



# East Hampshire Living Locally Accessibility Study and Decide & Provide Methodology

Report 2: 'Decide and Provide' Approach to Preparing Transport Evidence.

# **Version Control**

Project Name: East Hampshire Accessibility Study

Project Ref: 5021782

Report Title: Report 2 - A 'Decide and Provide' Approach to Preparing Transport Evidence.

Date: 24/11/2023

1       20/06/23       Working Draft       MM/DC       SM         2       07/07/2023       Working Draft 2       MM/DC       SM         3       16/10/2023       Final Draft       MM/DC       SM         4       24/11/2023       Final Report       MM       SM	VERSION	DATE	DESCRIPTION	CREATED BY	REVIEWED BY
3 16/10/2023 Final Draft MM/DC SM	1	20/06/23	Working Draft	MM/DC	SM
	2	07/07/2023	Working Draft 2	MM/DC	SM
4 24/11/2023 Final Report MM SM	3	16/10/2023	Final Draft	MM/DC	SM
	4	24/11/2023	Final Report	MM	SM

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# **Executive Summary**

#### Background

This report has been prepared by Ridge & Partners LLP on behalf of East Hampshire District Council with the aim to develop an appropriate transport assessment methodology to help identify Local Plan development growth where there is greatest potential to create healthy, accessible and inclusive communities, without prejudice to meeting the other requirements of national planning policy.

The key requirements of the study are:

- Identify an appropriate methodology that will prioritise accessibility by sustainable transport modes (walking, cycling, public transport) without prejudice to meeting the other requirements of national planning policy (EHDC POINT 5).
- Establish whether an alternative approach to using both the North Hampshire Transport Model and Solent Sub-Regional Transport Model is feasible and advisable (EHDC POINT 6).
- Advise on the requirements to obtain up-todate baseline data for a suitable transport assessment. (EHDC POINT 7).

#### Research

The following research has been considered to

undertake this study:

- Place Standard Tool (Updated 2022)
- Vision & Validate (Professor Peter Jones, 2016)
- Scenario planning for transport practitioners (Professor Glenn Lyons, 2021)
- Decide & Provide Guidance (TRICS, 2022)
- DfT's Decide & Provide Policy , Circular 1/22( 2022)
- DfT Guidance Regarding Uncertainty (2022)
- CIHT Better planning, better transport, better places (2019)
- CIHT Fixing a Failing Planning and Transport System (2022)
- Oxfordshire Decide & Provide Guidance (2022)

#### Stages

The stages in determining an appropriate Decide & Provide (D&P) Transport Assessment methodology are:

- 1. Identifying the aim of the study and objectives.
- 2. Identify the available methods of assessment to assess the effects of Local Plan growth options.
- 3. Identify the possible methodology combinations available.

4. Score the available methods of assessment against objectives and criteria.

#### The Objectives

The objectives for formulating an appropriate Transport Assessment methodology have been agreed with EHDC and HCC. These are:

- To support the allocation of growth in areas where there is most potential for reducing the need to travel outside the local area i.e. within a 20min walk/ cycle (round trip).
- 2. To support the allocation of growth in areas where there is most potential for sustainable travel both within and outside the local area.
- 3. To minimise the climate impact associated with travel generated by growth.
- 4. To respect future uncertainties (policy, technologies and travel behaviours) associated with travel generated by growth.
- 5. To meet national guidance for transport evidence bases in plan making and decision taking.
- 6. To meet national guidance by considering the environmental impacts of traffic and transport infrastructure associated with growth.

4 Ridge and Partners LLP

# **Executive Summary**

#### Available Methods of Assessment

The report identified seven broad methods of assessment which could be applied to test the effects of EHDC Local Plan growth:

- A. Accessibility Study: an analysis of the accessibility to local facilities and services. Usually measured to a destination based on travel time by alternative modes of transport.
- B. Bespoke Multi-Criteria and Multi-Scenario Tool: developed to forecast travel demands and mode shift, they use a range of software and enable the appraisal of multiple criteria and/ or multiple scenarios. They are useful tools for scenario planning and to deal with uncertainty.
- C. Highway Assignment Modelling: a digital representation of a highway network which considers traffic delay to help understand impacts of development or proposed highway scheme. It focuses on private vehicles rather than multimodal public transport movements.
- D. Variable Demand Multi-modal Transport Modelling and Public Transport Assignment Modelling: it considers how people travel and by what mode, providing further detail over highway assignment modelling to understand potential new trips associated with public transport use.
- E. Junction Models: used to test the detailed

- operation of priority junctions, roundabout and traffic signal arrangements.
- F. Micro-simulation Models: digitally reproduces the traffic patterns of vehicles or all road users to help test the detailed performance of junctions, corridors or networks.
- G. New Modelling Tools: such as PTV Model2Go, a cloud-based process that combines smart automation technology with various data source, or Digital Twins which simulate individual journeys to allow scenario-based simulation of future conditions. These tools are not readily available in EHDC.

 $C_{ass}$  Traffic Assignment: this method considers the use of the highway element of the highway assignment modelling for assignment purposes only.

#### Available Tools (Strategic Models)

The following strategic models are available in the EHDC planning area:

- North Hampshire Transport Model (NHTM), covering the north of EHDC's planning area. Its capabilities are:
  - Highway Assignment
  - Public Transport Assignment
  - Variable Demand Modelling (walk, cycle)
  - Mode choice: vehicle, public transport, walk and cycle.

The NHTM19 is focussed around the areas of Basingstoke and Andover and does not cover some areas in the north of EHDC's planning area, and where it does, the junctions are not modelled in detail.

- Solent Sub-Regional Transport Model (SRTM), covering the south of EHDC's planning area. Its capabilities are:
  - Highway Assignment
  - Public Transport Model
  - Airport, Seaport, and Park and Ride sites demand modelling

This SRTM covers the south of EHDC's planning area.

# **Executive Summary**

# Scoring and Preferred Transport Assessment Methodology

The scoring exercise undertaken in this study has been determined that the preferred assessment methodology would be a staged approach applying the following methodology combinations:

For the **Southern Area of EHDC**, where the SRTM can be used for Highway Assignment Modelling and Public Transport Modelling.

- 1. 'Living Locally' Accessibility Study
- 2. Bespoke Multi-criteria and Multi-scenario Tool
- 3. Multi-Modal Modelling this stage would identify the worst-case highway impacts and identify where mitigation might be required.
- 4. Detailed Junction Modelling to identify and refine detailed mitigation

For the **Northern Area of EHDC**, where the NRTM alone does not provide an accurate tool for assessment:

- 1. 'Living Locally' Accessibility Study
- 2. Bespoke Multi-criteria and Multi-scenario Tool
- 3. Traffic Assignment to assign the preferred option and/or alternative option(s) to understand the likely traffic routing and increases in traffic on the network.

4. Detailed Junction Modelling – to undertake junction impact testing and to identify and refine detailed mitigation





# MULTIDISCIPLINE PROPERTY AND CONSTRUCTION CONSULTANTS

### Chapter 1

Decide and Provide Transport Introduction

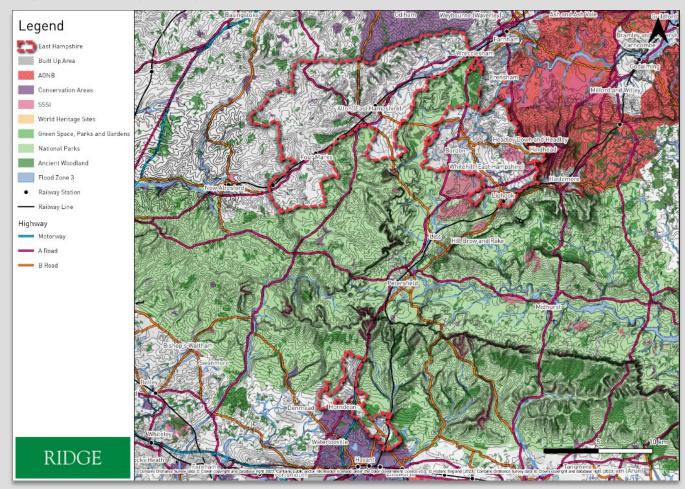
# An Introduction to East Hampshire

#### 1 1 Overview

- 1.1.1 East Hampshire is a rural authority with many areas that are poorly connected to public transport networks and some small villages that have few walkable or cyclable facilities. Even in some of the larger settlements (such as Whitehill & Bordon), public perception is that public transport options are insufficient and that there is no realistic alternative to the private car. Nevertheless, East Hampshire District Council (EHDC) wishes to challenge the car dependency of new developments as far as it is practicable to do so.
- 1.1.2 Figure 1.1 (right) shows the EHDC's planning area boundary, key settlements, designations and transport environmental infrastructure providing context to the district.
- 1.1.3 There are two parts to Ridge and Partners commission:
- 1. Living Locally the development of a methodology and accessibility analysis across East Hampshire District Council in terms of enabling local living (good proximity to daily facilities).
- 2. Decide & Provide advice on a methodology and provide suitable background data for a 'decide and provide' transport assessment.

This report covers the second part of this commission.

Figure 1.1 – East Hampshire in opportunities and constraints



# An Introduction to East Hampshire

#### 1.2. Background

- 1.2.1 'Transport evidence bases in plan making and decision taking' published in March 2015 on the UK Government website<sup>1</sup> states that "it is important for local planning authorities to undertake an assessment of the transport implications in developing or reviewing their Local Plan so that a robust transport evidence base may be developed to support the preparation and/or review of that Plan".
- 1.2.2 Paragraph 22 of the National Planning Policy Framework (NPPF) states that "strategic policies should look ahead over a minimum 15 year period from adoption, to anticipate and respond to long-term requirements and opportunities, such as those arising from major improvements in infrastructure."
- 1.2.3 This vision-led approach is captured by the Decide & Provide methodology, "a planning paradigm that is vision-led, rather than forecast led (Predict and Provide), and which aims to improve the resilience of planning decisions by taking account of deep uncertainty about the future". (Lyons and Davidson, 2016).
- 1.2.4 "There is a strong link between the places that we live and work and our health and wellbeing" and therefore it is important that we decide what place we want to create and plan the development and deliver the infrastructure needed to create that place.

- 1.2.5 There are two different transport models which cover East Hampshire: the North Hampshire Transport Model (NHTM) and the Solent Sub-Regional Transport Model (SRTM), neither of which cover the entire district in their core modelling study areas.
- 1.2.6 It is understood that running these two models is likely to be prohibitively expensive to test the potential impact of new development on transport networks and understand the environmental (air quality) implications for internationally designated habitats (SACs, SPAs).
- 1.2.7 EHDC is therefore interested in understanding alternative approaches to the use of these transport models, including those that would involve non-modelling resources and methodologies, for purposes of delivering a sound Local Plan.
- 1.2.8 This study informs a 'decide and provide' approach to transport assessment and investigates:
- 1. An appropriate methodology that will prioritise accessibility by sustainable transport modes (walking, cycling, public transport) without prejudice to meeting the other requirements of national planning policy (EHDC POINT 5).
- 2. Whether an alternative approach to using both the NHTM and SRTM strategic transport models is feasible and advisable in understanding the cumulative transport

- impacts of additional development allocated in the district's Local Plan, as well as any cross boundary impacts on neighbouring authorities. (EHDC POINT 6).
- Obtaining up-to-date baseline data for a suitable transport assessment (taking account of the outcomes to 1.) and 2.) (EHDC POINT 75).

1.2.9 HCC and National Highways (NH) are the local and strategic highway authorities, respectively. HCC has been engaged in this review and NH has been consulted.

#### References

- Transport evidence bases in plan making and decision taking GOV.UK (www.gov.uk)
- 2. <a href="https://www.ads.org.uk/resource/place-standard">https://www.ads.org.uk/resource/place-standard</a>





# MULTIDISCIPLINE PROPERTY AND CONSTRUCTION CONSULTANTS

Chapter 2
Decide and Provide
Research

### Research

#### 2.1 Guidance on Transport Evidence

- 2.1.1 Chapter 9 'Promoting sustainable transport' of the NPPF outlines the requirement for "all developments that will generate significant amounts of movements [...] so that the likely impacts of the proposal can be assessed". Transport Assessments are defined as "a comprehensive and systematic process that sets out transport issues relating to a proposed development. It identifies measures required to improve accessibility and safety for all modes of travel, particularly for alternatives to the car such as walking, cycling and public transport, and measures that will be needed deal with the anticipated transport impacts the development."
- 2.1.2 DLUHC and MHCLG guidance on 'Transport evidence bases in plan making and decision taking' <a href="https://www.gov.uk/guidance/transport-evidence-bases-in-plan-making-and-decision-taking">https://www.gov.uk/guidance/transport-evidence-bases-in-plan-making-and-decision-taking</a> outlines that it is important for local planning authorities to undertake an assessment of the transport implications in developing or reviewing their Local Plan.
- 2.1.3 The guidance states that "The key issues, which should be considered in developing a transport evidence base, include the need to:
- assess the existing situation and likely generation of trips over time by all modes and the impact on the locality in economic, social

- and environmental terms
- assess the opportunities to support a pattern of development that, where reasonable to do so, facilitates the use of sustainable modes of transport
- highlight and promote opportunities to reduce the need for travel where appropriate
- identify opportunities to prioritise the use of alternative modes in both existing and new development locations if appropriate
- consider the cumulative impacts of existing and proposed development on transport networks
- assess the quality and capacity of transport infrastructure and its ability to meet forecast demands
- identify the short, medium and long-term transport proposals across all modes"
- 2.1.4 "An assessment of the transport implications should be undertaken at a number of stages in the preparation of a Local Plan:
- as part of the initial evidence base in terms of issues and opportunities
- as part of the options testing
- as part of the preparation of the final submission"
- 2.1.5 "A transport assessment is likely to be scenario based and in terms of projections look at a range of potential outcomes given a number of assumptions, for example, a movement in the proportion of people using different forms of

transport consistent with best practice".

- 2.1.6 "In terms of road traffic, but not other types of traffic, where there is a need to project existing or historical traffic data for future year assessments, the preferred option is the use of appropriate local traffic forecasts (such as the Trip End Model Presentation Program used for transport planning purposes), provided they offer a robust assessment".
- 2.1.7 "The use of any area-wide traffic models or background growth rates should be agreed with the relevant transport or highway authority at the evidence gathering stage of the Local Plan. Care needs to be taken when considering using any model that it takes account of the need to address historic travel patterns not necessarily reinforce them".

### Research

#### 2.2 Research

2.2.1 This section includes a summary of the following key research:

- Place Standard Tool (Updated 2022)
- Vision & Validate (Professor Peter Jones, 2016)
- Scenario planning for transport practitioners (Professor Glenn Lyons, 2021)
- Decide & Provide Guidance (TRICS, 2022)
- DfT's Decide & Provide Policy, Circular 1/22( 2022)
- DfT Guidance Regarding Uncertainty (2022)
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#### Place Standard (Updated 2022)

2.2.2 Place Standard is a simple tool to structure a conversation about a place. It considers the physical and social aspects of places, and has 14 themes, each with a main question.

#### 2.2.3 The tool is designed to:

 Assess the quality of new and existing places to identify where improvements may be needed.

- Bring communities and the public, sector and third sectors together to deliver high quality places.
- Ensure people's physical and social environments support good health and wellbeing.
- Promote consistency so everyone in Scotland has an equal chance of living in a good quality place.

2.2.4 The tool uses a 1 to 7 scoring system, where 1 means there is a lot of room for improvement and 7 means there is very little improvement needed

2.2.5 Example of questions include:

- How easy is it to move around and get to where I want to go?
- What is public transport like in my place?
- Review process: consider which themes scored best, also whether there are priorities, and consider whether more detailed assessment is required.

Source - Place Standard tool Guidance - October 2022.pdf (ourplace.scot).

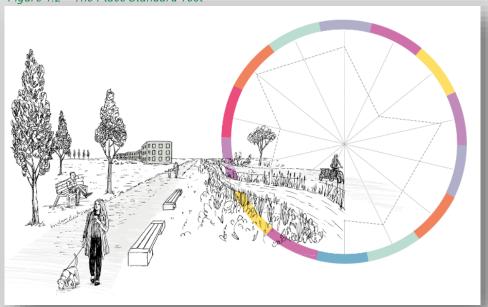


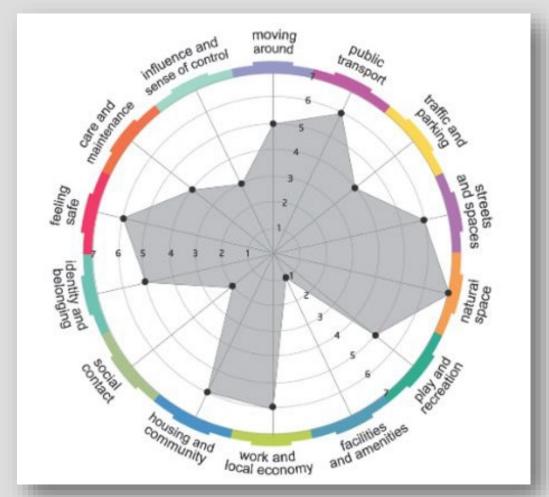
Figure 1.2 - The Place Standard Tool

### Research

2.2.6 The Place Standard Tool can help determine a vision for a place. The criteria includes aspects such as:

- Moving Around
- Public Transport
- Traffic and Parking
- Streets and Places
- Natural Space
- Play and Recreation
- Facilities and services
- Work and Local economy
- Housing and Community
- Social Interaction
- Identity and Belonging
- Feeling Safe
- Care and maintenance
- Influence and Sense of Control

Figure 1.2 – The Place Standard Tool



### Research

Vision & Validate (Professor Peter Jones, 2016)

2.2.7 Peter Jones, Professor of Transport and Sustainable Development, University College London prepared a presentation titled 'Transport planning: Turning the process on its head — From 'predict and provide' to 'vision and validate', presented at: Radical Transport Conference.

2.2.8 Although this focussed on cities, it highlights that inaccurate forecasting of car ownership and use can lead to major road building and environment and social impacts (predict & provide).

2.2.9 It was proposed that a 'Vision & Validate' approach would help to plan transport to achieve a vision rather than continuing to provide based upon past trends and delivering placing for cars and not people.

Scenario planning for transport practitioners (Professor Glenn Lyons, 2021)

2.2.10 Professor Glenn Lyons explains that "Scenario planning helps in contemplating how the future may develop and can be especially important when needing to make sense of uncertainty – something now pertinent to the transport sector.

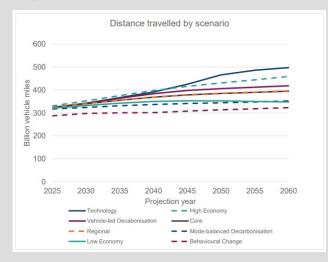
Accordingly, scenario planning is moving from the periphery of strategic transport planning towards becoming a more normalised and integral contribution. By examining rather than ignoring a range of uncertainties about the future, scenarios can be developed that enable an exploration of different futures, in turn improving transport planning.

Scenarios can be narrative based, represented quantitatively, or combine 'storytelling and number crunching'. Both the process of creating them and of representing the scenarios, deepen an appreciation of uncertainty about the future. In turn this allows planners and policymakers to better understand potential outcomes and challenges and determine how to address these.

Scenarios can also be used to identify and assess candidate measures for influencing the transport system, testing these against a range of uncertain future conditions. This helps to identify measures that together can help form a strategy that is more robust."

2.2.11 Glenn's paper provides "insights into the development of scenarios and their use to improve decision making in transport planning. It offers advice on how to help ensure the scenario development process is credible, how to produce a coherent set of scenarios and how to ensure they are used to engage key stakeholders and to enable policymakers to confidently develop their strategic thinking and plans."

Figure 1.3 - Government Road Traffic Forecasts



Source: National Road Traffic Projections 2022, DfT.

### Research

#### Decide & Provide (TRICS, 2022)

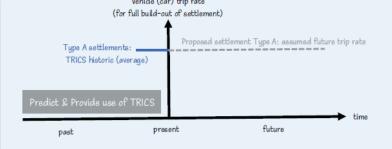
2.2.12 Basford Powers and Sterling Transport Consultancy, in conjunction with UWE (Professor Glenn Lyons) were commissioned to produce a TRICS Guidance Note on the Practical Implementation of the Decide & Provide Approach. The TRICS guidance suggests the following approach:

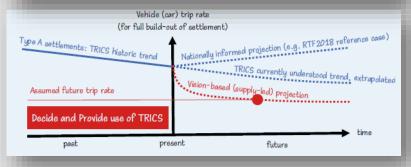
- Understanding the vision for the proposed development: Visioning is central to high quality place-making, creating better places to live, work and play. An upfront, clearly-stated placemaking vision is an essential starting point. The following questions should be answered:
  - What sort of place are we creating?
  - What kind of activities do we need or desire to travel for?

- How will we provide for mobility?
- 2. Understanding the quantum, scale and mix of the proposed development.
- 3. Use of historic data.
- 4. Use of current TRICS data.
- 5. Use of trends for forecasting future trip rates.
- 6. Developing the Monitoring and Evaluation Plan (MEP) the guidance recommends that an MEP is included in the Transport Assessment.

Source: trics dp guidance\_web.pdf.

# Figure 1.4- TRICS Predict & Provide (top) vs Decide & Provide (bottom) Vehicle (car) trip rate (for full build-out of settlement)





#### Vision and Validate

The D&P approach draws upon the 'Vision and Validate' concept first used by UCL Professor Peter Jones, which provides a response to emerging transport issues such as inability to build enough roads to avoid heavy congestion or uncertainties and unreliability of forecasts, by developing 'scenarios' based on varying assumptions about changes in 'drivers of demand' (e.g. incomes, fuel prices, etc.) and applying 'backcasting techniques' i.e how do we get to a future desired scenario from the present situation?

#### Predict & Provide

The Predict and Provide (P&P) paradigm, sometimes referred to as the 'rear view mirror' or 'business as usual' approach, essentially uses past or historical traffic and socio-economic trends to determine the future need for infrastructure.

It can be perceived as replicating and reinforcing the status quo. Traditional transport planning has, by default, used the P&P process using these past trends to forecast the transport needs of the future

#### Monitor & Manage

In the context of increasing uncertainty and the importance of building up an evidence base, monitoring outcomes is a fundamentally important aspect of the D&P approach. TRICS D&P Guidance recommends that a Monitoring & Evaluation Plan (MEP) is included as part of the planning process to support the D&P approach.

The key aim of MEPs is that, if transport outcomes depart from the trajectories contained within the transport strategy of the proposed development(s), then a mechanism to deal with the divergence from the vision is available. Usually this would be secured as part of a Section 106 Agreement.

### Research

# DfT's Decide & Provide Policy, Circular 1/22 (2022)

2.2.13 DfT's 'Strategic road network and the delivery of sustainable development' (December 2022) states that:

Para. 15: "The Transport Decarbonisation Plan and the Future of Freight Plan also recognise that local planning and highway authorities need help when planning for sustainable transport and developing innovative policies to reduce car dependency. This includes moving away from transport planning based on predicting future demand to provide capacity ('predict and provide') to planning that sets an outcome communities want to achieve and provides the transport solutions to deliver those outcomes (vision-led approaches including 'vision and validate,' 'decide and provide' or 'monitor and manage') [...]

Para 48: "Where a transport assessment is required, this should start with a vision of what the development is seeking to achieve and then test a set of scenarios to determine the optimum design and transport infrastructure to realise this vision [...]"

# DfT Guidance Regarding Uncertainty (2022)

2.2.14 There are a number of Department of Transport (DfT) Documents, which consider travel trends and future uncertainty:

- DfT Road Traffic Forecasts 2022 presents DfT's latest projections of road traffic, congestion and emissions for England and Wales (see Figure 1.3) (<u>National road traffic</u> projections 2022 (publishing service.gov.uk),
- TAG Unit M4 gives practical guidance for forecasting the impact of transport projects including option testing and appraisal (<u>TAG</u> <u>Unit M4 Forecasting and Uncertainty</u> (publishing.service.gov.uk),
- Uncertainty Toolkit sets out techniques for exploring uncertainty as part of transport modelling and appraisal, with a focus on the use of scenarios for assessing uncertainty around future travel demand. (<u>TAG</u> Uncertainty Toolkit (publishing.service.gov.uk)

2.2.15 It is important to understand how the outcomes of spending and policy proposals may differ under varying assumptions about the future so that Local Plan decisions are resilient to future uncertainty. Analysis and presentation of uncertainty enables analysts, scheme promoters, and decision makers recognise and account for the uncertainty they face. The common analytical scenarios are shown within **Figure 3.5**.

Figure 1.5 - TAG Uncertainty Toolkit

Table 6 Description of Common Analytical Scenarios						
Scenario	Narrative: "This scenario captures a future where"	Core features or components				
High Economy	productivity growth returns to its long-term trend, and people become richer than we currently expect. Migration, and population in general, increases above official forecasts.	GDP – 10% higher in 2050 relative to core assumptions Population - GB total reaches 77.7m by 2050 Employment - 12% higher in 2050 relative to core assumptions				
Low Economy	productivity growth fails to return to historic levels and inwards migration is subdued, causing low levels of total population growth.	GDP – 31% lower in 2050 relative to core assumptions Population - GB total reaches 64.6m by 2050 Employment - 7% lower in 2050 relative to core assumptions				
Regional	people leave London, the South East and the East of England in search of more affordable housing. As a result, there is lower employment and population growth in these regions relative to the rest of the country. Areas outside of the South increase their relative level of competitiveness through an increase in productivity.	Population/ Households/ Employment – core redistributed, so that regions outside London, the South East and the East of England grow at at least the growth rate of the whole country, if not already higher. London, the South East and the East of England are then adjusted downwards, so that the whole country's growth rate is maintained.				
Behavioural Change	people embrace new ways of working, shopping and travelling. Important behavioural trends which have emerged in recent years accelerate, in part because of the Covid-19 pandemic, which include: changes in the travel behaviour of young people; increased flexible working; and increased online shopping.	Trip Rates - extrapolation of existing trip rate trends by purpose, meaning overall trips continue to fall, although some purposes do increase Licence Holding - reduced rates among younger cohorts throughout forecast period LGV (Light Goods Vehicles, vans) trips - increased, reflecting reductions in shopping trips and an increase in deliveries from online shopping.				
Technology	road travel becomes far more attractive and accessible to road users because of a high take-up of connected autonomous vehicles (CAVs), which enter the fleet in the 2020s and make up to 50% of it by 2047.	Trip Rates – elderly trips rates increase after 2031 Licence Holding – rates increase after 2031 to over 92% by 2061, reflecting improved accessibility due to availability of CAVs Electric Vehicles – high uptake Value of Time – perceived time cost of travel falls Car occupancy – reduced to account for zero occupancy (empty running) trips				
Vehicle-led Decarbonisation	there is a high take up of electric and zero-emission vehicles (ZeVs). Tailpipe emissions fall. There is no intervention by government to increase electric vehicle costs, resulting in increasing road traffic.	Electric Vehicles – high uptake for both cars and freight, with no adjustment made to current costs Public transport – reduced as electric vehicles have a cost advantage				
Mode-balanced Decarbonisation	there is a high take up of electric and zero-emission vehicles (ZEVs). Tailpice emissions fall. An unspecified intervention leads to electric vehicle costs being equalised with petrol and diesel costs, so that public transport modal share is maintained.	Electric Vehicles - high uptake for both cars and freight, with running costs (fuel and non-fuel) equalised to internal combustion engine vehicles Public transport - modal share higher than the core. [note 30]				

### Research

# CIHT Better planning, better transport, better places (2019)

2.2.16 This advice provides practical steps for planning professionals, developers, advisers, and local councils, from developing a strategic or Local Plan to delivering a development.

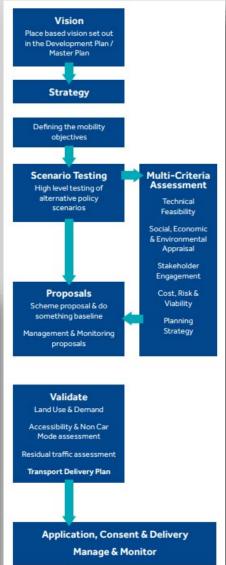
2.2.17 This advice seek to help create places that "meet the requirements of the 21st century in terms of all the critical elements of environmental, economic, and social sustainability, and responding to climate change, while also effectively delivering the homes needed will be possible. The effective integration of planning and transport is fundamental to achieving this objective."

2.2.18 The guidance start with the need to create a clear vision, which is collaborated upon. "Predict and provide models of transport planning should be abandoned and Local Plans should be assessed against health and well-being, lifestyle, and environmental criteria (including carbon emissions) – not just standard demographic and transport information."

# CIHT Better Fixing a Failing Planning and Transport System (2022)

2.2.19 This Call for Action sets out that "planning and transport policy is not delivering the sustainable developments needed, something that we can ill afford if the UK really wants to take action on the climate crisis. It set out 5 actions including government policy to deliver sustainable development, need for skills and experience, the location of development to be considered in communities accessible to public transport and active travel, local planning to prioritise development in sustainable locations and funding to be focussed on sustainable modes of transport.





### Research

# Oxfordshire D&P Transport Assessment Guidance (2022)

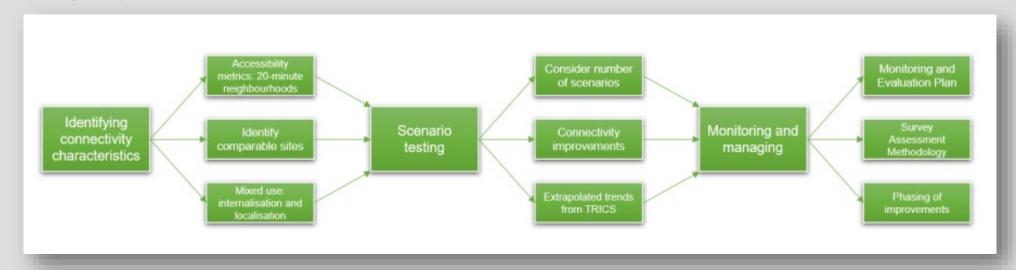
2.2.20 This document provides practical steps for planning professionals, developers, advisers, and local councils, from developing a strategic or Local Plan to delivering a development.

2.2.21 This advice seeks to help create places that "meet the requirements of the 21st century in terms of all the critical elements of environmental, economic, and social sustainability, and responding to climate change, while also effectively delivering the homes needed will be possible. The effective integration of planning and transport is fundamental to achieving this objective."

2.2.22 The guidance states the need to create a clear vision, which is collaborated upon:

"Predict and provide models of transport planning should be abandoned and Local Plans should be assessed against health and well-being, lifestyle, and environmental criteria (including carbon emissions) – not just standard demographic and transport information."

2.2.23 Appendix 1 of the documents sets out the implementation process in a flow-diagram, as shown below.







# MULTIDISCIPLINE PROPERTY AND CONSTRUCTION CONSULTANTS

Chapter 3

Decide and Provide

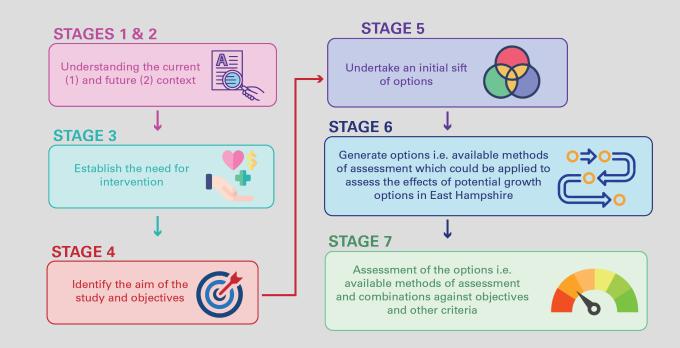
Determining a Transport Assessment Methodology

# Determining a Transport Assessment Methodology

#### 3.1 Stages

- 3.1.1 We have broadly followed the Transport Analysis Guidance (TAG) Transport Appraisal Process to help identify an appropriate 'Decide & Provide' Transport Assessment Methodology which includes the following steps:
- 1) Understanding the current and 2) future context
- The need for intervention
- Identify the aim and objectives
- Generate options, i.e. available methods of assessment
- Undertake an initial sift of options
- 7) Assessment of the options
- 3.1.2 These steps are illustrated in **Figure 3.1**.

Figure 3.1 - Stages in Determining an Appropriate D&P Transport Assessment Methodology



# Determining a Transport Assessment Methodology

# 3.2. Understanding the Current and Future Context

3.2.1 EHDC commenced work on a new Local Plan in January 2018, in line with the legal requirement to review local plans every 5 years. The emerging new Local Plan will cover those parts of East Hampshire outside of the South Downs National Park.

3.2.2 In February 2019, the first draft Local Plan (Regulation 18 of the Town and Country Planning (Local Planning) (England) Regulations) went out for public consultation. In September 2019, a second public consultation was undertaken on ten potential large development sites of 600 or more new homes plus supporting infrastructure.

3.2.3 The timetable for the Local Plan has been substantially affected by the COVID-19 pandemic; the Council's declaration of a climate emergency in July 2019; the Government's proposed changes to the planning system in August 2020; and a significant change to the number of new homes that would be required, per the Government's standard method for calculating housing need in 2022. Due to these substantial changes to context for plan-making, the Council took the decision to return to a discussion of the vision and key priorities for the Local Plan, rather than progress to the more detailed pre-submission plan (Regulation 19) stage. A further early-stage consultation with communities and other stakeholders, focusing on the climate emergency and housing numbers (amongst other important issues), was held from November 2022 to January 2023.

3.2.4 The Council's declaration of a climate emergency and its new target of providing netzero carbon development has changed the context for transport-related evidence for the Local Plan. The Council's Net Zero Carbon Study identifies that – as per the Government's national statistics on carbon dioxide emissions – greenhouse gas emissions associated with transport will be a substantial contributor to local emissions in East Hampshire. This presents a challenge, particularly in the context of the DfT's Decarbonising Transport – A Better, Greener Britain.

#### 3.3. The Need for Intervention

3.3.1 In preparing the next East Hampshire Local Plan, EHDC wishes to identify development patterns (and associated infrastructure) to help reduce car dependency, in order to help meet its target of providing net-zero carbon development, as well as aspirations to provide a safer, healthier and more active East Hampshire (East Hampshire Corporate Strategy 2020 -2024).

3.3.2 EHDC therefore seeks to develop a 'Decide and Provide' Transport Methodology to achieve these outcomes.

3.3.3 EHDC has requested that the following

points are investigated:

- Identify an appropriate methodology that will prioritise accessibility by sustainable transport modes (walking, cycling, public transport) without prejudice to meeting the other requirements of national planning policy (EHDC POINT 5).
- Establish whether an alternative approach to using both the North Hampshire Transport Model and Solent Sub-Regional Transport Model is feasible and advisable (EHDC POINT 6).
- Advise on the requirements to obtain up-todate baseline data for a suitable transport assessment. (EHDC POINT 7).

# **Determining a Transport Assessment Methodology**

#### 3.4. The Aim of the Study

3.4.1 The aim of the study is

"To develop an appropriate Transport Assessment methodology to help identify Local Plan development growth where there is greatest potential to create healthy, accessible and inclusive communities, without prejudice to meeting the other requirements of national planning policy."

3.4.2 Through discussion with East Hampshire District Council and Hampshire County Council, the objectives for formulating an appropriate Transport Assessment methodology are outlined in Table 4.1 below.

Table 3.1 - The Objectives

ID	OBJECTIVE	POLICY ALIGNMENT
1	To support the allocation of growth in areas where there is most potential for reducing the need to travel outside the local area i.e. within a 20min walk/ cycle (round trip).	EHDC's Local Plan 2021- 2040 (Issues and Priorities) – pg. 19
2	To support the allocation of growth in areas where there is most potential for sustainable travel both within and outside the local area.	EHDC's Local Plan 2021- 2040 (Issues and Priorities) – pg. 19 EHDC's Green Action Plan – Commitment 9
3	To minimise the climate impact associated with travel generated by growth	East Hampshire Net Zero Evidence Base Study – Priority 3  Hampshire Local Transport 4 (Draft) – Outcomes
4	To respect future uncertainties (policy, technologies and travel behaviours) associated with travel generated by growth	Scenario planning for transport practitioners (Glenn Lyons)  Decide & Provide TRICS Guidance
5	To meet national guidance for transport evidence bases in plan making and decision taking.	UK Government 'Transport Evidence Bases in Plan Making and Decision Making (UK Government) DfT's 'Strategic Road Network and the delivery of sustainable development' Circular 01/22 National Planning Policy Framework - Chapter 9 'Promoting Sustainable Transport'
6	To meet national guidance by considering the environmental impacts of traffic and transport infrastructure associated with growth	National Planning Policy Framework – Chapter 9 'Promoting Sustainable Transport', paragraph 104

# Determining a Transport Assessment Methodology

# 3.5 Available Methods of Assessment

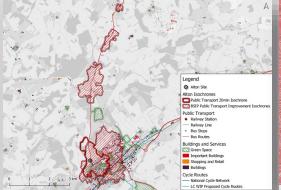
3.5.1 The following section provides a summary of seven broad methods of assessment, which could be applied (in isolation or in combination) to assess or test the effects of potential growth options in East Hampshire.

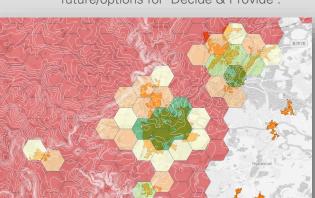
#### A. Accessibility Study

3.5.2 This is an analysis of the accessibility to local facilities and services, for example: schools, shops/local centres, open space, public services such as GPs, etc. and to transport services such as railway stations, bus stops, etc.

3.5.3 Usually accessibility is measured to a destination based on travel time by walking, cycling, public transport and vehicle, but distance and travel generalised cost can be used.

Figure 3.1 - Accessibility Analysis





3.5.4 These studies help to identify the relative accessibility of locations and can help identify what infrastructure is necessary to improve accessibility.

### B. Bespoke Multi-Criteria and Multi-Scenario Tool

3.5.5 There are a number of bespoke tools being developed by transport consultants to help forecast travel demands and mode shift. They use software, such as: Excel, TravelTime, Conveyal, TRACC, Podaris, PowerBI or bespoke tools, to analyse available data to review accessibility and travel trends and to forecast travel demands and mode shift.

3.5.6 These tools enable the appraisal of multi-criteria and/or multi-scenarios. They are generally based upon available data, such as census and National Survey Statistics. These tools are useful for scenario planning and to identify a preferred future/options for 'Decide & Provide'.

Figure 3.2 - Example MCMS Tool Output

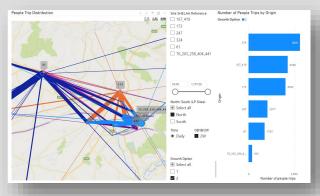
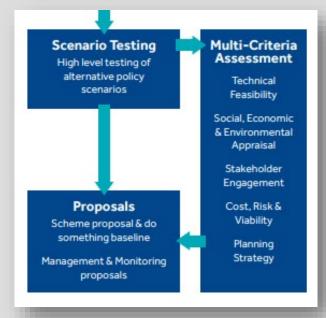


Figure 3.3 - Multi-Criteria and Multi-Scenario Assessment (source: CIHT Better planning, better transport, better places (2019)



Ridge and Partners LLP

# Determining a Transport Assessment Methodology

#### C. Highway Assignment Modelling (HAM)

3.5.7 Highway assignment modelling is a digital representation of a highway network, covering large distances made up of strategically important highway links and zones representing locations where vehicles enter and exit the model. It is a tool that considers traffic delay to help understand impacts of development or proposed highway schemes on the strategic highway network.

3.5.8 Highway assignment modelling focuses on private vehicles rather than multimodal public transport movements. It is used to inform decision making regarding where and what type of highway infrastructure should be invested through the development of business cases and provides detailed comparisons between different growth options, forecast years and highway network schemes. It is also used for environmental analysis and for inputs into the development of micro-simulation models.

Further information on guidance on Highway Assignment Modelling is provided

#### D. Variable Demand Multi-modal (VDM) Transport Modelling and Public Transport Assignment Modelling (PTAM)

3.5.9 Whilst highway assignment modelling is concerned with vehicle movement, demand modelling is concerned with individual traveller decisions. A Variable Demand Multi-modal (VDM) Transport Model provides further detail over a highway assignment modelling. It is also strategic in nature but considers how people

travel and by what mode. VDM takes into account generalised cost of travel, a weighted sum of time and other costs of travel. This provides further detail to understand potential new trips associated with public transport use, including bus and rail use, to provide evidence in enhancing new public transport initiatives.

Further information on guidance on VDM is provided within TAG unit M2.1.

#### E. Junction Models

3.5.13 Software such as Junctions, LinSig or TRANSYT can be used to test the detailed operation of priority junctions, roundabouts and traffic signal arrangements.

3.5.14 This software would generally be used to test and identify detailed mitigation.

#### F. Micro-simulation Models

3.5.15 Microsimulation software such as: VISSIM or PARAMICS digitally reproduces the traffic patterns of vehicles (PARAMICS) or all road users (VISSIM) to help test the detailed performance of iunctions and corridors (PARAMICS) or networks for transport movements (VISSIM).

3.5.16 This software would generally be used to test and identify detailed mitigation.

#### **G. New Modelling Tools**

3.5.10 PTV Model2Go - This is a new cloud-based process that combines smart automation technology with various data sources, including networks from HERE or TomTom, as well as public General Transit Feed Specification (GTFS) data on public transport networks, and OpenStreetMap data.

3.5.11 Digital Twins or "Agent-based" models e.g. Oxfordshire Mobility Model - These models simulate individual journeys. The interface is built on games-based interactions to make it more intuitive and easier to use to allow scenario-based simulation of future conditions and better incorporation of new modes of transport.

3.5.12 These are not readily available for this area. With the availability of a VDM and a PTAM, we would not recommend the use of new modelling tools, which are not generally in use and are challenging to validate to DfT's TAG requirements.

#### 3.6 Undertake an Initial Sift of Options

3.6.1 The use of G 'New Modelling Tools' has been sifted out because these tools are not readily available in EHDC's planning area.

# Determining a Transport Assessment Methodology

# 3.7 Available Tools (Strategic Models)

### Solent Sub- Regional Transport Model (Method C)

3.7.4 The Solent Sub-Regional Transport Model (SRTM) is a strategic multi-modal transport model. The model includes highway and public transport assignment elements. It considers:

- Highway assignment using SATURN, considering the following user classes: Car Business, Car Non-Commute, LGV and OGV.
- Public Transport Model included in CUBE. The SRTM does not include a VDM.
- In addition, demand associated with the Airport and Seaport, Park and Ride sites are also included.

3.7.5 SRTM has a base year of 2019 covering the districts of Southampton, Eastleigh, Fareham, Havant, Portsmouth, Gosport and the Isle of Wight, with parts of the districts of Winchester, New Forest and the Test Valley also being included. **Figure 3.4** shows the network coverage of the SRTM in black and the EHDC planning area.

3.7.6 The model includes four peak periods, a morning peak AM (07:00 to 10:00), inter peak – IP (10:00 to 16:00), evening peak – PM (17:00 to 18:00 and an off-peak (19:00 to 07:00).

3.7.7 The model is split into three modelling areas, these include:

- A Core Fully Modelled Area covering the districts of Eastleigh, Southampton, Fareham, Havant, Portsmouth, Gosport and the Isle of Wight, whilst parts of Winchester, Test Valley, New Forest and East Hampshire are also coded within the core area;
- A Marginal Fully Modelled Area, including the rest of the districts of the New Forest, Test Valley, Winchester, East Hampshire as well as parts of Chichester and Arun districts and;
- A Buffer/External Area covering the rest of the country.

3.7.8 This model could be used for the EHDC's southern planning areas.

3.7.9 The model operator (Systra) has advised against extending the model to cover the northern planning areas, as it would create a northern lobe to the SRTM that would be somewhat isolated from the rest of the areas in the model. This would also require significant investment.

3.7.10 The model components of the NHTM and SRTM and key differences between them are shown in **Table 3.1**.

### North Hampshire Transport Model 2019 (Method D)

3.7.1 The North Hampshire Transport Model (NHTM19) is a four-stage multi-modal transport model, designed to comply to Department for Transport's Transport Analysis Guidance (TAG). This model uses version 18 of the PTV Visum software suite. The model includes highway and public transport assignment elements along with a variable demand model (VDM) component that allows for cycle and walk as well as Park & Ride (P&R). It considers:

- Highway Assignment using PTV VISUM, considering the following user classes: Car Employer's Business; Car Commute; Car other; LGV, HGV.
- Public Transport Assignment, considering the following purposes: commute, business, education and other.
- Variable Demand Model: walk, cycle, P&R.
- Mode Choice: including vehicle, public transport (bus and rail), walk and cycle.
- 3.7.2 The NHTM has a base year of 2019 and includes three modelled time periods, an AM Peak hour (08:00 to 09:00), an average interpeak hour between 10:00 to 16:00 (IP) and a PM peak hour (17:00 to 18:00).

# Determining a Transport Assessment Methodology

3.7.3 The NHTM19's network is illustrated in **Figure 3.4** overleaf. Through conversations with the model operators (Jacobs), it is understood that the NHTM19 does not cover some areas in the north of EHDC's planning area, and where it does, the junctions are not modelled in detail.

3.7.4 Three alternative options were identified through discussions regarding the NHTM and SRTM operators and EHDC:

- 1. Building a new strategic transport model for EHDC. This would involve high investment of funds and time, and unlikely to be feasible.
- 2. Extension of the NHTH. It is understood that the cost and time implications of this option are likely to be unacceptable.
- 3. Use the NHTM to generate development flows and for assignment purposes. This would inform separate detailed junction modelling.

#### Traffic Assignment (Model Cass)

3.7.5 As outlined in 3.7.4, option 3 Traffic Assignment uses the highway element of the NHTM for assignment purposes only.

3.7.6 There are some disadvantages of using a 'Traffic Assignment' method (Model  $C_{ass}$ ) over a highway assignment model (or multimodal/variable demand model):

Traffic routing may not be as accurately

predicted when the Local Plan development causes a change in performance/congestion, as the NHTM is less detailed in the outlying parts of the model.

- This method may not consider as accurately reassignment of traffic as a result of Local Plan development, as more detailed modelling.
- Only provides high-level impacts, therefore step 4 'detailed modelling' is required to understand junction impacts,
- Greater survey data collection is necessary for Step 4.

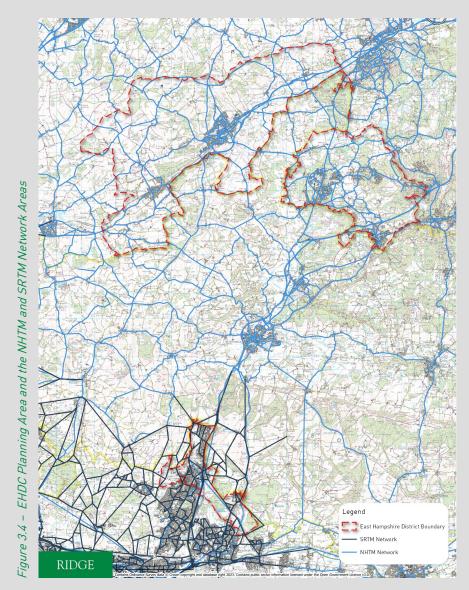
3.7.7 It is understood that Local Authorities that have implemented a similar methodology are:

- Tendring District Council Tendring District Local Plan was adopted in January 2022.
- Colchester Borough Council
- Castlepoint District Council

EHDC POINT 6. WHETHER AN ALTERNATIVE APPROACH TO USING BOTH THE NHTM AND SRTM STRATEGIC TRANSPORT MODELS IS FEASIBLE AND ADVISABLE

# **Available Tools (Strategic Models)**

Model components		NHTM		SRTM		
	AM	Peak (08:00 - 09:00)	AM	Peak (08:00 - 09:00) Peak (17:00 -18:00) rs southern areas of		
Time Periods	Inter	Peak (10:00 - 16:00)				
	PM	Peak (17:00 -18:00)	PM Peak (17:00 -18:00)			
Network	Basir Covers n	used on the areas of ngstoke and Andover orthern areas of EHDC's g area, but not in detail		ers southern areas of s planning area in detail		
Highway assignment						



# Determining a Transport Assessment Methodology

#### 3.8 Assessment of Options

3.8.1 The options associated with the available methods of assessment have been reviewed against the objectives and other criteria to help decision making, broadly aligning to TAG, as set out in 3.1.1.

#### Score Against the Objectives

3.8.3 A score of 1 (indicating lowest potential) to 4 (indicating highest potential) has been given to each method of assessment based upon its potential to meet each objective.

#### Criteria

- 3.8.4 Consideration has also been given to whether HCC and NH would support the methodology and also the relative cost involved with applying that method.
- 3.8.5 The ranking of the 'HCC/NH Approval' criteria is based upon the tools that have been traditionally accepted by local highways authorities and the early engagement with NH in September 2023. This may differ with regards to a Decide & Provide approach.
- 3.8.6 The cost will depend on different factors, including the number of model runs required. This is a relative and indicative guide only.

#### Scoring

3.8.7 The methods of assessment have been scored individually in Table 3.2 and in combinations in **Table 3.4**.

# Determining a Transport Assessment Methodology

Table 3.2 - Methodology Options (Selected)

			Score Against The Objectives (1 to 4)						Criteria	
ID	Methodology	1	2	3	4	5	6	HCC/NH Approval	Cost	
А	Accessibility Study	4	2	2	2	2	2		£	
В	Bespoke Multi-Criteria and Multi-Scenario Tool	3	4	4	4	3	3		££	
С	Highway Modelling	1	1	1	1	2	2		£££	
D	Variable Demand Multi Modal Transport Modelling	2	3	3	3	4	4		££££	
E*	Junction Models	0	0	0	0	1	1		££££	
F*	Micro-simulation Models	0	0	0	0	1	1		£££££	

<sup>\*</sup>the application of these methodologies in isolation is considered unsuitable for the purpose of an appropriate D&P Transport Assessment

Table 3.3 - The Objectives

	· · · · · · · · · · · · · · · ·
ID	OBJECTIVE
1	To support the allocation of growth in areas where there is most potential for reducing the need to travel outside the local area i.e. within a 20min walk/ cycle (round trip).
2	To support the allocation of growth in areas where there is most potential for sustainable travel both within and outside the local area.
3	To minimise the climate impact associated with travel generated by growth
4	To respect future uncertainties (policy, technologies and travel behaviours) associated with travel generated by growth
5	To meet national guidance for transport evidence bases in plan making and decision taking.
6	To meet national guidance by considering the environmental impacts of traffic and transport infrastructure associated with growth

Table 3.4 - The Criteria

ID	CRITERIA
Criteria 1	To achieve approval of the methodology from Hampshire County Council.
Criteria 2	To achieve approval of the methodology from National Highways.
Criteria 3	Cost

# **Determining a Transport Assessment Methodology**

Table 3.5 - Methodology Combinations

		Score Against The Objectives (1 to 7)						Crit	Criteria	
ID	Combinations	1	2	3	4	5	6	HCC/ NH Approval	Cost	
Н	A+B	7	5	5	5	5	3		£££	
	A+C(+E/F)	7	3	3	2	3	4		££££	
J	A+D(+E/F)	7	4	4	3	6	5		fffff	
K	B+C(+E/F)	5	5	5	7	4	6		£££££	
L	B+D(+E/F)	5	6	6	7	7	7		ffffff	
M	A+B+C(+E/F)	7	7	7	7	7	7		<b>111111</b>	
Ν	A+B+D+(E/F)	7	7	7	7	7	7		<del>1111111</del>	
0	A+B+C <sub>ass</sub> +E/F	7	7	7	7	7	7		ffffffff	
Р	A+B+D <sub>ass</sub> +E/F	7	7	7	7	7	7		<b>£££££££</b>	

<sup>(+</sup> E/F) – Detailed junction modelling would be undertaken to identify and refine mitigation

Table 3.6 – Available Methodologies of Assessment for Reference

ID	T00L
А	Accessibility Study
В	Bespoke Multi-Criteria and Multi-Scenario Tool
С	Highway Assignment Modelling
D	Variable Demand Multi-Modal Transport Modelling (VDM) or Public Transport Assignment Model (PTAM)
E	Junction Models
F	Micro-simulation Models

C<sub>ass</sub> +E/F – If the highway or multi-modal model is unsuitable, the model could be used for assignment purposes only. Junction impact testing would then be carried out to determine any impacts, with detailed junction modelling required to identify and refine mitigation.





# MULTIDISCIPLINE PROPERTY AND CONSTRUCTION CONSULTANTS

Chapter 4

Decide and Provide

Transport Assessment Methodology

# Transport Assessment Methodology

#### 4.1 Preferred Method

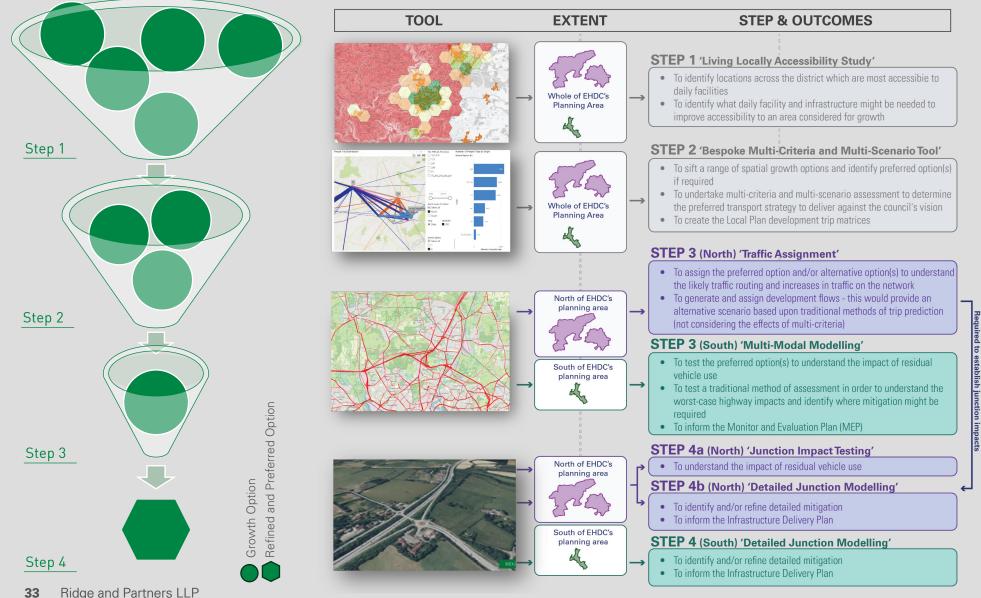
- 4.1.1 This option assessment process has identified a preferred 'Decide & Provide' methodology (taking account of available tools) for each area:
- Northern Area ABC<sub>ass</sub>+E/F Methodology Combination: Accessibility Study + Bespoke Multi-Criteria and Multi-Scenario Tool + Traffic Assignment (only) + Detailed Junction Modelling (junction impact testing and identification of mitigation)
- Southern Area ABD (plus E/F)
   Methodology Combination: Accessibility
   Study + Bespoke Multi-Criteria and Multi Scenario Tool + Variable Demand Modelling +
   Detailed Junction Modelling (identification of mitigation)
- 4.1.2 While the overall approach and steps are similar for the northern and southern areas of EHDC's planning area, the key difference is that:
- For Northern area: 'Detailed Junction Modelling' (using E/F Tools) would be required to test the impact on junctions, as well as to identify mitigation – see methodology on page 32.
- For Southern area 'Detailed Junction Modelling' (using E/F Tools) would generally only be required to identify and/or refine detailed mitigation - see methodology on

page 32.

- 4.1.3 It is considered that the above methodologies would perform the highest against the objectives for a 'Decide & Provide' transport assessment methodology for EHDC's new Local Plan, with the greatest likelihood support from the local highways authority (HCC) and strategic highways authority (NH). The cost of ABD (plus E/F) is likely to be moderately higher than ABC<sub>ass</sub>+ E/F, however ABD (plus E/F) methodology would provide additional benefits:
- It considers generalised cost of travel to make decisions about mode choice/shift.
- It considers public transport capacities
- It considers the effects of new/improved public transport infrastructure and services for both existing and development trips.
- It considers reassignment or rerouting of existing and development traffic when routes become congested.
- 4.1.4 The recommended methodology combinations for the southern and northern areas of EHDC's planning area are illustrated on the following page.

EHDC POINT 5. AN APPROPRIATE
METHODOLOGY THAT WILL PRIORITISE
ACCESSIBILITY BY SUSTAINABLE
TRANSPORT MODES (WALKING, CYCLING,
PUBLIC TRANSPORT) WITHOUT PREJUDICE
TO MEETING THE OTHER REQUIREMENTS OF
NATIONAL PLANNING POLICY

# Transport Assessment Methodology - Preferred Method



# Transport Assessment Methodology - Preferred Method

#### 4.2 Data Collection

4.2.1 Data collection will be required, but the requirements will not be known until the assessment steps 1 to 3 are completed.

#### North of EHDC's Planning Area

4.2.2 Surveys will be required at junctions where Step 3 indicates there is significant impact.

#### South of EHDC's Planning Area

4.2.3 It is understood that in the south of EHDC's planning area, the SRTM 2019 could require updating to be WebTAG compliant, however this is yet to be confirmed. Alternatively, data collection would only be required where mitigation is required, so that detailed junction modelling is carried out based up to date and detailed traffic data.

#### **Data Collection**

4.2.4 Data collection will include:

- Manual Classified Turning Counts (MCTCs) to be undertaken on a neutral weekday covering the AM and PM peak periods (standard practice is 07:00 – 19:00 data collection) at junctions where impacts have been identified.
- Automatic Traffic Counts (ATCs) at each arm

of the junctions, for a full neutral week (24h x 7day period) to validate the MCTC data.

4.2.5 It may be necessary to collect the following data if any high demands for non-car use or for informing forecasts for non-car use:

- Patronage on bus services
- Trips to/from railway stations
- Use of local cycle/pedestrian routes

EHDC POINT 7. OBTAINING UP-TO-DATE BASELINE DATA FOR A SUITABLE TRANSPORT ASSESSMENT (TAKING ACCOUNT OF THE OUTCOMES TO 5) AND 6))





# MULTIDISCIPLINE PROPERTY AND CONSTRUCTION CONSULTANTS

Chapter 5
Decide and Provide
Monitoring and Evaluation Plan

# Monitoring and Evaluation Plan

#### 5.1 Monitoring and Evaluation

5.1.1 Development Plans should be monitored against the vision and objectives set for the Local Plan and/or specific development, with the aim to maximise active travel and public transport improvements (instead of highway mitigation).

"Monitoring seeks to check progress against planned targets and can be defined as the formal reporting and evidencing that spend and outputs are successfully delivered, and milestones set." (Monitoring and Evaluation Strategy Guidance, DfT, 2013)

"Evaluation is a systematic assessment of the design, implementation, and outcomes of an intervention. It involves understanding how an intervention is being, or has been, implemented and what effects it has, for whom and why." (Magenta Book - Central Government Guidance on Evaluation, HM Treasury, 2020: 15)

5.1.2 The traditional approach to Transport Assessment does not prescribe Monitoring and Evaluation. The TRICS D&P Guidance (November 2022) states:

"[Monitoring and Evaluation] is key in being able to respond to uncertainty in a changing world. Strong planning should include design provision that allows for adaptation over time – in response to changing circumstances. Rather than designing for the 'worst', design instead is focused upon intending to achieve the 'best' while being prepared to respond, through the build-out period and ongoing changing behaviours, to what may further be required."

# 5.2 Developing a Monitoring and Evaluation Plan (MEP)

5.2.1 It is recommended that there is a requirement for each Local Plan development site to develop a Monitoring and Evaluation Plan (MEP). MEPs could be secured at each development site via a S106 Agreement and cover:

- Vision and objectives of the LP development site, which represent the preferred scenario.
   Additional scenarios should be considered in e.g. less desirable futures, in the event the vision cannot be realised.
- Appropriate transport infrastructure to be provided by each LP site at each stage of development, including earliest and latest delivery (or contribution) to transport infrastructure.
- Triggers for the highway mitigation measures and target peak hour trip generation for each stage of development; and
- Timing of the monitoring and evaluation reports, setting out the mechanisms to deal with any divergence from the targeted trip

scenario and associated transport infrastructure.

5.2.2 The MEP cycle is illustrated below.

Figure 5.1 – MEP Cycle

