Local Plan 2036

Havant BOROUGH COUNCIL

Hayling Island Transport Assessment

January 2019

Hayling Island Transport Assessment

The Hayling Island Transport Assessment has been prepared by Havant Borough Council with transport planning support from Campbell Reith and traffic modelling from Systra.

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1. Executive Summary

1.1 The Havant Borough Local Plan sets out a vision and a framework for the future development, growth and prosperity of the Borough. The Local Plan process commenced with the adoption of the draft Local Plan Housing Statement, in December 2016. Further evidence has been obtained and consultation undertaken to prepare the Local Plan. The Local Plan aims to deliver about 9,550 new homes, and 95,000 sqm of new employment floor space in the Borough, by 2036, including development on Hayling Island.

1.2 Crucial to ensuring that the Local Plan's proposals constitute sustainable development, is the timely provision of infrastructure, to support the amount of development proposed in various locations across the Borough. Part of the Local Plan evidence base is provided by the Mainland Transport Assessment and Hayling Island Transport Assessment. They both review the existing traffic and transport networks, examine future demand and identify required mitigation and improvements to accommodate development.

1.3 The Hayling Island Transport Assessment has been prepared by Havant Borough Council with transport planning support from Campbell Reith and traffic modelling from Systra. This report sets out the findings of the Hayling Island Transport Assessment and explains the methodology underpinning the results.

1.4 A microsimulation model, in Paramics, has been built to assist in assessing the impact of the future development on the road and transport network on Hayling Island and any required infrastructure improvements to support and provide an evidence base for the Local Plan.

1.5 A baseline reference case, including background traffic growth and future year models, with and without mitigation measures, were developed to test the impact of committed and Local Plan development.

1.6 Results from the 'Do Minimum' (Local Plan Development without mitigation) outputs demonstrate that traffic flows, traffic queues and journey times on Hayling island all increase, as a result of additional future development. Model outputs for the 'Do Something' scenarios (with mitigation proposals) show that improvements in journey times and reliability can be achieved, however, in some locations, measures such as traffic signals increase queue lengths and journey times. In general, where queue lengths and journey times have increased, this has been redistributed from other arms at a junction, thereby, reducing delay overall.

1.7 Taking into account the wider benefits associated with the proposed mitigation measures, it is considered that the impact of Local Plan development can be mitigated effectively to an acceptable degree and the overall impact on the road network is not considered to represent a severe cumulative impact on the road network.

1.8 Mitigation packages demonstrate some positive improvements in reducing journey times and queue lengths. Further modelling work would enable mitigation measures, included

within a Mitigation package, to be tested in more detail, therefore refining results further and understanding their individual impact.

2. Introduction and Background

2.1 The National Planning Policy Framework makes clear that Local Plans should plan positively for the development needs of the area, including employment, housing, infrastructure and retail. The impact of the Local Plan and other future development on the local road network needs to be assessed and evaluated and possible mitigation identified and tested.

2.2 Government policy requires all Local Plans to be supported by a robust transport evidence base. This is normally produced in the form of a strategic Transport Assessment (TA) providing a thorough assessment of the transport implications of development on the traffic and transport network.

2.3 To support the emerging Local Plan, Havant Borough Council commissioned two Transport Assessments (TAs) – one covering the Borough's mainland areas using the Hampshire Sub-regional Transport Model (SRTM) and one, more detailed assessment, covering Hayling Island and Langstone.

2.4 The Hayling Island Transport Assessment has been prepared by Havant Borough Council with transport planning support from Campbell Reith and traffic modelling from Systra. It examines the operation of the existing transport infrastructure and networks. The assessment tests various development scenarios, through a Paramics Microsimulation model, developed by Systra, and reports on the potential transport related implications of the proposed land allocations within the Local Plan. The study also considers and tests mitigation measures that could be employed to offset any significant transport impacts.

2.5 Hayling Island has approximately 17,500 residents and a number of small businesses. Visitors are attracted to the island's beaches and holiday camps and the A3023 is the only road linking the island with the mainland via a bridge, where all major services are situated. The A3023 passes through Langstone, immediately north of the bridge, and south of the major road junction, connecting the A3023 to the A27 Trunk Road and to the B2149 access to Havant Town Centre.

2.6 A map of Hayling Island and Langstone and the connection to the A27 and the mainland can be seen in Figure 1.

Figure 1: Hayling Island

2.7 Traffic flows on the A3023 can be particularly heavy, not only during peak hours, but also during the hours in between and at weekends. During all school holiday periods, and particularly in the summer, traffic flows are at their highest and there is often a continuous procession of vehicles present during daylight hours. Access for emergency vehicles can be severely inhibited by the constrained network. The speed limit varies on the A3023 between 30mph and 40mph.

2.8 Any disruption to traffic flow on the A3023 within Langstone, on the bridge, or on Hayling Island, impacts very quickly on other roads in the area due to the traffic sensitive nature of these routes. A further concern is the risk of traffic congestion tailing back onto the A27 Trunk Road, leading to the hazard of stationary or slow-moving traffic on a high-speed dual-carriageway, and into Havant Town Centre, therefore further reducing the resilience of the network.

3. Study Scope, Objectives and Methodology

Scope

3.1 This document sets out the work undertaken for the Hayling Island Transport Assessment, proposed interventions and the results of the traffic and transport modelling. It identifies the impacts of each modelled scenario on the network and provides detailed junction modelling and recommendations for key junctions on Hayling Island.

Objectives

3.2 The objectives of the Hayling Island Transport Assessment are to:

- Undertake a full review of the existing highway and transport infrastructure of Hayling Island to inform the consideration of strategic development options for the Local Plan.
- Identify the impact of development options on existing transport infrastructure and public transport services.
- Identify and propose appropriate mitigation measures, taking into account existing plans and proposals – established or emerging - from the local and strategic highway and planning authorities, alongside any new suggestions.
- Provide approximate estimates of the costs of provision of any new infrastructure required.
- Inform consideration of the sustainable transport options and assumptions to be incorporated into the Local Plan evidence base and infrastructure planning, including bids to the Community Infrastructure Levy.
- Address the requirements of both Havant Borough Council together with Hampshire County Council as Highway Authority and Highways England, both of which aim for a sustainable approach to transport with a common objective of managing travel demand to minimise congestion, delays and adverse environmental / safety impacts.

Methodology

3.3 The adjacent flow diagram sets out the approach taken for the study.

3.4 Background data and information was collected to assist in understanding how the existing network currently operates.

3.5 Traffic data was collected using a number of methods, including:

- The monitoring of travel journey times at key locations, by Hampshire County Council, along the A3023, using 24/7 Bluetooth data technology. This will assist in identifying and confirming where delays occur.
- Manual Traffic Counts.
- Automatic Traffic Counters.
- Video Surveys

3.6 Other data collated and reviewed includes:

- 5 years accident data.
- C2 Utility Information.
- Bluetooth and travel time data.
- Public Transport Network information (Bus and Ferry).
- Walking and Cycling Network information.

3.7 Traffic modelling has been employed at two levels to evaluate the current and future traffic and transport network in Havant Borough.

3.8 Firstly, the Hampshire County Council Sub Regional Transport Model (SRTM) has been used to provide an overall strategic assessment of the performance of the future year network.

3.9 This is a strategic modelling tool that represents key movements across the county and is validated to match observed conditions on strategic routes, rather than at an individual junction level. As such, it is a useful tool to identify likely congestion pressures and provide a comparative assessment of different scenarios, but it is not a suitable tool to provide detailed analysis of individual junctions.

Instead, the results of the strategic analysis are used to inform the more detailed assessment.

3.10 The second tier of the assessment involved analysis using a specific micro simulation model, using Paramics software, for the Hayling Island highway and transport network. This detailed model takes into account the individual geometric characteristics of a particular link and associated junctions. It is therefore considered an industry recognised appropriate tool for assessing forecast congestion and testing potential mitigation measures resulting from proposed development.

3.11 Should the modelling outputs demonstrate mitigation is required against any future increase in traffic and travel on the transport and Highway networks, measures such as the following will be considered:

- Traffic flow measures – Reducing / removing traffic friction along the main road on and off Hayling Island by looking at potential segregated right turn lanes, segregated cycle lanes, improving the timing of refuge collections, deliveries, positions of bus stops and preventing day time roadworks.
- Encouraging sustainable travel - Improve walking and cycle links to schools, improve cycle commuter routes (Hayling Billy Trail and links to the trail, links to the ferry), cycle provision at the workplace, improve bus frequency and look at lowering cost, publicise through ticketing.
- Travel reduction measures - Encourage destination infrastructure on the island to reduce the need to travel off the island, look at cost of shopping area car park charges.
- Infrastructure and capacity measures such as junction improvements along the A3023.

3.12 Given Hayling Island’s proximity to the coastal environment and with much of the island subject to protected sites, any interventions would require an environmental review.

4. Policy Background

Introduction

4.1 This section sets out the policies and guidance, both on a national and local level, for all modes of transport, which have steered this study.

Planning Policy and Guidance

4.2 An updated National Planning Policy Framework (NPPF)1 was released in July 2018. It sets out the Government's planning policies and how these should be applied. It establishes the framework within which locally-prepared plans for housing and development should be produced. It specifies the policies that should be followed to in relation to transport, with a strong focus on achieving sustainable development.

4.3 Section 102 of NPPF states that transport should be considered from the earliest stages of plan making 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 the design of schemes, and contribute to making high quality places."

4.4 Additionally, Section 104 identifies that significant development should be focused at locations which are, or can be made, sustainable e.g. by reducing the need to travel. Moreover, NPPF 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;*

[1]https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/733637/National_Planning_Policy_Framework_web_accessible_version.pdf

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 area42, 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*

4.5 In allocating sites for development plans, NPPF states 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.

4.6 NPPF Section 109 also provides guidance on how to consider the impact of development on the highway network:

'Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."

4.7 The "Creating Growth, Cutting Carbon" white paper recommends offering people sustainable transport choices, that will stimulate behavioural change. The Door to Door Strategy builds this by setting out the Government's vision for an integrated transport system that works for everyone and makes journeys by a sustainable means an attractive option. The stated benefits of this are explained as:

- Protecting the environment- by increasing the use of sustainable transport to help cut carbon emissions and improve air quality.
- Boosting economic growth – by improving connectivity and interchange and cutting congestion to help link businesses and markets
- Supporting society – by providing a well-connected and accessible transport system that is safe and secure to help improve public health and the quality of life.

- Deliver a good deal for the traveller - by integrating the door-to-door journey as a whole to help make travel more reliable and affordable.
- Buses offer a clean, green, flexible, accessible and affordable means of making the county's transport plan sustainable and environmentally-friendly and could aid the achievement of environmental and sustainability targets.

Sub-Regional Partners' Roles

4.8 Havant Borough Council works with a number of other organisations involved in delivery and management of transport networks; these include:

- Hampshire County Council – the Highway Authority
- Highways England – responsible for operating, maintaining and improving England's motorways and major A roads, including the A3(M) and A27 cutting through Havant
- Partnership for Urban South Hampshire (PUSH) – voluntary partnership of all the local authorities in South Hampshire together with Hampshire County Council to support the sustainable economic growth of the sub region and to facilitate the strategic planning functions necessary to support that growth
- Neighbouring Local Authorities and their respective Highways Authorities, including those not in PUSH - in particular, Chichester District Council and West Sussex County Council
- Solent Transport - coordinates strategic transport planning in the PUSH area
- Solent Local Enterprise Partnership (LEP) - a private/public partnership working with local partners to promote economic growth across the region
- Public Transport Operators and Network Rail

4.9 Policies developed by, or with, these organisations relevant to the Local Plan, are set out below.

Bus Services

Hampshire County Council Local Transport Plan (LTP)

4.10 The LTP states an effective passenger transport system is a vital contributor to supporting economic growth, reducing inequality, improving accessibility and supporting independent living so that residents and the county as whole reach their full potential. It recognises that the car is likely to remain the predominant mode of transport, particularly in the rural communities of Hampshire where access to services can be difficult and the car may be the most viable transport option for the majority of people. Public transport has a role to play in providing a safe, environmentally efficient alternative on our busiest corridors and providing a lifeline for accessibility for isolated communities. The LTP states investment in public transport will be allocated to where it can have the greatest impact. In particular, Hampshire County Council will work with bus operators, generally through the Quality Bus Partnership39 approach, to maintain growth in bus use and reduce dependence on the car for journeys on inter- and intra-urban corridors. This will be done by focusing investment on improvements to access and information at key bus stops and interchanges to lever in complementary investment in vehicles and frequencies from operators. From April 2011, the County Council assumed the responsibility for concessionary fares travel for older people, those with disabilities and their companions within Hampshire, that previously resided with District and

Borough Councils. This will enable opportunities to maximise accessibility for older people and people with disabilities to be fully explored within the constraints of available funding.

4.11 Bus operators will also be encouraged to improve the training given to frontline transport staff to help them assist vulnerable adults and those with physical or learning disabilities to travel by bus services more easily. The County Council is piloting travel training schemes for those with learning disabilities to make greater use of their local bus services so as to support independent travel, enabling access to employment opportunities and services.

4.12 Over the longer term, the County Council will aim to develop Bus Rapid Transit (BRT) and high quality public transport provision in South Hampshire as a strategic transport direction, in the aim to reduce car dependence and improve journey time reliability. This will be achieved by building on the success of the Eclipse corridor between Gosport and Fareham and the Zip corridor, between Waterlooville and Portsmouth. The County Council is looking to secure funding to enable a wider BRT network, linking towns in the south east of the County. If funding for this network can be identified, this network has the potential to improve travel choice, support employment in the area and assist delivery of the planned development known as Welbourne. High-quality public transport alternatives will also be developed at an early stage to serve planned new development in places such as Basingstoke and Whitehill-Bordon.

Havant Borough Transport Statement

4.13 The Havant Borough Transport Statement, adopted in September 2012, sets out the transport objectives and delivery priorities for the Havant Borough Council (HBC) area.

4.14 It states that bus services play a key role in catering for local journeys in the area, providing links between town centres and their surrounding areas. A number of well-established high quality bus partnerships exist in Havant, and through these both the County Council and HBC will work with the bus companies to identify opportunities to improve passenger facilities and the quality, reliability and punctuality of local services. The main bus interchange in Havant town centre is at the Bus Station (adjacent to the Meridian shopping centre and a few minutes' walk from Havant railway Station). Waterlooville town centre also has a bus interchange.

4.15 The majority of bus services in the Borough are operated on a commercial basis and are provided by bus operators Stagecoach and First Bus.

4.16 In areas where passenger numbers are often too small for regular scheduled bus services to be viable, some are now provided using conventional bus services operated under contract, or in the form of Carshare links which must be pre-booked. The County Council has also established a demand-responsive service under ‘Call and Go’ brand. Other community transport schemes, run by local voluntary community groups, provide access to essential services for those without easy access to conventional bus services.

4.17 The A3 ZiP bus priority scheme corridor scheme was completed in 2008 and provides a priority route for First Bus service 8 between Clanfield and Portsmouth. The scheme ensures that buses are given priority over other traffic at busy junctions and through the centre of Waterlooville. The ZiP route also provides cycle facilities in the form of shared bus lanes, on-road cycle lanes and off- road shared routes although there remains a missing section of cycle route through Waterlooville town centre.

4.18 In the future, the aim is for the A3 Zip to become part of the wider South East Hampshire Bus Rapid Transit (BRT) network. The aim is for BRT to connect the main towns and proposed strategic development sites and could facilitate east-west travel across the Borough from Waterlooville to Havant.

Overall, partnership working between key industry partners can:

- Improve local and inter-urban bus services in Havant.
- Relieve local congestion hot spots on bus routes.
- Investigate the potential to develop core bus priority routes such as Bus Rapid Transit, especially between main areas of housing growth and shopping or employment centres and thereby improve service quality, reliability and punctuality.
- Improve access to public transport through better infrastructure and information, (including real-time information), and other passenger facilities and encourage Community Transport and taxi-share services where appropriate.
- Improve better connectivity between sustainable transport modes (walking and cycling) and transport hubs.

Walking and Cycling

National Policy Planning Framework

4.19 The UK Government policy, set out in National Policy Planning Framework (NPPF) states, where possible, greater priority should be given to walking and cycling over private motorised transport modes. NPPF also requires local authorities to identify routes where infrastructure improvements could be made to widen travel choice options.

Draft Cycling and Walking Investment Strategy

4.20 The Draft cycling and walking investment strategy sets out the Governments ambition to:

‘’…to make cycling and walking the natural choice for shorter journeys, or as part of a longer journey"

- They seek to achieve this through three methods:
- Better safety – making cycling safer through reducing the severance effect of roads, reduced speeds and creating streets where cyclists and pedestrians feel they belong;
- Better mobility – offering world class cycling facilities, a denser network of routes and safe paths along busy routes; and
- Better streets – streets designed for people not vehicles, more routes through green spaces and better public realm.

Hampshire County Council Local Transport Plan

4.21 Hampshire County Council Local Transport Plan was adopted in February 2011 and is formed of two parts; a 20-year strategy of how transport in the county will develop and a three year implementation plan.

4.22 The 20-year strategy contains the main transport objectives for the county. The policies objectives which are relevant to this study are:

- Policy Objective 9: Introduce the 'shared space' philosophy, applying Manual for Streets design principles to support a better balance between traffic and community life in towns and residential areas;[2]
- Policy Objective 12: Invest in sustainable transport measures, including walking and cycling infrastructure, principally in urban areas, to provide a healthy alternative to the car for local short journeys to work, local services or schools; and work with health authorities to ensure that transport policy supports local ambitions for health and well-being;
- Policy Objective 14: Outline and implement a long-term transport strategy to enable sustainable development in major growth areas.
- The strategies chapter on South Hampshire highlights the challenges across the sub-region with the complex nature of journey patterns and travel to work, which has resulted in a heavy reliance on the private car. To reduce this, there needs to be significant improvements in quality and affordability of public transport, networks that are controlled by private operators and walking and cycling must be encouraged as a more viable option for shorter journeys.
- Option for shorter journeys level of car ownership. 44% of households have access to two or more vehicles compared to 29.4% nationally. This is against a background of congestion at peak times.

Hampshire County Council Cycling Strategy

4.23 Hampshire's cycling strategy, approved in 2015, provides a clear statement of the County's aspirations for cycling and highlights it as a key catalyst for growth. It sets out five cycling objectives:

- To make cycling a daily travel choice for more people;
- To reduce cyclist casualties and safety concerns;
- To encourage regular cycling as part of a healthy lifestyle;
- To enable more people to enjoy Hampshire by cycling; and
- To ensure an appropriate balance between the needs of all road users.

4.24 And five cycling challenges:

- Realising the unmet potential of cycling for daily trips;
- Protecting cyclists and changing perceptions of safety;
- Increasing levels of physical activity amongst children and adults;
- Making recreational cycling opportunities more accessible; and
- Encouraging cycle event organisers to manage their events responsibly

Havant Borough Council Cycling Strategy

4.25 Havant Borough Council adopted an Active Travel Study, which incorporates the Walking and Cycling Strategy, in March 2011.

[2] A moratorium applies to this current policy.

4.26 ‘Active travel’ modes are those modes which result in not only travel, but travel which has health benefits. These are primarily walking and cycling, but the current document extends this to include how users of those modes interact with other, more general ‘sustainable’ travel modes such as buses, trains and ferries.

4.27 The strategy sets out a vision and objectives for walking and cycling and is intended to encourage both modes.

4.28 For walking, the aim is to make it safer and easier for people to walk from place to place and for all purposes by:

- Developing a network of pedestrian routes that connect people to transport interchanges, local centres and employment areas to improve accessibility and reduce severance.
- Ensuring all Havant Borough Council services and other interested parties to work together to ensure there is a coordinated approach in the design considerations for pedestrians.
- Ensuring all new developments provide sufficient pedestrian facilities so that walking is encouraged to and from the sites concerned.
- Develop and promote innovative projects and mechanisms to encourage walking and cycling and ensure improvements to the walking environment, such as Home Zones (or equivalent), Health Walks and Countryside Access Plans.

4.29 The vision of the Cycling Strategy is to encourage cycling by making it safer and easier for people to cycle from place to place and for all purposes by:

- Continually improving the cycling infrastructure by developing a coherent network of both on-road and off-road cycle routes that connect people to transport interchanges, local centres and employment areas to improve accessibility and reduce severance.
- All Havant Borough Council services and other interested parties (including landowners) to working together to ensure there is a coordinated approach in the design of cycling facilities.
- Ensuring all new developments provide sufficient facilities for cyclists so that cycling is encouraged to and from the sites concerned.
- Increasing the safety of cycling and security of cyclists and their cycles.
- Developing and promoting innovative projects and mechanisms to encourage cycling and ensuring improvements to the cycling environment such as cycle ways, cycle paths and Countryside Access Plans.

4.30 Havant Borough Council will update the Active Travel Study 2011-2016 in line with Hampshire County Council’s Cycling Strategy and produce a desired cycle network framework, for 2036.

5. The Local Plan

5.1 A key focus of national planning policy is that planning authorities should plan positively for the development needs through a Local Plan. In particular, they should seek to significantly boost the supply of housing to meet the housing need of the area, and keep a rolling supply of housing land available for development. The housing need for Havant, as calculated using the national methodology at the time of writing is 9,260 new homes between 2016 and 2036. Havant Borough Council is committed to addressing this requirement through a new Local Plan running to 2036.

5.2 A first draft of the Local Plan was consulted on in early 2018, but without a significant evidence base for transport. This TA, and that for the mainland areas of the Borough, address this gap in the evidence base.

5.3 The evolution of the Local Plan to 2036 can be followed at www.havant.gov.uk/localplan.

6. Development

Development Locations

6.1 The committed developments and transport improvement schemes within Havant Borough and neighbouring districts, and the possible sites for inclusion in the Local Plan 2036 have been reviewed, considered and included in the relevant modelling scenarios.

6.2 Committed developments schemes are those which already have planning permission but have not yet been completed. These are included in the 'Baseline 2036' scenario. Schemes includes are shown in Table 1 below.

6.3 Sites under consideration for inclusion in the Local Plan 2036, which were added to the models for the 'Do Minimum' and 'Do Something' Scenarios are shown in Table 2 and on the map in Figure 2.

Site Location	Type	No. of Dwellings
117 Elm Grove	Residential	33
11 Bound Lane	Residential	8
36, 38, 40 and 1 West Lane Station Road	Residential	18
3 Elm Grove	Residential	6
31 Elm Grove	Residential	3
Newtown House Hotel, Manor Road	Residential	3
19-23 and 29-31 Creek Road	Residential	3
151-153 Southwood Road	Residential	3
Total		**77**
Lidl: Land South of Manor Road	Commercial	1340m^2

Table 1: Committed Development Sites

Site Location	No. of Dwellings	Map Ref
41 Station Road	13	HY15
Land rear of 108-110 Elm Grove	15	HY2
Beachlands	125	HY17
Manor Nurseries	15	HY3
Station Road (North of Sinah Lane / West of Furniss Way)	195	HY4
Northney Marina	40	HY6
Land at Fathoms Reach	55	HY7
Land west of Tournerbury Golf Course	40	HY63

Eaststoke Corner	20	HY18
The Nab Car Park, Southwood Road	30	HY16
Rook Farm	395	HY8
Windfall	144	
Total	**1087**	

Table 2: LDP Housing Sites

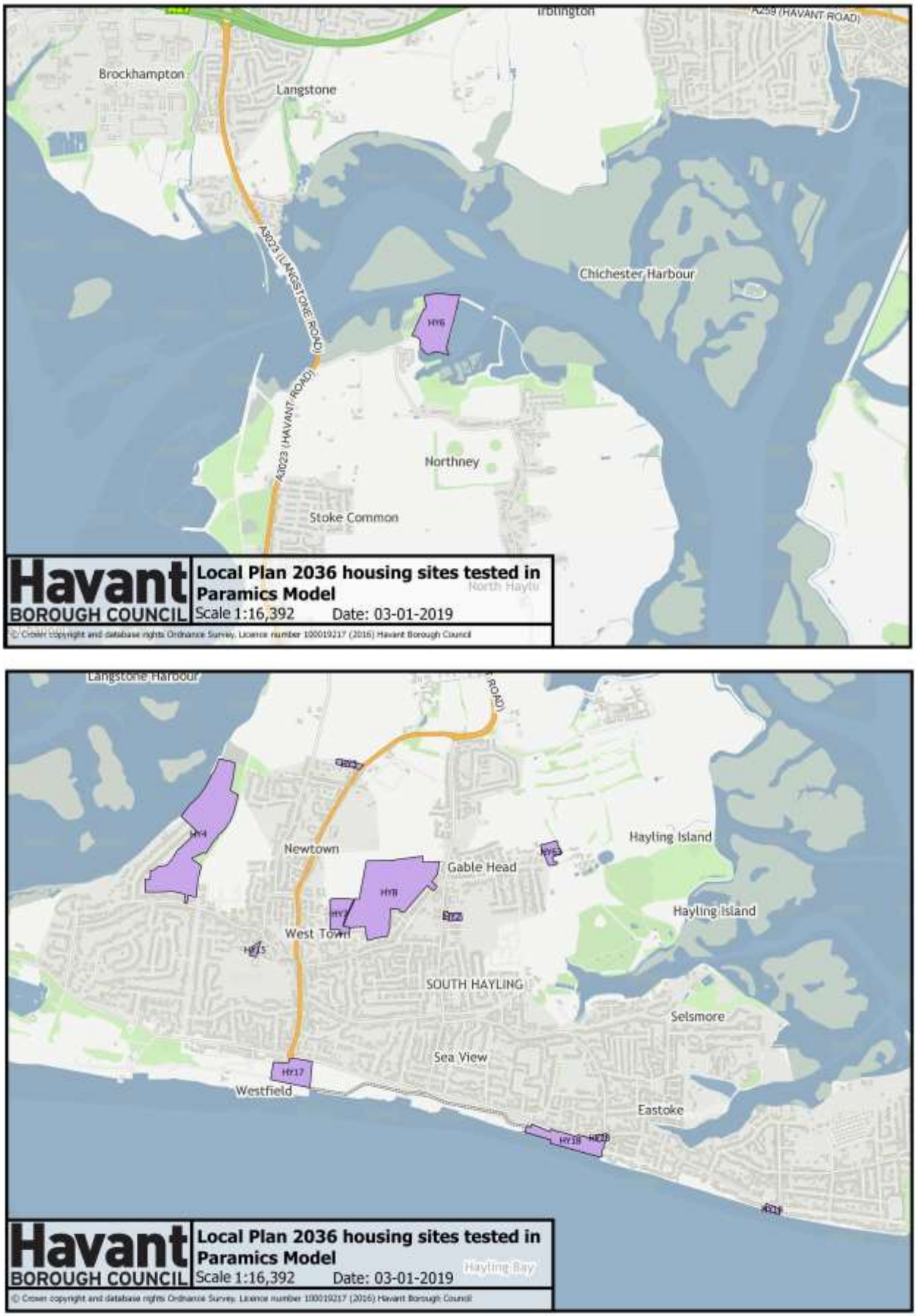


Figure 2: Housing Site Locations

7. Existing Traffic and Transport Networks

Road Network

7.1 Hayling Island and Langstone's road network accommodates a significant amount of traffic, particularly on summer bank holidays, rendering unreliable journey times, between the bridge and South Hayling (the most populated area).

7.2 Hayling Island is home to about 17,500 residents and is connected to the mainland via the A3023 and the Langstone Bridge, a single carriageway road linking Northney to Langstone. There are a number of small businesses on the island and visitors are attracted to its beaches and holiday camps. The A3023 passes through Langstone immediately north of the only bridge, and south of the major road junction connecting the A3023 to the A27 Trunk Road and to the B2149 access to Havant Town Centre. The route is subject to the varying speed limits of 30mph and 40mph and provides the main north/ south link to the Seafront.

7.3 Northney Road provides an alternative route, just after the bridge connects to the island and routes around the north east, reconnecting with the A3023 Copse Lane and again further south at the Daw Lane/ Yew Tree Lane junction. Approximately 500m north of the later junction, an alternative north/ south route is provided by West Lane, a straight, but narrower 40mph road, until it reaches the urban area at Brights Lane, where it becomes a 30mph limit. Church Road connects to the A3023, at Mill Rythe and also provides another north/ south route in the southern area of Hayling. This passes through the principal business and shopping area.

7.4 Traffic flow on the A3023 can be particularly heavy, (AADT 27,000 vehicles/day) not only during the peak hours, but also during the hours in between and at weekends. During all school holiday periods, and particularly in the summer, traffic flows are at their highest and there is often a continuous procession of vehicles present during daylight hours.

7.5 Any disruption to traffic flow on the A3023 within Langstone, on the bridge, or on Hayling Island impacts very quickly on other roads in the area because of the traffic sensitive nature of these routes. All the major services are situated within the A3023, therefore, any works required, also significantly impact on traffic flow. Significant concern is the risk of traffic congestion tailing back onto the A27 Trunk Road, part of the Strategic Road Network, leading to the hazard of stationary or slow moving traffic on a high-speed dual carriageway, and into Havant Town Centre, bringing the commercial hub of the area to a standstill. Emergency access from Hayling Island to the Queen Alexandra Hospital at Cosham is also a major consideration, especially for the very high proportion of elderly residents on the island.

Bus Network

7.6 Bus Services on Hayling Island are run by Stagecoach UK Bus, part of the Stagecoach group. There are two services on the Island, the 30 and the 31. Both cover the major routes of the island and circle back to Havant bus station. Figure 4 shows the two routes. The two services follow the same route around the Island, in reverse. In simple terms the 31 Service comes onto the island and

follows a clockwise route from Mill Rythe roundabout onwards, whereas the 30 service follows the anti-clockwise route. Buses used by Stagecoach are 38 seater ADL Enviro200's.

Stagecoach 30: Havant - West Town - Hayling Island - Eastoke - Havant

BUS SERVICES	FREQUENCY		
	AM (06:00-10:20)	IP (10:20-16:00)	PM (15:50-21:00)
30	Every 17- 45 mins	Every 30 mins	Every 32 – 90 mins

Stagecoach 31: Havant - Eastoke - Hayling Island - West Town – Havant

BUS SERVICES	FREQUENCY		
	AM (05:45-10:05)	IP (10:35-16:05)	PM (16:05-22:00)
31	Every 30 - 47 mins	Every 30 mins	Every 30 – 60 mins

Table 4: Hayling Island Bus Services

7.7 A meeting was held with Stagecoach representatives on 24th July 2018 to discuss details of the existing service and to identify any current issues and potential opportunities to deliver bus infrastructure improvements, through development.

7.8 The routes on Hayling Island are dominated by concession fares, with the majority of services operating at a good level of reliability. Any delays normally occur on refuse collection days and are typically worse in the morning peak. The morning peak time, for bus use on the island, continues up until 10.30am.

Figure 3: Stagecoach Bus

Figure 4: Hayling Island Bus Routes

Hayling Island Car Share

7.9 The Island Car Share scheme (service 32) is a public transport service for anyone, that meets certain criteria, who needs to travel from Hayling Island into Havant or Mengham. The service is similar to a bus service, except that passengers need to book in advance and operated by a taxi instead of a bus. To qualify to use the service one or more of the following points must be met:

- There are no buses travelling at the time or destination required (the 32 is the only public transport serving Northney).
- A resident lives a long way from the bus stop.
- A resident finds it difficult getting on or off public buses.

7.10 Pre-booked passengers will be picked up from their home address and dropped off/picked up at

- Havant Town Centre
- Havant Tesco
- Havant Health Centre
- Havant Leisure Centre
- Oak Park Community Clinic
- Mengham (in or just off Elm Grove)

7.11 The service operates Monday to Saturday (excl. public holidays) at the times below (times may vary up to 5 minutes).

7.12 Hampshire County Council disabled person bus pass holders can travel free on the service and Hampshire County Council and any other English Local Authority older person's bus pass holders can travel free on any journey departing after 09:30.

7.13 Children between 5 and 16 years of age may travel for half price and those under 5 may travel free.

Hayling to Havant

SouthEast Area	08:50	10:00	10:50	12:00	13:10*	14:00
SouthWest Area	09:00	10:10	11:00	12:10	13:17*	14:10
Mengham	09:10	10:20	11:10	12:20	13:22*	14:20
Northney	09:15	10:25	11:15	12:25	13:26*	14:25
Havant	09:25	10:35	11:25	12:35	13:30*	14:35

Havant to Hayling

Havant	09:25	11:25	12:35	14:35	16:00
Northney	09:35	11:35	12:45	14:45	16:10
Mengham	09:40	11:40	12:50	14:50	16:15
SouthWest Area	09:50	11:50	13:00	15:00	16:25
SouthEast Area	10:00	12:00	13:10	15:10	16:35

* Journey runs on the 4th Thursday of each month only.

Cost

	Single	**Return**
All trips to Havant	£2.50	£3.50
All trips to Mengham	£1.50	£2.50

Table 5: Hayling Island Car Share Timetable and Fares (at time of writing)

Walking and Cycling Network

7.14 The Borough of Havant, and Hayling Island in particular, is ideally suited to the development of walking and cycling infrastructure with a level coastal plain and modern roads. Important parts of the National Cycle Network, the South Coast Route NCN2, and the London Coastal Route NCN22 - meet in Havant, near the railway station. NCN222, the Portsmouth - South Downs link, also passes through the Borough.

7.15 On the Island, the Hayling Billy Trail is a permissive bridleway open to walkers, cyclists and horse riders and follows the extent of the west coast of the island. On the mainland the route is a public highway. The Trail forms part of NCN2 and the Shipwrights Way. The route is flat and entirely

off road, with one crossing of the A3023, commencing at Havant railway station and terminating at the Station Road/ Sinah Lane junction, in West Town. It is owned by Hampshire County Council and Havant Borough Council and is not a public right of way.

7.16 The Hayling Ferry offers a second access to Hayling for pedestrians and cyclists, but only operates during the daytime. It did not operate for long periods of 2016 due to insolvency of the previous operator. It continues to rely heavily on public subsidy for its continued operation.

7.17 Rights of Way on Hayling Island are shown in Figure 5.

Figure 5: Hayling Island Rights of Way

7.18 Havant Borough Council is supporting the development of a comprehensive local network of rights of way and dedicated walking and cycling facilities, connecting key destinations such as schools, business and retail areas, actively working in partnership with Sustrans. The network meets the aspirations of the council's 'Active Travel Study' (Walking and Cycling Strategy 2011-2016), which seeks to increase the use of cycling as a safe and efficient mode of transport, carrying with it the added benefits of better health and saving money. The ‘Active Strategy’ will be reviewed in line with the Havant Borough Local Plan 2036.

7.19 The map in Figure 6 shows the current cycle-map for Hayling Island and the connections with Havant town centre.

7.20 Improving footways and cycle infrastructure is important, given the constrained access to Hayling Island by the single bridge crossing (A3023 Havant Road) of Chichester Harbour. The bridge

carriageway is 6.5m wide, with 2m wide off-carriageway cycle tracks both sides. Many of the new cycle routes recently added to the growing network have been funded by housing and business developers. Any scheme which has the potential to remove traffic from local roads is of considerable value, notwithstanding the wider positive implications for health and air quality.

Figure 6: Hayling Island Cycle Network

Ferry Service

7.21 Hayling Island and Portsea Island were linked by a ferry service until March 2015. The ferry was busy in summer in good weather, bringing tourists and cyclists to Hayling. However, in the winter, there was a significant reduction in use. The service was subsidised by the local authorities, leaving it under constant threat of closure, due to limited resources. The ferry service ceased when the company running the ferry went into administration in March 2015.

7.22 It was purchased in August 2015 and reopened in August 2016 by Baker Trayte Marine Ltd. Baker Trayte is a privately owned company. The new service was launched on 5th August 2016 and runs Summer and Winter Timetables. The company is open to extending its timetable, as required, to support special events in Portsmouth and on Hayling Island.

7.23 As shown in figure 7, the ferry runs from the most western point on Hayling Island to the eastern most point on Portsea Island, in Eastney.

7.24 The ferry is licensed to carry 64 passengers and run to the timetable below, in Figure 8. Passenger numbers, collected from the ferry operator for 3 months in 2016, 5 months in 2017 and 9 months of 2018 are shown in Table 6. These indicate that during the summer months, the ferry is well used. Detailed patronage figures for 2016 can be viewed in Appendix A.

Figure 7: Hayling Island Ferry

Figure 8: Hayling Island Ferry Location

HAYLING FERRY BUS CONNECTIONS TIMETABLES

(EFFECTIVE 19 OCTOBER 2018)

MONDAY TO FRIDAY							
DEPART HAYLING				DEPART EASTNEY			
0645	0945	1445	1735	0705	1010	1510	1750
0715	1045	1520	1800	0735	1110	1535	1820
0745	1145	1545	1845	0805	1210	1610	1900
0815	1245	1625		0835	1310	1650	
0845	1345	1700		0910	1410	1720	

SATURDAY & SUNDAY							
DEPART HAYLING				DEPART EASTNEY			
0845	1330	1830		0900	1400	1900	
0930	1430			1000	1500		
1030	1530			1100	1600		
1130	1630			1200	1700		
1230	1730			1300	1800		

Figure 9: Hayling Island Ferry Timetables

Month	Passenger Nos Hayling to Eastney	Passenger Nos Eastney to Hayling	Total No of passengers
August 2016	2829	2607	5436
September 2016	911	797	1708
October 2016	555	485	1040
Month	**Passenger Nos Hayling to Eastney**	**Passenger Nos Eastney to Hayling**	**Total No of passengers**
August 2017	4210	3858	8068
September 2017	2063	1850	3913
October 2017	1559	1425	2984
November 2017	1115	1049	2164
December 2017	564	565	1129
Month	**Passenger Nos Hayling to Eastney**	**Passenger Nos Eastney to Hayling**	**Total No of passengers**
January 2018	825	828	1653
February 2018	764	699	1463
March 2018	803	791	1594
April 2018	1524	1489	3013
May 2018	2868	2611	5479
June 2018	3195	2942	6137
July 2018	4020	3698	7718

Table 6: Hayling Island Ferry Patronage 2016 – 2018

Parking

7.25 There are a number of off street car parks located on Hayling Island. Table 8 below lists the locations and details.

7.26 On-street parking is available in most areas of the island, either restricted or unrestricted.

Car Park Name and Location	No. of Spaces	No. of disabled bays	No. of Coach Bays	Motorcycles	Toilets	Parking Machines	Pay and Display/ Free	Long/ Short Stay	Permits
Elm Grove	108	5	0	0	Yes	2	PandD + Season Tickets	Long Stay	No
Health Centre	129	4	0	0	No	2	PandD 29 two-hour	Long Stay	No

							free spaces for health care visitors only		
Mengham Lane	41	0	1	0	No	1	PandD + Season Tickets	Long Stay	Season
St Marys Road	55	0	0	0	No	0	Free	Long Stay	No
Copse Lane	16	0	0	0	No	0	Free	Long Stay	No
Station Road (Hayling Park)	40	2	0	0	No	0	Free	Long Stay	No
Seafront (Fairmead Court)	8	0	0	0	No	0	Free	Long Stay	No
Hayling Island Beachfront *no marked bays - spaces are estimated									
Beachlands/ Royal *	100	0	0	0	Yes	3	PandD + Season Tickets	Long Stay	Season
Bound Lane *	100	0	0	0	Yes	1	PandD + Season Tickets	Long Stay	Season
Central *	100	0	0	0	No	2	PandD + Season Tickets	Long Stay	Season
Chichester Avenue *	100	0	0	0	Yes	2	PandD + Season Tickets	Long Stay	Season
Eaststoke *	100	0	0	0	Yes	2	PandD + Season Tickets	Long Stay	Season
Ferry Road *	100	0	0	0	Yes	2	PandD + Season Tickets	Long Stay	Season
The Nab	50	0	0	0	Yes	1	PandD + Season Tickets	Long Stay	Season
West *	200	0	0	0	Yes	4	PandD + Season Tickets	Long Stay	Season

Table 7: Hayling Island Car Park Details

8. Background Data

Traffic Data

Automatic Traffic Data

8.1 Automatic traffic count and speed data was collected between the 9th and 23rd June 2017, at three locations on the A3023. The site locations can be seen in green, in Figure 9.

8.2 Table 8 provides the 12 hour, 5 day averages and 85th percentile speeds.

8.3 The traffic data for Site 8059, in Table 9, shows the traffic flows travelling east are slightly greater than westbound flows, throughout the 12 hour period.

8.4 The results in Table 10, for Site 8060, show the traffic flows travelling south are greater than northbound flows, across the 12 hour period.

Figure 10: Automatic Traffic Counter Locations

Site 8059	12 Hour (7am-7pm)/ 5 Day Average (Vehicle Nos)	85th Percentile Speed
9th – 16th June 2017		
Eastbound	1342	33.1 mph
Westbound	1237	35 mph
16th – 23rd June 2017		
Eastbound	1516	32.8mph
Westbound	1328	34.6mph

Table 8: Automatic Traffic Count Summary for Site 8059 , located on Northney Road

Site 8060	12 Hour (7am-7pm)/ 5 Day Average (Vehicle Nos)	85th Percentile Speed
9th – 16th June 2017		
Southbound	8960	34.9 mph
Northbound	8110	35.5 mph
16th – 23rd June 2017		
Southbound	9360	34.7mph
Northbound	8090	34.9mph

Table 9: Traffic Count Summary for Site 8060, located on the A3023 just north of the Mill Rythe Holiday Park

Site 8061	12 Hour (7am-7pm)/ 5 Day Average (Vehicle Nos)	85th Percentile Speed
9th – 16th June 2017		
Southbound	1659	37.9 mph
Northbound	1650	40.8 mph
16th – 23rd June 2017		
Southbound	1936	37.3 mph
Northbound	1843	40.6 mph

Table 10: Traffic Count Summary for Site 8061, located on West Lane just north of Brights Lane

8.5 The results in Table 11, for Site 8061, show the traffic flows for both north and south bound are reasonably balanced, across the 12-hour period.

8.6 Manual traffic counts were undertaken in June 2017 at the following junctions:

- A3023 Langstone Road/ Langstone Technology Park/ Woodbury Ave
- A3023 The Mill Rythe Roundabout
- A3023/ Copse Lane
- A3023/Yew Tree Rd/ Daw Lane
- A3023 Havant Road / Northney Rd
- A3023 Havant Road / West Lane

8.7 Data is also collected by a permanent site counter located on the Hayling Island bridge.

8.8 Additional traffic count surveys, including manual, automatic and video were undertaken.

Bluetooth Data

8.9 Bluetooth traffic data was collected in 2017 to provide existing journey times, to and from Hayling Island. A summary of these journey time data can be viewed in Table 12.

8.10 The bluetooth data was collected for a pilot survey with counters, which were installed for 2 weeks in June 2017 and repeated in August 2017. The journey times recorded by the bluetooth counters, gave a sample of about 25% of the actual traffic on the corridor. This is because not all vehicles of the drivers /passengers will have bluetooth technology. Vehicles were picked up 24hrs a day throughout the 2-week periods.

8.11 This allows a comparison of journey times during the peak and off-peak periods to observe the effect of the higher traffic volumes during the peaks. The journey times could only be collected between the counter locations. The software processes all the data and calculates vehicles times and also identifies outliers, so any anomalies, such as a cyclist, or a bus, would be removed from the data. A summary of the average journey times is below. These show that most of the journey times were well below 10 minutes.

8.12 Additional traffic count surveys, including manual, automatic and video were undertaken, which are detailed in Section 9, Traffic Modelling.

Route	Direction	Period	Daily average journey time (minutes)
A27 to Manor Road	Northbound	June Weekday	06:59
		June Weekend	07:50
		August Weekday	07:32
		August Weekend	07:08
	Southbound	June Weekday	07:10
		June Weekend	07:33
		August Weekday	07:38
		August Weekend	07:14
A27 to West Lane	Northbound	June Weekday	08:13
		June Weekend	10:39
		August Weekday	09:12
		August Weekend	08:28
	Southbound	June Weekday	08:28
		June Weekend	09:09
		August Weekday	08:48
		August Weekend	08:44

Table 11: Average Bluetooth Journey Times

Census Data

Journey to work Data

8.13 The 2011 Census provided journey to work data for Hayling Island residents and people who travel from elsewhere and work on Hayling Island. The data is summarised below.

8.14 Hayling Island has 7,677 working residents. Figure 10 shows their travel distribution and patterns.

8.15 Figure 11 shows the locations commuted from.

8.16 Figure 12 shows the Hayling Island commuter flows and travel modes.

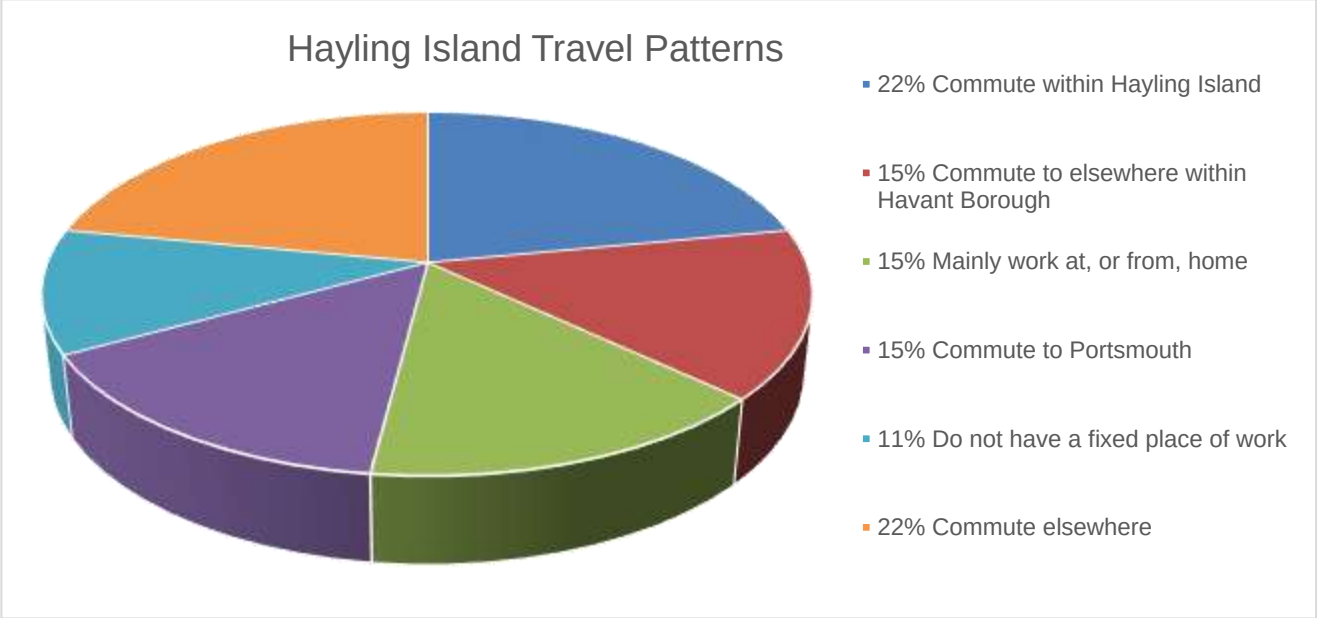


Figure 11: Hayling Island Travel Patterns

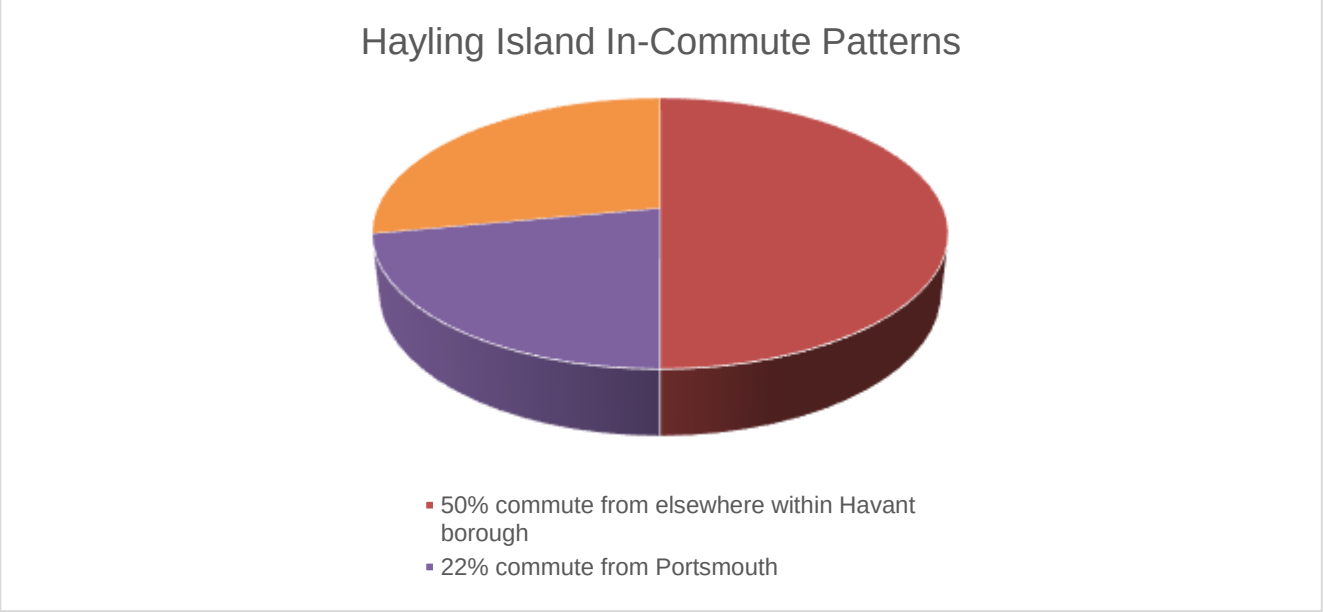
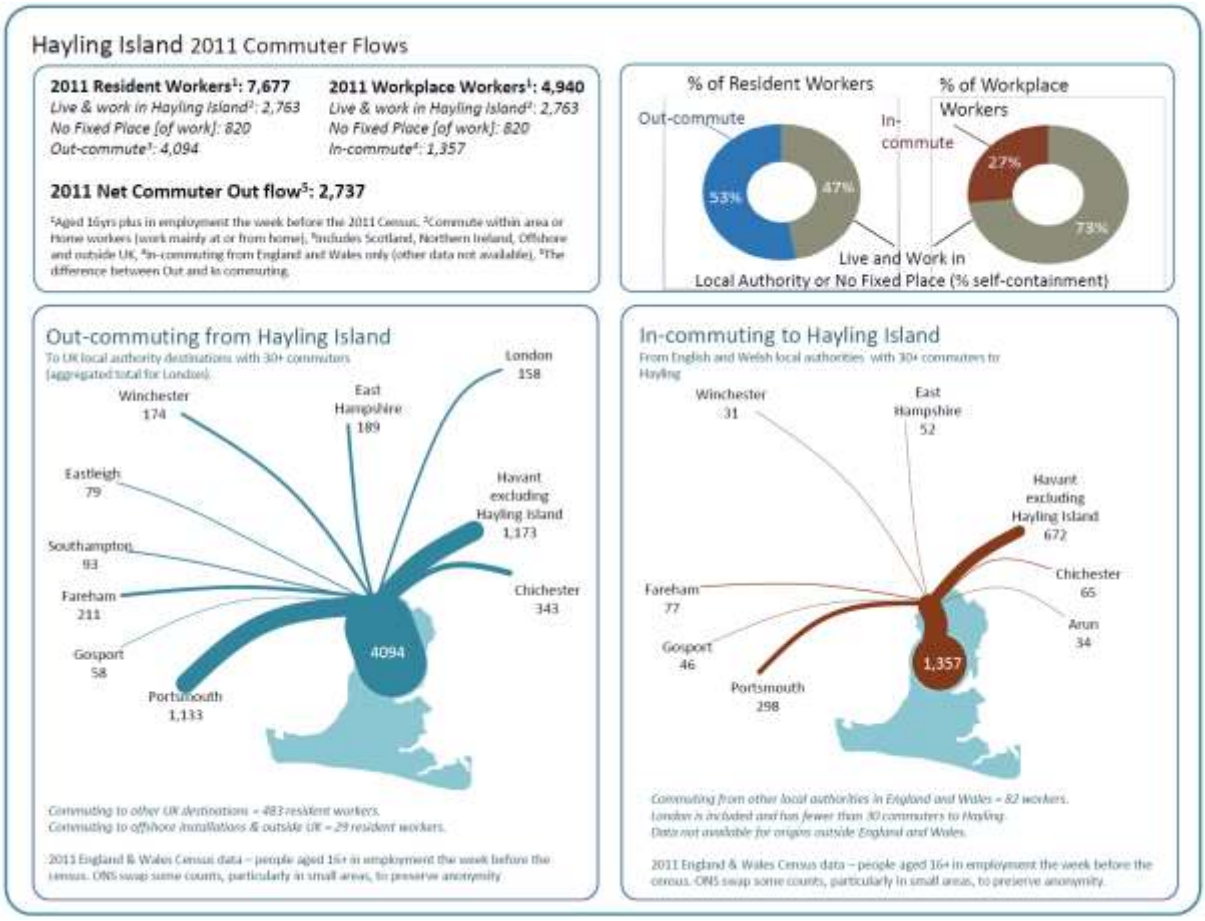


Figure 12: Hayling Island In-Commute Patterns



Hayling Island Commuter Flows and Main Method of Travel to Work

The Census 2011 commuter data measures workers aged 16yrs+, while Census 2001 data measures workers aged 16-74yrs. Comparisons between the census numbers should be used with caution due to the difference in age bands, natural population growth over time and economic conditions at the time of census collection which affect worker numbers. The percentage values provide a better relative comparison, although not strictly measuring like-for-like.

Top Five Destinations of Hayling Out-commuters

Number and percentage of total employed Resident Workers
Table ranked by Census 2011 figures with the figure for the same area given for 2001

Destination	2001	2011	% 2001	% 2011
Havant excluding Hayling Island	1,357	1,173	16.3	15.3
Portsmouth	1,202	1,133	18.4	14.8
Chichester	301	343	4.1	4.5
Fareham	174	211	2.4	2.8
East Hampshire	202	189	2.7	2.5

Top Five Origins (England/Wales) of Hayling In-commuters

Number and percentage of total employed Workplace Workers
Table ranked by Census 2011 figures with the figure for the same area given for 2001

Origin	2001	2011	% 2001	% 2011
Havant excluding Hayling Island	420	672	10.1	13.6
Portsmouth	229	298	5.5	6.0
Fareham	51	77	1.2	1.6
Chichester	59	65	1.4	1.3
East Hampshire	57	52	1.4	1.1

Main Method of Travel to Work	2001	2011	% 2001	% 2011
Car/Van	4744	5037	64.3	65.6
Homeworker	840	1155	11.4	15.0
On Foot	564	433	7.6	5.6
Car/Van Passenger	408	307	5.5	4.0
Bicycle	308	223	4.2	2.9
Bus	244	186	3.3	2.4
Train	111	182	1.5	2.4
Other	154	154	2.1	2.0

Ranked by Census 2011 percentages
Proportion of all modes of travel (working residents)

Figure 13: Hayling Island Commuter Flows and Travel Modes

8.17 Hayling Island is a net exporter of labour. Just under half of the Hayling Island resident workforce work locally. Just over half out-commute from Hayling Island to the rest of Havant and Portsmouth. However, because of this and the relatively low in-commuting, the actual Hayling workforce is mostly local residents. Almost half of all in-commuters are from the rest of Havant, with a further fifth from Portsmouth.

8.18 Figure 13 shows the modal share for Hayling Island commuting and demonstrates over 70% commute by single occupancy car or van.

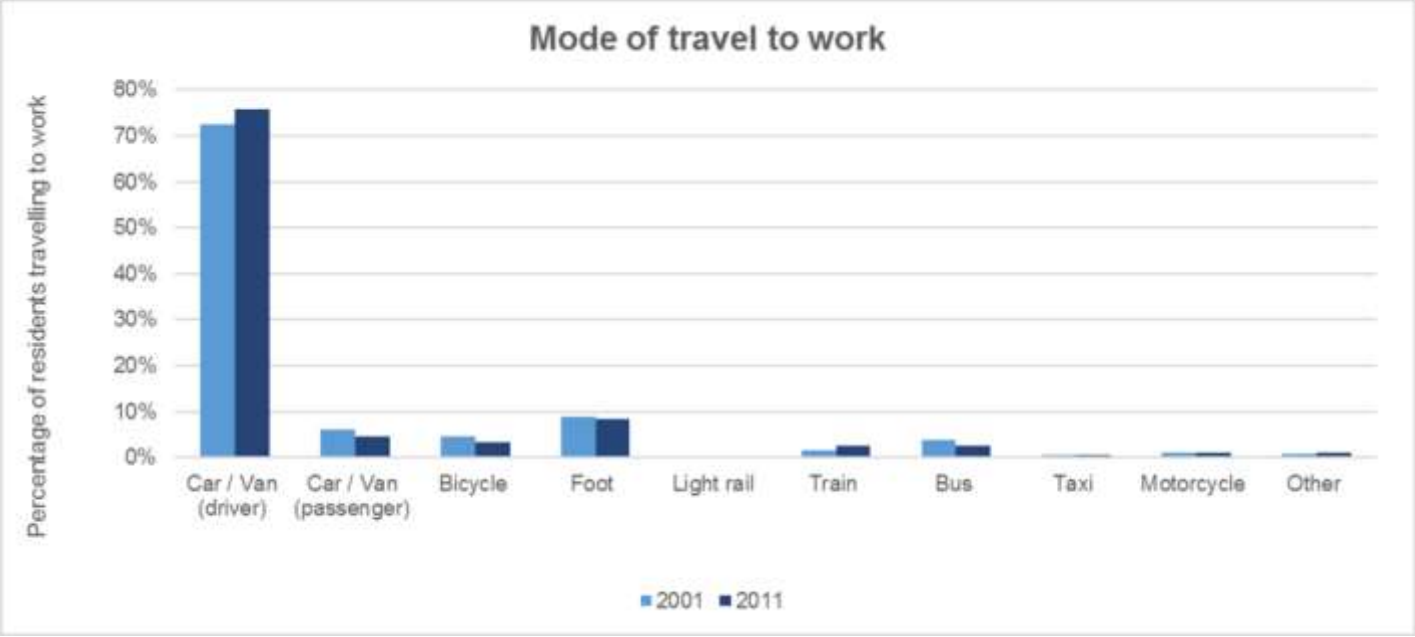


Figure 14: Mode of Travel to Work from Hayling Island

Travel Questionnaire

8.19 A questionnaire survey ran between 10th November 2017 and 10th December 2017 to acquire qualitative data on attitudes towards public transport, walking and cycling[3].

8.20 In summary, the survey results showed:

- 84% use the car as their main transport mode.
- One fifth of trips off the island are for supermarket shopping.
- 39% would consider using the bus more, if services were improved.
- 55% would use the Hayling ferry more if services and bus connections either side were improved.
- 53% would cycle more if cycling routes, including the Billy Trail were improved.
- 60% thought current traffic congestion was ‘very serious’.

[3] A copy of the questionnaire and the full results can be viewed at: https://www.havant.gov.uk/hayling-island-travel-report-pdf-743-kb

- 55% travel to locations within the Borough, when they leave Hayling Island, indicating Public Transport could be more widely used for these trips. The 2nd most popular destination was Portsmouth (15%).
- Highway improvements were considered the most popular method of addressing congestion, closely followed by footway and cycleway network improvements.

Accident Data

8.21 Personal Injury Accident (PIA) data has been collated for the five year period from 1 August 2013 to 31 July 2018 for the A3023. Within that time there were 76 PIA's, of which none were fatal, 11 were serious and 65 were slight. 40 of the 76 accidents occurred at junctions and therefore, more common than on open sections of road.

8.22 Four accidents involved pedestrians, two pedestrians were seriously injured, the first in October 2013, where a pedestrian was struck by a car near Langstone when crossing to catch a bus. The second occurred in June 2016 on the A3023, outside The Ship Inn, when a car travelling north on the A3023, overtook a bus and struck a pedestrian, who had alighted the bus and ran into the path of the overtaking vehicle. The other accidents involving pedestrians were slight. The first occurred on 28th April 2016 at the A3023/ Copse Lane junction, where a south travelling motorcycle collided with a pedestrian travelling north/ south. The second occurred on 17th November 2016, on the A3023, 40 metres south of the junction with Mill Rythe Lane, where a pedestrian was hit by the wing mirror of a car.

8.23 11 of the accidents involved cyclists, 9 of which were slight injury accidents and 1 serious. The serious accident occurred at the A3023/ Mill Road junction, where a pedestrian failed to give-way to a motorcyclist and the motorcyclist collided with a cyclist. Further details on these and all the accidents can be viewed in Appendix E.

No. of Accidents on A3023 - July 2013-2018	
Serious	**Slight**
61	11

Table 12: PIA Data at Junctions

9. Traffic Modelling

Microsimulation Overview

9.1 Havant Borough Council commissioned Systra to develop a Paramics Discovery microsimulation model of Hayling Island and Langstone in order to examine the expected impact of the emerging Local Plan to 2036.

9.2 The modelling has been used to assist in identifying any future issues on the network and any required infrastructure improvements to support and provide an evidence base for the Local Plan. The model has been employed to:

- Inform the consideration of strategic development options for the Local Plan and any other future development proposals.
- Assist in identifying the impact of development options on existing transport infrastructure and public transport services
- Assist in identifying appropriate mitigation measures, taking into account existing plans and proposals – established or emerging - from the local and strategic highway and planning authorities.
- Inform consideration of the sustainable transport options and assumptions to be incorporated into the Local Plan evidence base and infrastructure planning.
- Assist in addressing the requirements of Havant Borough Council for a sustainable approach to transport with a common objective of managing travel demand to minimise congestion, delays and adverse environmental / safety impacts Baseline and Reference cases have been produced to enable comparison between future scenarios for Do Minimum and Do Something.

Base Model Methodology

9.3 Development of the Base Model is reported in the *Hayling Island Base Model Development (21st December 2018).*

9.4 Various existing data was collated to facilitate development of the model. This included:

- Previously collected classified junction counts.
- A3023 Havant Rd/ Technology Park – Tuesday 27/06/2017
- A3023 Havant Rd/ Northney Rd – Monday 19/06/2017
- A3023 Havant Rd/ West Lane – Monday 19/06/2017
- A3023 Havant Rd/ Copse Lane – Wednesday 28/06/2017
- A3023 Havant Rd/ Yew Tree Rd - Wednesday 28/06/2017
- A3023 Havant Rd/Mill Rythe Roundabout – Thursday 29/06/2017
- Classified Automatic Traffic Counts (ATC). (June 2017).

- Bluetooth journey time surveys. Two routes undertaken over 4 weeks (1st June and 7th-20th August 2017).
- Traffic signal timings for applicable junctions.
- Data from the SRTM (Solent Transport's Sub-Regional Transport Model).

Journey Time Routes

9.5 Two journey time routes were surveyed in September 2017 (Routes 1 and 2) and a further two routes (3 and 4). These routes were provided via Bluetooth data. These can be seen in Figure 16.

- Route 1 – Beachlands Roundabout to Mill Rythe Roundabout via A3023, Manor Road.
- Route 2 – Seafront/ Sea Grove Avenue to Mill Rythe Roundabout via Church Road/ Elm Grove
- Route 3 – A3023 Woodbury Avenue to Mill Rythe Roundabout via A3023, northbound and southbound
- Route 4 – A3023 Woodbury Avenue to Brights Lane via West Lane, northbound and southbound.

9.6 Journey time information for routes 1 and 2 was gathered using the moving observer method and gathering GPS data over the length of the route. A minimum of 24 surveyed journey time runs were provided for each route and direction for 7am-10am, 11am-2pm and 4pm to 7pm. On board dash camera video footage was also provided.

9.7 The Bluetooth data was provided by Hampshire County Council in 1 minute intervals. Data was also available for four route sections along the route, between the following timing points:

- Site 1/2 Woodbury Ave: Langstone Road on lamp column 3 and 4 (nbd/sbd)
- Site 3 Ship Inn: Langstone Road on lamp column 30
- Site 4 New Cut: A3023 at junction with New Cut
- Site 5 West Lane: A3023 at junction with West Lane, lamp column 62
- Site 6 North of School: A3023 north of Junior School, lamp column 14
- Site 7 Brights Road: West Lane just south of Brights Road, lamp column 27.

9.8 The four route sections were:

a) Route 3:

- Section 1: Site 1/2 to Site 3 Woodbury Ave to Ship Inn
- Section 2: Site 3 to Site 4 Ship Inn to New Cut
- Section 3: Site 4 to Site 5 New Cut to West Lane
- Section 4: Site 5 to Site 6 West Lane to Junior School

b) Route 4:

- Section 1: Site 1/2 to Site 3 Woodbury Ave to Ship Inn
- Section 2: Site 3 to Site 4 Ship Inn to New Cut
- Section 3: Site 4 to Site 5 New Cut to West Lane
- Section 4: Site 5 to Site 7 West Lane to Brights Lane

Figure 15: Journey Time Routes

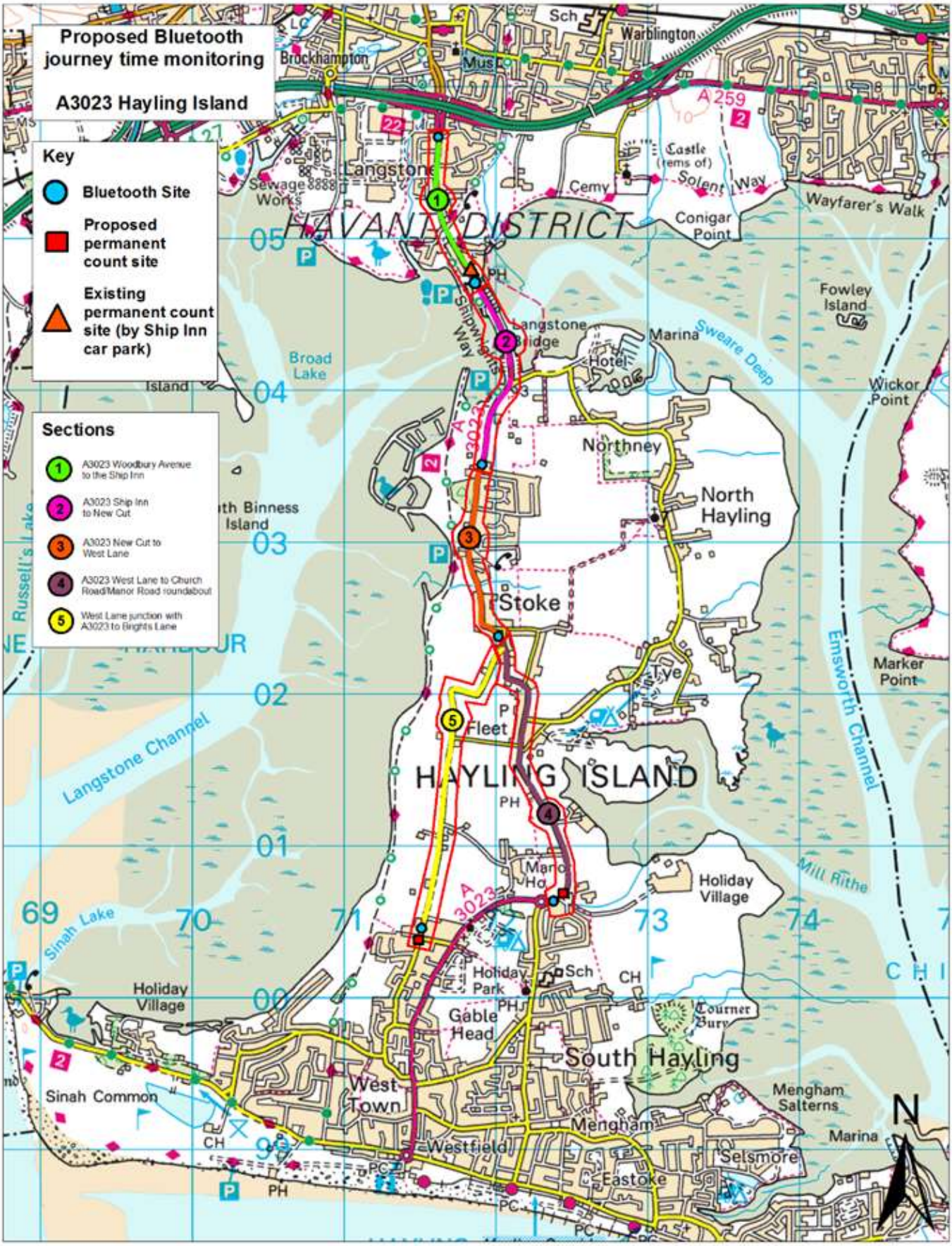


Figure 16: Bluetooth Locations

9.9 Systra extracted data for the first two weeks of June 2017, for weekdays Tuesday, Wednesday and Thursday, as these are considered neutral time periods. Interrogation of the data showed high variability in journey times on both routes, particularly Route 4. For example, some matched journeys were in excess of 15min when the majority were under 10min (indicating these were likely non-continuous journeys). The raw survey data was subsequently filtered and collated in 15min intervals to remove these non-continuous journeys. This process resulted in a realistic average journey time for each hour which does not include non-continuous route occurrences (i.e. vehicles stopping and starting again on route.

9.10 New classified manual count data was collected by Streetwise Services on Tuesday 12th September 2017 from 7:00 – 19:00 at 25 junctions in the study area. Queue length data was collected at nine of these locations. Surveys were undertaken using video. Journey time data was also collected via Bluetooth and using the moving observer method.

9.11 8 additional video surveys were undertaken on 31st October 2018 by Streetwise, between the Havant Bypass and the Northney Road junction to observe traffic behaviour. The surveys obtained traffic information north and south of 4 locations:

- Woodbury Avenue/ A3023 Junction
- Langstone High Street/ A3023 Junction
- The Ship Inn
- Northney Road/ A3023 Junction

Network Development

9.12 The Base model was developed to reflect a neutral, non-holiday weekday, which is standard practice in the transport planning industry for model network appraisal and development impact appraisal purposes. Generally, it is not considered necessary for a planning authority to model and assess peaks in traffic, such as those occurring on Bank Holiday or summer weekends, or the start and end of school terms. These periods are temporary and do not represent the normal state of the road network. In Unit M1.2: Data sources and surveys, Highway Surveys, Section 3.36 of the Government Transport Analysis Guidance (WEBTag) it is recommended that traffic counts for modelling purposes should be collected during a ‘neutral’, or representative month avoiding main and local holiday periods, local school holidays and half terms and other abnormal traffic periods.

9.13 A Paramics model covering Hayling Island and Langstone was created using Version 19 of Paramics Discovery to reflect normal weekday traffic conditions. The baseline reference cases include background traffic growth and the Do Minimum Scenario has incorporated baseline data, background traffic growth and development which is either committed (ie has planning permission), or which is associated with the proposed Local Plan sites. Planned highway improvements and public transport schemes were not added. As such, this represents the greatest impact on the highway network, as traffic related to developments has been included in the models, but no mitigation strategies have been developed to accommodate the traffic. The Do Something Scenarios are the next step in the analysis and include mitigation schemes intended to alleviate future congestion.

9.14 The Base model encompasses Hayling Island and Langstone and extends to the Park Road North/ New Road/ Elmleigh Road/ B2149 junction, in Havant Town Centre. Figure 18 shows the framework

for the model. This study focuses on the road and transport network south of the Langstone Road A27 roundabout.

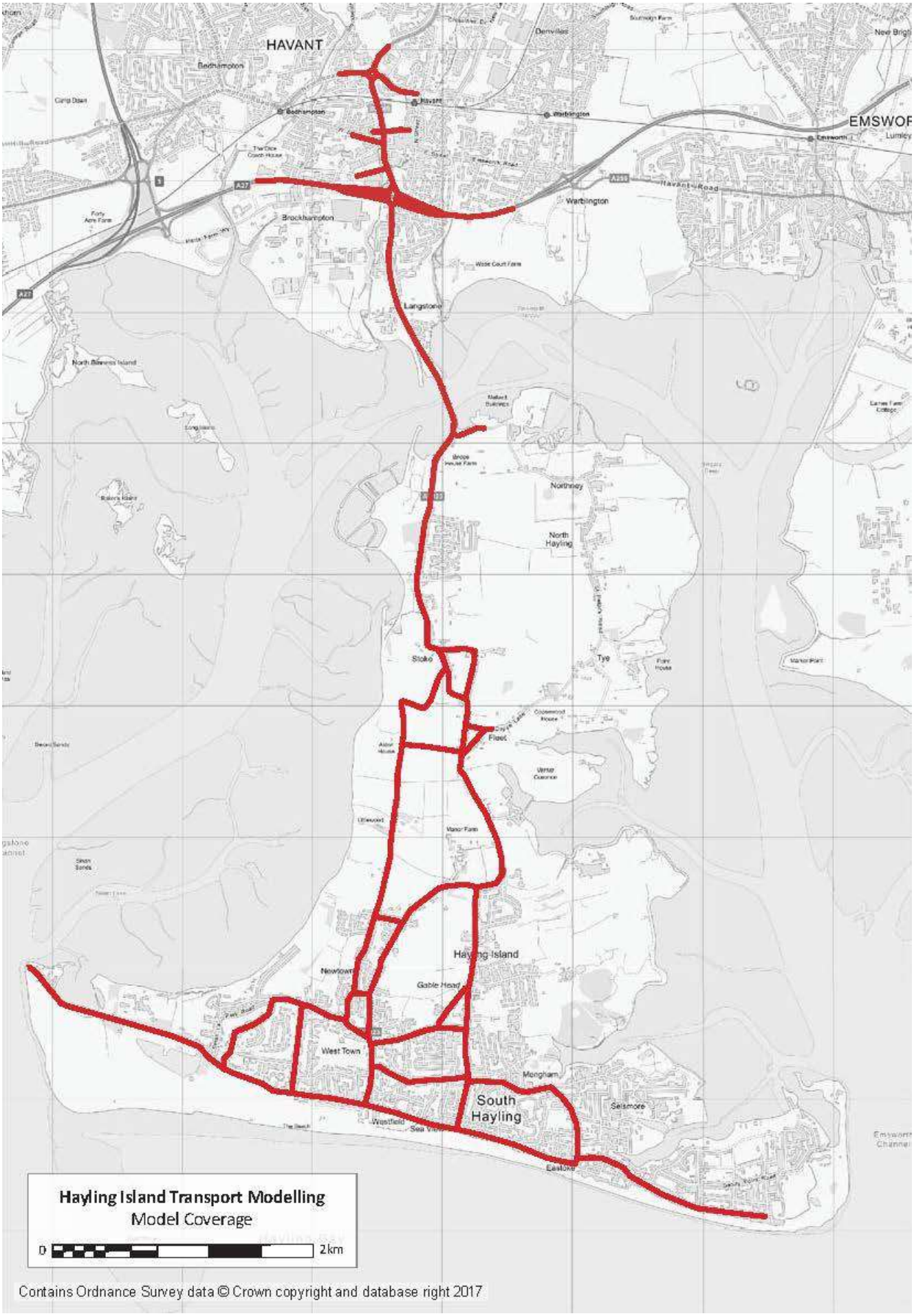


Figure 17: Hayling Island Traffic Modelled Area

Model Calibration and Validation

9.15 Calibration of the model involves checking the network description, demand matrices, model inputs, and parameters to ensure the model achieves a satisfactory representation of traffic flows and conditions. The model was calibrated based on WebTAG Unit M3.1 and DMRB guidance Volume 12 Section 2 Part 1. To determine whether the calibration is acceptable, it is important to ensure that the model is fit for the purpose of the study and that decision makers understand the quality of the information with which they are working. Any inherent uncertainties are taken into account when reaching decisions.

9.16 To ensure that the general behaviour of traffic is correctly represented in the model, comparisons were made between survey videos and the model.

9.17 Initial journey time comparisons showed most journey time were fast, compared to the observed times. This is likely to be a cause of the nature of the roads with features such as parked cars, driveways and narrow hedged rural roads. These specific attributes are not specifically modelled. As a result, link speeds were lowered by 15% from the signed speed limit to better reflect observed journey times.

9.18 Sectional analysis of the journey times was undertaken to identify where along the route the modelled journey times start to differ from the observed.

9.19 Adjustments were undertaken and the model calibrated to provide realistic representation of queuing, routing and vehicle behaviour on the network as observed during the survey programme meeting WebTAG and DMRB criteria on all journey time paths.

Future Year Model Development

9.20 The 2017 Hayling Island Base model was used to develop the 2036 Do-Minimum network. The 2036 network utilises the same zoning system, vehicle types, road hierarchy, and route choice parameters, as set out in the Hayling Island Model Development Report.

9.21 As with the Base Model, the Future Year model also reflects a neutral weekday, rather than for example, summer holiday or Bank Holiday peaks.

9.22 Where possible, for each committed development and LDP site, a new zone was added to the network. Eight of the sites were not given their own zone, instead were associated with existing zones and access points onto the network, namely Northney Road, Southwood Road, and Tournerbury Lane. New zones either required the addition of a new link road at the likely location of the proposed site access, or were associated with an existing access point using a zone portal.

9.23 For the new Lidl access, a right turn flare was added for the eastbound direction on Manor Road.

2036 Demand Forecasting Methodology

9.24 The methodology for the study assumed that all growth within the model area is associated with development. For all island related traffic (island to island, island to mainland, and mainland to island) this was in the form of trips added due to the island committed development and Local Plan sites. Uplift relating to development on the mainland was derived using forecasts from the Sub-Regional Transport Model.

Non-Development Related Traffic

9.25 The 2036 scenario is consistent with that reflected in the Solent Transport's Sub-Regional Transport Model (SRTM) and the Discovery model utilises the SRTM forecasts to derive growth in traffic between mainland zones. Adjustments to demands for future year forecasting were made to all vehicle types: Car, LGV, and HGV.

Development Related Traffic

9.26 For traffic generated by new development, three new matrix levels were created, which are Car only:

- Matrix 4 Committed Development trips
- Matrix 5 LDP trips and Windfall trips
- Matrix 6 Rook Farm

9.27 HBC supplied Systra with datasets outlining committed developments and proposed Local Plan sites within the study area. A final list of the sites to be included in the modelling work was agreed and detailed below in Table 14 and Table 15. It should be noted that these reflect the thinking at the time of the preparation of the modelling work and does not represent the final selection of sites in the local plan, as sites may have been included or excluded from the plan for other reasons in the meantime. However, the overall quantum of development aligns and therefore the assessment is robust.

9.28 The full list of committed development sites included multiple sites of only 1 or 2 dwellings (totalling 38 dwellings). These sites were excluded from the list on the basis that the number of trips they will generate will be negligible. An additional matrix level was generated including only trips to the Rook Farm Development.

Site Name	TRICS Index
117 Elm Grove	as in TA supporting planning application
11 Bound Lane	2
36, 38 and 40 and 1 West Lane Station Road	2
3 Elm Grove	2
31 Elm Grove	2
Newtown House Hotel, Manor Road	2
19 - 23 and 29 - 31 Creek Road	2
151-153 Southwood Road	1

Table 13: Committed Development Sites TRICS Index

Site Name	TRICs Index
41 Station Road	1
Land to rear 108-110 Elm Grove Residential	1
Beachlands	2
Manor Nurseries	1
Station Road (North of Sinah Lane / West of Furniss Way)	1
Northney Marina	1
Land at Fathoms Reach	1
Land west of Tournerbury Golf Course	1
Eastoke Corner	2
The Nab Car Park, Southwood Road	2
Rook Farm	1
Windfall	1

Table 14: Assumed Local Plan Site TRICS Index

Trip Rates

9.29 TRICS is a UK industry standard database for calculating typical trip generation for a given development. TRICS 2017 v.7.4.4 database of trip rates has been used to derive person trip rates for all land uses relevant to this assessment, filtered to obtain rates for sites situated in South East England as shown below

9.30 Each development was assigned a trip rate based on the development type. The TRICS database was utilised to derive trip rates for three types:

- Houses Privately Owned
- Flats Privately Owned
- Employment (Office)

9.31 For the retirement apartments and Lidl, the trip rates used in their accompanying Transport Assessment (TA) documents were used. For the LDP sites, the Planning Team indicated that all residential sites should be assigned Type 1 except the Seafront Regeneration sites, which should be Type 2. The Trip Rates used for this study can be seen in Table 17.

9.32 HBC commissioned traffic count data to confirm the TRICS trip rates at two new development site locations, St Benedict Road and Billy Road, between and including 12th July and 18th July 2018. This confirmed the TRICS trip rates generated are within an acceptable tolerance of the data collect at the above locations.

TRICS Trip Rates								
	Private Houses		Private Flats		Office		Lidl (from TA)	
Period	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
07:00 - 08:00	0.080	0.320	0.029	0.091	0.711	0.055	0.435	0.087
08:00 - 09:00	0.124	0.362	0.058	0.169	1.828	0.102	1.383	0.878
09:00 - 10:00	0.167	0.175	0.070	0.140	1.086	0.297	2.897	2.041
10:00 - 11:00	0.141	0.169	0.123	0.144	0.328	0.367	4.763	4.324
11:00 - 12:00	0.146	0.154	0.115	0.103	0.219	0.258	4.763	4.478
12:00 - 13:00	0.164	0.166	0.156	0.144	0.281	0.461	4.346	4.456
13:00 - 14:00	0.170	0.161	0.160	0.169	0.477	0.336	3.929	4.258
14:00 - 15:00	0.139	0.169	0.148	0.148	0.242	0.328	5.334	5.070
15:00 - 16:00	0.250	0.176	0.115	0.111	0.234	0.430	4.675	4.982
16:00 - 17:00	0.272	0.160	0.144	0.099	0.117	0.758	4.170	4.456
17:00 - 18:00	0.351	0.161	0.169	0.078	0.156	1.734	4.851	5.224
18:00 - 19:00	0.206	0.154	0.140	0.053	0.062	0.508	3.512	3.863

Table 15: TRICS Hourly Trip Rates by Development Type

Do-Minimum Network Performance

9.33 Six journey time routes were used to compare journey times between the base and Do Minimum models, as shown in Figure 19.

- Route 1: Beachlands Roundabout to Mill Rythe Roundabout via A3023 Manor Road, northbound and southbound
- Route 2: Sea Front/Sea Grove Avenue to Mill Rythe Roundabout via Church Road/Elm Grove, northbound and southbound
- Route 3: A3023 Woodbury Avenue to Mill Rythe Roundabout via A3023, northbound and southbound
- Route 4: Church Road/ Kings Road to A3023 West Lane
- Route 5: Manor Road/ Brights Lane to A3023 West Lane
- Route 6: West Lane/ Brights Lane to A3023 West Lane

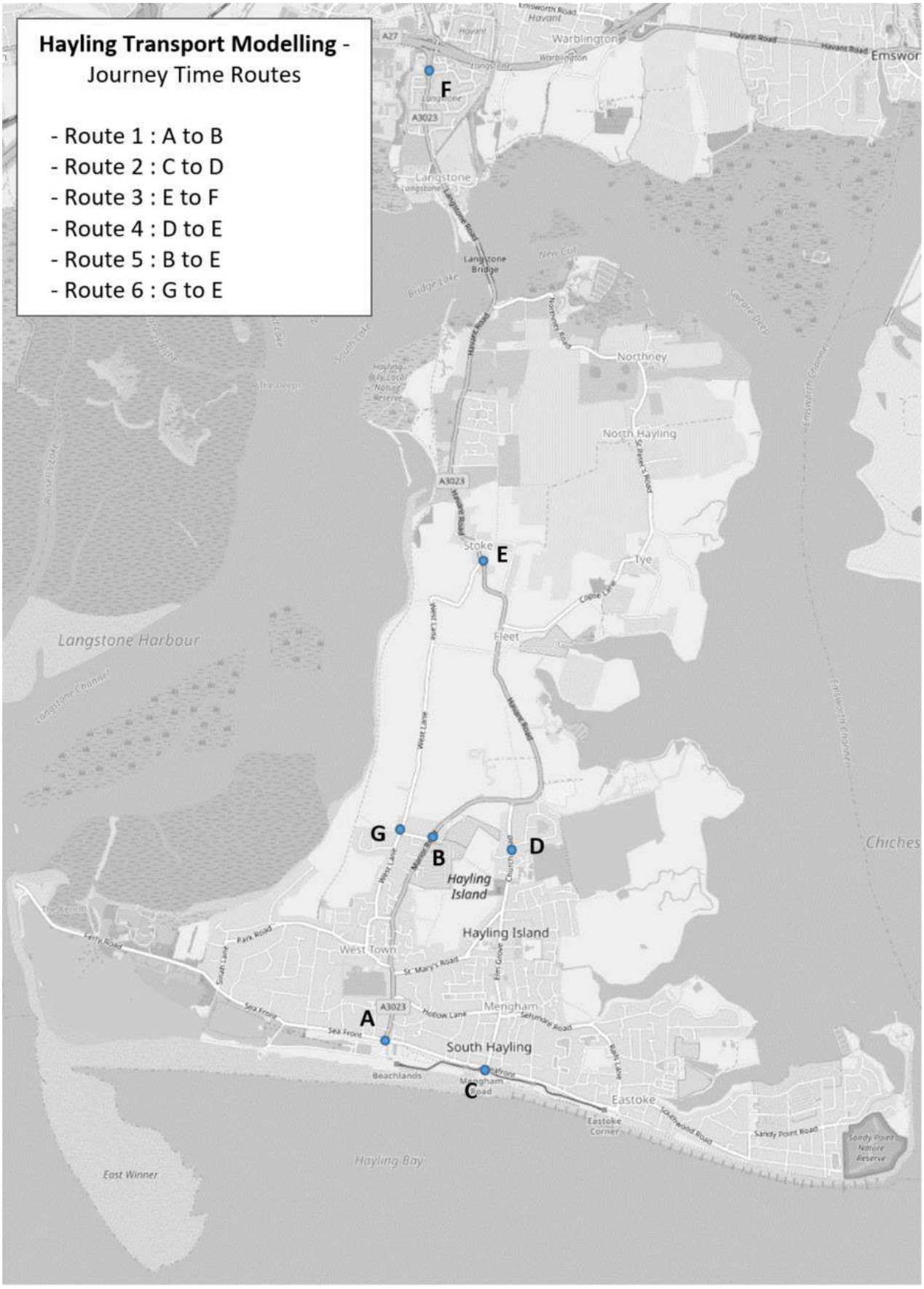


Figure 18: Journey Time Routes

9.34 The 'Hayling Island Do Minimum and Mitigation Testing Report' sets out the detailed findings of the Do Minimum and the Do Something Model Runs.

9.35 The Do Minimum Scenarios take account of development, highway improvements and public transport schemes that are either committed or highly likely to proceed. As such, they represent the greatest impact on the highway network, as traffic related to developments has been included in the models, but no mitigation strategies have been developed to accommodate the traffic.

9.36 The Do Something Scenarios then add on proposed mitigation schemes to assess whether improvements can be achieved to mitigate the impact of development. This is a 'do something' scenario.

9.37 The Impact of Local Plan related traffic can be established by comparing the do minimum and the baseline scenarios

9.38 Initial modelling results indicated increased queuing and journey times on and off Hayling Island. Link flows increase between the base model and baseline scenarios due to the addition of the Local Plan traffic.

9.39 The greatest increase in journey times in the AM peak occur on Route 5 Northbound (Manor Road – West Lane/ A3023) where times increase by 58%. There are no significant journey time increases in the Inter Peak (IP) and the largest increases in the PM period are on Route 3, north and southbound, with journey times increasing by 1 minute 45 seconds and 2 minutes 17 seconds respectively.

9.40 When comparing the Baseline and Do Minimum scenarios on the Strategic Routes in all time periods, the greatest increase is shown to be on Route 2 northbound, where the A3023/ Manor Road arm at the Mill Rythe Roundabout gives way to north bound traffic from Church road. Journey times increase by 4 minutes 23 seconds (35%) in the Do Minimum scenario. Journey times increase by a maximum of 2% in the IP and the greatest increase in the PM is on Route 3, north and southbound with increases of 1 minute 46 seconds (24%) and 2 minutes 18 seconds (29%) respectively.

9.41 On comparing queue lengths between the two scenarios, the largest increases are shown to be northbound in the AM with queue lengths at West Lane/ A3023 increasing by 165 metres. Other locations expected to experience significant queue length increases in the AM are on Manor Road, at the Mill Rythe Roundabout, with 153 metre increase and 141 metre increase on the A27 Havant Bypass. The greatest queue length increases, in the PM is 51 metres at the A3023/ Northney junction and on the A27 Havant Bypass (East) at the Havant Bypass.

9.42 Queueing and delay can be seen to significantly increase on the A3023 side roads, including Northney Road and Southbrook Road and the additional traffic along the A3023 will reduce the number of 'acceptable' gaps in the traffic to allow this traffic to join the A3023. This could lead to increased risk of collisions.

9.43 Another impact of the Local Plan development traffic is that the increased flow on the A3023 will prevent appropriate levels of permeability for pedestrians and cyclists with the road itself becoming a barrier to encourage sustainable travel.

9.44 The Do Something Scenarios are the next step in the analysis, as they include mitigation schemes intended to alleviate future congestion and friction.

‘Do Something’ Interventions and Mitigation

9.45 The Do Something Scenarios include proposed transport schemes on the island that are intended to mitigate future congestion and improve facilities for all road users, including pedestrians and cyclists. These are shown on Figure 20 and detailed in Tables 18, 19 and 20. The schemes are not tested as individual schemes as part of this study but are assessed as part of a package of measures.

9.46 The forecast modelling for the Local Plan 2036 has demonstrated that the proposed mitigation should be explored for its potential to alleviate the effects of possible future development. Options for possible improvements to increase capacity should be considered and the following mitigation and interventions could assist in improving localised capacity and overall network performance.

9.47 All vehicular traffic leaving Hayling Island must travel north on the A3023 to gain access to the wider strategic road network (i.e. A27, A3M and M27). Access to and from the A27/M27 from the A3023 is sometimes hampered by capacity constraints, or ‘friction’ along the route, which is defined as actions related to activities which interfere with traffic flow. The characteristics of friction include vehicle composition, vehicle turning movements and the complex behaviour of undisciplined road users. All these can impact on capacity and road performance and delay and can be accentuated in the AM and PM peaks and during holiday periods.

9.48 This section recommends options for further studies providing potential road network improvements on the island. While the study has demonstrated the Hayling Island road network still operates within capacity in 2036, improvements to specific identified locations on the A3023 will assist in improving journey time reliability. The principal objective would be to improve the A3023 corridor, to maximise traffic throughput and improve journey time reliability by minimising queues at the junctions along the route.

9.49 Options and high level costs of scheme interventions to alleviate friction and increase capacity to improve journey time reliability on Hayling Island, worth further investigation, are shown in Figure 19 and in Tables 18, 19, 20. The cost estimates are high level and as of December 2018. Costs include the following:

- Cost of any diversions or changes to statutory undertaker plant
- Ecology studies
- Legal processes
- Costs related to restricted working, in accordance with the requirements of the A3023 Traffic Management Plan.
- Professional fees.
- Inflation.

9.50 All measures such as Traffic Signal timings would be optimised to minimise delay to all road users and designed to ensure traffic flows are balanced at junctions, to deter ‘rat running’.

9.51 Three Mitigation Packages were developed and tested in the model:

Mitigation Package 1

9.52 Schemes included in Mitigation Package 1 are listed in Table 18. Measures included are all friction reduction measures such as bus lay-bys and pull-ins, right turn lanes and the conversion of two priority junctions to traffic signal control, including pedestrian and cyclist crossing facilities. These are the A3023/ Woodbury Avenue/ Langstone Technology Park and the existing Mill Rythe roundabout, including a roundabout at the A3023/ Kings Road/ Mill Rythe School access. The Woodbury Avenue signal plan includes a ban on right turn movements from Woodbury Avenue. Right turning traffic will be redirected to Southbrook Avenue. To accommodate these right turn movements at the A3023/ Southbrook Avenue, new signals would be implemented. The package also incorporates the extension of the 2 lanes southbound from the A27 Langstone Roundabout to a location opposite Langbrook Close.

Mitigation Package 2

9.53 Schemes included in Mitigation Package 2 are listed in Table 19. Measures included are all those in Mitigation Package 1, in addition to a mini roundabout at the A3023/ Copse Lane junction and the signalisation of the A3023/ Northney Road junction with an offline bus stop.

9.54 This package also includes a new link from West Lane, connecting to the A3023 at a new signalised junction between West Lane's existing junction with the A3023 and Copse Lane. The existing road connecting the A3023 to West Lane will provide a local access junction to serve the properties at the north end of West Lane and connect with the new link road as a priority junction. The existing link would give way to the new link.

Mitigation Package 3

9.55 Schemes included in Mitigation Package 3 are listed in Table 20. This package includes the measures in Packages 1 and 2 in addition to providing a bypass connecting Manor Road at the Oven Campsite to the existing West Lane Road, north of the residential properties and continues onto the new West Lane link introduced in Package 2.

9.56 The new bypass would connect to the A3023/ Manor Road at a new 3 arm roundabout. The existing West Lane, south of the new bypass would join the bypass as a priority junction with a right turn filter for the southbound traffic turning into West Lane. An additional left turn filter lane would be included on the northbound arm onto the new bypass, from the A3023/ Manor Road.

9.57 The new bypass would replace the existing stretch of the A3023 on Havant Road as the strategic route north. Local traffic on Havant Road would re-join the main route north at the new signals after Castlemans Lane.

Figure 19: Locations Identified for Potential Mitigation

2036 Mitigation Package 1 Schemes			
Highway Issues	**Schemes**	**Map Location ID**	**Cost Estimate**
A3023 SB Queueing from Langstone Roundabout and A3023 NB and SB Queueing to and from Langstone Roundabout	Extend 2 lanes to Southbrook Road, Langstone and Ban right turn from Woodbury Avenue and Southbrook Rd signalisation/ measures	1,2 and 3	£700,000
A3023 NB and SB Queueing to and from Langstone Roundabout (No drawing)	Revised Traffic Signal phasing on A27/ Langstone Roundabout	4	N/A
A3023 NB and SB Queues	Right Turn Lane for The Ship Inn and new northbound bus layby	5	£100,000
A3023 NB and SB Queues	New Right turn lane into New Cut and New SB bus stop pull-in south of New Cut	6	£75,000
A3023 NB Queues	New right turn lane in to Avenue Road	7	£60,000
A3023 SB Queues	New right turn lanes into Esso garage and windsurfer beach and Ped Refuge	9	£100,000
A3023 NB Queues	New NB bus lay-by near Mill Close	8	£30,000
Queues on approach to Mill Rythe Roundabout	Havant Road/ Church Road conversion to traffic signals and Mitigation for school	11	£600,000
A3023 SB Queues	New SB bus stop pull-in at Castlemans Lane.	16	£30,000
A3023 NB Queues	A3023 Maypole NB bus stop pull-in	10	£30,000
A3023 NB Queues	New northbound bus stop pull-in close to Gilbert Mead	14	£30,000

A3023 NB and SB Queues	New NB and SB bus stop pull-ins at the Oven Campsite	12	£60,000
A3023 SB Queues	New right turn lane for Newtown Lane	15	£80,000
A3023 NB and SB Queues	New pedestrian refuge and carriageway widening at Bright's Lane	13	£60,000
TOTAL COST PACAKGE			**£1,955,000**

Table 16: Mitigation Schemes, Package 1

Mitigation Package 2 Schemes+ Mitigation Package 1			
Highway Issues	**Schemes**	**Map Location ID**	**Cost Estimate**
Queueing on Northney Road	New traffic lights at Northney Road	17	£300,000
Queueing on A3023 and Northney Road	NB Bus Lay-by south of Hayling Bridge	17	£30,000
Queuing at Copse Lane	Mini Roundabout	19	£30,000
Queues on A3023 and West Lane	New West Lane Link (north end of Stoke Bypass)	18	£2,000,000
TOTAL COST			**£4,315,000**

Table 17: Mitigation Schemes, Package 2

Mitigation Package 3 Schemes + Mitigation Packages 1 and 2			
Highway Issues	**Scheme**	**Map Location ID**	**Cost Estimate**
General Congestion	Stoke bypass and southern link to Manor Road	17, 18 and 19	£20,000,000
TOTAL COST			**£24,315,000**

Table 18: Mitigation Schemes, Package 3

9.58 The interventions were modelled via 6 demand scenarios:

- 2017 Base Scenario
- 2036 Base Scenario – 2017 model with committed development traffic.
- 2036 Do Minimum Scenario – 2036 base model with LDP development traffic.
- 2036 Do Minimum Scenario with Package 1 – 2036 Do Min model with Package 1
- 2036 Do Minimum Scenario with Package 2 – 2036 Do Min model with Packages 1 and 2
- 2036 Do Minimum Scenario with Package 3 – 2036 Do Min model with all 3 Packages.

Do Something 2036 Network Operation

9.59 Ten model runs for each time period of the initial 6 models were undertaken and the results averaged. The results compare link flows, journey times and queue lengths for the scenarios.

9.60 Results demonstrated that the traffic signals introduced at the A3023/ Southbrook Road junction, in Packages 2 and 3, which allow vehicles that can no longer turn right at Woodbury Avenue to join the A3023, increased delays on the A3023, particularly northbound during the AM Peak.

9.61 Further iterations were undertaken to refine model details to reduce delays following initial outputs. To improve the AM journey times and reduce queue lengths, Systra investigated improved options at the A3023/ Woodbury Avenue and A3023/ Southbrook Road junctions. Traffic signal timings were adjusted to reallocate greater green time to the A3023 and only allocating green time to Southbrook Road on demand and not every cycle.

Link Flows

9.62 Details of the link flow changes can be seen in the tables in Appendix D and in the Systra ‘Hayling Island Do Minimum and Mitigation Testing Report’ (21st December 2018).

9.63 The tables show a general increase in traffic in the Do-Minimum model compared to the Base Model due to the additional traffic associated with the additional development.

9.64 Comparing link counts for the Do Minimum and Packages 1, 2 and 3 models, flows are generally consistent with the Do Minimum scenario.

9.65 Link flows change in Package 3 due to changes in the strategic north and southbound routes on and off the island. Significant increases on the junctions along West Lane and decreases on the old section of the A3023 where it is adjacent to the new bypass. A redistribution of traffic in the south of the island is also observed due to the alterations in the strategic network. Results are generally the same across the AM, Inter Peak and PM time periods.

Journey Time Routes

9.66 Six journey time routes were used to compare journey times of the various scenarios. These are detailed in Appendix D and the Systra ‘Hayling Island Do Minimum and Mitigation Testing Report’ (21st December 2018). Results can also be viewed in Appendix D. The 6 routes are as follows:

- Route 1: Beachlands Roundabout to Mill Rythe Roundabout via A3023 Manor Road, northbound and southbound

- Route 2: Sea Front/Sea Grove Avenue to Mill Rythe Roundabout via Church Road/Elm Grove, northbound and southbound
- Route 3: A3023 Woodbury Avenue to Mill Rythe Roundabout via A3023, northbound and southbound
- Route 4: Church Road/ Kings Road to A3023 West Lane
- Route 5: Manor Road/ Brights Lane to A3023 West Lane
- Route 6: West Lane/ Brights Lane to A3023 West Lane

9.67 The journey times were collected and averaged over intervals of an hour for individual routes.

9.68 From the tables in Appendix D, it can be seen that journey times increase slightly across all scenarios and time periods.

9.69 On comparing the three mitigation packages scenarios with the Do Minimum scenario, journey times for Routes 1 and 2 remain approximately the same. As the majority of the mitigation measures are further north than these route sections, this would be expected.

9.70 In all three packages, Route 3 shows increased journey times compared to the Do Minimum scenario. The source of these increases is the proposed A3023/ Woodbury Avenue and A3023/ Southbrook Road signalisation. Nevertheless, the proposed signalisation at these junctions is required to assist traffic exit these side road residential areas. However, this introduces delay for the main A3023 traffic flows.

9.71 For Route 4, all the scenarios demonstrate increased journey times, compared to the Do Minimum scenario. This is a result of signalisation at the Mill Rythe Roundabout. North and southbound traffic flows are currently unimpeded. However, queue lengths for the forecast model (Do Minimum) demonstrate significant queues develop on the A3023/ Manor Road arm of the roundabout. Introducing traffic signals will be able to redistribute any delay between Church Road and the A3023/ Manor Road.

9.72 In Mitigation Package 3, Route 5 demonstrates improved north and south bound journey times, due to the introduction of the bypass allowing traffic to avoid the Mill Rythe Roundabout.

9.73 Journey times for Route 6 are similar to those in the Do Minimum scenario, with the exception of Mitigation Package 2, where journey times increase slightly. In this scenario the north end of the route (West Lane/ A3023) is signalised. The model demonstrated that vehicles would wait the length of one cycle before passing through the junction. Although this junction is the same in Package 3, the time delay is removed due to the increased green time on West Lane (the bypass) with this becoming the principal route.

9.74 Queue length Tables can be viewed in Appendix D. Comparisons between queue lengths in all three mitigation packages are similar to those in the 2036 Do Minimum model. All four packages do reduce some journey times in all time periods, however, queueing increases on the Church Road arm of the Mill Rythe junction, but reduces queuing on the Manor Road arm, due to the introduction of traffic signals. Traffic signals in Packages 2 and 3, at the A3023/ Northney Road junction, reduces long queues shown on Northney Road in the Do Minimum scenario, however, queues are increased on the A3023 at this location northbound in the AM peak. This is due to the currently unimpeded traffic flows on the A3023 being stopped to allow Northney Road traffic to join the A3023.

Strategic Journey Time Routes

9.75 These six routes may be aggregated into three strategic journey routes. These represent the main routes between Hayling Island and the mainland and provide a clear means of assessing the impacts of each scenario.

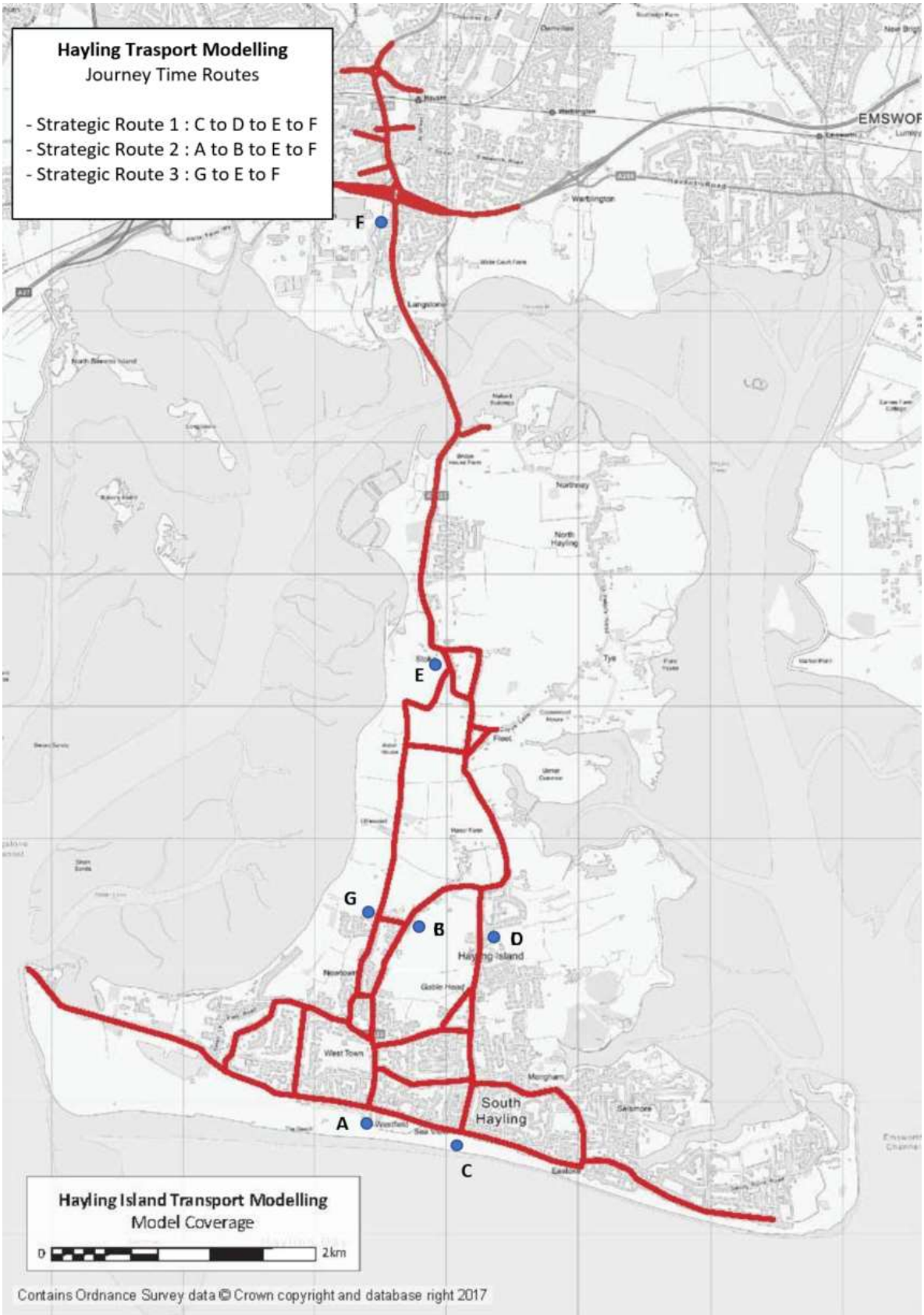


Figure 20: Strategic Journey Time Routes

08:00 - 09:00

Journey Times (mm:ss) Description	Baseline	Do Minimum no Mitigation	Do Minimum Package 1	Do Minimum Package 2	Do Minimum Package 3	Difference (mm:ss)	Difference (%)
Strategic Route 1 NB	11:58	14:01	15:23	16:16	15:33	02:03	17%
Strategic Route 1 SB	10:30	11:15	12:01	11:55	11:22	00:45	7%
Strategic Route 2 NB	12:25	16:48	15:24	16:13	13:55	04:23	35%
Strategic Route 2 SB	10:10	10:56	11:23	11:15	09:34	00:46	8%
Strategic Route 3 NB	08:57	11:21	12:01	12:42	12:54	02:24	27%
Strategic Route 3 SB	07:23	08:16	07:58	07:55	07:23	00:53	12%

> 30s under Journey Time
No Significant Change
> 30s over Journey Time

12:00 - 13:00

Journey Times (mm:ss) Description	Baseline	Do Minimum no Mitigation	Do Minimum Package 1	Do Minimum Package 2	Do Minimum Package 3	Difference (mm:ss)	Difference (%)
Strategic Route 1 NB	10:23	10:28	10:34	10:45	10:28	00:05	1%
Strategic Route 1 SB	10:22	10:32	11:01	11:10	10:50	00:10	2%
Strategic Route 2 NB	10:19	10:24	10:19	10:28	08:55	00:05	1%
Strategic Route 2 SB	10:18	10:25	10:39	10:46	09:14	00:07	1%
Strategic Route 3 NB	07:23	07:27	07:10	07:42	07:16	00:04	1%
Strategic Route 3 SB	07:09	07:17	07:16	07:31	07:11	00:08	2%

17:00 - 18:00

Journey Times (mm:ss) Description	Baseline	Do Minimum no Mitigation	Do Minimum Package 1	Do Minimum Package 2	Do Minimum Package 3	Difference (mm:ss)	Difference (%)
Strategic Route 1 NB	10:21	12:09	10:58	11:15	10:43	01:48	17%
Strategic Route 1 SB	11:05	13:24	12:42	12:53	12:24	02:19	21%
Strategic Route 2 NB	10:14	12:03	10:19	10:27	08:51	01:49	18%
Strategic Route 2 SB	10:57	13:14	12:20	12:25	10:46	02:17	21%
Strategic Route 3 NB	07:17	09:03	07:08	07:43	07:12	01:46	24%
Strategic Route 3 SB	07:49	10:07	08:43	08:57	08:42	02:18	29%

Table 19: Summary of 'Do Something' Impacts Strategic Journey Time Routes

Impact of Mitigation Packages – Do Minimum vs Mitigation Packages

9.76 On initial review of the results, when comparing the Mitigation Package outputs with the Do Minimum scenario, a combination of improvements and exacerbation in queue lengths and journey times can be observed.

9.77 The inclusion of traffic signals on the northbound approach to the Havant Bypass generates delays in the AM peak, but provides benefits in the PM period in all three Mitigation Package scenarios. However, while delays increase for traffic on the A3023, it reduces long delays shown in the Do Minimum Scenario for the side roads, such as Southbrook Road.

9.78 Package 2 increases the northbound AM delay, caused by the introduction of traffic signals at the A3023/ Northney Road junction. Similarly, to the other new signalised junctions, the signal control provides green time for the vehicles exiting the side roads, i.e. Northney Road.

9.79 Package 3 reduces journey times for Strategic Route 2. This is as a result of removing the Mill Rythe junction from the route, with the traffic now utilising the new bypass.

9.80 The introduction of traffic signals at the West Lane/ A3023 junction on Route 3 increases the Route 3 north bound journey times and a further slight increase in journey time with the introduction of the bypass give way.

9.81 Table 21 below summarises the overall results for queue lengths and journey times on Hayling Island by implementing the Mitigation Packages on future network performance, compared to the Do Minimum scenario.

	AM	IP	PM
Mitigation Package 1	**Increase in journey time or queue lengths compared to 'Do Minimum'**	No Significant Change	**Reduction in journey time or queue lengths compared to 'Do Minimum'**
Mitigation Package 2	**Increase in journey time or queue lengths compared to 'Do Minimum'**	No Significant Change	**Reduction in journey time or queue lengths compared to 'Do Minimum'**
Mitigation Package 3	**Increase in journey time or queue lengths compared to 'Do Minimum'**	No Significant Change	**Reduction in journey time or queue lengths compared to 'Do Minimum'**

Table 20: Summary of 'Do Something' Impacts

Road Safety

9.82 A consideration when assessing the impact of any development and associated mitigation is in understanding how the results could impact road safety, for all users.

9.83 The A3023 between Langstone and Mill Rythe has a poor accident record, many of these caused by accessing frontage properties and the limited ability to turn right across oncoming traffic. Whilst many of the measures in the mitigation package do allow for reductions in journey time, or queue length, their primary role is to improve highway safety for all users.

9.84 A key consideration factor in relation to highway safety is the impact of potential queueing and whether this has the potential to adversely impact the operation of additional junctions.

9.85 The introduction of traffic signals at a junction removes any opposing traffic, driver decision and possible errors in judgement, therefore providing a safer junction. Traffic signals also allow for the accommodating pedestrian and cyclist crossing facilities.

9.86 A consideration factor in relation to safety is whether traffic queues generated at one junction queue back past other junctions. If this occurs, safety could be at risk.

9.87 From the modelling outputs, example locations where queueing past other junctions is likely is from the proposed Mill Rythe signalised junction, back to the proposed Kings Road mini roundabout, with approximately 170m queue in the PM period. However, this could be offset by including 'Keep Clear' markings on the mini roundabout.

9.88 At the A3023/ Northney Road junction, the introduction of signalisation could result in northbound traffic queues of approximately 230m, in the AM period, which could result in traffic queueing past the petrol station forecourt and garage.

Model Run Results Summary

9.89 The results from the Hayling Island Paramics modelling have demonstrated that the proposed development will impose an impact on the highway network. The mitigation packages have provided improvements at certain locations to offset the impact, while other locations are likely to experience greater delays than the current baseline, or with future development, without mitigation (Do Minimum Scenario).

9.90 While no one Package provides a panacea for all the issues on the network, with the proposed development, it can be observed that a combination of the proposed mitigation options generally improves overall operation of the network, provides facilities for pedestrians and cyclists, in addition to road safety remaining uncompromised for all users.

9.91 Further work and modelling iterations, to address the increased delays on the A3023 and side roads and to make further journey time savings and reduce queue lengths could be investigated. Supplementary mitigation packages, with different permutations of proposed interventions and combination of schemes could provide an optimum package.

9.92 The option of providing an ‘in-out’ entrance into the Langstone Technology Park, from the A27 westbound on-slip, would relocate the access to the park and remove the right turning movement from the A3023/ Woodbury Avenue traffic signal cycle, thereby, increasing the green time for other movements and increasing capacity.

9.93 The proposal for a new ‘in bound access’ to the Technology Park has been suggested to Highways England, operators of the A27, who have raised no objection in principle to the option.

9.94 The disadvantages are that there would be additional traffic crossing the exist of the A3023 on the circulatory area of the roundabout, which could cause additional delay on gaining access to the roundabout itself, through the traffic light timing adjustments. There would also be a requirement to provide a subway or equivalent crossing of the new route for footpath 50, which runs adjacent to the A27. A scheme of this nature would be relatively high in cost and require third party land. Furthermore, Hampshire County Council currently object to the proposals, on the basis that they would then assume maintenance responsibilities for the section of the slip road, upstream of the new link.

10. Other Transport Network Improvements and Interventions

10.1 This section highlights other transport network enhancements and interventions, which could be considered to improve journey time reliability, that are not included within the microsimulation modelling. Any of the following measures could therefore, offer additional benefit to any proposed mitigation. Further studies would be required to understand the impact of the options below.

Bus Network

10.2 By encouraging modal switch, from car to bus, additional road space capacity could result, therefore, improving bus journey times and reliability. Removing highway obstructions which impede bus journeys, such as on-street parking and general inadequate road-space, would also serve to increase the attractiveness of bus services.

10.3 Bus stops on Hayling Island are currently located directly on the roadside or in lay-bys. Some have bus shelters and bus access kerbs, but the majority are just flag and pole.

10.4 Consideration could be given to reviewing each bus stop, in terms of design and location and lighting where required and possible. Providing bus stop timetables at all bus stops could also be considered.

10.5 Improvements for traffic flow could be achieved by removing bus stops from the Highway and relocating these to bus lay-bys and pull-ins, where possible and where available land allows. Providing off-highway bus stops in certain locations will assist in removing friction points on the Highway network. However, lay-bys and pull-ins can result in difficulty for buses pulling out. Liaison with the bus companies will be required.

10.6 Options for upgrading bus stop infrastructure, to include new bus shelters, bus access kerbs and bus borders, where possible, should also be considered to enhance the network.

10.7 The option of implementing bus priority measures, a bus hub area and Real Time Passenger Information (RTPI) could all offer improvements to journey time reliability, reduce delays and ultimately assist in increasing patronage. RTPI displays are provided at bus stops that provide the public with the wait time to the next service. In addition, there is the opportunity for the same information to enable a link with priority systems at traffic signals.

10.8 Additionally, bus frequencies and route additions and alternatives should also be reviewed to identify an optimum service. Identifying whether connections with key facilities and destinations (including Havant Town Centre and Medical Facilities) and proposed development can be improved, should be investigated.

10.9 Other options to encourage modal switch is in the use of bus subsidies to reduce the cost of bus travel on Hayling.

10.10 In the December 2017 survey, out of 1717 respondents, 663 stated that they would use the bus service more frequently, instead of a car, if the services were improved.

10.11 A possible option for consideration would be to undertake a trial to subsidise bus services on the Island, which could improve services and encourage bus use.

10.12 Through fares could also be introduced between Hayling and mainland destinations to reduce the overall journey cost.

10.13 Options for integrated ticketing with other transport modes, such as train and ferry should also be examined. Utilising electronic ticketing technologies such as magnetic stripe cards or smart cards could provide efficiencies and benefits to users and potentially encourage modal switch. The potential benefits of integrated ticketing are:

- increased patronage;
- increases in recorded passenger satisfaction;
- evidence of resulting modal shift;
- increases in revenue;
- reductions in transaction and administrative costs;
- social benefits;
- reductions in fraud;
- wider contribution to city life and identity;
- acquisition of accurate data on passenger behaviour enabling better capacity and network planning; and
- faster boarding times enabling buses to run more reliably, faster and frequently.

Ferry

10.14 The Hayling Ferry provides an important link between Portsea Island and Hayling and currently runs Summer and Winter Timetables. It can also extend its timetable as required, to support special events in Portsmouth and Hayling Island.

10.15 Increasing frequencies and improving access to the ferry on both sides, could provide an opportunity to make the ferry more attractive and convenient for those travelling between the 2 islands and beyond, therefore, potentially releasing highway network capacity.

10.16 In the past, bus services and an ‘All-In-One ticket’ which included a taxi on Hayling to the ferry, the ferry ticket and a ticket for the No 15 bus in Portsmouth (Eastney to The Hard) provided a coordinated approach to the travel route. However, operational and financial issues terminated this scheme.

10.17 An alternative option to reduce costs to users and make the ferry more attractive would be to incorporate the ferry and the trial 149 route linking Hayling Island, the ferry and Portsmouth, into the ‘Solent Go’ travel card (http://solentgo.co.uk/), a daily, weekly, monthly and quarterly all operator ticket covering south Hampshire.

10.18 Consideration could be given to the provision of one or more purpose-built amphibious passenger vehicles (APV or DUKW (‘DUCK’) vehicle). This would negate the requirement for connecting transport and supporting infrastructure either side of the ferry, therefore, assisting with issues

associated with cross modal switch and the factors determining modal choice, and would attract leisure / tourist use in its own right, perhaps running on a route from Beachlands to Southsea.

Walking and Cycling Network

10.19 Ensuring cycle friendliness on the island, access to the existing cycle tracks should be clear and coherent, consistent and continuous. This will assist in the general perception that the routes are safe for cycle use.

10.20 Crossing the A3023 on foot is problematic, due to the absence of central refuge islands. For long sections of the A3023 there are no refuges. These lengths of road are Langstone High Street to Northney Road (0.93km), Northney Road to Victoria Road pelican crossing (1.17km), and Victoria Road pelican crossing to Mill Rythe School (2.45km). People wishing to cross the road on these sections have to wait for the alignment of a gap in the traffic in both directions, with anecdotal reports that this can take 'up to 10 minutes'. This results in community severance, especially in locations such as Stoke village.

10.21 Some of the measures proposed within this mitigation package will result in additional locations where pedestrians and cyclists will be able to cross in two stages, one traffic direction at a time, or at new signal controlled crossings. This will improve safe access to bus stops, shops and other community facilities and reducing east / west severance along the A3023.

10.22 Recommendations are to develop new routes and methods which make best use of the existing cycle tracks, and to introduce, where appropriate, 'cycle friendly infrastructure' such as cycle ramps and Advanced Stop Lines, at key locations.

10.23 Improving the Hayling Island cycle network and links would achieve the overarching aim of improving cycling connectivity and promoting cycling as a realistic method of travel to, and between locations on the island, but also to other residential, commercial and employment centres within the Borough. An improved network would connect existing and future residents to key destinations and encourage an uptake in cycling for short trips, including those to work and for shopping and leisure. By improving cycling infrastructure and connectivity, the route will help to tackle congestion by supporting a mode change from car to cycle for local journeys. An improved network would also act as a feeder into other strategic and local routes, improving localised connectivity, as well as linking with other projects in the Borough.

10.24 By improving the cycle network, cycling should become more attractive for commuting, therefore, increasing modal shift and removing cyclists from the road network, thereby removing friction points from

10.25 The objectives of providing an improved cycling network are as follows:

- To provide a coherent east-west cycle link across the island.
- To provide a coherent north-south commuter link, from the south of the island, to the north;
- To support commuters by linking residential developments (existing and proposed) to key employment areas and town centres, such as Havant;
- To encourage a modal shift towards cycling and reduce car dependency for journeys on the corridor.

10.26 At present, the principal route for cyclists and walkers is the Hayling Billy Trail (NCN 2). This links the island to the mainland, via the A3023 road crossing, following the line of a disused railway track, on the island's western side, from Havant railway station on the mainland, to Station Road in the

southern part of the island. Plans to realign and resurface the Billy Trail to improve the north south route are being examined.

10.27 Providing a comprehensive network and enhancing the existing facilities could assist in minimising the impact of normal traffic growth and additional traffic, resulting from any new development, upon the local area. Improving the cycling infrastructure, to make it coherent, direct and safer, will assist in encouraging more sustainable transport choices, not only for the existing local residents, but also for those who are new to the area. Improve journey times, reliability and journey quality for cyclists;

10.28 The Hayling Island Cycling and Pedestrian Improvements report was completed in February 2017. This investigated and assessed the feasibility of a number of proposed improvements to cycle and pedestrian infrastructure across south Hayling. This identified the following schemes were feasible, funding dependent:

- Junction improvements at Tournerbury Lane/St Marys Road to improve safety issues for pedestrians and cyclists.
- Elm Grove Crossing south – Replace existing zebra crossing with a new Puffin crossing north of Hollow Lane.
- Elm Grove - Upgrade Webb Lane westbound bus stop with associated changes to the road layout.
- Upgrade of FP102/ Rails Lane (cycle route to Eastoke) with some sections for shared use by cyclists.
- Implement improvements to the northern access to Mengham Junior School (FP101) to a design agreed with the School, and minor improvements to FP88. Encourage take-up of ‘park and stride’ etc. arrangements in association with input from the Safe Routes to School team. No works proposed to the other schools.
- A new east-west cycle route from Church Road to the Hayling Billy, via Manor Road, Higworth Lane and Brights Lane by upgrading FPs 89 and 521 to be delivered in phases. Any work on FP521 to join the Hayling Billy would have a high potential ecological impact and further assessment of a detailed design would be needed. Alternative routes using FPs 92, 93 and 94 to be considered as part of wider development proposals at the appropriate time.
- Improve by widening to shared use the east-west (to Richmond Close) and north-south routes through Hayling Park. In the longer term, upgrade and widen footways on the east and west sides of Beach Road between St Mary’s Road and the Zebra crossing if and when a route through St Mary’s Road has been implemented.
- Resurface an un-adopted section of St Margaret’s Road and construct a footway on the north side (subsequently not to be progressed).
- Maintain a watching brief for the possibility of providing a new England Coast Path (ECP) link from Mill Rythe School along A3023 to Mill Rythe Lane, onto Yew Tree Road and Copse Lane, including improvements towards cycle / pedestrian route as part of access to schools in the area.

Future Cycling Network

10.29 There are proposed route options for a 2036 cycle network on Hayling Island4.

10.30 A review of the existing conditions indicates that there are opportunities to enhance the level of utility for cycling provided by the road infrastructure. Measures to improving the existing infrastructure should focus on improving road safety conditions for cyclists, which is expected to increase levels of cycling and help address the current gender inequality in cycling use in the study area.

10.31 In areas where the road infrastructure is insufficient to support on-road facilities, or where road conditions are un-safe for on-road routes, off-road routes will be provided where possible.

10.32 At present, the principal route for cyclists and walkers is the Hayling Billy Trail (NCN 2). This links the island to the mainland, via the A3023 road crossing, following the line of a disused railway track, on the island's western side, from Havant railway station on the mainland, to Station Road in the southern part of the island. Plans to realign and resurface the Billy Trail to improve the north south route are being examined.

Smarter Choices 'Soft Measures'

10.33 Smarter Choices are defined as measures that seek to encourage modal shift by providing improved information and opportunities, assisting in better travel choices to reduce car use, while enhancing the attractiveness of alternatives.

10.34 As demonstrated by the Hayling Island Travel Survey, undertaken as part of this review, 84% of those who responded use the private car as their main form of transport, with around 50% stating they would use public transport if services were improved. This would suggest potential scope for achieving modal shift.

10.35 In addition to improving existing public transport networks, other measures to encourage the use of alternative modes of transport include:

- The introduction of new forms of alternative transport
- Car Sharing and High Occupancy Vehicles (HOV)
- Car Clubs
- Smart Ticketing
- Use of Social Media and Applications
- Intelligent Transport Systems
- Schemes to encourage behaviour change and awareness
- School and Workplace Travel Plans
- Teleworking, teleconferencing and home working and shopping

[4] www.havant.gov.uk/cycle-paths-and-cycleways

Demand Management 'Hard Measures'

10.36 Demand Management measures can be employed to reduce the demand for travel in order to improve economic efficiency and to reduce congestion and pollution. Government policy objectives have become increasingly focused on reducing escalating road congestion, in an attempt to minimise the generated external costs, associated with road transport. Congestion has existed for many centuries, but the numerous methods available may offer the potential to decrease the phenomena.

10.37 Methods of achieving these objectives include:

- Increasing parking charges and restrictions.
- Zone access control and permit systems.
- Road user charging.
- Congestion charging
- Increasing generalised cost of car use through taxes.
- Physical restraints and road space reallocation.
- Rationing road space and allowing congestion itself to control demand.
- Telecommunications.

Parking and Loading Restrictions

10.38 Other methods to consider, in order to reduce friction and therefore delays on the A3023, would be to prohibit all parking, boarding or alighting, or loading and unloading on the A3023. This measure would be similar to a 'Red Route' in London.

10.39 As the A3023 is Hayling's main route, the priority is to keep traffic flowing and reduce delays. Any vehicle stopping on the A3023 has the potential to generate long queues.

10.40 A scheme could be implemented via a Traffic Management Order (TRO) and signs and road markings on the A3023 advising on restrictions. Regular policing would be required to ensure compliance and Penalty Charge Notices (PCN) issued if restrictions are contravened.

VMS (Vehicle Message Signs)

10.41 VMS provides driver information, Strategic Traffic Management and tactical control and could provide information to road users on Hayling of current and future traffic conditions. Signs could provide live information of details on the road and transport network that may affect expected journey times such as incidents or accidents. Providing road users with live traffic and road network information could assist in redistributing traffic efficiently when congestion occurs on certain links. VMS could particularly assist on busy summer Bank Holidays, or when a road traffic accident has occurred on the network.

Integration Opportunities

10.42 It is unlikely that any single demand management tool, in isolation, will be effective in resolving the problem of future traffic growth and development and any measure should be integrated as a part of a package of policies to curb traffic growth.

10.43 The purpose of integration is to achieve higher performance against set objectives than individual measures could attain alone. The synergy between measures is accomplished by integration and therefore, the key to improvement. Integration has the capacity to provide benefits in a number of ways. The first involves measures that complement each other with regard to their impact on the users. For example:

- The provision of a viable public transport system or a reduction in fares to strengthen the impact of a road pricing scheme.
- Introducing Park and Ride to increase bus patronage.

10.44 The second method is to employ measures such as parking charges, or RUC to collect revenue, thus enabling other aspects of a strategy to be financially possible.

Park and Ride

10.45 Park and Ride is a useful instrument, used to assist in alleviating the problem of traffic congestion, which can be used as an effective complimentary measure to RUC. It combines the use of the private car to travel from rural areas and the efficiency of public transport, moving large numbers of people into urban areas.

10.46 A range of Park and Ride schemes are available including those that are permanent or operational for weekdays, seasons or events. The following charging regimes can be implemented:

- Free parking and a charge for public transport.
- Charge for car park and free public transport.
- Charge for both.

10.47 Park and Ride is attractive to motorists as the bus services are primarily direct to the town centres and operate at high frequencies. The charge is usually comparable with parking charges at the destination and effective in overcoming objections to long journey times, high cost and the frequent stopping of normal public transport.

10.48 A Park and Ride would support this growth by providing additional public transport capacity onto Hayling, in particular, during summer holiday periods.

11. Summary and Conclusion

11.1 The information presented in this report provides the results of the Paramics microsimulation modelling and identifies the impact of each of the modelled scenarios on the network. It tests and reports on potential interventions and measures to improve the Highway, traffic and transport networks on Hayling Island.

11.2 Results for the Do Minimum scenario demonstrate queue lengths and journey times will increase due to the Local Plan Development, necessitating mitigation. The mitigation packages increase journey times and queue lengths in certain locations, however, this is due to the introduction of traffic signals. While queue lengths and delays increase on some arms, the traffic signals redistribute delay more evenly across all of the arms at a junction, therefore, reducing long queues on side roads and providing improved journey time reliability. Traffic signals also facilitate the option to provide crossing facilities for pedestrians and cyclsists, therefore improving road safety.

11.3 While the impact of the Local Plan development traffic results in an increase in journey times for northbound traffic during the AM Peak, it is considered that a combination of mitigation measures can be provided to introduce wider benefits relating to:

- The introduction of safe pedestrian and cycle crossings through the signalisation of certain junctions;
- Reducing the existing friction that currently occurs along the A3023 and introducing an element of control to the local road network, which can aid journey predictability and reliability;
- This element of control can be extended to help reduce potential future impact on the Strategic Road Network;
- Safe and controlled side road access for vehicles.

11.4 It is therefore concluded that the cumulative impact of the Local Plan development, in transport terms, can be mitigated to a level where it is not considered severe.

11.5 Further work and model iterations may be required to provide a more refined and optimum solution. Improving journey times and queue lengths further could be investigated. Once finalised, detailed junction modelling of the key junctions would offer greater detail in junction operation and identify whether the junction holds available capacity, or if it is over capacity.

11.6 The principal constraints to large scale infrastructure improvements on Hayling Island and Langstone are the requirements for third party land, the single bridge across to the mainland and ultimately, the limitations of traffic throughput at the A3023/ Langstone Technology Park/ Woodbury Avenue and the A27 Langstone Roundabout.

11.7 The information presented here can be used to inform considerations of potential highway mitigation associated with developments. However, the analysis is not exhaustive, and requirements should be reviewed on a case-by-case basis as part of the planning process.

Appendix A (Hayling Island Ferry Statistics)

Date	Total Passenger Nos Hayling to Eastney	Total Passenger Nos Eastney to Hayling	Total trips per day
18th August 2016	197	201	398
19th August 2016	42	39	81
20th August 2016	30	28	58
21st August 2016	135	135	270
22nd August 2016	112	93	205
23rdAugust 2016	235	243	478
24th August 2016	275	276	551
25th August 2016	122	127	249
26th August 2016	297	318	615
27th August 2016	447	333	780
28th August 2016	337	248	585
29th August 2016	330	318	648
30th August 2016	270	248	518
9th September 2016	57	53	110
10th September 2016	33	22	55
12th September 2016	44	42	86
13th September 2016	102	89	191
14th September 2016	123	132	255
15th September 2016	74	70	144
16th September 2016	48	29	77

Date	Total Passenger Nos Hayling to Eastney	Total Passenger Nos Eastney to Hayling	Total trips per day
17th September 2016	94	87	181
18th September 2016	149	100	249
19th September 2016	36	22	58
20th September 2016	44	35	79
21st September 2016	54	58	112
22nd September 2016	53	58	111
2nd October 2016	164	113	277
3rd October 2016	65	63	128
4th October 2016	53	61	114
5th October 2016	33	42	75
6th October 2016	35	27	62
7th October 2016	31	28	59
8th October 2016	85	72	157
9th October 2016	89	79	168
Totals	4295	3889	8184

Appendix B (Systra - Hayling Island Model Development Report (26th November 2018)

See separate document

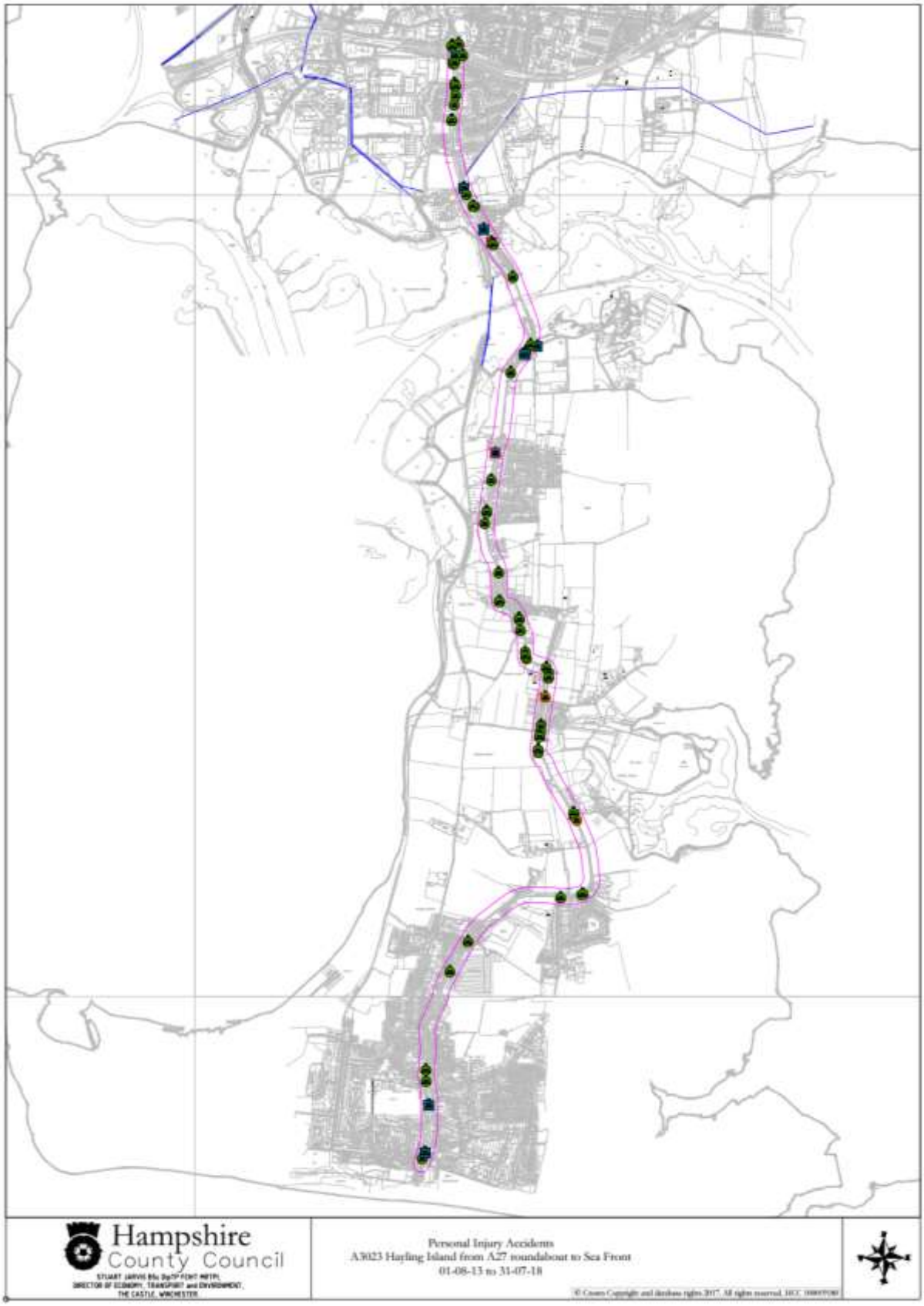
Appendix C (Systra - Hayling Island Do Minimum and Mitigation Testing Report’)

See separate document

Appendix D (Microsimulation modelling outputs)

See separate documents

Appendix E (A3023 Accident Data)


Hampshire
County Council
Personal Injury Accidents
A3023 Hayling Island from A27 roundabout to Sea Front
01-08-13 to 31-07-18

A3023 Hayling Island from A27 roundabout to Sea Front
Accident Date BETWEEN '01-Aug-2013' AND '31-Jul-2018'

130289106 SLIGHT 471418/98989 03/08/2013 12:20
LOCATION A3023 BEACH ROAD AT JUNCTION WITH ROAD NEXT TO THE TREASURE CHEST SHOP, HAYLING ISLAND, HAMPSHIRE
DESCRIPTION VEH 2 (CAR) TRAVELLING S ALONG A3023 BEACH ROAD, TURNS RIGHT ACROSS THE PATH OF VEH 1 (CAR) TRAVELLING IN THE OPPOSITE DIRECTION AND COLLIDES.

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Female	38	1	Driver/Rider	SLIGHT	1	Female	38
2	Car	Male	38	2	Passenger	SLIGHT	1	Female	37
				3	Passenger	SLIGHT	1	Female	16
				4	Passenger	SLIGHT	1	Male	48
				5	Driver/Rider	SLIGHT	2	Male	38

130372725 SERIOUS 471875/103392 01/10/2013 20:15
LOCATION A3023 HAVANT RD O/S NO 244 HAYLING
DESCRIPTION CAR TRAV SOUTH FROM LANGSTONE COLLIDED WITH PED CROSSING FROM N/S IN ORDER TO CATCH BUS ON OPPOSITE SIDE OF C/WAY

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	74	1	Pedestrian	SERIOUS	1	Female	14

130473965 SLIGHT 472061/102150 18/12/2013 12:23
LOCATION A3023 HAVANT RD APPROX 55M S OF NO. 72 HAYLING
DESCRIPTION P/C1 TRAV SOUTH ALONG EAST FOOTWAY RIDER DISTRACTED BY PASSING HGV2 ALSO TRAV SOUTH P/C1 VEERED INTO HEDGE RIDER PARTED FROM MACHINE THEN STRUCK N/S OF HGV2

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Pedal Cycle	Female	49	1	Driver/Rider	SLIGHT	1	Female	49
2	Goods > 7.5t	Male	41						

140024539 SLIGHT 472161/101694 21/01/2014 19:17
LOCATION A3023 HAVANT RD JW THE YEW TREE PH HAYLING ISLAND
DESCRIPTION CAR2 TRAV NORTH ALONG A3023 HAVANT ROAD FAILED TO NOTICE AND COLLIDED WITH REAR OF CAR1 STATIONARY WAITING TO TURN RIGHT INTO THE YEW TREE PUBLIC HOUSE

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	57	1	Driver/Rider	SLIGHT	1	Male	57
2	Car	Male	54	2	Driver/Rider	SLIGHT	2	Male	54
				3	Passenger	SLIGHT	2	Male	59

140029236 SLIGHT 472069/102107 25/01/2014 08:45
LOCATION A3023 HAVANT RD BEND O/S NO. 91 HAYLING
DESCRIPTION CAR1 TRAV SOUTH FROM LANGSTONE NEG LH BEND DRIVER LOST CONTROL CAUSING CAR1 TO COLLIDE WITH CAR2 TRAV NORTHWEST

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Female	24	1	Driver/Rider	SLIGHT	2	Male	42
2	Car	Male	42						

A3023 Hayling Island from A27 roundabout to Sea Front
Accident Date BETWEEN '01-Aug-2013' AND '31-Jul-2018'

140086608 SLIGHT 471745/104928 11/03/2014 14:40
LOCATION LANGSTONE HIGH ST J/W A3023 lANGSTONE RD HAVANT
DESCRIPTION CAR1 TRAV LANGSTONE HIGH ST APPROACHING JW A3023 LANGSTONE RD P/C2 TRAV NW LEFT PAVEMENT OF LANGSTONE RD COLLIDED WITH N/SIDE OF CAR1

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	70	1	Driver/Rider	SLIGHT	2	Male	26
2	Pedal Cycle	Male	26						

140109591 SLIGHT 471618/105563 29/03/2014 13:50
LOCATION A3023 LANGSTONE RD JW LANGBROOK CLOSE HAVANT
DESCRIPTION CAR1 TRAV SOUTH ALONG A3023 LANGSTONE ROAD STOPPED IN HEAVY TRAFFIC CAR2 STOPPED BEHIND CAR3 FAILED TO STOP IN TIME AND COLLIDED WITH REAR OF CAR2 PUSHING CAR2 INTO REAR OF CAR1

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Female	57	1	Driver/Rider	SLIGHT	2	Female	23
2	Car	Female	23	2	Passenger	SLIGHT	2	Female	21
3	Car	Female	77	3	Passenger	SLIGHT	2	Female	3

140116019 SLIGHT 471623/105673 03/04/2014 12:11
LOCATION A3023 LANGSTONE RD JW WOODBURY AVE HAVANT
DESCRIPTION VAN1 TRAV NORTH ALONG A3023 LANGSTONE ROAD STOPPED TO TURN RIGHT INTO WOODBURY AVENUE MC2 FAILED TO STOP IN TIME AND COLLIDED WITH REAR OF VAN1

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Van/Goods < 3.5t	Male	38	1	Driver/Rider	SLIGHT	2	Male	18
2	M/cycle 50 - 125cc	Male	18						

140142274 SERIOUS 471628/105870 23/04/2014 18:15
LOCATION A27 EASTBOUND MARKER POST 53.1, HAVANT, HAMPSHIRE
DESCRIPTION VEH 1 (CAR) TRAVELLING W ALONG A27, FAILS TO STOP IN TIME AND COLLIDES WITH THE REAR OF VEH 2 (CAR) SLOWNG, SHUNTING VEH 2 IN THE REAR OF VEH 3 (VAN) SLOWING, SHUNTING VEH 3 INTO THE REAR OF VEH 4 (CAR) SLOWING DUE TO HEAVY AND STOPPED TRAFFIC AHEAD.

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Female	25	1	Driver/Rider	SERIOUS	1	Female	25
2	Car	Male	37						
3	Van/Goods < 3.5t	Male	51						
4	Car	Male	26						

140169561 SLIGHT 471626/105620 15/05/2014 07:46
LOCATION A3023 LANGSTONE RD OUTSIDE OF NUMBER 11A HAVANT
DESCRIPTION CAR3 TRAV SOUTH ALONG A3023 LANGSTONE ROAD SLOWING FOR TRAFFIC CAR2 BEHIND FAILED TO SLOW COLLIDED WITH REAR OF CAR3 VAN1 BEHIND CAR2 ALSO FAILED TO SLOW SKIDDED AND COLLIDED INTO CAR2 WHICH THEN RECOLLIDED WITH CAR3

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Van/Goods < 3.5t	Male	60	1	Driver/Rider	SLIGHT	2	Female	51
2	Car	Female	51						
3	Car	Female	22						

A3023 Hayling Island from A27 roundabout to Sea Front
Accident Date BETWEEN '01-Aug-2013' AND '31-Jul-2018'

140198530 SLIGHT 471608/105827 06/06/2014 07:24
LOCATION A27/A3023 LANGSTONE RD RBT HAVANT
DESCRIPTION CAR2 TRAV WEST N EG RBT HAVING ENTERED FROM A27 W/BOUND OFF SLIP DISOBEYED ATS COLLIDED WITH O/SIDE OF M/C1 TRAV NORTH LANGSTONE RD ENTERING RBT ON A GREEN LIGHT CAUSING RIDER TO FALL OFF

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	M/cycle > 500cc	Male	52	1	Driver/Rider	SLIGHT	1	Male	52
2	Van/Goods < 3.5t	Male	Unk						

140262863 SLIGHT 472054/104005 21/07/2014 00:01
LOCATION A3023 HAVANT RD JW 258 TEXACO GARAGE HAYLING ISLAND
DESCRIPTION CAR2 TRAV WEST FROM TEXACO GARAGE TURNS LEFT ONTO A3023 HAVANT RD INTO PATH OF P/C1 TRAV SW A3023 HAVANT RD AND COLLIDES CAUSING RIDER TO BE THROWN OFF

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Pedal Cycle	Male	38	1	Driver/Rider	SLIGHT	1	Male	38
2	Car	Not known	Unk						

140296606 SLIGHT 471808/102951 16/08/2014 15:00
LOCATION A3023 HAVANT RD JW VICTORIA RD HAYLING ISLAND
DESCRIPTION CAR1 TRAV SOUTH A3023 HAVANT RD TURNED RIGHT INTO VICTORIA RD THEN STOPPED TO WAIT FOR A VAN THAT WAS REVERSING OUT INTO HAVANT RD CAR2 ALSO TURNING RIGHT FAILED TO REACT AND COLLIDED WITH REAR OF CAR1

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Female	31	1	Driver/Rider	SLIGHT	1	Female	31
2	Car	Male	74	2	Passenger	SLIGHT	2	Female	72

140328392 SLIGHT 471613/105817 10/09/2014 18:35
LOCATION A27 HAVANT RD RBT A3023 LANGSTONE RD APPROACH HAVANT
DESCRIPTION CAR1 TRAV NORTH A3023 LANGSTONE RD ACCELERATES FIERCELY ONTO RBT TO TURN LEFT ONTO A27 HAVANT RD AND LOSES CONTROL COLLIDING WITH RAILING TO N/SIDE

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	20	1	Driver/Rider	SLIGHT	1	Male	20

140359118 SLIGHT 472413/100635 03/10/2014 15:15
LOCATION A3023 HAVANT RD JW KINGS RD HAYLING ISLAND
DESCRIPTION CAR1 TRAV NW ALONG KINGS RD TURNED LEFT ONTO A3023 HAVANT RD AND COLLIDED WITH REAR OF CAR2 TRAV SW HAVANT RD WHICH HAD STOPPED FOR A LOLLIPOP LADY

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Female	32	1	Driver/Rider	SLIGHT	2	Female	17
2	Car	Female	17						

140389869 SLIGHT 471899/102464 29/10/2014 13:40
LOCATION A3023 HAVANT RD BEND O/S NUMBER 153 HAYLING ISLAND
DESCRIPTION CAR1 TRAV NORTH A3023 HAVANT RD LOSES CONTROL ON R/HAND BEND LEAVING C/WAY TO N/SIDE COLLIDES WITH A GARDEN WALL

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	19	1	Driver/Rider	SLIGHT	1	Male	19

A3023 Hayling Island from A27 roundabout to Sea Front
Accident Date BETWEEN '01-Aug-2013' AND '31-Jul-2018'

150026588 SLIGHT 472159/101683 24/01/2015 13:20
LOCATION A3023 HAVANT RD O/S THE YEW TREE PH HAYLING ISLAND
DESCRIPTION CAR1 TRAV NORTH A3023 HAVANT RD COLLIDED WITH REAR OF CAR2 TRAV IN FRONT

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	19	1	Driver/Rider	SLIGHT	2	Female	36
2	Car	Female	36						

150047983 SERIOUS 471802/104786 10/02/2015 15:30
LOCATION A3023 LANGSTONE RD O/S NUMBER 48 HAVANT
DESCRIPTION CAR1 TRAV NW A3023 LANGSTONE RD FAILED TO STOP FOR QUEUING TRAFFIC AHEAD AND COLLIDED WITH REAR OF CAR2

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Female	42	1	Driver/Rider	SLIGHT	1	Female	42
2	Car	Male	32	2	Driver/Rider	SERIOUS	2	Male	32

150057210 SLIGHT 471604/105929 18/02/2015 10:37
LOCATION A3023 LANGSTONE RBT JW A27 E/BOUND OFFSLIP HAVANT
DESCRIPTION CAR2 TRAV EAST A27 OFFSLIP ENTERED RBT ON GREEN ATS AND COLLIDED WITH CAR1 ALREADY NEG RBT FROM A3023 LANGSTONE RD

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Female	46	1	Driver/Rider	SLIGHT	1	Female	46
2	Car	Female	32	2	Passenger	SLIGHT	1	Female	5
				3	Driver/Rider	SLIGHT	2	Female	32

150086186 SERIOUS 471459/99321 13/03/2015 10:16
LOCATION A3023 BEACH RD O/S OAK VIEW CARE HOME HAYLING
DESCRIPTION CAR1 TRAV NORTH FROM SEA FRONT DRIVER LOST CONTROL CAUSING VEH TO COLLIDE WITH CAR2 AND CAR3 PARKED ON N/S CAR1 THEN OVERTURNED

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	73	1	Driver/Rider	SLIGHT	1	Male	73
2	Car	Not known	Unk	2	Passenger	SERIOUS	1	Female	72
3	Car	Not known	Unk						

150149993 SLIGHT 472375/101111 04/05/2015 16:22
LOCATION A3023 HAVANT RD 22M SE OF MILL RYTHE LN HAYLING ISLAND
DESCRIPTION CAR1 FAILED TO STOP FOR SLOW MOVING TRAFFIC AHEAD AND COLLIDED WITH REAR OF CAR2 PUSHING IT INTO THE REAR OF VAN3

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	77	1	Driver/Rider	SLIGHT	1	Male	77
2	Car	Male	60						
3	Van/Goods < 3.5t	Not known	Unk						

A3023 Hayling Island from A27 roundabout to Sea Front
Accident Date BETWEEN '01-Aug-2013' AND '31-Jul-2018'

150235284 SLIGHT 471984/104487 09/07/2015 20:20
LOCATION A3023 LANGSTONE RD 500M SE OF LANGSTONE HIGH ST HAYLING ISLAND
DESCRIPTION VAN1 TRAV NW A3023 LANGSTONE RD FAILED TO STOP FOR SLOWING TRAFFIC AHEAD AND COLLIDED WITH REAR OF CAR2 PUSHING IT INTO REAR OF CAR3

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Van/Goods < 3.5t	Male	30	1	Driver/Rider	SLIGHT	1	Male	30
2	Car	Male	67	2	Driver/Rider	SLIGHT	2	Male	67
3	Car	Male	49	3	Passenger	SLIGHT	2	Female	68
				4	Passenger	SLIGHT	2	Male	70

150241056 SLIGHT 472205/101985 14/07/2015 11:26
LOCATION A3023 HAVANT RD JW STOKE FRUIT FARM ENTRANCE HAYLING ISLAND
DESCRIPTION CAR1 TRAV NORTH A3023 HAVANT RD STOPPED TO ALLOW AN UNRECORDED VEH FROM STOKE FRUIT FARM VAN2 FAILED TO STOP AND COLLIDED WITH REAR OF CAR1

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Female	27	1	Driver/Rider	SLIGHT	1	Female	27
2	Van/Goods < 3.5t	Male	19						

150249909 SLIGHT 472208/102020 20/07/2015 20:05
LOCATION A3023 HAVANT RD BEND O/S NUMBER 81 HAYLING ISLAND
DESCRIPTION CAR1 TRAV NORTH A3023 HAVANT RD FAILED TO NEG L/HAND BEND AND LEFT C/WAY TO O/SIDE

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	55	1	Driver/Rider	SLIGHT	1	Male	55

150302815 SERIOUS 472365/101136 01/09/2015 09:07
LOCATION A3023 HAVANT RD JW MILL RYTHE LN HAYLING ISLAND
DESCRIPTION TAXI1 TRAV NW ALONG A3023 HAVANT ROAD FAILED TO REACT TO CAR2 STOPPED IN FRONT WAITING FOR A VEHICLE TO TURN INTO MILL RYTHE LANE TAXI1 HIT REAR OF CAR2 BEFORE COLLIDING WITH ONCOMING CAR3

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Taxi	Male	62	1	Driver/Rider	SERIOUS	1	Male	62
2	Car	Female	43	2	Driver/Rider	SLIGHT	3	Male	47
3	Car	Male	47						

150309583 SLIGHT 471896/102643 06/09/2015 21:00
LOCATION A3023 HAVANT RD O/S NO. 173 HAYLING
DESCRIPTION CAR1 TRAV SOUTH FROM LANGSTONE DRIVER LOST CONTROL CAUSING VEH TO CROSS TO O/S THEN COLLIDE WITH CAR2 AND CAR3 TRAV NORTH FROM SEA FRONT CAR1 LEFT C/WAY ON O/S THEN STRUCK RAILINGS

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	21	1	Driver/Rider	SLIGHT	1	Male	21
2	Car	Male	22	2	Driver/Rider	SLIGHT	2	Male	22
3	Car	Male	62	3	Driver/Rider	SLIGHT	3	Male	62

A3023 Hayling Island from A27 roundabout to Sea Front
Accident Date BETWEEN '01-Aug-2013' AND '31-Jul-2018'

150322087 SLIGHT 472066/102111 16/09/2015 15:54
LOCATION A3023 HAVANT RD BEND O/S NO. 91 HAYLING
DESCRIPTION CAR2 TRAV NORTHWEST NEG RH BEND DRIVER LOST CONTROL DUE TO AMBULANCE1 TRAV SOUTH FROM LANGSTONE NEG LH BEND CAR2 COLLIDED HEAD ON WITH AMBULANCE1 THEN STRUCK TREE ON N/S

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Other: Ambulance	Male	49	1	Driver/Rider	SLIGHT	1	Male	49
2	Car	Female	46	2	Passenger	SLIGHT	1	Female	47
				3	Driver/Rider	SLIGHT	2	Female	46

150456452 SLIGHT 472144/101536 22/12/2015 21:00
LOCATION A3023 HAVANT ROAD 89 METRES SOUTH OF YEW TREE ROAD, HAYLING ISLAND, HAMPSHIRE
DESCRIPTION VEH 1 (CAR) TRAVELLING N ALONG HAVANT ROAD LOST CONTROL ON A RIGHT-HAND BEND AND COLLIDED HEAD-ON WITH VEH 2 (CAR) TRAVELLING S.

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	24	1	Passenger	SLIGHT	2	Female	69
2	Car	Female	52						

160045324 SLIGHT 471849/103220 30/01/2016 09:20
LOCATION A3023 HAVANT RD J/W AVENUE RD HAYLING
DESCRIPTION STAT CAR2 FACING NORTH WAITING TO TURN RIGHT INTO AVENUE RD STRUCK IN REAR BY FOLLOWING VAN1

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Van/Goods < 3.5t	Male	35	1	Driver/Rider	SLIGHT	2	Female	27
2	Car	Female	27						

160090285 SLIGHT 471971/103891 04/03/2016 09:50
LOCATION A3023 HAVANT RD JW HAYLING BILL TRAIL CAR PARK HAYLING ISLAND
DESCRIPTION CAR1 TRAV SW A3023 HAVANT RD COLLIDED WITH REAR OF CAR2 WAITING TO TURN RIGHT INTO A CAR PARK ENTRANCE

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	79	1	Driver/Rider	SLIGHT	2	Female	34
2	Car	Female	34						

160095671 SLIGHT 471851/104701 08/03/2016 08:30
LOCATION A3023 LANGSTONE RD O/S THE SHIP INN LANGSTONE
DESCRIPTION VAN2 TRAV NORTHWEST APPROACHING ENTRANCE FROM HAYLING DRIVER BRAKED DUE TO UNRECORDED VEH3 ENTERING LANGSTONE RD FROM SHIP INN VAN2 THEN STRUCK IN REAR BY FOLLOWING CAR1

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	18	1	Driver/Rider	SLIGHT	1	Male	18
2	Van/Goods < 3.5t	Male	50	2	Passenger	SLIGHT	1	Female	18
				3	Passenger	SLIGHT	1	Female	17

160136057 SERIOUS 472154/101626 10/04/2016 14:50
LOCATION A3023 HAVANT RD J/W YEW TREE RD HAYLING ISLAND
DESCRIPTION M/C2 TRAV SOUTH FROM LANGSTONE COLLIDED WITH N/S OF CAR1 TURNING RIGHT TO TRAV EAST INTO YEW TREE RD

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	90	1	Driver/Rider	SERIOUS	2	Male	61
2	M/cycle 125 - 500cc	Male	61						

A3023 Hayling Island from A27 roundabout to Sea Front
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160140518 SLIGHT 471604/105466 13/04/2016 16:35
LOCATION A3023 LANGSTONE RD J/W SOUTHBROOK RD HAVANT
DESCRIPTION CAR1 TURNING RIGHT FROM SOUTHBROOK RD TO TRAV NORTH TOWARDS HAVANT THROUGH GAP IN TRAFFIC COLLIDED WITH M/C2 TRAV SOUTH TOWARDS HAYLING IN CENTRE OF C/WAY PASSING TRAFFIC QUEUE ON O/S

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	79	1	Driver/Rider	SLIGHT	2	Male	44
2	M/cycle > 500cc	Male	44						

160160588 SLIGHT 472187/101867 28/04/2016 19:20
LOCATION A3023 HAVANT RD J/W COPSE LN HAYLING
DESCRIPTION M/C TRAV SOUTH APPROACHING JUNCTION FROM LANGSTONE COLLIDED WITH PED CROSSING FROM N/S

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	M/cycle 50 - 125cc	Male	57	1	Driver/Rider	SLIGHT	1	Male	57
				2	Pedestrian	SLIGHT	1	Male	69

160210403 SLIGHT 472156/101647 06/06/2016 09:25
LOCATION A3023 HAVANT RD J/W DAW LN HAYLING
DESCRIPTION CAR1 TRAV SOUTH FROM LANGSTONE DRIVER BRAKED DUE TO DOG RUNNING INTO C/WAY CAR1 THEN STRUCK IN REAR BY FOLLOWING CAR2

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Female	53	1	Driver/Rider	SLIGHT	1	Female	53
2	Car	Female	34	2	Driver/Rider	SLIGHT	2	Female	34

160219032 SLIGHT 471671/105870 12/06/2016 08:50
LOCATION A27 EASTBOUND MARKER POST 53.1, HAVANT, HAMPSHIRE
DESCRIPTION VEH 1 (CAR) TRAVELLING E ALONG A27 EASTBOUND LOST CONTROL ON STANDING WATER AND COLLIDED WITH THE CENTRAL BARRIER, COMING TO REST IN LANE 2.

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	46	1	Driver/Rider	SLIGHT	1	Male	46

160221455 SERIOUS 471850/104705 14/06/2016 07:41
LOCATION A3023 LANGSTONE RD OUTSIDE THE SHIP INN PUB HAYLING ISLAND
DESCRIPTION CAR1 TRAV NW ALONG A3023 LANGSTONE ROAD OVERTOOK BUS2 WHICH HAD STOPPED IN FRONT TO LET A PASSENGER OFF CAR1 HIT PEDESTRIAN WHO HAD ALIGHTED FROM BUS2 AND RAN AROUND TO ITS FRONT AND INTO PATH OF CAR1

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	70	1	Pedestrian	SERIOUS	1	Male	41
2	Bus or Coach	Not known	Unk						

160257529 SLIGHT 472022/102358 19/06/2016 00:01
LOCATION A3023 HAVANT RD O/S NO.88 HAYLING
DESCRIPTION P/C1 TRAV SOUTH FROM LANGSTONE STRUCK BY UNKNOWN CAR2 ALSO TRAV SOUTH ATTEMPTING TO OVERTAKE RIDER PARTED FROM MACHINE

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Pedal Cycle	Male	34	1	Driver/Rider	SLIGHT	1	Male	34
2	Car	Not known	Unk						

A3023 Hayling Island from A27 roundabout to Sea Front
Accident Date BETWEEN '01-Aug-2013' AND '31-Jul-2018'

160262886 SLIGHT 471603/105932 14/07/2016 20:30
LOCATION A3023 LANGSTONE ROAD AT JUNCTION WITH A27 EASTBOUND, HAVANT, HAMPSHIRE
DESCRIPTION VEH 1 (CAR) TRAVELLING N ON THE RBT FROM A3023 LANGSTONE ROAD AT A27 CONTRAVENED RED TRAFFIC LIGHTS ON THE RBT AND CROSSED THE PATH OF VEH 2 (CAR) TRAVELLING E FROM A27 EASTBOUND, CAUSING VEH 2 TO COLLIDE WITH THE NEARSIDE OF VEH 1.

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	27	1	Driver/Rider	SLIGHT	1	Male	27
2	Car	Male	18						

160284743 SLIGHT 471646/105943 30/07/2016 16:15
LOCATION B2149 PARK ROAD SOUTH AT JUNCTION WITH A3023 LANGSTONE ROAD, HAVANT, HAMPSHIRE
DESCRIPTION VEH 1 (P/CYCLE) TRAVELLING S ALONG B2149 PARK ROAD SOUTH MOVED OFF AT TRAFFIC LIGHTS AT THE A3023 LANGSTONE ROAD RBT WHEN FOR UNKNOWN REASONS THE RIDER WENT OVER THE HANDLEBARS.

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Pedal Cycle	Male	40	1	Driver/Rider	SLIGHT	1	Male	40

160293564 SERIOUS 472135/104057 06/08/2016 09:36
LOCATION NORTHNEY RD 38M EAST OF A3023 HAVANT RD HAYLING ISLAND
DESCRIPTION MC1 TRAV E ALONG NORTHNEY ROAD MISJUDGED A LEFT-HAND BEND AND COLLIDED WITH OFFSIDE OF MGV2 TRAV IN THE OPPOSITE DIRECTION

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	M/cycle 50 - 125cc	Male	53	1	Driver/Rider	SERIOUS	1	Male	53
2	Goods 3.5 - 7.5t	Male	59						

160324774 SLIGHT 471734/104931 29/08/2016 12:00
LOCATION A3023 LANGSTONE ROAD AT JUNCTION WITH LANGSTONE HIGH STREET, HAVANT, HAMPSHIRE
DESCRIPTION VEH 1 (M/CYCLE) TRAVELLING SE ALONG A3023 LANGSTONE ROAD TURNED LEFT INTO LANGSTONE HIGH STREET WHEN VEHS FRONT WHEEL SKIDDED ON DRIED LEAVES AND DEBRIS ALONG THE EGDE OF THE ROAD CAUSING RIDER TO FALL OFF.

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	M/cycle 50 - 125cc	Female	17	1	Driver/Rider	SLIGHT	1	Female	17

160328423 SLIGHT 471620/105826 01/09/2016 06:35
LOCATION A3023 LANGSTONE RD JW A27 WESTBOUND HAVANT
DESCRIPTION CAR2 TRAV S AROUND RBT FROM A3023 PARK ROAD SOUTH HEADING TOWARDS A27 FAILED TO SEE CAR1 STATIONARY AT TRAFFIC LIGHTS CAR2 COLLIDED INTO REAR OF CAR1

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	35	1	Driver/Rider	SLIGHT	1	Male	35
2	Car	Male	51						

160333563 SLIGHT 472095/104063 05/09/2016 08:38
LOCATION A3023 HAVANT RD JW NORTHNEY RD HAYLING ISLAND
DESCRIPTION MGV1 TRAV SW ALONG A3023 HAVANT ROAD COLLIDED WITH OFFSIDE OF CAR2 TRAV NW WHICH TURNED RIGHT FROM NORTHNEY ROAD INTO PATH OF MGV1

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Goods 3.5 - 7.5t	Male	24	1	Passenger	SLIGHT	2	Male	83
2	Car	Male	83						

A3023 Hayling Island from A27 roundabout to Sea Front
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160398926 SERIOUS 471678/105044 21/10/2016 23:00
LOCATION A3023 LANGSTONE RD JW MILL RD HAVANT
DESCRIPTION MC2 TRAV S ALONG A3023 LANGSTONE ROAD PASSING JUNCTION WITH MILL LANE WHEN PC1 CROSSED ROAD WEST TO EAST FAILED TO GIVEWAY TO MC1 MC1 COLLIDED WITH PC1

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Pedal Cycle	Male	59	1	Driver/Rider	SERIOUS	1	Male	59
2	M/cycle 50 - 125cc	Male	28						

160417421 SLIGHT 472022/102355 04/11/2016 15:15
LOCATION A3023 HAVANT RD O/S NO. 117 HAYLING
DESCRIPTION UNKNOWN CAR2 ALLOWED OUT OF UNKNOWN DRIVEWAY TO TRAV NORTH BY UNRECORDED VEH STRUCK ON N/S BY M/C1 TRAV NORTH TOWARDS LANGSTONE?

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	M/cycle 50 - 125cc	Male	22	1	Driver/Rider	SLIGHT	1	Male	22
2	Car	Not known	Unk						

160428450 SLIGHT 472143/101522 13/11/2016 11:30
LOCATION A3023 HAVANT RD BEND 100M S OF YEW TREE RD HAYLING
DESCRIPTION CAR TRAV SOUTH FROM LANGSTONE TOWARDS SEA FRONT NEG LH BEND STRUCK BY A BRANCH WHICH FELL FROM A TREE

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	55	1	Passenger	SLIGHT	1	Female	49

160434521 SLIGHT 472382/101099 17/11/2016 14:15
LOCATION A3023 HAVANT RD APPROX 40M SE OF MILL RYTHE LN HAYLING
DESCRIPTION N/S WING MIRROR OF CAR1 (VAN ?) TRAV SOUTHEAST TOWARDS SEA FRONT STRUCK PED WALKING NORTHWEST ON FOOTWAY

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Van/Goods < 3.5t	Not known	Unk	1	Pedestrian	SLIGHT	1	Female	30

44170025334 SLIGHT 472192/102050 20/01/2017 19:25
LOCATION A3023 HAVANT RD J/W CASTLEMANS LN HAYLING
DESCRIPTION STAT CAR2 FACING NORTHWEST WAITING TO TURN RIGHT INTO CASTLEMANS LN STRUCK IN REAR BY FOLLOWING CAR1 TRAV NORTH NEG LH BEND CAR2 THEN STRUCK O/S OF CAR3 TRAV SOUTHEAST APPROACHING JUNCTION FROM LANGSTONE

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	29	1	Driver/Rider	SLIGHT	2	Female	37
2	Car	Female	37	2	Passenger	SLIGHT	2	Female	14
3	Car	Female	55						

44170029426 SLIGHT 471602/105465 24/01/2017 09:30
LOCATION A3023 LANGSTONE RD JW SOUTHBROOK ROAD HAVANT
DESCRIPTION VAN2 TRAV W ALONG SOUTHBROOK ROAD TURNED RIGHT ONTO A3023 LANGSTONE ROAD ACROSS PATH OF CAR1 TRAV S ALONG A3023 LANGSTONE ROAD CAR1 COLLIDED WITH OFFSIDE OF VAN2

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Female	33	1	Driver/Rider	SLIGHT	1	Female	33
2	Van/Goods < 3.5t	Female	58	2	Driver/Rider	SLIGHT	2	Female	58

A3023 Hayling Island from A27 roundabout to Sea Front
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44170084265 SLIGHT 471821/103026 06/03/2017 10:10
LOCATION A3023 HAVANT RD O/S ESSO FILLING STATION HAYLING
DESCRIPTION CAR1 TRAV NORTH TOWARDS LANGSTONE DRIVER STOPPED DUE TO UNRECORDED PARKED CAR CAR1 THEN STRUCK IN REAR BY FOLLOWING M/C2

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Female	Unk	1	Driver/Rider	SLIGHT	2	Male	17
2	M/cycle 125 - 500cc	Male	17						

44170091778 SLIGHT 471861/104691 11/03/2017 13:00
LOCATION A3023 LANGSTONE RD OUTSIDE THE SHIP INN LANGSTONE
DESCRIPTION CAR1 TRAV SE ALONG A3023 LANGSTONE ROAD FAILED TO SLOW IN TIME AND COLLIDED WITH REAR OF CAR2 SLOWING FOR TRAFFIC AHEAD

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	45	1	Driver/Rider	SLIGHT	2	Female	26
2	Car	Female	26	2	Passenger	SLIGHT	2	Female	8

44170097691 SLIGHT 471820/103019 15/03/2017 17:05
LOCATION A3023 HAVANT RD O/S ESSO FILLING STATION HAYLING
DESCRIPTION CAR2 TRAV NORTH TOWARDS LANGSTONE STRUCK IN REAR BY FOLLOWING CAR1

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	21	1	Passenger	SLIGHT	1	Female	17
2	Car	Male	21	2	Driver/Rider	SLIGHT	1	Male	21

44170105437 SLIGHT 471694/105002 21/03/2017 11:24
LOCATION A3023 LANGSTONE ROAD OUTSIDE OF LANGSTONE LODGE, HAVANT, HAMPSHIRE
DESCRIPTION VEH 1 (CAR) TRAVELLING SE ALONG A3023 LANGSTONE ROAD, THE DRIVER IS TEMPORARILY BLINDED BY LOW BRIGHT SUNLIGHT AND COLLIDES WITH THE NEARSIDE KERB.

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	40	1	Passenger	SLIGHT	1	Female	9

44170141792 SERIOUS 471437/99026 16/04/2017 13:00
LOCATION A3023 BEACH ROAD AT JUNCTION WITH BEACH ROAD CUL DE SAC, HAYLING ISLAND, HAMPSHIRE
DESCRIPTION VEH 1 (M/CYCLE) TRAVELLING S ALONG A3023 BEACH ROAD SAW AN UNKNOWN M/CYCLE OVERTAKE VEH 2 (CAR) TRAVELLING IN FRONT. VEH 2 WAS ABOUT TO OVERTAKE WHEN VEH 2 INDICATED AND TURNED RIGHT INTO CUL DE SAC. VEH 1 BRAKED AND SKIDDED INTO VEH 2.

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	M/cycle > 500cc	Male	54	1	Driver/Rider	SERIOUS	1	Male	54
2	Car	Male	21						

44170200987 SLIGHT 471442/99470 28/05/2017 08:05
LOCATION A3023 BEACH ROAD AT JUNCTION WITH STATION ROAD, HAYLING ISLAND, HAMPSHIRE
DESCRIPTION VEH 1 (CAR) TRAVELLING E ALONG STATION ROAD, LOOKS BOTH WAY, FAILS TO SEE AS BLINDED BY SUN AND TURNS RIGHT ONTO A3023 BEACH ROAD ACROSS THE PATH OF VEH 2 (P/CYCLE) TRAVELLING N ALONG A3023 BEACH ROAD AND COLLIDES, CAUSIGN THE RIDER TO FALL OFF.

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	55	1	Driver/Rider	SLIGHT	2	Male	55
2	Pedal Cycle	Male	55						

A3023 Hayling Island from A27 roundabout to Sea Front
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44170246215 SLIGHT 472423/100638 28/06/2017 08:15
LOCATION A3023 HAVANT RD J/W HAVANT SPUR RD HAYLING
DESCRIPTION VAN1 TRAV NORTHWEST ENTERING JUNCTION FROM SPUR ROAD COLLIDED WITH N/S OF CAR2 TRAV SOUTHWEST APPROACHING JUNCTION FROM LANGSTONE NEG RH BEND

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Goods unknown weight	Male	34	1	Driver/Rider	SLIGHT	2	Female	38
2	Car	Female	38						

44170276283 SLIGHT 471704/100340 18/07/2017 14:55
LOCATION A3023 MANOR RD AT JUNCTION WITH HIGWORTH LANE, HAYLING ISLAND, HAMPSHRIE
DESCRIPTION V1 (CYCLE) TUNRED L OUT OF HIGWORTH LANE ONTO MANOR RD, FAILED TO LOOK RIGHT AND COLLIDED WITH V2 (CAR) TRAVELLING SW ON MANOR RD.

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Pedal Cycle	Male	13	1	Driver/Rider	SLIGHT	1	Male	13
2	Car	Female	78						

44170287718 SLIGHT 472031/102284 26/07/2017 13:40
LOCATION WEST LANE JW A3023 HAVANT RD HAYLING ISLAND
DESCRIPTION CAR1 WAITING AT JUNCTION TO TURN LEFT ONTO A3023 IS STRUCK IN REAR BY CAR2 WHICH FAILS TO STOP.

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Female	44	1	Driver/Rider	SLIGHT	1	Female	44
2	Car	Not known	Unk	2	Passenger	SLIGHT	1	Female	15
				3	Passenger	SLIGHT	1	Female	12

44170301873 SLIGHT 472363/101144 04/08/2017 13:58
LOCATION A3023 HAVANT RD J/W MILL RYTHE LN HAYLING
DESCRIPTION DRIVER OF BUS1 TRAV SOUTH APPROACHING JUNCTION FROM LANGSTONE BRAKED HEAVILY DUE TO TRAFFIC IN FRONT STOPPING SUDDENLY IN ORDER TO ALLOW AN UNRERCORDED VEH OUT OF MILL RYTHE LN CAUSING INJURY TO PASSENGER

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Bus or Coach	Not known	Unk	1	Passenger	SLIGHT	1	Female	47

44170309221 SLIGHT 472096/104065 11/08/2017 06:51
LOCATION A3023 HAVANT RD JW NORTHNEY RD HAYLING ISLAND
DESCRIPTION CAR1 TRAV NW NORTHNEY RD STOPS TURNS RIGHT ONTO A3023 HAVANT RD COLLIDING WITH N/SIDE CAR2 TRAV SW A3023 HAVANT RD. CAR1 AND DROVE OFF.

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	91	1	Driver/Rider	SLIGHT	2	Female	46
2	Car	Female	46						

44170316429 SLIGHT 471441/99540 16/08/2017 11:00
LOCATION A3023 MANOR ROAD AT JUNCTION WITH LEXDEN GARDENS, HAYLING ISLAND, HAMPSHIRE
DESCRIPTION VEH 3 (CAR) TRAVELLING N ALONG A3023 MANOR ROAD, FAILS TO STOP IN TIME AND COLLIDES WITH THE REAR OF VEH 2 (CAR) STATIONARY, SHUNTING VEH 2 INTO THE REAR OF VEH 1 (CAR) STATIONARY WAITING TO TURN RIGHT INTO LEXDEN GARDENS.

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Female	37	1	Driver/Rider	SLIGHT	2	Male	50
2	Car	Male	50	2	Driver/Rider	SLIGHT	3	Female	33
3	Car	Female	33						

A3023 Hayling Island from A27 roundabout to Sea Front
Accident Date BETWEEN '01-Aug-2013' AND '31-Jul-2018'

44170367883 SLIGHT 472064/104022 18/09/2017 10:00
LOCATION A3023 HAVANT RD O/S SERVICE STATION 258 HAYLING ISLAND
DESCRIPTION CAR2 TRAV NE A3023 HAVANT RD IN QUEUE OF TRAFFIC COLLIDED WITH REAR OF CAR1 STATIONARY IN FRONT.

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Female	67	1	Driver/Rider	SLIGHT	1	Female	67
2	Car	Not known	Unk						

44170401542 SLIGHT 472207/101989 16/10/2017 08:30
LOCATION A3023 HAVANT RD O/S STOKE FRUIT FARM HAYLING
DESCRIPTION HGV2 TRAV SOUTH FROM LANGSTONE NEG RH BEND STRUCK ON N/S BY P/C1 TRAV SOUTHWEST WHO RODE INTO C/WAY FROM FOOTWAY ON EASTSIDE OF HAVANT RD HGV2 CLIPPED HANDLE BARS CAUSING RIDER TO PART FROM MACHINE

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Pedal Cycle	Male	9	1	Driver/Rider	SLIGHT	1	Male	9
2	Goods 3.5 - 7.5t	Male	42						

44170426642 SERIOUS 472058/104006 02/11/2017 11:35
LOCATION A3023 HAVANT RD JW HAYLING ISLAND SERVICE STATION HAYLING ISLAND
DESCRIPTION CAR1 PULLED OUT OF SERVICE STN ONTO A3023 HAVANT RD IN FRONT OF CAR2 TRAV SW HAVANT RD.

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Female	26	1	Driver/Rider	SERIOUS	1	Female	26
2	Car	Female	64	2	Driver/Rider	SLIGHT	2	Female	64

44170429620 SLIGHT 472153/101623 04/11/2017 09:00
LOCATION A3023 HAVANT RD J/W YEW TREE RD HAYLING ISLAND
DESCRIPTION CAR1 TURNING LEFT FROM YEW TREE RD TO TRAV SOUTH DRIVER FAILED TO LOOK PROPERLY CAR1 THEN COLLIDED WITH BUS2 TRAV NORTH TOWARDS LANGSTONE WHILST OVERTAKING P/C3 CAUSING RIDER TO PART FROM MACHINE

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Female	54	1	Driver/Rider	SLIGHT	3	Male	50
2	Bus or Coach	Male	64						
3	Pedal Cycle	Male	50						

44170452357 SLIGHT 471620/105695 20/11/2017 08:45
LOCATION A3023 LANGSTONE RD JW LANGSTONE TECH PARK ENTRANCE RD HAVANT
DESCRIPTION MC1 TRAV N ON A3023 LANGSTONE ROAD COLLIDED WITH CAR2 TURNING RIGHT INTO THE TECH PARK ENTRANCE AND INTO PATH OF MC1 MC1 FELL FROM VEHICLE

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	M/cycle 50 - 125cc	Male	19	1	Driver/Rider	SLIGHT	1	Male	19
2	Car	Male	58						

44170456809 SLIGHT 471627/105679 23/11/2017 16:47
LOCATION A3023 LANGSTONE RD JW WOODBURY AVE LANGSTONE
DESCRIPTION CAR2 TURNING RIGHT OUT OF WOODBURY AVENUE TO TRAV N ON A3023 LANGSTONE ROAD COLLIDED WITH MC1 TRAV S ON LANGSTONE ROAD WHILST OVERTAKING TRAFFIC ON OFFSIDE

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	M/cycle 50 - 125cc	Female	30	1	Driver/Rider	SLIGHT	1	Female	30
2	Car	Male	22						

A3023 Hayling Island from A27 roundabout to Sea Front
Accident Date BETWEEN '01-Aug-2013' AND '31-Jul-2018'

44170458895 SLIGHT 472140/101537 25/11/2017 04:00
LOCATION A3023 HAVANT RD BEND APPROX 90 M S OF YEW TREE RD HAYLING
DESCRIPTION CAR TRAV NORTH TOWARDS LANGSTONE NEG RH BEND AT SPEED CLIPPED KERB DRIVER LOST CONTROL CAUSING VEH TO CONTINUE THROUGH JUNCTION THEN OVERTURN IN PH CAR PARK

VEHICLES	DRIVER		CASUALTIES			VEH	SEX	AGE
1 Car	Male	23	1	Driver/Rider	SLIGHT	1	Male	23

44170503312 SLIGHT 472063/102122 30/12/2017 11:50
LOCATION A3023 HAVANT RD BEND APPROX 125M NW OF CASTLEMANS LN HAYLING
DESCRIPTION CAR1 TRAV SOUTH FROM LANGSTONE NEG LH BEND DRIVER LOST CONTROL DUE TO MEDICAL EPISOPE CAUSING VEH TO CROSS INTO OPPOSITE C/WAY THEN COLLIDE HEAD ON WITH CAR2 TRAV NORTHWEST FROM SEA FRONT

VEHICLES	DRIVER		CASUALTIES			VEH	SEX	AGE
1 Car	Male	73	1	Driver/Rider	SLIGHT	1	Male	73
2 Car	Female	65	2	Driver/Rider	SLIGHT	2	Female	65

44180029674 SLIGHT 472024/102352 23/01/2018 13:15
LOCATION A3023 HAVANT RD BEND O/S NO. 86 HAYLING
DESCRIPTION CAR TRAV SOUTHEAST FROM LANGSTONE NEG RH BEND DRIVER LOST CONTROL CAUSING VEH TO LEAVE C/WAY ON N/S THEN STRIKE WALL DRIVER SUSPECTED MEDICAL EPISODE

VEHICLES	DRIVER		CASUALTIES			VEH	SEX	AGE
1 Car	Male	77	1	Driver/Rider	SLIGHT	1	Male	77

44180076594 SLIGHT 471591/100154 27/02/2018 08:44
LOCATION A3023 MANOR ROAD AT JUNCTION WITH HAYLIG ISLAND HOLDIAY PARK, HAYLING ISLAND, HAMPSHRIE
DESCRIPTION V2 (CYCLE) TURNED L OUT OF HIGWORTH LANE ONTO MANOR RD, FAILED TO LOOK RIGHT AND COLLIDED WITH V1 (CAR) TRAVELLING SW ON MANOR RD.

VEHICLES	DRIVER		CASUALTIES			VEH	SEX	AGE
1 Car	Female	85	1	Driver/Rider	SLIGHT	2	Male	53
2 Pedal Cycle	Male	53						

44180091714 SLIGHT 471901/102461 11/03/2018 04:38
LOCATION A3023 HAVANT RD BEND O/S WESTCROFT LIVERY YARD HAYLING
DESCRIPTION CAR TRAV NORTHWEST TOWARDS LANGSTONE NEG RH BEND DRIVER LOST CONTROL CAUSING VEH TO LEAVE C/WAY ON N/S THEN STRIKE WALL O/S NO.149 DRIVER PROVIDED PBS

VEHICLES	DRIVER		CASUALTIES			VEH	SEX	AGE
1 Car	Male	26	1	Driver/Rider	SLIGHT	1	Male	26

44180154171 SLIGHT 472282/100615 26/04/2018 16:43
LOCATION HAVANT ROAD, AT JUNCTION WITH CHURCH ROAD, HAYLING ISLAND, HAMPSHIRE
DESCRIPTION VEH1 (CAR) TRAVELLING W ALONG HAVANT ROAD, REACHES THE ROUNDABOUT AND CONTINUES TO GO STRAIGHT ACROSS, COLLIDING WITH THE CENTRE OF THE ROUNDABOUT.

VEHICLES	DRIVER		CASUALTIES			VEH	SEX	AGE
1 Car	Male	50	1	Driver/Rider	SLIGHT	1	Male	50

A3023 Hayling Island from A27 roundabout to Sea Front
Accident Date BETWEEN '01-Aug-2013' AND '31-Jul-2018'

44180163791 SLIGHT 471604/105925 03/05/2018 18:18

LOCATION A27, HAVANT BYPASS, AT JUNCTION WITH B2149, PARK ROAD S, HAVANT, HAMPSHIRE.

DESCRIPTION VEH1 (CAR) TRAVELLING RIGHT AROUND LANGSTONE ROUNDABOUT FROM LANGSTONE ROAD. VEH2 (CAR) TRAVELLING E ALONG A27 JOINS THE LANGSTONE ROUNDABOUT WHEN LIGHTS TURN GREEN. VEH1 COLLIDES WITH THE REAR OF VEH2.

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Female	19	1	Driver/Rider	SLIGHT	1	Female	19
2	Car	Male	51						

44180282836 SLIGHT 472150/101620 26/07/2018 13:45

LOCATION A3023 HAVANT ROAD, AT JUNCTION WITH YEW TREE ROAD, HAYLING ISLAND, HAMPSHIRE.

DESCRIPTION VEH1 (M/CYCLE) TRAVELLING N ALONG A3023 HAVANT ROAD STOPS WAITING TO TURN RIGHT INTO YEW TREE ROAD. AS VEH1 STARTS TO TURN, VEH2 (CAR) TRAVELLING N ALONG A3023 GOES TO OVERTAKE VEH1 AND HIT VEH1 MIDTURN. VEH1 IS KNOCKED OFF CARRIAGEWAY.

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	M/cycle 50 - 125cc	Female	16	1	Driver/Rider	SLIGHT	1	Female	16
2	Car	Male	85	2	Driver/Rider	SLIGHT	2	Male	85