



Newgate Lane Southern Section

Transport Assessment

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*Economy, Transport and Environment Department
Strategic Transport, The Castle, Winchester, S023 8UD*

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1 Introduction

1.1 CONTEXT

Improving access to the Gosport and Fareham peninsula is a key priority for the Solent Local Enterprise Partnership (Solent LEP) in order to remove transport barriers to economic growth and to help encourage new investment and development into the area. A package of improvement measures has been identified to help address the transport issues, improve access to Gosport and facilitate economic growth in the area. Improving accessibility in the area will have a positive impact upon the local economy and important strategic sites including the Solent Enterprise Zone at Daedalus Airfield. The improvement measures include:

- A new bypass for Stubbington;
- B3385 Newgate Lane southern section (between Tanners Lane and the Peel Common roundabout);
- Peel Common roundabout; and
- A27 Corridor improvements between Segensworth roundabout and Titchfield Gyrotory.

This Transport Assessment relates solely to the Newgate Lane southern section, with the Stubbington Bypass covered in a separate Transport Assessment and the other schemes not requiring planning applications as they are permitted development within existing highway land.

The Newgate Lane southern section scheme aims to improve journey times, journey reliability and safety along the corridor for the benefit of drivers, cyclists and pedestrians. This will assist movement in a north-south direction between Fareham and Junction 11 of the M27, and the Gosport Peninsula. Accordingly, the objectives of the scheme are:

- To reduce peak period congestion and improve traffic speeds along the B3385 Newgate Lane corridor by providing a wider carriageway and a separate route for cyclists;
- To help encourage regeneration, investment and growth in the Gosport Peninsula;
- To help remove the transport barriers to growth;
- To help unblock critical bottlenecks and congestion hotspots on strategic routes, in town centre areas and in areas of employment; and
- To provide new and improved existing infrastructure to help better manage traffic flows, particularly during peak periods.

1.2 BACKGROUND

The B3385 Newgate Lane corridor is of strategic importance to the Gosport Peninsula as there are future employment and residential developments proposed at the Solent Enterprise Zone (EZ) at Daedalus Airfield, HMS Haslar and the Gosport Waterfront, and therefore significant investment is required if it is to cope with the additional traffic from these developments.

The southern section of Newgate Lane is narrow and winding with frontage access and turning traffic; the highway geometry and traffic composition (high incidence of cyclists and

lack of overtaking locations) can result in slow traffic speeds and potential conflicts particularly during peak hours.

The only other major north-south route from Fareham/Junction 11 of the M27 to the Gosport Peninsula is the A32 Gosport Road / Fareham Road and this is also suffers from significant peak period congestion. The A32 corridor has more significant land constraints than the Newgate Lane corridor and therefore it has always been considered more feasible to improve capacity along Newgate Lane than the A32.

The Highway Authority has had a longstanding aspiration to address congestion problems along Newgate Lane by providing a Peel Common Bypass, and land had been safeguarded for many years in the Fareham and Gosport Local Plans and currently contained within both the Fareham (2000) and Gosport (2006) Local Plan Reviews.

In 1988 a dual carriageway bypass for Newgate Lane was proposed between Rowner Road and HMS Collingwood. The route of the bypass was to the east of the existing road, crossing Woodcote Lane at the eastern end. At the time the B3385 had a staggered junction with Rowner Road, the Newgate Lane T-junction being some twenty five metres west of the Broom Way T-junction. The proposed scheme included a new roundabout at the south end of Newgate Lane, and land was purchased and the roundabout completed in 1991, however the bypass itself remained un-built.

In 1998 the scheme had reduced to a single carriageway bypass due to the impact on the environment and the cost of a dual carriageway scheme. A Hampshire County Council Report dated June 1998 recommended that a proposal for an on-line improvement of Newgate Lane be considered, along with signalisation of the Peel Common roundabout.

In 2011 work commenced on the preliminary design of the Newgate Lane On-Line Widening scheme. The scheme provided a standard 7.3m wide road, with a shared use footway/cycleway on the eastern side, between Peel Common roundabout and the controlled crossing at the Newgate Lane/Bridgemary cycleway (south of Speedfields Retail Park). This would have tied-in to a separate scheme for signalising the Speedfields Park and Longfield Avenue roundabouts.

During development of the Gosport Borough Local Plan 2011-29, the scheme was extended to become the B3385 Newgate Lane Major Scheme due to the identification of significant development areas within the Peninsula, including at Daedalus Airfield and the Royal Hospital Haslar. This scheme comprised widening the B3385 from the junction with Sharlands Road at the northern end, to the Peel Common roundabout at the southern end, a length of 2.3km.

In 2013 the Major Scheme was split into three sections, to be delivered within different timescales:

- **The Northern Section** – from Tanners Lane northwards to Palmerston Drive, this section of improvements could be completed without any land acquisition, and is currently being constructed on site with a programmed finish date of April 2015. The improvements involve providing additional traffic lanes, a new signalised junction for HMS Collingwood, junction capacity improvements at the junctions with Longfield Avenue and Speedfields Park, and new facilities for pedestrians and cyclists including a 2.5m wide shared use path;
- **The Southern Section** – from Tanners Lane southwards to Peel Common roundabout, this section would need land acquisition and therefore planning permission, and is currently programmed to start on site in 2017/18; and

- **Peel Common Roundabout** – with no land acquisition required this scheme for signalling the roundabout is currently going through the detailed design process and is programmed to start on site on completion of the Northern Section, in 2015/16.

On 7th October 2013 a report was presented to the County Council's Executive Member for Economy Transport and Environment (EMETE) entitled '*Improving Access to Fareham and Gosport – Report of Consultation.*' This report outlined the findings of the summer 2013 consultation event at which the majority of people were supportive of the proposals to improve access to Fareham and Gosport, including the Stubbington Bypass, Newgate Lane Northern section and Peel Common roundabout interim improvements.

The EMETE decision was to recommend that proposals are developed for an offline improvement scheme for the southern section of Newgate Lane, either independent from a Stubbington bypass or, if the funding position allows, as a possible early delivery phase of a Stubbington bypass.

To arrive at the preferred alignment for the southern section an appraisal process based on the Department for Transport (DfT) Early Assessment and Sifting Tool (EAST) was used to evaluate the relative merits of various scheme options, across a broad range of criteria. The early stage of design identified five options as follows:

- A new alignment 'Option A' (part on-line and part off-line) following the existing alignment north of the entrance to the Peel Common Wastewater Treatment Plant (WTP), with widening on its eastern side. To the south of the entrance to the Peel Common WTP the new alignment would be located between the existing alignment and the River Alver, and can accommodate ghost island right turn lanes for the junctions with the WTP, Albert Road and Woodcote Lane. The existing alignment of Newgate Lane would become a service road for the properties on the west side of the road and would provide a suitable environment for cycling;
- A new alignment 'Option B' 'eastern alignment' would provide a new 7.3m carriageway from a point near the junction with Tanners Lane southwards to pass to the eastern side of the properties in Woodcote Lane before connecting to Peel Common roundabout. The existing Newgate Lane between Tanners Lane and Peel Common roundabout would become a local service road accessed via a priority controlled ghost island junction on the new alignment, with a short link road connection to the existing Newgate Lane. This would be located approximately half way between the entrance to the Peel Common WTP and the junction with Tanners Lane;
- 'Option C' involved on-line widening to 7.3m on the eastern side of the road, with a pedestrian and cycle route on the eastern side of the road;
- 'Option D' involved on-line widening to three traffic lanes operating with two northbound lanes and one southbound lane in the morning peak, changing to two southbound lanes and one northbound lane in the evening peak. The directional flow of the central lane would be controlled by overhead gantry mounted signals; and
- 'Option E' involved on-line widening to 7.3m on the eastern side of the road, with central hatching/ghost island areas for turning traffic, with a pedestrian and cycle route on the western side of the road.

The five options were assessed by a range of technical specialists including geotechnical, highway design, environmental, transport planning and traffic modelling, to inform the option appraisal process against the following EAST criteria:

- Strategic Case;
- Economic Case;
- Managerial Case;
- Financial Case; and
- Commercial Case.

The EAST assessment was used to give each option a score on a Red/Amber/Green scale, with Option B emerging as the preferred option, closely followed by Option A. Options C and E were considered to be joint-third, while Option D was considered to be the least suitable.

The preferred alignment for the Stubbington Bypass proposals also had a significant impact upon the preferred scheme for the southern section of Newgate Lane. A significant amount of transport modelling assessment work was undertaken in order to determine the preferred route of the Bypass, with several options being investigated, including alignments that connected directly to Newgate Lane. Strategic modelling was undertaken using the South Hampshire Sub Regional Transport Model (SRTM) operated by consultants SYSTRA, more details of which are provided in Section 6 of this report. Full details of the modelling that was undertaken are contained in the SYSTRA report '*Stubbington Bypass SRTM Model Scenarios*, June 2014'

The SRTM modelling revealed that the optimal alignment for the Bypass was one that involved a connection at the southern end to the B3334 Gosport Road, rather than a connection to Newgate Lane. This was an important driver for the Newgate Lane south scheme, as had a connection to Newgate Lane been preferred, the modelling showed that Newgate Lane would need to be upgraded to dual carriageway, between the Bypass and Peel Common roundabout. With the Bypass connecting to Gosport Road, the modelling showed that Newgate Lane southern section would operate satisfactorily as a 7.3m wide single carriageway link.

A report was presented to the County Council's EMETE on 17th March 2014 which summarised the requirement for improvements to Newgate Lane southern section, independent from the provision of the Stubbington Bypass. The report also summarised the various options that were considered including the results of the EAST appraisal and the outcomes of the summer 2013 consultation, in order to arrive at a preferred alignment for the scheme.

Two alignment options for the southern section of Newgate Lane were presented for comment at the public consultation event in the summer of 2013, as follows:

- **Option A** - Based upon an on-line plus part off-line (adjacent to existing carriageway) widening scheme; and
- **Option B** - Based upon an off-line eastern alignment.

The consultation revealed a preference by 72% of the respondents for the Newgate Lane southern section Option B alignment, with 28% supporting the Option A alignment.

The EMETE decision was to approve the preferred alignment for the scheme, known as the 'off-line eastern alignment' and undertake a further round of public consultation in summer 2014 to present the preferred option and associated other works.

Following the summer 2014 public consultation, a paper was presented to the County Council's EMETE on 4th November 2014 that detailed the outcome of the consultation events. The report noted that 81% of respondents supported the preferred route and at least

75% of respondents were generally satisfied with the main issues of traffic, drainage, environment, ecology, landscape, proximity to properties, design, and accessibility. The EMETE decision was that the preferred scheme for Newgate Lane southern section (with further improvements to Peel Common roundabout) should be approved as Council Policy, be formally safeguarded and progressed with immediate effect, to support a full planning application and business case in Spring 2015. The preferred alignment for the scheme is shown in Figure 1.1 overleaf.

1.3 SCOPE OF REPORT

Following the EMETE decision to support the preferred alignment for Newgate Lane southern section (henceforth referred to as the 'NGLS scheme'), a full Planning Application is now being submitted, of which this Transport Assessment is an integral part. Should planning permission be granted, the intention is to begin construction during 2017/18, subject to funding being secured.

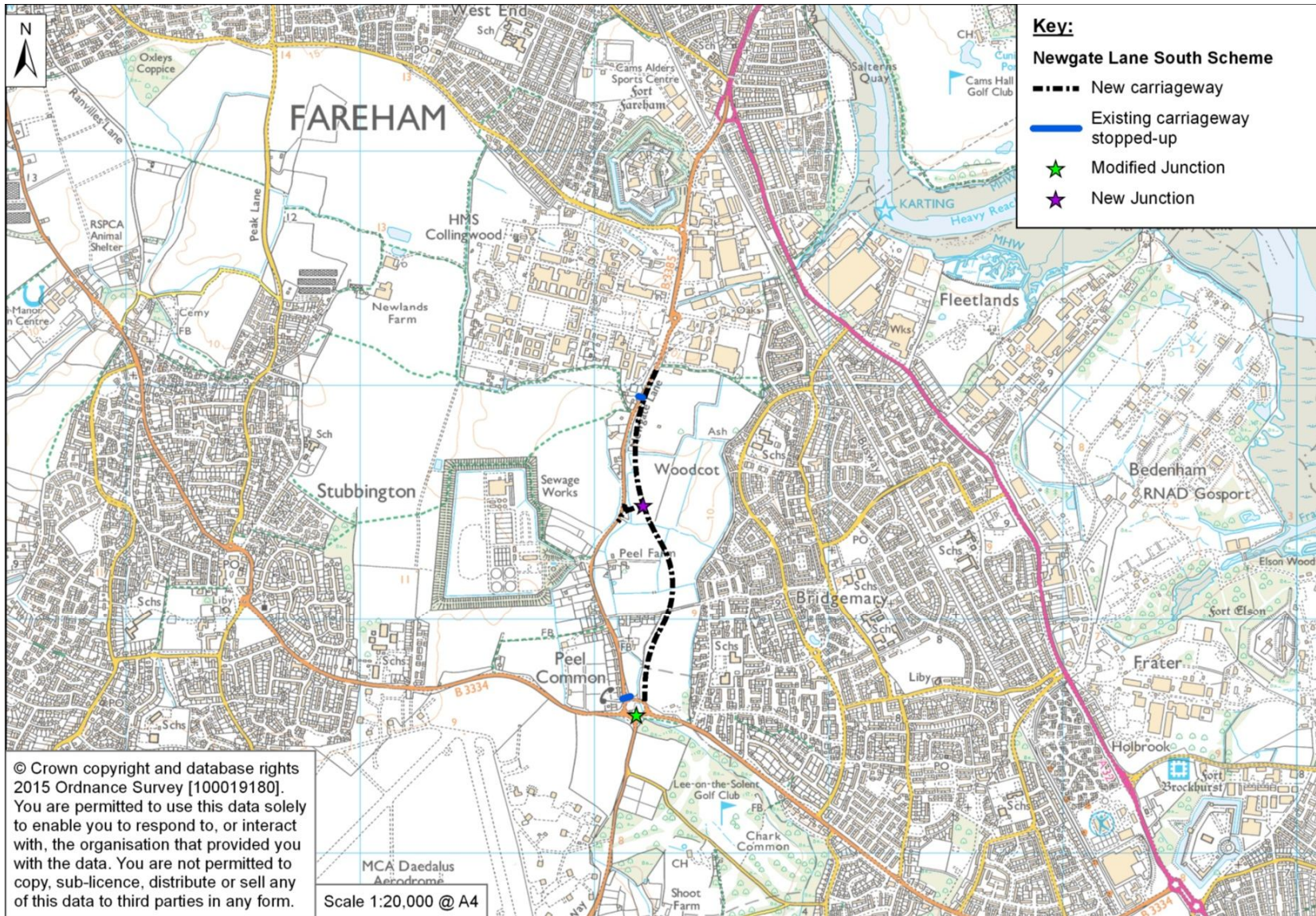
This Transport Assessment will adhere to the Department for Communities and Local Government (DCLG) guidance on *Travel Plans, Transport Assessments and Statements in Decision-Taking* as much as is practical. It provides a full overview of the expected impact of the scheme on all modes of transport and presents the mitigation that is being proposed.

The content of this report has been discussed and agreed with relevant development control officers at the local highway authority, Hampshire County Council. Copies of this correspondence are included at Appendix A.

The remainder of this report is structured with the following sections:

- Section 2 – Planning Policy Context;
- Section 3 – Existing Transport Conditions;
- Section 4 – Forecast future transport conditions;
- Section 5 – Development proposals;
- Section 6 – Travel Demand and development impact;
- Section 7 – Mitigation strategy; and
- Section 8 – Summary and conclusions.

Figure 1.1 – Overview of Scheme



2 Planning Policy Context

This section provides details of national, county and local planning policy that is pertinent to the construction of the proposed NGLS scheme and its related objectives.

2.1 NATIONAL POLICY

2.1.1 National Planning Policy Framework, DCLG, March 2012

Adopted on 27th March 2012, the National Planning Policy Framework (NPPF) seeks to reduce the complexity and improve the accessibility of the planning system, whilst protecting the environment and encouraging sustainable growth.

The NPPF replaces all previous Planning Policy Guidance Notes and Statements, becoming the definitive national planning guidance from which local planning authorities, in collaboration with their communities, produce local plans appropriate to the character and needs of their local area.

Key to the NPPF and its success is the following statement from paragraph 14:

“At the heart of the NPPF is a presumption in favour of sustainable development, which should be seen as golden thread running through both plan-making and decision making.”

Transport forms one of the 12 core land use planning principles layout within the NPPF. This principle directs that locations which are sustainable or which can be made sustainable should become the focus for significant development. Paragraph 7 of the NPPF notes three ‘dimensions’ of sustainable development:

- Economic;
- Social; and
- Environmental.

Transport is able to contribute significantly to a development’s adherence to these, through means such as providing infrastructure to support economic growth, enhancing accessibility to services and fulfilling the social needs of people and providing solutions which minimise pollution and environmental impact.

With particular relevance to the proposed NGLS scheme, it is noted that pursuing sustainable development involves seeking positive improvements in the quality of the environment, as well as in peoples quality of life, including making it easier for jobs to be created in cities, towns and villages and improving the conditions in which people live, work, travel and take leisure.

Overall, this scheme will support the following national transport policy objectives:

- Managing, improving and investing in the road network;
- Supporting economic growth through local enterprise partnerships and enterprise zones;
- Making roads safer; and
- Improving local transport.

The scheme will improve journey time and network reliability, by reducing congestion and delay, improve access to the Solent Enterprise Zone at Daedalus, improve road safety through casualty reduction and improve local transport options through improvements to provision for pedestrian, cycle and equestrian users.

2.1.2 Creating Growth, Cutting Carbon: Making Sustainable Transport Happen (DfT, 2011)

Creating Growth, Cutting Carbon is the DfT White Paper published in January 2011, which sets out plans for transport to become an engine to economic growth through careful investment in sustainable transport. Its key aim that is relevant to the proposed NGLS scheme is to:

- Encourage sustainable local travel and economic growth by making public transport, cycling and walking more attractive and effective, promoting lower carbon transport and tackling local road congestion.

2.1.3 Delivering a Sustainable Transport System (DfT, 2008)

This publication outlines the Government's five goals for transport, focusing on the challenges of delivering strong economic growth while reducing greenhouse gas emissions.

The overarching goals that are relevant to the proposed NGLS scheme are:

- To support national economic competitiveness and growth, by delivering reliable and efficient transport networks;
- To reduce transport's emissions of carbon dioxide and other greenhouse gases, with the desired outcome of tackling climate change; and
- To improve quality of life for transport users and non-transport users, and to promote a healthy natural environment.

2.2 COUNTY POLICY

2.2.1 Hampshire County Council Local Transport Plan 3 (LTP3) 2011-2031 (Reviewed April 2013)

LTP3 incorporates the joint strategy for South Hampshire and sets out the shared approach to transport in South Hampshire to 2031. It has been developed jointly by the three Local Transport Authorities of Hampshire County Council, Portsmouth City Council and Southampton City Council, working together as Transport for South Hampshire (TfSH) and has taken into account national legislation, policy and guidance and a number of key sub-regional and local level plans and strategies including Fareham LDF and Gosport LDF.

The overall vision for LPT3 is a transport strategy that will help HCC realise:

“Safe, efficient and reliable ways to get around a prospering and sustainable Hampshire.”

In chapter 7 of LTP3, the *South Hampshire Joint Strategy* notes that there are seven key challenges for the South Hampshire area that need to be tackled in order to deliver the overall vision, which is as follows:

“A resilient, cost effective, fully-integrated sub-regional transport network, enabling economic growth whilst protecting and enhancing heath, quality of life and environment”.

Of the seven key challenges for the South Hampshire area, those that will be addressed by the proposed NGLS scheme are as follows:

- Ensuring the timely delivery of transport infrastructure to support housing and employment growth and regeneration opportunities;
- Managing the existing transport network to ensure that journey time reliability is maintained and improved to help support economic competitiveness, regeneration, and growth; and
- Mitigating the adverse impacts of transport activity on people, communities and habitats.

The transport policies identified in Chapter 7 of LTP3 which are considered relevant to the proposed NGLS scheme are the following:

- Policy A: To develop transport improvements that support sustainable economic growth and development within South Hampshire. Delivery options include working closely with the SLEP and business on transport issues;
- Policy C: To optimise the capacity of the highway network and improve journey time reliability for all modes;
- Policy G: To improve road safety across the sub-region;
- Policy L: To work with Local Planning Authorities to integrate planning and transport. Delivery options include the current and emerging Local Planning Authorities' LDF infrastructure delivery plans to be delivered alongside the Implementation Plan sections of the Hampshire, Portsmouth and Southampton LTP's; and
- Policy N: To safeguard and enable the future delivery of transport improvements within the TfSH area. Delivery options include safeguarding of proposed strategic routes such as Western Access to Gosport, where heavy volumes of traffic through local communities cause problems of severance, noise and poor air quality.

Seven key outcomes are envisaged for the South Hampshire area as identified in Chapter 7 of LTP3, which define the policy framework for delivery and those relevant to the NGLS scheme can be summarised as follows:

- Improved journey time reliability for all modes;
- Improved road safety within the sub-region;
- Improved accessibility within and beyond the sub-region;
- Improved air quality and environment, and reduced greenhouse gas emissions; and
- Promoting a higher quality of life.

2.2.2 Transport for South Hampshire (TfSH) Transport Delivery Plan 2012-2026 (February 2013)

The Transport Delivery Plan (TDP) was adopted by the TfSH Joint Committee on the 5th February 2013. The TDP identifies schemes for delivery in the period up to 2026. The document is not a strategy document but it does recognise the Solent Enterprise Zone at Daedalus that hopes to generate an additional 3,500 jobs by 2026. The transport impact of this development has been assessed as part of the planning process with measures including:

- New access junctions;
- Contribution towards the delivery of highway infrastructure as identified in the Strategic Access to Gosport Study (2010) ; and
- Traffic management and mitigation measures in Stubbington village.

It is underpinned by the Joint Strategy for South Hampshire, LTP3 and also the Isle of Wight Local Transport Plan. The TDP responds to evidenced problems with interventions that provide value for money and take into account forecast growth. It is the result of comprehensive assessment and consultation with interested parties and provides a live document which was intended to be reviewed on a six monthly basis as evidence changes and opportunities for funding arise.

The Sub Regional Transport Model (SRTM) and Local Economic Impact model (LEIM) have played a crucial role in developing the evidence base for the TDP, providing forecast outputs for 2014, 2019, 2026 and 2036, in order to help identify scheme impacts and benefits. The TDP includes:

- Newgate Lane as a committed scheme that will improve access to the Gosport Peninsula and the Solent Enterprise Zone
- The Gosport Bus Rapid Transit extension as a committed scheme; and
- The A27 corridor improvements and the M27 Managed Motorways as being targeted for investment.

2.2.3 Solent LEP Strategic Economic Plan (2014)

The Solent Strategic Economic Plan published in March 2014 identified six priorities for supporting the economy of the Solent area. The following is a summary of how the NGLS scheme will support each priority:

- Enterprise - Improved accessibility will assist small and medium enterprise growth and retention in Gosport town centre and commercial areas, and on the wider peninsula, in particular the Solent EZ at Daedalus;
- Infrastructure - The delivery of the scheme will increase network capacity and improve strategic connectivity to/from the Gosport peninsula, offering a reliable alternative to the congested A32 corridor, thereby improving the resilience of the highway network. The resultant improved resilience and journey time reliability will help reduce congestion and the transport barriers to growth and encourage investment into the area;
- Inward Investment - Improved accessibility through the delivery of the scheme together with the Newgate Lane North improvements and A27 corridor and Stubbington Bypass improvements will encourage business to open up new sites and to invest in Solent EZ and Gosport, helping to remove the transport barriers to growth and counter the trend of decline in the area. The scheme will provide improved strategic transport infrastructure to waterfront employment sites in the Gosport area identified within the Gosport Local Plan;
- Skills - Improved access to new CEMAST centre of excellence at the Solent EZ will help ensure local residents are equipped to take up the jobs that will be created, secure the transition of young people to employment and redress the balance of inappropriate skills for jobs in the area and create employment opportunities for the deprived areas in Gosport;

- Strategic Sectors - The proposed developments which will be facilitated by the scheme will help underpin growth in the area creating business gateways (including marine and advanced manufacturing etc.) at both local and national levels and will help develop new local supply chains; and
- Innovation - Improved accessibility to the Gosport peninsula from the north and east (via Newgate Lane and Junction 11 of the M27) will enable substantial knowledge assets in, for example, the marine industry to be developed to support new business development and encourage innovation.

2.2.4 TfSH Freight Strategy (2009)

The TfSH freight strategy was developed to:

“Facilitate the safe and efficient transportation of freight into, out of and within the TfSH sub-region, supporting a competitive local and regional economy, whilst taking into account the existing and future needs of our society and the environment.”

The Freight Strategy cites that in respect to problems and issues on the road network, traffic data shows that regular peak hour congestion occurs at numerous locations including:

- B3385 Newgate Lane (Fareham/Gosport);
- A32 Fareham Road (Fareham/Gosport); and
- B3334 Gosport Road (Stubbington).

The Freight Strategy notes that congestion problems on the Local Transport Authorities Road network and should be addressed through the relevant Local Transport Plans.

2.3 LOCAL POLICY

2.3.1 Fareham Borough Council (FBC) Local Plan

Fareham Borough Local Plan is being progressed in 3 parts:

- 1. The Adopted Core Strategy (2011);
- 2. The Development Sites and Policies Plan (2014/15); and
- 3. The Welborne Plan (2014/15).

The FBC Local Plan Core Strategy, August 2011

The Core Strategy was adopted in August 2011 and sets out the planning framework for the Borough. It replaces the Fareham Borough Local Plan Review (June 2000) as the statutory planning document.

As one of a range of measures to meet Strategic Objectives SO1, SO5 and SO7, the Core Strategy cites the A32 corridor and access to Gosport and Stubbington:

- SO1: To deliver the South Hampshire Strategy in a sustainable way, focussing development in Fareham, the strategic Development Area north of Fareham and the Western Wards.
- SO5: To ensure development provides and / or contributes to timely and appropriate transport infrastructure and mitigation measures to support the needs of development, and provide and / or contribute to public transport and quality pedestrian and cycle links to reduce dependence on the car.

- **SO7:** To create an enhanced public transport role for Fareham town centre through creating a new public transport interchange at Fareham Railway Station. To deliver a Bus Rapid Transit system which will link the SDA and associated business park, Fareham town centre and improve access to and from Gosport peninsula.'

Policy CS5 Transport Strategy and Infrastructure states:

'The Council will, where necessary, work with the Local Highways Authority, Highways Agency and transport operators to promote, permit, develop and / or safeguard a high quality and sustainable integrated transport system for the Borough.'

The area of interest through which the preferred alignment routes (to the north of Woodcote Lane) is designated under policy CS22 as a Strategic Gap. The policy notes that development proposals will not be permitted within the Strategic Gap where it significantly affects the integrity of the gap and the physical and visual separation of settlements.

The FBC Local Plan Development Sites and Policies Plan (2014/15)

The Development Sites and Policies Plan was submitted to the Planning Inspector in June 2014 and has undergone an Examination in Public. Chapter 6 of this document summarises the facilities and infrastructure needed to support planned growth within the Borough.

The Inspector's Preliminary Findings letter to the Council identified a number of areas in the Plan relating to 'soundness' which should be addressed through Main Modifications. The Council has therefore prepared a number of Main Modifications to the Development Sites and Policies Plan to address the Inspector's concerns, which were available for public comment between February and March 2015. . In respect of the Main Modifications the Inspector's Report was issued on 13 May 2015 in which an important modification in relation to the NGLS scheme was agreed (Policy DSP49). This modification to the Development Sites and Policies Plan safeguards the preferred alignment of the NGLS scheme and the modified Plan was adopted as a statutory document on 8 June 2015.

The modified paragraphs 6.11 and 6.20 now read as follows, with a new subsequent paragraph also inserted:

Newgate Lane (Southern Section)

Public consultation in summer 2014 identified support for improvements to the southern section of Newgate Lane along a new eastern alignment. The eastern alignment was approved for progression by Hampshire County Council's Executive Member for Economy Transport and Environment on 4 November 2014.

Following assessment of a number of options for improving capacity on the southern section of Newgate Lane, it is proposed to construct a new road to the east of the existing southern section of Newgate Lane. The new road would commence at Peel Common Roundabout with a new arm at the roundabout. The route heads northwards between Brookers Field and the River Alver to tie in with the northern section of Newgate Lane.

The scheme will require careful consideration to ensure that the route does not undermine the purpose of the Strategic Gap and does not result in any significant adverse effect on the physical or visual separation of Stubbington/Lee on the Solent and Fareham/Gosport. All stages of design, as the scheme progresses, will need to take account of the principles and criteria set out in Policy CS22 of the Core Strategy.

The modified Policy DSP49: Improvements to the Strategic Road Network reads as follows:

The alignments shown on the Policies Map are safeguarded for the following proposals, which will improve and maintain the effectiveness of the Strategic Road Network:

- A) B3385 Newgate Lane, Palmerston Drive – Peel Common; and
- B) B3334 Gosport Road– B3334 Titchfield Road (Stubbington Bypass).

Appendix 5 of the Modification Document shows the proposed safeguarded route for the NGLS scheme and Stubbington Bypass.

2.3.2 Fareham Borough Local Plan Review Saved Policies Process (September 2007)

Although the Fareham Borough Local Plan Review (June 2000) is no longer a formal planning document in its entirety, there are a number of policies from it that were 'saved' under the government direction in September 2007 and that have not been replaced by the adopted Fareham Core Strategy.

Of relevance to the NGLS scheme is policy T7 'Improvements to the Strategic Road Network', which safeguards land for proposals that will improve and maintain the effectiveness of the strategic road network, including:

- B3385 Newgate Lane, Fort Fareham – Peel Common; and
- Gosport-Fareham Link Road (this follows the alignment now proposed for the NGLS scheme).

2.3.3 Gosport Borough Council (GBC) Local Plan 2011-2029

The draft Gosport Borough Local Plan 2011-2029 sets out the development strategy for Gosport and statutory policies to guide future development. Following consultation on the draft Local Plan (December 2012) the Council has considered representations made and has prepared a 'Publication' version of the local plan (July 2014). The Local Plan (publication version) was submitted to the Secretary of State for Communities and Local Government for examination on 28th November 2014 and an inspector has now been appointed to examine the soundness of the plan.

In terms of strategic transport policies it is important that the emerging plan reflects current priorities and the strategic transport plan will help inform and provide direction in this respect. The objectives relevant to the NGLS scheme include:

- Objective 3: To regenerate the Solent Enterprise Zone at Daedalus, making the best uses of its key assets particularly the airfield, coastal location and historic core.
- Objective 14: To help facilitate improvements to the Borough's transport infrastructure including public transport proposals, as well as improvements to the highway network and pedestrian and cycling routes.

With regard to highways, the Local Plan seeks to reduce and manage traffic congestion and promote sustainable travel. However there remains a need to improve strategic highway access to address journey time reliability, to support growth within the Borough and to enable proposed local employment sites to compete with other sites within South Hampshire. In particular it notes that it is necessary to improve the Newgate Lane corridor to an appropriate standard to accommodate commercial traffic to the Enterprise Zone at Daedalus and provide a safer and more attractive route for cyclists between Lee-on-the-

Solent and Fareham. It is also desirable to provide a bypass to Stubbington Village and improve the Western Access to Gosport.

Policy LP5: Daedalus

This policy identifies that proposals for the Daedalus airfield site should be for an employment-led regeneration scheme with a mix of uses. The balance of uses, infrastructure requirements and internal and external linkages will be planned in a comprehensive and co-ordinated way in close liaison between Gosport Borough Council, Fareham Borough Council, Hampshire County Council, the Solent Local Enterprise Partnership and landowner.

The Borough Council will work closely with Hampshire County Council as the Highway Authority for on-site and off-site transport improvements. More recently there has been close working relationships with PUSH and the Solent Local Enterprise Partnership to successfully bid for Enterprise Zone status. This work is now continuing to deliver the Enterprise Zone objectives and could include the preparation of an LDO covering both the Gosport and Fareham parts of the site.

The primary access point will be through a new road access from Broom Way (in Fareham Borough Council area) to form the fourth arm of a signal controlled junction with Cherque Way. Heavy goods vehicles will be routed to this access point. A secondary access north of Ross House is also proposed. Where appropriate, other former access points will be re-opened which will increase the connectivity of the site with neighbouring areas for buses, cars, cyclists and pedestrians.

Policy LP21: Improving Transport Infrastructure

This policy identifies that GBC will work with the Highway Authority, the Highways Agency, Fareham Borough Council, transport providers, developers and other stakeholders where necessary to promote and provide a transport system that supports development within the Borough and enables sustainable economic growth through a policy of reduce, manage and invest.

Development proposals will need to contribute to the delivery of an integrated and sustainable transport network including, where appropriate, measures outlined in the latest Local Transport Plan and Transport Delivery Plan (or equivalent) and supporting documents. Development proposals will not be permitted which prejudice the delivery of transport improvements as identified in the latest Local Transport Plan (or equivalent) and supporting documents.

Daedalus 'LDF Supplementary Planning Document (September 2011)

The LDF SPD for Daedalus cites that overall, there are clear problems of road-based access to the Gosport Peninsula- there is a need for local highway improvements, improved management of the existing network and the promotion of alternative transport modes to accommodate growth.

The scale of the transport infrastructure deficit is significant and the Highway Authority (Hampshire County Council) has developed an outline programme of transport interventions identified in the Strategic Access to Gosport Study (StAG). This will need to be delivered through Government, County Council and developer funding, and identifies the most appropriate and deliverable schemes to improve access to Gosport and support growth and economic development. It includes improvements to address specific local issues including junction and carriageway improvements along Newgate Lane and improvements to the Peel Common and Stubbington roundabouts through signalisation.

The transport strategy for Daedalus is based on the following key principles:

- Reducing the need to make a journey and reducing the need to travel off the Gosport Peninsula;
- Making greater use of sustainable modes; and
- Making better use of existing transport infrastructure and providing new transport infrastructure where necessary to achieve an attractive and successful employment-led development.

Additional traffic will be generated by the redevelopment of Daedalus, and the opportunities for substantial local employment will modify the existing distribution of traffic over the highway network. It will be necessary to ensure that the main access roads to the peninsula, together with the local road network can accommodate the changes in traffic flow. Mitigation measures may be required to ensure that the development's traffic is accommodated in terms of capacity, operation and safety.

Improvements to the main access routes, in particular the Newgate Lane corridor, will be important in attracting inward investment to Daedalus and creating new local employment opportunities. The Enterprise Zone designation at Daedalus may provide opportunities to secure further transport infrastructure.

2.3.4 Strategic Access to Gosport Study 2010-2026 (StAG), Mott Gifford (2010)

Commissioned by the County Council and through consultation with Fareham Borough Council, this report highlights Newgate Lane, Peel Common Roundabout and Stubbington Village as 'bottlenecks' in the road network. Potential measures identified (at the time) through policy highlighted to address this included:

- Newgate Lane improvements and Peel Common Roundabout improvements as referenced in LTP2 / Gosport Draft Core Strategy Preferred Options;
- Western Access to Gosport. Bypass of Stubbington Village on historical alignment from Newgate Lane (B3385) to north of Stubbington Titchfield Road (B3334) as referenced in LTP2 / Gosport Draft Core Strategy Preferred Options; and
- Provision of cycle facilities along Newgate Lane, as referenced in TfSH Towards Delivery document and Gosport Draft Core Strategy Preferred Options.

The report notes that Newgate Lane improvements would be expected go some way towards meeting the following objectives:

- Reducing car trips for short journeys, by improving access for non-car modes through the provision of new walking/cycling infrastructure;
- Providing improvements to journey time reliability, partly by the introduction of more demand management measures, by replacing roundabouts with signal-controlled junctions;
- Improving access to non-car modes, as part of a package of measures to improve performance at specific junctions and links'
- Improving access to existing and proposed development sites by delivering improved journey time reliability by removing barriers to movement and opening up access opportunities for non-car modes.

Newgate Lane improvements are identified within the StAG implementation plan as being a short-term measure for implementation between 2010-2015, with funding provided by the

Local Transport Plan and Developer Contributions. Since the StAG report was produced there have been substantial changes which now have a bearing upon the Implementation Plan proposed therein.

2.3.5 Fareham Borough Transport Statement, HCC (2012, 2013)

The Fareham Borough Transport Statement is a County Council document that consists of the Transport Strategy and the proposed package of transport measures required to deliver the strategy, which provides the following:

- A comprehensive local transport policy framework for the Borough;
- A framework to assist with the prioritisation of transport investment;
- A sound basis for land use and development planning; and
- Assistance to the local planning authority with infrastructure planning in support of the FBC Core Strategy, the preparation of a Community Infrastructure Levy (CIL) Charging Schedule and the application of the Transport Contributions Policy in the interim period until the CIL Charging Schedule is adopted.

The document was first adopted in September 2012 and subsequently updated in December 2013. It has been developed in consultation with FBC and covers the period up to 2026, which conforms with the timeframe of the FBC Core Strategy and their other Local Development Framework (LDF) documents. The Transport Statement will be a “living document” and will be updated and amended to support updated policies and strategies and subsequent changes to the status of the various schemes that make up the proposed package of sustainable transport measures.

The Transport Statement links to current economic priorities, including those being developed by the Partnership for Urban South Hampshire (PUSH) and the Solent LEP. It also builds on existing transport related documents covering the borough, notably the HCC Local Transport Plan 3 and the Fareham LDF. The key vision for the statement is to:

Help deliver safe, efficient and reliable ways to get around, helping to promote a prospering and sustainable area.

The key priorities outlined in the statement that are relevant to the NGLS scheme are to:

- Promote economic growth by maintaining a safe and efficient highway network, reducing casualties and tackling congestion on the transport network;
- Improve access to jobs, facilities and services by all types of transport;
- Facilitate and enable new development to come forward; and
- Reduce carbon emissions and minimise the impacts of transport on the environment.

The Newgate Lane southern section is identified within the Schedule of Transport Improvements Live Schemes List (published in December 2013) that accompanies the Transport Statement as a scheme that is currently at the ‘Feasibility’ stage and has an estimated cost that is yet to be confirmed. Other identified schemes in the vicinity of the NGLS scheme that are either at the ‘Pre-feasibility scoping’ or ‘Feasibility underway’ stage include:

- Access Improvements to the Daedalus Enterprise Zone;
- Stubbington Bypass and Titchfield Road;

- Peel Common Roundabout improvements;
- A27 corridor Segensworth to Fareham;
- Public realm and crossing improvements in Stubbington village; and
- Stubbington eastern cycleway from Crofton School to Stubbington village and northern residential roads.

2.3.6 Fareham and Gosport Strategic Transport Infrastructure Plan (STIP) (Autumn 2013)

Newgate Lane southern section is identified as a key component of the strategy for this County Council Strategic Plan and is acknowledged as a longer term scheme. It is also noted that the nature of the scheme is intrinsically linked to the preferred corridor of interest for the Stubbington Bypass and as such full scheme details and justification are not provided.

The plan updates and expands upon previous strategy documents and recent reports relating to access to Fareham and Gosport. The plan provides an interim position regarding potential infrastructure requirements, in advance of the resolution of the need for and preferred alignment of a potential Stubbington Bypass.

Congested road networks dominate the transport network in both Gosport and Fareham town centres and the wider peninsula where there is very little scope for improvements due to geographical and built up area constraints. Poor accessibility currently discourages investment and employment growth and also causes retention difficulties for existing employment leading to businesses moving out of the area. The peninsula is under performing economically, with high levels of deprivation linked to the decline of the MOD and high levels of public sector job losses. The reduction in jobs on the peninsula has resulted in significant levels of out commuting from Gosport which compounds peak hour traffic problems in the central Fareham area through which the majority of peninsula traffic passes.

Out commuting is seen to exacerbate congestion on the main south to north access routes off the peninsula namely the A32 and the B3385 Newgate Lane for traffic wishing to head east and the B3334 Titchfield Lane and Peak Lane / Mays Lane (through Stubbington) for traffic wishing to head west. The north to south access roads all interface with the A27, which serves as a critical east to west artery for both local and strategic traffic heading towards the M27 junctions 9 and 11 for longer distance east to west movements

The A27 also acts as a barrier to traffic wishing to exit Gosport in the am peak and the reverse in the evening peak, with blockages at the key junctions Whilst shorter distance movements are characteristic along the A27 congestion on the M27 and its associated junctions means that the A27 is heavily used and is performing as a strategic road as well as a local distributor feeding this major residential area.

The key objectives are therefore as follows:

- Provide an update regarding the changing Hampshire County Council position;
- To help underpin transport work for the Solent Local Enterprise Partnership emerging Strategic Economic Plan;
- To provide a phased delivery plan (subject to funding) for strategic transport improvements for Fareham and Gosport for the next 20 years;
- To help encourage regeneration, investment and growth in the area;

- To help remove the transport barriers to growth;
- To help unblock critical bottlenecks and congestion hotspots on strategic routes, in town centre areas and in areas of employment; and
- To provide new and improved existing infrastructure to help better manage traffic flows particularly during peak periods.

In order to help address the key problems and issues and meet the stated objectives above an overarching strategy has been developed. The key components of the strategy include:

- M27 Junctions 3 to 12 Managed Motorways;
- A27 Segensworth to Fareham capacity and junction Improvements;
- B3385 Newgate Lane northern section);
- B3385 / B3354 Peel Common Roundabout Interim scheme;
- Western Access to Gosport including B3334 Titchfield Road south of Titchfield gyratory to a point where it might connect with a potential new bypass for Stubbington;
- B3385 Newgate Lane southern section (Improvements to be confirmed subject to the determination of a preferred corridor of interest for Stubbington Bypass); and
- Bus Rapid Transit.

2.4 SUMMARY

The NGLS scheme will conform with planning policy guidance at a National, County and Local level. Key policy themes that will be addressed by the proposed NGLS scheme and associated infrastructure provision include:

- Supporting economic competitiveness and growth, by delivering reliable and efficient transport networks;
- Ensuring the timely delivery of transport infrastructure to support housing and employment growth and regeneration opportunities;
- Tackling local road congestion;
- Optimising the capacity of the highway network and improving journey time reliability for all modes; and
- Supporting sustainable development through the provision of walking/cycling infrastructure.

3 Existing Conditions

3.1 AREA OF INTEREST

The area of interest for the NGLS scheme can be defined as the area through which the preferred alignment will route. The preferred alignment is shown set in its surrounding context in Figure 1.1. Broadly speaking the route passes through land that is currently undeveloped, with the southern section routing along the western edge of Brookers Field Recreation Ground, the middle section being used as arable farmland and the northern section being used as playing fields. The route connects to the existing Newgate Lane just to the north of Tanners Lane and passes to the east of residential properties in Woodcote Lane, before making a new connection to the Peel Common roundabout at the south-western corner of Brookers Field.

The area of interest to the north of Woodcote Lane is designated within the current FBC Local Plan as Strategic Gap, while the whole area has no specific designation in environmental terms. It is comprised mainly of flat fields that are bounded by hedgerows on most sides and that are traversed in places by drainage ditches, which feed into the River Alver near to the southern end of the preferred alignment. Other habitats in the vicinity include patches of grassland and a scattering of broadleaf trees.

An un-made path known locally as Brookers Lane routes from the eastern end of Woodcote Lane in an east-west direction and connects to the western edge of the residential area of Bridgemary. This path has public rights over it according to historical records, but has never formally been designated as a Public Right of Way and is therefore not maintained as such.

More detail regarding the environmental and landscape features in the vicinity of the NGLS scheme, together with mitigation measures that are being proposed, as required, is provided in the full Environmental Statement that accompanies the Planning Application.

Figure 1.1 highlights the location of the NGLS scheme and the key environmental constraints and other main features. Figure 3.1 highlights the key highway links and junctions in the vicinity of the study area, which are discussed in detail in the following section.

3.2 BASELINE TRANSPORT DATA - HIGHWAYS

3.2.1 Key Links

The following section provides a summary of the nature of the key road links in the vicinity of the NGLS scheme, including information on existing levels of congestion.

Network Overview

In order to provide an overview of the operation of the local highway network within the Fareham/Gosport area, Trafficmaster average delay data has been extracted for the Morning Peak (07:00-09:00) and the evening peak (1600-1800). This shows the average journey delay on the main roads in the Gosport Peninsula and wider area, including the M27. The data extracted is for the year 2013/14, Monday to Friday term time only, which represents the most recent period for which data is available. The data is shown in Figures 3.2 and 3.3 overleaf and it can be seen that high levels of delay are experienced along a significant proportion of Newgate Lane, particularly the southern section; on the A32 Fareham Road/Gosport Road; on all approaches to the Peel Common roundabout; along the A27, and on Titchfield Road and Gosport Road through Stubbington.

Figure 3.1 – Location of Assessed Links and Junctions

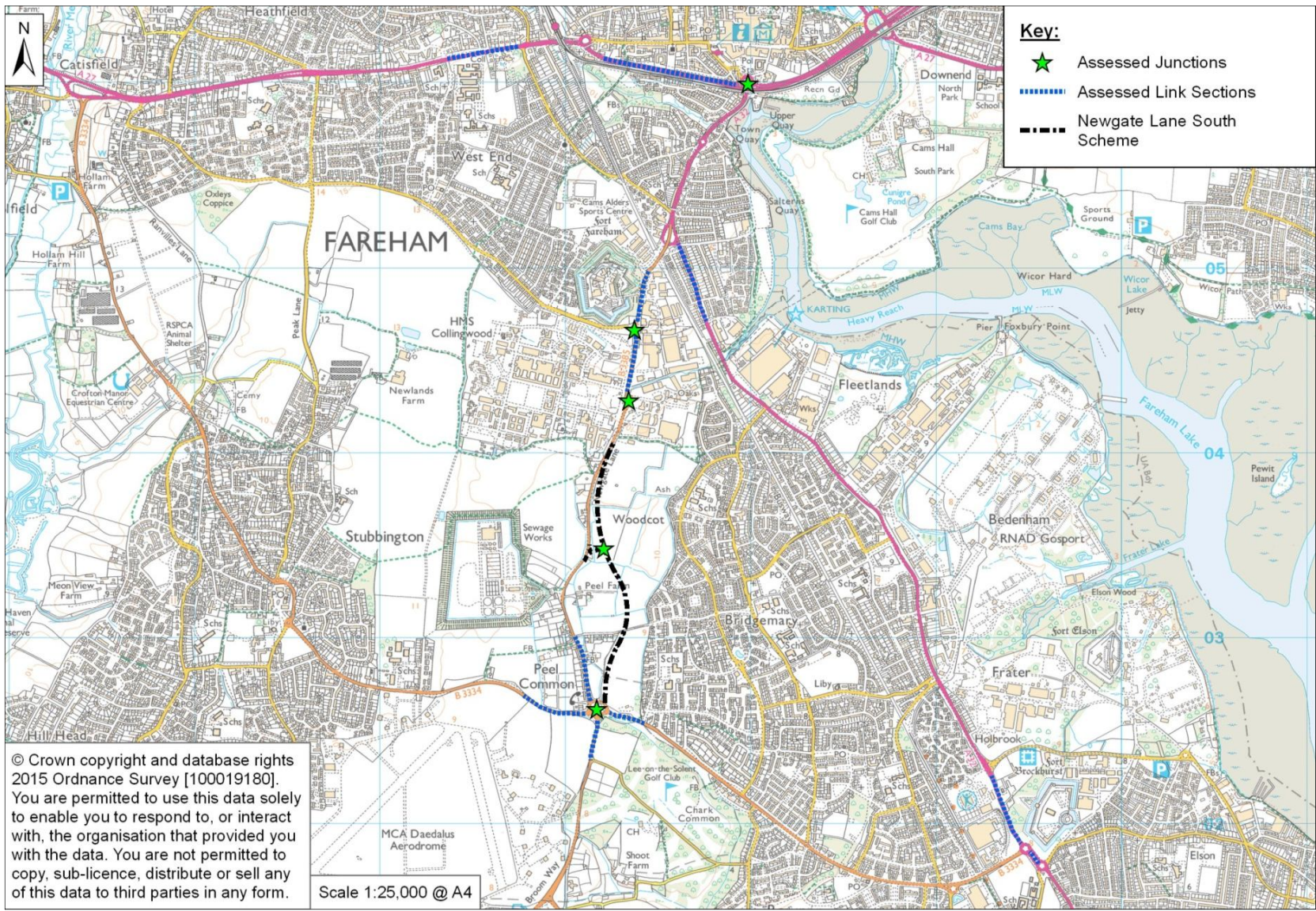


Figure 3.2 – Trafficmaster Average Delay 2013/14: Monday-Friday AM Peak (0700-0900)

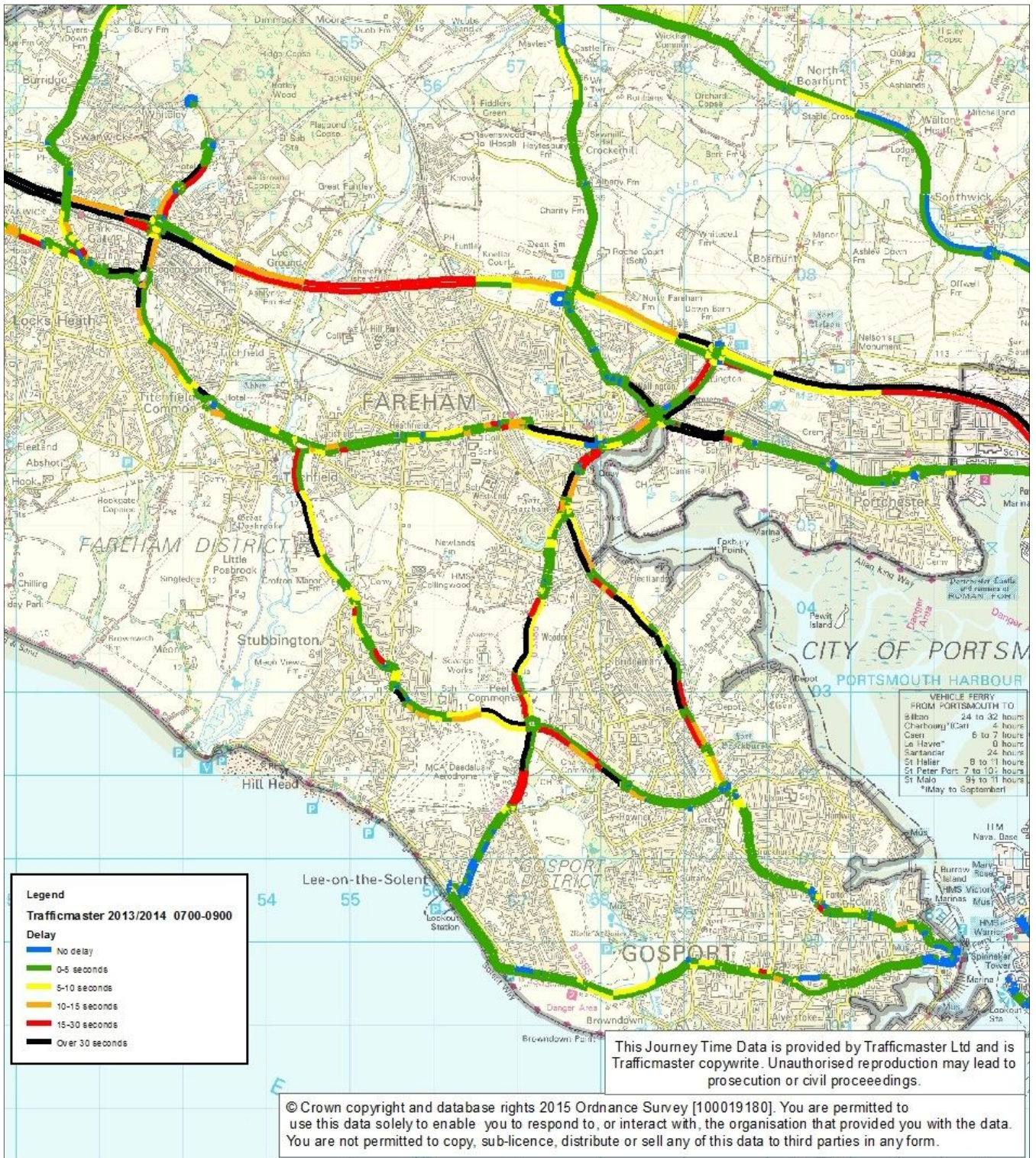
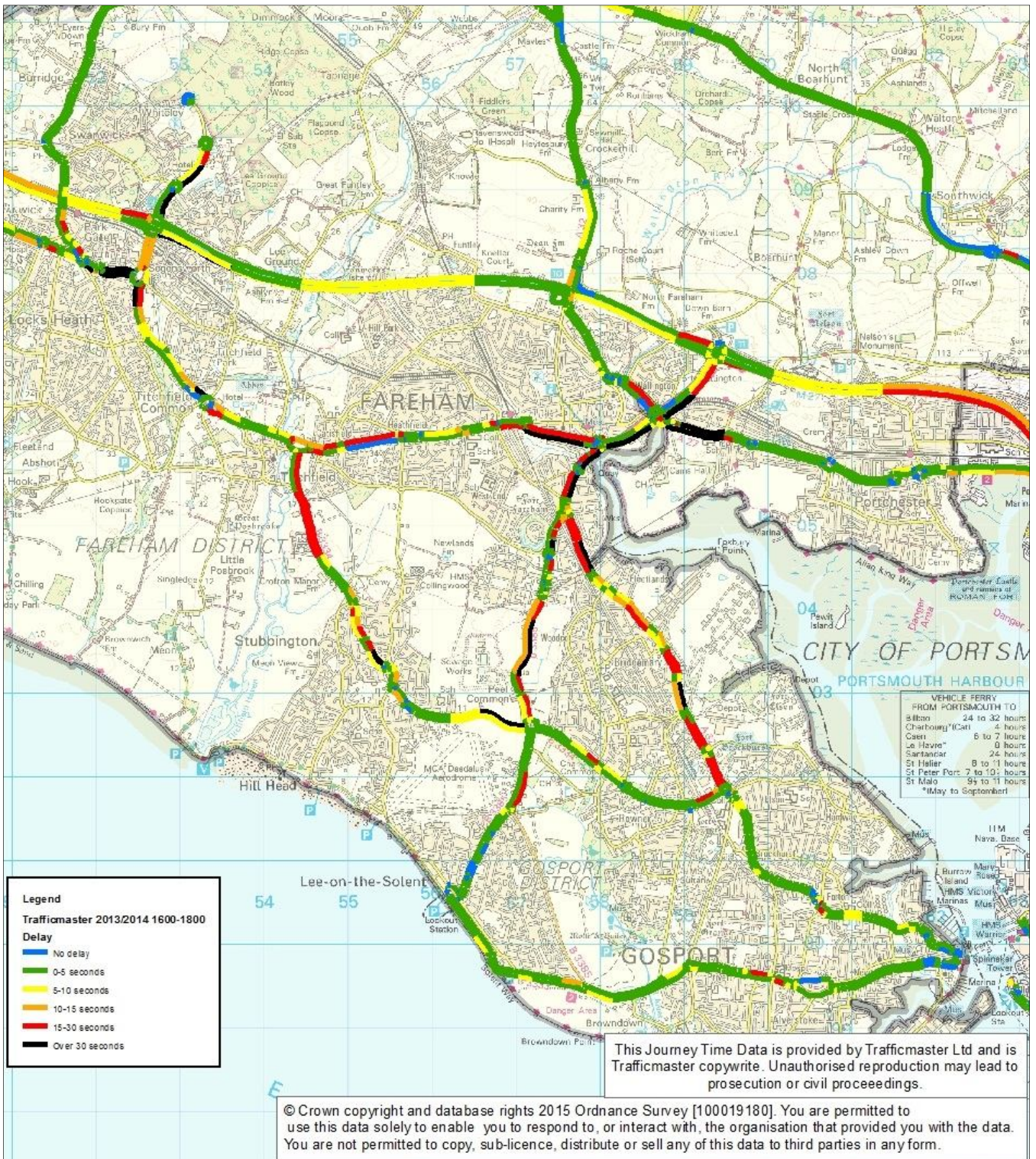


Figure 3.3 – Trafficmaster Average Delay 2013/14: Monday-Friday PM Peak (1600-1800)



LINK DESCRIPTION

B3385 Newgate Lane

The B3385 Newgate Lane is a single carriageway road that extends in a north-south direction between the A32 Gosport Road to the north and the Peel Common Roundabout to the south. To the north of the military base at HMS Collingwood (north of Tanners Lane) the road is urban in nature and provides access to adjacent retail and industrial areas. To the south of Tanners Lane the road is more rural in nature and provides access to the Peel Common Sewage Treatment Works, but further to the south there is some frontage access to residential properties along the western side of the road (see photo below).



As noted previously major improvement works are currently taking place along the northern section of Newgate Lane between the junctions with Palmerston Drive to the north and Tanners Lane to the south. These works will improve traffic flows and improve facilities for pedestrians and cyclists. There will be improved roundabouts at the junctions with Longfield Avenue and Speedfields Retail Park and a new signalised junction with the HMS Collingwood access. A new shared use footway / cycleway will be provided on both sides of the road for the majority of the improved section.

Newgate Lane is subject to a 40mph speed limit for the majority of its length, with the exception being to the north of Palmerston Drive junction, where the speed limit is 30mph. Newgate Lane is one of two key links between Fareham and the Gosport Peninsula, carries high volumes of traffic throughout the day and experiences significant peak period congestion. To the south of HMS Collingwood the carriageway is narrow with poor horizontal alignment. A high number of cyclists use Newgate Lane and due to the current highway alignment, carriageway width and high volume of vehicular traffic, the opportunities for vehicles to overtake cyclists are limited (see photo overleaf). This can result in slow traffic speeds and potential conflicts particularly during peak hours. The presence of frontage accesses along the southern section of the road also contributes to slow vehicle speeds.

Between the Peel Common roundabout and a point level with the northern edge of the Sewage works there is a footway on the western side of the road, which is narrow and somewhat overgrown in places (see photo overleaf). To the north of this point there is a footway on the eastern side of the road, which is narrow in places and overgrown by grass. Northwards from the access to HMS Collingwood there are footways located on both sides of the road. As part of the Newgate Lane north improvement scheme a new footway is being provided on the western side of the road south of the HMS Collingwood access and new

2.5m wide shared use footway/cycleways are being provided on both sides of the road between the HMS Collingwood junction and the Palmerston Drive junction.



There is a signal-controlled toucan crossing located just to the north of the Peel Common roundabout and a standard signal-controlled crossing located just to the south of the access to HMS Collingwood. As part of the Newgate Lane north scheme this crossing is being upgraded to a toucan and incorporated into the new signal junction to access HMS Collingwood. Additional uncontrolled crossing points (with refuge islands) are being created as part of the improvement scheme, at the junctions with Speedfields Park and Longfield Avenue.

B3334 Gosport Road

The B3334 Gosport Road is a single carriageway road that routes in a broadly east-west direction between the Peel Common roundabout and the centre of Stubbington Village and is subject to a 30 mph speed limit within Stubbington and 40mph limit to the east of Stubbington. There is a signal controlled pedestrian crossing to the south of the Mays Lane roundabout and another to the north of the Stubbington Lane/Stubbington Green roundabout. There are signal controlled pedestrian crossings to the east of the junction with Southways and just to the east of the junction with Marks Road. There are also frontage accesses on both sides of the road within Stubbington. To the east of Marks Road the speed limit increases to 40mph and the road connects to Peel Common roundabout (see photo below also showing sub standard horizontal carriageway alignment))

The B3334 caters for local traffic movements linking the Gosport Peninsula from Rowner, Lee-on-the-Solent and Gosport to the A27. As the B3334 routes through Stubbington there are significant levels of congestion experienced, particularly at the roundabout junctions in the centre of the village with Mays Lane and Stubbington Lane.

The Stubbington Bypass proposals would provide a new road between Gosport Road and Titchfield Road and would enable traffic to bypass the village of Stubbington. The Bypass would connect to Gosport Road at a point to the east of Marks Road and west of Rome Farm Cottages and would be likely to reduce traffic volumes on Gosport Road to the west of this point, but increase traffic volumes to the east of this point. Gosport Road would also be realigned in between the Bypass and Peel Common roundabout in order to bring the horizontal alignment up to DMRB standards (see photo overleaf). Further details of the Stubbington Bypass proposals can be found in the Transport Assessment that accompanies the Planning Application for the scheme.



B3334 Rowner Road

The B3334 Rowner Road is a single carriageway road that routes in a north-west to south-east direction between the Peel Common roundabout and the A32 Brockhurst Road via the residential areas of Rowner and Bridgemary. It is subject to a 40mph speed limit. Rowner Road is the main east-west link between the Gosport area and areas to the north-west and as such carries significant volumes of traffic including traffic routing to and from Segensworth and Junction 9 of the M27.



B3385 Broom Way

The B3385 Broom Way is a single carriageway road that routes in a north-south direction between the Peel Common roundabout and Lee-on-the-Solent and is subject to a 30mph speed limit within Lee-on-the-Solent and a 40mph speed limit to the north of Lee. On the northern edge of Lee-on-the-Solent, Broom Way connects to Cherque Way and this road is used by traffic to bypass Lee and connect to Alverstoke and Gosport via the B3333 Privett Road. Along with Stubbington Lane, Broom Way forms one of only two routes by which traffic is able to access Lee-on-the-Solent from the north and it therefore carries significant volumes of traffic, as well as traffic which is looking to avoid the A32 to access Gosport.



Longfield Avenue

Longfield Avenue runs in an east-west direction along the southern edge of the built-up area of Fareham, linking Peak Lane with the B3385 Newgate Lane. . It is subject to a 30 mph speed limit and towards Peak Lane has a lit footway and frontage access on its northern side and a shared footway / cycleway on its southern side. Nearer to Newgate Lane there are residential frontages and footways along both sides of the road (See photo below).. The shared path ends just to the west of the junction with Bishopsfield Road, where it crosses the road and links northwards to Fareham College and central Fareham.



Tanners Lane

Tanners Lane extends in an east-west direction between Newgate Lane and Peak Lane respectively. It has a carriageway width of approximately three metres with informal passing bays provided along its length. During a site visit undertaken on 5 March 2014 the route was operating as a one-way road westbound only. The road is not adopted public highway despite having a metalled surface and is signed from both ends as being a No-Through Road for vehicles. It is designated as a PRoW (footpath) and provides vehicular access to Newgate Fishery, the Solar Farm and Newlands Farm via Stroud Green Lane.



The A27

Within the Fareham area the A27 is a critical east / west transport route that runs parallel to the M27 and has both a local and a strategic function. To the east it links M27 Junction 11 to central Fareham and the A32 Gosport Road / Wickham Road, via the Delme and Quay Street roundabouts. To the west it links central Fareham to Segensworth and associated business parks and also Titchfield, Locks Heath, Park Gate and M27 Junction 9, via the Titchfield Gyratory, St Margarets roundabout and Segensworth roundabout. It has numerous junctions and frontage accesses along its length which when combined with high traffic flows, particularly during peak periods, causes slow moving traffic, congestion and delay, which hinder movement in and out of Fareham and the Gosport Peninsula.



The A32

Within the Fareham/Gosport area the A32 runs in a broadly north-south direction between the A27/Quay Street roundabout in central Fareham to the north and Gosport to the south. Between Fareham and Gosport it routes through the areas of Bridgemary, Rowner and Brockhurst and is the principal route from Junction 11 of the M27 to all eastern parts of the Gosport Peninsula. The A32 connects to the B3385 Newgate Lane in southern Fareham and to the B3334 Rowner Road adjacent to Fort Brockhurst. To the south of the Newgate Lane junction the A32 is single carriageway, with a speed limit of 40mph north of Rowner Road and 30mph south of Rowner Road, while between the Newgate Lane and Quay Street junctions it is dual carriageway and has a speed limit of 30mph.

The A32 is heavily congested with slow moving traffic related to numerous junctions and frontage access along its length. As a consequence of the A32 being at capacity for much of the day Newgate Lane, which used to serve as a release valve for the A32, is now also at capacity for much of the day. The inter-relationship between the two key arterial links is important to note.



B3334 Titchfield Road

The B3334 Titchfield Road runs in a north-south direction, routing between the A27 to the north and the centre of Stubbington to the south. Between the A27 and the entrance to Stubbington (adjacent to Ranvilles Lane), the carriageway is subject to a 40mph speed limit and in most locations is flanked by a, generally, two metre wide footway on the carriageway's eastern side. As the road enters Stubbington, the speed limit reduces to 30mph and there are frontage accesses on both sides of the road, see photo below.

Titchfield Road carries significant volumes of traffic between the A27, Stubbington village and the wider Gosport Peninsula. As part of the Stubbington Bypass proposals there are plans to widen Titchfield Road between the Titchfield Gyratory junction and the new junction with the Bypass, in order to increase traffic capacity. Further details of this are provided in the Transport Assessment that accompanies the planning application for the scheme.



Link Traffic Flows

The data in Table 3.1 below shows the existing 2015 traffic flows for the AM peak hour, the PM peak hour and a 12-hour period for all key links in the vicinity of Newgate Lane. These traffic flows have been derived by extracting data for a 2014 scenario from the SRTM and then factoring the flows up to 2015 using a growth factor extracted from the DfT software TEMPRO v6.2. The SRTM is a macro simulation computer model that includes all the main road links in junctions in south Hampshire and was developed and validated using traffic survey data, roadside interviews and journey time information. More information on the SRTM is provided in Section 4.1 of this report and the 2014 traffic flow outputs are provided at Appendix B. The location of all assessed links is shown in Figure 3.1.

TEMPRO is software produced by the DfT which enables traffic growth factors to be produced using data from the National Trip End Model (NTEM). The NTEM forecasts growth in traffic flows based on forecast changes in population, employment and household car ownership in the area under consideration. For the purposes of this assessment a growth factor has been produced for the geographical area of Stubbington (24UE2) and adjusted within TEMPRO using the NTM AF09 dataset. The output growth factors that have been used are shown in Table 3.2. The growth factor for Fareham Borough has also been shown to demonstrate that a robust growth factor has been applied. The average weekday growth factor was applied to the 12-hour traffic flows.

Table 3.1 – 2015 SRTM Traffic Flows on Key Links

Link	Direction	Location	2015 AM Peak Hour		2015 PM Peak Hour		2015 12-hour (07:00-19:00)	
			Total	HGVs	Total	HGVs	Total	HGVs
B3385 Newgate Lane	NB	North of Peel Common	928	11	589	2	8,078	75
B3385 Newgate Lane	SB	North of Peel Common	1,064	39	1,313	6	13,756	317
B3385 Newgate Lane	NB	South of Longfield Ave	1,001	11	1,026	5	11,515	152
B3385 Newgate Lane	SB	South of Longfield Ave	1,518	58	1,459	7	16,326	430
B3385 Newgate Lane	NB	North of Longfield Ave	1,075	19	709	3	9,432	148
B3385 Newgate Lane	SB	North of Longfield Ave	1,057	23	1,099	5	11,863	252
B3334 Rowner Rd	WB	East of Peel Common	1,182	30	778	12	9,304	219
B3334 Rowner Rd	EB	East of Peel Common	729	16	981	7	8,507	110
B3385 Broom Way	NB	South of Peel Common	742	10	596	3	7,631	94
B3385 Broom Way	SB	South of Peel Common	752	23	1,084	4	10,535	209
B3334 Gosport Road	WB	West of Peel Common	971	30	704	14	8,675	261
B3334 Gosport Road	EB	West of Peel Common	392	2	672	5	5,103	25
A32 Fareham Road	NB	North of Rowner Road	936	35	809	2	9,889	370
A32 Fareham Road	SB	North of Rowner Road	579	27	842	5	7,230	271
A32 Fareham Road	NB	South of Rowner Road	1,841	49	1,771	8	18,916	460
A32 Fareham Road	SB	South of Rowner Road	1,267	34	1,612	10	14,280	311
A32 Gosport Road	NB	South of Newgate Ln	1,491	62	1,373	5	14,361	565
A32 Gosport Road	SB	South of Newgate Ln	1,091	53	1,333	6	11,844	451
A27 The Avenue	WB	West of Redlands Lane	624	7	877	7	8,094	124
A27 The Avenue	EB	West of Redlands Lane	1,120	14	735	4	8,397	107
A27 Western Way	WB	West of A32	759	11	634	1	6,819	120
A27 Western Way	EB	West of A32	1,129	16	432	1	5,535	81

Table 3.2 – TEMPRO Growth Factors for Stubbington: 2014-2015

	AM Peak	PM Peak	Average Weekday
Stubbington Growth Factor	1.0029	1.0034	1.0036
Fareham Borough Growth Factor	1.0023	1.0027	1.0028

3.2.2 Key Junctions

The following four key junctions are those in the vicinity of the NGLS study area that are likely to experience significant changes in traffic flow as a result of the proposed scheme being constructed (also shown in Figure 3.1):

- Peel Common Roundabout;
- Newgate Lane / Speedfields Park roundabout;
- Newgate Lane / Longfield Avenue roundabout; and
- A27 / A32 Quay Street roundabout.

A summary of the existing configuration of each of these junctions is provided in the sections below. Also provided are the results of computer modelling of each junction that has been undertaken in order to show the existing operation of the junction, under 2015 AM and PM peak hour traffic flow conditions. The inclusion and assessment of these four junctions has been discussed and agreed with development control officers at the local Highway authority, see Appendix A for details.

As for the link data, the 2015 junction traffic flows have been derived from the 2014 SRTM outputs and factored up to 2015 using the TEMPRO derived growth factors shown in Table 3.2. The junction models have been set up using geometrical data derived from OS Mastermap large scale mapping within AutoCAD and (where applicable) traffic signal timing data obtained from the ITS team at the County Council. The 2014 SRTM traffic flow outputs are provided at Appendix B, along with junction turning counts.

Industry standard modelling software has been used, including *Junctions 8* for roundabouts and priority junctions and *LinSig V3* for signal controlled junctions. Within *Junctions 8* the modelling results for each arm are presented with reference to Ratio of Flow to Capacity (RFC), and Maximum Queue during the modelled period. For signal junctions the results for each arm are presented with reference to Degree of Saturation (DoS) - a percentage, and Mean Maximum Queue (MMQ) during the modelled period. At signal junctions the Practical Reserve Capacity (PRC) is also reported, which is a measure of the amount of 'spare' capacity at the junction.

RFC and DoS values below 0.9 or 90% generally indicate that an approach is operating below its theoretical capacity, while values over 1.0 or 100% indicate that an approach is operating over its theoretical capacity and significant queuing and delay is likely as a result. All base year modelling outputs are provided at Appendix C.

All modelling of roundabouts has been undertaken using the 'Entry Lane Analysis' (ELA) feature within *Junctions 8*, where appropriate. This feature allows the user to specify the number of lanes on each approach, the storage capacity of any short flare lanes, and the turning movements that are possible from each lane. All modelling has been undertaken using this feature to ensure a robust analysis, as otherwise the model assumes that traffic on each approach can use all of the available entry capacity regardless of which direction it is turning - which is not likely to happen at junctions where there are designated lanes for each

turning movement and/or single lane exits. It therefore allows for the effect of unequal lane usage to be taken into account in the modelling results.

It is important to note that the *Junctions 8* modelling software specifies that the 'ELA' feature is provided as an investigative tool and does not give definitive results and the user should therefore apply judgement when interpreting the results. This is because the ELA model is an analytical one that uses a simulation technique, rather than being based on empirical studies, as per the standard roundabout model.

Peel Common Roundabout

The B3334 Gosport Road / B3385 Newgate Lane / B3334 Rowner Road / B33385 Broom Way junction is a four arm priority controlled roundabout, situated to the east of Stubbington. All immediate approaches to the junction are two lanes, supplemented with directional markings. A shared footway / cycleway is located on the northern side of the Rowner Road arm and circulates the roundabout on the northern side crossing Newgate Lane and then Gosport Road. There is also a similar path routing between the western side of Broom Way and the southern side of Gosport Road. Toucan crossings are provided on Gosport Road and Newgate Road in proximity to the roundabout.

An interim improvement scheme is currently proposed for this junction, which would be implemented regardless of whether the NGLS scheme comes forward or not. The scheme represents permitted development as it is contained within Highway land, has funding committed and construction is currently programmed to commence in summer 2015. The scheme involves traffic capacity improvements through the signalisation of the approaches from Newgate Lane, Rowner Road and Broom Way, additional lanes on the circulatory carriageway, Newgate Lane and Rowner Road approaches and improved pedestrian and cycle facilities around the northern and southern sides of the roundabout.

Table 3.2 below provides the results of the *Junctions 8* modelling that has been undertaken for the existing roundabout layout, using 2015 SRTM traffic flows. The results show that in the AM peak hour there is significant congestion and delay experienced on the Newgate Lane and Rowner Road arms, while in the PM peak hour Newgate Lane also experiences significant delays and the Gosport Road arm is close to being at capacity. The reported queue length on Newgate Lane appears high given that the RFC value is not over 1.0, but it does show that due to the relatively short flare length on this arm queuing vehicles in the offside lane block vehicles from using the nearside lane, causing the nearside lane to be 'starved' of traffic and the overall queue length to increase significantly.

It is important to remember that the ELA feature within *Junctions 8* is an investigative tool which does not give definitive results and the user should therefore apply judgement when interpreting the results. In this instance the maximum queue is unlikely to be as high as 259 on Newgate Lane given that the arm is not over capacity, but the modelling does indicate that significant queuing occurs.

Table 3.2 – Peel Common Roundabout 2015 Modelling Results

Arm	AM Peak Hour		PM Peak Hour	
	RFC	Max. Queue	RFC	Max. Queue
B3385 Newgate Lane	0.924	16	0.998	259
B3334 Rowner Road	1.089	49	0.790	3
B3385 Broom Way	0.861	6	0.530	1
B3334 Gosport Road	0.577	1	0.885	8

Newgate Lane / Speedfields Park

The B3385 Newgate Lane / Speedfields Park junction is a priority controlled roundabout that is currently being upgraded as part of the Newgate Lane North improvement scheme (scheduled for completion in Spring 2015). The new layout has three arms with Newgate Lane (North) being a three lane approach, Speedfields Park having a two lane flared approach and Newgate Lane (South) having a single lane approach. There is also a Bypass Lane that avoids the roundabout for northbound traffic on the Newgate Lane (South) approach. Previously the HMS Collingwood access formed a fourth arm onto this roundabout, but a new signalised junction located approximately 150m to the south now provides access to HMS Collingwood. Speedfields Park is a retail park that accommodates several large retail units that are accessed via an internal road network.

There are bus stops located on both sides of Newgate Lane immediately to the south of the roundabout and as part of the improvement scheme there are new shared use footway/cycleways on both sides of Newgate Lane and on both sides of the Speedfields Park access. There are uncontrolled crossing points with central refuge islands on the Newgate Lane (South) and Speedfields Park arms. The circulatory carriageway has two lanes for traffic travelling southbound on Newgate Lane. Full details of the improvement scheme are provided on the HCC plan included at Appendix D.

Table 3.3 below provides the results of the *Junctions 8* modelling that has been undertaken for the new roundabout layout, using 2015 SRTM traffic flows. The results show that when the new layout is completed in the AM peak hour there is forecast to be minimal congestion and delay on all arms, while in the PM peak hour the Speedfields Park access is forecast to experience a degree of queuing and delay. As for the above junction the forecast queue length on this arm appears high given that the RFC value is just below 0.9, but it again indicates that starvation of the nearside lane is likely to occur, due to the short flare length and the high volume of traffic travelling southbound on Newgate Lane. It is again important to remember the limitations of the ELA feature within *Junctions 8*. In this instance the maximum queue is unlikely to be as high as 57 on the Speedfields Park access given that the arm is not over capacity, but the modelling does indicate that some queuing is likely to occur.

Table 3.3 – Newgate Lane / Speedfields Park Roundabout 2015 Modelling Results

Arm	AM Peak Hour		PM Peak Hour	
	RFC	Max. Queue	RFC	Max. Queue
Newgate Lane (North)	0.558	1	0.569	1
Speedfields Park Access	0.599	2	0.895	57
Newgate Lane (South)	0.481	1	0.256	1

Newgate Lane / Longfield Avenue

The B3385 Newgate Lane / Longfield Avenue junction is a five arm priority controlled roundabout that is currently being upgraded with a larger roundabout for increased capacity as part of the Newgate Lane North improvement scheme. The new layout has two lanes on both Newgate Lane north and south approaches and a three lane flared approach from Longfield Avenue, the western approach. There are two minor arms on the eastern side of the junction that provide access to several retail/industrial units (Davis Way) and a builders merchants. The circulatory carriageway has two lanes all around the roundabout.

There are bus stops located on both sides of Newgate Lane to the south of the junction and a bus stop on the eastern side of Newgate Lane to the north of the junction. As part of the improvement scheme there also shared use footway/cycleways on both sides of Newgate Lane to the north and south of the junction, with uncontrolled crossings with central refuge islands provided on the three main approaches.

Table 3.4 below provides the results of the *Junctions 8* modelling that has been undertaken for the new roundabout layout, using 2015 SRTM traffic flows. The results show that when the new layout is completed there are forecast to be relatively low levels of queuing and delay on arms, in both the AM and PM peak hours.

Table 3.4 – Newgate Lane / Longfield Avenue Roundabout 2015 Modelling Results

Arm	AM Peak Hour		PM Peak Hour	
	RFC	Max. Queue	RFC	Max. Queue
Newgate Lane (North)	0.854	3	0.825	3
Davis Way	0.210	1	0.414	1
Newgate Lane (South)	0.553	1	0.622	1
Longfield Avenue	0.647	1	0.485	1

A27 / A32 Quay Street Roundabout

The A27 / A32 Quay Street roundabout is a five-arm signal-controlled roundabout located just to the south of Fareham town centre which has recently been upgraded from partial signal control to a new fully signalised layout, in order to accommodate access to the new Tesco Superstore located immediately to the east of the junction. The junction facilitates access from the A27 to the A32 south towards Gosport and Stubbington and a single carriageway flyover is provided for A27 westbound traffic enabling it to bypass the junction.

The roundabout has an ICD of between 65-70m and has a total of five approaches and exits, with traffic routing from the A32 northbound to the A27 eastbound being able to route through the centre of the roundabout. The A27 forms the eastern and western junction approaches, while the A32 forms the southern approach and all are dual carriageway although the A27 westbound approach has a single left-turn filter lane for traffic accessing the A32 and a single lane for traffic routing into central Fareham. Portland Street forms the north-western approach while Quay Street forms the north-east approach and both provide links to central Fareham. The junction layout is heavily constrained by its location underneath the railway viaduct, east to west road flyover and Fareham Creek, as well as the proximity to the town centre. Due to the locational constraints and also the complex nature of this junction it would be incredibly difficult to undertake any further improvements over and above those recently implemented.

Due to the complex nature of this junction it has not been possible to carry out modelling for the 2015 baseline scenario and the merits of undertaking further modelling is questionable given the very limited scope for any further improvement works. It is understood that the junction still experiences a degree of peak period congestion, albeit the congestion has reduced following the recent junction reconfiguration. The congestion is mainly related to traffic queuing on the A32 southbound (back from the Old Gosport Road roundabout and beyond) which blocks the exit from the junction and means that vehicles (particularly on the A27 eastern approach) cannot route through the junction in a free-flow manner. It is anticipated that some of the pressure on this junction will be alleviated when improvement works are carried out on the A27 Corridor, which will improve access to h M27 at Junction 9

and also when a new all moves M27 Junction 10 is implemented as part of the mitigation works associated with the Welborne development. These improvements will relieve pressure on the M27 Junction 11 and associated pressure at Quay Street roundabout.

3.3 BASELINE TRANSPORT DATA – SUSTAINABLE MODES

The following section provides a summary of the existing facilities for pedestrians, cyclists and equestrians in the vicinity of the NGLS study area.

3.3.1 Pedestrian Facilities

The footway provision along the existing section of Newgate Lane southern section (to the south of Tanners Lane) is described in Section 3.2.1 above. The B3385 Newgate Lane forms the main route from Lee-on-the-Solent towards Fareham and one of only two principal routes running north-south that link Fareham to the Gosport Peninsula. As such traffic flows are high leading to congestion and an unpleasant environment for pedestrians, particularly at peak times. There is generally only a footway on one side of the Newgate Lane southern section and between Peel Common roundabout and Woodcote Lane this footway is circa 1.6m to 2m in width. To the north of Woodcote Lane the width varies between 1.8m and circa 1m, but the surface is overgrown in places.

Public Rights of Way (PRoW)

There are several PRoW that currently link to the southern section of Newgate Lane, primarily running in an east-west direction from the western side of Newgate Lane. These designated routes are illustrated on Figure 3.4 and summarised in Table 3.6 below.

There are no PRoWs that cross the preferred alignment of the NGLS scheme. The nearest PRoW to the preferred alignment starts/finishes at the western end of Tanners Lane, just to the south of where the NGLS scheme would connect to Newgate Lane. There is a further PRoW that routes from the eastern side of Newgate Lane along the southern side of Speedfields Retail Park towards Tukes Avenue, which is a shared use footway/cycleway.

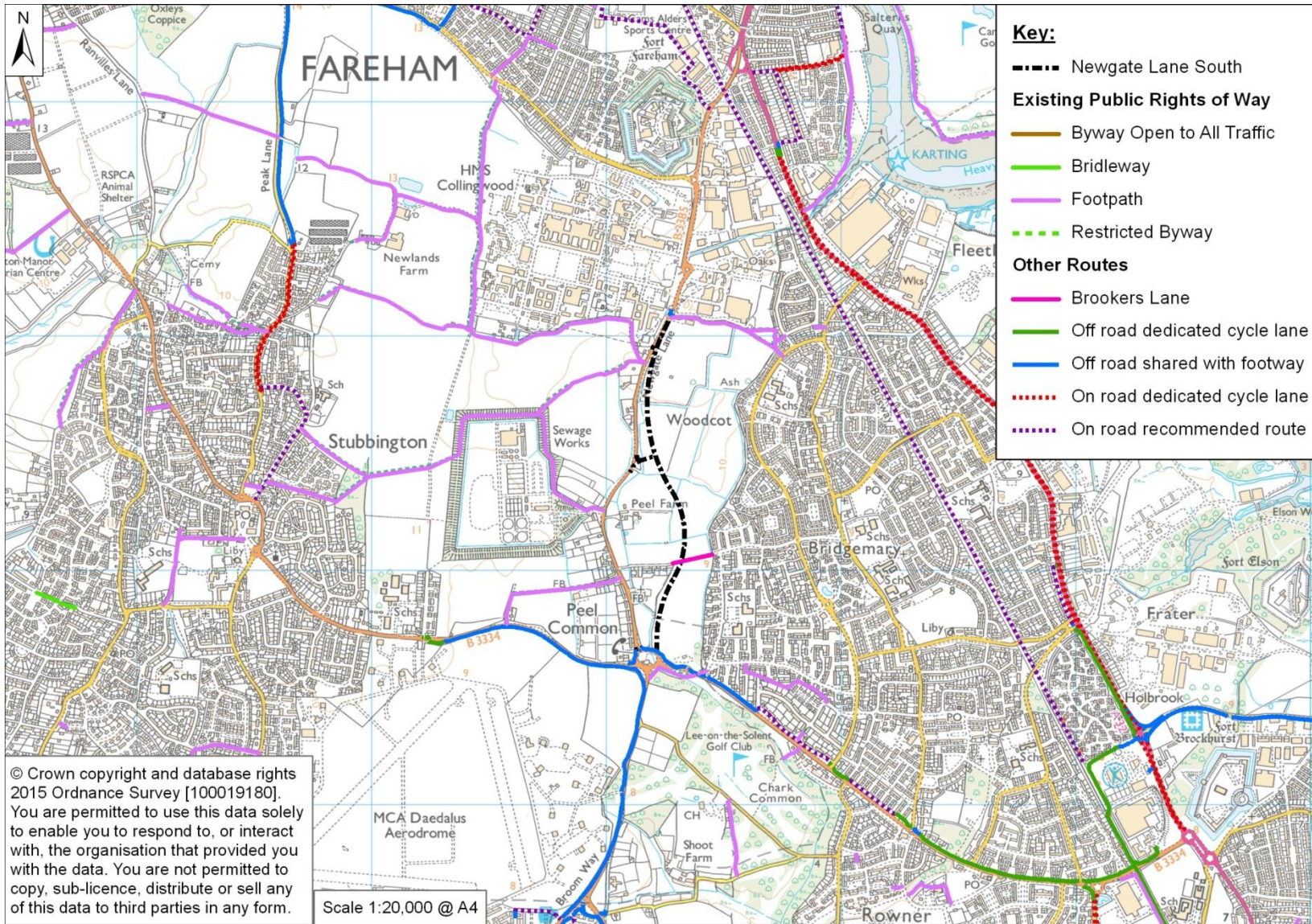
Table 3.6 – Public Rights of Way that link to NGLS

No.	Route
68	From Newgate Lane to Peak Lane via Tanners Lane and Newlands Fishery
71b	From PRoW 74 along the eastern side of the Peel Common Sewage Works to Newgate Lane
73c	From the track to the west of Rome Farm Cottages, to Newgate Lane via Albert Road
74	From the junction of Tanners Lane and Newgate Lane along the northern boundary of the Peel Common Sewage works, to the western side and south to meet PRoW 71a.
76	From the eastern side of Newgate Lane south of Speedfields Park to Tukes Avenue

Other Routes

In addition to the above noted PRoW there is a historic path (known as Brookers Lane) which runs in an east-west direction from the eastern end of Woodcote Lane towards Brookers Lane and the residential area of Peel Common / Bridgemary. The path is un-made, un-lit and varies in width from 1m to 2m with grass verges on either side. It does not form part of the adopted highway network. It is currently used by pedestrians and cyclists to route between Newgate Lane and the Peel Common estate to the west of Bridgemary. A bollard restricts vehicular access at the western end of the path, while there are barriers at the eastern end. This path crosses the preferred alignment of the NGLS scheme.

Figure 3.4 - Existing Public Rights of Way and Cycle Routes



To the south of Woodcote Lane, there are several informal paths that route around the edges of Brookers Field recreation ground, which on-site observations suggest are predominately used by dog walkers. These paths should not be impacted upon by the preferred alignment of the scheme. Further north, the preferred alignment passes through the south-western corner/edge of some playing fields that are part of HMS Collingwood and are not publically accessible.

3.3.2 Cycle Routes

As shown on Figure 3.4, there are currently no facilities for cyclists along the southern section of Newgate Lane. Anecdotal evidence and on-site observations suggest that a significant proportion of cyclists currently use the Newgate Lane carriageway to travel between Peel Common and southern Fareham. Due to the relatively narrow width of Newgate Lane to the south of Tanners Lane, this can result in congestion and slow moving traffic as vehicles are unable to safely pass cyclists and this contributes to the high levels of delay currently experienced along Newgate Lane.

At the southern end of Newgate Lane there is an off-road shared-use footway/cycleway that routes around the northern side of the Peel Common roundabout from Rowner Road to Gosport Road. This path crosses Newgate Lane via a signal-controlled Toucan crossing and also crosses Gosport Road via a Toucan crossing just to the west of the roundabout and continues on the southern side of the road, towards Stubbington. In the other direction the shared use path continues along the western side of Broom Way towards Lee-on-the-Solent and on the northern side of Rowner Road towards Bridgemary, Rowner and Gosport.

To the north of Tanners Lane a shared use off-road footway/cycleway (PRoW no. 76) runs from the eastern side of Newgate Lane along the southern edge of Speedfields Retail Park and connects to Tukes Avenue within the residential area of Woodcot. As part of the Newgate Lane North improvement scheme the existing Pelican crossing over Newgate Lane (located at the start/finish of this shared use path) is being upgraded to a Toucan crossing, as part of the signalised junction with the HMS Collingwood access.

According to the 2011 Census the cycling mode share for journeys to work in Gosport and Fareham is 4.6%, which is significantly above the national average - 1.9%. It is possible that this may be partly due to the high levels of congestion and delay for vehicular traffic currently experienced in the area.

3.3.3 Equestrian Routes

There are no bridleways located within the study area and a notable lack of bridleways within the Gosport Peninsula area in general. The nearest bridleway is located within the eastern part of Lee-on-the Solent and there is also a short section of route located in south-western Stubbington.

Anecdotal evidence suggests that there is some usage of the southern section of Newgate Lane by equestrians, but due to the high volumes of vehicular traffic this usage is anticipated to be sporadic at most.

3.4 BASELINE TRANSPORT DATA – PUBLIC TRANSPORT

The bus services that currently operate along Newgate Lane and in close proximity to the scheme are shown in Figure 3.5. ‘First in Hampshire’ buses are the principal operator within the area and currently provide services to a range of destinations including Gosport, Fareham, Southampton and Lee-on-the-Solent.

There is only one bus that currently routes along Newgate Lane, which is service 21/21A that connects Fareham, Stubbington and Hill Head and operates on a circular route within Stubbington/Hill Head. Along Newgate Lane this service generally has an hourly frequency, operating between 0721 and 1839 Monday to Friday and 0928 and 1328 on a Saturday. The service does not operate on Sundays. Table 3.7 summarises the route and frequency of all services that operate in the area.

Bus journey times along Newgate Lane are currently unreliable and experience increased periods of delay during weekday peak periods when the road network is congested.

Table 3.7 – Local Bus Services

Service	Route	Weekday Frequency	
		AM Peak	PM Peak
X5	Southampton – Locks Heath – Fareham – Stubbington – Lee-on-the-Solent - Gosport	30 min's	30 min's
E1/E2	Fareham – Bridgemary – Brockhurst - Gosport	6 min's	6 min's
9/9A	Fareham – Bridgemary – Rowner – Gosport	15 min's	15 min's
21/21A	Fareham – Newgate Lane - Peel Common – Stubbington – Hill Head Circular Route	Approx. 60 min's	Approx. 60 min's

3.5 BASELINE TRANSPORT DATA - ACCIDENT HISTORY

Personal Injury Accident (PIA) data has been obtained from the County Council for the most recently available five year period covering 1st December 2009 to 30th November 2014. The data covers a wide search area that encompasses southern Fareham, Stubbington, Rowner and Lee-on-the Solent and includes all the key links and junctions described above. Figure 3.6 shows the location of each recorded accident, classified by severity.

In the vicinity of the NGLS scheme there are accidents recorded on Newgate Lane, Broom Way, Gosport Road, and at the Peel Common roundabout. However, there are no discernible trends associated with these accidents in terms of causation factors and none are recorded as fatal, with the majority as ‘slight’ only.

The data illustrates that as would be expected there are clusters (two or more) of collisions occurring at the following key junctions and locations considered in this report. The number in brackets denotes the number of collisions recorded:

- B3334 / B3385 Peel Common Roundabout (19);
- Newgate Lane / Longfield Avenue Roundabout (7);
- Newgate Lane / Speedfields Park Roundabout (5); and
- The pelican crossing of Newgate Lane south of Speedfields Retail Park (3); and
- Newgate Lane / Albert Road junction (2).

Figure 3.5 – Local Bus Services

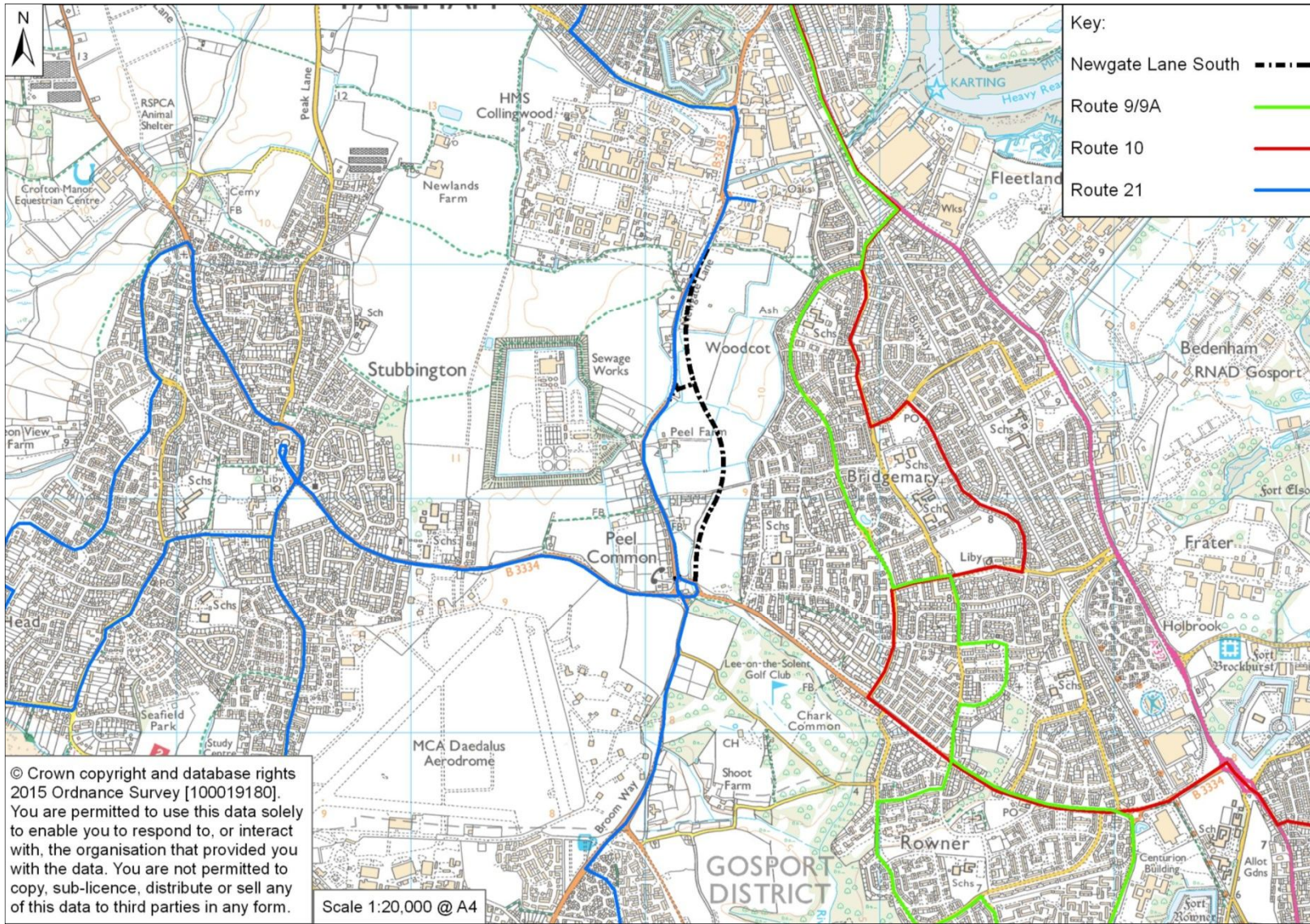
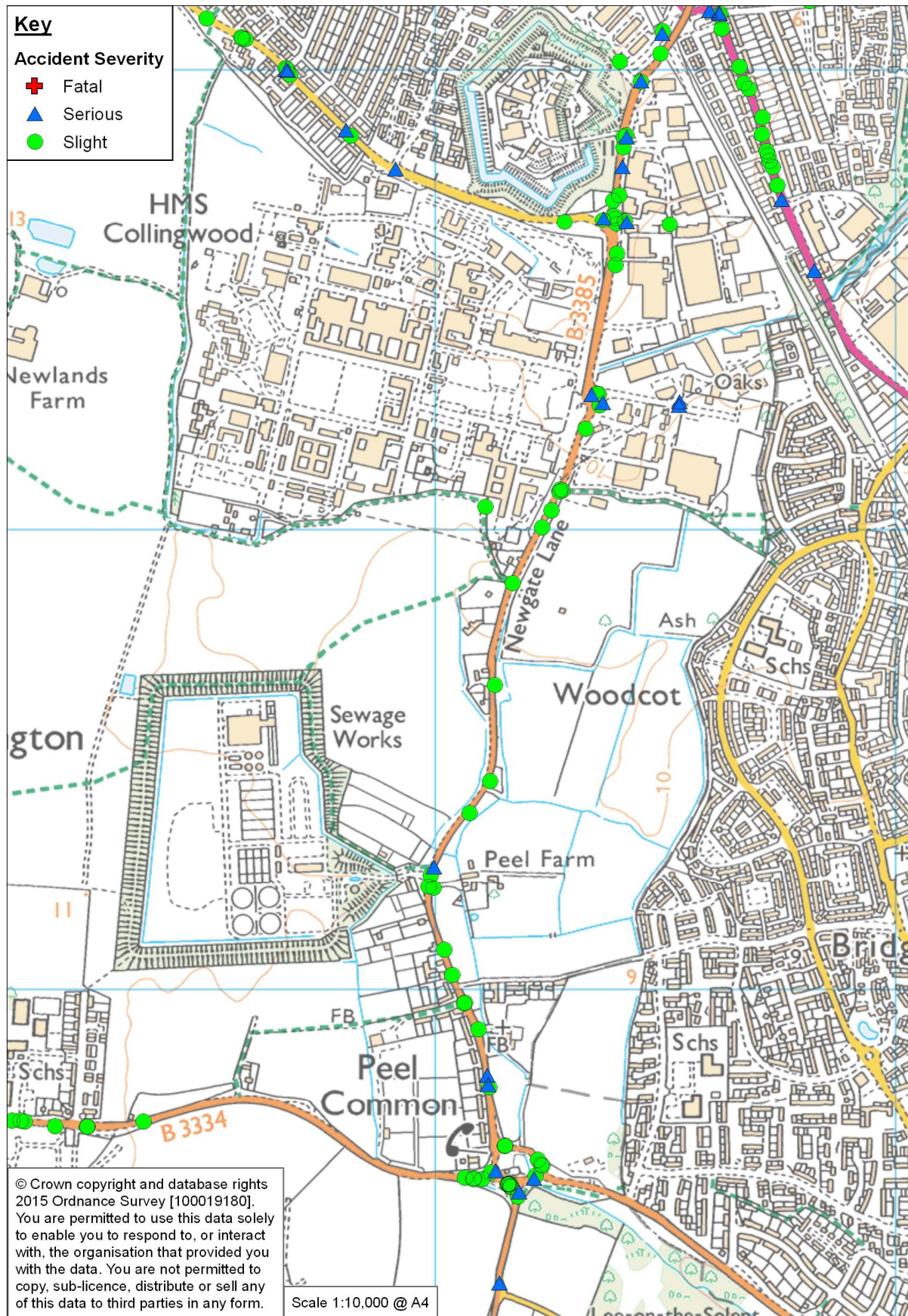


Figure 3.6 – Location of Recorded Personal Injury Accidents (01/12/09 – 30/11/14)



There are a total of 16 other accidents recorded along Newgate Lane between the Peel Common roundabout and the pelican crossing to the south of Speedfields Park. Three of these were classified as 'Serious' with the remainder classified as 'Slight', while six involved a motorcyclist, three involved a pedal cyclist and none involved a pedestrian.

Of the locations with significant accident clusters identified above; three are currently being improved as part of the Newgate Lane north scheme (Speedfields Park and Longfield Avenue roundabouts, and the Pelican crossing), one has a significant committed improvement scheme (Peel Common roundabout), and the other would experience significantly reduced traffic flows as a result of the NGLS scheme.

The improvements at the Speedfields Park and Longfield Avenue roundabouts will improve safety by providing new crossing points for pedestrians and cyclists with central refuge islands, and will provide a safer environment for cyclists through the provision of new off-road cycle tracks on both side of Newgate Lane. The Peel Common roundabout improvement scheme will significantly improve safety for all users through the introduction of traffic signals on the majority of approaches and the provision of new signal-controlled crossing facilities for pedestrians and cyclists. Signalisation of both traffic and pedestrian movements generally brings significant safety benefits by controlling traffic movements and should serve to reduce the number of accidents. Further details of the improvement schemes associated with the NGLS proposals are provided in Chapter 7 of this report.

The following paragraphs provide a summary of the causation factors and types of user involved in the accidents recorded at each of the accident cluster locations identified above.

B3334 / B3385 Peel Common Roundabout

Three of the recorded accidents were classified as 'Serious' in severity, with the remainder being 'Slight'. Four of the accidents involved a motorcyclist, one involved a pedal cyclist and one involved a pedestrian. Two of the accidents involving a motorcyclist were classified as 'Serious', with both involving cars entering the roundabout and colliding with motorcycles that were on the circulatory carriageway. The remaining serious accident involved a car losing control as it exited the roundabout onto Broom Way. Two of the slight accidents were attributed to the road environment and involved vehicles aquaplaning/loosing control in the rain whilst travelling around a bend on the north-east side of the roundabout, skidding off the road and colliding with a lamp post. The remaining accidents were due to driver/rider error or injudicious action.

Newgate Lane / Longfield Avenue Roundabout

Two of the accidents were classified as 'Serious' in severity, with the remainder being classified as 'Slight' in severity. Of the two 'Serious' accidents one involved a pedal cyclist entering the road from the pavement into the path of a car, while the other involved a car striking an elderly pedestrian that stepped into the path of a car. Of the 'Slight' accidents, one involved a pedal cyclist colliding with a car as they entered the road from the pavement and another two involved motorcyclists colliding with vehicles as they navigated the roundabout. All accidents were attributed to driver/rider error or injudicious action.

Newgate Lane / Speedfields Park Roundabout

Two of the recorded accidents were classified as 'Serious' in severity, with the remainder being classified as 'Slight'. The two 'Serious' accidents involved motorcyclists; one occurred due to the rider losing control while turning right, and the other occurred due to a car pulling out into the path of the motorcycle. Of the remaining accidents, one involved a pedal cyclist being struck by a car as they navigated the roundabout; one involved a motorcyclist losing

control on a wet road while navigating the roundabout, and the other involved a collision between two cars on the roundabout.

Newgate Lane Pelican Crossing south of Speedfields Retail Park

All three recorded accidents were classified as 'Slight' in severity, two of which involved a pedal cyclist being struck by a car on the crossing, due to the car failing to comply with the crossing signals. The remaining accident involved a rear end shunt between two vehicles as the car in front slowed down to stop due to a red signal.

Newgate Lane / Albert Road Junction

Both accidents were classified as 'Slight' in severity, with one involving a rear end collision between two vehicles as the one in front slowed to turn into Albert Road, and the other involving a car striking a motorcyclist as the car failed to give-way and turned right from Albert Road.

Summary

Based on the above analysis the main clusters of accidents are observed at the Peel Common roundabout and the roundabout junctions with Longfield Avenue and Speedfields Park. As noted previously the Peel Common roundabout has been identified for improvements that will involve the signalisation of the majority of the junction and enhanced facilities for cyclists and pedestrians. This should serve to provide a safer environment for all users by reducing the potential for conflicting movements and therefore reduce the number of accidents. The two roundabouts are the subject of improvement works that are currently underway and will provide enhanced facilities for pedestrians and cyclists that will provide a safer environment and will also serve to reduce the potential for conflicts on the roundabout between vehicles and cyclists.

4 Future Year Transport Network Conditions

4.1 INTRODUCTION

As detailed in Section 1.2, a significant amount of transport assessment and modelling work has been undertaken by HCC and SYSTRA in recent years in order to arrive at the preferred alignment of the NGLS scheme. The primary transport modelling tool that has been used to assess the wider impact of the scheme and potential design requirements is the SRTM and it is therefore the outputs from this model that form the basis of assumptions for future year transport network conditions.

When forecasting future traffic flows the SRTM takes account of several factors including regional traffic growth forecasts, planned development and planned transport schemes. The SRTM is comprised of a suite of linked computer models that all interact with the Main Demand Model. The SRTM has the following components:

- The Main Demand Model (MDM), which predicts the time of day, the destination choice and the mode choice for all journeys that are made;
- The Gateway Demand Model (GDM) which predicts the demand for travel from ports and airports;
- The Road Traffic Model (RTM) which determines the routes taken by vehicles throughout the road network, taking account of various factors including route distance, journey times and congestion;
- The Public Transport Model (PTM) which determines routes and services chosen by public transport passengers; and
- A Local Economic Impact Model (LEIM) which uses inputs including transport costs to forecast the quantum and location of households, population and jobs.

The SRTM model covers a wide geographic area including Southampton and Portsmouth and contains all motorways, primary routes, A-roads and B-roads, as well as many other minor roads. The STRM has been developed in accordance with WebTAG (DfT) recommendations and validated against DMRB guidelines. It is capable of forecasting changes in travel demand, road traffic, public transport patronage and active mode use over time, as a result of changing economic conditions, land-use policies and development, and transport improvements and interventions.

The SRTM is capable of producing forecast traffic flow estimates for 2014, 2019, 2026 and 2036. For the purpose of the assessment contained in this report, the SRTM has been used to assess the highway network in 2019 and 2036 with and without the NGLS scheme. The year 2019 corresponds to the expected opening year of the scheme, while the year 2036 represents a design year approximately 15 years after opening. Three weekday periods are modelled within the SRTM as follows, with only the AM and PM peak periods being reported and assessed within this Transport Assessment:

- AM Peak: Busiest hour between 07:00 and 10:00, typically 38.2% of the 3 hour period;
- Inter Peak: Average of 10:00 to 16:00; and
- PM Peak: Busiest hour between 16:00 and 19:00, typically 35.8% of the 3 hour period.

4.2 BACKGROUND TRAFFIC GROWTH

In order to estimate future baseline traffic growth, the SRTM uses data from a combination of sources including the Local Economic Impact Model (LEIM), the National Trip End Model (NTEM) and Trip End Model Presentation Programme (TEMPRO), the latter two are based on data produced by the DfT.

For new developments, where little or no demand exists in the base year matrices, travel patterns are derived in absolute terms. The trip ends are derived from the planning data associated with the new developments, with production trip rates and attraction weights.

4.3 PLANNED / COMMITTED DEVELOPMENT

4.3.1 Introduction

All planned and committed developments in the area and associated transport schemes are captured in the SRTM Model to a planning horizon year of 2026. Planned development across the model sub-region core area from the base year of 2010 up to 2026 is forecast to lead to a 10% increase in population (+108,162) and an 8% increase in the number of jobs (+36,886).

It is acknowledged that a Planning Application has been submitted for housing development on land at Newlands Farm (located between southern Fareham and Stubbington to the east of Peak Lane); however as this is not an allocated site and has not been granted planning permission, traffic flows associated with this development have not been included in the forecast year trip matrices.

A breakdown of the planned growth in Fareham and Gosport as modelled in the SRTM is provided in Table 4.1 below for each of the Base Year 2010, the Existing Year 2014, the Opening Year 2019 and the Design Years of 2026 and 2036. This data has been informed by local planning policy documents for Fareham Borough and Gosport Borough and includes a number of major employment and housing sites, as well as sites of a smaller scale.

Table 4.1 – SRTM Population and Employment (no. of Jobs) Growth Forecasts

District		2010	2014	2019	2026	2036
Gosport	Population	81,308	83,366	83,989	84,646	86,150
		-	(+3%)	(+3%)	(+4%)	(+6%)
	Employment	21,302	22,285	24,155	26,999	28,295
		-	(+5%)	(+13%)	(+27%)	(+33%)
Fareham	Population	113,815	116,788	118,224	123,250	131,138
		-	(+3%)	(+4%)	(+8%)	(+15%)
	Employment	49,759	49,318	49,679	51,432	51,702
		-	(-1%)	(0%)	(+3%)	(+4%)

* Note that data in this table was correct at the time of modelling but may vary slightly compared to current projections.

Table 4.1 shows that from 2010 to 2036 the total population is forecast to increase by approximately 15% in Fareham and approximately 6% in Gosport. There is a smaller rise in employment (total number of jobs) forecast in Fareham (+4%), however a more substantial increase in employment is forecast in Gosport (+33%), which reflects the presence of Solent

EZ at Daedalus. This and other development schemes of particular note in proximity to the NGLS study area are discussed below.

4.3.2 Committed Development

Solent Enterprise Zone (HMS Daedalus)

The Solent Enterprise Zone (EX) at HMS Daedalus was granted outline planning consent in March 2012 by FBC and GBC for the regeneration of the site, which would include more than one million square foot of employment space to be built on the airfield, primarily for aerospace and marine industries. The development is expected to generate around 3,700 new jobs in technology and manufacturing.

The Homes and Communities Agency (HCA) owns most of the land and is delivering the project with the Solent LEP and Partnership for Urban South Hampshire (PUSH). They expect between 38 and 45 businesses to initially set up there. Proposals for the Solent EZ are included within the SRTM and it is assumed to be complete and fully occupied by 2026.

Solar Panel Farm

Planning Consent was given on 24th September 2013 by FBC for a photovoltaic Solar Farm on land at Newlands Farm, off Tanners Lane to the west of Newgate Lane. The site is located on the strip of land in between HMS Collingwood and the Peel Common Sewage Works, with Newgate Lane to the east and farmland to the west. Consent was granted for a 25-year period of use, reflecting the lifetime of the Solar Farm. When complete there will be 3,649 arrays (racks) supporting 87,876 modules. This development was a material consideration during analysis of the potential alignment for the Stubbington Bypass, and therefore the NGLS scheme; however it is not a significant generator of either vehicular trips or jobs and is therefore not included within the SRTM.

The Retreat, Newgate Lane

The site was granted temporary consent (P/09/1045/FP) until 31/12/2016 for use as a small gypsy site of two pitches including two portable buildings (static caravans), two touring caravans and two ancillary dayrooms and associated development. The Retreat is located on the western side of Newgate Lane, just to the north of the access to the Peel Common Sewage Works, but it is not a material consideration in terms of either vehicular trips or jobs and is therefore not included in the SRTM.

4.3.3 Planned Development

Welborne

The planned development at the Welborne strategic development site to the north of Fareham is not explicitly included within the SRTM, but is included within the general background traffic growth forecasts based upon development quotas for the Borough (derived from TEMPRO) that form part of the future year trip matrices. Although the site is allocated in the Fareham Borough Development Plan and is included in The Welborne Plan, the site does not yet have formal planning permission.

It should be noted that the NGLS scheme (and the Stubbington Bypass and improvements along the A27) are part of a wider £90 million package of measures (funded by the Solent LEP) aimed at improving access to the Fareham area and the wider Gosport Peninsula. The package aims to improve the transport network in the area and as a consequence help to facilitate development at the strategic sites of the Solent EZ and Welborne. This scheme is specifically aimed at improving access to the Gosport Peninsula, and measures to improve

access to Welborne and the wider Fareham area will be brought forward in due course in conjunction with the Welborne development. These measures will include major works to upgrade Junction 10 of the M27 (which have already been subject to preliminary design) as well as improvements works on the local highway network within Fareham.

4.4 TRANSPORT SCHEMES

The 2019 and 2036 forecast year traffic models within the SRTM incorporate a number of highway improvement schemes that are either planned for the next few years, committed, or currently being implemented. For schemes that are planned, these are improvements to existing highway that do not require formal planning permission in order to be implemented (but will be consulted on). Schemes that are currently underway or committed in the Fareham area include:

- Improvements to Newgate Lane North between Tanners Lane and Palmerston Drive; and
- A Bus Gate onto the A27 Western Way (westbound) from Western Road in Fareham and a Bus Lane for Bus Rapid Transit (BRT) (recently completed).

The following measures are planned as part of a wider package of improvement works to improve access to Fareham and the Gosport Peninsula by unblocking the constraints along the key transport corridor of the A27 and at the Peel Common roundabout. These schemes are either committed and have funding secured, or are currently the subject of Business Case submissions to the Solent LEP. They are currently programmed for construction during the 2015-2018 period, prior to the construction of the NGLS and/or Stubbington Bypass schemes. All schemes are included within both the 2019 and 2036 forecast year traffic models within the SRTM:

- A27 / Redlands Lane / Gudge Heath Lane junction – An additional westbound lane on the A27 approach and exit from the junction;
- A27 / Station roundabout – An additional lane on the A27 Western Way and improvements for pedestrians, cyclists and buses;
- A27 St Margarets roundabout – Signalisation of all approaches apart from St Margarets Lane; an additional lane on the two A27 approaches and Cartwright Drive, additional lanes on the circulatory carriageway, and improvements for pedestrians and cyclists;
- Peel Common roundabout improvement scheme – signalisation of the approaches from Newgate Lane, Rowner Road and Broom Way, additional lanes on the circulatory carriageway using the existing roundabout alignment, and enhanced facilities for pedestrians and cyclists;
- A27 Link improvements – Involving the dualling of all sections of the A27 that are currently single carriageway between the Titchfield Gyratory and the Segensworth roundabout; and
- A27 Segensworth Roundabout – An additional lane on the A27 southern approach.

Also included within the 2019 and 2036 SRTM future base year models are works associated with the Solent EZ, including all transport infrastructure for access to the site.

5 Development Proposals

5.1 INTRODUCTION

The proposed alignment of the NGLS scheme is shown in Figure 1.1. As detailed in Chapter 1, a significant amount of work has gone into arriving at the preferred alignment for the new road and numerous factors and options have been taken into account. A key consideration was the preferred alignment for the proposed Stubbington Bypass scheme, as the location of the southern/eastern connection of the Bypass to the existing road network determined the required scheme along the southern section of Newgate Lane. The choice of a Bypass connection to the B3334 Gosport Road (west of Peel Common roundabout) meant that the southern section of Newgate Lane was only required to be a 7.3m wide single carriageway, based on the forecast traffic flows.

The final option appraisal involved a choice between on-line widening of the existing alignment of Newgate Lane, or providing a new off-line alignment further to the east though undeveloped land. Each option was considered from a range of perspectives including the fit with strategic objectives, the economic case, the managerial case, the financial case and the commercial case. Overall the off-line option was considered better from a strategic point of view, due to providing the most reliable journey times, being better from a design perspective and providing a much safer environment for cyclists and pedestrians (who would use the old alignment). Subsequent public consultation also revealed a significant preference for a new off-line alignment, rather than on-line widening.

Other critical factors which were investigated from a purely design perspective included:

- The design speed of the route and ability to accord with Highways Agency (DMRB) standards for horizontal alignment (making the route safer and more attractive to traffic);
- The need to provide adequate drainage;
- The need to minimise the diversion of statutory undertaker's plant; and
- The assessment of relative scheme costs for the different options.

From a purely design perspective it was found that the off-line alignment was preferable due to providing a better horizontal alignment, being less restricted by existing properties and requiring less diversion of statutory undertakers plant.

In summary, the preferred alignment routes from a new connection to the Peel Common roundabout (on the north-eastern side of the junction) in a northerly direction along the western edge of Brookers Field Recreation Ground, passing to the east of Woodcote Lane before turning in a north-westerly direction and connecting to the existing alignment of Newgate Lane at a point approximately 100m to the north of Tanners Lane. A new junction and short section of link road are provided to the link the new alignment to the old alignment of Newgate Lane, approximately 400m south of Tanners Lane.

5.2 HIGHWAY DESIGN FEATURES

The NGLS scheme has been designed in accordance with the DfT Design Manual for Roads and Bridges (DMRB) and has the following key highway design features:

- A 7.3m wide single carriageway, with grass verges on either side of the road;
- A design speed in accordance with a 40mph speed limit for the extent of the new alignment, with visibility and horizontal/vertical alignment to match;
- The carriageway will be super-elevated along the majority of its length, with a drainage ditch provided along the high side of the road and a swale provided along the low side of the road. The carriageway will also be elevated above the existing ground level by approximately 0.5m for drainage and flood prevention purposes;
- A new ghost island priority junction and new section of carriageway to provide a link to the old alignment of Newgate Lane. The new link road will form the minor arm of the ghost island junction and will be 7.3m wide single carriageway with a 30mph speed limit (proposed), and will have a two lane flared approach to the junction. The junction will be located approximately 400m south of Tanners Lane and 470m north of Woodcote Lane;
- Street lighting will be provided from the northern end of the scheme (where it connects to Newgate Lane) up to and including the new ghost island junction. To the south of this junction there will be no street lighting until the approach to the Peel Common roundabout;
- Informal crossing facilities with central refuge islands, dropped kerbs and tactile paving will be provided where the main carriageway crosses the Brookers Lane path (to the east of Woodcote Lane), and in the vicinity of the Tudor Lodge Nursing Home, approximately 300m north of the ghost island junction, in order to facilitate access to new bus stops (see below);
- New Bus stops will be provided on both sides of the road at the same locations as the two informal crossing facilities described above. The bus stops will be located downstream of the crossings and associated refuge islands and will be provided on carriageway, with the central hatched area associated with the refuge islands allowing vehicles to safely pass a bus parked at the stop; and
- The provision of field access gates and an associated waiting area at several locations along the route, in order to provide local access to fields and detention basins along the route.

A selection of typical cross-sections for the scheme are shown in drawings EC/CJ007861/121 and 122 (included at Appendix E) and these identify several of the features referred to above, including the grass verge, swale, and drainage ditch. An overview of the general arrangement of the NGLS scheme along its full alignment is shown in drawing EC/CJ007861/02/012, which is also included at Appendix E.

Drawing numbers EC/CJ007861/111 to 115 comprise a set of Plan and Profile drawings showing the detailed general arrangement of the scheme, which are included as part of the Planning Application submission. The new ghost island junction described above has been designed in accordance with the relevant DMRB standards for priority junctions and is shown in detail on Plan and Profile drawing EC/CJ007861/113.

The scheme design has been subject to a Stage 1 Road Safety Audit (RSA) and Non-Motorised Users Audit, and all issues raised have been addressed during the design process. Full details of the RSA, the issues raised and the designer's response can be found at Appendix F.

5.3 SUPPORTING HIGHWAY WORKS

In order to accommodate the new alignment of Newgate Lane, further improvements are proposed at Peel Common roundabout in order to manage the flow of traffic to and from Newgate Lane. The improvements build upon the already proposed signalisation of the existing junction (as described in Section 3.2.2 of this TA) and ensure that minimal abortive works will have been carried out. The further works principally involve signalising the new Newgate Lane approach, providing a new lane on the circulatory carriageway around the southern side of the roundabout, providing signal-controlled toucan crossings of the new Newgate Lane and stopping up the old alignment of Newgate Lane. Full details of the works at Peel Common are provided in Chapter 7 of this report, while the other supporting highway works are shown in the general arrangement drawings provided at Appendix E and the Plan and Profile drawings submitted as part of the planning application.

To the north of the new link road between the old and new alignments of Newgate Lane, the old road will be stopped up just to the north of property 245 (Newgate Cottage), approximately 70m north of Tanners Lane, with through access provided for pedestrians and cyclists only. At the junction with the new link road the old road will be realigned slightly to the east and form the minor arm of a new simple priority junction.

To the south of the new link road between the old and new sections of Newgate Lane, the old road will be stopped up just north of the Peel Common roundabout and a turning head provided, with through access provided for pedestrians and cyclists only. Where it connects to the new link road the old alignment of Newgate Lane will be realigned slightly to the west and transition to the link road as the major arm of a new simple priority junction and continue east to the new ghost island junction with the new Newgate Lane.

It is proposed that the old route of Newgate Lane will have its speed limit reduced to 30mph and that the speed limit of the new link road will also be 30mph. This is in order to promote the use of the old alignment by cyclists and ensure that the road is as safe as possible for cyclists and pedestrians. It should be noted that this change is only a proposal at this stage and its implementation is subject to the standard approval process involving a Traffic Regulation Order, public consultation and the local Police force.

The carriageway of Woodcote Lane will be re-surfaced as part of the scheme, in order to improve the pedestrian route to the new bus stops at the eastern end of Woodcote Lane and improve the cycle route via Brookers Lane to/from the Peel Common residential estate. Woodcote Lane is adopted highway but is currently only maintained to its existing condition of largely unbound compacted gravel. It is currently proposed to re-surface with a bound macadam (tarmac) construction in order to improve the surface, but the exact details are still to be confirmed following consultation with residents of Woodcote Lane and County Council engineers.

5.4 PHASING

If planning permission were secured it is currently proposed that the NGLS scheme would be constructed over a 9-month period during 2017 to 2018, with supporting highway works at the Peel Common roundabout constructed in conjunction with the scheme, during 2017/18.

5.5 NON-MOTORISED USER PROPOSALS

The following facilities are proposed as part of the NGLS scheme, in order to cater for Non-Motorised Users (NMUs); the location of all features are also shown on the general arrangement drawings provided at Appendix E and the Plan and Profile drawings:

- Two uncontrolled pedestrian crossings will be provided, one of which is located where the new road crosses the Brookers Lane path, while the other is located near to the Tudor Lodge Nursing Home, approximately 300m north of the new ghost island junction. These crossings will have a central refuge island, dropped kerbs and tactile paving. The central refuge at the crossing located to the east of Woodcote Lane will be 2.5m wide, enough to enable a cyclist to wait safely in the centre of the road;
- A total of six new bus stops will be provided; four of which will be on the new road (two on the northbound carriageway and two southbound) and two of which will be on Gosport Road, just west of the Peel Common roundabout. These bus stops will replace the eight existing bus stops along the old alignment of Newgate Lane as follows and the chosen locations ensure that the vast majority of residents of Newgate Lane and Albert Road will have to walk no more than 400m to access a bus stop:
 - Two stops will be located to the east of Woodcote Lane (at the Brookers Lane path), one northbound and one southbound, downstream of the new pedestrian crossing in both instances;
 - Two stops will be located near the Tudor Lodge Nursing Home, approximately 300m north of the new ghost island junction, one northbound and one southbound, downstream of the new pedestrian crossings at both locations; and
 - Two stops will be located on Gosport Road, approximately 60m west of the Peel Common roundabout and 30m west of the toucan crossing, one eastbound and one westbound.
- All new bus stops will be provided on carriageway, but on the new road the central hatched area adjacent to the bus stops will allow vehicles to safely pass a bus parked at the stop. These stops will be accessed using the new pedestrian refuge crossings outlined above and the new and enhanced pedestrian facilities described below;
- A new staggered toucan crossing facility will be provided at the southern end of the new alignment of Newgate Lane (just to the north of Peel Common roundabout), to enable pedestrians and cyclists to safely cross both the northbound and southbound carriageways. This crossing will link to the existing shared use path that routes around the northern side of the roundabout, which will be improved with the stopping up of the old Newgate Lane road;
- The carriageway of Woodcote Lane and the Brookers Lane path will be resurfaced in order to enable pedestrians, including disabled users, to access the new bus stops safely and to provide a better surface for cyclists to route between Newgate Lane and the Peel Common estate. As noted previously it is proposed that Woodcote Lane will be made good with a tarmac surface, while the Brookers Lane path will be enhanced with a 2.5m wide tarmac construction as per a standard shared use footway/cycleway. Following construction of the scheme, both Woodcote Lane and the Brookers Lane path would be maintained as public highway;

- The existing footway on the western side of Newgate Lane will be realigned at the point where the new link road connects to the old road, in order to facilitate the continuation of the footway;
- Short sections of new footway will be provided on both sides of the road in the vicinity of the two new uncontrolled crossings and pedestrian refuges, in order to provide access to the new bus stops;
- A new 2m wide footway will be provided to connect the old and new routes of Newgate Lane in the vicinity of the Tudor Lodge nursing home, in order to facilitate access to the new bus stops provided at this location; and
- The old route of Newgate Lane (between Tanners Lane and the Peel Common roundabout) will become an advisory on-road cycle route and new cycle destination signs will be provided. It will connect cyclists to the off-road shared use facilities along the Newgate Lane northern section and around Peel Common roundabout. At the northern end of the old road a short ramp will allow cyclists to transition from the carriageway to the shared use path along the western side of Newgate Lane northern section.

5.6 DISABLED USERS

All new crossing facilities to be provided as part of the scheme (as detailed above) will have dropped kerbs and tactile paving, to ensure safe access for disabled users. New sections of footway and path will have a minimum width of 2m and will be of predominantly level gradient; where short sections at gradient are required, these will be in accordance with recommended maximum standards.

In addition, an NMU audit has been undertaken as part of the Stage 1 RSA, with further audits to be undertaken during the detailed design stage. This will ensure that the needs of disabled users are taken account of in all elements of the scheme design and that Disability Discrimination Act (DDA) compliance is achieved. The Road safety Audit is included at Appendix F.

6 Travel Demand / Development Impact

6.1 INTRODUCTION

This chapter provides full details of the anticipated impact of the NGLS scheme, both in traffic flow terms at links and junctions and also in terms of the impact on highway safety, buses, pedestrians and cyclists, and adjacent properties.

6.2 NETWORK MODELLING - HIGHWAY IMPACT

As detailed in Chapter 4, future year traffic flows, and therefore travel demand associated with the NGLS scheme, have been derived based on outputs from the SRTM. The forecast years of 2019 and 2036 have been selected from the available future years in the SRTM as they represent the anticipated year of opening of the scheme and approximately 15 years after the opening year.

In order to present the impact that constructing the NGLS scheme has on traffic flows across the wider highway network, three main scenarios will be presented as follows:

1. Do Minimum Scenario (DM) – This includes background traffic growth associated with planned and committed developments (as described in Section 4.2/4.3), as well as planned and committed transport improvement schemes (as described in Section 4.4);
2. Do Something Scenario 1 (DS1) – This includes all the traffic growth and transport schemes from the DM, plus the NGLS scheme on the preferred alignment and the supporting highway works described in Section 5.3; and
3. Do Something scenario 2 (DS2) - This includes all schemes and growth from the DS1 scenario, plus the proposed Stubbington Bypass scheme (and associated highway improvement works, junction works and further improvements to Peel Common roundabout). Full details of the Stubbington Bypass scheme and associated works are provided in the Transport Assessment that accompanies the planning application for the Bypass scheme.

6.2.1 Network Traffic Flows

Traffic flows on the wider highway network will be considered for a series of key links that were identified in Section 3.2.1. For the links, both 2019 and 2036 forecast years will be considered in order to provide an overview of the likely operation of the network in both year of opening and a subsequent future year after the scheme has been operational for a period of time. Tables 6.1 to 6.6 below present the traffic flows (in total vehicles and HGVs) forecast by the SRTM, for each of the three assessed scenarios and two forecast years, in the AM and PM peak hours and over a 12-hour period between 07:00-19:00. All the future year traffic flow outputs from the SRTM modelling are provided at Appendix G.

It should be noted that in the following tables the link 'B3385 Newgate Lane - North of Peel Common' refers to the existing route of Newgate Lane in the Do Minimum scenarios, but the proposed new alignment in the Do Something scenarios. The link 'Old Newgate Lane - West of New Road' refers to the new link road to the existing route of Newgate Lane in the Do Something scenarios. Peak hour traffic flows for 'Old Newgate Lane' have been calculated based on the methodology outlined in Section 6.3.5 and the data contained in Table 6.19, while 12-hour flows have been derived by factoring up the combined peak hour flows using factors calculated based on the data for the other links (as extracted from the SRTM). HGV data has been based on the average values for all other links.

Table 6.1 – 2019 SRTM Forecast Traffic Flows on Key Links: AM Peak Hour

Link	Direction	Location	2019 DM Scenario		2019 DS1 Scenario		2019 DS2 Scenario	
			Total	HGVs	Total	HGVs	Total	HGVs
B3385 Newgate Lane	NB	North of Peel Common	855	10	864	10	865	11
B3385 Newgate Lane	SB	North of Peel Common	1,145	43	1,076	32	730	9
B3385 Newgate Lane	NB	South of Longfield Ave	924	10	928	10	953	11
B3385 Newgate Lane	SB	South of Longfield Ave	1,593	64	1,527	53	1,180	29
B3385 Newgate Lane	NB	North of Longfield Ave	1,167	18	1,167	18	1,112	19
B3385 Newgate Lane	SB	North of Longfield Ave	1,117	23	1,083	22	1,060	21
B3334 Rowner Rd	WB	East of Peel Common	1,138	33	1,128	22	1,327	36
B3334 Rowner Rd	EB	East of Peel Common	647	27	628	26	818	40
B3385 Broom Way	NB	South of Peel Common	650	9	638	9	849	13
B3385 Broom Way	SB	South of Peel Common	773	16	726	7	841	13
B3334 Gosport Road	WB	West of Peel Common	943	33	900	21	1,528	42
B3334 Gosport Road	EB	West of Peel Common	286	2	276	2	1,146	50
A32 Fareham Road	NB	North of Rowner Road	919	37	919	37	911	37
A32 Fareham Road	SB	North of Rowner Road	613	25	627	27	571	21
A32 Fareham Road	NB	South of Rowner Road	1,771	53	1,774	53	1,833	53
A32 Fareham Road	SB	South of Rowner Road	1,249	42	1,262	43	1,323	49
A32 Gosport Road	NB	South of Newgate Ln	1,474	64	1,480	64	1,445	64
A32 Gosport Road	SB	South of Newgate Ln	1,125	52	1,146	53	1,085	46
A27 The Avenue	WB	West of Redlands Lane	664	8	690	9	642	7
A27 The Avenue	EB	West of Redlands Lane	957	16	959	16	909	13
A27 Western Way	WB	West of A32	765	12	789	13	773	11
A27 Western Way	EB	West of A32	1,035	19	1,039	19	1,053	17
Old Newgate Lane	WB	West of New Road	-	-	52	1	52	1
Old Newgate Lane	EB	West of New Road	-	-	62	2	62	2

Table 6.2 – 2019 SRTM Forecast Traffic Flows on Key Links: PM Peak Hour

Link	Direction	Location	2019 DM Scenario		2019 DS1 Scenario		2019 DS2 Scenario	
			Total	HGVs	Total	HGVs	Total	HGVs
B3385 Newgate Lane	NB	North of Peel Common	715	2	699	2	678	3
B3385 Newgate Lane	SB	North of Peel Common	1,309	6	1,427	6	870	3
B3385 Newgate Lane	NB	South of Longfield Ave	1,132	5	1,119	5	1,096	6
B3385 Newgate Lane	SB	South of Longfield Ave	1,445	6	1,533	7	992	4
B3385 Newgate Lane	NB	North of Longfield Ave	853	3	843	3	904	4
B3385 Newgate Lane	SB	North of Longfield Ave	1,013	7	1,070	7	942	6
B3334 Rowner Rd	WB	East of Peel Common	636	11	577	11	913	14
B3334 Rowner Rd	EB	East of Peel Common	960	6	991	6	1,131	9
B3385 Broom Way	NB	South of Peel Common	722	4	711	4	820	5
B3385 Broom Way	SB	South of Peel Common	976	4	1,003	4	1,136	6
B3334 Gosport Road	WB	West of Peel Common	608	13	583	14	1,160	18
B3334 Gosport Road	EB	West of Peel Common	591	4	561	4	1,503	13

Link	Direction	Location	2019 DM Scenario		2019 DS1 Scenario		2019 DS2 Scenario	
			Total	HGVs	Total	HGVs	Total	HGVs
A32 Fareham Road	NB	North of Rowner Road	803	2	806	2	774	3
A32 Fareham Road	SB	North of Rowner Road	831	5	829	5	801	5
A32 Fareham Road	NB	South of Rowner Road	1,659	9	1,658	9	1,706	10
A32 Fareham Road	SB	South of Rowner Road	1,604	10	1,613	10	1,660	11
A32 Gosport Road	NB	South of Newgate Ln	1,376	5	1,405	6	1,301	5
A32 Gosport Road	SB	South of Newgate Ln	1,338	7	1,320	7	1,318	7
A27 The Avenue	WB	West of Redlands Lane	921	5	910	5	886	5
A27 The Avenue	EB	West of Redlands Lane	736	4	733	4	702	4
A27 Western Way	WB	West of A32	681	2	689	2	674	2
A27 Western Way	EB	West of A32	356	1	354	1	390	1
Old Newgate Lane	WB	West of New Road	-	-	55	0	55	0
Old Newgate Lane	EB	West of New Road	-	-	51	0	51	0

Table 6.3 – 2019 SRTM Forecast Traffic Flows on Key Links: 12-Hour (07:00-19:00)

Link	Direction	Location	2019 DM Scenario		2019 DS1 Scenario		2019 DS2 Scenario	
			Total	HGVs	Total	HGVs	Total	HGVs
B3385 Newgate Lane	NB	North of Peel Common	8,314	70	8,218	70	8,548	87
B3385 Newgate Lane	SB	North of Peel Common	14,028	332	14,008	277	9,478	151
B3385 Newgate Lane	NB	South of Longfield Ave	11,668	150	11,566	150	11,897	167
B3385 Newgate Lane	SB	South of Longfield Ave	16,604	450	16,514	395	11,998	269
B3385 Newgate Lane	NB	North of Longfield Ave	10,550	146	10,486	146	10,894	161
B3385 Newgate Lane	SB	North of Longfield Ave	11,502	255	11,542	251	10,807	244
B3334 Rowner Rd	WB	East of Peel Common	8,152	218	7,587	178	11,014	331
B3334 Rowner Rd	EB	East of Peel Common	7,890	162	7,825	162	9,786	294
B3385 Broom Way	NB	South of Peel Common	7,737	95	7,667	95	9,019	125
B3385 Broom Way	SB	South of Peel Common	9,792	168	9,635	116	10,833	179
B3334 Gosport Road	WB	West of Peel Common	7,813	265	7,343	221	13,512	421
B3334 Gosport Road	EB	West of Peel Common	3,892	20	3,759	19	13,168	373
A32 Fareham Road	NB	North of Rowner Road	9,737	385	9,738	398	9,470	345
A32 Fareham Road	SB	North of Rowner Road	7,552	284	7,610	288	7,271	198
A32 Fareham Road	NB	South of Rowner Road	18,044	484	17,994	497	18,848	500
A32 Fareham Road	SB	South of Rowner Road	14,290	347	14,359	349	14,923	351
A32 Gosport Road	NB	South of Newgate Ln	14,529	595	14,738	609	13,599	526
A32 Gosport Road	SB	South of Newgate Ln	12,326	469	12,365	475	11,968	366
A27 The Avenue	WB	West of Redlands Lane	8,367	134	8,435	138	7,965	125
A27 The Avenue	EB	West of Redlands Lane	7,940	114	7,935	114	7,488	103
A27 Western Way	WB	West of A32	7,006	133	7,088	136	7,018	131
A27 Western Way	EB	West of A32	4,982	91	4,990	91	5,139	86
Old Newgate Lane	WB	West of New Road	-	-	550	13	550	13
Old Newgate Lane	EB	West of New Road	-	-	581	14	581	14

Table 6.4 – 2036 SRTM Forecast Traffic Flows on Key Links: AM Peak Hour

Link	Direction	Location	2036 DM Scenario		2036 DS1 Scenario		2036 DS2 Scenario	
			Total	HGVs	Total	HGVs	Total	HGVs
B3385 Newgate Lane	NB	North of Peel Common	910	11	968	12	994	13
B3385 Newgate Lane	SB	North of Peel Common	1,285	30	1,376	34	943	12
B3385 Newgate Lane	NB	South of Longfield Ave	968	11	1,013	12	1,075	14
B3385 Newgate Lane	SB	South of Longfield Ave	1,771	54	1,843	58	1,427	35
B3385 Newgate Lane	NB	North of Longfield Ave	1,182	22	1,208	22	1,144	23
B3385 Newgate Lane	SB	North of Longfield Ave	1,070	23	1,113	24	1,147	25
B3334 Rowner Rd	WB	East of Peel Common	1,221	27	1,175	27	1,532	43
B3334 Rowner Rd	EB	East of Peel Common	698	20	729	24	983	48
B3385 Broom Way	NB	South of Peel Common	708	10	693	10	846	12
B3385 Broom Way	SB	South of Peel Common	886	11	912	11	1,043	20
B3334 Gosport Road	WB	West of Peel Common	1,004	26	903	26	1,615	47
B3334 Gosport Road	EB	West of Peel Common	283	2	267	2	1,314	62
A32 Fareham Road	NB	North of Rowner Road	902	42	901	42	905	41
A32 Fareham Road	SB	North of Rowner Road	596	32	592	31	560	21
A32 Fareham Road	NB	South of Rowner Road	1,881	60	1,892	60	1,912	60
A32 Fareham Road	SB	South of Rowner Road	1,191	41	1,190	41	1,294	48
A32 Gosport Road	NB	South of Newgate Ln	1,507	74	1,503	75	1,511	75
A32 Gosport Road	SB	South of Newgate Ln	1,128	62	1,100	59	1,029	46
A27 The Avenue	WB	West of Redlands Lane	773	9	761	9	677	8
A27 The Avenue	EB	West of Redlands Lane	983	17	988	17	944	15
A27 Western Way	WB	West of A32	864	14	851	14	811	13
A27 Western Way	EB	West of A32	1,080	22	1,068	20	1,086	20
Old Newgate Lane	WB	West of New Road	-	-	55	2	55	2
Old Newgate Lane	EB	West of New Road	-	-	66	2	66	2

Table 6.5 – 2036 SRTM Forecast Traffic Flows on Key Links: PM Peak Hour

Link	Direction	Location	2036 DM Scenario		2036 DS1 Scenario		2036 DS2 Scenario	
			Total	HGVs	Total	HGVs	Total	HGVs
B3385 Newgate Lane	NB	North of Peel Common	832	2	853	2	843	3
B3385 Newgate Lane	SB	North of Peel Common	1,308	7	1,571	7	1,029	4
B3385 Newgate Lane	NB	South of Longfield Ave	1,257	6	1,273	6	1,265	6
B3385 Newgate Lane	SB	South of Longfield Ave	1,497	8	1,703	8	1,173	5
B3385 Newgate Lane	NB	North of Longfield Ave	981	4	991	4	1,054	4
B3385 Newgate Lane	SB	North of Longfield Ave	1,051	8	1,129	8	1,074	7
B3334 Rowner Rd	WB	East of Peel Common	697	14	652	14	1,061	17
B3334 Rowner Rd	EB	East of Peel Common	1,001	7	1,064	7	1,374	11
B3385 Broom Way	NB	South of Peel Common	821	4	826	4	948	5
B3385 Broom Way	SB	South of Peel Common	912	4	1,064	4	1,159	6
B3334 Gosport Road	WB	West of Peel Common	663	16	640	16	1,322	21
B3334 Gosport Road	EB	West of Peel Common	581	4	571	4	1,659	15

Link	Direction	Location	2036 DM Scenario		2036 DS1 Scenario		2036 DS2 Scenario	
			Total	HGVs	Total	HGVs	Total	HGVs
A32 Fareham Road	NB	North of Rowner Road	803	2	804	2	778	2
A32 Fareham Road	SB	North of Rowner Road	780	6	786	6	745	6
A32 Fareham Road	NB	South of Rowner Road	1,662	10	1,658	10	1,778	11
A32 Fareham Road	SB	South of Rowner Road	1,594	11	1,623	11	1,713	13
A32 Gosport Road	NB	South of Newgate Ln	1,456	6	1,475	6	1,380	5
A32 Gosport Road	SB	South of Newgate Ln	1,367	8	1,347	8	1,325	8
A27 The Avenue	WB	West of Redlands Lane	992	5	973	5	923	5
A27 The Avenue	EB	West of Redlands Lane	805	4	803	4	760	4
A27 Western Way	WB	West of A32	784	2	755	2	740	2
A27 Western Way	EB	West of A32	403	3	391	3	430	3
Old Newgate Lane	WB	West of New Road	-	-	59	0	59	0
Old Newgate Lane	EB	West of New Road	-	-	55	0	55	0

Table 6.6 – 2036 SRTM Forecast Traffic Flows on Key Links: 12-Hour (07:00-19:00)

Link	Direction	Location	2036 DM Scenario		2036 DS1 Scenario		2036 DS2 Scenario	
			Total	HGVs	Total	HGVs	Total	HGVs
B3385 Newgate Lane	NB	North of Peel Common	9,525	80	9,888	81	10,188	103
B3385 Newgate Lane	SB	North of Peel Common	14,472	256	16,914	357	11,495	170
B3385 Newgate Lane	NB	South of Longfield Ave	13,141	174	13,367	174	13,733	196
B3385 Newgate Lane	SB	South of Longfield Ave	17,648	396	19,607	493	14,261	306
B3385 Newgate Lane	NB	North of Longfield Ave	12,095	169	12,169	159	12,384	192
B3385 Newgate Lane	SB	North of Longfield Ave	11,750	269	12,752	298	12,300	272
B3334 Rowner Rd	WB	East of Peel Common	9,311	233	8,670	231	13,000	403
B3334 Rowner Rd	EB	East of Peel Common	8,389	130	9,118	184	11,906	342
B3385 Broom Way	NB	South of Peel Common	8,898	110	8,916	110	10,235	137
B3385 Broom Way	SB	South of Peel Common	10,472	143	11,501	173	12,221	218
B3334 Gosport Road	WB	West of Peel Common	8,582	268	8,178	282	15,510	499
B3334 Gosport Road	EB	West of Peel Common	4,288	23	4,185	22	15,094	453
A32 Fareham Road	NB	North of Rowner Road	9,782	438	9,783	438	9,576	389
A32 Fareham Road	SB	North of Rowner Road	7,715	316	7,627	312	7,363	221
A32 Fareham Road	NB	South of Rowner Road	18,928	559	18,930	559	19,775	566
A32 Fareham Road	SB	South of Rowner Road	14,637	369	14,732	370	15,644	383
A32 Gosport Road	NB	South of Newgate Ln	15,568	680	15,776	682	14,864	598
A32 Gosport Road	SB	South of Newgate Ln	13,201	541	12,610	518	12,371	410
A27 The Avenue	WB	West of Redlands Lane	9,827	160	9,492	147	8,799	146
A27 The Avenue	EB	West of Redlands Lane	8,781	129	8,777	129	8,279	120
A27 Western Way	WB	West of A32	8,487	173	8,235	159	8,057	155
A27 Western Way	EB	West of A32	5,231	109	5,137	104	5,336	104
Old Newgate Lane	WB	West of New Road	-	-	612	15	612	15
Old Newgate Lane	EB	West of New Road	-	-	646	16	646	16

Table 6.7 – Percentage Change in Total Traffic Flow on Key Links: 2015 to 2019/2036, AM Peak Hour

Link	Direction	Location	2015 – 2019 DM	2019 DM – 2019 DS1	2015 – 2036 DM	2036 DM – 2036 DS1
B3385 Newgate Lane	NB	North of Peel Common	-8%	1%	-2%	6%
B3385 Newgate Lane	SB	North of Peel Common	8%	-6%	21%	7%
B3385 Newgate Lane	NB	South of Longfield Ave	-8%	0%	-3%	5%
B3385 Newgate Lane	SB	South of Longfield Ave	5%	-4%	17%	4%
B3385 Newgate Lane	NB	North of Longfield Ave	9%	0%	10%	2%
B3385 Newgate Lane	SB	North of Longfield Ave	6%	-3%	1%	4%
B3334 Rowner Rd	WB	East of Peel Common	-4%	-1%	3%	-4%
B3334 Rowner Rd	EB	East of Peel Common	-11%	-3%	-4%	4%
B3385 Broom Way	NB	South of Peel Common	-13%	-2%	-5%	-2%
B3385 Broom Way	SB	South of Peel Common	3%	-6%	18%	3%
B3334 Gosport Road	WB	West of Peel Common	-3%	-5%	3%	-10%
B3334 Gosport Road	EB	West of Peel Common	-27%	-3%	-28%	-6%
A32 Fareham Road	NB	North of Rowner Road	-2%	0%	-4%	0%
A32 Fareham Road	SB	North of Rowner Road	6%	2%	3%	-1%
A32 Fareham Road	NB	South of Rowner Road	-4%	0%	2%	1%
A32 Fareham Road	SB	South of Rowner Road	-1%	1%	-6%	0%
A32 Gosport Road	NB	South of Newgate Ln	-1%	0%	1%	0%
A32 Gosport Road	SB	South of Newgate Ln	3%	2%	3%	-2%
A27 The Avenue	WB	West of Redlands Lane	6%	4%	24%	-2%
A27 The Avenue	EB	West of Redlands Lane	-15%	0%	-12%	1%
A27 Western Way	WB	West of A32	1%	3%	14%	-2%
A27 Western Way	EB	West of A32	-8%	0%	-4%	-1%
Old Newgate Lane	WB	West of New Road	-	-94%	-	-94%
Old Newgate Lane	EB	West of New Road	-	-95%	-	-95%

Table 6.8 – Percentage Change in Traffic Flows on Key Links: 2015 to 2019/2036, PM Peak Hour

Link	Direction	Location	2015 – 2019 DM	2019 DM – 2019 DS1	2015 – 2036 DM	2036 DM – 2036 DS1
B3385 Newgate Lane	NB	North of Peel Common	21%	-2%	41%	3%
B3385 Newgate Lane	SB	North of Peel Common	0%	9%	0%	20%
B3385 Newgate Lane	NB	South of Longfield Ave	10%	-1%	22%	1%
B3385 Newgate Lane	SB	South of Longfield Ave	-1%	6%	3%	14%
B3385 Newgate Lane	NB	North of Longfield Ave	20%	-1%	38%	1%
B3385 Newgate Lane	SB	North of Longfield Ave	-8%	6%	-4%	7%
B3334 Rowner Rd	WB	East of Peel Common	-18%	-9%	-10%	-6%
B3334 Rowner Rd	EB	East of Peel Common	-2%	3%	2%	6%
B3385 Broom Way	NB	South of Peel Common	21%	-2%	38%	1%
B3385 Broom Way	SB	South of Peel Common	-10%	3%	-16%	17%
B3334 Gosport Road	WB	West of Peel Common	-14%	-4%	-6%	-4%

B3334 Gosport Road	EB	West of Peel Common	-12%	-5%	-13%	-2%
A32 Fareham Road	NB	North of Rowner Road	-1%	0%	-1%	0%
A32 Fareham Road	SB	North of Rowner Road	-1%	0%	-7%	1%
A32 Fareham Road	NB	South of Rowner Road	-6%	0%	-6%	0%
A32 Fareham Road	SB	South of Rowner Road	0%	1%	-1%	2%
A32 Gosport Road	NB	South of Newgate Ln	0%	2%	6%	1%
A32 Gosport Road	SB	South of Newgate Ln	0%	-1%	3%	-1%
A27 The Avenue	WB	West of Redlands Lane	5%	-1%	13%	-2%
A27 The Avenue	EB	West of Redlands Lane	0%	0%	9%	0%
A27 Western Way	WB	West of A32	8%	1%	24%	-4%
A27 Western Way	EB	West of A32	-17%	-1%	-7%	-3%
Old Newgate Lane	WB	West of New Road	-	-92%	-	-93%
Old Newgate Lane	EB	West of New Road	-	-96%	-	-96%

Table 6.9 – Percentage Change in Traffic Flows on Key Kinks: 2015 to 2019/2036, 12-hour (0700-1900)

Link	Direction	Location	2015 – 2019 DM	2019 DM – 2019 DS1	2015 – 2036 DM	2036 DM – 2036 DS1
B3385 Newgate Lane	NB	North of Peel Common	3%	-1%	18%	4%
B3385 Newgate Lane	SB	North of Peel Common	2%	0%	5%	17%
B3385 Newgate Lane	NB	South of Longfield Ave	1%	-1%	14%	2%
B3385 Newgate Lane	SB	South of Longfield Ave	2%	-1%	8%	11%
B3385 Newgate Lane	NB	North of Longfield Ave	12%	-1%	28%	1%
B3385 Newgate Lane	SB	North of Longfield Ave	-3%	0%	-1%	9%
B3334 Rowner Rd	WB	East of Peel Common	-12%	-7%	0%	-7%
B3334 Rowner Rd	EB	East of Peel Common	-7%	-1%	-1%	9%
B3385 Broom Way	NB	South of Peel Common	1%	-1%	17%	0%
B3385 Broom Way	SB	South of Peel Common	-7%	-2%	-1%	10%
B3334 Gosport Road	WB	West of Peel Common	-10%	-6%	-1%	-5%
B3334 Gosport Road	EB	West of Peel Common	-24%	-3%	-16%	-2%
A32 Fareham Road	NB	North of Rowner Road	-2%	0%	-1%	0%
A32 Fareham Road	SB	North of Rowner Road	4%	1%	7%	-1%
A32 Fareham Road	NB	South of Rowner Road	-5%	0%	0%	0%
A32 Fareham Road	SB	South of Rowner Road	0%	0%	3%	1%
A32 Gosport Road	NB	South of Newgate Ln	1%	1%	8%	1%
A32 Gosport Road	SB	South of Newgate Ln	4%	0%	11%	-4%
A27 The Avenue	WB	West of Redlands Lane	3%	1%	21%	-3%
A27 The Avenue	EB	West of Redlands Lane	-5%	0%	5%	0%
A27 Western Way	WB	West of A32	3%	1%	24%	-3%
A27 Western Way	EB	West of A32	-10%	0%	-5%	-2%
Old Newgate Lane	WB	West of New Road	-	-93%	-	-94%
Old Newgate Lane	EB	West of New Road	-	-96%	-	-96%

The data shown in the tables above shows that in general there are more pronounced changes in traffic flow between the 2015 Baseline and the 2019 DM scenario, than between the 2019 DM and the 2019 DS1 scenario. This is due largely to the significant changes on the transport network that occur between the 2015 and 2019 DM scenarios as described in Section 4.4, consisting mainly of works along the A27 corridor. In SRTM modelling terms the only significant change to the network between the 2019 DM and DS1 scenarios is the increase in width on the link representing the Newgate Lane southern section from circa 6.2m up to 7.3m, with a minor change in link length to reflect the new alignment. This change in itself is unlikely to cause any significant changes in traffic flow at wider network level, albeit that some additional capacity will be created on Newgate Lane itself. This is because Newgate Lane is already at capacity in traffic flow terms and therefore has limited scope to accommodate additional traffic as a single carriageway road, even on the new alignment.

It should be noted that rather than increasing traffic flows along Newgate Lane, the main benefits of the NGLS scheme would be expected to accrue in terms of better journey time reliability, consistently higher traffic speeds and a safer environment for pedestrians and cyclists along the old alignment of Newgate Lane. This will be achieved improving the highway alignment, removing the frontage accesses and removing the majority of cyclists from the carriageway. The traffic flow results above highlight the significant reduction in traffic flows along the current route of Newgate Lane as a result of the scheme.

The data in Table 6.9 above shows that by the 2036 scenarios the traffic flow volume changes as a result of the NGLS scheme become more clear cut, when comparing the DM and DS1 scenarios. In 2019 minimal traffic flow changes are expected on Newgate Lane itself, but by 2036 with the higher network traffic flows forecast, the scheme is expected to increase northbound flow by between 1% and 4% over a 12-hour period, and southbound flow by between 9% and 17% over a 12-hour period. On the wider network the scheme is expected to reduce traffic flow on Rowner Road westbound, but increase it eastbound; increase flow on Broom Way southbound; reduce flows in both directions on Gosport Road; reduce flows on the A27, and have a minimal impact on flow volumes on the A32 Fareham Road/Gosport Road.

The data in Tables 6.1 to 6.6 show that when the impact of the Stubbington Bypass scheme is considered in conjunction with the NGLS scheme (DS2 scenario), there are forecast to be much more pronounced changes in traffic flow on the wider network, due to the re-routing of traffic resulting from the construction of this major new highway link. In particular the traffic flows reduce on Newgate Lane; increase on Rowner Road, Broom Way and Gosport Road; reduce on the A27; reduce on the A32 north of Rowner Road, and reduce on Titchfield Road through Stubbington (not shown in the tables).

6.2.2 Network Journey Times

Journey time data has been extracted from the SRTM for the three 2019 forecast year scenarios that are described at the start of Section 6.2. Journey time routes have been chosen in order to illustrate the impact of providing the scheme on the wider network and as such, the following routes are reported in Tables 6.10 and 6.11 below:

- From Rowner Rd to M27 J9 (via Titchfield Road) and vice versa;
- From Broom Way / Cherque Way to M27 J11 (via Newgate Lane) and vice versa;
- Newgate Lane only (in both directions); and
- Titchfield Road only (in both directions).

Table 6.10 – Average Journey Times Extracted from SRTM: Northbound Routes

Route	2019 DM		2019 DS1		2019 DS2	
	AM	PM	AM	PM	AM	PM
From Rowner Rd to M27 J9 (via Titchfield Road)	00:18:15	00:16:49	00:18:14	00:16:59	00:20:01	00:17:30
From Broom Way / Cherque Way to M27 J11 (via Newgate Lane)	00:11:24	00:10:15	00:11:29	00:10:17	00:11:10	00:10:26
Newgate Lane only	00:09:31	00:08:28	00:09:37	00:08:29	00:09:18	00:08:39
Titchfield Road only	00:06:22	00:05:39	00:06:21	00:05:37	00:06:44	00:05:46

Table 6.11 – Average Journey Times Extracted from SRTM: Southbound Routes

Route	2019 DM		2019 DS1		2019 DS2	
	AM	PM	AM	PM	AM	PM
From Rowner Rd to M27 J9 (via Titchfield Road)	00:17:21	00:17:52	00:17:25	00:17:50	00:17:41	00:17:54
From Broom Way / Cherque Way to M27 J11 (via Newgate Lane)	00:15:37	00:15:49	00:15:49	00:15:41	00:15:53	00:15:44
Newgate Lane only	00:08:37	00:08:51	00:08:49	00:08:42	00:08:57	00:08:49
Titchfield Road only	00:05:13	00:05:39	00:05:14	00:05:39	00:04:59	00:04:55

The tables above show that there are forecast to be only minimal changes in journey time on any of the assessed routes between the 2019 DM and DS1 scenarios. These relatively low level changes are due mainly to the fact that a wide area traffic model such as the SRTM is largely unable to pick up on the type of improvements to traffic flow that the scheme will entail. For example, the expected improvements to traffic flow due to the wider carriageway, removal of frontage accesses and lack of cyclists on-carriageway will only be modelled in the SRTM as an increase in carriageway width from circa 6.2m up to 7.3m. This in itself will have a relatively minor impact on modelled traffic speeds and means that in reality there are likely to be greater reductions to journey time in both directions than shown in the above table.

Between the 2019 DS1 and DS2 scenarios there are forecast to be increases in northbound journey time on the two Titchfield Road routes in the AM peak period and slight decreases on the two Newgate Lane routes. In the PM peak period there are forecast to be slight increases in journey time on all routes. In a southbound direction there are forecast to be slight increases in journey time on the majority of routes in both peak periods, with the exception being that on Titchfield Road there is forecast to be a slight decrease in journey time in the AM peak period and a marked decrease in journey time in the PM peak period.

The slight decreases in journey time along Newgate Lane routes can be attributed to the reduction in traffic flows along Newgate Lane associated with the Stubbington Bypass and in a similar manner the reductions along Titchfield Road can be attributed to the reduced volume of traffic routing through Stubbington once the Bypass is complete. The slight increase in journey time on routes that involve Rowner Road and Broom Way can be attributed to the increased volume of traffic that is attracted to use these routes to access the Bypass once it has been completed.

It's important to note again that in addition to anticipated journey time reductions, a key aspect of this scheme will be the improvements to journey time reliability that the scheme will entail. This means that the significant fluctuations in journey time that are currently experienced along Newgate Lane will be lessened and instead drivers will experience more consistent journey times due to the absence of factors which may cause them to fluctuate, such as on carriageway cyclists, poor highway geometry and frontage accesses.

6.3 JUNCTION MODELLING – HIGHWAY IMPACT

In order to quantify the impact of constructing the NGLS scheme at key junctions on the local highway network, junction assessments were initially undertaken for the 2019 opening year only. Modelling has been carried out for the three 2019 forecast year scenarios detailed in the previous section and as no junctions are forecast to have capacity issues following the 2019 DS2 scenario tests, no further assessments have been carried out for the 2036 forecast year. Assessments were carried out for all junctions that were analysed in the baseline scenario in Section 3.2.2, plus the new junction that will be constructed to link the new alignment to Old Newgate Lane.

In the Do Minimum scenario the Peel Common roundabout will be assessed using the planned improvement scheme (but without the NGLS or Stubbington Bypass 'bolt-on' improvements), while in the Do Something scenarios the appropriate layout with further 'bolt-on' improvements will be assessed. At the Speedfields Park and Longfield Avenue junctions the new junction layouts that are currently being constructed will be assessed, while at the Quay Street roundabout the existing layout will be assessed. Where relevant the junction assessments will use the same models that were built to assess the 2015 baseline scenario. The new junction that would link the new alignment to the old alignment of Newgate Lane will only be assessed in the two Do Something scenarios. Full details of the mitigation schemes associated with the NGLS scheme are provided in Chapter 7.

Where relevant the junction assessments have used the same models that were built to assess the 2015 baseline scenario and where an improvement scheme is being assessed, the model has been built using geometric data derived from the scheme drawings and/or modelling undertaken by HCC ITS department. For full details of the modelling terminology please refer to the description provided in Section 3.2.2. The traffic flows (as output from the SRTM) that have been modelled at each of the junctions in each scenario are provided at Appendix G, while the modelling outputs are provided at Appendix H.

6.3.1 Peel Common Roundabout

Tables 6.12 and 6.13 below provide the results of the *LinSig V3* modelling that has been undertaken for the various proposed scheme layouts, using 2019 SRTM forecast traffic flows associated with each of the three scenarios, for the AM and PM peak hours. The 2026 DM scenario utilises the 'Phase 1' planned improvement layout, which will come forward prior to either the NGLS scheme or the Stubbington Bypass. The 2026 DS1 scenario utilises the 'Phase 2' layout that includes further 'Bolt-on' improvements to the layout to accommodate the NGLS scheme. The 2026 DS2 scenario utilises the 'Phase 3' layout that includes additional further 'Bolt-on' improvements to accommodate the Stubbington Bypass, in addition to the NGLS scheme. Further details of the three scheme phases are provided in Section 7.2 of this report.

The results show that in the 2019 Do Minimum scenario using the Phase 1 layout all approaches are forecast to operate within capacity in both the AM and PM peak periods, but there is forecast to be little spare capacity in either peak period with a PRC of approximately

2% in both cases. In the 2019 DS1 scenario under the Phase 2 layout, all approaches are again forecast to operate within capacity in both the AM and PM peak periods, with a PRC of approximately 12% in the AM peak and 13% in the PM peak. In the 2019 DS2 scenario using the Phase 3 layout, the forecast results are very similar to the DS1 scenario in the PM peak hour, while in the AM peak hour the Phase 3 layout offers further improvements such that the PRC is approximately 26%, due largely to the increased capacity available to the Rowner Road arm.

Table 6.12 – Peel Common Roundabout 2019 Modelling Results: AM Peak Hour

Arm	2019 DM		2019 DS1		2019 DS2	
	DoS (%)	MMQ	DoS (%)	MMQ	DoS (%)	MMQ
B3385 Newgate Lane	71.2	10	51.5	6	49.7	6
Circ. @ Newgate Ln	43.6	4	49.0	4	46.2	1
B3334 Rowner Road	88.0	15	80.1	13	71.6	13
Circ. @ Rowner Rd	81.5	6	61.5	4	53.8	4
B3385 Broom Way	84.3	11	76.1	7	69.5	10
Circ. @ Broom Way	69.9	3	55.4	2	57.5	2
B3334 Gosport Road	37.5	2	31.8	2	70.5	11
Circ. @ Gosport Rd	N/A	N/A	N/A	N/A	46.0	6
Overall PRC	2.3% @ 120 sec. cycle		12.4% @ 120 sec. cycle		25.7% @ 90 sec. cycle	

Table 6.13 – Peel Common Roundabout 2019 Modelling Results: PM Peak Hour

Arm	2019 DM		2019 DS1		2019 DS2	
	DoS (%)	MMQ	DoS (%)	MMQ	DoS (%)	MMQ
B3385 Newgate Lane	88.5	17	79.0	11	76.7	10
Circ. @ Newgate Ln	68.8	8	54.8	6	58.3	1
B3334 Rowner Road	84.9	9	79.8	9	79.3	12
Circ. @ Rowner Rd	71.5	3	54.1	1	53.3	6
B3385 Broom Way	68.7	8	51.3	6	47.4	7
Circ. @ Broom Way	51.0	1	42.0	2	49.0	7
B3334 Gosport Road	67.5	8	57.4	6	79.6	16
Circ. @ Gosport Rd	N/A	N/A	N/A	N/A	42.6	4
Overall PRC	1.7% @ 120 sec. cycle		12.7% @ 120 sec. cycle		13.1% @ 90 sec. cycle	

6.3.2 Newgate Lane / Speedfields Retail Park

Tables 6.14 and 6.15 below provide the results of the *Junctions 8* modelling that has been undertaken for the layout that is currently being constructed as part of the Newgate Lane north improvements, using 2019 SRTM forecast traffic flows associated with each of the three scenarios, for the AM and PM peak hours.

The results show that in the 2019 Do Minimum scenario all approaches are forecast to operate within capacity in both the AM and PM peak hours, although in the PM peak hour the Speedfields Park arm is forecast to be approaching capacity. In the 2019 DS1 scenario

all approaches are again forecast to operate within capacity in both peak hours and the Speedfields Park arm is again forecast to be approaching capacity in the PM peak hour. Given that the RFC has only increased by 0.004 the fact that the queue is forecast to increase by 27 PCUs indicates that entry starvation of the nearside flare lane is occurring due to the short flare length on this approach and the fact that the majority of vehicles are turning right. In the 2019 DS2 scenario all approaches are forecast to operate within capacity in both peak hours and the forecast queue length on the Speedfields Park arm has significantly reduced in the PM peak hour, due to the reduced southbound flow on Newgate Lane that is associated with the implementation of the Stubbington Bypass.

Table 6.14 –2019 Modelling Results: AM Peak Hour

Arm	2019 DM		2019 DS1		2019 DS2	
	RFC	Max. Queue	RFC	Max. Queue	RFC	Max. Queue
Newgate Lane (North)	0.606	1	0.610	1	0.594	1
Speedfields Park	0.593	2	0.548	1	0.443	1
Newgate Lane (South)	0.430	1	0.428	1	0.401	1

Table 6.15 –2019 Modelling Results: PM Peak Hour

Arm	2019 DM		2019 DS1		2019 DS2	
	RFC	Max. Queue	RFC	Max. Queue	RFC	Max. Queue
Newgate Lane (North)	0.570	1	0.619	1	0.364	1
Speedfields Park	0.903	32	0.907	59	0.709	3
Newgate Lane (South)	0.225	1	0.220	1	0.240	1

6.3.3 Newgate Lane / Longfield Avenue

Tables 6.16 and 6.17 overleaf provide the results of the *Junctions 8* modelling that has been undertaken for the layout that is currently being constructed as part of the Newgate Lane north improvements, using 2019 SRTM forecast traffic flows associated with each of the three scenarios, for the AM and PM peak hours.

The results show that in the 2019 Do Minimum scenario all approaches are forecast to operate within capacity in both the AM and PM peak periods, although the Newgate Lane (North) approach is forecast to be approaching capacity in the AM peak hour but does not have a significant queue length. In the 2019 DS1 scenario there are not forecast to be any significant changes in RFC or queue length in either the AM or PM peak hour and all approaches are forecast to continue to operate within capacity. In the 2019 DS2 scenario there are forecast to be noticeable reductions in capacity on the majority of arms due to the reduced traffic flows through this junction as a result of constructing the Bypass, and all arms are forecast to operate within capacity in both peak periods.

Table 6.16 –2019 Modelling Results: AM Peak Hour

Arm	2019 DM		2019 DS1		2019 DS2	
	RFC	Max. Queue	RFC	Max. Queue	RFC	Max. Queue
Newgate Lane (North)	0.897	5	0.853	4	0.729	2
Davis Way	0.243	1	0.208	1	0.121	1
Newgate Lane (South)	0.506	1	0.509	1	0.508	1
Longfield Avenue	0.735	4	0.737	4	0.492	1

Table 6.17 – 2019 Modelling Results: PM Peak Hour

Arm	2019 DM		2019 DS1		2019 DS2	
	RFC	Max. Queue	RFC	Max. Queue	RFC	Max. Queue
Newgate Lane (North)	0.798	2	0.847	3	0.627	1
Davis Way	0.413	1	0.518	2	0.228	1
Newgate Lane (South)	0.660	1	0.659	1	0.619	1
Longfield Avenue	0.582	1	0.631	1	0.203	1

6.3.4 A27 / A32 Quay Street Roundabout

As shown in the junction turning counts provided at Appendix G, there are forecast to be only negligible changes in traffic flow at the Quay Street roundabout as a result of implementing the NGLS scheme (2019 DM to 2019 DS1 scenarios). When the NGLS and Stubbington Bypass schemes are considered together (2019 DM to 2019 DS2 scenarios) there is forecast to be an overall reduction in traffic flow at the junction, due to the re-routing of traffic that occurs on the wider network as a result of the Stubbington Bypass. The forecast changes in traffic flow in each scenario and each peak period are summarised in Table 6.18 below and given the forecast changes it is not considered necessary to undertake any modelling of this junction.

Furthermore, given the improvement scheme that has recently been implemented at this junction there is unlikely to be scope for significant further works, as any opportunities to improve / maximise capacity were taken at that time as part of the design process. Significant constraints on further works are imposed by the A27 westbound flyover and by a railway line viaduct, both of which run in an east-west direction just to the south of the roundabout. Third party land also poses a constraint to the north, east and west of the junction and Fareham Creek / the River Wallington to the south.

Table 6.18 – 2019 Change in Traffic Flows: Quay Street Roundabout

Scenario	2019 DM to 2019 DS1		2019 DM to DS2		2019 DS1 to DS2	
	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
Junction Total	-15	+11	-44	-82	-29	-93
To A32 Southbound	-14	+9	-40	-45	-26	-54
From A32 Northbound	-1	+5	-11	-56	-10	-61

6.3.5 Newgate Lane South / Old Newgate Lane Link Road

As this junction is not included within the SRTM, traffic flows to and from the new link road have been derived using a TRICS-based methodology for each of the main land use types located on the existing Newgate Lane that would be accessed via the new link road. The main land uses are residential dwellings, two small vehicle repair garages, a small car showroom, two nursing homes, and the Peel Common Sewage Works. A brief description of the different land uses and their associated trip generation is provided below and the full details, including TRICS outputs, are provided in Appendix I. All trip rates were derived using TRICS version 7.1.3.

Residential Trips

The vehicular trip generation for the residential element has been derived using trip rates for the TRICS category 'Houses Privately Owned' and sites were selected that were located in southern counties, the Midlands or East Anglia, excluding Greater London. The sites selected had between 25 and 200 dwellings, were surveyed on a Tuesday, Wednesday or Thursday during the last ten years and were located in Suburban Area or Edge of Town locations. The output trip rates were based on a total of ten sites and were **0.565** vehicle trips per dwelling in the AM peak hour and **0.629** in the PM peak hour.

It is estimated that there are currently approximately 90 residential dwellings located along the relevant section of Newgate Lane and on Woodcote Lane and Albert Road (based on Ordnance Survey mapping and postcode address data). To allow for a 10% contingency the calculated trips will be based on 100 dwellings and based on the above trip rates, the total number of trips generated by 100 dwellings is shown in Table 6.19 below.

Nursing Home Trips

The vehicular trip generation associated with the nursing homes has been derived using trip rates for the TRICS category 'Health-Care Home' and due to the paucity of suitable sites, sites were selected from any part of England, excluding Greater London. The sites selected were surveyed on a weekday during the last ten years, had an average of 36 residents and were located in Suburban Areas. The output trip rates were based on a total of four sites and were **0.212** vehicle trips per resident in the AM peak hour and **0.140** in the PM peak hour.

There are currently two nursing homes along Newgate Lane; 'Peel House Nursing Home' and 'Tudor Lodge Nursing Home', which according to their websites accommodate 46 and 56 residents respectively. Based on the above trip rates, the total number of trips generated by 102 nursing home residents is shown in Table 6.19 below.

Vehicle Repair Garage

The vehicular trip generation associated with the vehicle repair garages has been derived using trip rates for the TRICS category 'Vehicle Services – Vehicle Repair Garage (Slow Fit)'. Sites were selected that were located in southern counties, the Midlands or East Anglia, excluding Greater London and were surveyed on a weekday during the last 15 years. All sites were located in Suburban Area or edge of town locations and had a Gross Floor Area (GFA) between 333m² and 900m². The output trip rates were based on a total of six sites and were **1.938** trips per 100m² GFA in the AM peak hour and **1.963** in the PM peak hour.

There are currently two vehicle repair garages on Newgate Lane; both of these appear to be small operations and with no specific information available on their size, the GFA has been estimated at 500m² per garage. Based on aerial photography, OS mapping and the other

sites available in TRICS, this is considered to be a robust estimate. Based on the above trip rates the total number of trips generated by 1000m² GFA is shown in Table 6.19 below.

Car Showroom

The vehicular trip generation associated with the car showroom has been derived using trip rates for the TRICS category 'Car Show Rooms' and sites were selected that were located in southern counties, the Midlands or East Anglia, excluding Greater London. The sites selected were surveyed on a weekday during the last 15 years and were located in Suburban Area or Edge of Town locations. All sites had a GFA between 695m² and 1350m². The output trip rates were based on a total of six sites and were **3.357** trips per 100m² GFA in the AM peak hour and **2.001** in the PM peak hour.

There was no specific information on the size of the car showroom, but it appears to be a small operation and based on OS mapping and aerial photography its size has been estimated at 500m² GFA, which is considered to be a robust estimate. Based on the above trip rates the total number of trips generated by 500m² GFA is shown in Table 6.19 below.

Peel Common Sewage Treatment Works

There is no comparable site available within the TRICS database for a sewage treatment works. Given the anticipated low volume of traffic that is likely to be accessing the site in the peak hours and the robust methodology used to forecast the trip generation associated with other land uses, no separate allowance will be made for trips associated with the Sewage Works. Any traffic routing to/from the sewage works would not be expected to have a material impact upon the operation of the new junction, over and above the traffic flows that have been allowed for.

Table 6.19 – Trip Generation for Old Newgate Lane Link Road

Land Use	AM Peak Hour			PM Peak Hour		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Residential	17	40	57	39	24	63
Care home	12	10	22	6	8	14
Car Garage	13	7	20	8	12	20
Car Showroom	12	5	17	3	7	10
Total	52	62	114	55	51	107

* Note that rounding accounts for any inconsistencies in the table

The data in Table 6.19 shows that in the AM peak hour there are expected to be a total of 114 vehicles routing to and from the new link road from the new alignment of Newgate Lane, while in the PM peak hour the corresponding figure is 107 vehicles.

This traffic has been distributed at the new junction based on the proportion of traffic in the SRTM model routing northbound and southbound on the new Newgate Lane, in each peak period and model scenario. For example if 60% of traffic is travelling northbound, then 60% of arrivals will come from the south and 60% of departures will go to the north, with the remaining 40% arriving from the north and departing to the south.

Tables 6.20 and 6.21 show the results of the *Junctions 8* modelling that has been undertaken for the proposed new junction layout (described in Section 5.2 and shown in drawings EC/CJ007861/018 & 019 provided at Appendix E) using 2019 SRTM forecast traffic flows associated with the DS1 and DS2 scenarios, for the AM and PM peak hours. Note that the DM scenario has not been assessed as this junction would only be constructed

as part of the NGLS scheme. Traffic flows for the new Newgate Lane alignment have been derived from the northbound and southbound link flows extracted from the SRTM for the relevant scenario and peak period.

The modelling results show that all approaches are forecast to operate within capacity in both the AM and PM peak hours, in both the 2019 DS1 and DS2 scenarios.

Table 6.20 – 2019 Modelling Results: AM Peak Hour

Arm	2026 DS1		2026 DS2	
	RFC	Max. Queue	RFC	Max. Queue
Newgate Lane (South)	N/A	N/A	N/A	N/A
Link Road	0.29	1	0.16	1
Newgate Lane (North)	0.06	1	0.05	1

Table 6.21 –2019 Modelling Results: PM Peak Hour

Arm	2026 DS1		2026 DS2	
	RFC	Max. Queue	RFC	Max. Queue
Newgate Lane (South)	N/A	N/A	N/A	N/A
Link Road	0.31	1	0.14	1
Newgate Lane (North)	0.06	1	0.05	1

6.4 IMPACT ON SUSTAINABLE TRANSPORT MODES

6.4.1 Pedestrians

As detailed in Section 5.5, there will be no change to any existing PRoW, as no routes currently cross the new alignment of Newgate Lane. Where the new alignment crosses the Brookers Lane path an informal crossing will be provided, in the form of a central refuge with dropped kerbs and tactile paving. A similar crossing will also be provided 300m north of the new ghost island junction near to the Tudor Lodge Nursing home, which is provided solely to enable pedestrians to access new bus stops being provided at this location (see Section 6.4.3 below).

Although there is no footway being provided alongside the new route of Newgate Lane, the pedestrian amenity is being enhanced in several of ways as part of the scheme:

- The significantly reduced traffic flows along the old alignment of Newgate Lane will provide a safer and more pleasant environment for pedestrians;
- The new staggered toucan crossing facility at the southern end of the new alignment of Newgate Lane will enable pedestrians to safely cross both carriageways;
- The new surface for Brookers Lane path will provide a surface that is usable in all weathers and provides a much better environment for disabled and elderly users; and

- A new section of footway is being provided between the old and new routes of Newgate Lane, to enable pedestrians to access the new bus stops near to the Tudor Lodge Nursing Home that are being provided as part of the scheme.

6.4.2 Cyclists

No existing formal cycle routes are impacted upon by the NGLS scheme and the principal impact of the scheme upon cyclists will be a positive one, due to the significant reduction in traffic flows along the existing alignment of Newgate Lane. Although the old alignment will be stopped up for vehicular traffic it will still be open to cyclists at the northern and southern ends, and this means that cyclists that currently use Newgate Lane will experience a much safer and more pleasant environment. To take advantage of this (as detailed in Section 5.5) the old alignment of Newgate Lane will be designated as an advisory on-road cycle route with cycle destination signs, in order to encourage more cyclists to use the road to route between Peel Common and southern Fareham.

New staggered toucan crossing facilities will be provided at the southern end of the new route of Newgate Lane, just to the north of Peel Common roundabout. This crossing will connect to the shared use path that routes around the northern side of the roundabout and will enable cyclists to safely cross both carriageways of the new road.

The provision of the new surface for the Brookers Lane path will also be of benefit to cyclists, as it will entail a better surface that is usable in all weathers and by all types of cyclist.

6.4.3 Buses

As detailed in Section 3.4 the only bus that currently routes along Newgate Lane is service 21/21A that connects Fareham, Stubbington and Hill Head. Along Newgate Lane this service generally has an hourly frequency in each direction and would use the new alignment of Newgate Lane instead of the old one. To facilitate this (as detailed in Section 5.5) new bus stops will be provided on both sides of the new road at two different locations and one set of existing bus stops will effectively be moved. It should be noted that the new bus stop locations will ensure that the vast majority of residents of Newgate Lane and Albert Road will be able to access a bus stop within a 400m walking distance. The following is a summary of the existing and proposed bus stop provision:

- The existing bus stops towards the southern end of Newgate Lane (just to the north of Peel Common roundabout) will be moved to Gosport Road, to a location approximately 60m west of the Peel Common roundabout. This involves a displacement of approximately 175m from the existing bus stop locations;
- The existing bus stops in the vicinity of the Woodcote Lane / Albert Road junctions will be re-provided at a location on the new alignment of Newgate Lane adjacent to the eastern end of Woodcote Lane. This involves a displacement of approximately 300m from the existing bus stop locations;
- The existing bus stops to the south of Tudor Lodge nursing home will be re-provided on the new road approximately opposite the nursing home, with a new footway provided to access them. This involves a displacement of approximately 225m from the existing bus stop locations; and
- The existing bus stops in the vicinity of the access to the Peel Common Sewage Works will not be replaced due to the low number of properties at this location. The nearest new bus stops are located approximately 500m away, at the eastern end of Woodcote Lane.

Delay for buses along Newgate Lane should reduce when compared to the exiting situation, due to the provision of a wider carriageway and better highway alignment. There will also be less delay as cyclists will no longer be located on carriageway, reducing the propensity for buses to get delayed behind cyclists.

The SRTM provides data on journey times between two points for all types of vehicle, including buses and it is therefore able to give an indication of the impact of providing the NGLS scheme on bus journey time and delay. The data shown in Table 6.22 (extracted from the SRTM) provides a comparison of the journey times for bus service 21/21A, as it routes between Fareham and Stubbington, for the 2036 DM, DS1 and DS2 scenarios. The 2036 scenario was chosen in order to illustrate the longer term impact of the scheme on journey times, as the impact on 2019 journey times was discussed in Section 6.2.2.

The results show that overall small reductions to bus journey times are forecast to occur as a result of constructing the NGLS scheme (2019 DM to DS1 scenarios). Between Stubbington and Fareham overall journey times are forecast to reduce by between 21 and 28 seconds in the three modelled peak periods. Between Fareham and Stubbington the overall journey times are forecast to reduce by between 12 and 30 seconds in the AM and inter-peak periods, and by between 38 and 59 seconds in the PM peak period.

The results show that compared to the negligible forecast changes in journey time over the short term (2019 scenario) and indeed small increases in journey time on some routes, over the longer term (2036 scenario) the scheme is expected to deliver consistent journey time savings (albeit minor in magnitude) as traffic flows increase on the wider network.

It's again worth noting that these relatively low level changes are due mainly to the fact that a wide area traffic model such as the SRTM is largely unable to pick up on the relatively subtle improvements in traffic flow that the scheme will entail. For example the expected improvements to traffic flow due to the wider carriageway, lack of cyclists on-carriageway and removal of frontage accesses will only be modelled in the SRTM as an increase in carriageway width from circa 6.2m up to 7.3m, which will have a relatively minor impact on modelled traffic speeds.

Table 6.22 – 2036 Bus Journey Time Comparison: Service 21/21A

Route	Peak Period	DM	DS1		DS2	
		Time	Time	Change (DM)	Time	Change (DM)
21: Stub'tn – F'ham	AM	00:20:23	00:20:00	-00:00:23	00:19:28	-00:00:55
	IP	00:17:58	00:17:32	-00:00:26	00:17:12	-00:00:46
	PM	00:18:09	00:17:45	-00:00:24	00:17:38	-00:00:31
21: F'ham – Stub'tn	AM	00:30:26	00:30:14	-00:00:13	00:29:40	-00:00:46
	IP	00:28:28	00:28:05	-00:00:23	00:27:41	-00:00:47
	PM	00:29:42	00:29:04	-00:00:38	00:28:30	-00:01:12
21A: Stub'tn – F'ham	AM	00:24:40	00:24:19	-00:00:21	00:23:29	-00:01:11
	IP	00:22:42	00:22:17	-00:00:25	00:21:58	-00:00:44
	PM	00:21:49	00:21:21	-00:00:28	00:21:07	-00:00:42
21A: F'ham – Stub'tn	AM	00:30:40	00:30:28	-00:00:12	00:29:58	-00:00:42
	IP	00:30:09	00:29:39	-00:00:30	00:29:21	-00:00:48
	PM	00:30:35	00:29:37	-00:00:59	00:29:25	-00:01:10

6.5 IMPACT ON LOCAL ACCESSSES

Residents of properties along the current alignment of Newgate Lane between Tanners Lane and the Peel Common roundabout will experience a longer route in order to attain vehicular access to their property from the local highway network, but access will be facilitated via the new ghost island junction. Any increase in journey time should be offset by the significant reduction in vehicular traffic routing past these properties as a result of the scheme.

In order to ensure continued access to the fields through which the new road will pass field access gates and associated waiting areas will be provided at several locations along the alignment, as follows (the location of all field accesses are shown on the general arrangement drawings provided at Appendix E and the Plan and Profile drawings):

- Approximately 100m south of the northern end of the scheme, to provide access to HMS Collingwood playing fields on the eastern side of the road;
- Just north of the new link road on the eastern side of the old route of Newgate Lane, in order to provide field access;
- Approximately 175m north of the Brookers Lane path, to provide access to fields on the eastern side of the road; and
- There will also be three locations where access will be provided to new drainage detention basins that will be created on the western side of the new road as part of the scheme.

6.6 IMPACT ON HIGHWAY SAFETY

The NGLS scheme and associated junctions will be designed to be in full accordance with DMRB standards and will include the latest technology in terms of signal controllers and lighting. With regard to visibility the following is part of the design:

- All sections of highway will either meet or exceed the DMRB Desirable Minimum standard for Stopping Sight Distance (SSD) for a road with a 40mph speed limit (70kmph design speed);
- The new junctions (at Peel Common roundabout and with the link road to Newgate Lane) will either meet or exceed the DMRB Desirable Minimum standards for forward visibility on every approach to either primary signal heads (at signal junctions) or to the give-way line (at priority junctions);
- All new junctions will also meet or exceed the DMRB Desirable Minimum standards for SSD to the forecast back of queue length on all approaches; and
- All new uncontrolled crossing points will have visibility splays to approaching traffic that either meet or exceed the DMRB Desirable Minimum standards.

The creation of the new alignment for Newgate Lane as part of the NGLS scheme will enhance the amenity for cyclists by significantly reducing the volume of vehicular traffic routing along the existing alignment of Newgate Lane and therefore provide a much safer environment for cyclists travelling between Peel Common and southern Fareham. This should significantly reduce the number of recorded collisions involving cyclists.

With regard to motorcyclists, the new alignment of Newgate Lane will provide better forward visibility and a wider carriageway and will therefore provide a much safer environment for motorcyclists and should help to reduce the number of observed collisions involving motorcyclists.

At Peel Common roundabout the existing committed improvement scheme will result in a significant improvement in highway safety due to the introduction of signal control on one or more approaches and the provision of new or improved controlled crossing facilities for pedestrians and/or cyclists. This should help to reduce the number of collisions recorded at this junction involving not just vulnerable users but all vehicular traffic.

As noted in Chapter 5, a Stage 1 Road Safety and Non-Motorised Users Audit has been undertaken as part of the design of the scheme and any points raised have been addressed through the current design. Going forward the design would be subject to further Road Safety Audits (RSA) before and after construction. The Stage 1 RSA and designers response is included at Appendix F.

7 Highway Mitigation Strategy

7.1 INTRODUCTION

This section provides details of the highway mitigation strategy, in terms of the improvements that are proposed to existing links and junctions in order to connect the NGLS scheme to the existing highway network and offset the impact of additional traffic associated with the scheme.

7.2 JUNCTION IMPROVEMENTS

As detailed in Section 5.3 and Section 6.3 a highway mitigation scheme is proposed at Peel Common roundabout in order to connect the new alignment of Newgate Lane to the existing highway network and offset the impact of additional traffic.

Peel Common Roundabout

There are three distinct phases to the proposed improvement scheme at Peel Common roundabout, which are summarised below. Phase 1 would be brought forward prior to the NGLS scheme, Phase 2 would be brought forward as part of the NGLS scheme, and Phase 3 would be brought forward in conjunction with the proposed Stubbington Bypass scheme. None of the schemes would involve any abortive work, such that the Phase 2 scheme is effectively a 'bolt-on' to the Phase 1 scheme and the Phase 3 scheme is a bolt-on to the Phase 2 scheme.

- **Phase 1:** This HCC scheme is currently going through the detailed design stage and construction is programmed to start on-site in Summer 2015. It involves traffic capacity improvements through the signalisation of the approaches from Newgate Lane, Rowner Road and Broom Way, additional lanes on the circulatory carriageway, Newgate Lane and Rowner Road approaches and improved pedestrian and cycle facilities around the northern and southern sides of the roundabout.
- **Phase 2:** This scheme involves further improvements to the layout in order to connect the NGLS scheme to the roundabout. The existing Newgate Lane entry/exit arms will be stopped up and the new alignment of Newgate Lane will connect to the roundabout at the north-eastern section. The new junction between Newgate Lane and the circulatory carriageway will be signalised, with three lanes on the Newgate Lane approach and two lanes on the circulatory carriageway. New signal-controlled toucan crossings will be provided over the Newgate Lane entry and exit arms, in order to accommodate the shared-use footway/cycleway that routes around the northern side of the roundabout. The proposed design is shown in the general arrangement drawing provided at Appendix E and in Plan and Profile drawing EC/CJ007861/111.
- **Phase 3:** This scheme involves further improvements to the layout in order to accommodate the Stubbington Bypass scheme and provide additional capacity to cater for the forecast increase in flow to and from the Gosport Road western arm, which is associated with the Bypass. The scheme design is shown in Plan and Profile drawings EC/RJ504603/01/170 and 171 included as part of the Planning Application for the Bypass. It involves the signalisation of the Gosport Road approach and widening of the carriageway to provide additional traffic lanes on the Gosport Road and Broom Way approaches, the Gosport Road exit and the circulatory carriageway at the junction with Newgate Lane. Signal-controlled

toucan crossings are provided on the Gosport Road entry and exit arms and the new Broom Way to Gosport Road slip road, in order to accommodate the shared-use footway/cycleway.

The above designs have all been subject to Stage 1 RSAs and any issues raised were addressed during the design process. Further details of the RSAs can be found in Appendix F.

7.3 CONSTRUCTION TRAFFIC MANAGEMENT

This section outlines information related to the construction traffic associated with the proposed NGLS scheme. More detailed information relating to construction is provided in the Construction Environmental Management Plan (CEMP) that is included as part of the Planning Statement that accompanies the Planning Application for the scheme.

7.3.1 Traffic Volumes

It is currently estimated that the NGLS scheme and associated works at the Peel Common roundabout will be built out over a 9-12 month period, with the majority of the work being done 'off-line', such that it will not interfere with the operation of the local highway network. Initial estimates are that there will be between 0-10 outward HGV movements from the site per day associated with trackout and that the average number of 2-way HGV trips per day over a 12-month build-out programme will be 20 HGVs routing to and from the site.

7.3.2 Traffic Routing

It is proposed that there will be one construction compound for the site and associated site access point for construction traffic. This will be located on Newgate Lane, adjacent to the proposed new link road junction to connect the existing and new alignments of Newgate Lane.

It is proposed that construction traffic will utilise the A27 and then Newgate Lane to access the site, with the majority of construction vehicles routing to/from Junction 11 of the M27. The construction traffic route can therefore be summarised as follows:

- M27 Junction 11 – A27 Eastern Way – A32 Gosport Road – B3385 Newgate Lane – Site Compound.

Full details of the construction traffic compound location and haul route for the scheme are shown on the drawing provided at Appendix J. This route has been chosen in order to utilise the most appropriate route for HGVs and to avoid sending construction traffic through residential areas wherever possible. The route has been checked and found to have no weight or height restrictions and is therefore considered to be suitable for construction traffic.

7.3.3 Traffic Management Plan

A detailed construction phase Traffic Management Plan (TMP) will be established by the Principal Contractor in consultation with the County Council and submitted to the Planning Authority for approval prior to the commencement of construction works. The main purpose of the TMP will be to mitigate any adverse effects on users of the local road network and to try and reduce the number of vehicle movements generated by the construction works. The TMP will be regularly reviewed and updated to take into account the changing pattern of existing traffic and construction traffic throughout the different phases of the scheme.

A summary is provided below of some of the management measures that are likely to be included within the TMP and within the wider CEMP:

- One site compound for construction vehicles to access to the site - located on the B3334 Newgate Lane, with the majority of vehicles and all HGVs routing from either M27 Junction 9 or M27 Junction 11 and via the A27 and the A32 Gosport Road;
- The establishment of a haul route for construction vehicles both off-site and on-site and road signage supporting the HGV routing strategy;
- Policy of re-use of materials on-site to minimise the amount of external transfer or import;
- Timing policy to control movement around peak times on weekdays and restrictions on evenings or at weekends, securing through condition;
- Consolidation of loads for delivery to site in order to reduce the number of HGVs travelling to/from site;
- Storage and Marshalling Yard to facilitate storage of materials as appropriate and manage exits from the site;
- Wheel washing facilities for all departing vehicles, when necessary;
- Sheeting of HGV's carrying loads likely to shed debris; and
- Establish site speed limits.

8 Summary

The Newgate Lane South scheme has been identified as part of a package of works to improve access to Fareham and the Gosport Peninsula and is a key priority for the Solent Local Enterprise Partnership (Solent LEP) in order to remove transport barriers to economic growth and to help encourage new investment and development into the area.

The southern section of Newgate Lane currently experiences significant peak period congestion due to a combination of poor carriageway alignment and width, high traffic flows and a significant number of on carriageway cyclists, the overtaking of which is limited by the carriageway geometry. Newgate Lane is one of only two major north-south routes to/from the Gosport area and the other major route, the A32 Gosport Road / Fareham Road, also experiences significant congestion during peak periods. The northern section of Newgate Lane is the subject of an improvement scheme that is currently under construction, with completion scheduled for summer 2015.

The preferred scheme for the Newgate Lane southern section has been arrived at following a process that has included detailed route option appraisal, public consultation and transport assessment work, which was informed by the Sub-Regional Transport Model (SRTM). The preferred scheme provides a new road between the Peel Common roundabout and the existing route of Newgate Lane, passing to the east of Woodcote Lane and connecting to Newgate Lane at a point just to the north of Tanners Lane.

The proposed scheme for Newgate Lane South involves the following key transport elements:

- A new 7.3m wide single carriageway road with a 40mph speed limit;
- A new section of single carriageway road to link to the existing route of Newgate Lane, which connects to the new road via a new ghost island priority junction;
- The provision of four new bus stops on the new road and two new bus stops on Gosport Road;
- Uncontrolled crossings of the new road at the eastern end of Woodcote Lane towards the north of the scheme, adjacent to new bus stops;
- A staggered signal-controlled crossing of the new road at the Peel Common roundabout;
- The stopping up of the current section of Newgate Lane at both ends - just to the north of the Peel Common roundabout and just to the north of Tanners Lane; and
- The designation of the current route of Newgate Lane as an advisory cycle route, due to significantly reduced traffic flows.

Transport modelling outputs described within this report demonstrate that the impact of the scheme on traffic flows across the wider highway network is forecast to be relatively minor. This is due to a number of factors, but the main benefits of the scheme are expected to be realised in terms of improvements to journey time reliability, consistently higher traffic speeds, and a safer environment for pedestrians, cyclists and vehicular traffic.

Junction modelling outputs demonstrate that following completion of the scheme all assessed junctions are forecast to operate within capacity in both the AM and PM peak periods. The report also demonstrates that pedestrian and cyclist amenity will be enhanced in a number of ways as a result of the scheme and that over the longer term there are expected to be improvements to bus journey times on the service that uses Newgate Lane.

Appendices

- Appendix A Transport Assessment Scoping Correspondence
- Appendix B Base Year SRTM Traffic Flow Outputs
- Appendix C 2015 Junction Modelling Results
- Appendix D Newgate Lane North Section Scheme Drawings
- Appendix E General Arrangement and Indicative Cross-Section Drawings
- Appendix F Stage 1 Road Safety Audit & Designers Response
- Appendix G Future Year SRTM Traffic Flow Outputs
- Appendix H 2019 Junction Modelling Results
- Appendix I TRICS Trip Rate Outputs
- Appendix J Construction Traffic Information Drawing

