highways england

M6 to A1 Corridor Study

Appraisal Specification Report (ASR)

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Document Control

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Contents

1 INTRODUCTION

1.1 Purpose of this Document

1.1.1 The purpose of this Appraisal Specification Report (ASR) is to inform decision makers and stakeholders on how the scenarios and environmental assessments will be undertaken in PCF Stage 0. The ASR also sets out how these assessments will be supported by the traffic modelling work taking account of budgetary, programme, political, environmental and spatial constraints.

1.1.2 This document follows the guidance set out in the PCF Product Matrix V52, 1st December 2019) and therefore:

- defines how the economic narrative within the Analytical Requirements Report (ARR) will be maintained through the appraisal process;
- defines the methodology, assumptions and associated risks of the transport assessment, including traffic/transport modelling;
- defines the scope and content of the environmental assessment;
- identifies the data and outstanding survey requirements; and
- sets out the consultation processes for appropriate stakeholder engagement.

1.2 Contents

1.2.1 Following this introduction, the report has been structured as follows:

- Chapter 2, Background – overview and context of the study;
- Chapter 3, Analytical Requirements – recap and summary of the ARR;
- Chapter 4, Economic Narrative – approach to development;
- Chapter 5, Transport Modelling – tools, methodology and risks;
- Chapter 6, Economic Assessment – tools, methodology and risks;
- Chapter 7, Environmental Assessment – tools, methodology and risks;
- Chapter 8, Data – any data issues; and
- Chapter 9, Consultation – approach.

2 BACKGROUND

2.1 The Study

2.1.1 Highways England have commissioned AECOM to examine the potential for a new strategic highway link across the Pennines, creating an additional link between the M6 and the A1(m). This commission follows on from an earlier strategy shaping study which reviewed the existing Central Pennines Corridor (CPC) conditions and examined the potential for Trans-Pennine highway improvements.

2.1.2 That study considered three strategic components:

- Skipton-Harrogate: Extending from the North-West of Blackburn to the West of York broadly following the A59, capturing Clitheroe, Skipton and Harrogate and the A1(M). This corridor serves the Lancashire and York, East Yorkshire and East Riding Strategic Economic Plans (SEPs).
- Leeds-Bradford: A central corridor that stems from the Eastern point of the M65, in Colne, to York, serving the conurbations of Leeds and Bradford, Leeds-Bradford International Airport, the M1 and the A1(M). This corridor also serves the Lancashire and York, East Yorkshire and East Riding SEPs.
- Bradford-Halifax: Runs South of the M65 and primarily serves Halifax, Bradford and the M62. This corridor includes parts of Lancashire and Leeds City Region SEPs.

2.1.3 That study identified four possible Trans Pennine corridor concepts to provide additional East-West strategic highway capacity and alleviate congestion issues on existing routes identified within the baseline assessment.

2.1.4 These four concepts have been colour coded for future reference and are illustrated in **Figure 1** to **Figure 4** and may be summarised as:

- Orange – Colne (M65), Skipton, Leeds Bradford Airport (LBA), A1(M) and York (A64);
- Pink – Colne (M65), Skipton, Harrogate, A1(M) and York (A59);
- Purple – Colne (M65), LBA and M1 east of Leeds; and
- Red - Colne (M65), LBA, Leeds outer ring road and M62.

2.2 Context

2.2.1 This study falls under Stage 0, ‘Strategy Shaping and Prioritisation’, of the Highways England Project Control Framework (PCF). Within this pre-project phase, the PCF process anticipates:

- The identification and prioritisation of potential transport issues; and
- Shaping, investigation and assessment of the viability of transport scheme solutions to the problem.

2.2.2 The ASR and study approach reflects this.

Figure 1 Indicative Alignment for Orange Corridor

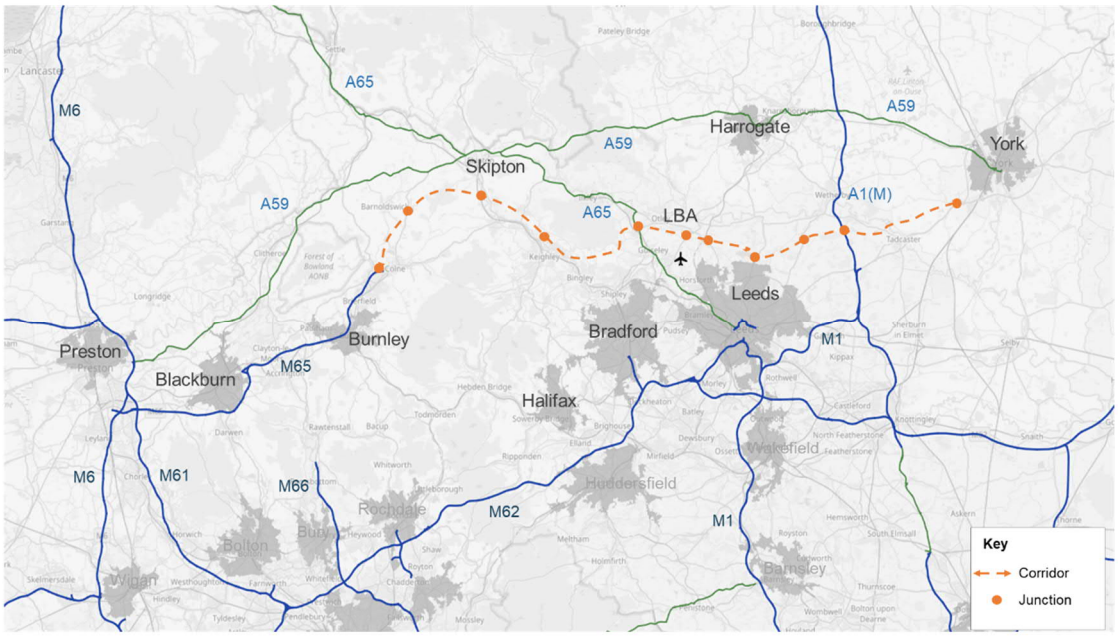


Figure 2 Indicative Alignment for Pink Corridor

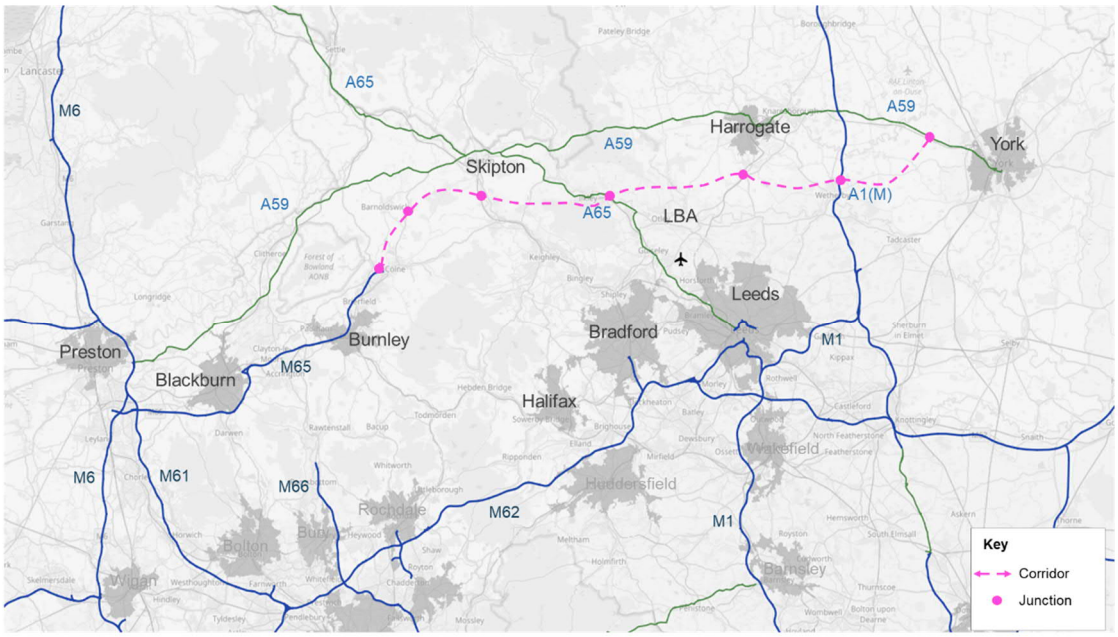


Figure 3 Indicative Alignment for Purple Corridor

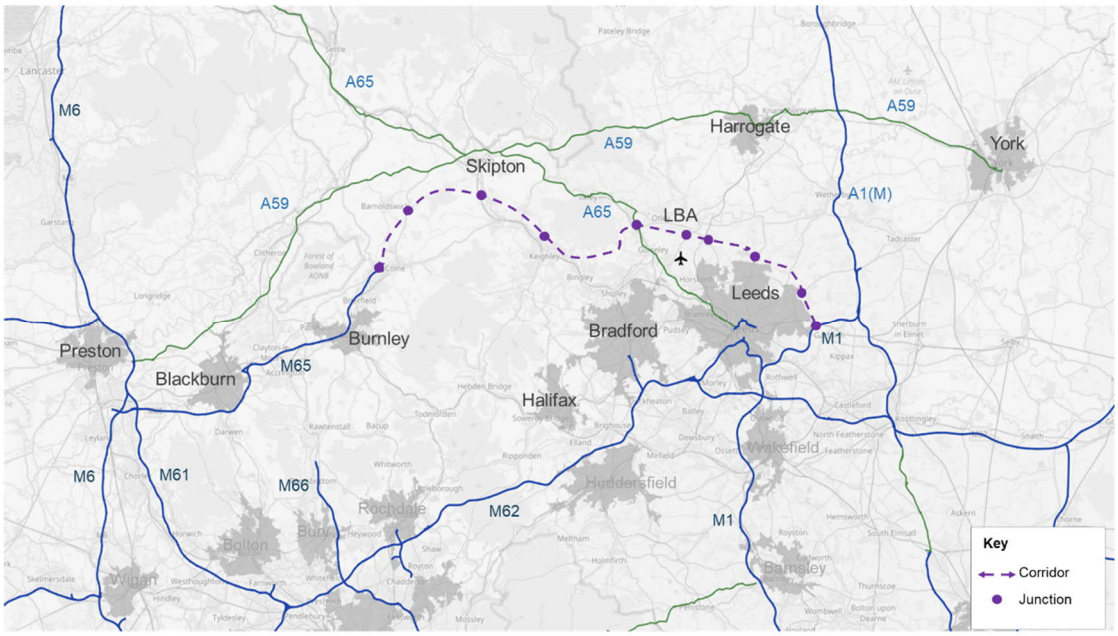
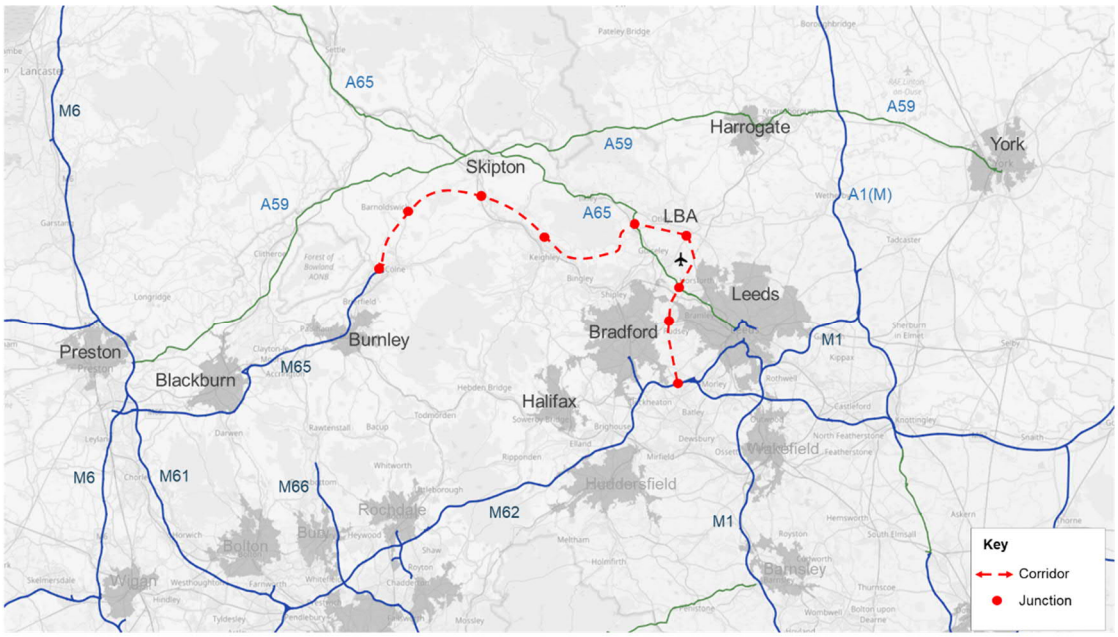


Figure 4 Indicative Alignment for Red Corridor



3 ANALYTICAL REQUIREMENTS

3.1 Overview

3.1.1 The ARR[1] set out the study objectives and the requirements for the economic narrative, transport modelling and environmental appraisal.

3.1.2 Key aspects of these are summarised in the following sections.

3.2 Study Objectives

3.2.1 Economic Growth

- Support the economic growth of the Northern Economy in particular high value manufacturing, by providing better connections, allowing them greater access to international gateways.
- Support the growth aspirations of the East Lancashire-West/North Yorkshire areas, and the wider geography by proving high quality connections linking areas of strategic growth currently supressed by access issues.
- Improve connections from the economically inactive areas in the corridor (East Lancashire and West Yorkshire) to centres of employment.

3.2.2 Connectivity

- Ensure the improvement of the Trans-Pennine east-west connectivity, including for freight.
- Reduce journey times between east and west of the Pennines
- Maintain and improve access for tourism in the AONBs of Bowland and Nidderdale.
- Improve access to international transport hubs such as Leeds Bradford Airport.

3.2.3 Network Performance

- Improve journey time reliability for road users.
- Improve road safety, including NMUs.
- Reduce trans-Pennine congestion.
- Improve the resilience of other routes, in particular the M62 corridor, to the impacts of events and incidents such as accidents and severe weather.

3.2.4 Environment

- Minimise adverse impacts on the environment.
- Optimise environmental improvement opportunities.
- Reduce the impact of traffic on local communities.

[1] M6 to A1 (M) Central Pennines Strategic Highway Improvement Study, Analytical Requirements Report, Stage 0 Study, Version 2.1 February 2019

3.3 Economic Narrative

3.3.1 The ARR set out the opportunities for local economic growth with particular reference to high level and prominent manufacturing companies in the area, notable complementary sectors including (but not limited to) high value engineering and logistics and distribution and the potential to improve international access via LBA.

3.3.2 It also drew attention for the potential for congestion relief given the paucity of good quality Trans-Pennine transport connections.

3.3.3 The economic impacts that will be assessed in PCF Stage 0 that will be assessed and reported (level 1 and level 2 analysis) are as follows:

- Standard Economic Impacts;
- Transport Economic Efficiency (journey time savings, journey time reliability (qualitative), vehicle operating costs benefits/dis-benefits, accidents (qualitative));
- Qualitative assessment for safety benefits;
- Qualitative assessments for delays during Construction; and
- Wider Economic Impacts (agglomeration and labour supply impacts) .

3.4 Transport Modelling

3.4.1 The recommendation was to use the Trans-Pennine South Regional Transport model (TPS RTM) recognising that it would provide sufficient geographic coverage to explore impacts on the M65, M6, A1(M), M62 and A59 and other routes in the Leeds / Bradford area.

3.5 Environmental

3.5.1 The environmental appraisal should be undertaken in accordance with WebTAG Unit A3 and the Design Manual for Roads and Bridges (DMRB), as updated 2018 and 2019, Volume 11: Environmental Assessment as appropriate with noise, air quality and greenhouse gases undertaken on a qualitative basis only and a Benefits Register produced along with, in line with PCF Stage 0 requirements, a Preliminary Environmental Risk Assessment (PERA).

3.5.2 Mitigation measures should be factored into the appraisal to reduce the significance of the effects where there is confidence in the effectiveness and the implementation of the measures. Supplementary work such as an appraisal of natural capital and landscape monetisation (in accordance with DfT guidance) could be considered if fully justified.

4 TRANSPORT MODELLING

4.1 Introduction

4.1.1 This section discusses the approach taken to the transport modelling undertaken in support of the scheme in terms of the proposed methodology for PCF Stage 0.

4.1.2 As suggested by the ARR, the study will utilise the Trans Pennine South Regional Traffic Model (TPS RTM) as the basis for the transport modelling and subsequent economic appraisal.

4.1.3 This chapter provides:

- Background to, and summary of, the TPS RTM;
- Assessment of suitability for the M6-A1(M) Corridor Study;
- Forecast methodology for M6-A1(M);
- Convergence monitoring; and
- Risks.

4.2 Background and Summary of TPS RTM

The RTM Programme

4.2.1 The 'Traffic Modelling Strategy' developed by the Transport Planning Group (TPG) identified the creation of five 'regional' models as critical to the future delivery of schemes. The primary purpose of the regional model programme is to assess Road Investment Strategy (RIS) major highway schemes with a cost estimate greater than £10 million. The models were developed under the direction of a number of Technical Consistency Groups (TCGs) to ensure a consistent approach across the five models.

4.2.2 The regional model that covers the area of interest is the Trans-Pennine South (TPS) Regional Transport Model (RTM), which has been used to support a series of schemes in the region. It is this model that will form the basis of the PCF 0 assessment.

Structure of the TPS RTM

4.2.3 The TPS RTM model is set up as a variable demand model with a SATURN highway assignment model feeding into a DIADEM Variable Demand Model (VDM) using fixed public transport costs.

4.2.4 The TPS RTM highway model was developed using the SATURN modelling software package. The detailed area of the TPS RTM, shown in **Figure 5** covers the area between the northern borders of Lancashire and North Yorkshire in the north to the southern border of Cheshire and South Yorkshire in the south. Outside this area the rest of Great Britain is represented by a buffer network.

4.2.5 The core study area for the M6-A1(M) is overlaid on **Figure 5** for ease of reference.

4.2.6 In accordance with guidelines agreed by the Network Coding TCG, the network was considered in terms of four levels:

- Level 1 – Strategic Road Network (SRN) including:
    - non-SRN roads connected to / parallel with SRN;

- non-SRH roads considered important to RIS scheme appraisal;

- Level 2 – Rural roads that are not connected to SRN;
- Level 3 – Urban areas outside the influence area of RIS schemes and SRN; and
- Level 4 – Roads outside the region of focus.

4.2.7 The coding standard to be applied to each of the four levels was then set out as follows:

- Level 1 – Detailed simulation coding;
- Level 2 – Simulation coding but less detail;
- Level 3 – Dummy nodes / fixed link speeds; and
- Level 4 –Buffer network.

4.2.8 Thus, the extents of the model ensure that the model would be able to represent the impacts of a potential scheme within the area under consideration.

4.2.9 The Base Year of the model is 2015. The model covers an average hour for:

- The AM peak period (0700-1000);
- The Inter-peak period (1000 – 1600); and
- The PM peak period (1600-1900).

4.2.10 It has five trip purposes / user classes as follows:

- Car – business trips;
- Car – commute trips;
- Car – other trips;
- Light goods vehicles; and
- Heavy goods vehicles.

Data within TPS RTM

4.2.11 The data used for assessment of the scheme will be that used to develop the TPS RTM. This includes count data on screen lines crossed by the scheme as shown in **Figure 6**. Journey times were based on Trafficmaster data for March 2015 obtained from the DfT specifically for this purpose. This was obtained nationally and centrally processed for the five Regional Models. It was collated to form a series of journey time routes as shown in **Figure 7**.

4.2.12 Both Figure 6 and Figure 7 are also overlaid with the core study area for the M6-A1(M) for ease of reference.

Figure 5 TPS RTM Model Area

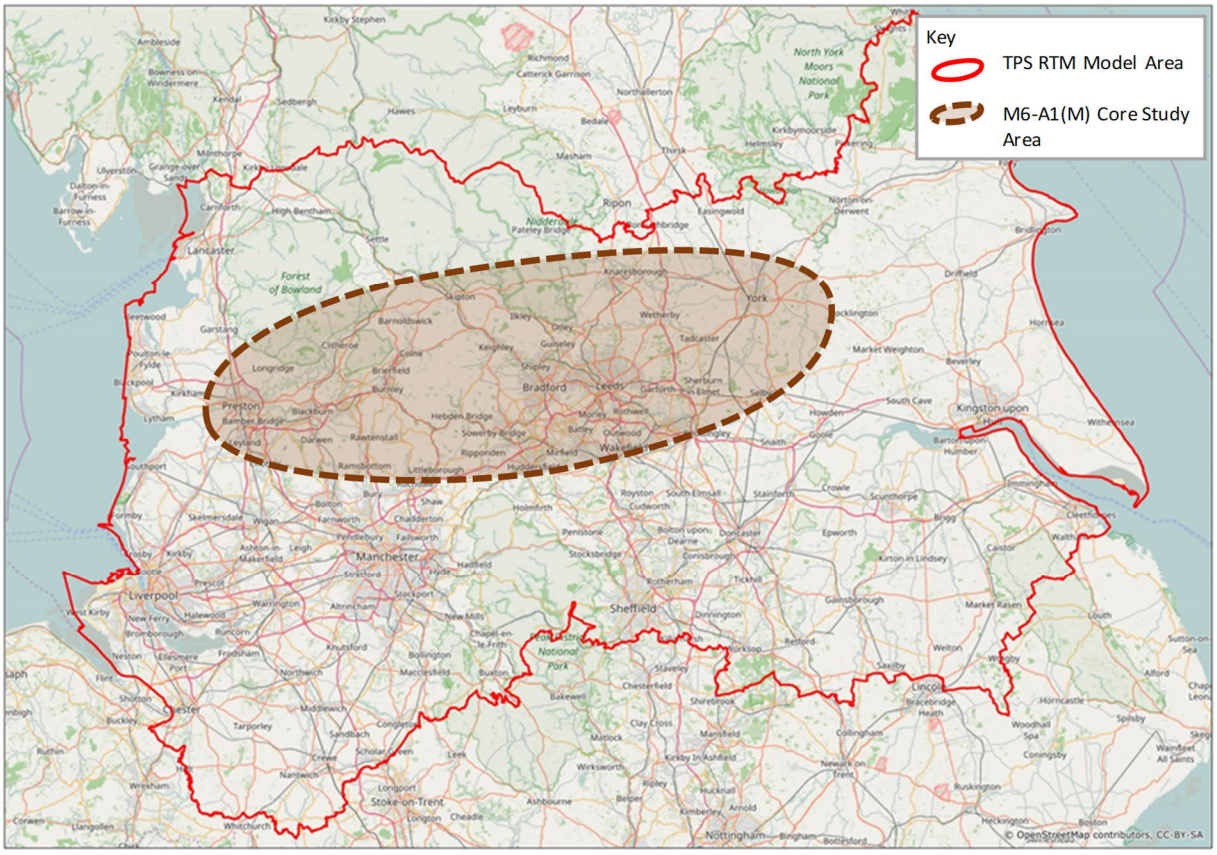


Figure 6 TPS Regional Model Calibration Counts

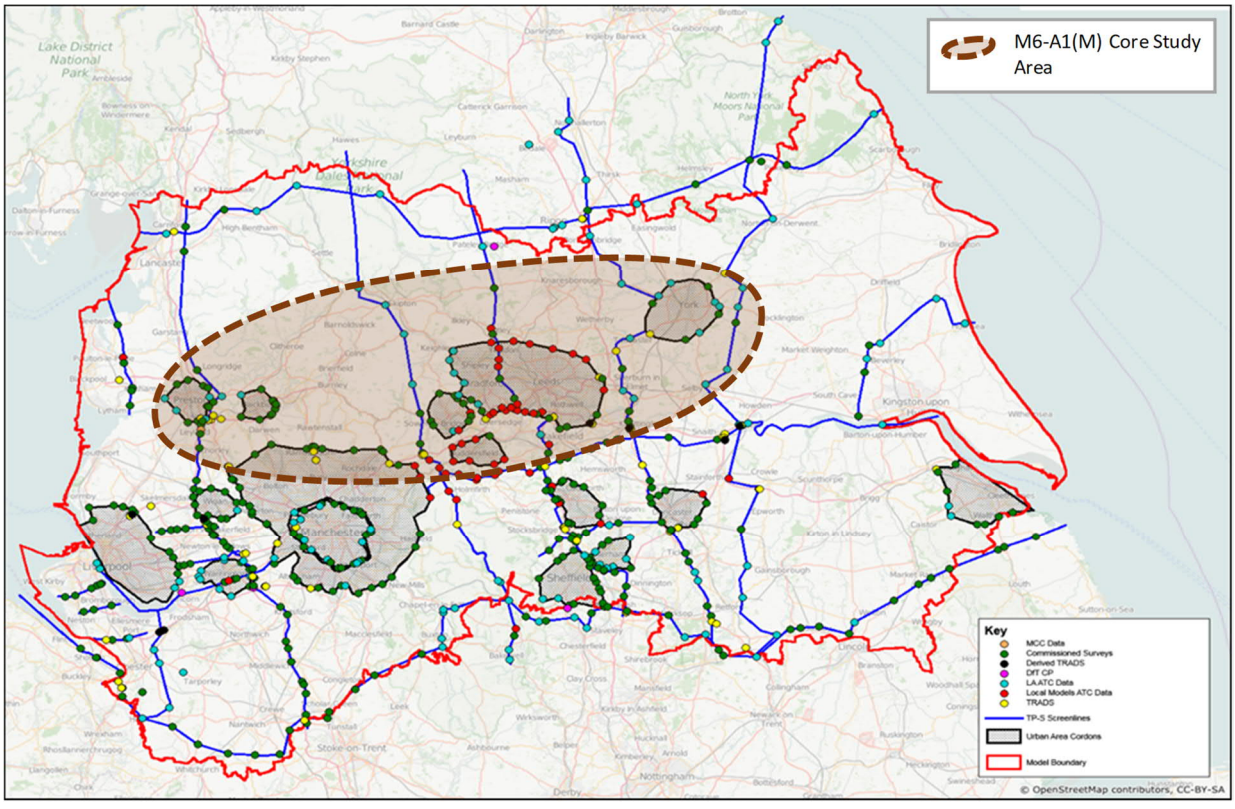
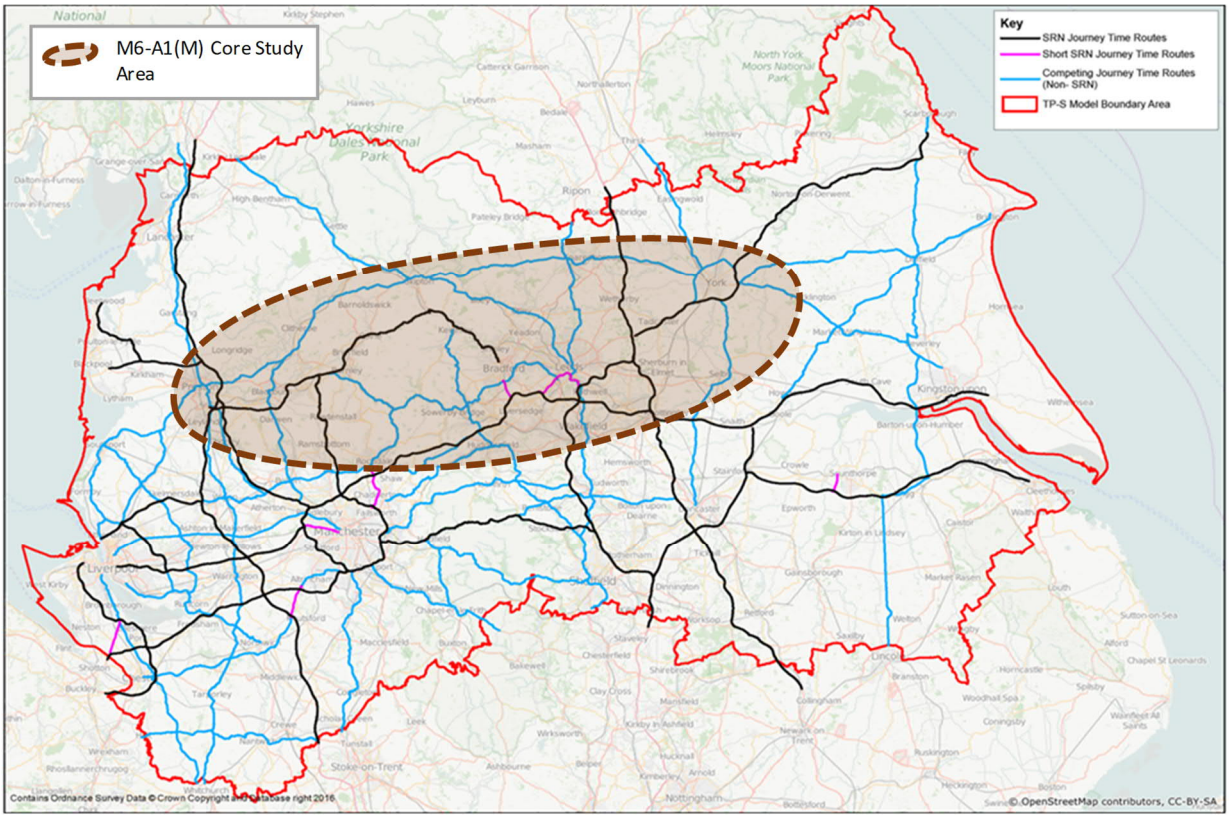


Figure 7 Journey Time Coverage by Type of Route



4.3 Assessment of suitability for the M6-A1(M) Corridor Study

4.3.1 The TPS RTM has undergone several upgrades and modification since being initially developed in 2015. The version of the TPS RTM that will be used for this assessment is the same as used for the TPT project in order to provide a level of consistency between the two studies.

4.3.2 Prior to using the model, a review has been undertaken of the level of validation in the specific areas relating to the scheme to ensure that the results of using the model can be interpreted in terms of its accuracy in the study corridor. The review considers the validation of east – west traffic flows across the central Pennine screenline and of north-south and east-west journey time routes in the study corridor. For full details of this suitability assessment, please refer to *'SPaTS 1-878 M6-A1M: Suitability of the TPS RTM Technical Note, January 2020'.*

4.3.3 TfN have also conducted a review on the RTMs as part of their work on the Central Pennines Strategic Development Corridor. For full details of their suitability assessment, please refer to *'Central Pennines Strategic Development Corridor: Product 07 – Data Requirements and Model Zoning System, TfN January 2018'.*

4.3.4 The findings of the two reviews have similar themes; primarily that the RTM performs well on the SRN and generally meets the standards set for the RTM programme. These standards are a relaxation from typical WebTAG criteria, reflecting the scale and nature of the modelling work that was undertaken for the RTM programme.

4.3.5 The key findings in terms of flows and journey times are as follows:

- The study review focused on Screenline 7 from the TPS RTM development which runs down the centre of the Pennines from A65 in the north to A6 in the south – this showed a generally good performance although with a slight underrepresentation of flows (maximum 6.8% in any period);
- The TfN review also flagged some low model flows east of M6; and
- Journey time validation for the relevant east-west routes are reasonable with the model typically 6-8% (somewhat higher on the M62) quicker than observed.

4.3.6 In combination these suggest the model has a tendency to underrepresent existing flows and journey times in the core study area, albeit still within the RTM guidelines.

4.3.7 The TfN review also drew attention to the level of zone detail, notably for this study in the M65 and A59 corridors and in proximity to LBA.

4.3.8 Lastly, the TPS RTM models the AM and PM peak as flat 3-hour average flows. The effect of this would be to smooth out peaks in congestion across the network. For the majority of the strategic network, the impact of this would be minimal. However, the modelling could underestimate traffic flows and associated benefits on routes close to the urban area, in particular the M65 and the routes around Leeds. Where forecast peak flows are close to link capacity this averaging should be taken into consideration.

4.4 Traffic Forecasting Methodology

4.4.1 The 2041 TPS RTM will be used for the forecasting for this scheme. At this stage the actual opening year for the scheme is uncertain and it is probable that the scheme would open in stages. The use of the 2041 is considered a pragmatic solution, using existing models rather than creating new forecast years at this stage.

4.4.2 This model run, which includes all appropriate RIS schemes, will become the do minimum model which will provide a benchmark against which the scenarios included in this assessment will be compared.

4.4.3 A common SATURN Coding Manual was developed during the development of the original RTMs. All network coding for these schemes will be carried out in accordance with the standards and guidelines set out in this document.

4.4.4 The scheme will be initially assumed to be D2M standard throughout though variations to this will be considered as part of the appraisal process.

4.4.5 The do minimum networks and input demands from the Trans Pennine Tunnel (TPT) study will be used and thus the do minimum matrices that are output by the variable demand process will be consistent with the do minimum forecasts for the TPT study.

4.4.6 The matrices were developed using NTEM 7.2 growth rates for car traffic and Road Traffic Forecasts (RTF) 2018 growth rates for goods traffic. No account is taken of specific local developments however, specific growth rates have been used for ports and airports.

4.4.7 We will produce Average Annual Daily Traffic (AADT) and Average Annual Weekday Traffic (AAWT) as required to inform environmental analysis and provide a qualitative assessment of the options performance. The standard time and distance skim matrices will be calculated as required to feed the economic appraisal.

4.5 Model Convergence

4.5.1 The assignment model stopping criteria as set in the RTM SATURN models will be used for the assignments. The levels of convergence achieved for each model run will be reported on. These criteria state that the link flow should change by less than 1% between assignments for at least 97.5% of links and the gap value should be below 0.05%. In addition, these criteria should be met for four consecutive assignment-simulation iterations.

4.5.2 Where the VDM is used, the convergence setting requires a relative gap value, as defined in WebTAG Unit M2 section 6.3, of less than 0.1 in the model as a whole and less than 0.2 in the sub area.

4.6 Risks

4.6.1 The TPS RTM has been used extensively for scheme assessment work and the strengths and weaknesses of the model are therefore well understood. Additionally, as reported earlier, specific reviews have been undertaken of the model's suitability for evaluation of this scheme.

4.6.2 Based on this, the model is judged to be suitable to consider the potential strategic impacts of the proposals in a reasonable manner and should be capable of comparing alternatives without any inherent bias.

4.6.3 There is evidence that the model is underrepresenting flows and delays to a degree within the study corridor, albeit within RTM guidelines. The use of fixed speed flows within urban areas, notably in the Leeds and Bradford areas, and also the relative coarseness of the zoning system may be contributing to that underrepresentation along with the use of an average peak model period.

4.6.4 In combination, these factors may lead to the model underestimating the potential benefits of the proposals. At this (PCF0) stage, it is not considered necessary to refine the modelling platform, but this will be required should the proposals merit further investigation.

5 ECONOMIC ASSESSMENT

5.1 Transport User Benefits

Level 1

5.1.1 The Transport User Benefit Appraisal (TUBA) software will be used to identify the likely scale of user benefits for the four options under consideration. Using TUBA ensures the assessment will follow WebTAG guidance and also provides a Benefit to Cost Ratio (BCR) to help inform decision makers at Stage 0. The changes in journey time and vehicle operating costs will be monetised and discounted to 2010 values and prices to provide a present Value of Benefit (PVB).

5.1.2 Benefits will be calculated for the 60-year period starting with the opening year. Annualisation factors to convert modelled hours to yearly results will be consistent with previous assessments using the RTM. Additional forecast years will be prepared following agreement with TAG on the appropriate years to be adopted.

Level 2

5.1.3 The WITA software will be used to estimate the Level 2 benefits including agglomeration and labour supply. In accordance with WITA guidance, we will also estimate the output change in imperfectly competitive markets based on a 10% uplift to business users.

5.1.4 WITA zones will be created at a LAD level within the modelled area. Outside the modelled area two WITA zones will be used to represent the external areas to the north and south of the modelled area. We will exclude benefits outside the core modelled area from the results.

Level 3

5.1.5 Impacts will be reported qualitatively, in accordance with the ARR, based on the transport model outputs (in terms of connectivity changes etc.).

5.2 Scheme Costs

5.2.1 Scheme costs will be produced the Highways England Commercial Team based on preliminary concept designs and alignments prepared by AECOM. The costs and expenditure profiles will be input to TUBA in order to calculate the Present Value of Costs (PVC). To do this the costs will be rebased to 2010 profiles using the GDP deflator profiles as published in the WebTAG Databook.

6 ENVIRONMENTAL ASSESSMENT

6.1 Introduction

6.1.1 This section sets out the proposed scope and methodology for the preliminary environmental risk assessment at PCF Stage 0.

6.2 Preliminary Environmental Risk Assessment (PERA)

Methodology

6.2.1 A PERA shall be undertaken for 2 of the corridor options. The PERA shall be prepared in a report format using the Highways England PERA report template and shall utilise publicly available environmental information such as the MAGIC database and information available on DEFRA etc alongside ENVIS. An environmental constraints plan shall be produced to be reviewed in conjunction with the PERA. The following environmental topics shall be included:

- Air Quality;
- Cultural Heritage;
- Landscape;
- Biodiversity;
- Geology and Soils;
- Material Assets and Waste;
- Noise and Vibration;
- Population and Health;
- Road Drainage and the water environment; and
- Climate Change (Resilience and Greenhouse gases).

6.2.2 These sections will provide a high level description of the baseline and anticipated environmental issues along the route corridor. A RAG (Red/Amber/Green) rating will be applied for each environmental topic to demonstrate the anticipated level of issues which may affect the programme and delivery of improvements to the route. The PERA will also include commentary regarding the possible consenting route for any improvements and whether an Environmental Impact Assessment and Habitat Regulations Assessment might be required.

Background and Potential impacts

6.2.3 Given the size of the route corridors being considered, it must be highlighted that the assessments will be high level in nature only – and will give a general overview of likely environmental risks and opportunities that may arise from the proposals.

6.2.4 At this early stage of the assessment, likely constraints are:

- Agricultural land take;
- Landscape impacts – e.g. National Parks;
- Biodiversity Impacts – e.g. Habitats and SSSIs (ecological impacts)

- Air Quality – receptors (residential and ecological) in close proximity to the route corridors;
- Noise – receptors (residential, ecological and any historical receptors such as listed buildings potentially sensitive to vibration impacts) in close proximity to the route corridors;
- Cultural Heritage- listed buildings, World Heritage Sites, Scheduled monuments and conservation areas in close proximity to the corridor and any underlying archaeological interest;
- Public Rights of Way – Potential to affect these and their users;
- Road Drainage and Flood Risk – Proposed scheme has the potential to affect flood water flow and storage capacity;
- Climate Change – Proposals may increase vehicle emissions and flood resilience measures may be required; and
- Geology and soils/materials – potential risk of encountering contaminated materials, particularly in urban areas and the likely high volumes of cut and fill required.

Scale of Impacts

6.2.5 At this PCF Stage 0, it is not possible to accurately determine the likely scale of impacts. The scale and significance of impacts and effects would be determined during the assessments carried out during PCF Stages 1,2 and 3. However, at this stage, following review of the environmental constraints plan and the available data, indicative scales of impacts will be presented.

Additional Data requirements and survey approach

6.2.6 Additional data will be required to undertake an assessment of the potential environmental effects in subsequent stages in the PCF process.

6.2.7 Noise monitoring, air quality monitoring, an ecological phase 1 habitat survey along with a landscape walkover, ground investigations and site investigations for land quality and a survey of NMUs to determine the level of use of footways, cycleways and PRoW are not proposed as part of PCF Stage 0, but may be necessary during PCF Stages 1, 2 and 3 to obtain suitable baseline information for environmental assessments.

6.2.8 It may be necessary to obtain electronic data such as 3D topographical data, address data and meteorological data for the area during PCF Stages 1, 2 and 3 should the scheme progress.

6.2.9 The approach to surveys will be defined in the Environmental Scoping Report prepared at PCF Stage 1.

Proposed Methodology

6.2.10 The study area comprises the land within 1km of the route, unless required to be different by individual disciplines. The route and study corridors shall be shown on the environmental constraints drawings which will accompany the PERA.

Environmental input to WebTAG and Benefits Register

6.2.11 AECOM shall provide high level qualitative input into the WebTAG and Benefits Register for the two proposed route corridors. The environment team shall complete the WebTAG worksheets for biodiversity, cultural heritage, landscape and the water environment. WebTAG worksheets would be completed quantitatively by the environment teams. As the WebTAG worksheets would be completed quantitatively, it will not be possible to complete the Noise and Air Quality WebTAG worksheets.

6.2.12 The environmental section of the Benefits Register will be completed qualitatively by the environment teams for the noise, air quality, greenhouse gas, landscape, historic environment, biodiversity and the water environment. The Benefits Register will be completed for Townscape where the scheme is located in an urban setting. The environment team will complete the Benefits Register by completing the 'summary of key impact's' and qualitative assessment column.

6.2.13 It is anticipated that environmental assessments will be carried out during PCF Stage 1, 2 and 3 in accordance with the Design Manual for Roads and Bridges (DMRB), as updated 2018 and 2019, Volume 11: Environmental Assessment. Any deviations from this approach would be set out in the Environmental Scoping Report, Environmental Assessment Report or Environmental Statement.

Consideration of Cumulative Effects

6.2.14 Nearby committed and non-committed developments shall be considered during subsequent PCF stages to determine whether the schemes are likely to proceed, and the timescale for construction and operation.

Communication strategy

6.2.15 External communication and consultation is not considered appropriate at PCF Stage 0. DMRB Volume 11 Section 1 Part 3, LA103 Scoping for Environmental Assessment confirms the desirability to consult stakeholders within the scoping phase. As such, consultation will be carried out during the preparation of the Environmental Scoping Report during PCF Stage 1.

Work Programme

6.2.16 During PCF Stage 0, environmental constraints drawings are prepared at an early stage to identify the key environmental limitations associated with the route and proposed scheme. The environmental constraints identified are then used in subsequent workshops and the preparation of the ARR, ASR, Risk Register and PERA.

6.2.17 The PERA shall comprise a qualitative assessment of the potential environmental risks and opportunities to the budget and programme for a scheme. The PERA is produced during the midpoint of PCF Stage 0 once the environmental constraints, route and design options have been identified. The Benefits Register will be prepared for the proposed scheme following the completion of the PERA.

6.2.18 The preparation of environmental products are shown on the overall scheme programme. A work programme for the environment products will be prepared during PCF Stages 1, 2 and 3. The work programme will identify the environment products and the timescale for preparation. The work programme will also identify the timescale for any surveys to be undertaken, some of which will be seasonally dependant.

Project Risk Register

6.2.19 Indicative risks to the proposed corridor during PCF Stage 0 include:

- Duration and cost of Air Quality monitoring required at a later stage is a medium to high risk to the programme;
- The presence of unrecorded buried archaeology poses a medium to high risk to the budget and programme;
- The impact on the setting of heritage assets is a medium risk to the programme;
- The impact on priority habitats, with the potential to support a range of legally protected and other notable fauna and/or flora species is a medium to high risk to the programme and the scheme;
- The loss of agricultural land will be a high risk to the project and can only be managed through option selection;
- increase in noise emissions and subsequent effect on receptors is a high risk to the budget;
- The potential to encounter Made Ground/contaminated land is a medium risk to the budget;
- The impact on the Public Rights of Way is a medium risk to the programme; and
- Effects on areas of Flood Zones 2 or 3 is a high risk to the budget and high threat to programme (accounting for designing of scheme to take into account potential need for flood water storage).

7 DATA

7.1 Transport

7.1.1 It is not proposed to undertake any additional traffic count or journey time data collection bespoke to this study as part of this PCF0 work.

7.1.2 It is recognised that, as illustrated in **Figure 6**, there is limited traffic count information in the immediate corridor, notably on the non-SRN sections of the M65 and on the A6068 amongst others. As a consequence, any future work would require traffic surveys to quantify the baseline situation in a more robust manner.

7.2 Land Use

7.2.1 The land use assumptions as included in the TPT model will be adopted for this study. A review will be undertaken of any other readily available material, notably from recent TfN work, to qualitatively assess the potential impacts of the proposals on land use.

7.3 Environment

7.3.1 No bespoke environmental data will be collected at this stage. The likely requirements in subsequent PCF stages are set out in **Chapter 6**.

8 CONSULTATION

8.1 Introduction

8.1.1 The approach to consultation will be set out in the Stakeholder Engagement Plan (SEP) and agreed with Project Board prior to any discussions with third parties.