

TWBC LOCAL PLAN TRANSPORT EVIDENCE BASE

Transport Assessment Report

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Sweco
Lector Court
151-153 Farringdon Road
London, EC1R 3AF

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1. Introduction

1.1. Background

- 1.1.1. Tunbridge Wells Borough Council (TWBC) is currently preparing its new Local Plan, which will cover the period 2013 – 2036. The new Local Plan will provide the overarching principles that will guide future development within the borough during the Local Plan period up to 2036. The new Local Plan will replace the existing Local Plan 2006, Core Strategy 2010 and Site Allocations Local Plan 2016. TWBC are aiming to adopt the new Local Plan in summer 2020.
- 1.1.2. The new Plan will set the vision and framework for development within the borough to 2036 including for housing, the economy, community facilities and infrastructure. The policies within the Plan will promote sustainable development to address design, climate change and environmental protection, whilst meeting the needs of current and future generations.
- 1.1.3. In preparing the new Local Plan, TWBC needs to consider, and consult on, sustainable options for meeting housing and other development needs. As part of this process, TWBC has commissioned Sweco to provide a Transport Assessment to gather evidence on, and evaluate, the potential transport impacts of the emerging draft Local Plan and investigate mitigation measures to alleviate such impacts.

1.2. Report Purpose

- 1.2.1. Mobility and transport are an integral part of society and a key issue in a largely rural area like Tunbridge Wells borough. Increasing car ownership and usage in line with national trends result in a high dependency on the private car to satisfy movement needs. The resulting increase in traffic volumes and road congestion contribute to and create a poorer quality environment. The car is a convenient and versatile means of transport for many but at increasing social, environmental and economic cost.
- 1.2.2. As such, it is recognised that the delivery of the borough/s development growth needs is intrinsically linked to infrastructure and transport delivery. It is fundamental that places and communities are well connected with each other, the surrounding areas and beyond, for the purposes of employment opportunities and access to day-to-day services and facilities for future generations.
- 1.2.3. With this in mind, the purpose of this Transport Assessment is two-fold:
 - To understand the transport implications of the Preferred Growth Strategy in the Council's emerging Local Plan across the borough of Tunbridge Wells, taking account of growth scenarios in neighbouring districts; and
 - To assist in the preparation of a borough-wide Transport Strategy to support the emerging Local Plan, reflecting current best practice and Government guidance.

1.3. Objectives

1.3.1. The main objectives of the Transport Assessment (TA), as set out in TWBC’s “Transport Evidence Base – Specification” document, are to:

- Assess the quality and capacity of transport infrastructure across the borough and its ability to meet forecast demands.
- Assess the cumulative impacts of the Preferred Growth Strategy on all transport modes and networks and the impact on the locality, including the impact on networks in the locality of sensitive designated international sites.
- Set out proposals to minimise the impact of the development on the transport network to inform the infrastructure requirements associated with the Local Plan.
- Promote measures to encourage sustainable transport.

1.4. Outline Methodology

1.4.1. Sweco attended an Inception Meeting with TWBC and Kent County Council (KCC) officers on 9th Jan 2019 where the study constraints and thus, the scope of works for the TA were established. This included the methodology to be adopted for the assessment of the cumulative impacts on the highway network. The key stages and methodology discussed/agreed are summarised below:

- **Stage 1: Baseline Study** – Establish and analyse the existing transport conditions considering policy, stakeholder aspirations and development principles. This study would be based on the existing datasets and information as provided by TWBC/KCC. The key topics discussed in this Stage cover the following areas:
 - A policy review of key national, regional and local planning and transport policy.
 - Study of existing transport infrastructure (all modes) including, where possible, usage and capacity.
 - Collision analysis along key corridors and junctions within the borough.
 - High level travel behaviour and demographic analysis of residents and employees at both borough and local level.
 - Assessment of the existing traffic conditions on the highway network based on a spreadsheet analysis of the available baseline link and junction traffic flow data.
 - Summary of anticipated development during the Local Plan period.
- **Stage 2: Transport Capacity Assessment** – An assessment of the impact of the preferred growth strategy on the transport networks and infrastructure (all modes) based on an analysis of:
 - Anticipated level of development, especially housing.
 - The locational strategy for distribution of new development around the borough.
 - Estimate of multi-modal trip rates arising from new residential and commercial development using TRICS trip rate data.

- Modal share, trip distribution and assignment assessment taking account of localised travel characteristics and patterns established from Census 2011 data.
 - Identification of areas of traffic growth, arising from development within the Local Plan.
 - TEMPRO future year trip rates to account for neighbouring district growth.
 - Utilising junction turning count and ANPR data provided by TWBC/KCC, a comprehensive highway model will be built using Saturn simulation to assess the traffic impacts on the core study area of Royal Tunbridge Wells, Tonbridge and Paddock Wood town centres, plus the connecting network between these towns.
 - The impacts of the growth strategy, in particular modal shifts, on the transport networks/infrastructures, will be assessed utilising a Cube Voyager model.
- **Stage 3: Mitigation Measures** – A comprehensive list of transport interventions will be identified and developed based on the assessments undertaken, liaison with key stakeholders and the application of specialist knowledge and analysis.
 - Building on an aim to reduce the need to travel in the first place, the transport interventions will focus on the promotion of sustainable and active modes.
 - All options are to be considered, including large scale highway improvement schemes and smaller scale initiatives to improve public transport facilities and increase pedestrian and cycle permeability, through the provision of new and improved walking and cycling links.
 - The transport interventions will be assessed using a combination of qualitative (appraisal framework spreadsheet) and quantitative (transport modelling) methods.
 - **Stage 4: Final Transport Assessment and Next Steps** – This TA report and accompanying Modelling Technical Note represent the outcomes of Stage 4. It sets out the outcomes of the study including mitigation measures required to support the preferred development growth.

1.5. Scope of Planning Information Included

- 1.5.1. Please note that this report is based on provisional information provided by Tunbridge Wells Borough Council for the purposes of testing the cumulative transport impacts of potential development sites on the existing network. Following further investigations by the Borough Council, the capacity, or inclusion, of sites has varied in some instances, but the overall housing numbers assessed in the report (10,205 dwellings) compares very closely to the allocations in the Draft Local Plan (10,133 dwellings). It is noted that sites with planning permission and previous allocations are dealt with separately. Similar provisos apply to employment-generating sites, where assumptions are made regarding capacity when these were not available.

1.5.2. This assessment will be updated following the Borough Council's consideration of comments on the Draft Local Plan.

1.6. Report Structure

1.6.1. Following this introduction, the remainder of this TA is structured as follows:

- **Chapter 2: Policy Context** – summarises the key policy considerations that the TA has had regard to;
- **Chapter 3: Socio-Demographics and Travel Behaviour** – provides a high-level review of the borough-wide socio-demographics which influence travel behaviour
- **Chapter 4: Existing Walking and Cycling Infrastructure** – provides a high-level review of the current active travel modes across Tunbridge Wells Borough;
- **Chapter 5: Existing Public Transport Infrastructure** – provides a high-level review of the current public transport networks across Tunbridge Wells Borough;
- **Chapter 6: Highway Network, Congestion and Collision Analysis** - provides a high-level review of the current highway network across Tunbridge Wells Borough;
- **Chapter 7: Growth and Development in the Borough** – summarises the proposed new Local Plan development strategy;
- **Chapter 8: Trip Generation and Model Development** – sets out the methodology for establishing the future year trips associated with the emerging development strategy and the results of the developed Future Baseline;
- **Chapter 9: Mitigation Measures** – summarises a range of potential measures to mitigate the impacts of the Local Plan growth, including highway infrastructure improvements and public transport and active travel infrastructure improvements to facilitate modal shift from the private car; and summarises the results of the multi-modal transport modelling of the Future Baseline + development scenario in comparison with 2018 Baseline and Future Baseline;
- **Chapter 10: Summary and Conclusions** – summarises the work undertaken, the outcomes of the study and the recommended next steps.

2. Policy Context

2.1. Introduction

- 2.1.1. Local Plans set out the strategic priorities for development of an area and cover housing, commercial, public and private development, including transport infrastructure, along with protection for the local environment.

2.2. National Policy

National Planning Policy Framework

- 2.2.1. The latest National Planning Policy Framework (NPPF), published in February 2019 sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally-prepared plans for housing and other development can be produced. The NPPF must be taken into account when preparing development plans and is a material consideration in planning decisions.
- 2.2.2. The NPPF states that *'planning policies and decisions should play an active role in guiding development towards sustainable solutions, but in doing so should take local circumstances into account, to reflect the character, needs and opportunities of each area.'*¹ As a means of trying to ensure that sustainable development is pursued in a positive way, a *'presumption in favour of sustainable development'*² is at the heart of the Framework.
- 2.2.3. The promotion of sustainable transport is discussed in Chapter 9 of the February 2019 NPPF. Paragraph 102 highlights that transport issues should be considered from the earliest stages of plan-making and development proposals, so that:
- a) *'the potential impacts of development on transport networks can be addressed;*
 - b) *'opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;*
 - c) *'opportunities to promote walking, cycling and public transport use are identified and pursued;*
 - d) *'the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and*
 - e) *'patterns of movement, streets, parking and other transport considerations are integral to*
 - f) *the design of schemes and contribute to making high quality places.'*
- 2.2.4. Patterns of growth should be managed in support of these objectives with significant development being *'focused on locations which are or can be made sustainable, through*

¹ NPPF, February 2019 (Paragraph 9)

² NPPF, February 2019 (Paragraph 10)

*limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions and improve air quality and public health.*³

2.2.5. Paragraph 104 of the Framework states that planning policies should:

- a) *'support an appropriate mix of uses across an area, and within larger scale sites, to minimise the number and length of journeys needed for employment, shopping, leisure, education and other activities;*
- b) *'be prepared with the active involvement of local highways authorities, other transport infrastructure providers and operators and neighbouring councils, so that strategies and investments for supporting sustainable transport and development patterns are aligned;*
- c) *'identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice and realise opportunities for large scale development;*
- d) *'provide for high quality walking and cycling networks and supporting facilities such as cycle parking (drawing on Local Cycling and Walking Infrastructure Plans);*
- e) *'provide for any large-scale transport facilities that need to be located in the area, and the infrastructure and wider development required to support their operation, expansion and contribution to the wider economy. In doing so they should take into account whether such development is likely to be a nationally significant infrastructure project and any relevant national policy statements; and*
- f) *'recognise the importance of maintaining a national network of general aviation airfields, and their need to adapt and change over time – taking into account their economic value in serving business, leisure, training and emergency service needs, and the Government's General Aviation Strategy.'*

2.2.6. In assessing sites that may be allocated for development in plans, or specific applications for development it should be ensured that:

- a) *'appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
- b) *'safe and suitable access to the site can be achieved for all users; and*
- c) *'any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.'*⁴

2.2.7. Within Paragraph 111, the NPPF recommends that *'all developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.'*

³ NPPF, July 2018 (Paragraph 103)

⁴ NPPF, July 2018 (Paragraph 108)

Creating Growth, Cutting Carbon, Making Sustainable Local Transport Happen (2011)

- 2.2.8. In its 2011 document, the DfT identified that their vision was *‘for a transport system that is an engine for economic growth, but one that is also greener and safer and improves quality of life in our communities’*.
- 2.2.9. The Government believes that it is at the local level where most can be done to enable people to make more sustainable transport choices. The DfT document identifies that the biggest opportunities for encouraging sustainable travel are for short, local journeys. Two thirds of all journeys are less than five miles, many of which could be cycled, walked or undertaken by public transport. The Government aims to make travelling by non-car modes more attractive, offering people choices that will deliver a change in behaviour.
- 2.2.10. However, the Government recognises that it is not possible for non-car modes to offer a viable alternative to the private car for all journeys, particularly in rural areas. It is therefore, committed to making car travel greener by supporting the development of electric and ultra-low emission vehicles; *‘The Government is convinced that progressive electrification of the passenger car fleet will play an important role in decarbonising transport’*.

2.3. Regional Policy

South East Local Enterprise Partnership, Strategic Economic Plan

- 2.3.1. In its June 2013 Spending Review, the Coalition Government tasked Local Enterprise Partnerships (LEPs) with developing a multi-year local growth strategy. Subsequently the Strategic Economic Plan (SEP) for the South East LEP area was prepared. The first SEP was published in March 2014, making the case for a Local Growth Fund investment from Government of £1.2billion, £200m a year from 2015 to 2021, matched by private and public funds. These funds were to be invested in a programme of activities across the South East Region, including East Sussex, Essex, Kent, Medway, Southend and Thurrock to transform business growth and infrastructure.
- 2.3.2. The SELEP have recognised that since the iteration of the 2014 SEP there has been many changes and as a result, they are currently renewing the SEP to align it with national policy and funding frameworks and with local priority. As part of the preparation work, an Evidence Base report has been produced (September 2017) which forms part of the consultation process. This document *‘sought to highlight some of the core issues that underpin the SELEP economy; identify key differences between the different geographies of the area (where they exist and where data allows) and highlight some key questions about the kind interventions partners feel would solve the productivity gap.’*⁵

⁵ SELEP SEP Evidence Base (September 2017), Paragraph 13.0.1

2.3.3. With reference to Section 13 of the Evidence Base study, the key themes that emerged are summarised below:

- *'A successful economy, with so much more to give'* – The SELEP area is a very successful economy and there is a strong case to government to continue to invest in SELEP;
- *'An international Gateway: A region which is important to driving growth across the whole of the UK'* – SELEP is the gateway to the UK and the gateway to Europe with the national economy and a major proportion of international trade being dependent upon SELEP's infrastructure. The infrastructure therefore needs to be treated as a top national priority matched by investment;
- *'The importance of placemaking and local geographies'* – Spatial geography is an important construct in the delivery of economic development with localism being a critical issue;
- *'The importance of business sectors'* – There is presently a lack of specialist 'business' clusters in the SELEP region.
- *The importance of stimulating firm-level productivity improvements'* – innovative project ideas that could help improve the productivity are sought;
- *'What more can partners do in their locality and by working together?'* – localities need to deliver change and come up with new forms of intervention, that cut across the business, public, academic and community sectors; and
- *'Do we have the right structures and investment models'* – suggestion that localities need to come together under a common 'flag of convenience' if they are to be successful in delivering local infrastructure priorities and investments.

Vision for Kent 2012-2022 (Kent County Council 2012)

2.3.4. The Vision for Kent is a countywide strategy for the social, economic and environmental wellbeing of Kent's communities. It has been written around three major ambitions, which are to:

- a) *'Grow the economy by supporting businesses to be successful, including improvements to the transport network and the provision of high-speed broadband.'*
- b) *'Tackle disadvantage by fostering aspiration rather than dependency, including the provision of comprehensive, reliable and affordable public transport services providing access to education and employment opportunities.'*
- c) *'Put the citizen in control by involving people in making decisions and working with them to design services that meet their needs and suit them, including the continued provision of KCC's Combined Members Grant and support for community bus and rail schemes.'*

Kent County Council Local Transport Plan 4 (LTP4)

- 2.3.5. KCC’s Local Transport Plan 4 (LTP4) identifies the transport priorities for the County and KCC’s policies to deliver strategic outcomes for transport during the Plan period 2016-2031. The ambition for Kent is ‘to deliver safe and effective transport, ensuring that all Kent’s communities and businesses benefit, the environment is enhanced, and economic growth is supported’. This ambition will be realised through five overarching policies:
- Deliver resilient transport infrastructure and schemes that reduce congestion and improve journey time reliability to enable economic growth and appropriate development, meeting demand from a growing population.
 - Promote affordable, accessible and connected transport to enable access for all to jobs, education, health and other services.
 - Provide a safer road, footway and cycleway network to reduce the likelihood of casualties and encourage other transport providers to improve safety on their networks.
 - Deliver schemes to reduce the environmental footprint of transport and enhance the historic and natural environment.
 - Provide and promote active travel choices for all members of the community to encourage good health and wellbeing and implement measures to improve local air quality.
- 2.3.6. Kent’s transport priorities in LTP4 are categorised as being Strategic (including New Lower Thames Crossing, Rail Improvements, Bus Improvements), Countywide (including Road Safety, Active Travel and Public Rights of Way) and Local priorities for each district/borough.
- 2.3.7. The LTP4 identifies that there are severe congestion problems in Tunbridge Wells, especially at peak times, with a number of major A roads converging on Royal Tunbridge Wells (A26, A264, A267 and A288). This is particularly acute along the A26 in Southborough and on the A264 between Pembury and the town centre. LTP4 states that *‘this congestion is due to the strength of the town as a sub-regional employment and service centre, as well as a location of numerous high performing secondary schools that have wide catchment areas.’*
- 2.3.8. Other routes identified within the LTP4 that are liable to congestion are the A264 Pembury Road, A228 Colt’s Hill, and the A21 dualling between Kipping’s Cross and Lamberhurst. It is also stated that there are limited opportunities to improve the A26 due to constraints of the built environment.
- 2.3.9. The Local transport priorities specific to the borough of Tunbridge Wells are:
- Further phases of the North Farm Highway Masterplan;
 - Paddock Wood junction improvements: Badsell Road/Mascalls Court Road and Colts Hill roundabout;
 - A228 Colts Hill relief scheme;
 - Dualling the A21 between Kippings Cross and Lamberhurst;

- A264 Pembury Road capacity improvements;
- Tunbridge Wells town centre improvements, including public realm phase 3 (Mount Pleasant to Station);
- Enhancement to Medway Valley train service to improve connectivity between Tunbridge Wells and Maidstone;
- 20mph zones in residential areas, towns and village centres; and
- Tunbridge Wells Cycling Strategy priority schemes (including A26 cycle route to Tonbridge, 21st Century Way, A21 non-motorised user routes and related links).

KCC Freight Action Plan for Kent 2012 – 2016

- 2.3.10. Kent County Council has developed a Freight Action Plan with the aim to effectively address concerns with the movement of freight both through and within Kent. The Plan sets out the vision to: *'Promote safe and sustainable freight distribution networks into, out of and within Kent, which support local and national economic prosperity and quality of life, whilst working to address any negative impacts on local communities and the environment both now and in the future.'*
- 2.3.11. The Plan will be tackled by Kent County Council, working with partner organisations and local communities to increase the effectiveness of the actions. The emphasis of the Plan is on road haulage and specifically Heavy Goods Vehicles. This is the dominant mode of freight transportation within Kent, has the greatest impact on the County's residents, and fundamentally affects the highway network itself.

KCC Road Casualty Reduction Strategy for Kent 2014 – 2020

- 2.3.12. Keeping the County's roads as safe as they can be and tackling death and injury is a key priority for the County Council, both in respect of their Statutory Duty to promote road safety and to act to reduce the likelihood of road casualties from occurring. The Strategy supports the Governments' Framework for Road Safety, in particular, extending the provision of practical courses to improve driving standards. A data led approach is taken to target interventions where they will have most impact. Kent has targets to reduce the number of killed and seriously injured (KSI) by 33% and the number of child KSI by 40% by 2020.
- 2.3.13. The Strategy underlines the importance of joint working, both in coordinating initiatives through partner organisations such as the Casualty Reduction Partnership (CaRe) for Kent and Medway and in raising awareness and channeling action by communities through self-help toolkits.
- 2.3.14. The Strategy recognises how the media can have a strong influence on road user behaviour and perceptions. It proposes that budgets are better targeted and additional funding be sought as opportunities allow, such as through the Local Growth Fund. It commits the County Council to work towards an outcomes framework to meet targets to reduce casualties and to improve safety and public health. Actions are set out at the end

of each chapter and in a Delivery Action Plan which is to be updated each year as progress is made and in the light of emerging trends.

Kent Active Travel Strategy

- 2.3.15. The key aim of the strategy is to identify the long-distance foot and cycle paths, which connect places and towns, and the short distance foot and cycle paths, to connect people to local parks, shops and services, and look at how to make the best use of them and let people know about them. The core outcome is to make active travel an easy option to get around Kent. The strategy recognises the benefits to active travel such as better personal health, reducing car trips, and improved air quality. The strategy also identifies the barriers to active travel and identifies what works best in generating new active travel trips. This focuses on streetscape, infrastructure, and information.
- 2.3.16. The strategy identifies that an active Travel strategy fits in with policies from the Department of Transport (DfT) and KCC. These include:
- Local Transport Plan 4
 - Road Casualty Reduction Strategy
 - Updated Policy for 20mph limits and zones on Kent County Council’s roads
 - Countryside & Coastal Access Improvement Plan
 - Kent Design Guide
 - Kent Environment Strategy

2.4. Local Policy

Core Strategy

- 2.4.1. The Core Strategy (Adopted 2010) was the central component of the Local Development Framework (LDF). This document provided the overarching principles of the LDF by which the essential development needs of the borough up to 2026 would be delivered, as well as setting out the key decisions as to where and when the development would take place. Within the Spatial Vision for the future of the borough, it is stated:

In 2026, Tunbridge Wells is a Borough of economic and social prosperity founded on seized opportunities for business and enterprise and a respect for the exceptional quality of the environment that makes it unique.

- 2.4.2. To realise the Spatial Vision, development would be required to meet a number of specific challenges which were summarised in seven Strategic Objectives. These summarised below:
- SO1: To locate development sustainably in and around existing settlements, and to conserve and enhance the borough’s unique high-quality built and natural environment.

- SO2: To focus development at Royal Tunbridge Wells to stimulate and sustain the economic growth and competitiveness of Royal Tunbridge Wells as a Regional Hub in a way that also provides business opportunities for local people.
- SO4: To facilitate the provision of enhanced infrastructure, including green infrastructure, to support new and existing development, particularly where this can reduce the need to travel, and to encourage the use of sustainable modes of transport where travel remains necessary.
- SO5: To provide high quality housing to meet the needs of all sectors of the community, both now and in the future.
- SO6: To ensure the provision of high quality and well managed open space; natural open space; sports; play; recreational; community; and cultural facilities that are accessible to all people close to where they live.
- SO7: To promote a safe and healthy community that is inclusive of the needs of the communities that make up the Borough's population.

2.4.3. Following on, the Core Strategy set out a number of Sustainable Development Objectives of which development should take particular account in order to achieve the aims of sustainable development.

- SD1: To ensure that development takes account of the role and value of biodiversity and geodiversity; and aims to conserve and enhance locally important habitats, wildlife and geology.
- SD2: To maximise the use of previously developed land and of the existing property stock.
- SD3: To ensure that development is consistent with the principle of living within environmental limits by conserving finite non-renewable resources, including land, energy, water, soil and air quality wherever possible and ensuring that any trade-offs are made in an explicit and transparent way.
- SD4: To avoid making adverse contributions to climate change, having regard to the potential impacts of already unavoidable long-term changes and (where possible) mitigating such impacts.
- SD5: To ensure development gives full consideration to good design principles, including energy efficiency, use of renewable energy technologies and sustainable construction.

2.4.4. Core Policy 3: Transport Infrastructure set out the Core Strategy policy to address transport issues and provide necessary infrastructure within the borough. The Core Policy 3 is included below:

1. *Sustainable modes of transport, including cycling, walking and the use of public transport will be encouraged to reduce dependence on private car use. This will be done through working with partners to:*
 - *encourage improvements in public transport*
 - *investigate the need for park and ride facilities to serve Royal Tunbridge Wells*

- *continue to develop and provide an integrated cycle network and enhance routes for*
 - *non-motorised users, including pedestrians and equestrians*
 - *pursue improvements to transport links in the rural areas of the Borough and conserve and enhance the rural lanes network to ensure that they are convenient and safe for users*
2. *Provision will be made for maintaining and improving transport infrastructure at the strategic and local levels through working with partners, to:*
- *improve the strategic rail and highways networks, including the A21, A26 and A228*
 - *support junction and highway capacity improvements, including those that will benefit all users*
3. *Development proposals that have significant transport implications will be required to be accompanied by a Transport Assessment and Travel Plan showing how car-based travel can be minimised.*

Tunbridge Wells Borough Core Strategy Site Allocations Local Plan (July 2016)

- 2.4.5. The Site Allocations Local Plan (SALP) was one of the documents produced by TWBC to help with the delivery of the spatial planning strategy set out in the Core Strategy. The main purpose of the document was to allocate or designate all sites with a spatial element in order to take forward the strategy and level of growth set out within the Core Strategy. The document also identifies safeguarded land and areas requiring continued protection from development as well as providing guidance on how the sites should be developed.
- 2.4.6. Appendix 1 of the SALP set out the remaining Local Plan 2006 saved policies including those for Transport and Parking (Chapter 11 of the 2006 Local Plan). These are summarised below:
- **Policy TP1** – Proposals for large-scale non-residential development will be required to be accompanied by a Transport Assessment and Travel Plan to demonstrate the adequacy of transport infrastructure to serve development.
 - **Policy TP2** - Proposals for smaller-scale non-residential development in excess of 500 square metres gross floorspace or expecting more than 50-person trips on any day of the week, will be required to be accompanied by an outline statement of Transport Assessment.
 - **Policy TP3** – Proposals for larger scale residential development should demonstrate how the needs of pedestrians, cyclists and buses are met. Proposals which will have significant transport implications should be accompanied by a Transport Assessment to demonstrate the adequacy of transport infrastructure to serve the development.
 - **Policy TP4** – Proposals will be permitted provided (inter alia) the road hierarchy and the function of routes have adequate capacity to cater for the traffic which will be generated, and the traffic generated by the proposal does not compromise the safe and free flow of traffic or the safe use of the road by others.

- **Policy TP5** - Vehicle parking in connection with development proposals will be restricted to the maximum necessary having regard to local highway conditions. Kent County Council's Vehicle Parking Standards, adopted by the Council, will be applied to such development proposals.
- **Policy TP6** – Within the Tunbridge Wells Central Access Zone (Residential), a maximum parking standard of one space per dwelling will apply.
- **Policy TP7** - Within the Tunbridge Wells Central Parking Zone (Commercial), operational parking only should be provided on-site for development within Use Classes A, B and D and commercial sui-generis uses.
- **Policy TP8** – In all cases where operational parking for non-residential development is required, as per the standards, it should be provided on-site where feasible.
- **Policy TP9** – Within the Plan area, the cycle parking standards for non-residential development set out in the latest Kent County Council's Cycling Strategy for Kent will be applied. Cycle parking will be required to serve new-build residential development without private curtilage at a standard of one space per dwelling unit.
- **Policy TP12** – The Local Highway Authority proposes to realign the A228 at Colts Hill, as defined on the Proposals Map, and the Local Planning Authority will safeguard the preferred alignment by refusing proposals for development which would compromise the implementation of the proposed scheme.
- **Policy TP18** - The Local Planning Authority and Local Highway Authority will promote and provide a continuous network of cycle routes within Royal Tunbridge Wells. The proposed network includes parts of routes which will require land outside of the existing public highway. Proposals for development which would compromise the construction of the schemes will be refused.
- **Policy TP19** – The Local Planning Authority and Local Highway Authority will promote and undertake highway improvements to achieve the objectives of the Borough Transport Strategy. Proposals for development which would compromise the construction of the schemes will be refused.
- **Policy TP20 & Policies TP22-27** – The Local Planning Authority will seek to retain a number of existing car parks and sites for public car parking unless convenient, suitable alternatives are provided.

Tunbridge Wells Borough Transport Strategy 2015 – 2026

2.4.7. The Tunbridge Wells Transport Strategy set out the vision for transport in the borough between 2015 and 2026. It was prepared in line with the 2006 Local Plan and sought to address existing transport problems whilst supporting future development in the borough. The strategy vision is summarised below:

- *'Tunbridge Wells Borough to benefit from a network of higher quality, better integrated, sustainable transport solutions and infrastructure, that will enable the borough to solve existing and future transport challenges, and enable a vibrant, prosperous economy and inclusive communities.*

- *'By 2026, Tunbridge Wells will have a transport network which is less reliant in the private car, with a greater mode share towards walking, cycling and public transport, especially for shorter journeys. However, it is recognised that some journeys will continue to necessitate use of the private car, especially in rural areas.'*
- *'The borough will have a safer environment for all road users, and its air will be cleaner with more low emission vehicles and bicycles sharing road space.'*

2.4.8. The vision for the borough was to be achieved through pursuing eight objectives:

- **Objective 1** – Provide transport infrastructure to support new development, facilitate growth in the local economy and improve rural accessibility.
- **Objective 2** – Improve strategic road and rail links between the borough, London and the wider South East.
- **Objective 3** – Reduce congestion on the highway network, particularly on key radial routes into Royal Tunbridge Wells.
- **Objective 4** – Improve travel safety across the borough especially for vulnerable road users, including cyclists, pedestrians and equestrians.
- **Objective 5** – Improve air quality, particularly within the designated Air Quality Management Area.
- **Objective 6** – Prioritise development of sustainable and active transport modes including cycling, walking and public transport.
- **Objective 7** – Provide parking to support the borough's town centres.
- **Objective 8** – Improve the quality of public spaces within Royal Tunbridge Wells to make the town centre more legible, safe and attractive, and improve mode integration.

2.4.9. The Strategy sought to improve access by all modes of transport, to provide residents, commuters and visitors to the borough with a genuine choice of means by which to complete their journeys. In response to the key issue of congestion, the strategy prioritised projects that would increase road capacity on the major routes. These included:

- Pembury Road A264 capacity improvements.
- London Road/St John's Road A26 capacity improvements.
- North Farm infrastructure improvements.
- Royal Tunbridge Wells Town Centre public space improvements.
- A network of key cycling routes as set out in the borough Cycling Strategy.
- Speed reduction projects linked to schools and other priority locations.
- Lobby for the dualling of the A21 from Kippings Cross to Lamberhurst.
- A228 Colts Hill improvement scheme.

Tunbridge Wells Borough Cycling Strategy 2016-2020

2.4.10. The Cycling Strategy was prepared in line with the Tunbridge Wells Local Plan (2006), including the Urban Design Framework, and is supported by the Green Infrastructure Plan SPD (2014) which promotes the use of urban green space and Public Rights of Way for

active travel. It also contributes to the objectives of the Tunbridge Wells Air Quality Action plan in facilitating the use of non-motorised transport.

2.4.11. The Strategy encourages active travel, acknowledging that the level of cycling in Tunbridge Wells is relatively low at present and that much of the existing network of cycle routes linking the town centre to the suburban areas are incomplete or require further enhancement. Elsewhere within the urban area of Royal Tunbridge Wells and other towns in the borough, safe cycle routes are far more limited or unavailable and there is a lack of cycle parking facilities at some key destinations.

2.4.12. The vision of the Cycle Strategy is therefore; *'To make cycling a normal part of everyday life in the borough, by creating a safe and welcoming environment for cyclists of all ages and abilities.'* To realise this vision, the Strategy identified the following Actions:

- **Action 1:** A network of high-quality cycle routes will be completed in the urban areas of Royal Tunbridge Wells, Southborough, Paddock Wood and Cranbrook. Where possible, inter-urban and leisure cycling routes will be delivered. Where a proposed route requires new or upgraded public rights of way, partners will work with landowner(s) to secure implementation.
- **Action 2:** a) Cycle parking will continue to be improved in town and village centres, as well as other key locations in the borough. b) Cycle parking will be provided in all commercial and residential developments (both new build and change of use), secured by partners through the planning process.
- **Action 3:** KCC and TWBC will work with partners to ensure the regular maintenance of all cycle routes within the borough.
- **Action 4:** a) All Year 6 children will have access to Level 1 and 2 Bikeability training, and children in Years 7 to 9 will have access to Level 3 training. b) Adult cycle training will continue to be offered, through initiatives including work place travel planning.
- **Action 5:** Partners will continue to promote road safety campaigns and consider the introduction of 20mph speed limits and zones in accordance with KCC policies and procedures.
- **Action 6:** KCC and TWBC will ensure cycle routes are fully advertised and signposted within the borough and that a cycle map and related information is provided online.
- **Action 7:** TWBC and/or the Cycling Forum will continue to support local cycling events where appropriate.
- **Action 8:** The Cycling Strategy will be regularly monitored, alongside the Transport Strategy, to review the implementation of agreed projects and initiatives.

2.4.13. Several route proposals for the Royal Tunbridge Wells urban area, Paddock Wood and Cranbrook are included within the Strategy. In addition to the identified route proposals, the strategy states that KCC and TWBC will continue to work with partners to ensure that all future highway improvement schemes incorporate enhanced cycling and pedestrian infrastructure wherever possible.

Tunbridge Wells Park and Ride Feasibility Study Final Report (June 2018)

2.4.14. The Tunbridge Wells Park and Ride Feasibility Study assessed the benefits of Park and Ride for Royal Tunbridge Wells. Sweco have kept an open mind as to the role a network of Park and Ride and Park and Cycle sites might have in reducing Single Occupancy Vehicle (SOV) car trips into Royal Tunbridge Wells.

2.5. Neighbouring Plans and Transport Strategies

2.5.1. The borough of Tunbridge Wells shares its border with local authorities of Sevenoaks, Tonbridge and Malling, Maidstone and Ashford in Kent, and Rother and Wealden in East Sussex. Not all of these neighbouring authorities have transport strategies, and indeed a number are currently in the process of updating their Local Plans. The following list sets out a brief summary of the status of the planning documents and the key transport aims and objectives of each of the neighbouring authorities:

- Sevenoaks District Council (SDC) are in the process of preparing a new Local Plan for the District that will provide the overarching principles that will shape the development in the District up to 2035. A Transport Study evidence base was prepared in support of the Local Plan. The study highlighted that the strategic road network that crosses through the District and the rail links to central London result in high level of outward and through commuting. As a result, to alleviate the pressures on these transport networks, future travel demand will need to be managed by promoting sites in sustainable locations, promoting sustainable modes of transport and improving transport infrastructure and level of service to provide better and more travel options to the private car.
- Tonbridge and Malling Borough Council are also in the process of preparing a new Local Plan and a Transport Assessment (TA) evaluating the potential traffic impacts from development in the emerging Local Plan, up to 2031, has been prepared. The TA will set out potential highway capacity improvements together with borough-wide and local sustainable travel measures to fill in gaps in the network provision. As noted in the current TWBC transport strategy, there is a close functional relationship between Royal Tunbridge Wells and Tonbridge town, in relation to highways infrastructure (A26 and A21) as well as bus and rail services and therefore, partnership working between the two boroughs will continue to be important going forward.
- Maidstone Borough's Local Plan (adopted 2017) provides a framework for development until 2031. The Local Plan is supported by an Integrated Transport Strategy 2011-2031 which sets out the vision and objectives and identifies a detailed programme of interventions to support the development growth in the borough. The A26 and A228 are the principle roads linking the Maidstone and Tunbridge Wells borough's and are both subject to high levels of cross-commuting.
- Ashford Borough Council (ABC) was adopted in February 2019. As noted within the TWBC Transport Strategy, with the provision of High Speed 1 and Channel Tunnel rail links Ashford has become a transport hub. The principle train connections to Ashford from Tunbridge Wells are via Tonbridge, with services via Hastings being slower and less frequent.

- The Proposed Wealden Local Plan (2018), has set out policies and future studies which will assess and mitigate future proposed growths across the District. A transport modelling study was conducted by the District in 2017, updated in 2018, which has helped outline policies in the local plan. The transport strategy in the district is underpinned by East Sussex County Council Local Transport Plan 2011 – 2026 which splits Wealden District into three areas: Eastbourne & South Wealden, Uckfield and Lewes District and north Wealden. Apart from road improvements, Wealden District aims to improve sustainable transport especially for buses by creating bus priority measures, improved passenger facilities and establishment of a quality bus partnership.
- 2.5.2. As will be demonstrated throughout this Study, cross-boundary trips are frequent for a number of trip purposes including education, health and retail. Indeed, there are significant levels of cross-boundary and through commuting trips to and from Tunbridge Wells and the wider Kent/East Sussex regions as the primary road network, particularly the A21, A26, A267 and A228 and London mainline rail services pass through the Tunbridge Wells Borough. Growth in the neighbouring boroughs will place additional pressures on these key transport network in the future.
- 2.5.3. Therefore, it is clear that close partnership working with the officers of the neighbouring authorities will be important going forward to assist in the delivery of shared infrastructure priorities and projects.
- 2.5.4. As noted in the TWBC Transport Strategy, there are currently regular cross-boundary discussions through The West Kent Partnership which meets quarterly to discuss cross-boundary issues, including transport. Members of the group include officers from Sevenoaks District Council, Tunbridge Wells Borough Council, Tonbridge & Malling Borough Council and Kent County Council, as well as representatives from the Maidstone and Tunbridge Wells NHS Trust, Arriva, Southeastern and Network Rail.

2.6. TWBC Air Quality Action Plan 2018 to 2023

- 2.6.1. The Plan states in the introduction that *“the borough already faces the challenges of more traffic on our roads, increased congestion, and at times poorer air quality...That’s why we are committed to our second Air Quality Action Plan, concentrating on the three themes of transport, planning and public health, which describes the measures that we will take, with Kent County Council to ensure that our Borough continues to thrive”*
- 2.6.2. Tunbridge Wells Borough Council declared an AQMA in 2005, based on exceedances of the Air Quality Strategy objective for nitrogen dioxide (NO₂). The AQMA was extended in 2011 when exceedances were found outside of the original AQMA boundaries.

2.6.3. The aims of the Action Plan are as follows:-

1. To ensure that Tunbridge Wells Borough Council is complying with relevant air quality legislation.
2. To achieve a higher standard of air quality across Tunbridge Wells Borough
3. To engage with partners and colleagues including those representing Highways and Transportation, Public Health, Economic Development, local Bus Companies, and other relevant stakeholders, to improve air quality across the Borough.
4. To build on previous work in this area in order to drive further improvements in air quality with the ultimate aim of being able to revoke the Air Quality Management Area.

2.6.4. The plan is divided into a number of themes, namely transport, planning and health. Actions have been developed under each of these themes. The actions for Transport include, in Appendix 1:

Transport Priority 1	Support the development of cycling and walking infrastructure to increase the use of sustainable transport modes such as walking and cycling.
Transport Priority 2	Securing grant funding for buses
Transport Priority 3	Investigate Low Emission Standard for Buses and/or HGV's. Either a graduated scheme of improvement "Low Emissions Zone" or a Euro VI "Clean Air Zone" Support freight routing as set out in the KCC Freight Action Plan
Transport Priority 4	Review opportunities to facilitate the implementation of a Bike Share Scheme. With possible options to provide initial support funding using S106 or grant funding, inc. private investor funding. Including as appropriate docking stations and electric bicycle facilities
Transport Priority 5	Review opportunities to reduce emissions from delivery vehicles
Transport Priority 6	Direct the ongoing expansion of the Tunbridge Wells Car club.
Transport Priority 7	Explore ways in which the Parking Strategy can contribute to improving air quality, by the review of parking restrictions/enforcement
Transport Priority 8	Reduce idling of engines whilst stationary with focus on Taxi's, coaches/buses and HGV's. With an option to extend to anti-idling campaigns outside schools located near the AQMA.
Transport Priority 9(a)	Emissions Standard for Taxis (Euro 6 standard)
Transport Priority 9(b)	Encourage use of Low and Ultra low emission vehicles as taxis
Transport Priority 10	The Council will support KCC in their delivery of a 'Demand Response Transport service as part of Kent Connected and Kent Connected +
Transport Priority 11	To deliver an adaptive traffic management control system

2.6.5. Other key policy documents that have informed this transport study include:

- TWBC Green Infrastructure Plan SPD – 2014
- KCC Countryside and Coastal Access Improvement Plan 2013-2017
- KCC Rail Action Plan for Kent – 2011

3. Socio-Demographics and Travel Behaviour

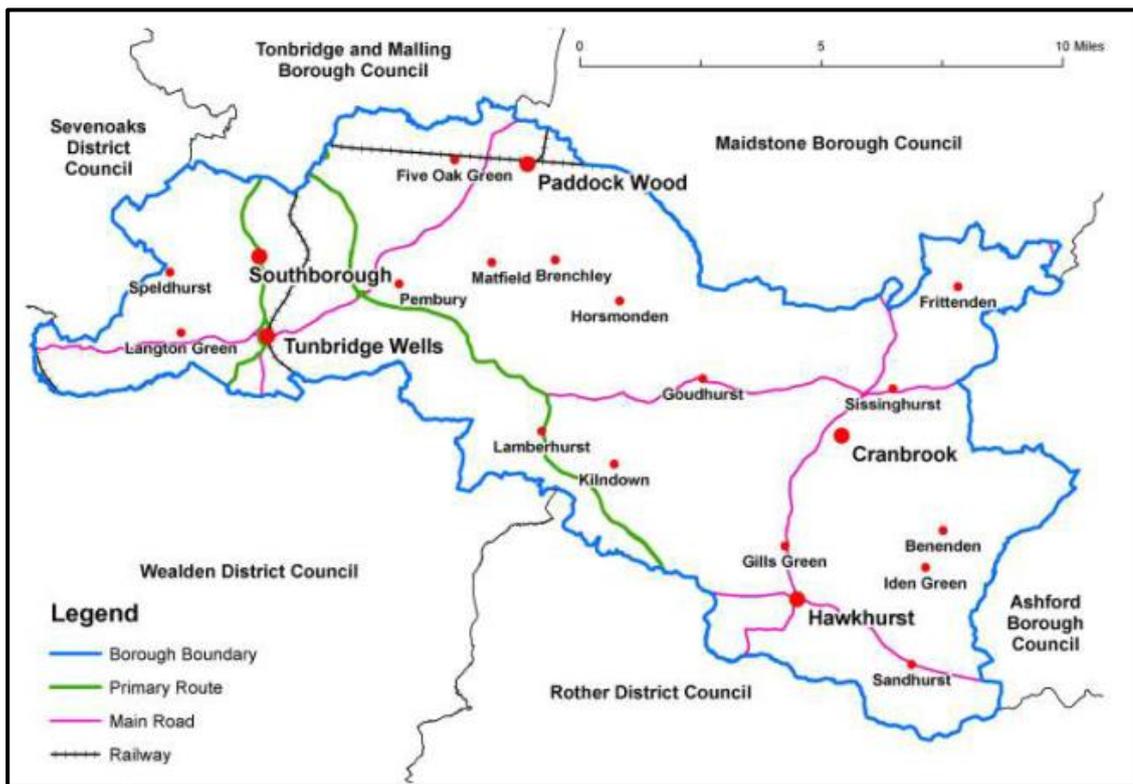
3.1. Introduction

3.1.1. This Chapter of the Transport Assessment provides a review of the existing borough-wide socio-demographics that influence travel behaviour and outlining the associated challenges and opportunities.

3.2. Borough-Wide Context

3.2.1. The borough of Tunbridge Wells is located in the south west of Kent, bordering East Sussex to the south, and covers an area of 33,176 Hectares. As mentioned previously it is border by six authorities, four within Kent (Sevenoaks, Tonbridge & Malling, Maidstone and Ashford) and two within East Sussex (Rother and Wealden). This is illustrated in **Figure 3.1** which shows the borough boundary in relation to the neighbouring boroughs.

Figure 3-1 – Map of Borough



Extracted from Core Strategy (Adopted June 2010) – Figure 2

- 3.2.2. The 2017 Mid-Year Population Estimate for Tunbridge Wells Borough was 118,100⁶ people. The latest Subnational Population Projections from the Office of National Statistics (2016) predicted that the population within the borough would increase to 121,100⁷, an increase of 2.5% from 2017. Just over half of the borough's population live in the urban area of Royal Tunbridge Wells and Southborough, with approximately 43%⁸ of the population living within the rural towns and villages.
- 3.2.3. With approximately 70% of the borough being designated as High Weald Area of Outstanding Natural Beauty (AONB) and 22% designated as Metropolitan Green Belt, it is clear that the borough is predominantly rural. There are also 25 conservation areas and approximately 3000 listed buildings within the borough highlighting its strong heritage in terms of the built environment.

Settlements

- 3.2.4. The main town is Royal Tunbridge Wells, which forms the majority of the urban area within the borough. It has the largest shopping area and provides a large proportion of the social, cultural and economic opportunities available in the Borough. The town also provides a wide variety of services, including schools, and sports and community facilities. As such, the town is an important centre within the wider Kent and East Sussex area, attracting a large number of in-commuters, visitors and tourists.
- 3.2.5. To the north of Royal Tunbridge Wells is Southborough. Whilst Southborough lies within the main urban area of Royal Tunbridge Wells, it has its own town centre providing independent shopping facilities and local services. Almost all of the countryside surrounding Royal Tunbridge Wells and Southborough falls within the Green Belt and High Weald Area of Outstanding Natural Beauty (AONB). Whilst this enhances the quality of life and recreational opportunities, it represents a major constraint to outward expansion of these settlements. To the east of Royal Tunbridge Wells is the village of Pembury, where Tunbridge Wells Hospital is located.
- 3.2.6. The High Weald AONB covers a large proportion of the southern half of the borough and as such, a number of towns and villages fall within the AONB including the small towns of Cranbrook and Hawkhurst. Cranbrook, located in the south east of the borough, benefits from a range of services and community facilities, including a supermarket, secondary schools and a sports centre which serve both the local residents in the immediate community and the surrounding villages and rural areas, as well as visitors.
- 3.2.7. Similarly, Hawkhurst, located to the south of Cranbrook, also supports a wide rural hinterland of the borough whose facilities include two supermarkets and number of independent shops within the settlement centre, as well as community and primary school

⁶ KCC's Business Intelligence Statistical Bulletin (July 2018) – Table 1

⁷ KCC's Strategic Business Development & Intelligence (May 2018) – Table 4

⁸ Borough Population data from www.tunbridgewells.gov.uk/

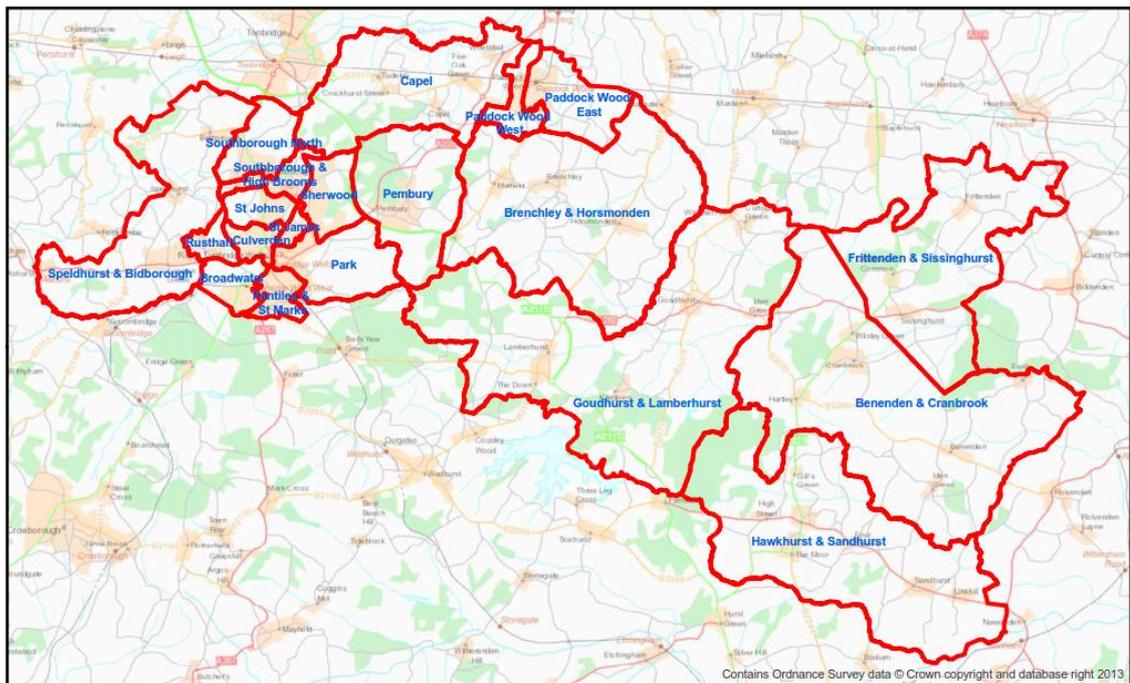
facilities. The wider area of Hawkhurst encompasses the settlements of Highgate, The Moor, Gill's Green, Four Throws and Sawyers Green.

- 3.2.8. Paddock Wood, located to the northeast of Royal Tunbridge Wells close to the boundary with Tonbridge & Malling and Maidstone boroughs, is identified as a small rural town. It benefits from a range of retail, community and small and large-scale business uses. The Metropolitan Green Belt abuts the western boundary of the settlement, whilst the town lies within an area of flood risk.

3.3. Socio-Economic Analysis

- 3.3.1. In the United Kingdom, the Office of National Statistics (ONS) breaks down the geographical areas of the UK into different levels (or codes). Tunbridge Wells borough is located within Kent County which, along with the other counties, makes up the South-East of England Region. The borough can be broken down further into wards, of which there are a total of 20 within the borough of Tunbridge Wells. The name and location of these wards is illustrated on **Figure 3.2**.

Figure 3-2 – Tunbridge Wells Borough Wards Map



www.tunbridgewells.gov.uk

- 3.3.2. The socio-economic data for Tunbridge Wells borough has been analysed to gain an understanding of population, employment and travel trends. This is discussed in greater detail in the following sub-sections of this report.

Population Trends

3.3.3. The 2017 Mid-year population estimates at ward level for Tunbridge Wells borough, published by the ONS, were set out in KCC's Business Intelligence Statistical Bulletin. The resultant mid-year population estimates (MYPE), together with the size of the ward and resultant density are set out in **Table 3.1**.

Table 3-1 – Mid-year Ward Level Population Estimates – Tunbridge Wells Borough

Ward Classification / Name		2017 MYPE	Area (Ha)	2017 MYPE Density
<i>TWBC - Total 20 Wards</i>		<i>117,100</i>	<i>33,133</i>	<i>3.53</i>
Urban Population		74,590	5,597	13.33
Rural Population		43,480	27,536	1.58
<i>Tunbridge Wells/ Southborough Urban Area – Total 11 Wards</i>		<i>74,590</i>	<i>5,597</i>	<i>13.33</i>
C1	Broadwater	4,910	294	16.67
C1	Culverden	8,800	183	47.95
C1	Pantiles & St Mark's	6,940	228	30.42
C1	Park	7,880	790	9.98
C1	Rusthall	4,980	172	28.93
C1	St James'	7,070	81	86.81
C1	St John's	7,690	256	30.11
C1	Sherwood	7,630	420	18.17
C1	Southborough & High Brooms	8,200	241	33.99
C1	Southborough North	4,250	491	8.66
C1	Speldhurst & Bidborough	6,250	2,441	2.56
<i>D1</i>	<i>Beneden & Cranbrook Rural Settlement – Total 1 Ward</i>	<i>7,970</i>	<i>5,409</i>	<i>1.47</i>
<i>Paddock Wood Rural Settlement – Total 2 Wards</i>		<i>8,120</i>	<i>983</i>	<i>8.26</i>
D1	Paddock Wood East	4,020	691	5.81
D1	Paddock Wood West	4,090	292	14.01
<i>D1</i>	<i>Pembury Rural Settlement – Total 1 Ward</i>	<i>6,120</i>	<i>1,435</i>	<i>4.26</i>

Ward Classification / Name		2017 MYPE	Area (Ha)	2017 MYPE Density
Tunbridge Wells Rural Area – Total 5 Wards		21,270	19,709	1.08
E1	Brenchley & Horsmonden	5,420	4,197	1.29
E1	Capel	2,400	2,115	1.14
E1	Frittenden & Sissinghurst	2,180	2,917	0.75
E1	Goudhurst & Lamberhurst	4,970	6,058	0.82
D1	Hawkhurst & Sandhurst	6,300	4,422	1.43

NOTES:

C1 – Urban city and town

D1 – Rural town and fringe

E1 – Rural village and dispersed

Density is the number of persons per hectare which is calculated by dividing population by the area.

All ward estimates have been rounded to the nearest 10 for presentation so may not sum when added.

All borough estimates have been individually rounded to the nearest 100 for presentations so may not sum when added.

2017 MYPE for wards (experimental statistics released 25 October 2018): ONS, Crown Copyright – Presented by Strategic Commissioning – Analytics, Kent County Council

- 3.3.4. From **Table 3.1** it can be seen that, based on the 2017 MYPE's, the most populous ward is Culverden within the Tunbridge Wells/Southborough urban area with a population of 8,800 people. The most densely populated ward is St James', also within the Tunbridge Wells/Southborough urban area, with a MYPE density of 86.81 persons per hectare. The least populated ward is the rural ward of Frittenden & Sissinghurst ward with a 2017 MYPE of 2,180. The ward with the lowest density is rural ward of Goudhurst & Lamberhurst with 0.82 persons per hectare.
- 3.3.5. From the 2011 Census, the characteristics of the ward populations can be established including percentage of males and females and average age. The resultant population characteristics for the 20 wards within Tunbridge Wells borough, based on the 2011 Census are set out in **Table 3.2**. For comparison, **Table 3.2** also includes the statistics for the Kent County Council, the South East of England and England in general.

Table 3-2 – Population Characteristics Comparison

Administrative Area	% Males	% Females	% of All People Aged 16-64	Average Age
Beneden & Cranbrook	45.7%	54.3%	58.7%	39.8
Brenchley & Horsmonden	49.5%	50.5%	60.9%	41.1
Broadwater	50.0%	50.0%	62.4%	40.2
Capel	50.0%	50.0%	63.5%	39.7
Culverden	51.9%	48.1%	71.2%	39.0
Frittenden & Sissinghurst	48.4%	51.6%	59.9%	43.9
Goudhurst & Lamberhurst	51.8%	48.2%	61.5%	39.4
Hawkhurst & Sandhurst	49.5%	50.5%	61.2%	41.3
Paddock Wood East	48.9%	51.1%	62.2%	41.7
Paddock Wood West	49.2%	50.8%	63.5%	38.8
Pantiles & St Mark's	48.8%	51.2%	62.6%	41.2
Park	47.4%	52.6%	61.4%	42.8
Pembury	48.7%	51.3%	60.1%	41.8
Rusthall	49.1%	50.9%	62.8%	39.9
Sherwood	49.2%	50.8%	62.6%	36.9
Southborough North	48.6%	51.4%	58.1%	43.1
Southborough & High Brooms	48.9%	51.1%	65.8%	36.5
Speldhurst & Bidborough	48.3%	51.7%	57.5%	42.8
St James'	49.7%	50.3%	69.8%	34.6
St John's	49.4%	50.6%	66.3%	34.9
Tunbridge Wells Borough	49.1%	50.9%	62.9%	39.6
Kent County Council	48.9%	51.1%	62.7%	40.3
South East Region	49.1%	50.9%	63.8%	40.0
England	49.2%	50.8%	64.8%	39.3

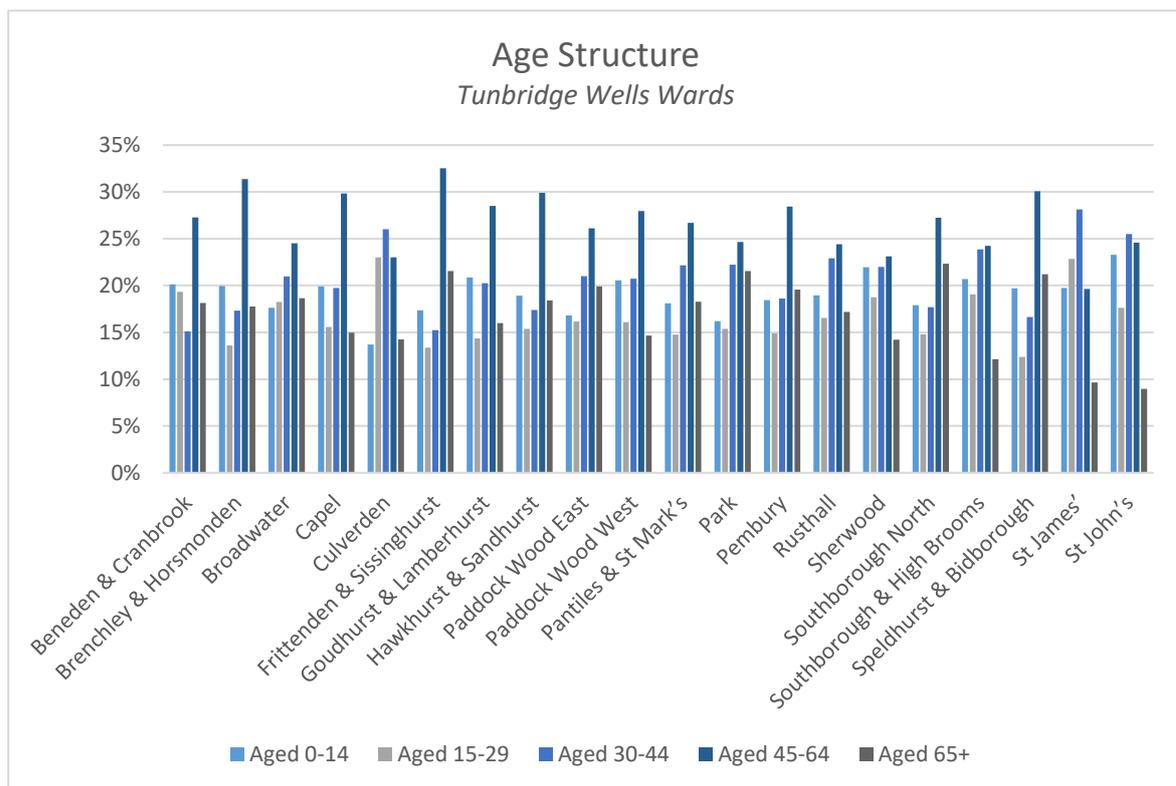
Census 2011 – Age Structure Table QS103EW, ONS

3.3.6. **Table 3.2** shows that, at the time of last Census, Culverden ward had the highest percentage (71.2%) of people within the working age of 16 to 64 years old. This is considerably higher than the averages across the borough, county, region and nationally,

which were 62.9%, 62.7%, 63.8% and 64.8% respectively. Speldhurst & Bidborough ward had the lowest percentage of people of working age within Tunbridge Wells borough, which is much lower than the percentages in comparison to the county, region and national averages.

- 3.3.7. All of the wards were recorded as having majority female populations, with the only exceptions being Culverden and Goudhurst & Lamberhurst wards. However, the overall male to female ratio is comparable with the regional and national proportions, which were approximately 51% female and 49% male in 2011.
- 3.3.8. The average age of those within the 16-64 age band varies across the borough but broadly speaking, the wards within Tunbridge Wells borough were recorded as having a marginally higher average age than the regional and national average. Although it is noted that the borough average is comparable. Southborough & High Brooms ward had the lowest average age of 36.5 years, whilst Frittenden & Sissinghurst ward had the highest average age of 43.9 years, which is approximately 4 years older than the national average in 2011. **Figure 3.3** shows the age structure of the population of the wards within the borough (in 2011).

Figure 3-3 – Tunbridge Wells Borough Age Structure (2011)



Census 2011 – Age Structure Table QS103EW, ONS

Employment Trends

- 3.3.9. The borough has a vibrant and varied economy. The Local Plan Issues and Options Consultation Document (2016) stated in Paragraph 2.16 that “...the key business sectors in Tunbridge Wells included: distribution, hotels and restaurants; banking, finance and insurance; and public administration, education and health sectors, accounting for 81.9% of employees. Tunbridge Wells has a particular specialism in the financial and insurance industry, with this representing a larger proportion of all employment than seen in other South East areas.”
- 3.3.10. Royal Tunbridge Wells is the main focus for local employment and as such, there is significant congestion resulting from the demand for peak hour employment. Paddock Wood to the north of the borough also boasts a key employment area. The borough as a whole “has a higher than average proportion of micro businesses employing nine or fewer people”⁹.
- 3.3.11. The skills levels within the borough are strong with high proportions of residents with National Vocational Qualifications at Level 4 or above, with low levels of unemployment. The 2011 Census has been examined to establish a breakdown of the labour supply (percentages) for Tunbridge Wells borough compared to the County, Regional and National figures. The results of this analysis are set out in **Table 3.3**.

⁹ Local Plan Issues and Options Consultation Document (2016), Paragraph 2.16

Table 3-3 – Breakdown of Labour Supply for Tunbridge Wells Borough (2011)

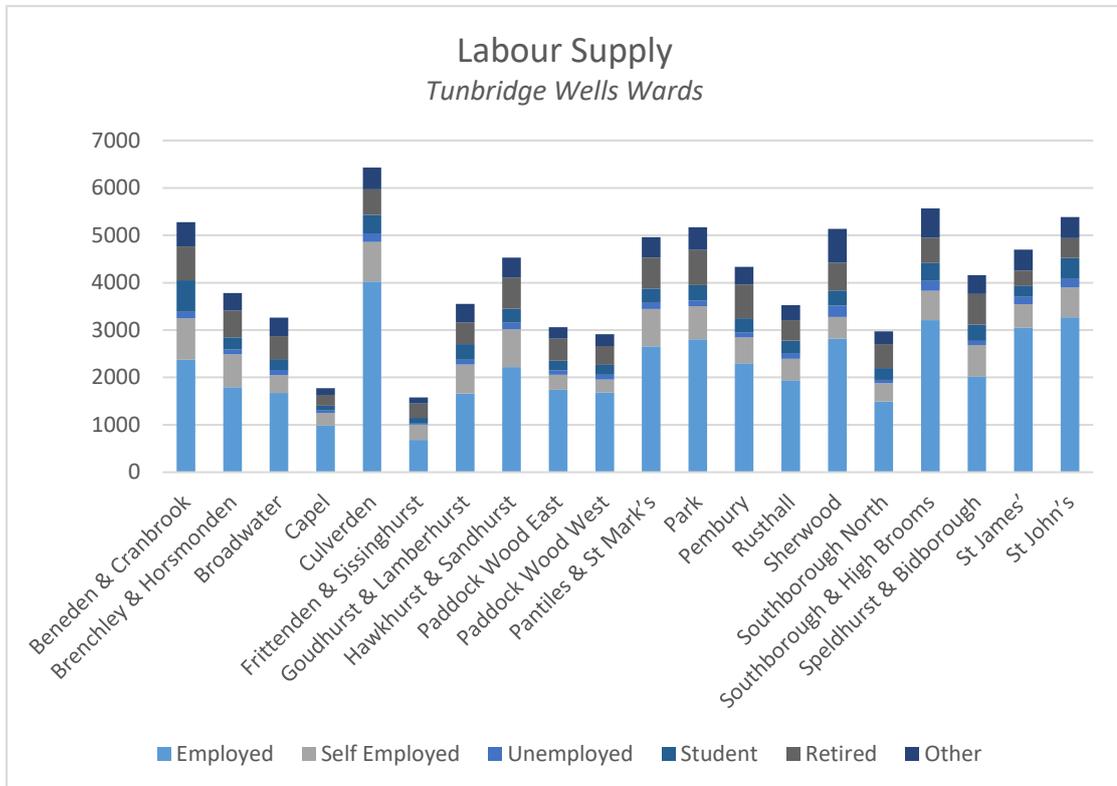
Area	Employed	Self Employed	Unemployed	Student	Retired	Other
Beneden & Cranbrook	45%	17%	3%	13%	13%	10%
Brenchley & Horsmonden	48%	18%	3%	7%	15%	10%
Broadwater	51%	11%	3%	7%	15%	12%
Capel	56%	15%	3%	6%	13%	8%
Culverden	63%	13%	3%	6%	8%	7%
Frittenden & Sissinghurst	43%	20%	2%	7%	19%	8%
Goudhurst & Lamberhurst	47%	17%	3%	9%	13%	11%
Hawkhurst & Sandhurst	49%	18%	3%	7%	15%	9%
Paddock Wood East	57%	10%	3%	7%	15%	8%
Paddock Wood West	58%	10%	3%	7%	14%	9%
Pantiles & St Mark's	54%	16%	2%	6%	13%	9%
Park	54%	14%	2%	6%	14%	9%
Pembury	53%	13%	2%	7%	17%	8%
Rusthall	55%	13%	3%	7%	12%	9%
Sherwood	55%	9%	5%	6%	11%	14%
Southborough & High Brooms	50%	13%	2%	8%	17%	9%
Speldhurst & Bidborough	58%	11%	4%	7%	10%	11%
St James'	49%	16%	2%	8%	16%	10%
St John's	65%	11%	3%	5%	7%	10%
Beneden & Cranbrook	61%	12%	3%	8%	8%	8%
Tunbridge Wells Borough	54%	14%	3%	7%	13%	9%

Area	Employed	Self Employed	Unemployed	Student	Retired	Other
Kent	52%	11%	4%	8%	15%	10%
South East	54%	11%	3%	9%	14%	9%
England	52%	10%	4%	9%	14%	11%

2011 Census Economic Activity (QS601EW), ONS

- 3.3.12. It can be seen from **Table 3.3** that overall, the percentage of unemployed for the borough is comparable with the statistics for the rest of the Region but marginally lower than the average for the County and the Nation. At ward level, the labour supply percentages, particularly in relation to student, unemployed and “other” broadly follow that of the overall borough, county and regional trends.
- 3.3.13. However, it is noticeable that a large proportion of the wards have a higher population of employed people, with the highest ward being St James’ with 65% compared to the borough average of 54%. It is also noticeable that the percentage of self-employed within the borough is some 3-4% higher than that for the county, regional and national averages. Frittenden & Sissinghurst has the highest proportion of self-employed at 20%, whilst Brenchley & Horsmonden and Hawkhurst & Sandhurst wards have 18% self-employed, compared to the borough average of 14%. Frittenden & Sissinghurst ward also has the highest proportion of retired population at 19% compared to the borough average of 13%. These employment trends are illustrated in **Figure 3.4**.

Figure 3-4 – Labour Supply for the Wards within Tunbridge Wells Borough (2011)



Census 2011: Economic Activity (QS601EW), ONS

3.3.14. TWBC's current Transport Strategy document (2015) noted that the 2011 Census indicated that some 42,500 people commuted in or out of the borough for work and one in four jobs were held by someone living outside of the borough. Peak hour commuter trips frequently put pressure on the transport networks across all modes as such, the journey to work travel patterns for the borough are discussed in greater detail in the following section of this report.

3.4. Current Travel Behaviour

Car and Van Ownership

3.4.1. Car and van availability can influence a persons' modal choice and as such, it is important to gain an understanding of the level and characteristics of car and van ownership across the borough. **Table 3.4** sets out the average car ownership statistics from the 2011 Census at ward, borough, county, regional and national levels.

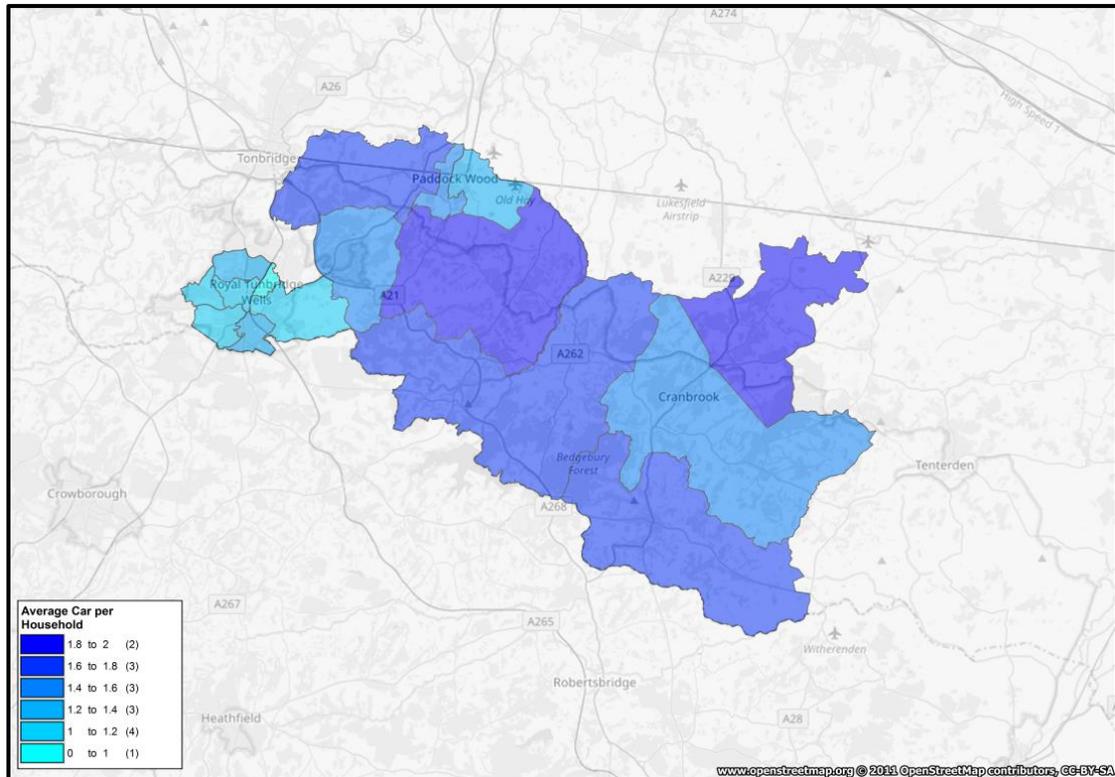
Table 3-4 – Average Car Ownership per Ward, Borough, County, Region and National Levels

Area	No Cars or Vans in Household	1 Car or Van in Household	2 Cars or Vans in Household	3 Cars or Vans in Household	4 or More Cars or Vans in Household
Beneden & Cranbrook	14%	38%	33%	11%	4%
Brenchley & Horsmonden	6%	32%	40%	14%	7%
Broadwater	22%	48%	22%	5%	2%
Capel	8%	34%	41%	11%	6%
Culverden	26%	50%	20%	3%	1%
Frittenden & Sissinghurst	8%	30%	40%	15%	8%
Goudhurst & Lamberhurst	9%	31%	42%	12%	6%
Hawkhurst & Sandhurst	11%	40%	34%	10%	5%
Paddock Wood East	16%	45%	29%	8%	3%
Paddock Wood West	14%	41%	33%	8%	3%
Pantiles & St Mark's	15%	49%	28%	6%	2%
Park	22%	50%	22%	4%	1%
Pembury	12%	37%	38%	10%	3%
Rusthall	21%	48%	25%	5%	2%
Sherwood	27%	44%	23%	4%	2%
Southborough & High Brooms	20%	36%	33%	7%	3%
Speldhurst & Bidborough	20%	48%	26%	4%	2%
St James'	8%	33%	43%	12%	5%
St John's	27%	50%	19%	3%	0%
Beneden & Cranbrook	17%	49%	27%	6%	2%
Tunbridge Wells Borough	17%	43%	29%	7%	3%
Kent	20%	43%	28%	7%	3%
South East	19%	42%	30%	7%	3%
England	26%	42%	25%	5%	2%

2011 Census Car or Van Availability (QS416EW), ONS

- 3.4.2. **Table 3-4** shows that Tunbridge Wells borough has a higher than average car ownership than those for Kent, the South East Region and England. Indeed, this trend is repeated within the majority of the individual wards within the borough having a higher average car ownership in comparison to the County and national averages. The ward with the highest level of car ownership is Brenchley & Horsmonden with 94% of households having access to at least one car. Capel, Frittenden & Sissinghurst and St James wards have similar levels of car ownership of 92% of households having access to at least one car. These averages are some 10% higher than the borough average.
- 3.4.3. On average, some 39% of households within the borough have access to two or more cars. However, it is noted that this is significantly higher in the more rural wards in the borough namely Beneden & Cranbrook (48%), Brenchley & Horsmonden (62%) Frittenden & Sissinghurst (63%), Goudhurst & Lamberhurst (60%) and Hawkhurst & Sandhurst (50%). The wards of Capel (58%), Pembury (51%) and Speldhurst & Bidborough (60%) also have a significantly higher number of households with access to two or more cars compared with 38% for Kent, 40% for the South East and just 32% for England on average.
- 3.4.4. The lowest levels of average car ownership, 1.1 cars per household and below, were in the wards of Culverden (1.0), Park (1.1), Sherwood (1.1) and St James' (1.0). These four wards, which are concentrated around the Royal Tunbridge Wells urban area, have similar car ownership levels in comparison to the national average. The car ownership levels for the borough are illustrated in **Figure 3.5**.

Figure 3-5 – Average Car or Van Ownership within Tunbridge Wells Borough (2011)



2011 Census Car or Van Availability (QS416EW), ONS

3.4.5. In summary, car ownership levels in the more urban areas tend to be lower than those in the more rural wards. It is clear that the car still remains an important form of personal transport for many in the borough. As such, access to good sustainable travel provision will need to be a key consideration of future development in order to support sustainable housing and economic growth in the borough.

Travel to Work Patterns – Resident Population

3.4.6. The level of commuter trips by mode for residents of the borough has been established from the 2011 Census “Method of Travel to Work” data. This database indicates that, whilst the level of car ownership within the borough is higher than the regional and national averages, this does not translate to a higher level of car commuter trips. As set out in **Table 3.5**, when excluding those categorised as “Not in Employment”, the level of car usage as a means of travel to work within the borough (57%) is significantly lower than the level for the County (66%), Regional (66%) and National (62%) averages.

Table 3-5 – Method of Travel to Work – Borough, County, Region and National Averages

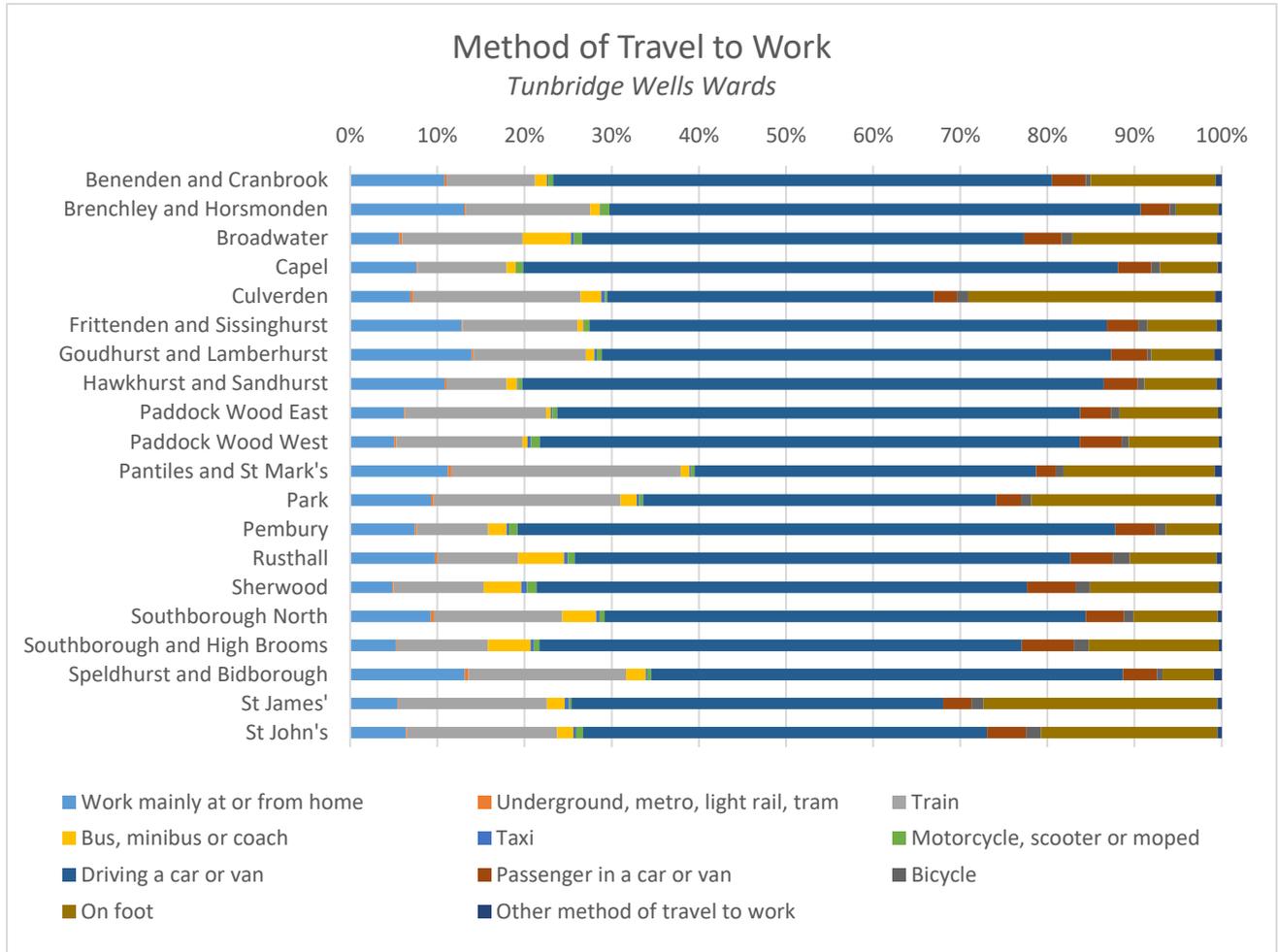
Mode of Travel	Tunbridge Wells Borough	Kent County	South East Region	England
All categories Method of travel to work (numbers)	57,234	688,434	4,260,723	25,162,721
Works mainly at or from home	8%	6%	7%	5%
Underground, Metro, light rail, tram	0%	0%	0%	4%
Train	15%	9%	7%	5%
Bus, minibus or coach	2%	4%	4%	7%
Taxi	0%	0%	0%	1%
Motorcycle, scooter or moped	1%	1%	1%	1%
Driving a car or van	53%	61%	61%	57%
Passenger in a car or van	4%	5%	5%	5%
Bicycle	1%	2%	3%	3%
On foot	15%	11%	11%	11%
Other	1%	1%	1%	1%

2011 Census Method of Travel to Work QS701EW, ONS

- 3.4.7. This lower level of car usage for travel to work from within the borough is considered to reflect the employment trends of the borough which showed a higher level of self-employed workers. This, combined with the employment opportunities available within the urban areas of the borough in particular, result in walking being the joint second most dominant mode of transport at 15%. This is some 4% higher than the average for Kent, the South East Region and nationally at 11%.
- 3.4.8. Similarly, travel by train is equally popular, also accounting for 15% of commuter journeys from within the borough. This is some 6% higher than the average for Kent and 8% higher than the South East Region highlighting that out-commuting, to central London in particular, has an influence on the travel to work modal share patterns for the borough.

- 3.4.9. Travel by bus in Tunbridge Wells borough is low at just 2%. This is half the average levels for Kent and the South East Region (4%), and significantly lower than that nationally (7%). Cycling accounts for just 1% of travel to work trips, which is similar to the average for Kent as a whole but 2% lower than the regional and national averages. This reflects the lack of well-connected cycle routes and infrastructure within the borough, which are key influences when choosing this mode of transport.
- 3.4.10. The Travel to Work modal share for each of the wards within the borough is illustrated in **Figure 3.6**.
- 3.4.11. From **Figure 3.6** it can be seen that the modal shares vary across the borough but overall, car, rail and walk are the dominate modes of transport throughout. Indeed, it is noted that within the wards located within the central Royal Tunbridge Wells urban area, such as Pantiles & St Marks, St James, St John's and Park, the level of trips undertaken by sustainable modes is higher than that for car. This is to be expected given their proximity to the town centre and rail stations and the lower levels of car ownership within the wards as discussed above.

Figure 3-6 – Method of Travel to Work – Tunbridge Wells Wards (2011)

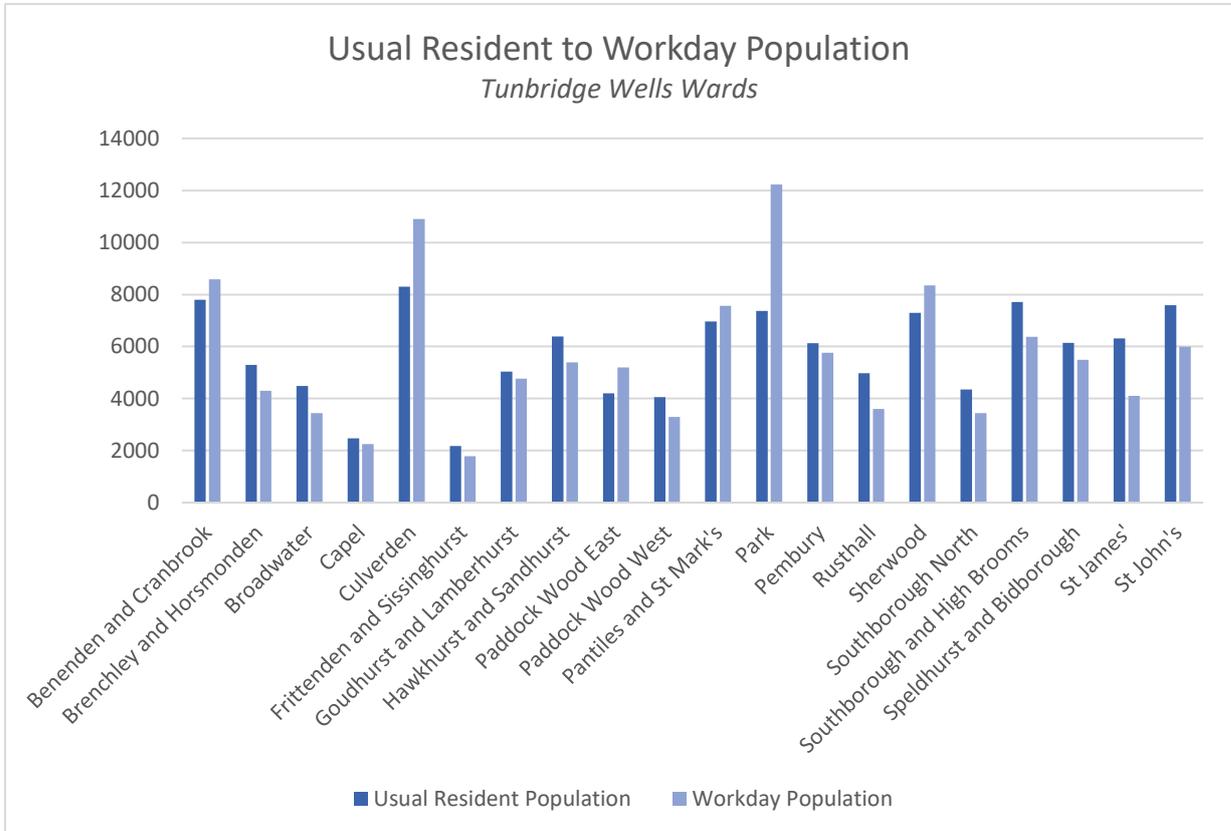


2011 Census Method of Travel to Work (QS701EW), ONS

Travel to Work Patterns – Workday Population

- 3.4.12. The population of an area changes as people move in or out of an area to work. For the workday population the usual resident population is re-distributed to their places of work, while those not in work are recorded at their usual residence.
- 3.4.13. The workday population data series contains statistics about the characteristics of the workday population. Workday population is an estimate of the population during the working day for a particular area. It includes everybody who works in an area, wherever they usually live, and all respondents who live in the area but do not work. It should be noted that the workday and usual resident population analysis refers to those aged between 16 and 64. **Figure 3.7** shows the difference between the usual population and the workday (or daytime) population, as recorded by the 2011 Census.

Figure 3-7 – Usual Resident to Workday Population Change (2011)



2011 Census Population (WP101EW), ONS

3.4.14. At the borough level, Tunbridge Wells’ daytime population in 2011 decreased by approximately 2% and at the County Level the daytime population decreased by 4%. Indeed, the population was recorded as decreasing within 16 out of the twenty wards within the borough, with the only exceptions being those listed below:

- Benenden & Cranbrook;
- Culverden;
- Pantile’s & St Mark’s; and
- Park.

3.4.15. The greatest increases in population, within Royal Tunbridge Wells urban area, occur in Culverden (31%) and Park (66%).

Distance Travelled to Work

3.4.16. Based on the 2011 Census data, the distance travelled to work statistics for the borough are set out in **Table 3.6**. It should be noted that ‘distance travelled to work’ in this context is the distance in kilometres between a person’s residential postcode and their workplace

postcode, measured in a straight line. The 'Other' category includes no fixed place of work, working on an offshore installation and working outside of the UK.

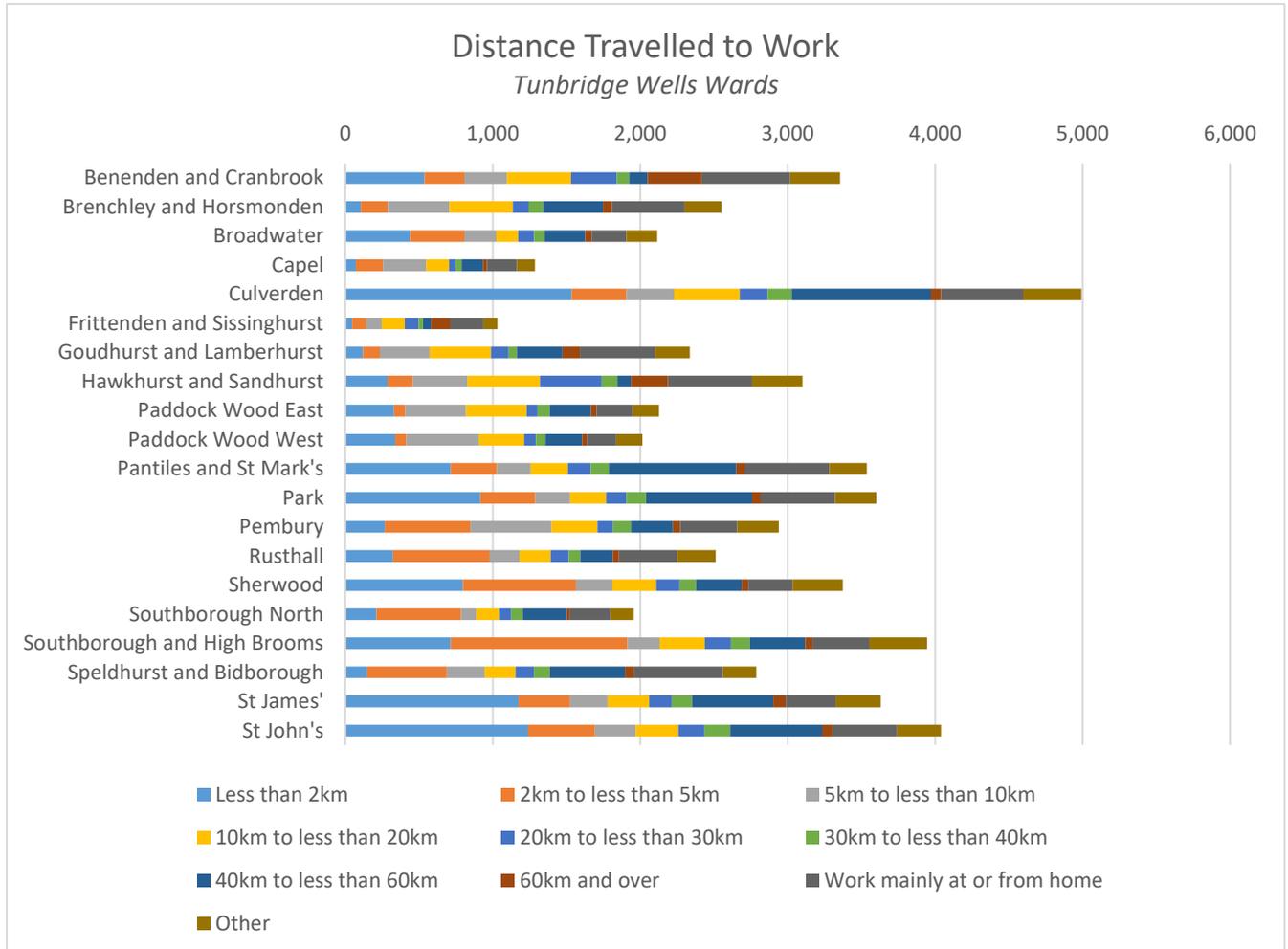
Table 3-6 – Distance Travelled to Work Statistics (2011)

	Tunbridge Wells Borough	Kent County	South East Region	England
Less than 2km	18%	16.6%	16.57%	16.57%
2km to less than 5km	13%	14%	16%	18%
5km less than 10km	10%	12%	14%	17%
10km less than 20km	10%	13%	14%	15%
20km less than 30km	5%	9%	7%	6%
30km less than 40km	3%	5%	4%	3%
40km less than 60km	13%	5%	4%	2%
60km and over	3%	5%	4%	3%
Work mainly at or from home	14%	11%	12%	10%
Other	9%	9%	9%	8%
Average Distance (km)	19.9	18.9	16.6	14.9

2011 Census Distance Travelled to Work QS702EW, ONS

- 3.4.17. It can be seen that the average distance travelled to work for the borough as a whole was higher than that for Kent and significantly higher than that for South East and nationally. However, whilst the proportion of those travelling less than 2km is higher within Tunbridge Wells borough than the average for Kent, the proportion of people travelling between 2-5km, 5-10km and 10-20km is lower than across county, region and nationally. This trend is repeated for those travelling between 20-30km.
- 3.4.18. However, whilst the proportion of people travelling between 30-40km is comparable to Kent, the South East Region and nationally, it is noticeable that the proportion of people travelling between 40km and 60km (13%) is significantly higher when compared to regional and national figures for these travel distances (5%, 4% and 2% respectively). London is approximately between 40km and 60km (straight line distance), depending on the exact location of work and thus, it is likely that this statistic is due to higher percentages of residents within the borough out-commuting to Central London.
- 3.4.19. The ward data is illustrated in **Figure 3.8**. This shows the number of people travelling from each ward to work and within each distance band.

Figure 3-8 – Distance Travelled to Work Tunbridge Wells Borough Wards (2011)

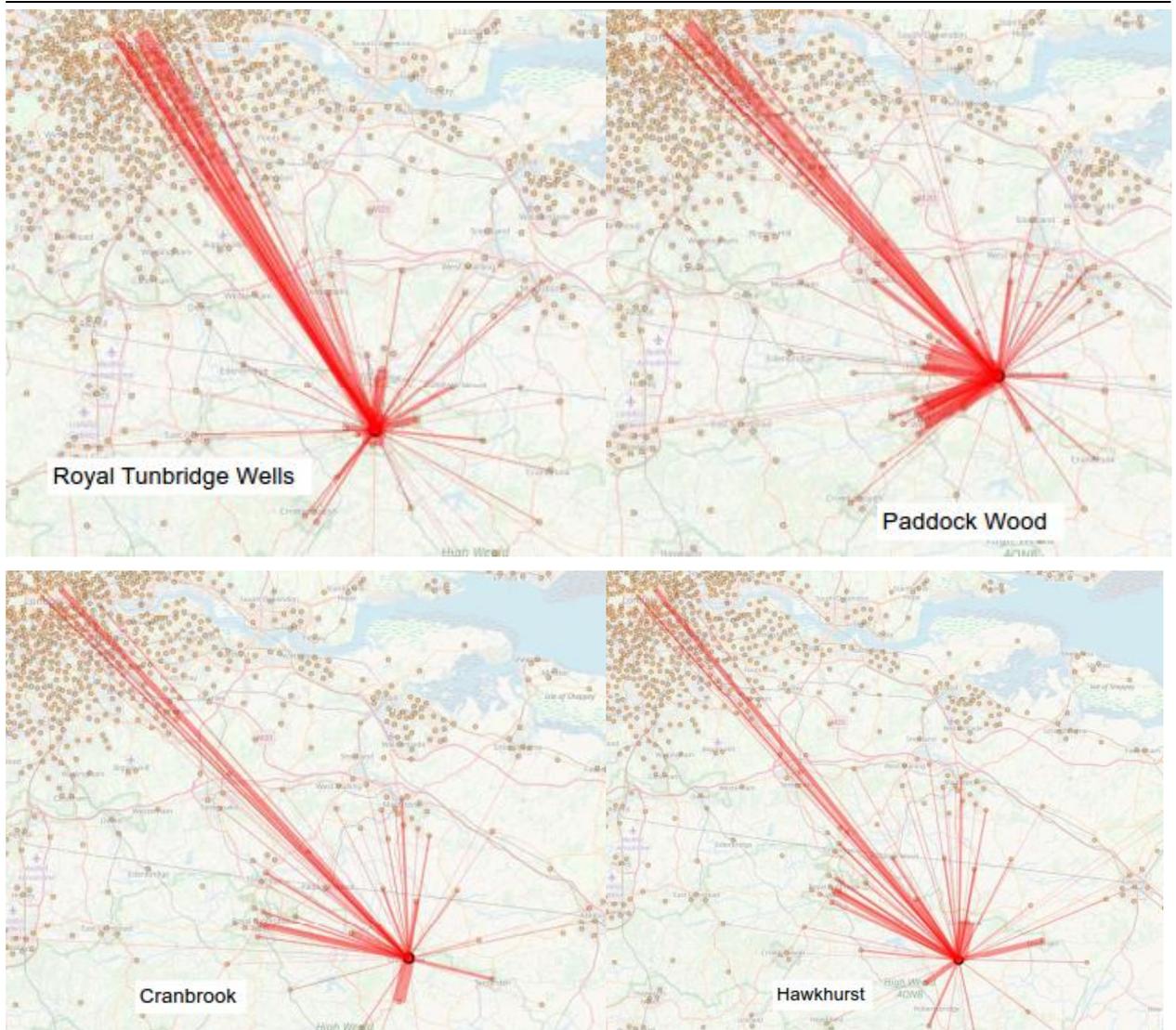


2011 Census Distance Travelled to Work (QS702EW), ONS

- 3.4.20. From **Figure 3.8** it can be seen that the distance travelled to work varies across the wards, in some cases quite significantly when compared to the borough average. Indeed, the average distance travelled to work was higher than the borough average in 8 wards, with those in Frittenden & Sissinghurst ward travelling the furthest at 27.1km on average, followed closely by Goudhurst & Lamberhurst at 26.2km. However, this is considered to be reflective of the geographic locations of these wards within the borough and Kent.
- 3.4.21. Similarly, it is noticeable that the majority of the people travelling to work from the wards within/ close to the centre of the Royal Tunbridge Wells urban area are travelling less than 2km, whilst the majority of those within the wards neighbouring Royal Tunbridge Wells are travelling between 2-5km to work. These patterns are considered to reflect the importance of Royal Tunbridge Wells as a major employment centre within the borough.

3.4.22. Notwithstanding, the highest proportion of people travelling between 40-60km to work also include some of these urban wards and indeed, the wards where the highest proportion of trips travelling these longer distances are recorded are conveniently located close to rail stations. These statistics reiterate the boroughs out-commuting trend, particularly to central London by train. This is illustrated by **Figure 3.9** which shows a snap shot of where people are travelling to work from four locations within Tunbridge Wells borough. It is clear that the majority of journeys being made to work are to London, especially central London, with the remainder of the journeys spread throughout the borough and neighbouring Boroughs and Districts within west Kent.

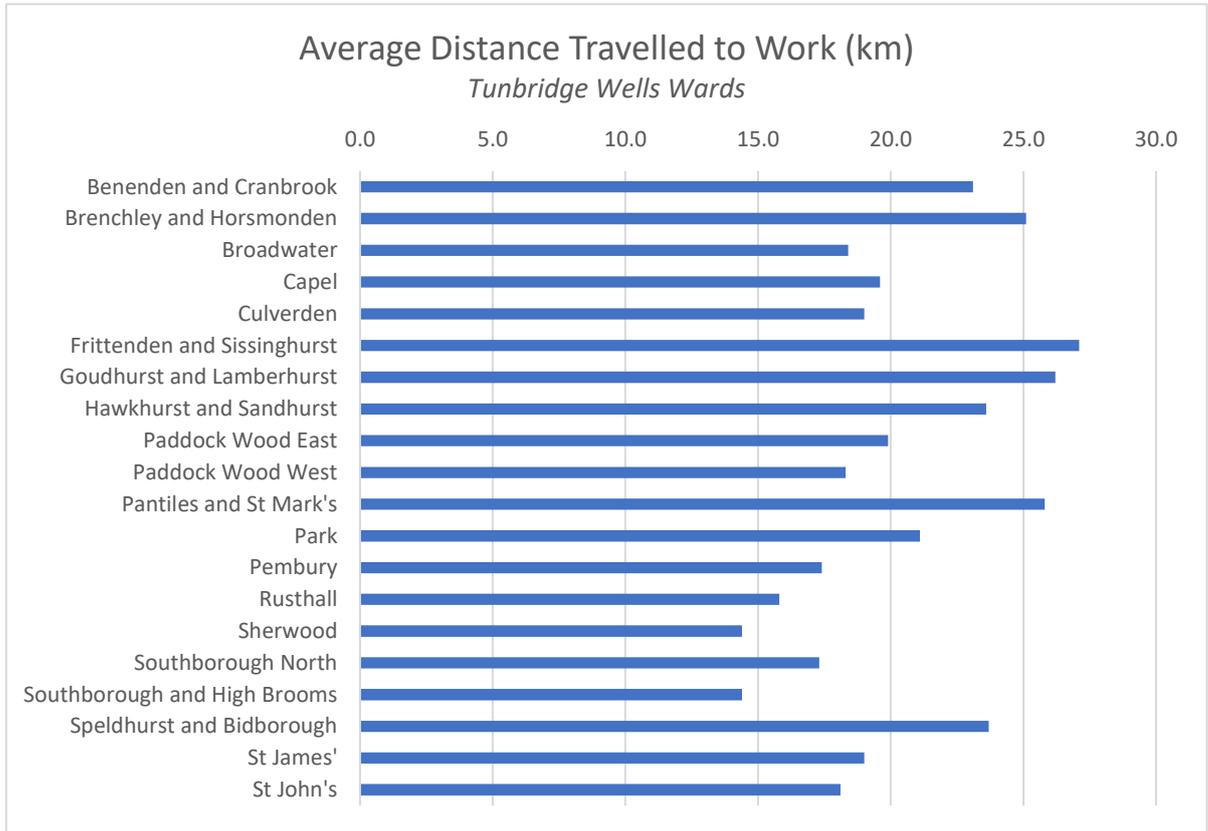
Figure 3-9 – Direction of Travel to Work from within Tunbridge Wells Borough



Datashine 2019

3.4.23. The average distance travelled to work for each of the wards within Tunbridge Wells borough is shown in **Figure 3.10**.

Figure 3-10 – Distance Travelled to Work Tunbridge Wells Borough Wards (2011)



2011 Census Distance Travelled to Work (QS702EW), ONS

3.4.24. **Figure 3-10** reiterates that in the more rural areas, the distance travelled to work is higher, whilst those residing in the more urban areas are travelling shorter distances. This is as a consequence of the greater employment opportunities with the urban areas such as Royal Tunbridge Wells and Paddock Wood.

4. Existing Walking and Cycling Infrastructure

4.1. Introduction

- 4.1.1. As discussed previously the 2011 Census records that the level of cycling across the borough is currently low, particularly in comparison to the levels within the wider County and South East Region. This is acknowledged in both the current Cycling and Transport Strategies, which comment that this is as a result of real or perceived barriers which put people off from cycling. These barriers include topography, road safety, cycling competency and knowledge about routes and parking facilities
- 4.1.2. However, with the 2017 National Travel Survey (NTS) recording that 24% of trips made were under 1 mile, and 68% under 5 miles, active travel modes provide an important opportunity for modal shift from the private car. Therefore, overcoming the real and perceived barriers to cycling and, to some degree, walking will be a key step in achieving a modal shift from private car to active travel. Indeed, this is a key aim of the Cycling Strategy for the borough.
- 4.1.3. There are numerous benefits to walking and cycling, including to the economy through the increased movement of people through local streets and routes and to the environment through the reduction in carbon emissions and congestion as people move from their car, which in turn provide improved air quality. Walking and cycling also provide the opportunity to improve public realm and spaces to make them more welcoming, improving social interaction and enhancing natural surveillance. Fundamentally, facilitating and encouraging active travel has the potential to support the future housing and economic growth within the borough.
- 4.1.4. The provision of adequate infrastructure for pedestrians and cyclists is also a key factor in modal choice. However, whilst the borough currently has cycle routes that link Royal Tunbridge Wells town centre to suburban areas, along the A26, A264 and 21st Century Way (town centre to North Farm), other routes within the urban areas and elsewhere within the borough are limited. As a result, the borough is characterised by a network of incomplete cycle routes that are not integrated and there is no continuous cycle route network throughout the borough. Furthermore, existing junctions and road layouts can present points of conflict for cyclists and other vehicles and there is a lack of cycle related facilities at key destinations including stations, schools and Key Employment Areas.
- 4.1.5. TWBC are currently preparing a Local Cycling and Walking Infrastructure Plan (LCWIP) and have reviewed a number of walking and cycling corridors to identify schemes for funding and implementation.

4.2. Cycling Infrastructure

- 4.2.1. The Cycling Strategy for the borough, whose vision is *'to make cycling a normal part of everyday life in the borough, by creating a safe and welcoming environment for cyclists of all ages and abilities'*, seeks to address these existing deficiencies by setting out a series of Actions and recommendations for new and improved routes.

4.2.2. The Cycling Strategy Actions are summarised below:

- **Action 1: Infrastructure** – A network of high-quality cycle routes will be completed in the urban areas of Royal Tunbridge Wells, Southborough, Paddock Wood and Cranbrook. Where possible, inter-urban and leisure cycling routes will be enhanced. Where a proposed route requires new or upgraded public rights of way, partners will work with the landowner(s) to secure implementation.
- **Action 2: Cycle Parking** –
 - a) Cycle parking will continue to be improved in town and village centres, as well as other locations including stations, schools, leisure facilities, key bus stops and key employment areas.
 - b) Cycle parking will be provided in all commercial and residential developments (both new build and change of use), secured by partners through the planning process.
- **Action 3: Maintenance** – KCC and TWBC will work with partners to ensure the regular maintenance of all cycle routes within the borough.
- **Action 4: Cycle Training** –
 - a) All Year 6 children will have access to Level 1 and 2 Bikeability training, and children in Years 7 to 9 will have access to Level 3 training.
 - b) Adult cycle training will continue to be offered, through initiatives including work place travel planning.
- **Action 5: Safety** – Partners will continue to promote road safety campaigns and positively consider the introduction of 20mph speed limits and zones in accordance with KCC policies and procedures.
- **Action 6: Promotion and Marketing** – KCC and TWBC will ensure cycle routes are fully advertised and signposted within the borough and that a cycle map and related information is provided online.
- **Action 7: Promotion and Marketing** – TWBC and/or the Cycling Forum will continue to support local cycling events where appropriate.
- **Action 8: Monitoring** – The Cycling Strategy will be regularly monitored, alongside the Transport Strategy, to review the implementation of agreed projects and initiatives.

4.2.3. The cycling infrastructure improvements which are to be delivered through the implementation of the Cycling Strategy 2016-2020 are set out in Chapter 9 of the Strategy document. These route improvements centre around the Royal Tunbridge Wells urban area, Paddock Wood and Cranbrook.

4.2.4. The route proposals are listed below..

- **Tunbridge Wells Area:**
 - **Route 1** – Tonbridge to Tunbridge Wells via the A26
 - **Route 2** – Pembury to Tunbridge Wells via the A264
 - **Route 4** – Routes across The Commons
 - **Route 5** – 21st Century Way including Home Farm Lane link
 - **Route 6** – Woodsgate Corner to Vauxhall Lane via Tonbridge Road and A21
 - **Route 7** – Forest Road to Grove Hill Road via Farmcombe Road.
 - **Route 8** – A26 London Road to Dowding Way via Barnetts Wood
 - **Route 9** – Langton Green to Tunbridge Wells including Rusthall and Speldhurst links
 - **Route 10** – Ramslye and Showfields links
- **Paddock Wood:**
 - **Route 3** – Paddock Wood circular route
- **Cranbrook:**
 - **Route 11** – High Weald Academy to High Street

4.2.5. In addition to the above urban routes, there are also identified leisure route proposals which are longer term aspirations supported by the borough Green Infrastructure Plan SPD (2014). The leisure routes are likely to include both on and off-road alignments supported by appropriate wayfinding and signage. The proposed leisure routes are listed below.

- National Cycle Route 18 through Royal Tunbridge Wells town centre
- Tunbridge Wells to Penshurst route (crossing borough boundary)
- Hop Pickers Heritage route (Paddock Wood to Hawkhurst)
- Cranbrook to Sissinghurst route

4.2.6. The need for good cycle routes and facilities associated with new development is recognised in the TWBC Cycling Strategy which sets out design principles for cycle routes and infrastructure. These design principles should be incorporated into development and masterplanning briefs and plans. Indeed, securing funding through development contributions will be key to ensuring that many of the cycle improvements can be implemented in the future.

4.3. Walking

4.3.1. Walking remains the most sustainable form of transport and for most people, is a readily available modal choice, particularly for short journeys. This is reflected in the results of the 2017 NTS which recorded that walking was the most frequent mode used for short trips with 81% of trips under one mile being undertaken by foot. Indeed, all transport users are pedestrians, at least at the start and end of their journeys and as such, the provision

of good quality pedestrian environments and infrastructure are crucial to encouraging walking as an attractive and safe mode of transport.

- 4.3.2. The borough benefits from an extensive network of footways however, as recognised in the 2015 Transport Strategy, at many places throughout the borough the pedestrian environment does not meet the needs of the users. Within Royal Tunbridge Wells, a major improvement scheme at Fiveways including wider footways, cycle parking, new street furniture and extended hours for vehicular restriction was completed within 2015 and that further phases of work to Mount Pleasant Road, Vale Road and High Street would be completed in the period of the Transport Strategy.
- 4.3.3. During the public consultation for the Transport Strategy a number of particular issues at both rural and urban locations were identified. With reference to Paragraph 4.94 of the Transport Strategy, these issues are set out below:
- *'A26 London Road, Tunbridge Wells, constraints at junctions with Church Road, Major Yorks Road and High Street, insufficient or lack of shared use crossing facilities.*
 - *'A264 Langton Road and Mount Ephraim, lack of shared use crossings.*
 - *'A262 Station Road, Goudhurst, between the junction of Ranter's Lane and Blue Coat Lane, pedestrian footpaths required.*
 - *'A262 provision of footways on routes to the north and pedestrian crossing point associated with Goudhurst and Kilndown primary school.*
 - *'A262 Cranbrook Road, between the junction of Tattlebury Lane and Chequers Road.*
 - *'B2079 North Road/Bedgebury Road, lack of provision for cyclists and poor pedestrian footway, further speed limit reduction is being sought.'*
- 4.3.4. Complementing the boroughs' extensive network of footways is some 365 miles of Public Rights of Way (PRoW) in the borough including footpaths, bridleways, byways and restricted byways which means that leisure walking in particular is very accessible and attractive with tourists and walking groups. However, these ProWs also have the potential to play an important role in assisting and facilitating pedestrian movement through the borough for a variety of trip purposes, including commuting, and thus, in turn helping to get people out of their cars.
- 4.3.5. This forms a key consideration of the Tunbridge Wells Borough Green Infrastructure Plan SPD, adopted 2014, the aim of which is not just the creation of new green spaces, but also the enhancement of existing green infrastructure assets. The Green Infrastructure Plan SPD policies aim to contribute to vision and objectives of the Plan by:
- *'Conserving, enhancing or creating local and regional networks of green infrastructure in order to link assets within and between boroughs and connect urban areas with the surrounding countryside.*
 - *'Enhancing the multi-functionality of existing green infrastructure assets and seeking the creation of new multi-functional spaces and/or linkages where a need or deficiency has been identified.*

- *‘Conserving and enhancing the network of existing access routes to allow sustainable commuting, providing safe, attractive and well-signed walking and cycling options for all, including those with disabilities.’*
- 4.3.6. The borough already benefits from an extensive network of green infrastructure, as touched upon above, including the National Cycle Route 18, and the High Weald Landscape Trail and Tunbridge Wells Circular Walk long distance walking routes. However, connectivity is not always ideal and some of these routes are not attractive for all user groups. As such, Chapter 6 of the Green Infrastructure Plan SPD (2014) sets out a number of specific spatial proposals, including existing projects and those that could be delivered alongside new development, designed to address the deficiencies in access and infrastructure. An abridged summary of the proposals relating to access is provided below:
- **Proposal 2: High Weald/Low Weald Links** – Links between the High Weald and the Low Weald character areas involving improving links and signage across the existing driveways to enhance sustainable transport routes.
 - **Proposal 5: Enhancement of links between key tourist attractions and settlements** – Improvement of links from the Borough’s key centres, including Royal Tunbridge Wells, Cranbrook and Hawkhurst to key tourist attractions, for example Bedgebury Pinetum and Bewl Water in order to increase connectivity and provision of more accessible and safer off-road routes for pedestrians, cyclists and equestrians between settlements and tourist attractions.
 - **Proposal 7: Redundant Railways** - Within the eastern part of the Borough, along the former Paddock Wood to Hawkhurst Railway, which connected Hawkhurst, Cranbrook, Goudhurst, Horsmonden and Paddock Wood. Within the western part of the Borough, along the former Tunbridge Wells to Eridge line.
- 4.3.7. With regards to Proposal 7, the other redundant railway line within the Borough runs from Tunbridge Wells West through to Eridge and remains a safeguarded transport route in the Local Plan and emerging Site Allocations DPD¹⁰. It is noted that land ownership is a significant barrier to the transforming of redundant railways lines, however development may help in securing improvements.
- 4.3.8. Indeed, as stated within the existing TWBC policy documents, the provision of green infrastructure should be an integral part of new development that not only provides new facilities within the boundaries of the development, but also improves connectivity and continuity of existing green infrastructure routes and assets.

¹⁰ TWBC Green Infrastructure Plan Supplementary Planning Document (2014), Paragraph 7.29

5. Existing Public Transport Infrastructure and Level of Service

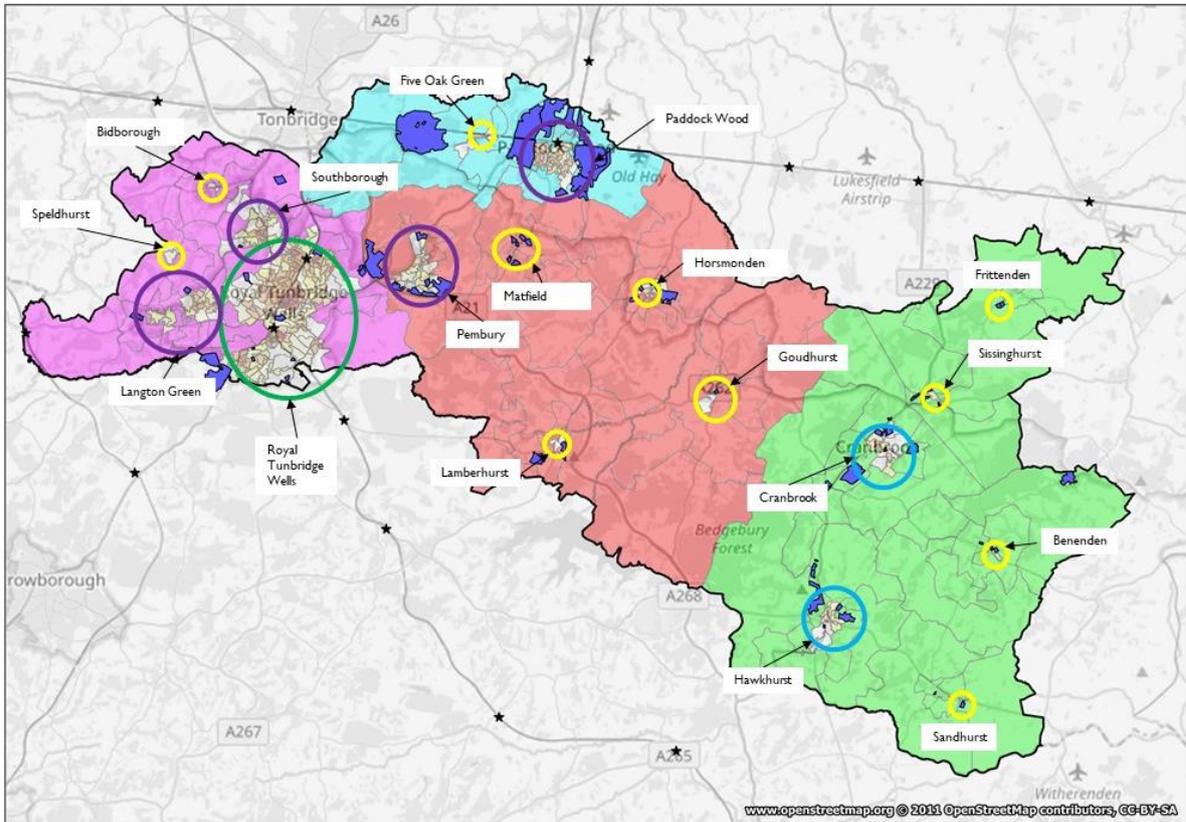
5.1. Introduction

5.1.1. In order to assist in the analysis of existing public transport infrastructure and Level of Service, the borough has been divided into four sectors for review. Each sector is comprised of a number of census Middle Layer Super Output Areas (MSOA) boundaries. The sectors have been split as follows:

- East – includes A229 corridor, as well as Hawkhurst and Cranbrook
- Central – predominantly based upon the A21 corridor, including Pembury, Lamberhurst, and Goudhurst
- North – focuses on Paddock Wood
- West – based around Royal Tunbridge Wells urban area, including Southborough

5.1.2. This work has also taken account of the location of proposed Local Plan site allocations to aid future year mitigation analysis work. The resultant adopted sectors are illustrated in **Figure 5.1**.

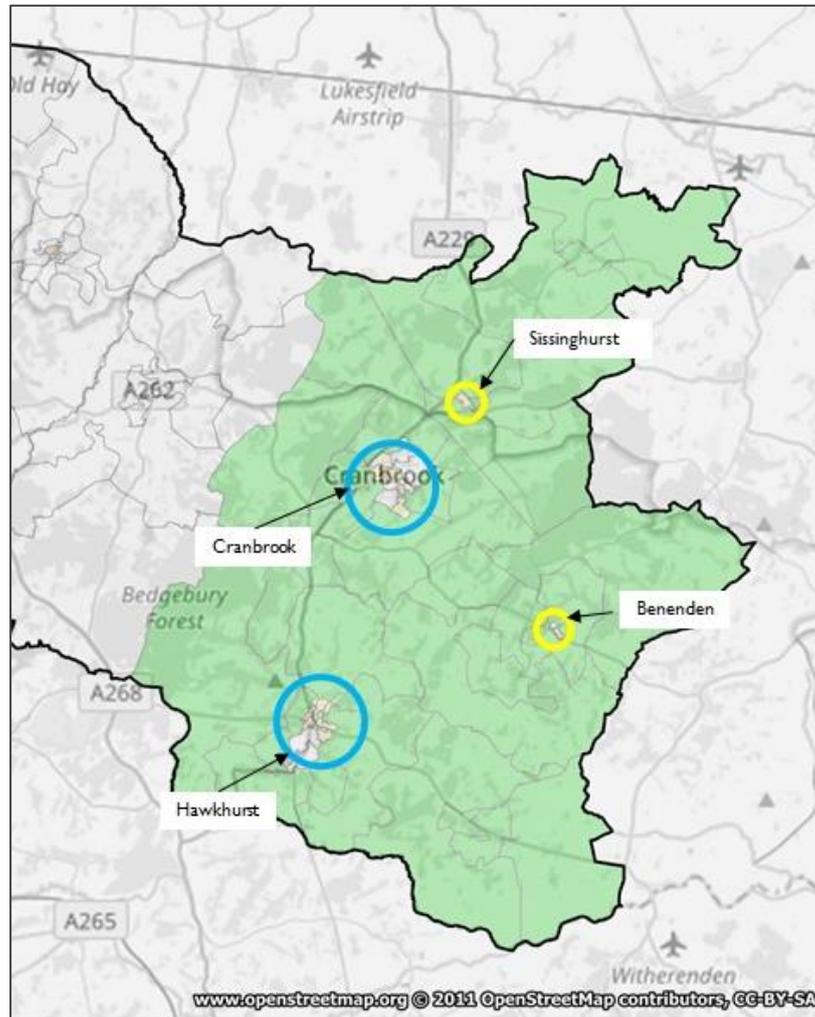
Figure 5-1 – Baseline Analysis – Tunbridge Wells Borough Sectors



5.2. Tunbridge Wells Borough – East

5.2.1. A number of key towns, villages, and local settlements make up the east of Tunbridge Wells borough. The key locations, based around an average density of persons per square kilometre (using Census 2017 population updates), have been identified in **Figure 5.2**.

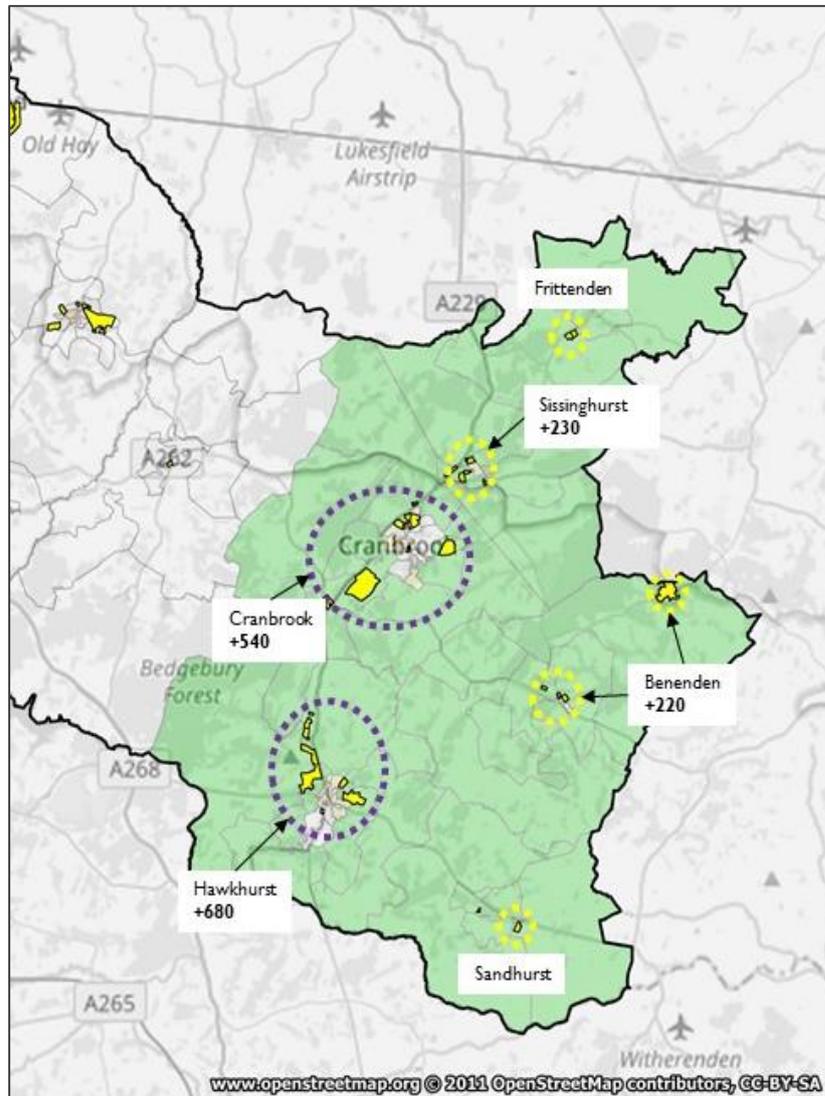
Figure 5-2 – Tunbridge Wells Borough East Region - Existing Larger Urban Settlements based on Average Density per square km (2017 Population)



5.2.2. The larger urban areas are Cranbrook and Hawkhurst. Other notable urban settlements include Sissinghurst and Benenden. Smaller urban settlements in the area are Sandhurst and Frittenden. As set out in Para 1.5.1, this report was based on provisional information during the formation of the Local Plan. The development locations within this area based on this provisional information are outlined in **Figure 5-3**, although these vary in the Draft Local Plan, the overall numbers in the plan are broadly consistent:

- Hawkhurst 680
- Cranbrook 540
- Sissinghurst 230
- Benenden 220

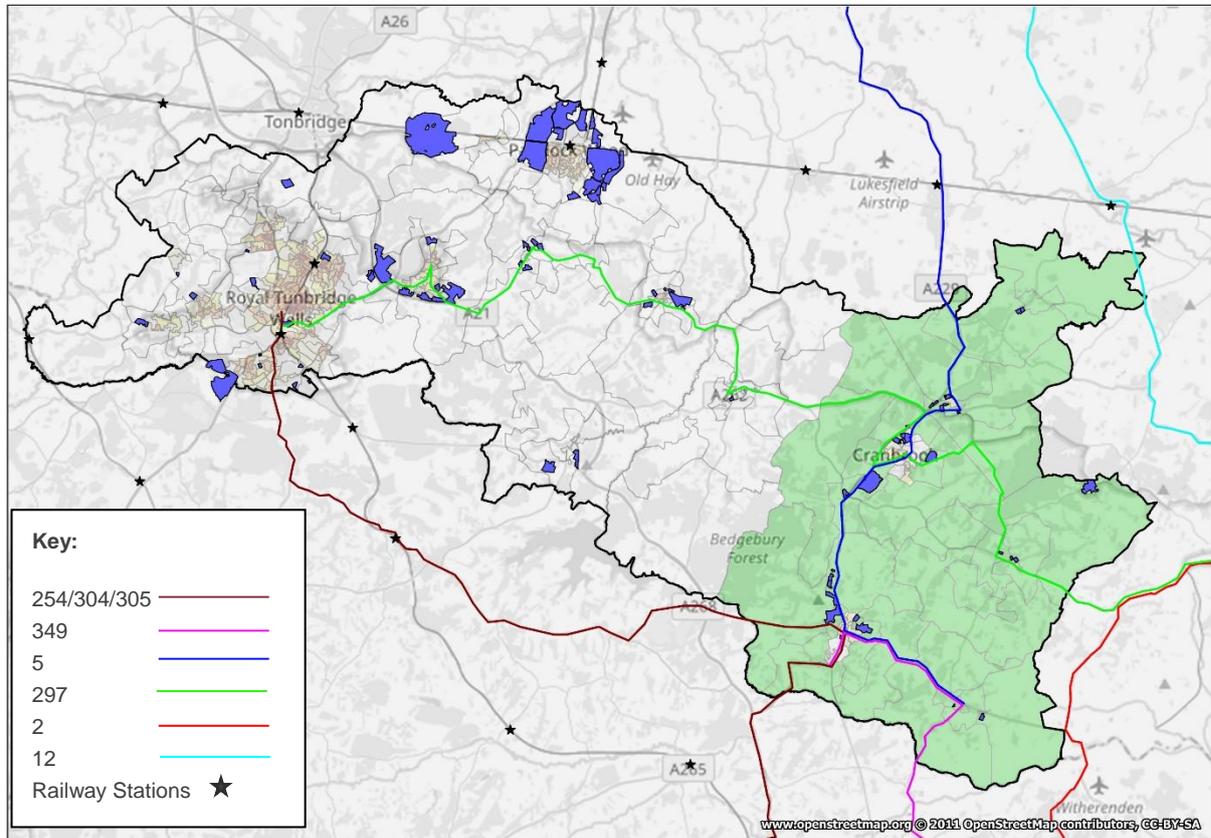
Figure 5-3 – Tunbridge Wells Borough East Region – New Local Plan Sites



Bus

5.2.3. There are a number of bus routes of varying frequency which serve the eastern part of Tunbridge Wells borough. Of these, there are considered to be four primary bus routes which offer the greatest frequency over the whole day. In addition, two bus services have been identified that may offer some additional accessibility for people on the periphery of the borough boundary. The routing of these key routes is illustrated on **Figure 5.4**.

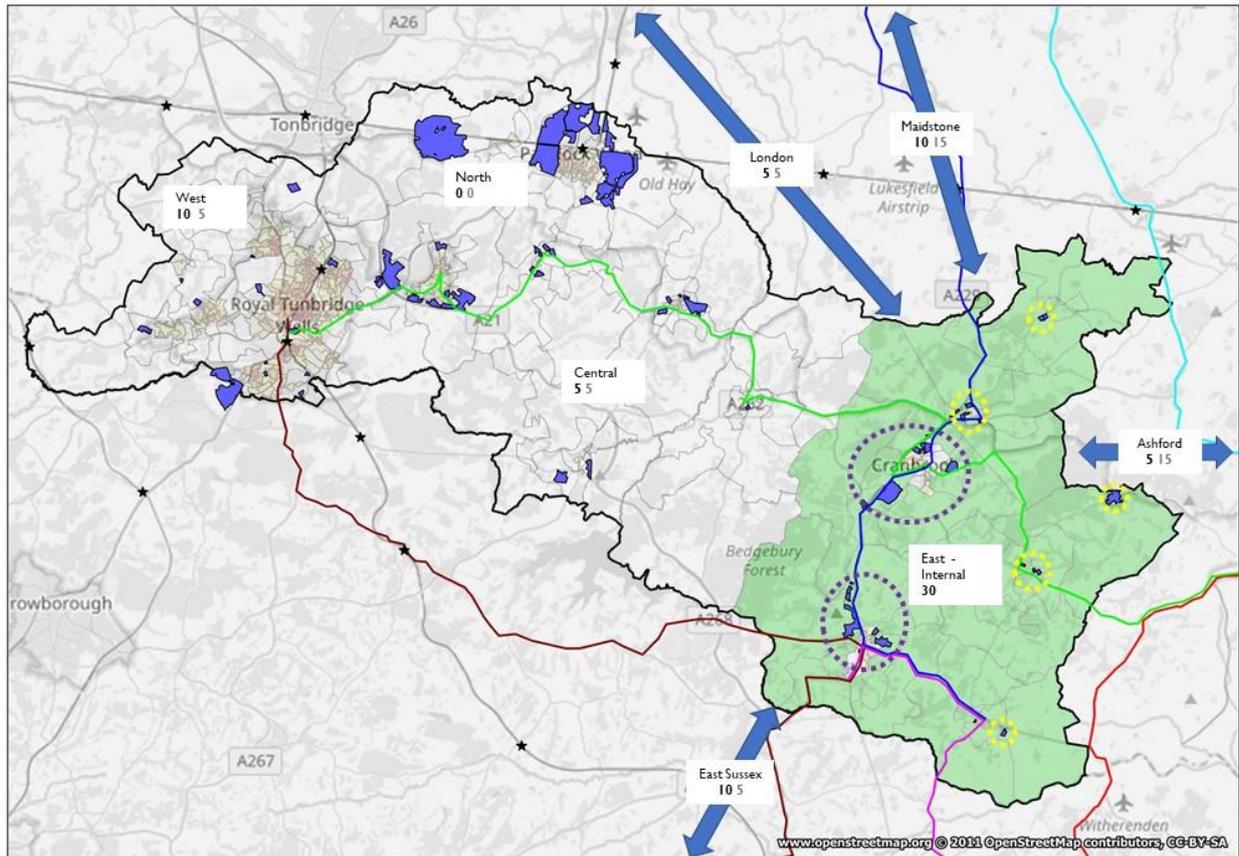
Figure 5-4 – Bus Routings – Tunbridge Wells Borough – Eastern Region



- 5.2.4. Routes 254/304/305 are effectively one route for the region. The section of the route from Hawkhurst to Royal Tunbridge Wells is served under route number 254, whilst the connection from Hawkhurst to Hastings via Robertsbridge is route 304/305. The route runs hourly weekdays, approximately 7am to 7pm, with no Sunday service. The service offers key connections from Hawkhurst to Royal Tunbridge Wells and Hastings. It also offers a rail connection to the Hastings Main Line at Wadhurst and to Tunbridge Wells central stations.
- 5.2.5. For connecting trips to London, the quickest connection by bus plus rail from Hawkhurst is via route 254 and changing at Wadhurst. This offers wider accessibility from Hawkhurst, to Tonbridge, Sevenoaks, and London in particular.
- 5.2.6. Route 349 also connects Hawkhurst to Hastings, via Sandhurst and Sedlescombe. This service directly links with the 254 from Hawkhurst to Royal Tunbridge Wells. It runs every 2 hours, approximately 7am to 6pm. It also operates on Sundays. All these services are operated by Stagecoach.

- 5.2.7. Route 5, operated by Arriva, offers a key north south connection through the region, primarily via the A229. It links Sandhurst, Hawkhurst, Cranbrook, and Sissinghurst to the South Eastern Main Line at Staplehurst and Maidstone town. The service operates hourly, with services Monday to Saturday between Sandhurst and Maidstone. On Sundays the service only runs between Cranbrook and Maidstone. During peak times in the weekday, the service operates approximately every 30 minutes. S106 funding to make improvements to Route 5 has been received from development in Hawkhurst.
- 5.2.8. A high-level analysis on rail journey times and connection times highlights that connecting to the rail network at Staplehurst from Cranbrook and Sissinghurst offers the quickest journey times to London.
- 5.2.9. Route 297, operated by Renown Group, runs east-west through the centre of the region. The route connects from Tenterden in Ashford District to Royal Tunbridge Wells via Cranbrook, Horsmonden, and Pembury. It offers a direct connection from Cranbrook, and via a short walk from Sissinghurst, a direct connection to Royal Tunbridge Wells. The service operates approximately every 90 minutes from 7am to 7pm, with no Sunday service.
- 5.2.10. Route 2 and Route 12 both operate in Ashford District. They offer the potential for some localised connections from Royal Tunbridge Wells borough through cycle/walk/pick up for people living near the boundary in areas like Frittenden and Benenden.
- 5.2.11. The summary of census trip demand of bus used as primary mode is shown in **Figure 5.5**. The map highlights that the key bus corridors for trips within the east region, are trips between Royal Tunbridge Wells, Maidstone, Ashford District, and East Sussex/Hastings. The map also highlights that a total bus demand for the region of 143 trips indicates that there is only a 2% mode share for bus trips to and from work in the eastern region.

Figure 5-5 Tunbridge Wells Borough East Region – Bus Trip Demand and Distribution



5.2.12. There are a number of additional bus services that serve the region on a low frequency basis. These services offer links for school children to schools in Royal Tunbridge Wells and Tonbridge, as well as bus services to market towns that depart once a week. The services are summarised in **Table 5.1**.

Table 5-1 – Tunbridge Wells Borough East Region – Low Frequency Bus Services

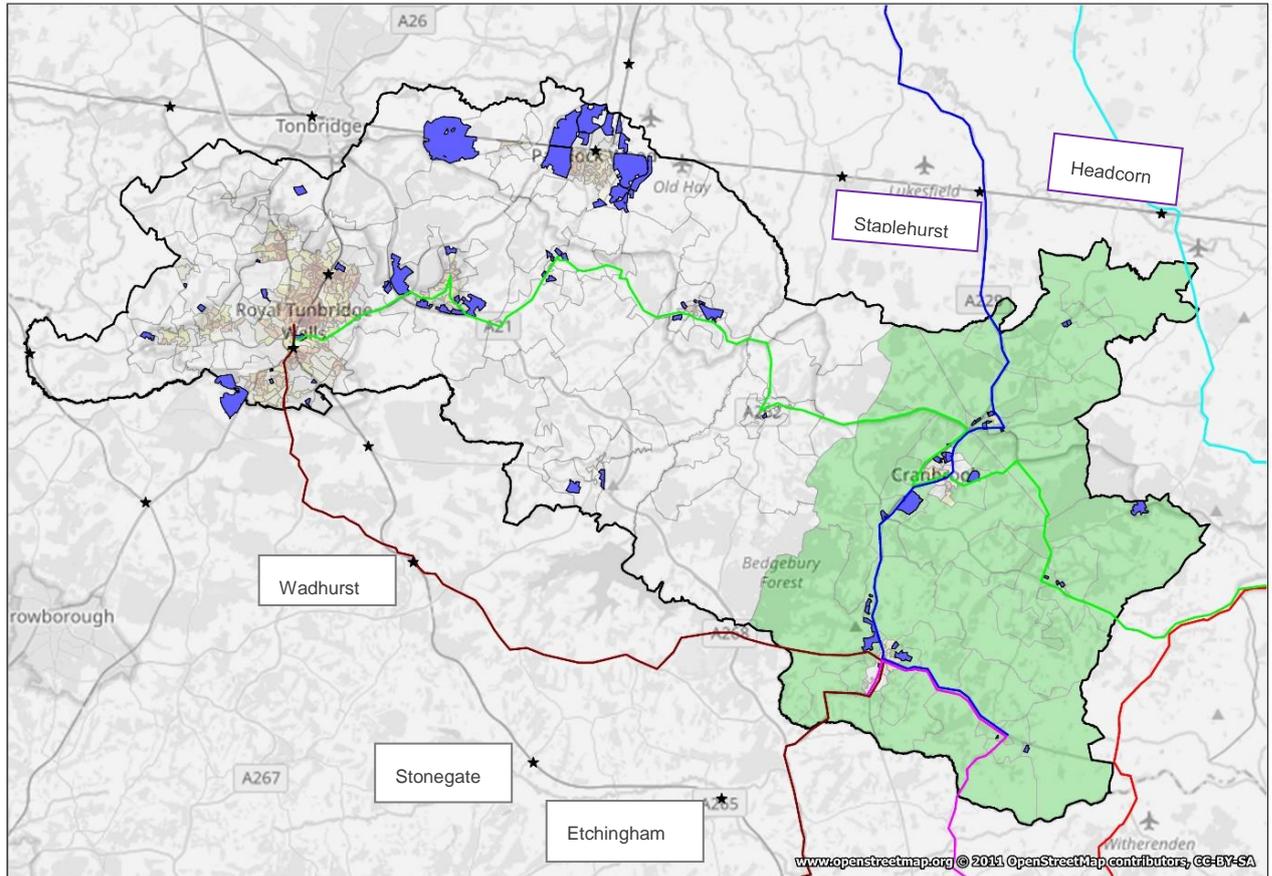
Route	Operator	Route	Operating Days
24	Hams Travel	Sandhurst - Headcorn - Maidstone	Tuesdays only
254	Hams Travel	Uplands Community College - Tunbridge Wells	Schooldays
255	Autocar Bus & Coach Services	Benenden - Hawkhurst - Lamberhurst - Pembury - Tunbridge Wells	Schooldays and Friday services
267	Hams Travel	Hawkhurst - Cranbrook - Goudhurst - Paddock Wood - Tunbridge Wells Boys' Grammar	Schooldays
268	Hams Travel	Hawkhurst - Cranbrook - Goudhurst - Paddock Wood - Tonbridge Schools	Schooldays
292	Hams Travel	Hawkhurst - Sandhurst - Rolvenden - Tenterden	Schooldays and Friday services
293	Hams Travel	Tunbridge Wells - Lamberhurst - Hawkhurst - Rolvenden - Tenterden	Thursday only
299	Hams Travel	Tonbridge - Pembury - Lamberhurst - Hawkhurst - Tenterden	Friday only
HC	Hams Travel	Linton - Headcorn - High Weald Academy	Schooldays

Rail

5.2.13. There are no rail stations directly in this region of Tunbridge Wells borough. However, both the Hastings Line and the South Eastern Main Line have stations close to the borough boundary. Overall, the rail mode share for this area is 8% (634). Of these trips, 85% of trips connect to work in London, with an additional 2% going in the opposite direction. The remaining rail demand include trips to/from Royal Tunbridge Wells (2%), Tonbridge (2%), Maidstone (1%), and Ashford (1%).

5.2.14. The key stations for the region are outlined in **Figure 5.6**.

Figure 5-6 – Tunbridge Wells Borough East Region – Key Railway Stations



5.2.15. A high-level analysis of rail provision in the area is summarised in **Table 5.2**.

Table 5-2 – Tunbridge Wells Borough East Region – Key Railway Station Data

Station	Main Line	ORR Demand 2017/2018	Bicycle Parking	Parking Spaces	AM Peak to London (Train per hour)	Fastest (mins)	Slowest (mins)
Wadhurst	Hastings Line	397,214	20	318	4	62	68
Stonegate	Hastings Line	180,222	14	145	3	69	80
Etchingham	Hastings Line	246,666	40	189	4	75	85
Staplehurst	South Eastern Main Line	836,502	66	452	6	52	59
Headcorn	South Eastern Main Line	594,084	28	456	6	57	64

- 5.2.16. The station with the highest rail demand in this region is Staplehurst (circa. 840,000 passengers), followed by Headcorn (circa. 590,000 passengers), with both stations located on the South Eastern Main Line. The highest demand station on the Hastings Line in the region is Wadhurst (circa. 400,000 passengers).
- 5.2.17. **Table 5.2** also shows that the highest level of car parking spaces to connect to rail are at Staplehurst and Headcorn stations. This suggests the majority of rail trips from the East Region will connect to rail on the South Eastern Main Line. The closest connection for the Hastings Line is at Etchingham, which has just 189 spaces.
- 5.2.18. Cycle rail connections for the east region appear limited. The cycle time from Hawkhurst to Etchingham is approximately 30 minutes (8km) and is currently without a dedicated cycle corridor. The situation for cycling from Sissinghurst to Staplehurst is very similar, with Cranbrook a further 5 minutes cycle from the station.
- 5.2.19. Bus rail connectivity is likely to be limited to the use of route 254 to Hastings Line via Wadhurst and route 5 to the South Eastern Main Line via Staplehurst. The bus journey time for route 254 to Wadhurst station is 30 minutes. The bus journey time for route 5 from Staplehurst station is 13 minutes to Sissinghurst and 16 minutes to Cranbrook. The shorter journey times are likely to make this link attractive to use for people connecting to and from Cranbrook/Sissinghurst.

Cycling and Walking

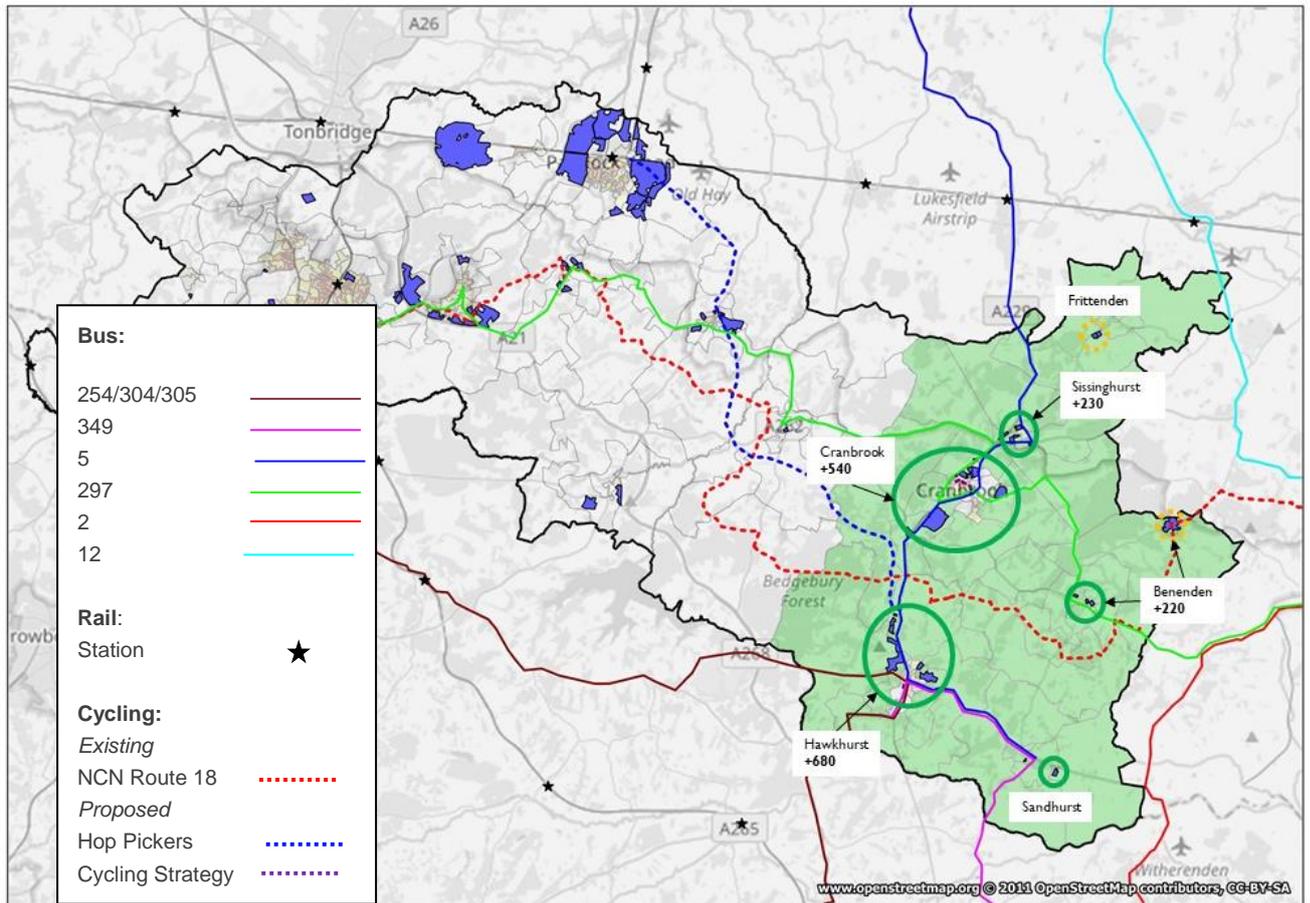
- 5.2.20. Cycling and walking trips in the east region are limited mainly by the geographic constraints involving long distances between larger settlements, but also as a result of a lack of suitable infrastructure in the area.

- 5.2.21. A total of 9% (693) of trips are being made on foot in the east region. This is significantly more than bus and cycling, and also higher than rail mode share for this region. The trips are likely to be focused in and around the main urban settlements of Hawkhurst and Cranbrook/Sissinghurst. This is aided by a network of pavements and a number of services within a short walk of people's homes. From a high-level review of existing footpaths next to major roads in the area (A268 and A229) it does not appear that there is a coherent network of pedestrian facilities between settlements.
- 5.2.22. Only 1% of trips (56) are made by bicycle. This low mode share is likely to be down to poor cycle infrastructure and the convenience of driving. Roads don't provide cyclists with dedicated space and vehicle speeds are potentially high along the rural roads. The only signed cycle route through the east region is the National Cycle Network Route 18. This provides some sections of off-road cycling and use of low traffic links. However, the NCN route is more focused on leisure use and does not directly link to either Hawkhurst, Cranbrook, or Sissinghurst.

Key Findings from Baseline Review – Tunbridge Wells Borough East Region

- 5.2.23. The preceding information has been related back to the new development locations. This section outlines potential opportunities and limitations for connecting in new developments to sustainable transport in the east region.
- 5.2.24. As illustrated in **Figure 5.7**, the majority of the new development site locations (ringed in green) are on, or within walking distance, of existing bus and cycle corridors. The sites within Hawkhurst, Sandhurst, Cranbrook, and Sissinghurst reinforce the existing bus services and corridors along the A229 and A268. This will have a positive effect on bus demand along these corridors, which also offer routes to multiple areas of interest including Royal Tunbridge Wells, Maidstone, and Hastings. The potential increase in demand could allow bus operators to run additional services during the day and into the evening. In addition, with the high demand for rail to London in the area, and with buses linking to these rail corridors at Wadhurst and Staplehurst, it is expected that this will further increase new bus demand in the area.
- 5.2.25. Furthermore, Benenden is connected by bus route 297 which offers links to Cranbrook, Pembury, Royal Tunbridge Wells, and Ashford District. However, with just this one bus service, at an average frequency of once every 90 minutes, the developments in this area will have limited potential to reduce car mode share for the east region.
- 5.2.26. Any development at Benenden Hospital will not be on a pre-existing bus corridor. It is also difficult to see commercial bus services using these roads in the future. This area is however served by the NCN Route 18, but this route will require additional work to bring it up to standard to support utility use and use by people of all ages and abilities. In addition, it does not connect directly to either Cranbrook or Hawkhurst, which is likely to limit its appeal and benefits.
- 5.2.27. Frittenden is not located on either a bus service or signed or proposed cycle corridor.

Figure 5-7 – Tunbridge Wells Borough East Region – Baseline Map - Location of New Development Sites in Relation to Sustainable Transport Network



5.2.28. Key corridors that connect the key urban centres in the region, in particular the north south A229 and the east west A268, have gaps in footpath and cycle link provision. There are currently no coherent continuous cycle/walk links between the largest urban settlements in the area. This currently limits the opportunity for trips between existing urban settlements to be undertaken by active travel modes, as well as to some of the new development sites on the A229 and A268 corridors.

5.2.29. The latest cycling strategy include some cycle path proposals within the east region, primarily those described below. However, these do not cover a full regional network.

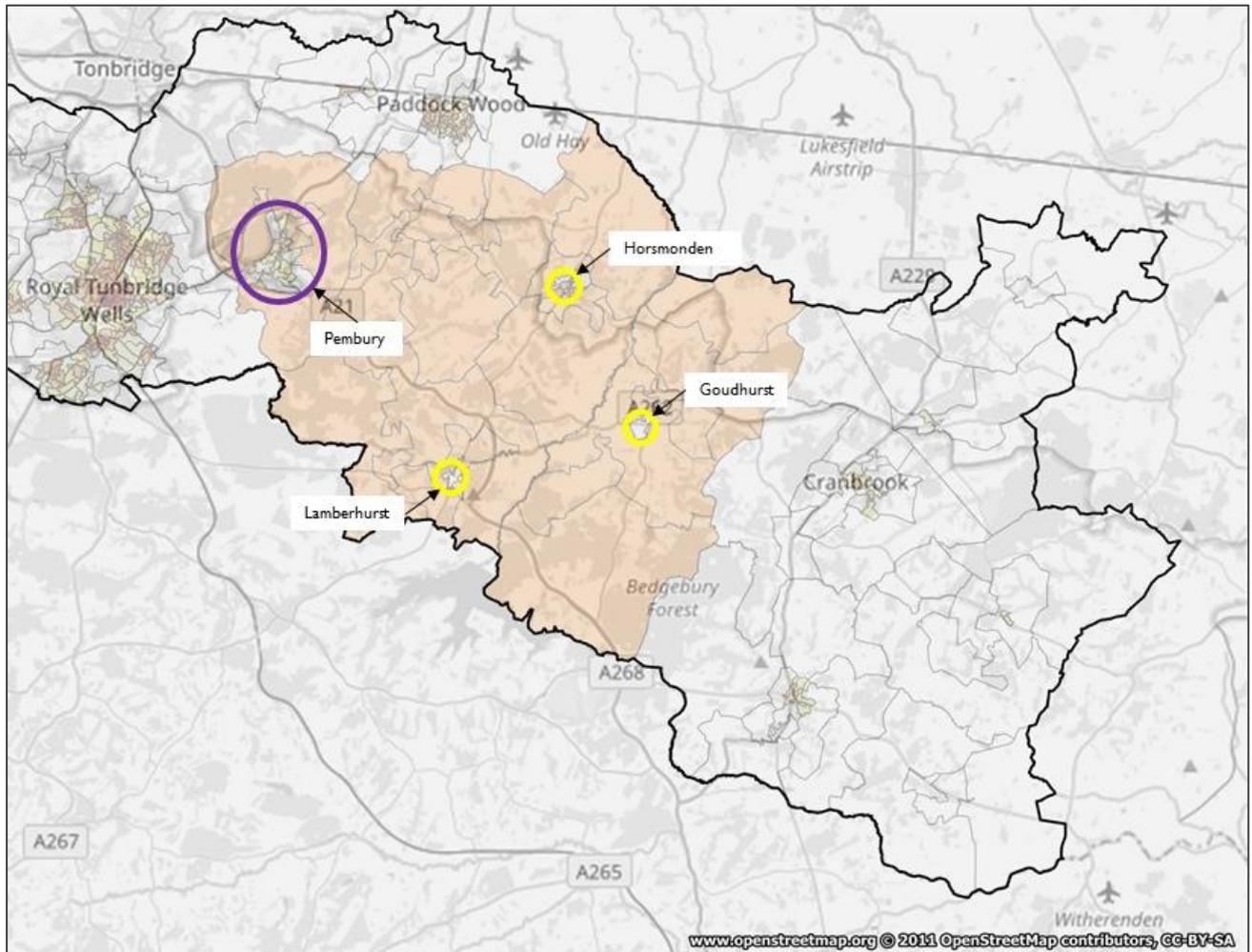
- Hop Pickers Link – A229 to Paddock Wood (though detail planning not undertaken for Paddock Wood section)
- Utility links – within Cranbrook, and between Cranbrook and Sissinghurst

- 5.2.30. Car parking at Etchingham and Staplehurst rail stations in particular may come under increased pressure as a result of rail trips from new developments. There is a bus connection from the east region to Staplehurst, though bus frequency is only hourly. Etchingham is not currently connected to the east region by bus, with the closest bus rail link on the line being at Wadhurst Station, located further away.
- 5.2.31. In summary, the baseline analysis has identified the following issues that require review for the east region in relation to integrating the new development sites:
- At only 2% mode share for the east region, bus services will need to have frequency and priority improvements to make it a viable option for people in existing and new developments.
 - The key existing bus corridor is Hawkhurst – Cranbrook – Sissinghurst. This corridor sees the majority of proposed development growth as a result of new development.
 - Rail constitutes 8% of trips to work for the east region, and yet there is no station in the region itself. This highlights the pressure on connecting modes for rail travel. Key rail stations, Etchingham and Staplehurst, will see additional pressure on car parking and station capacity as a result of the new development if existing trip patterns are maintained, with the dominant trip pattern for rail trips to London.
 - Bus alternatives to car access are stronger for the South Eastern Main Line, which Staplehurst is on. However, frequency and coverage from new development sites are still a concern with existing bus network coverage. Access by bus to the Hastings Line is more constrained with a reliance on the link to Wadhurst which is further in distance from the area than Etchingham.
 - Currently, cycling would not be seen as a viable option for most existing and future development trips due both to distances and lack of quality infrastructure and connected network.
 - Walking is strong within town/village centres (currently at 9% of total journey to work mode share) and some new development should be able to take advantage of the existing infrastructure to promote active trips to and from the new sites within the urban areas. However inter settlement walk and cycle trips are limited by the lack of continuous dedicated links and paths for both modes.
 - Frittenden and Benenden Hospital sites are not well served by bus or cycle/walk routes. As such, without improvements, car trips will dominate to and from these proposed sites.

5.3. Tunbridge Wells Borough – Central Region

- 5.3.1. A number of key towns, villages, and local settlements make up the Tunbridge Wells borough central region. The key locations, based around an average density of persons per square kilometre using Census 2017 population updates, have been identified in **Figure 5.8**.

Figure 5-8 – Tunbridge Wells Borough Central Region - Existing Larger Settlements based on Average Density per km (2017 Population)



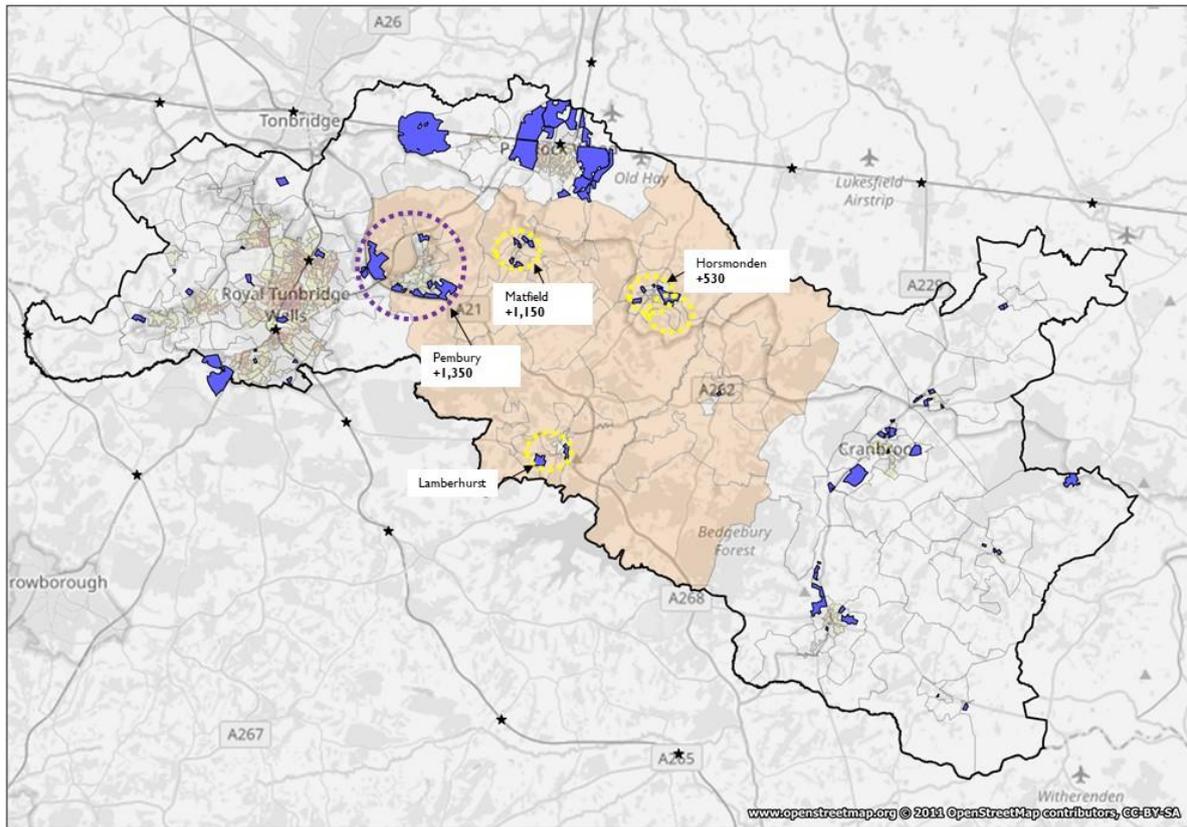
5.3.2. The largest urban area is Pembury. This includes Tunbridge Wells Hospital. Other notable settlements within the central region are Lamberhurst, Goudhurst, and Horsmonden.

5.3.3. Within this context, the Local Plan development strategy is to develop within boundaries of these and other existing urban settlements in the area. As set out in Para 1.5.1, this report was based on provisional information during the formation of the Local Plan. The development locations within this area based on this provisional information are outlined in **Figure 5-9**, although these vary in the Draft Local Plan, the overall numbers in the plan are broadly consistent:

- Pembury 1,350
- Matfield 1,150

- Horsmonden 530

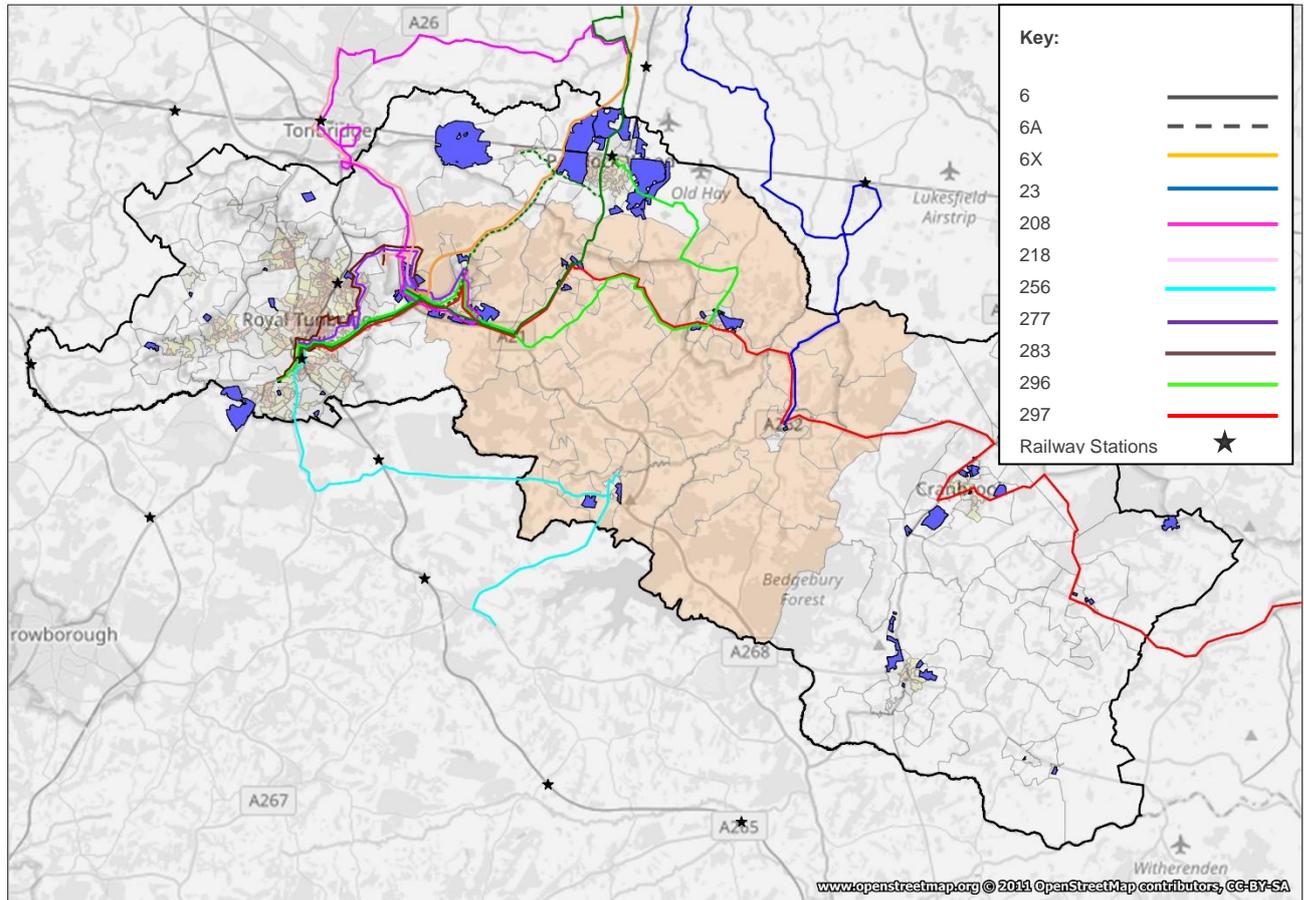
Figure 5-9 – Tunbridge Wells Borough Central Region - New Local Plan Sites



Bus

5.3.4. There are a number of bus routes of varying frequency which serve the central region. Of these, there are considered to be approximately ten primary bus routes which offer the greatest frequency over the whole day. In addition, this assessment has identified bus services that run as route variations to the main routes, mainly during weekdays. The routing of these key routes is illustrated on **Figure 5.10**.

Figure 5-10 – Bus Routings – Tunbridge Wells Borough Central Region

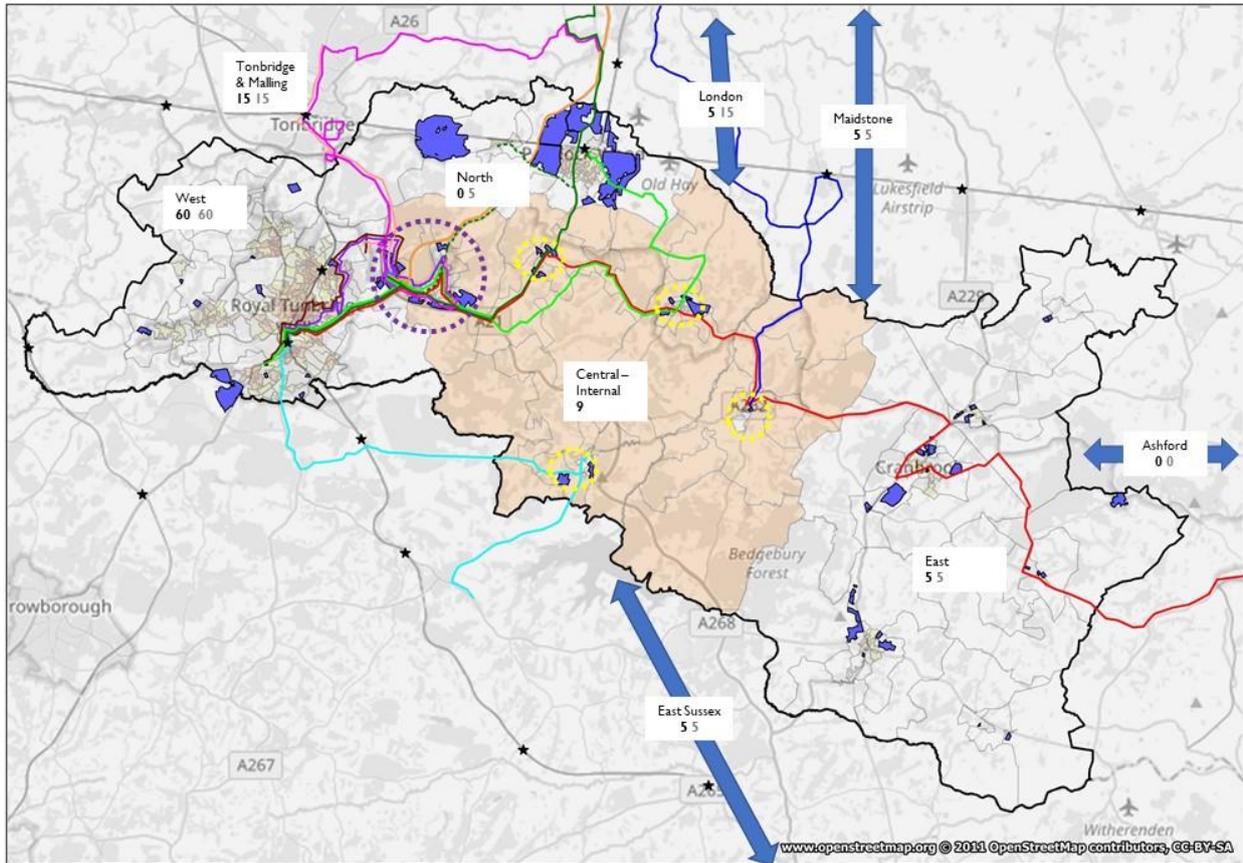


- 5.3.5. Route 6/6A connects between Maidstone and Royal Tunbridge Wells via Pembury, Paddock Wood and East Peckham. The 6A route variation terminates at Hale Street, East Peckham. The route has an average weekday frequency of every 30 minutes, between approximately 7am to 9pm. It runs 7 days a week, though some of the services on Sunday in particular are truncated between Tunbridge Wells Hospital and Royal Tunbridge Wells. The service offers key rail connections to the Hastings Main Line at Tunbridge Wells Central and Paddock Wood station for the South Eastern Main Line. The service is operated by Arriva Kent & Surrey.
- 5.3.6. Route 6X, which is also operated by Arriva Kent & Surrey, connects Tunbridge Wells Hospital with Maidstone Hospital. It runs every 45 minutes, approximately 6am to 9pm Monday to Sundays. However, weekends see reduced service frequency.
- 5.3.7. Route 23, another Arriva Kent & Surrey service, offers a key north south connection through the central region to the east. It links Goudhurst to the South Eastern Main Line

at Marden (15-minute connection time) and Maidstone town. The service operates every 90 minutes on weekdays to Goudhurst, with services Monday to Saturday.

- 5.3.8. Route 208/209 runs from Pembury to Tonbridge with route 208 continuing on north to serve Cage Green, Golden Green, and East Peckham. The route offers direct connections to Tonbridge town centre and railway station. The combined service operates approximately every 30 minutes between Pembury and Tonbridge 9am to 4pm, with additional hourly 208 services in the morning and until 7pm in the evening. There is no Sunday service. It is operated by Autocar Bus and Coach Services Group.
- 5.3.9. Route 218/219 connects Tunbridge Wells Hospital (Pembury) to Cage Green (Tonbridge). Some services start from North Farm business and leisure park before servicing the hospital. Overall the services offer a 30-minute frequency. The service runs Monday to Sunday up to 8pm and is operated by Arriva Kent & Surrey.
- 5.3.10. Route 277 (the Sherwood Shuttle) is a high frequency bus route that connects Tunbridge Wells Hospital (Pembury) to Royal Tunbridge Wells town centre via North Farm business and leisure park. Services runs Monday to Sunday, up to 11pm during weekdays. It is also operated by Arriva Kent & Surrey.
- 5.3.11. Route 283 also offers a 30minute frequency bus route that connects Tunbridge Wells Hospital (Pembury) to Royal Tunbridge Wells town centre via North Farm business and leisure park. This service runs Monday to Saturday, 9pm to 5pm and is operated by Go Coachhire.
- 5.3.12. Route 296 offers a 120-minute frequency between 9pm and 3pm that connects Paddock Wood to Royal Tunbridge Wells via Horsmonden and Pembury. It is operated by Autocar Bus and Coach Services Group. It does not run on Sundays.
- 5.3.13. Route 297 runs east west through the centre of the central region. The route connects from Tenterden in Ashford District to Royal Tunbridge Wells via Cranbrook, Horsmonden, and Pembury. It offers a direct connection from Cranbrook, and via a short walk from Sissinghurst, a direct connection to Royal Tunbridge Wells town centre. The service operates approximately every 90 minutes from 7am to 7pm, with no Sunday service. It is operated by Renown Group.
- 5.3.14. The trip demand for bus as the primary mode is shown in **Figure 5.11** (based on Census data). The map highlights that the key bus corridors for trips within the central region, are trips between Royal Tunbridge Wells, Tondridge, Maidstone, and East Sussex/Hastings. The map also highlights that total bus trip demand for trips to work for the central region is 210. This equates to a 2% mode share for bus trips to and from work in this region of the borough.

Figure 5-11 Tunbridge Wells Borough Central Region – Bus Trip Demand and Distribution



5.3.15. There a number of additional bus services that serve the region on a low frequency basis. These services offer links for school children to schools in Royal Tunbridge Wells and Tonbridge, as well as bus services to market towns that depart once a week. The services are summarised in **Table 5.3**.

Reg. office:
Sweco UK Limited
Grove House
Mansion Gate Drive
Leeds, LS7 4DN

+44 20 3002 1210
www.sweco.co.uk
Reg.no 2888385

Sweco
Lector Court
151-153 Farringdon Road
London EC1R 3AF

Table 5-3 – Tunbridge Wells Borough Central Region – Low Frequency Bus Services

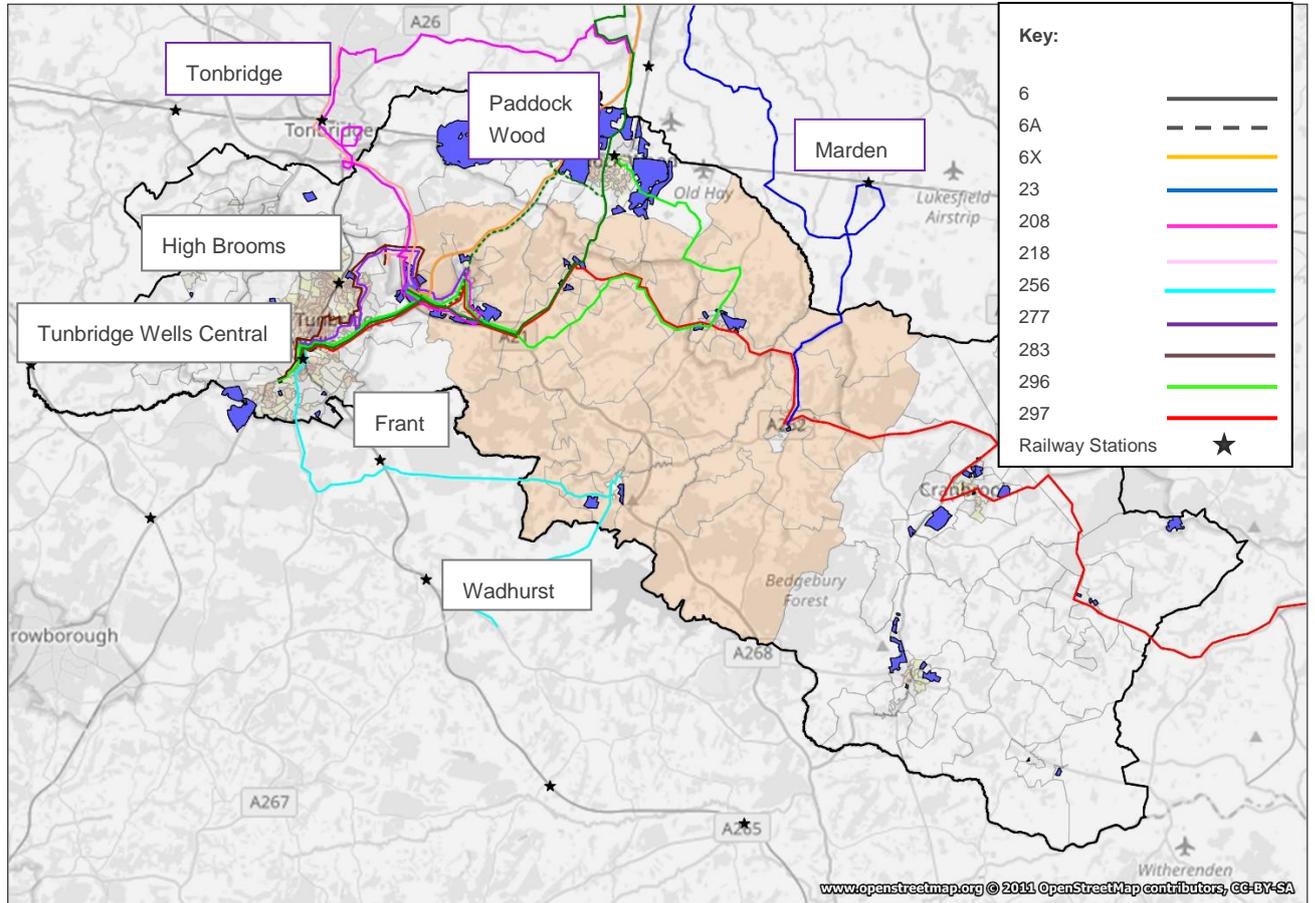
Route	Operator	Route	Operating Days
3	Hams Travel	Lamberhurst - Pembury - Tonbridge Hillview School	Schooldays
4	Hams Travel	Weald Of Kent School - Tunbridge Wells - Lamberhurst - Flimwell	Schooldays
4	Brookline	Aylesford - Leybourne - Kings Hill - East Peckham - Bennett Memorial School	Schooldays
209	Autocar Bus & Coach Services	Pembury - Tonbridge	Weekdays
255	Autocar Bus & Coach Services	Benenden - Hawkhurst - Lamberhurst - Pembury - Tunbridge Wells	Schooldays and Friday services
258	Hams Travel	Bells Yew Green - Lamberhurst - Kilndown - Uplands Community College	Schooldays
266	Autocar Bus & Coach Services	Kilndown - Lamberhurst - Wateringbury - Maidstone	Tuesday only
267	Hams Travel	Hawkhurst - Cranbrook - Goudhurst - Paddock Wood - Tunbridge Wells Boys' Grammar	Schooldays
268	Hams Travel	Hawkhurst - Cranbrook - Goudhurst - Paddock Wood - Tonbridge Schools	Schooldays
287	Autocar Bus & Coach Services	Mascalls School - Pembury - Tunbridge Wells	Schooldays
293	Hams Travel	Tunbridge Wells - Lamberhurst - Hawkhurst - Rolvenden - Tenterden	Thursday only
299	Hams Travel	Tonbridge - Pembury - Lamberhurst - Hawkhurst - Tenterden	Friday only
TWM	Hams Travel	Mascalls School - Pembury - Tunbridge Wells	Schooldays

Rail

5.3.16. There are no rail stations within this region of Tunbridge Wells. However, there are stations on the Hastings Line and the South Eastern Main Line nearby. Overall, the rail mode share for this area is 10% (931). This is the highest mode share for any of the non-car modes in the central region. Of these trips, 83% of trips connect to and from London. Of the remaining rail demand, Tonbridge and Malling is a key destination (2%).

5.3.17. The key stations for the central region are outlined in **Figure 5.12**.

Figure 5-12 – Tunbridge Wells Borough Central Region – Key Railway Stations



5.3.18. A high-level analysis of rail provision in the area is summarised in **Table 5.4**.

Table 5-4 – Tunbridge Wells Borough Central Region – Key Railway Station Data

Station	Main Line	ORR Demand 2017/2018	Bicycle Parking	Parking Spaces	AM Peak to London (Train per hour)	Fastest (mins)	Slowest (mins)
High Brooms	Hastings Line	1,224,846	20	52	6	48	59
Tunbridge Wells Central	Hastings Line	3,679,224	118	297	6	52	63
Frant	Hastings Line	139,768	12	109	3	58	74
Wadhurst	Hastings Line	397,214	20	318	4	62	68
Tonbridge	South Eastern Main Line	4,391,184	220	716	9	33	40
Paddock Wood	South Eastern Main Line	1,181,218	96	481	6	41	49
Marden	South Eastern Main Line	540,068	10	177	6	47	55

- 5.3.19. The station with the highest rail demand in this region is Tonbridge (circa. 4.4 million), located on the South Eastern Main Line, followed by Tunbridge Wells Central (circa. 3.7 million), on the Hastings Line.
- 5.3.20. **Table 5.4.** shows that the stations with the highest level of car parking spaces are at Tonbridge, Paddock Wood, and Wadhurst. This suggests the majority of rail trips from the Central Region will connect to rail on the South Eastern Main Line, but that the Hastings Line will attract trips from the southern side of Tunbridge Wells borough at Wadhurst.
- 5.3.21. Bus rail connectivity is strong in Pembury. Routes 6/6A, 296, and 297 (20 minutes journey time with a combined frequency of every 20-30 minutes) offer all day connectivity to Tunbridge Wells Central station. Route 6/6A also offers a connection to Paddock Wood station. Route 208 connects Pembury to Tonbridge Station, with route 218 also offering a similar connection albeit from the periphery of the town from Tunbridge Wells Hospital.
- 5.3.22. Matfield is served by Route 6 and Route 297. This means good bus connections to Paddock Wood (10 minutes journey time with buses every 60 minutes) and Tunbridge Wells (40 minutes journey time with buses every 30 - 60 minutes). Services operate between 7am and 7pm.
- 5.3.23. Brenchley and Horsmonden are connected to Paddock Wood by Route 296 (20 – 25 minutes journey time, but bus services are limited to off peak) and Route 297 to Tunbridge

Wells Central (30 – 35 minutes journey time with a frequency of every 90 minutes, 7am to 7pm).

- 5.3.24. Goudhurst is connected to Marden Station by Route 23 (15 minutes journey time, but bus services are limited to a frequency of every 120 minutes) and Route 297 to Tunbridge Wells Central (50 minutes journey time, with a frequency of every 90 minutes, 7am to 7pm).
- 5.3.25. Lamberhurst is connected by Route 256 (frequency of one bus every 120 minutes) to both Frant Station (15 minutes journey time) and to Tunbridge Wells Central (30 minutes journey time). The service runs 7am to 6pm.

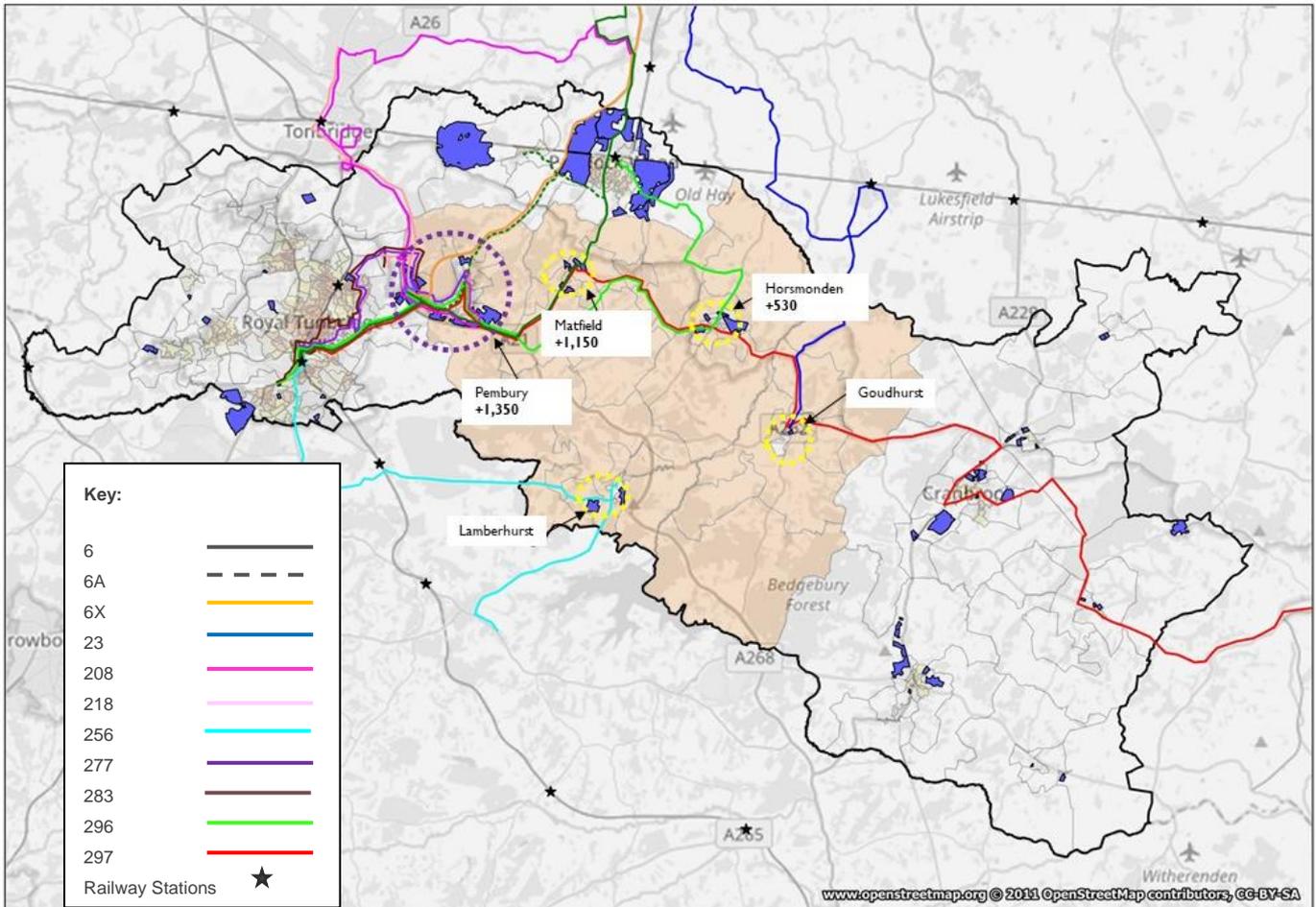
Cycling and Walking

- 5.3.26. Coverage of cycling and walking trips in the central region are limited mainly by the geographic constraints involving long distances between larger settlements, but also as a result of a lack of suitable infrastructure in the area.
- 5.3.27. A total of 5% (458) trips are being made on foot in the central region. This is more than double the bus trips for this area. The trips are likely to be focused in and around the main urban settlements, in particular Pembury. This is aided by a network of pavements and a number of services within a short walk distance from people’s homes, as well as access to Tunbridge Wells Hospital. However, from a high-level review of existing footpaths next to major roads in the area it does not appear that there is a coherent network of footpaths between settlements.
- 5.3.28. Only 1% (83) are made by bicycle. This low mode share is likely to be driven by accessibility issues whereby roads don’t afford cyclists dedicated space or reduce the speed of vehicles sharing the road. The only signed cycle route through the region is the National Cycle Network Route 18. This affords some sections of off-road cycling, in particular linking Pembury and Tunbridge Wells Hospital to Royal Tunbridge Wells. The cycle connection between Pembury and Royal Tunbridge Wells is approximately 6km, 25 minutes. Though cycle rail connection times and distances are similar from Matfield / Brenchley / Horsmonden to Paddock Wood station, there is limited dedicated cycle infrastructure to support these trips by bicycle.

Key Findings from Baseline Review – Tunbridge Wells Borough Central Region

- 5.3.29. The preceding information has been related back to the new development locations. This section outlines potential limitations and opportunities for connecting new development locations to sustainable transport in the central region.
- 5.3.30. **Figure 5.13** shows that all of the development site locations proposed are on, or within walking distances, of existing bus corridors.

Figure 5-13 – Tunbridge Wells Borough Central Region – Baseline Map - Location of New Development within Existing Bus and Rail Network



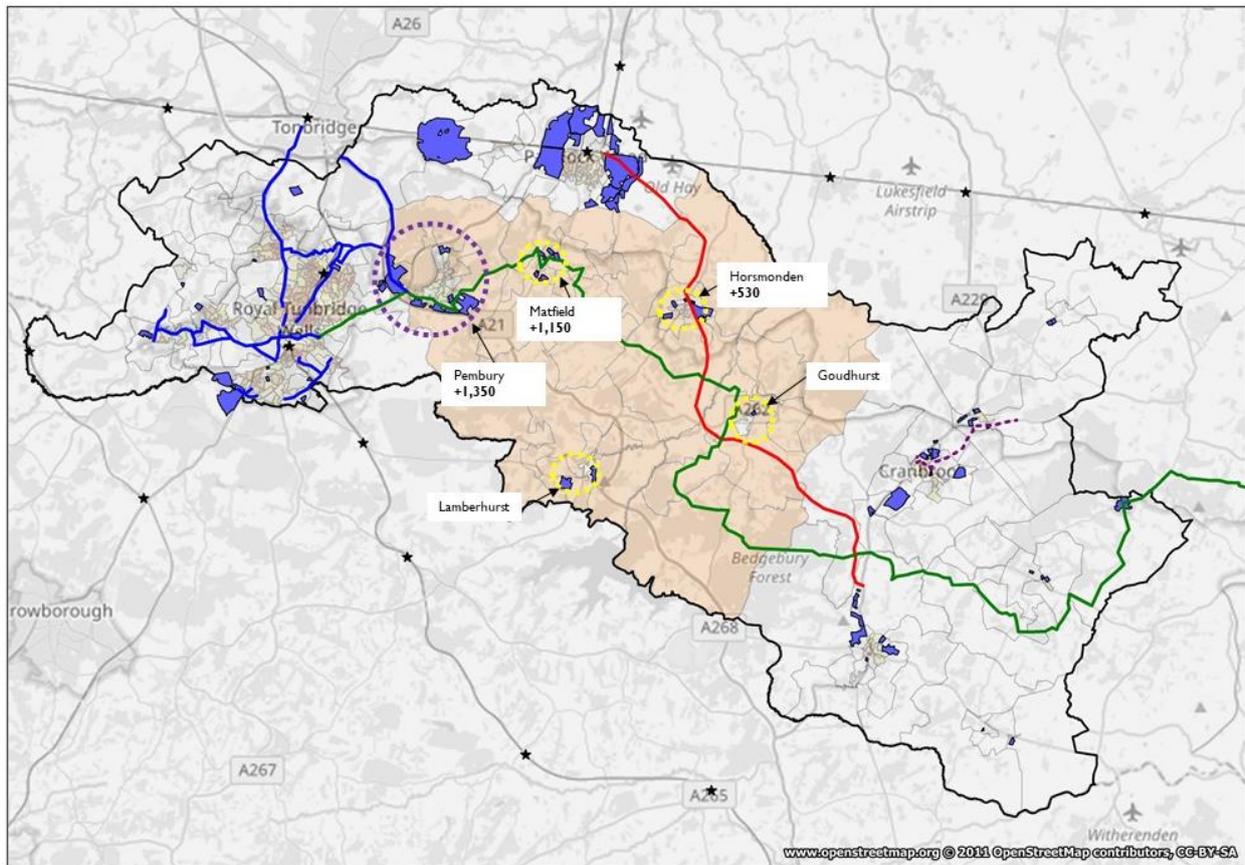
- 5.3.31. Pembury is served by a number of bus services which offer connections to key local urban settlements including Royal Tunbridge Wells, Tonbridge, and Paddock Wood. These bus links also offer onward rail connections, primarily to London. The current issue for the area in relation to bus services is operating hours and frequency on some routes. The majority of bus services finish around 7pm in the evening, with many not running on Sundays. Tunbridge Wells hospital offers strong bus connections throughout the day, but this site is on the periphery of Pembury town centre. There are also bus priority issues on Pembury Road towards Royal Tunbridge Wells town centre and on local links towards Tonbridge Station.
- 5.3.32. Matfield is served by routes 6 and 297. These offer connections to key local urban settlements including Royal Tunbridge Wells, Pembury/Tunbridge Wells Hospital, and

Paddock Wood. These bus links also offer onward rail connections, primarily to London, from Paddock Wood and Royal Tunbridge Wells. The frequency of these routes is approximately every 60 minutes with bus services finishing around 9pm in the evening. Both routes do not run on Sunday through the area. There are some localised congestion issues in Matfield and these routes are also affected by the wider priority issues are on Pembury Road towards Royal Tunbridge Wells.

- 5.3.33. Horsmonden is served by routes 296 and 297. These offer connections to key local urban settlements including Royal Tunbridge Wells, Pembury/Tunbridge Wells Hospital, and Paddock Wood as well as rail connections, primarily to London, from Paddock Wood and Royal Tunbridge Wells. However, these services are infrequent with buses only every 90/120 minutes and services finishing around 7pm. In particular, route 296 only runs a limited frequency in off peak hours with only 3 departures a day on weekdays. Both routes do not run on Sunday through the area. In general, the local congestion issues are limited however, there is a long bus journey time for bus users to connect to Royal Tunbridge Wells, approximately 20 minutes slower than an equivalent car journey. The area also lacks direct bus links to Tonbridge.
- 5.3.34. Goudhurst is served by routes 23 and 297. These offer connections to key local urban settlements including Royal Tunbridge Wells, Pembury/Tunbridge Wells Hospital, and Maidstone. These bus links also offer onward rail connections, primarily to London, from Marden (15 minutes bus journey time to connect) and Tunbridge Wells (60 minutes bus journey time to connect). The current issue for the area in relation to bus services is operating hours and frequency. The combined frequency is approximately every 60 minutes with bus services finishing around 7pm. Both routes do not run on Sunday through the area. In general, the local congestion issues are limited. However, there is a long bus journey time for bus users to connect to Royal Tunbridge Wells at 60 minutes, approximately 35 minutes slower than an equivalent car trip. The area also lacks direct bus links to Paddock Wood and Tonbridge.
- 5.3.35. Lamberhurst is to the south of central Tunbridge Wells borough and is served by route 256 which provides connections to Royal Tunbridge Wells. This bus route also offers onward rail connections, primarily to London, from Frant (15 minutes bus journey time to connect) and Tunbridge Wells (30 minutes bus journey time to connect). There are currently only 6 departures a day, and services end around 7pm. The route does not run on Sunday. Local congestion on the A21 makes the alternative corridor attractive to use to access Royal Tunbridge Wells, leading to delays on Frant Road that affects bus access. The area lacks direct bus links to Pembury, Paddock Wood, and Tonbridge.
- 5.3.36. Overall the primary settlement areas in the central region are all served by bus but the quality of bus corridors that serve them varies. Pembury is currently in the strongest position to offer bus as a viable alternative to car use from any new development. However, any new development demand could potentially allow bus operators to run additional services during the day and into the evening on all bus corridors. Furthermore, with the high demand for rail to London in the area, and with bus routes already linking to these rail corridors, it is expected that increased rail demand will also further increase new bus demand in the area.

5.3.37. **Figure 5.14** outlines the current and proposed cycle routes from TWBC cycle strategy. It can be seen that Goudhurst, Matfield, and Pembury are located on the existing NCN route 18. However, this section is on road and is unlikely currently to attract a significant number of cycle trips from new developments. The NCN route 18 does however offer an opportunity for cycle trips to connect from new developments at Pembury to Royal Tunbridge Wells town centre and station via the off road link on Pembury Road.

Figure 5-14 – Tunbridge Wells Borough Central Region – Baseline Map - Location of New Development in Relation to Cycling Network



5.3.38. The additional cycle routes proposed by TWBC in their Cycling Strategy offer the possibility to connect Pembury to local employment and leisure at North Farm, whilst also offering connections to Tonbridge. However, Tonbridge connections will be reliant on Tonbridge and Malling council completing the route.

5.3.39. Horsmonden is located on the proposed Hop Pickers cycle corridor. This would offer a key link to Paddock Wood. The distance of approximately 5km makes this connection

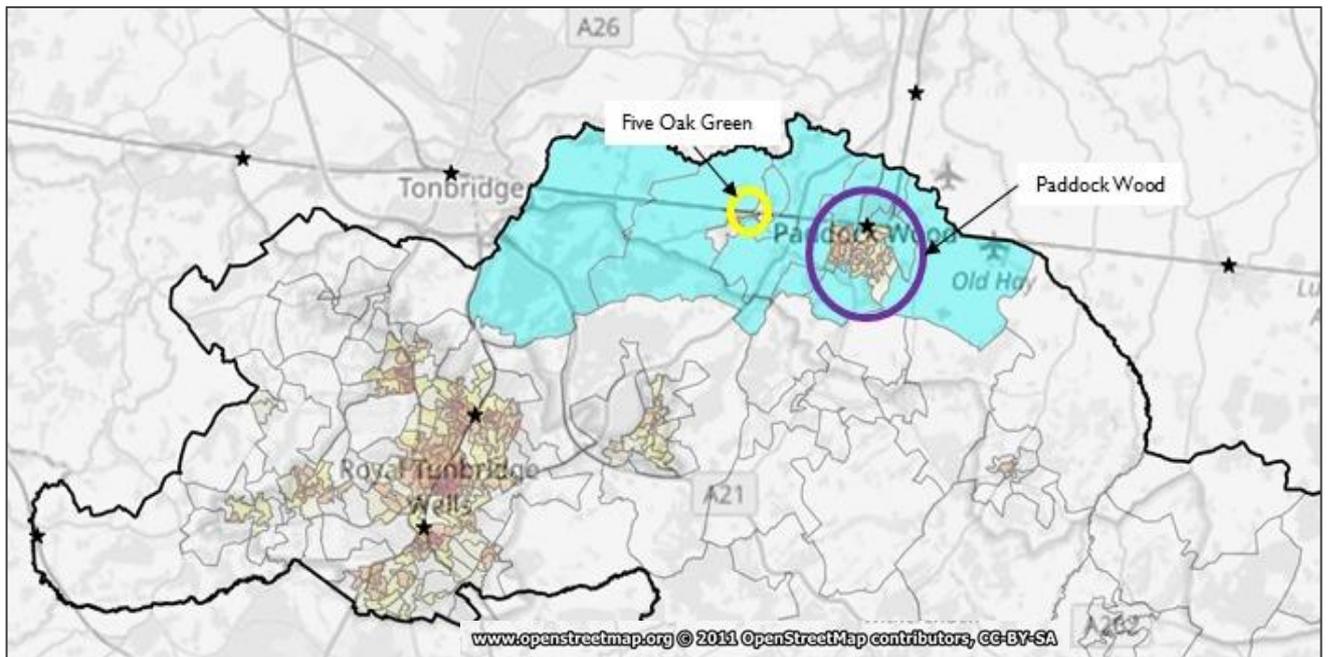
potentially cyclable and offers a potential link to local employment, education, retail, and rail connections. The town would still not have direct cycle links to Pembury.

- 5.3.40. Lamberhurst is not located on an existing or proposed cycle corridor. In addition, all the towns identified are limited in offering safe walk and cycle links between them due to their localised nature.
- 5.3.41. Rail parking may come under increased pressure as a result of trips from new developments. Wadhurst station does have direct a bus connection, and so is likely to attract more car-based rail connection trips due to any new development in the south of Tunbridge Wells borough. Pembury, Horsmonden, Goudhurst, and Matfield all offer bus connections to the closest rail station. However, due to bus journey times, frequency, and operating hour shortfalls it is likely that many trips from new developments in the area are most likely to connect by car, thus putting more strain on existing rail car parking supply.
- 5.3.42. In summary, the baseline analysis has identified the following issues that require review for the central region in relation to integrating the new development sites:
- At only 2% mode share for the region, bus services will need to have frequency and priority improvements to make it a viable option for people in existing and new developments.
 - Pembury and Tunbridge Wells Hospital offers a significant bus hub for the area. Any additional bus schemes should reinforce the importance of this location, allowing local services to interchange and offer wider onward connections.
 - North South bus links to Paddock Wood and Maidstone are thinly spread and may need greater coordination with local bus, walk, and cycle links to increase patronage for bus on these links from new developments in the area
 - Rail constitutes a significant 10% mode share of trips to work for this region, despite there being no station in the region itself. This highlights that it is likely most of the 'first mile'/'last mile' based in this part of Tunbridge Wells borough are undertaken by car. Any new developments are likely to follow the same patterns unless changes are made to improve sustainable mode connections to rail.
 - This also highlights the pressure on rail car parking and station capacity as a result of the new development if existing trip patterns are maintained, with the dominant trip pattern for rail trips to London.
 - Currently, cycling would be seen as not viable for most existing and future development trips due both to distances and a lack of a quality network.
 - Walking is strong within town/village centres (currently at 5% of total journey to work mode share) and some new development should be able to take advantage of this set up to promote active trips. However inter-urban settlement walk and cycle trips are limited by the lack of continuous dedicated links and paths for both modes.

5.4. Tunbridge Wells Borough – North

5.4.1. A number of key towns, villages, and local settlements make up Tunbridge Wells borough north region. The key locations, based around an average density of persons per kilometre using Census 2017 population updates, have been identified in **Figure 5.15**.

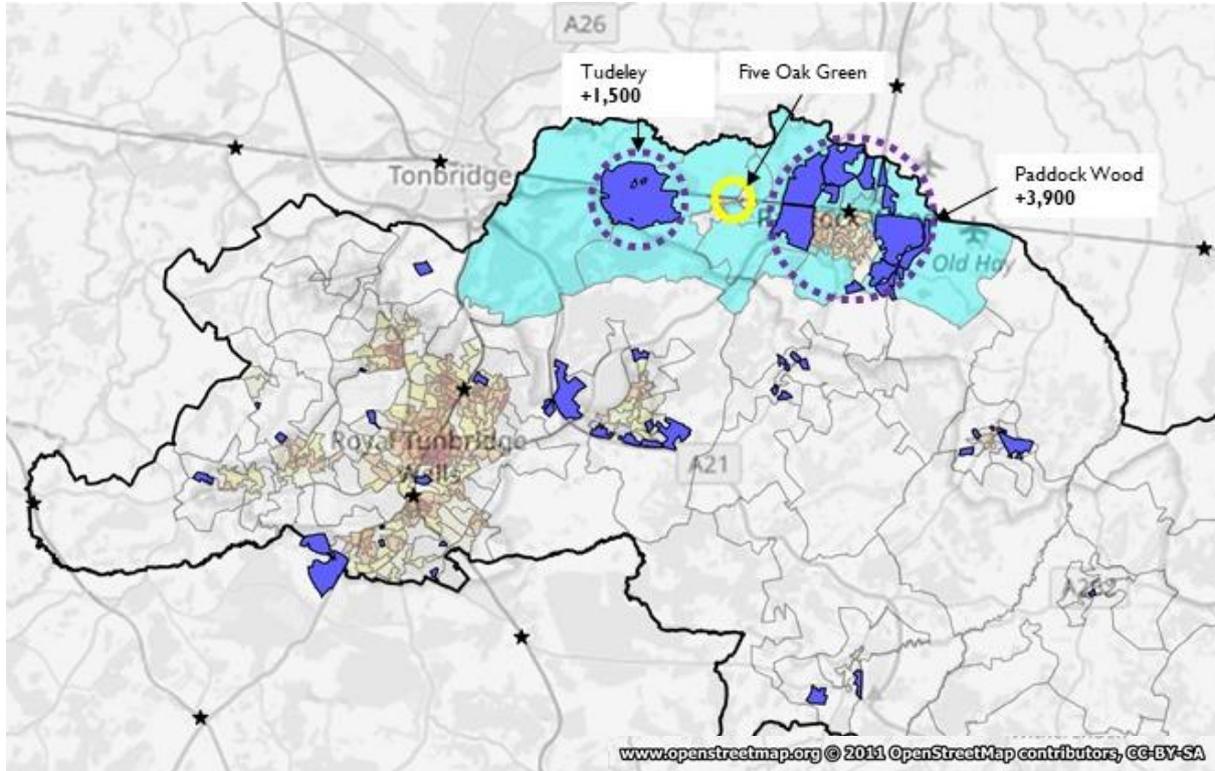
Figure 5-15 Tunbridge Wells Borough North Region - Existing Larger Urban Settlements based on Average Density per square km (2017 Population)



5.4.2. The largest urban area is Paddock Wood. The other larger urban settlement is Five Oak Green, which is located on the B2017 that links Paddock Wood to Tonbridge. As set out in Para 1.5.1, this report was based on provisional information during the formation of the Local Plan. The development locations within this area based on this provisional information are outlined in Figure 5-16, although these vary slightly in the Draft Local Plan, the overall numbers in the plan are broadly consistent:

- Paddock Wood 3,900
- New Development Area at Tudeley 2,800

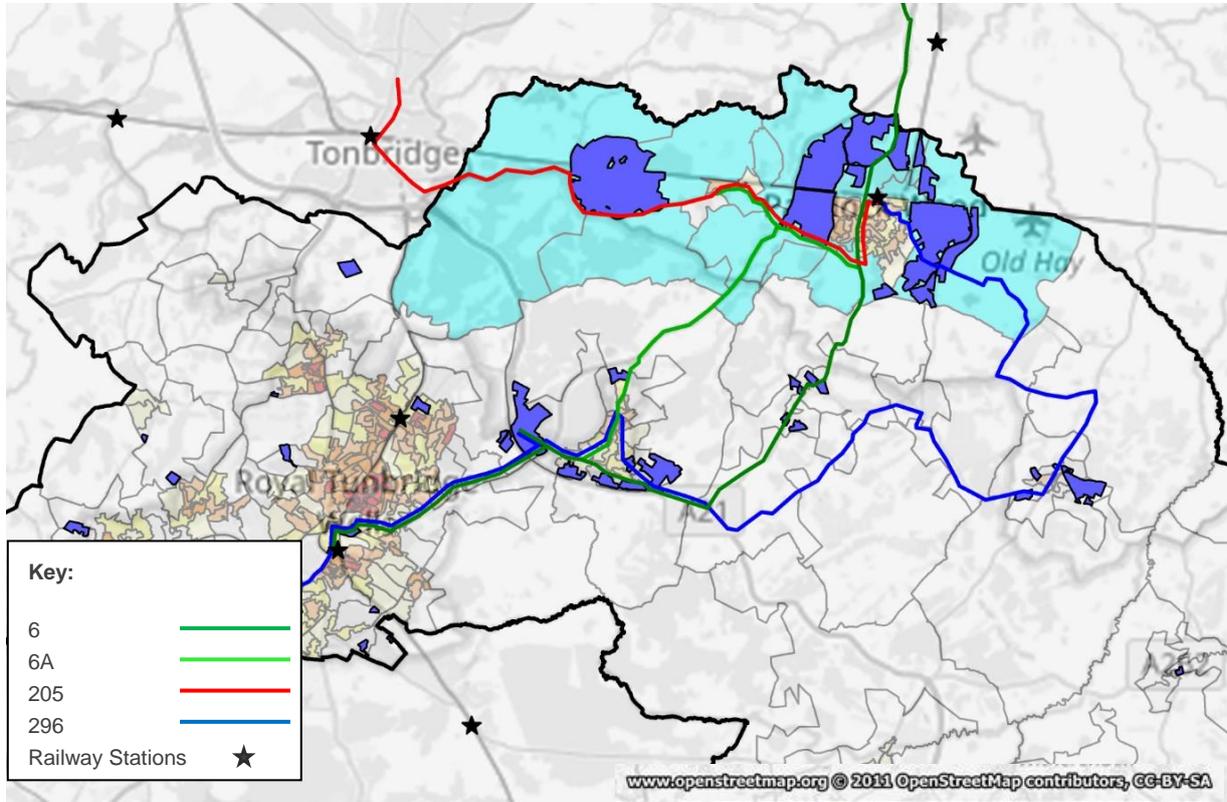
Figure 5-16 Tunbridge Wells Borough North Region – New Local Plan Development Sites



Bus

5.4.3. There are a number of bus routes of varying frequency which serve Tunbridge Wells borough north region. Of these, there are considered to be approximately four primary bus routes which offer the greatest frequency over the whole day. The routing of these key routes is illustrated on **Figure 5.17**.

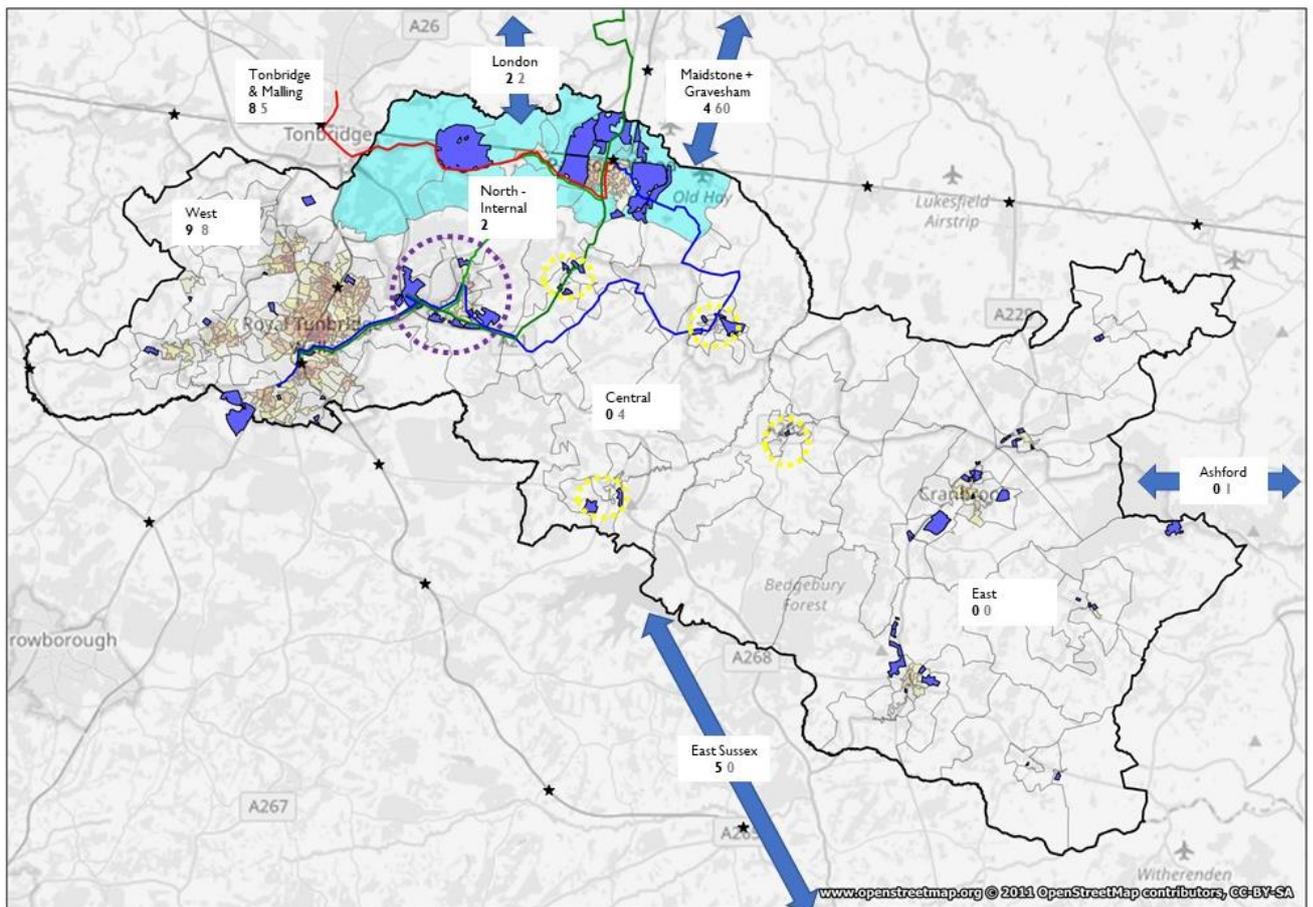
Figure 5-17 Bus Routings –Tunbridge Wells Borough North Region



- 5.4.4. Route 6/6A connects, operated by Arriva Kent & Surrey, between Maidstone and Royal Tunbridge Wells via Pembury, Tunbridge Wells Hospital, and East Peckham. The 6A route variation terminates at Hale Street, East Peckham. The route runs on average every 30 minutes on weekdays, approximately 7am to 7pm. The route runs 7 days a week, though some of the services on Sunday in particular are truncated between Tunbridge Wells Hospital and Tunbridge Wells and so do not service Paddock Wood. The service offers key connections to two core towns in the county, Royal Tunbridge Wells and Maidstone.
- 5.4.5. Route 205 runs from Paddock Wood to Tonbridge through Five Oak Green. The route offers direct connection to Tonbridge town centre and railway station up until 5pm, with truncated services between Paddock Wood and Five Oak Green 5pm to 7pm. The service operates approximately every 60 minutes 9am to 5pm, with additional service departures in the morning and until 7pm. There is no Sunday service. It is operated by Autocar Bus and Coach Services Group.
- 5.4.6. Route 296 offers a 120-minute frequency between 9pm and 3pm that connects Paddock Wood to Tunbridge Wells via Horsmonden and Pembury. It is operated by Autocar Bus and Coach Services Group and does not run on Sundays.

5.4.7. The summary of trip demand by bus as the primary mode is shown in **Figure 5.18** (Census 2011) The map highlights that the key bus corridors for trips within the north region, are trips between Royal Tunbridge Wells, Tondridge, Maidstone and East Sussex/Hastings. The map also highlights that total bus trip demand for trips to work for this region is 114. This equates to a 2% mode share for bus trips to and from work in this region.

Figure 5-18 Tunbridge Wells Borough North Region – Bus Trip Demand and Distribution



5.4.8. There a number of additional bus services that serve the region on a low frequency basis. The services are summarised in **Table 5.5**. The bus services offer links for school children to schools in Royal Tunbridge Wells and Tonbridge, as well as bus services to market towns that depart once a week.

Table 5-5 – Tunbridge Wells Borough North Region – Low Frequency Bus Services

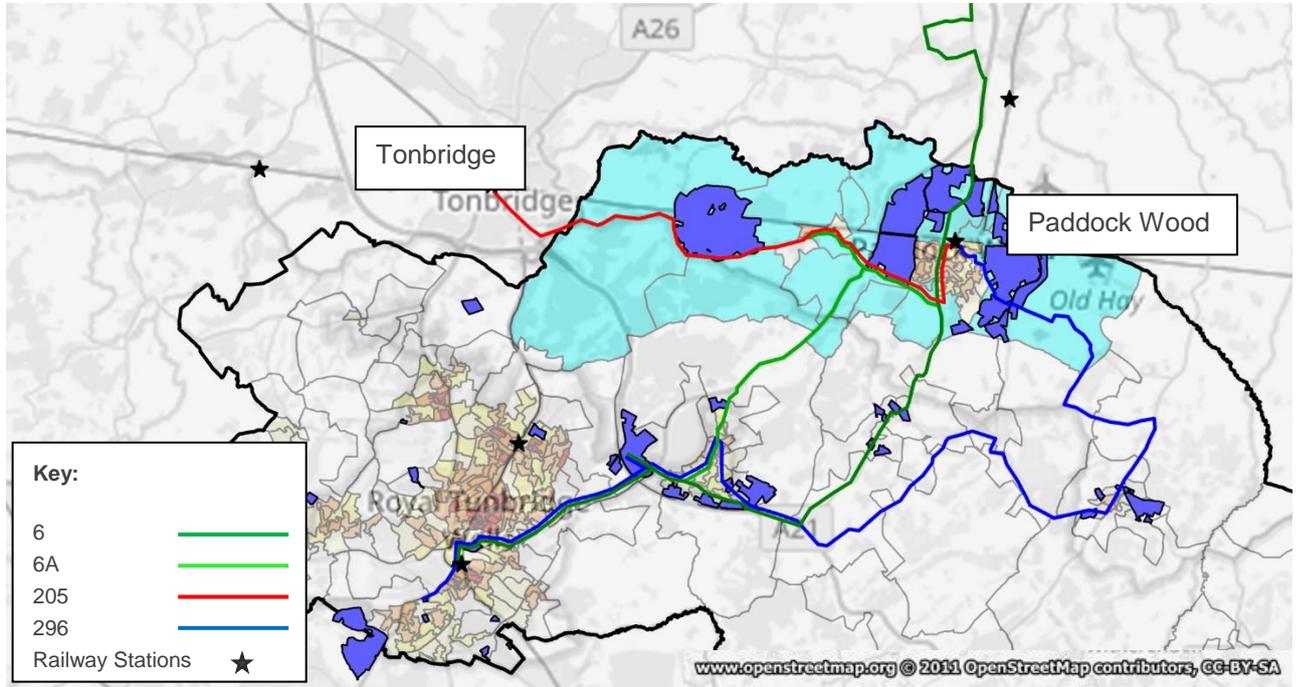
Route	Operator	Route	Operating Days
203	Autocar Bus & Coach Services	Benover - Yalding - Paddock Wood	Wednesday only
207	Autocar Bus & Coach Services	Claygate - Paddock Wood - Five Oak Green - Tudeley - Tonbridge - Tunbridge Wells	Schooldays
215	Autocar Bus & Coach Services	Aylesford - Ditton - West Malling - Kings Hill - Mascalls School	Schooldays
267	Hams Travel	Hawkhurst - Cranbrook - Goudhurst - Paddock Wood - Tunbridge Wells Boys' Grammar	Schooldays
268	Hams Travel	Hawkhurst - Cranbrook - Goudhurst - Paddock Wood - Tunbridge Schools	Schooldays
287	Autocar Bus & Coach Services	Mascalls School - Pembury - Tunbridge Wells	Schooldays
506	Nu-Venture	Maidstone - East Peckham - Paddock Wood - Five Oak Green	Schooldays
TWM	Hams Travel	Mascalls School - Pembury - Tunbridge Wells	Schooldays
HRC S2	WKN Coaches	East Peckham - Tonbridge - Hadlow Rural Community School	Schooldays

Rail

5.4.9. Paddock Wood rail station directly links the north region to Tonbridge, London, and Ashford. There is also an hourly rail service that connects to Maidstone and Medway (Strood). There is no direct rail service to the Hastings Line and consequently Royal Tunbridge Wells, with a need to interchange at Tonbridge. Overall, the rail mode share for area is 12% (890). This is the highest mode share for any of the non-car modes in the north region. Of these trips, 83% of trips connect to and from London. Of the remaining rail demand, Tonbridge and Malling is a key destination (2%).

5.4.10. The key stations for the region are outlined in **Figure 5.19**.

Figure 5-19 Tunbridge Wells Borough North Region – Key Railway Stations



5.4.11. A high-level analysis of rail provision in the area is summarised in **Table 5.6**.

Table 5-6 – Tunbridge Wells Borough Central Region – Key Railway Station Data

Station	Main Line	ORR Demand 2017/2018	Bicycle Parking	Parking Spaces	AM Peak to London (Train per hour)	Fastest (mins)	Slowest (mins)
Tonbridge	South Eastern Main Line	4,391,184	220	716	9	33	40
Paddock Wood	South Eastern Main Line	1,181,218	96	481	6	41	49

5.4.12. The station with the highest demand in this region is Tonbridge (circa. 4.4 million), located on the South Eastern Main Line, followed by Paddock Wood (circa. 1.2 million). Tonbridge offers 3 additional train services to London in the peak hour. As a result, it is likely that some catchment to the west of Paddock Wood, such as Five Oak Green, will connect to rail at Tonbridge.

- 5.4.13. **Table 5.6** shows that the rail stations with the most car parking spaces are Tonbridge and Paddock Wood. Paddock Wood is likely to have a rail park and ride catchment into Tonbridge and Malling, as well as the central and east regions of Tunbridge Wells borough. Most development within Paddock Wood appears to be within a 20-minute walk radius, suggesting car mode share to rail should be low from the immediate area surrounding the station.
- 5.4.14. Bus services offer wider connectivity to Paddock Wood Station with approximately hourly services from Pembury, Colts Hill, and Matfield via route 6/6A. Route 205 offers a connection from intermediate developments to the west of Paddock Wood such as Five Oak Green and Tudeley to either Paddock Wood or Tonbridge stations. However, given the frequency of 30-60 minutes, and bus services ending around 6-7pm bus the level of bus trips will be limited. Route 296 offers a low frequency link to Horsmonden and Brenchley but the demand for this bus link is likely to be limited due to the low number of departures on this service.
- 5.4.15. Based on the location of other stations and connectivity across Tunbridge Wells borough, it is expected that the main areas that connect to Paddock Wood by car are Horsmonden and Brenchley to the south, and Five Oak Green and Tudeley to the west.
- 5.4.16. The railway line acts as a division within the urban area of Paddock Wood, between the majority of the settlement containing the town centre and residential areas to the south, and the key employment areas at Eldon Way and Transfesa Road, (providing light industrial (B1), general industry (B2) and storage or distribution (B8) floorspace) to the north, with a pocket of residential use situated along Maidstone Road.

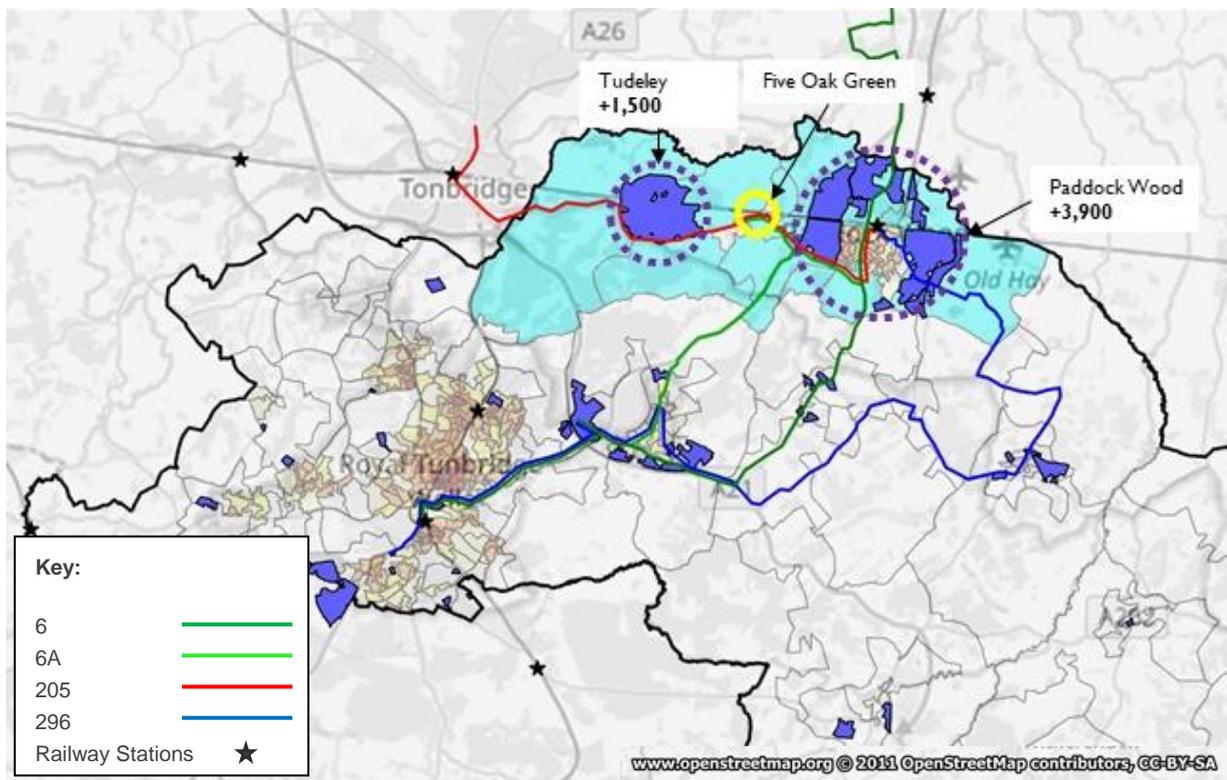
Cycling and Walking

- 5.4.17. Cycling and walking opportunities in the north region are limited mainly by the geographic constraints involving long distances between larger settlements, but also as a result of a lack of suitable infrastructure.
- 5.4.18. A total of 7% (522) trips are being made on foot in the region, which is over three times the bus trips for the region. The trips are likely to be focused in and around Paddock Wood, with good footpaths and a number of services and employment hubs within a short walk distance from people's homes. In addition, wider connectivity by foot is offered by Paddock Wood Station. From a high-level review of existing footpaths next to major roads in the area there does not appear to be a coherent network of footpaths between settlements.
- 5.4.19. Only 1% (78) are made by bicycle. This low mode share is likely to be driven by accessibility issues whereby roads don't afford cyclists dedicated space or reduce the speed of vehicles sharing the road. Existing plans in TWBC Cycle Strategy highlight a potential new orbital cycle route for Paddock Wood, and a new long-distance cycle corridor (Hop Pickers Link) between Paddock Wood and east Tunbridge Wells borough (Cranbrook/Hartley). These routes would most likely encourage more cycle trips into Paddock Wood and also connect with rail at the local station.

Key Findings from Baseline Review – Tunbridge Wells Borough North Region

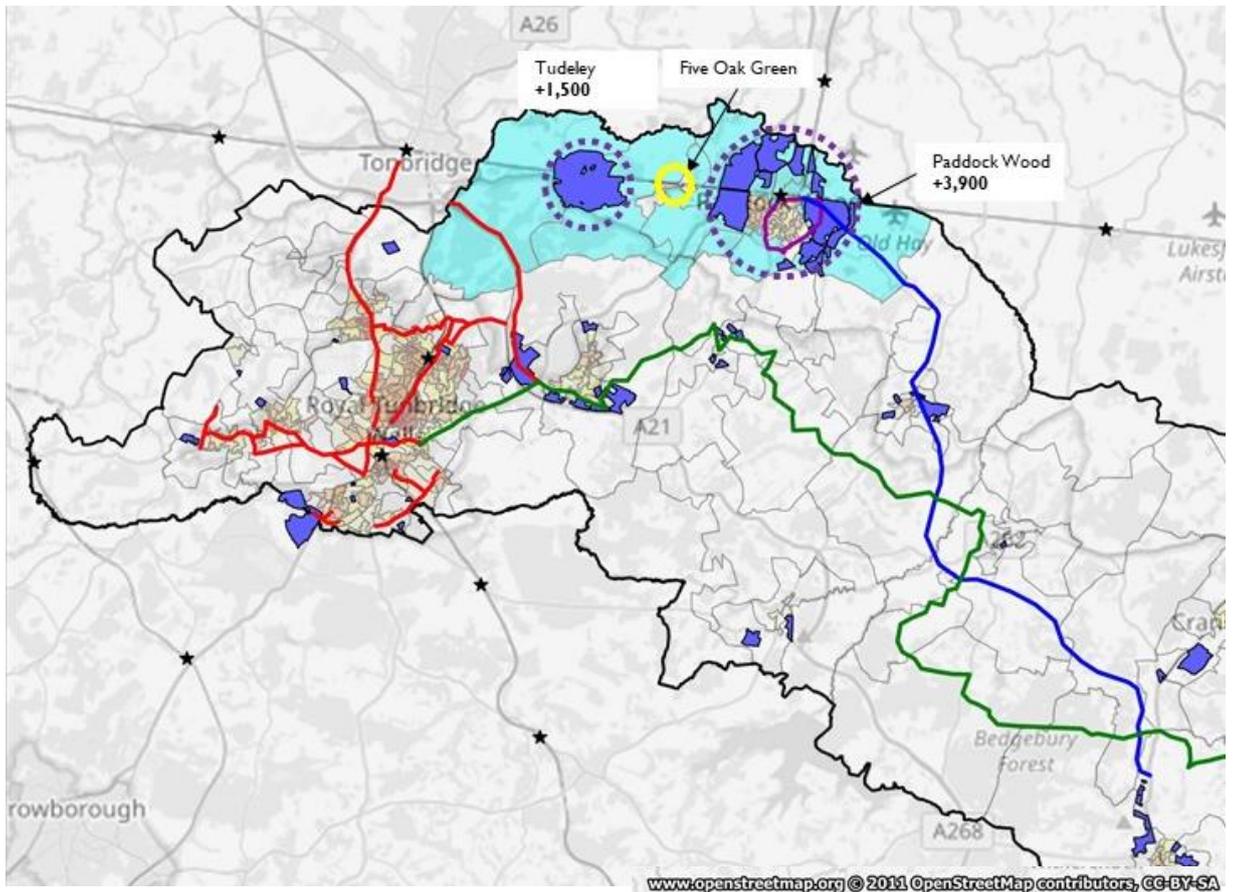
- 5.4.20. The preceding information has been related back to the new development locations. This section outlines potential limitations and opportunities for connecting new developments to sustainable transport in the region.
- 5.4.21. **Figure 5.20** shows that all of the new development site locations proposed are on, or within walking distances, of existing bus corridors.

Figure 5-20 Tunbridge Wells Borough North Region – Baseline Map - Location of New Developments in Relation to Existing Bus and Rail Networks



- 5.4.22. Paddock Wood is served by four bus services. These offer connections to key local urban settlements including Royal Tunbridge Wells, Tonbridge, Maidstone, and Pembury. The current issue for the area in relation to bus services is operating hours and frequency on some routes. The majority of bus services finish around 7pm in the evening, with many not running on Sundays. Existing bus frequencies and coverage are not of a scale to offer a sufficient level of service to new developments at Paddock Wood and Tudeley.
- 5.4.23. The corridor between Paddock Wood and Tonbridge (B2017) is served by route 205 which offers a limited service. The bus service stops linking to Tonbridge from 5pm and does not operate on Sundays.
- 5.4.24. Overall new developments in this region will require wide ranging bus network improvements if they are to be served by high quality bus services. Any new trip demand is likely to overwhelm the existing bus network given the significant increase in the number of homes proposed.
- 5.4.25. The area has limited direct public transport links to Royal Tunbridge Wells, with no direct rail link. Only route 6/6A offers direct bus links but its journey time is impacted by route variations and traffic congestion on key corridors in the area, in particular the A21/A264 junction on Pembury Road.
- 5.4.26. Rail parking may come under increased pressure as a result of trips from new developments and limited alternative mode connectivity from Tudeley and even peripheral areas of Paddock Wood. Existing rail connectivity by bus is limited due to bus journey time, frequency, and operating hour shortfalls. It is likely that many trips from new developments in the area are likely to connect by car under existing conditions, thus putting more strain on existing rail park and ride space supply.
- 5.4.27. **Figure 5.21** outlines the current and proposed cycle routes from TWBC cycle strategy. The existing strategy will improve cycling connectivity within Paddock Wood and trips to and from Horsmonden. However, the new development at Tudeley was not proposed at the time of development of the Cycling Strategy so is not within any current cycling infrastructure plans. However, the LCWIP that is being prepared will support all Local Plan site allocations to maximise active mode share from these new developments.
- 5.4.28. Paddock Wood does currently offer good walking connectivity to the station but if developments are built outside of the current 20-minute walk radius alternative modes will need to be identified to connect to rail at Paddock Wood Station.

Figure 5-21 Tunbridge Wells Borough North Region – Baseline Map - Location of New Development in Relation to Cycling Network



5.4.29. In summary, the baseline analysis has identified the following issues that require review for the north region in relation to integrating new development sites:

- At only 2% mode share for the region, bus service coverage will need to see significant improvements, especially in access to new development sites, to make it a viable option for people in existing and new developments.
- The East West link between Paddock Wood and Tonbridge is likely to become a key corridor to upgrade with public transport interventions to support new developments in the area. New developments are likely to seek quick frequent access to both Tonbridge and Paddock Wood stations, as well as Maidstone. Additional consideration will need to be given to how Royal Tunbridge Wells should be connected into the area by public transport.
- Rail constitutes a significant 12% mode share of trips to work for this region, with much of the demand focused on Paddock Wood. Though existing Paddock Wood rail trips are

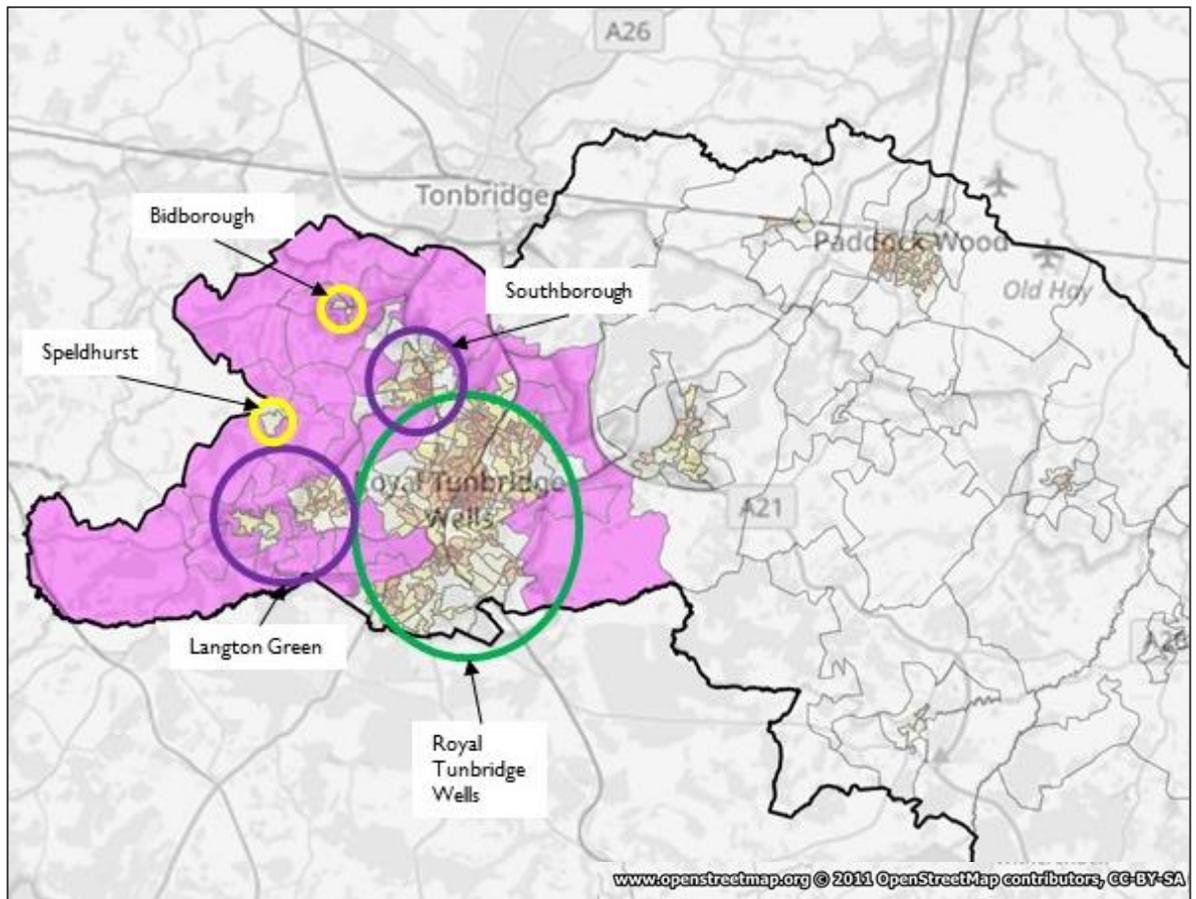
identified as likely to connect to services on foot, the wider local catchment area for 'first mile/last mile' connections to the station suggests the majority of these trips are most likely to be made by car.

- Any new developments which are outside the walk radius of Paddock Wood Station or Tonbridge Station are likely to follow the same patterns unless changes are made to improve sustainable mode connections to rail. This also highlights the pressure on car parking and station capacity as a result of new development if existing trip patterns are maintained, with the dominant trip pattern for rail trips to London.
- Currently, cycling would be seen as not viable for most existing and future development trips due both to distances and lack of quality networks.
- The railway line acts as a division within the urban area of Paddock Wood, between the town centre and residential areas to the south, and the Key Employment Areas at Eldon Way and Transfesa Road to the north, with a pocket of residential use situated along Maidstone Road.
- Walking currently represents 7% of the total journey to work mode share, most likely mainly with Paddock Wood itself. It is anticipated that some new development sites would replicate this modal share and be able to promote active trips. However, there is a lack of continuous dedicated footpaths for both walking and cycling in many areas and as such, new active mode links should be of particular consideration for developments north and west of Paddock wood, as well as the new development at Tudeley.

5.5. Tunbridge Wells borough – West (Royal Tunbridge Wells Urban Area)

5.5.1. A number of key towns, villages, and local settlements make up Royal Tunbridge Wells urban area. The key locations, based around an average density of persons per kilometre using Census 2017 population updates, have been identified in **Figure 5.22**.

Figure 5-22 Royal Tunbridge Wells Urban Area - Existing Larger Urban Settlements based on Average Density per square km (2017 Population)



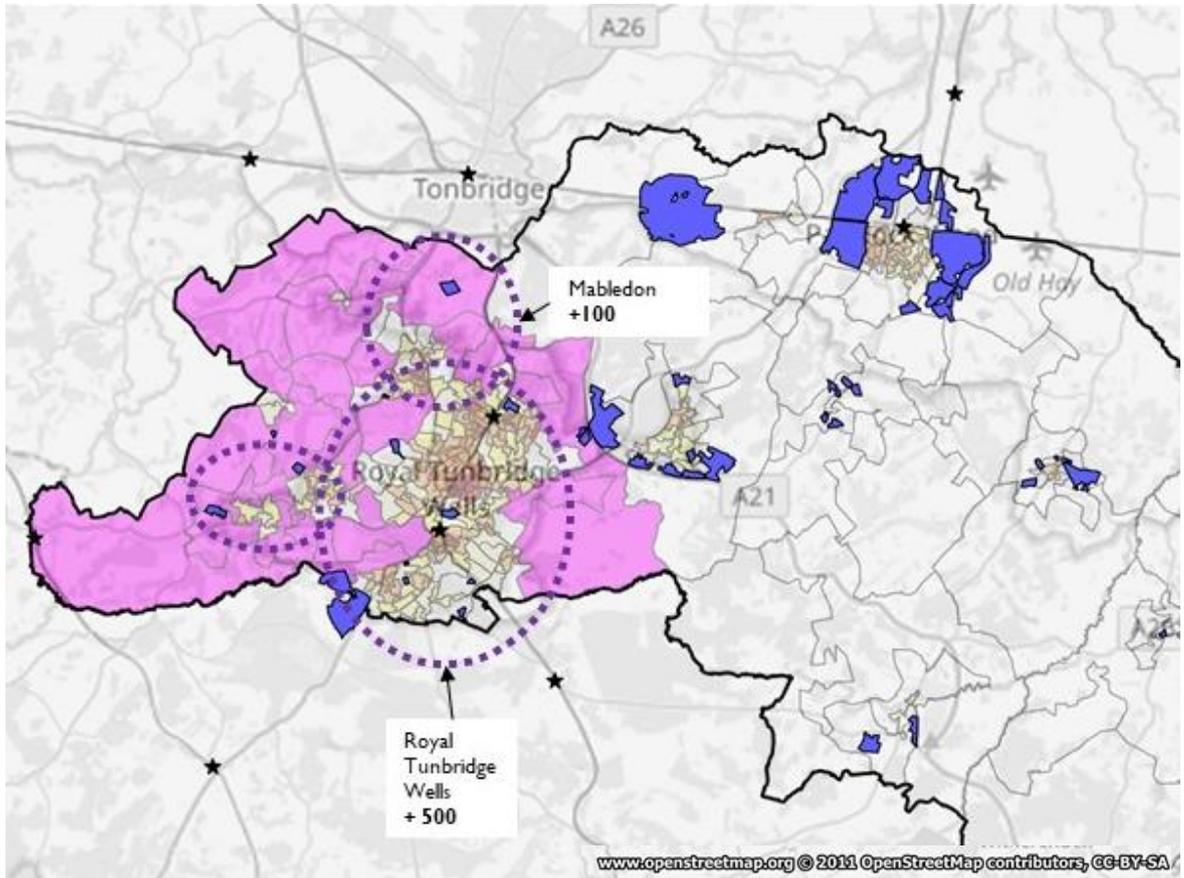
5.5.2. The Royal Tunbridge Wells urban area is made up of the town of Royal Tunbridge Wells, the urban extensions of Langton Green and Southborough, as well as smaller urban settlements of Speldhurst and Bidborough.

5.5.3. As set out in Para 1.5.1, this report was based on provisional information during the formation of the Local Plan. The development locations within this area based on this provisional information are outlined in **Figure 5-23**, although these vary in the Draft Local Plan, the overall numbers in the plan are broadly consistent:

- Southborough 1,300

- Royal Tunbridge Wells 500

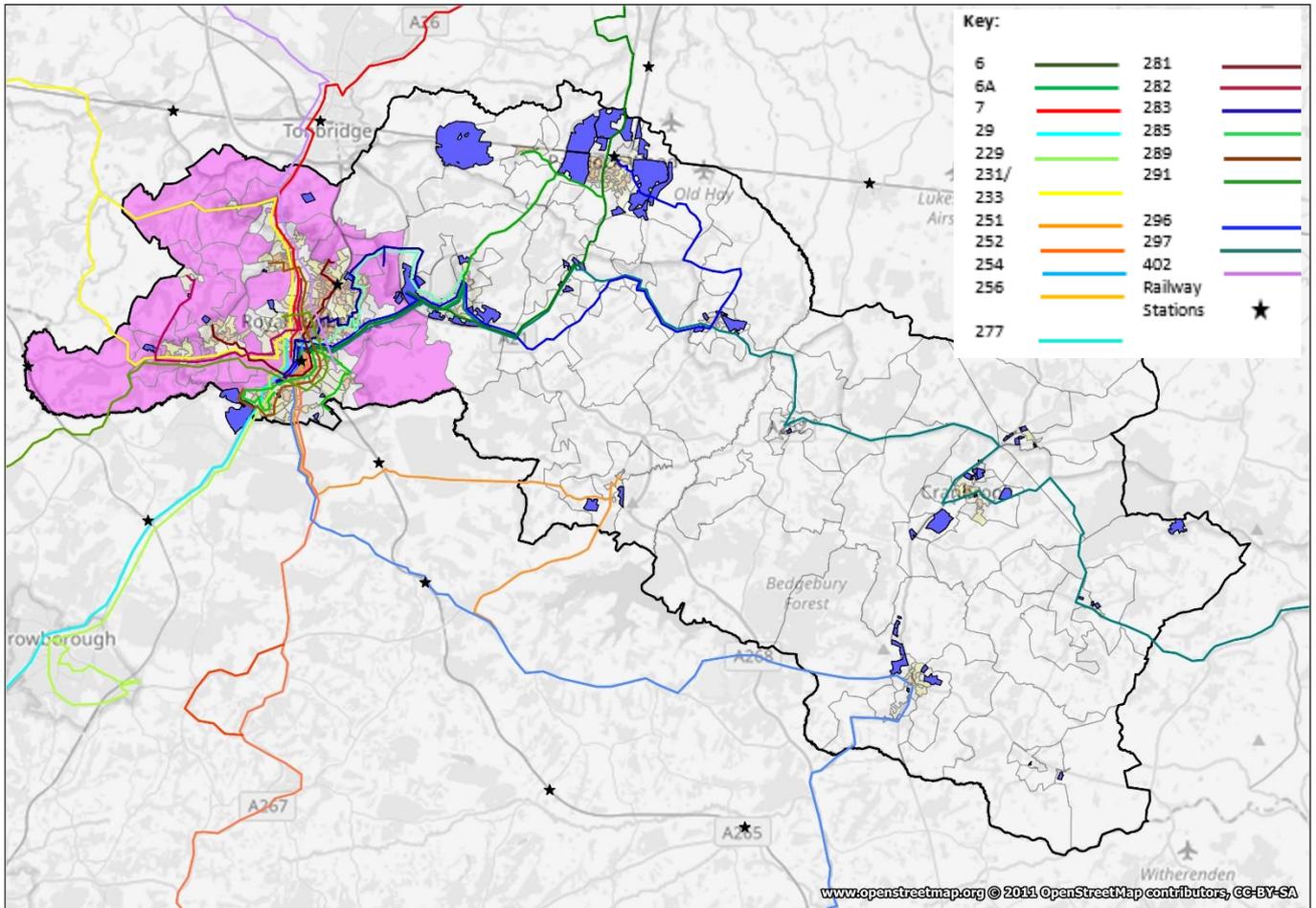
Figure 5-23 Royal Tunbridge Wells Urban Area – New Local Plan Development Sites



Bus

5.5.4. There are a large number of bus routes of varying frequency which serve the Royal Tunbridge Wells urban area. Of these, there are considered to be approximately 20 primary bus routes which offer the greatest frequency over the whole day. In addition, this study has identified bus services that run as route variations to the main routes, mainly during weekdays. The routing of these key routes is illustrated on **Figure 5.24**. The key destinations and frequency of the routes are identified in **Table 5.7**.

Figure 5-24 Bus Routings – Royal Tunbridge Wells Urban Area



Reg. office:
 Sweco UK Limited
 Grove House
 Mansion Gate Drive
 Leeds, LS7 4DN

+44 20 3002 1210
 www.sweco.co.uk
 Reg.no 2888385

Sweco
 Lector Court
 151-153 Farringdon Road
 London EC1R 3AF

Table 5-7 – Tunbridge Wells Borough North Region – High Frequency Bus Services

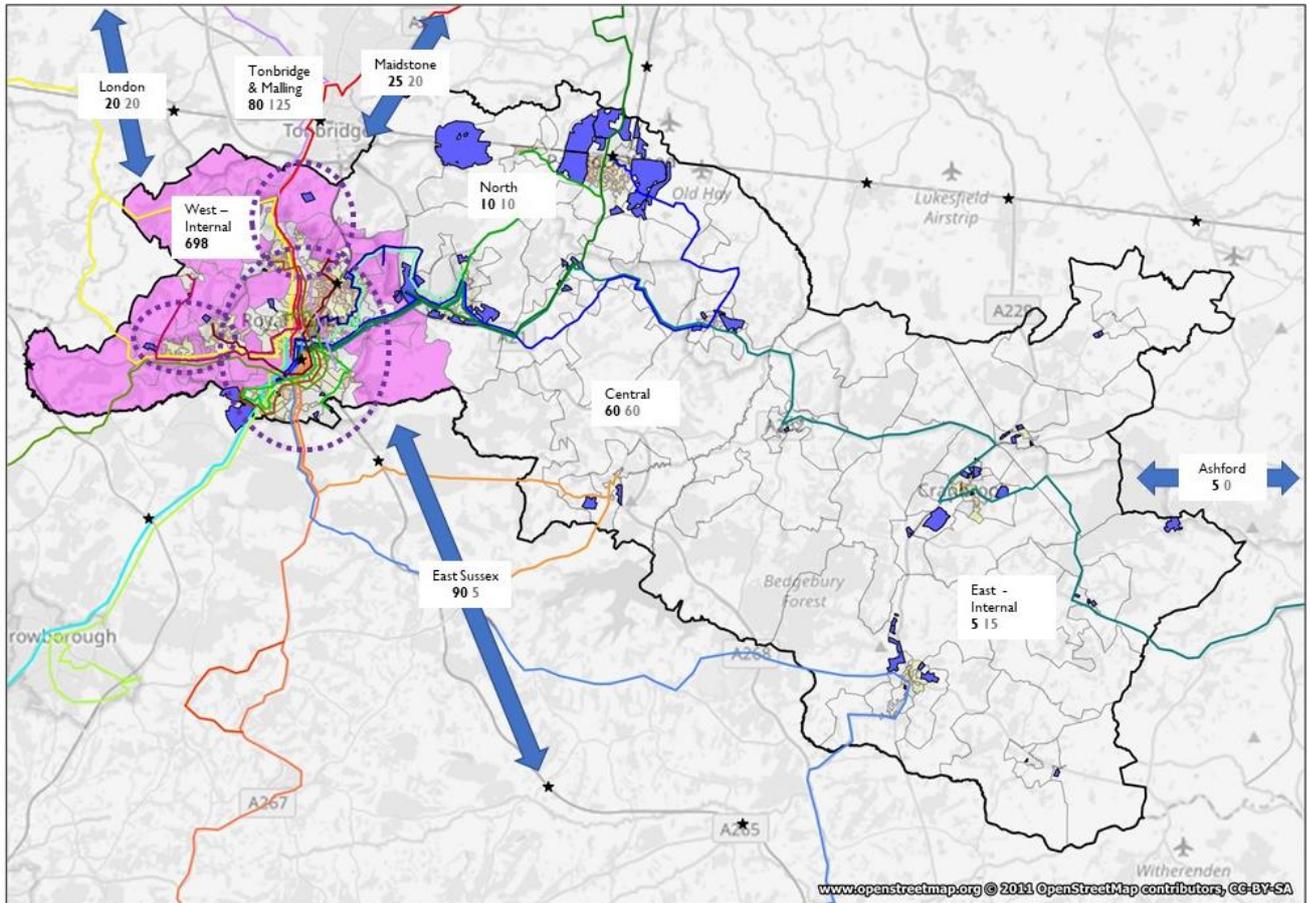
Route	Operator	Route Summary	Operating Days	Weekday Headway (mins)	Type
6	Arriva Kent & Surrey	Tunbridge Wells - Pembury - Paddock Wood - East Peckham - Maidstone	Everyday	60	Inter-urban
6a	Arriva Kent & Surrey	Tunbridge Wells - Pembury - Paddock Wood - East Peckham - Hale Street, Church Lane	Except Sunday	60	Inter-urban
7	Arriva Kent & Surrey	Tunbridge Wells - Tonbridge - Hadlow – Mereworth - Maidstone	Everyday	20	Inter-urban
29	Brighton & Hove Bus and Coach Company	Tunbridge Wells - Lewes - Uckfield – Crowborough - Brighton	Everyday	30	Inter-urban
229	Compass Travel	Tunbridge Wells - Crowborough - Alderbrook – Crowborough - Tunbridge Wells	Except Sunday	90	Inter-urban
231	Metrobus	Tunbridge Wells - Penshurst - Edenbridge	Except Sunday	180	Inter-urban
233	Metrobus	Tunbridge Wells - Penshurst - Edenbridge	Except Sunday	180	Inter-urban
251	Stagecoach in Eastbourne	Tunbridge Wells - Mayfield - Heathfield	Except Sunday	60	Inter-urban

Route	Operator	Route Summary	Operating Days	Weekday Headway (mins)	Type
252	Stagecoach in Eastbourne	Tunbridge Wells - Mayfield - Heathfield	Everyday	60	Inter-urban
254	Stagecoach in Eastbourne	Tunbridge Wells - Wadhurst - Hawkhurst (connection to Hastings)	Except Sunday	60	Inter-urban
256	Autocar Bus & Coach Services	Tunbridge Wells - Lamberhurst - Wadhurst	Weekdays only	90	Inter-urban
277	Arriva Kent & Surrey	Tunbridge Wells - Sherwood - Knights Park - The Tunbridge Wells Hospital	Everyday	20	Local
281	Arriva Kent & Surrey	High Brooms - Tunbridge Wells - Rusthall	Everyday	15	Local
282	Nu-Venture	Tunbridge Wells - Speldhurst	Weekdays only	90	Local
283	Go-Coachhire	Tunbridge Wells - Sherwood - Pembury Hospital	Except Sunday	30	Local
285	Nu-Venture	Speldhurst - Tunbridge Wells - Hawkenbury	Except Sunday	30	Local
289	Go-Coachhire	Southborough - Tunbridge Wells - Ramslye	Except Sunday	30	Local
291	Metrobus	Tunbridge Wells - East Grinstead - Crawley	Everyday	60	Inter-urban

Route	Operator	Route Summary	Operating Days	Weekday Headway (mins)	Type
296	Autocar Bus & Coach Services	Tunbridge Wells - Horsmonden – Pembury - Paddock Wood	Except Sunday	120	Inter-urban
297	Hams Travel	Tunbridge Wells - Rolvenden - Cranbrook – Goudhurst - Tenterden	Except Sunday	90	Inter-urban
402	Arriva Kent & Surrey	Tunbridge Wells - Tonbridge - Sevenoaks	Everyday	20	Inter-urban

- 5.5.5. Southborough, to the north of the Royal Tunbridge Wells urban area, is primarily served by Route 7 and Route 402. Their combined daytime frequency is a bus every 10 minutes, with links to Royal Tunbridge Wells and Tonbridge.
- 5.5.6. The south of Royal Tunbridge Wells urban area, around Broadwater Down off the A26, is served by several bus routes. This includes local bus routes 285 and 289, as well as bus routes that link to Crowborough and beyond on the A26. These routes are Route 29 and Route 229. Overall there is a high frequency bus connection from the area to Royal Tunbridge Wells town centre.
- 5.5.7. On average, the station and War Memorial bus stops are served by over 20 buses per hour in the peak hour. This may be contributing to local congestion issues as buses pull in and out of stops and in so doing, affect wider journey time and reliability. Bus priority measures may be required in the future to mitigate against any further increase in number of buses serving Royal Tunbridge Wells from any new development.
- 5.5.8. The summary of trip demand for bus as the primary mode is shown in **Figure 5.25** (Census). The map highlights that the key bus corridors for trips within the Royal Tunbridge Wells urban region, are between London, Tonbridge, Maidstone and East Sussex/Hastings. The map also highlights that total bus trip demand for trips to work for the region is 1,314. This equates to a 3% mode share for bus trips to and from work in the region.

Figure 5-25 Royal Tunbridge Wells Urban Area – Bus Trip Demand and Distribution



5.5.9. There are a significant number of additional bus services that serve the region on a low frequency basis. These services are summarised in **Table 5.8**. They primarily offer links for school children to schools in Royal Tunbridge Wells and Tonbridge. They also allow people from smaller urban settlements in the wider rural area to connect to Royal Tunbridge Wells.

Table 5-8 – Royal Tunbridge Wells Urban Area – Low Frequency Bus Services

Route	Operator	Route	Operating Days
1	Hams Travel	Langton Green - Tunbridge Wells - Tonbridge Hillview School	Schooldays
3	Hams Travel	Lamberhurst - Pembury - Tonbridge Hillview School	Schooldays
4	Hams Travel	Weald Of Kent School - Tunbridge Wells - Lamberhurst - Flimwell	Schooldays
23	National Express	London - Bexhill	Everyday
77	Nu-Venture	West Malling - Kings Hill - Mereworth - Tonbridge	Schooldays
147	Arriva Kent & Surrey	West Malling - Kings Hill - Mereworth - Tonbridge	Schooldays
207	Autocar Bus & Coach Services	Paddock Wood - Five Oak Green - Tudeley - Tonbridge	Schooldays
222	Autocar Bus & Coach Services	Tunbridge Wells - Tonbridge - Shipbourne - Borough Green - Wrotham	Weekdays only
228	Compass Travel	Tunbridge Wells - Crowborough - Alderbrook - Crowborough - Tunbridge Wells	Except Sunday
230	Autocar Bus & Coach Services	Tunbridge Wells - Penshurst - Tonbridge Weald of Kent School	Schooldays
234	Go Coachhire	Edenbridge - Hever - Cowden - Tunbridge Wells	Except Sunday
235	Autocar Bus & Coach Services	Tunbridge Wells - Penshurst - Leigh - Hildenborough Station	Schooldays
237	Go Coachhire	Chiddingstone - Penshurst - Tunbridge Wells	Schooldays
255	Autocar Bus & Coach Services	Benenden - Hawkhurst - Lamberhurst - Pembury - Tunbridge Wells	Schooldays and Friday services
257	Arriva Kent & Surrey	Hawkenbury - Tunbridge Wells Boys' Grammar School	Schooldays
267	Hams Travel	Hawkhurst - Cranbrook - Goudhurst - Paddock Wood - Tunbridge Wells Boys' Grammar	Schooldays
280	Go Coachhire	Molyneux Park - Tunbridge Wells	Except Sunday
280	Metrobus	Tunbridge Wells - Molyneux Park	Schooldays
286	Arriva Kent & Surrey	Colemans Hatch - Hartfield - Groombridge - Speldhurst - Tunbridge Wells	Schooldays
287	Autocar Bus & Coach Services	Mascalls School - Pembury - Tunbridge Wells	Schooldays

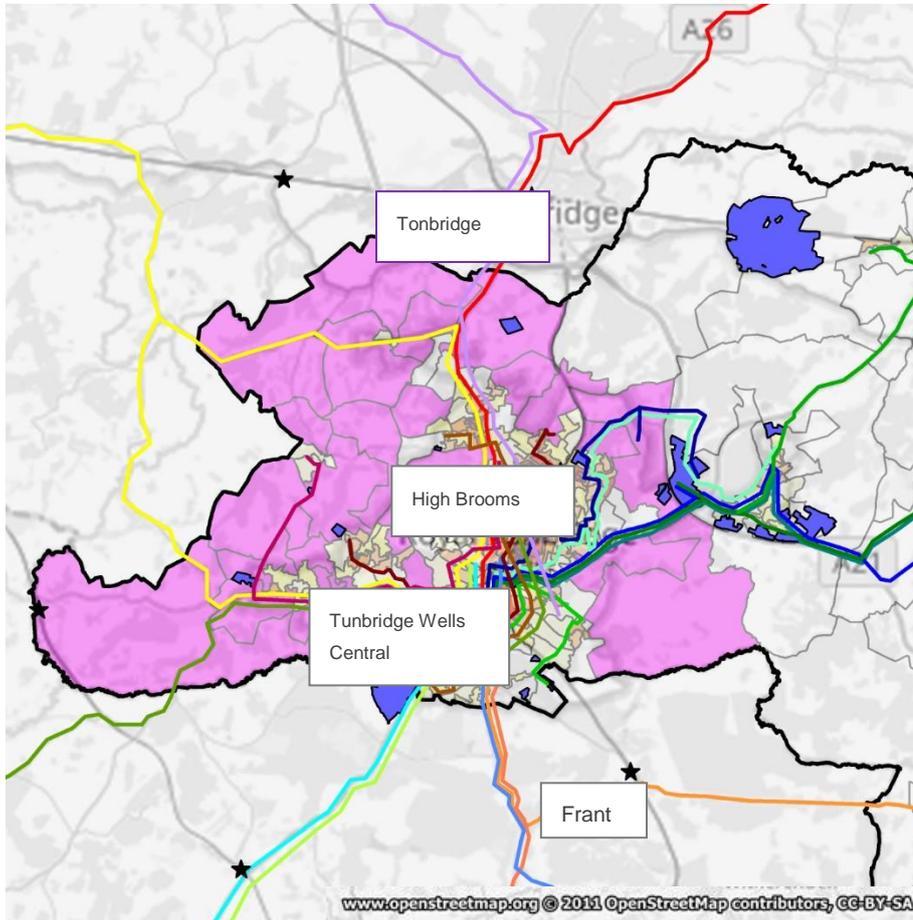
Route	Operator	Route	Operating Days
293	Hams Travel	Tunbridge Wells - Lamberhurst - Hawkhurst - Rolvenden - Tenterden	Thursday only
582	Arriva Kent & Surrey	Tunbridge Wells - Tonbridge - Hugh Christie School	Schooldays
774	London General	Dorking - Reigate - Redhill - Westerham - Tunbridge Wells / Bluewater	Weekdays only
786	Centaur Coaches	Matfield - Hawkenbury - Tunbridge Wells - London	Weekdays only
788	Centaur Coaches	Rusthall - Langton Green - Tunbridge Wells - High Brooms - London	Weekdays only
TW1	Go-Coachhire	Kemsing - Riverhead - Tunbridge Wells Schools	Schooldays
TW2	Go-Coachhire	Sevenoaks - Riverhead - Tunbridge Wells Schools	Schooldays
TW3	Go-Coachhire	Tunbridge Wells Schools - Sevenoaks - Otford - Shoreham	Schooldays
TW4	Go-Coachhire	Westerham - Chipstead - Riverhead - Tunbridge Wells Schools	Schooldays
TW5	Go-Coachhire	Dunton Green - Sevenoaks - Weald Village - Tonbridge	Schooldays
TW6	Go-Coachhire	Badgers Mount - Knockholt - Riverhead - Tunbridge Wells Schools	Schooldays
TW7	Go-Coachhire	Sevenoaks - Weald Village - Tunbridge Wells Schools	Schooldays
TW10	Go-Coachhire	Wrotham - Borough Green - Plaxtol - Tonbridge - Bennett Memorial School	Schooldays
TW11	Go-Coachhire	Wrotham - Borough Green - Tonbridge - Bennett Memorial School	Schooldays
TW12	Go-Coachhire	Plaxtol - Tonbridge - Tunbridge Wells	Schooldays
TWM	Hams Travel	Mascalls School - Pembury - Tunbridge Wells	Schooldays

Rail

5.5.10. There are two rail stations in the Royal Tunbridge Wells Urban Area. They are Tunbridge Wells Central and High Broom stations and are both located on the Hastings Line. Overall, the rail mode share for the area is 16% (6,433). This is the highest number of trips for any of the non-car modes in the Royal Tunbridge Wells urban region. Of these trips, 76% connect to and from London. Of the remaining rail demand, trips to and from Tonbridge and Malling and Sevenoaks combined account for 13%.

5.5.11. The key stations for this region within the borough are outlined in **Figure 5.26**.

Figure 5-26 Royal Tunbridge Wells Urban Area – Key Railway Stations



5.5.12. A high-level analysis of rail provision in the area is summarised in **Table 5.9**. The station with the highest rail demand in the Royal Tunbridge Wells urban area region is Tunbridge Wells Central (3.7 million). High Brooms station is also in the same urban area and has an annual demand of 1.2 million rail passengers. Tonbridge which borders the northern part of the region has 4.4 million passengers and offers wider connections towards Ashford, Maidstone, and Redhill.

Table 5-9 Royal Tunbridge Wells Urban Area – Key Railway Station Data

Station	Main Line	ORR Demand 2017/2018	Bicycle Parking	Parking Spaces	AM Peak to London (Train per hour)	Fastest (mins)	Slowest (mins)
High Brooms	Hastings Line	1,224,846	53	52	6	48	59
Tunbridge Wells Central	Hastings Line	3,679,224	118	297	6	52	63
Frant	Hastings Line	139,768	12	109	3	58	74
Tonbridge	South Eastern Main Line	4,391,184	220	716	9	33	40

5.5.13. Tunbridge Wells Central, with nearly 300 car parking spaces, is a key trip attractor for this region and is likely to attract car trips from Royal Tunbridge Wells urban area. High Brooms only offers 50 car parking spaces.

5.5.14. Bus rail connectivity is very strong for Royal Tunbridge Wells urban area with all bus routes either serving the stops at the station or the stops at the War Memorial close by. The key corridors into Royal Tunbridge Wells including the A26 and A264 which offer high frequency bus services throughout the day to the station. This level of service is likely to offer an attractive alternative to the car to connect to rail.

Cycling and Walking

5.5.15. Coverage of cycling and walking trips in this region is generally good. However, trips from smaller settlements are still limited by geographic distance and a lack of footpaths.

5.5.16. A total of 16% (6,358) of trips are being made on foot in this region, which is nearly 5 times more than the number of bus trips to work. The trips are likely to be focused in and around the main urban area, in particular trips within 2km of the town centre. This is aided by a network of pavements and a concentration of key services within a short walk distance from people's homes.

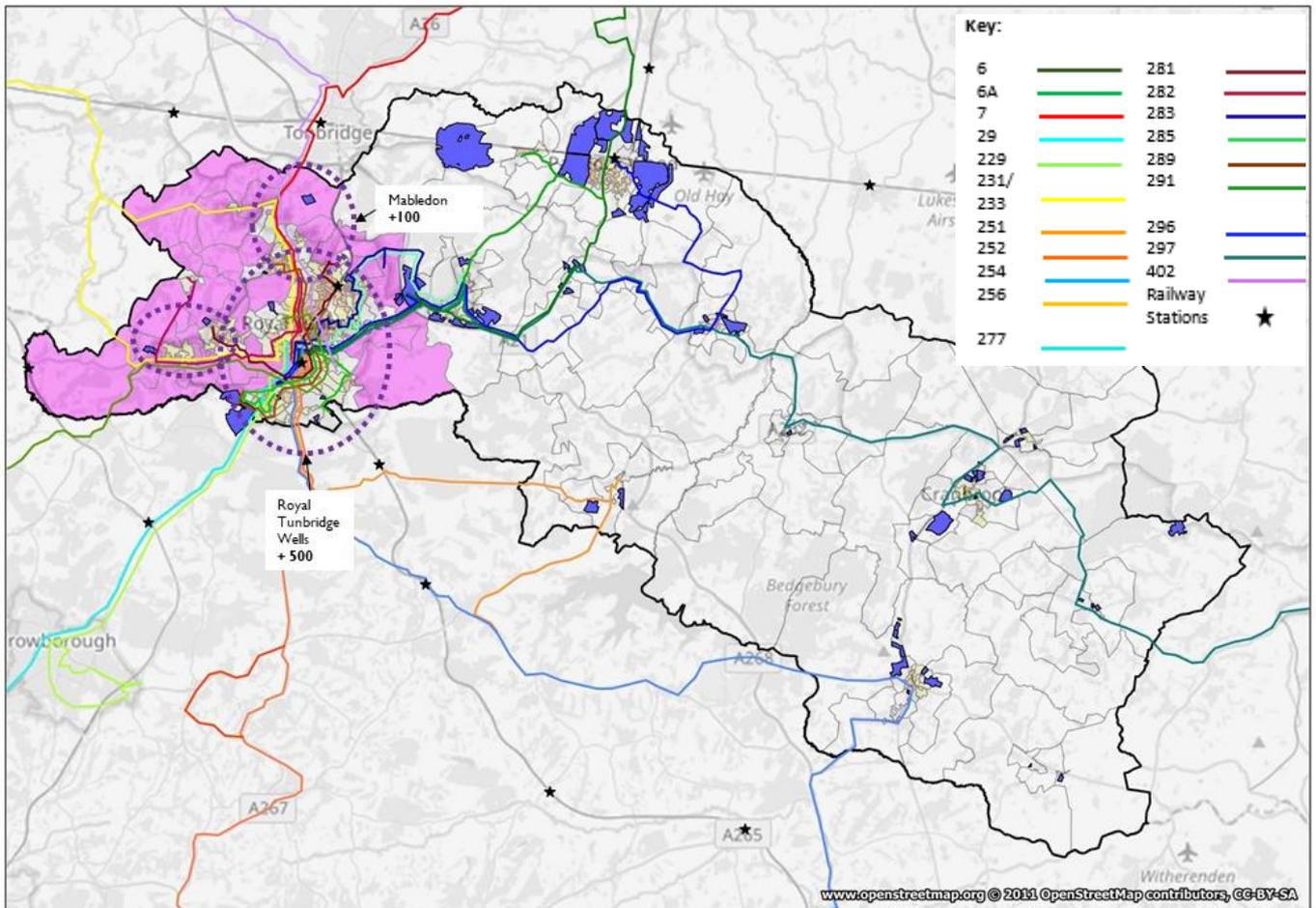
5.5.17. Only 1% (539) are made by bicycle. This low mode share is likely to be driven by accessibility issues whereby roads don't afford cyclists dedicated space or reduce the speed of vehicles sharing the road. The only signed cycle route through the region is the National Cycle Network Route 18. However, the signed section of this route disappears in central Royal Tunbridge Wells. The route affords some sections of off-road cycling on the A264, but otherwise there is limited dedicated cycling infrastructure in the town centre. Tunbridge Wells Central station has a high number of cycle parking spaces (nearly 300), which suggests that the station is an attractive place for people to cycle to, despite a lack of dedicated cycle lanes.

- 5.5.18. There are a number of utility cycle corridors proposed in the latest TWBC cycle strategy for Royal Tunbridge Wells urban area. These can be seen highlighted in **Figure 5.28**. The proposed corridor along the A26 towards Southborough and Tonbridge could offer key cycle connections to employment, retail, and transport hubs from the new development sites to the north of this region. However, even with the proposed utility cycle links, there still are gaps in the cycle network that will act as a barrier for cycling for the region.

Key Findings from Baseline Review – Royal Tunbridge Wells Urban Area

- 5.5.19. The preceding information has been related back to the proposed development locations. This section outlines potential limitations and opportunities for connecting new development locations to sustainable transport in this region.
- 5.5.20. **Figure 5.27** shows that the larger development site locations are well served by existing bus services. Routes 7 and 402 on the A26 corridor towards Tonbridge offer a combined frequency of 10 minutes. An issue for any new development in the region will be capacity on bus services as well as how to get people from their homes to the bus. For larger development sites there are still likely to be a need to develop new bus services to serve the site. Also, a level analysis of the A26 corridor in this area shows significant delays on the network. This will have an impact on current bus journey times and reliability, and any future plans will need to take mitigations for this into account.
- 5.5.21. The site to the south of the urban area on the A26 is served both by local and core corridor routes. This may give an opportunity for route extensions to any new development and increased frequency.
- 5.5.22. Bus coverage is comprehensive throughout the urban region, with local bus services penetrating existing development areas. Notwithstanding, issues with regards frequency and operating hours occur for many bus services and as such, bus mode share is only 3%. This highlights there is a need for network coverage and bus priority improvements, including management measures for high bus flows through the town centre, if bus demand is to grow going forward.

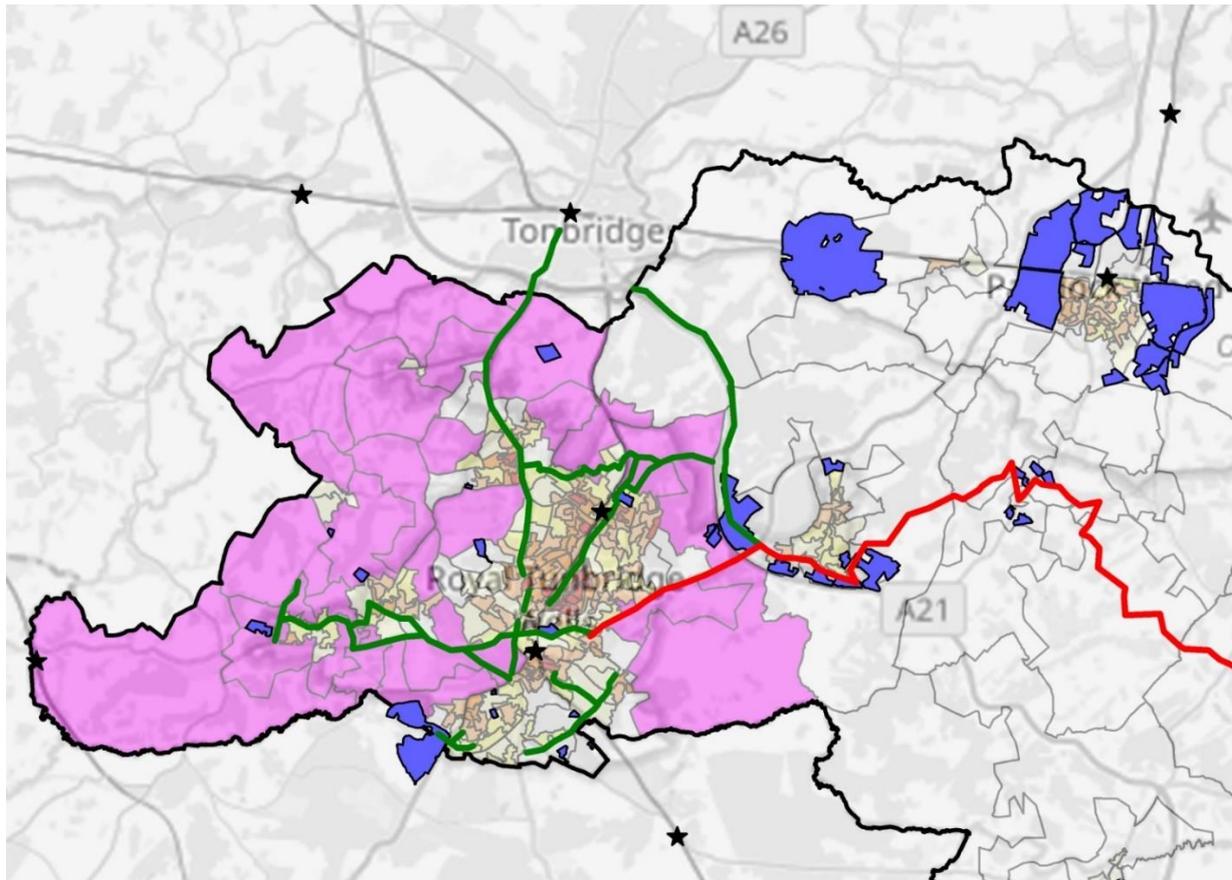
Figure 5-27 Royal Tunbridge Wells Urban Area – Baseline Map - Location of New Development Sites in Relation to the Existing Bus and Rail Networks



5.5.23. **Figure 5.28** outlines the current and proposed cycle routes from TWBC cycle strategy for the urban area. The established NCN Route 18 offers an off-road connection to Pembury and Tunbridge Wells Hospital. However, the link quality degrades as it gets closer to Royal Tunbridge Wells town centre, with no signed route through the central area. The cycling strategy outlines a number of utility routes for development. They will offer links from the central area to Denny Bottom in the west, the A26 corridor and Southborough to the north, and the High Brooms and North Farm business park area to the north east. This will help attract more trips by bicycle in this region. However, the LCWIP that is being prepared will support all Local Plan site allocations to maximise active mode share from these new developments.

5.5.24. These improvements should include filling gaps in the network to Tunbridge Wells town centre and providing connections to proposed links in the south around Hawkenbury and towards Broadwater Down.

Figure 5-28 Royal Tunbridge Wells Urban Area – Baseline Map - Location of New Development Sites in Relation to the Cycling Network



5.5.25. Rail parking may come under increased pressure as a result of trips from any new developments. Tunbridge Wells Central station is however well served currently by bus. The main issue for buses in the region is frequency, cost and ticket integration, as well as operating hours with many services ending before 7pm.

5.5.26. In summary, the baseline analysis has identified the following issues that require review for the central region in relation to integrating the new development sites:

- Despite wide network coverage, bus mode share in the urban region is only 3%. Bus services will need to have frequency and priority improvements to make it a viable option for people in existing and new developments. New developments to the north are likely to require new bus services to fully penetrate the development area and consideration will need to be given as to how this can be done.
- The central rail station and war memorial for Royal Tunbridge Wells act as a significant bus hub for the area. Any development schemes should reinforce the importance of these locations, allowing local services to interchange and offer wider onward connections.
- Rail constitutes a significant 16% mode share of trips to work for this region of the borough. Potential for 'first mile/last mile' trips to be made to the station by car will increase congestion in the town centre. Any new developments are likely to follow the same patterns unless changes are made to improve sustainable mode connections to rail and reduce reliance for connecting by car. This also highlights the likely additional pressure on car parking and station capacity as a result of the new development if existing trip patterns are maintained.
- Currently, cycling for the region is very low, at only 1% mode share of trips to work. Implementing the cycle strategy for the region is likely to improve the number of cycle trips. Further consideration will also be needed on how to develop a comprehensive cycle network that covers existing and new developments. This would have the potential to reduce existing congestion and air quality issues on key corridors in the area.
- Walking is a predominant mode with currently 16% of the total journey to work mode share). It emphasises the need to have any new developments close to the urban core as well as local services, employment, and retail so as to promote walking and thus, reduce the reliance on car for short trips.
- The proposed large business development at North Farm, as well as Tunbridge Wells Hospital which is a major employer in the area, need new sustainable transport links to improve their connectivity by non-car modes. The ongoing North Farm Masterplan study, described later in this report, is considering the sustainable transport accessibility to North Farm and the surrounding area which will provide recommendations.

6. Highway Network, Congestion and Collision Analysis

6.1. Introduction

- 6.1.1. This chapter sets out the existing borough-wide highway network and outlines the associated challenges.

6.2. Highway Network

- 6.2.1. Tunbridge Wells borough has an extensive road network with a number of primary routes running through it including the A21, A26, A264, A228 and A229. All of these routes, with the exception of the A229, pass close to or converge in the vicinity of Royal Tunbridge Wells. Each of these routes are discussed in more detail in the following paragraphs.
- 6.2.2. The A21 is part of the Highways England Trunk Road network and is the only strategic road in the borough. It runs predominantly north-south from Orpington, past Sevenoaks and on to Hastings on the south coast. Within the vicinity of Royal Tunbridge Wells, the A21 is dualled including along the Pembury bypass to the east and Tonbridge Bypass to the north, which was completed recently. The dualling continues east to Kipping's Cross where it becomes single carriageway, with the exception of the section which bypasses Lamberhurst which is also dualled. There are proposals for the upgrade of the Kippings Cross to Lamberhurst section of the A21, however the scheme was not included in Highways England's current spending review period.
- 6.2.3. The A26 runs on a predominantly north-south alignment from Newhaven on the south-coast towards West Malling in the north where it converges with the A228 towards the M20. Passing through the centre of Royal Tunbridge Wells, Southborough and then Tonbridge, the A26 is a key distributor road through the borough, linking with the A21 to the north of Royal Tunbridge Wells. However, it is a single carriageway road that is constrained along large sections of the urban areas it passes through.
- 6.2.4. The A228 also runs on a predominantly north-south alignment from its junction with the A21 southwest of Pembury to Strood in north Kent where it links to the M2. The A228 also provides access to the M20 northwest of Maidstone. The A228 is mainly single carriageway, however a large section of the southbound carriageway of the Pembury Northern Bypass has two lanes on the approach to the A228/A21 junction. The A228 also passes to the west of Paddock Wood, thus providing access to the key employment area to the north of the settlement. To the south of Royal Tunbridge Wells, the A267 Frant Road links the borough with Eastbourne via the A22.
- 6.2.5. The A21/A228 junction also connects with the A264, a single carriageway distributor road providing access from the A21 into and through Royal Tunbridge Wells town centre. To the west of the town centre, the A264 continues on an east-west alignment to East Grinstead. From East Grinstead the A264 continues to Crawley in West Sussex and thus provide an important link to Gatwick Airport from the west of the borough.
- 6.2.6. The primary distributor road in the eastern part of the borough is the A229 which takes a north-south alignment between the A21 (at Cooper's Corner) and Maidstone, via

Staplehurst. It passes through Hawkhurst and to the west of Cranbrook and Sissinghurst, providing an important road link between these settlements.

- 6.2.7. Travelling east to west through the borough is the A268 which provides a route to the A21 from Hawkhurst, where it crosses the A228 at a staggered priority cross-roads junction. To the north is the A262 which links the A21 to the north of Lamberhurst to Tenterden on the east, passing through or close to Goudhurst and Sissinghurst where it crosses the A229 via a roundabout junction.
- 6.2.8. These primary and key distributor routes travel through urban and built areas, with many pinch-points and junctions. As the primary routes through the borough, they carry significant volumes of traffic. Therefore, the constrained nature of the highway network, coupled with the volume of trips carried, mean that they suffer from congestion and delay particularly at peak times in the morning and evening. This is particularly felt on the A26 and A264 and is discussed in greater detail in the following sub-section.
- 6.2.9. In the wider regional context, the Lower Thames Crossing is a well-developed scheme that will provide a new crossing of the Thames Estuary linking Kent with Essex. The aim of the new crossing is to provide a safer, faster, more reliable road that will improve the resilience of the wider road network and relieve the congested Dartford Crossing and approach roads. The project is currently at consultation stage with an expected opening date of 2027, which is within the Local Plan period.
- 6.2.10. The Department for Transport (DfT) also announced in October 2018 that they are developing plans under the codename “Operation Brock” to handle queues of thousands of trucks, should freight be unable to progress swiftly through the ports when the UK leaves the EU. These plans include utilising the southbound carriageway of the M20 between Maidstone and Ashford as a holding park for heavy goods vehicles, while a two-lane contraflow will allow traffic to continue to the Channel. As part of the wider resilience planning, ministers are also planning to use the M26 to park more lorries should extra capacity be required. The closure of the M26 motorway in particular could have an impact on the roads through the borough.

6.3. Congestion

- 6.3.1. As noted above, the congestion and delay experienced on the borough’s roads is acutely felt in the routes into and through Royal Tunbridge Wells and Southborough, namely the A26 and A264, during the peak commuting hours in the morning and evening. This is illustrated in **Figures 6.1** and **6.2** which show the typical weekday traffic delay data in the Royal Tunbridge Wells urban area, including Southborough and Pembury, as extracted from Google Maps traffic data.

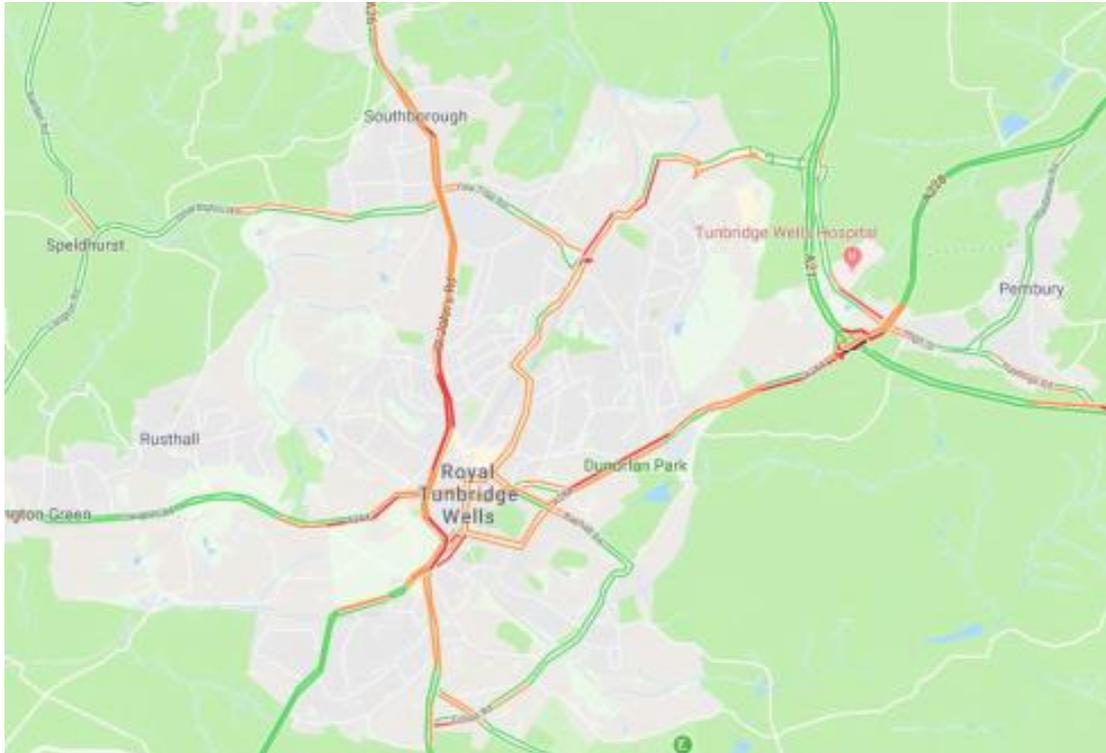
Figure 6-1 – Typical Weekday Traffic Flow Patterns at Royal Tunbridge Wells – AM Peak



Google Maps

- 6.3.2. It is noted that in the AM peak period, congestion and delay is experienced in both directions on the A26 along London Road and St Johns Road. This is replicated on the A264, with severe delay indicated at the junction with the A21. Congestion and delay are experienced within the wider town centre, particularly in the North Farm Road area including Longfield Road.
- 6.3.3. This pattern is repeated in the PM peak however, as shown by **Figure 6.2**, the delays in the PM are less severe than those experienced in the AM peak, with delays experienced through Southborough notably reduced.

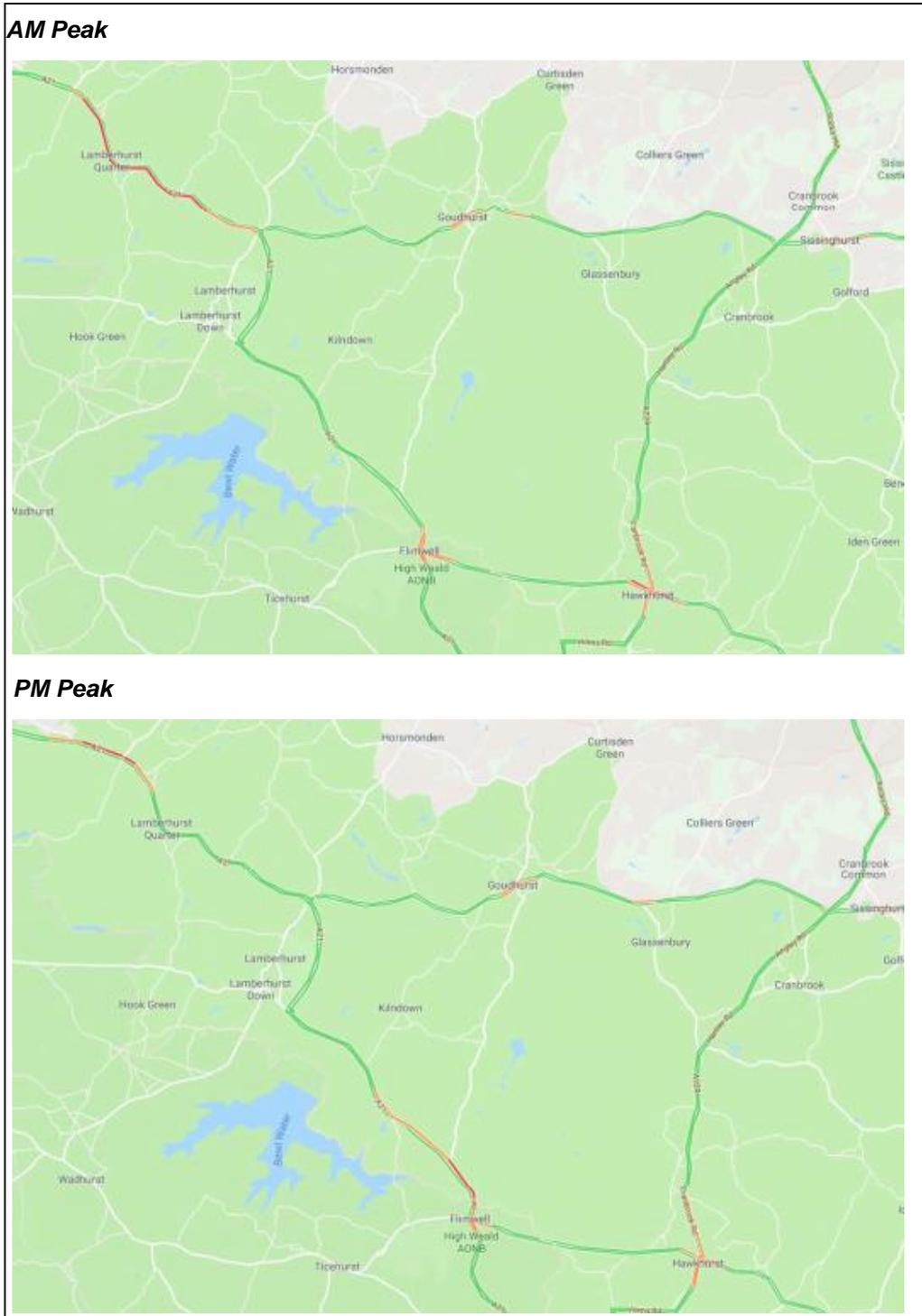
Figure 6-2 – Typical Weekday Traffic Flow Patterns at Royal Tunbridge Wells – PM Peak



Google Maps

- 6.3.4. Localised congestion occurs elsewhere within the borough where there are pinch points caused by stretches of single carriageway and at constrained junctions, as illustrated in **Figure 6.3**. As shown there is congestion and delay along the single carriageway section of the A21 between Lamberhurst and Kipping’s Cross in the AM Peak period, westbound towards Royal Tunbridge Wells. This in turn affects the B2160 at the Kipping’s Cross roundabout junction.

Figure 6-3 – Typical Weekday Traffic Flow Patterns within Wider Tunbridge Wells Borough



Google Maps

Reg. office:
Sweco UK Limited
Grove House
Mansion Gate Drive
Leeds, LS7 4DN

+44 20 3002 1210
www.sweco.co.uk
Reg.no 2888385

Sweco
Lector Court
151-153 Farringdon Road
London EC1R 3AF

6.3.5. It is clear that congestion, particularly within the urban areas of the Borough, is a major issue that will act as a significant barrier and constraint to future development and economic growth in the urban areas and borough as a whole. This was recognised within the 2015 Transport Strategy which sets out a number of potential highway improvement measures to improve capacity and relieve congestion. These are summarised below:

- Upgrade of the Kipping's Cross to Lamberhurst section of the A21.
- Improvements to the Yew Tree Road and Speldhurst Road signalised junctions with the A26.
- Bypass scheme at Colt's Hill.

6.3.6. In addition, TWBC in consultation with KCC, have been investing in exploratory survey and assessment work to investigate further improvements along the A26 and A264 (between the Tonbridge Road signalised junction, and through the Calverley Road/Crescent Road stretch). The Transport Strategy document sets out the aims of the improvements works along these corridors:

- A26:
 - manage congestion
 - progress schemes for implementation using the SELEP Local Growth Funding
 - facilitate cycling trips – especially journeys up to two miles
 - improve the take up of sustainable transport modes by school children
 - consider through traffic and HGVs
 - maintain journey time reliability by bus
 - improve air quality
- A264:
 - manage congestion
 - reduce the need to use the parallel Cornford Lane route
 - gather evidence and clarify requirements in preparation for future funding opportunities
 - improve the take up of sustainable transport modes by school children
 - facilitate cycling trips, especially for journeys up to two miles
 - maintain journey time reliability by bus and enhance routes where possible

6.3.7. Additional highway and traffic concerns were raised during the consultation process for the TWBC Transport Strategy. Those detailed within Paragraph 4.28 of the Transport Strategy are set out below:

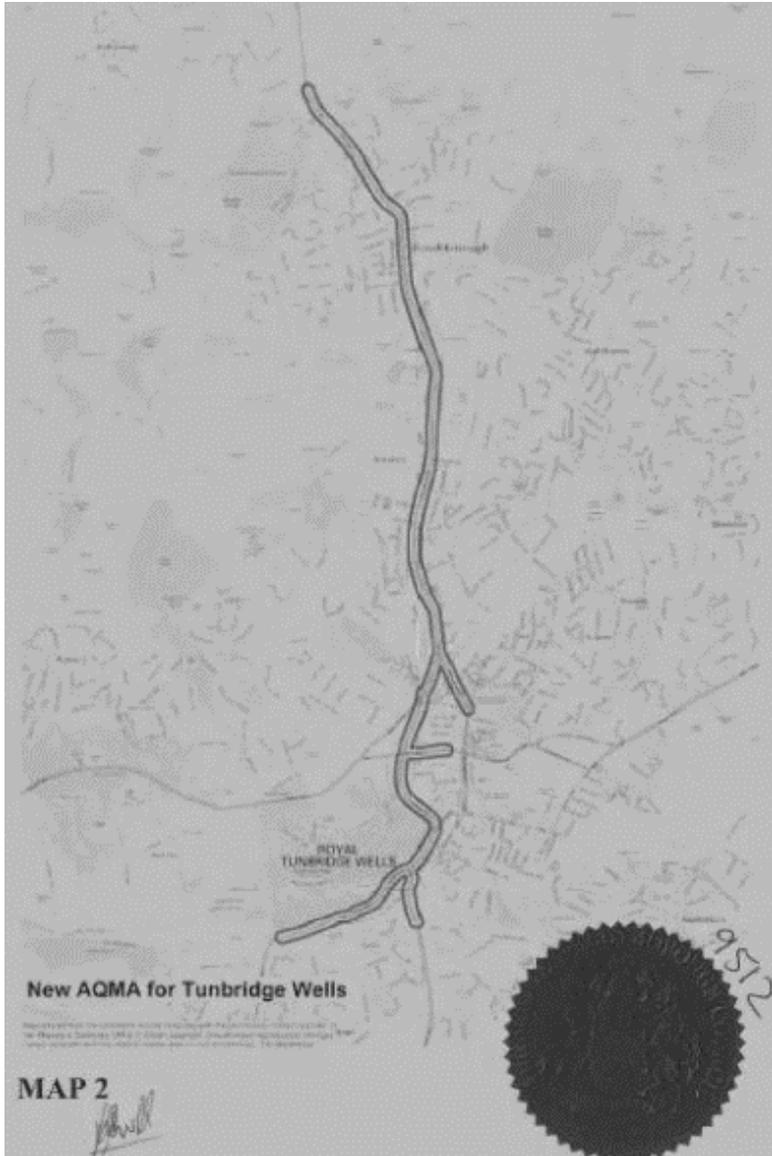
- **Cranbrook** – speeding traffic along many roads including the A229 (Angley Road), A262, High Street and Oatfield Drive. The town centre is known to become congested during busy periods due to on-street and unlawful parking which provides problems for bus operators accessing bus stands. Constrained access to coach parking is also a problem.

- **Hawkenbury** – existing traffic volumes, speed and pedestrian safety on Hawkenbury Road and Forest Road. The allocation of additional residential development locally is a concern to many residents who wish to see accompanying investment in highways and transport infrastructure.
- **Hawkhurst** – the most prominent concern relates to traffic volume and congestion within the village and related issues of speeding and enforcement. The signalised junction at Highgate Hill and Cranbrook Road is a constraint, causing congestion during busy periods. There is no certainty that this junction can be improved, therefore the allocation of additional residential development locally is a concern.
- **Paddock Wood** – speeding traffic generally, unlawful parking on Commercial Road and commuter parking on residential roads.

6.4. Air Quality

- 6.4.1. Air and noise pollution are a severe threat to public health and to the quality of life. While industrial pollution has generally reduced in the last thirty to forty years, increased road traffic has had a significant impact on air quality. This includes a very high proportion of heavy goods vehicles on the motorway network, particularly to and from the Channel ports and tunnel.
- 6.4.2. The introduction of the Environment Act in 1995 required local authorities to regularly assess the air quality in their area against targets set in the National Air Quality Strategy. They were required to designate Air Quality Management Areas (AQMA) for locations where targets were not met and where the public are exposed to the pollution.
- 6.4.3. An Air Quality Management Area (AQMA) was declared in 2005 along the A26 London Road, Southborough Grosvener Road and the junction with the A264 Mount Ephraim in Royal Tunbridge Wells. The AQMA was extended further along the A26 in December 2011 to include the stretch of the A26 London Road to the Major Yorks junction area and also an 80m section of Grosvener Road from its junction with the A26. In September 2018, the AQMA is described on the DEFRA website as *'the A26 between the war memorial near the junction of Birchwood Avenue to the north and the garden centre on Eridge Road to the south and also including Grosvener Road at 0-30m from the road centerline.'* The A26 AQMA map extracted from the DEFRA website is shown in **Figure 6.4**.
- 6.4.4. Continual monitoring and the implementation of measures to improve air quality within the borough should be pursued further, in partnership with the environmental department, neighbouring authorities and other key stakeholders.

Figure 6-4 –Tunbridge Wells Borough Designated AQMA



DEFRA Website

- 6.4.5. The declaration of an AQMA on the A26 highlights the link between areas that suffer from congestion and poor air quality, with an increase in emissions created by stop-start traffic flows. This in turn has an impact on people's health and well-being with poor air quality affecting their respiratory and inflammatory systems, leading to more serious health conditions. Therefore, addressing air quality issues should form a key part of the Local Plan for the borough and future development should be designed to provide a positive contribution towards achieving improvements in the future.

- 6.4.6. Development proposals within this Area will need to be accompanied by Air Quality Assessments and to incorporate adequate mitigation measures. Air Quality Assessments and mitigation measures may also be required outside the Air Quality Management Area, particularly where a development is likely to impact on the area or is sited along other heavily trafficked roads. Key roads within Royal Tunbridge Wells and Southborough include Medway Road, Quarry Road, Goods Station Road, Pembury Road, Grove Hill Road and Linden Park Road.

6.5. Parking

- 6.5.1. Throughout the borough, as is a common trend nationally, the issue of congestion and parking are closely linked. The effect of relatively high car ownership levels, even within the urban areas, is softened by a high commuting public transport and walking modal split to some degree. However, the Census data does not take account of the importance of car travel as a mode to access public transport and the resulting congestion (also from “Kiss & Ride” drop-off/pick-up activity) and parking issues around the main commuter stations.
- 6.5.2. Furthermore, leisure and retail trips are largely based on car travel so that in town centres parking spills out of car parks onto the surrounding residential areas if not properly managed. This is particularly exacerbated within Royal Tunbridge Wells which has excessive unrestricted space within residential zones, which in turn gives rise to excessive circulation of traffic with the consequent negative environmental impact and conflict with residents.¹¹. This is examined further within this section of the report.

Off-Street Parking

- 6.5.3. Across the borough, TWBC owns/manages 26 car parks offering nearly 4,500 spaces. Of these spaces, 3,786 are located within urban areas, 76 within Southborough and 599 within rural areas. The location, type of spaces and number of spaces of each of these car parks is set out in **Table 6.1**, whilst the location of the town centre car parks within Royal Tunbridge Wells are shown in **Figure 6.5**.

¹¹ TWBC Parking Strategy (February 2017), Section 5.8

Table 6-1 – TWBC Owner/Operated Car Parks

Car Park		Number of Parking Spaces				Total Spaces
		Standard Spaces	Blue Badge	Parent & Child	Motorcycle	
1	Beech Street	38				38
2	Brenchley	9	1			10
3	Camden Road	62	3			65
4	Cranbrook (Regal – High St)	292	19	8		319
5	Cranbrook (Tanyard)	85	4		Y	89
6	Crescent Road (*MSCP)	1,061	24		Y	1,085
7	Goudhurst	23	1			24
8	Great Hall (*MSCP)	199	6		Y	205
9	Hawkhurst (North Grove)	34				34
10	High Brooms Rd, Southborough (residents only)	10				10
11	John St	64				64
12	Linden Park Road	52	2			54
13	Little Mount Sion	18			Y	18
14	Meadow Road (*MSCP)	440	10			450
15	Mt. Pleasant Ave (weekend only)	60				60
16	P/Wood (Commercial Rd East)	42	3			45
17	P/Wood (Commercial Rd West)	77	2			79
18	RVP (*MSCP)	1,180	36	14	Y	1,230
19	Stone St North (residents only)	13				13
20	Stone St South (residents only)	13				13
21	Torrington (*MSCP)	235	8		Y	243
22	Town Hall Yard (weekend only)	100	3			103
23	Union House (*MSCP)	114				114

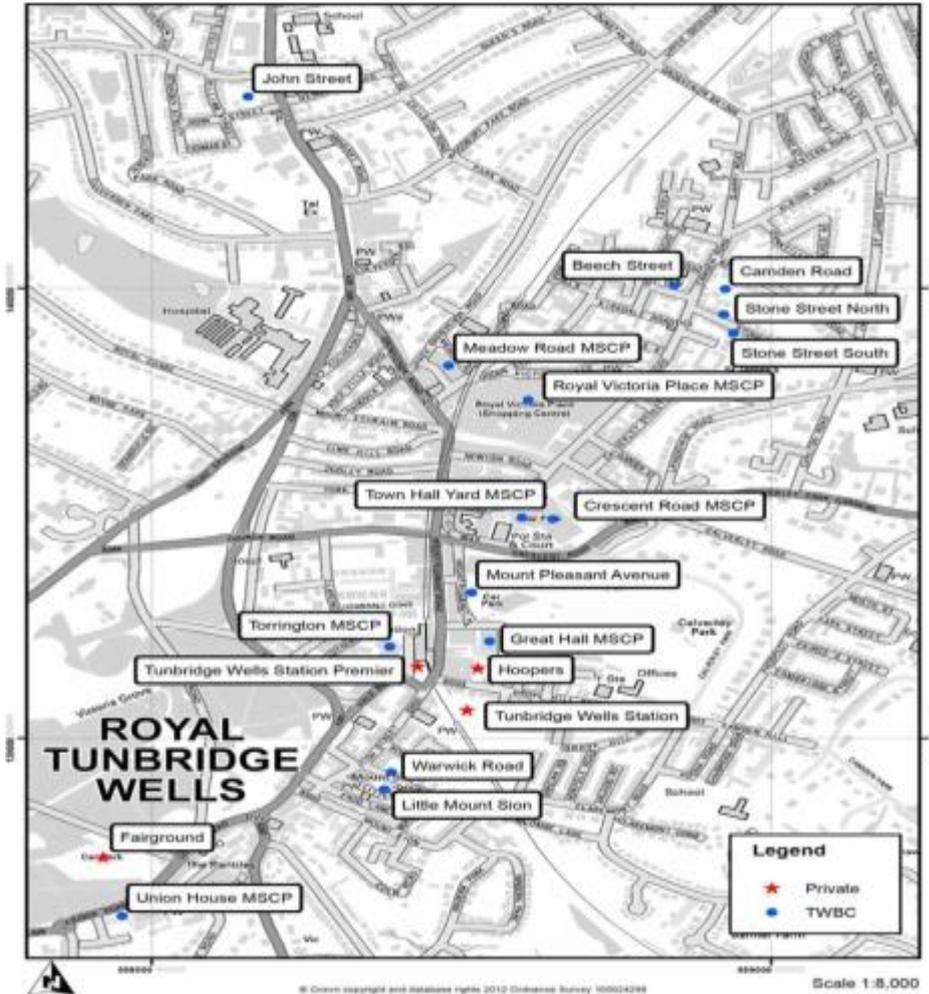
Car Park	Number of Parking Spaces					Total Spaces
	Standard Spaces	Blue Badge	Parent & Child	Motorcycle		
24	Warwick Road (residents only)	20				20
25	Yew Tree Rd (Southborough)	64	2			66
26	Coach Park	10				10
Total		4,315	124	22		4,461

*MSCP – Multi-Storey Car Park

TWBC Parking Strategy 2016-2026 (Feb 2017) – Section 11.2

- 6.5.4. In addition to the above TWBC car parks, there are a further 300 spaces in privately operated car parks within the urban area, providing a mixture of short and long stay spaces. The tariffs vary depending on the duration of stay. The four main privately operated car parks are The Fairground, Hoopers, Tunbridge Wells Station Main and Tunbridge Wells Station Premier.

Figure 6-5 – Location of Car Parks within Royal Tunbridge Wells



TWBC Parking Strategy 2016-2026 (Feb 2017) – Section 11.2

- 6.5.5. A number of the car parks are subject to redevelopment within the life of the Parking Strategy including Union House, Linden Road and John Street. The John Street redevelopment, now complete, reprovided around 64 spaces, two of which will be reserved for use by electric vehicles and two for blue badge holders.

6.5.6. Parking occupancy has been established for a number of key urban car parks as summarised in **Table 6.2**. The average utilisation provided within **Table 6.2** is the average across the yearly time period that the car park usage was recorded. Whilst the average occupancy throughout the car parks was around 65% in 2017-18, it can clearly be seen that there are a number of car parks operating well over capacity. In order to address this, TWBC is exploring the potential for additional car parking sites, whilst the Parking Strategy proposes to review parking tariffs to address peak hour capacity issues.

Table 6-2 – Car Park Occupancy Rates (2017-18)

Car Park	Average Utilisation
Crescent Road	154%
Great Hall	66%
Meadow Road	31%
Torrington	73%
RVP	46%
Town Hall Yard (w/e)	13%
Linden Park Road	66%
John Street	74%
Union House	33%
Yew Tree Road	46%
Paddock Wood	97%
Beech St	96%
Little Mount Sion	95%
Camden Road	85%
Mount Pleasant (w/e)	7%

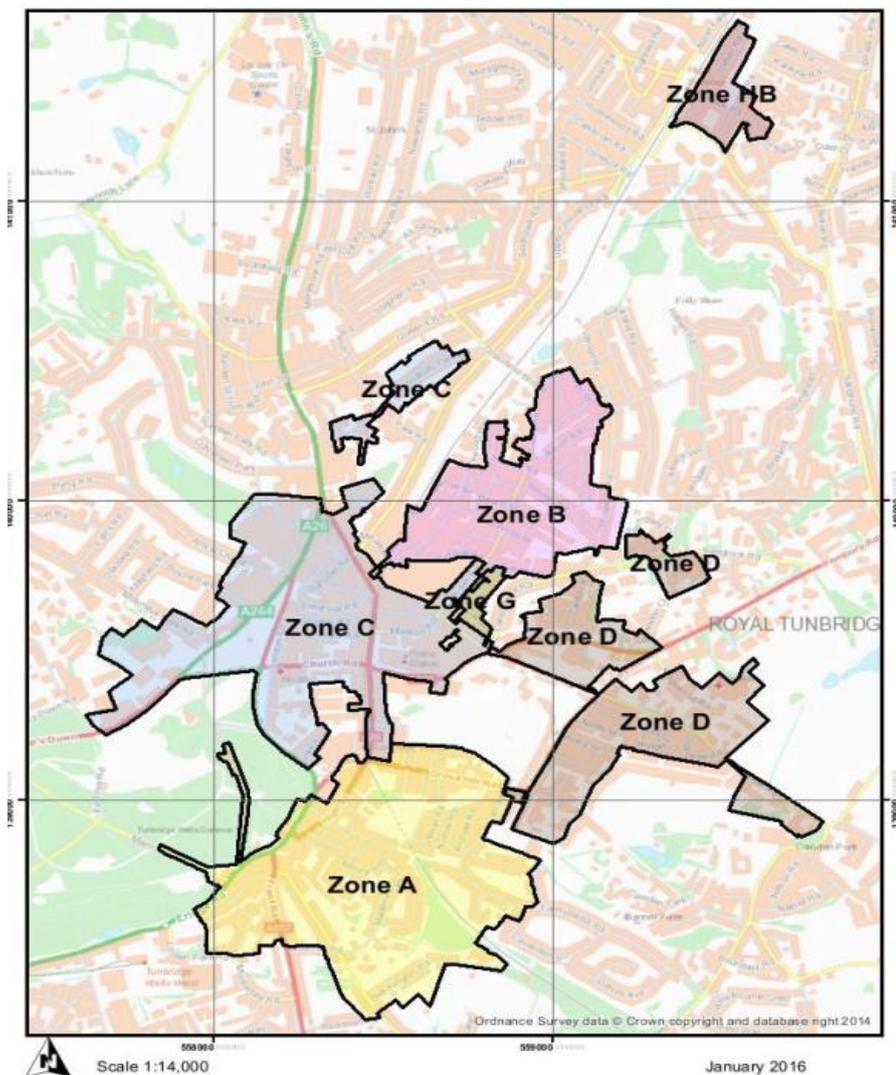
TWBC

6.5.7. It is noted from the Parking Strategy that around a third of the off-street parking spaces are reserved for season ticket holders associated with long stay demands such as commuters and workers, which is projected to increase. However, during off-peak periods a number of car parks have spaces available. The introduction of more favourable tariffs at off-peak times may encourage greater use of the off-street car parks helping to alleviate on-street parking issues.

On-Street Parking

- 6.5.8. There are a variety of on-street parking restrictions in operation within the borough, (Double Yellow Lines, Single Yellow Lines, Loading Restrictions, Permit Bays, Disabled Bays and Taxi Ranks), as well as a substantial amount of free time limited parking spaces. There are seven Resident’s Permit Zones, a substantial amount of free time limited parking spaces as well as around 30 streets which are wholly or partly unrestricted.
- 6.5.9. The Resident’s Permit Zones are located within Royal Tunbridge Wells, High Brooms and Paddock Wood. The location of the five zones within the Royal Tunbridge Wells urban area is shown on **Figure 6.6**.

Figure 6-6 – Location of Resident’s Permit Zone – Royal Tunbridge Wells



TWBC Parking Strategy 2016-2026 (Feb 2017) – Chapter 7

Reg. office:
Sweco UK Limited
Grove House
Mansion Gate Drive
Leeds, LS7 4DN

+44 20 3002 1210
www.sweco.co.uk
Reg.no 2888385

Sweco
Lector Court
151-153 Farringdon Road
London EC1R 3AF

- 6.5.10. The Parking Strategy includes a number of actions to address residents' concerns established during the consultation for the Strategy. These include amendments to the parking tariffs and restrictions to be more in line with those associated with adjacent public car parks, changes to hours of restrictions to provide more flexibility for use, restrictions on the number of permits per household and extensions to existing zones. Through the implementation of the parking strategy, the Permit Parking Policy will be continually reviewed in consultation with local residents.
- 6.5.11. It is noted from Chapter 8 of the Parking Strategy that footway parking is a problem as it causes serious and costly damage to infrastructure and presents a real danger to other road users, particularly pedestrians with mobility problems who are required to enter the carriageway with live traffic in order to pass. Restrictions do now apply on streets where this has been a problem, with footway parkers being issued with penalty charge notices. The Parking Strategy will continually monitor and review footway parking and implement solutions where required.

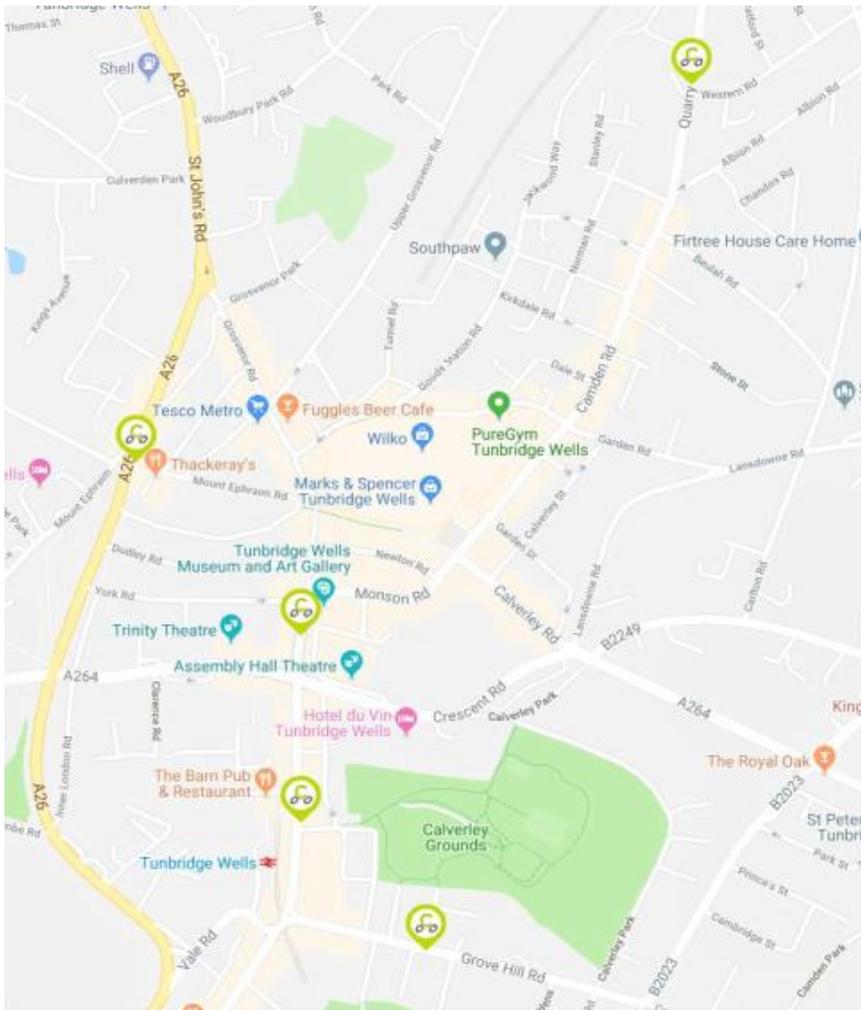
Car Club Parking

- 6.5.12. As highlighted above, the borough is already facing challenges in relation to car parking capacity and future economic and housing growth could exacerbate these issues. Car clubs provide a cost-effective and flexible alternative to owning a car and statistics have shown that for every car club vehicle, four cars have been removed from the road¹². Therefore, car clubs can help tackle parking issues as well as the challenges of congestion and the environment.
- 6.5.13. Within Royal Tunbridge Wells there is an existing car club operated by Co-wheels. Co-wheels is a pay-as-you-go car hire scheme with vehicles available to hire in convenient locations within the town centre. Members of the car club can book any of the cars on the online booking system or over the phone and use their smartcard to access them. At the end of the booking, the user returns the car back into its designated bay.
- 6.5.14. As shown in **Figure 6.7**, there are currently five Co-wheels car club vehicles within Royal Tunbridge Wells. At these locations, dedicated parking bays are provided on-street reserved for use by car club permit holders only to ensure that a space is available at all times. With membership to a car club scheme, following an initial membership fee, the user then pays for use of the vehicle with charges dependent on the size of vehicle, duration of hire and mileage covered.
- 6.5.15. It is noted from the Parking Strategy that a further car club space is to be provided within the development on St John's Road. Given the potential to help reduce car ownership within an area, it is considered that the provision of a car club space(s) should form part of the planning requirements and conditions associated with major developments. Other car club operators should not be discouraged - there are benefits and disadvantages to competition in such a small but growing market.

¹² TWBC Parking Strategy 2016-2026 (2017), Section 15.1

6.5.16. Although not currently operating within the borough, Co-wheels operate a van hire scheme. The implementation of such a scheme within Royal Tunbridge Wells should be investigated by TWBC with potential funding secured from future development.

Figure 6-7 – Co-wheels Car Club Vehicle Locations in Royal Tunbridge Wells



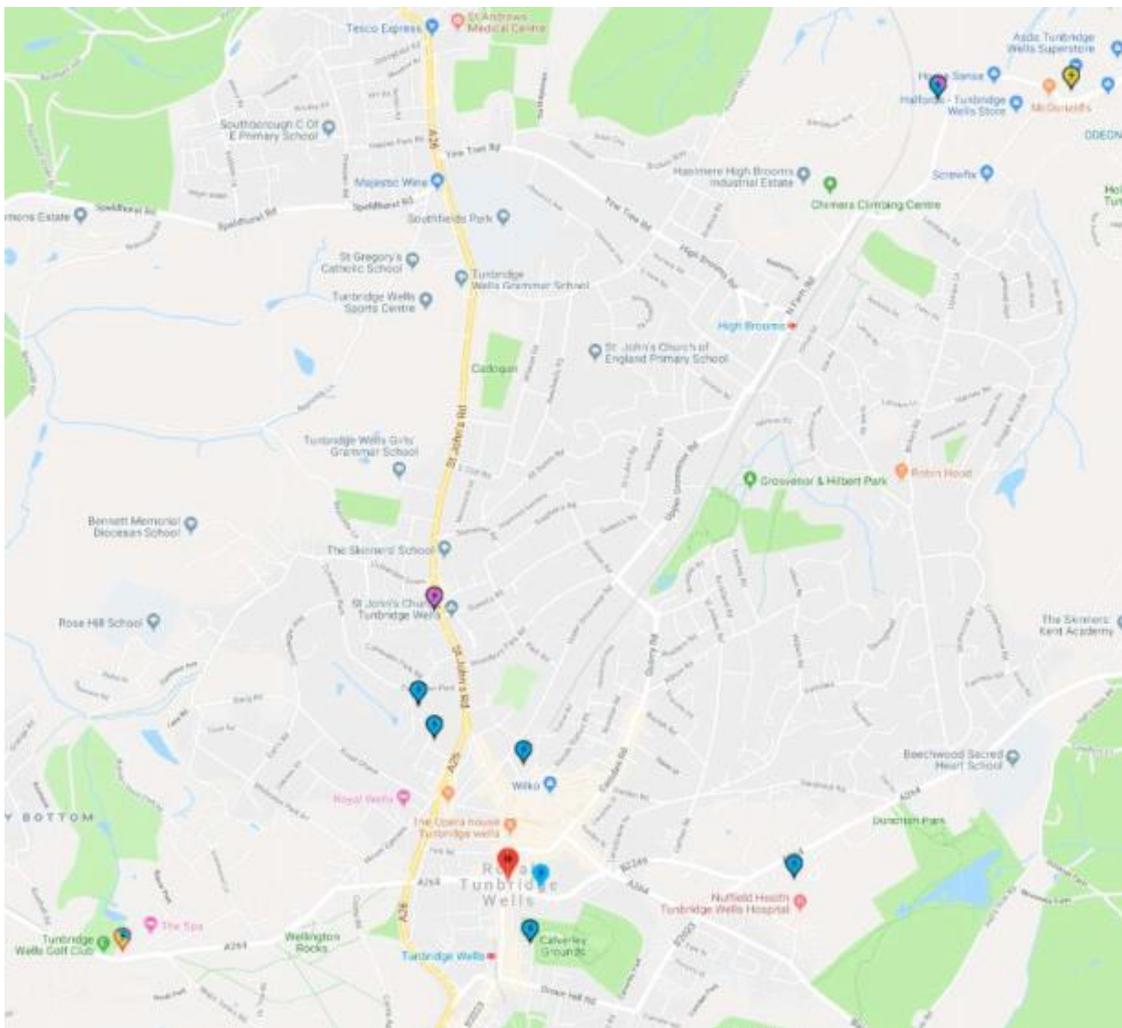
www.co-wheels.org.uk

Electric Vehicle Charging Points

6.5.17. Electric vehicles emit no carbon emissions and thus, their use will assist in improving air quality particularly in urban area and at the roadside where air quality can be worst. The use of these vehicles is dependent on the ability to recharge the vehicle at convenient locations including the home, at work and car parks such as at rail stations and in town centres.

- 6.5.18. Working in partnership with Kent County Council, TWBC have installed two free-to-use fast charging points within Royal Tunbridge Wells town centre. Each of these points can charge two vehicles at the same time, however users will be required to provide their own charging cables and also be registered with “Charge Your Car” (CYC), who are the service provider. Both charging points are located within public car parks and maximum duration of the stay and parking charges apply.
- 6.5.19. Within the Royal Tunbridge Wells urban area there are a further 8 Electric Vehicle Charging Points (EVCPs). The location of all 10 EVCPs is illustrated in **Figure 6.8**. The location, speed and restrictions of the charging points are set out in **Table 6.3**.

Figure 6-8 – Electric Vehicle Charging Point Locations in Royal Tunbridge Wells Urban Area



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Reg. office:
Sweco UK Limited
Grove House
Mansion Gate Drive
Leeds, LS7 4DN

+44 20 3002 1210
www.sweco.co.uk
Reg.no 2888385

Sweco
Lector Court
151-153 Farringdon Road
London EC1R 3AF

Table 6-3 – Electric Vehicle Charging Points in Royal Tunbridge Wells Urban Area

Location	Operator	No. of Charge Points	Restrictions
Langton Road	Renault Dealership	2	Free to use for customers only
Great Hall Car Park, Mount Pleasant Road	TWBC/KCC	2	Connection fee and parking charges apply Four-hour maximum charging time
Crescent Road Car Park	TWBC/KCC	2	Connection fee applies Free parking whilst charging – Max stay 4hrs, no return within 4hrs
Fairfax Lodge, Pembury Way	EV Charge	1	Online Web account required – Charge of 20p per KWh applies
Salomons Centre, Meadow Road	Pod Point	2	Educational Establishment - Point Pod App required £1.25 per hour for 3 hours then £5 per hour
Royal Wells Park, Twining Close	Pod Point	2	Private use only (workplace car park) £1.20 per hour for 4 hours then £5 per hour
Royal Wells Park, Huntingdon Avenue	Pod Point	2	Public - Point Pod App required £1.20 per hour for 4 hours then £5 per hour
Shell Recharge, St Johns Road	Shell	1	Service Station 25p per kWh
Motorline Nissan Dealership, Dowding Way	Nissan Dealership	2	Free to use for customers only
Asda, Longfield Road	Asda	1	£1.20 connection fee then free to use Free parking for 2 hours

www.zap-map.com

6.5.20. In addition to the above provision, there is also an EVCP located at the BP Garage in Cranbrook. This public charging point is subject to a £1 connection fee then 30p per kWh thereafter. As with car clubs, the provision of ECVPs should form part of the planning requirements and conditions associated with major developments. Furthermore, the use of ECVPs should be monitored and further installations provided where a demand is identified.

6.6. Park and Ride

- 6.6.1. There are currently no park and ride schemes operating with the borough. However, TWBC, in conjunction with KCC, undertook a study in 2018 to assess the feasibility of introducing Park and Ride (P&R) in Royal Tunbridge Wells, with particular consideration of the effects and necessary actions related to town centre parking.
- 6.6.2. As part of the study three sites targeting the three busiest traffic corridors were shortlisted. These were Tesco Pembury Road (allocated and Call for Sites, 395), land adjacent to Mabledon (Call for Sites, 445) and land adjacent to Eridge Road (Call for Sites, 137). The route options through the town centre for each of the site options considered the potential demand and number of buses needed to provide a frequency of service to match that demand.
- 6.6.3. The study concluded that two of the tested P&R sites were technically and operationally viable. These were the sites at Tesco Pembury on the A264 and on the A26 Eridge Road to the south of Tunbridge Wells (not the site on the A26 nearer to Tonbridge at Mabledon). However, the financial case for P&R in Tunbridge Wells requires both capital and ongoing revenue funding, with no individual option covering all of its operating costs. To date the Council has not brought Park & Ride forward past the planning stage. It is understood from discussions with TWBC that the site at Tesco Pembury Road could become allocated for employment use in the new Local Plan if no firm long-term plans on Park & Ride are made.

7. Growth and Development in the Borough

7.1. Introduction

- 7.1.1. A number of sites have been submitted as part of the 'call for sites' which TWBC are considering as part of the Local Plan development strategy. The sites submitted are both within and adjacent to existing settlements, as well as new settlements within green belt land. These development sites are discussed in more detail below.

7.2. Local Plan Development Site Allocations

- 7.2.1. As set out in Para 1.5.1, this report was based on provisional information during the formation of the Local Plan. The development locations based on this provisional information are outlined in **Table 7-1**, although these vary in the Draft Local Plan, the overall numbers in the plan are broadly consistent. The list only includes the settlements where the total yield for the area exceeds 100 residential units. However, all future development quantum are assessed within the Transport Assessment.

Table 7-1 – Summary of Major Development Proposals by Settlement

KEY:

Dwelling numbers extracted from PPWG Booklet
 Dwelling numbers calculated from site area, utilising the total yield
 Dwelling numbers calculated using an assumed 35 dwellings per hectare



Royal Tunbridge Wells

Site Reference (Residential Only)

	<i>Site Area</i>	<i>Estimated Number of Dwellings</i>
114	53811.15	13
137	557918.7	290
198	10830.22	3
176	4101.21	50
200	4299.38	1
235	36015.39	30
236	19449.34	25
238	42195.04	60
248	9952	2
249	5173.14	20
268	10168.27	3
264	41715.96	10
Total Area	795629.8	507

Paddock Wood

Site Reference (Residential Only)

	<i>Site Area</i>	<i>Estimated Number of Dwellings</i>
PW1	546637.7	815
PW2	598044.6	892
PW3	436764.9	651
PW5	150134.5	224
PW7	695067.2	1037
PW9	173975.9	259
Total Area	2600625	3879

Sandhurst

Site Reference (Residential Only)

	<i>Site Area</i>	<i>Estimated Number of Dwellings</i>
147	3470.65	10
227	21311.54	64
Total Area	24782	74

Southborough

Site Reference (Residential Only)

	<i>Site Area</i>	<i>Estimated Number of Dwellings</i>
232	5577.99	20
445	1718807	100
Total Area	1724385	120

Capel (Tudeley Garden Village)

Site Reference (Residential Only)

	<i>Site Area</i>	<i>Estimated Number of Dwellings</i>
448	1574745	2800
Total Area	1574745	2800

Summary of Major Development Proposals by Settlement cont.

Cranbrook and Sissinghurst

Site Reference (Residential Only)

	Site Area	Estimated Number of Dwellings
Land adjoining Wilsley Farm (125)	6583.78	23
Jaegers Field, Angley Road (131)	27453.74	35
Turnden Farm, Hartley (430)	276370.2	190
Land adjoining Cranbrook Primary School (71/133)	31795.65	45
Parcel comprising site numbers 59, 70, 323 and 345 and land at Bull Farm	32312.54	90
Big Side Playing Field adjacent to Quaker Lane/ Waterloo Road	46447.93	163
Land off Golford Road (LS32)	83826.64	150
Land at Crane Lane	6153.82	22
Total Area	420963.9	696

Goudhurst

Site Reference (Residential Only)

	Site Area	Estimated Number of Dwellings
Land east of Balcombes Hill	10734.36	15
Total Area	10734.36	15

Matfield

Site Reference (Residential Only)

	Site Area	Estimated Number of Dwellings
Land between Brenchley Road, Coppers Lane (27)	28435.38	45
Matfield House orchards and land (18)	29476.34	30
Land fronting Maidstone Road and Chestnut Lane (36/ 414)	24454.21	20
Ashes Plantation Maidstone Road (353)	29471.52	60
Land at Maidstone Road	16511.46	30
Total Area	128348.9	185

Frittenden

Site Reference (Residential Only)

	Site Area	Estimated Number of Dwellings
Land at Cranbrook Road	15326.24	54
Total Area	15326	54

Benenden

Site Reference (Residential Only)

	Site Area	Estimated Number of Dwellings
Land at Walkhurst Road (35)	7136.91	12
Land adjacent to New Pond Road (158/16)	7769.49	65
Feoffee Cottages and land, Walkhurst Road (277)	14602.69	30
Land at Benenden Hospital, Green Lane (424)	122567.6	26
Total Area	152076.7	133

Hawkhurst

Site Reference (Residential Only)

	Site Area	Estimated Number of Dwellings
Land forming part of the Hawkhurst Golf Course (115)	194594	450
Land at the White House, Highgate Hill (361)	6085.64	45
Land at Fowlers Park (413)	90093.6	98
Land to east of Heartenok Road (432)	23557.61	20
Santers Yard, Gills Green (422)	24413.82	38
Sites at Lime Grove (55/ 391)	5475.84	16
Total Area	344220.5	667

Horsmonden

Site Reference (Residential Only)

Land adjacent to Furnace Lane
Land west of Maidstone Road and north of Kirkins
Land south of Brenchley Road west of Fromandez
Land to the east of Horsmonden
Total Area

Site Area	Estimated Number of Dwellings
18214.41	55
5342.29	17
34780.62	100
188895.7	270
247233	442

Pembury

Site Reference (Residential Only)

Parcel 1; name to be confirmed
Parcel 2; name to be confirmed
Parcel 3; name to be confirmed
Parcel 4; name to be confirmed
Parcel 5; name to be confirmed
Parcel 6; name to be confirmed
Parcel 7; name to be confirmed (Area B)
Total Area

Site Area	Estimated Number of Dwellings
67352.99	80
54901.63	90
47810.74	90
47586.68	25
26642.99	60
223487.1	0
410794.5	0
878576.7	345

ASSUMED TOTAL NUMBER OF DWELLINGS 10205

Based on Proposed Allocations MapInfo Layer

Table 7-2 – Summary of Major Employment Allocation Sites Development Proposals

Site	Use Class	Land Area (m2)	GFA	Employees (FTE)
Land adjacent to Longfield Road	B1/B2/B8	220,000	80000	4697
Land at Colebrook House	Economic Development – B1/B2/B8	69,800	27920	1639
HA6	B1c	21,381	8,552	182
SP4	D2	27455	1500	14
PW8, PW10, PW11	B1c	313394	125358	2667
PW6	B1c	316365	63273	705
PE7	D2	223487	1500	14

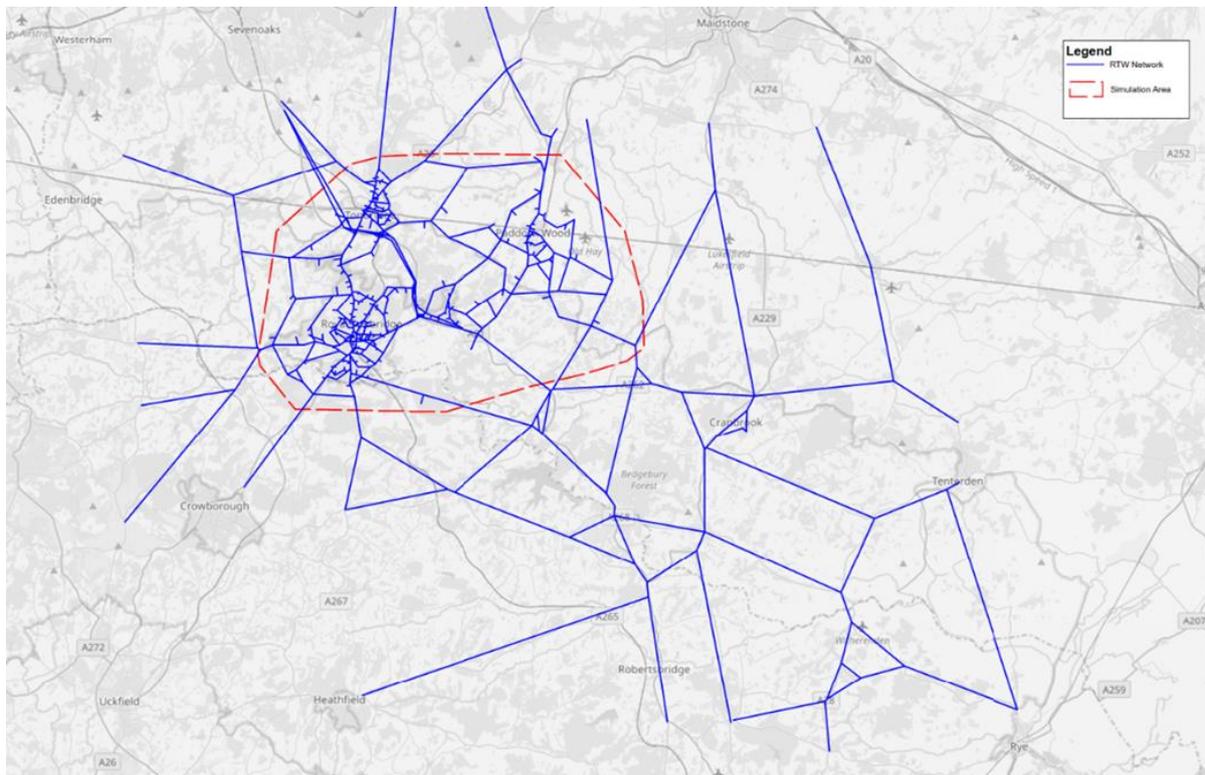
- 7.2.2. A key requirement of the Local Plan is the provision of infrastructure to support future growth. It is apparent that infrastructure improvements, including road, junction and public transport improvements, will be required.
- 7.2.3. Whilst the Transport Strategy for the borough would be predominantly strategic in nature, seeking to overcome existing infrastructure deficits and deliver major projects, it would also include development site related infrastructure improvements where a need has been identified. It is expected that developers will address the direct highway and transport needs of their development through the planning process.
- 7.2.4. The following Chapters of this report provide a high-level active travel and public transport analysis of the potential impacts of Local Plan development yield. A detailed traffic impact analysis has also been undertaken the result of which are also included within the report.
- 7.2.5. The quantum of development was based on the information provided as the Draft Local Plan was being prepared, and it is acknowledged that these have changed, although as set out previously the broad amount of development to be allocated is similar. Consequently, the numbers adopted for this assessment are considered to be robust .

8. Trip Generation and Model development

8.1. Traffic Impact Baseline Analysis

- 8.1.1. A Saturn highway model has been developed that has built upon the Highways England’s South East Regional Traffic Model (SERTM) model.
- 8.1.2. A cordon study area has been defined to represent the core area of Tunbridge Wells whereby new links and nodes have been coded to ensure greater detail. A detailed simulation highway network was coded, to include all A roads and B roads in the region, main junctions within and between the town centres, as well as all strategically important local roads in Tunbridge, Paddock Wood and Pembury. The main attractor sites such as stations, shopping centres, industrial areas were coded as different zones where possible. The final disaggregation includes 195 zones for the model.

Figure 8-1 Simulation area of the Tunbridge Wells Highway Model



- 8.1.3. The network has been subsequently locally calibrated and validated against traffic movement and journey time data. The modelling analysis was informed from the data set out in **Table 8-1**.

Table 8-1 - Traffic Data Summary

User Class	Number	Year
Automatic Traffic Count (ATC)	26	2018/2019
Manual Classified Counts (MCC)	63	Dec 2018
ANPR Survey Locations	36	Dec 2018
Journey Time Routes	20	2018
ANPR Survey in North Farm	21	July 2019
Manual Classified Counts (MCC) in North Farm	6	July 2019

8.1.4. The ATC data was used for model link flow calibration. The MCC data was used for junction calibration. The ANPR data has been used to derive real journey time routes. Saturation flows for turning movements have been derived from the Transport for London network coding guidance. This was used to code the capacity of turning movements within the simulation area. Speed flow curves were applied to all major A-roads, B-roads and other strategically significant major roads (as required) to restrict capacity and to reflect a realistic speed at a given level of traffic volume.

8.1.5. The generalised cost parameters (Value of Time and Vehicle Operating Cost) used in the AM model are listed in **Table 8-2**.

Table 8-2 - Value of Time Assumptions (PPM) and Vehicle Operating Cost Assumptions (PPK)

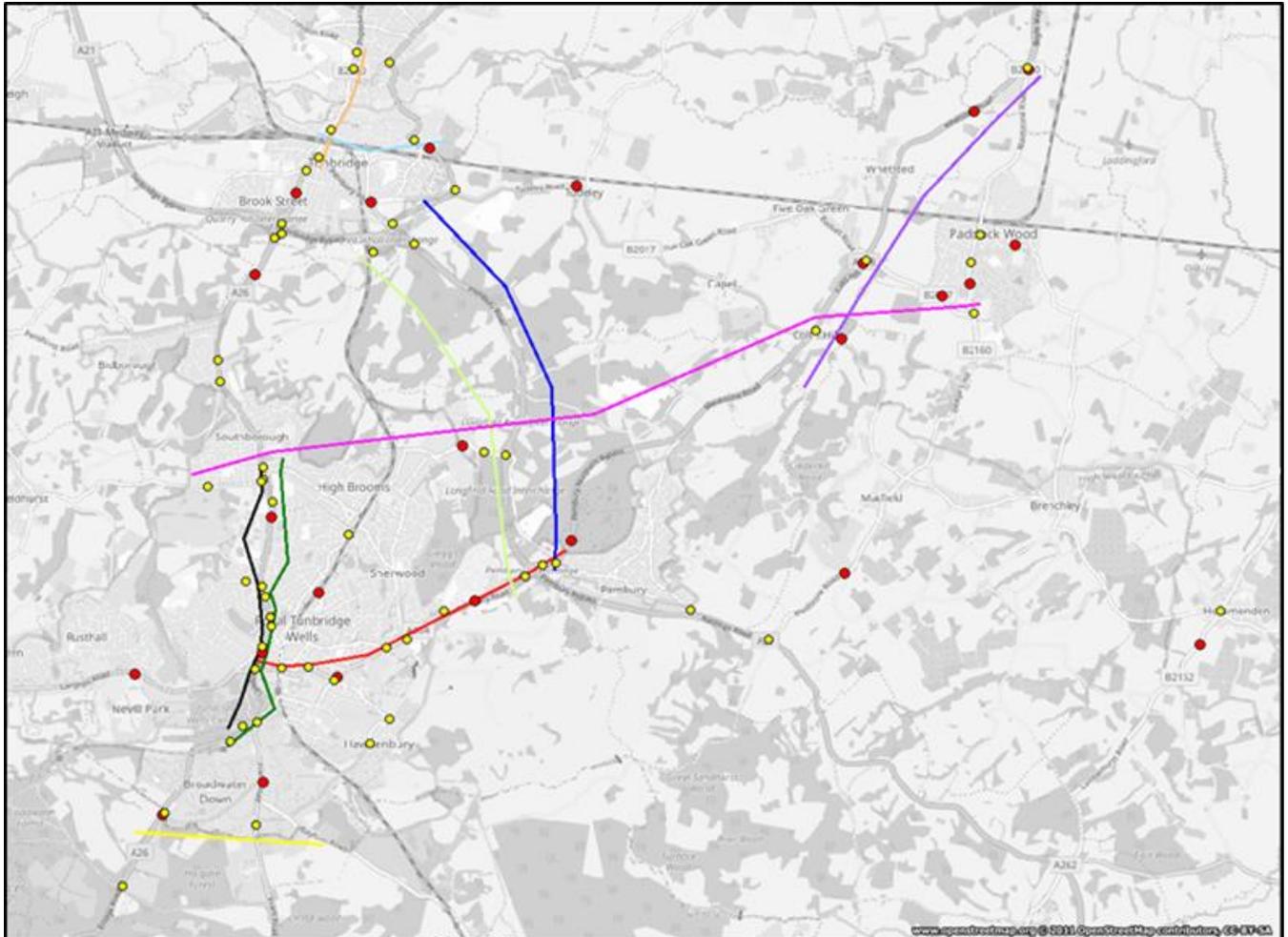
User Class	PPM - pence per minute (2018 values)	PPK - pence per kilometre, (2018 value)
Car - Employer's Business	30.75	12.08
Car - Commuting	20.62	5.54
Car - Other	14.23	5.54
LGV	21.73	13.34
HGV	50.75	40.5

8.1.6. The primary source of matrix data was the SERTM model. The SERTM matrices provide a nationally consistent set of demand matrices based on 2015 Mobile phone data and provide a readily available data source as a start point for matrix development. The

SERTM matrix had no intra-zonal trips for most zones within the RTW study area. In order to take account of the intra-zonal trips where SERTM zones were disaggregated, some infilling of intra zonal cells were added to the prior matrix before undertaking matrix estimation.

- 8.1.7. The trip matrix was assigned to the model networks and comparisons of the outputs were made to observed data. A Matrix Estimation (ME) process within SATURN was then undertaken for different user-classes. Matrix Estimation (ME) was undertaken to adjust the prior origin-destination (OD) matrix so that the assignment flows in the model on the road network matched as closely as possible to observed flows and infill the missing trips (i.e. internal trips). The estimated matrices were then assigned to the networks and compared against independent observations to assess the level of validation and compared against observed journey times.
- 8.1.8. **Figure 8-2** shows the locations of the traffic counts and screenlines used for model calibration and validation.

Figure 8-2 - Locations of Traffic Counts and Screenlines



8.1.9. Table 8-3 gives an overview of the calibration screenline results.

Table 8-3 - Summary of Screenline Performance

	No. of Screenlines	Pass
Screenline Calibration	16	94%

8.1.10. The results for the individual flow count calibration and validation are shown in Table 8-4.

Table 8-4 - Individual Flow Validation Summary Results

Criteria	No. of Counts	PASS
Individual Link flow	65	86%

8.1.11. The target is for the model to produce modelled times which are within 15% of the observed for at least 85% of routes or within 1 minute of the observed. The results are considered to meet the DMRB criteria. The journey time validation results are summarised in **Table 8-5**.

Table 8-5 - Journey Time Validation Summary Result

Criteria	No. of Routes	PASS
Journey Time Validation	20	85%

8.1.12. The forecast model was developed for the 2033 Reference Case. The Local Plan is now to extend to 2036, but being so far in the future, there would be no differences in the conclusion drawn from using a 2033 Reference Case.

8.1.13. The Reference Case includes:

- Uplifted demand for highways to and from zones outside of the detailed modelling area
 - TEMPRO was used for external zones of the detailed model area
- Demand generated within Tunbridge Wells District
 - The district is represented within the highway model by a number of highway zones (157 zones within the study area). The highway zones when aggregated represent 25 Temprow zones. Where local plan sites are located within the highway zone:
 - The highway zone trip demand is uplifted by trips generated from Local Plan site(s) within that zone. Where this trip demand exceeds TEMPRO growth for that zone, the trip demand is then left unchanged.
 - If Local Plan trip demand is below TEMPRO forecast growth for that zone, the highway trip demand is topped up to match the TEMPRO growth
 - Where the zone does not have a Local Plan site, the zone growth is linked to TEMPRO
 - Trip demand has been calculated by spatially allocating development trips from the uncertainty log using trip rates derived from TEMPRO version 7.2 (car trip rates vary by Temprow zones and by purpose, ie HBW, HBEB, HBO, NHEB and NHO).
 - LGV and HGV trip rates were derived from TRICs and LGV/HGV growth factors derived from the Department for Transport (DfT) National Transport Model (NTM) database.

8.1.14. This methodology allows for additional housing growth in the local plan period through new house building from windfall sites, in fill development, and previously approved/allocated but not constructed sites.

8.1.15. Future Year Model comparison shows the comparison of matrix totals against base year matrix. Overall there is 17% increase both in origins and destinations across the whole

study area, while 72% increase in origins and 51% increase in destinations in zones with development within the simulation.

8.1.16. **Table 8-6** shows the comparison of matrix totals against base year matrix. Overall there is 17% increase both in origins and destinations across the whole study area, while 72% increase in origins and 51% increase in destinations in zones with development within the simulation

Table 8-6 - AM Matrix Total Changes

	2018 Base Year		2033 Reference		% Difference	
	Origin	Dest	Origin	Dest	Origin	Dest
TUNBRIDGE WELLS, Zones with Developments	4818	4777	8277	7223	72%	51%
TUNBRIDGE WELLS, Zones with No Developments	11986	13949	12374	15465	3%	11%
OTHER	23362	21440	26373	24394	13%	14%
TOTAL	40166	40165	47023	47082	17%	17%

8.1.17. Figure 8-3 shows an overall change in modelled flow in 2033 compared to the Base 2018 in the AM peak hour (Green bars indicate an increase in the modelled flow and blue bars indicates a decrease). Figure 8-4, Figure 8-5, and Figure 8-6 show the congestion on the network in the Reference Case scenario, as measured through the ratio of traffic volume at a point on a road to the theoretical capacity of the road.

Figure 8-3 - Model Flow Difference AM Peak between Ref Case and Base Year-
Increase (Green), Reduction (Blue)

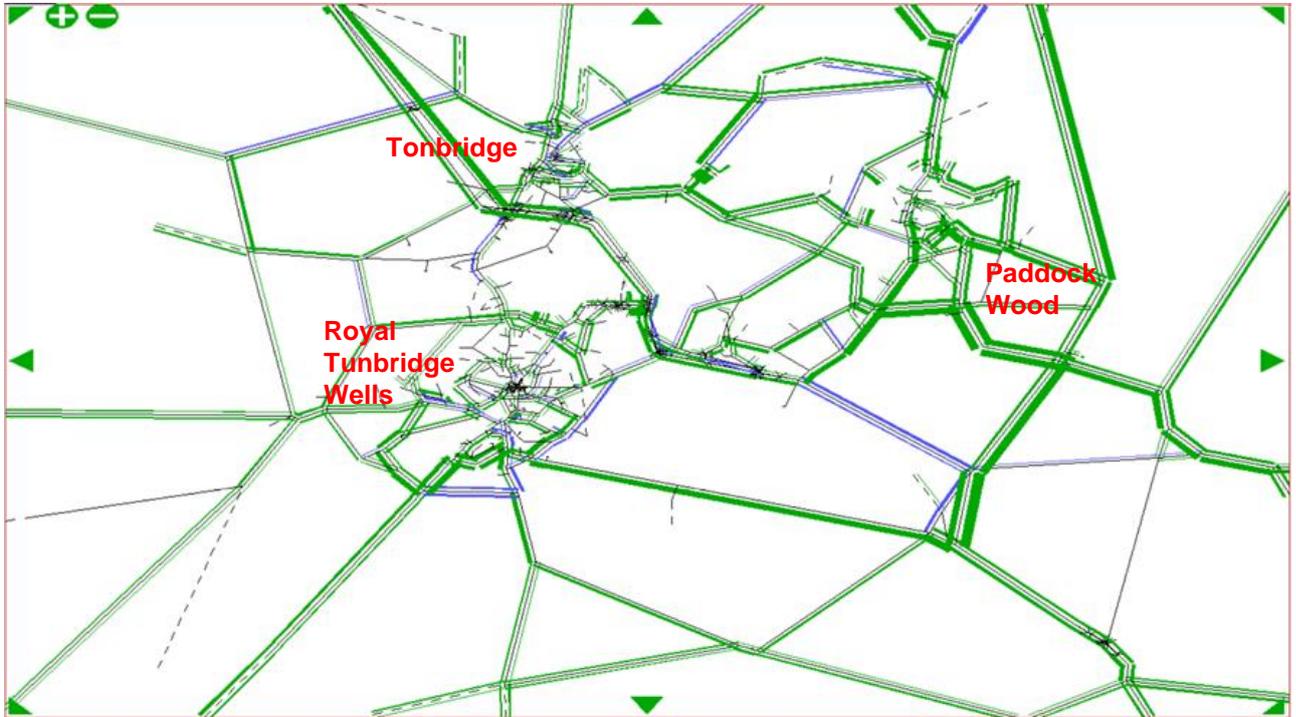
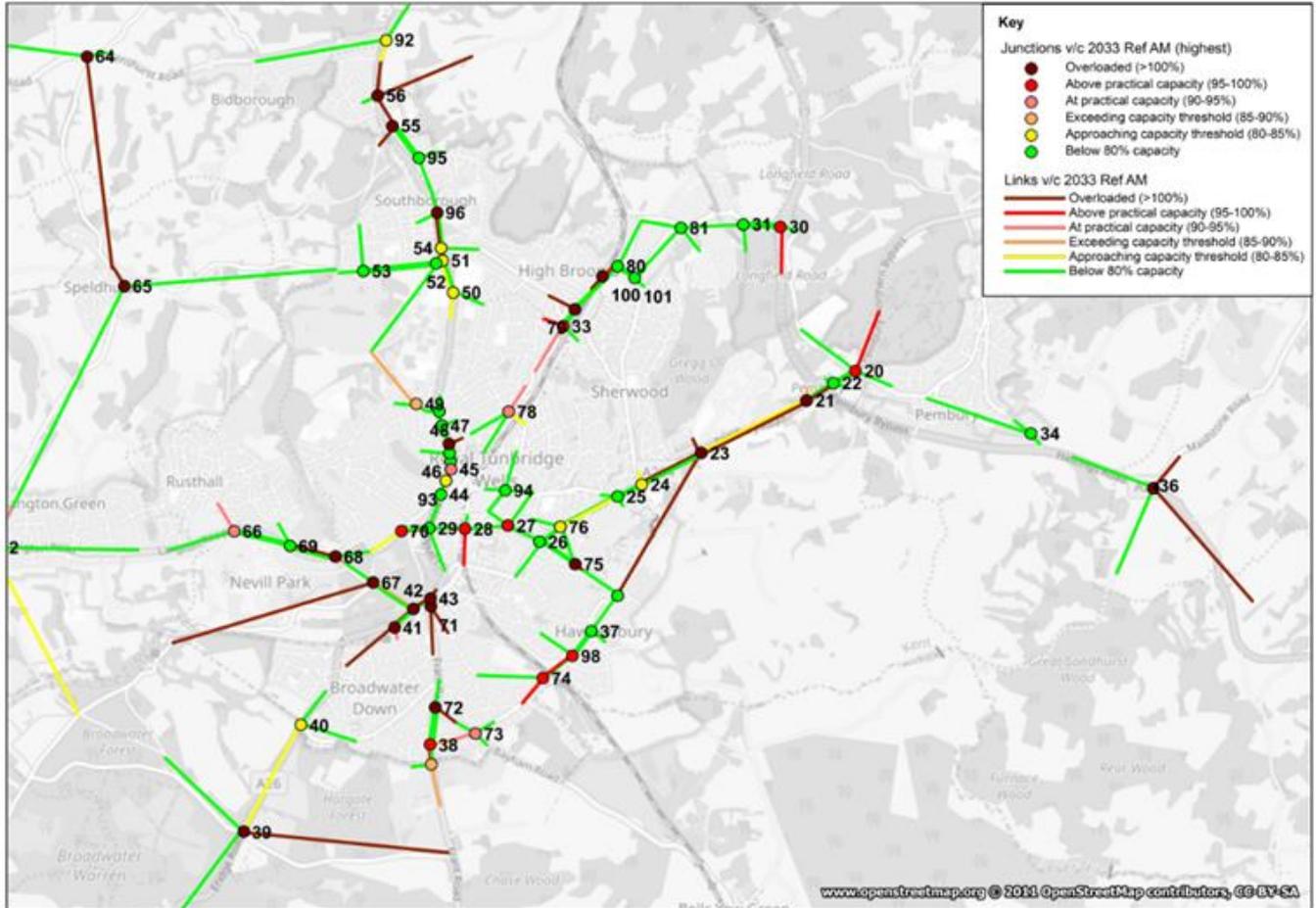


Figure 8-4 - 2033 Junction and Link V/C Plot* – Royal Tunbridge Wells



* **V/C ratios:** The ratio of traffic volume at a point on a road to the theoretical capacity of the road.

Figure 8-5 - 2033 Junction and Link V/C Plot – Tonbridge

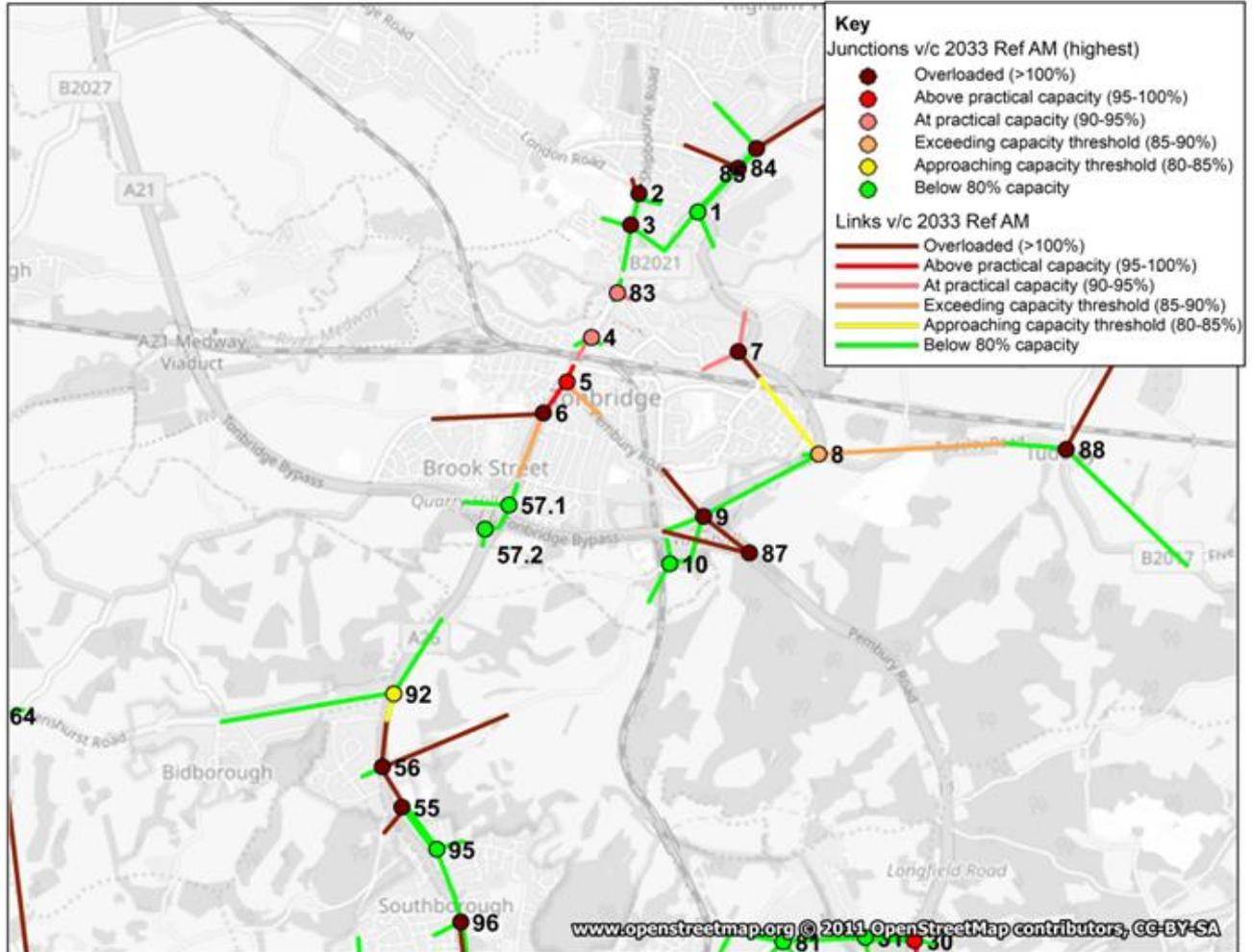
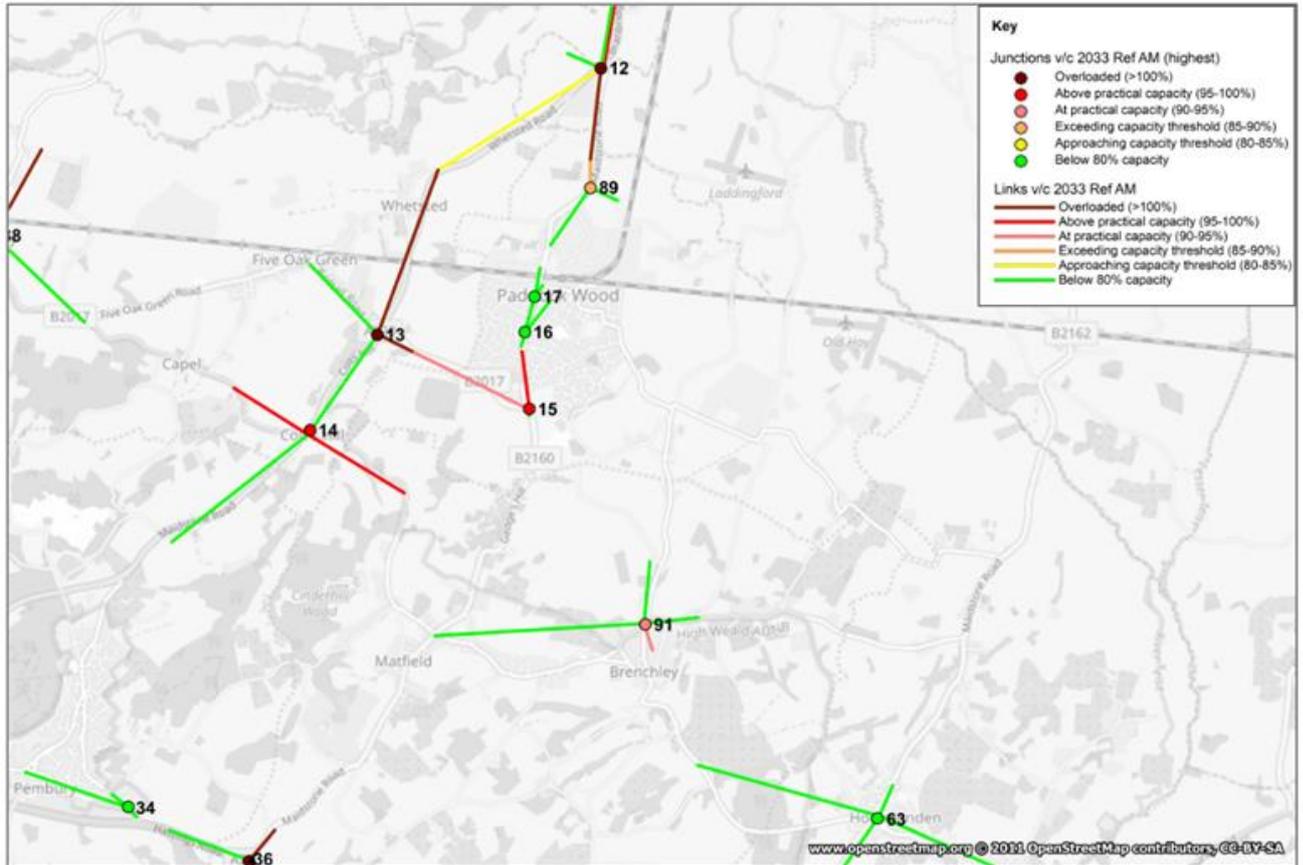


Figure 8-6 - 2033 Junction and Link V/C Plot – Paddock Wood



9. Mitigation Measures

9.1. Mode Shift Spread

- 9.1.1. The mitigation analysis focuses on schemes that provide both highway capacity increases where necessary and schemes that can reduce future highway demand and create modal shift to more sustainable modes. The modal shift analysis, using the Propensity to Cycle Tool (PCT) identifies a potential modal shift of 2%-11% from car if a high-quality cycle network is established for the study area. For some locations we have identified bus based schemes that we foresee can replicate the impacts of cycling interventions to attain the proposed modal shift.
- 9.1.2. The final mitigation scenario identifies an 11% reduction in car trips in the key Local Plan development allocation areas of Paddock Wood and Tudeley, and also to traffic in Royal Tunbridge Wells. The effect of this change on the trips are shown in Table 9-1 -.

Table 9-1 - Reduction in car trips originating from different areas within the study area

	Paddock Wood, Pembury, Royal Tunbridge Wells	Tunbridge Wells Borough	Whole model area
Reduction in car trips origination from:	11%	7%	4%

9.2. Case Studies – Supporting Evidence

- 9.2.1. Research on mode shift achieved elsewhere has been undertaken to provide a check on the assumptions made above. The key case studies that were reviewed are summarised in the following sections

9.3. Case Studies - Bus

Kent Fastrack

- High frequency high priority bus services
- +40 km of network served by 21 buses. Half of all routes will be on busways with a further 25 per cent segregated lanes.
- Fastrack busways and distinctly liveried buses make a visible statement about bus priority and the importance of public transport, and by-pass congestion 'hotspots'
- Initial studies have shown that **19% of passengers had switched from using a car**

Leighton Buzzard

- The new housing development has been constructed alongside measures designed to support behaviour change, encourage use of public transport and promote walking and cycling.

- A key target for transport at the new development was achieved early when a **20% modal shift away from car journey levels** predicted by standard transport modelling was met.

Reading

- Part of the Better Bus Area partnership
- **10% growth in bus boardings per person** 2009 to 2015
- In Reading, for example,
 - cars are excluded from much of the city centre,
 - central parking is limited and relatively expensive,
 - bus lanes are provided where space allows and, where there is no space for a priority lane, the traffic management system allows buses a head start into congested areas by the use of a separate traffic signal for buses.
 - Reading also showed a **2% rise in cycle trips**

9.4. Case Studies - Cycling

Cycling Demonstration Towns

Brighton

- During the Cycling Demonstration Towns programme between 2005 and 2008, a total of 6.5km of route infrastructure was installed
- Other infrastructure schemes focused on increasing city centre permeability, and installation of cycle parking. Personalised Travel Planning (65,000 households) was a key component of the smarter measure programme, and a number of events to promote cycling were delivered through the 'Journey On' travel awareness branding.
- 2006 – 2011
 - Cycle counter - **+27% in cycling trips**

Colchester

- Cycling initiatives focused on children included Bike It, Dr Bike maintenance sessions, bike breakfasts and 'Learn2Cycle'. In total, more than 1,500 children received Bikeability training during the programme. Adults have been encouraged to take part in cycle training through a variety of approaches, including 'Healthy Living Solutions' delivered in partnership with CTC and 'Parents Plus'.
- Infrastructure developments included the addition of 12km of cycle routes and a comprehensive signage programme. Six new traffic signal-controlled cycle crossings have been introduced, as well as 'Elephant Feet' road markings. Cycle parking facilities have been added and/or improved at 10 locations in the town centre.
- Automatic cycle counter data indicate an increase in volumes of cycles counted of **+19% against a 2007 baseline**.

9.5. Case Studies - Multi-modal Area Wide Measures

Sustainable Travel Towns

- The strategies adopted by the three towns included:
 - the development of a strong brand identity;
 - travel awareness campaigns;
 - public transport promotion;
 - cycling and walking promotion;
 - school and workplace travel planning; and
 - large-scale personal travel planning work.
- Change in car driver trips per person to 2010: **-10% in Worcester**
- Change in Traffic mileage per resident: **-10% to -11% in Darlington**
- Change in Traffic mileage per resident: **-15% in Peterborough**

Cambridge

- Cambridge Science Park, Cambridge Business Park and St John's Innovation Park
- Area wide travel planning
 - promote sustainable modes of transport, to facilitate travel choice and influence employers, employees and visitor trips to, and within, the TP+ area.
 - Includes cycle paths, BRT, and car share
- Mode Shift achieved is:

-Car driver	2009	58%
-Car driver	2017	48% (-10%)
-Bus+Cycling	2009	20%
-Bus+Cycling	2017	26% (+6%)
-Train	2009	1.30%
-Train	2017	3.6% (+2%)

9.6. Adopted Mitigations

- 9.6.1. **Table 9-2** summaries the key mitigation interventions proposed by type, with a split between multi-modal, highway, bus, walking, and cycling schemes. The schemes are focused on areas and corridors where the largest impact from new Local Plan developments occur. This area is primarily focused around the A228 from Pembury to north of Paddock Wood, the Paddock Wood area, and the B2017 corridor between Paddock Wood and Tonbridge.
- 9.6.2. The priority is for schemes that enable existing and new residents to travel door to door by public transport and active travel for the majority of their trips. At the same time, by integrating new developments with bus and rail networks in the area, this will improve overall viability of these services through increasing their service catchment. The anticipated knock on effect will be increased frequencies and longer running hours.
- 9.6.3. We foresee walking and cycling being most important for shorter distance 1-3km trips. However, we also see that with quality cycle infrastructure between key towns and

settlements, and with the potential use of quality electric bicycles also, this can provide a viable and attractive alternative for trips up to 20km in distance to be undertaken by bicycle.

- 9.6.4. The overall effect of the schemes identified are to drive significant mode shift away from car to more sustainable modes. The most substantial mode share for sustainable transport will come from new Local Plan developments that have sustainable transport infrastructure integrated into the settlement and have clear sustainable transport links to other key settlements. Through working around these upgrades and integrating change within the wider network we expect to also see mode shift from car trips by existing residents, in particular from those who live in the larger settlements of Tunbridge Wells. We have also identified the potential to further integrate High Brooms station into the Tunbridge Wells transport network, and in so doing, taking both rail demand and highway network pressure off Royal Tunbridge Wells town centre.
- 9.6.5. For the settlements away from the larger Local Plan sites and/or in rural locations, we have looked to integrate greater access by using new technology such as Demand Responsive Bus (DRB). This has the potential to offer enhanced coverage from bus without the extra costs associated with running multiple fixed link services over a wide area. Finally, we have identified that there may be potential for Park and Ride to intercept trips where people still need the car to get to and from their home. This would particularly reduce car trip demand in Royal Tunbridge Wells town centre.
- 9.6.6. **Figure 9-1** and **Figure 9-2** are maps of the proposed mitigation measures.

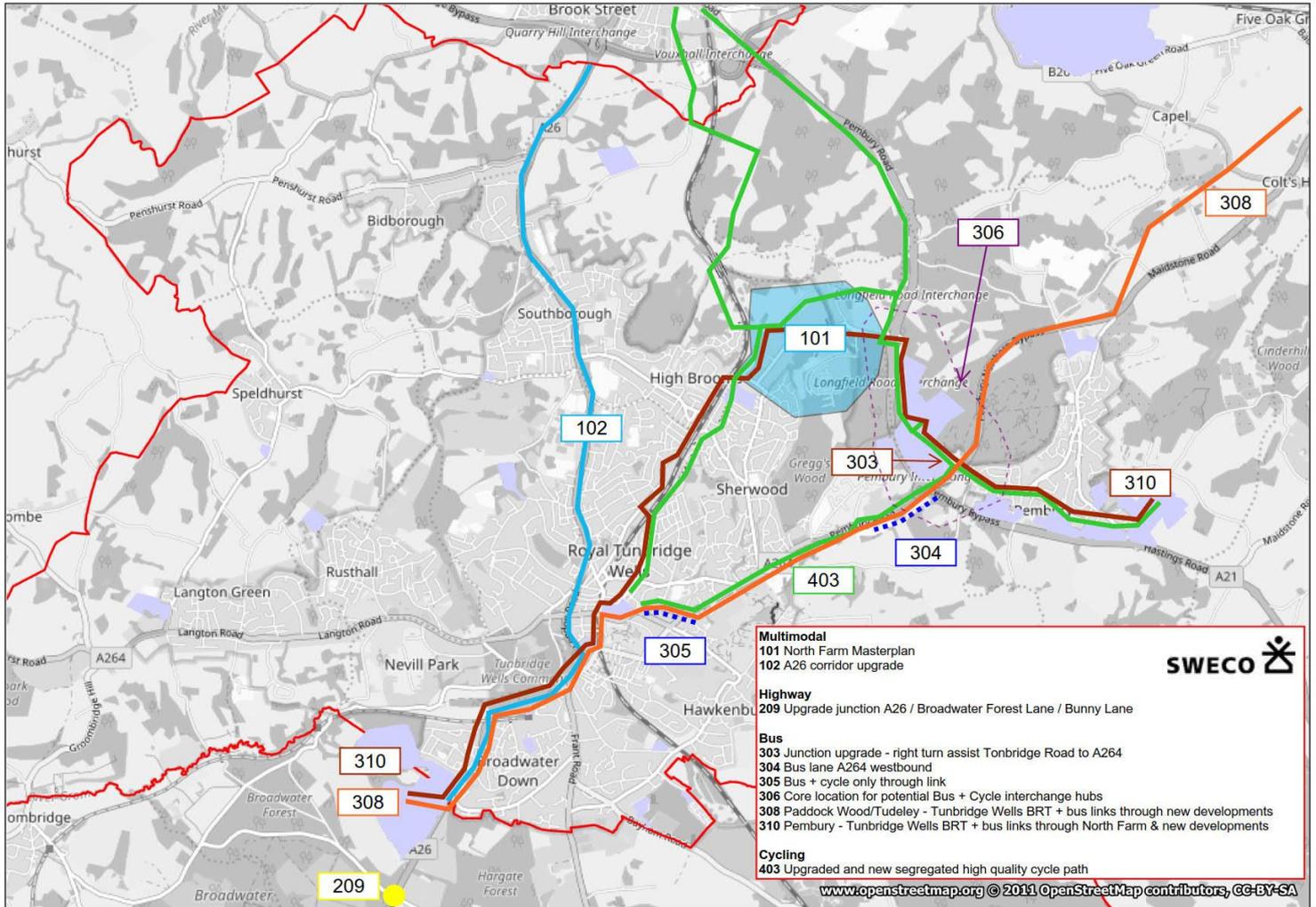
Table 9-2 - Summary of Mitigation Scheme by Intervention Type

Scheme Type	Scheme Number	Mitigation Measure	Short Description	Included in Highway Model
Multi-modal area wide measures	101	North Farm Masterplan	Multi-modal Infrastructure improvements to drive modal shift away from car to sustainable and active modes	Sensitivity tests North Farm Road S1. Bus gate at Rail Bridge S2. Two-way link under rail bridge
	102	A26 corridor upgrade	Reallocation of space with smart traffic management to improve journey time reliability and access for sustainable modes	Potential modal shift tested
	103	5G new small cell mobile base stations	Develop 5G capability in area to facilitate the evolution of highly connected and, ultimately, fully autonomous vehicles.	No
	104	Area Wide Travel Plans (AWTPs)	stimulate travel behaviour change across a development area, reducing existing car trips	No
Highway measures	201	Additional capacity between A26 and Capel (B2017 link)	Match link capacity to projected demand + improve link safety. Combine scheme with requirements for schemes 301 and 401.	Yes
	202	New bypass link of Colts Hill	Reduce congestion at key junctions + match link capacity and link quality to adjoining Pembury bypass standard	Yes
	203	Link road to new Colts Hill Bypass	Will remove through highway trips through Five Oak Green	Yes
	204	B2017 Tudeley Rd/Hartlake Rd junction upgrade	Need to increase junction capacity to cover new trip demand generated by adjacent Local Plan development	Yes
	205	A26 Woodgate Way/B2017 Tudeley Rd junction upgrade	Increase capacity at junction to match additional Local Plan highway demand	Yes
	206	A228 Whetsted Rd/B2160 Maidstone Rd jct upgrade	Existing demand + new demand from Local Plan development requires additional capacity at junction to alleviate delay	Yes
	207	Distributor road to the east of Paddock Wood	upgrade single lane links around Local Plan development to reduce congestion on local links and Paddock Wood flow	No

	208	B2107/B2160 Maidstone Rd/ Mascalls Court Rd signals	Upgrade junction to remove delay generated by additional new highway trip demand	Yes
	209	A26/ Broadwater Forest Lane / Bunny Lane signals	Increase capacity at junction and improve safety with signals, taking account of additional Local Plan traffic	Yes
Bus infrastructure	301	Paddock Wood to Tonbridge via Tudeley bus corridor	Mix of new and existing link roads with bus priority over whole corridor.	Potential modal shift tested
	303	Priority signal Tonbridge Rd at Woodsgate Corner jct	Reduces delay for key right turn on bus route, enhancing accessibility from Tunbridge Wells Hospital / North Farm	No
	304	Bus lane - A264 (Woodsgate Corner to Oakley School)	Inbound (towards RTW) bus lane to allow bus to bypass delay at A21 jcts and reduce delay at Blackhurst Lane / Halls Hole Lane	No
	305	Bus only route through Calverley Park Gardens	Used as bus bypass of Calverley Road / Pembury Road / Bayhall Road / Prospect Road junction	No
	306	North Farm/Pembury area bus services including potential for park & ride or other	Bus and cycle hubs and interchanges sites to assist in transfer between and to proposed core bus services for Tunbridge Wells	No
Bus services	302	DRB (Demand Responsive Bus) service in Paddock Wood	Flexible bus service centred on town centre and rail station. Link to new residential and employment opportunities.	Potential modal shift tested
	307	DRB - Rural on-demand bus service in east Tunbridge Wells	Connect east Tunbridge Wells to key hubs such as rail stations, Paddock Wood, Tunbridge Wells Hospital, and North Farm.	Potential modal shift tested
	308	BRT (Tudeley/Paddock Wood – North Farm/Pembury hub – Tunbridge Wells – Broadwater Down)	High frequency service with bus priority links and limited stops. Bus stops located centrally in new development areas	Potential modal shift tested
	309	BRT (Tonbridge – Tudeley – Paddock Wood)	High frequency service with bus priority links and limited stops. Bus stops located centrally in new development areas	Potential modal shift tested
	310	BRT (Pembury – North Farm/Pembury hub – Tunbridge Wells – Broadwater Down)	High frequency service with bus priority links and limited stops. Bus stops located centrally in new development areas	Potential modal shift tested
Cycling and Walking measures	401	Cycle route to link Paddock Wood to Tonbridge via Tudeley village	Make use of new road and bus links stated in 201 and 301 to provide dedicated segregated cycling infrastructure	Potential modal shift tested

	402	New cycling infrastructure within Paddock Wood	Using developments associated with schemes 207 and 301, develop segregated cycle link with link to Hop Picker Line and National Route 18 of the National Cycle Network	Potential modal shift tested
	403	Upgraded cycle route along A264 Pembury Road	Dedicated 2-way segregated cycle link from Pembury to Tunbridge Wells Station	Potential modal shift tested
	404	Cycling corridor and rights of way between Tunbridge Wells and Tonbridge	Supports e-bikes and other bikes. Offers quality cycle link to North Farm – includes linking in High Brooms station	Potential modal shift tested
	405	Provide continuous footpath and cycle links between Hawkhurst and Sissinghurst along A229 corridor	Enhances accessibility between proposed Local Plan sites and existing settlements, as well as improving access to existing bus stops	No

Figure 9-1 - Mitigation Interventions Mapped – Royal Tunbridge Wells/ Pembury

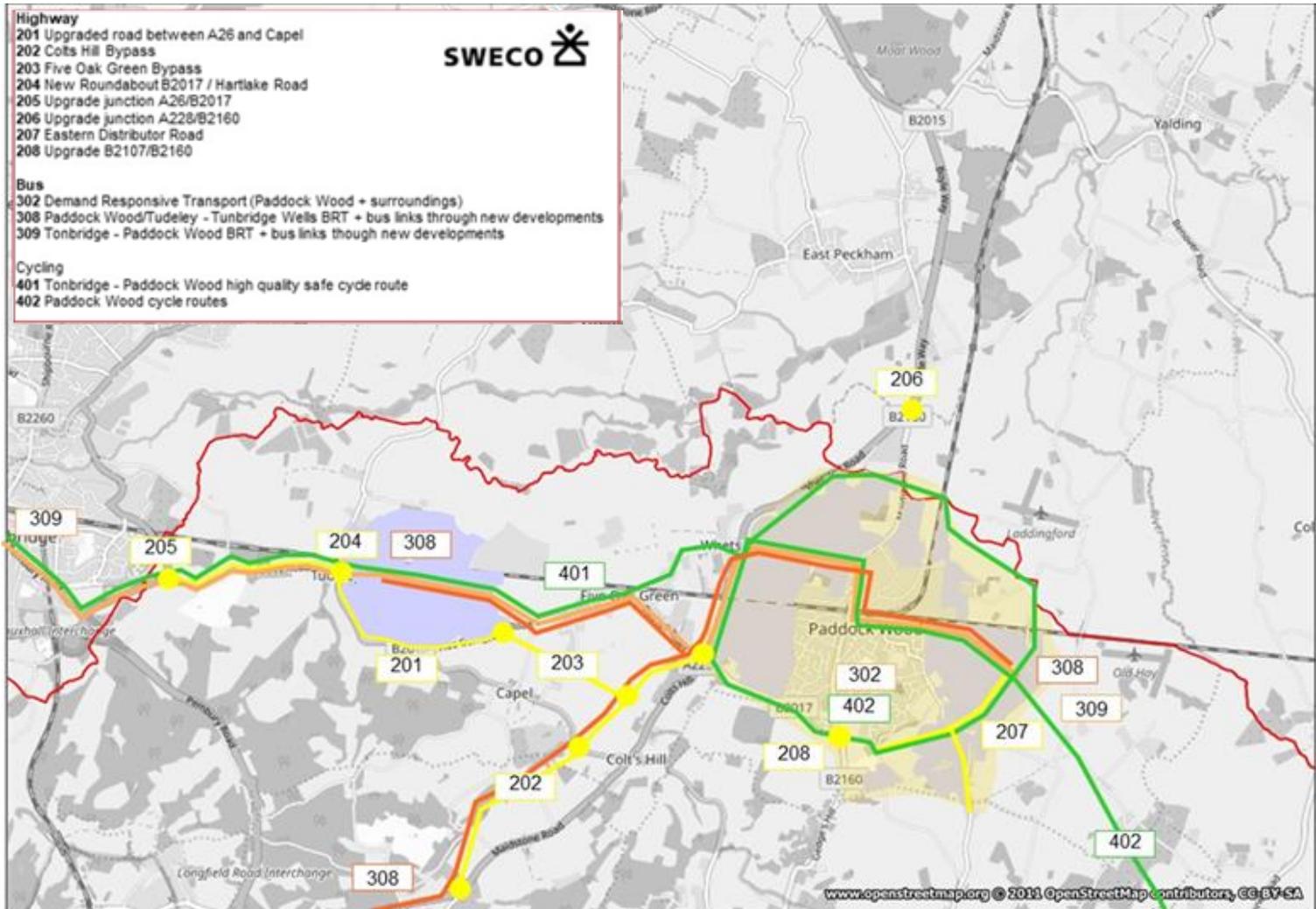


Reg. office:
Sweco UK Limited
Grove House
Mansion Gate Drive
Leeds, LS7 4DN

+44 20 3002 1210
www.sweco.co.uk
Reg.no 2888385

Sweco
Lector Court
151-153 Farringdon Road
London EC1R 3AF

Figure 9-2 - Mitigation Interventions Mapped – Paddock Wood



Reg. office:
Sweco UK Limited
Grove House
Mansion Gate Drive
Leeds, LS7 4DN

+44 20 3002 1210
www.sweco.co.uk
Reg.no 2888385

Sweco
Lector Court
151-153 Farringdon Road
London EC1R 3AF

9.7. Mitigations Discounted in Final Analysis

9.7.1. A number of additional schemes were identified and tested. This section outlines the scheme details and the findings from the high-level analysis and reasons why these schemes were discounted at this time.

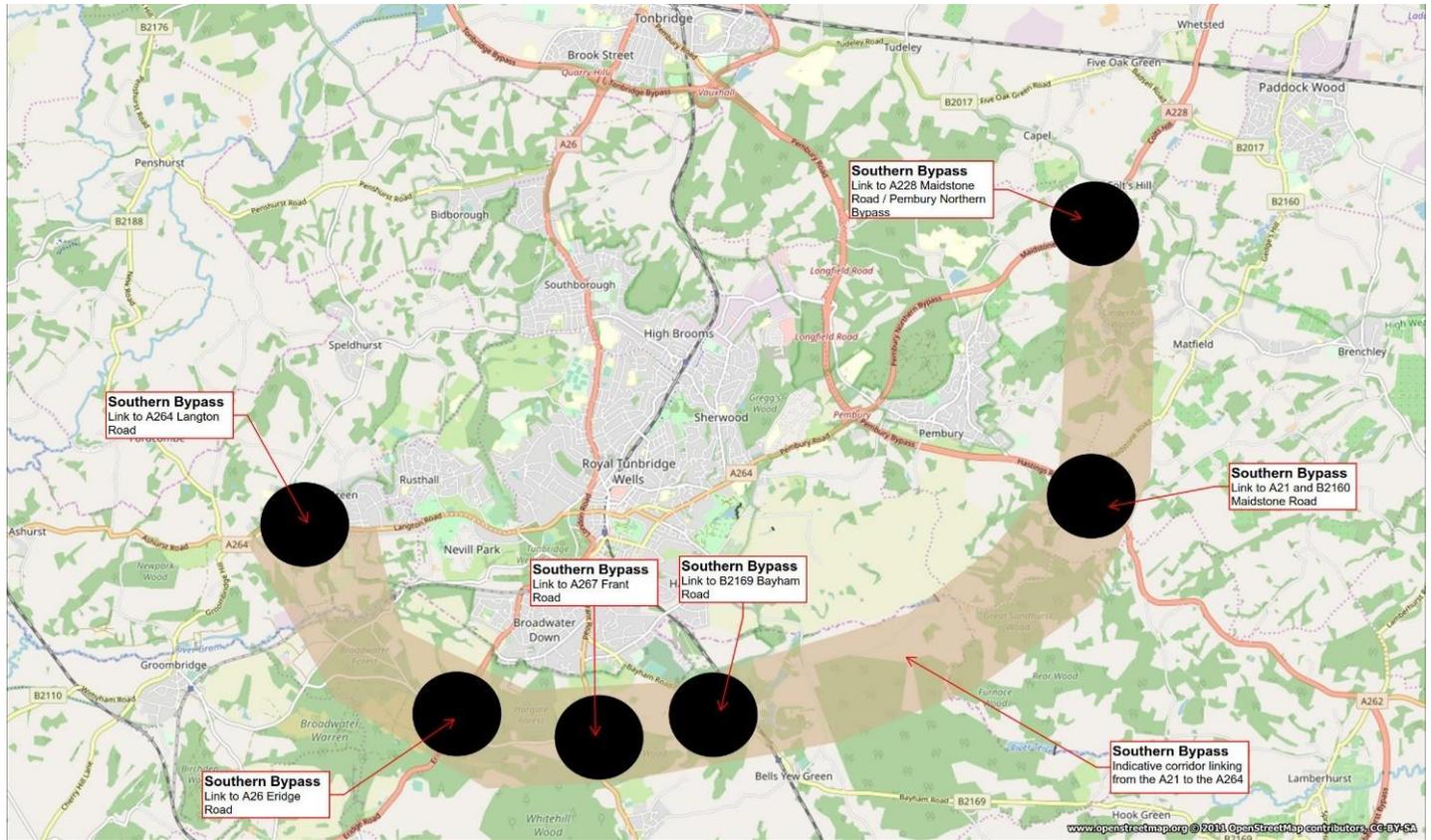
New Southern Bypass of Royal Tunbridge Wells

9.7.2. The proposed Southern Bypass looks at removing a significant level of through traffic from Royal Tunbridge Wells by providing a bypass road that links the key A and B roads from Pembury over to Langton Green and all these key links to the south in between. A full list of links are:

- A228 (Maidstone Road / Colts Hill)
- A21 Hastings Road (most likely grade separated)
- B2169 Bayham Road
- A267 Frant Road
- A26 Eridge Road
- A264 Langton Green

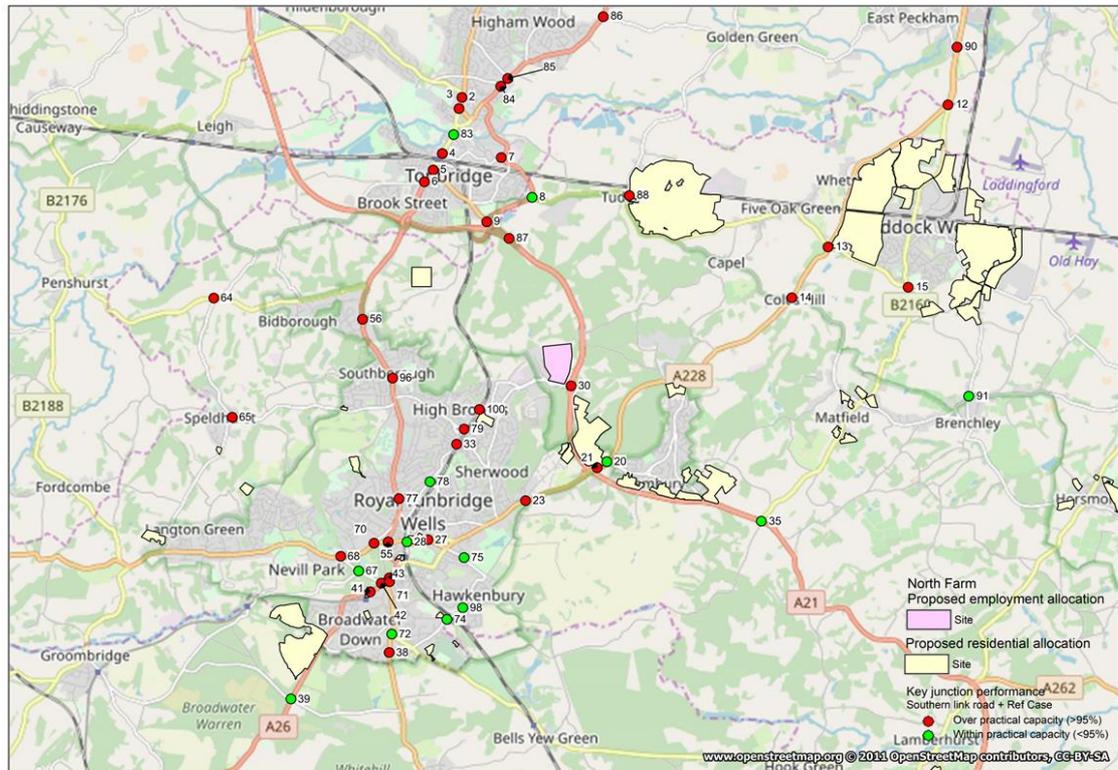
9.7.3. The high-level corridor identified is outlined here in **Figure 9-3**.

Figure 9-3 - High Level Southern Bypass Proposed Link



- 9.7.4. The key aim of this mitigation is to reduce traffic flow and congestion primarily on the east west A264 Pembury Road / Langton Road link. The link is already at capacity at a number of junctions. Other areas that would likely get relief would be the A21/A264 junction at Pembury and the Tonbridge Road / High Street junction. The scheme also has the potential to relieve north/south movements along the A26 as flows would be encouraged to come off the A26 to the south of Broadwater Down and use the bypass and A21 to connect with Tonbridge and beyond on the A21. The scheme would offer an opportunity for Royal Tunbridge Wells, through reduced vehicle numbers through the centre, to reuse road space away from traffic use towards either public transport or active travel (walking and cycling) schemes.
- 9.7.5. A high-level modelling sensitivity test has been undertaken for this task. The key results in terms of junction performance is outlined below in Figure 9-4. The outputs show that some junctions around Royal Tunbridge Wells do see an improvement in performance to within capacity. However, the link fails to reduce congestion on key junctions on the A26 corridor and the A264 corridor. In addition, it has a limited impact on junctions close to the key local plan sites around Paddock Wood or the key employment sites around North Farm.

Figure 9-4 - Junction Capacity Performance – Southern Link Road Test with Reference Case Highway Demand



- 9.7.6. The proposed route is likely to pass mostly through the High Weald Area of Outstanding Natural Beauty (AONB), with a number of ancient woodlands in the area. Benchmarked against schemes of a similar scale, costs are likely to be £100m-£250m. Therefore, there are both significant physical and financial barriers to the scheme.
- 9.7.7. Critically for this study, there is no need for such a scheme to mitigate the Local Plan allocations set out in this report.
- 9.7.8. Nevertheless, there could be an opportunity to construct such a bypass on a phased basis to be completed if further growth, beyond that tested in this report, were to occur.

Halls Hole Road / A264 Junction and Potential Bus Lane

- 9.7.9. The A264 Pembury Road corridor is significantly constrained by land ownership, topography, and Conservation Area issues. Previous work to reduce congestion and improve flow has involved installing traffic signals at the Halls Hole Road / A264 junction. Our analysis shows that this junction is at capacity and will remain overcapacity into the future. Options to increase capacity at the junction through additional approach and filter lanes are likely to be very costly as there are both significant land ownership issues (the highway boundary is close to the carriageway) and topography issues (in particular on

Halls Hole Road where there is an immediate drop). In addition, there is a major gas mains at the Halls Hole Road junction which is a further constraint to change and would need significant costs to mitigate. This indicates that any such intervention would be costly and, with constraints on the corridor all the way into Royal Tunbridge Wells, it is not clear that benefits accruing from capacity works at the junction would represent value for money. The most affordable solution to improve traffic flow in the short term would be to recalibrate the traffic signals to better take account of the increased flows and to achieve a shift from car to cycling and bus.

- 9.7.10. As part of our mitigations, we propose both a high-quality two-way cycle link upgrade along the full A264 Pembury Road corridor, and an inbound westbound bus lane along the A264 Pembury Road from the Tonbridge Road / High Street junction to the most westerly entrance to Oakley School. The cycle path would mainly use the existing footway and cycle path width east of the Halls Hole Road towards the Tonbridge Road / High Street junction. West of Halls Hole Road the central hatching could be repurposed to reconfigure the carriageway to give more width to the cycle corridor. A bus lane could be constructed between Tonbridge Road / High Street junction and Oakley School by repurposing the central hatching to provide a westbound bus lane. This bus lane would allow bus services to skip congestion around the A21 flyover whilst also allowing bus services to skip some of the queuing on the approach to the Halls Hole Road junction along the A264.
- 9.7.11. The bus and cycling schemes would work sustainably in reducing the demand for car trips on the corridor through modal shift, which in turn would help to relieve some of the junction congestion pressure at Halls Hall Road and other junctions on the A264 corridor. We see these interventions as being more feasible to implement with the availability of space, time, and likely developer contribution from Local Plan developments. They would also have positive knock on effects in relation to reduced congestion and air pollution, as well as improved accessibility, over a wider area than just this particular junction.

A26 Corridor Widening

- 9.7.12. The modelling analysis highlights that a number of junctions along the A26 are already at capacity. Projected additional future year background growth in highway demand means that the A26 corridor will continue at or over capacity. The corridor width is primarily constrained by Tunbridge Wells Common and property boundaries from homes, shops, and services.
- 9.7.13. The majority of Local Plan development is planned for sites away from Royal Tunbridge Wells and the A26 corridor. At the same time due to highway width constraints, a significant road widening scheme on the A26 corridor would be very costly, notwithstanding also potentially damaging to the local streetscape. With the low projected Local Plan development in the area the cost of a widening scheme along the A26 corridor cannot be justified as part of the Local Plan. From our analysis however, we have still identified large benefits that are likely to be accrued for a lower cost through reducing the number of junctions with access to the A26, rationalising parking and loading, and introducing further traffic signals to create a 'Smart Signals' network, so the flow of traffic on the A26 corridor can be managed better. There is also potential for cycle lanes to be added through the

reallocation of space and use of the Common land. This can help to induce modal shift away from car and so reduce delay for all users at key congestion spots.

9.8. Mitigation Outcomes and Recommendations

- 9.8.1. This section analyses the latest model run data comparing the Base data, Reference Case data, and the mitigation scenario with an 11% reduction in origin trips within the core Tunbridge Wells triangle. There are 98 key junctions in the Tunbridge Wells Highway Model that cover Tunbridge Wells District. A small number of junctions close to the Tunbridge Wells District border fall within Tonbridge and Malling and Wealden districts.
- 9.8.2. The mitigation model includes a number of changes compared to the Reference Case scenario.

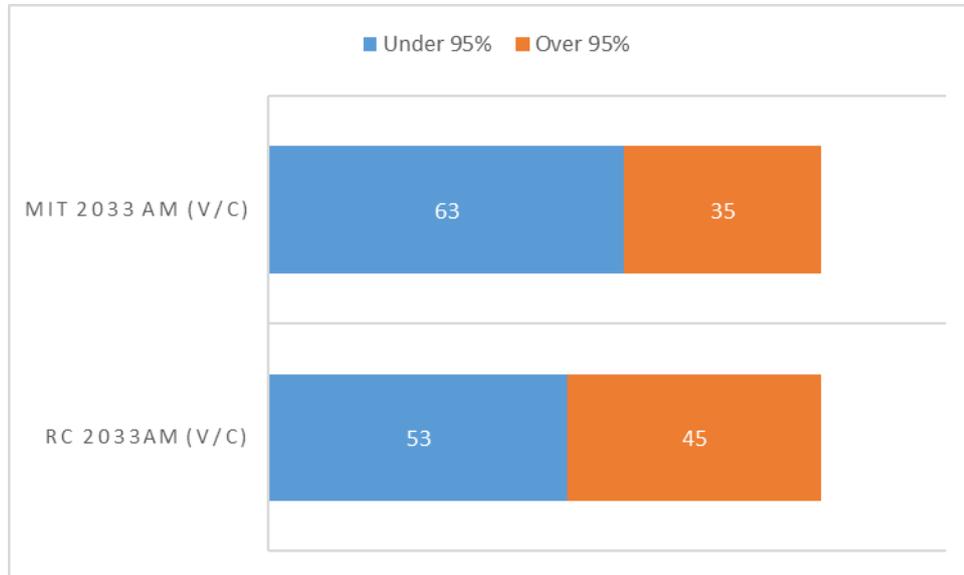
A small number of junctions modified to facilitate the additional junction demand:

- 12. A228 Branbridges Road / B2160 Maidstone Road / A228 Whetsted Road
- 15. B2017 Badsell Road / B2160 Maidstone Road
- 88. B2017 Crockhurst Street/Tudeley Road/Hartlake Road

Wider model link modifications for the mitigation scenarios include:

- A new Colts Hill Bypass, and
 - A new Five Oak Green bypass link road
- 9.8.3. The remaining effects in the model are generated by reduced car trips from core origin trip areas in the Royal Tunbridge Wells, Pembury, and Paddock Wood areas. This change in demand is associated with local bus and active travel improvements that are anticipated to achieve a modal shift away from car, as discussed earlier.
- 9.8.4. Overall, the impact of the mitigation measures is to remove many trips away from the congested highway corridors through a mode shift to BRT bus, cycling and walking.
- 9.8.5. **Figure 9-5** takes into account the overall performance of the junctions in the model. This highlights that the mitigation scenario brings an additional 10 junctions within capacity as a result of the mitigation measures undertaken.

Figure 9-5 - Scenario Comparison 2033 AM - Junction Performance Across Network



9.8.6. The link demand changes when comparing the '2033 Reference Case with Mitigation and 11% demand change' in comparison to the '2033 Reference Case' Scenario sees the following changes:

- Increased demand on the A228 between Pembury and Paddock Wood due to increase capacity on links and junctions with the new link roads
- Reduced traffic flow around Paddock Wood
- Overall reduction in traffic flow around Royal Tunbridge Wells primarily due to modal shift and associated infrastructure changes in the area

Figure 9-6 - Model Flow Difference between '2033 Reference Case with Mitigation and '2033 Reference Case' - Increase (Green), Reduction (Blue)

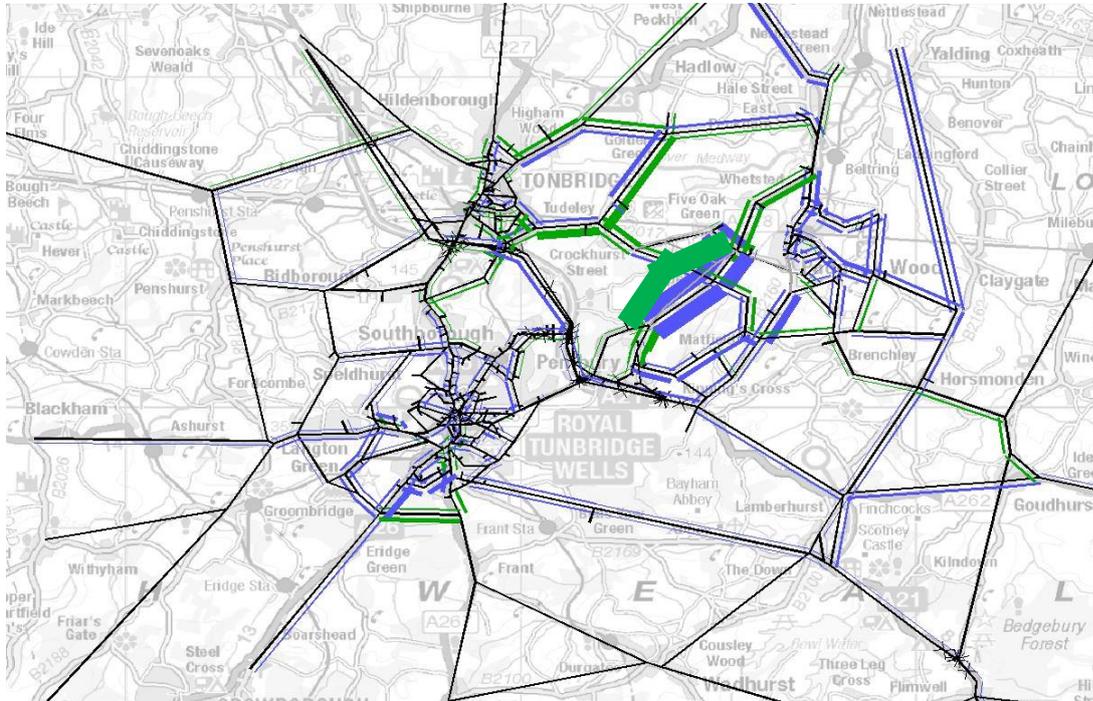
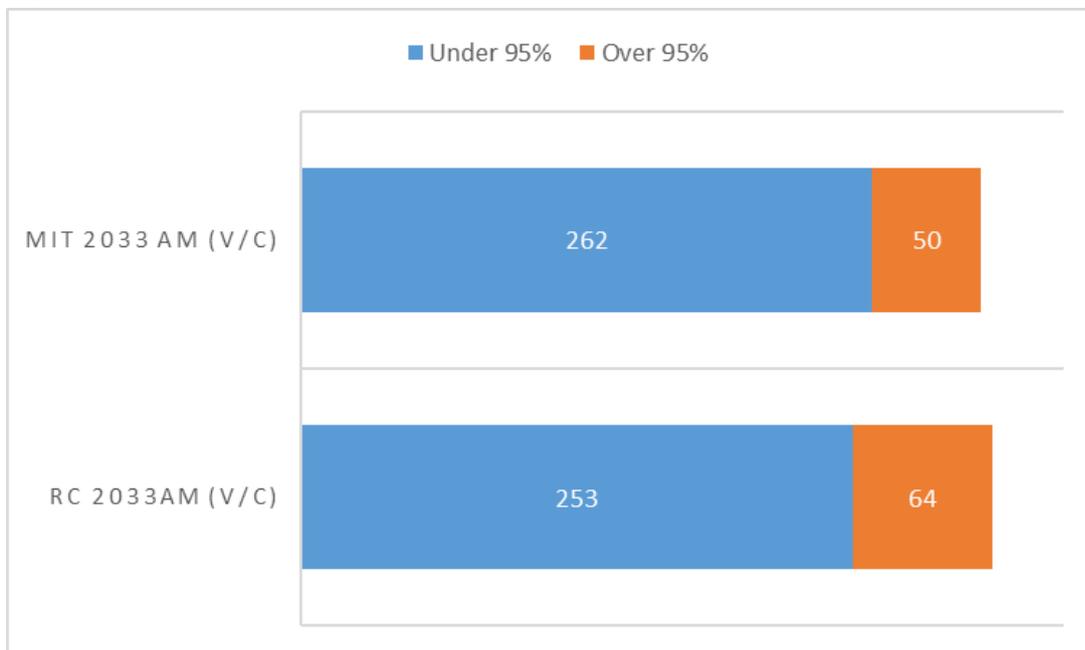
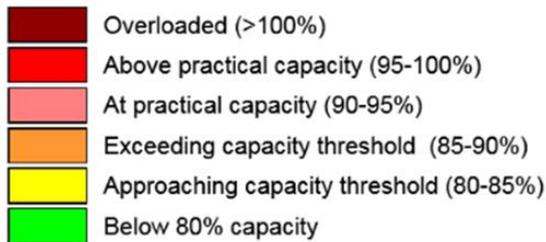


Figure 9-7 - Scenario comparison 2033 AM – Link performance across the network



9.8.7. The metric for performance is presented in Table 9-3.

Table 9-3 - Metric for junction performance (V/C)



9.8.8. The 11 junctions successfully mitigated are outlined in **Table 9-4**.

Table 9-4 - Junctions Under Capacity in Future Year Scenario as a Result of Mitigations

JunctionID	Description	Location	Junction Upgrade scheme included	Highest		
				2018 Base	2033 Ref	2033 Mit
12	A228 Branbridges Road / B2160 Maidstone Road / A228 Whetsted Road	Paddock Wood	√			
14	A228 Maidstone Road / Alders Road / Crittenden Road	Colts Hill				
15	B2017 Badsell Road / B2160 Maidstone Road	Paddock Wood	√			
33	Sandhurst Road / North Farm Road / Upper Grosvenor Road	Royal Tunbridge Wells (High Brooms)				
39	A26 Eridge Road / Bunny Lane / Broadwater Forest Lane	Royal Tunbridge Wells (A26)				
56	A26 London Road / Vauxhall Lane	Southborough				
72	A267 Frant Road/Bayham Road	Royal Tunbridge Wells				
74	Forest Road/Warwick Park	Royal Tunbridge Wells				
88	B2017 Crockhurst Street/Tudeley Road/Hartlake Road	Tudeley	√			
96	A26 London Road/Meadow Road	Royal Tunbridge Wells (A26)				
98	Forest Road/Farmcombe Road	Royal Tunbridge Wells				

9.8.9. The mitigation scenario does retain 35 junctions at a level that is over capacity as shown in **Table 9-5**. The junctions that remain overcapacity after implementing the mitigations are listed in **Table 9-5**. One junction (91) is over capacity in the mitigation tests but not in the Reference Case.

Table 9-5 - Junctions Overcapacity in all Scenarios

JunctionID	Description	Location	Existing junction type	Junction Upgrade scheme included	Highest		
					2018 Base	2033 Ref	2033 Mit
2	A227 Shipbourne Road / Portman Park / A227 High Street / B245 London Road	Tonbridge (T&M)	Signals				
3	A227 High Street / B2260 High Street / A227 Bordyke / Lansdowne Road	Tonbridge (T&M)	Signals				
5	B2260 Quarry Hill Road / A2014 Pembury Road / A26 Quarry Hill Road	Tonbridge (T&M)	Roundabout				
6	A26 Quarry Hill Road / Brook Street	Tonbridge (T&M)	Roundabout				
7	A26 Vale Road / A26 Vale Rise / Vale Road	Tonbridge (T&M)	Roundabout				
9	A26 Woodgate Way / Pembury Road / A2014 Vauxhall Lane / A21 / A2014 Pembury Road	Tonbridge (T&M)	Roundabout				
13	A228 Maidstone Road / B2017 Badsell Road	Paddock Wood	Roundabout	v			
20	A228 Pembury Northern Bypass / High Street / Tonbridge Road	Pembury	Signals				
21	A21 / A228 Pembury Road / A264 Pembury Road	Pembury	Roundabout				
23	Blackhurst Lane / A264 Pembury Road / Hall's Hole Road	Royal Tunbridge Wells	Signals				
27	Calverley Road / Lansdowne Road / A264 Calverley Road / A264 Crescent Road	Royal Tunbridge Wells	Roundabout				
28	Mount Pleasant Road / A264 Crescent Road / A264 Church Road	Royal Tunbridge Wells	Signals				
30	A21 / Tonbridge Road / Longfield Road	North Farm	Roundabout				
35	Kippings Cross Roundabout	Pembury	Roundabout				
38	A267 Frant Road / Forest Road	Royal Tunbridge Wells	T - junction				
41	A26 Eridge Road / Nevill Terrace	Royal Tunbridge Wells	Roundabout				
42	A26 London Road / Major York's Road	Royal Tunbridge Wells	Roundabout				
43	A26 London Road / A267 Nevill Street	Royal Tunbridge Wells	Roundabout				
55	A26 London Road / Church Road	Royal Tunbridge Wells	Signals				
64	B2176/Barden Road	Bidborough	T - junction				
65	Barden Road/Speldhurst Hill	Speldhurst	T - junction				
67	Major York's Road/Hungershall Park	Royal Tunbridge Wells	4 arm yield				
68	A264 Langton Road/Major York's Road	Royal Tunbridge Wells	Roundabout				
70	A264/Mount Ephraim	Royal Tunbridge Wells	T - junction				
71	A267 Frant Road/Warwick Road	Royal Tunbridge Wells	T - junction				
75	Bayhall Road/Kingswood Road	Royal Tunbridge Wells	T - junction				
77	St John's Road/Woodbury Park Road	Royal Tunbridge Wells	T - junction				
79	North Farm Road/High Brooms Road	High Brooms	T - junction				
84	A26 Hadlow Road/Yardley Park Road	Tonbridge (T&M)	T - junction				
85	A26 Hadlow Road/The Ridgeway	Tonbridge (T&M)	T - junction				
86	A26 Hadlow Road East/Three Elm Lane	Tonbridge (T&M)	T - junction				
87	A21 Tonbridge Bypass/Pembury Road	Tonbridge	Slip				
90	A228 Boyle Way/Branbridges Road	East Peckham (T&M)	Roundabout				
91	Windmill Hill/Pixot Hill/Crook Road	Brenchley	4 arm yield				
100	North Farm Road under rail bridge	North Farm / High Brooms	Signal shuttle				

Reg. office:
Sweco UK Limited
Grove House
Mansion Gate Drive
Leeds, LS7 4DN

+44 20 3002 1210
www.sweco.co.uk
Reg.no 2888385

Sweco
Lector Court
151-153 Farringdon Road
London EC1R 3AF

9.8.10. There are 8 junctions that are overcapacity in the future scenarios that are within capacity in the Base scenario, as shown in **Table 9-6**. Of these junctions, 3 are outside the Tunbridge Wells District. Junction improvements should be required at these junctions to be paid for by the Local Plan allocated sites.

Table 9-6 - Junctions Over Capacity that are Not Overcapacity in Base

JunctionID	Description	Location	Existing junction type	Highest		
				2018 Base	2033 Ref	2033 Mit
2	A227 Shipbourne Road / Portman Park / A227 High Street / B245 London Road	Tonbridge (T&M)	Signals			
5	B2260 Quarry Hill Road / A2014 Pembury Road / A26 Quarry Hill Road	Tonbridge (T&M)	Roundabout			
20	A228 Pembury Northern Bypass / High Street / Tonbridge Road	Pembury	Signals			
30	A21 / Tonbridge Road / Longfield Road	North Farm	Roundabout			
67	Major York's Road/Hungershall Park	Royal Tunbridge Wells	4 arm yield			
75	Bayhall Road/Kingswood Road	Royal Tunbridge Wells	T - junction			
86	A26 Hadlow Road East/Three Elm Lane	Tonbridge (T&M)	T - junction			
91	Windmill Hill/Pixot Hill/Crook Road	Brenchley	4 arm yield			

Reg. office:
Sweco UK Limited
Grove House
Mansion Gate Drive
Leeds, LS7 4DN

+44 20 3002 1210
www.sweco.co.uk
Reg.no 2888385

Sweco
Lector Court
151-153 Farringdon Road
London EC1R 3AF

9.9. Additional Sensitivity Testing – North Farm Road / Dowding Way Rail Under-bridge Link

- 9.9.1. A key potential mitigation identified is that of a new additional bus service to link between Royal Tunbridge Wells, High Brooms Station, North Farm, Tunbridge Wells Hospital, and Pembury. This mitigation would link existing and new developments, in particular in Pembury, to key trip generators including hospital, retail, and railway station.
- 9.9.2. A number of potential measures have been considered to help provide a high-quality bus route and achieve other benefits such as improved pedestrian and cycle links and better highway safety. These are outlined as the following:
- **S1** – make underbridge bus only. This would require existing traffic to use the current HGV signposted route to connect from High Brooms to North Farm. We recognise the limits on height and width on the underpass, however we believe it would be still possible to run bespoke smaller buses on this link.
 - **S2** – rebuild the underpass to facilitate a two way all vehicle flow. This would increase the capacity of the existing link removing the need for shuttle arrangement that currently sees traffic signals hold traffic movements from one direction to allow vehicles from the other direction to pass.
 - **S3** – new bus link along Clifton Road. There are potential positives and negatives to this option including the need to review residential parking, the potential to retain vehicle access under the bridge or to close off and give over to walk and cycle. We see this as a more complex decision to make with impacts to local residents. As a result, we have focused on testing S1 and S2 to understand the principles behind change. S3 can be modelled around either outcome, depending on what is preferred to proceed with.
- 9.9.3. These measures are being tested in detail as part of the North Farm Masterplan proposal.

9.10. Timescales

- 9.10.1. The mitigation measures proposed are shown in **Table 9-7**. In general, the mitigation related to the major new sites at Tudeley and around Paddock Wood would be part of a package of infrastructure related to the development of several thousand new homes, for which holistic planning and delivery is necessary. It will take a number of years to for these sites to go through the planning process and be constructed. Therefore, it is unlikely that these measures would be implemented before 2025. All other measures, which relate to smaller or stand-alone developments, are likely to come forward, at least in part, before 2025.

Table 9-7 – Timescales for Mitigation Measures

Scheme Type	Scheme Number	Mitigation Measure	Pre- 2025	Post 2025
Multi-modal area wide measures	101	North Farm Masterplan	✓	
	102	A26 corridor upgrade	✓	
	103	5G new small cell mobile base stations	✓	
	104	Area Wide Travel Plans (AWTPs)	✓	
Highway measures	201	Additional capacity between A26 and Capel (B2017 link)		✓
	202	New bypass link of Colts Hill		✓
	203	Link road to new Colts Hill By-pass		✓
	204	B2017 Tudeley Rd/Hartlake Rd junction upgrade		✓
	205	A26 Woodgate Way/B2017 Tudeley Rd junction upgrade		✓
	206	A228 Whetsted Rd/B2160 Maidstone Rd jct upgrade		✓
	207	Distributor road to the east of Paddock Wood		✓
	208	B2107 /B2160 Maidstone Rd/ Mascalls Court Rd signals		✓
	209	A26/ Broadwater Forest Lane / Bunny Lane signals	✓	
Bus infrastructure	301	Paddock Wood to Tonbridge via Tudeley bus corridor		✓
	303	Priority signal Tonbridge Rd at Woodsgate Corner jct	✓	
	304	Bus lane - A264 (Woodsgate Corner to Oakley School)	✓	
	305	Bus only route through Calverley Park Gardens	✓	

	306	North Farm/Pembury area bus services including potential for park & ride or other	✓	
Bus services	302	DRB (Demand Responsive Bus) service in Paddock Wood	✓	
	307	DRB - Rural on-demand bus service in east Tunbridge Wells	✓	
	308	BRT (Tudeley/Paddock Wood – North Farm/Pembury hub – Tunbridge Wells – Broadwater Down)		✓
	309	BRT (Tonbridge – Tudeley – Paddock Wood)		✓
	310	BRT (Pembury – North Farm/Pembury hub – Tunbridge Wells – Broadwater Down)	✓	
Cycling and Walking measures	401	Cycle route to link Paddock Wood to Tonbridge via Tudeley village		✓
	402	New cycling infrastructure connecting to and within Paddock Wood		✓
	403	Upgraded cycle route along A264 Pembury Road	✓	
	404	Cycling corridor and rights of way between Tunbridge Wells and Tonbridge	✓	
	405	Provide continuous footpath and cycle links between Hawkhurst and Sissinghurst along A229 corridor	✓	

10. Summary and Conclusions

10.1. Summary of Key Findings

10.1.1. Our public transport and active travel assessment has identified the following issues and interventions with a view to ensuring that the new Local Plan development sites for the **East** region are well integrated through viable sustainable transport options:

- The underlying bus frequency and coverage for the region, including bus service frequency will need to be increased in the region to make bus use attractive. The core areas of Hawkhurst, Cranbrook, and Sissinghurst are likely to see improvements to existing bus services, in particular routes 5, 297, and 304, as Local Plan sites will increase service catchment in these areas. The wider rural region is likely to remain less accessible without a more flexible all-day service to connect existing residential and new Local Plan sites to key employment, educational, retail, and rail hubs in a manner that is attractive for non-car trips. The intervention proposed is for Demand Responsive Buses that can be more flexible in routing, to cover more door to door trips, and pick up times (Proposal 307).
- Developing pedestrian facilities and cycling links along the A229 corridor can bring additional local connectivity to new and existing developments through walking and cycling, as proposed by Proposal 405 Connecting with Proposals 402 and 403 using Hop Pickers Route and NCN Route 18 also offers the potential to connect new and existing settlements in the East region to Paddock Wood, Pembury, and Royal Tunbridge Wells by bicycle. These interventions will reduce reliance on car for access to and from the East region.
- Rail constitutes 8% of trips to work for the east region, and yet there is no station in the region itself. This highlights the pressure on connecting modes for rail travel. Key rail stations, Etchingham and Staplehurst, could see additional pressure on car parking and station capacity as a result of the new development if existing trip patterns are maintained, with the dominant trip pattern for rail trips to London. By implementing Proposals 307 and 405 in particular, the enhanced access allowed by bicycle and bus can reduce the need for additional car parking spaces at key local railway stations. These alternatives to car access are likely to be stronger for the South Eastern Main Line, which Staplehurst is on. Access by bus to the Hastings Line will be more constrained due to the reliance on the bus link to Wadhurst which is further in distance from the area than Etchingham, and a lack of clearly identified cycle link alternatives to car access.

10.1.2. Our public transport and active travel assessment has identified the following issues and interventions with a view to ensuring that the new Local Plan development sites for the **Central** region are well integrated through viable sustainable transport options:

- Tunbridge Wells Hospital offers a significant bus hub for the area. Any additional bus schemes should reinforce the importance of the use of hubs in the wider region, allowing local services to interchange and offer wider onward connections. North South bus links to Paddock Wood and Maidstone are currently thinly spread. Consequently, we have

developed Proposals 308, 309, and 310 that will bring greater coordination between core fast services that will crisscross the Central region linking between the key urban centres and larger Local Plan settlements. By developing local public transport hubs (Proposal 306), integrating with local bus, walk, and cycle links, this will increase connectivity between housing and jobs in the area by sustainable transport. A key objective is to enhance the local link to North Farm and High Brooms station to reduce trip demand for Royal Tunbridge Wells.

- The new Colts Hill Bypass will not only reduce congestion at key junctions on that link but will improve safety on the existing A228 corridor and improve the competitiveness of express buses with car trips between north and west Tunbridge Wells via central Tunbridge Wells.
- Rail constitutes a significant 10% mode share of trips to work for this region, despite there being no station in the region itself. It is currently likely most of the ‘first mile’/‘last mile’ based in this part of Tunbridge Wells borough are undertaken by car. The BRT and DRB proposals, as well as key infrastructure such as Proposals 303, 304, 305, and 306 will enhance sustainable mode connections to rail. A key aim is for High Brooms links to offer a similar level of service to Tunbridge Wells Central to reduce the pressure on Tunbridge Wells Central station from car trips in particular.
- Currently, cycling would be seen as not viable for most existing and future development trips due both to a lack of a quality network. However, the underlying network is there to create stronger links to North Farm, Tunbridge Wells Hospital, and Royal Tunbridge Wells. Through the Colts Hill bypass proposal, there is potential to repurpose the existing A228 road to Paddock Wood for cycling if the Colts Hill Bypass is built. In addition, work associated with the North Farm masterplan and A264 corridor towards Royal Tunbridge Wells can ensure cycling is a viable alternative from car trips in the wider area.
- Walking is strong within town/village centres (currently at 5% of total journey to work mode share) and some new development should be able to take advantage of this set up to promote active trips. However inter-urban settlement walk trips is still likely to be limited by the lack of continuous dedicated pedestrian facilities and the underlying distances.

10.1.3. Our public transport and active travel assessment has identified the following issues and interventions with a view to ensuring that the new Local Plan development sites for the **North** region are well integrated through viable sustainable transport options:

- The East West link between Paddock Wood and Tonbridge (Proposal 309/401) is likely to become a key corridor with public transport and cycling interventions to support new developments in the area. New developments are likely to seek quick frequent access to both Tonbridge and Paddock Wood stations, as well as Maidstone. Additional consideration will need to be given to how Royal Tunbridge Wells should be connected into the area by public transport. Services 302, 308, 309, and 310 are focused on developing complete door-to-door journey times by public transport.
- New links will also need to be created between Paddock Wood and Goudhurst, Horsmonden, and Matfield. Demand Responsive bus services offer an opportunity to

increase bus coverage in the region in a sustainable manner, as per options 302 and 307.

- Rail constitutes a significant 12% mode share of trips to work for this region, with much of the demand focused on Paddock Wood. Though existing Paddock Wood rail trips are identified as likely to connect to services on foot, the wider local catchment area for ‘first mile/last mile’ connections should be identified for bus and cycle connections. This can be supported by the enhanced bus services, as well as bus and cycle infrastructure. The wider regional catchment of the station has been taken into account through proposals to connect with Tudeley and via Hop Pickers route to Horsmonden, Cranbrook, and further into east Tunbridge Wells.
 - Currently, cycling would be seen as not viable primarily due to the lack of quality networks. Opportunities have been identified (Proposals 401, 402, and 403) to create quality links within Paddock Wood, and to provide wider connectivity within Tunbridge Wells. The use of electric bikes in conjunction with new infrastructure would help bring a step change in cycling mode share.
 - The railway line acts as a division within the urban area of Paddock Wood, between the majority of the settlement containing the town centre and residential areas to the south, and the Key Employment Areas at Eldon Way and Transfesa Road to the north, with a pocket of residential use situated along Maidstone Road. Local permeability schemes will be required to improve access, as well identifying road enhancements to match capacity to new development demand. Proposal 402 looks to focus on improving accessibility for active travel within Paddock Wood itself by providing a comprehensive walking and cycling network with quality safe segregated infrastructure.
 - Walking currently represents 7% of the total journey to work mode share, most likely mainly within Paddock Wood itself. It is anticipated that some new development sites would replicate this modal share and be able to promote active trips. Masterplans should provide key services within new development areas such as retail and education to maximise active travel trips.
 - Local highway schemes have been identified that will be required to alleviate some of the congestion expected from the growth of car trips in the area (schemes 201 – 208). These proposals are mainly located on the roads approaching Paddock Wood/Tudeley with a view to minimising car trips through existing settlement centres.
- 10.1.4. Our public transport and active travel assessment has identified the following issues and interventions with a view to ensuring that the new Local Plan development sites for the **West** region are well integrated through viable sustainable transport options:
- Despite wide network coverage, bus mode share in the urban region is only 3%. Bus services will need to have frequency and priority improvements to make it a viable option for people in existing and new developments. Proposals 304 and 305 look to improve accessibility for bus along the Pembury Road (A246) corridor. Proposal 102 looks at developing a wider holistic approach to improving A26 accessibility for all modes by integrating infrastructure changes for bus, cycling, parking, loading, and side road access. In addition, new developments to the south are likely to require new bus services

to link to Royal Tunbridge Wells and beyond, hence the need for the BRT services (Proposals 308 and 310).

- The central rail station and war memorial for Royal Tunbridge Wells act as a significant bus hub for the area. Any development schemes and use of new bus services should reinforce the importance of these locations, allowing local services to interchange and offer wider onward connections.
- Rail constitutes a significant 16% mode share of trips to work for this region of the borough. Potential for 'first mile/last mile' trips to be made to the station by car will increase congestion in the town centre. To avoid increased car congestion in Royal Tunbridge Wells, the new developments will need improved sustainable mode connections to rail and reduce reliance for connecting by car. This is a core focus of proposals for bus (308 and 310), and proposals for cycling (403 and 404). Without change, this highlights the likely additional pressure on car parking and station capacity as a result of the new development if existing trip patterns are maintained.
- Currently, cycling for the region is very low, at only 1% mode share of trips to work. Implementing the cycle strategy for the region is likely to improve the number of cycle trips. Further consideration will also be needed on how to develop a comprehensive cycle network that covers existing and new developments. This would have the potential to reduce existing congestion and air quality issues on key corridors in the area. The proposals (403 and 404), as well as wider planning for the A26 (102) and North Farm (101), are aimed at further integration of cycling infrastructure into Royal Tunbridge Wells to offer a viable alternative for car trips.
- Walking is a predominant mode with currently 16% of the total journey to work mode share). It emphasises the need to have any new developments close to the urban core as well as local services, employment, and retail so as to promote walking and thus, reduce the reliance on car for short trips.

10.1.5. The highway modelling identifies those junctions that are currently overcapacity and will remain over capacity after mitigation work in the Tunbridge Wells region. This highlights the need to identify further schemes for existing congestion issues to improve flow and journey time for road users. We foresee many of these locations will require a junction upgrade to either roundabout or traffic signals. However, in some cases such as North Farm and the A26, a wider ranging scheme intervention (Proposals 101 and 102). We have identified the potential for interventions such as smart signals (as part of 5G rollout – Proposal 103), junction and local bay reconfiguration, and further improvements to cycling and bus to bring both a benefit to existing users and to enable as many trips as possible away from using the car.

10.1.6. Of the 7 junctions that perform worse in the mitigation scenario than the base scenario today, the opportunity is there to reconfigure the signals or adjust the junction layout within highway land to improve junction capacity. At the same time any changes should be reinforced by linking them to wider sustainable travel and active travel measures in order to ensure wider economic, air quality, and accessibility benefits for all can be achieved.

10.1.7. There is a need to reduce car trips through central Royal Tunbridge Wells. Through holistic policies that reduce the need to travel through the area by car, such as additional bus links, better cycling links and reduced car parking, not only can accessibility be improved for all users, but the streetscape can be made more pedestrian friendly for those who pass through the area.

10.2. Conclusions

10.2.1. This report sets out the baseline and future transport scenarios with the Local Plan site allocations. A number of mitigation measures are identified, including highway capacity improvements and new roads, smarter use of existing highway, Bus Rapid Transit schemes, segregated long distance and town centre cycle routes and pedestrian improvements.

10.2.2. The traffic modelling has tested the hard engineering measures and the effects of the walking, cycling and bus improvements, and has shown that the measures proposed will mitigate the impacts of the Local Plan housing and employment allocations.