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Transport Topic Paper

AtkinsRéalis

Bath & North East Somerset Council

Improving People's Lives

Transport Topic Paper

Bath and North East Somerset Council

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BATH AND NORTH EAST SOMERSET LOCAL PLAN

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1. Introduction

1.1 Purpose of this document

This Transport Topic Paper presents the strategic transport evidence that supports preparation of the new Bath & North East Somerset (B&NES) Local Plan. It explains how transport issues have informed plan-making from the outset and sets out a proportionate, plan-level basis for accommodating growth in a way that promotes sustainable movement, reduces carbon emissions and improves accessibility. The paper draws together robust evidence to demonstrate that the Local Plan's transport approach is coherent, realistic and aligned with national expectations for decarbonisation and inclusive connectivity.

The Topic Paper is central to demonstrating soundness, deliverability and policy justification of the transport proposals to support the new Local Plan. It shows that the strategy is positively prepared and justified by robust evidence; that it is effective because interventions are targeted to where they can be delivered and make a measurable difference; and that it is consistent with vision-led national policy by prioritising walking, wheeling, cycling and public transport and reducing reliance on private car travel.

B&NES is one of the constituent authorities of the West of England Mayoral Combined Authority (WECA). WECA is the Transport Authority for the area covering B&NES, Bristol and South Gloucestershire, and has a statutory duty to prepare the Local Transport Plan. It is therefore essential that the B&NES Local Plan is fully aligned with WECA transport policies and the Joint Local Transport Plan (JLTP). B&NES works closely with the other constituent authorities to promote sustainable travel and deliver a well-connected, inclusive and low-carbon transport network across the West of England.

The authorities have also made significant investments in building the transport evidence base. This includes the development of the West of England Regional Transport Model ('WERTM')[1]. This transport model has been built according to the Department for Transport's Transport Analysis Guidance[2] and it therefore provides a robust basis for the assessment of transport policies and schemes.

WERTM is being actively used for the development of Local Plans of other authorities within the region, and business cases for a number of transport programmes and schemes, and it provides an appropriate framework for testing of the Local Plan. AtkinsRéalis has undertaken further enhancements to the model in the B&NES area to represent local conditions in more detail to support the Local Plan.

WERTM has therefore been used to help inform the evidence on current and forecast future transport conditions across the area. This has, in turn, been used to inform the assessment of different options for accommodating new homes and jobs across B&NES, for testing the impacts of the emerging preferred strategy, and for scoping and testing of potential transport mitigation measures.

B&NES has also worked closely with partners (including National Highways, WECA and adjoining councils) to review the evidence on current and forecast travel conditions and develop mitigation proposals.

This strong analytical foundation has helped to ensure strong understanding of the critical challenges to be addressed, and to inform development of an effective approach to mitigation. This approach means that the transport components of the Local Plan are:

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[1] Transport modelling - West of England Combined Authority
[2] Transport analysis guidance - GOV.UK

- Positively prepared: because the identified transport requirements are based on clear understanding of the relationships between the spatial strategy and the transport system.
- Justified: because the transport requirements are based on a robust and credible evidence base, which has also informed development of both the spatial strategy and transport strategy.
- Effective: because there is a clear understanding of how the components of the transport strategy would work in practice, supported by strong joint working across the area.
- Consistent with national policy: because there is a strong focus on applying sustainable travel principles from all local authorities in the West of England.

Decision-makers should now take a “vision-led” approach to transport planning. This means a move away from simply predicting peak car traffic and improving the road network to reduce traffic delays. Instead, where possible, decision-makers should build a clear vision for local areas and identify the blend of transport policies and infrastructure required to achieve this vision, with a strong focus on more sustainable forms of travel. It has been known for several years that simply building more roads will lead to more car use, termed ‘induced demand’. The focus is now to think more holistically about the needs of different places, with planning of a wider range of travel options to proactively influence people’s travel choices.

1.2 Structure of this report

This report is structured as follows:

- Chapter 2 presents the vision for transport in B&NES. It sets out the guiding principles, which were developed from the outset of the development of the Local Plan, and considers how these principles have helped to shape the overarching Local Plan vision. These principles have played a critical role in shaping the locational strategy and approach to developing the Local Plan transport strategy.
- Chapter 3 sets out the transport policy context: national, regional and local, which provides further context to the development of the Local Plan transport strategy.
- Chapter 4 summarises the evidence on the transport issues, drawing on previous evidence developed at earlier stages in the Local Plan process, providing updates with more recent evidence, and using strategic modelling to forecast future travel demand and transport challenges.
- Chapter 5 provides an overview of the Local Plan spatial strategy and uses the strategic transport model to forecast potential changes in travel demand and transport conditions.
- Chapter 6 describes the process of developing the transport strategy, which has been shaped by the vision, existing strategies and the evidence on the impacts of development in the Local Plan. It explains the rationale for the preferred approach, describes each component of the strategy, and then presents forecasts of the impacts on travel demand and network conditions.
- Chapter 7 then concludes by describing the approach to the delivery of the transport strategy.

2. Vision for transport

2.1 Introduction

B&NES developed initial baseline transport evidence[3] for the new Local Plan in February 2024. From this early stage, it set a clear Transport Vision and Objectives for the new Local Plan[4]. This vision sets the long-term direction for managing growth and transport across the district to 2042, ensuring that the council's approach is aligned with its Corporate Strategy, the Climate Emergency declaration, Local Transport Plan and the Transport & Development SPD.

It is also important to take account of strategies that have recently been developed, including the Active Travel Masterplan[5], Creating Sustainable Communities Strategies[6], and Movement Strategy for Bath[7]. The vision therefore provides the overarching framework for shaping transport policy, assessment, and mitigation throughout the Local Plan process.

This Topic Paper reaffirms the adopted vision and explains how the principles have helped to shape the supporting transport strategy for the Local Plan. It demonstrates how the vision has informed the appraisal of development locations, informed assessment of transport impacts, and guided the development of the transport strategy centred on mode shift, decarbonisation, accessibility and placemaking. In doing so, the Topic Paper translates the high-level vision into a practical, decision-making framework that has shaped the spatial strategy and its supporting transport interventions.

2.2 Guiding principles

The B&NES transport vision expresses a clear ambition to support planned growth while fundamentally rebalancing the transport network in favour of sustainable modes. The vision emphasises that people should be able to access the places, services and opportunities they need as sustainably as possible, and recognises that the historic "predict and provide" model of continuously accommodating private car growth is no longer viable. Instead, the district seeks to shift towards a network that prioritises sustainable mobility, reduces car reliance, and supports healthier, more resilient communities. The vision is structured around four outcome pillars:

- Positive contribution towards zero-carbon mobility and climate resilience.
- Equitable and inclusive access to transport for all.
- Health and wellbeing of local communities.
- Creating better places across the district.

These outcomes directly support the wider Local Plan ambition to create sustainable, climate-resilient and people-friendly places.

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[3] Local Plan Options Evidence Base: Transport | Bath and North East Somerset Council
[4] Local Plan Transport Vision and Objectives
[5] Active Travel Masterplan | Bath and North East Somerset Council
[6] Creating sustainable communities: Journey to Net Zero | Bath and North East Somerset Council
[7] Movement Strategy for Bath

Guiding Principles (Vision Objectives)

The vision is supported through five transport objectives, each aligned with the Sustainable Travel Hierarchy and designed to ensure that growth locations support sustainable travel choices and reduce reliance on private vehicles.

- Objective 1 - Reduce the need to travel:
  - To retain and provide jobs, services and community facilities close to where people live, enabling shorter journeys and reducing the need to travel, especially by car. New and existing communities benefit when essential services are located within accessible, sustainable locations.
- Objective 2 - Improve health and wellbeing through active travel:
  - To promote walking, cycling and wheeling, and reduce the negative effects of traffic such as air pollution and congestion. A comprehensive active travel network allows shorter journeys to be made sustainably and contributes to social, environmental and public health benefits.
- Objective 3 - Improve public transport accessibility and integration:
  - To deliver a connected public transport network supported by integrated travel hubs, enabling seamless end-to-end journeys. New development should be well linked to rail, bus and shared mobility options, ensuring convenient alternatives to private car use.
- Objective 4 - Deliver fairer economic growth through inclusive transport:
  - To create a socially inclusive transport system that removes barriers to travel and supports equitable access to employment, education, services and community life. Transport should meet diverse user needs and reduce inequalities created by car-dependent systems.
- Objective 5 - Create better places and a climate-resilient network:
  - To design safe, attractive and climate-resilient streets and neighbourhoods. High-quality public realm, green infrastructure and reduced car dominance help create environments that support active travel and enhance quality of life.

Together, these objectives provide a consistent basis for designing mitigation that supports the Local Plan's sustainable development goals.

2.3 Relationship to the Local Plan vision

The transport vision directly reinforces and underpins the wider Local Plan vision. It provides the strategic framework for shaping the spatial strategy, ensuring that growth is directed towards locations that can support sustainable travel, reduce car dependency and foster healthier, more accessible and more resilient communities. The Vision and Objectives document explicitly states that they provide a framework for assessing development proposals and form the basis for the transport strategy that supports the Local Plan.

By embedding sustainable mobility principles into site selection, infrastructure planning and policy development, the transport vision ensures that the Local Plan can deliver development that aligns with climate objectives, improves access to services, strengthens local economies and contributes to high-quality places across B&NES.

3. Transport policy

This chapter provides an overview of the national, regional, and local transport policies that have influenced the development of the new Local Plan.

3.1 National policy

National transport policy provides the overarching framework within which the new Local Plan must be prepared. Current policy places strong emphasis on delivering a safe, reliable, accessible and low-carbon transport system, with local authorities expected to demonstrate how growth can be accommodated in a way that supports sustainable travel, reduces carbon emissions, and improves quality of life.

National Planning Policy Framework (NPPF) (December 2024, minor revisions February 2025)
The National Planning Policy Framework (NPPF) sets out the Government's policies for achieving sustainable development through the planning system. The December 2024[8] version of the NPPF has been used to inform the development of the B&NES Local Plan. Chapter 9 of this version of the NPPF specifically addresses sustainable transport and highlights that transport issues must be considered at the earliest stages of plan-making so that development patterns support efficient, safe and inclusive movement.

The NPPF states that significant development should be focused in locations that are, or can be made, sustainable. This includes directing growth to places where people can meet daily needs locally, where walking and cycling are realistic for shorter trips, and where high-quality public transport can serve longer-distance journeys. The Framework therefore places strong national emphasis on reducing car dependency by shaping development around places that offer a genuine choice of travel modes.

For B&NES, this requires ensuring that new development is located in areas that can be effectively supported by sustainable transport — such as established settlements, rail-served corridors, and locations where investment in walking, cycling and public transport can be delivered efficiently. The emerging Local Plan must demonstrate how its spatial choices reflect these national expectations and reduce the need to travel by private car.

The sustainable transport principles within the NPPF underpin the structure of this Transport Topic Paper: Chapter 4 sets out the key transport issues and the opportunities across B&NES to support new development with a range of travel choices. Chapter 5 describes the process of developing the spatial strategy and modelling of the impacts on travel demand and network performance. Chapter 6 describes the process of development and testing of a vision-led transport strategy, ensuring that the Local Plan is directly aligned with NPPF requirements.

New NPPF (August 2026)
The Government published the new National Planning Policy Framework (NPPF)[9] on 17 August 2026. This has been launched following previous consultation on reforms to the planning system. It replaces the December 2024 NPPF and establishes a clearer, more comprehensive and rules-based national planning framework. The new structure distinguishes between policies for plan-making and national policies for decision-making, while reaffirming that the planning system should be genuinely plan-led and should guide development towards sustainable solutions.

[8] [ARCHIVED CONTENT] UK Government Web Archive - The National Archives
[9] National Planning Policy Framework - GOV.UK

The NPPF places transport at the heart of sustainable place-making. Chapter 15, **Promoting sustainable transport**, establishes a vision-led approach through Policies TR1 to TR8. Its objective is to ensure that transport considerations are fully integrated into the preparation of development plans and the evolution and assessment of development proposals, recognising the role that transport infrastructure and travel choices can play in creating well-designed, sustainable, inclusive and popular places. A vision-led approach is defined as setting outcomes for a development and identifying the transport solutions needed to achieve them, rather than predicting future demand and simply providing additional highway capacity.

The August 2026 NPPF strongly reinforces the approach adopted in this Transport Topic Paper. The B&NES transport vision was established early in the Local Plan process and has been used to guide the spatial strategy, assessment of potential development locations, identification of transport issues and development of the preferred transport strategy. This is consistent with Policy TR1's requirement for sustainable transport to form an integral part of the plan vision and for land-use choices, transport evidence and planned investment to be considered together.

Transport Decarbonisation Plan (July 2021)

The Transport Decarbonisation Plan ('Decarbonising Transport: A Better, Greener Britain', July 2021)[10] described the (previous) Government's plan for decarbonisation of the UK's transport system. This highlighted the scale of the challenge in meeting the Government's commitments and set out a comprehensive action plan to decarbonise cars and vans, buses and coaches, freight, railways, and the maritime and aviation sectors. It focusses on increasing walking and cycling for shorter trips, promoting growth in bus patronage, and providing more capacity on the rail network to accommodate growing passenger and freight demand. It also sets out the national strategy to accelerate adoption of zero emissions cars and vans and plans to support the transition to zero emissions goods vehicles.

The Decarbonisation Plan proposes place-based approaches that respond to the needs of different areas, with a key leadership role for local authorities. It sets out that local transport funding will be reformed to support decarbonisation objectives and highlights the importance of effective spatial planning in reducing the need to travel.

The spatial strategy set out in the Local Plan is designed to meet these objectives, by locating new homes close to existing employment and amenities, which will reduce distance travelled and provide a wide range of travel choices, and therefore reduce car dependency in new development. Chapter 5 of this Transport Topic Paper provides further detail.

Bus Back Better: National Bus Strategy (March 2021)

Bus Back Better[11] (March 2021) is the national bus strategy for England. It sets out the Government's vision for transforming bus services, introducing new ways of working and identifying opportunities for long-term investment. The strategy acknowledges the recent decline in bus use across much of England and identifies barriers to bus travel, while highlighting successful initiatives such as the metrobus investment within the West of England.

It emphasises that buses should be more frequent, faster, and more reliable, while also being cheaper, easier to use, and better integrated across modes. It also stresses the need for stronger collaboration between local transport authorities and bus operators, including through Enhanced Partnerships and potential steps towards franchising.

By October 2021, all local transport authorities were required to publish a Bus Service Improvement Plan (BSIP) aligned with their Local Transport Plan. BSIPs must set targets for journey times, identify bus priority needs,

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[10] Transport decarbonisation plan - GOV.UK
[11] Bus back better - GOV.UK

improve passenger satisfaction, and consider fares, ticketing and multimodal integration. The BSIP for the West of England (which includes B&NES) is described in Section 3.2 below.

Bus Services Bill (December 2024) and Devolution White Paper

In December 2024, the Government announced a new Bus Services Bill[12] designed to change how bus services operate across England. The Bill proposes giving local authorities greater powers over routes, timetables, fares and network integration, enabling them to shape services more effectively around local policy objectives.

At the same time, the Government published the Devolution White Paper[13], setting out proposals for extending devolved powers to local government. This includes expanded responsibilities for transport and spatial planning, ensuring local authorities have greater influence over how transport networks support sustainable development and local priorities. Together, these national developments strengthen the role of local authorities in designing, managing and delivering bus networks, reinforcing the importance of integrated planning across transport and land use.

Transport for City Regions (TCR) Funding Programme (launched June 2025)

Transport for City Regions (TCR) is a new UK Government funding programme (announced in the 2025 Spending Review)[14] that provides £15.6 billion over 2027/28 to 2031/32 for nine large city-region authorities. Its purpose is to enhance local transport networks with long-term, consolidated investment, in line with national policy objectives — boosting economic growth, supporting new housing delivery through better transport links, and decarbonising transport by promoting public transport and active travel.

Under this programme, the West of England Mayoral Combined Authority (WECA) - which includes B&NES - has been allocated £752 million for 2027–2032. This record investment will support key local transport priorities such as developing a regional mass transit system and improving bus and rail services. These projects align with national goals for decarbonisation, housing and economic growth by reducing car dependency, connecting new development areas, and improving access to jobs. The multi-year TCR settlement also gives B&NES and its partners greater certainty to plan transport infrastructure alongside the Local Plan, ensuring that critical schemes can be delivered to support sustainable growth in the area.

Better Connected: a Strategy for Integrated Transport (April 2026)

Better Connected: a Strategy for Integrated Transport[15] sets out the Government's long-term vision for a people-focused, integrated transport system in England, intended to address long-standing fragmentation between modes, services and decision-making. The strategy is underpinned by three guiding principles — People, Place and Partnership — which emphasise designing transport around users' needs, using transport to create better-connected and more successful places, and delivering outcomes through collaboration between national government, local leaders and the transport sector.

These principles are supported by eight national priorities, including simplifying journeys and payments, improving reliability and safety, enhancing accessibility and affordability, creating healthier communities, aligning transport and development, championing data and technology, empowering local leaders, and improving the use of data and appraisal. The strategy promotes a shift away from mode-specific approaches towards a whole-journey, place-based perspective, recognising that travel behaviour is shaped by how well different modes connect and operate as a system.

It supports prioritising sustainable modes for shorter journeys, while ensuring that the wider transport network functions effectively where car use remains necessary. Through its emphasis on integration, user experience

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[12] Government News Release on Bus Services Bill
[13] English Devolution White Paper - GOV.UK
[14] Transport for City Regions funding allocations - GOV.UK
[15] Better Connected: a strategy for integrated transport - GOV.UK

and coordinated decision-making, Better Connected provides a clear national framework for shaping transport systems that support economic growth, accessibility, health and environmental outcomes in a joined-up way.

Government Vision for Buses and Approach to Delivery (April 2026)

The Government's vision for buses is for them to form the backbone of an integrated, reliable and accessible local transport system, supporting everyday journeys and providing an attractive alternative to car travel. Delivery is centred on strong partnership working between local authorities and operators, supported by Bus Service Improvement Plans (BSIPs), enhanced partnership and franchising powers, and targeted funding. The approach focuses on improving service reliability and frequency, passenger information, ticketing integration and bus priority, with solutions tailored to local circumstances and coordinated with wider transport objectives.

Recent Government funding announcements provide greater delivery confidence for this approach. The Local Authority Bus Grant now provides multi-year revenue allocations to local transport authorities, bringing together funding previously associated with Bus Service Improvement Plans and local authority bus support into a single, more flexible funding stream. This is intended to end short-term funding cycles and give local authorities greater certainty to plan service improvements, maintain socially necessary services and invest in routes, fares, zero-emission buses and passenger infrastructure.

In parallel, the Transport for City Regions settlement (see below) provides the West of England with a multi-year consolidated transport funding allocation for 2027/28 to 2031/32, supporting investment in integrated public and sustainable transport networks. Together, these funding settlements will support the deliverability of the Local Plan transport strategy by providing a clearer basis for programming bus service enhancements, interchange improvements and supporting infrastructure over the Plan period.

Local Transport Plans: Statutory Guidance (April 2026)

The statutory guidance on Local Transport Plans (LTPs)[16] sets out how local transport authorities in England are expected to prepare, maintain and implement LTPs in line with requirements under the Transport Act 2000. The guidance confirms that LTPs are strategic, statutory documents that establish a long-term framework for delivering safe, integrated, efficient and sustainable transport across all modes, including walking, cycling, public transport and the local road network. It emphasises that transport systems should be planned in a holistic and place-based way, recognising their close relationship with housing, economic activity, access to services and environmental outcomes.

The guidance expects LTPs to be vision-led, evidence-based and proportionate, clearly setting out challenges, objectives and interventions, and to be kept under regular review as circumstances change. It highlights the importance of integration with wider policy frameworks, including spatial planning, climate change mitigation and adaptation, public health and economic strategies. Local authorities are encouraged to work collaboratively with neighbouring authorities, infrastructure providers and stakeholders, and to use robust data and analysis to support transparent decision-making and prioritisation. Overall, the statutory guidance positions LTPs as central tools for coordinating transport investment and policy in support of long-term, sustainable outcomes.

Cycling and Walking Investment Strategy (CWIS3) (June 2026)

The Third Cycling and Walking Investment Strategy (CWIS3)[17] sets a new national vision that by 2035, 55% of all short trip stages (under 5 miles) in towns and cities will be walked or cycled, with active travel becoming a safe, easy and accessible choice for everyone. Supporting targets include 60% of children aged 5-16 usually walking or cycling to school by 2035, 5.3 million more physically active people, 2.2 billion additional walking stages, 600 million additional cycling stages, reduced road casualties and improved perceptions of personal safety. The strategy places particular emphasis on three themes: improving public health and physical activity,

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[16] Local transport plans - GOV.UK

[17] Active Travel - Active England: the Third Cycling and Walking Investment Strategy (CWIS3)

integrating active travel with public transport and new development, and improving safety, especially for children, women and disabled people.

Over the period 2025/26 to 2029/30, CWIS3 focuses on creating safe routes to schools, developing a national active travel network, and strengthening local authority delivery capability. Key commitments include a national Safe Routes to School programme, powers to tackle pavement parking, updated street design and traffic-sign guidance, a £10 million Streets Innovation Fund, enhanced cycle parking at rail stations, and the creation of a nationally coherent walking and cycling network with consistent wayfinding and digital mapping by 2030. The strategy is backed by over £4.5 billion of projected investment, comprising £1.1 billion through Active Travel England and a further £3.4 billion from wider transport and government funding streams.

3.2 Regional policy

B&NES sits within the West of England Mayoral Combined Authority (WECA), which is the statutory Transport Authority for the region. Transport planning and investment across B&NES is therefore shaped by a suite of WECA-led regional strategies that collectively set the long-term direction for sustainable mobility, decarbonisation and strategic connectivity. These policies provide the overarching regional framework within which the B&NES Local Plan is being developed.

Joint Local Transport Plan 4 (JLTP4) (adopted March 2020)

JLTP4[18] sets the transport vision for the West of England to 2036 and outlines the region-wide approach to delivering a well-connected, sustainable network that offers greater travel choice and supports a reduction in car dependency. It emphasises improved public transport, enhanced walking and cycling networks, better integration between modes, and measures that support reliable and resilient movement along key corridors including the Bristol–Bath corridor and wider strategic routes. JLTP4 also embeds a strong commitment to tackling congestion, reducing carbon emissions and improving air quality, supported by policies focused on mode shift, demand management and targeted infrastructure investment.

West of England Local Cycling and Walking Infrastructure Plan (LCWIP, 2020–2036) (adopted June 2020)

The LCWIP[19] identifies strategic cycling and walking corridors across the West of England and sets out the long-term programme of investment required to deliver a high-quality active travel network by 2036. It outlines priority routes in Bath, Keynsham, the Somer Valley and Bristol, and provides a consistent methodology and design framework for developing active travel infrastructure. The LCWIP forms a key component of the wider regional ambition to make walking and cycling the preferred choice for shorter journeys.

WECA Rail Delivery Plan 2020-2030 (adopted December 2020) and MetroWest Programme

The WECA Rail Delivery Plan[20] and MetroWest programme outlines improvements to the rail network over the next decade, strengthening regional rail connectivity and expanding passenger capacity through new stations, higher service frequencies and step-free access upgrades. Key interventions include MetroWest Phases 1 and 2, investment at Bristol Temple Meads, and enhancements on the Bath Spa, Oldfield Park and Keynsham corridors. Together these programmes form the backbone of improved regional rail accessibility and support a greater shift towards sustainable travel across the West of England.

[18] Joint Local Transport Plan - Combined Authority
[19] Local cycling and walking infrastructure plan - West of England Combined Authority
[20] 10-year rail delivery plan - West of England Combined Authority

West of England Bus Service Improvement Plan (BSIP) (October 2021)

The regional BSIP[21] sets out a comprehensive plan to transform bus travel, focusing on service frequency, reliability, affordability, multimodal integration and enhanced passenger facilities. It builds on the West of England Bus Strategy and outlines a programme of improvements that includes increased bus priority, better interchanges, simpler and integrated ticketing, and a transition to zero-emission vehicles. The ambition is to deliver a coherent, turn-up-and-go network that supports significant modal shift across the region.

West of England Growth Strategy (October 2025)

The strategic growth context for B&NES is set by the West of England Growth Strategy[22], prepared by WECA in partnership with the constituent authorities, including B&NES. The Strategy establishes a long-term framework for delivering economic growth over the coming decade, with a focus on securing investment, delivering new homes and jobs, and improving transport connectivity to support productivity and quality of life. It promotes a spatial approach based on a network of "Growth Zones", including Central Bristol and Bath (and the Bristol to Bath corridor) and the Somer Valley within B&NES, where growth and infrastructure investment are to be co-located.

The Strategy explicitly recognises that growth will be underpinned by significant enhancements to the transport network, enabling better connectivity between key economic centres and supporting more sustainable travel patterns. This provides a clear regional policy context for the Transport Topic Paper, which aligns with this approach by demonstrating how the Local Plan spatial strategy and associated transport interventions are integrated to support growth in accessible locations, reduce reliance on the private car, and deliver sustainable, transport-led development across the district.

West of England Transport Vision (February 2026)

In February 2026, the West of England Combined Authority (WECA) published a new Transport Vision[23] setting out a long-term framework for delivering a reliable, integrated and sustainable transport network across the West of England, including B&NES. The vision aims to support forecast growth, improve quality of life, reduce congestion and emissions, and provide a transport system that people can trust.

The vision is structured around five priorities: better buses (reliable, affordable services with integrated ticketing), more trains (new stations and increased frequencies), mass transit (a high-capacity system linking key centres including Bath), active travel (enhanced walking, wheeling and cycling networks), and improved streets and places (including EV charging, Park & Ride and travel hubs). The Transport Vision provides the strategic regional context within which B&NES transport policies and infrastructure proposals are expected to align, supporting sustainable travel, accessibility and economic growth.

Transport for City Regions Fund (launched June 2025)

Transport for City Regions funding[24] is a multi-year settlement from the Department for Transport (DfT) to mayoral combined authorities, including WECA, to support strategic transport investment. Through the Spending Review, WECA has confirmed an allocation of approximately £752 million to deliver improvements to mass transit, rail, bus and wider transport networks across the region. Funding is not provided as a single allocation to schemes. Instead, funding is made available subject to WECA governance and assurance processes, with individual schemes required to secure approval of business cases in line with DfT and WECA requirements. Funding can then be drawn-down to support delivery once approvals are in place.

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[21] Bus Service Improvement Plan - West of England Combined Authority
[22] West of England Growth Strategy - West of England Combined Authority
[23] West of England Transport Vision - West of England Combined Authority
[24] Transport for City Regions funding allocations - GOV.UK

West of England Mass Transit Programme (ongoing)

The Mass Transit Programme sets out long-term proposals for high-capacity, segregated public transport corridors across the region, including the Bristol-Bath corridor and the Bath-Somer Valley corridor. These proposals seek to provide faster, more reliable and high-quality public transport services capable of meeting future demand and significantly reducing reliance on private car travel. The programme represents a transformational transport vision for the region, complementing investment in bus, walking and cycling infrastructure and forming a central pillar of the West of England's future mobility strategy.

Emerging Joint Local Transport Plan 5 (under development)

The new Joint Local Transport Plan 5 (JLTP5) is being prepared to reflect changes in national policy, net zero commitments, the post-COVID travel context and evolving expectations for public transport and active travel. The emerging plan builds on JLTP4 but places a much stronger emphasis on decarbonisation, widescale shift to sustainable modes, the role of mass transit, future mobility solutions and integration of land-use and transport planning. Evidence development has included a long list of regional schemes assessed through a multi-criteria framework to understand how best to deliver the region's long-term carbon, growth and connectivity goals.

3.3 Local policy

The approach to transport planning in B&NES is guided by a suite of locally-developed, district-wide strategies that collectively set the direction for sustainable mobility, decarbonisation and improved connectivity. These policies establish how movement, place-making and future growth should be planned across the district, ensuring transport remains central to tackling the Climate Emergency and improving quality of life. Together, they provide the strategic framework within which the new Local Plan is being prepared, shaping the evidence base and ensuring that future development supports a low-carbon, accessible and well-connected B&NES.

B&NES Climate Emergency Strategy (2019–2030) (March 2019)

B&NES Council declared a Climate Emergency in March 2019, committing to provide the leadership needed to achieve district-wide carbon neutrality by 2030. The Strategy[25] sets the overarching direction for planning and infrastructure policy, recognising that meeting the 2030 target requires a fundamental shift across all sectors of the community, supported through coordinated action and strong governance embedded into wider Council strategies. This includes integrating climate objectives into all major policy areas which directly influences the new Local Plan.

Journey to Net Zero: Reducing the Environmental Impact of Transport in Bath (May 2022)

Journey to Net Zero (2022)[26] sets out B&NES long-term transport strategy to reduce the environmental impact of travel and support the area's response to the Climate and Ecological Emergency. The plan identifies the current and future transport challenges facing Bath and highlights the need for significant change to ensure the transport system supports net-zero ambitions. It brings together existing commitments, programmes already in progress, and a suite of future measures required to cut transport emissions, improve public realm and create healthier, more accessible places across the district. The strategy emphasises the need to give people better travel choices — through improved public transport, enhanced walking and cycling provision, cleaner school travel, and future mobility options — to shift travel behaviours and reduce the dominance of private car use.

For the new Local Plan, Journey to Net Zero establishes a clear evidence base and direction for transport policy. It outlines the need for development to support sustainable movement, reduce transport emissions, and accommodate major modal shift by aligning land-use patterns with low-carbon travel.

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[25] Read our Climate Strategy and Action Plan | Bath and North East Somerset Council

[26] Journey to Net Zero final report | Bath and North East Somerset Council

B&NES Corporate Strategy (Adopted July 2023)

The Corporate Strategy[27] is the Council's overarching plan, centred on the single purpose of improving people's lives. It contains two core policies — tackling the climate and nature emergency and giving people a bigger say — and sets out three guiding principles: preparing for the future, delivering for local residents and focusing on prevention. These are supported by nine priority areas, including providing the right homes in the right places, expanding travel choices, and creating clean, safe and vibrant neighbourhoods.

For the Local Plan, the Corporate Strategy provides a clear strategic framework requiring future development to support net-zero, nature-positive growth, improved travel options, and healthier, better-connected communities. Its focus on climate action, sustainable neighbourhoods and long-term resilience means the Local Plan must align land-use, transport and infrastructure decisions with the Council's wider priorities for community wellbeing, sustainability and inclusive economic development.

Local Plan Options Evidence Base Transport Vision & Objectives (Published February 2024)

The Transport Vision and Objectives[28] form a core part of the Local Plan Options Evidence Base, setting out what B&NES aims to achieve through transport planning and how these aims should be delivered over the new Local Plan period. The vision reflects the Council's ambition to deliver planned growth while decarbonising the transport network, ensuring people can access the places, services and facilities they need as sustainably as possible. It emphasises the opportunity to develop transport interventions that respond to future growth while also benefiting existing communities, supporting a step-change in active travel and public transport provision across the district.

For the Local Plan, the Vision and Objectives directly shape the transport evidence base by setting the criteria against which all mitigation measures are assessed. This ensures that the new Local Plan contributes to a robust, future-focused transport strategy that aligns with the Corporate Strategy, Climate Emergency commitments and wider transport policy framework.

Creating Sustainable Communities: The Journey to Net Zero (Published February 2025)

Creating Sustainable Communities[29] sets out holistic, place-based transport strategies focused on Keynsham & Saltford, the Somer Valley, Hicks Gate and Whitchurch Village. The strategies aim to create better-connected, healthier and more sustainable communities by reducing the environmental impacts of transport, improving air quality, tackling congestion, and supporting action on the Climate Emergency. The individual strategies collectively emphasise that sustainable communities depend on a transport system that offers a wide range of genuinely viable travel choices enabling people to walk, wheel, cycle and use public transport more easily. The strategies also outline the need to plan transport as a joined-up network, ensuring seamless movement between modes and enabling multi-purpose trip-making without reliance on the private car.

For the Local Plan, the strategies provide a clear framework for aligning spatial planning with sustainable transport outcomes. They highlight the need for development to actively support expanded travel choice, reduce car dependency, and meet both current and future mobility needs through short-, medium- and long-term interventions across the district. The strategies therefore form a key evidence base for transport infrastructure planning contributing to the creation of sustainable, low-carbon and well-connected communities across B&NES.

Active Travel Masterplan (Adopted February 2025)

The Active Travel Masterplan[30] sets out a comprehensive, 20-year plan for delivering a district-wide network of safe, accessible and interconnected walking, wheeling and cycling routes. Its core purpose is to make active travel the natural choice for short everyday journeys, addressing the fact that over a third of car trips in B&NES

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[27] Corporate Strategy 2023-2027 | Bath and North East Somerset Council
[28] Bath and North East Somerset New Local Plan Transport Vision and Objectives
[29] Creating Sustainable Communities Programme | Bath and North East Somerset Council
[30] Active Travel Masterplan | Bath and North East Somerset Council

are under 5 km. The Masterplan responds directly to the Climate Emergency by identifying the infrastructure and connections required to link homes with jobs, schools, services and public transport, while reducing carbon emissions, improving air quality and enhancing safety for all users.

For the Local Plan, the Masterplan provides a key evidence base for shaping the transport strategy by defining where active travel infrastructure is required to support growth. The plan establishes the standards and network principles that transport assessments, mitigation strategies and master planning work must follow — ensuring that emerging development supports a coherent, high-quality active travel network aligned with B&NES' net-zero ambitions and commitments to healthier, more inclusive and better-connected communities

Movement Strategy for Bath (Adopted July 2026)

The Movement Strategy for Bath[31] sets a 10-year plan for transforming how people and goods move around the city, responding to challenges such as 36% of local emissions coming from transport, high congestion, and unreliable bus services. It establishes three strategic objectives: creating great-quality places, improving travel choices, and reducing private vehicular traffic, supported by 15 levers including safer, greener streets, better bus and active travel routes, and traffic and parking management.

For the Local Plan, the Strategy provides the framework for testing transport interventions, ensuring development supports a shift away from car dependency and accommodates future travel demand — around 294,000 daily trips today and a forecast +21,000 without intervention. It guides evidence gathering and mitigation design so that growth will align with Bath's goals for net-zero transport, improved reliability, and safer, more accessible movement networks.

[31] Movement Strategy for Bath

4. Transport issues

This chapter presents evidence on the current transport issues in Bath and North East Somerset. It describes the transport network, accessibility and current travel choices, forecast travel demands, and current and future performance of the transport network. This provides essential evidence to inform the selection of sites and Locational Strategy for the Local Plan, and in understanding the opportunities to support sustainable modes of travel and to minimise impacts of new development on the road network.

B&NES faces a set of inter-related transport challenges. These include strong car dependency for travel across much of the district; significant variation in connectivity between Bath, the main towns and rural areas; increasing future pressure on constrained corridors arising from background growth and development in neighbouring authorities; and forecast growth in car travel that is inconsistent with climate, air quality and placemaking objectives. Together, these issues provide the baseline context against which the Local Plan's transport strategy, site selection and mitigation measures must be developed.

4.1 Bath & North East Somerset's transport network

The transport analysis presented in this section is informed by the Mobility Study[32] which drew on a comprehensive set of technical studies and datasets to support the development and assessment of the emerging Local Plan growth strategy. The transport network has developed around a combination of historic settlements, constrained urban environments and dispersed rural communities, resulting in a network that performs differently by location and mode. Overall, the transport network of B&NES is characterised by constrained road corridors, geographically uneven public transport, and variable active travel provision. These structural characteristics help explain existing travel patterns and present a challenge for accommodating growth in a way that will improve accessibility, reduce car dependency and support climate and placemaking objectives.

Road network

There are no motorways in B&NES. The main modern dual carriageway is the A46/A4 east of Bath, built as the Swainswick and Batheaston bypass and forming part of the Strategic Road Network (SRN), managed by National Highways. The A36 south-east of Bath forms part of the Strategic Road Network (SRN), while the remainder of the road network is managed by B&NES Council as the local highway authority. Figure 4-1 shows the main roads in B&NES. These include:

- A46, which connects from the M4 motorway (Junction 18) to Bath — at its southern extent it forms a bypass to the east of Bath, then connecting to the A4, which then continues eastward to Chippenham.
- A36, which connects Bath to Warminster and the south east.
- A4 connecting Bristol to Bath, passing adjacent to Keynsham and through Saltford village, then extending through Bath city centre, continuing eastwards to Corsham and Chippenham in Wiltshire.
- A368 connecting from Weston-Super-Mare to Bath, passing through Bishop Sutton and Harptree.
- A37 connecting Bristol to Yeovil, passing through Whitchurch village, Pensford, Temple Cloud, Clutton and Farrington Gurney.
- A39 from Bath to Wells and beyond, passing through the rural heart of the district: Marksbury, Farmborough, High Littleton and Hallatrow.
- A367 from Bath to the Mendips, around Peasedown St John, through Radstock in the Somer Valley.
- A362 from Farrington Gurney (junction with A37) to Frome, passing through Midsomer Norton and Radstock.

[32] Local Plan Options Evidence Base: Transport, Report: Report Network Mobility Study 2023-02-03

Public transport

Figure 4-2 shows the current public transport network in B&NES. There are four rail stations (Keynsham, Oldfield Park, Bath Spa and Freshford) within the district, with Bristol Temple Meads Station also easily accessible. These rail stations are all located in the north of the district which limits rail accessibility for residents located in the south. Bath Spa and Bristol Temple Meads are served by frequent services to local, regional and national destinations, whilst Keynsham, Oldfield Park and Freshford provide services to local destinations.

Bath is served by an extensive bus network, providing frequent services within the City and to destinations further afield. Park and Ride buses serve Bath City Centre from the edge of the City at Lansdown, Newbridge and Odd Down. Bus services in the rural areas are generally more limited with low frequencies and limited destinations. A lower population over a large geographical area presents a challenge to providing commercially viable bus services to all areas of the district and recent cuts to funding bus services have particularly impacted rural areas. WECA's Bus Strategy and Bus Service Improvement Plan (BSIP) is supporting continued improvements to bus services, including enhancements to network coverage, service reliability and journey times. Further improvements are also being delivered through the City Regions Sustainable Transport Settlement (CRSTS) programme, including the Bristol to Bath corridor and Somer Valley Links project.

Active travel and micromobility

The district's varied topography and dispersed settlement patterns create challenges for walking and cycling, with most high-quality routes concentrated in Bath and other urban areas. While the district benefits from National Cycle Network routes (see Figure 4-3) and extensive Public Rights of Way, gaps in connectivity limit their usefulness for everyday travel, particularly between towns and surrounding villages. Many cycle routes are fragmented, and there is a clear need to expand and connect the network with Quiet, Quick and Strategic Routes to support different users and trip types. In addition, the public realm in many town and village centres is of low quality, with inconsistent footways, missing dropped kerbs and pedestrian-unfriendly layouts.

B&NES Council is proactively addressing these issues, through the Active Travel Masterplan, adopted in February 2025, which sets out a district-wide approach to creating a safer, more connected network that supports everyday cycling and reduces reliance on cars[33]. Within Bath, the council is developing strategic corridors identified through the Local Cycling and Walking Infrastructure Plan (LCWIP), moving away from fragmented advisory lanes toward continuous, higher-quality routes. The Bath Walking, Wheeling and Cycling Links programme will deliver 6.2 km of new or upgraded connections, linking Weston, the city centre, Newbridge and the Royal United Hospital[34].

Beyond Bath, the district is strengthening connectivity through additional corridors aligned with its active travel priorities. The Somer Valley Links project will introduce over one kilometre of new cycleways, more than 5km of improved footways and 25 new pedestrian crossings on the A37 and A367 routes, enhancing links between Midsomer Norton, Radstock, Peasedown St John and Bath.[35] In south Bath, the Scholars' Way scheme will deliver a mile of upgraded walking and cycling infrastructure connecting residential areas and schools[36].

The West of England's e-scooter trial has become the most popular in the country, recording over 7.3 million journeys since launching in 2020 and offering both hop-on/hop-off trips and long-term rentals. Initially providing 50 scooters in B&NES, the scheme has since expanded through a new 2023 service with 500 shared e-bikes and e-scooters plus 20 e-cargo bikes, creating a broader micromobility offer and presenting clear opportunities to extend coverage beyond Bath to places such as Keynsham and Midsomer Norton.

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[33] Active Travel Masterplan | Bath and North East Somerset Council
[34] https://www.bathnes.gov.uk/bath-walking-wheeling-and-cycling-links-scheme
[35] https://www.bathnes.gov.uk/somer-valley-links
[36] https://www.bathnes.gov.uk/scholars-way

Figure 4-1 Road network in B&NES

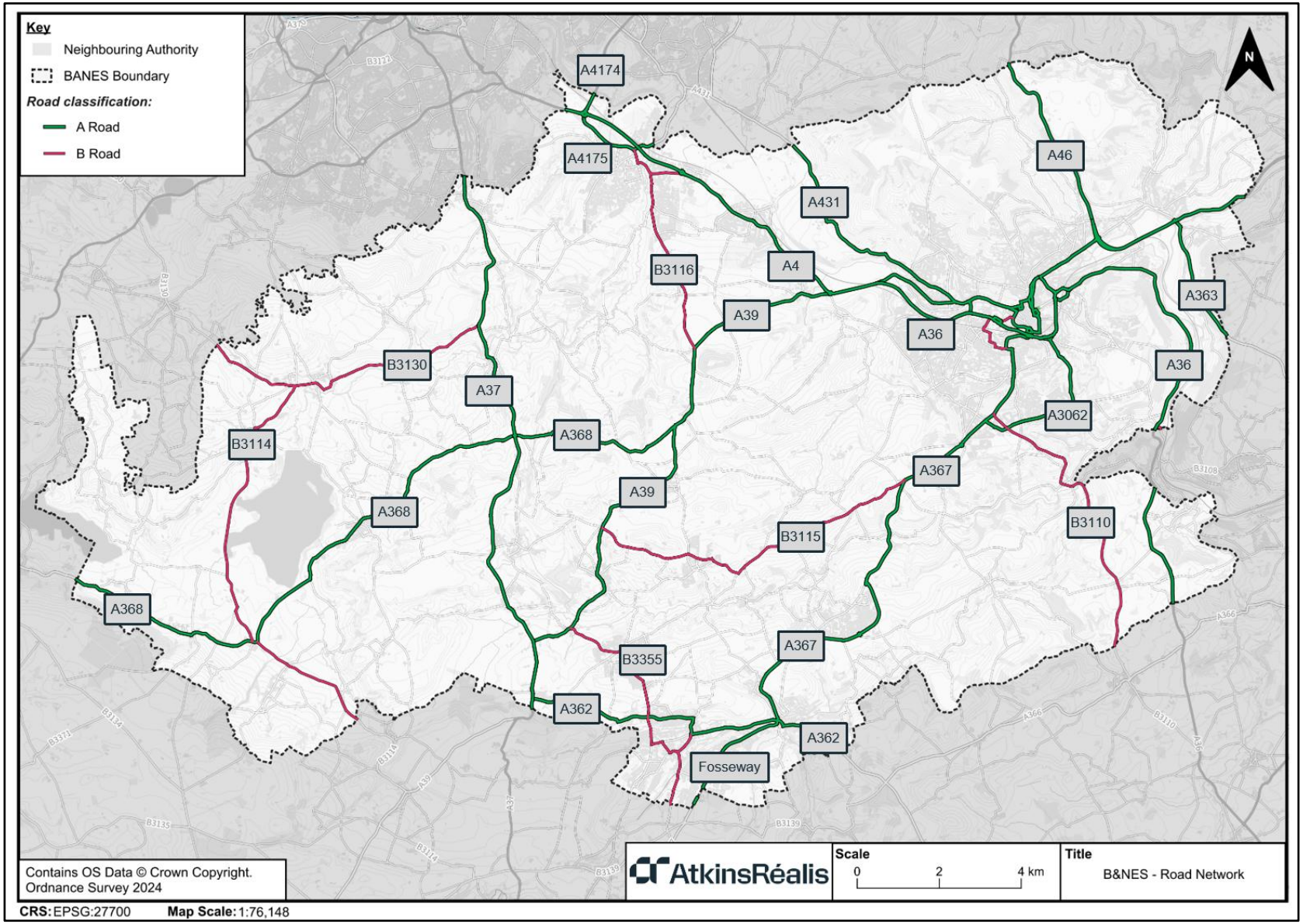


Figure 4-2 Existing public transport in B&NES

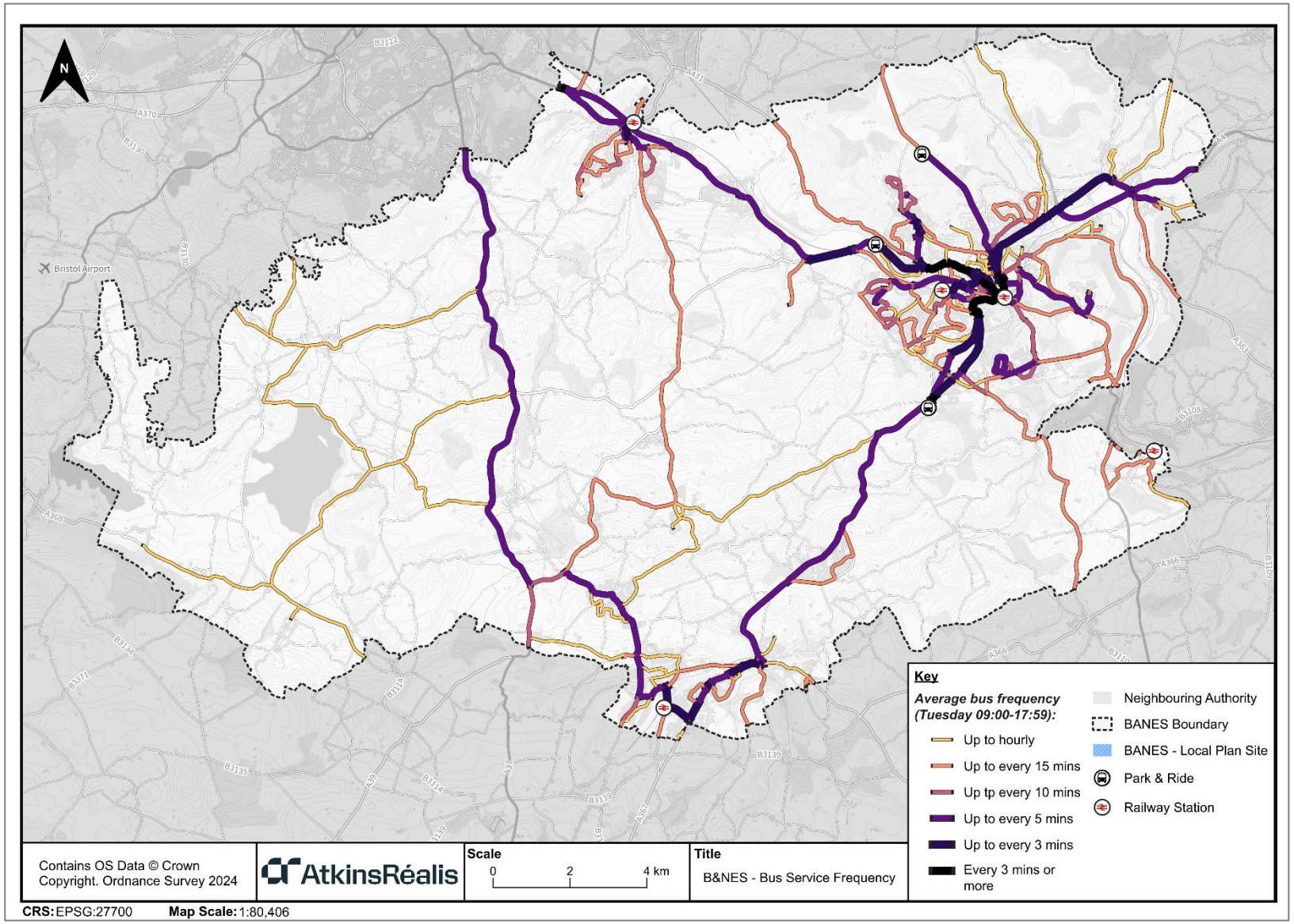
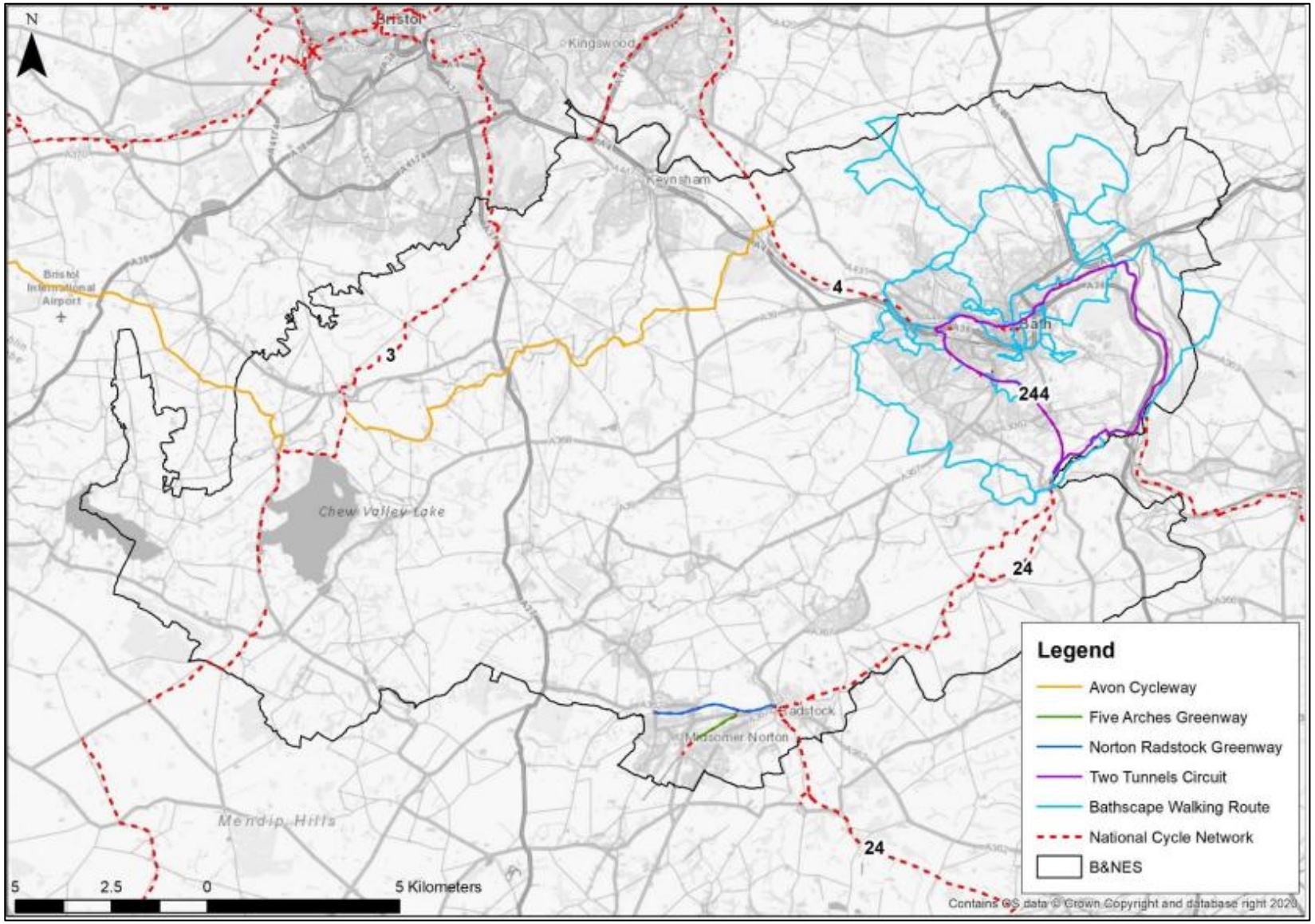


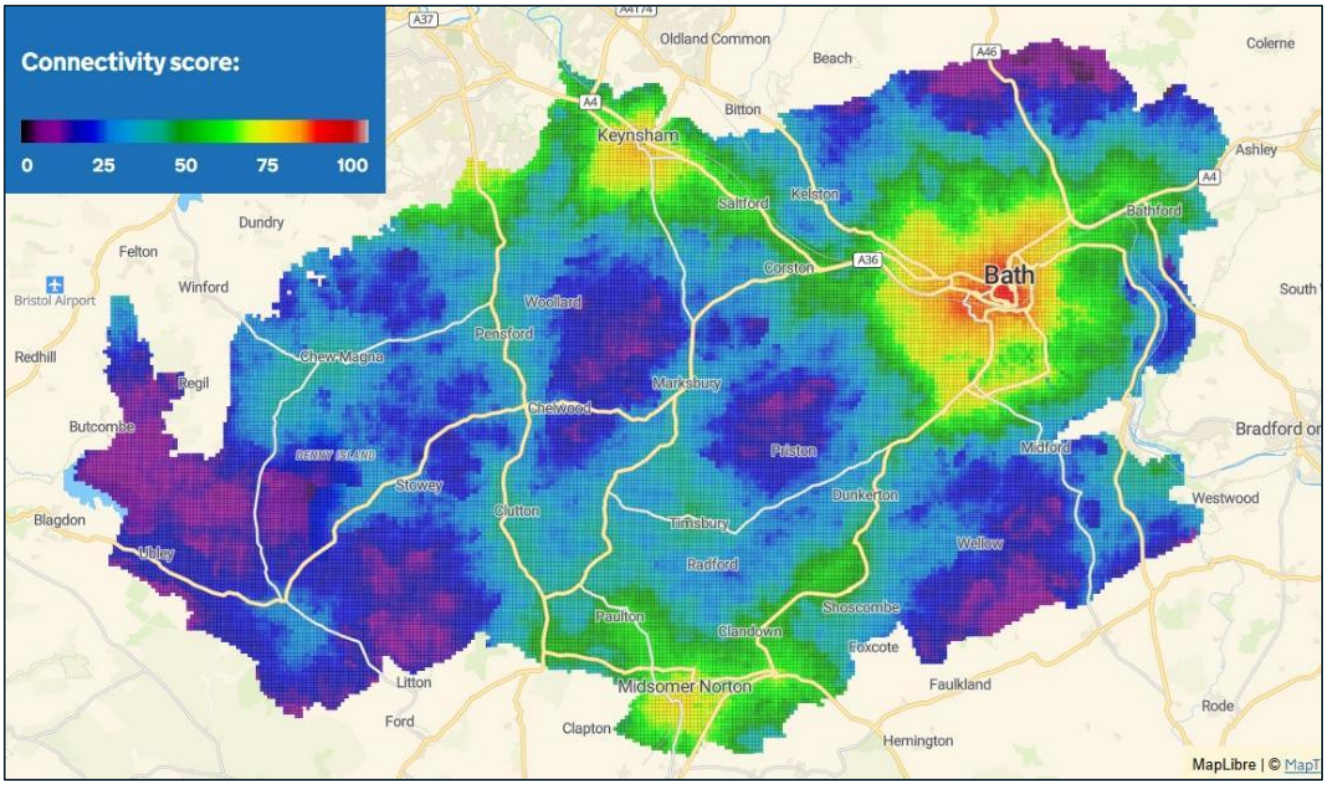
Figure 4-3 Key cycle routes in B&NES



4.2 Connectivity

The Department for Transport (DfT) released a new Connectivity Tool[37] in 2025. Figure 4-4 shows overall connectivity by all modes except driving. It therefore represents the relative connectivity of places for people without access to a car, or for people choosing not to drive.

Figure 4-4 Connectivity Tool: all modes except driving



Bath city centre is served by frequent rail services connecting to the rest of the region, bus services from across the city and surrounding areas, and large parts of the city that are accessible on foot and by bike. As expected, connectivity reduces with distance from the city centre, but it is still relatively high within the urban area, and declines significantly beyond the edge of the urban area.

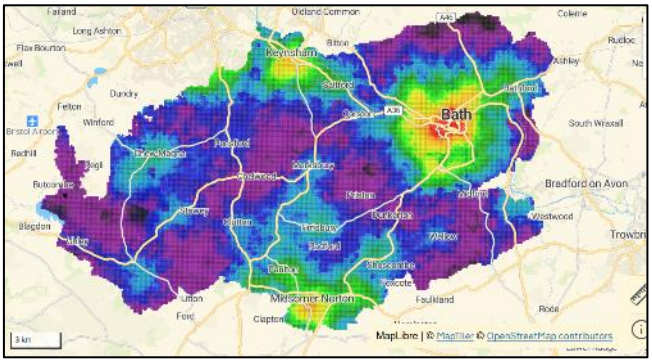
Keynsham is also characterised by relatively high connectivity, although this is much lower than in Bath. Midsomer Norton also performs relatively well and, notably, performs better than Radstock to the east. Whitchurch Village, on the edge of the Bristol also performs relatively well, with close access to amenities in the village and South Bristol nearby. The map also illustrates the impacts of bus services operating along the A4 (Bristol–Bath), A367 (Bath–Somer Valley) and A37 (Somer Valley–Bristol). This is particularly notable in the larger settlements, including Saltford, Peasedown St John and Paulton.

However, there are widespread connectivity coldspots in large parts of rural B&NES, including the south east around Wellow, west around the Harptrees and Compton Martin, central area around Compton Dando, and northern area around Langridge. Figure 4-5 illustrates the specific connectivity scores by walking, cycling and public transport.

[37] Connectivity Tool - GOV.UK

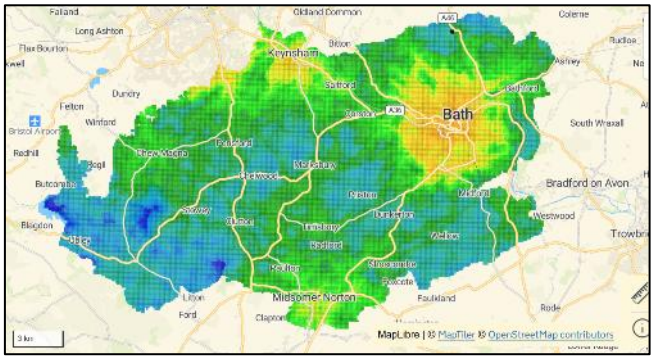
Figure 4-5 Connectivity Tool: walking, cycling, and public transport

Walking



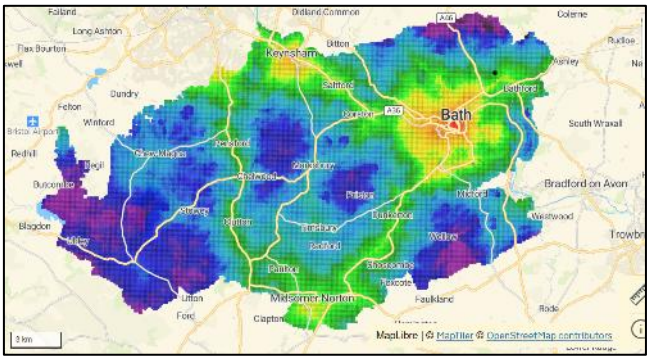
Highly localised around walking to local amenities.

Cycling



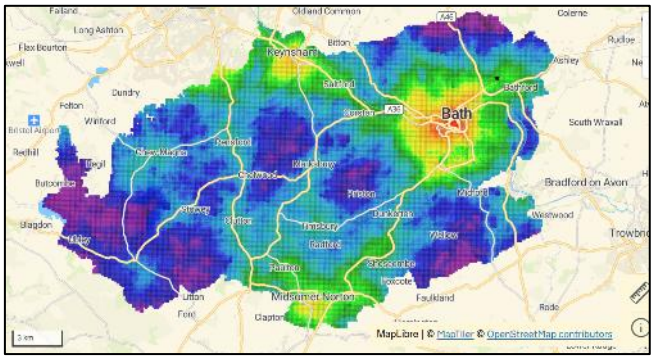
Reach is increased by ability to travel further by bike.

Public transport



Focused on hubs and follows public transport routes.

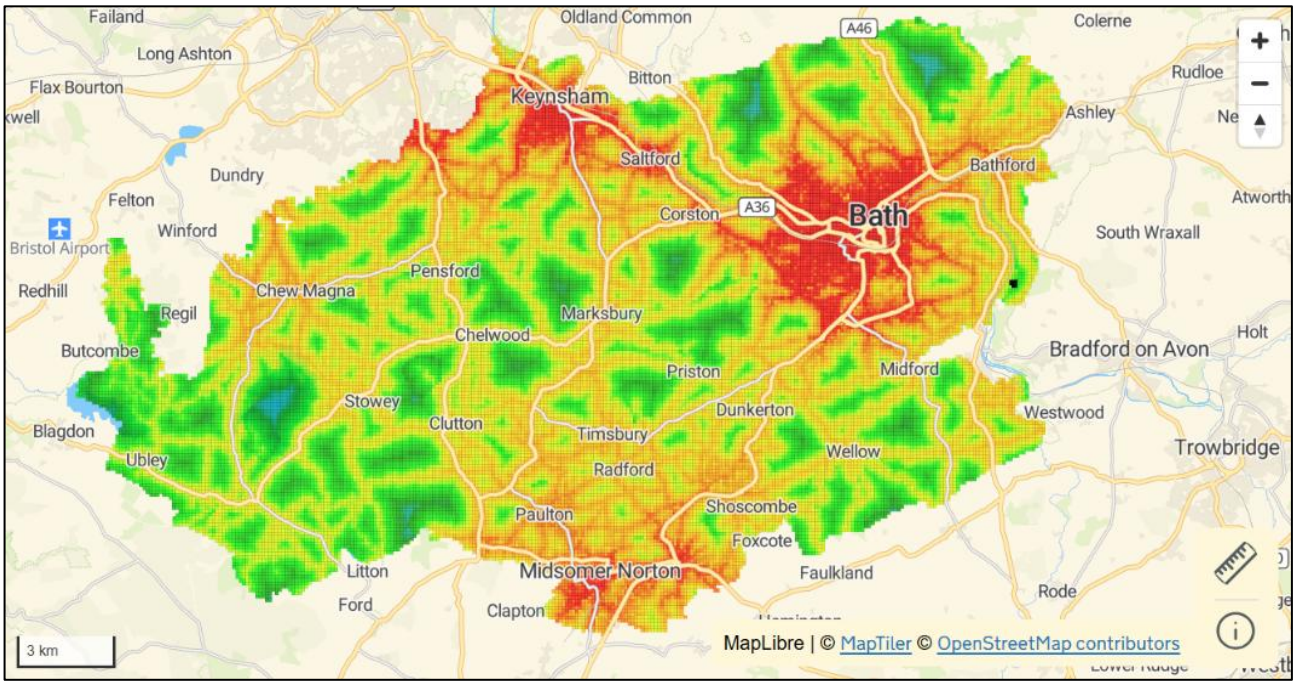
All modes except driving (repeating Figure 4-4)



Combination of all these factors.

Figure 4-6 presents the corresponding connectivity scores for travel by car.

Figure 4-6 Connectivity Tool: driving



This shows that car-based connectivity is highest in Bath and Keynsham, reflecting ease of access to major destinations. Car-based connectivity is also relatively high along major roads, and is lowest in deep rural areas with relatively long distances to jobs, shops and services.

Guidance on using the Connectivity Tool notes that scores should not be compared for different modes for different locations. However, it is recognised that travel by car is currently significantly more straightforward than travel by other modes in most parts of B&NES.

It is not surprising that this shows very different patterns to the previous maps. Drivers are able to make full use of the road network to reach their destinations. Connectivity is highest in most of Bath, where drivers can access a wide range of destinations within relatively short journey times. Connectivity is also high along the A4 corridor, through Saltford and Keynsham. Connectivity by car is lowest in places that are more distant from services on remote country roads. The locations of Chew Valley Lake and Blagdon Lake, to the west, are apparent.

While the Local Plan must prioritise development in locations with strong non-car connectivity, car travel remains the most accessible and convenient option across much of the district. However, ongoing investment in bus services, active travel and micromobility is helping to improve travel choice and the attractiveness of sustainable alternatives. This is supported by the emerging WEST (West of England Sustainable Transport) brand, which seeks to provide a more integrated and coherent sustainable transport offer. However, a range of further interventions will be required to make non-car alternatives genuinely attractive to people who currently have access to a car, supporting mode shift, reducing congestion and enabling sustainable growth.

4.3 Current travel choices

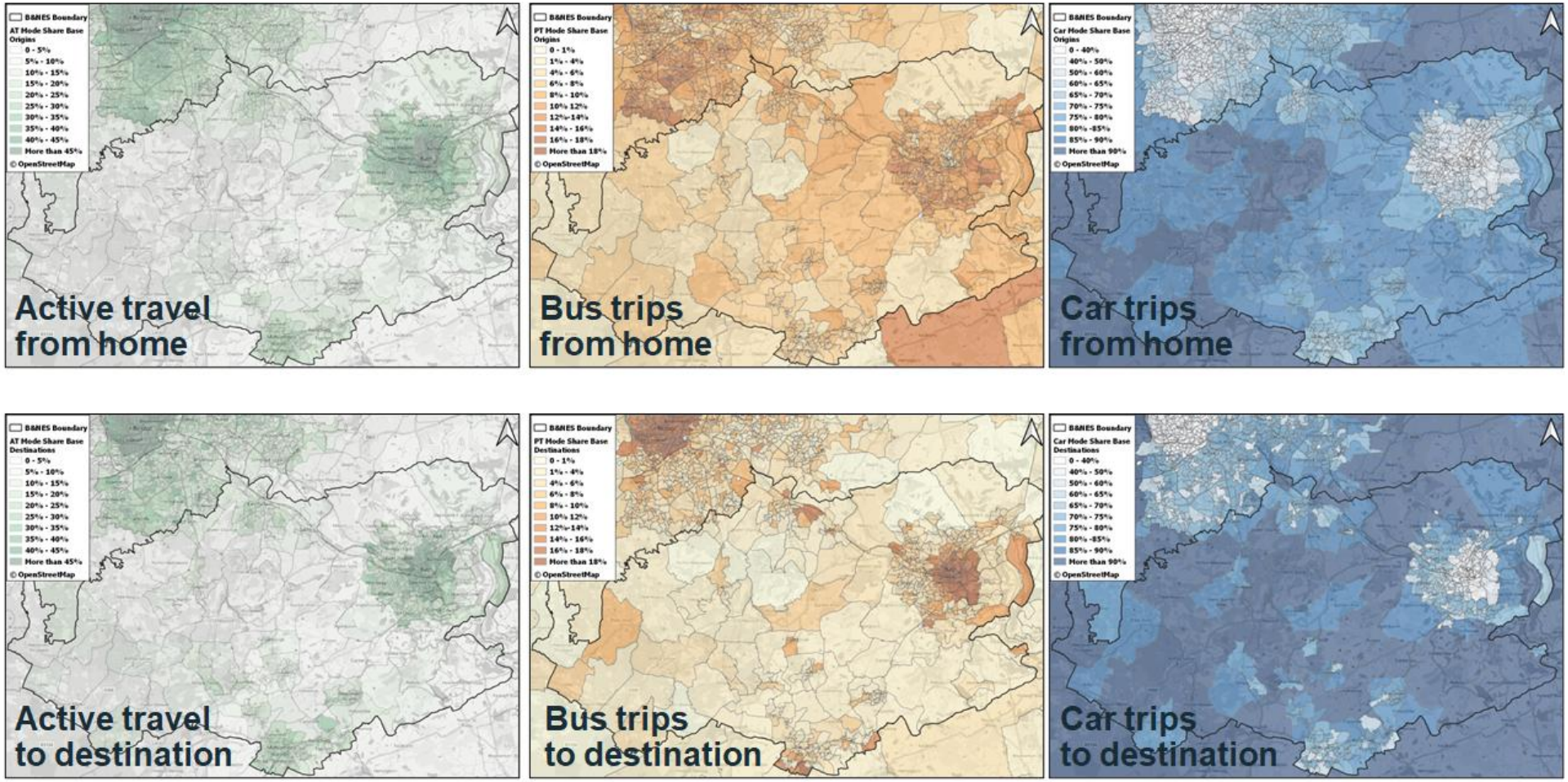
There are significant differences in the availability of different travel modes, and the travel choices that people make, in different parts of the district. In the city of Bath, relatively high proportions of journeys are made by active travel and public transport, and there are lower levels of car dependency. In contrast, there are high levels of car dependency in many of the rural areas and villages, and moderate levels of car use in Keynsham and the Somer Valley communities.

The West of England Regional Transport Model (‘WERTM’), which was introduced in Chapter 1, provides extensive detail on the current patterns of travel in the West of England. This draws on comprehensive survey data and analysis, including current travel patterns by mode (active travel, bus, train, car, and goods movements) and travel conditions on the road network.

The model comprises a validated base year reflecting current travel patterns, as well as forecast years extending to 2042. To ensure the base remains an accurate representation of current travel conditions, it has been checked against up-to-date traffic counts, congested travel times and bus boarding figures. This verification confirms the model's relevance to present-day travel, and as a foundation for forecasting future travel.

Figure 4-7 presents the current proportions of trips made by active travel, public transport and car, with deeper shading in each case indicating higher proportions of trips made. The top maps show the proportions for journeys made from home, and the bottom maps show the proportions of journeys to destinations, including workplaces, shops and amenities.

Figure 4-7 Current travel mode choices in B&NES



In the case of **active travel**, the highest proportions of journeys are made in the inner parts of Bath, which benefit from close proximity to jobs, shops and services, where walking and cycling are the most viable choices for short journeys. The city also benefits from relatively well developed active travel infrastructure, and an attractive public realm, resulting in walking and cycling being attractive travel options.

While car travel remains the dominant mode across much of B&NES, the urban areas of Bath, Keynsham, Midsomer Norton and Radstock show higher levels of active travel (and public transport use) than the surrounding rural areas. These areas also benefit from access to local shops and services. There is also some propensity to walk to local services in some of the larger villages, but there are very low levels of active travel in the rural areas. This is likely to be caused by a combination of longer travel distances and a lack of safe, convenient active travel infrastructure.

These patterns of active travel mode share correlate closely with the walking and cycling connectivity shown in Figure 4-5. This demonstrates that connectivity by walking and cycling to local services directly influences the proportions of trips that can be made by active travel.

In terms of the Local Plan spatial strategy, this means that new development should be located close to existing amenities and services, or new amenities should be provided within new development if these are not already in close proximity.

The highest proportions of **bus travel** are seen among residents in the outer parts of Bath. There is less bus travel by residents in central Bath because they are already close to shops and services and walking is often the preferred option. There are moderate proportions of bus journeys made by residents in Keynsham and along the A4 Bath-Bristol and A367 Radstock-Bath corridors, but much lower than in Bath. In terms of destinations, there is a strong concentration of bus demand towards Bath city centre, with lower demands towards Keynsham and Midsomer Norton.

Once again, these patterns of mode share by bus broadly correlate with the public transport connectivity shown in Figure 4-5. Travel choices are influenced by a range of factors, including the quality of bus services and the limited availability and cost of parking in Bath city centre, which encourage bus use for city centre trips. Elsewhere, more limited bus connectivity, limited destination choices and long journey times by bus, high household car ownership, high connectivity by car (shown in Figure 4-6) and plentiful parking mean that bus use is more limited.

In terms of the Local Plan spatial strategy, this means that new development should be located as close as reasonably practicable to existing direct, frequent bus services that travel to key destinations. New development should also contribute towards the strengthening of existing services to make them more attractive to potential users. Bus improvements alone might not be sufficient to encourage mode shift: complementary measures are also likely to be needed to tackle car reliance, for example parking management measures.

B&NES is a largely rural authority, apart from the City of Bath, Midsomer Norton, Radstock, Whitchurch Village and the communities along the A4 Bath–Bristol corridor. This is reflected in the high levels of car use outside of the urban areas, which is caused by the high levels of connectivity by car compared with the alternatives, alongside high levels of car ownership in many areas.

The Local Plan spatial strategy includes development locations in villages where car ownership and usage is high. It will be important to support local living by maintaining and enhancing access to local facilities, such as shops and schools. This can reduce the need to travel longer distances to meet daily needs, particularly in rural areas, and encourage more trips to be made locally by sustainable modes. Improved bus connections should be explored. However, longer travel times and dispersed travel patterns in rural areas can limit their attractiveness compared with the private car, meaning that complementary demand management measures may also be required to achieve significant mode shift.

4.4 Congestion

Congestion issues were previously explored in Section 3.6 of the Network Mobility Study[38]. This presented the outputs of VISSIM microsimulation models that were developed for the areas around Hicks Gate, Keynsham, Somer Valley, and Whitchurch. These models represented areas that both experience the highest levels of congestion at present and will be the focus of planned growth in the Local Plan. No model was developed for the city of Bath because it was not expected to be an area for future growth.

- In the Hicks Gate area, there are peak hour delays at the A4/A4174/A4175 Hicks Gate roundabout, associated with heavy volumes of commuting to and from Bristol. There is also heavy congestion on the A4 Bath Road on the approaches to the West Town Lane junction in Bristol.
- In Keynsham, traffic speeds are slow across much of the town centre, but this is consistent with an environment with significant pedestrian movements. There is significant congestion on the A4175 Station Road approach to the Bristol Road / High Street roundabout west of the town centre, on the B3116 Bath Hill / High Street junction to the east, and on all arms of the A4 Broadmead Roundabout east of the town.
- In the Somer Valley, there is localised congestion on the A362 Thicket Mead / B3115 Phillis Hill roundabout west of Midsomer Norton, A362 Somervale Road into Radstock, and on parts of the network in Radstock town centre.
- In Whitchurch, there is significant congestion on the A37 Wells Road, particularly north of the Staunton Lane traffic signals in the village centre, and at the Ridgeway Lane traffic signals in Bristol.

These analyses from the VISSIM modelling are consistent with observed peak hour congestion on the road network. The West of England Regional Transport Model (WERTM) highway modelling also identifies similar patterns of congestion across the network in B&NES. It also identifies extensive congestion in Bath and localised challenges on routes such as the A36 south of Bath and A37 at Farrington Gurney. Given the widespread distribution of planned growth across B&NES in the new Local Plan, WERTM has formed the analytical base for both analysis of travel choices and traffic demands and congestion.

Table 4-1 presents summary highway statistics from WERTM from the 2019 base year, for both B&NES and the whole of the West of England.

Table 4-1 Highway network (delay and distance) statistics (2019 Base)

Region / Scenario	AM/PM Peak Hr travel time (mins)	AM/PM Peak Hr delay (mins)	Total Daily Distance (million km)	Average Distance per journey (km)	Daily Demand (PCU incl. freight)
West of England (incl. motorways)					
2019 Base	33.3	4.3	72.7	36.3	2,000,000
To/from/within B&NES					
2019 Base	26.4	4.5	6.7	20.6	325,000

Note: peak hour data is expressed as an average of AM and PM peaks. Daily traffic demand is expressed in terms of 'passenger car units' (PCUs) which takes account of the effects of the sizes of larger vehicles.

Average journey distances and journey times in B&NES are significantly shorter than the West of England average. This is because the latter includes long-distance traffic on the M4 and M5 motorways, whereas B&NES does not contain any motorways, and there are much fewer long-distance trips. However, average delays in

[38] Report Network Mobility Study 2023-02-03

B&NES (4.5 minutes) are higher than the West of England average (4.3 minutes). This is due to the extensive congestion that is experienced in the city of Bath and the locations described above.

WERTM has also been used to forecast future travel and traffic demands, and resulting congestion, for the purposes of testing the impacts of the Local Plan. This is described through the following sections of this report.

4.5 Road safety

Road safety issues in the District were previously reviewed in Section 3.7 of the Network Mobility Study[39]. In most areas, no specific road safety issues were identified, although the A4/A39 roundabout, west of Bath, was identified as a potential collision hotspot, which could warrant further investigation. These analyses were based on data from January 2019 to December 2021, which included the period covered by COVID-19.

More recent data has therefore been used, between 2021 and 2025, to analyse overall road safety performance in B&NES using Department for Transport STATS19 data[40]. Tables 4-2 and 4-3 present data for B&NES and for Great Britain. These also include data on total traffic volumes, from which it is possible to calculate road casualties per billion vehicle-kilometres, which reflects the overall level of safety risk on the network.

Table 4-2 Road safety data in B&NES

Year	Killed	Adjusted KSI casualties	All casualties	million veh-miles	billion veh-km	Killed per bn veh-km	Adjusted KSI per bn veh-km	All casualties per bn veh-km
2021	6	48	216	679.5	1.09	5.5	43.9	197
2022	3	67	244	729.1	1.17	2.6	57.1	208
2023	*2*	*24*	*101*	*742.5*	*1.19*	*1.7*	*20.1*	*85*
2024	3	72	249	750.6	1.21	2.5	59.5	205
2025	3	80	250	758.1	1.22	2.5	65.6	205

Note: there was an error in road safety data during 2023, so 2023 data is therefore excluded from analysis.

Table 4-3 Road safety data in Great Britain

Year	Killed	Adjusted KSI casualties	All casualties	million veh-miles	billion veh-km	Killed per bn veh-km	Adjusted KSI Per bn veh-km	All casualties Per bn veh-km
2021	1,558	27,450	128,209	297,600	479	3.3	57.3	268
2022	1,711	29,608	135,480	328,000	528	3.2	56.1	257
2023	1,624	29,711	132,977	334,000	537	3.0	55.3	248
2024	1,602	29,467	128,272	340,000	547	2.9	53.9	234
2025	1,538	29,918	127,883	342,600	551	2.8	54.3	232

[39] Report Network Mobility Study 2023-02-03
[40] Road safety statistics: data tables - GOV.UK

Across Great Britain, the numbers of people killed and all casualties have been reducing from the high in 2022, but the number of KSI casualties (including people who are seriously injured) have remained stubbornly high, at over 29,000 each year (or ~23% of all casualties).

In B&NES, 6 people were killed in 2021 and 2-3 people per year during 2022-2025. All casualties are typically around 200-250 per year. The total number of casualties has actually increased over the last five years, as has the number of KSI casualties. The number of KSI casualties, as a proportion of the total, is also significantly higher in B&NES than the GB average. For example, in 2025, there were 80 KSI casualties, equivalent to 32% of all casualties, which is higher than the 23% GB average.

The final columns of the two tables show the relative level of safety risk on the road network. Across Great Britain as a whole, there were typically around three people killed per billion vehicle kilometres travelled, with numbers gradually declining over the last five years. In B&NES, numbers have also fallen from the peak in 2021, with a rate lower than the GB average. In the case of KSI casualties and total casualties per billion vehicle-kilometres, there is also a general downward trend across GB. However, in B&NES, there is a more complex picture. Whilst overall casualties per billion vehicle-kilometre are lower than the GB average, the KSI statistics are higher, and there is a rising trend. This indicates that there are some key challenges to be addressed.

Geographic hotspots of collisions have been identified using the Department for Transport's MAVRIC mapping website[41]. In terms of all casualties (killed, seriously injured and slight), the highest numbers tend to be in places with the highest volumes of traffic, including Bath, Keynsham, Midsomer Norton, Radstock and Whitchurch, together with the A4 and A37 corridors. In terms of serious injuries, there are large numbers within Bath and on busy rural roads. Fatal injuries are, by definition, rare, but these have included a recent cluster on the A367 north and south of Peasedown.

Occupants of cars comprised 49% of casualties, whilst occupants of other vehicles (vans, buses, HGVs) only comprised 7%. Pedestrians comprised 16%, with the primary clusters in Bath, Keynsham, Midsomer Norton and Radstock. Cyclists also comprised 16% of all casualties, with the main clusters being located in Bath, reflecting higher numbers of cyclists in the city, although there have also been casualties in and around Keynsham and several rural routes. Motorcyclists comprised 11% of the total, with collisions spread across the district.

Forecast growth associated with the Local Plan has the potential to increase pressure on parts of the network, particularly where growth coincides with existing congestion, constrained village centres, higher levels of walking and cycling activity, or routes with limited provision for vulnerable road users. Additional traffic will not automatically translate into proportional increases in recorded collisions. However, it will increase interactions between motor vehicles and other road users, increase severance and reduce perceptions of safety, particularly for people walking, wheeling and cycling. These effects may discourage sustainable travel unless appropriate infrastructure and mitigation measures are provided. Furthermore, reported collision data often does not capture all incidents or near misses, which can influence perceptions of safety and willingness to walk, wheel or cycle.

Road safety should therefore be considered alongside network performance, accessibility and placemaking objectives. Development should be supported by measures to reduce car dependency and improve the safety and attractiveness of walking, wheeling, cycling and public transport. Where residual traffic impacts remain, mitigation should address safety and severance as well as operational performance, ensuring that growth can be accommodated without creating unacceptable impacts on local communities.

[41] MAVRIC

4.6 Forecast travel demand

The West of England is one of the UK's fastest-growing city regions, which means that there will be increasing pressure on the region's transport networks over the Plan period. This is reflected in forecasts of future travel demand generated from WERTM. Forecasts indicate that car-based travel is likely to grow significantly faster than active travel and public transport, caused by progressive lowering of the relative costs of motoring, under the background growth scenario before including the Local Plan.

WERTM has been used to forecast travel demand across all transport modes, to understand the implications for future patterns of active travel, public transport demand, and traffic flows across the road network. The starting point has been to develop a future **Reference Case**, for 2042, which reflects the full Plan period. This Reference Case includes background growth in travel demand, including the impacts of growth in adjacent local authorities and background growth in longer-distance traffic, including freight.

It also includes committed growth in B&NES, but **excludes proposed Local Plan allocations**. This therefore forms the future foundation against which the impacts of the Local Plan will be tested. In those authorities where Local Plans are already well advanced, it includes their proposed development allocations. These include the other three local authorities in the West of England: Bristol, North Somerset and South Gloucestershire. In Wiltshire, the Local Plan has been withdrawn, and in Somerset, the Local Plan process is still at a very early stage. In these two cases, national planning projections based on TEMPRO have therefore been assumed.

The model has been used to forecast total changes in the numbers of trips by mode, both within B&NES and for the whole of the West of England region. The latter has also been considered due to the very strong functional relationships between the four local authorities in the region.

Table 4-4 presents the total number of trips by mode for B&NES in the 2042 Reference Case and the percentage increases in trips from the 2019 base year. Table 4-5 presents the equivalent mode share in the base year and 2042 Reference Case.

Table 4-4 Daily trips and forecast change in trips by mode to/from and within B&NES

Scenario	All Modes	Car only (exc freight)	Bus & Rail (inc P&R)	Active only
2019 Base Case trips to/from & within B&NES	377,000	244,000	40,000	93,000
2042 Reference Case trips to/from & within B&NES	403,000	272,000	41,000	91,000
2042 Reference Case vs 2019 Base	+6.8%	+11.1%	+2.9%	-3.0%

Note: numbers of trips are rounded to the nearest thousand.

Table 4-5 Daily travel mode share for trips to/from and within B&NES

Daily travel mode share	Car only (exc freight)	Bus & Rail (inc P&R)	Active only
2019 Base	64.8%	10.5%	24.8%
2042 Reference Case	67.4%	10.1%	22.5%

Across the district, the model forecasts an overall 6.8% increase in trips. However, this masks significant differences by mode, with a smaller 2.9% increase in public transport, and a 3% reduction for active travel, but a much larger increase in car travel (11.1%). This translates into reductions in mode share for active travel and public transport, and a significant increase in mode share for car, from 64.8% to 67.4%.

Table 4-6 and Table 4-7 present the data for the whole of the West of England. It is important to understand the wider regional impacts, because B&NES plays an important role in the region, with strong cross-boundary relationships with Bristol, North Somerset and South Gloucestershire. Future growth elsewhere in the region will impact the transport network in B&NES, and Local Plan growth in B&NES will impact on networks elsewhere.

There is a much higher number of trips in the West of England (2.1 million trips per day) than B&NES (400,000) as it includes all four authorities and the motorways passing through the region. Despite the inclusion of motorways, the average car mode share across the West of England is lower than in B&NES. This is largely due to Bristol, where active travel and public transport account for a much greater proportion of trips.

Table 4-6 Daily trips and forecast change in trips by mode in the West of England

Scenario and geographic region	All Modes	Car only (exc freight)	Bus & Rail (inc P&R)	Active only
2019 Base Case trips in West of England	1,865,000	1,151,000	161,000	552,000
2042 Reference Case trips in West of England	2,163,000	1,376,000	190,000	596,000
2042 Reference Case vs 2019 Base	16.0%	19.6%	17.9%	8.1%

Table 4-7 Daily travel mode share in the West of England

Daily travel modal share	Car only (exc freight)	Bus & Rail (inc P&R)	Active only
2019 Base	61.8%	8.7%	29.6%
2042 Reference Case	63.6%	8.8%	27.6%

These tables show slightly different patterns in growth. The West of England-wide data includes growth with the Local Plans in the other three authorities, whereas the B&NES forecasts only include committed growth and exclude the full Local Plan. Overall travel demand across the West of England is therefore forecast to increase by 16.0%, compared with 6.8% in B&NES.

Car travel demand is forecast to increase by 19.6% across the region, compared with 11.1% in B&NES. There is also much higher growth forecast for public transport demand across the region (17.9% compared with 2.9% in B&NES), reflecting significant planned investment in public transport improvements. Similarly, active travel demand is forecast to increase by 8.1% across the West of England, compared with a 3% reduction in B&NES. These patterns of growth are reflected in the changes in mode share, which is forecast to marginally increase for bus and rail, but fall for active travel, with overall car mode share increasing from 61.8% to 63.6%.

Figure 4-8 presents forecast active travel demand from the model, Figure 4-9 shows future bus patronage and Figure 4-10 shows increases in traffic flows. Future active travel demand will be focused, as expected, on Bath, Keynsham and the towns in the Somer Valley. Demand will be much lower in the rural areas mainly due to the relative differences in journey length. Bus patronage will be strongly focused on the key corridors, including three Park & Ride routes into Bath and A4 London Road corridor from the east. There are also strong inter-urban flows on the A4 Bristol to Bath corridor, A367 between the Somer Valley and Bath, and bus routes from the Somer Valley to Keynsham, and from Wells to Bristol via the A37.

There will be significant increases in traffic on most of the network in B&NES, even under the modest levels of growth in the district under the Reference Case, although there will be much higher levels of traffic growth in Bristol and South Gloucestershire. In Bath, capacity constraints in the city centre will mean that traffic will increase more on roads around the edge of the city. There will be significant growth around Keynsham and Hicks Gate, resulting from the Local Plans in Bristol and South Gloucestershire, with increased traffic through the Chew Valley caused by spillover effects from congestion in south Bristol.

Figure 4-8 Active travel demand in B&NES (2042 Reference Case, 12-hour total)

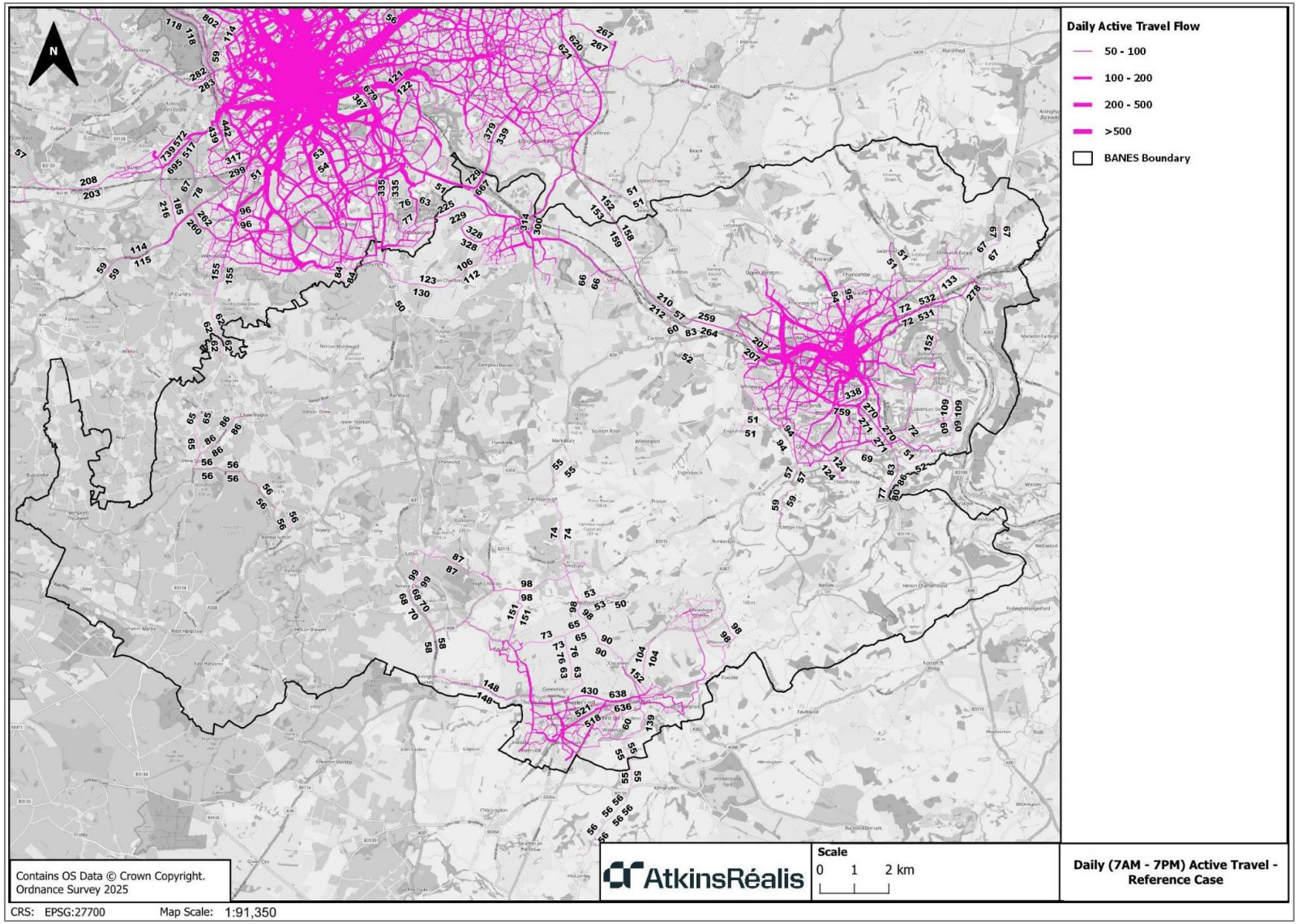


Figure 4-9 Bus patronage in the West of England (2042 Reference Case, 12-hour total)

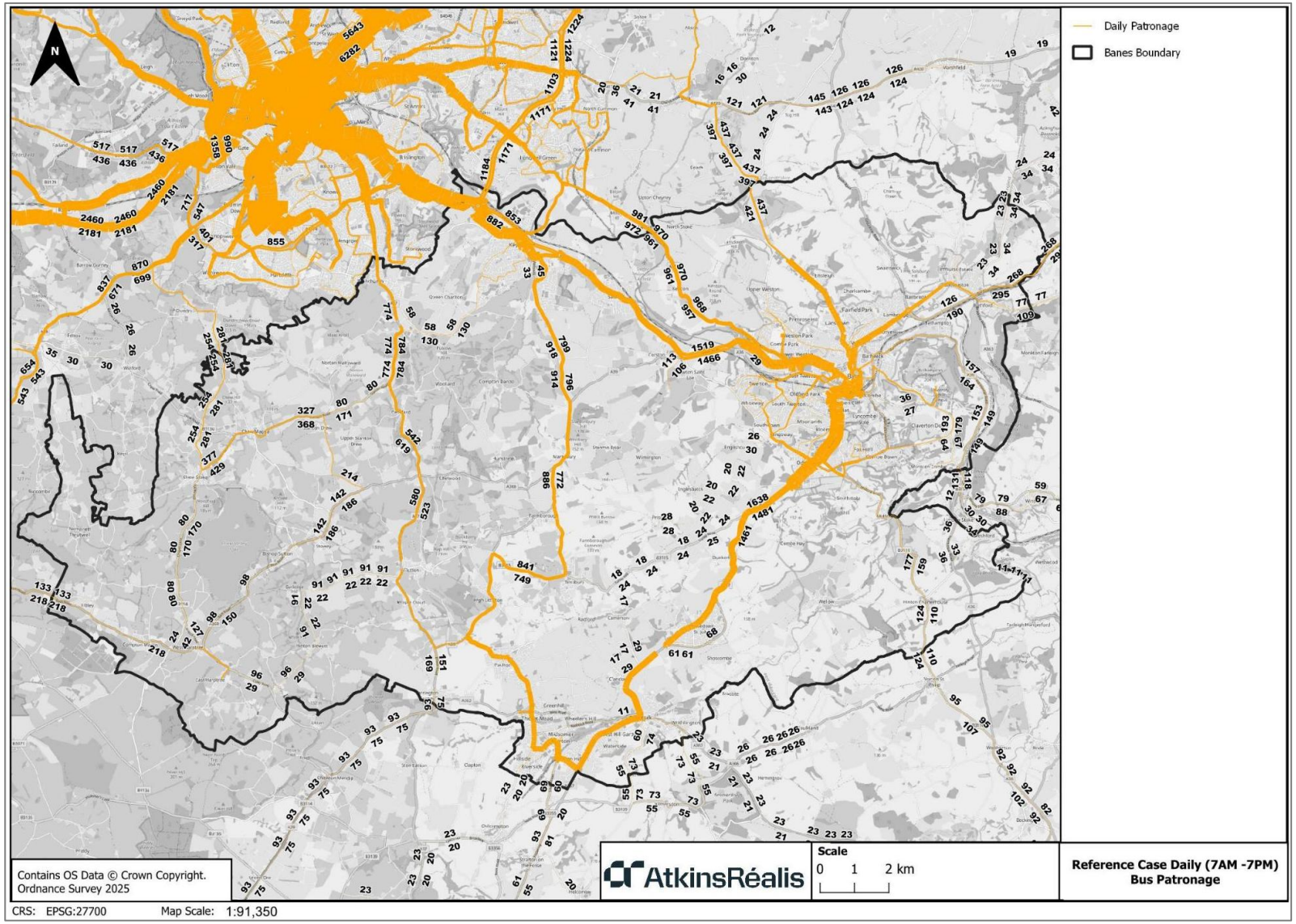
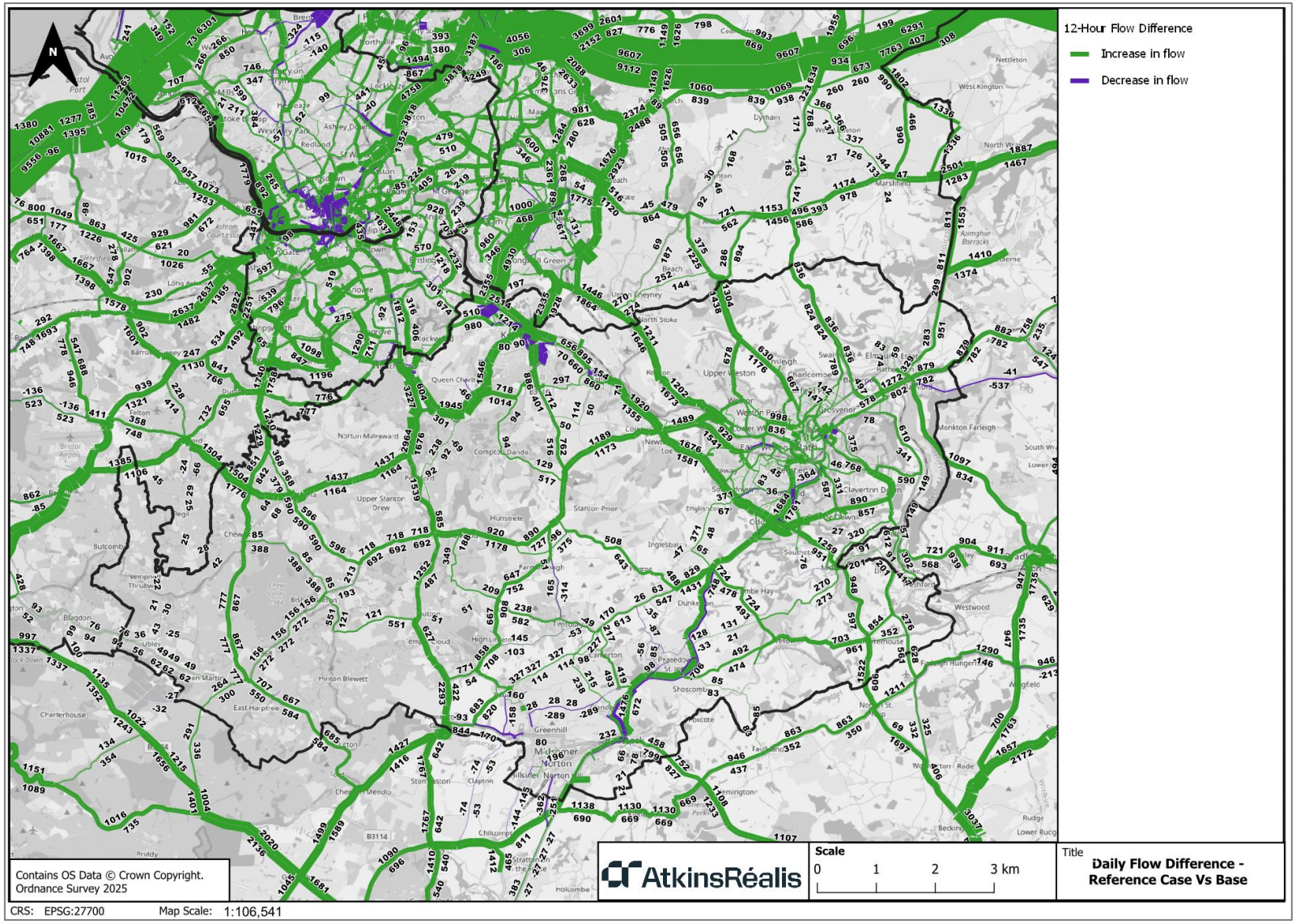


Figure 4-10 Traffic flow differences in West of England (2042 Reference Case vs 2019 Base, 12-hour total)



4.7 Network performance

These increases in travel demand will have direct implications for the transport network in terms of demand for walking and cycling, numbers of people boarding and alighting buses (including increased potential crowding on the busiest routes), and increased congestion, safety and environmental impacts on the road network.

The preceding section showed that car-based travel demand is forecast to grow at a faster rate than overall travel demand. There are already serious challenges with congestion in the region, and it is therefore necessary to pay particular attention to the future performance of the road network. Analyses using the highway component of WERTM have been used to provide metrics of overall network performance and to identify specific congestion hotspots on the road network.

Table 4-8 provides metrics of network performance, for the West of England as a whole and within B&NES.

Table 4-8 Highway network (delay and distance) statistics (Reference Case)

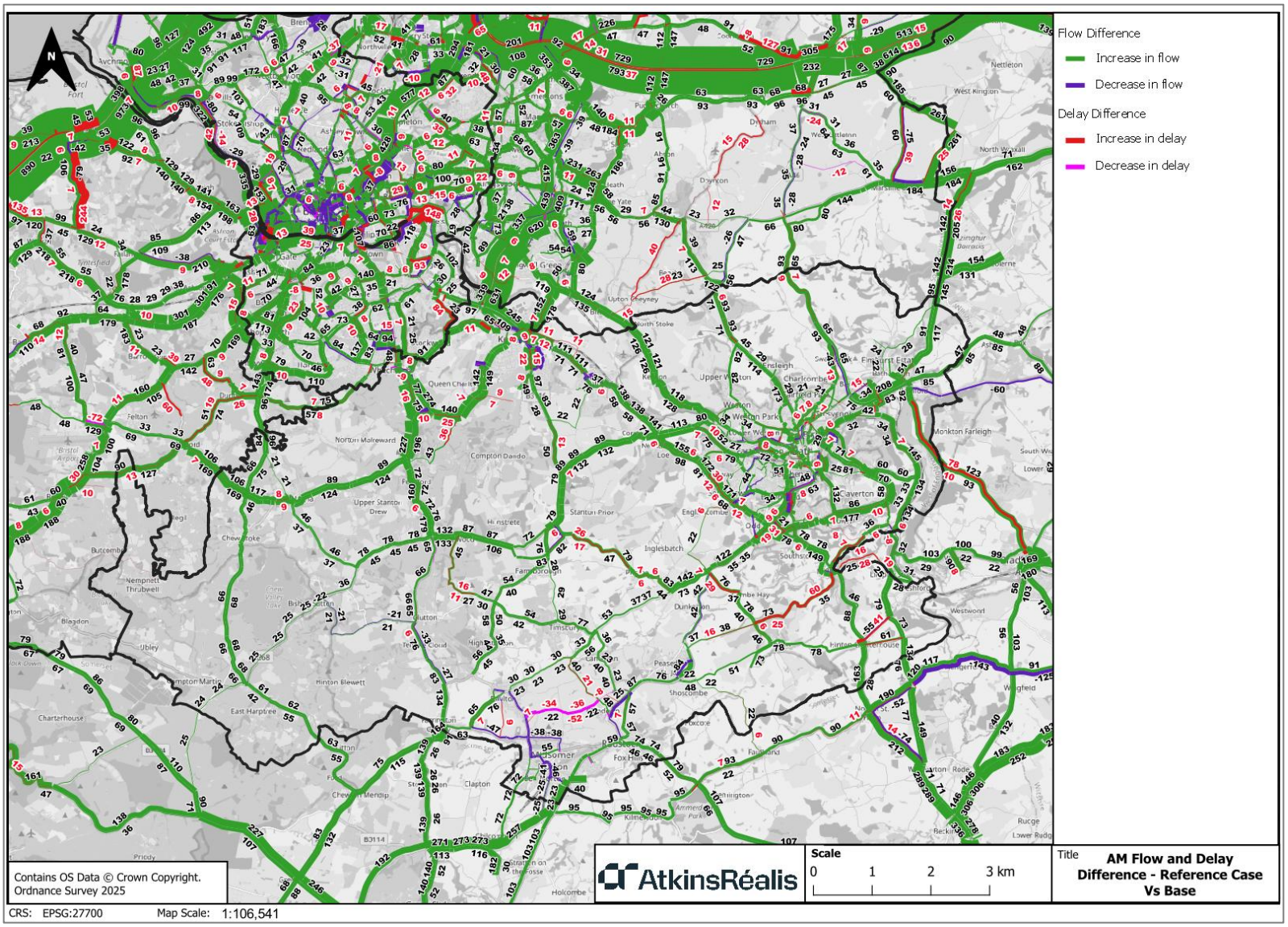
Region / Scenario	AM/PM Peak Hr travel time (mins)	AM/PM Peak Hr delay (mins)	Total Daily Distance (million km)	Average Distance per journey (km)	Daily Demand (PCU incl. freight)
West of England (incl. motorways)					
2019 Base	33.3	4.3	72.7	36.3	2,000,000
2042 Reference Case	36.3	6.8	89.2	36.9	2,419,000
2042 Reference Case vs 2019 Base	+9% (+3.0 mins)	+60% (+2.5 mins)	+23%	+1.5% (+0.6 km)	+21%
To/from/within B&NES					
2019 Base	26.4	4.5	6.7	20.6	325,000
2042 Reference Case	28.5	6.2	7.9	21.8	362,000
2042 Reference Case vs 2019 Base	+8% (+2.1 mins)	+38% (+1.7 mins)	+18%	+5.7% (+1.2 km)	+12%

In B&NES, a total of ~360,000 vehicles (including freight and through trips) per day is forecast in 2042, with 12% growth from 2019. This is higher than the 270,000 cars in B&NES shown in Table 4-4, because this includes goods vehicles and through traffic. There are lower volumes of through traffic and freight in B&NES than the West of England region, with roads in the district catering for more local traffic (as shown by the shorter average distances per journey, which are not influenced by the motorway traffic in the West of England data).

Table 4-8 also shows the increases in distances travelled and journey times. In B&NES, the average distance travelled per journey would increase by almost 6%, as vehicles seek alternative routes to avoid congestion hotspots. This will mean that average journey times would increase by 8%. Traffic delay is forecast to rise significantly, from 4.5 to 6.2 minutes in the peak periods (and from 17% to 22% of the total journey time). Across the West of England, the higher level of traffic growth and congested traffic conditions (particularly in Bristol) are forecast to result in an even larger increase in delay.

Figure 4-11 (overleaf) presents the forecast changes in traffic flows (expressed as passenger car units) and vehicle delays (seconds) on the network, focusing on the AM peak hour (08:00-09:00). Similar patterns are also evident in the inter-peak (10:00-17:00) and PM peak (17:00-18:00) periods). The maps on the following pages show the forecast impacts on the road network in the morning peak period. It shows changes in traffic flows (green = increases, blue = decreases) and changes in delays, in seconds (red = increases, pink = decreases).

Figure 4-11 Traffic flow and delay differences: B&NES (2042 Reference Case vs 2019 Base, AM peak hour)



Forecast growth in daily vehicle trips is expected to place additional pressure on routes that are already congested, resulting in longer delays and more unreliable journeys. As congestion increases, some travellers are likely to respond by rerouting, retiming their journeys, or spreading travel more widely across the peak periods. However, these behavioural responses are not expected to eliminate congestion; instead, average delays are forecast to increase on already-constrained routes, with new congestion hotspots also emerging over time.

Figure 4-11 shows that there will be widespread increases in traffic delay across the road network between now and 2042. Within B&NES, delays are forecast to increase across much of the network. Particularly notable impacts arise where traffic from neighbouring authorities increasingly “spills over” into B&NES, reflecting strategic planned development across the wider region. Key affected corridors include the A4174 Bristol Ring Road, B3130 through the Chew Valley, and routes south of Midsomer Norton and Radstock, where growth pressures combine with limited network resilience. Specific issues include:

- In Bath, overall car dependency of new development is expected to be relatively low, but there will be increasing impacts of traffic in the city centre with more traffic being displaced onto other routes, including the Whiteway Road / Frome Road / North Road corridor running east-west through the south of the city. A significant volume of additional traffic will be from growth outside the city. For example, evidence from the Journey to Net Zero evidence showed that 75% of people driving to work in Bath do so from outside the city boundary.
- On the A36 corridor running south of the city towards Warminster, increasing delays for traffic on side roads attempting to enter or cross the A36 - in B&NES itself, and in Somerset to the south.
- On the A363 running south east towards Bradford on Avon, increased delays would be experienced across the Wiltshire border in Bradford-on-Avon, reflecting the pressures of growing traffic demand to and from Wiltshire and a highly constrained mediaeval street layout in the town.
- There would be significant increases in delays around Keynsham associated with growing traffic demands, and around Whitchurch due to traffic re-routing to avoid more congested parts of the network in Bristol.
- Increases in delays are also forecast on more rural routes through the district, as traffic re-routes to avoid more congested parts of the network, particularly in Bath and around Keynsham.

Across the wider West of England, there are the following notable hotspots due to other authorities’ planned growth:

- In Bristol, delay increases are projected across much of the city, with the most pronounced impacts around the city centre and Temple Meads, reflecting concentrations of employment growth and travel demand. Increases in traffic delay in the south side of the city will also displace traffic onto routes through the Chew Valley.
- In South Gloucestershire, increased delays are forecast around Cribbs Causeway, reflecting strategic growth at Brabazon. Major development is also proposed in the new South Gloucestershire Local Plan across the North and East Fringes, within the urban area and new strategic urban extensions north of Bradley Stoke and across the East Fringe. This is forecast to result in significant increases in traffic demand on the A4174 Ring Road.
- In North Somerset, increased delays are forecast to be concentrated around Weston-Super-Mare and along the A370 corridor. Additional pressure is also expected from Bristol Airport expansion, which is forecast to increase traffic on already constrained routes connecting the airport to the A370, A38 and M5.
- The forecasts also highlight specific challenges on the Strategic Road Network (SRN). Notable problem locations include the M5 (northbound and southbound), the M4/M5 Almondsbury interchange, the M4 westbound approach to Junction 19, and M32 Junction 1. These impacts reflect growing traffic demand on the motorway network and increasing interactions with movements along the Ring Road and urban corridors.

Addressing these challenges will require coordinated action across the region. The policy framework set out in Chapter 2 makes clear that the primary response should be to reduce the need to travel and support a shift to

more sustainable modes, rather than relying on additional highway capacity as the default solution. Evidence[42] indicates that highway-focused interventions are unlikely to provide a lasting solution and may instead lead to induced demand, resulting in renewed congestion pressures over time.

However, it is also important to recognise the challenges with the operation of the road network. Increased traffic flows will increase severance in local communities and exacerbate environmental challenges. This will impact on the attractiveness of walking and cycling, particularly where footways and roads are narrow. Buses will also be impacted by increased congestion and delays, reducing reliability and increasing operating costs.

Existing strategies are focused on improving conditions for active travel and buses in the region. The B&NES Active Travel Masterplan has created a network-wide approach to improving walking and cycling routes, including reducing traffic speeds and calming traffic on busy roads, and creating alternative quiet routes. These principles are also embedded in the Creating Sustainable Communities Strategies and Bath Movement Strategy.

Increased traffic could also exacerbate road safety challenges. Section 4.5 discussed the existing road safety challenges on the road network in B&NES: increased traffic flows will increase potential conflicts, including at locations of existing collisions clusters, and there could be increased conflicts with pedestrians and cyclists. At busy junctions, increased delays on side roads could result in drivers making dangerous manoeuvres from side roads onto busy main roads. Attention will need to be given to ensuring that measures address these potential conflicts and proactively address the underlying risks in these areas.

For longer-distance movements, particularly those currently using the SRN, new and improved public transport options will be essential to enable meaningful mode shift. The West of England authorities — working through the Mayoral Combined Authority as transport authority, alongside local highway authorities — will need to collaborate with the Western Gateway Sub-National Transport Body and National Highways to develop these solutions. Potential measures include enhanced rail services, new or improved longer-distance coach services, and strategic interchange facilities that allow drivers to transfer to public transport and reduce pressure on the strategic road network.

Overall, committed development across the West of England, combined with background traffic growth, is forecast to result in sustained and widespread increases in congestion. These impacts cannot be fully mitigated through highway infrastructure alone. Instead, a concerted, region-wide programme to improve travel choices and enable mode shift will be required — both within the West of England and across the wider region. This approach should be embedded consistently across the area, rather than pursuing incremental highway capacity schemes that risk locking in higher traffic levels and creating the need for further intervention in the future. It is acknowledged that where potential road safety issues are identified, as a consequence of the growth in development traffic, appropriate road safety highway improvement measures will be identified.

[42] https://www.gov.uk/government/publications/how-additional-road-capacity-affects-travel-demand

5. Impacts of Local Plan Spatial Strategy

This chapter sets out the process used to assess the transport impacts of the Local Plan. It continues the modelling approach described in the previous chapter, using the West of England Regional Transport Model (WERTM) to forecast travel demand from development in the Local Plan, considering strategic impacts on all modes, and detailed operational impacts on the road network. This chapter includes:

- An overview of how the spatial strategy was developed, and explanation of the locations of proposed development; analysis of the overall changes in demand, by mode, from the Local Plan.
- Increases in car travel from major development sites, and impacts on active travel and public transport.
- Changes in traffic flows and network impacts resulting from the Local Plan.

In addition, Appendix A describes the transport modelling methodology.

5.1 Overview

The Local Plan spatial strategy has been iteratively developed over the last two years. The starting point was to consider the Objectively Assessed Need for housing and employment land, which is addressed in other Topic Papers for the Local Plan. The Council has undertaken 'calls for sites', from which it has objectively appraised the strengths and weaknesses of sites, including consideration of transport and accessibility criteria. This has included application of the DfT Connectivity Tool (as described in Chapter 4) to appraise accessibility of each site.

The Connectivity Tool was used during Plan development to provide a consistent, comparable assessment of the relative accessibility of each potential development site. Its outputs helped to identify where sites would be likely to benefit from stronger existing or potential non-car connectivity, and where more significant transport interventions would be required to support sustainable travel.

The tool was not used mechanistically to derive the spatial strategy or to determine site selection in isolation. It instead formed one part of a wider evidence base, alongside planning, environmental, infrastructure, deliverability and place-making considerations. In this way, the Connectivity Tool provided an informative and proportionate input to plan-making, helping to shape and test the emerging spatial strategy, while ensuring that final judgements reflected the full range of relevant planning considerations.

An initial series of shortlisted site proposals was developed in late 2025. AtkinsRéalis undertook initial appraisal of the transport issues associated with these sites, together with development of initial mitigation proposals, developed in line with the vision principles set out in Chapter 2. This did not include detailed transport modelling: the focus was instead to focus on critical accessibility issues and opportunities to provide high-quality walking, cycling and public transport options to serve each site.

This process identified that one of the major sites would have major accessibility challenges. This site, to the north of Midsomer Norton, would be located on a plateau, surrounded by steep slopes on all sides, including towards Midsomer Norton. These topographic challenges, together with very narrow lanes in the local area, would cause major challenges in providing adequate access. There would be a steep climb for walking and cycling to the site from Midsomer Norton: while the site is near to the town, the steep climb and narrow lanes would make this very unattractive. It would also require the provision of costly new road infrastructure to access the site, and it would be very difficult (and expensive) to serve the site by bus. This would be likely to result in a very highly car-dependent 'island' in the Somer Valley, which would be inconsistent with the Council's objectives for the Local Plan.

The Council also removed one site in Whitchurch due to the promoter withdrawing the site. Other sites have been iteratively developed during 2026, taking account of local environmental constraints, review of the mix of residential, employment and other uses, optimisation of development density, and integration of transport and mobility needs.

A major site to the West of Bath was also considered during the process of developing the spatial strategy. This site could have potential significant transport strengths, including proximity to the city centre, a wide range of travel choices, and opportunities to further strengthen public transport connectivity to the west of the city. However, this would have negative impacts on the setting of the doubly-inscribed World Heritage Site, and this site has therefore not been included in the spatial strategy.

Figure 5-1 shows the resultant proposed spatial strategy, in terms of proposed residential and employment allocations across B&NES. Figure 5-2 sets this in context of wider growth across the West of England, in terms of current committed development and Local Plan growth across the four local authorities.

Figure 5-2 shows the very modest scale of committed development in B&NES compared with the other three authorities, but the scale of planned development with the new Local Plan will result in a major acceleration in growth. This will also have major implications for travel demands and the need for a new approach to management of impacts on the transport network. There have been ongoing minor iterations of the spatial strategy since the completion of the transport modelling. However, these will not materially affect the outputs or conclusions.

Figure 5-1 Location of all planned development sites in B&NES

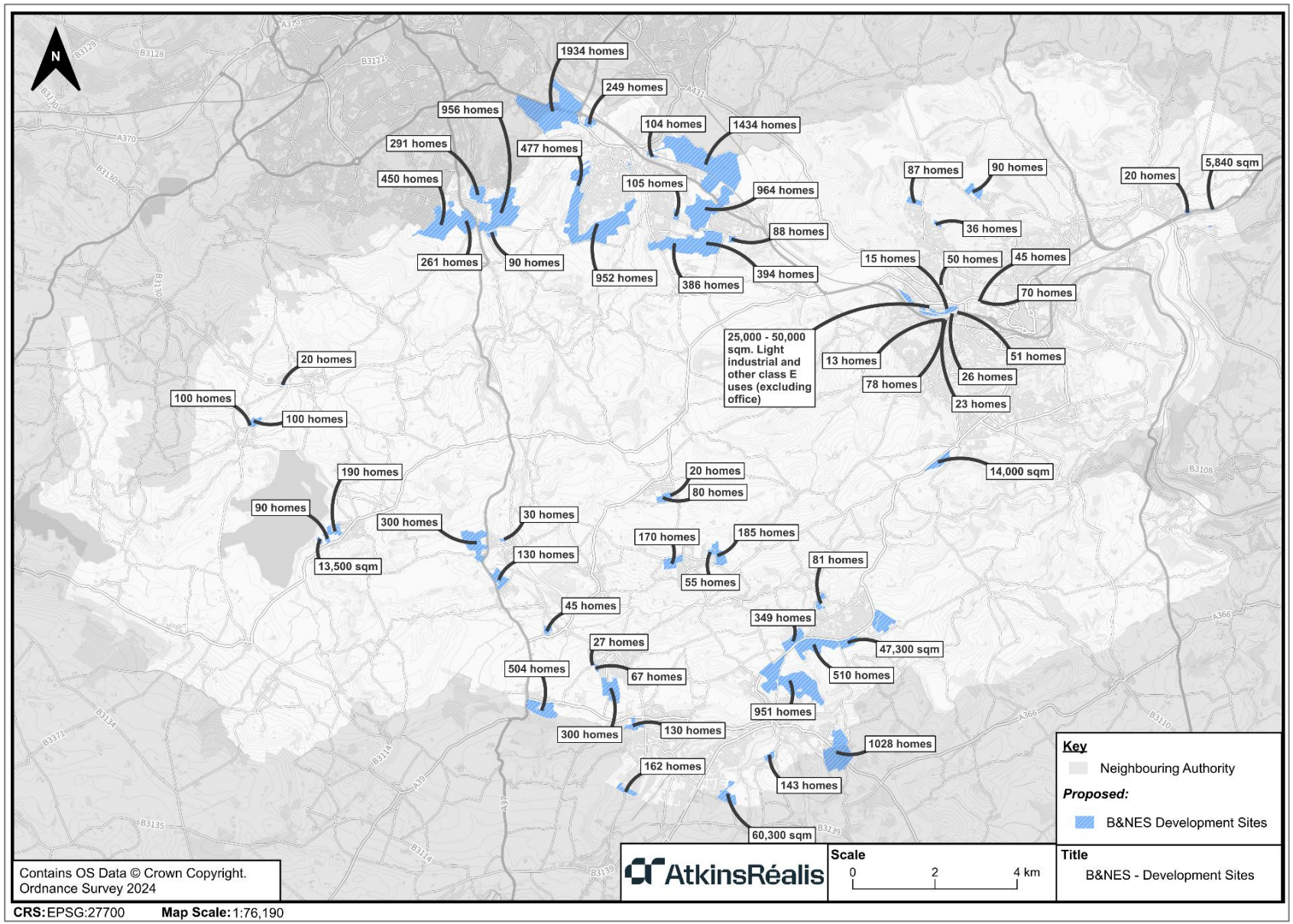
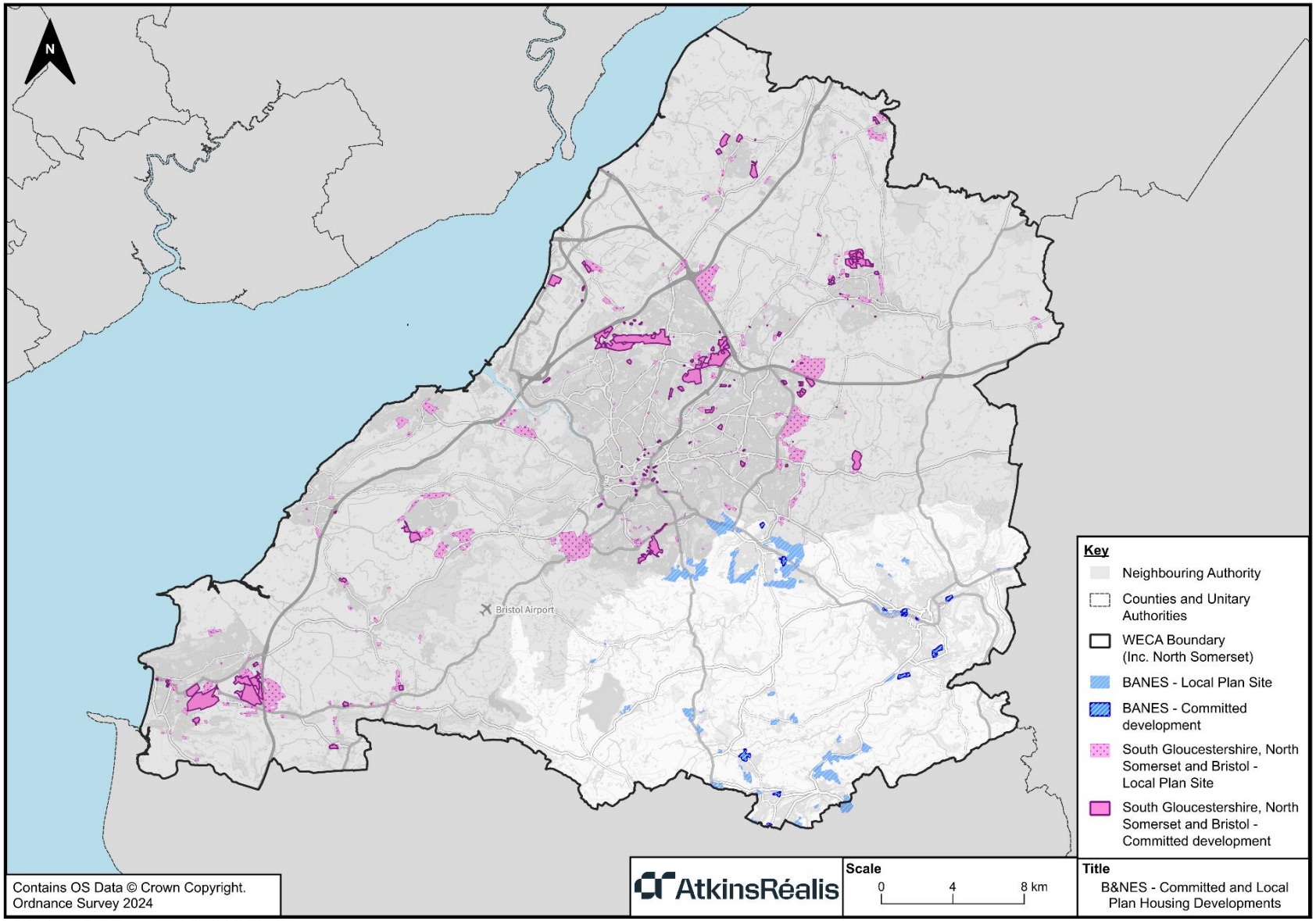


Figure 5-2 Locations of Committed and Local Plan development in the West of England



CRS: EPSG:27700 **Map Scale:** 1:180,000

5.2 Overall changes in travel demand

This section describes the forecast changes in travel demand with the new B&NES Local Plan without transport mitigation, compared with the Reference Case. Table 5-1 and Table 5-2 present the statistics for trips to, from and within B&NES.

Table 5-1 Daily trips and forecast change in trips by mode and scenario to/from and within B&NES

Scenario	All Modes	Car only (exc freight)	Bus & Rail (inc P&R)	Active only
2042 Reference Case	403,000	272,000	41,000	91,000
2042 Reference Case vs 2019 Base	+6.8%	+11.1%	+2.9%	-3.0%
2042 Local Plan No Mitigation vs 2042 Ref Case	+16.2%	+17.6%	+11.1%	+14.7%

Table 5-2 Daily travel mode share for trips to/from and within B&NES

Daily travel modal share	Car only (exc freight)	Bus & Rail (inc P&R)	Active only
2019 Base	64.8%	10.5%	24.8%
2042 Reference Case	67.4%	10.1%	22.5%
2042 B&NES Local Plan no mitigation	68.3%	9.5%	22.2%
B&NES Local Plan development trips only	71.1%	8.8%	20.2%

This shows that, without travel mitigation measures in place (a worst-case scenario), the B&NES Local Plan would result in a large increase in travel. Under the Reference Case, overall travel demand would increase by almost 7% between 2019 and the 2042, but the new Local Plan would increase travel demand by a further 16% over and above the Reference Case. This would place major pressures on the local transport network. Active travel would increase by almost 15%, and bus and rail demand would increase by almost 11%, but car travel would increase by almost 18% compared to the Reference Case.

This would mean that the mode share for travel by car in B&NES would continue to increase, from 67.4% in the Reference Case to 68.3% under the Local Plan with no mitigation, and mode share for travel by public transport and active travel would continue to decrease.

Whilst sustainable transport considerations formed a key driver of the spatial strategy, mode share by car would be higher for the development sites (71%) than the B&NES average, driven by the proposed locations on the edges of urban areas and in villages. In the majority of cases these will still represent the most sustainable locations for growth in transport terms

Table 5-3 and Table 5-4 present the corresponding data for the whole West of England.

Table 5-3 Daily forecast change in trips by mode and scenario in the West of England

Scenario	All Modes	Car only (exc freight)	Bus & Rail (inc P&R)	Active only
All daily trips in West of England 2042 Ref Case	2,163,000	1,376,000	190,000	596,000
2042 Reference Case vs 2019 Base	+16.0%	+19.6%	+17.9%	+8.1%
2042 Local Plan No Mitigation vs 2042 Ref Case	+3.6%	+3.6%	+3.1%	+3.9%

Table 5-4 Daily travel mode share in the West of England

Daily travel modal share	Car only (exc freight)	Bus & Rail (inc P&R)	Active only
2019 Base	61.8%	8.7%	29.6%
2042 Reference Case	63.6%	8.8%	27.6%
2042 B&NES Local Plan No Mitigation	63.6%	8.8%	27.7%

The B&NES Local Plan (without mitigation) would result in a 3.6% overall increase in trips across the West of England compared to the Reference Case. There would be a slightly higher increase in active travel (+3.9%) and slightly lower increase in public transport (+3.1%), and only marginal changes in mode share at the West of England level.

5.3 Car travel from Local Plan development sites

The Local Plan will result in a significant increase in traffic demand across B&NES. Table 5-5 shows the forecast mode share by car for the major Local Plan development sites, before the application of transport mitigation.

Table 5-5 Daily travel mode share of development sites (pre-transport mitigation)

Area	Clusters of development sites	No. of households	Est no. of jobs	Car share
Bath	**All Bath Sites**	**627**	**1539**	**58.3%**
Bristol-Bath corridor: Hicks Gate, Keynsham & Whitchurch	Hicks Gate	2183	1048	73.7%
	North Keynsham	1538	2092	68.4%
	Saltford	1446	694	71.8%
	Keynsham	1952	1234	70.2%
	Whitchurch	2048	983	69.6%
	All Bristol-Bath corridor sites	**9167**	**6051**	**70.8%**
Somer Valley / Rural	Bishop Sutton, Chew and Pensford	400	431	82.9%
	Writhlington	1028	494	66.9%
	Chilcompton Road and Thicket Mead	291	1143	67.4%
	North Radstock	951	457	69.1%
	Paulton and Hallatrow	414	199	74.9%
	Peasedown	939	2020	73.8%
	South Farrington Gurney	549	264	75.3%
	South Radstock (Haydon)	143	69	70.6%
	Temple Cloud & Clutton	460	221	76.2%
	Timsbury & Farmborough	510	245	78.3%
	All Somer Valley sites	**5686**	**5541**	**72.8%**
All Local Plan development sites		**15480**	**12883**	**71.1%**
All B&NES Reference Case				67.4%

Overall car mode share for the Local Plan development sites with no mitigation measures is forecast to be around 71%, higher than the 67% overall car mode share for the whole of B&NES in the 2042 Reference Case. In general, car mode share would be highest in the more rural locations, such as Bishop Sutton, Chew and Pensford (83%), Temple Cloud and Clutton (76%), Farrington Gurney (75%), Timsbury and Farmborough (78%).

In the case of the Somer Valley, there would be high car mode shares at Peasedown (74%) and Haydon (71%) in the absence of transport mitigation. There would also be a high car mode share at Hicks Gate (74%) and Saltford (72%) in the Bristol-Bath corridor.

Whilst these sites were selected against a wide range of criteria, the DfT Connectivity Tool formed part of the evidence base and indicated relatively strong connectivity scores. However, many of these sites are located in greenfield areas with barriers to active travel and limited access to bus services. Notwithstanding this, they represent some of the most suitable options available and have the potential to achieve more sustainable outcomes with appropriate mitigation measures.

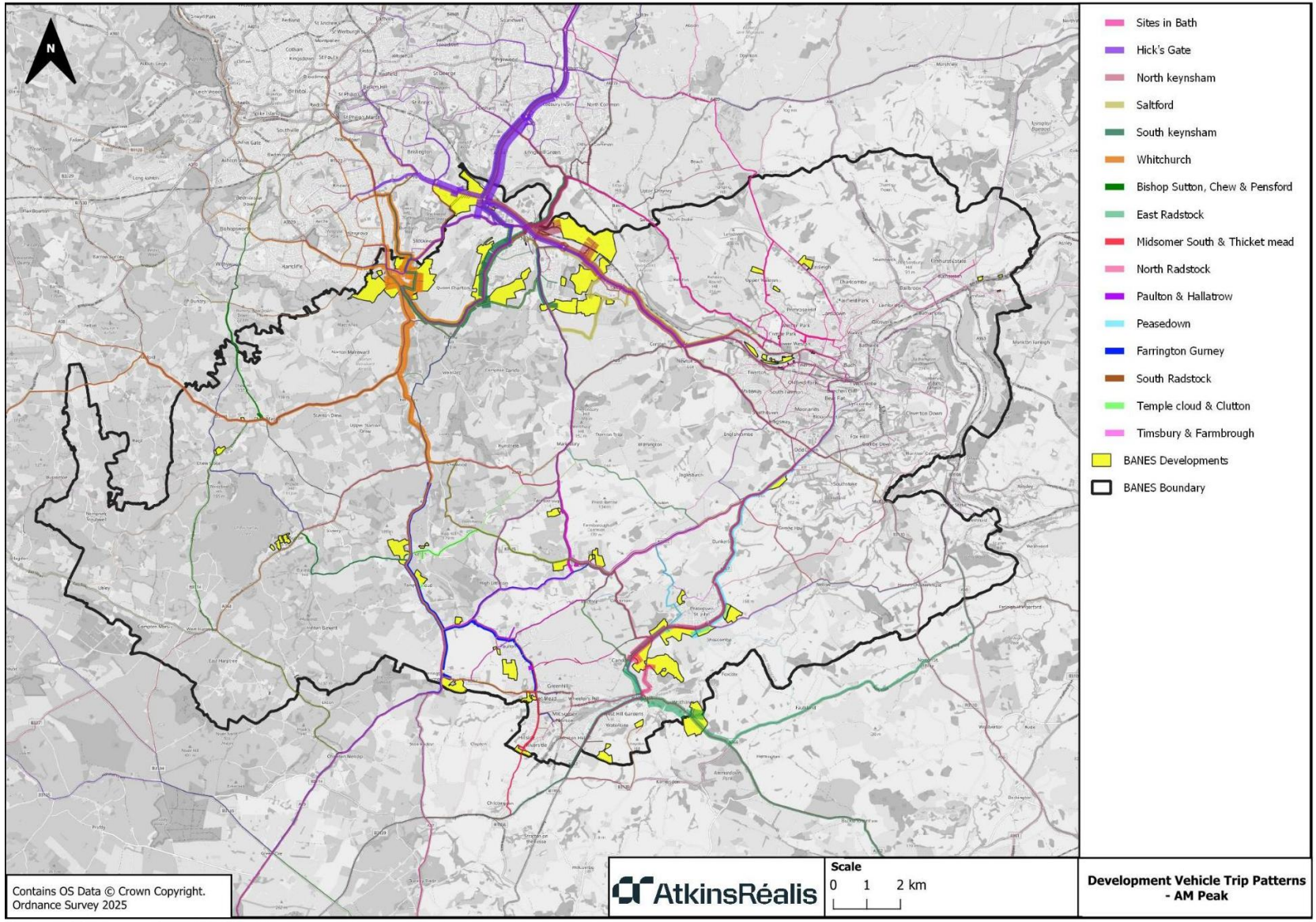
Figure 5-3 presents the forecast routings of traffic demand from the different clusters of development sites in the Local Plan. This has been informed by existing origin-destination patterns across the area and forecasting of the key destinations for the new development sites, based on accessibility to jobs, shops and services. This provides initial insights into those parts of the transport network that will be subject to the greatest pressures resulting from new development. For example, focussing on some key sites:

- North Keynsham: demands into Keynsham town centre, northwards along the A4175 towards the East Fringe, and routes towards Bristol, potentially using Charlton Road and Woollard Lane to access south Bristol via Whitchurch.
- Hicks Gate: relatively limited amounts of traffic heading towards Bristol city centre (trips can transfer to Park & Ride at Brislington, to the west), but significant volumes heading north on the A4174 Ring Road to the East Fringe and North Fringe.
- Whitchurch: vehicle demand will head into southern Bristol and Keynsham town centre.
- Writhlington, to the east of Radstock: strong demand into Radstock town centre, and then beyond along the A362 to Midsomer Norton and north along the A367 to Peasedown and onwards to Bath.
- Timsbury and Farmborough: traffic would head north along the A39 and the B3116 towards Keynsham, west towards the A37, and south following several different routes to head towards Peasedown and beyond.

Travel patterns from the development sites are varied, with journeys to both local and more distant destinations. There is potential to increase walking and cycling for local trips by strengthening local centres and access to shops, services and employment, reducing the need to travel. Several movements could also be supported by bus services, particularly along the Bristol–Bath corridor, between the Somer Valley and Bath, along the A37 between Farrington Gurney and Whitchurch, and along the central north–south spine between Keynsham and Timsbury.

In addition to the movements using the corridors that are relatively well served by bus services, there will be traffic using more rural roads. This will need to be considered in the development of the Transport Strategy. There are also particularly complex traffic demands in the area around Keynsham and Whitchurch, including strong ‘orbital’ traffic demands around the south east of the Bristol urban area. This will require consideration of appropriate traffic management measures in this part of the district.

Figure 5-3 Highway trip patterns and routings for major development sites (no mitigation)



5.4 Impacts on active travel demand

Although there will be significant vehicular traffic demands from the sites for longer journeys, there will also be strong active travel demand for more local journeys. Figure 5-4 presents active travel demand with the Local Plan (with no mitigation), and Figure 5-5 presents the increases in active travel demand from the Reference Case.

This shows that there would be significant increases in active travel demand, even in the absence of measures to enhance walking and cycling facilities. The proposed sites are well located to support active travel for local journeys from the sites, which would build on background future demand in nearby communities. These include:

- In the Somer Valley, demands from sites at Peasedown towards the village centre, and from sites at Clandown and Writhlington into Radstock.
- Around Whitchurch Village, demands from new sites into the village centre, onwards into South Bristol, and also some demand towards Keynsham.
- Around Hicks Gate, Keynsham and Saltford, demands from the sites along the A4 corridor and around Keynsham, reflecting the large numbers of housing allocations and relative ease of walking into the town.

Elsewhere, there would be more localised demands, focused on connecting from new sites into village centres, for example from sites in Clutton and Temple Cloud.

It will be critical to ensure that these active travel demands can be safely met, through providing good quality footways and cycling infrastructure. The transport mitigation strategy should focus on these corridors, which will also help to encourage more people to walk and cycle for local journeys, reducing car dependency for local journeys, and reducing the impacts of traffic on local road networks.

Figure 5-4 Active travel demand in B&NES (2042 Local Plan No Mitigation, 12-hour totals)

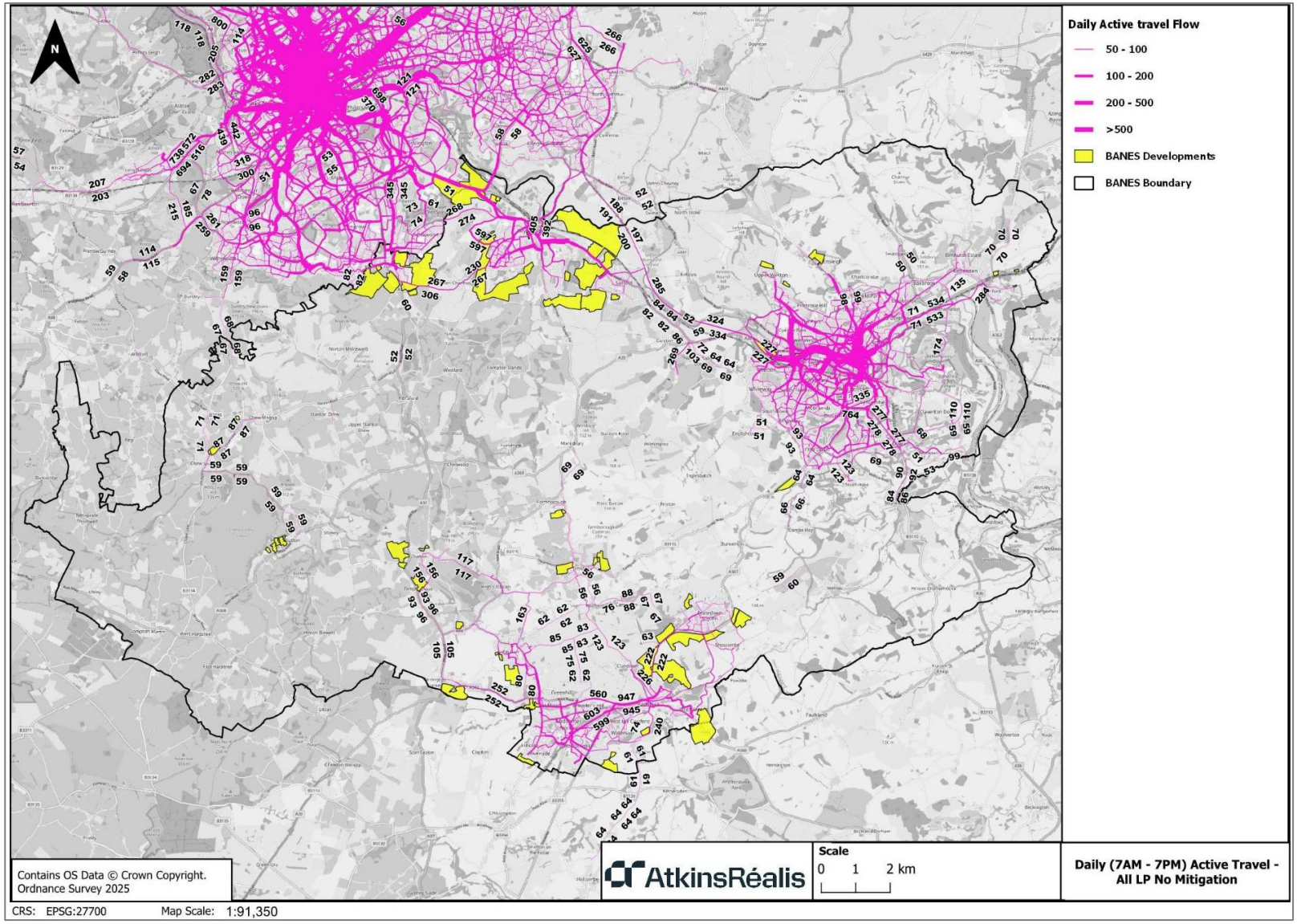
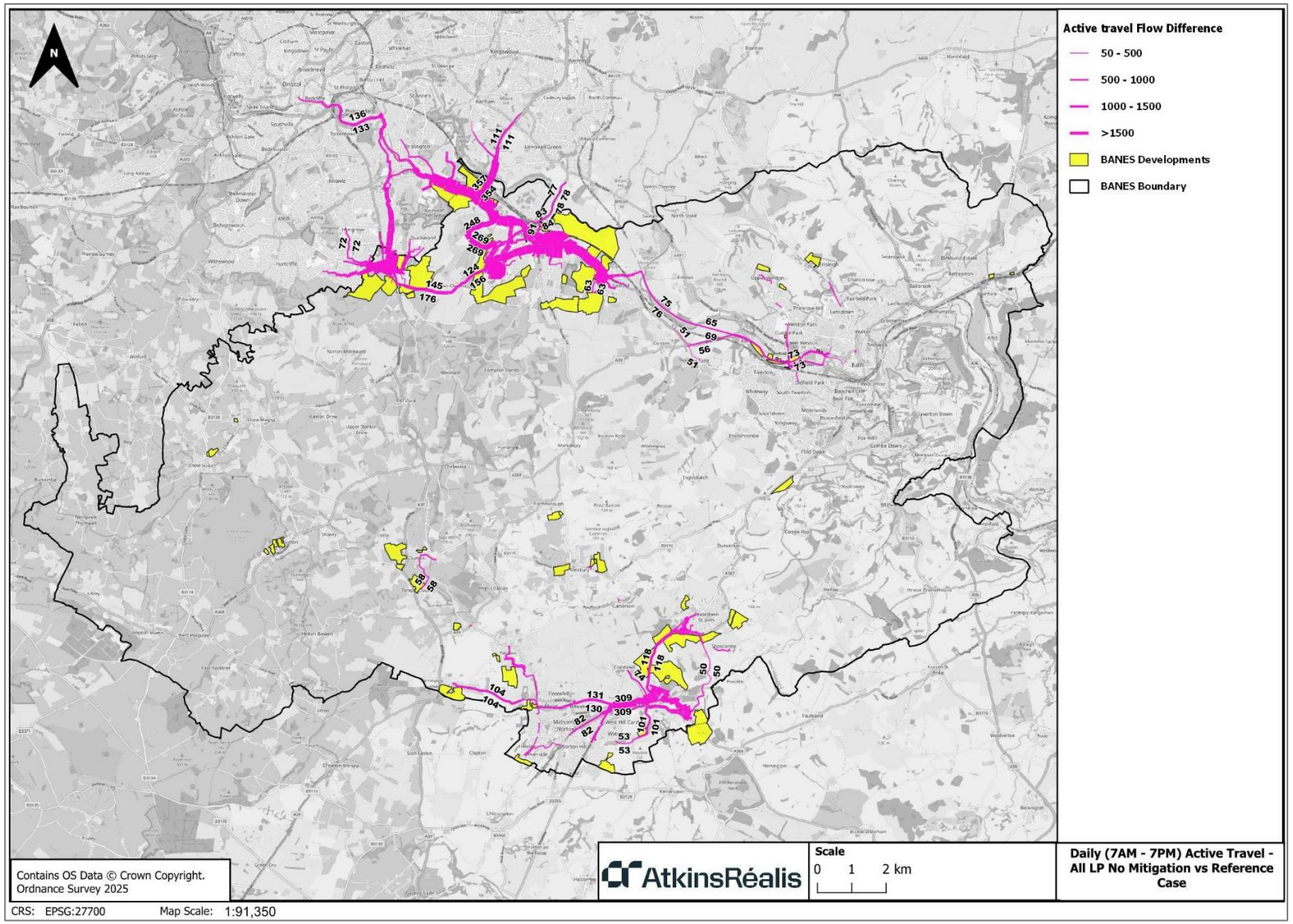


Figure 5-5 Increase in active travel demand (Local Plan No Mitigation vs 2042 Reference Case, 12-hour totals)



5.5 Impacts on bus demand

Furthermore, although there would be significant traffic demands for longer-distance journeys in B&NES and beyond, the locations of many of the development sites on existing bus corridors mean that there is scope to significantly increase bus travel. Figure 5-6 shows total daily demand in the Local Plan (with no mitigation), and Figure 5-7 shows the increases in bus patronage compared to the Reference Case.

Daily bus patronage is forecast to rise significantly on those parts of the network that are closest to major Local Plan development:

- Between Keynsham and Hicks Gate: demand is forecast to increase by around 35% from the Reference Case.
- A37 corridor between Farrington Gurney and Whitchurch: 30-40%.
- A4 west of Bath: 25% increase from the Reference Case.

Elsewhere, the modelling forecasts increases of around 15% on the A367 near Odd Down, ~20% on the B3116 Wellsway south of Keynsham, ~15% through Bishop Sutton, and ~10% in Chew Magna. These increases in demand resulting from new Local Plan development would strengthen the case for retaining and improving bus services, with a likely requirement for significant improvements on key corridors.

Figure 5-7 shows the forecast increase in bus passengers throughout the day resulting from the Local Plan, without any mitigation. This shows that there is a strong propensity to travel by bus from many of the Local Plan sites, with particularly strong growth on three key corridors:

- A4 Bath to Bristol corridor: an increase equivalent to around 25-30 passengers per hour in each direction.
- A37 Bristol to Farrington Gurney: an increase of around 20-25 passengers per hour in each direction.
- A367 Bath to Somer Valley: an increase around 20 passengers per hour in each direction.

In addition, there would also be an increase on the north-south corridor from Keynsham to Midsomer Norton via Timsbury, which would strengthen the case for enhancements to existing services. There would also be an increase on new bus services on the A4174 Ring Road, proposed as mitigation for the South Gloucestershire Local Plan. This reflects demand from the Keynsham area towards the Bristol East and North Fringes.

This presents an opportunity to significantly improve bus services along these corridors through the Local Plan Transport Strategy, both to serve these demands, but also to enable large-scale mode shift from car for longer-distance journeys within B&NES and beyond. The growth in travel demand from new housing will also help improve the commercial viability of bus services operating along these corridors.

Figure 5-6 Bus patronage in B&NES and the West of England (Local Plan No mitigation, 12-hour totals)

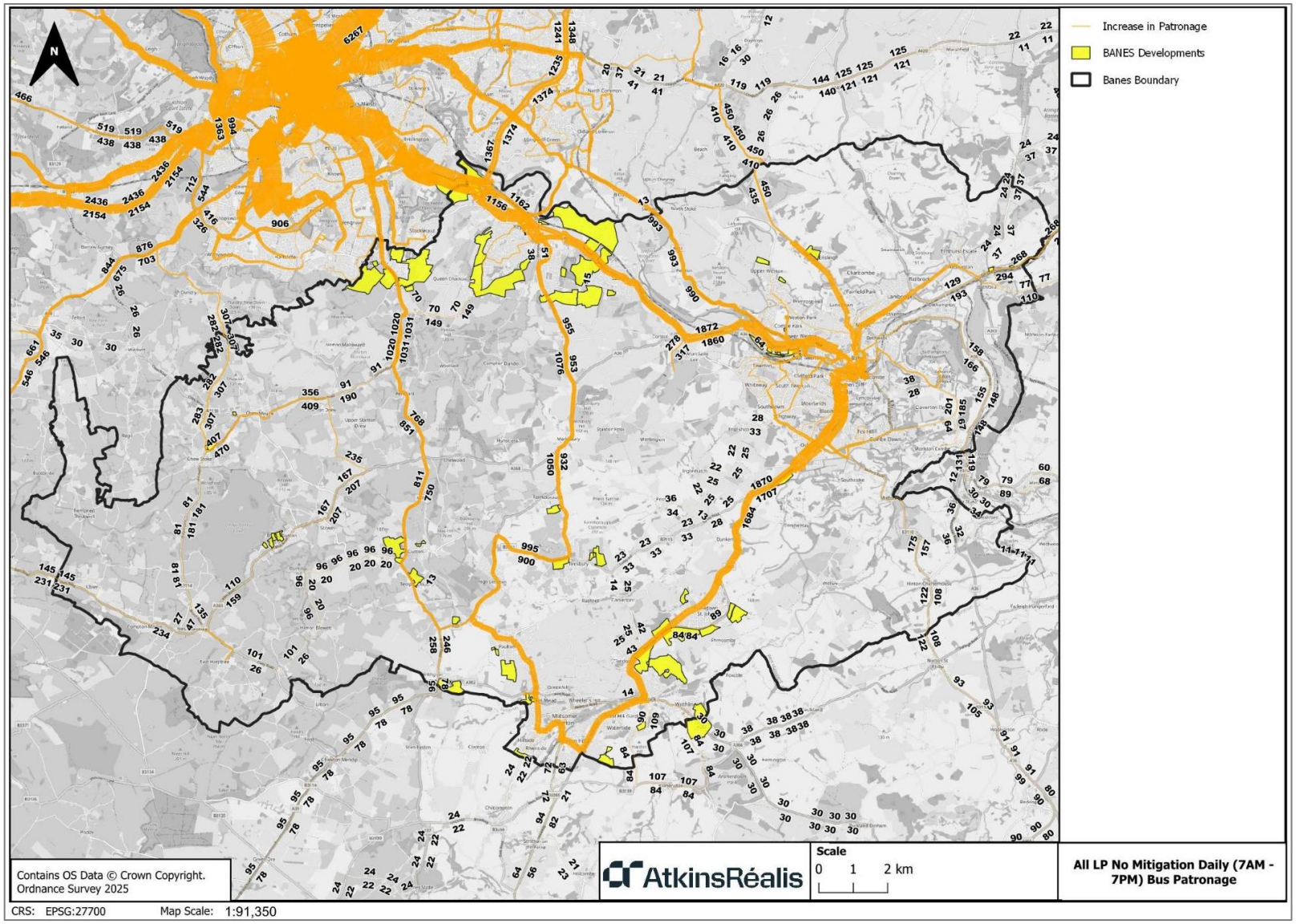
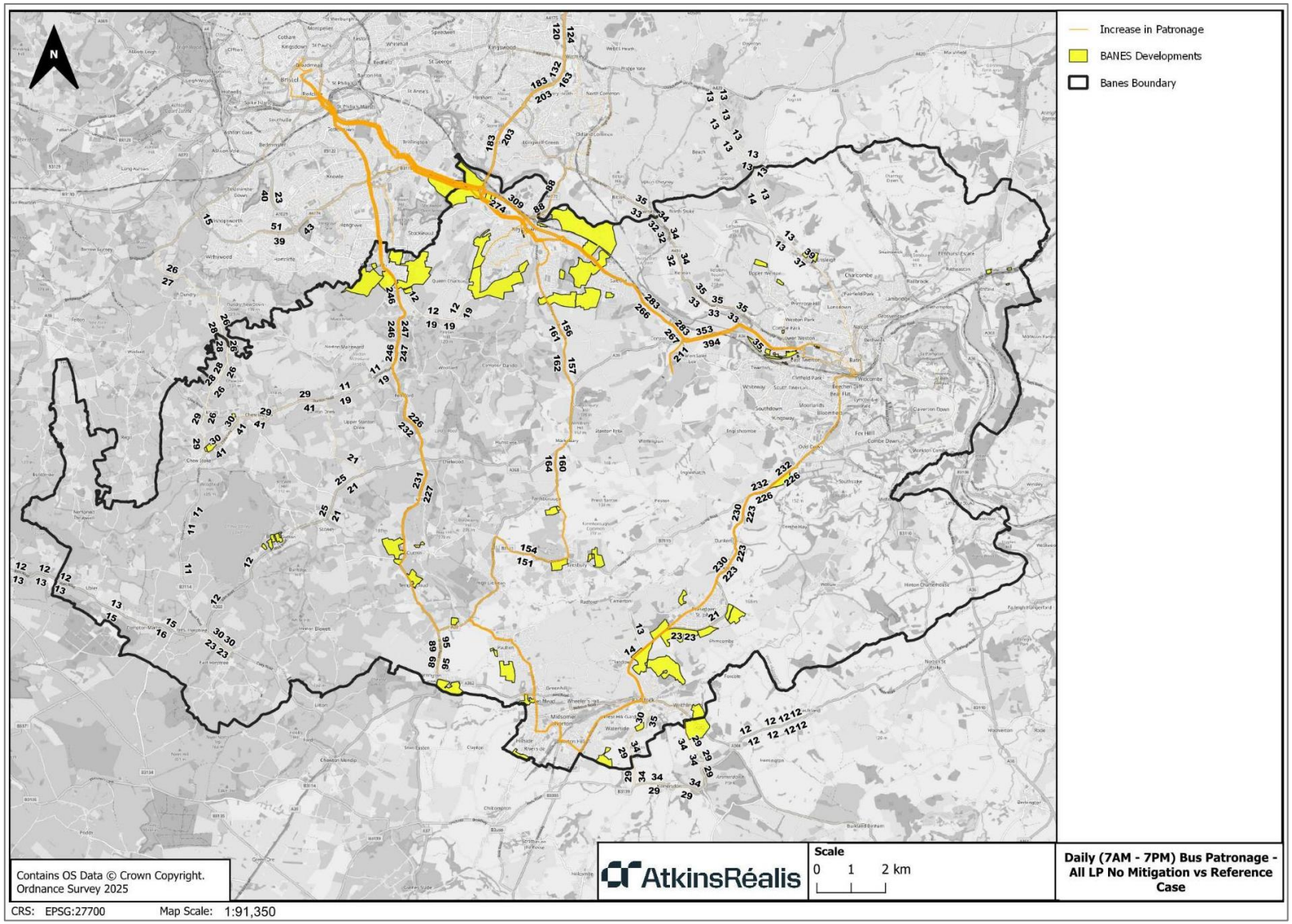


Figure 5-7 Increase in bus patronage in B&NES (Local Plan No mitigation vs Reference Case, 12-hour totals)



5.6 Impacts on highway demand

The vehicle movements generated from the sites (shown in Figure 5-1) will have wider consequences for traffic demands, routing and congestion across the wider network. Chapter 4 demonstrated that there will be increases in congestion, in future, under the Reference Case (which includes B&NES committed development and committed and wider planned development in neighbouring authorities). The movements generated from the Local Plan sites will further increase congestion on the network, causing other traffic to divert onto new routes.

Figure 5-8 shows the increases in background traffic across the network under the Reference Case (repeating Figure 4-10 in Chapter 4). It shows that there will be large increases in traffic in Bristol, North Somerset and South Gloucestershire due to their Local Plans, which will also cause 'spillover' effects into B&NES. This will include increased traffic through the Chew Valley due to congestion in Bristol, and increased traffic on the A4174 Ring Road, A4175 and A431 from the East Fringe, which will cross into B&NES near Hicks Gate and Keynsham.

There will also be significant increases in traffic from Wiltshire (A4, A363) and Somerset (A37, A367, A36) due to growth in these areas. This will increase traffic around Bath (from Wiltshire) and in the Somer Valley and A37 corridor (from Somerset). This evidence is being used to inform cross-boundary discussions on cross-boundary transport impacts with the adjacent authorities.

Figure 5-9 then shows the increases in traffic demand, over and above the Reference Case, due to the B&NES Local Plan. The network would be impacted by the traffic generated by the Local Plan sites, but this traffic would cause wider impacts, with other traffic re-routing to avoid congestion. Key highlights include:

- Around Hicks Gate and Keynsham: the demands from the sites would cause large increases in traffic on routes into Keynsham (Charlton Road, B3116 Wellsway), and on the A4 Keynsham Bypass, A4174 Ring Road, A4175 crossing into South Gloucestershire. Increased congestion on the A4 will mean that more traffic will shift to the A431 through Bitton and Kelston for trips from the East Fringe.
- Whitchurch Village: the traffic flows from individual developments, shown in Figure 5-1, would be unlikely to translate into significant overall increases in traffic in the immediate area. This is because there are significant capacity constraints in Whitchurch village and constrained capacity on local lanes. This means that other traffic would be displaced onto other routes, including Wells Road through Dundry into Bristol via Queens Road.
- East and north of Radstock: large increase in traffic on the A362 from Writhlington into Radstock, and on the A367 from Peasedown into Radstock, with trips also extending to Bath. Radstock town centre will be subject to increased traffic pressures due to the scale of growth in this area. There will also be cross-boundary traffic movements into Somerset, caused by demand for travel to Frome and other towns in the Mendip area.
- There will also be significant increases on other routes in B&NES, notably the A39 in Marksbury and Farmborough, with increased east-west flows between Corston and the A37, and north-south flows between the Somer Valley and Keynsham. There will also be more traffic on routes such as Tunley Road (avoiding congestion on the A367 and through the Somer Valley), B3130 through Chew Magna, and A368 through Marksbury, Bishops Sutton and The Harptrees.

These analyses indicate that the Local Plan is forecast to result in increased traffic across B&NES, with movements also crossing into Bristol (from Whitchurch, Hicks Gate and Keynsham), South Gloucestershire (from Hicks Gate and Keynsham), and North Somerset (from Whitchurch, Temple Cloud, Clutton and Bishop Sutton). Impacts are also expected on parts of the network in Somerset (from sites in Midsomer Norton, Farrington Gurney and Writhlington) and there will be minor impacts in Wiltshire. These cross-boundary impacts have been discussed with neighbouring highway authorities, and B&NES Council will seek to agree Statements of Common Ground with these authorities.

Figure 5-8 Traffic flow changes in the West of England (2042 Reference Case vs 2019 Base, 12-hour total)

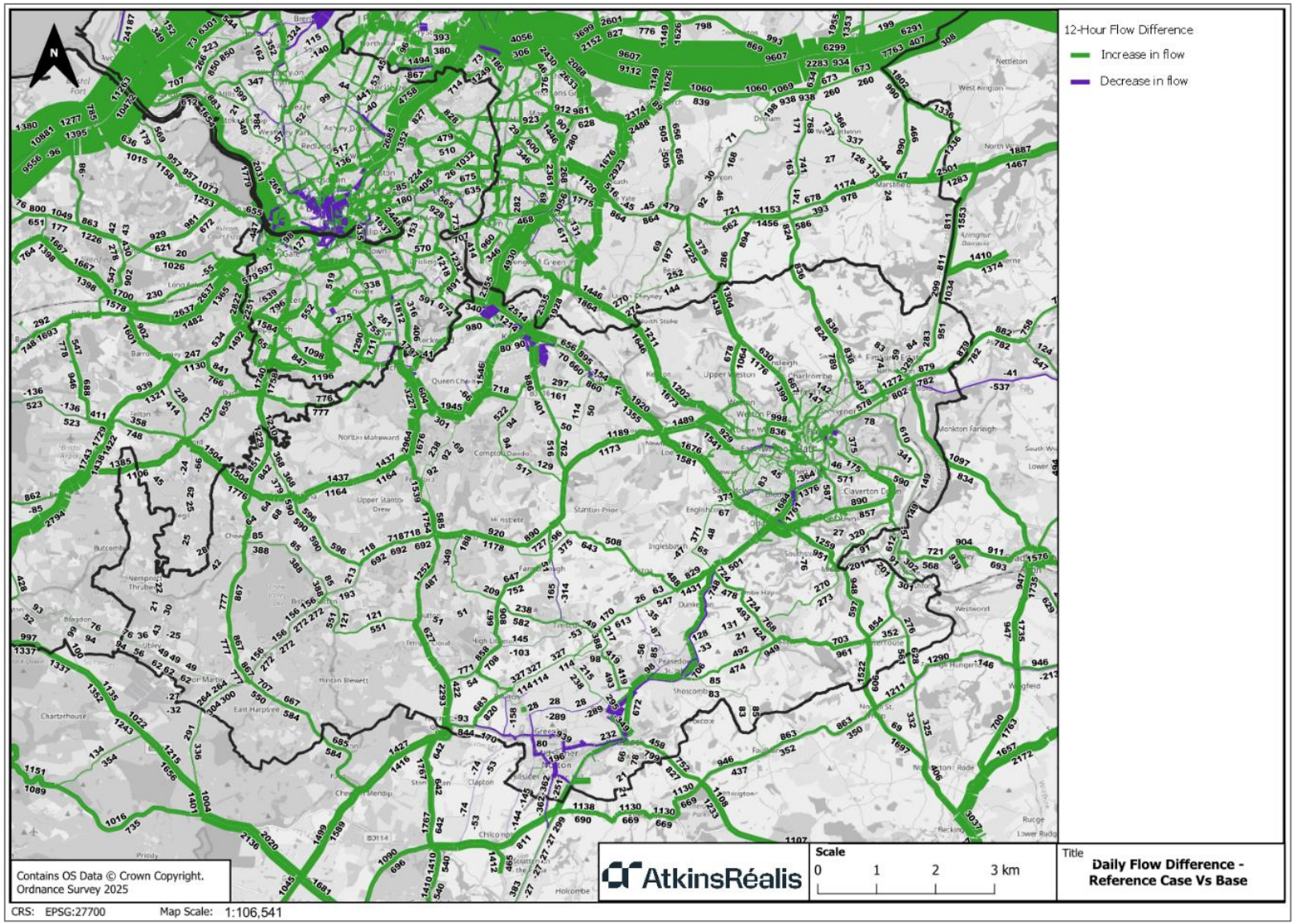
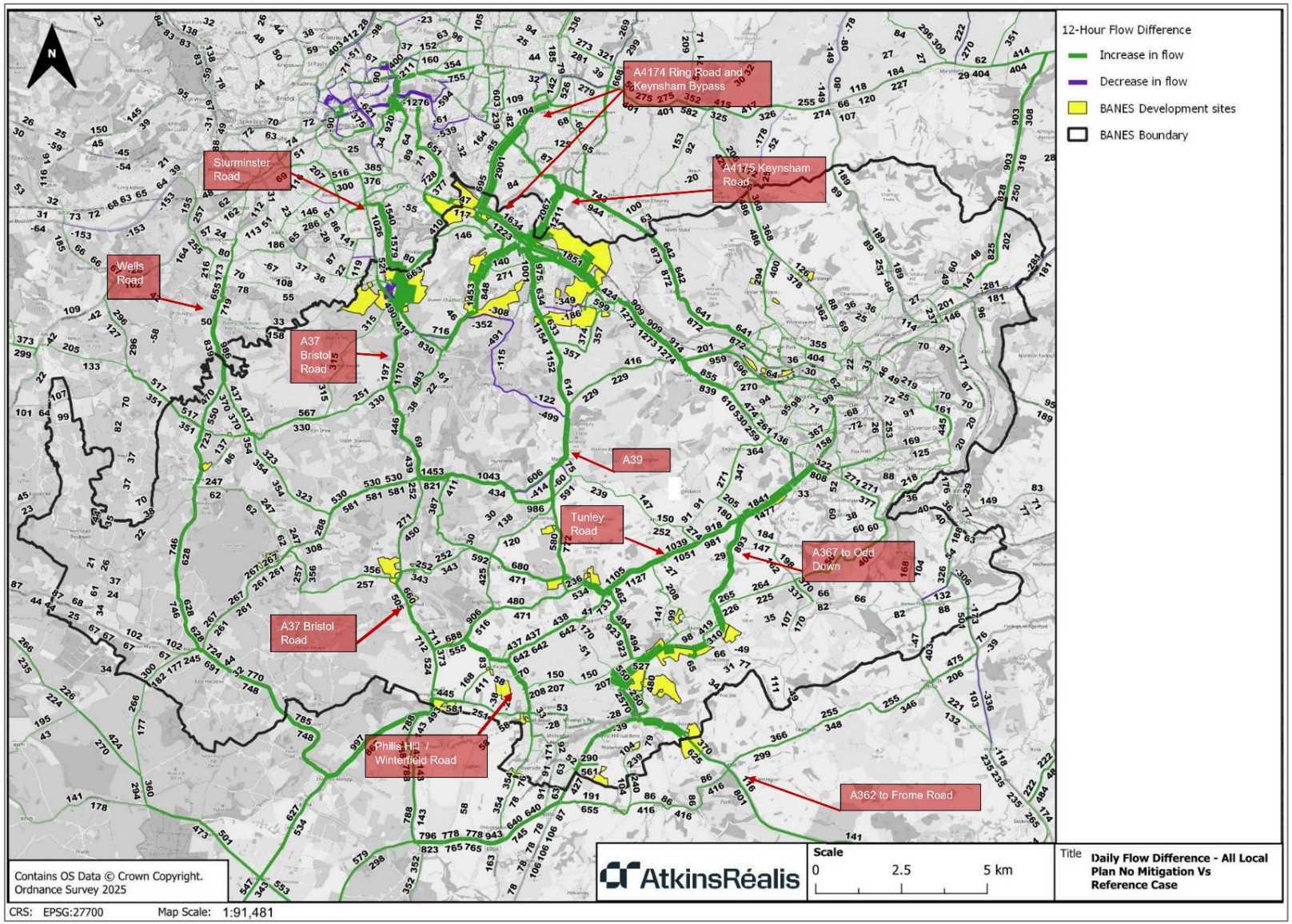


Figure 5-9 Traffic flow changes (Local Plan No mitigation vs Reference Case, 12-hour totals)



5.7 Impacts on road network performance

These increases in road traffic will cause increased congestion and delays on the road network. Table 5-6 shows the overall network performance with the Local Plan, in B&NES, before any transport mitigation measures.

Table 5-6 Road network statistics (without transport mitigation): B&NES

Scenario	AM/PM Peak Hr travel time (mins)	AM/PM Peak Hr delay (mins)	Daily Distance Travelled (million km)	Average Distance Travelled per trip (km)	Daily Vehicle Demand (1000s PCU inc freight)
2019 Base	26.4	4.5	6.7	20.6	325
2042 Reference Case	28.5	6.2	7.9	21.8	362
Local Plan No Mitigation	**29.7**	**7.6**	**8.8**	**20.9**	**421**
2042 Reference Case vs 2019 Base	+8% (+2.1 mins)	+38% (+1.7 mins)	+18%	+5.7% (+1.2 km)	+12%
Local Plan No Mitigation vs 2019 Base	+12.5% (+3.3 mins)	+68.9% (+3.1 mins)	+31.3%	+1.5% (+0.3 km)	+29.5%
Local Plan No Mitigation vs 2042 Reference Case	+4.2% (+1.2 mins)	+22.6% (+1.4 mins)	+11.4%	-4.1% (-0.9 km)	+16.3%

In B&NES, the total daily vehicle demand associated with the Local Plan No Mitigation scenario is forecast to increase by 16% compared to the 2042 Reference Case, and by 30% compared to the 2019 Base Year. This compares to a 12% increase between the 2019 Base Year and the 2042 Reference Case. This step change in growth will require a comprehensive approach to manage the impacts.

The spatial strategy will play an important role in helping to reduce trip lengths associated with new development. Compared to the Reference Case, total distance travelled is forecast to increase by 11%, while daily vehicle demand increases by 16%. As a result, the average distance travelled per vehicle is forecast to reduce by around 4%. This reflects the location of new development closer to existing jobs, services and facilities, enabling people to live more locally, for example at Whitchurch Village, Hicks Gate and North Keynsham.

This will help to manage the impacts of additional traffic on overall network performance. Average journey times in B&NES are forecast to increase by only 4% compared to the Reference Case despite the 16% increase in daily vehicle demand. This reflects the shorter average trip lengths associated with the spatial distribution of development. In contrast, background growth in the Reference Case is forecast to increase journey times by 8% relative to the 2019 Base Year, from a 12% increase in daily vehicle demand. It should also be noted that the Reference Case includes growth from neighbouring authorities, which contributes to traffic and delay within B&NES.

The delay component of journey time is forecast to increase more rapidly, by 23%, from 6.2 minutes per vehicle in the Reference Case to 7.6 minutes per vehicle in the Local Plan No Mitigation scenario, an increase of 1.4 minutes per vehicle. However, this is of a similar order of magnitude to the increase between the 2019 Base Year and the 2042 Reference Case, where delay increases by 1.7 minutes per vehicle, from 4.5 minutes to 6.2 minutes.

Table 5-7 compares these metrics against the figures for the West of England as a whole.

Table 5-7 Road network statistics (without transport mitigation): West of England

Scenario	AM/PM Peak Hr travel time (mins)	AM/PM Peak Hr delay (mins)	Daily Distance Travelled (million km)	Average Distance Travelled per trip (km)	Daily Vehicle Demand (1000s, PCU inc freight)
2019 Base	33.3	4.3	72.7	36.3	2,000
2042 Reference Case	36.3	6.8	89.2	36.9	2,420
Local Plan No Mitigation	**36.7**	**7.4**	**90.1**	**36.4**	**2,470**
2042 Reference Case vs 2019 Base	+9% (+3.0 mins)	+60% (+2.5 mins)	+23%	+1.5% (+0.6 km)	+21%
Local Plan No Mitigation vs 2019 Base	+10.2% (+3.4 mins)	+72.1% (+3.1 mins)	+23.9%	+0.3% (+0.1 km)	+23.7%
Local Plan No Mitigation vs 2042 Reference Case	+1.1% (+0.4 mins)	+8.8% (+0.6 mins)	+1.0%	-1.4% (-0.5 km)	+2.3%

The B&NES Local Plan No Mitigation scenario would result in a 2% increase in daily vehicle demand across the West of England compared to the Reference Case. As shown above, it would also result in a smaller increase in the total distance travelled (1.0%), reflecting a 1.4% reduction in the average distance travelled per vehicle due to the spatial strategy that has been adopted. This would help to limit impacts on network performance, with average journey times increasing from 36.3 to 36.7 minutes, equivalent to approximately 24 seconds per trip. The delay component of journey time would increase by a slightly greater amount, from 6.8 to 7.4 minutes, equivalent to approximately 36 seconds per vehicle.

The maps on the following pages show the forecast impacts of the Local Plan, **without mitigation**, on the road network in the morning peak period. It shows changes in traffic flows (green = increases, blue = decreases) and changes in delays, in seconds (red = increases, pink = decreases). Figure 5-10 shows the whole network, and Figure 5-11, Figure 5-12, and Figure 5-13 show more detail for Bath, the Keynsham area, and Somer Valley respectively.

Figure 5-10 Highway impacts of Local Plan (versus Reference Case, no mitigation) AM peak hour

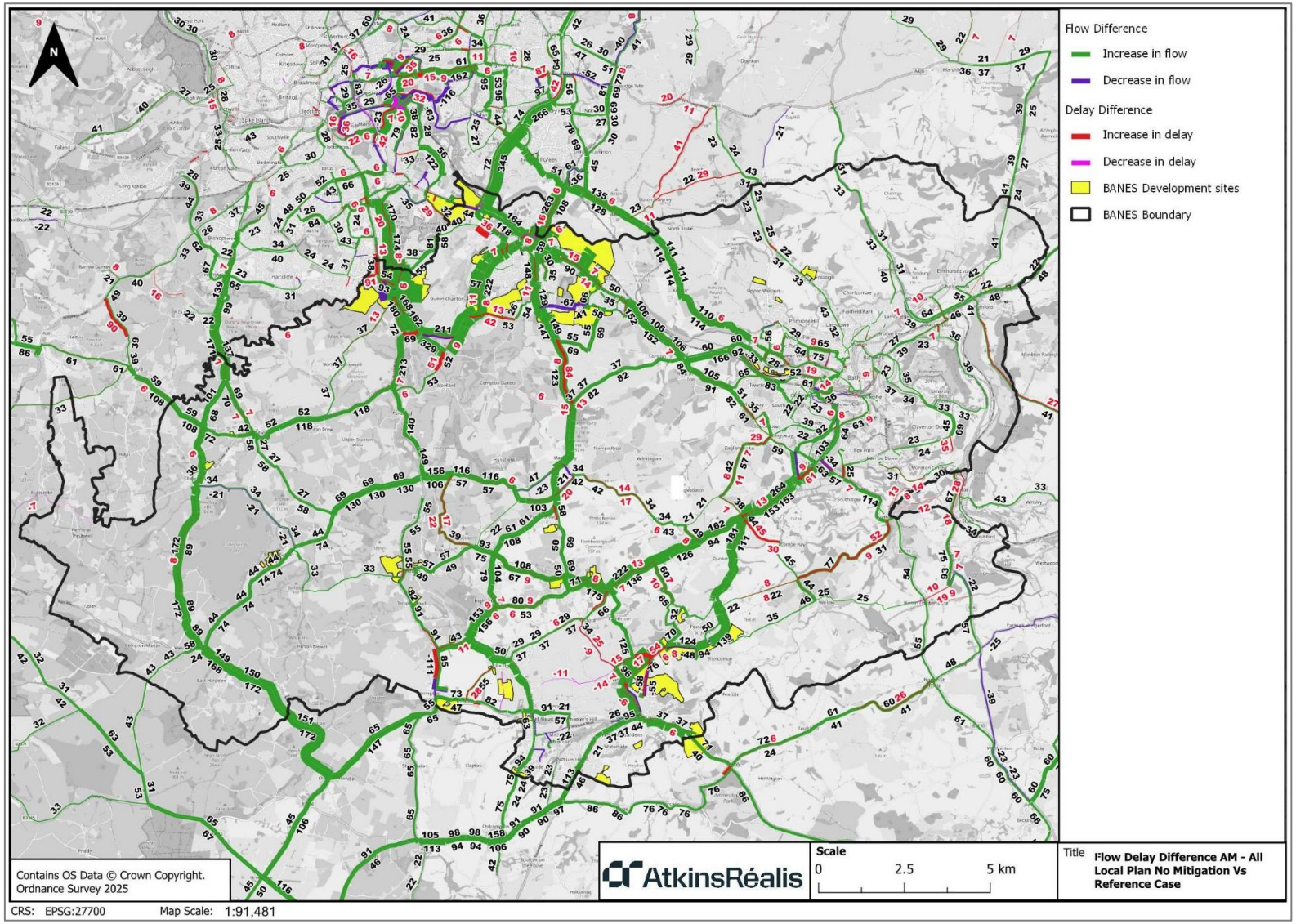


Figure 5-11 Highway impacts of Local Plan (versus Reference Case, no mitigation): Bath, AM peak hour

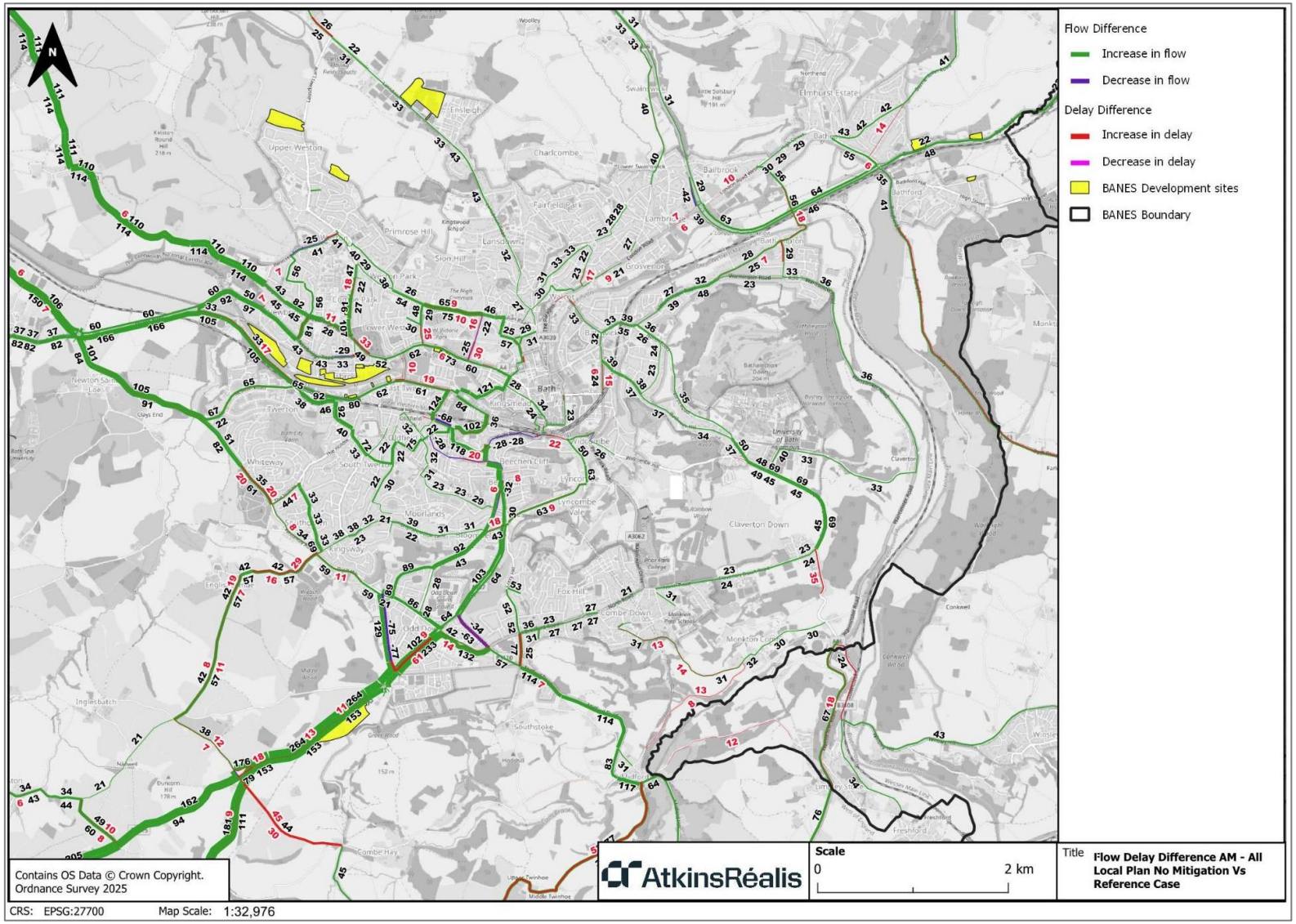


Figure 5-12 Highway impacts of Local Plan (versus Reference Case, no mitigation): Hicks Gate, Keynsham & Whitchurch, AM peak hour

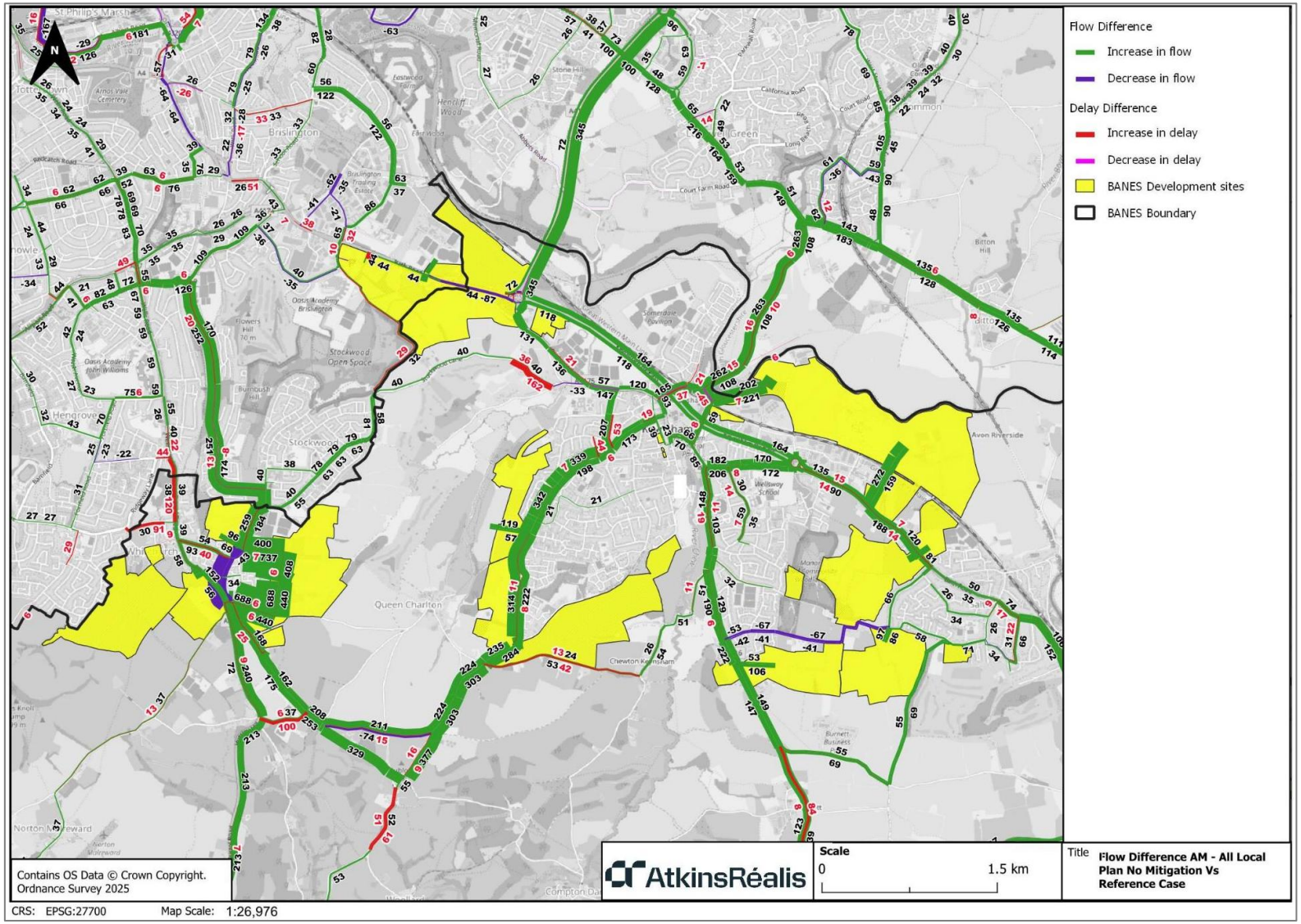
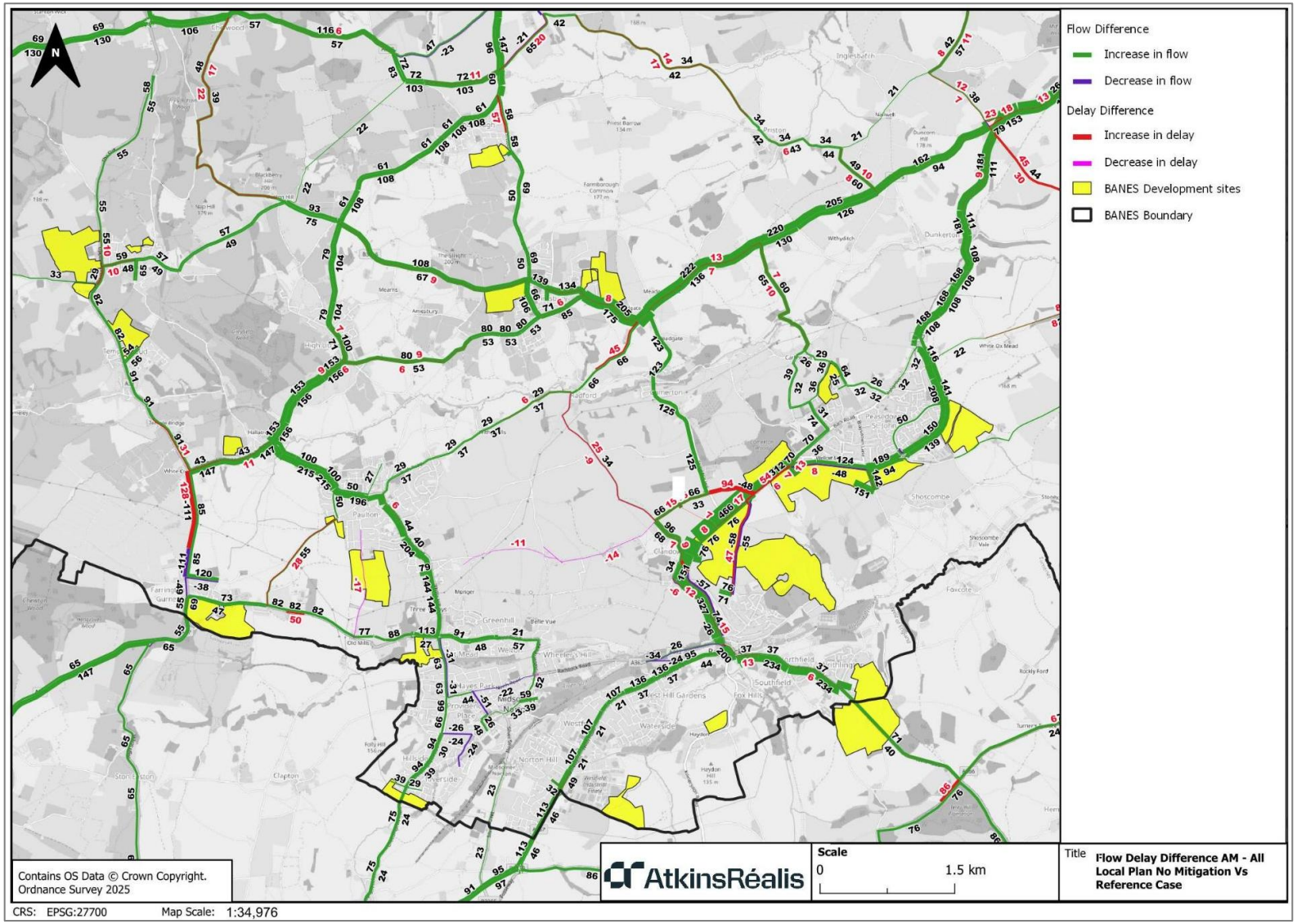


Figure 5-13 Highway impacts of Local Plan (versus Reference Case, no mitigation): Somer Valley, AM peak hour



Impacts of the Local Plan with no mitigation

As expected, the Local Plan with no mitigation is forecast to result in increased traffic delays across the network. In most cases, these increases would be modest, with average increases typically less than 20 seconds (compared to the Reference Case), due to slower traffic on links and slight increases in delays at junctions. However, there are parts of B&NES that will experience significant delays under the Reference Case, which the Local Plan growth will further exacerbate, the main impacts of which are set out below.

- Bath: increases in delay on routes into the city on the A367 towards Odd Down resulting from increased traffic from the Somer Valley.
- Around Hicks Gate and Keynsham: significant challenges in Keynsham town centre, A4 from Saltford, Durley Hill from the west, and B3116 Wellsway from the south, together with the A39/B3116 traffic signals between Keynsham and Marksbury.
- Whitchurch Village: large increases in delay at the traffic signals in the village centre, due to development traffic using all arms of the junction. This is a key factor that causes the displacement of traffic onto other routes into South Bristol. This could be judged to be a severe impact and will require comprehensive mitigation.
- Somer Valley: increased delay on the A367 at Clandown which results in increased traffic on Tunley Road to the north, seeking to avoid this delay, and at the A363/A366/B3139 crossroads south-east of Writhlington, just across the border in Somerset.
- A37 corridor: in addition to the delays in Whitchurch Village, there would be increased delays in Farrington Gurney, at the traffic lights with the A39 south of Temple Cloud, and through Temple Cloud and Clutton. This could be due in part to the assumptions made on site accesses, and there could be scope for local mitigations to address these impacts.
- A36 corridor, south of Bath: increased delays are forecast at the traffic lights at Limpley Stoke viaduct, and on the side roads to the south, including Branch Road (from Hinton Charterhouse) and, across the border in Somerset, the A366 staggered T-junction at Farleigh, and A36 / Frome Road junction in Woolverton. The increased delays on side roads could have safety implications for traffic attempting to turn onto the A36.

These impacts are primarily driven by increased traffic demand associated with growth. At locations where signal control is already in place, the evidence indicates that traffic would operate with higher levels of delay during peak periods, but without necessarily a corresponding deterioration in underlying collision risk or operational safety. In this context, the potential for impacts to be considered “severe” relates principally to the scale and persistence of congestion and its effect on network performance and reliability, rather than to road safety outcomes. Consistent with national policy, the assessment therefore distinguishes between capacity-related impacts (increased delay and queuing) and safety-related impacts (collision risk and conflict). The evidence suggests that, while congestion may intensify at some locations in the absence of mitigation, the presence of signal control or existing junction management means that safety outcomes are unlikely to materially worsen.

The Local Plan transport strategy seeks to manage growth pressures through mode shift, demand management and targeted interventions, rather than increasing highway capacity. This includes enhancing active travel and public transport to reduce vehicle demand, alongside localised measures to maintain network efficiency and safety.

Overall, the conclusion is that the Local Plan could have potential serious consequences for the performance of the road network in some areas, including potential safety impacts on main roads, and long delays on critical parts of the network, most notably in Whitchurch and Keynsham. This will require a comprehensive approach to mitigation, aligned with B&NES vision and objectives, which should first explore opportunities to maximise active travel for local movements (see Section 5.4), then encourage public transport for longer-distance journeys where viable (see Section 5.5), which will help to reduce car trips. Highway mitigation will then be required to tackle the residual challenges primarily focussing on road safety impacts on the road network.

6. Local Plan Transport Strategy

This chapter responds to the challenges of managing the transport impacts of the growth in the Local Plan. It sets out the development of a comprehensive transport strategy that is framed by the transport vision and responds to the challenges described in the previous chapter. It includes:

- The process of developing the Local Plan transport strategy, drawing on the transport vision, building on existing strategies, and drawing on insights from the evidence.
- Consideration of alternative strategic approaches, including explaining why they are not justified and they will not be effective in meeting the needs of the Local Plan.
- Description of the transport strategy, including the proposed packages.
- Testing of the transport strategy, using WERTM to assess the impacts on travel demands, traffic flows and network performance with the mitigation in place.

6.1 Developing the transport strategy

The Local Plan transport strategy has been developed taking account of the vision (set out in Chapter 2), wider transport strategies for different parts of B&NES (Chapter 3), and the evidence from the modelling and assessment of impacts of future growth — both background growth and the spatial strategy (Chapters 4 and 5).

First, the strategy has been informed by the **transport vision**[43] and its five transport objectives:

- Objective 1: Reduce the need to travel:
  - To retain and provide jobs, services and community facilities close to where people live, enabling shorter journeys and reducing the need to travel, especially by car. New and existing communities benefit when essential services are located within accessible, sustainable locations.
- Objective 2: Improve health and wellbeing through active travel:
  - To promote walking, cycling and wheeling, and reduce the negative effects of traffic such as air pollution and congestion. A comprehensive active travel network allows shorter journeys to be made sustainably and contributes to social, environmental and public health benefits.
- Objective 3: Improve public transport accessibility and integration:
  - To deliver a connected public transport network supported by integrated mobility hubs, enabling seamless end-to-end journeys. New development should be well linked to rail, bus and shared mobility options, ensuring convenient alternatives to private car use.
- Objective 4: Deliver fairer economic growth through inclusive transport:
  - To create a socially inclusive transport system that removes barriers to travel and supports equitable access to employment, education, services and community life. Transport should meet diverse user needs and reduce inequalities created by car-dependent systems.
- Objective 5: Create better places and a climate-resilient network:
  - To design safe, attractive and climate-resilient streets and neighbourhoods. High-quality public realm, green infrastructure and reduced car dominance help create environments that support active travel and enhance quality of life.

By locating new development close to existing jobs, services and community facilities, it will be possible to encourage residents to live more locally by using these facilities, strengthening viability and supporting local

[43] Local Plan Transport Vision and Objectives

belonging and cohesion. It will also reduce the lengths of journeys and help to reduce car dependency. By making improvements to active travel infrastructure, it will be possible to further improve the attractiveness of walking and cycling for these local journeys, and by locating development close to new and improved local centres and public transport connections, more people will be able to travel by bus and rail. Tackling barriers to travel will help to reduce car dependency, whilst high-quality street design will reduce car dominance and promote more active journeys.

Second, the transport strategy has been developed to **fully integrate with existing transport strategies**, including the Active Travel Masterplan[44], Creating Sustainable Communities Strategies[45], and Movement Strategy for Bath[46]. These existing strategies all follow the principles described above.

The Active Travel Masterplan creates the overarching blueprint for improving walking, wheeling, cycling and scooting across B&NES. It sets out the ambitions for future network development, including strategic routes, quiet routes and community connections. The assessment of the sites in the Local Plan has taken account of the existing proposals in the Masterplan, and proposals for new active travel improvements to support sites in the spatial strategy fully integrate with the masterplan.

The Creating Sustainable Communities Strategies, for Keynsham and Saltford, Hicks Gate, Whitchurch Village, and the Somer Valley, were designed to address existing challenges and set the foundations for delivering the Journey to Net Zero in B&NES. These include enhanced active travel, travel hubs, and new and enhanced bus services. The assessments of sites have taken account of these schemes, and proposals to support the new sites have been fully integrated. The Movement Strategy for Bath sets out principles for the future management of road space, including 'policy levers' to reduce traffic moving within, to/from and through the city. The proposals to support the new sites have also been fully integrated with these principles.

Third, the transport strategy has been developed to respond to the **opportunities and challenges resulting from the spatial strategy** that were described in the previous chapter. These include:

- Transport evidence has been used to inform the spatial strategy, which has been used to remove sites that would have major challenges in providing sustainable access options. This means that the sites proposed in the Local Plan have the strongest potential to support the principles of the transport vision and support the council's wider policy goals.
- There must be a strong focus on enabling people to make sustainable choices from the very start of each journey. This will include high-quality walking, cycling and public transport infrastructure **within** the development sites, enabling penetration by bus services, and measures to reduce car dependency, including provision of integrated travel hubs and car clubs where viable.
- There will be increased walking and cycling from the development sites, even in the absence of improved infrastructure. The proposed sites are well located to support active travel for local journeys from the sites, which would build on background demand in local communities. It will be critical to ensure that these demands can be safely met. The transport strategy should focus active travel investment on the corridors where there is latent demand, which will also help to deliver higher levels of mode shift for local journeys.
- There will be significant increases in bus patronage along key corridors, including Bath to Bristol, Farrington Gurney to Bristol, and Somer Valley to Bath, even without measures to improve services. This presents an opportunity to deliver public transport improvements along these corridors, which will provide the foundations for delivering mode shift to public transport across B&NES.
- Multi-modal travel hubs, including Link and Ride facilities, offer the potential to provide new transport choices, particularly in supporting improved connectivity with bus services, which could enable opportunities

[44] Active Travel Masterplan | Bath and North East Somerset Council
[45] Creating sustainable communities: Journey to Net Zero | Bath and North East Somerset Council
[46] Movement Strategy for Bath

for car drivers in more rural areas to transfer to bus services for onward journeys into Bath, Bristol and connections to the rail network. This is currently a popular choice for many car drivers and the strategy seeks to further enhance this concept and intercept trips earlier, thereby reducing congestion, delays and kilometres driven.

- Whilst the strategy has strong potential to deliver mode shift along established sustainable transport corridors, car travel will remain important for many movements. This will include traffic using more rural roads, and complex traffic demands round Keynsham and Whitchurch, including 'orbital' movements in this area. It will be critical to understand these demands and develop measures to manage their impacts.
- This will include the need to mitigate the impacts of increased traffic in Whitchurch and Keynsham, in particular, together with the A37 corridor between Whitchurch and Farrington Gurney, A39 near to Marksbury, A367 between Clandown and Peasedown, and parts of the network beyond the B&NES boundary, including the A36 from Claverton to Beckington in Somerset. This includes increased congestion and potential safety impacts.
- This will require a comprehensive approach to mitigation, which should be guided by our Vision by first identifying measures to enable active travel for local journeys (and ensure that walking and cycling are safe options) and then enabling more public transport journeys, which will collectively help to reduce car journeys. Traffic management measures should also be integrated into multi-modal solutions for each corridor but, in some cases, specific localised highway mitigation or safety measures will be required to satisfactorily address the impacts on the network.

The transport strategy will also be designed to build on existing commitments, including ongoing investment through the City Regions Sustainable Transport Settlement (CRSTS) and the region's emerging Transport for City Regions (TCR) programme. It will also be designed to support larger-scale transformational investment, including mass transit and rail improvements, although it will not be dependent on this larger-scale investment.

6.2 Potential alternative approaches

The emerging proposed approach has been considered against alternative approaches to delivering transport mitigation for the Local Plan. Those approaches have been discounted because they are not consistent with the region's policy approach and they would not be effective. The options considered were as follows:

Do Nothing

This approach would not deliver any significant transport measures to mitigate the impacts of the Local Plan. The impacts would be largely as described in Chapter 5. It is highly likely that new development would be designed around cars, and not the needs of people. This would fail to address all five transport objectives listed above.

There would be some increases in active travel, due to the increased numbers of people living and working in the area, but pedestrians and cyclists would face significant safety risks from inadequate walking and cycling infrastructure. There would also be increases in the numbers of people using buses, but services would not adequately meet their needs. Buses would not adequately access sites, users would suffer from poor quality bus stop infrastructure, and access to the stops would be poor (and potentially dangerous in places).

Most people would actively choose to drive because walking, cycling and using buses would be such a poor experience and therefore not a realistic or viable option. Those people without access to their own car (including older people, teenagers and children) would be at risk of heightened exclusion. This would be particularly inequitable for households for whom the cost of buying, running and maintaining a car is a significant burden, and for people who are unable to drive for reasons of age, disability, health, personal circumstance or choice. A car-dependent strategy would therefore risk limiting access to employment, education, healthcare, shops and social opportunities for those who are least able to rely on private car travel.

The high volumes of traffic generated under this approach would mean high levels of congestion, worse air quality, and serious road safety risks across the wider network. **This would risk what could be considered severe impacts on the road network, and it would fail all four of the NPPF soundness tests.**

Do Minimum

This approach would instead adopt more localised mitigation, focused on addressing localised impacts of individual developments, or linked developments where these are close, for example adjacent allocations in Whitchurch. It would give more consideration to the five objectives, but these would not be adequately addressed.

This would include greater consideration of local site access strategies, internal site circulation, provision of footways, and creation of new bus stops on nearby roads. However, it would not include comprehensive measures to reduce the need to travel by car (measures such as local travel hubs and car clubs would be excluded) and it would not attempt to develop a coherent approach to local active travel networks or bus provision.

The localised measures that attempt to mitigate the impacts of individual sites would mean a 'patchwork' approach, with short sections of localised and isolated walking and cycling improvements not linking to key destinations, and individual proposals for improvements to local bus infrastructure and services, with the danger of inconsistent, competing priorities. The overall improvements in journey quality would be likely to be very modest, with limited impacts on mode shift and car use.

It is also likely that very localised highway schemes would be identified, which would fail to adequately mitigate the cumulative impacts of the Local Plan. There would be numerous issues on the network that would not be adequately addressed, with serious residual congestion and safety problems. **This is also likely to result in a risk of severe impacts and would not meet the NPPF soundness tests.**

Highways-focused strategy

This would follow the principles of a 'predict and provide' approach, largely focusing on analysing the impacts on the road network, and attempting to mitigate all the impacts on the road network, primarily through increasing capacity. This approach could also prove to be one of the most costly, as significant highway capacity and junction improvement schemes are typically expensive to deliver and maintain over the long term.

There would be largely superficial consideration of walking, cycling and buses, with these treated as 'add-ons' to improved road infrastructure. This approach would fail against all five objectives and would actively conflict with B&NES' wider policy objectives.

In the case of pedestrians and cyclists, this would be largely focused on addressing safety concerns, rather than making walking and cycling more attractive. New bus stops would be provided, but road space would be managed to focus on general traffic movements, not on supporting bus reliability or enhancements.

This would result in very high levels of car dependency within the sites and across the wider area in response to the signals being given. Those without access to a private car would face increased social exclusion. Over the longer term, it is unlikely that the Council would be able to sustain the level of infrastructure investment required to accommodate continued growth in car use. As a result, congestion would continue to increase, environmental conditions would worsen, and safety outcomes for all users would be adversely affected. **This approach would fail against all four NPPF soundness tests.**

Forcing change ('Do Maximum')

This would take the opposite approach; instead focusing completely on walking, cycling, bus and rail, and actively discouraging travel by car. There would be large-scale investment in transforming active travel networks for local journeys, multi-modal interchange, and frequent bus services to key destinations from most locations. It would also be supported by stringent demand management policies to discourage driving, such as reducing parking capacity, increasing parking costs, road user charging, workplace parking levies or other forms of congestion pricing. This approach would support the transport objectives in sustainability terms, but it would face major deliverability, equity and economic challenges.

There would be a strong focus on investing in local facilities, either in the sites themselves or in communities where new development is located. State-of-the art walking and cycling connections would be created, including reallocating and narrowing space for other vehicles where required. High quality travel hubs would be created across the area, served by frequent buses (with four or more services per hour) connecting to destinations including Bath, Bristol, and the Somer Valley towns. Buses would be prioritised on main roads, with bus lanes and bus gates at traffic signals, with other traffic given less priority. Speed limits would be reduced across the network, with a strong focus on improving safety for vulnerable users, including pedestrians and cyclists (and equestrians in rural areas).

Car dependency would reduce, but in many cases, people would not voluntarily be choosing the alternatives. They would instead be more likely to choose these modes because driving would be comparatively less convenient and attractive. People would feel that their lives have become more difficult, and in some cases they would resent the choices that they are forced to make, particularly in rural areas where people would have to make the biggest sacrifices in their lifestyles.

A strategy that relies too heavily on restriction, charging or making driving substantially more difficult could also have unintended consequences. It may be inequitable if higher-income households are still able to absorb the cost of driving, while lower-income households face reduced access to jobs, education, healthcare and services. It could also disproportionately affect disabled people, carers, shift workers, older residents and those in rural communities who may have fewer practical alternatives to the car. If taken too far, strong demand management could also undermine local economic activity by making it harder for residents, workers, visitors and businesses to access town centres, employment areas and local services. For these reasons, although this type of approach would support climate and mode shift objectives, it is unlikely to provide a balanced, deliverable or fair basis for the Local Plan transport strategy.

This approach would be costly, in terms of both the initial capital investment and ongoing costs of operating frequent bus services. **This is unlikely to meet the NPPF soundness tests because it would not be deliverable.**

Preferred approach: effective choices

The preferred approach is to instead draw on the transport vision, build on the existing strategies, and tailor measures to the needs of different places drawing on the evidence, as described above. This approach will seek to enable a lot more people to choose to use sustainable transport modes, whilst acknowledging that some journeys will still need to be made by car. It will significantly improve the travel choices for the development sites, which will reduce car dependency and help mitigate the impacts on the road network.

This strategy has been designed to meet the needs of the whole Plan area, including effectively addressing the cross-boundary impacts of travel between B&NES and adjacent local authorities. It also focuses on tackling the specific geographic challenges in different parts of B&NES, as demonstrated by the evidence base in this report. This includes the individual sites, and their collective impacts, in the following areas:

- City of Bath: because Bath faces unique opportunities and challenges as a doubly-inscribed World Heritage Site and with significant environmental constraints.
- Bristol to Bath corridor: due to the scale of growth that will be delivered in Hicks Gate, Keynsham, Saltford, and Whitchurch Village, and the existing levels of travel demand and complexity of issues that must be addressed.
- Somer Valley and rural areas: Somer Valley has different characteristics to other parts of B&NES with a low density of population that is spread over a larger area. Development in this area, and the wider rural areas, will require tailored approaches to mitigation.

This approach will therefore develop tailored approaches to meet the diverse challenges in these different areas, led by the evidence, and building on existing strategies, whilst delivering the vision and objectives. **This offers the best opportunity to deliver a sound strategy that will effectively mitigate the impacts of growth and meet the NPPF soundness tests.** The following section describes the detail of this proposed approach.

6.3 Description of transport strategy

This section sets out the transport mitigation strategy for Bath, the Bristol to Bath corridor, and the Somer Valley and rural areas. Development sites are assumed to incorporate high levels of active travel permeability, support bus access and include appropriate mobility measures, such as travel hubs and car clubs where viable. The area-based strategies then build on these site-level measures to address wider transport challenges and support sustainable growth.

The preceding sections have set out the key principles that have shaped the transport strategy. It has firmly focused on first improving transport choices, both active travel and public transport, before then addressing highway mitigation. The evidence also shows that it will be important to address the distinct needs in Bath, the Bristol to Bath corridor, and the Somer Valley and rural areas.

The starting point is to ensure **effective local connectivity**, to enable people to safely and easily access local services and to connect with public transport options to travel further afield. This will be delivered through improved active travel connections and new travel hubs. The approach should be tailored to the needs of each local area, building on the principles of existing strategies and proactively responding to the opportunities that will come with new development.

The next component is to ensure **effective bus connectivity** on the key corridors connecting to major destinations: Bristol to Bath, Farrington Gurney to Bristol, Somer Valley to Bath, and the north-south Timsbury to Keynsham corridor. Enhanced bus services, infrastructure and multi-modal interchanges will focus on these corridors. This will include the delivery of multi-modal travel hubs on the A367 (Somer Valley to Bath) and A37 (Farrington Gurney to Bristol) corridors including car parking, high-quality bus stops, and travel information. These will enable people from surrounding rural areas to drive to the sites and then transfer to frequent bus services into Bath and Bristol.

The final component is to then address the **residual capacity and safety challenges** on the road network. The highway mitigation strategy addresses residual operational and safety impacts that remain after active travel and public transport measures have been applied. The approach focuses on supporting safe access to development and maintaining efficient network operation through targeted interventions, including junction improvements, pedestrian crossings, speed management, traffic calming, high-friction surfacing, improved signage and road markings, and local access improvements. These measures complement wider investment in sustainable transport and are described in the following sections.

6.3.1 Bath

The level of proposed development in Bath reflects the physical constraints and sensitivities in the city. However, there will be significant movement into the city generated from development in the Bristol to Bath corridor (section 6.3.2 below) and the Somer Valley and rural areas (Section 6.3.3). The strategy therefore includes significant public transport improvements on the A4 corridor from the west, and A367 corridor from the south. The approach will build on existing committed strategies including the Movement Strategy for Bath, Active Travel Masterplan, ongoing active travel investment in the city centre, and planned improvements along the A367 corridor in the Somer Valley Links programme.

The transport mitigation measures for Bath are presented in Figure 6-1 (active travel and travel hubs) and Figure 6-2 (bus improvements). There will also be highway modifications on the A367 adjacent to the south of Odd Down site to accommodate these ambitions, through improved access to Odd Down P&R for both P&R users and buses.

Relatively modest **active travel measures** in Bath (Figure 6-1) are proposed to support the Local Plan, reflecting the more limited scale of growth in the city. However, this should be set in the context of more transformational proposals that are already proposed for the city through the Active Travel Masterplan and Movement Strategy for Bath.

Improved (shared use) active travel facilities are proposed to connect to the employment-led allocation **south of Odd Down**, which will connect with current investments in active travel on the A367 Wellsway towards Bear Flat through the Somer Valley Links project. Further area-wide improvements will also support smaller-scale growth in Upper and Lower Weston in the west of the city, and in Batheaston and Bathford in the east.

Significant **public transport improvements** are proposed (Figure 6-2). These will include major enhancements to bus services on the **A367 corridor to the south**, which will connect to the Somer Valley, and **A4 Bath to Bristol corridor to the west**. These improved services will meet both the needs of Odd Down (employment-led allocation) and more strategic travel demands that will be generated from Local Plan development on the Somer Valley to Bath and Bristol to Bath corridors.

These public transport interventions have been identified to respond to the underlying increases in demand generated by the Local Plan proposals (see Figure 5-7) and will also unlock further mode shift to buses in these corridors. These proposals will build on the interventions in the Movement Strategy for Bath, which proposes significant improvements to bus services in the city.

In the case of the **A4 corridor to the west**, the strategy proposes upgrades to bus connectivity including significant improvements to the X39 service that connects Bath with Bristol. This will also support the needs of the Bristol to Bath corridor.

In the case of the **A367 corridor to the south**, the strategy proposes a significant upgrade to the **41 service** that operates from the current Park & Ride site at Odd Down. This will be required to accommodate increased demand for bus travel into the city from the Park & Ride site, due to background growth in travel demand in the corridor, and to support mode shift for travel into the city from the south. An upgrade is also proposed for the **174 service** from Bath to Radstock, Midsomer Norton and beyond, which will improve travel options into the city from the Somer Valley.

It has been assumed that the existing 522 service, which currently operates between Bristol and Bath via Brislington, Keynsham and the Somer Valley, will be reconfigured to operate only between Hicks Gate and Radstock via the Somer Valley at an increased frequency (from one to three buses per hour). This would provide a higher frequency service for communities within the Somer Valley, while maintaining improved connections to Bristol and Bath via interchange at Hicks Gate. The simplified routing is expected to reduce operating costs and support more reliable and frequent services along the core corridor.

The strategy supports the committed bus priority and active travel improvements along the Wellsway corridor into the city centre, which will be delivered through the current Somer Valley Links project. Travel hubs are proposed in Twerton, Odd Down and Batheaston, complemented by smaller supporting hubs at Bathwick, the University of Bath, and the Newton Park campus of Bath Spa University. These hubs would provide enhanced bus stop facilities, travel information and improved links with walking and cycling networks, supporting greater public transport use and reducing reliance on private cars.

The existing **Odd Down Park & Ride site** has been proposed for conversion into a **multi-modal transport interchange** as part of the Movement Strategy for Bath. In addition to enabling people to switch from cars to buses or active modes for the journey into the city centre, the interchange will also enable a much wider range of journeys into the city. The Movement Strategy has identified the potential for new bus connections from the interchange to the Royal United Hospital (RUH) and the University of Bath, further reducing car dependency for trips into the city. The interchange will also enable a wide range of options for travel to the employment-led site immediately to the south, reducing car dependency for trips from the city.

Large increases in demand for travel are forecast at Odd Down, caused by increased demand from the Somer Valley and the impacts of parking management in the city centre. Analyses indicate that the existing 1,230 space car park has the potential to accommodate future parking demand throughout most of the year, although capacity could be exceeded during future peak events, for example the Christmas Markets. It is not proposed to expand the car park, but instead to apply a corridor management strategy through the provision of a series of travel hubs to intercept more trips upstream on the A367. This is discussed further in Section 6.3.3.

Alterations are also proposed to the **road layout on the A367 approach to Odd Down** to encourage more drivers from the south to transfer to bus services at the transport interchange (Park & Ride), and to reduce downstream traffic on the Wellsway into the city. This could include a new direct access into the car park from further south on the A367, which would enable greater prioritisation for buses exiting the site onto the Odd Down roundabout to the north. These proposals would need further design development, including integration with site access proposals for the employment-led site adjacent to the Odd Down interchange.

There will be **no significant increases in highway capacity in the city**. The focus will instead be on ensuring efficient and safe movement of traffic on the key routes identified in the Movement Strategy for Bath, whilst providing attractive alternatives to the car and managing car parking capacity (which is expected to reduce over the next ten years) and parking costs (which are expected to increase) in line with policy in the city centre. The key traffic routes in the city include the A367 Wellsway (which connects to Odd Down).

Localised traffic management measures will be considered as part of the future planning of road space on these corridors, using the principles set within the Movement Strategy. Analyses of road safety data[47] indicate that there are clusters of collisions on both corridors. In the case of the A367 Wellsway, there are clusters at the Red Lion Roundabout, just north of Odd Down, and near Bear Flat. There are also clusters of collisions on the A36 Lower Bristol Road in the Twerton area. A safe systems approach will be taken to addressing these clusters (in the case of the Red Lion roundabout, these will be addressed as part of the active travel mitigation shown in Figure 6-1).

[47] Using MAVRIC (MAVRIC), see also Section 4.5.

Figure 6-1 Proposed active travel improvements in Bath

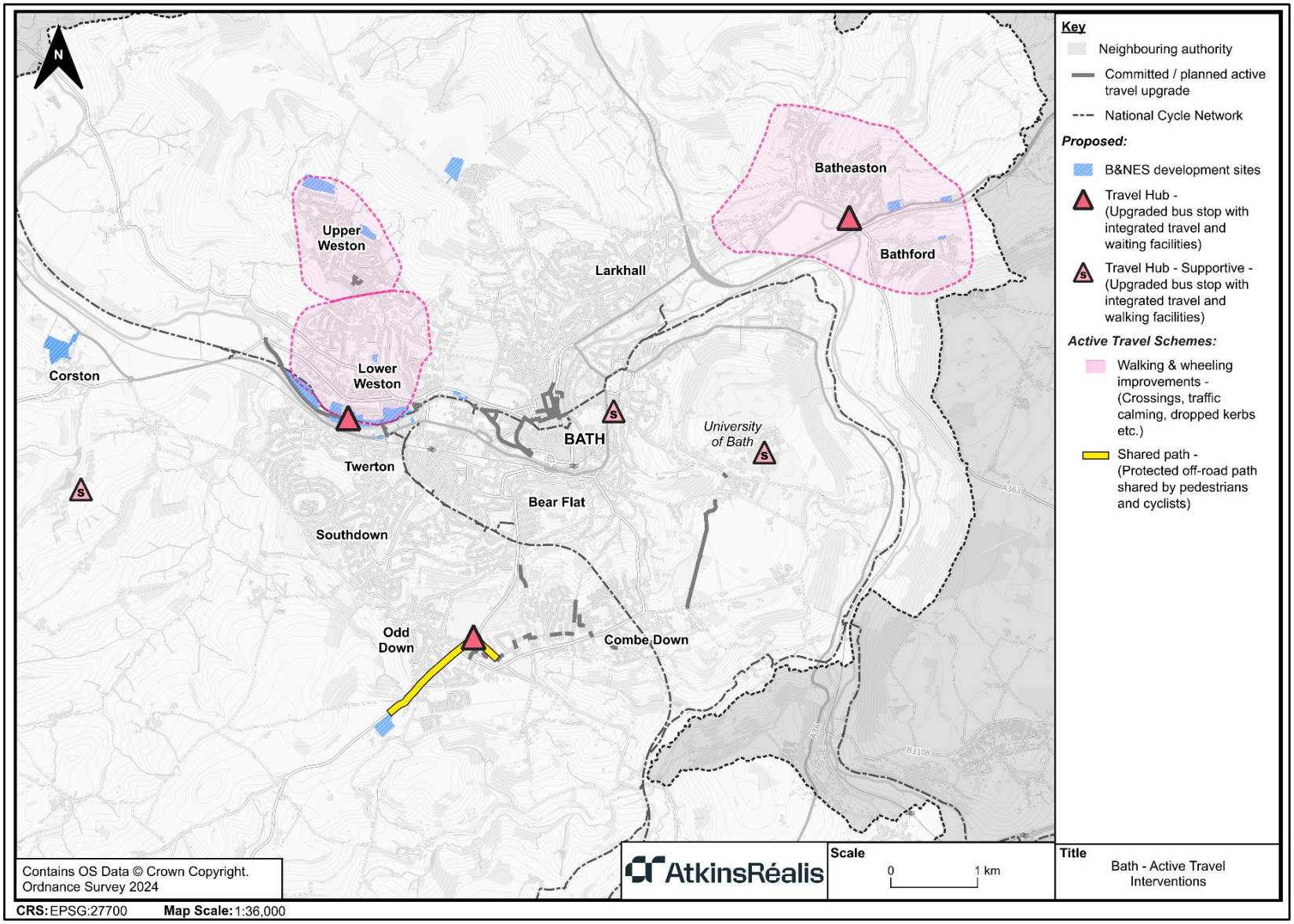
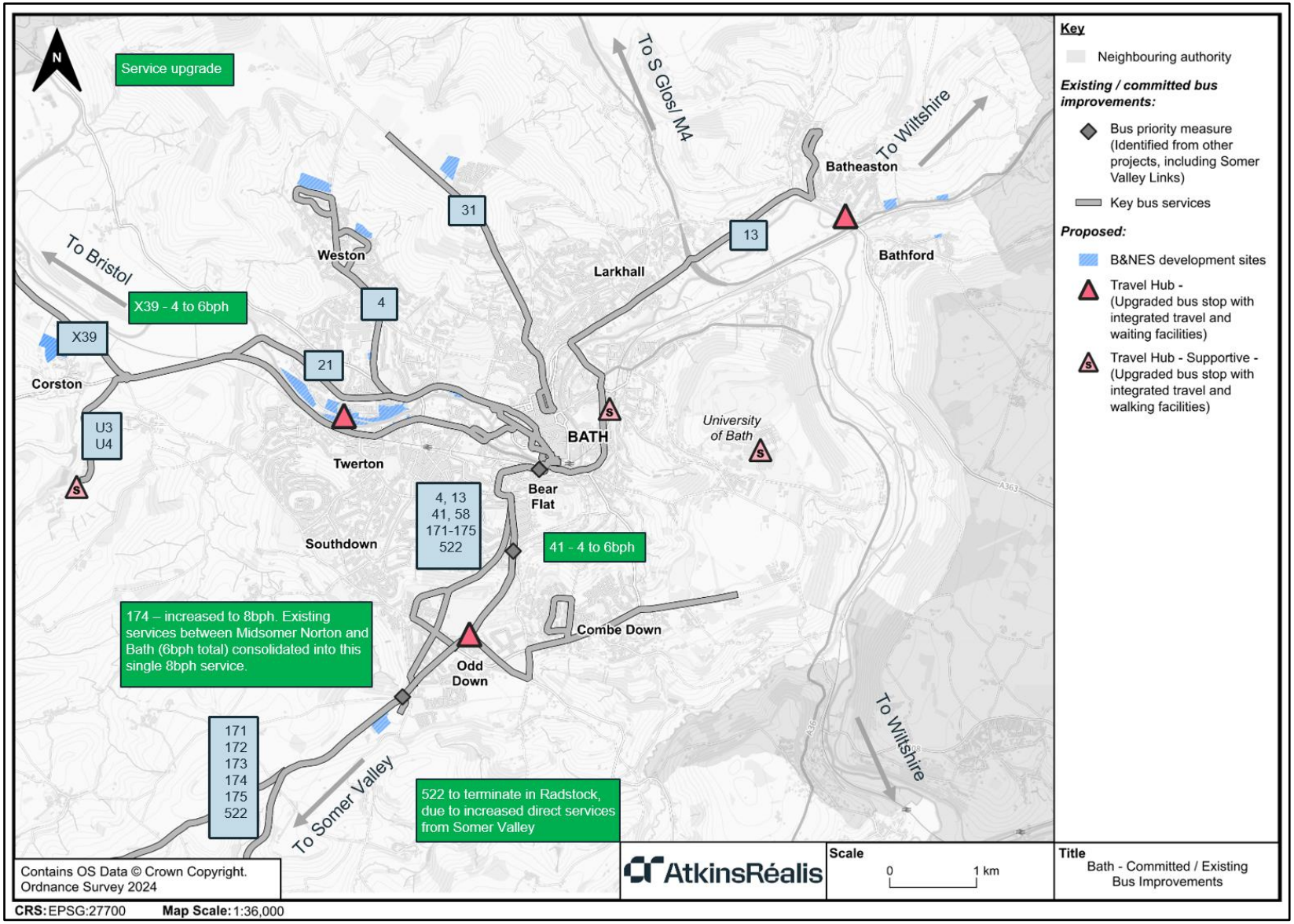


Figure 6-2 Proposed bus services, transport interchanges and travel hubs in Bath



6.3.2 Bristol to Bath corridor

The spatial strategy allocates significant amounts of development in this area. This will generate large volumes of travel, which will require an effective multi-modal strategy across the corridor. This will include improved public transport along the A4, including a strategic transport interchange at Hicks Gate, enhanced public transport connectivity in Whitchurch, major improvements to active travel, and delivery of new strategic access routes in North Keynsham and East Whitchurch. The approach will build on the Creating Sustainable Communities Strategies in Keynsham, Hicks Gate and Whitchurch, Active Travel Masterplan, and major improvements along the A4 corridor to be delivered through WECA's Bristol to Bath Strategic Corridor programme.

The proposals for the Bristol to Bath corridor are presented in Figure 6-4 (active travel improvements), Figure 6-5 (public transport improvements) and Figure 6-6 (highway interventions). Together, these measures are intended to support growth at Whitchurch, Hicks Gate, Keynsham and Saltford whilst reducing car dependency and managing impacts on the transport network. Significant active travel improvements are proposed, reflecting the scale of growth across the corridor. These respond to the forecast increase in walking and cycling demand (see Figure 5-5), support local journeys and improve access to public transport. Enhanced bus services, travel hubs and highway interventions complement these proposals, providing a coordinated approach to improving accessibility, network operation and road safety.

Keynsham and Saltford

An integrated programme of measures has been designed to transform travel choices, enabling people to walk and cycle for local journeys and easily connect to significantly improved bus services. A network of new **active travel hubs** will provide cycle parking, e-bike and e-scooter infrastructure, wayfinding, seating and maintenance facilities. These active travel hubs will be located across the new development sites, enabling people to hire bikes, e-bikes and scooters, and use enhanced active routes to connect to high-quality public transport along the A4 corridor.

Keynsham and Saltford will benefit from **new segregated active travel facilities** (additional to those committed in the Bristol to Bath Strategic Corridor programme) between Saltford and Keynsham, and Charlton Road from the south into Keynsham town centre. Road space is constrained in many locations. As a result, a range of interventions may be required on some corridors, including safeguarding for future widening where appropriate. This includes the A4175 Durley Hill between Hicks Gate and Keynsham town centre, and Parkhouse Lane south of Keynsham, where options may include widening, road space reallocation, or shared walking and cycling facilities. In South West Keynsham, a new cycle route will be created, running through the development site alongside Charlton Road connecting to Whitchurch Village via the existing modal filter on Queen Charlton Lane.

Mixed-traffic routes, providing for cycling on low-speed, low-traffic streets, are proposed on several routes to the east and south of Keynsham town centre, complemented by quiet lanes in more rural areas around Saltford. These will be complemented by segregated cycle facilities and shared-use paths on key corridors connecting Keynsham town centre with North Keynsham, Saltford, Whitchurch, Hicks Gate and major development sites, alongside targeted improvements to pedestrian routes and accessibility.

A package of active travel measures, including modal filters on Manor Road in Saltford, a mixed-traffic connection to the Bristol and Bath Railway Path, and enhanced walking and cycling links between Keynsham and Saltford, would help create lower-traffic environments and encourage greater use of sustainable modes for local journeys.

Significant public transport improvements are proposed across Keynsham and Saltford to improve travel choices and support mode shift. This will include the delivery of five new **local travel hubs**: in Keynsham town centre (on Ashton Way), Chandag Road in the south east of the town (near to the Wellsway School), on the A4 east of the Broadmead Roundabout, Queens Road in the south west (adjacent to the local district centre) and on

Charlton Road/ Parkhouse Lane. **Bus stop upgrades** are also proposed on Charlton Road (in Keynsham) and Bath Road (in Saltford) to improve passenger experience in these corridors.

This will be supported by the delivery of more frequent X39 bus services along the A4 (serving sites in Saltford and North Keynsham) and 522 services along Chandag Road and Wellsway. A new bus route is also proposed between Hengrove, Whitchurch and Hicks Gate, catering for orbital movements and supporting the travel needs of new development in south west Keynsham.

The strategy also includes the delivery of the **North Keynsham Access Road**, a new strategic corridor that will connect the A4175 at Avon Mill Lane with the A4 to the east of Keynsham. It will provide multi-modal access to the development allocation at North Keynsham and will provide a strategic alternative route for traffic between the A4175 and A4, which will help to reduce traffic at Hicks Gate and in the town centre. This will, in turn, enable reallocation of road space for sustainable modes and placemaking in the town centre, and provide capacity for strategic growth in the town. It will also support reallocation of roadspace on Avon Mill Lane and Pixash Lane.

It will also be necessary to make further modifications to the road network to support the ambitions for roadspace reallocation in the town centre and to effectively support growth in the town. This will include improvements to the A4175 / Avon Mill Lane junction to enable traffic to route using the North Keynsham Access Road. Improvements at the High Street / Bristol Road / Station Road junction, west of the town centre, have also been proposed as part of the Bristol to Bath Strategic Corridor. These will also support improved traffic routing around the town centre. Further improvements to the Charlton Road / St Ladoc Road junction will also support improved traffic routing around the south west of the town centre.

Hicks Gate and A4 corridor

Hicks Gate is proposed as a major new mixed-use development and transport interchange at the A4/A4174 junction (see Figure 6-3 overleaf). It will replace the existing Brislington Park & Ride and act as a strategic hub for bus services into Bristol, Keynsham, Bath, Somer Valley and North Fringe. The interchange is expected to attract significant demand from people transferring from car to bus, with up to around 2,500 parking spaces potentially required to support this role.

The site will be integrated with new residential and employment development and connected to Keynsham by a shared path along the A4175 Durley Hill/Bristol Road, with a further walking route proposed between Whitchurch and Hicks Gate. Recent masterplanning work has considered key constraints, including a gas pipeline across the site, while ensuring the interchange, car park, development parcels and road access can work together effectively.

The transport strategy will focus on reducing car dependency at this site by improving sustainable travel choices. At Hicks Gate, this means combining new walking and cycling links, a major bus interchange, enhanced bus services and a suitably located car park to make interchange by bus practical and attractive. However, highway changes will also be needed at Hicks Gate Roundabout to provide efficient bus access, enable car access to the interchange, support bus priority onto the A4 and manage changes in traffic patterns from the wider development.

The proposed bus network would include an enhanced service 9 to Bristol city centre, increased X39 frequencies between Bath and Bristol, a revised and more frequent 522 service between Radstock, Keynsham and Hicks Gate, proposed orbital services between Keynsham and the North Fringe, and a new service linking Hicks Gate, Keynsham, Whitchurch and Hengrove. Together, these measures are intended to make Hicks Gate a major sustainable transport gateway to Bristol, the A4 corridor to Bath and the Ring Road.

Whitchurch

Whitchurch will benefit from a wide range of transport improvements that will support new development and improve quality of place in the existing village. The village will be served by a range of **active travel and road**

safety improvements. This includes improvements along Queen Charlton Lane, targeted safety measures within the village centre and, crossing the border into Bristol, along Sturminster Road to support walking, cycling and safer movement through the area.

In the case of the A37 corridor from Bristol through Whitchurch, the strategy proposes a **new bus service between Whitchurch and Bristol**, focused on serving the new development areas, and a significant upgrade to the **376 service** operating between Bristol, Whitchurch and Wells. The strategy will incorporate existing commitments for bus priority on the Wells Road in Bristol and in Whitchurch Village, which will be delivered through the Somer Valley Links project. A **new orbital bus service** is also proposed, to run from Hengrove-Whitchurch-Keynsham-Hicks Gate, connecting these communities and improving travel choices for orbital movements.

New **travel hubs** are also proposed within new development areas adjacent to the A37. On the west side of the A37, a travel hub with parking will be provided next to the A37, served by frequent bus services into Bristol and the new orbital service to Hengrove, Keynsham and Hicks Gate. This will also enable residents of nearby rural areas to park and transfer to these bus services, reducing traffic pressures in Whitchurch village and into Bristol. An active travel hub will also be provided in the westernmost site allocation, which will enable residents to easily connect to the frequent bus services at the A37 travel hub.

On the east side of the A37, a supportive travel hub and active travel hub will be provided to enable people living in the east Whitchurch area to connect to a wide range of travel choices. The specification of each hub will be determined through site masterplanning and detailed design, having regard to local context and travel demand. The travel hubs should be located close to the A37, enabling efficient public transport operation and convenient interchange between modes. Each should function as a multi-modal interchange that enables and encourages transfer between walking, wheeling, cycling, micromobility, public transport and shared transport services, supported by facilities appropriate to the location and scale of demand, with an expectation that it will not exceed 100 car parking spaces **Bus stop upgrades** are also proposed to improve passenger experience on the A37.

The development sites east of the A37 will be served by a **new strategic access road** connecting Bristol Road to Stockwood Lane through the development area. This will provide access to the proposed development, improve connectivity within the village and reduce pressure on existing local roads. This will be fully integrated into the development area with high-quality place-making and designed for low traffic speeds.

This will also help to reduce traffic at key congestion points in the village, including Staunton Lane and its junction with the A37 and Sleep Lane in Whitchurch Village. By reducing traffic levels in central Whitchurch as a result of the new strategic access road, the area can become a more pleasant and people-focused public space. A less traffic-dominated environment would improve the experience of travelling locally and help encourage a shift towards walking and cycling for shorter journeys.

The strategy also includes potential reconfiguration of the Craydon Road / Stockwood Road junction to improve junction safety. This will be agreed with Bristol City Council (as the highway authority at this location), but could include conversion into a mini-roundabout and measures to reduce traffic speeds on the approaches.

Figure 6-3 Proposed land uses (from Hicks Gate Masterplan)

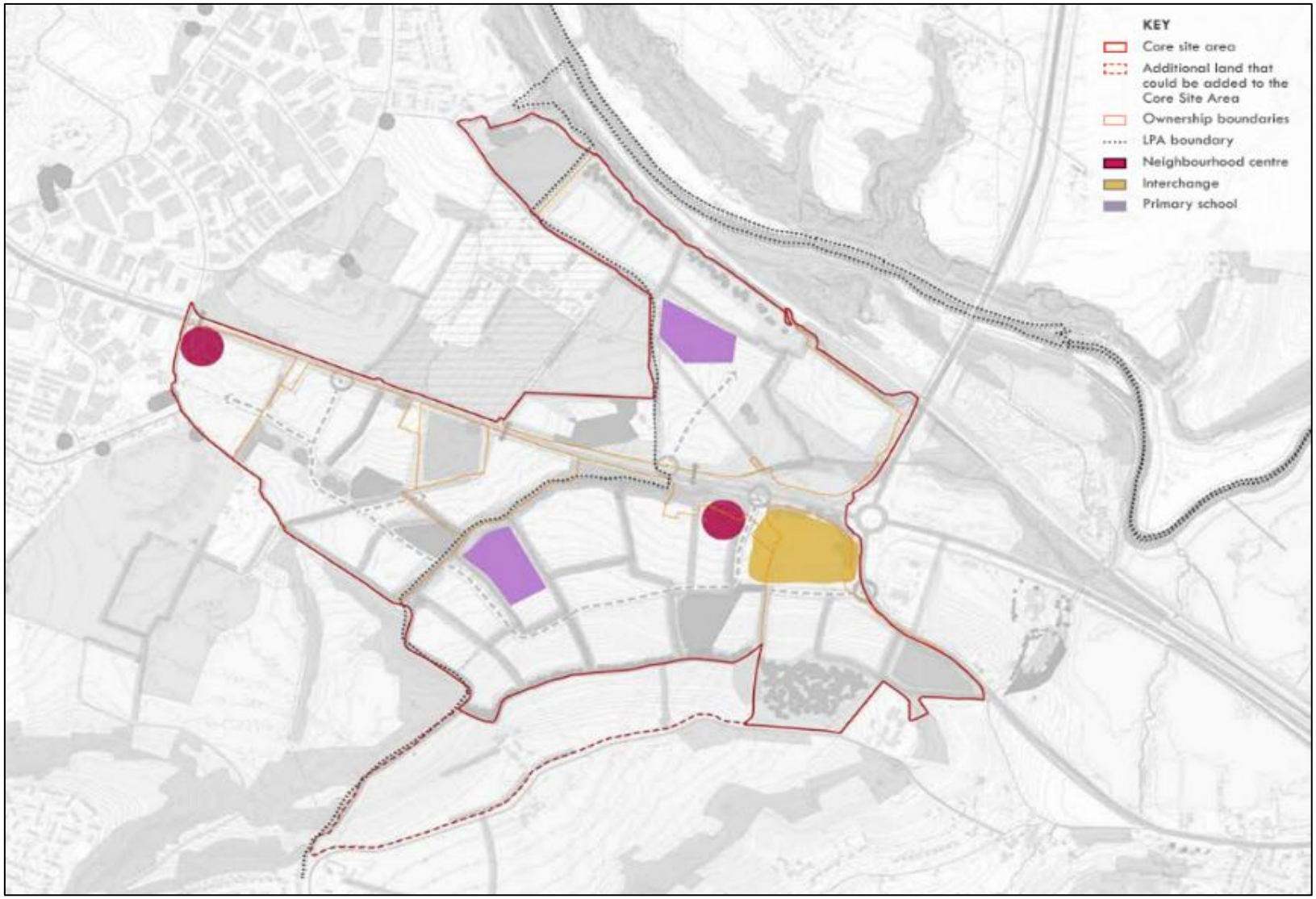


Figure 6-4 Proposed active travel improvements in Keynsham, Saltford and Whitchurch

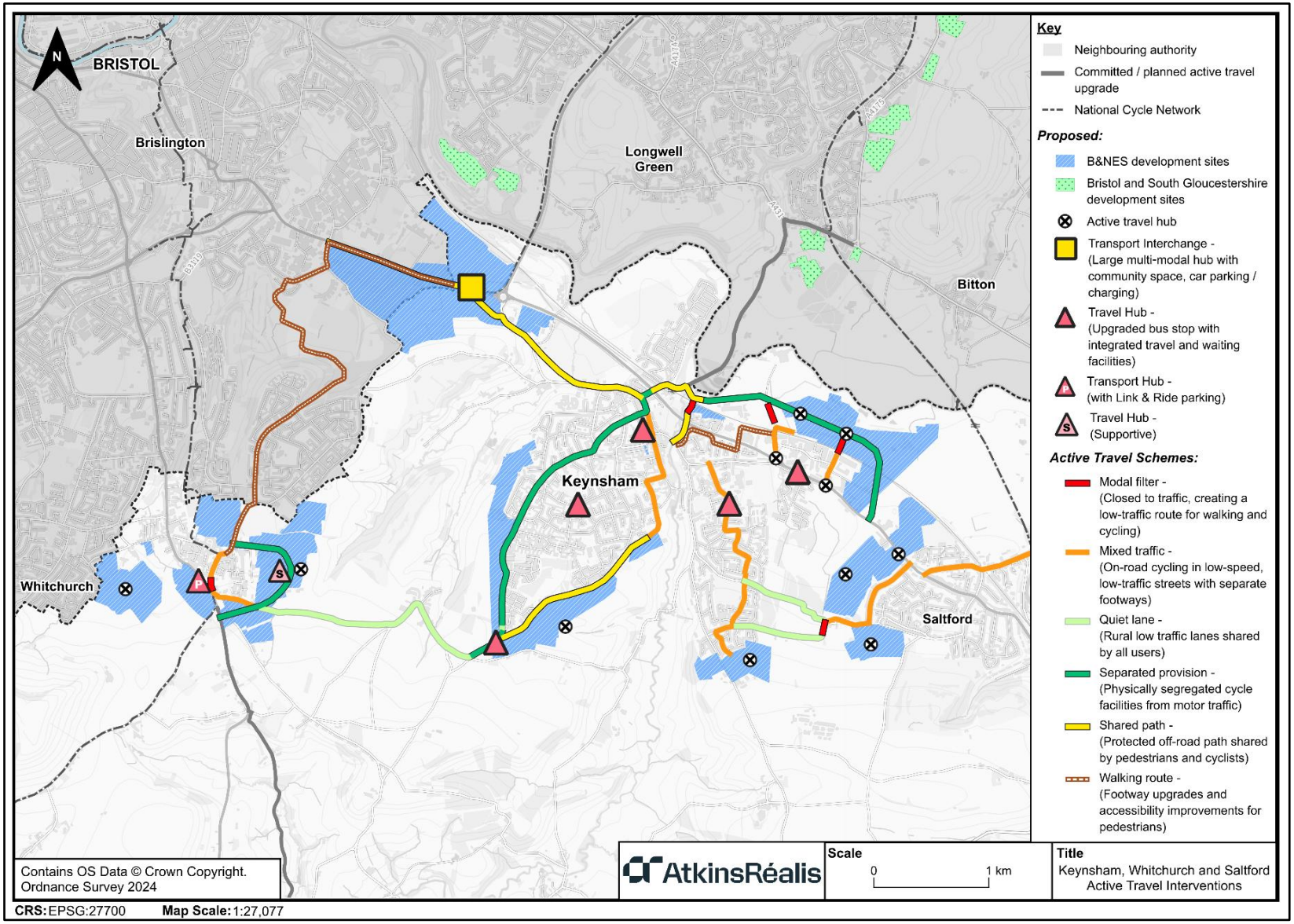


Figure 6-5 Proposed bus services, transport interchanges and travel hubs in Keynsham, Saltford and Whitchurch

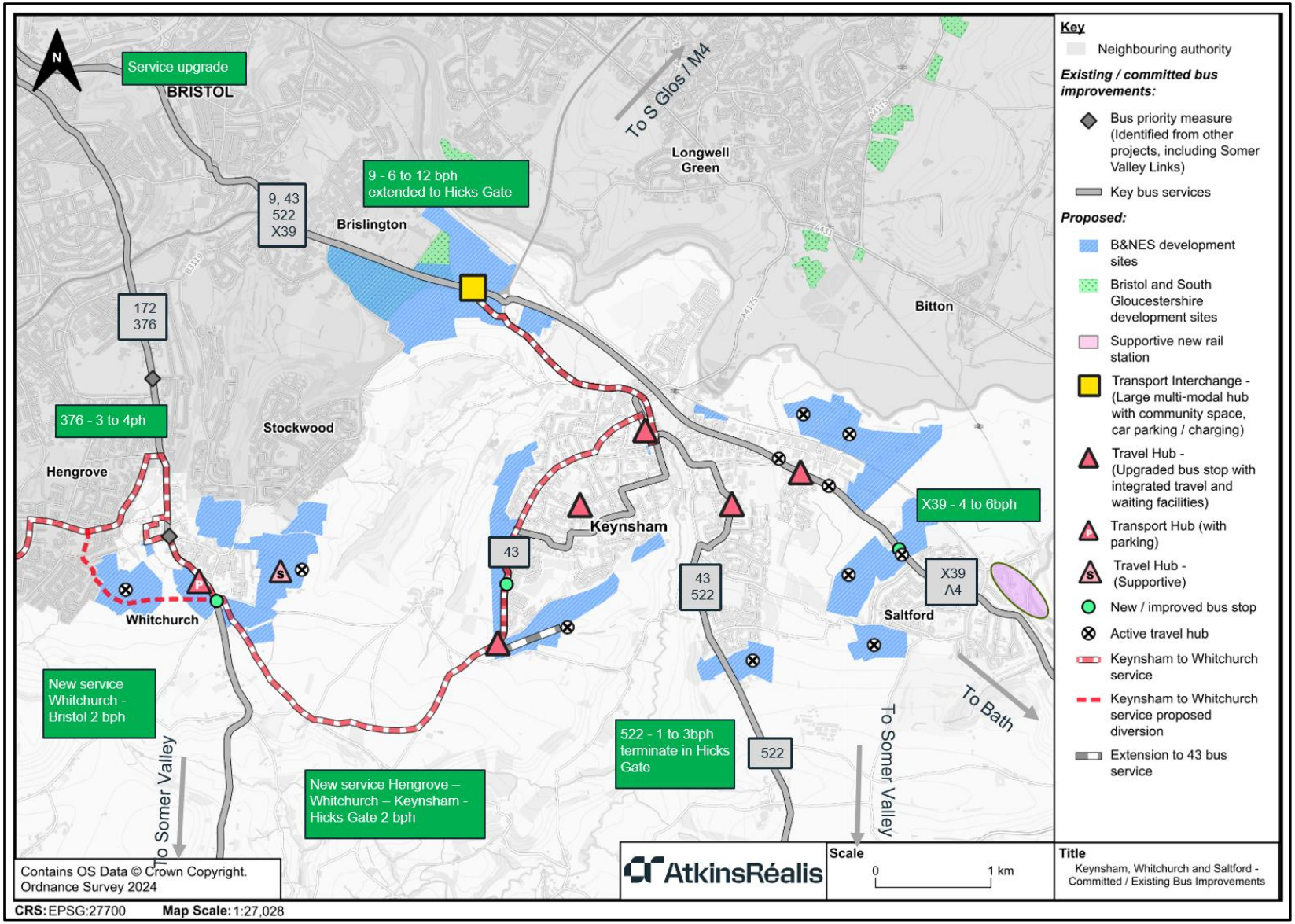
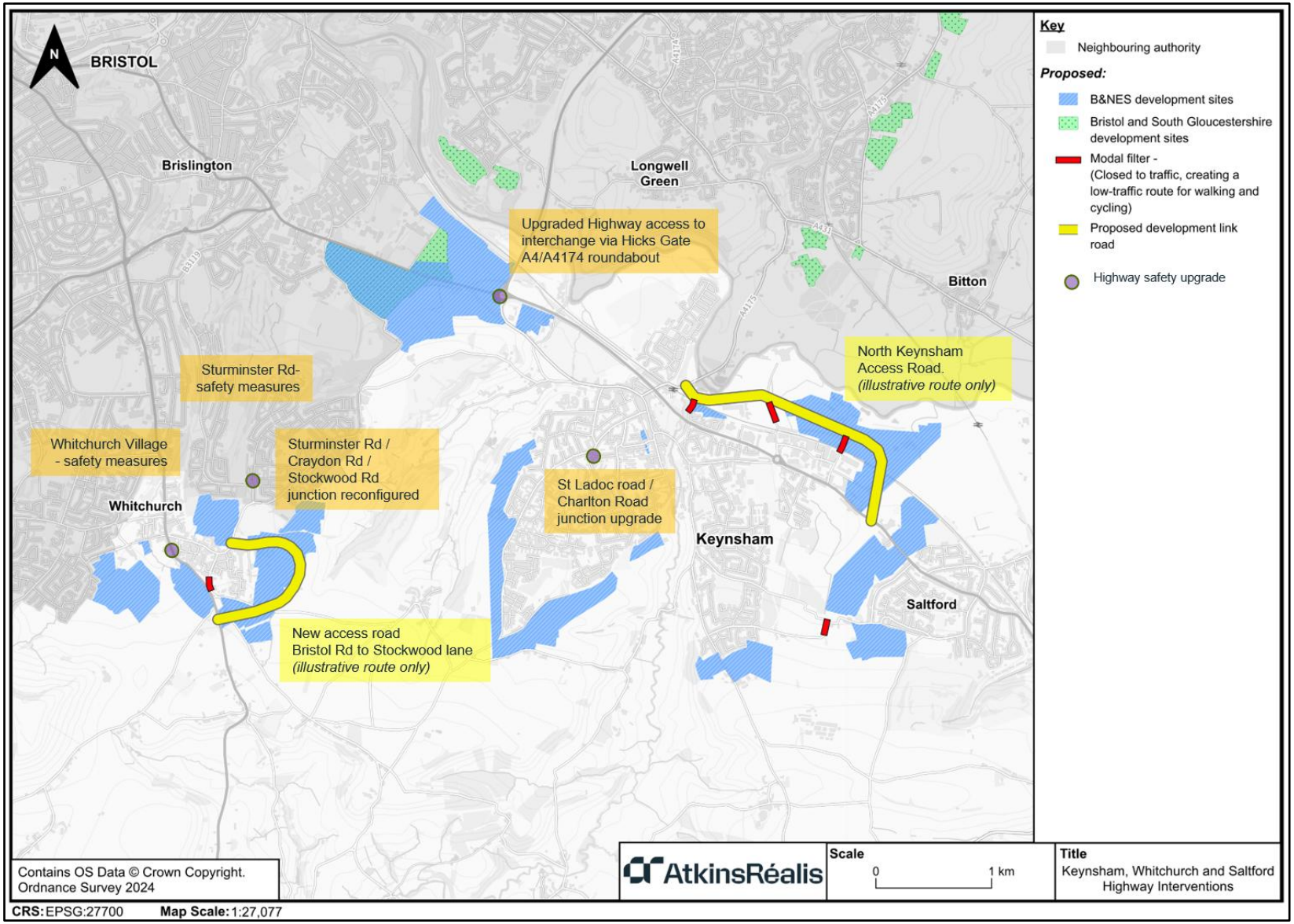


Figure 6-6 Proposed highway measures in Keynsham, Saltford and Whitchurch



6.3.3 Somer Valley and rural areas

The spatial strategy allocates significant amounts of development in the Somer Valley and in targeted rural locations. This will generate large volumes of travel, particularly towards Bath on the A367 corridor, and towards Bristol along the A37 and parallel routes, which will require a much stronger focus on public transport for strategic movement. This will include major improvements to public transport on the A367 and A37 corridors, including more frequent services and local travel hubs to transform travel choices for local communities. This will be supported by enhanced local active travel facilities. The proposed approach will build on the Creating Sustainable Communities Strategy for the Somer Valley, Active Travel Masterplan, and programmed improvements through WECA's Somer Valley Links programme.

Comprehensive improvements are proposed to active travel (Figure 6-7) and public transport (Figure 6-8) in the Somer Valley. Targeted highway interventions (Figure 6-9) are also proposed to address forecast impacts on key routes and junctions, with a focus on safety, access and network operation. Given the dispersed nature of growth across the Somer Valley and the role of the road network in connecting multiple settlements, highway interventions are considered separately from the active travel and public transport measures.

Significant improvements are proposed to **active travel**, reflecting the scale of development in this area and the underlying growth in active travel demand (see Figure 5-5). The area already benefits from dedicated traffic-free active travel routes, including the Norton-Radstock Greenway, the Five Arches route (which runs east-west through Midsomer Norton and Radstock) and other routes, including former railway trackbeds like Colliers Way.

Significant improvements are also already committed from Paulton and Farrington Gurney to west of Midsomer Norton as part of the Somer Valley Enterprise Zone and Somer Valley Links programme. However, it will be necessary to improve active travel connections on key routes into Midsomer Norton and Radstock. Many roads in this area are narrow and it is not feasible to deliver segregated routes, so the focus will be on improving conditions on quiet routes, quiet lanes, and footway improvements. The intention is to provide active travel connections from the new sites, and to improve existing connections to enable people to live locally and avoid the need for longer distance trips.

Midsomer Norton and Westfield

In Midsomer Norton and Westfield, the focus will be on making effective use of existing infrastructure and improving conditions for pedestrians and cyclists on key traffic routes from the south. The site on the west side of Midsomer Norton, on the west side of Northmead Road, will benefit from direct access to the Norton Radstock Greenway, which provides a direct, quiet traffic-free route connecting to Radstock and onwards to Bath and Frome.

A site is proposed adjacent to Chilcompton Road, at the southern edge of Midsomer Norton, adjacent to the Somerset Council boundary. Chilcompton Road is a busy traffic route, with extensive on-street parking and narrow footways, so a parallel route, following Withies Park and Redfield Road, is proposed as a mixed-traffic corridor for walking and cycling towards the town centre.

A site is also proposed on Charlton Lane, on the east side of the A367 Fosseway, and a series of mixed traffic improvements are proposed through the Westfield Industrial Estate, crossing the Fosseway and through the residential area to then connect with the traffic-free path, Pit Road and Excelsior Terrace to connect with Midsomer Norton High Street. The B3335 Silver Street, which heads due south to then join the Fosseway, is a busy route used by traffic heading into the town from Shepton Mallet, Stratton-on-the-Fosse and beyond. In this case, the proposal is to enable pedestrians and cyclists to connect from the town centre to the traffic-free path heading east to connect with the Norton-Radstock Greenway.

Improvements are also proposed to **public transport**, with higher frequencies on the 522 service from Radstock to Hicks Gate, running through Midsomer Norton, and 424 service running from Midsomer Norton to Frome via

Radstock. These improvements will be supported with the delivery of **travel hubs**, including improved bus stops and local wayfinding, in **Midsomer Norton town centre** (at the northern end of the High Street), **Thicket Mead** (adjacent to the West of Midsomer Norton site), **south of the town centre**, and a supportive travel hub near to the **Westfield Industrial Estate**.

Radstock

In the Radstock area, there will be a strong focus on improving public transport connectivity, supported by multi-modal travel hubs and enhancements to walking and cycling infrastructure to connect to services. A **travel hub** is proposed in **Radstock town centre** at the junction of Church Street, The Street and Fortescue Road, which will support multi-modal connectivity in the town. This will be complemented by **significant improvements to bus services with much higher frequency services** on the 174 service towards Bath, the 522 service to Midsomer Norton, Paulton, Keynsham and Hicks Gate, and the 424 service to Frome.

There will be a focus on **improving active travel connectivity** from the east, north and south. A quiet lane is proposed between the development sites at Peasedown and Writhlington to the east of Radstock. This will connect with the National Cycle Network route and will therefore provide an attractive and lower-stress route into Radstock for cyclists from both sites.

The A362 Frome Road running east from Radstock to Writhlington is characterised by steep gradients, a constrained carriageway, and narrow footways, with limited opportunity to accommodate dedicated cycling infrastructure without substantial intervention. It is not considered suitable for segregation or formal on-carriageway cycle provision. The strategy for this corridor is therefore to prioritise improvements that support safe and inclusive local movement, with particular emphasis on enhancing the pedestrian environment. This includes targeted footway widening (where feasible), improved crossing facilities, and local safety measures to reduce vehicle speeds and improve perceived and actual safety. Provision of local facilities within the site will also reduce the need for travel into Radstock town centre.

While conventional cycling uptake may be limited, the increasing availability and uptake of electric-assisted mobility (including e-bikes and e-scooters) provides an opportunity to mitigate the impact of steep gradients and extend the viable catchment for active travel. Connectivity to the National Cycle Network via the quieter parallel route is therefore particularly important, as it offers a more accessible alternative aligned with these emerging travel behaviours.

Footway improvements are also proposed on the Bristol Road, connecting from Clandown into Radstock from the north. This will provide an alternative to the busy A367 Bath New Road. The site north of Radstock is more distant from existing bus services, so an **active travel hub** is proposed within the site to provide easy access to active travel and micromobility solutions to enable residents to connect to the town centre and bus services on the A367 towards Bath. A shared path is also proposed on Church Street / Kilmersdon Road, which will connect to the proposed allocation at Haydon. These routes will converge in Radstock town centre, which will require measures to reduce traffic speeds to support cycling in a mixed traffic environment, and to promote pedestrian footfall in the town centre.

Clandown and Peasedown

The sites at Clandown and Peasedown are adjacent to the A367 corridor, which will require measures to slow traffic speeds, tackle severance from the existing community at Peasedown, and provide effective access to bus services. This will therefore require an effective corridor-wide approach along the A367 between Radstock and Bath. This will both support the needs of the new development sites at Clandown and Peasedown and address the wider rural communities in the surrounding area, including Camerton and Shoscombe.

The strategy proposes a significant upgrade to bus frequencies on the **174 service** from Midsomer Norton and Radstock to Bath operating along the A367 corridor. This will be supported by the provision of **three new travel**

hubs. The detailed specification and capacity of each hub will be determined through site masterplanning and detailed design having regard to local context and travel demand.

These travel hubs will be adjacent to the A367 and integrated into the development sites, which will both provide high-quality public transport options for residents of the sites and allow swift transfer to the bus services for drivers on the A367. One hub will be provided as part of the site at Clandown, and two hubs will be provided in the sites at Peasedown. By providing convenient parking, high-quality waiting environments, and direct access to frequent, reliable bus services along the A367 corridor, the hubs will create a genuine “turn up and go” offer.

These measures will be supported by comprehensive route treatment on the A367 from Clandown and along the Peasedown Bypass to tackle severance, reduce traffic speeds, and integrate the new development areas into the existing Peasedown community.

These interventions along the A367, including significant improvements to bus services, creation of new travel hubs and enhanced stop facilities, and comprehensive route treatment, will set the foundations for delivery of future mass transit services between Bath and the Somer Valley. The analyses in Chapter 5 show that there is strong latent public transport demand along this corridor, and Section 6.4 (later in this chapter) shows that there would be high levels of mode shift with the proposed programme of measures.

Rural areas

The Local Plan also proposes new development in smaller towns and villages, including Paulton, Farrington Gurney, Timsbury, Farmborough, Temple Cloud and Clutton. In these cases, the focus will be on supporting access to local services in each settlement through localised walking and cycling improvements. These improvements will connect communities to the key services and facilities they need to access on a day to day basis and will provide viable options for those residents allowing them to live more locally and sustainably.

Significant **public transport improvements** are proposed (Figure 6-8). These will include major enhancements to bus services on the **A367 corridor towards Bath**, the **A37 corridor towards Bristol**, and **Route 522 corridor to Keynsham and Bristol** through Paulton, Timsbury and Farmborough. In addition, the strategy provides for improved services operating along the **A362 between Radstock and Frome**.

These improved services will meet both the needs of development in the Somer Valley and more strategic travel demands that will be generated on the corridors from the Somer Valley to Bath and Bristol. These interventions have been identified to respond to the underlying increases in demand generated by the Local Plan proposals (see Figure 5-7), and will also unlock further mode shift to buses in these corridors. These proposals will build on the interventions in the Connecting Sustainable Communities Strategy for the Somer Valley.

Significant improvements are proposed to bus services on the A37 corridor towards Whitchurch and Bristol, as shown in Figure 6-8. This will include improved frequencies on the 376 service between Wells and Bristol via Farrington Gurney, Temple Cloud, Clutton and Whitchurch to meet the needs of these growing communities.

A network of **travel hubs** is proposed within the new development areas on the A37 corridor, with high quality walking and cycling connections combined with small areas of car parking at Farrington Gurney, Temple Cloud and Clutton (and Whitchurch, see Figure 6-5) to enable residents of surrounding rural areas to access the improved bus services along the corridor. The specification of each hub will be determined through site masterplanning and detailed design, having regard to local context and travel demand.

These hubs will provide major improvements to travel options for people living in rural areas. They will enable people living in the local communities to walk or cycle to the hub in their village. They will also enable people living in more remote rural communities to drive to the hub, then transfer to frequent bus services. By intercepting car-based trips at an earlier stage of the journey, closer to where people live, it will be possible to reduce overall vehicle mileage and pressure on the highway network.

By providing convenient parking, high-quality waiting environments, and direct access to frequent, reliable bus services along the A367 corridor, the hubs will create a genuine “turn up and go” offer. This approach complements existing Park & Ride provision but differs in that it is designed to serve a wider rural hinterland and intercepts trips earlier. It therefore represents a proportionate and targeted intervention, aligned with the geography of the area, to support sustainable travel choices.

The rationale for this approach reflects the spatial and transport characteristics of the Somer Valley and wider rural areas. Given the dispersed settlement pattern and relatively low densities over a wide geographic area, conventional high-frequency local bus services are unlikely to be commercially viable in isolation, and many journeys are beyond a realistic walking or cycling distance for day-to-day travel. As a result, the network of travel hubs will provide a more effective and deliverable means of enabling mode shift.

Frequency enhancements to the 522 service would improve connections between the Somer Valley, Keynsham and Bristol, supporting the growing communities in Paulton, Timsbury and Farmborough. A new travel hub in Paulton and improved bus stops in Timsbury and near Farmborough would further enhance access to and attractiveness of bus travel along the corridor.

6.3.4 Supporting highway measures

Active travel and public transport measures form the primary response across much of the district. However, targeted highway interventions are also required at a number of locations where forecast traffic growth or existing road safety issues warrant further action. These measures focus on improving safety, managing traffic impacts and supporting the operation of the highway network.

A number of locations have been identified where forecast increases in traffic, existing highway characteristics, recorded collision history or road safety assessment findings indicate that further consideration may be required. The assessment has considered the nature and extent of forecast traffic growth, the function and layout of the highway network, existing constraints, and the recorded collision history at each location. This provides a proportionate basis for identifying where Local Plan growth could reasonably be expected to influence existing safety risks or give rise to new road safety concerns.

To inform the assessment, publicly available collision data from the Department for Transport’s STATS19 database has been reviewed, typically covering the most recent available five-year period from 1st January 2020 to 31st December 2024[48]. Bath and North East Somerset Council has also provided supplementary collision data for three locations on the A36 corridor. Collision trends, severity and the types of road users involved have been reviewed to identify existing road safety issues and recurring patterns. This collision analysis has then been considered alongside traffic modelling outputs to understand whether forecast increases in traffic could exacerbate existing risks or create new road safety concerns.

The locations assessed include a small number of sites outside the administrative boundary of Bath and North East Somerset Council. These have been included where they form part of the wider highway network affected by forecast development traffic, or where potential impacts on the strategic transport network could influence travel conditions within B&NES.

Where road safety issues have been identified, consideration has been given to potential mitigation measures and opportunities for improvement. These could include engineering, traffic management, safety upgrades, active travel or operational interventions aimed at reducing collision risk and accommodating future travel demand safely and sustainably. These locations are listed in Table 6-1 below and presented in Figure 6-9. These proposed measures will be focused on ensuring that vehicles will be able to safely manoeuvre through

[48] See also the road safety commentary in Section 4.5 of this report.

junctions (through improved visibility, reducing traffic speeds, or signalisation where necessary), alongside measures to reduce traffic speeds and tackle pedestrian severance.

These measures will therefore ensure that any potential cumulative severe impacts on the network are effectively addressed, both in terms of addressing excessively long delays for traffic attempting to exit side roads, and in ensuring that the root causes of future collisions are addressed.

Table 6-1 Highway safety measures in Somer Valley and rural areas

Location	Description
A37 / Station Road and A37 / Stowey Road, Clutton	Safety improvement comprising refreshed road markings, high-friction surfacing and traffic-calming measures.
A37 / A39 Wells Road traffic signals, west of Hallatrow	Safety improvement comprising high-friction surfacing.
A39 / Timsbury Road, north of Farmborough	Junction improvement comprising traffic signals, signage relocation, vegetation clearance, refreshed road markings and tightened corner radii.
A367 route from south of Peasedown to Clandown	Walking and cycling improvements comprising controlled crossings and safe access from development sites.
A367 / Northdown Road junction, west of Peasedown	Junction safety upgrade comprising signalisation of the junction.
A367 / Tunley Road junction, north of Peasedown	Junction safety upgrade comprising signalisation of the junction.
New access to Odd Down P&R	Access improvement comprising a new access arrangement to Odd Down Park & Ride and the adjacent employment site.
A36 Brassknocker Hill	Safety improvement comprising a reduced speed limit, refreshed road markings and high-friction surfacing. Details will be agreed with National Highways.
A36 Branch Road	Safety improvement comprising refreshed road markings, high-friction surfacing, improved sign visibility and tightened corner radii. Details will be agreed with National Highways.
A36 near Kingcopse Wood	Safety improvement comprising high-friction surfacing, slow road markings, and vegetation clearance to improve visibility of signs and accesses. Details will be agreed with National Highways.
A36 / B3110 Frome Road, Woolverton	Safety improvement comprising vegetation clearance to improve visibility of lighting columns and signage. Details will be agreed with National Highways.
B3114 / A39 junction, Chewton Mendip	Safety improvement comprising refreshed road markings and additional slow road markings. Located in Somerset, details will be agreed with Somerset Council.
A362 / A366 / B3139 crossroads, south of Radstock	Junction safety upgrade comprising signalisation of the crossroads. Located in Somerset, details will be agreed with Somerset Council.
A38 / Barrow Lane junction, North Somerset.	Junction safety upgrade comprising signalisation of the junction. Located in North Somerset, details will be agreed with North Somerset Council.

Figure 6-7 Proposed active travel improvements in the Somer Valley and rural areas

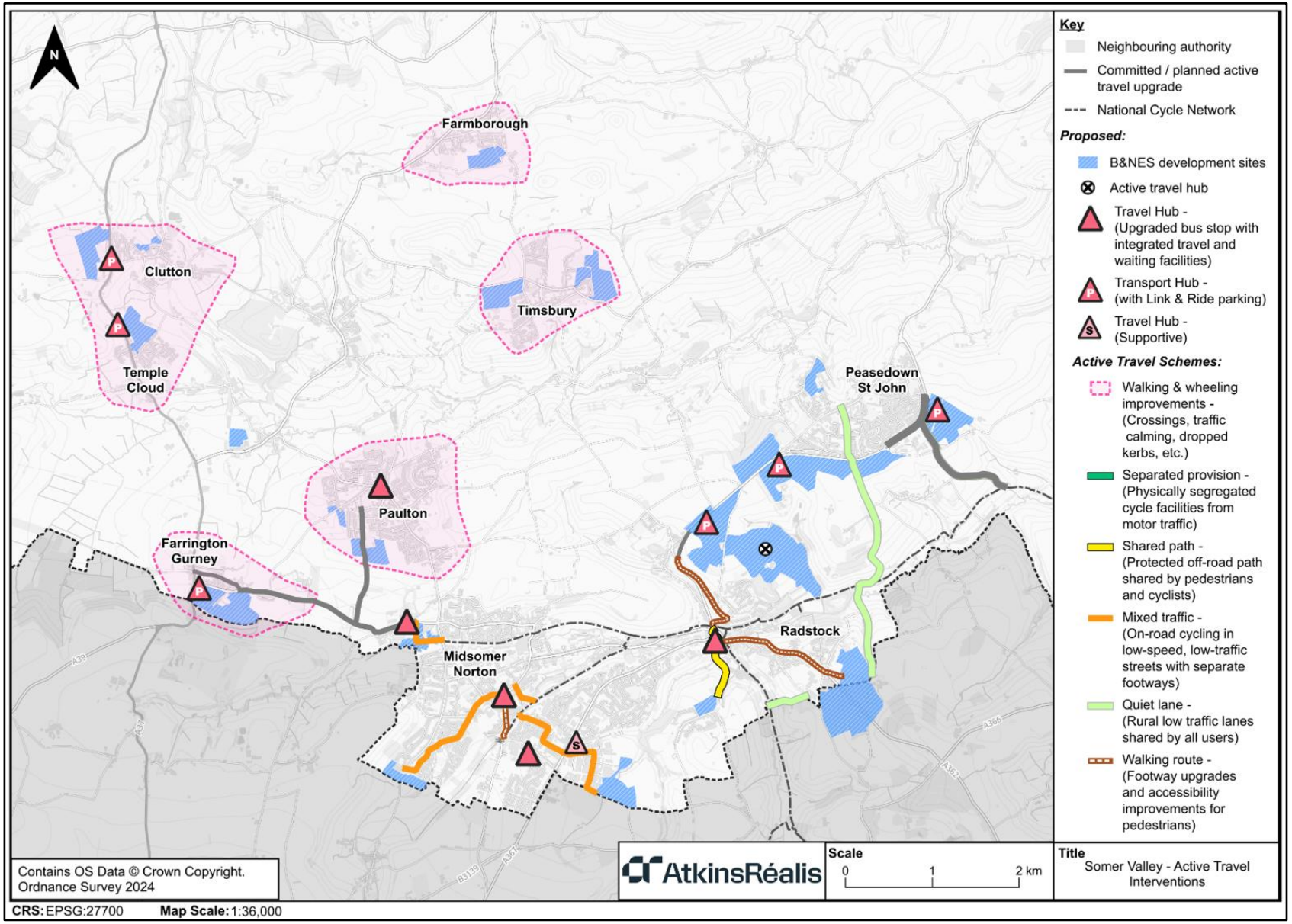


Figure 6-8 Proposed bus services, transport interchanges and travel hubs in the Somer Valley and rural areas

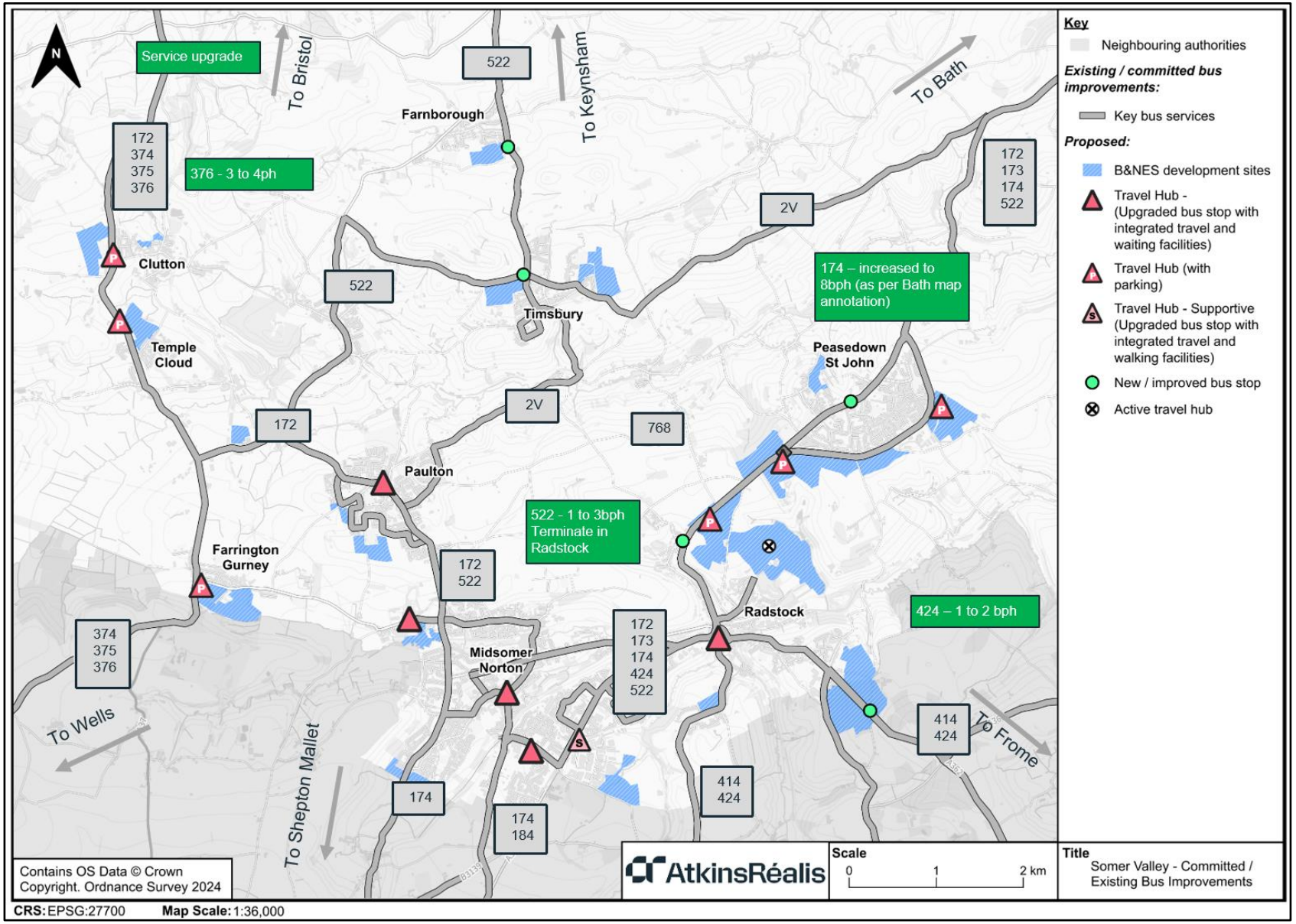
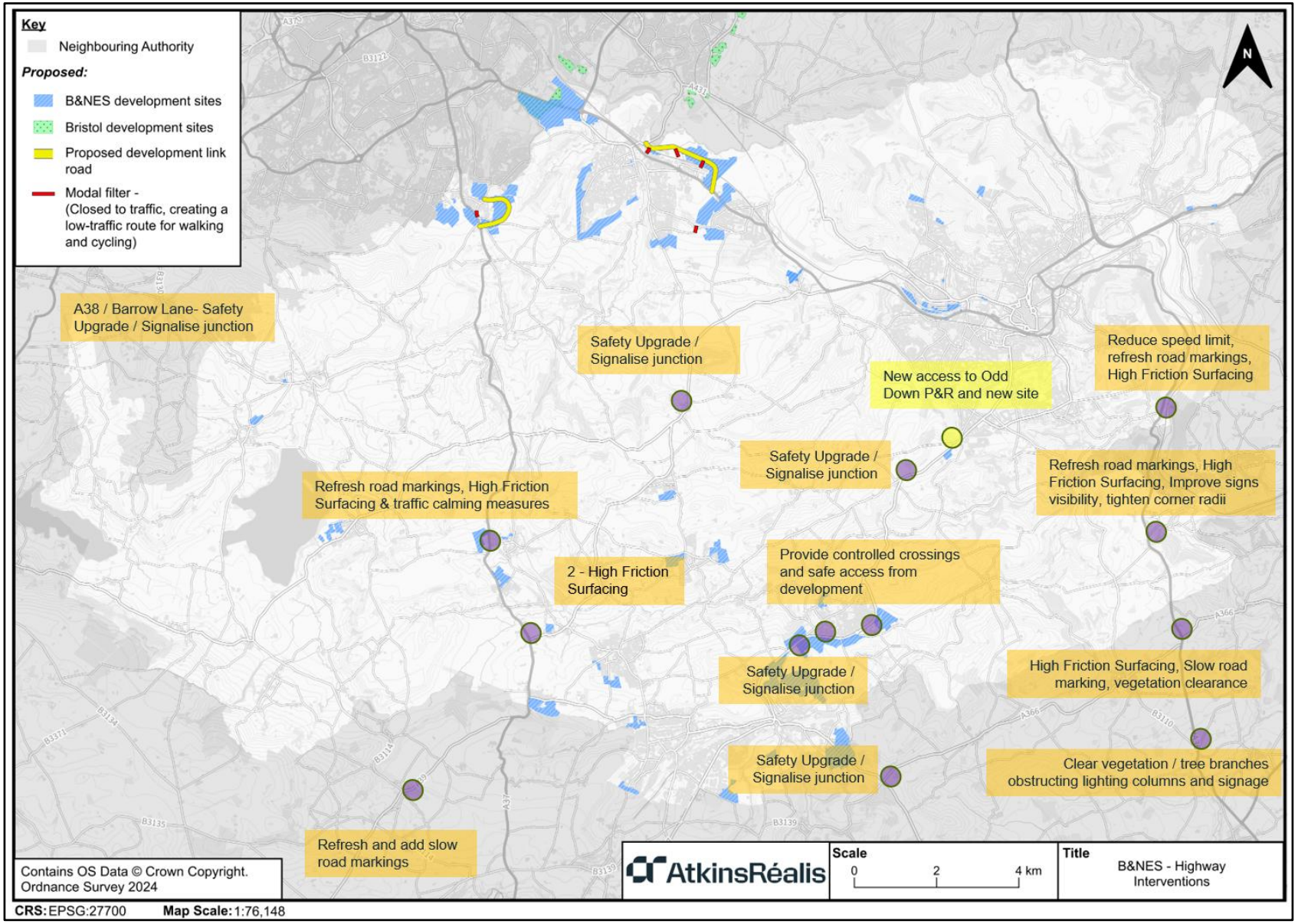


Figure 6-9 Proposed highway and traffic management in the Somer Valley and rural areas of B&NES



6.4 Impacts of the transport strategy

The transport strategy described above will play a critical role in mitigating the impacts of the Local Plan. This section describes changes in travel demand and mode choice, together with the impacts of the strategy on the operation and safety of the road network. The assessment considers the combined effect of active travel, public transport and targeted highway interventions.

6.4.1 Changes in trips by mode

Table 6-2 summarises the changes in trips, by mode, compared with the Reference Case, first for the Local Plan scenario without mitigation (repeating Table 5-1), and then the Local Plan scenario including mitigation (the transport strategy).

Table 6-2 Daily change in trips (without and with mitigation)

Change in trips to/from & within B&NES vs Reference Case	All Modes	Car only (exc freight)	Bus & Rail (inc P&R)	Active only
2042 Local Plan No Mitigation vs Reference Case	+16.2%	+17.6%	+11.1%	+14.7%
2042 Local Plan With Mitigation vs Reference Case	+17.9%	+15.5%	+45.0%	+12.9%

Without the transport strategy, there would be an overall 16% increase in trips by all modes as a consequence of the Local Plan, with the percentage increase by car (18%) exceeding the percentage increases by public transport (11%) and active travel (15%). This shows that travel demand for new development would be relatively car dependent in the absence of the transport strategy.

The transport strategy would reduce car dependence in the whole of B&NES (from 67% to 66%) (Table 6-3). The overall increase in car trips would fall to below 16%, with a very large percentage increase in public transport (mainly bus and bus P&R) trips (45%). Active travel trips would increase by almost 13%: this relatively modest increase in active travel is because more people would choose to use improved bus services for relatively short trips. These changes are primarily driven by enhanced active travel and public transport provision, and supported by targeted highway interventions which address residual operational and safety issues on key corridors and junctions.

Table 6-3 presents forecast changes in mode share in B&NES.

Table 6-3 Daily travel mode share for trips to/from and within B&NES (with mitigation)

Daily travel mode share	Car only (exc freight)	Bus & Rail (inc P&R)	Active only
Reference Case	67.4%	10.1%	22.5%
All trips to/from and within B&NES			
Local Plan (no mitigation)	68.3%	9.5%	22.2%
Local Plan (with mitigation)	66.0%	12.4%	21.5%
B&NES Local Plan development trips only			
Local Plan (no mitigation)	71.1%	8.8%	20.2%
Local Plan (with mitigation)	69.2%	11.3%	19.5%

The transport strategy will be effective in reducing car mode share across B&NES, from 68.3% with no mitigation to 66.0% with Local Plan mitigation (and below the 67.4% mode share in the Reference Case). Public transport mode share will increase substantially, from 9.5% with no mitigation to 12.4% with mitigation. The reduction in active travel mode share reflects the larger numbers of people opting to use buses for shorter journeys as a consequence of the improvements. However, improved active travel connections to bus stops are a critical component of enabling more public transport journeys, as most public transport trips begin or end with a walking or cycling trip. The proposed improvements would also help reduce car dependency for shorter local journeys.

These patterns are also mirrored in trips to and from the development sites, with a reduction in car mode share from 71.1% without mitigation to 69.2% with mitigation. The car mode share will be higher than the B&NES average, which includes Bath and Keynsham, whereas the development sites will be on the edges of existing settlements. However, the strategy will also support mode shift for a wider range of journeys across the area, not just from new development but also for existing communities, which will help to reduce overall car mode share below the Reference Case.

6.4.2 Active travel demand

The active travel schemes will play a critical role in supporting walking and cycling, and in connecting with travel hubs and bus services for longer-distance journeys. Figure 6-10 shows the forecast increase in active travel demand with the mitigation in place. This only includes trips where walking and cycling is the primary mode; it does not include walking and cycling to bus stops and or travel hubs for bus journeys.

This shows some changes from the demand with no mitigation (shown in Figure 5-5 in Chapter 5). In most cases, these changes are modest. In some areas, there will be small increases in active travel demand, for example between Whitchurch and Keynsham, and east of Midsomer Norton.

In some other areas, there would be slight reductions in active travel demand compared to the scenario without mitigation. These include the A4174 north of Hicks Gate and Bath Old Road north of Radstock. In these cases, the significant improvements to bus services will encourage more people to shift to buses, including cyclists and pedestrians, which would reduce active travel demand for whole journeys. Nevertheless, active travel will play a critical role in connecting to improved bus services.

The main benefit of this strategy is that it will provide people with multiple viable sustainable travel options, which will help to reduce car dependency for day-to-day journeys. It is recognised that people could choose to walk/cycle/wheel on some days (e.g. in good weather) but also have the option to take the bus or drive then take the bus to suit each person’s individual needs.

6.4.3 Public transport demand

The proposed public transport improvements will significantly improve the attractiveness of bus services to users across the district. Figure 6-11 shows the total daily forecast bus demand with the mitigation in place, and Figure 6-12 shows the increase in demand with mitigation in place versus the Reference Case. This clearly shows that there will be very strong growth in demand on the key corridors, with the Local Plan compared to the Reference Case, for example:

- A367 south of Odd Down: +15% with no mitigation vs +78% with mitigation (growth in demand from the Somer Valley and improved bus service frequencies).
- A37 south of Whitchurch: +32% with no mitigation vs +156% with mitigation. This will be driven by increased travel demand from the Somer Valley and rural areas, improved bus frequencies and new travel hubs enabling people to shift from cars to bus services into Bristol.

There would be more modest growth in demand on other corridors. On the B3116 Wellsway corridor south of Keynsham, demand growth would be around 20% both with and without mitigation, compared to the Reference Case, despite the proposed enhancements to the 522 bus service. This evidence indicates that more people would choose the improved bus services towards Bristol (on the A37 corridor) and Bath (on the A367 corridor), with the 522 service instead acting as an essential connection for those people who do not have alternative choices.

Elsewhere in rural B&NES, on the A368 towards Bishop Sutton, there would be growth of around 15% compared to the Reference Case, with no significant change resulting from the mitigation strategy. This is primarily because no improvements to bus services are proposed in this area due to relatively low levels of development, and therefore insufficient new demand to support new services. However, in some other areas, there would be indirect growth in bus demand enabled by improved interchange with the mitigation strategy in place. For example, demand would grow by around 17% on the A36 near Claverton, and by around 70% on the B3110 south of Hinton Charterhouse.

Figure 6-10 Increase in active travel demand (Local Plan with mitigation vs Reference Case, daily)

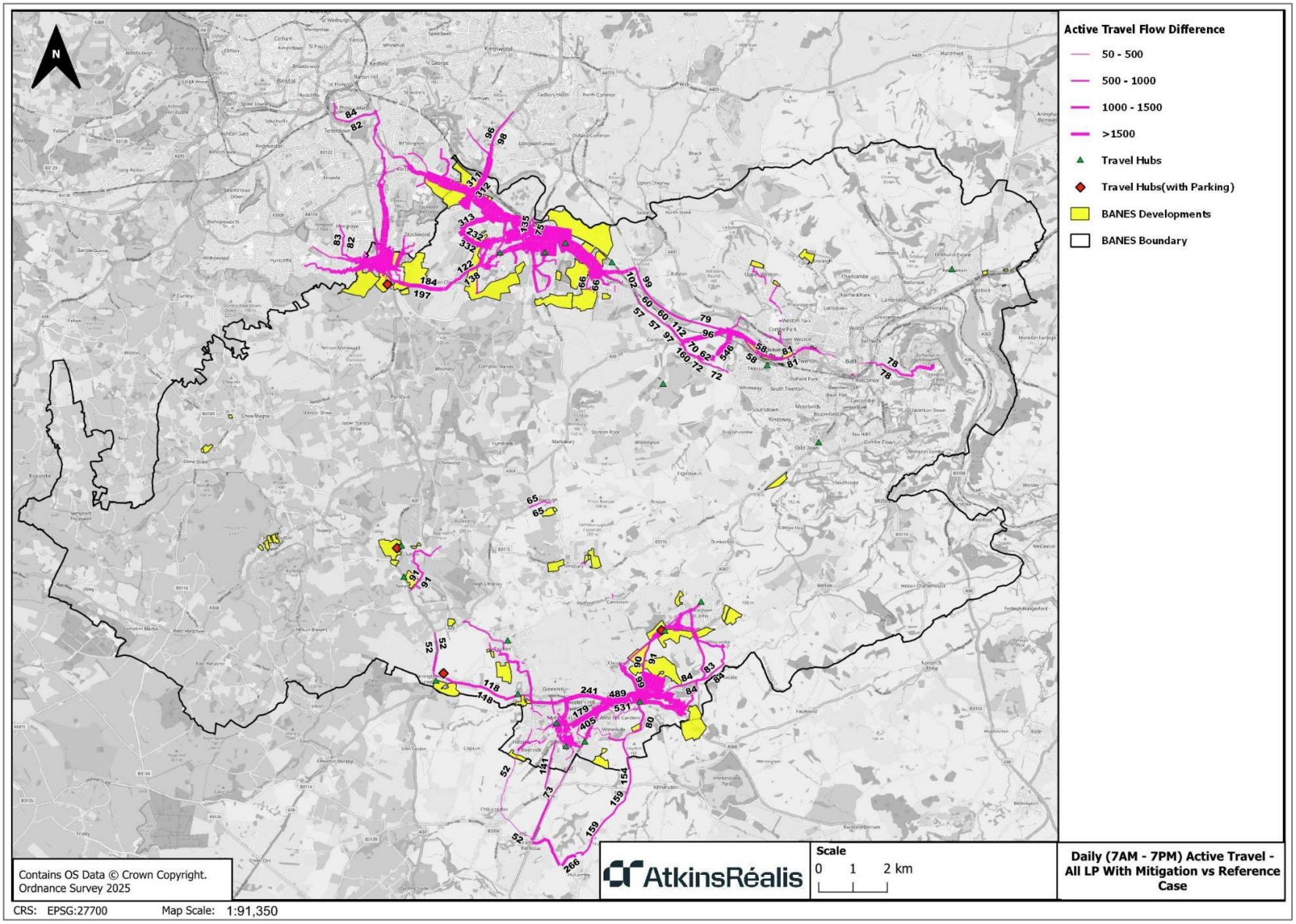


Figure 6-11 Total bus patronage (Local Plan with mitigation daily 12-hour totals)

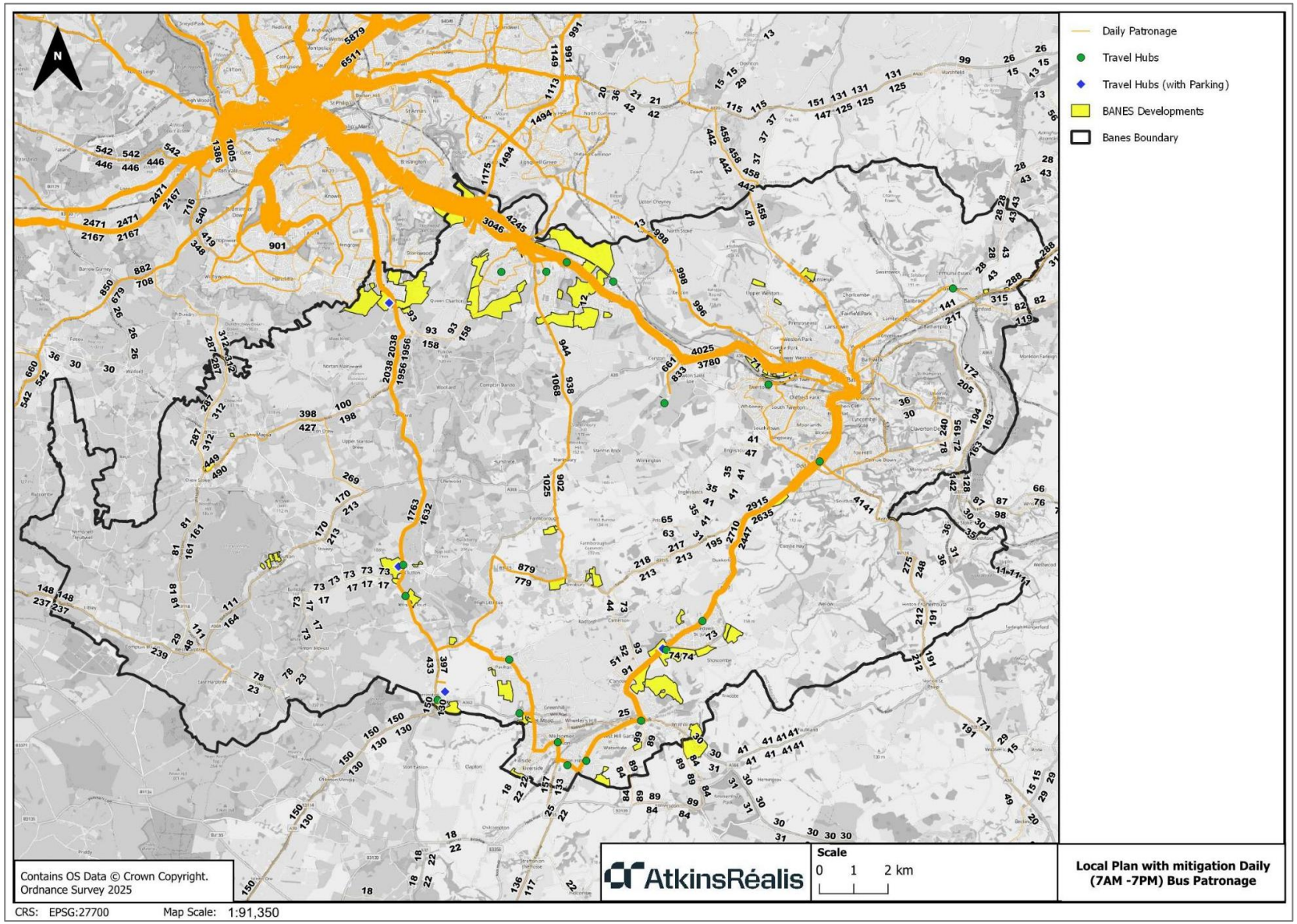


Figure 6-12 Increase in bus patronage (Local Plan with mitigation vs Reference Case, 12-hour totals)

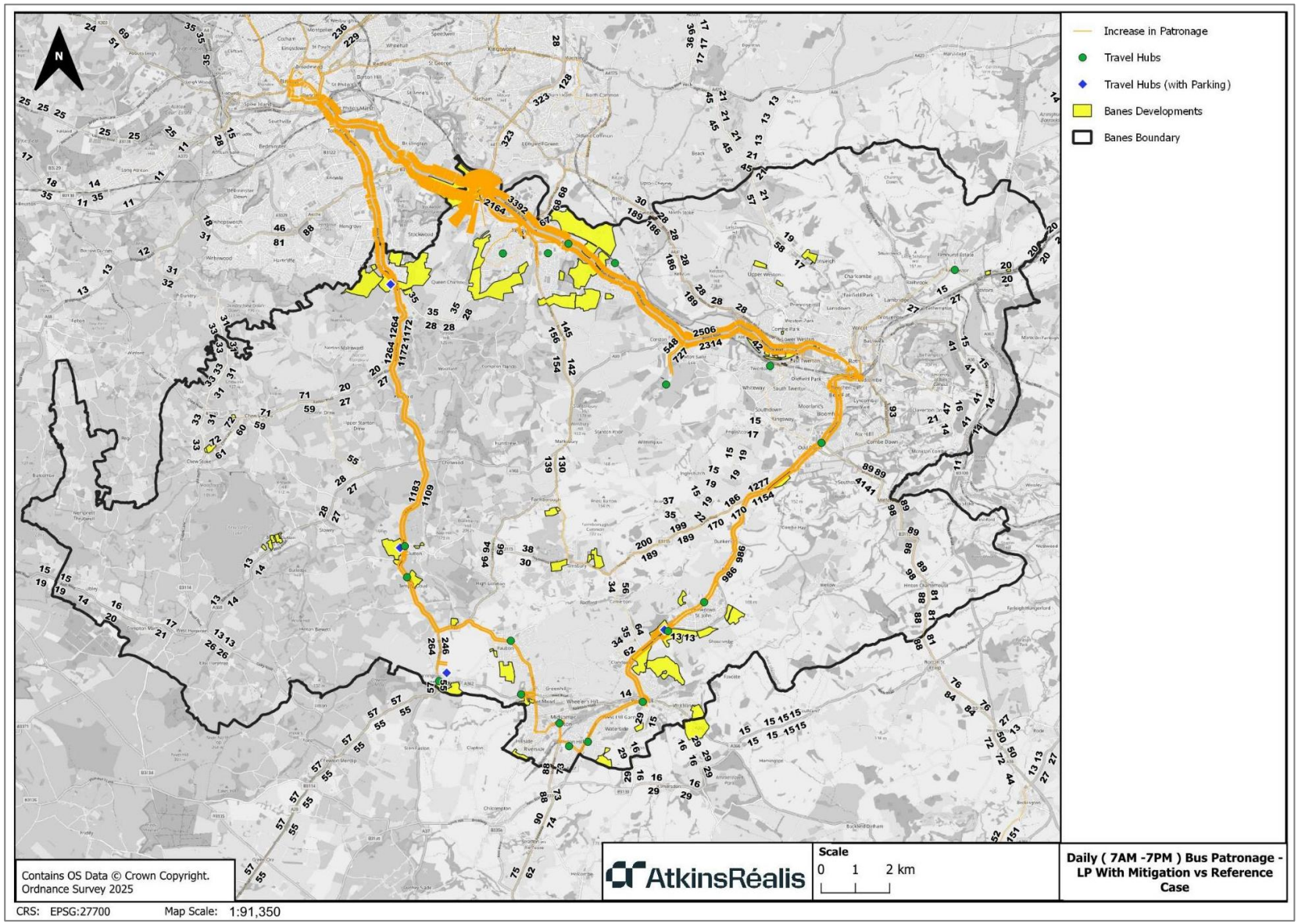


Table 6-4 presents forecast passenger demand at the largest transport interchanges under different scenarios. The Local Plan mitigation strategy will include conversion of the existing Park & Ride sites into fully multi-modal transport interchanges, including improved active travel and enhanced connections to existing bus services.

Table 6-4 Daily bus boarders at major transport interchanges

	2019 Base	2042 Reference Case	Local Plan No Mitigation	Local Plan With Mitigation
Odd Down P&R (improved access to site)	1,370	1,890	1,840	2,150
Newbridge P&R	710	1,050	1,060	1,230
Brislington P&R (Hicks Gate in mitigation)	1,420	1,960	1,970	4,700

In the case of **Odd Down**, patronage is forecast to increase significantly from 2019 to the 2042 Reference Case, due to background growth in demand and planned schemes on the A367 corridor under the Somer Valley links programme. There would be no further patronage growth under the Local Plan with no mitigation, but patronage would increase further to 2,150 daily boarders with the Local Plan mitigation package, caused by the increased attractiveness of bus services into Bath compared with attempting to park in the city centre.

Analyses indicate that the existing car park at Odd Down, which provides 1,230 spaces, would be able to accommodate this demand during most times of the year. However, the car park currently almost reaches capacity during peak Saturdays for the Christmas Markets in November and December. It is therefore possible that demand could exceed capacity on some occasions in future. However, it is considered disproportionate to safeguard land for peak events in the 2040s, and it would instead be preferable to identify other potential areas that could accommodate parking for these peak events. This could include the employment land immediately to the south, and the travel hubs on the A367 at Peasedown.

Patronage at **Newbridge** is also forecast to increase significantly in the Reference Case, driven by planned public transport improvements and increased demand in the corridor. Again, there will be no further growth under the Local Plan with no mitigation, but patronage would increase further to 1,230 boarders with the mitigation package, again caused by the increased attractiveness of bus services into the city. There would be little change in bus patronage at **Lansdown** with the Local Plan due to the limited amount of development north of the city.

The most significant change will be driven by the planned transport interchange at **Hicks Gate**, which would replace the existing Park & Ride site at Brislington (in Bristol). Under the Reference Case, demand at Brislington would increase substantially, from 1,420 daily boarders in 2019 to 1,960 in 2042. This will be driven by increased demand in the corridor and by the effects of parking policies in Bristol.

There would be little change with the Local Plan in the absence of mitigation, because there would be limited further incentive to shift to Park & Ride bus services into Bristol. The Local Plan mitigation package includes the provision of the new interchange at Hicks Gate (replacing Brislington, which would be closed) and significant improvements to bus frequencies operating along the A4 into Bristol. It would also include new and improved services to Keynsham and along the A4174 Ring Road. This is forecast to result in a step-change in demand, with up to 4,700 daily bus boardings. Analyses by the Hicks Gate masterplanning team indicate that this would necessitate 2,500 parking spaces, which would be provided in a multi-storey car park to enable efficient use of land.

Table 6-5 shows the forecast increases in bus passengers across the sub-areas within the district, and across the district as a whole.

Table 6-5 Daily and annual estimate of bus boarders within B&NES

	2019 Base	2042 Reference Case	Local Plan No Mitigation	Local Plan With Mitigation
Bath (inc. Odd Down, Newbridge & Lansdown)	28,900	28,500	29,600	36,000
Keynsham & Whitchurch (inc Hicks Gate*)	4,500	6,800	8,800	16,300
Somer Valley	5,200	5,800	7,000	10,000
Rural	2,200	2,900	3,100	3,400
Total daily within B&NES	**40,800**	**44,000**	**48,500**	**65,700**
Growth vs Base (vs Reference Case)		+7%	+19%	+61%
Growth vs Reference Case			+10%	+49%
Annual Boarders (est from daily boarders)	13.9m	15.0m	16.6m	20.9m

** Keynsham and Whitchurch include Hicks Gate for Local Plan with mitigation.*

This indicates significant forecast growth in all areas of B&NES, but particularly strong growth in Keynsham and Whitchurch within the Bristol to Bath corridor, driven by housing growth, improved bus services and the transfer to new transport interchanges. Demand in Bath will be driven by significant increases in demand at Odd Down and Newbridge, as well as improved bus services on the A4 and A367 corridors. Demand will also increase in the Somer Valley in response to new housing and the increased attractiveness of services. It is also important to note the increased demand in rural areas, due to enhanced services and supported by the proposed travel hubs, which will support viability of rural services. This provides a very strong platform for delivering an enhanced bus network across the whole district.

The forecast daily numbers of boarders have also been converted into estimated annual boarders using an annual conversion factor. This indicates an estimated annual demand of ~14 million in 2019, rising to 15 million in the Reference Case, and potentially up to over 20 million with the Local Plan and mitigation in place.

Actual observed bus usage in B&NES (reported in the Department for Transport's Bus Statistics[49]) indicates that there were 14.7 million passengers in 2019. This is slightly higher than the 13.9 million estimated from the modelling, indicating that the modelling provides a conservative estimate of demand in 2019. Following the large fall in demand during the COVID-19 pandemic, there was a strong post-pandemic recovery, with patronage rebounding since 2022 to 13.1 million passengers in 2025.

Prior to the pandemic, there was strong growth in bus demand in B&NES, driven by investment in bus services and demand management policies to encourage mode shift from the car. This demonstrates the strong fundamentals of the bus market in this area. The large scale of housing growth now identified in the new Local Plan, coupled with the focus on improved bus services, supported by parking management in Bath and Bristol, will mean that there is a strong realistic prospect of exceeding 20 million annual boarders by 2042.

[49] Bus-statistics-data-tables#local-bus-passenger-journeys-bus01

6.4.4 Impacts on traffic generated by development sites

Table 6-6 summarises the forecast total highway trips at each major site, before and after application of the Local Plan transport mitigation measures. Overall, highway trips are expected to reduce by around 4% as a result of the proposed interventions. A significant proportion of trips - from both new development and existing areas - are also expected to reroute to interchanges or travel hubs to continue their journeys by public transport rather than driving the full distance.

Table 6-6 Highway total trips at development sites (with transport mitigation)

Region	Cluster of development sites	No. of homes	Vehicle trips AM		Vehicle trips PM	
			Pre-mitigation	with mitigation	Pre-mitigation	with mitigation
Bath	**Sites in Bath**	**627**	**232**	**230**	**227**	**235**
Bristol-Bath corridor: Hicks Gate, Keynsham, Whitchurch	Hicks Gate	2,183	1,022	978	998	982
	North Keynsham	1,538	858	832	837	812
	Saltford	1,446	677	673	661	655
	Keynsham	1,952	786	762	767	750
	Whitchurch	2,048	1,159	1,138	1,131	1,111
	All Bristol-Bath corridor sites	**9,167**	**4,501**	**4,383**	**4,394**	**4,310**
Somer Valley / Rural	Bishop Sutton, Chew & Pensford	400	224	218	218	216
	Writhlington	1,028	543	527	530	516
	Chilcompton Rd and Thicket Mead	291	186	125	181	130
	North Radstock	951	419	392	409	395
	Paulton and Hallatrow	414	188	179	183	175
	Peasedown	939	567	530	554	534
	South Farrington Gurney	549	324	313	292	277
	South Radstock (Haydon)	143	65	51	63	53
	Temple Cloud and Clutton	460	244	231	238	228
	Timsbury and Farmborough	510	274	265	268	260
	Somer Valley and rural sub total	**5,686**	**3,033**	**2,831**	**2,937**	**2,784**
	All Local Plan sites	**15,480**	**7,767**	**7,444**	**7,558**	**7,329**

6.4.5 Impacts on traffic flows and network performance

Table 6-7 shows the impacts of the transport strategy on traffic demand and overall performance of the network in B&NES. All numbers in the table are rounded.

Table 6-7 Road network operational statistics: B&NES

Scenario	AM/PM Peak hour travel time (mins)	AM/PM Peak hour delay (mins)	Daily Distance (million km)	Average Distance per trip (km)	Daily Vehicle Demand (PCUs, 000s)
2019 Base	26.4	4.5	6.7	20.6	325
2042 Reference Case	28.5	6.2	7.9	21.8	362
Local Plan No Mitigation	29.7	7.6	8.8	20.9	421
Local Plan With Mitigation	**29.1**	**7.1**	**8.7**	**20.9**	417
With Mitigation vs 2019 Base	+10% (+2.7 min)	+59% (+2.6 min)	+30% (+2.0m km)	+1.2% (0.3 km)	+28%
With Mitigation vs 2042 Reference Case	+2.0% (+0.6 min)	+15% (+0.9 min)	+10% (+0.8m km)	-4.3% (-0.9 km)	+15%
With Mitigation vs No Mitigation	-2.1% (-0.6 min)	-7.2% (-0.5 min)	-1.1% (-0.1m km)	-0.1% (-0.02 km)	-1.1%

With Local Plan growth but **no** mitigation, total daily distance travelled in B&NES will increase from 7.9 million (Reference Case) to 8.8 million (Local Plan with no mitigation) vehicle-kilometres per day.

The scenario **with** mitigation will reduce total daily distance travelled to from 8.8 to 8.7 million vehicle-kilometres per day (a reduction of 1%). The mitigation strategy will play an important role in providing communities with viable sustainable transport options, reducing average congestion and delay during the peak periods, from 7.6 minutes without mitigation to 7.1 minutes with mitigation. This will be slightly higher than the average 6.2 minutes delay in the Reference Case scenario excluding the Local Plan. Total peak hour average journey times are forecast to increase by less than 3% (from 28.5 to 29.1 minutes).

Table 6-8 shows the corresponding statistics for the West of England (including motorways) as a whole.

Table 6-8 Road network operational statistics: West of England

Scenario	AM/PM Peak Hr travel time (mins)	AM/PM Peak Hr delay (mins)	Daily Distance (million km)	Average Distance per trip (km)	Daily Vehicle Demand (PCUs, 000s)
2019 Base	33.3	4.3	72.7	36.3	2,000
2042 Reference Case	36.3	6.8	89.2	36.9	2,419
Local Plan No Mitigation	36.7	7.4	90.1	36.4	2,470
Local Plan With Mitigation	**36.3**	**7.3**	**89.7**	**36.3**	2,457
With Mitigation vs 2019 Base	+9% (+3.0 min)	+71% (+3.0 min)	+23% (+17.0m km)	+0% (+0.0 km)	+22.8%
With Mitigation vs 2042 Ref Case	+0% (+0.0 min)	+6.6% (+0.5 min)	+0.5% (+0.4m km)	-1.5% (-0.6 km)	1.6%
With Mitigation vs No Mitigation	-0.9% (-0.3 min)	-2.7% (-0.2 min)	-0.3% (-0.3m km)	-0.1% (-0.1 km)	-0.5%

Without mitigation, total daily distance travelled in the West of England will increase from 89.2 million (Reference Case) to 90.1 million (Local Plan with no mitigation) vehicle-kilometres per day. The scenario with mitigation will reduce total daily distance travelled to 89.7 million (a reduction of 0.3%) compared to the scenario without mitigation. This reduction in distance travelled by car (-0.3 million km) in the region is larger than the forecast reduction in B&NES because of the relocation of the Park & Ride from Brislington to Hicks Gate, which is expected to reduce trips, especially on the A4 corridor into Bristol.

The mitigation strategy will play an important role in reducing average delay during the peak periods, from 7.4 minutes without mitigation to 7.3 minutes with mitigation. This will be slightly higher than the average 6.8 minutes delay in the Reference Case, but the overall increase (~30 seconds, or 7%) is modest. Total peak hour average journey times by road are forecast to be unchanged from the Reference Case. This is in part because more drivers will shift to sustainable modes via the travel hubs and to Park & Ride services, reducing the time spent driving.

Figure 6-13 shows the total forecast daily (0700–1900) changes in flows on the road network with the Local Plan, with mitigation, compared to the Reference Case.

Figure 6-13 Changes in traffic flows (Local Plan with mitigation vs Reference Case, 12-hour totals)

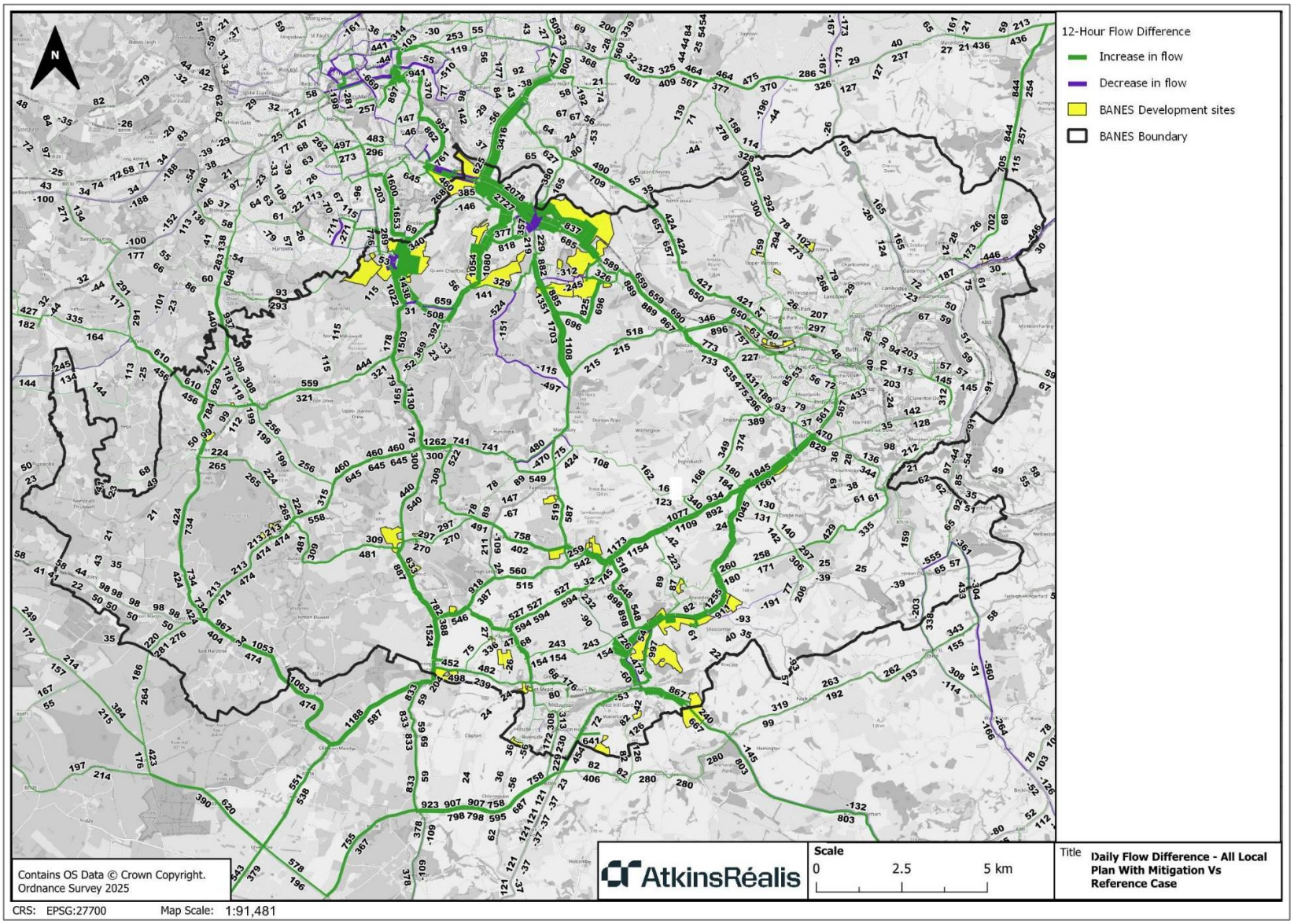


Figure 6-13 shows that there will continue to be increases in daily traffic with the mitigation in place compared to the Reference Case. There are clear patterns of traffic increases around the major development sites, and wider impacts caused by traffic heading to major destinations, including Bath, Bristol and the East Fringe in South Gloucestershire.

- Keynsham area: increases in traffic generated from the group of large sites around Keynsham and Saltford. This will include significant increases in traffic on key routes including the A4 Keynsham Bypass, routes into the town centre, A4175 to Willsbridge and Bitton, B3116 Wellsway, and Charlton Road.
- Hicks Gate: this area will experience significant change. The proposed transport interchange will result in large-scale mode shift to buses on the A4 towards Bristol as well as increases in active travel. Whilst the interchange will also support high volumes of bus travel towards Bath, Gloucestershire (via the Ring Road) and Keynsham, new development in the area will still generate large volumes of traffic.
- Whitchurch Village: the proposed travel hub in the village, together with both new and improved existing bus services along the A37 corridor, will help to reduce car dependency for trips towards Bristol, but there will be increases in traffic on several routes in the area.
- Somer Valley: the map shows clear traffic demands generated by new development, along the A362 from Writhlington, through Radstock town centre and continuing along the A367 past Clandown and Peasedown towards Odd Down.
- Rural areas: there will be increases on traffic on key routes across the district, most notably the B3116 south from Keynsham through Burnett, continuing on the A39 to Marksbury and Farmborough, onwards to Timsbury, and also the B3115 through Tunley. Traffic will also increase on other parts of the network, including through the Chew Valley, to avoid congestion on the A37 in Whitchurch.

Figure 6-14, Figure 6-15, Figure 6-16 and Figure 6-17 show the forecast impacts of the Local Plan, with mitigation, on the road network in the morning peak period. Note that evening peak data are also available and show similar overall patterns. These maps show changes in traffic flows (green = increases, blue = decreases) and changes in delays, in seconds (red = increases, pink= decreases). Figure 6-14 shows the whole network, and Figure 6-15, Figure 6-16 and Figure 6-17 show more detail for Bath, the Keynsham area, and Somer Valley respectively.

Figure 6-14 Changes in traffic flows and delays (Local Plan with mitigation vs Reference Case, AM peak hour)

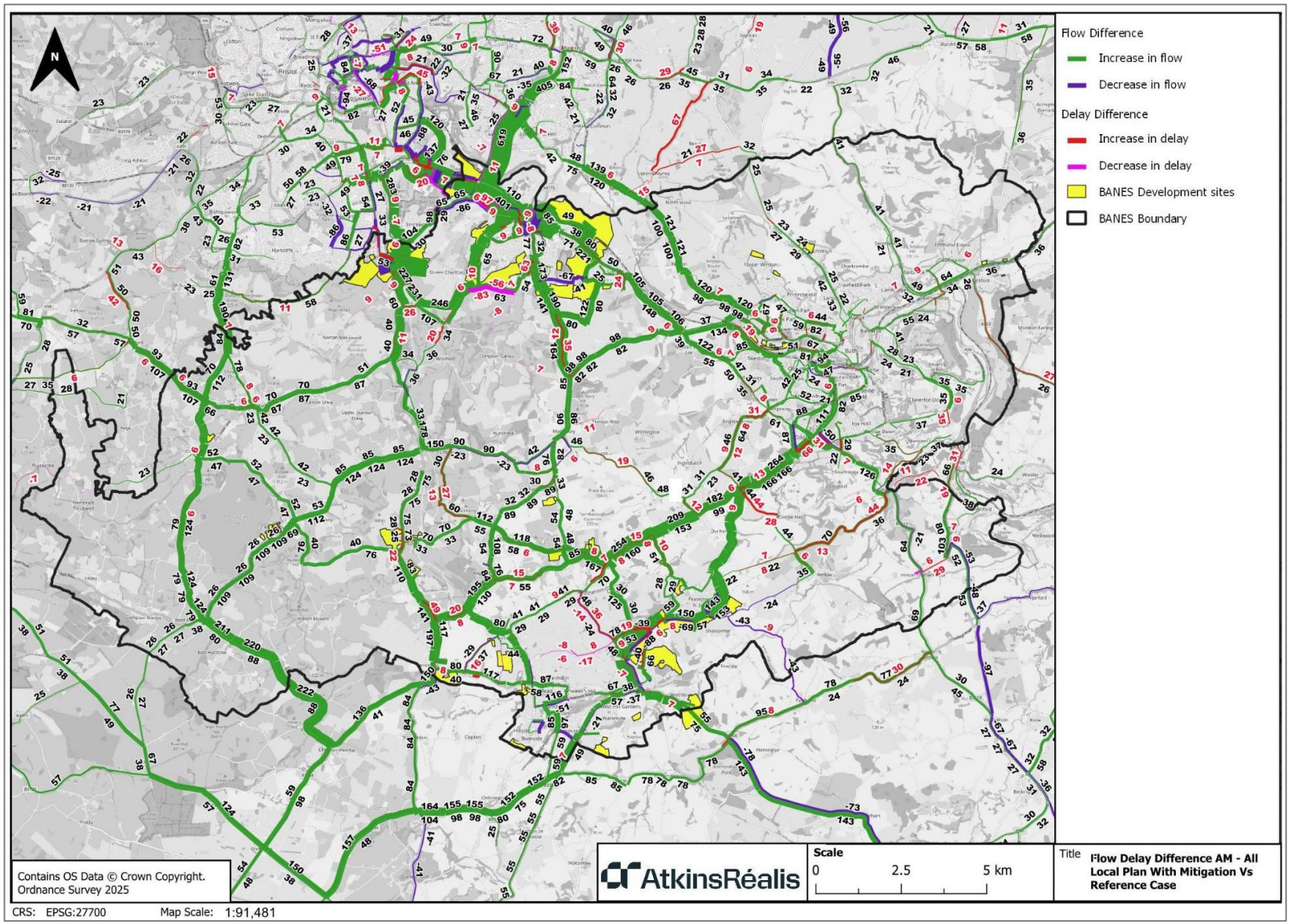


Figure 6-15 Changes in traffic flows and delays in Bath (Local Plan with mitigation vs Reference Case, AM peak hour)

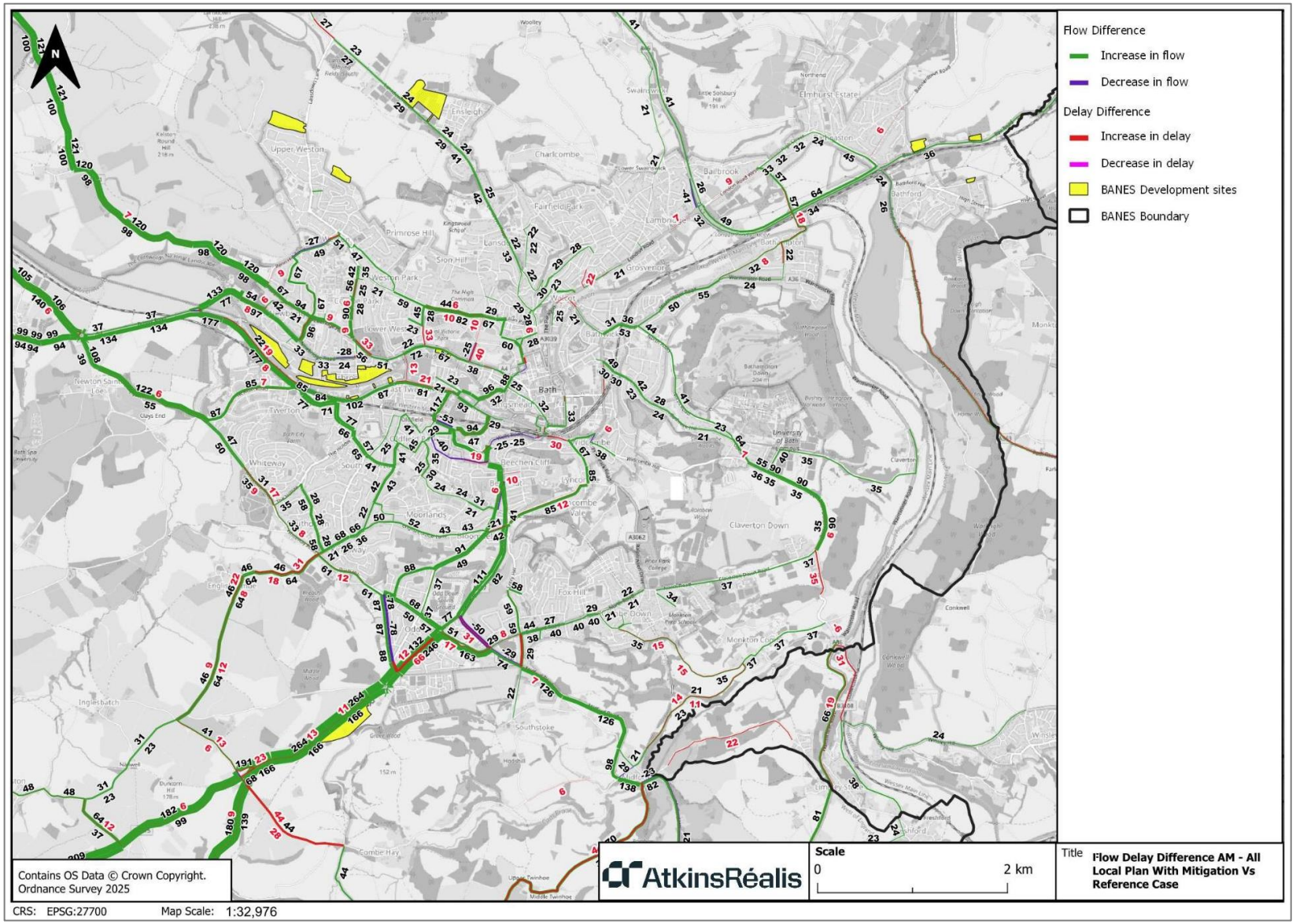


Figure 6-16 Changes in traffic flows and delays in Keynsham and Whitchurch (Local Plan with mitigation vs Reference Case, AM peak hour)

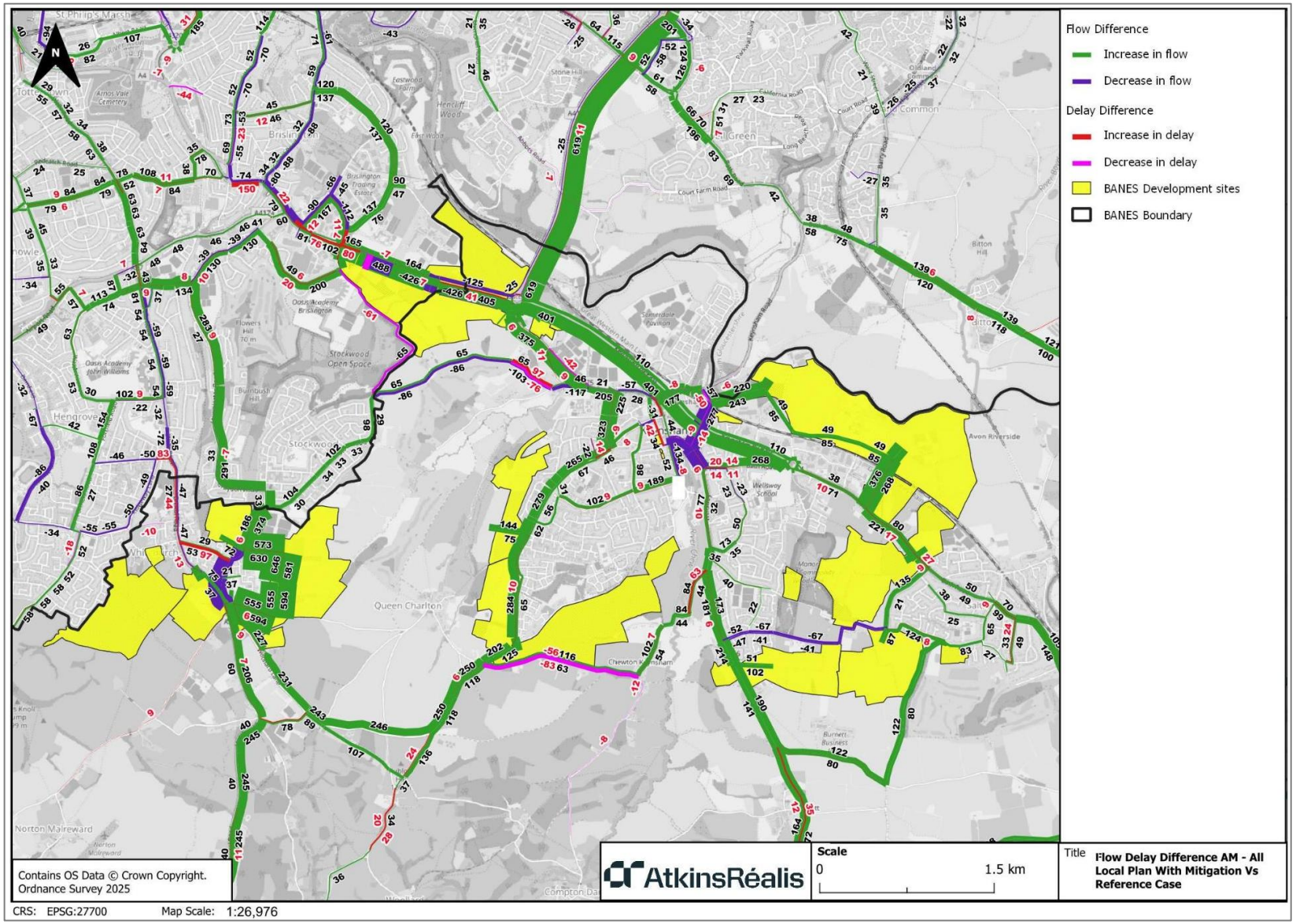
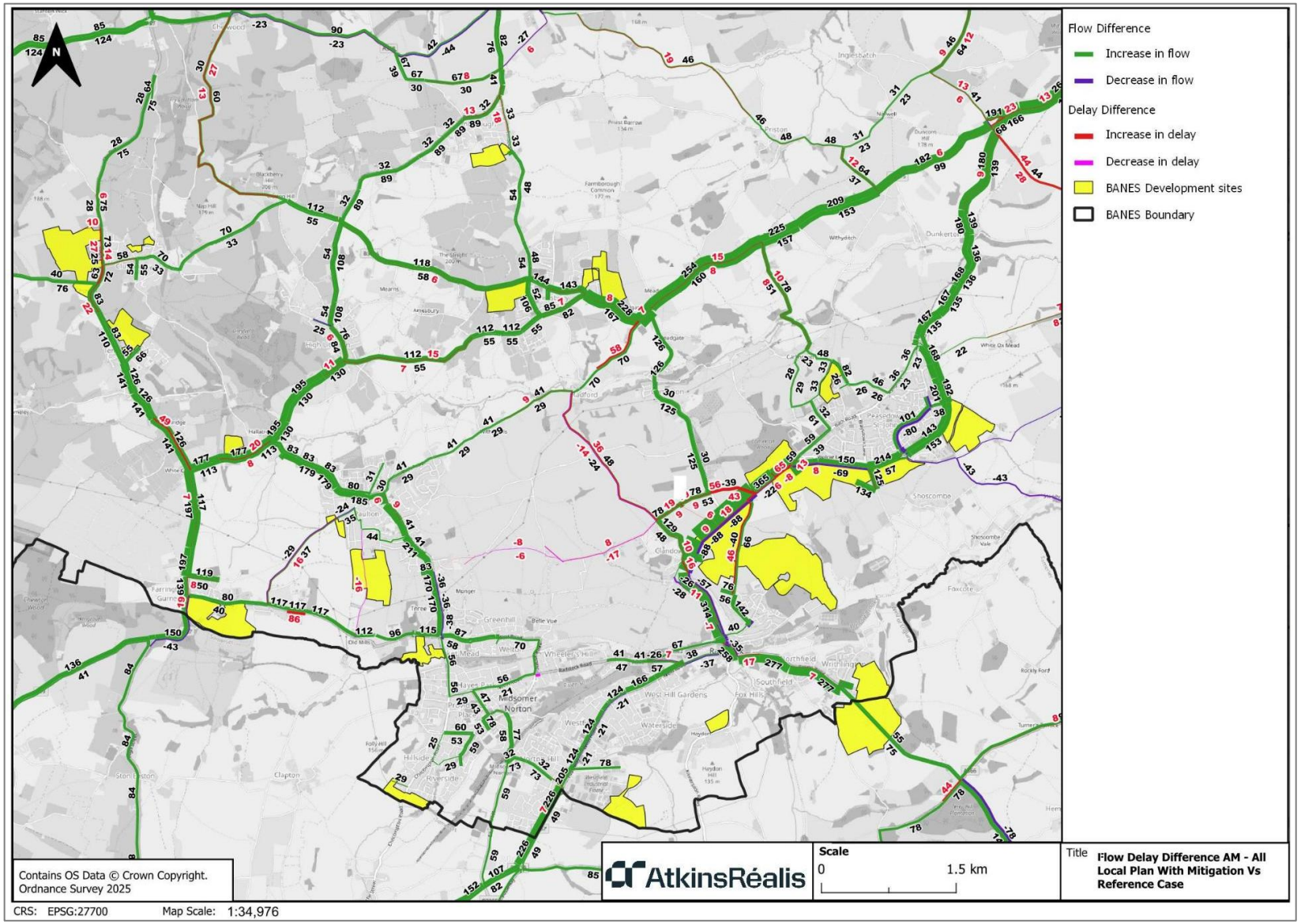


Figure 6-17 Changes in traffic flows and delays in Somer Valley (Local Plan with mitigation vs Reference Case, AM peak hour)



The location-specific issues identified from the analyses are summarised in the table below, which links each issue to the proposed response, drawing on the wider transport strategy: reducing car dependency, improving walking, cycling and public transport choices, and applying local traffic management to target highway safety and operational measures where residual impacts remain. Section 4.5 presented the evidence on existing road safety challenges, and Sections 4.7 and 5.7 demonstrated that increasing traffic demand, without mitigation measures, will result in deterioration of the performance of the road network.

Table 6-9 How impacts have been addressed through the strategy

Location	Issue identified	How issue is addressed through the strategy and further measures that may be required
Bath	Modest increases in delay are forecast across most parts of the city, generally below 20 seconds, with some larger localised increases. There is also potential for indirect impacts in locations such as the Down Lane / High Street junction in Bathampton, linked to higher traffic volumes using the toll bridge east of Bath.	The strategy focuses on limiting additional car dependency by strengthening active travel, bus, and improved interchange and wider sustainable access to Bath. Localised traffic management measures may be required where reassignment creates specific junction impacts, alongside monitoring of sensitive routes such as in Bathampton, using the framework set out in the Movement Strategy for Bath.
Keynsham and Saltford	Impacts are forecast on routes in Keynsham town centre, including Station Road approaching the High Street roundabout, and on the A4 westbound approach to Broadmead Roundabout. Increased delay is also forecast on Stockwood Hill, where the road is narrow and vehicles must give way to oncoming traffic. Some traffic from South Keynsham may use Redlynch Lane / Chewton Road, while traffic from the South Saltford site could use Gypsy Lane.	The strategy addresses these issues through a combination of sustainable access improvements, site-specific access planning and targeted traffic management. Measures are likely to include managing inappropriate routeing on narrow lanes, improving safety for vulnerable road users, and ensuring development access arrangements do not worsen existing constraints. Junction-level mitigation may be required where residual operational impacts remain.
Whitchurch Village and south Bristol	Additional delay is forecast at the A37 Wells Road / Ridgeway Lane junction, within Bristol. This could result in traffic seeking alternative routes through Craydon Road / Sturminster Road and Stockwood Lane to the east.	The response requires cross-boundary coordination with Bristol City Council. The strategy supports mode shift along the A37 corridor, including bus and active travel improvements, while local traffic management may be needed to discourage unsuitable traffic routings through residential streets.
Somer Valley and rural areas	Impacts are forecast at several junctions, including Bath Old Road / A367 Bath New Road north of Radstock town centre, Northdown Road / A367 between Clandown and Peasedown, and Timsbury Road / A39 north of Farmborough. Additional delay is also forecast at A37 corridor junctions, including the A37/A362 at Farrington Gurney, A37/A39 at Hallatrow, and junctions in Clutton.	The strategy combines corridor-based sustainable transport improvements with targeted highway and safety interventions. This includes improving bus connectivity, supporting active travel links between settlements, managing speeds and severance in village centres, and considering junction or traffic management measures where residual delay or safety issues are identified.

The highway proposals described in Figure 6-6 and Figure 6-9 have been identified to tackle operational and safety issues and will ensure that there will not be severe cumulative impacts on the road network.

7. Delivery strategy

This chapter concludes the Transport Topic Paper by setting out the approach to delivery of the transport mitigation strategy. It explains how the principles of the strategy are being incorporated into new policies in the Local Plan and integrated into the supporting Infrastructure Delivery Plan. This includes evidence on initial costings, approach to delivery planning, joint working with other agencies, and potential delivery mechanisms. This delivery strategy will ensure that new development is supported by the delivery of the right transport infrastructure at the right time.

7.1 Integration into Local Plan policy

The Local Plan transport strategy has been embedded throughout the draft Local Plan to ensure that the transport impacts of growth are fully managed in a coordinated and sustainable way, and that the infrastructure needed to support new development is planned and delivered alongside it. The strategy has informed both the spatial distribution of growth and the policy framework that will guide future development, ensuring that transport considerations are integrated into strategic planning, site allocations and infrastructure delivery.

The overarching principles of the transport strategy, including reducing reliance on private car travel, increasing the use of active travel and public transport, improving connectivity, and supporting the transition to a low-carbon transport system, are reflected across the draft Local Plan. Strategic policies direct development towards the most sustainable locations and require proposals to contribute towards the delivery of transport interventions that support sustainable movement patterns. Site allocation policies incorporate specific transport requirements, including new walking, wheeling and cycling connections, improvements to public transport accessibility, and measures to mitigate the impacts of development on the wider transport network.

The transport strategy is also integrated with the Infrastructure Delivery Plan, which identifies the transport infrastructure necessary to support planned growth and sets out an approach to phasing, funding and delivery. This ensures that transport mitigation measures are considered from the outset of the planning process and that infrastructure can be delivered at the appropriate time to support new housing, employment and mixed-use development.

A key element of this integration is the safeguarding of land and routes required to deliver future transport interventions. This ensures that opportunities to enhance the transport network are not prejudiced by development and that strategic schemes can be progressed as they move into more detailed design and delivery stages.

Together, these measures ensure that the transport strategy is fully embedded within the draft Local Plan, providing a clear framework for securing the infrastructure and interventions required to support sustainable growth, improve accessibility and connectivity, and deliver the Council's wider environmental, health and economic objectives.

7.1.1 Safeguarding requirements

Some transport interventions may require land outside the existing highway boundary, upgrades to Public Rights of Way, or links through development sites. Current requirements relate primarily to the active travel network, including corridors in Bath, Keynsham and Midsomer Norton, and connections within development allocations such as East Whitchurch, North Keynsham and Thicket Mead. Further requirements may be identified as transport schemes are developed.

7.2 Capital costs of mitigation measures

The estimated capital costs for the infrastructure schemes are set out in more detail in **Appendix B.** Costs have been derived using a high-level, proportionate approach appropriate to the Local Plan stage. For each scheme, benchmark unit rates have been applied to an indicative scope (for example, the length of active travel routes or provision of bus infrastructure), based on typical costs for comparable scheme typologies. The estimates are intended to provide an order-of-magnitude indication of the likely investment required to deliver the transport strategy and are considered proportionate and appropriate for plan-making purposes.

The schemes identified have also been categorised as 'critical', 'essential' and 'supportive' to inform the Infrastructure Delivery Plan:

- **Critical infrastructure** – infrastructure that is fundamental to the delivery and soundness of the Local Plan. Without it, significant development could not proceed, would result in unacceptable impacts, or the Plan's objectives could not be achieved.
- **Essential infrastructure** – infrastructure that is necessary to support planned growth and achieve the intended transport strategy, but where delivery may not be an immediate prerequisite for all development. Essential measures help ensure that growth is sustainable and impacts will remain within acceptable limits.
- **Supportive infrastructure** – infrastructure that enhances network performance, accessibility, resilience or user experience, and helps maximise the benefits of the Plan. While desirable and beneficial, these measures are not relied upon to demonstrate the deliverability or acceptability of planned growth.

The estimated total capital cost of the transport mitigation programme is summarised in Table 7-1 below, based on the scope of the measures set out in Section 6.3 and detail set out in Appendix B. These costs are based on schemes and mitigation measures that are considered either critical (£139.5 million) or essential (£67.5 million). The results are rounded to the nearest million pounds to reflect the high-level estimates at this stage.

Table 7-1 Estimated capital costs of critical and essential transport mitigation (£ million, 2026 prices)

Sub-area	No of dwellings	Public transport	Active travel	Highway and road safety	Total capital cost (2026 prices)	Total cost per dwelling
Bath	627	£1.0 million	£11.0 million	£2.0 million	£14.0 million	£22,400
Keynsham, Saltford & Whitchurch	9,167	£53.0 million	£25.0 million	£86.0 million	£164.0 million	£17,900
Somer Valley & Rural	5,686	£7.0 million	£15.0 million	£7.0 million	£29.0 million	£5,100
Total	**15,480**	**£61.0 million**	**£51.0 million**	**£95.0 million**	**£207 million**	**£13,400**

These capital cost estimates should be regarded as illustrative and proportionate to the current stage of scheme development. They have been derived from benchmark costs, comparable schemes and professional judgement, rather than outline or detailed design information or Bills of Quantities. Consequently, more detailed cost estimation work will be required as schemes are developed and brought forward for delivery.

The transport strategy requires approximately £10,000–£20,000 capital investment per dwelling, which is consistent with a comprehensive package of active travel, public transport and highway measures designed to support sustainable growth. B&NES has several characteristics that tend to increase infrastructure costs: historic city constraints in Bath, high dependence on strategic corridors (A4, A36, A37, A39), emphasis on modal shift

rather than simply road widening, and the need for public transport and interchange infrastructure rather than solely development access works.

7.2.1 Level of design and uncertainty

It should be noted that these are all initial concept proposals, developed as part of the preparation of the Local Plan transport strategy. The schemes are at a very early stage of development and have not yet been subject to detailed design, engineering assessment, environmental assessment or formal design review. It is expected that each proposal will be refined through subsequent stages of the planning and delivery process.

The estimated costs are based on an initial assessment of the scale and scope of each intervention (for example, the length of active travel improvements, extent of bus priority measures or number of supporting facilities required). No detailed design work has been undertaken at this stage.

This approach is considered proportionate and appropriate for plan-making purposes, providing a robust indication of the likely scale of investment required to support the Local Plan. The purpose of these estimates is not to define final scheme costs, but to demonstrate that the transport strategy can be delivered within a realistic and evidence-based funding envelope.

As proposals are progressed, further options development, design and assessment work will be undertaken to inform refined cost estimates, business case development and future funding bids. Costs may therefore be revised as schemes are further defined and more detailed information becomes available.

7.3 Financial viability of proposed bus services

New and improved bus services will play a central role in the transport strategy. It is therefore important to demonstrate that these will be viable and will not require long-term revenue support from the public sector. Financial assessments have been undertaken to estimate potential annual revenue from fare-paying passengers and the operating costs of the new and improved services.

7.3.1 Operating costs for bus services

There will be substantial operating costs associated with the proposed new and enhanced bus services. These have been estimated using an operating cost model based on bus industry cost data, including assumptions on vehicle requirements, route distance, fuel or energy use, driver costs, maintenance and other operating overheads.

The largest single cost component is expected to be driver costs. This is particularly important in the West of England, where operator costs have increased in recent years as higher salaries have been offered to recruit and retain drivers. The cost model includes allowances for these higher staff costs.

Vehicle costs are also significant. Diesel buses generally have lower upfront vehicle costs, while new electric buses have higher capital and financing costs, although they can offer lower energy costs and wider environmental benefits. Careful consideration will therefore be needed on the specification of vehicles used on these corridors. Electric buses would be consistent with the wider decarbonisation and quality objectives of the Local Plan transport strategy and are likely to be attractive to potential passengers, but their cost implications will need to be considered as part of future service planning. This will require close coordination with WECA, as the transport authority responsible for bus policy and service provision across the area.

The costing approach does not assume any future structural changes to the way bus services are provided in the region, such as franchising or public ownership. It also does not make allowance for longer-term

technological changes, including the potential future deployment of autonomous buses, which could materially reduce operating costs if they become viable and widely adopted. The estimates should therefore be regarded as a current-market assessment of likely operating costs, rather than a forecast of future commercial models.

Given the strategic nature of the Local Plan, the assessment has been undertaken at a high level. It is intended to provide a proportionate indication of the likely financial performance of the emerging bus package, rather than a detailed commercial business case for each route. More detailed operational, patronage and commercial assessments will be required as individual services are developed with the Mayoral Combined Authority and operators.

Table 7-2 presents indicative operating costs and forecast revenues for the proposed bus package.

Table 7-2 Local Plan bus improvements: indicative operating costs and forecast revenues

Bus route	Description	Estimated annual operational cost £ per year 2026 prices (OPEX)
41 (Odd Down – Bath City Centre)	4 to 6 bph	£400,000
174 (Bath – Somer Valley)	6 to 8 bph	£3,000,000
X39 (Bath – Bristol) *(shared with Bristol City Council)*	4 to 6 bph	£1,700,000
9 (Portway – Hicks Gate) *(shared with Bristol City Council)*	6 to 12 bph	£5,300,000
376 (Bristol – Wells)	3 to 4 bph	£2,900,000
522 (consolidated to run from Hicks Gate – Radstock)	1 to 3 bph	£1,600,000
424 (Midsomer Norton – Frome)	1 to 2 bph	£800,000
New A37 Whitchurch-Bristol route	2 bph	£1,200,000
New Hengrove-Whitchurch-Keynsham-Hicks Gate route	2 bph	£1,600,000
Additional operating costs of all upgraded services		**£18,500,000**
Additional operating cost range (attributable within B&NES)		**£16-19 million**
Expected additional annual patronage within B&NES		**+8 million passengers 13.1m (2025) to 21m (2042)**
Average fare yield per passenger		**£2.20**
Expected additional annual revenue within B&NES		**£17-18 million**

Note: OPEX estimates are rounded to the nearest £0.1 million.

The analysis indicates that the Local Plan, supported by the proposed transport mitigation package, has the potential to generate substantial additional bus demand. Section 6.4 estimates that local bus passenger journeys boarding within B&NES could increase from around 13.1 million per year in 2025 to up to 21 million per year in the future modelled year of 2042. This represents an increase of approximately 8 million passengers per year.

Applying an average fare yield of £2.20 per passenger in 2026 prices, for 8 million passengers, would generate approximately £17–18 million per year in additional fare revenue. This estimate relates only to passengers boarding within B&NES. Additional growth would also be expected in Bristol and surrounding areas on cross-boundary services, which could further strengthen the overall financial case for the enhanced network.

The estimated annual operating cost, within B&NES, of the proposed new and improved services is approximately £16-19 million per year in 2026 prices depending on how assumptions are made on sharing costs across local authority borders. It is important to note that the operating cost estimates relate to the full enhanced service pattern, not only the parts of routes within B&NES. For example, the revised service 9 is assumed to operate at high frequencies between Portway, Bristol city centre and Hicks Gate. The operating cost of this service is therefore relatively high, but not all of that cost is directly attributable to the B&NES area. This includes the costs associated with additional vehicle requirements, route mileage, fuel or energy use, driver costs and other operating costs

On the basis of these assumptions, the package is expected to be effectively revenue neutral at the strategic level. The additional fare revenue estimated from increased patronage within B&NES alone is comparable with the estimated annual operating cost of the enhanced services. When wider cross-boundary patronage is taken into account, the package has the potential to be commercially viable, although this will need to be confirmed through more detailed route-level assessment.

This shows that there is strong potential for the increased operating costs of new and improved services to be covered by fare revenues, with no overall requirement for long-term financial support. Whilst some new services are likely to require financial support during their early years of operation, the assessment indicates that this could be offset by increased revenue generated across the wider bus network as demand grows during the plan period.

Further work will be need to be undertaken to develop an optimised approach to the introduction of new and improved bus services. This will include options to further enhance existing services and further testing and optimisation of the new services. One of the primary advantages of this approach is the level of flexibility offered by buses, with the ability to flex future service provision to address evolving future travel demands. The Council will also work with WECA and neighbouring councils (in particular, Bristol City Council and South Gloucestershire Council) to optimise service provision to meet these evolving demands.

It will be particularly important to ensure that services are in place in readiness for the delivery of new homes in the major development locations. Further work will be undertaken to identify likely ‘trigger points’ for the delivery of new transport services and infrastructure. This is likely to demonstrate a need for revenue support for the new services while demand builds from new developments, and provision should be made for revenue support through the Infrastructure Delivery Plan.

It is therefore concluded that these new and improved bus services could be delivered with no significant long-term requirement for subsidy from the public sector.

7.4 Technical feasibility and deliverability

The proposed transport programme is considered to be highly deliverable in terms of technical feasibility. Within the development sites, the proposed transport infrastructure to support active travel, bus services and safe highway travel will be delivered by the site developers, but with planning conditions set by the Council to ensure that facilities are delivered at an early stage to ensure that residents make sustainable travel choices from the outset.

Beyond the sites themselves, the proposed active travel infrastructure, public transport improvements and highway measures are considered to be deliverable. Most of the proposed schemes are relatively modest, focusing on improving short sections of the network to connect to existing high-quality active travel infrastructure, for example connecting development sites in Whitchurch, Keynsham and Saltford to existing walking and cycling networks, and improved connections between Somer Valley communities, local centres, schools, public transport services and proposed travel hubs.

In many cases, new high-quality infrastructure is already committed or being built, for example through existing active travel investment programmes across Bath and North East Somerset and the wider West of England, which will complement and connect to the proposed Local Plan active travel network.

The new proposals include high-quality walking and cycling routes and highway and traffic management changes that are mainly expected to be within the existing highway boundary. These schemes will be delivered by taking land from verges or through narrowing of the carriageway. In some cases, there may be a requirement to extend outside the highway boundary, and provision will be made for safeguarding of land where needed. New active travel infrastructure will be designed to LTN 1/20 standards, with trade-offs made where highway boundaries constrain delivery of schemes to full standards. Road Safety Audits will be undertaken from an early stage in the design process. There is strong stakeholder and public support for the delivery of active travel infrastructure in this area. There is a strong culture of walking and cycling, with many people demanding improved facilities, and it is considered that there are likely to be high levels of support for the proposals.

New infrastructure to support travel choice, particularly buses, will includes a transport interchange at Hicks Gate and improved access to Odd Down Park & Ride; a network of travel hubs across Keynsham, Saltford, Whitchurch, Bath and the Somer Valley; upgraded bus stops and passenger facilities; and supporting highway measures to improve bus access and operation. It is expected that much of this infrastructure will be delivered within existing highway land or as part of proposed development sites, supporting overall deliverability.

The delivery of new and improved bus services will play a central role in this transport strategy. The analyses in Section 6.4 have shown that there will be strong demand for the enhanced bus network, with no significant requirement for long-term subsidy from the public sector. However, it is recognised that it will take time for demand to build for new busses to be delivered in the area. It will also be important to deliver new buses from an early stage in the build programme, to ensure that residents have effective travel choices from the outset. This will necessitate significant short-term revenue support to facilitate delivery of the services, which has been taken into account in the Infrastructure Delivery Plan.

It is anticipated that all current concept transport mitigation measures will be further developed through refined scheme design and the relevant planning processes. Indicative provision (and budget) has been made for delivery of these schemes. These will be scoped further with local communities from the start of the design process.

7.5 Funding and delivery mechanisms

7.5.1 Capital Funding

Transport for City Regions (TCR) is a multi-year funding programme announced through the 2025 Spending Review to provide long-term consolidated transport investment to mayoral city regions. Nationally, the programme provides £15.6 billion of funding for nine large city-region authorities, with the West of England allocated £752 million across the 2027/28 to 2031/32 settlement period. The published allocation for the West of England comprises £693 million capital and £59 million revenue funding.

For B&NES, this does not create a ring-fenced local allocation or guarantee funding for specific Local Plan measures. Funding will be prioritised and programmed through WECA's governance and assurance processes, with individual schemes expected to demonstrate strategic fit, deliverability, value for money and alignment with regional transport priorities. The settlement therefore provides a stronger and more certain regional funding context, but it should not be treated as a confirmed funding source for every item in the Local Plan transport package.

The relevance of TCR is that it strengthens the delivery context for the types of interventions identified through the Local Plan transport strategy. These include bus priority and service improvements, interchange and travel

hub measures, active travel corridors, strategic corridor improvements, and supporting infrastructure that enables sustainable growth. These measures align closely with the national purpose of TCR funding: supporting economic growth, unlocking housing delivery, improving access to jobs and services, and decarbonising transport through better public transport and active travel choices.

At this stage, TCR can be identified as a potential funding and delivery mechanism for relevant strategic and corridor-based measures, particularly where these form part of wider West of England programmes. It is therefore reasonable, for plan-making purposes, to assume that a proportion of the West of England TCR allocation could contribute towards the B&NES Local Plan transport package.

A simple population-share approach would imply a B&NES share of around 15–20% of the £693 million settlement, equivalent to approximately £110 million to £150 million. A needs-based or programme-based share could be higher or lower, depending on the schemes prioritised by WECA and the extent to which B&NES measures form part of wider regional growth corridors such as Bath–Bristol, the Somer Valley, A37/A367, A4 and regional interchange programmes.

On this basis, the current TCR settlement alone could plausibly fund a very substantial proportion of the £200+ million mitigation package, but it should not be assumed to cover the full cost. If B&NES secured around £100 million to £150 million of TCR-supported investment over the first settlement period, this would leave an indicative residual requirement of around £60 million to £100 million.

This residual would need to be met through a combination of developer contributions, site-specific Section 106 obligations, Community Infrastructure Levy or successor infrastructure levy arrangements, council capital programmes, Active Travel England funding, bus funding, National Highways contributions where impacts on the Strategic Road Network are identified, and future regional or national transport funding settlements.

The conclusion is therefore that the funding position is credible but not yet fully secured. The £200+ million package is deliverable if treated as a blended funding programme over the Local Plan period, with TCR providing an important strategic funding opportunity rather than a guaranteed single source of funding. The delivery strategy can reasonably assume that the scale of available regional funding, combined with developer and other public funding mechanisms, provides a realistic route to delivery.

7.5.2 Annual Funding

For new and improved bus services, revenues from fare-paying passengers will play a key role in contributing to increased operating costs. Section 7.3 discusses the approach to estimating operating costs and fare revenues, and demonstrates the long-term financial viability of the bus strategy. However, there will potentially be a need for financial support to ensure adequate bus accessibility during the early stages of development of sites. Contributions will therefore be required from development to support these services.

It is recognised that developers will only start to pay financial contributions once substantial proportions of homes (or employment floorspace) have been delivered. This could be achieved through Community Infrastructure Levy (CIL) payments (for larger elements of the packages) and Section 106 contributions. It is likely that many of the schemes will need to be delivered before funding is received from developers, which will require forward-funding for delivery by the Council. If any elements of infrastructure are forward funded by the Council, contributions will be used to pay back incurred expenditure.

The Infrastructure Delivery Plan, which has been produced in support of the new Local Plan, sets out the expectations of how new development will support transport requirements within the overall infrastructure requirements.

7.6 Monitoring and review

The implementation and effectiveness of the Local Plan transport strategy will be monitored annually through the Council's Local Plan monitoring framework. This will draw upon the wider monitoring and reporting arrangements established for the Local Plan and provide an evidence-led basis for assessing whether the transport strategy is delivering its intended outcomes.

Key indicators will include bus reliability and patronage, walking and cycling levels, traffic volumes on key corridors, air quality, and transport-related carbon emissions. Monitoring these indicators will help to assess the effectiveness of the transport strategy in supporting mode shift, reducing reliance on private car travel and mitigating the transport impacts of new development.

Monitoring data will be reviewed regularly to determine whether the assumptions and outcomes that underpin the transport strategy remain valid. Where monitoring identifies that interventions are not achieving their intended outcomes, the Council may review delivery plans, update implementation priorities or require additional mitigation measures from developers through the planning process, where appropriate.

This monitoring and review process will ensure that the transport strategy remains dynamic, responsive and evidence-led throughout the plan period, enabling the Council and its partners to respond to changing travel patterns, development trajectories and emerging evidence.

Appendix A. Approach to modelling of Local Plan development

Future travel demand resulting from the Local Plan was generated by translating planned housing and employment growth into daily person trips using central government data from the National Trip End Model (NTEM), alongside locally agreed assumptions. The Local Plan provides for around 22,000 new homes and approximately 26,000 additional jobs (including local service employment). These developments were assigned to model zones based on their development location.

A.1 Vehicle trips generated by development sites

Vehicle demand from new residential and employment developments was estimated using a hybrid approach, combining strategic trip-making from WERTM with observed TRICS[50] vehicle trip rates for each new site. The hybrid method avoids reliance on a single dataset and is consistent with national guidance and established planning practice for Local Plans.

Step 1: Strategic travel demand and trip patterns from WERTM
WERTM is a fully multi-modal strategic model that forecasts future travel demand based on housing and employment growth. For the Local Plan, new development is translated into person trips, which are then distributed across the highway network based on observed and forecast travel patterns. At this stage, WERTM provides:

- Overall growth in trips across the network;
- Destination patterns for new development and strategic routing and
- Reassignment in response to congestion.

This ensures that the wider regional and cumulative effects of growth are captured, including interactions with neighbouring authorities and background traffic growth.

Step 2: Deriving vehicle trip rates, adjusting for local mode share using a hybrid approach
While WERTM predicts how many trips occur overall, vehicle trip generation at individual development sites is informed using observed TRICS evidence. Over 60 comparable residential sites (primarily larger developments outside dense urban centres) were reviewed to establish realistic vehicle trip rates.

For the Local Plan assessment a robust and conservative assumption was applied for highway modelling. Observed vehicle trip rates were adjusted to reflect local car modal shares derived from the calibrated WERTM base model. Sites with higher existing car mode shares (i.e. in rural areas) were assigned higher vehicle trip rates and sites with lower car mode shares (e.g. close to Bath city centre or universities) were assigned lower rates. This approach ensures that trip generation is sensitive to local context, rather than applying a single uniform rate across all sites.

As a comparison, the average modelled rates (0.53 two-way vehicle trips) are higher than observed TRICS (0.43) median rates in both the AM and PM peak hours. The uplift reflects the semi-urban and rural context of many B&NES sites, higher car availability and the absence of mitigation in pre-mitigation scenarios. This demonstrates that the Local Plan has been tested against a realistic worst-case scenario.

[50] https://trics.org/

Step 3: Assigning vehicle trips to the highway network

Vehicle trips derived through the hybrid method were assigned to the highway network using WERTM's highway assignment model. This process routes trips based on generalised travel cost and congestion, allows traffic to reroute, spread into peaks, or divert to alternative corridors and captures delay, queuing and network-wide impacts. The model reports changes in traffic flow, travel time and delay at both corridor level and network-wide level, ensuring impacts are assessed proportionately.

Final highway trip totals were cross-checked against NTEM growth, observed base-year vehicle demand and regional growth patterns. Across all scenarios, the ratio between households and vehicle trips remains coherent. For example, the ~15,000 Local Plan homes are forecast to generate approximately 7,000–8,000 additional peak-hour vehicle trips, which is consistent with national trip rate evidence and historic travel behaviour in B&NES.

Role of the hybrid highway modelling approach in the Local Plan

The hybrid approach ensures that strategic modelling captures cumulative and regional impacts and by utilising observed evidence (via TRICS) provides a realistic, development-level check on vehicle demand. By using trip rates higher than the median and adjusting for local car dependency, the Local Plan testing avoids understatement of highway impacts and provides a sound basis for identifying where mitigation is required. This modelling evidence directly informs the Local Plan transport strategy by clearly demonstrating where congestion is forecast to worsen, which corridors are under pressure, and where targeted transport interventions are necessary.

A.2 Bus demand from development sites

Bus patronage and active travel demand associated with new Local Plan development sites are derived using the West of England Regional Transport Model (WERTM). WERTM is a fully integrated, multi-modal strategic transport model that represents how people choose to travel, rather than relying on fixed assumptions or target mode shares. Demand is generated from new housing and employment, then allocated across modes based on relative travel costs, accessibility and service quality. Bus patronage from new development sites is estimated through the Public Transport Assignment Model (PTAM) component of WERTM. This process follows three key stages:

Step 1: Strategic trip generation and distribution

New housing and employment allocations generate daily person trips using national trip rate evidence. These trips are distributed to destinations across the network (e.g. Bath, Bristol, local centres) based on observed travel patterns in the calibrated base model and the new "attractions" from the planned developments.

Step 2: bus modal choice is based on generalised cost

For each trip, WERTM calculates the "generalised cost" of travelling by bus relative to car and active modes for the whole journey to the ultimate destination. This includes total cost consideration of the entire journey, which includes walk access and egress distance, waiting time (linked to service frequency), in-vehicle time, interchange penalties (where relevant) and fares. For bus trips via Park & Ride, the costs of driving (time, fuel, parking costs etc.) are also considered. If bus services are direct, frequent and accessible from either a development site or a suitable interchange, the model assigns a higher proportion of trips to bus. Where services are less attractive or indirect, car usage (or active travel) remains higher.

Step 3: Network assignment and patronage outputs

People choosing to travel by bus are assigned onto specific service routes, producing outputs for: boarders by corridor and location, patronage at transport interchanges and travel hubs, and peak and daily demand along key corridors. Importantly, bus patronage is an output of the model, not an assumption. For the pre-mitigation Local Plan scenario, new development sites generate additional bus demand primarily along established corridors (e.g. A4, A37, A367), but with relatively modest mode shares where service levels and interchange

quality are limited. This evidence was used to identify where service enhancements and interchanges and hubs would be required and most impactful.

A.3 Active travel demand from development sites

Active travel in WERTM is represented as a distinct mode choice option for shorter-distance trips, particularly internal trips within settlements and access trips to public transport. The model derives walking and cycling demand in three stages as follows:

Step 1: Trip length and purpose filtering
Only trips within reasonable walking and cycling distances are considered viable for active modes. These are predominantly local trips within development areas, trips to nearby schools, services, visiting family and friends and employment, and access to bus stops, rail stations and travel hubs.

Step 2: Perceived cost and attractiveness
Active travel choice, like other modes, is influenced by relative travel cost. For active travel this is mainly associated with perception of costs, which reflect distance and assumed walking/cycling speeds, quality and continuity of routes, and apparent safety and comfort (all represented through perception factors)

In the pre-mitigation scenario, the model reflects existing walking and cycling conditions. This means active travel demand increases around new housing simply because more trips are made locally, but mode share remains constrained where routes are indirect, fragmented or vehicle-dominated.

Step 3: Assignment and spatial outputs of active trips
Active trips are assigned spatially, allowing the model to show where walking and cycling demand concentrates, which development areas have strong latent demand and where improved links to centres and interchanges are needed.

The model output is primarily illustrative only, as it is not explicitly calibrated or validated to match what people actually choose to do. Active travel outputs therefore reflect potential demand and opportunity, not precise route-specific forecasts. They help transport analysts to pinpoint where walking and cycling improvements will be most effective but local knowledge, design expertise and safety consideration are most important in identifying route upgrades.

A.4 Relationships between modes

WERTM explicitly models the interdependency between car travel, public transport and active travel, recognising that these separate modes do not operate in isolation. Walking forms a fundamental component of both car and bus travel, providing access to services, interchanges and destinations. How well these access movements function strongly influences overall mode choice.

Walking and cycling and perceptions of safety are essential to bus use, as passengers must access bus stops, interchanges and travel hubs on foot or by cycle. Car travel also interacts with public transport, particularly where journeys involve major transport interchanges, or short car trips followed by onward travel by bus from travel hubs. As a result, poor walking and cycling conditions (long distances, severance, safety concerns) reduce the attractiveness of bus travel, even where services are frequent or fares are low or lack of access via car to a bus interchange or travel hub reduces attractiveness of onward bus travel.

Conversely, improvements to walking and cycling connectivity, such as shorter access distances, safer routes or higher-quality interchanges, reduce the perceived effort of accessing public transport. This increases both active

travel trips (short local journeys and access trips), and bus patronage by making public transport more competitive with car travel.

Within WERTM, this interaction is represented through generalised travel cost, which combines time, distance, waiting, and interchange penalties across modes. Improvements to active travel infrastructure or interchange quality reduce perceived access and egress costs, which directly affects: mode choice between car and public transport, the decision to drive the full journey versus transferring to bus, and the overall level of car dependency at development sites. Importantly, the model therefore captures mode shift as a behavioural response, rather than relying on assumptions or fixed targets.

Role of modelling and implications for the Local Plan

This integrated approach allows the modelling to test how targeted interventions unlock sustainable travel choices at new development sites. For example:

- Travel hubs are perceived to reduce walking distance and interchange penalties, increasing bus use
- Safer and more direct walking and cycling routes increase both local active trips and access to bus
- Improved access to public transport reduces the need to complete journeys entirely by car

As a result, the modelling shows that reducing car dependency is not achieved through bus services alone, but through a coordinated package of walking, cycling, interchange and public transport improvements. This provides a robust and evidence-based justification for the Local Plan transport strategy and demonstrates how mode shift is realistically achieved.

The pre-mitigation results show that, without intervention, new development sites would remain relatively car-dominant, despite generating some additional bus and active travel demand. The modelling therefore provides clear evidence for:

- Where bus services need to be enhanced
- Where transport interchanges and travel hubs are justified
- Where walking and cycling improvements are essential to support mode shift
- Where highway interventions are necessary to improve safety as a result of increase traffic and congestion

This ensures that the Local Plan transport strategy is evidence-led, proportionate, and directly responds to the impacts identified by the modelling.

Appendix B. Estimated capital costs of proposed transport infrastructure

The capital cost estimates presented in this report should be regarded as illustrative and proportionate to the current stage of scheme development. They have been derived from benchmark costs, comparable schemes and professional judgement, rather than outline or detailed design information or Bills of Quantities. Consequently, more detailed cost estimation work will be required as schemes are developed and brought forward for delivery.

The schemes identified have also been categorised as 'critical', 'essential' and 'supportive' to inform the Infrastructure Delivery Plan:

- **Critical infrastructure** – infrastructure that is fundamental to the delivery and soundness of the Local Plan. Without it, significant development could not proceed, would result in unacceptable impacts, or the Plan's objectives could not be achieved. These interventions are typically required to make development acceptable in planning terms.
- **Essential infrastructure** – infrastructure that is necessary to support planned growth and achieve the intended transport strategy, but where delivery may not be an immediate prerequisite for all development. Essential measures help ensure that growth is sustainable and impacts will remain within acceptable limits.
- **Supportive infrastructure** – infrastructure that enhances network performance, accessibility, resilience or user experience, and helps maximise the benefits of the Plan. While desirable and beneficial, these measures are not relied upon to demonstrate the deliverability or acceptability of planned growth.

Table B-1 Estimated Capital Costs (£, 2026 prices) of Transport Mitigation Measures in Bath

Proposed Scheme in Bath	Capital cost	Type	Need
Area wide active improvements - Lower Weston	£1,265,000	Active	Essential
Area wide active improvements - Bathford and Batheaston	£1,265,000	Active	Essential
Area wide active improvements - Weston	£1,265,000	Active	Essential
Shared use path - Odd Down - Wellsway	£7,590,000	Active	Essential
Travel Hub - Batheaston	£300,000	Bus	Essential
Travel Hub - Lower Weston	£300,000	Bus	Essential
Travel Hub - Odd Down	£300,000	Bus	Essential
Travel Hub - University of Bath	£300,000	Bus	Supportive
Travel Hub - Bath Spa University	£300,000	Bus	Supportive
Travel Hub - Bathwick	£300,000	Bus	Supportive
New highway access to Odd Down P&R and new site	£2,000,000	Highway	Essential

Table B-2 Estimated Capital Costs (£, 2026 prices) of Transport Mitigation Measures in Keynsham, Whitchurch and Saltford

Proposed Schemes in Keynsham, Whitchurch and Saltford	Capital cost	Type	Need
Walking Route - Hicks Gate to Whitchurch	£3,250,000	Active	Essential
Active Travel Hub - Area wide (x11) in Bristol-Bath corridor	£1,375,000	Active	Essential
Walking Route - North Keynsham - Keynsham High Street	£1,000,000	Active	Essential
Shared use path - Durley Hill (Hicks Gate)	£3,705,000	Active	Essential
Separated provision – North Keynsham Access Road (incl in Highway item below)	Highway	Active	Essential
Separated provision – Whitchurch Access Road (incl in Highway item below)	Highway	Active	Essential
Separated provision - Charlton Road (South Keynsham - High Street)	£2,387,500	Active	Essential
Shared use path - Park House Lane (South Keynsham)	£2,139,000	Active	Essential
Shared use path - Avon Mill Lane - Station (North Keynsham)	£1,950,000	Active	Critical
Mixed Traffic - St Clements Rd - High St (South Keynsham)	£1,112,500	Active	Essential
Mixed Traffic - Norman Road (Saltford)	£1,150,000	Active	Essential
Mixed Traffic - Silbury Rise - Chandag Rd (South Keynsham)	£1,812,500	Active	Essential
Mixed Traffic - Pixash Lane (North Keynsham)	£112,500	Active	Essential
Mixed Traffic - Unity Road (North Keynsham)	£1,230,500	Active	Essential
Mixed Traffic - Staunton Lane - Sleep Lane (Whitchurch)	£960,000	Active	Essential
Mixed Traffic - Grange Rd (Saltford)	£529,000	Active	Essential
Quiet Lane - Saltford to Bristol-Bath cycle path	£1,150,000	Active	Essential
Quiet Lane - Queen Charlton Lane - Whitchurch 1	£1,020,000	Active	Essential
Bus Stop improvement - 4 bus stops in South Keynsham	£200,000	Bus	Essential
Travel Hub - Ashton Way - Keynsham High St	£300,000	Bus	Essential
Travel Hub - Queens Road, Keynsham	£300,000	Bus	Essential
Bus Stop improvement - 4 bus stops in South Whitchurch	£200,000	Bus	Essential
Bus Stop improvement - 2 bus stops in Saltford	£100,000	Bus	Essential
Bus Stop improvement - 6 bus stops in North Keynsham	£300,000	Bus	Essential
Bus Stop improvement - 4 bus stops in Hicks Gate	£200,000	Bus	Essential
Travel Hub - Charlton Road	£300,000	Bus	Essential
Travel Hub - Chandag Road, Keynsham	£300,000	Bus	Essential
Travel Hub (including parking) - Whitchurch	£750,000	Bus	Essential
Travel Hub - East Whitchurch	£300,000	Bus	Supportive
Transport Interchange - New Major interchange in Hicks Gate	£50,000,000	Bus	Critical
Whitchurch Village (Staunton Ln to Ridgeway) - safety measures	£1,125,000	Highway	Essential

Proposed Schemes in Keynsham, Whitchurch and Saltford	Capital cost	Type	Need
Hicks Gate Roundabout - junction upgrade	£5,000,000	Highway	Critical
Highway Access - North Keynsham Access Road.	£50,000,000	Highway	Critical
St Ladoc road / Charlton Road junction safety upgrade – mini r'bout	£500,000	Highway	Essential
Sturminster Rd / Craydon Rd / Stockwood Rd junction reconfigured	£250,000	Highway	Essential
New Access road from Bristol Road to Stockwood Lane	£28,000,000	Highway	Critical
Sturminster Road - safety measures	£1,000,000	Highway	Essential

Table B-3 Estimated Capital Costs (£, 2026 prices) of Transport Mitigation Measures in the Somer Valley

Proposed Schemes in the Somer Valley	Capital cost	Type	Need
Area wide active improvements - Clutton and Temple Cloud	£1,265,000	Active	Essential
Area wide active improvements - Farmborough	£1,265,000	Active	Essential
Area wide active improvements - Farrington Gurney	£1,265,000	Active	Essential
Area wide active improvements - Timsbury	£1,265,000	Active	Essential
Area wide active improvements - Paulton	£1,265,000	Active	Essential
Quiet Lane – Peasedown	Committed	Active	Essential
Mixed Traffic - Chilcompton - High St (Midsomer Norton South)	£2,250,000	Active	Essential
Mixed Traffic - Norton Hil (Midsomer Norton)	£1,782,500	Active	Essential
Shared use path - Haydon - Radstock	£1,375,000	Active	Essential
Quiet Lane - Gassons to Braysdown Ln (Radstock - Peasedown)	£537,500	Active	Essential
Walking Route - Frome Road (North Radstock)	£1,237,500	Active	Essential
Walking Route - Bristol Rd (North Radstock)	£1,000,000	Active	Essential
Mixed Traffic – Thicket Mead	On site	Active	Essential
Quiet Lane - Writhlington - Greenway (Radstock)	£387,500	Active	Essential
Active Travel Hub - North Radstock	£125,000	Active	Essential
Travel Hub - Peasedown North	£750,000	Bus	Critical
Travel Hub - Paulton & Hallatrow	£300,000	Bus	Essential
Travel Hub - Radstock	£300,000	Bus	Essential
Travel Hub - Thicket Mead	£300,000	Bus	Essential
Travel Hub - Midsomer Norton South 1	£300,000	Bus	Essential
Travel Hub - Midsomer Norton South 2	£300,000	Bus	Essential
Travel Hub - Midsomer Norton Central	£300,000	Bus	Supportive
Bus Stop improvement - 6 bus stops in Midsomer Norton	£300,000	Bus	Essential
Bus Stop improvement - 2 bus stops in North Radstock	£100,000	Bus	Essential
Bus Stop improvement - 8 bus stops in Peasedown	£400,000	Bus	Essential

Proposed Schemes in the Somer Valley	Capital cost	Type	Need
Travel Hub (including parking) - Clutton	£750,000	Bus	Critical
Travel Hub (including parking) - Temple Cloud	£750,000	Bus	Critical
Travel Hub (including parking) - Farrington Gurney	£750,000	Bus	Critical
Travel Hub (including parking) - North Radstock	£750,000	Bus	Critical
Travel Hub (including parking) - Peasedown South	£750,000	Bus	Critical
A39 / Timsbury Road: signalise junction	£850,000	Highway	Essential
A37 / A39 Wells Road traffic signals: High Friction Surfacing	£25,000	Highway	Essential
A367 / Northdown Road junction: signalise junction	£1,000,000	Highway	Essential
A362 / A366 / B3139 crossroads: signalise junction	£1,000,000	Highway	Essential
A367 / Tunley Road junction: signalise junction	£1,000,000	Highway	Essential
A36 Brassknocker Hill: reduce speed limit, add HFS at junction	£45,000	Highway	Essential
A36 Branch Road: refresh road markings and HFS on mainline	£130,000	Highway	Essential
A36 near Kingcopse Wood – (near petrol station): Add HFS	£70,000	Highway	Essential
A36 / B3110 Frome Rd: Clear vegetation / tree branches	£20,000	Highway	Essential
B3114 / A39 Chewton Mendip: Refresh road markings	£20,000	Highway	Essential
A37 / Station Rd Clutton & A37 / Stowey Road: Refresh road markings and High Friction Surfacing & traffic calming measures	£225,000	Highway	Essential
A367 route from South Peasedown to Clandown: Provide controlled crossings	£500,000	Highway	Essential
A38 / Barrow Lane junction: signalise junction	£2,000,000	Highway	Essential

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