risk Management.

6.8.4 The risk management process is summarised in **Figure 6-3** below showing the key activities, evidence to be provided during each stage and assigning responsibilities to specific individuals:

- **Project Manager (PM):** Overall responsibility for managing risk within the Project.
- **Risk Owner (RO):** The person responsible for monitoring the risk and identifying when mitigation is required, escalating the mitigation to the Project Manager and implementing the agreed mitigation or when the risk can be closed.

Figure 6-3: Risk Management Responsibilities

Table 6-2: A6 to M60 Relief Road Risk Register

Risk ID	Risk	Risk Owner	Probability	Impact	Risk Score	Mitigation	Residual Probability	Residual Impact	Residual Risk	Date Reported	Date Closed
1	Physical delivery of scheme compromised due to contractual problems with a delay to completion and cost overrun.	SMBC	3	4	12	Diligence in the appointment of a Partner Contractor and management of the Contract.	2	3	6		
2	Time overrun and funding requirements limited to specific time frame.	SMBC	3	3	9	Diligence in the completion of planning and other statutory consents.	2	3	6		
3	Scheme Costs will overrun.	SMBC	3	4	12	Diligence in the appointment of a Partner Contractor and management of the contract. Ensure adequate estimating process including contingencies.	2	3	6		
4	Unforeseen site issues such as ground conditions, Stats and contamination.	SMBC	2	4	8	Adequate ground investigation / testing completed.	2	4	8		
5	Weather conditions.	SMBC	3	2	6	Transfer risk to Contractor.	3	3	9		
6	Scheme costs at tender will exceed available budget.	SMBC	3	4	12	Accurate estimating at design stage / early partner contractor involvement in design process / value engineering.	2	3	6		
7	Political approvals.		3	3	9	Ensure that all reports are submitted and approvals granted to achieve the programme dates.	1	4	4		
8	Statutory consent (Planning etc.) process may delay scheme commencement on site.	SMBC	3	3	9	Ensure appropriate consultations completed to achieve programme dates.	1	3	3		
9	Land ownership.	SMBC	3	2	6	Ensure all arrangements / approvals in place in line with programme dates.	2	2	4		
10	Noise / Air / Watercourse pollution during the Contract - Impact on adjacent landowners / residents and potential prosecution.	SMBC	3	3	9	Transfer risk to Contractor: ensure clear site rules, employ measures to mitigate nuisance, establish emergency procedures and train key operatives.	2	3	6		
11	Contractor bankruptcy - Delay to delivery of programme and potential increased costs.	SMBC	2	5	10	Contractor appraisal process will include detailed investigation of their financial standing.	1	2	2		
12	Client making significant changes to the scheme specification-Increase in design costs and delays to programme.	SMBC	3	5	15	Gain early Client approval to the design.	2	3	6		
13	Any change to M60 J25 via Managed Motorway Programme that could impact on scheme	SMBC	3	5	15	Ensure appropriate formal engagement to provide early input into scheme as key stakeholder.	2	3	6		

Table 6-3: Risk Matrix

Risk Matrix			Impact				
			None	Minor	Moderate	Major	Critical
			1	2	3	4	5
Probability	Remote	1	1	2	3	4	5
	Unlikely	2	2	4	6	8	10
	Possible	3	3	6	9	12	15
	Likely	4	4	8	12	16	20
	Almost Certain	5	5	10	15	20	25

Risk Scores	Category	Description
1 to 4	Low	Not expected to have a significant impact on the overall achievement of the aims or objectives of the project.
5 to 11	Medium	Significant impact on the achievement on one or more of the aims or objectives of the project.
12 to 25	High	Major impact on the achievement on one or more of the aims or objectives of the project.

How To Measure Likelihood (Vertical Axis)		
Likelihood	**Description**	**Criteria**
1 – Remote	Virtually impossible	0 – 5% change
2 – Unlikely	Low but not impossible	6 – 20% chance
3 – Possible	Fairly likely to occur	21 – 50% chance
4 – Likely	More likely to occur than not	51 – 80% chance
5 – Almost Certain	Almost certain to occur	81 – 100% chance

How To Measure Impact (Horizontal Axis)			
Impact Rating	**Cost**	**Schedule**	**Quality**
1 – None	Negligible effect on projected cost (0 – 3%)	Negligible effect on projected schedule (<3%)	Negligible effect on quality
2 – Minor	Small increase (4 – 10%)	Small schedule slip (3 – 10%)	Small loss in quality
3 – Moderate	Significant increase (11 – 30%)	Significant slip (11 – 30%)	Significant loss of quality
4 – Major	Large increase (31-75%)	Large delay (31 – 50%)	Large loss of quality
5 - Catastrophic	Major increase (>75%)	Major delay (>50%)	Major loss of quality

6.8.5 The risk management plan will be developed to form an integral part of planning and implementing a cost effective approach to improving certainty in scope, cost and time to deliver and operate the project. The plan will provide a basis for identifying, assessing and managing risks and issues to achieving the project's cost, programme and performance goals and meet with compliance requirements.

6.8.6 The Risk Management Plan will be developed throughout the life of the project.

6.8.7 An initial assessment of the potential risks and opportunities is presented in **Table 6-2** above, with the risk rating matrix and accompanying notes in **Table 6-3**.

6.9 PLANNING POWERS AND CONSENTS

6.9.1 Both Phases 1 and 2 of the SEMMMS Relief Road, A6MARR and the Poynton Relief Road (PRR), have relied on submission of planning applications to the relevant local planning authorities, under the Town and Country Planning Act 1990 (as amended) (T&CPA):

- **A6MARR:** As the scheme spans three local authority boundaries a joint planning application was submitted in October 2013. Planning recommendation for approval from the three local planning authorities (LPAs), of Cheshire East Council (March 2014), Manchester City Council (February 2014), and Stockport Council (January 2014). Following referral of the planning application by the threes LPAs to the Secretary of State for Communities and Local Government confirmation was received in June 2014 that after careful consideration the scheme would not be called-in in for a Public Inquiry so the decisions of the three LPAs to grant the scheme planning permission could be confirmed in June/July 2014. There was no call from any party that the scheme should be subject to judicial review; and
- **PRR:** As the site falls within the boroughs of Stockport and Cheshire East a joint planning application, reference number was submitted to Cheshire East Council and Stockport Council in September 2016. Planning recommendation for approval was gained in January 2017 from both authorities. The Stockport Council section of PRR has already been referred to the Secretary of State for confirmation, and he has already confirmed that there will not be a 'call in', as such it is expected that the same recommendation will be made for the Cheshire East Council section of PRR. A six week judicial review period will begin when the formal planning permission is issued.

6.9.2 Notwithstanding the planning route taken by both scheme it is important to reconsider the planning process of the A6 to M60 Relief Road scheme in its own right as it should not be presumed that it would necessarily be subject to the same regulations.

6.9.3 The A6 to M60 Relief Road Scheme does not meet the criteria that would automatically require a Development Consent Order under the Planning Act 2008 (as amended). The Highway and Railway (Nationally Significant Infrastructure Project) Order 2013 which came into force on 25 July 2013 substituted a new Section 22 into the Planning Act 2008. The new section 22 provides that the construction, alteration or improvement of a highway will require a DCO, providing that the proposed highway:

i. Is located wholly in England; and
ii. The Secretary of State (Highways England) will be the authority for the highway (text in bold underline our emphasis).

6.9.4 Stockport Council has advised it would become the highway authority of the new Relief Road and that it along with A6MARR would form part of the future Key Route Network for Greater Manchester (KRN) and TfN Major Road Network (MRN). As a consequence, it would not form part of the Strategic Road Network (SRN), would not be adopted by Highways England and the Secretary of State would not be the Highway Authority.

6.9.5 Accordingly, based on these assumptions, the A6 to M60 Relief Road scheme does not meet the criteria that would automatically require a DCO. This assumption will need to be subject to discussion and confirmation with Highways England and ultimately, if necessary, with the Department for Transport. The default consents process will be a planning application under the T&CPA.

6.9.6 The planning application will be a Regulation 3 application under the Town and Country Planning General Regulations 1992, as Stockport Council will be the applicant as well as the determining authority. As such the planning application will need to comply with Stockport's Application Validation Checklist (September 2013) (see below).

6.9.7 In addition, the planning application will need to be supported by separate consents for:

- Supplemental powers such as street works, road classification, access, stopping up of public rights of way, protective works, etc;
- Powers of Acquisition; and
- general powers such as tree works or defence of statutory nuisance.

6.9.8 The A6 to M60 Relief Road is a major development with a site area of approximately 325 ha and a length of almost 10km, including the Stepping Hill link road. As such, the application of the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (EIA Regulations) (as amended) will need to be considered. The EIA Regulations will be replaced in May 2017 with amended EIA Regulations. The 2017 EIA Regulations will likely be the applicable regulations if the planning application is submitted in 2019 as expected. Based on the current Scheme proposals, it is most likely that an Environmental Assessment will be required whether the planning application is progressed using the T&CPA or DCO processes. This can be confirmed by the submission of a Screening request to Stockport Council.

APPLICATION VALIDATION CHECKLIST

6.9.9 The planning application will need to be submitted to Stockport Council. As such it will need to comply with Stockport's validation requirements. The Application Validation Checklist (September 2013) outlines the following requirements for the validation of a planning application.

National Requirements

- Completed standard application form;
- Location Plan (scale of 1:1250 or 1:2500);
- Site Plan/ Block Plan (scale of 1:100, 1:200);
- Existing and proposed elevations (scale of 1:50 or 1:100);
- Copy of other plans and drawings necessary to describe the application;
- Completed Ownership Certificates/ Agricultural Holdings Certificates;
- Design and Access Statement;
- The appropriate fee.

Local Requirements

6.9.10 In addition to the information listed above, the following information may be required depending on the scale, nature and location of the development, once finalised. The precise content of the application will be determined at the time of the application.

- Agricultural Statement;
- Air Quality Assessment;
- Airport Safeguarding Information;
- Biodiversity Survey/ Assessment;
- Conservation Area Appraisal/ Listed Building Appraisal/ Heritage Statement;
- Contaminated Land Survey;
- Electronic Information (for Major Development in the Town Centre/ M60 Gateway to allow integration into Council's Three Dimensional Town Centre Model);
- Environmental Statement;
- Flood Risk Assessment;
- Foul Drainage Assessment and Surface Water Drainage Assessment;
- Green Belt Justification;
- Green Belt Volume Calculation;
- Heritage Assessment;
- Land Stability Report;
- Landscaping Scheme;
- Landscape Character Statement and Landscape Impact Assessment;
- Lighting Impact Assessment/ Scheme;
- Noise Impact Assessment;
- Open Space Assessment;
- Other Plans and Drawings (not covered by the National Requirements);
- Photographs/ Photomontages;
- Planning Obligations (Heads of Terms);
- Planning Statement;
- Referencing of Plans and Drawings;
- Road Safety Audit;
- Statement of Community Involvement and pre-application discussion;
- Sustainability Checklist;
- Transport Assessment;
- Tree Survey/ Arboricultural Implications Study.

RISKS OF THE TOWN AND COUNTRY PLANNING ACT 1990 (AS AMENDED) PROCESS

6.9.11 Should the Scheme assumptions change as the design progresses, it may be necessary to revisit the intended approach to planning. There is a particular risk in relation to the details of the proposed tie-in connection between the new A6 to M60 Relief Road scheme and Junction 25 of the M60 motorway at Bredbury. At this stage, the design for the tie-in connection has not be finalised. The M60 is managed by Highways England and is part of the Strategic Road Network, it is therefore possible that the Secretary of State (Highways England) will be the authority responsible for the Highway for at least part of the Scheme. As such, this element of the Scheme may be treated separately and as long as this part does not exceed the thresholds stated above, the scheme may still be subject to the T&CPA. As the Scheme progresses further discussion and agreement with Highways England on this matter is necessary.

6.9.12 The 2013 amendments to the legislation rephrased this criterion from "*Highways England is the authority"*, meaning the criterion related to the current highway authority, by replacing the word *"is"* with *"will be"* the amendments now clarify that it is the future highway authority that must be considered. Therefore, even if Stockport Council is the highway authority at the time that the highway is brought into operation, but the authority subsequently becomes Highways England, it may be necessary to use the DCO process instead of the T&CPA submission. If this were to happen, there is a risk that the consenting requirements might change and the Scheme could be challenged for not having used the correct consenting process. There are pragmatic ways in which risk can be reduced, including through adopting a 'shadow' DCO pre-application process.

6.9.13 Stockport Council will firstly discuss the issue with Highways England to determine whether Highways England consider the scheme to be a DCO or not; before seeking legal advice on the consenting process. It is anticipated that advice can be given on the Scheme as it currently stands, although more accurate advice may require the precise design details of the proposed works at Junction 25 of the M60 to be developed further.

6.9.14 The legal advice may go on to recommend that it is possible that the Scheme is considered of national significance even as it currently appears to be excluded by new criteria. In that case, discussions should be held with the Department for Transport, who can advise as to whether the application would be likely to be successful if a Section 35 application under the Planning Act 2008 was to be made. A Section 35 application seeks direction from the Secretary of State that an application should be treated as a DCO under the Planning Act 2008. Once a direction is received, it cannot be 'unmade' and the application must proceed as a DCO application. Such an application can only be made by the promoter of a scheme.

A6(M) RE-VOCATION ORDER

6.9.15 As previously described, the genesis of SEMMMS was the referral of three schemes from the national Roads Programme in 1998, namely:

- A6(M) Stockport North South Bypass;
- A555 Manchester Airport Link Road West (MALRW); and
- A555 / A523 Poynton Bypass.

6.9.16 The original Highways Agency's proposals for the remitted schemes were for:

- the A6(M) to be built to motorway standard;
- the A555 MALRW scheme was for a fully grade separated dual carriageway and included major rebuilding and expansion of Junction 5 on the M56;
- the A555/523 Poynton Bypass was a dual carriageway grade separated proposal, extending

from the northern end of the Silk Road in Macclesfield to Poynton and including an east-west link between the extant A555 Handforth Bypass and the A6(M) proposal at Macclesfield Road Hazel Grove.

6.9.17 In Spring 2002 the South East Manchester Multi Modal Strategy (SEMMMS) was accepted by Government and the then Transport Minister requested that the three local authorities Cheshire, Manchester and Stockport start to develop the SEMMMS Relief Road scheme recommended in the strategy.

6.9.18 The SEMMMS study recommended that the protected alignments in the development plans for the MALRW, Poynton Bypass and A6 (M) proposals should be maintained for the time being. It also recognised, however, that the reduced scale schemes recommended might be able to use modified alignments that have lower adverse environmental impacts or bring additional traffic or other benefits and therefore the new alignments may deviate from the protected routes. The SEMMMS study stated that the implementing authorities should not feel constrained by the protected alignments.

6.9.19 In light of the progress of SEMMMS Relief Road Phases 1 & 2, A6MARR and PRR respectively, the Highways Agency issued letters in June 2014 to the three associated Chief Planning Officers for Manchester City Council, Cheshire East Council and Stockport Metropolitan Borough Council giving notice of its intention to withdraw, with immediate effect, the TR111 route protection for the former A523 Poynton Bypass and Manchester Airport Eastern Link Road (MAELR) schemes.

6.9.20 Further, it was agreed that the Highways Agency (now Highways England) on behalf of the Secretary of State for Transport would maintain made line orders under the Highway Act to construct the A6(M) Stockport North South Bypass along the line of the SEMMMS route to provide opportunity for a local scheme to be worked upon.

LAND ACQUISITION

6.9.21 Highways England owns a significant number of properties along the former A6 (M) route and Stockport Council is continuing discussions with them regarding their disposal. A number of these properties would be required for any future scheme and a number have been purchased because of their position adjacent to, or on the Highways England protected route. Many of these houses are tenanted and part of the discussion concerns the desire to minimise disruption for these residents.

6.9.22 The approach being discussed with Highways England is to agree which properties would be required for any future scheme, which if sold could create a future liability for the Stockport Council and which properties would definitely not be required.

6.9.23 There are a number of properties particularly in the Hazel Grove area which will not be required for the scheme as the development of Sainsburys altered the proposed alignment in that area. It is expected that Highways England may wish to retain these properties and sell them.

6.9.24 Discussions are continuing with Highways England to determine the value and acquisition options for the properties and land required for any future scheme.

6.9.25 Negotiations with other landowners affected by the A6 to M60 Relief Road scheme will commence at the next stage of scheme development. Prior to this a detailed review will be undertaken to establish the land-take requirements for the Scheme.

6.9.26 Acquiring authorities are always advised that every effort should be made to acquire the necessary land interests by agreement and that compulsory acquisition should be a last resort. Whilst acquisition by agreement will be pursued, initiating the Compulsory Purchase Order process over the entire land holding that is required to implement the scheme offers certainty

should parallel negotiations to acquire the land voluntarily not be successful.

6.9.27 Under these circumstances, the Council would proceed under its powers under Sections 239, 240, 246, 250 and 260 of the Highways Act 1980 for the compulsory purchase of land and rights required. The principal power in the Act is Section 239(1), which provides that a highway authority may acquire land required for the construction of a highway which is to be maintainable at the public expense, and Section 239(3) which allows a highway authority to acquire land for the improvement of a highway being an improvement which the authority is authorised to make under the Act. Section 246 authorises the acquisition of land for the purpose of mitigating the adverse effects of the construction or improvement of highways. Section 250 authorises the compulsory acquisition of new rights over land and Section 260 authorises the clearance of the title to land already held by the Council and required for the scheme and which might otherwise interfere with the Council`s activities in exercising its statutory powers to construct the works.

6.9.28 A Side Roads Order would authorise the stopping up, diversion and creation of new lengths of highway or reclassification of existing highways and the CPO would include land that is required to enable the works authorised by the SRO to be carried out.

6.9.29 The land proposed to be acquired would be the minimum considered to be reasonably required to achieve the selected design option. While an authority should use compulsory purchase powers where it is expedient to do so, in considering whether to confirm the CPO and SRO the Secretary of State will need to be convinced that there is a *"compelling case in the public interest for compulsory acquisition"*. In making a CPO and SRO the acquiring authority will be expected to show that the scheme is unlikely to be blocked by physical or legal impediments to implementation, including related infrastructure works and the need for planning permission.

6.9.30 Those receiving notice of the making of the CPO will have a right to object and, if they wish, have their objections heard at a local public inquiry. As acquiring authority, the Council would need to make the case for the Order at any inquiry. The CPO does not take effect until confirmed by the Secretary of State. However, once the Order is confirmed an affected party aggrieved by the decision would have a further six weeks after receiving notification of the confirmation to challenge the decision in the Administrative Court on a point of law. This could result in the Order, or the decision to confirm it, being quashed in whole or in part.

6.9.31 In light of the above, there is a reasonable expectation that a local public inquiry will be required. Accordingly, it is programmed that this would happen late 2019.

6.10 STAKEHOLDER MANAGEMENT

6.10.1 The Stakeholders and Interested Parties communication needs are diverse and will range from interest in the general project to specific concerns relating to their own position. A variety of methods will be used to ensure it is effective. The methods used will include the development and upkeep of the project web pages, information and single contact point along with newsletters and public meetings as appropriate for the particular stage of the project.

6.10.2 The Programme Manager will be responsible for the communication of the relevant project information to the stakeholders and interested parties.

6.10.3 The Programme Manager will be responsible for establishing and maintaining a consultation database and for managing all external communications relating to the project.

6.10.4 A Communications and Engagement Strategy for the A6 to M60 Relief Road scheme is being developed. Regular ongoing meetings are being held with TfGM regarding inter-dependencies with the SEMMMS Refresh to 2040 proposals and consultation programme.

OBJECTIVES

6.10.5 The overarching objective of the Communications Strategy will be to focus on achieving good quality consultation and an understanding of the Scheme so as to support its delivery and subsequent wider benefits to the South East Manchester area. The Strategy is best divided by way of communications objectives and consultation objectives defined as follows:

Communications Objectives

- To raise awareness and inform stakeholders, road users and residents about the A6 to M60 Relief Road scheme;
- Promote the public consultation to ensure everyone who wants to have their say has the opportunity to do so;
- To engage all stakeholders, road users and residents with an interest in the Scheme;
- Keep local members and MPs fully briefed about the scheme;
- Keep stakeholders aware of the schemes progression and give an opportunity for feedback to help gain scheme approval;
- Provide consistent, clear and regular information to those affected by the scheme, including the nature of any scheme-related impacts and when and how it will affect people of groups both during delivery and once operational;
- Address perceptions of the scheme where these are inconsistent with the scheme objectives and forecast outcomes.
- To minimise and refute ill-informed, misleading and inaccurate comments and complaints;
- Ensure that any enquiries about construction works are dealt with efficiently and effectively;
- Effectively manage and minimise disruption caused by the construction works;
- Ensure consistency of message across the Greater Manchester Combined Authority.

Consultation Objectives

- To demonstrate what the key issues are, and enable stakeholders to maintain an accurate understanding of the Scheme;
- Provide feedback to all taking part, evidencing impact of consultation outcomes on the revised Scheme;
- Conduct meaningful consultation with all stakeholders and the public and ensure all audiences have an opportunity to have their say;
- Demonstrate that the consultation can help inform decision making;
- To ensure consultation activity complies with all statutory requirements.

6.10.6 Information presented and obtained through stakeholder engagement undertaken as part of the original SEMMMS Study has been used to inform the development of the Scheme.

6.10.7 The public and key stakeholders were also consulted at key stages during the development of the overall SEMMM Strategy to identify issues, potential solutions and support for the proposed strategy.

AUDIENCE

6.10.8 The audience has been broken down into the following series of groupings, based on their communications and engagement requirements.

- Local Members of Parliament and Council Members in directly affected areas;

- Delivery partners;
- Statutory consultees/ approvals;
- Priority stakeholders;
- Land owners/ tenants whose land is would be subject to a Compulsory Purchase Order (CPO)/ Side Road Order (SRO);
- Directly affected residents, businesses and landowners;
- Local community groups;
- Local business groups;
- Media and wider public; and
- Community Interest Groups.

6.10.9 It is recognised that the impact and influence of the stakeholders contained within each group may vary and will change depending on the stage of the project. It should, therefore, be noted that the impact and influence matrix is used as a guide only at this stage and will be considered in more detail in developing the Communications Plans for specific stages of the project.

METHODOLOGY

6.10.10 A range of methods will be used to communicate with the local community to ensure that they are appropriate to the audience and message that is being conveyed. The methodology adopted for the stakeholder engagement is summarised below in **Table 6-4**.

Table 6-4: Stakeholder Engagement Methodology

Action	Purpose	Scope
	Ensure team, Stockport Council employees and members are briefed on the consultation and proposals, in advance of the public consultation.	Preparation of briefing documents.
	Consultation leaflet distribution, including residential and business properties.	Mail-out of an A3 two sided leaflet. No response form to be provided. Respondents directed to the website and exhibitions to complete a response form.
	Presentation of details of the A6 to M60 Relief Road scheme	Appropriate number of exhibitions at convenient times and locations relative to the scheme. Response form (same as on the website) to be provided for comments.
	Engagement with businesses	In advance of the exhibitions, invite only drop in session for businesses most likely to be affected by the proposals to attend.
	Engagement with people who live in close proximity to the proposals	In advance of the exhibitions, invite only drop in Local Liaison Forum to be held for residents most likely to be affected by the proposals to attend.

Action	Purpose	Scope
	Awareness raising for consultation	Stakeholder event (i.e. large workshop) to present the proposals to key groups and gather feedback and making use of small group discussion. Attendees to include statutory consultees, interest groups (eg cycling groups), business groups, housing associations, developers, property agents etc.
	Briefing of stakeholder groups	Meetings with stakeholder groups that are pre-arranged regular meetings to brief the groups on the scheme proposals, the upcoming consultation and seek initial views.
	A key information source for the A6 to M60 Relief Road scheme proposals	Website to provide further detailed information on the proposals. The website will be linked to the SEMMMS site. http://www.semmms.info/semmms/strategy/a6-to-m60-link/ Website to include an online response form and therefore will be the main method for responding to the consultation. Response form to have "closed" and "open response" questions in addition to relevant "about you" questions e.g. use of town centre, main mode of travel, postcode, age and gender. The website to be signposted in all consultation and promotional material.
	Log and respond to consultation queries	Means by which those responding to the consultation can make enquiries about the consultation.
	Phoneline available for people to have direct contact with the consultation team	Phoneline available for consultees to ask questions, receive further information and confirm meeting arrangements.
	Awareness raising and promotion	Providing information on the consultation exercise and A6 to M60 Relief Road schemes proposals through press, advertising and road side traffic signs installed at strategic points on routes into the town centre.
	Awareness raising and promotion	SMBC Twitter/Facebook accounts to issue update on the consultation

6.10.11 A communications and engagement database will be maintained for the consultation, summarising all activities and all responses (for example, phone and email etc) received during the consultation.

6.10.12 A consultation report and comments log will be provided following completion of the consultation. The comments log will outline a design response to the comments received. In addition to being a record of comments on the preferred scheme, the purpose of this log is to assist the design team in making any potential changes to the schemes.

6.10.13 A monthly report summarising the communications activities and feedback will be submitted to the Project Board as appropriate.

6.10.14 Risks to the communications and engagement exercise have been identified and remedial action set out in **Table 6-5**. These represent the strategic communication risks to the project. The Communications and Engagement Plans will set out the specific risks at each stage.

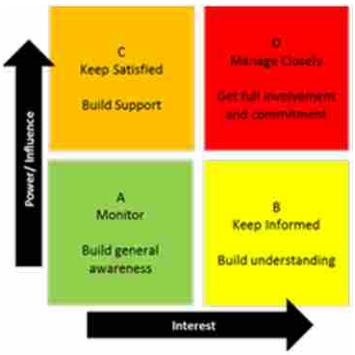
Table 6-5: Communications Risks

Risk (Event / Result)	Likelihood H=High M=Medium L=Low	Impact H=High M=Medium L=Low	Remedial action
Lack of local knowledge about scheme or programme	M	H	Ensure effective and timely communication with all stakeholders
Negative publicity around cost and benefit of the project	M	M	Ensure media are aware of funding source, and benefits of project
Community and/or stakeholder criticism of project.	M	M	Ensure clear messages around the improvements to public transport
Local members criticise the project	M	M	Ensure members are fully briefed about the project and its benefits
Political sensitivities leading to complaints about communications and engagement exercise	M	H	Ensure information is issued to all members at the same time
Environmental protests on- site, either pre or post start – generates negative publicity, increased costs and delays	M	H	Ensure good contact is maintained with local and community groups, particularly in run-up to start of works.

6.10.15 A series of indicators to monitor the effectiveness of the communications and engagement exercise have been identified. These are as follows:

- Amount of positive and negative coverage – log of media coverage to be recorded;
- Accurate media coverage – through log of media coverage;
- Amount of positive and negative member feedback – through recording member feedback;
- Amount of complaints relating to communications 'issue' – log of all public feedback to be recorded; and
- Take-up of communications services – number of hits to website.

6.10.16 An impact and influence matrix will developed to guide the approach to engaging with each stakeholder, whereby each stakeholder will be plotted according to the impact they can make on the project success and their level of influence in the project. The approach to consulting with each stakeholder will be guided by their placement within the grid.



6.10.17 It is recognised that the impact and influence of the stakeholders contained within each group may vary and will change depending on the stage of the project.

6.11 BENEFITS AND EVALUATION

BENEFITS REALISATION PLAN

6.11.1 Monitoring and evaluation of benefits is required to establish the extent to which the scheme meets the objectives. To be fully effective, plans for monitoring and evaluation should form part of the early development of – and be a continuous process within – the scheme business case. The Benefits Realisation Plan (BRP) is a management tool that presents the key activities required – what needs to be done, when, and by whom – to manage the successful realisation of benefits and is integral to the overall appraisal process.

6.11.2 The SEMMMS Refresh primary and enabling objectives, which are aligned to the modal principles and spatial themes of the GM Transport Strategy 2040, have been used to develop the 'desired outputs and outcomes' for the A6 to M60 Relief Road scheme. These desired outputs and outcomes are the actual benefits that are expected to be derived from the Scheme and are directly linked to the original set of objectives:

- Desired outputs – tangible effects that are funded and produced directly as a result of the scheme; and/or
- Desired outcomes – final impacts brought about by the scheme in the short, medium and long term.

6.11.3 These are summarised in **Table 6-6** and provide the starting point for the development of the Benefits Realisation Plan.

6.11.4 In order to understand which of the scheme benefits are forecast to be the most significant, and therefore, which benefits the BRP will focus on, a summary table has been prepared which cross references the Appraisal Summary Table (AST) outputs and the proposed monitoring approach. This ensures that an appropriate level of benefits prioritisation will be undertaken with resources focussing on tracking the most significant benefits, thereby determining the success of the scheme and is summarised in **Table 6-7**. To determine whether the scheme benefits are being realised, the desired outputs and outcomes have been converted into measurable indicators of scheme benefits, as set out in **Table 6-8**.

6.11.5 Benefits have been classified as 'quantitative' or 'qualitative'. Quantitative benefits are those which can be measured in terms of specific numerical values on a continuous scale, either absolute or percentage, whereas qualitative benefits are measured in category-based or descriptive terms.

6.11.6 The overall Benefits Realisation Plan is owned by the Senior Responsible Owner (SRO), with responsibility for overseeing particular benefits delegated as necessary. The owners will be responsible for tracking the benefits being realised and for reporting any exceptions to the SRO. This will allow early identification of any particular areas where benefits are not being realised as expected. The SRO will then appoint someone with sufficient expertise to oversee remedial actions to try to bring benefits back in line with expectations.

Table 6-6: A6 to M60 Relief Road Objectives, Desired Outputs and Outcomes

SEMMMS Refresh Primary Objectives	SEMMMS Refresh Enabling Objectives	Scheme Context	Desired Scheme Outputs	Desired Scheme Outcomes
Support sustainable economic growth and promote urban regeneration **Improve quality of life, safety, health and equality of opportunities** **Contribute to protecting the built and natural environment**	Tackle congestion and improve journey time reliability, in particular on key corridors. Improve transport capacity and accessibility to jobs and services (health, education, leisure and retail) in the regional centre, key centres, town / local centres, key employment areas and at Manchester Airport. Promote an integrated public transport network that supports seamless travel. Improve connectivity to the wider transport network through new and enhanced links. Improve safety, security, resilience and maintenance of the transport network. Enhance and create new safe walking and cycling connections and encourage active travel to support healthy communities. Enhance the quality of the built environment and contribute to creating	Traffic congestion, unreliable journey times and poor highway network resilience across south east Manchester. Existing highway network acting as barrier to economic growth & regeneration, and in particular adjacent to the A6 in Stockport Town Centre. Traffic benefits associated with completion of A6MARR and PRR schemes will have largely been eroded by 2024 compared to existing traffic levels. Mix of local and strategic traffic is one of the major causes of congestion on A6 through Stockport Town Centre and Hazel Grove, namely: • A6 is a quality bus corridor operating the most frequent single bus service in Greater Manchester. • Road freight traffic from Derbyshire/ Peak District	A new 8.5km north-south (dual carriageway) bypass of Stockport connecting local areas of Bredbury, Offerton, Marple and Hazel Grove with direct access to Manchester Airport and Junction 25 of the M60, including 5 new connecting junctions. A new two-lane single carriageway link to Stepping Hill. A segregated cycle/ pedestrian route adjacent to the new road and existing length of the A6MARR, A555, providing a new orbital link for the strategic cycle / pedestrian network. Mitigation measures aiming to ameliorate localised impact of the scheme where traffic volume increases are forecast. Complementary measures to take advantage of traffic reductions due to the scheme and improve the local environment for public transport and non-motorised	Improved access to M60 and strategic road network from south east Manchester including improved route options for road freight traffic. Improved access to Bredbury Park Industrial Estate. Improved access to the NHS and its health care services at Stepping Hill Hospital. Improved surface access to Manchester Airport, including the opportunity for high standard orbital public transport connections. Improved access to Stockport Town Centre through reduced travel times. Improved highway network resilience across south east Manchester better able to respond to accidents/ incidents. Reduced traffic volumes and associated delays through Stockport Town Centre and local centres which will

	successful streets, spaces, villages, towns and local centres. Increase the use of sustainable transport and support the creation of a low emission future. Exploit new technologies and innovative approaches where they can add value to the strategy	to the M60, distribution centres and other destinations across the North West. • Commuter and business travel between Cheshire and parts of Manchester. • Local commuting and leisure trips accessing the Peak District. These travel patterns have a direct impact on the ability of the transport network to provide efficient connectivity and access to markets and jobs. It also means that the local communities that it passes through are faced with high volumes of traffic and heavy goods vehicles, creating a poor environment in terms of amenity, severance, air quality and noise and problems of highway safety for all road users.	users.	reduce severance and improve the local built environment and safety. Improved traveller safety and wellbeing as more people utilise active modes due to the implementation of new dedicated cycling and pedestrian infrastructure. Package of environmental mitigation measures designed to minimise the impact and enhance the benefits of the scheme. Local economy experiences economic growth as businesses see a reduction in operating costs/ increase in productivity due to improved connectivity.

Table 6-7: Significance of A6 to M60 Relief Road Benefits

AST Impact	Summary of Key Impacts	Monetised in AST	Proposed Monitoring Approach	Significance of Benefits
Travel time & vehicle operating costs for all	Substantial travel benefits & vehicle operating cost savings for all road users	Yes	Economic evaluation – calculate opening year outturn benefits & BCR and compare with forecast	Large Beneficial
Travel time & vehicle operating costs for all	Substantial travel benefits & vehicle operating cost savings for all road users	Yes	Key network statistics – traffic volume/ journey time information	Large Beneficial
Regeneration	Catalyst for later stages of the A6 Masterplan and associated regeneration of the Town Centre as part of the Council's Investing in Growth Programme	Yes	Key economic indicators for the Stockport Town Centre, occupancy levels of new development sites etc.	Large Beneficial
Wider Economic Impacts	The scheme will generate benefits through agglomeration, labour markets and increased productivity		Key economic indicators e.g. unemployment data, job creation, level of deprivation	Large Beneficial
Reliability	Improved network connections & increased junction capacity improve journey time reliability	No	Journey time reliability data. Bus journey time and reliability data along A6	Beneficial
Accidents	Reduced road user casualties along A6 as a result of reduced traffic volumes	Yes	Change in accident rates	Beneficial
Physical Activity	Improved pedestrian & cycle links	No	Pedestrian and cycle counts	Beneficial
Access to Services	Better access to existing public transport services/ facilities, potential for facilitating orbital public transport and improved access to Stepping Hill Hospital, Stockport NHS Foundation Trust's main hospital.	No	Monitor metro-shuttle passenger data and active modes numbers entering the Town Centre	Beneficial

AST Impact	Summary of Key Impacts	Monetised in AST	Proposed Monitoring Approach	Significance of Benefits
Severance	Reduced severance via reduced traffic volumes along A6	No	Traffic volumes along A6	Beneficial
Air Quality	Overall there is predicted to be a significant net improvement in local air quality due to the Scheme. The Scheme is not predicted result in any additional exceedances	Yes	Programme of monitoring at appropriately identified sites	Beneficial
Noise	Potential impacts to properties due to increases in noise in a comparatively quiet area. Potential to reduce noise levels along existing road traffic routes in largely urban areas, including A6 between Hazel Grove and Stockport and other notable routes linking through to the M60 J25	Yes	Programme of monitoring at appropriately identified sites	Slight Adverse
Greenhouse Gases	Overall there is predicted to be a significant improvement in CO2 emissions as a result of the Scheme.	Yes	Compare forecasts with outturn findings	N/A

Table 6-8: Significance of A6 to M60 Relief Road Benefits

Ref No	Benefit (Desired Output/ Outcome)	Benefit Indicator	Target	Type	Specific Data Requirements	Owner
Desired Outputs						
01	A new 8.5km north-south (dual carriageway) bypass of Stockport connecting local areas of Bredbury, Offerton, Marple and Hazel Grove with direct access to Manchester Airport and Junction 25 of the M60, including 5 new connecting junctions. A new 1.1km two-lane single (S2) carriageway link to Stepping Hill	Length & type of new road and new junctions	Proposed length of highway improvements and new junctions as per scheme plans	Qualitative	None	SRO
02	A segregated cycle/ pedestrian route along the entire length of the scheme	Length & type of non-motorised facilities along scheme length	Continuous cycle/ pedestrian facilities along the length of the route	Qualitative	None	SRO
03	Mitigation measures aim to ameliorate the localised impact of the scheme	Success of mitigation measures in limiting scheme impacts	Minimal reported concerns over negative impact of scheme	Qualitative	None	SRO
Desired Outcomes						
04	Reduction in traffic volumes including HGVs along the A6	Traffic volume levels	Annual average daily traffic volumes on A6 to decrease by 25% one year after opening	Quantitative	Traffic volume surveys pre and post opening	SRO

Ref No	Benefit (Desired Output/ Outcome)	Benefit Indicator	Target	Type	Specific Data Requirements	Owner
05	Reduced highway journey times between Hazel Grove and M60 at Bredbury	Journey times	Average peak period journey times between Hazel Grove and M60 at Bredbury are reduced by 20% one year after opening	Quantitative	Journey time surveys pre and post opening	SRO
06	Improved highway journey reliability along the A6 between Hazel Grove and M60	Standard deviation of journey times in the morning and evening peaks	Meet TfGM peak period journey time reliability target of 90% within one year after opening	Quantitative	Journey time surveys pre and post opening	SRO
07	Improved traveller safety along the A6 as a result of a reduction in traffic volumes	Personal injury accident levels	Overall reduction in personal injury accidents 5 years after opening	Quantitative	Road traffic accident data pre and post opening	SRO
08	Minimised environmental impact of the Scheme	Air quality levels across the study area	Overall improvement in air quality (reduction in exposure to NO_2 and PM_{10} concentrations) across the study area	Quantitative	Air quality data pre and post opening	SRO
09	Local economy experiences economic growth	Economic activity levels in SE Manchester	Overall increased level of economic activity due to improved accessibility, 5 years after opening	Quantitative	Economic indicators data – including consultation with local businesses	SRO

MONITORING AND EVALUATION

6.11.7 The A6 to M60 Relief Road scheme will be subject to a programme of before and after monitoring and evaluation. This will demonstrate the extent to which scheme objectives were met, monitor performance of the scheme and ensure that any potential issues post implementation are identified and addressed.

6.11.8 The objectives of the A6 to M60 Relief Road scheme evaluation plan will focus on understanding:

- Whether and how the scheme's main objectives have been achieved, exceeded or not reached.
- Provide transferable evidence that may be used to inform future decision-making on similar schemes;
- Improve the efficiency and effectiveness in the delivery of future schemes based on the lessons learnt from this scheme.
- Did the benefits justify the costs?

6.11.9 The focus of this evaluation would therefore be demonstrating local accountability, achieved through measuring key outcome metrics and comparing them with ex-ante forecasts. As part of the DfT's knowledge development, the evaluation will incorporate the opportunity to learn lessons on the implementation of a scheme of this nature.

6.11.10 The key features of the scheme business case are to deliver major travel time and vehicle operating benefits that will, in turn, deliver substantial benefits to the wider economy in the form of new job creation and economic output. It is these wider and long term impacts relating to economic growth and development that are of key importance to this scheme. These will contribute greatly to the level of 'success' that can be attributed to the scheme.

6.11.11 The evaluation will need to examine how the scheme has benefited businesses in the immediate area of the scheme and those businesses that may be located further away but that are still affected by the scheme. The scheme is expected to contribute to the wider policy objectives set out in ***The Strategic Case*** and the evaluation will provide the evidence to judge whether these expected impacts have been realised.

6.11.12 The main scheme objectives are to:

- Improve business integration and productivity to generate economic growth and increased employment
- Reduce the impact of traffic congestion on local businesses and communities and promote low carbon travel
- Improve the safety of road users, pedestrians and cyclists

Process Evaluation

6.11.13 Understanding what has been delivered, how it was delivered and what changes/ delays were encountered along the way will all feed into the overall evaluation and provide important information on how to improve the management of other schemes.

Impact Evaluation

6.11.14 The impact evaluation will focus on monitoring outcomes and longer term impacts associated with the objectives above in line with the Department's recommended measures as below:

- Scheme Objectives
- Impact on Travel Demand
- Travel Times and Reliability
- Changes in travel behaviour
- Impacts on the economy
- Carbon
- Noise
- Air quality
- Accidents.

6.11.15 Specifically, the evaluation process will focus on measuring outcomes relating to:

- Changes in traffic flows across the network and the associated impacts
- Changes in journey time reliability
- Changes in safety (number and severity of road traffic accidents)
- Changes in air quality emissions and noise impacts
- Regeneration and wider economic benefits.

6.11.16 The questions that the impact evaluation will seek to answer in relation to the scheme objectives include:

- To what extent has the scheme resulted in a reduction in traffic congestion?
- To what extent has the scheme improved road safety?
- To what extent has the scheme led to growth in employment and increased Gross Value Added (GVA)?

6.11.17 Other questions that the impact evaluation will seek to answer include:

- Are the forecast traffic volumes on both the existing and new road networks in line with outcome volumes?
- Is the scheme encouraging more low carbon travel e.g. Cyclists, public transport users?
- Has the scheme resulted in travel time savings?
- Are the travel times more reliable/ consistent with the scheme?
- Has there been a change in bus service punctuality/ reliability, or have new services started to operate?
- How have greenhouse gas emissions changed between forecast and outcome?
- How do forecast and outcome noise levels compare?
- How do forecast and outcome air quality levels compare?
- How do forecast and outturn accident changes compare?

Economic Evaluation

6.11.18 The economic evaluation will focus on the outturn appraisal assumptions. The outcomes from the impact evaluation will be used to calculate actual Transport Economic Efficiency and actual monetised benefits, for comparison with (pre-implementation) predicted values.

6.11.19 The questions that the economic evaluation will seek to answer are:

- Did the benefits justify the costs?
- Does the scheme represent value for money as anticipated in the business case?
- What are the actual opening year outturn benefits of the scheme, and how do these compare with those forecast in the business case?
- What contributing factors have influenced the potential variation in outturn benefits?
- What is the potential net return for the scheme over the 60-year appraisal period?

Evaluation Approach

6.11.20 It is noted that the scheme specific objectives will be realised over different timescales. One of the more immediate outcomes of the scheme opening will be a reduction in traffic congestion across the study area. In the medium term some improvements in safety may be noted, whilst the longer term scheme impacts relate to the less tangible economic growth and employment objectives. For these reasons, the scheme evaluation will be undertaken in three stages, as follows:

- Pre-construction/ Baseline Report;
- One Year Post Opening Outcome Evaluation Report; and
- Five Year Post Opening Impact Evaluation Report.

6.11.21 An Evaluation Plan Summary is provided in **Table 6-9**, which will be developed as the scheme progresses along with details on data requirements.

Table 6-9: Evaluation Plan Summary – Scheme Specific Objectives/ DfT Standard Evaluation Criteria

Scheme Specific Objectives/ DfT Standard Evaluation Criteria	Stage	Evaluation Methodology Outline	Pre-construction Baseline Report	Yr 1 Post Opening Evaluation	Yr 5 Post Opening Evaluation
Scheme Build	Input	Use Programme/project plan assessment, including measures of delivery at key milestones (e.g. implementation log) to assess the project management in place with the aim of identifying good practice/ lessons learnt. This will include an assessment of stakeholder and risk management. Monitor key delivery milestones throughout construction – and impact of change in delivery dates.	✓	✓	
Delivered Scheme	Output	Assessment of scheme outputs and a comparison with the scheme design – reasons and potential impact of changes. Identify and investigate unintended outcomes, and identify lessons learned.	✓	✓	
Outturn Costs	Input	Comparison of outturn investment costs with those in the funding bid, broken down by elements as in funding bid. Identify savings and overruns and reasons. Are operating costs in line with forecast and reasons if differ.	✓	✓	
Scheme Objectives	Outcome/ Impact	Through reference to the scheme Logic Map	✓	✓	✓
Impact on Travel Demand	Outcome	Monitor traffic flows to assess the impact of the scheme on traffic assignment. Changes in bus passenger patronage along key corridors and cycling levels.	✓	✓	✓
Travel Times and Reliability	Outcome	Calculate journey times and the standard deviations of these times for trips on key routes.	✓	✓	✓
Impacts on the economy	Impact	Establish the overall change in economic indicators. Use quantitative and qualitative approach to assess impact of the scheme in relation to the change.	✓		✓
Carbon	Outcome	Assess the net impact of carbon emissions after scheme implementation using traffic flow and speed data.		✓	✓
Noise	Impact	Undertake monitoring to assess the effect of the scheme on noise levels at key locations. Compare this to forecasts.	✓	✓	✓

Scheme Specific Objectives/ DfT Standard Evaluation Criteria	Stage	Evaluation Methodology Outline	Pre-construction Baseline Report	Yr 1 Post Opening Evaluation	Yr 5 Post Opening Evaluation
Local Air Quality	Impact	Undertake monitoring to assess the effect of the scheme on local air quality at key locations. Compare this to forecasts.	✓	✓	✓
Accidents	Impact	Effect of the scheme on accidents in the area of interest using STATS19 data over a five year period. Calculate actual safety PVB and compare it with forecast.			✓
Delivery Process	Input	Identification of other factors influencing the extent to which objectives have been achieved – assess contextual issues which may influence scheme impact. Identification of what worked well and challenges through the delivery process, including how risk were managed.	✓	✓	
Travel Behaviour	Outcome	Assess the impact of the scheme on mode shift on key corridors e.g. A6, scheme corridor. Consultation with businesses to assess the impact of the scheme on business operations.	✓	✓	✓
Outturn Appraisal Assumptions	Outcome	Assess any changes to cost assumptions. Calculate outturn TEE and BCR and compare it with the forecast.		✓	

Summary

The sponsoring organisation for subsequent phases of the A6 to M60 Relief Road scheme development will be Stockport Council supported by TfGM, an executive body of the GMCA.

In general terms the management of the project would be split up into three tiers consisting of the Project Steering Group, the Project Board and the Project Delivery Team.

Stockport Council has extensive relevant experience of delivering projects similar to the A6 to M60 Relief Road scheme, including major highway infrastructure schemes, local junction improvements, and sustainable transport measures – all of which are core elements of the A6 to M60 Relief Road scheme proposals.

Stockport Council has a strong track record in the procurement and delivery of major schemes with two notable examples of recent projects that are being delivered or are nearing completion include:

- A6 Manchester Airport Relied Road; and
- Stockport Town Centre Access Plan.

At the next phase of scheme development a Programme Management Plan will be prepared describing the procedures that need to be followed for creating and maintaining the Programme to deliver the A6 to M60 Relief Road scheme. The Programme shall be dynamic such that the impact of the current project performance will be reflected in future scheduled work, enabling Programme adjustments to be made should the outcome indicate problems ahead.

It is the aim of the Programme to provide full visibility of the current and future situation with respect to performance and will be used in conjunction with the Risk Management Plan to predict the potential impacts of identified risks.

Project assurance will be the responsibility of the Project Board who is responsible for reviewing and agreeing all project procedures and processes as set out within the PIDs. The Project Board will review and approve the content of each project deliverable.

In addition to the assurance provided by the Project Board, a Stage Gateway Review process will be utilised to provide external assurance and assistance to the SRO. The Gateway review process will follow the TfGM project assurance model, provided by TfGM's Programme Management Services, which is fully compliant with Office of Government Commerce guidance, in accordance with the Assurance Plan.

A proportionate level of risk assessment has been undertaken, at an appropriate level of detail for this feasibility study. As part of the next phase of scheme development the risk management strategy for the project will be set out in a Risk Management Plan. The Risk Management Plan will set out the overall strategy for actively managing risk to a level that is 'As Low As Reasonably Practicable' (ALARP) and ensuring that risk management is part of the development of the project.

The Scheme does not meet the criteria that would automatically require a Development Consent Order under the Planning Act 2008 (as amended). This assumption will need to be subject to discussion and confirmation with Highways England and ultimately, if necessary, with the Department for Transport. Subject to the outcome of this confirmation, the planning application will be a Regulation 3 application under the Town and Country Planning General Regulations 1992, as Stockport Council will be the applicant as well as the determining planning authority.

The Highways Agency (now Highways England) on behalf of the Secretary of State for Transport has maintained made line orders under the Highway Act to construct the former A6(M) Stockport North South Bypass. As the Scheme will not form part of the SRN, Highways England will need to withdraw the TR111 route protection for A6(M) in due course. Highways England owns a significant number of properties along the former A6 (M) route and

Stockport Council is continuing discussions with them regarding their disposal.

Negotiations with other landowners affected by the A6 to M60 Relief Road scheme will commence at the next stage of scheme development. Prior to this a detailed review will be undertaken to establish the land-take requirements for the Scheme.

Acquiring authorities are always advised that every effort should be made to acquire the necessary land interests by agreement and that compulsory acquisition should be a last resort. Whilst acquisition by agreement will be pursued, initiating the Compulsory Purchase Order process over the entire land holding that is required to implement the scheme offers certainty should parallel negotiations to acquire the land voluntarily not be successful. Those receiving notice of the making of the CPO will have a right to object and, if they wish, have their objections heard at a local public inquiry. Given the scale and complexity of the Scheme here is a reasonable expectation that a local public inquiry will be required. Accordingly, it is programmed that this would happen late 2019.

Beyond the anticipated scheme activity programmes assume final funding approval and commencement of work in autumn/ winter 2020, along with schedule road opening in winter 2024.

The Stakeholders and Interested Parties communication needs are diverse and will range from interest in the general project to specific concerns relating to their own position. A variety of methods will be used to ensure it is effective. The methods used will include the development and upkeep of the project web pages, information and single contact point along with newsletters and public meetings as appropriate for the particular stage of the project. The overarching objective of the Communications Strategy will be to focus on achieving good quality consultation and an understanding of the Scheme so as to support its delivery and subsequent wider benefits to the South East Manchester area.

Information presented and obtained through stakeholder engagement undertaken as part of the original SEMMMS Study has been used to inform the development of the Scheme. The public and key stakeholders were also consulted at key stages during the development of the overall SEMMM Strategy to identify issues, potential solutions and support for the proposed strategy.

The principles for a benefits realisation plan have been developed to ensure that an appropriate level of benefits prioritisation will be undertaken with resources focussing on tracking the most significant benefits, thereby determining the success of the Scheme. The A6 to M60 Relief Road scheme will be subject to a programme of before and after monitoring and evaluation. The impact monitoring will include traffic volumes and speeds, journey times, accidents, walking and cycling demand, noise and air quality impacts and overall impacts on the economy which will be assessed through analysis of business start-up data and occupancy rates.