

## SWANLEY TRANSPORT STUDY

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**Phase 1 Report**

**Project Ref: 119856**

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**Table of contents**

**Executive Summary ..... 6**

**1. Introduction ..... 7**

    1.1. Background ..... 7

    1.2. Methodology ..... 7

    1.3. Report Purpose ..... 8

    1.4. Sources of Information ..... 8

    1.5. Report Structure ..... 9

**2. Study Area ..... 10**

    2.1. Introduction ..... 10

    2.2. Study Area ..... 10

    2.3. Strategic Highway Network ..... 11

**3. Data Collection and Problem Identification ..... 13**

    3.1. Introduction ..... 13

    3.2. Initial Findings ..... 13

**4. Previous Studies ..... 15**

    4.1. Introduction ..... 15

    4.2. KCC Local Transport Plan ..... 15

    4.3. Sevenoaks District Strategy for Transport ..... 16

    4.4. Sevenoaks District Core Strategy (Feb 2011) ..... 19

    4.5. Sevenoaks Core Strategy Allocations & Development Management Plan (Feb 2015) 20

    4.6. Sevenoaks District Economic Development Strategy (April 2015) ..... 22

    4.7. Sevenoaks District Cycling Strategy (SDSC) ..... 22

    4.8. A Vision for Swanley and Hextable (August 2016) ..... 25

    4.9. Swanley Square Shopping Centre Planning Application (Ref. JSL/HA/11188) – Transport Assessment (June 2017) ..... 28

    4.10. Summary of Findings ..... 30

    4.11. Identification of Improvement Measures ..... 33

**5. Highway Network ..... 39**

    5.1. Introduction ..... 39

    5.2. Primary Road Network ..... 39

**Appendix A**

5.3.	Local Distributor Roads – Town Centre.....	48
5.4.	Local Distributor Roads – Wider Study Area .....	53
5.5.	Traffic Regulation Orders .....	63
<b>6.</b>	<b>Congestion Issues .....</b>	<b>64</b>
6.1.	Introduction.....	64
6.2.	Traffic Volumes and Identified Traffic Management Issues.....	64
6.3.	Congestion Hotspots .....	66
	AM Peak .....	66
	PM Peak .....	67
6.4.	Air Quality Management Areas.....	67
<b>7.</b>	<b>Collision Data Summary .....</b>	<b>69</b>
7.1.	Introduction.....	69
7.2.	U+I Report .....	69
7.3.	Swanley and Surrounding Areas Overview .....	69
<b>8.</b>	<b>Sustainable Transport .....</b>	<b>72</b>
8.1.	Introduction.....	72
8.2.	The Pedestrian Environment .....	72
8.3.	Cycling Infrastructure.....	76
8.4.	Bus Services.....	77
8.5.	Rail Services.....	81
8.6.	Taxis .....	82
<b>9.</b>	<b>Public Parking and Servicing.....</b>	<b>83</b>
9.1.	Introduction.....	83
9.2.	Existing Public Car Parks in Swanley .....	83
9.3.	On-Street Parking in Swanley .....	86
9.4.	Hextable Parking .....	88
9.5.	Swanley Village and Crockenhill .....	88
9.6.	Town Centre Disabled Parking Provision .....	88
9.7.	Servicing, Deliveries and Access to Premises .....	89
<b>10.</b>	<b>Socio- Economic Analysis.....</b>	<b>90</b>
10.1.	Introduction.....	90
10.2.	Population.....	90
10.3.	Study Area Employment Trends.....	93
10.4.	Travel to Work Patterns – Resident Population.....	94

**Appendix A**

10.5.	Travel to Work Patterns – Workday Population.....	96
10.6.	Distance Travelled to Work .....	96
10.7.	Car Ownership.....	98
<b>11.</b>	<b>Measures and Opportunities Workshop .....</b>	<b>99</b>
11.1.	Introduction.....	99
11.2.	Workshop Purpose .....	102
11.3.	Workshop Attendees .....	103
11.4.	Meeting Agenda .....	104
11.5.	Issues and Problems Discussions.....	104
11.6.	Identification of Potential Measures and Opportunities .....	110
<b>12.</b>	<b>Next Steps .....</b>	<b>114</b>
12.1.	Introduction.....	114
12.2.	Option Identification.....	114
12.3.	Early Sifting .....	114
12.4.	Option Development and Appraisal.....	115
12.5.	Strategy Development .....	115
12.6.	Phase 2 Report.....	116
<b>13.</b>	<b>Summary .....</b>	<b>117</b>

## Appendix A

### Executive Summary

This Phase 1 Report summarises the findings of the Data Collection and Problem Identification Stage.

Previous studies undertaken on behalf of Sevenoaks District Council and Kent County Council and current policy documents have been reviewed and summarised. This Phase 1 Report builds upon the findings of the previous studies that have been undertaken.

The issues and opportunities within the Swanley Transport Study, established during the Data Collection and Problem Identification Stage, can be categorized under the following headings:

- Accessibility to Green Space
- Accessibility for Pedestrians and Cyclists
- Accessibility to Bus Services
- Accessibility to Rail Services
- Public Realm
- Car Parking
- Vehicular Accessibility / General
- Traffic – Highway Safety
- Traffic – Congestion

The review of the baseline data identified some 27 specific issues within the study area that suffer from existing transport and accessibility issues. Of these 11 related to traffic including car parking, vehicular accessibility, highway safety and congestion. A further 4 related to public transport, 9 were pedestrian/cycle issues whilst the remaining 3 related to access to green space and public realm. The issues are set out in Tables 11.1 and 11.2 of this report and shown on Figure 4.2 at the end of this report.

Many of the problems and issues raised by the external attendees mirrored those already established through the data collection and analysis work summarised above.

The workshop highlighted the importance of bringing forward transport improvements that will seek to reduce congestion within Swanley town centre and improve accessibility by sustainable modes of transport.

The next phase of the study is the Option Development, Appraisal and Strategy Phase (Phase 2) which includes the identification of potential options aimed at alleviating the underlying transport issues identified in Phase 1. These potential options will be appraised against the Transport Plan transport priorities and the study objectives. The findings of the Option Development and Appraisal Stage will be set out within a Phase 2 Report.

## Appendix A

### 1. Introduction

#### 1.1. Background

- 1.1.1. A Swanley & Hextable Master Vision has been produced for Sevenoaks District Council (SDC), which sets out a 20-year vision with ideas of how to regenerate Swanley town centre and the wider area, including a new garden village. The Council's Cabinet Committee agreed to take forward the Master Vision but not to include the garden village or any building on the town recreation ground.
- 1.1.2. The Cabinet also agreed to carry out a full and comprehensive transport strategy plan to highlight how road infrastructure could be improved to reduce congestion, to undertake feasibility work relating to the main elements of infrastructure and to provide a financial assessment to better understand the scale of development required to deliver the improvements local people have said are necessary.
- 1.1.3. SWECO UK Ltd have been instructed by Kent County Council (KCC) and SDC to undertake an integrated Transport Study of access into and through Swanley by all modes of transport to establish a range of measures and initiatives that will form an overall Transport Strategy for the town.
- 1.1.4. The Swanley Transport Strategy will reflect current best practice and Government guidance. The Transport Strategy will be in line with the Master Vision for Swanley & Hextable and subsequent SDC Committee recommendations as well as the Kent Local Transport Plan 4 (and associated strategies such as for casualty reduction and active travel).
- 1.1.5. SDC are also developing a new Local Plan and need to undertake an assessment of the transport implications so that a robust evidence base can be developed to support the plan where it relates to Swanley & Hextable, as per Government Guidance to Local Planning Authorities. Therefore, the key requirement of the integrated, all mode, study is to ensure that a comprehensive evidence base is assembled that will provide clarity and an understanding of Swanley's transport problems and opportunities.

#### 1.2. Methodology

- 1.2.1. The key stages to be adopted as part of the development of the Swanley Transport Study are summarised in **Table 1.1**.

## Appendix A

Phase 0	Task 1	Inception Meeting with client
	Task 2	Input Statement / Methodology
Milestone 1: Milestone Review		
↓		
Phase 1	Task 3	Data Collection / Baseline Analysis
	Task 4	Existing / Future Problems and Opportunities / Objectives
	Task 5	Identify Environmental / Engineering Constraints
	Task 6	Phase 1 Technical Note and Meeting
Milestone 2: Baseline Data Collection and Problems and Opportunities Report		
↓		
Phase 2	Task 7	Identification of Measures
	Task 8	Feasibility and Early Sifting of Measures
	Task 9	Development and Appraisal of Measures
	Task 10	Selected Transport Strategy Development
	Task 11	Finalisation of Measures and Strategy
	Task 12	Final Reporting and Meeting
Milestone 3: Final Strategy Report		

**Table 1.1 – Methodology Key Stages and Milestones**

### 1.3. Report Purpose

1.3.1. The purpose of this report is to set out and detail the outcomes of each of the Phase 1 tasks outlined above. It summarises the outcome of the analysis of the available background data, setting out the existing and future issues identified within the study area, which informed the Phase 1 Workshop with key stakeholders. The outcomes of this workshop are also provided within this report.

### 1.4. Sources of Information

1.4.1. The following sources of information were used to inform the Study and this report:

- A Vision for Swanley and Hextable: Final Report, August 2016 (Tibbalds on behalf of Sevenoaks District Council);
- Planning Advisory Committee Minutes to the Master Vision (Item 39);
- Cabinet Minutes to the Master Vision (Item 67);
- U&I Swanley Town Centre Planning Application (Ref. 17/02279);

## Appendix A

- Strategic Housing & Economic Land Availability Assessment (SHELAA) (work in progress);
- Sevenoaks Core Strategy Allocations & Development Management Plan (Feb. 2015);
- SDC's Emerging Economic Development Action Plan (April 2015);
- The Sevenoaks District Strategy for Transport 2010 – 2026 (July 2010);
- Sevenoaks District Cycling Strategy;
- Kent Vehicle Parking Standards (Supplementary Planning Guidance SPG 4) (July 2006);
- KCC Local Transport Plan 4: Delivering Growth without Gridlock 2016 – 20131; and
- SDC's Local Development Framework Core Strategy (Adopted February 2011).

### 1.5. Report Structure

1.5.1. The remainder of this report is structured as follows:

- Chapter 2: Study Area
- Chapter 3: Data Collection and Issue Identification Stage
- Chapter 4: Previous Studies
- Chapter 5: Strategic Highway Network
- Chapter 6: Congestion Issues
- Chapter 7: Collision Data Summary
- Chapter 8: Sustainable Transport
- Chapter 9: Public Parking Analysis
- Chapter 10: Socio-Economic Analysis
- Chapter 11: Measures and Opportunities Workshop
- Chapter 12: Next Steps
- Chapter 13: Summary and Conclusions

## 2. Study Area

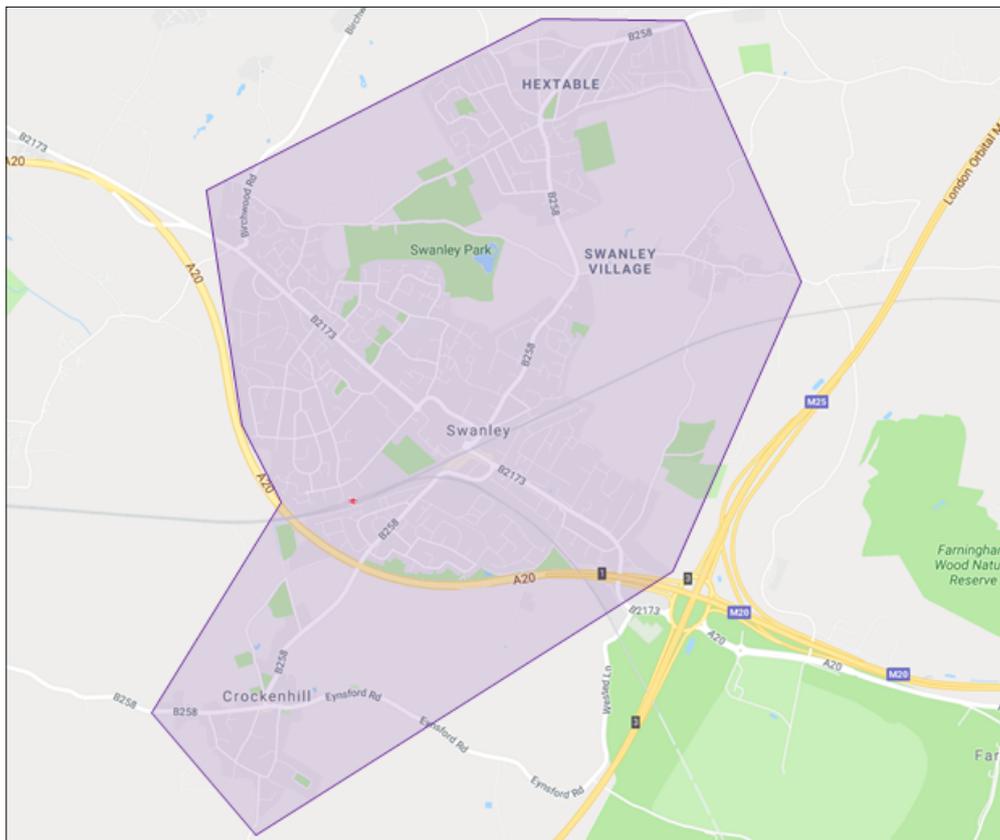
### 2.1. Introduction

2.1.1. This chapter of the report sets out the extent of the study area to be considered as part of the development of the Swanley and Hextable Transport Study. This chapter also summarises the surrounding strategic road network.

### 2.2. Study Area

2.2.1. The Study will focus on the key transport issues and problems affecting the wards within the study area, the principle routes into Swanley Town Centre, and the routes through the neighbouring villages of Hextable, Swanley Village and Crockenhill. The A20, M20 and M25 are excluded from the study however, any programmed improvements by Highways England will be noted and assessed as necessary.

2.2.2. The extent of the study area is illustrated in **Figure 2.1**.



Map property of Google Maps

**Figure 2.1 – Study Area**

## Appendix A

2.2.3. The principal routes into the Town Centre which are included within the Study area are:

- B2173 London Road (east)
- B258 Goldsel Road
- B2173/B258 High Street
- B258 Swanley Lane / Top Dartford Road
- B2173 London Road (west)

2.2.4. The other distributor roads through Swanley town centre and the study area also included within the study area are:

- Bartholomew Way
- Nightingale Way
- St Mary's Road
- Station Road / Station Approach
- Birchwood Road
- Leydenhatch Lane / New Barn Road / College Road
- Beechenlea Lane
- Wested Lane / Eynsford Road

### 2.3. Strategic Highway Network

2.3.1. This study does not include a detailed review of the A20 trunk road, the M20 and the M25, however the role that these strategic roads play in the distribution of traffic into and around Swanley is important and as such, a description of these roads is included below.

#### **A20**

2.3.2. The A20 is a major road through Kent running in a predominantly southeast to northwest direction from Dover to New Cross in south east London. It bypasses along the southern edge of Swanley where each carriageway has three lanes. Indeed, the A20 is dualled all the way into London. Vehicles travelling westbound on the B2173 can access the A20 to the west of Swanley where an on-slip is provided.

2.3.3. However, vehicles travelling eastbound to Swanley are required to exit the A20 at Sidcup and travel along the B2173 Maidstone Road / London Road or bypass Swanley on the A20 and double back along the B2173 London Road / High Street. Those undertaking this journey exit the A20 at Junction 1 of the M20 located at the south-western edge of Swanley. Junction 1 is a large signalised roundabout which also connects with Junction 3 of the M25.

2.3.4. Continuing eastbound, the A20 becomes a single carriageway road travelling along the same alignment as the M20 towards Maidstone, Ashford and Dover.

## Appendix A

- 2.3.5. There are no known recent or future planned improvements to the A20 or M20 within the vicinity of Swanley.

### **M20**

- 2.3.6. To the south east of Swanley, the A20 trunk road becomes the M20 motorway passing under the M25. From Junction 1, the M20 then continues east to Folkestone providing a link to the Channel Tunnel and the ports at Dover.
- 2.3.7. There are no known recent or future planned improvements to the M20 within the vicinity of Swanley.

### **M25**

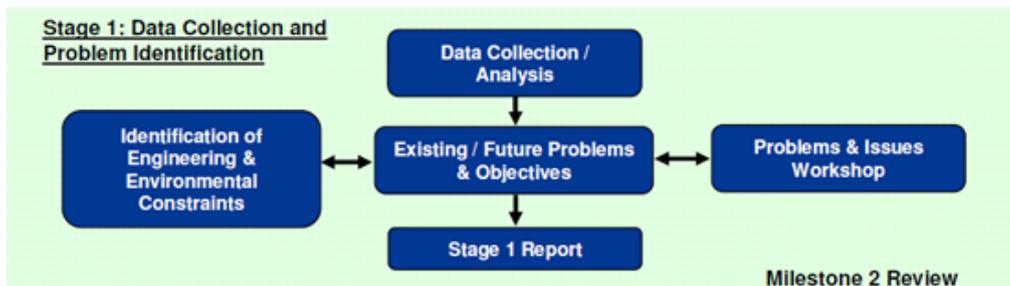
- 2.3.8. As noted above, to the east of Swanley is Junction 3 of the M25 “London Orbital Motorway” that encircles the majority of Greater London. The section of motorway adjacent to Swanley is dual three-lane. Junction 2 to the north links to the A2 trunk road towards Dartford and Bluewater.
- 2.3.9. Both Junctions 2 and 3 are included in Highways England’s M25 Improvement Programme. The proposed works to Junction 2 are programmed to begin in Spring 2018 with completion Spring 2019, whilst the Junction 3 works are programmed to commence in Summer 2018.
- 2.3.10. The improvement works to Junction 3 include full upgrade of traffic signal equipment and signal timings; widening on the roundabout and the approach roads to increase capacity; improved directional signing and road markings; and improved pedestrian and cyclist facilities in accordance with modern design standards. These works are programmed to be completed by Autumn 2019.

**Observation** – *It has been observed and advised by key stakeholders that congestion on the M25, predominantly caused by the Dartford Crossing can result in queuing on the northbound carriageway up to and through Junction 3. This results in traffic diverting off the strategic highway and through Swanley in order to avoid the delay.*

### 3. Data Collection and Problem Identification

#### 3.1. Introduction

- 3.1.1. The data collection and problem identification stage (presented within this report) forms a key phase in the development of the overall strategy. It has provided an opportunity to gain a greater understanding of the current situation and helped to quantify and validate historic perceptions.
- 3.1.2. The key elements of the data collection and problem identification stage are shown in the **Figure 3.1**.



**Figure 3.1 – Data Collection and Problem Identification Stage**

#### 3.2. Initial Findings

- 3.2.1. The key aims of the Sevenoaks District Strategy for Transport (SDST) include *‘improving accessibility to jobs and services for all sections of the community’* and to *‘reduce congestion’*. In order to achieve these aims, the objectives of the Strategy for Transport include, *‘reduce the need to travel and the distance people need to travel’* and *‘enable people to be less dependent on cars for their travel needs’*.
- 3.2.2. The main transport pressures for Sevenoaks District as identified within Chapter 7 of the Strategy for Transport include congestion in Swanley, major gaps in and poor access to the current bus network, poor provision for cyclists and pedestrians, reliance on the private car, parking problems and poor air quality (reference Section 7.3).
- 3.2.3. Section 8.3 of the Strategy for Transport states that *‘the SDST primarily sets out to reduce...traffic pressures by providing and investing in alternative modes of transport to encourage and attract people out of their cars...’* and *‘in parallel, create more capacity within the existing road network through better management of the existing road space...’*.
- 3.2.4. The focus of the data collection process has been on the key accessibility and transport issues affecting Swanley and how they are influencing modal choice and movement into and through the town. Consideration has been given to travel by all modes, including traffic congestion hotspots, public transport links, public rights of ways and cycle routes within the study area.

## Appendix A

- 3.2.5. A wide range of data sets have been collected, analysed and presented using the Geographical Information System (GIS) software MapInfo. The GIS database which has been compiled has enabled an efficient and comprehensive analysis of the study area.
- 3.2.6. The data collection and analysis work that has been undertaken is discussed in more detail in the following chapters of this Report.

## Appendix A

### 4. Previous Studies

#### 4.1. Introduction

4.1.1. Where relevant, the Swanley Transport Study makes use of information obtained from previous studies and policy documents. This ensures that best use is made of available data and the study does not replicate existing work undertaken as part of other recent Sevenoaks District Council and Kent County Council studies.

4.1.2. The following background data has been identified as being pertinent to the STS and thus has formed the basis of the work undertaken to date:

- KCC Local Transport Plan
- Sevenoaks District Strategy for Transport (July 2010)
- Sevenoaks District Core Strategy (Feb 2011)
- Sevenoaks Core Strategy Allocations & Development Management Plan (Feb 2015).
- Sevenoaks District Economic Development Strategy (April 2015).
- Sevenoaks District Cycling Strategy.
- A Vision for Swanley and Hextable (August 2016).
- Swanley Square Shopping Centre Planning Application (Ref. JSL/HA/11188) – Transport Assessment (June 2017).

#### 4.2. KCC Local Transport Plan

4.2.1. KCC's Local Transport Plan 4 (LTP4) identifies the transport priorities for the County and KCC's policies to deliver strategic outcomes for transport during the Plan period 2016-2031. The ambition for Kent is *'to deliver safe and effective transport, ensuring that all Kent's communities and businesses benefit, the environment is enhanced and economic growth is supported'*. This ambition will be realised through five overarching policies:

- Deliver resilient transport infrastructure and schemes that reduce congestion and improve journey time reliability to enable economic growth and appropriate development, meeting demand from a growing population.
- Promote affordable, accessible and connected transport to enable access for all to jobs, education, health and other services.
- Provide a safer road, footway and cycleway network to reduce the likelihood of casualties, and encourage other transport providers to improve safety on their networks.
- Deliver schemes to reduce the environmental footprint of transport, and enhance the historic and natural environment.

## Appendix A

- Provide and promote active travel choices for all members of the community to encourage good health and wellbeing, and implement measures to improve local air quality.
- 4.2.2. Kent’s transport priorities in LTP4 are described as being strategic (including New Lower Thames Crossing, Rail Improvements, Bus Improvements), countywide (including Road Safety, Active Travel and Public Rights of Way) and Local priorities for each district/borough.
- 4.2.3. The LTP4 identifies that congestion in Sevenoaks District is concentrated around Sevenoaks town and Swanley and that, where there is congestion on the M25 it can lead to inappropriate use of local roads leading to villages along the route experiencing congestion with associated air pollution concerns. There is a dependence on rail commuting into London leading to issues with “park and rail” use at stations in the District, and possible parking concerns. Also, there is a high reliance on the private car and as such, providing frequent and commercially viable bus services in the District is challenging and where public transport services are challenging to sustain, improved walking and cycling routes may provide important links.
- 4.2.4. The Local transport priorities specific to Swanley are:
- Alleviate congestion in Swanley with traffic management control and sustainable travel schemes
  - New railway station and guided busway for Swanley
  - New pedestrian footbridge over the railway line at Swanley to connect the town centre

### 4.3. Sevenoaks District Strategy for Transport

- 4.3.1. The Sevenoaks District Strategy for Transport (SDST) sets out the vision for the District’s transport network until 2026 and will be used to inform planning and transport investment decisions. A common thread throughout this strategy document is the emphasis placed on future transport demands whilst achieving the fragile balance between society’s desire for easy convenient to a variety of transport modes and the potential harm transport can impart on the environment. The SDST has been prepared by KCC with support from SDC and developed in parallel with the Sevenoaks LDF Core Strategy.
- 4.3.2. The SDST aims to respond to existing transport challenges and those that may arise as a result of the scale and distribution of development proposed in emerging spatial planning policies. The Transport Strategy recommends that future development proposed by the LDF Core Strategy. The Strategy sets out to reduce congestion and pollution and tackle problems of accessibility and road safety and the Districts priority initiatives to achieve the four shared priority objectives of the SDST which are:
- Improving accessibility
  - Tackling congestion
  - Providing safer roads

## Appendix A

- Improving air quality

4.3.3. The current top priority transport initiatives (as defined by KCCs LTP) in Sevenoaks District are summarised in Table 1 of the SDST. Together these transport initiatives, set out in **Table 4.1** below, will help to meet the four shared priority objectives of the SDST set out in Paragraph 4.3.2 above.

SDST Chapter No.	SDST Page No	Transport Issue	Primary Initiative
8	34	Roads, Traffic & Congestion	Develop a Traffic Management Control system and introduce Intelligent Transport Systems that cover the high volume main road network in Sevenoaks District and Sevenoaks and Swanley town centres.
9	40	Bus, Community Transport & Taxi	Develop a Quality Bus Partnership (QBP) or similar local agreement and improve local bus services and infrastructure to support east-west, north-south services and services to Pembury Hospital, railway stations and rural villages.
10	45	Rail Travel	In combination with measures to promote alternative forms of transport to access stations, provide sufficient off-street parking at stations and controls in nearby streets
11	53	Walking	Improve pedestrian routes between residential areas and workplaces, schools and town centres and improve access for the mobility impaired, where appropriate.
12	55	Cycling	Provide cycle friendly infrastructure and introduce new cycle routes along the main transport corridors and improve home to school links.
13	59	Powered Two-Wheelers	Promote the use of small capacity powered two wheelers (PTW) as an alternative to the car.
14	60	Smarter Choices	Expand school, workplace and area travel planning and raise awareness including through rail station travel plans.
15	62	Disability Access	To help pedestrians with mobility impairments the following actions are being taken: <ul style="list-style-type: none"> <li>• All pedestrian crossings are being upgraded to meet all current DDA requirements across the District.</li> <li>• For those with visual impairments, tactile paving will be installed at all pedestrian crossing points to help guide pedestrians safely to crossing points.</li> <li>• Ramps/dropped kerbs will be introduced along key transport corridors to improve accessibility for wheeler</li> </ul>

## Appendix A

			<p>chair, mobility scooter users, and prams and push chairs.</p> <p>Bus stops along key transport corridors will have raised kerbs installed to improve wheelchair, pram and push chair access and this programme will be applied progressively to all bus stops in the District.</p>
16	66	Freight & Heavy Goods Vehicles	Designate lorry routes within Sevenoaks District and develop a Freight Quality Partnership.
17	69	Car Parking	To promote alternative forms of transport to access stations, provide sufficient off-street long-stay parking at stations and controls in nearby streets.
18	71	Kent's Airports	Promote alternative forms of transport to access airports.
19	72	Climate Change & Transport Planning	Assist in the development and implementation of work place and school travel plans to reduce emissions from car journeys, improve air quality and promote health.
22	80	Development Planning & Transport Assessments	To ensure that Transport Assessments required under the provisions of the planning process for new developments, are developed in accordance with Kent County Council's (KCC's) Guidance on Transport.

**Table 4.1 – SDST Priority Initiatives**

4.3.4. The priority and objectives outlined above have been used to identify priorities in different parts of the Sevenoaks District. The priorities for Swanley are:

- Improve accessibility to Swanley Station by walking and cycling
- Ensure that development in Swanley does not have a significant negative impact on traffic on the Strategic Road Network
- Improve bus interchange facilities in Swanley
- Improve facilities for walking and cycling
- Bring forward measures to alleviate congestion and tackle air quality issues near Swanley town centre

4.3.5. Additional priorities for villages and rural areas are:

- Maintain and improve accessibility to jobs, shops and services by non-car means, including walking, cycling, public transport and community transport
- Bring forward measures to alleviate congestion and tackle air quality issues, including those...on the Strategic Road Network.

## Appendix A

### 4.4. Sevenoaks District Core Strategy (Feb 2011)

4.4.1. The Core Strategy is the central component of the Local Development Framework (LDF) and sets out the visions and policies for future development in the District over the period 2026 as well as providing the policy context for other Development Plan Documents. Within the spatial vision for the future of the District it is stated that:

- *'The majority of new housing development will be focused in the urban areas of Sevenoaks and Swanley'.*
- *'Swanley will be regenerated to create a town centre that better meets the needs of the community and supports the economy through development to include a mix of new shops, offices, hotel and residential development together with accompanying environmental improvements. Existing employment areas in the town will be regenerated and the quality of its environment improved so that it more effectively meets the needs of the community.'*

4.4.2. The spatial strategic objectives for Swanley are:

- To regenerate and transform Swanley town centre with a high quality new shopping, business and housing hub with an improved environment and public spaces.
- To regenerate existing employment areas within the town and provide additional opportunities for new jobs in well-designed modern premises.
- To improve the town's open space provision.

4.4.3. The spatial strategic objectives for the District include ensuring that *'any infrastructure and service improvements needed to support delivery of Core Strategy objectives and policies or resolve existing deficiencies are brought forward in a coordinated and timely manner and that new development makes an appropriate contribution towards any improvements required as a result of new development'*.

4.4.4. Section 5.2 sets out the strategic policies for sustainable development, climate change and air quality. In the context of future development in the District the main areas where there is potential to reduce emissions of greenhouse gases are:

- By locating new development where it is accessible to services and facilities thereby reducing the need to travel and requiring new dwellings, employment uses, shops and services to provide for safe and convenient public transport, walking and cycling, so that reliance on the car can be reduced. This is a key principle behind the strategy for locating development set out earlier in the document.
- By investing in public transport services and walking and cycling facilities to increase the accessibility and attractiveness of these more sustainable transport modes.

4.4.5. The policies for transport included within Policy SP 2 are:

## Appendix A

- The Council will support and promote measures to reduce reliance on travel by car both in providing for new development and in supporting measures promoted through the Transport Strategy. Specifically, it will:
  1. Support improvements to enhance the safety and convenience of public and community transport.
  2. Seek improved facilities for cyclists and pedestrians
  3. Require the inclusion of Travel Plans and other appropriate measures in new developments that generate significant traffic volumes

### 4.5. Sevenoaks Core Strategy Allocations & Development Management Plan (Feb 2015)

4.5.1. The Allocations and Development Management Plan (ADMP) is a Core Strategy document that:

- Allocates specific sites for new development such as housing and employment;
- Defines sites to be protected in their current use such as open space and employment;
- Designates boundaries for Green Belt;
- Contains detailed policies for determining planning applications; and
- Replaces all remaining policies saved from the Sevenoaks District Local Plan 2000.

4.5.2. The Travel and Transport policies are set out in Chapter 10 of the ADMP. The key policies are set out below:

- Policy T1 – Mitigating Travel Impact:

*'New developments will be required to mitigate any adverse travel impacts, including their impact on congestion and safety, environmental impact, such as noise and tranquillity, pollution and impact on amenity and health. This may mean ensuring adequate provision is made for integrated and improved transport infrastructure or other appropriate mitigation measures, through direct improvements and/or developer contributions.'*

- Policy T2 – Vehicle Parking:

*'Vehicle parking provision, including cycle parking, in new residential developments should be made in accordance with the current KCC vehicle parking standards in Interim Guidance Note 3 to the Kent Design Guide (or any subsequent replacement).*

*Vehicle parking provision, including cycle parking, in new non-residential developments should be made in accordance with advice by Kent County*

## Appendix A

*Council as Local Highway Authority or until such time as non-residential standards are adopted.*

*Notwithstanding this the Council may depart from established maxima or minima standards in order to:*

- a) take account of specific local circumstances that may require a higher or lower level of parking provision, including as a result of the development site's accessibility to public transport, shops and services, highway safety concerns and local on-street parking problems;*
  - b) ensure the successful restoration, refurbishment and re-use of listed buildings or buildings affecting the character of a conservation area;*
  - c) allow the appropriate re-use of the upper floors of buildings in town centres or above shop units;*
  - d) account for the existing parking provision (whether provided on or off-site) already attributed to the building's existing use when a redevelopment or change of use is proposed and for the use of existing public car parks outside of normal working/trading hours by restaurants and leisure uses.'*
- Policy T3 – Provision of Electric Vehicle Charging Points:

*'For all major non-residential development proposals the applicant should set out within their Transport Assessment a scheme for the inclusion of electric vehicle charging infrastructure.*

*In considering whether a publicly accessible charging point is appropriate the Council will have regard to:*

- a) the accessibility of the location;*
- b) the suitability of the site as a long stay destination during charging;*
- c) the number of existing and proposed publicly accessible charging points in the surrounding area;*
- d) the potential impact of providing electric vehicle charging points on development viability.*

*Within new residential developments all new houses with a garage or vehicular accesses should include an electrical socket with suitable voltage and wiring for the safe charging of electric vehicles.*

*Schemes for new apartments and houses with separate parking areas should include a scheme for at least one communal charging point. In non-residential developments where it is not appropriate to provide electric vehicle charging points, new development should be designed to include the electrical infrastructure in order to minimise the cost and disturbance of retrofitting at a later date.'*

## Appendix A

### 4.6. Sevenoaks District Economic Development Strategy (April 2015)

- 4.6.1. The Economic Development Strategy (EDS) sets out the major priorities for economic development in the District. The core aim of the EDS is to deliver (inter alia) projects and actions which facilitate business growth, expansion and inward investment with SDC's planning policy stipulating the protection of employment land.
- 4.6.2. The EDS states that one of the economic strengths of the District is its exceptional connectivity with excellent access to London by rail and exceptionally good access to the strategic road network through the County, (Reference Page 15). However, the District also faces a number of challenges including the need for further improvement and regeneration of the town centre, Meeting Point and Bevan Place areas of Swanley.
- 4.6.3. Strategic Objective 3 of the EDS relates to Transport and Infrastructure. A District wide objective is to ensure better integrated public transport, whilst the aims set out in the 2015 document include:
- Aim 3.2 – Inclusion of Swanley in Transport for London's (TfL) travel zone including making it Oyster card ready and making improvements to the rail station.
  - Aim 3.4 – Support efforts to improve car parking in the District.
  - Aim 3.5 – Support efforts to ease congestion in Sevenoaks and Swanley
- 4.6.4. Strategic Objective 5 relates to places for growth and improvement. It is noted from Page 36 of the EDS that 'a key part of the regeneration of Swanley is ensuring that the transport links are of sufficient quality and dealing with traffic congestion. *The train station is not currently up to standard, it lacks many of the facilities you would expect at a top quality commuter station. The accessibility is poor and it lacks appropriate signage and links to the Town Centre. The inclusion of the station in Transport for London's travel zone would assist in progressing the much needed improvements and encouraging regeneration in Swanley. The Transport Strategy for the District has identified the need to deal with congestion.*'
- 4.6.5. Swanley has since been included with TfL's Zone 8 with station having Oyster card readers. Improvements to the existing station are also being developed which are programmed for implementation between 2018 and 2021.

### 4.7. Sevenoaks District Cycling Strategy (SDSC)

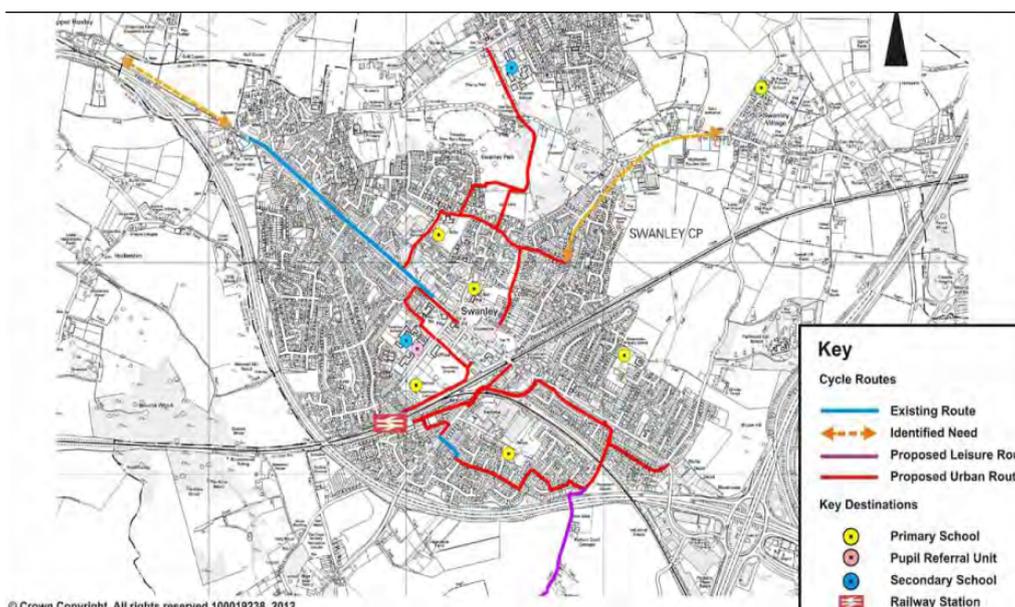
- 4.7.1. The Cycling Strategy for Sevenoaks District has been developed by Kent County Council (KCC) in partnership with Sevenoaks District Council (SDC) and provides an overarching framework for the development of cycling in Sevenoaks. It aims to enable more people to cycle more safely in the district so as to encourage a shift towards more sustainable transport choices and healthy leisure activities. A number of priority areas for action have been identified in order to help achieve this:
- 1. Creating New Routes and Linkages – seeking opportunities to develop new routes and linkages which 1) connect population centres to key services such as local schools, employment areas and transport interchanges in the main urban areas of Sevenoaks, Swanley and Edenbridge; and 2) promoting leisure cycling

## Appendix A

through the identification of attractive longer leisure routes which connect to the main urban centres.

- 2. Safer Cycling – ensuring infrastructure is well designed, prioritising routes on quiet residential streets away from busy main roads and junctions and providing road safety education
- 3. Improvements to Cycle Parking – identifying locations for additional cycle parking facilities and positioning them to maximise security.
- 4. Promotion and Encouragement – raising awareness of cycling and its benefits amongst the community.
- 5. Maintenance – ensuring existing and any future facilities are well maintained

4.7.2. To promote cycling for short distance journeys KCC and SDC will seek to develop routes and linkages which connect residential areas with key destinations including employment areas and schools, key public transport interchange points and other key services such as shopping areas, libraries and leisure facilities. A number of urban route suggestions have been made for Swanley as illustrated in **Figure 4.1** below.



**Figure 4.1 – Suggested Cycle Routes in Swanley (Extract from Figure 3 of the SDCS)**

4.7.3. The above routes are detailed within **Table 4.2** below. In identifying potential routes and linkages priority has been given to signing safe routes on residential streets which allow cyclists to avoid busier main roads and junctions without incurring excessive detours, as well as the conversion of existing footpaths to shared use. To benefit experienced cyclists, the provision of appropriate infrastructure on highly trafficked roads will be considered, such as advanced cycle stop lines, dedicated cycle lanes and Toucan crossings. Improvements in safety will also be pursued through road safety education.

## Appendix A

Route Number	Suggested Route
<i>Urban Routes</i>	
13	Link from the existing London Road cycle Lane to the town centre
14	Link from the existing London Road Cycle Lane to St Mary's Road (along Oliver Road, Ruxton Close and existing path)
15	Route across the recreational ground between the Town Centre and Swanley Railway Station
16	West-east route to the north of the town centre (along Hilda May Avenue, North-view and Woodlands Rise)
17	Link between Woodlands Rise and the town centre (upgrade existing public footpath 0262/SD81/2)
18	Link from Swanley to Hextable (through Swanley Park and along existing Footpath 0305/SD69/1) Route to the Railway Station from High Street
19	Link to Swanley Railway Station from High Street (along Station Road, Goldsel Road and Station Approach)
20	West-east link to the Railway Station from London Road (along Salisbury Avenue; restricted byway 0262/SD88/1; Glendale; Pinks Hill; Cranleigh Drive; existing cycleway; Goldsel Road; Azalea Drive and Station Road)
21	East-west route to the Railway Station from London Road (along Salisbury Avenue, St George's Road, London Road, Goldsel Road and Station Approach)
<i>Leisure Route</i>	
24	Link between Swanley and Lullingstone Castle

**Table 4.2 – Cycle Route Suggestions in Swanley (Extracted from Tables 5 & 6 of SDCS)**

4.7.4. Encouraging cycling for journeys to school is a key aim for the SDCS and part of this is the liaison with schools to encourage the provision of appropriate cycle parking facilities. Similarly, increasing cycle parking provision at rail stations is a key priority of the SDCS. During the consultation conducted as part of the Strategy, a number of potential locations for additional cycle parking facilities in Swanley were identified:

- Swanley Railway Station (additional stands);
- White Oak Leisure Centre;
- Swanley Library; and
- Schools.

4.7.5. The SDSC recognises that the promotion of cycling and its health, environmental and economic benefits will be required alongside any physical infrastructure improvements. Where possible, cycling will be encouraged through the further

## Appendix A

development of web and interactive map based resources and the continued support of national cycling events such as Bike week.

### 4.8. A Vision for Swanley and Hextable (August 2016)

- 4.8.1. A “Vision” has been prepared with the key aim of supporting the regeneration of Swanley and Hextable, in particular Swanley town centre, housing, retail and transport infrastructure and consider the replacement of Swanley’s leisure centre. The resultant Master Vision document presents a summary of the issues and opportunities that have been identified and which are being considered to help prepare a vision for regeneration. The Vision study does not carry any statutory weight, however it identified scenarios for growth and development to help inform the emerging Local Plan for Sevenoaks District.
- 4.8.2. A summary of the key access and movement issues was provided within Section 2.6 of the Master Vision document, with the supporting information provided within Appendix A of that document. The identified issues, which have been grouped together under common themes for the purposes of this Study, are set out in **Table 4.3** below.

Location	Description
<b>Accessibility to Green Space</b>	
Hextable Gardens	Poor quality of inaccessible green amenity space – Somewhat disconnected from Swanley Park and the rest of the village
Study Area as whole	Access to Swanley Park is indirect (convoluted) and difficult to access
<b>Accessibility for Pedestrians and Cyclists</b>	
Swanley Square	Routes through to the south are narrow and lead to large areas of surface car parking and exposed service yards flanked by blank walls
Swanley Town Centre	Pedestrian routes from and within the large areas of car parking are poorly catered for
	Crossing points are limited, particularly at the main junctions which form barriers to movements
Hextable	Pedestrian links to Hextable are lacking
	Access to Hextable Village Green is undermined by traffic movements along Top Dartford Road
London Road	Segregated stretch of cycle infrastructure west of the town centre on London Road – not connected to town centre
Study Area as whole	Away from London Road routes through Swanley are indirect, particularly to Swanley Park and within residential areas

## Appendix A

<b>Accessibility to Bus Services</b>	
Bartholomew Way	Bus stops particularly poor – long walking routes and disconnected from town centre
<b>Accessibility to Swanley Station</b>	
Swanley Station	Vehicular and pedestrian routes to the station are compromised and do not link well or obviously with the town centre
<b>Public Realm</b>	
Swanley Town Centre	Pedestrianised area of London Road is tired, lacks character, furniture and landscaping (outdated)
<b>Car Parking</b>	
Study Area as whole	High provision of car parking in the centre and the movement network is not conducive to walking and cycling
<b>Road Network &amp; Traffic Management</b>	
Swanley Town Centre	Diversion of traffic along Bartholomew Way and Goldsel Road has led to a traffic dominated arrangement
	Convolutated highway arrangement
Study Area as whole	Lack of traffic calming measures at certain locations
	Inability of existing junction to M25 to cope with current levels of traffic

**Table 4.3 – Summary of Existing Issues and Problems identified in the Master Vision for Swanley and Hextable**

4.8.3. Five strategic objectives were identified which were used within the Master Vision study to assess the relative merits and performance of various growth scenarios. The strategic objectives are:

- To embrace the investment opportunity to shape future town centre improvements.
- To capitalise on excellent transport links by road and rail, and proximity to London, to help create a new urban living, retail and service offer.
- To maximise the opportunities for growth by responding to housing need and demand, and changing demographic patterns.
- To strengthen the quality of the town wide green infrastructure network.
- To retain the separate identity of Swanley and Hextable.

4.8.4. There were three growth scenarios for the wider area and three growth scenarios for town centre regeneration based around “minimum”, “medium” and “transformational growth”. The development scenarios are outlined in **Table 4.4**.

Development	Development Quantum	Key Deliverables
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## Appendix A

<b>Scenario</b>		
<b>Wider Area Scenarios</b>		
Minimum Growth	22Ha of infill development – 600-700 new homes & approx. 20,000sqm of employment space	Allocated and non-allocated sites to come forward for housing and employment uses An improved Swanley Park New Hextable Parish Hub
Medium Growth	1,200 – 1,300 dwellings & approx. 60,000sqm of employment space	Allocated and non-allocated sites to come forward for housing and employment uses Potential for limited development of previously developed sites within the Green Belt but immediately adjacent to the existing settlement boundaries An improved Swanley Park New Hextable Parish Hub Employment and leisure expansion around the Olympic
Transformational Growth	3,000 new homes (exc. Town centre) & approx. 140,000sqm of B2 / B8 space	Allocated and non-allocated sites to come forward for housing and employment uses Potential for limited development of previously developed sites within the Green Belt but immediately adjacent to the existing settlement boundaries Potential for wider settlement expansion to the east of Swanley & Hextable – provision of a new station “halt” and priority bus links An improved Swanley Park New Hextable Parish Hub
<b>Swanley Town Centre</b>		
Minimum Growth	3Ha of land may be redeveloped – 350-400 dwellings & approx. 3,000-4,000sqm of retail/leisure/community space	A coordinated redevelopment plan for the area south of the High Street between the High Street, the railway, the recreation ground and Nightingale Way A new leisure facility located close to the town centre Improved pedestrian links to the station Gateway development at Bevan Place/Meeting Point
Medium Growth	7.5Ha of land may be redeveloped – 900-1,000 dwellings & approx. 8,000-9,000sqm of retail/leisure/community space	The regeneration of the ASDA block to diversify the retail offer, create permeability and connect the town centre to the north A new Healthy Living centre that incorporates Health and Wellbeing, Leisure and Civic facilities in one building Development alongside and footbridge link across the railway overlooking and adjacent to the recreation ground Increased regeneration benefits at Bevan Place by

## Appendix A

		including the West Kent Housing blocks.
Transformational Growth	11Ha of land may be redeveloped – 1,400-1,500 dwellings & approx. 14,000-16,000sqm of retail/leisure/community space	<p>New relocated station building on Station Road, bringing the station closer to the town centre</p> <p>Orchards Academy site redeveloped as an education 'hub' with new secondary and primary facilities</p> <p>Development on the site of St Marys Primary School, with direct links to the town centre</p> <p>New Civic, Health and Wellbeing, Leisure and hotel facilities overlooking a new civic space</p> <p>New open space built across the railway lines to connect the town centre to Station Road.</p>

**Table 4.4 – Summary of Growth Scenarios Assessed within the Master Vision Study**

- 4.8.5. The Master Vision document concluded that Swanley has excellent strategic transport connections, but at the same time suffers from congestion on the local road network and poor pedestrian and cycle connections. It recommended major restructuring of the town centre including rationalization of the transport network and new and improved station access arrangements. It also recommended wider improvements to the quality of the town wide Green Infrastructure Networks particularly in relation to connectivity to and through Swanley Park.
- 4.8.6. With regards the development scenarios it also recommended growth to the east of Swanley following the principles of the Garden Cities movement, as set out in the transformational growth scenario for the wider area. However, following the consultation of the Vision document Sevenoaks District Council's proposed development strategy involves a hybrid of the minimum and medium growth scenarios which only considers infill and previously developed brownfield/greenfield sites. It is this development strategy that has been considered within this Transport Study.

### 4.9. Swanley Square Shopping Centre Planning Application (Ref. JSL/HA/11188) – Transport Assessment (June 2017).

- 4.9.1. A Transport Assessment (TA) was prepared in support of the planning application for the proposed redevelopment of Swanley Square, within Swanley town centre. The TA assessed the transport implications of the development proposals looking at all modes of transport. The data and assessments within the TA have provided useful background information that has been used to inform this Transport Study.
- 4.9.2. The transport elements of the proposed development included:
- Redevelopment of the town centre car parking including a multi-storey car park with a total onsite capacity of 338 spaces.
  - Amendments to Nightingale Way to extend two-way operation to allow users of the multi-storey car park to exit via the B258/Asda Access roundabout.
  - Provision of three interactive signs for the multi-storey car park, outlining the remaining capacity and therefore reducing the opportunity for space hunting.
  - Provision of up to three car club spaces within the Site.

## Appendix A

- Enhanced pedestrian linkages within the surrounding area through the widening of footways and the implementation of shared spaces.
- 4.9.3. In addition to the above, the following mitigation measures were also proposed:
- Upgrade of the pelican crossing on the High Street to a puffin crossing facility to aid both vehicle and pedestrian flows at this location;
  - Directional and interactive signage will be provided for the car parking facility to reducing the opportunity for vehicle searching movements;
  - To ensure that local resident on-street parking is not impacted by the development proposals into the future, a financial contribution to deal with any over-spill parking issues through implementation of further parking controls;
  - A market day bus service will be provided at a half hourly frequency between approximately during Phase 1 of the construction period, for a total three-year period;
  - A Sustainable Transport fund will be provided to The Council for the enhancement of sustainable transport measures serving the proposed development;
  - Car club membership for residents will be provided for three years from occupation of the site; and
  - A Travel Plan will be uploaded to the Jambusters website with annual monitoring for a period of five years from occupation.
- 4.9.4. The U+I TA included a capacity analysis of the main town centre roundabout junctions, as listed below, which were based on manual classified turning counts of these junctions undertaken in November 2015 to establish the AM and PM peak hour flows on a typical weekday and Saturday and also in March 2016 to establish the Wednesday Interpeak during a market day.
- B258 / B2173 / London Road / St Mary's Road roundabout
  - B258 Swanley Lane / Bartholomew Way roundabout
  - B258 / Nightingale Way / Asda access roundabout
  - B258 High Street / Goldsel Road / B2173 High Street
- 4.9.5. The resultant traffic flow data will be utilised within this study as the baseline traffic flows for Phase 2 assessments, as required.
- 4.9.6. Each of the roundabout junctions was assessed using the industry standard ARCADY software. The scenarios tested included future year baseline and with development scenarios. The ARCADY outputs extracted from Appendix T to W of the U+I TA will be utilised within this study as the baseline network capacity to assist the development of highway measures within Phase 2.
- 4.9.7. The TA concluded that the existing road network was operating within theoretical capacity in the future year scenarios. The only exception was found to be the Swanley

## Appendix A

Lane and the B258 High Street arms of their respective roundabout junctions with both exceeding capacity in the AM Peak and the latter also exceeding capacity in the PM peak. It was considered that these capacity issues were because of local network issues, not because of the proposed development.

- 4.9.8. The local network issues highlighted within the TA, based on on-site observations and local knowledge, were attributed to Swanley often being used as a cut through to avoid congestion on the M25, increasing the vehicle flows through Swanley. Also, the interaction between the main road and side roads, with vehicle entering and exiting the side roads interrupting the free flow of traffic on the major road, particularly London Road and Swanley Lane.
- 4.9.9. The parking capacity assessment undertaken as part of the U+I TA highlighted that on a non-market day the town centre car parks are significantly underutilised on both a typical weekday and weekend. During market day, the U+I car park is nearing capacity during a three-hour period in the middle of the day. The on-street parking surveys undertaken showed that the maximum on-street parking stress was 60% and thus, there was some on-street parking capacity available.

### 4.10. Summary of Findings

4.10.1. The review of previous studies identified some 27 specific issues. These have been categorised into common themes based on the type of issue and the type of users affected. As a result, the issues have been grouped into the following categories within **Table 4.5**. For ease of reference, each issue has also been provided with a reference number. The location of the identified issues and problems are shown illustratively on **Figure 4.2** included at the end of this Report.

- Accessibility to Green Space
- Accessibility for Pedestrians and Cyclists
- Accessibility to Bus Services
- Accessibility to Rail Services
- Public Realm
- Car Parking
- Vehicular Accessibility / General
- Traffic – Highway Safety
- Traffic – Congestion

ID	Location	Description	Source
<b>Accessibility to Green Space</b>			
01	Hextable Gardens	Poor quality of inaccessible green amenity space – Somewhat disconnected from Swanley Park and the rest of the village	Swanley Master Vision

## Appendix A

02	Study Area as whole	Access to Swanley Park is indirect (convoluted) and difficult to access	
<b>Accessibility for Pedestrians and Cyclists</b>			
03	Swanley Square	Routes through to the south are narrow and lead to large areas of surface car parking and exposed service yards flanked by blank walls	Swanley Master Vision
04	Swanley Town Centre	Pedestrian routes from and within the large areas of car parking are poorly catered for	
05		Crossing points are limited, particularly at the main junctions which form barriers to movements	
06	Hextable	Pedestrian links to Hextable are lacking	
07		Access to Hextable Village Green is undermined by traffic movements along Top Dartford Road	
08	London Road	Segregated stretch of cycle infrastructure west of the town centre on London Road – not connected to town centre	
09	Study Area as whole	Provision for cyclists generally low	SDC – Allocations and Development Management Plan
10		Very few cycle connections in Swanley	SDC Cycling Strategy
11		Away from London Road routes through Swanley are indirect, particularly to Swanley Park and within residential areas	Swanley Master Vision
<b>Accessibility to Bus Services</b>			
12	Bartholomew Way	Bus stops particularly poor – long walking routes and disconnected from town centre	Swanley Master Vision
13	Study Area as whole	Major gaps in current bus network	SDC – Allocations and Development Management Plan
14		Vast majority of bus routes are low frequency – service frequency commonly perceived as intermittent level of service. Localised nature of some services can also impact on connectivity	Sevenoaks District Strategy for Transport 2010-2016
<b>Accessibility to Rail Station</b>			
15	Swanley Station	Vehicular and pedestrian routes to the station are compromised and do not link well or obviously with the town centre	Swanley Master Vision
<b>Public Realm</b>			
16	Swanley Town Centre	Pedestrianised area of London Road is tired, lacks character, furniture and landscaping (outdated)	Swanley Master Vision
<b>Car Parking</b>			
17	Study Area as whole	High provision of car parking in the centre and the movement network is not conducive to walking and cycling	Swanley Master Vision

## Appendix A

18		Parking problems exist around commuter stations and in town centres	SDC – Allocations and Development Management Plan
<b>Vehicular Accessibility – General</b>			
19	Swanley Town Centre	Diversion of traffic along Bartholomew Way and Goldsel Road has led to a traffic dominated arrangement	Swanley Master Vision
20		Convolutated highway arrangement	
21	Study Area as whole	Rural areas have dispersed population with reliance on car	SDC – Allocations and Development Management Plan
<b>Traffic – Highway Safety</b>			
22	Study Area as whole	Lack of traffic calming measures at certain locations	Swanley Master Vision
<b>Traffic – Congestion</b>			
23	Study Area as whole	Inability of existing junction to M25 to cope with current levels of traffic	Swanley Master Vision
24	Study Area as whole	Congestion around Swanley	SDC – Allocations and Development Management Plan
25		High Car Ownership	
26	B2173 High Street/ Goldsel Road junction	Identified congestion hotspots	Sevenoaks District Strategy for Transport 2010-2016
27	B2173 London Road/ Birchwood Road junction		

**Table 4.5 – Summary of Existing Issues and Problems**

- 4.10.2. It is also noted that the previous studies identified the potential for the provision of a “halt” station to the north of Swanley and/or the relocation of the existing station closer to the town centre. It is anticipated that these schemes would be subject to third party authorisation and funding, including developer funding. Furthermore, it was noted that these proposals were not supported by the rail operators. As a result, the provision of new station facilities is considered to be outside the scope of this Study.
- 4.10.3. In general, it was also noted that within the Study area, the railway line acts as a barrier to movement. This is particularly relevant for pedestrian and cycle movements and as such, potential for additional pedestrian and cycle infrastructure will also be considered as part of this study.
- 4.10.4. Indeed, within Sevenoak’s District including Swanley, it has been identified that there is a high dependency on rail for commuting particularly into London. Whilst commuting by rail isn’t an issue, the current high level of car trips to and from the station creates parking pressures in the town and congestion during the peak hours. As such, measures for improving modal choice to and from Swanley Station will form an integral part of the Swanley Transport strategy.

## Appendix A

4.10.5. The above Issues and Problems table has been used as the starting point for identifying transport improvement measures that, in turn, formed the basis of the related discussions at the Opportunities and Measures workshop. This is discussed in detail in Chapter 11 of this Report.

### 4.11. Identification of Improvement Measures

4.11.1. Following the identification of the issues and problems within the study area, the next stage of the process is to identify and pull together a range of potential transport improvement measures aimed at improving the current situation and building resilience to accommodate future growth within the STS study area.

4.11.2. In line with best practice DfT guidance, a long list of potential measures has been generated with an unbiased view of historic proposals and local aspirations.

4.11.3. The following sources were used to identify potential measures to be considered as part of this Study:

- Options discussed at the Inception Meeting (04/01/18);
- Options discussed in previous studies. This was important to ensure that this study takes account of the findings of previous studies which have been undertaken; and
- New options which have emerged from the findings of on-site observations and the data collection and issue identification stage of the Study set out in detail within this Report.

4.11.4. This process has, to date, resulted in the identification of 64 initial options for transport improvement measures, including a mixture of “hard” measures such as physical improvements to infrastructure and “soft” measures such as sustainable travel initiatives. The complete list of transport improvements measures identified during Phase 1 is set out in **Table 4.6**. The location of each measure is illustrated on **Figure 4.3** included at the end of this Report.

## Appendix A

Ref.	Reference/Source	Measure / Opportunity Description
<b>Pedestrians</b>		
01	Swanley Master Vision / Sevenoaks District Strategy for Transport 2010 – 2026	Improved routes connecting Swanley Town Centre to Hextable and Swanley Park
02		Improved routes connecting Swanley Town Centre to Swanley Rail Station
03		Footway widening, surfacing, lighting and signing improvements
04		Removal of street clutter and overgrown vegetation
05	Swanley Master Vision	Local marketing / promotional campaign to encourage people to walk to their local shops, schools, leisure facilities and Swanley town centre
06	U+I Application	Enhance pedestrian linkages into and through the town centre (Nightingale Way) through widening of footways, implementation of shared spaces
07		Increased permeability between town centre and recreation ground, leading to southern suburbs and train station via St Mary's Way
08		Upgrade pelican crossing on the High Street to a puffin crossing
09		Directional and interactive signage
10		Sevenoaks District Strategy for Transport 2010 - 2026
11		Promote the health benefits of walking
12	Transport Implementation Plan	Footway Link to 'Tear Drop' Centre
13		New walking and cycling link between Swanley Town Centre and Station
14	KCC Local Transport Plan 4	New pedestrian footbridge over the railway line to connect the town centre
<b>Cyclists</b>		
15		Quiet-ways between Swanley town centre and Hextable via Swanley Park
16	Swanley Master Vision / Sevenoaks District Strategy for Transport 2010 – 2026	Additional and improved cycle parking at Swanley Station, within the town centre, White Oak Leisure Centre, Swanley Library, Swanley Park and Hextable Village
17	Swanley Master Vision	Local marketing / promotional campaign on the merits of cycling in the area, encouraging people to commute to Swanley station, visit Swanley and other local amenities including schools by cycle
18	Sevenoaks District Strategy for Transport 2010 - 2026	Promote the health benefits of cycling
19		Improving safety for cyclists, particularly by providing new cycle crossings and measures to help cyclists through busy junctions
20	SDC Cycling Strategy	Road safety training and promotion of cycling

## Appendix A

21	Swanley Master Vision / Sevenoaks District Strategy for Transport 2010 – 2026 / SDC Cycling Strategy	<p>Create a well signed cycle route network incorporating both on-road and off-road routes – bring forward schemes set out in Cycling Strategy:</p> <ul style="list-style-type: none"> <li>14. Link from existing London Road cycle lane to St Mary's Road (along Oliver Road, Ruxton Close and existing path)</li> <li>15. Route across the recreation ground between the town centre and rail station</li> <li>16. West-east route to the north of the town centre (along Hilda May Avenue, Northview and Woodlands Rise)</li> <li>17. Link between Woodlands Rise and town centre (upgrade exiting public footpath 0262/SD81/2)</li> <li>18. Link from Swanley to Hextable (through Swanley Park and along existing footpath 0305/SD69/1)</li> <li>19. Link to Station from High Street (along Station Road, Goldsel Road and Station Approach)</li> <li>20. West-east link from station to London Road (along Salisbury Avenue, restricted byway 0262/SD88/1; Glendale; Pinks Hill; Cranleigh Drive; Existing cycleway; Goldsel Road; Azalea Drive and Station Road)</li> <li>21. East-west route to the station from London Road (along Salisbury Avenue, St George's Road, London Road, Goldsel Road and Station Approach)</li> <li>Suggested Leisure Route - No. 24 Link between Swanley and Lullingstone Castle</li> </ul>
<b>Public Transport - Bus</b>		
22	Swanley Master Vision / Sevenoaks District Strategy for Transport 2010 - 2026	Improve bus routes, particularly within the residential areas and interchange with Swanley Station
23		Improve bus reliability and priority particularly in the town centre
24		Improve bus stop facilities, ensuring that bus stops are located close to amenities, fully accessible, close to pedestrian crossings, provide adequate shelter, seating and easy to read (TfL style) bus maps, timetables and information
25	U+I Application	Market Day bus service
26	Sevenoaks District Strategy for Transport 2010 - 2026	Improved bus network formed around integrating and connecting four different types of bus service - Bus rapid transit (bus only routes, strong image/brand, very frequent services, off bus ticketing); Local bus services (Inc. provision of community transport); Rural bus services (better interchange with core services, mini-bus scheme supported by volunteer drivers); Inter-urban coach service; Bus Interchange (intermodal interchange, synchronisation of bus and rail timetables, joint tickets); Community Transport & Taxi Service
27		Online personal journey planning
28		Kent Freedom Pass
29		Kentcard/Smartcard Ticketing

## Appendix A

30	Transport Implementation Plan / Sevenoaks District Strategy for Transport 2010 - 2026	Improve the availability, clarity and accuracy of public transport information, including Real Time Passenger Information
<b>Public Transport - Rail</b>		
31	Swanley Master Vision	Address impact of parking on the station providing greater space for pedestrians, cyclists and better bus / station interchange
32		Better integration of the station within the town centre including new dedicated bus / station interchange facilities and new pedestrian / cyclists links
33	Sevenoaks District Strategy for Transport 2010 - 2026	Provide sufficient off-street parking at stations and controls in nearby streets
34	Transport Implementation Plan	Swanley rail station redevelopment
<b>Public Realm</b>		
35	Swanley Master Vision	Develop an area / street based palette of materials and street features e.g. lighting, street furniture and planting that reflect and enhance Swanley town centre and Hextable Village
<b>Disabled Access</b>		
36	Sevenoaks District Strategy for Transport 2010 - 2026	All pedestrian crossings are being upgraded to meet all current DDA requirements
37		Tactile paving will be installed at all pedestrian crossing points
38		Ramps/dropped kerbs will be introduced along key transport corridors
39		Bus stops along key transport corridors will have raised kerbs installed
<b>Smarter Travel Choices / Travel Planning</b>		
40	Sevenoaks District Strategy for Transport 2010 - 2026	Expand school, workplace and area travel planning and raise awareness including through rail station travel plans
41		Implementation of travel plans
42		Better integration of transport and land use planning to reduce the need to travel
<b>Powered Two-Wheeler</b>		
43	Sevenoaks District Strategy for Transport 2010 - 2026	Promote the use of small capacity powered two wheelers (PTW) as an alternative to the car
<b>Freight</b>		
44	Sevenoaks District Strategy for Transport 2010 - 2026	Controlling the flows and routing of heavy goods vehicle movements by traffic management measures
45	Transport Implementation Plan	District Wide Freight Strategy
<b>Road Safety</b>		
46	Sevenoaks District Strategy for Transport 2010 - 2026	Promoting low speed limit regimes in built-up residential areas

## Appendix A

47		Identifying and tackling high-risk, single site crash locations and routes which have speed and related casualty problems
48		Targeting measures to calm traffic in areas of high pedestrian activity including school entrances and shopping areas
<b>Car Parking</b>		
49	Swanley Master Vision	Town Centre Parking Review
50		Provide consistent parking tariffs and restrictions within the car parks
51		Complementary pricing of parking to ensure people favour public transport
52		Rationalise and relocate parking to provide better level of service for pedestrians, cyclists, buses and taxis
53		Reduce commuter and visitor parking on residential roads
54	Swanley Master Vision / U+I Application	Real-time parking directional signage
55	U+I Application	Provision of car club spaces
56	Sevenoaks District Strategy for Transport 2010 - 2026	Develop a parking strategy that balances the need to promote sustainable travel with demand for parking and the desire to promote good design and the efficient use of land
57	Swanley Master Vision	Managing the parking supply through effective controls for all users - residential, visitor, commuter and deliveries / servicing - mitigating the adverse effect of parking on local neighbourhoods, footways, cycle and bus routes
<b>Road Network and Traffic Management</b>		
58	Swanley Master Vision	Road network improvement for all road users and to alleviate congestion: <ul style="list-style-type: none"> <li>Improving junction arrangements and road layout</li> <li>Addressing road pinch-points particularly on country roads</li> <li>Reducing rat running</li> <li>Reducing speeding</li> <li>Introducing bus priority measures and managing parking to improve bus reliability and access</li> </ul>
59		Improving wayfinding for all modes of transport including signing to car parks, Swanley Park and other key attractors
60		Junction improvements on Bartholomew Way and London Road
61		Improving the usability of the B258 Swanley Lane would contribute towards connectivity between Swanley and Hextable
62	U+I Application	Minor amendments to kerbing on Nightingale Way to accommodate larger vehicles on Nightingale Way and to give back some carriageway space to pedestrians
63	Sevenoaks District Strategy for Transport 2010 - 2026	Develop a Traffic Management Control system and introduce Intelligent Transport Systems that cover the high volume main road network, including in Swanley town centre

## Appendix A

64	Transport Implementation Plan / KCC Local Transport Plan 4	To provide Urban Traffic Management & Control equipment within the Swanley area to help alleviate congestion and to link to the Traffic Management Centre (TMC)
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**Table 4.6 – Summary of Identified Measures and Opportunities**

- 4.11.5. As with Table 4.5, the measures and opportunities have been grouped together into common categories based around who or what the transport improvement measure will impact/effect. Each measure has also been given a reference number for ease of future reference, however at this stage they have not been arranged based on priority or hierarchy of importance or implementation.
- 4.11.6. The Measures and Opportunities set out in Table 4.6 was used as the starting point for discussions on potential measures within the Measures and Opportunities workshop discussed in Chapter 11 of this report.
- 4.11.7. These high-level transport improvement options and opportunities will be further developed and appraised within Phase 2 to ascertain a definitive list of options that will form the Transport Strategy for Swanley. The key steps within Phase 2 of the study are discussed in Chapter 12.

## 5. Highway Network

### 5.1. Introduction

5.1.1. The strategic highway network, namely the M25, M20 and A20, are described in detail in Chapter 2 of this report. The purpose of this chapter is to examine the secondary routes into Swanley and how these interact with the wider road network. For the purposes of this Study the primary road network are the main roads which lead into the highway network around Swanley town centre, namely:

- B2173 London Road
- B258 Goldsel Road
- B258 High Street
- B258 Swanley Lane / Main Road / Top Dartford Road
- Bartholomew Way

5.1.2. The other local distributor roads through Swanley town centre and the wider study area also considered as part of this study are:

- Nightingale Way
- St Mary's Road
- Station Road / Station Approach
- Wested Lane / Eynsford Road
- Beechenlea Lane
- Swanley Village Road / Highlands Hill
- New Barn Road / Leydenhatch Lane / College Road
- Birchwood Road
- Lower Road / Clement Street
- Puddledock Lane

### 5.2. Primary Road Network

#### ***B2173 London Road***

5.2.1. The B2173 London Road is the principle route through Swanley. The 3.6-mile road runs on a predominantly southeast to northwest alignment from the M25, through Swanley town centre, through to the A223 at Fooks Cray. To the southeast of Swanley, the B2173 commences at a 4-arm roundabout which forms Junction 1 of the M20 which in turn, provides access to the M25 at Junction 3 and the A20 westbound.

## Appendix A

- 5.2.2. Heading westbound into Swanley, the B2173 London Road is a circa. 8 metres wide single carriageway road predominantly urban in nature, as reflected in the 30mph speed limit, with a mixture of residential and commercial properties fronting this road at various sections. Indeed, the residential properties which front London Road have direct vehicular access. Street lighting is provided along its entire length, whilst footways are provided on both sides of the carriageway for the majority of its length. At its easternmost end, a footway is provided on the southern edge only.
- 5.2.3. To the east of its junction with St George's Road, there are no on-street parking restrictions other than double yellow lines in proximity to junctions. West of St Georges Road, double yellow line restrictions are provided on both sides of the carriageway, whilst a hatched central reservation is also provided along the length of the carriageway, terminating approximately 160m south of the roundabout junction with Goldsel Road. This is shown in **Figure 5.1** below.



Extract from Google Maps

**Figure 5.1 – B2173 London Road towards Swanley Town Centre**

- 5.2.4. As can be seen from Figure 5.1, the central reservation accommodates several ghost island right turn lanes and pedestrian refuge islands associated with informal crossing points. Along this stretch of highway, the footway on the southern edge of London Road is segregated from the edge of carriageway by a grass verge.
- 5.2.5. The stretch of B2173 between Pine Close and Goldsel Road is called High Street. This stretch of highway is subject to single yellow line waiting restrictions, with double yellow lines provided in proximity to junctions. The single yellow line waiting restrictions apply between 8am – 6pm. The single yellow lines also restrict loading

## Appendix A

activity with no loading permitted between 8am-9.30am and 4.30pm – 6pm. Double yellow line restrictions with blips are in place between Goldsel Road and Nightingale Way junctions, with on-street loading activity again restricted to occur outside the hours of 8am-9.30am and 4.30pm-6pm Monday to Saturday.

**Observation** – *During the consultation with key stakeholders it was noted that the restrictions outlined above do not appear to be regularly enforced and waiting and loading on this stretch of road is a common cause of obstruction to the free flow of vehicles on the main road.*

- 5.2.6. To the northwest of the town centre, the B2173 London Road recommences at the roundabout junction with St Mary’s Road and Bartholomew Way shown in **Figure 5.2** below.



Extract from Google Maps

**Figure 5.2 – London Road / St Mary’s Road / Bartholomew Way Roundabout (looking west towards B2173 London Road)**

- 5.2.7. The southeastern arm of the roundabout is a single carriageway section of highway which provides vehicle access into the northern Asda car park and also egress from the one-way section Nightingale Way. This stretch of unclassified highway is subject to double yellow line and zebra crossing zigzag waiting restrictions. There are also footways and street lighting provided on both sides.
- 5.2.8. To the west of Swanley Town Centre, the B2173 London Road is a circa. 9 metres wide single carriageway road, urban in character with a mixture of commercial and residential properties bounding both sides. The speed limit on this stretch of the B2173 changes from 30mph to 40mph west of its junction with Hilda May Avenue. Double yellow line restrictions are located on both sides of the carriageway between the roundabout and the junction with Oliver Road. West of Oliver Road there are no waiting restrictions, however parking on the verge is prohibited.

## Appendix A

- 5.2.9. A central hatched reservation runs along the majority of London Road accommodating pedestrian refuge islands at informal and formal crossing points as well as ghost island right turn lanes as shown in **Figure 5.3** below. As can be seen from Figure 5.3, the footways on both sides are segregated from the carriageway by grass verges. The northern footway is a white line segregated shared use footway cycleway which runs between Hockenden Lane and Oliver Road.



Extract from Google Maps

**Figure 5.3 – B2173 London Road westbound towards Foots Cray**

**Observation** – *It has been noted from the previous studies and consultation with key stakeholders that London Road is subject to congestion during peak periods due to the volume of traffic travelling through Swanley but also because of interaction with the large number of side roads which have junctions with the main road and indiscriminate parking/loading activity which restricts the free flow on the main road. This has resulted in vehicles rat running on adjacent residential streets to by-pass queues. However, the U+I TA concluded that the “platoon” of traffic that builds up on London Road is a continually moving queue and as such, there are no issues with junction capacity. This is borne out in Sweco’s observations too.*

### **B258 High Street**

- 5.2.10. As mentioned above the B2173 is interjected by the B248 High Street between London Road and the roundabout junction with Nightingale Way/Asda Car Park Access/Swanley Lane. This relatively short section of road is circa. 7 metres wide and bound on both sides by commercial properties however, parking and loading

**Appendix A**

restrictions prevent on-street activity along its length during peak traffic times. There is street lighting and wide footways provided on both sides of the road.

5.2.11. The High Street and its junctions are shown in **Figures 5.4** and **5.5**. From Figure 5.4 it can be seen that “yellow box” and “keep clear” markings are provided at the junction with Park Road which indicates the presence of queuing on the main road.



Extract from Google Maps

**Figure 5.4 – High Street (westbound towards Swanley Town Centre)**



Extract from Google Maps

**Figure 5.5 – High Street (westbound towards town centre)**

## Appendix A

**Observation** – It has been noted from the previous studies and consultation with key stakeholders that the existing pelican crossing on High Street appears to contribute towards the congestion in this section of the highway network with traffic queuing back towards the roundabout with Goldsel Road. However, the U+I TA concluded that the “platoon” of traffic that builds up on London Road/High Street is a continually moving queue and as such, the capacity was not as a result of highway geometry. Again, Sweco concur with this conclusion following our own observations.

### **B258 Goldsel Road**

- 5.2.12. From the High Street, the B258 continues southwest of Swanley to Crockenhill via Goldsel Road and is a single carriageway urban road subject to a 30mph speed limit through Swanley. This increases to 40mph at the edge of Swanley, where the B258 crosses over the A20 and becomes rural in nature. This section of highway has an approximate width of 8 metres. The speed limit then reduces back down to 30mph as the B258 enters Crockenhill and then to 20mph through the centre of Crockenhill.
- 5.2.13. Within Crockenhill, the B258 has some double yellow line waiting restrictions along the western edge along there are no yellow line restrictions along much of its length within north Crockenhill. However, there are double yellow line restrictions on both carriageway edges along the 40mph stretch as shown in **Figure 5.6** below. It can also be seen that a footway is provided along the western edge of Goldsel Road from Crockenhill to Swanley.



Extract from Google Maps

**Figure 5.6 – Goldsel Road (northbound towards Swanley)**

- 5.2.14. Within Swanley footways are provided along both edge of Goldsel Road. Along its entire length Goldsel Road is subject to double yellow line waiting restrictions. Where these restrictions are not in place, there is a section of single yellow line restrictions

## Appendix A

which apply between 7-10am Monday to Friday, whilst the remainder of the road has formal on-street parking bays. The on-street parking bays are both pay and display spaces and resident permit spaces as Goldsel Road is within Zones SW1 and SW3 of Swanley's Controlled Parking Zone. These restrictions and charges apply Monday – Friday 8.30am – 6.30pm. **Figure 5.7** shows a section of on-street parking along Goldsel Road, with single yellow line restrictions on the left and on-street parking bays to the right. Footways and street lighting are provided on both sides of Goldsel Road.



Extract from Google Maps

**Figure 5.7 – Goldsel Road (in proximity of Azalea Drive)**

**Observation** – *It has been noted from the previous studies and consultation with key stakeholders that the northern end of Goldsel Road suffers from congestion at its junction with High Street. With regards on-street car parking, on-site observations showed that whilst the on-street parking areas were utilised, some spare capacity was available.*

### ***B258 Swanley Lane / Main Road / Top Dartford Road***

5.2.15. Goldsel Road terminates at the three-arm roundabout junction with High Street. However, the B258 continues north through Swanley along Swanley Lane and Hextable along Main Road and Top Dartford Road, continuing northbound towards Dartford town centre. Swanley Lane is a single carriageway road with an approximate width of 7 metres, although. Footways and street lighting run along both sides of the road as shown in **Figure 5.8** below.

Appendix A



Extract from Google Maps

**Figure 5.8 – Swanley Lane (Looking northbound towards Hextable)**

5.2.16. From its junction with Bartholomew Way, shown in **Figure 5.9**, the section of Swanley Lane between Bartholomew Way and High Street is also single carriageway. A footway is only provided on the western edge of this stretch of carriageway.



Extract from Google Maps

**Figure 5.9 – Swanley Lane/Bartholomew Way Roundabout Junction**

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## Appendix A

**Observation** – On-site observations showed that the existing footways along Swanley Lane were in a poor condition. Similarly, it was observed that vehicles parking along Swanley Lane parked half or fully on the footway. It has been noted from the previous studies and consultation with key stakeholders that Swanley Lane suffers from congestion at its junction with Bartholomew Lane. We understand that this is as a result of the B258 being utilised as a rat-run to avoid congestion on the M25 and from interactions with the side roads restricting the free flow on the main road.

5.2.17. To the north of Swanley and the junction with Highlands Hill, the B258 becomes Main Road which is rural in nature and only has a footway on the eastern edge of the section of road between Swanley and Hextable. There are no formal parking restrictions along this section of highway, although no parking was observed. Within Hextable, footways and street lighting are provided along both sides of Main Road. There is also a mixture of double yellow line and single yellow line restrictions and some formal on-street parking bays provided. The single yellow line restrictions apply Monday to Saturday 8.30am – 6.30pm.

5.2.18. Main Road terminates at a double mini-roundabout junction with College Road, Lower Road and Top Dartford Road as shown in **Figure 5.10** below.



Extract from Google Maps

**Figure 5.10 – Junction of Main Road/College Road/Lower Road/Top Dartford Road**

5.2.19. Top Dartford Road is similar in characteristic to Main Road with footways and street lighting provided on both sides. However, Top Dartford Road has a series of traffic calming features in the form of single lane working chicanes where priority is provided to either the southbound or northbound movement. These are illustrated in **Figure**

## Appendix A

**5.11** below. The provision of traffic calming features would indicate that Top Dartford Road has in the past suffered from speeding issues. They may have also been implemented as a deterrent to rat running.



Extract from Google Maps

**Figure 5.11 – Traffic Calming Features on Top Dartford Road**

**Observation** – *It has been noted from the consultation with key stakeholders that there are safety concerns with the existing traffic calming features with drivers choosing to drive the wrong way around the islands and past the chicanes at speed to avoid having to give way to oncoming traffic as directed.*

5.2.20. To the north of Hextable, Top Dartford Road widens with a central hatched reservation and footway provision on the eastern edge only. The speed limit of the B258 also changes from 30mph to 40mph north of Hextable.

### 5.3. Local Distributor Roads – Town Centre

#### ***Bartholomew Way***

5.3.1. Bartholomew Way, although unclassified, is a primary distributor road within Swanley Town Centre connecting the B258 Swanley Lane at the southwestern edge of the town centre to the B2173 London Road to the west. Bartholomew Way also connects to Sycamore Drive from which several schools and leisure facilities, including Swanley Park, can be accessed as well as connecting too much of the northern Swanley residential suburbs.

5.3.2. Bartholomew Way, is a circa. 7.5 metres wide single carriageway road running with footways and street lighting provided on both sides along its entire length. It is also subject to double yellow line waiting restrictions and pedestrian crossing zigzag restrictions preventing vehicles from stopping on this section of highway at any time. At either end Bartholomew Way terminates at roundabout junctions, whilst the junction

**Appendix A**

with Sycamore Drive is a priority T-junction with ghost island right turn lane as shown in **Figure 5.12**.



Extract from Google Maps

**Figure 5.12 – Junction of Bartholomew Way / Sycamore Drive**

***Nightingale Way***

5.3.3. Nightingale Way is an access road which intersects the town centre, providing access to the car parks located to the southwest of the main shopping area, as shown on **Figure 5.13**. It is approximately 6.1 metres in width and is accessed via the B258/Asda Car Park Access roundabout.



## Appendix A

Extract from Google Maps

**Figure 5.13 – Nightingale Way (looking west towards the one-way section)**

- 5.3.4. This southernmost section is two-way allowing users of this car park to access and egress via the B258 roundabout. However, the western section of Nightingale Way is one-way, Vehicles exiting from or via the western car park will do so onto London Road and through the roundabout junction of London Road/St Mary's Road/Bartholomew Way.

### ***St Mary's Road***

- 5.3.5. St Mary's Road extends southwest from its junction with London Road and Bartholomew Way and terminates within a residential cul-de-sac. It is a single carriageway road subject to a 20mph speed limit with good footways and street lighting along both sides of the entire road. There are sections of on-street parking bays, whilst the remainder of the road is subject to double yellow line waiting restrictions. This is shown in **Figure 5.14** below.



Extract from Google Maps

**Figure 5.14 – St Mary's Road (Looking Southbound)**

- 5.3.6. St Mary's Road provides vehicular access to several key destinations within Swanley including the rail station, Orchard School and Aldi food store, which in turn leads to the town centre car park to the east, as well as the recreation ground and town council offices.

### ***Sycamore Drive***

- 5.3.7. Sycamore Drive is a circa.6 metres wide residential access road which connects the town centre to much of the northern Swanley residential suburbs. It also provides access to a number of schools, leisure facilities and Swanley Park. The junction of

## Appendix A

Sycamore Way / Bartholomew Way is a priority T-junction with ghost island right turn lane as shown on Figure 5.12 above.

- 5.3.8. From this junction Sycamore Way is a single carriageway road subject to a 30mph speed limit. Footways and street lighting are present on both sides of the carriageway along its entire length. A large proportion of the carriageway is subject to double yellow line waiting restrictions interspersed within formal on-street parking bays, as shown in **Figure 5.15** below, whilst the northernmost section of Sycamore Way has no parking restrictions on its western edge.



Extract from Google Maps

**Figure 5.15 – Sycamore Drive (looking southbound towards the town centre)**

- 5.3.9. The on-street parking bays are within Controlled Parking Zone SW5 and thus a maximum stay of 1 hour, with no return within one hour restriction applies Monday – Saturday 8.30am – 6.30pm. However, those with a SW5 residential parking permit can park within these bays unrestricted.

### ***Station Road / Station Approach***

- 5.3.10. Station Road runs on a north-south alignment between Goldsel Road and High Street. The northern end of the road has been closed off to form a cul-de-sac which serves as an access road for the retail units along it as well as the Station Road car park. There are footways and street lighting on both sides. On-street parking is also provided on both sides of the road. This is shown in **Figure 5.16** below.



Extract from Google Maps

**Figure 5.16 – Station Road (Looking northbound towards High Street)**

5.3.11. Station Approach also runs on a north-south alignment from Goldsel Road to the rail station car park, and is the only vehicular access to the station car park adjacent to the eastern entrance. It is a two-way carriageway however there are on-street parking bays along the entire length of the eastern edge of the carriageway which restricts its width, as shown in **Figure 5.17** below. Double yellow line restrictions are present on the opposite side of the road. A footway and street lighting are provided on the western edge only.



Extract from Google Maps

**Figure 5.17 – Station Road (Looking northbound towards town centre)**

## Appendix A

**Observation** – It was noted during site visits that the on-street parking was fully occupied. Also, the footway was in poor condition and flooding was present on large stretches of the carriageway and footway making it unpleasant for pedestrians.

### 5.4. Local Distributor Roads – Wider Study Area

#### ***New Barn Road / Leydenhatch Lane / College Road***

- 5.4.1. New Barn Road is a rural distributor road which runs on a predominantly east-west alignment from Swanley Road to a giveway junction with Leydenhatch Lane / College Road where it terminates. It provides access to a small number of residential properties and the northern Swanley Park car park.
- 5.4.2. New Barn Road is very rural in character with high hedgerows on both sides of the road. It width varies along its length but is generally between 4 and 5.5 metres. This narrow width means that two vehicles can only pass at very low speed and in some locations, the grass verges are utilised to allow this to happen. An example of this is shown in **Figure 5.18** below. There are no footways, street lighting or central road markings on New Barn Road.



Extract from Google Maps

**Figure 5.18 – New Barn Road (Looking westbound)**

## Appendix A

**Observation** – It was noted from on-site observations that much of the hedgerow along New Barn Road is overgrown and obstructing the edges of the carriageway, further reducing its effective working width.

- 5.4.3. Leydenhatch Lane is also a rural distributor road running on a predominantly east-west alignment from the junction of New Barn Road / College Road to its junction with Birchwood Road where it terminates. It provides direct access to a small number of residential properties and a number of commercial properties, as well as a large proportion of the northwestern residential suburbs of Swanley. Along with College Road it forms a key route to Hextable, north of Swanley town centre.
- 5.4.4. From its junction Birchwood Road to the junction with Russett Way, both of which are priority T-junctions, Leydenhatch Lane is approximately 6 metres wide with a footway running along the northern edge of the carriageway. At Russett Way, the northern footway terminates at an informal crossing linking to the footway on the southern edge which continues east to a public right of way to Alder Way and Swanley Park. Beyond Russett Way, Leydenhatch Lane becomes more rural in nature, narrowing in width with high hedgerows on both sides as shown in **Figure 5.19** below.



Extract from Google Maps

**Figure 5.19 – Leydenhatch Lane (Looking westbound)**

- 5.4.5. College Road runs northeast from Leydenhatch Lane/New Barn Road through Hextable, terminating at the mini-roundabout junction with B258 Main Road providing direct access to a small number of residential and commercial properties as well as the western residential area of Hextable. Its western section is rural in nature with a narrow road width of approximately 5 metres and high hedgerows on both sides. There are no footways, lighting or road markings on this stretch of highway.
- 5.4.6. The northern entrance to The Avenue of the Limes is also located on College Road, where a vehicular layby is provided. However, it is noted that there are no footways

## Appendix A

leading to this area of green open space as the footway along the southern edge of College Road appears to terminate some 30 metres east of the entrance, as shown in **Figure 5.20** below.



Extract from Google Maps

**Figure 5.20 – College Road (Looking westbound towards The Avenue of Limes)...**

- 5.4.7. From this point College Road widens to two lanes, although there are no central markings with, street lighting. Footways are only provided on both sides carriageway along its easternmost end between Main Road and Malyons Road. There are no on-street parking restrictions on College Road.

### ***Lower Road / Clement Street***

- 5.4.8. Lower Road is a rural distributor road which runs on a predominantly west-east alignment from the B258 in Hextable to the east of the village where it merges into Clement Street. Clement Street then merges into Arnolds Lane which terminates at the A225 Main Road. Lower Road and Clement Street combine to provide an alternative route from Hextable towards the hospital and onwards to Bluewater.
- 5.4.9. The western section of Lower Road provide access to the north-eastern suburb of Hextable, with residential properties bounding both sides. It is a single carriageway road subject to a 30m speed limit with footways provided on both sides where residential properties front onto the road. There are also no formal on-street waiting restrictions. To the east of Hextable, Lower Road becomes more rural in character, narrowing slightly to approximately 6 metres, with high mature hedgerows and verges on both sides and subject to a 60mph speed limit.
- 5.4.10. Clement Street is a continuation of Lower Road, although it is noted that this stretch of highway is narrower (approximately 5 metres in places) with the hedgerows up to the edge of carriageway, further reducing the width in places. A mixture of formal and

## Appendix A

informal passing places where vehicles have had to use the verge as shown in **Figure 5.21** which shows a particularly narrow section of Clement Street.



Extract from Google Maps

**Figure 5.21 – Clement Street (Looking Eastbound)**

**Observation** – *It was noted from on-site observations that much of the hedgerow along Clement Street and sections of Lower Road is overgrown and obstructing the edges of the carriageway, further reducing its effective working width. Stakeholder consultation revealed that areas previously used as passing places have had bollards put in and as such, the number and frequency of passing places has reduced exacerbating issues relating to the free flow of two-way traffic.*

### **Puddledock Lane**

5.4.11. To the north of Hextable is Puddledock Lane which provides a link between the B258 Top Dartford Road and Birchwood Road. The section of Puddledock Lane which runs on a north-south alignment from Birchwood Road is a rural distributor road typical in character to the other rural roads within the study area, relatively narrow with high hedgerows and verges abutting the highway on both sides along most of the highway. This is shown in **Figure 5.22** below. There are limited passing places, but as elsewhere vehicles are required to use the verge to pass.



Extract from Google Maps

**Figure 5.22 – Puddledock Lane (Looking Eastbound)**

- 5.4.12. To the north of Hextable, Puddledock Lane turns onto a west-east alignment. This section of highway is the same in character as that shown in Figure 5.22 above. However, a footway is provided along the southern edge of this section of road. Puddledock Road is subject to a 60mph speed limit.
- 5.4.13. Branching from Puddle Dock Road is St David’s Road which provides a north-south route to the B258. St David’s Road is predominantly urban in character being a two-way single carriageway road with footways and street lighting on both sides of the carriageway. The junction of St David’s Road and Puddledock Lane is a priority T-junction.

***Birchwood Road***

- 5.4.14. Birchwood Road is an unclassified local distributor running on a south-north alignment from the residential conurbations of Hook Green and Leyton Cross to the north of Swanley and the B2173 London Road. It is noted that Birchwood Road also provides a link between Swanley and the A2. The circa.5.5 metres wide single carriageway road is semi-rural in nature subject to the national speed limit outside of the urban areas where 40mph and 30mph speed limits apply.
- 5.4.15. Footway provision is varied along its length, with a footway provided on the western edge only between the junctions with London Road and Leydenhatch Lane. To the north of Leydenhatch Lane, the western footway recommences and a short section of footway is provided on the western edge of the carriageway. It is noted that the effective width of the western footway is restricted by overgrown hedgerows which encroach onto the pavement. This is illustrated in **Figure 5.23** below.

## Appendix A



Extract from Google Maps

**Figure 5.23 – Birchwood Road (Looking northbound)**

5.4.16. The alignment of the southern section of Birchwood Road is constrained by neighbouring properties and a 90-degree bend on the approach to the signalised junction with B2173, which reduces its effective width, particularly for larger vehicles that have been observed using this road. The constrained nature of this section of highway is shown in **Figure 5.24** below.



Extract from Google Maps

**Figure 5.24 – Birchwood Road (Looking southbound towards signalised junction)**

## Appendix A

5.4.17. The junction of B2173 London Road / Birchwood Road is a three-arm traffic signal controlled junction. The Birchwood Road and London Road (west arms) have single lane approaches, whilst the London Road (east) arm has a right turn filter lane. It is noted that this is a large junction with the Birchwood Road stop line in particular set some way back from London Road as shown on **Figure 5.25**. It has been assumed that this existing geometry has been designed to accommodate the swept paths of the large vehicles observed to be using Birchwood Road.



Extract from Google Maps

**Figure 5.25 – Birchwood Road (Looking southbound towards signalised junction)**

**Observations** – *It was observed that the road markings within the centre of this junction for the right turn filter lane were very faded, as was the stop line on the London Road (east) arm. The proximity of the adjacent properties bounding the southern section of Birchwood Road prevent carriageway widening to increase capacity.*

### **Beechenlea Lane**

5.4.18. To the east of Swanley is Beechenlea Lane which is a rural access road providing a link between the B2173 London Road to Swanley Village. The majority of Beechenlea Road is a narrow with an approximate width of 4 metres and mature hedgerows and verges on both sides. The restricted width of some sections has meant that vehicles have been required to use the verge in order to passing oncoming vehicles as shown in **Figure 5.26** below. This section of Beechenlea Lane is subject to the national speed limit of 60mph. There are no footways or street lighting.



Extract from Google Maps

**Figure 5.26 – Beechenlea Lane (Looking northbound towards Swanley Village)**

5.4.19. The southern section of Beechenlea Lane widens to two lanes with an approximate width of 7 metres. There is a footway provided on the eastern edge of the carriageway from the London Road junction to the last residential property fronting Beechenlea Lane in Swanley. There is no footway provision on the western edge. There are no parking restrictions on Beechenlea Lane and the section through the residential area is subject to a 30mph speed limit.

**Observation** – *It was observed during Sweco’s site visit that Beechenlea Lane had a lot of mud and vegetation on the carriageway, potential washed onto the road from the surrounding verges and fields as a result of heavy rain, which affected the condition of the carriageway surface. A large amount of fly-tipping was also observed at various points along the road affecting potential passing places.*

#### **Swanley Village Road / Highlands Hill**

5.4.20. Beechenlea Lane provides an alternative route to Swanley Village from the east, without having to divert through the town centre. It terminates at Swanley Village Road at a priority T-junction. Swanley Village Road runs on an east-west alignment through the centre of Swanley Village to the north of Swanley. It is a single carriageway road semi-rural in nature, with grass verges and hedgerows interspersed with walls restricting its width in places, particularly to the east of Beechenlea Lane where there is no footway provision.

## Appendix A

- 5.4.21. To the west of the Beechenlea Lane junction there is a footway provided on the northern section of Swanley Village Road only. The width of Swanley Village Road through the western side of Swanley Village is less restricted with an approximate carriageway width of 6 metres.
- 5.4.22. To the west of Swanley Village Swanley Village Lane becomes Highlands Hill. Beyond the western edge of the village, Highlands Hill becomes a rural road with high hedgerows and verges on both sides before it widens again to a two-way road with formal centre line markings. Along this stretch of Highlands Hill a footway is provided on the northern edge of the road only. However, there is a gap in footway provision of around 500 yards where pedestrians are required to walk on the carriageway on narrow stretches of road. This is shown in **Figure 5.27** below.



Extract from Google Maps

**Figure 5.27 – Highlands Hill (Looking Eastbound towards Swanley Village)**

### ***Wested Lane / Eynsford Road***

- 5.4.23. To the south west of Swanley is the priority T-junction of B2173 London Road and Wested Lane. Wested Lane is a local distributor road which, along its northern section, provides access to a number of commercial properties located to the north of the railway line. This section Wested Road is two-way with footway and street lighting provided on the western edge only, and is subject to a 40mph speed limit.
- 5.4.24. Where it crosses the railway line, Wested Lane narrows to a single-track road with passing places signed as not being suitable for heavy goods vehicles. It has a 60mph speed limit. To the south of the railway line, the road is rural in nature with high hedgerows and verges on both sides and an approximate road width of 4 metres. It also has white lining indicating the edge of carriageway as indicated on **Figure 5.28** below which also shows a typical passing place along Wedsted Lane.

Appendix A



Extract from Google Maps

**Figure 5.28 – Wested Lane (Looking Southbound)**

5.4.25. It is noted that not all the passing places along Wested Lane have formal surfacing requiring vehicles to effectively drive on the verge. This indicates that there are insufficient formal passing places provided at present.

5.4.26. The southernmost section of Wested Lane widens out into two lanes with central road markings. It then becomes Eynsford Road which turns west onto an east-west alignment to Crockenhill. Eynsford Road, is very similar in character to Wested Lane, with a mixture of two-way sections and narrower rural sections where there are signs of damage on the verges from vehicles driving over the verge to pass oncoming vehicles, as shown on **Figure 5.29**.



Extract from Google Maps

## Appendix A

### Figure 5.29 – Eynsford Road (Looking Westbound)

5.4.27. On the approach to Crockenhill the road widens again to two lanes and the speed limit reduces to 30mph. There are no footways or street lighting provided on Eynsford Road.

### 5.5. Traffic Regulation Orders

5.5.1. Traffic Regulation Orders (TRO) are legal documents which help manage traffic flow, speed limits and where people can park. In addition to those discussed above relating to speed limits and parking restrictions, there are TROs in place on Asda Walk within Swanley Town Centre and Beechenlea Lane as follows:

- Asda Walk - 'pedestrian zone, except for loading on Wednesday 5 am – 9am and 3pm – 6pm – clearway at any time'.
- Beechenlea Lane – 'Weight limit 20 tonnes – unsuitable for heavy goods vehicles – alternative route via B258'.

5.5.2. The pedestrian zone is only signed at the eastern end of Asda Walk. Retractable bollards are located at either end preventing vehicular access outside of the designated times. However, during Sweco's Site visit the bollards at the southern access road from Nightingale Way were down and a vehicle was observed driving through the pedestrian zone using this entry point which has implications for pedestrian safety.

5.5.3. It is also noted that Highlands Hill (at the junction with Swanley Lane) and Leydenhatch Lane (at the junction with Birchwood Road) are both signed as being unsuitable for heavy goods vehicles. However, no formal weight or width restrictions are in place for these roads. This is also the case with Wested Road as noted above.

## Appendix A

### 6. Congestion Issues

#### 6.1. Introduction

6.1.1. The review of the previous studies set out in earlier sections of this report has highlighted several locations and junctions where congestion is a current issue and anticipated to be an issue in the future with the implementation of the Mastervision for Swanley and Hextable.

This chapter of the report examines the existing network, specifically traffic volumes and traffic management issues. This includes congestion hotspots established from Google's information application.

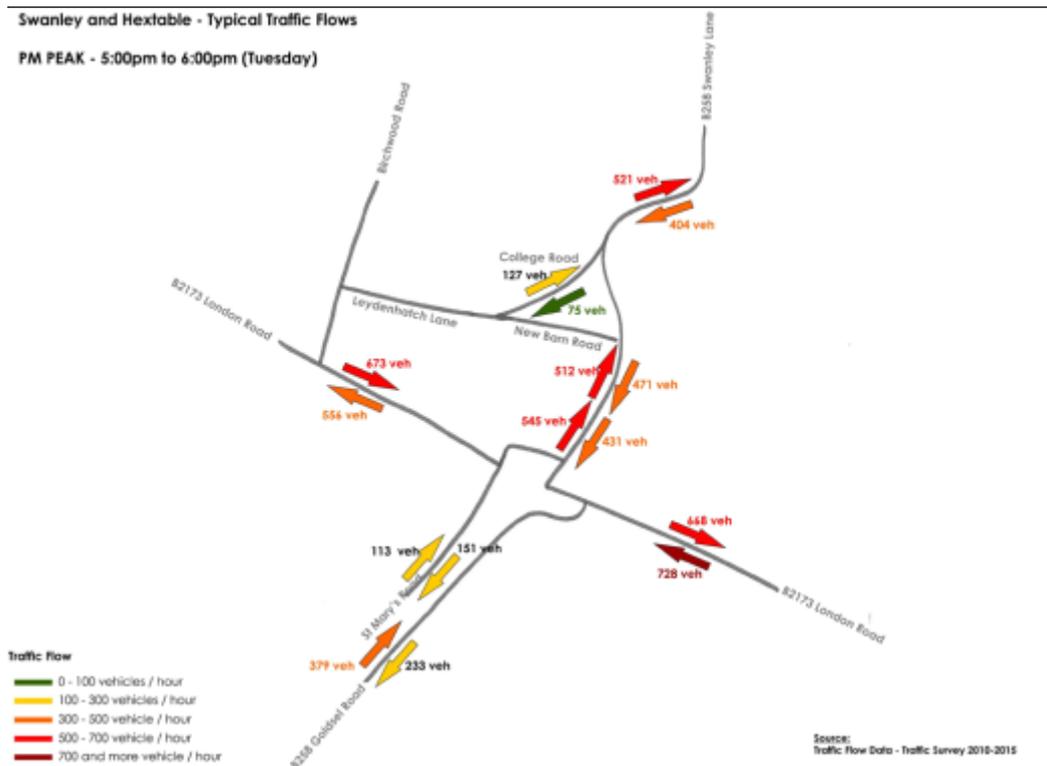
#### 6.2. Traffic Volumes and Identified Traffic Management Issues

6.2.1. Section A2.3 of Appendix A of the MasterVision report set out typical traffic flows within Swanley town centre collated from traffic surveys undertaken by Kent County Council between 2010 and 2015. The indicative peak hour flows extracted from Figure A2.3 of the MasterVision report are included as **Figures 6.1** and **6.2** below.



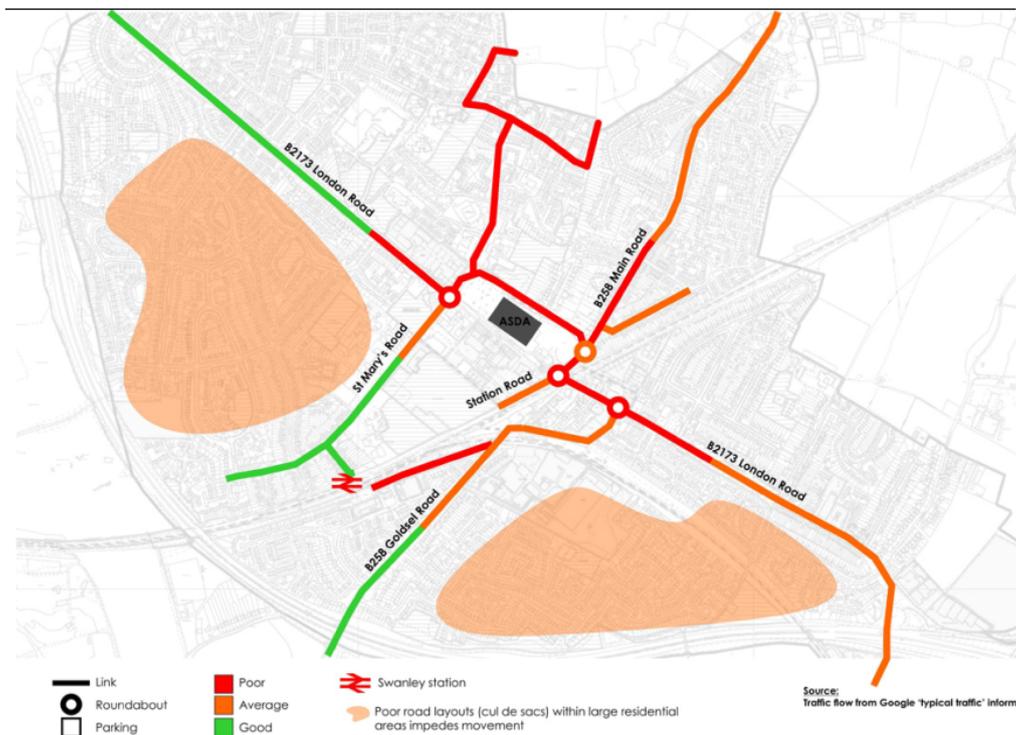
**Figure 6.1 – Swanley Town Centre Indicative Morning Peak Traffic Flows (Extracted from Appendix A of the MasterVision Report)**

## Appendix A



**Figure 6.2 – Swanley Town Centre Indicative Evening Peak Traffic Flows (Extracted from Appendix A of the MasterVision Report)**

- 6.2.2. Figures 6.1 and 6.2 show that the typical two-way traffic volumes on the B2173 and B258 are in the same magnitude in the morning and evening peaks. On the B2173 there is no obvious “tidal” flow between the two peak periods suggesting that there is a relatively constant flow of traffic through Swanley town centre.
- 6.2.3. On the B258 Swanley Lane, there is a slight tidal shift with a higher volume of vehicle travelling southbound in the morning Peak and high volume travelling northbound in the evening peak. The order of flows set out above supports the anecdotal evidence within this study that Swanley is used as a through route to get to other destinations avoiding the strategic road network where connections are limited and delays frequent.
- 6.2.4. Furthermore, the work and consultation undertaken to date has indicated a real perception that Swanley town centre is dominated by the motor vehicles. The flows presented above are felt to be of a sufficient volume to support this perception. Indeed, the magnitude of flows on the B2173 and B258 would also contribute to the perception of severance in the town centre.
- 6.2.5. Section A2.4 of Appendix A of the MasterVision Report included a diagram which illustrated the general key road link and junction performance based on the on-site observations, stakeholder discussions and area documentation. This data has been replicated in **Figure 6.3** below.



**Figure 6.3 – Swanley Town Centre Road Network and Traffic Management Identified Issues (Extract from Figure A2.4 of the MasterVision Report)**

6.2.6. It is noted that the traffic flow data has been based on the traffic flow data provided by Google’s ‘Typical Traffic’ information application. Using a similar approach, Google’s ‘Typical Traffic’ information application has been interrogated to establish a snapshot of traffic levels and congestion during the morning and evening peak periods within Swanley town centre. The results of this study are set out in the following sections of this chapter.

### 6.3. Congestion Hotspots

- 6.3.1. Google traffic data calculates congestion levels by using live mobile GPS phone data to calculate the speed of users along a length of road and converting this to coloured overlay on a map. Green indicates normal speed of traffic, orange indicated slower traffic conditions, red indicating congestion and dark red indicating nearly stopped or stop/go traffic.
- 6.3.2. Data showing a snapshot of a typical AM and PM weekday period has been extracted from Google, the results of which are shown in **Figures 6.4 – 6.10** included at the conclusion of this report and discussed below.

#### AM Peak

- 6.3.3. A snapshot of the traffic conditions within Swanley at 8.30am from extracted from Google Maps. During the weekday, traffic congestion was recorded occurring London

## Appendix A

Road on the approach to the junction with Goldsel Road. Elsewhere, slower traffic conditions were indicated on all arms of the B258/Bartholomew Way junction and the B2173/Birchwood Road junction approaches.

- 6.3.4. Slower traffic was also shown to have occurred along Top Dartford Road in Hextable and also on Goldsel Road on approach to the roundabout junction with the B2173. Slow traffic conditions were also indicated to have occurred through Crockenhill (on Eynsford Road) three of the 5 weekdays.
- 6.3.5. The data obtained also showed that on a Wednesday, there was slow traffic in both directions of the B2173 between Birchwood Road and the St Mary's Road junction. Congestion was also shown to have occurred on Birchwood Road, Swanley Lane and Goldsel Road on the approach to their respective junctions. These traffic conditions are considered to be attributable to an increase in people driving to the Market within Swanley.
- 6.3.6. It should also be noted that on the weekdays that the AM data was extracted there was no recorded congestion on the northbound carriageway of the M25. Similarly, there were no adverse traffic conditions recorded on the A20.

### PM Peak

- 6.3.7. A snapshot of the traffic conditions within Swanley at 5.30pm was also from extracted from Google. The locations of slower moving traffic mirrored those in the AM peak period reviewed. However, on each weekday congestion was also shown to occur on the B2173 eastbound carriageway at its junction with Birchwood Road and on Goldsel Road on the approach to the B2173 roundabout.
- 6.3.8. During the week congestion was also indicated on High Street on the approach to the Nightingale Way roundabout on the Thursday. However, this snapshot also showed slow traffic conditions on the northbound carriageway of the M25 which is likely to have contributed to the additional congestion within the town centre on that day.
- 6.3.9. Indeed, on the Friday congestion was shown to have occurred along the length of London Road between Goldsel Road and the M25 junction and slow traffic conditions along a large proportion of Eynsford Road. However, during this time slow traffic conditions were occurring on the northbound M25 junction on the approach to Junction 3 and beyond. Therefore, the traffic conditions on the strategic road network are considered to have influenced the conditions experienced within Swanley at that time.
- 6.3.10. During the PM period, when adverse traffic conditions were occurring on the M25 and thus within Swanley, this had a knock-on effect on the traffic conditions at the M20 Junction 1/M25 Junction 3 roundabout. This in turn affected traffic conditions on the A20 off-slip and the approach to it.

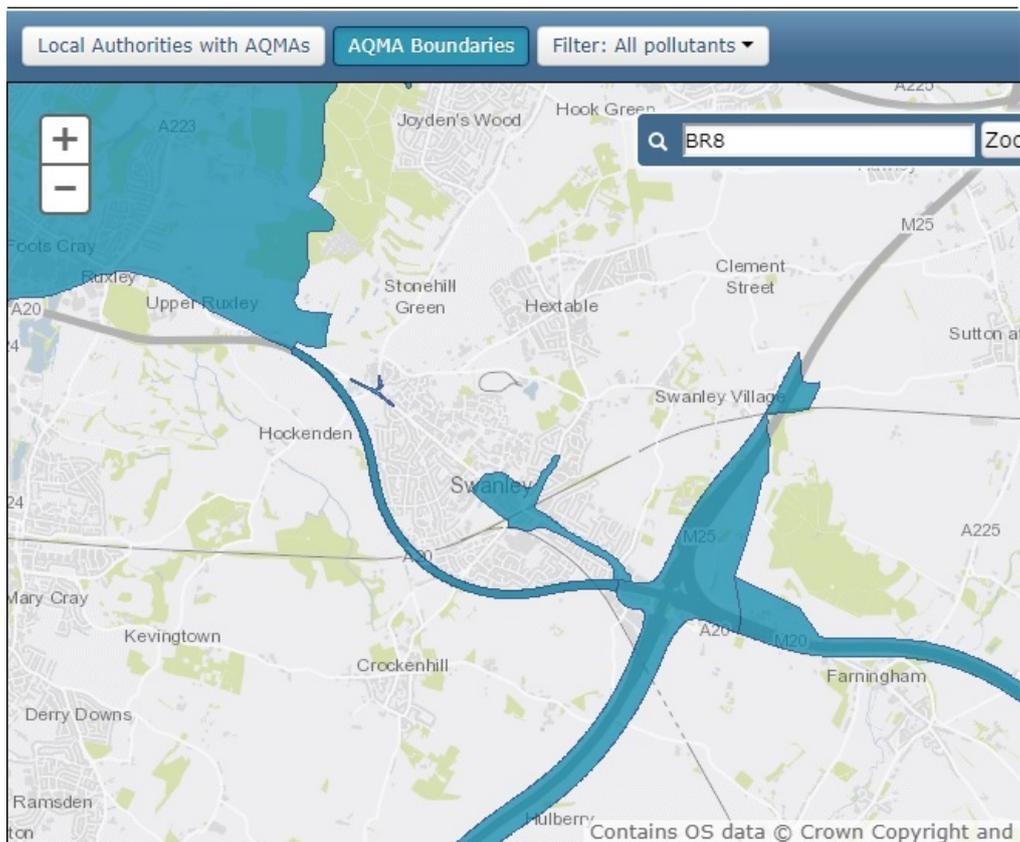
## 6.4. Air Quality Management Areas

- 6.4.1. If a local authority has an area with measurements of air pollution that are unlikely to meet air quality objectives, an Air Quality Management Area (AQMA) must be declared. The size of this area can vary from a section of one street to a much larger area of the locality.

## Appendix A

6.4.2. There is a total of six AQMAs located within and adjacent to the study area as detailed below and illustrated on **Figure 6.11**. This information is based on that contained within the Governments' Department for Environment Food and Rural Affairs (DEFRA) website.

- M25
- A20 / M20
- B2173 London Road (between M25 Junction 3/M20 Junction 1) and Swanley Town Centre
- Swanley Town Centre
- Swanley Lane (between Bartholomew Road and Woodlands Rise)
- B2173 London Road in proximity of junction with Birchwood Road



**Figure 6.11 – AQMA Boundaries within Study Area as shown on DEFRA Website**

6.4.3. From the DEFRA website it can be established that the main air quality issue in the study area is NO<sub>x</sub> (as NO<sub>2</sub>) emissions from vehicles travelling on the routes identified.

## Appendix A

### 7. Collision Data Summary

#### 7.1. Introduction

- 7.1.1. The previous studies undertaken within Swanley, namely the U+I report, included collision and road safety analysis. The relevant collision and road safety analysis has been extracted from this previous study and set out within this chapter.
- 7.1.2. KCC, as Highway Authority, has a duty of care to regularly review the KSI (Killed and Seriously Injured) collision statistics for the County and to propose mitigation works where particular clusters or patterns of accidents are recorded. As a result, it is not within the scope of this Study to undertake a detailed assessment of the collision statistics for Swanley above those already undertaken by KCC.
- 7.1.3. However, improving safety for all road users is an objective of the study and as such, a high level summary of the collision and casualty data has been undertaken. The purpose of this high level review is to establish whether there are any collision clusters or road safety issues arising that would require mitigation measures additional to those already identified.

#### 7.2. U+I Report

- 7.2.1. The U+I Transport Assessment (TA) included a section which analysed the road safety aspect within the town centre of Swanley (the area surrounding their development site). The report used Personal Injury Accident Data sourced from KCC for a period of three years up till the 30<sup>th</sup> September 2015.
- 7.2.2. The U+I TA recorded that there were 23 road incidents that occurred around Swanley Town Centre. The majority of these incidents were recorded as slight in severity, with only two incidents recorded as serious. No fatal incidents were recorded around Swanley Town Centre during this period.
- 7.2.3. The primary conclusion of the road safety and collision analysis in the U+I TA was that the collisions had *'little pattern in regards to their causation'* and thus, these incidents occurred mainly due to human error rather than related to the safety of the road layout design.

#### 7.3. Swanley and Surrounding Areas Overview

- 7.3.1. Collision and casualty data for the 60 months (five year) period up to 30<sup>th</sup> September 2017 was obtained from Kent County Council for the whole of the study area.
- 7.3.2. Within the study area, there were a total of 221 reported collisions resulting in 292 casualties in the 5-year study period. Out of the 292 casualties, four were fatal injury, 39 serious injury and 475 slight injury. A summary of collisions and casualties by severity is included in **Table 7.1**.

## Appendix A

Collisions Involving					Casualties				
	Fatal	Serious	Slight	Total		Fatal	Serious	Slight	Total
Motor Vehicles Only (exc. 2-wheels)	4	27	325	356	Vehicle Driver	2	11	157	170
2-Wheeled Motor Vehicles	0	10	26	36	Passenger	1	2	24	27
Pedal Cycles	0	2	22	24	Motorcyclist	0	10	26	36
Horses & Other	0	0	2	2	Cyclist	0	2	22	24
Total	4	39	375	418	Pedestrian	2	7	24	33
					Other	0	0	2	2
					Total	5	32	255	292

**Table 7.1: Summary of Collisions and Casualties by Severity**

- 7.3.3. Cyclists and pedestrians make up 20% of all casualties recorded. These non-motorised users made up some 30% of casualties who were recorded as being killed or seriously injured.
- 7.3.4. The majority of all collisions involved motorised vehicles (85%), and the most common casualty type was the vehicle driver (58% of collisions) A summary of collisions by year and severity is included in **Table 7.2**.

	Fatal	Serious	Slight	Total	%KSI
Year 1 (1 Oct 2012 – 20 Sept 2013)	1	1	36	38	5.3%
Year 2 (1 Oct 2013 – 30 Sept 2014)	0	7	46	53	13.2%
Year 3 (1 Oct 2014 – 30 Sept 2015)	2	5	37	44	15.9%
Year 4 (1 Oct 2015 – 30 Sept 2016)	0	6	37	43	14.0%
Year 5 (1 Oct 2016 – 30 Sept 2017)	1	5	37	43	14.0%
Total	4	24	193	221	12.7%
Annual Average	0.8	4.8	38.6	44.2	

**Table 7.2: Collisions by Year and Severity**

## Appendix A

- 7.3.5. From Table 7.2, it can be seen that the general trend in the total number of collisions has remained steady throughout the years except for Year 1 (1 Oct 2012 – 30 Sept 2013), where it was less than half of the annual average of the preceding years. An explanation for this is that nationally across Great Britain, the injury rates tended to be one of the lowest since national records began in 1926. As such, the records do not show any significant change in the level of accidents within Swanley compared to the national accident trends. Indeed, the %KSI accidents recorded in Kent in 2016 was 17% and thus, with a % KSI of 14% the level of serious accidents recorded in Swanley are considered to be no cause for concern.
- 7.3.6. Depending on the options selected in the Swanley Transport Study Phase 2 report, more detailed collision analysis of selected corridors and/or junctions will be undertaken in Phase 2 if the proposals are deemed to impact on road safety.

## **8. Sustainable Transport**

### **8.1. Introduction**

- 8.1.1. The KCC Local Transport Plan and Sevenoaks District Strategy for Transport both aim to improve accessibility with the priorities for Swanley and surrounding villages including *'maintain and improve accessibility to jobs, shops and services by non-car means, including walking, cycling, public transport and community transport and alleviate congestion and tackle air quality issues near Swanley town centre.*
- 8.1.2. Furthermore, the Council intends to identify ways to bring about a shift away from car use to public transport, walking and cycling, by ensuring that new development is located *'where it is accessible to services and facilities thereby reducing the need to travel and requiring new dwellings, employment uses, shops and services to provide for safe and convenient public transport, walking and cycling so the reliance on the car can be reduced'*. The Core Strategy policies also include *'investing in public transport services and walking and cycling facilities to increase the accessibility and attractiveness of these more sustainable transport modes'*.

### **8.2. The Pedestrian Environment**

- 8.2.1. KCC and SDC acknowledge the impact unsustainable transportation has on the environment and wishes to promote 'green transport' options such as walking. However, this will only be achieved through the provision of a connected and convenient pedestrian environment, including crossing locations on desire lines to key destinations. The existing pedestrian environment is examined within this section of the report to help establish the current conditions within the study area.
- 8.2.2. The study area as a whole is considered to have high level of pedestrian connectivity with footways present on both sides of the majority of primary routes, particularly within Swanley, to key destinations including the town centre, train station and leisure centre. The footways are generally provided to a high standard, measuring between 1.5m and 3m in width and are street lit ensuring accessibility is maintained across the day. There are however, some exceptions to this for example along Swanley Lane where the footways are in poor condition and are affected by vehicles parking on the pavement (as discussed in Chapter 5) which affects accessibility for the mobility impaired and those with pushchairs.
- 8.2.3. Notwithstanding, with pedestrian footways provided along the main roads to Hextable and Crockenhill, with the footway to Crockenhill being particularly good, it is considered that the study area is very walkable.
- 8.2.4. Within Swanley town centre, Swanley Square/Asda Walk is a pedestrianised zone, allowing pedestrians to access and cross the central shopping area with ease. However, the condition of the pedestrianised surfacing is in a state of disrepair which impacts on the safe movement of the mobility impaired, those with pushchairs and young children.
- 8.2.5. There are several routes from the pedestrianised zone through the car parking areas to the south which in turn lead to the pedestrian footpath along the northern edge of the recreation ground. However, the routes through the shopping centre are

## Appendix A

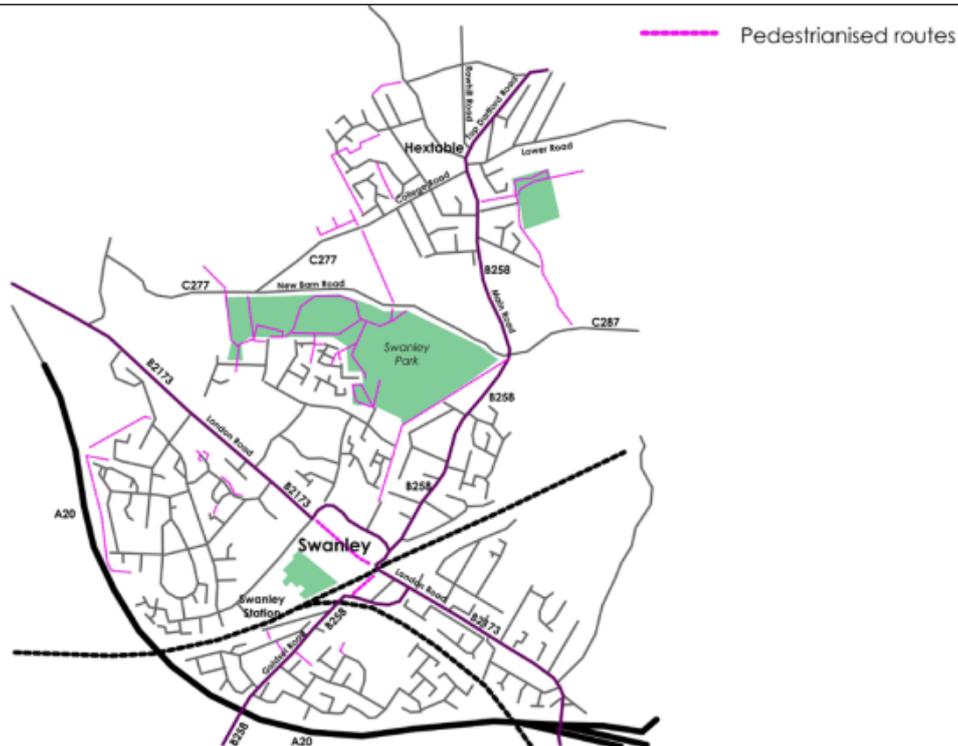
fragmented and similar in character to alleyways with no natural surveillance, whilst there are no dedicated pedestrian routes through the car parking areas to provide safe passage to the recreation ground for pedestrians. Furthermore, the layout of the primary road network surrounding the town centre and the proximity and alignment of the railway line do act as a barrier to movement resulting in some convoluted routes for pedestrians.

- 8.2.6. Bartholomew Way is dominated by the Asda building which results in pedestrians having to either walk around it to access either end of the pedestrianised zone or through the Asda site, including walking past the stores' service yard area. At the western end of Bartholomew Way there is a pelican crossing facility, with dropped kerbs and tactile paving, which provides a safe crossing point for those living to the north of Bartholomew Way. However, the Asda car park means that there is no direct route from this crossing point to the town centre.
- 8.2.7. To the west of the town centre the informal crossing facilities on London Road and St Mary's Road have dropped kerbs and tactile paving, and where on the wider sections of carriageway central refuge islands. Further to the west, a pelican crossing facility with dropped kerbs and tactile paving is provided on London Road ensuring a safe crossing place on the primary desire line towards the Leisure Centre and Swanley Park from the residential area to the south. There is a zebra crossing located immediately to the west of the pedestrianised zone which has dropped kerbs but not tactile paving.
- 8.2.8. To the east of the town centre, the pedestrian desire lines are impeded by the road where the roundabout junctions result in extended walking routes. This is particularly true of the Swanley Lane / Bartholomew Way junction where pedestrians from Swanley Lane where there are no crossing facilities across the Bartholomew Way arm and the presence of guard railing seeks to prevent pedestrians from crossing directly onto the opposite footway. As a result, pedestrians are required to walk some 150m uphill to the nearest crossing point which is an informal crossing with dropped kerbs but no tactile paving.
- 8.2.9. Similarly, the alignment of the pedestrian footbridge over the railway to the north of High Street and the presence of landscaping and guard railing result in 50m diversion the straight-line desire line from this footway into the town centre. However, to the south of the roundabout a pelican crossing facility with dropped kerbs and tactile paving allow pedestrians from the east to cross the road to a more direct pedestrian path into the town centre. The crossing point over Nightingale Way is informal but it is in the formal of a raised speed table and dropped kerbs and tactile paving are provided.
- 8.2.10. At the Goldsel Road roundabout crossing facilities are limited (no crossing facilities on the High Street arms) and informal with the footways and public realm at the roundabout and along the northern section of High Street dominated by guard railing. To the south of the roundabout there are informal crossings with dropped kerbs and tactile paving at various points along London Road. However, there are no crossing point in proximity to the bus stops immediately to the south of Goldsel Road.
- 8.2.11. The pedestrian route from the eastern station entrance towards the town centre is via Station Approach. As noted in Chapter 5, the pedestrian footway on Station Approach is in a generally poor condition and liable to flooding. The narrowness of the pavement also means that the environment is undesirable. From the residential areas to the east

## Appendix A

access to the station can be made via an alleyway between Azalea Drive and Station Approach. However, this route has steps which means it is not accessible for all. It is poorly lit with little natural or active surveillance and thus can feel unsafe during hours of darkness. It is also noted that the western entrance into the station is not step free.

8.2.12. In addition to the networks of footways discussed above, there is also a reasonably comprehensive network of Public Right of Way footpaths within the study area as shown on **Figure 8.1**



**Figure 8.1 – Public Rights of Way (Extract from Figure A2.2 of the MasterVision Report)**

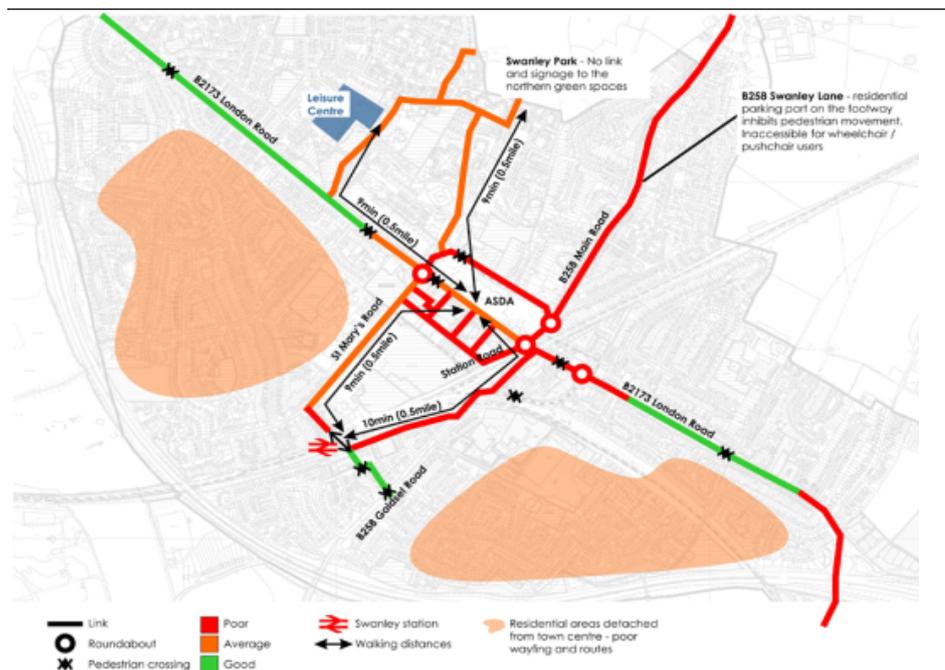
8.2.13. The location and nature of these routes means that they don't necessarily have hard surfacing or lighting and thus are not accessible for all, across the day. This is true of The Avenue of the Limes footpath which provide a direct off-road route between Hextable and Swanley, via Swanley Park. However, with no formal or hardsurfacing, this grassy route is inaccessible during periods of bad weather. This is true of a number of the more rural public rights of way.

8.2.14. Whilst the pedestrian network is extensive, it is clear that there are deficiencies with the existing infrastructure and network of routes. The issues outlined above accord with the issues set out within Appendix 1 of the Swanley and Hextable Mastervision report. All the issues identified to date, with reference to Section A2.9 of the Mastervision report, are summarised below. The issues within Swanley are illustrated in **Figure 8.2**.

- Swanley Station / Town Centre Pedestrian Link:

## Appendix A

- Narrow footways
- Lack of wayfinding signing and gateway features to the station entrances on St Mary's Road and Station Road
- Lack of natural surveillance on route from the station results in an unpleasant walk, particularly after dark
- Lack of pedestrian crossings near bus stops and on important desire lines
- Street clutter including guard railing impedes pedestrians and degrades the public realm
- Lack of seating en-route for disabled / elderly pedestrians
- **Swanley Town Centre Pedestrian Environment**
  - Poor wayfinding and lack of signing to key locations
  - The shopping centre is fragmented with numerous 'hidden spaces' compromising personal security, particularly after dark
  - Walking routes between the shopping centre and car parks are unpleasant due to a lack of natural surveillance, lack of / poorly maintained footways
  - The pedestrianised area of the town centre is in disrepair with significant changes in levels and undulating footways impacting on less able pedestrians, wheelchair users and young children
  - The roundabouts in the town centre impede pedestrian crossing movements
  - There is a general lack of pedestrian crossings near bus stops



**Figure 8.2 – Identified Issues within Swanley Town Centre (Extracted from Figure A2.22 of MasterVision Report)**

8.2.15. Phase 2 of the Swanley Transport Study will develop measure to improve the walking environment and promote this mode of transport. This work will include a further review of the public rights of way to improve the connectivity between Swanley and the surrounding villages as part of a coordinated approach.

### 8.3. Cycling Infrastructure

8.3.1. Cycling is a key 'green transport' mode that has the potential to contribute to a modal shift from the car. However, this can only be achieved if a good quality network of cycling infrastructure is provided. This section describes the existing cyclist environment and infrastructure provision, identifying any deficiencies to assist the development of cyclist focused measures within Phase 2 of this Study.

8.3.2. There are few formal cycle routes within the Study area with just two cycle dedicated off-road routes, a white line segregated shared use footway/cycleway which runs along the northern edge of the B2173 London Road from Birchwood Road. This cycle route terminates immediately to the east of the junction with Oliver Road, where a pelican crossing is provided, and thus does not link to the town centre. It is also, of poor quality in places.

8.3.3. The second off-road formal cycle route is also a short stretch of white line segregated shared use footway/cycleway between the B258 Goldsel Road and Cranleigh Drive. This route is of a good standard however, it again does not connect to any other cycle route.

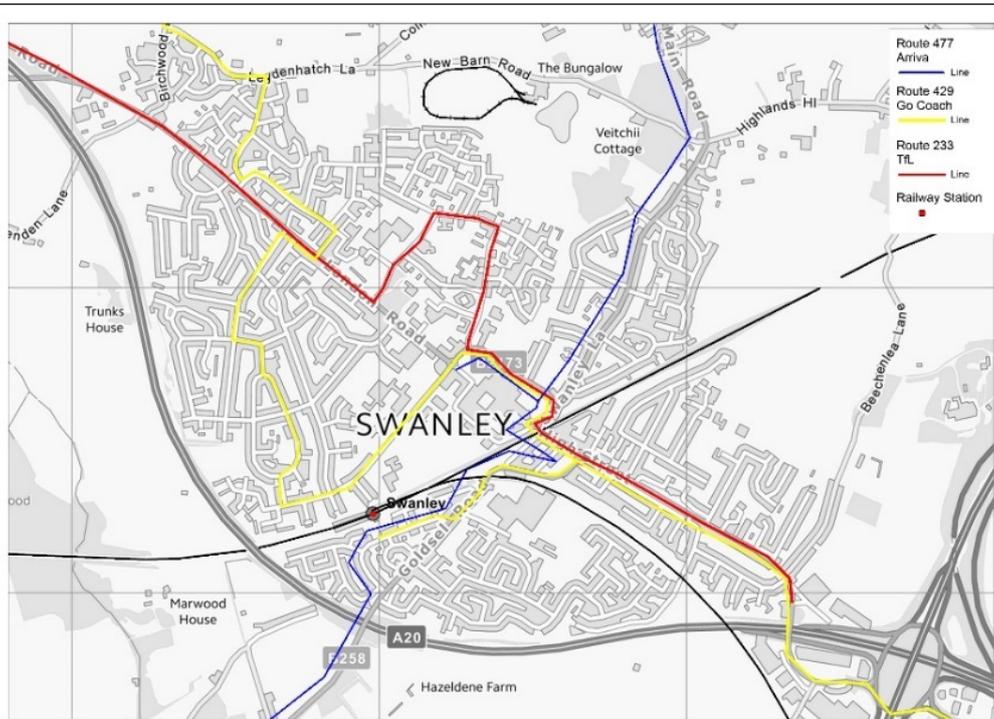
## Appendix A

- 8.3.4. The nature of the roads throughout the residential areas of Swanley are considered to be suitable for on-carriageway cycling as part of a network of quiet routes on roads that are lightly trafficked or subject to slower vehicles speeds thus creating a safer environment for cyclists. The provision of such routes would provide convenient, safe and direct access to facilities such as to Swanley Station, the town centre, leisure centre and Swanley Park, without having to travel on the main routes where vehicle dominance creates a hostile and unsafe environment for cyclists.
- 8.3.5. However, at present, there is a lack of signing and wayfinding to these routes and as such the existing cycling infrastructure across the study area is fragmented and in part not up to current standards and cycling guidance. Furthermore, the layout of the highway network through Swanley town centre is not conducive to cycling, with no cycling infrastructure incorporated and indeed the roundabout junctions, and on-street parking, create pinch-points that impact on road safety of cyclists.
- 8.3.6. There is a total of 36 cycle parking spaces provided at the rail station including 8 Sheffield stands within the station concourse providing 16 spaces and a shelter containing 10 Sheffield stands (20 spaces) located adjacent to the western entrance at Everest Place. The other cycle parking provided within Swanley are 10 stands located within the town centre at Asda, 5 stands adjacent to the High Street/Bartholomew Way/Nightingale Way roundabout and 2 stands at Swanley Library, all of which are unsheltered. There are also 10 unsheltered Sheffield stands provided at the White Oak Leisure Centre.
- 8.3.7. However, across the wider study area there is a lack of secure cycle parking, including at Swanley Park and in Hextable and Crockenhill. The lack of secure and covered cycle parking deters people from using this mode of transport.

### 8.4. Bus Services

- 8.4.1. There are three core bus routes, the 233 (operated by TfL), 429 and 477, which serve Swanley within the AM, Interpeak and PM time periods. The routes of these three services are shown on **Figure 8.3** below. It can be seen from Figure 8.1 that all three routes serve the Bartholomew Way link in the centre of Swanley. Routes 429 and 477 serve Swanley rail station, whilst Route 477 also serves Hextable and Crockenhill.

**Appendix A**



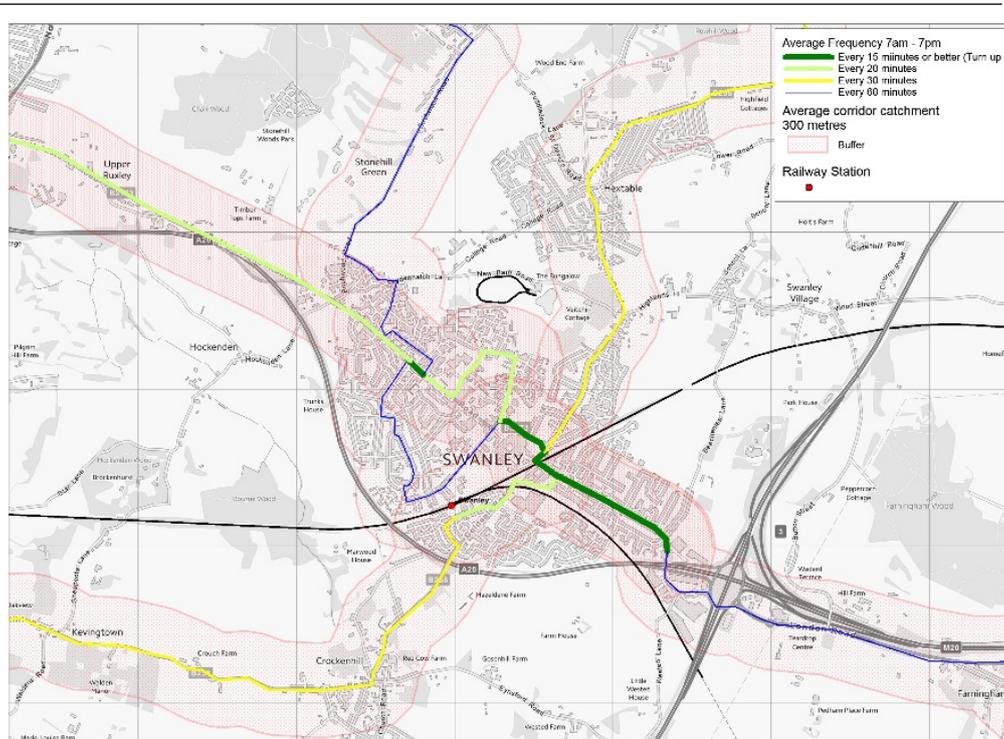
**Figure 8.3 – Bus Services within Swanley**

8.4.2. Due to town settlement pattern and railway line severance, each bus route has at least one indirect section within Swanley.

- To serve train station Route 429 is required to divert via Azalea Drive.
- Route 477 has a shorter diversion to serve station off the B258
- Route 477 loops around the St Mary’s Road/London Road/Bartholomew Way roundabout in order to serve the stops on Bartholomew Way
- To serve a localised catchment in Swanley, including the leisure centre, Route 233 diverts off London Road via Hilda May Avenue, Northview and Sycamore Drive

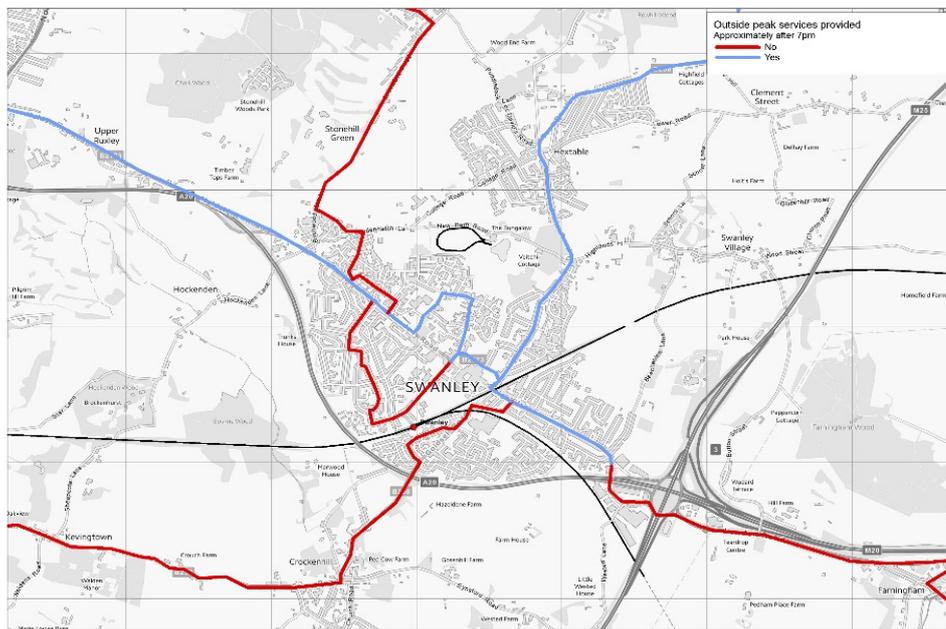
8.4.3. **Figure 8.4** illustrates the coverage of the existing bus services within Swanley based on a notional 300 metre buffer from the routes, which results in a maximum walking distance of approximately 400m based on the Chartered Institution of Highways and Transportation (CIHT) Buses in Urban Developments Guidance (2018). Figure 8.4 shows that, for the most part, Swanley is well served by the existing routings based on the buffer coverage. However, there are gaps in service to west Hextable and south east Swanley.

## Appendix A



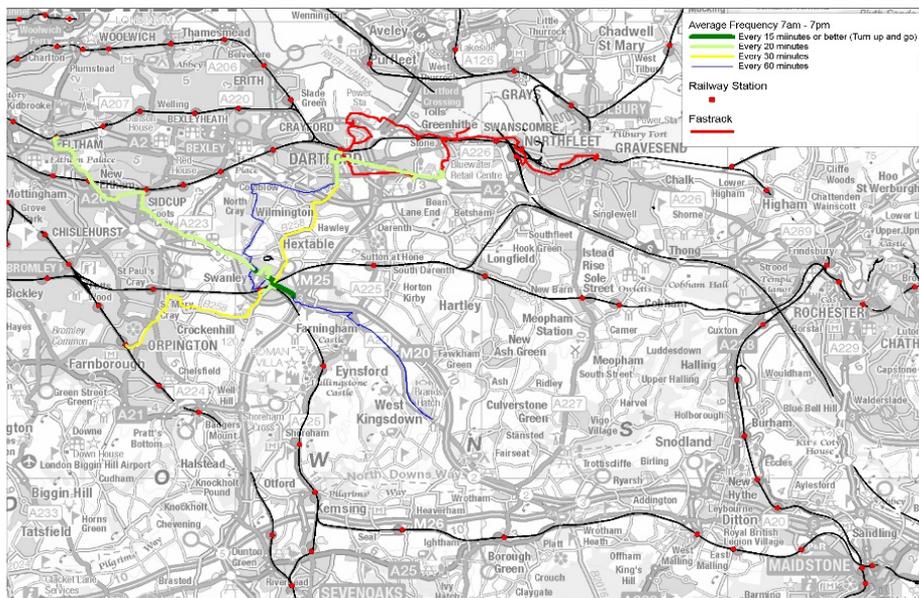
**Figure 8.4 – Existing Bus Route Coverage within the Study Area**

- 8.4.4. With regards frequency, only a short section of London Road offers “turn up and go” frequencies, i.e. bus services approximately every 15 minutes. However, it is noted that the Route 233 has a minimum frequency of every 20 minutes which represents a good rural service frequency. North west and south west Swanley are only served by one bus per hour (Route 429). Hextable is only served by approximately one bus every 30 minutes (Route 477). The rail station is only served by one service every 30 minutes.
- 8.4.5. **Figure 8.5** shows the bus service coverage after 7pm. Route 233 offers a frequent evening service towards Sidcup and Eltham. Route 477 offers limited evening services between Swanley and Bluewater. However, there is no evening service for Swanley Railway Station.



**Figure 8.5 – Evening Bus Services Coverage within Swanley**

8.4.6. Swanley is directly connected to most of the key urban centres in the immediate South East region by either bus or rail including, Orpington, Sidcup, Dartford, Medway, Maidstone and Sevenoaks. Secondary connections include Gravesend and Ebbsfleet International, interchanging with Fastrack, the high frequency high priority Kent bus service. This is illustrated in **Figure 8.6** below.



**Figure 8.6 – Wider Bus Connectivity to and from Swanley**

Reg. office: +44 2030021210  
 Sweco UK Limited www.sweco.co.uk  
 Grove House  
 Mansion Gate Drive Reg.no 2888385  
 Leeds, LS7 4DN

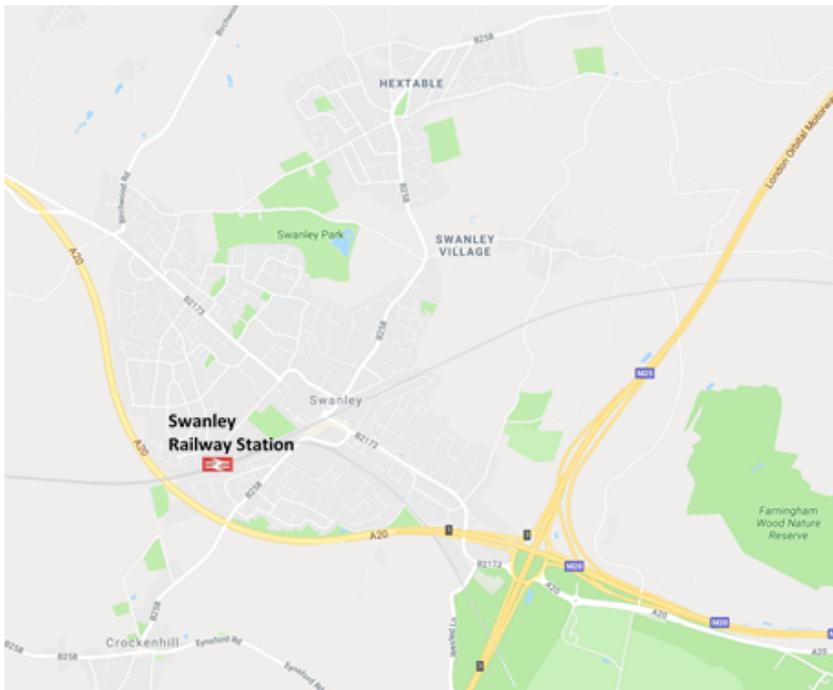
Sweco  
 Lector Court  
 151-153 Farringdon Road  
 London, EC1R 3AF

## Appendix A

8.4.7. It is apparent that the bus is mainly used to connect Swanley to urban centres and developments that are not directly connected by rail. However, infrequent services from/to Swanley limits the attractiveness to use the bus for wider local trips.

### 8.5. Rail Services

8.5.1. Swanley rail station is the only station within the study area and is managed by Southeastern. It is located to the southwest of Swanley town centre, approximately 700m or 9 minutes' walk to the town centre. **Figure 8.7** shows the location of the train station.



**Figure 8.7 - Swanley Railway Station Location**

8.5.2. Two train operating companies, Southeastern and Thameslink operate on the rail network servicing Swanley station. The Southeastern services provide frequent and direct services to London Victoria via Bromley South and Sevenoaks with three services per hour throughout the day. The journey time to London Victoria is approximately 30 minutes. Similarly, the Thameslink services from Sevenoaks serve other key destinations within London including Elephant and Castle, London Blackfriars, Farringdon and St Pancras International. The Thameslink services are available twice an hour in the peaks with an average journey time of approximately 50 minutes.

8.5.3. In March 2016 Swanley Station was placed in TfL Zone 8 and as such, the station is now linked with the Oyster Card and contactless payment system which is available across London zones 1 to 9. This has now simplified commuting into and around London as well reducing the price of rail fares.

## Appendix A

- 8.5.4. Rail is the most prevalent form of public transport in the study area for people travelling to work, accounting for 14% of all methods of transport. However, this proportion could be increased through the provision of improvement works to the station and improved accessibility to the station, particularly walking and cycling links as well as better integration between rail and bus timetables.
- 8.5.5. KCC and SDC are working in partnership with Southeastern Railway to develop station improvements at Swanley Station to improve accessibility to the station and to make it feel more open and welcoming and thus, create a better gateway to Swanley.

### 8.6. Taxis

8.6.1. Sevenoaks District Strategy for Transport recognizes the role of taxis and private hire vehicles (PHV) are recognized as part of an integrated transport system and as an important mode of transport for disabled proposed. Section 15.3 of the SDST also recognises that taxis have the following important role to play in the movement of people:

- The movement of business people and other visitors;
- They provide services when it is not economic for public transport to operate frequently or to remote locations. Furthermore, it is not unusual for people without a car to take a bus to a shop or town centre and then use a taxi or PHV for the return trips with their purchases. Additionally, taxis and PHV's are used by vulnerable travellers for a range of daily trips, including home-to-school journeys
- They can help someone with a disability make a journey that could not be made by conventional public transport
- They can provide an important link in longer public transport journeys by providing access to railway, coach and bus stations and airports. Without such links, travellers might be encouraged to use private vehicles for the whole journey.

8.6.2. Within Swanley a formal taxi rank is provided outside the eastern entrance of Swanley station. Within the town centre, a taxi rank is located within the northern Asda car park.

## 9. Public Parking and Servicing

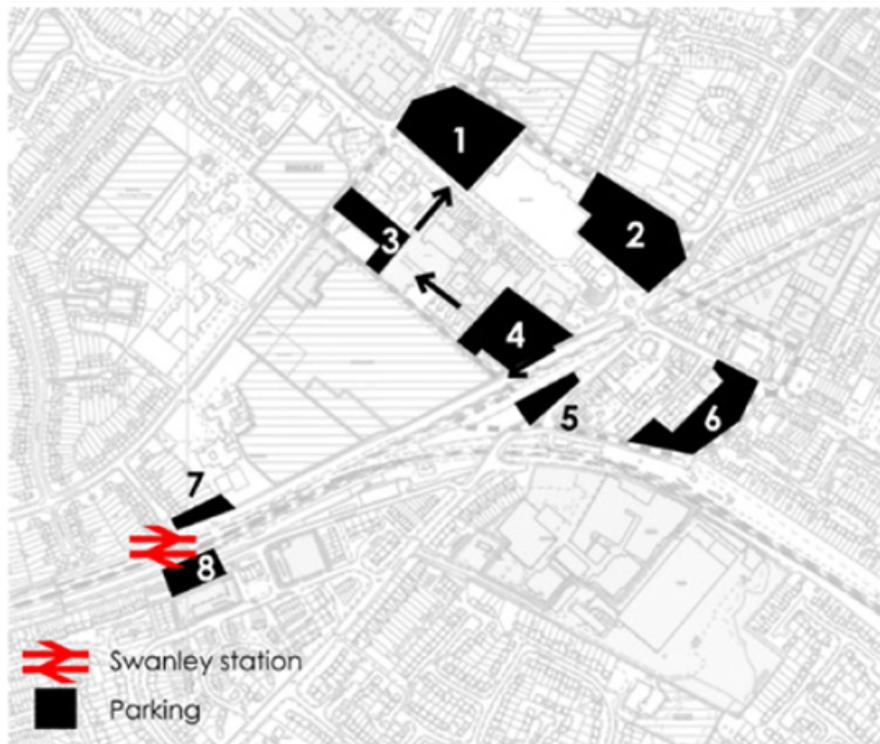
### 9.1. Introduction

9.1.1. The existing on-street parking restrictions on the road network considered within this study are detailed within Chapter 5 of this Report. This chapter describes the current public parking supply within the study area, including disabled parking provision. The information set out below has been extracted from Appendix 1 in the Swanley and Hextable Mastervision Report and information provided by Sevenoaks District Council.

9.1.2. This chapter also describes the servicing, deliveries and access to premises within Swanley town centre.

### 9.2. Existing Public Car Parks in Swanley

9.2.1. There are eight off street car parks within Swanley town centre that are open to the public, the location of which are illustrated on **Figure 9.1** below.



**Figure 9.1 - Off-street Parking Locations in Swanley**

9.2.2. Four of the car parks are located adjacent to the shopping areas within Swanley town centre, whilst two are located to the east of the town centre. The two car parks located adjacent to station are long-stay commuter car parks. Details of these car parks, which combine to provide some 167 spaces including the on-street bays provided along Station Approach, are set out in **Table 9.1**

## Appendix A

Car Park Reference	Car Park Name	Approximate Number of Spaces			
		Disabled*	Parent & Child*	Electric Vehicle Charging	Total
1	Asda	23	14	Yes	430
2					
3	Aldi	5	--	--	70
4	Nightingale Way	16	--	--	331
5	Station Road	2	--	--	48
6	Bevan Place	--	--	--	80
7	Everest Place Station Car Park	2	--	--	29
8	Station Approach Station Car Park	2	--	--	43

\*Estimated from Google Maps

**Table 9.1 – Off-Street Parking Supply in Swanley Town Centre**

- 9.2.3. Where the above car parks are not subject to a charge, namely Asda and Lidl, 'conditional use' is enforced. Conditional use requires car park users to shop on occasion in the store associated with the car park. These car parks have still been considered in this study as users remain able to visit other stores and facilities within the town centre, as long as conditions and time restrictions are met
- 9.2.4. The tariff structure and conditions of use, if applicable, of each of the town centre and station car parks in Swanley are presented in **Table 9.2**.

## Appendix A

Car Park Ref.	Car Park Name	Applicable Tariff		Conditions of Use
1& 2	Asda	Mon 7am – Sat 10pm Sun 10am – 4pm	Free – customers only	Maximum stay 3 hours
3	Aldi	Mon 8am – Sat 10pm Sun 10am – 4pm	Free – customers only	Maximum stay 1.5 hours
4	Nightingale Way	24hr	0-1hr – 65p 1-3hrs - £2.50 3-9hrs - £3.00 All Day - £4.00	N/A
5	Station Road	Mon – Fri 08:30am – 6.30pm Sat/Sun/Bank Holidays – Free	0-30mins – 30p 30mins-1hr – 50p 1-2hrs – 70p 2-4hrs - £1.10 All Day (10hrs) - £4.00	No return within 1 hour
6	Bevan Place	Mon – Fri 08:30am – 6.30pm Sat/Sun/Bank Holidays – Free	0-30mins – 30p 30mins-1hr – 50p 1-2hrs – 70p 2-4hrs - £1.10 All Day (10hrs) - £4.00	N/A
7&8	Swanley Station	Mon-Fri	Daily Ticket - £6.70 Off peak after 2.30pm - £6.00 After 6pm - £1.50	N/A
		Saturday	All Day - £4.40	
		Sun/Bank Holidays	All Day - £1.00	
		Monthly - £104.20 Quarterly - £310.80 Six Monthly - £621.60 Yearly - £1126.70		

**Table 9.2 – Parking Tariffs and Conditions of Use**

9.2.5. In addition to the above there is a smaller public car park on Park Road approximately 250m east of the town centre. This pay and display car park has 34 spaces, including 2 disabled spaces, and a maximum duration of the stay condition of 4 hours. The parking tariffs at the car park applicable Monday-Friday 08.30am – 6.30pm are set out below. The car park has no restrictions outside these hours and is free Saturday, Sunday and Bank Holidays.

## Appendix A

- 0-30mins – 20p
- 30mins-1hr – 40p
- 1-2hrs – 60p
- 2-4hrs - £1.00

9.2.6. It is noticeable from Table 9.2 that there are a variety of parking tariffs in place throughout the car parks within Swanley. This is particularly the case within the town centre which has resulted in the Asda and Aldi car parks, which are free, being over used and the Nightingale Way car parks being under utilised. Indeed, queueing across the Asda car park regularly occurs, causing congestion at the St Mary's Road roundabout.

9.2.7. Whilst the car parks being free are likely to be the main reason why the Asda and Aldi car parks are more popular, however the different levels in use could also be attributed to the Nightingale Way car parks having poor access arrangements and wayfinding, lack of natural surveillance within the car parks and poor pedestrian links and thus, personal security.

9.2.8. It is considered that the parking tariffs encourage car use within the town centre with exceptionally good value parking offered across all parking stay bands. As such, with short stay shoppers typically enjoying free parking and commuters being able to park all day for between £4 and £6.70 there is currently no incentive to adopt alternative modes of travel to the town centre. As a result, the parking charges within the town centre could helping to contribute to the congestion issues currently suffered within Swanley town centre.

**Observation** – *From the key stakeholder discussions it is apparent that parking charges across the town centre is a sensitive issue with increases in charges in the past being met with strong opposition.*

### 9.3. On-Street Parking in Swanley

9.3.1. The on-street waiting restrictions on the primary road network considered in detail within this study are discussed in Chapter 5. It is noted that there are on-street parking bays located on several roads and indeed, it is understood that much of Swanley is within a Controlled Parking Zone (CPZ). As a result, the formal on-street parking areas are controlled either by pay and display parking or with a time limited single yellow line restriction (typically 7am – 10am) and some permit holder restrictions.

9.3.2. The parking tariff structure and conditions of use, if applicable, of each of the on-street parking areas within Swanley are presented in **Table 9.3**. It is noted that payment for on-street parking is done so via parking meters or via "Parkmobile".

## Appendix A

Street Name	Applicable Tariff	Conditions of Use	
Azalea Drive (on-street pay & display)	Mon Fri – 8.30am – 6.30pm Sat & Sunday – free	0-30mins – 20p 30mins-1hr – 60p 1-2hrs – £1.30p 2-4hrs - £2.40 All Day (10hrs) - £3.50	Residents permit holders (SW1) Maximum stay 2 hours – no return within 2 hours
Bevan Place	Mon Sat – 8.30am – 6.30pm Sunday – unrestricted	Free	Residents permit holders (SW2) Maximum stay 2 hours – no return within 1 hour
Goldsel Road (on-street pay & display)	Mon Fri – 8.30am – 6.30pm Sat & Sunday – free	0-30mins – 20p 30mins-1hr – 60p 1-2hrs – £1.30p 2-4hrs - £2.40 All Day (10hrs) - £3.50	Residents permit holders (SW1 & SW3)
Station Road	Mon Sat – 8.30am – 6.30pm Sunday – unrestricted	Free	Maximum stay 30 mins – no return within 30 mins
Sycamore Drive	Mon Sat – 8.30am – 6.30pm Sunday – unrestricted	Free	Residents permit holders (SW5) Maximum stay 1 hour – no return within 1 hour

**Table 9.3 – On-Street Parking Tariffs and Conditions of Use**

- 9.3.3. The location of the on-street parking restrictions is in reasonable walking distances of the town centre and train station, which will be in place to restrict the impacts of commuter parking on the residential areas nearest the train station. There are also on-street parking bays along the length of St Mary’s Road which appear to be unrestricted and indeed, it is noted that the residential area to the west of the railway line does not appear to be within a controlled parking zone.
- 9.3.4. On-site observations showed that the on-street parking on Station Road, Goldsel Road and St Mary’s Road were the most popular, however there were spaces available and thus these areas were not fully utilised at all times. This was also the conclusion of the U+I Transport Assessment which undertook a survey of the roads where parking is permitted within a distance of 800 metres from the edge of the town centre. The U+I survey undertaken on a Wednesday, to coincide with Market Day, recorded a peak parking stress of 60%. The recorded night time parking stress was 56%. The recorded Friday and Saturday stress levels were 50% and 60% in all periods surveyed.

## Appendix A

### 9.4. Hextable Parking

- 9.4.1. Unlike Swanley, Hextable Village has no dedicated off-street car parks, however much of the streets have no parking restrictions and as such on-street parking is available throughout the village. There is some unrestricted space being used as a car park in front of the village post office (approximately 10 cars may park) and unrestricted inset 2 car parking bays next to the chemist on the Main Road (B258).
- 9.4.2. As the space outside the village post office is no formal car parking spaces marked out, parking is frequently haphazard and indiscriminate which can often impede safe pedestrian movement in this area. Similarly, as noted in Chapter 5, there is extensive part-footway parking on the Main Road (B258) which impedes pedestrian movement and at times, render sections of footway impassible.

### 9.5. Swanley Village and Crockenhill

- 9.5.1. There are currently no off-street car parking locations in both of these villages and the majority of on-street parking is unrestricted. Crockenhill also suffers from part-footway parking within the locality of the local shops as shown on **Figure 9.2**, which impedes pedestrian movement. However, there are on-street parking bays provided outside of the Crockenhill post office and adjacent parade of shops located on Broadway (B258).



**Figure 9.2 – Part-Footway Parking within Crockenhill**

### 9.6. Town Centre Disabled Parking Provision

- 9.6.1. From Table 9.1 above, it can be seen that formal blue badge holder (disabled) bays are provided in each of the off-street car parks within Swanley. This is also the case with the leisure centre car park thus ensuring that there are accessible spaces within close proximity to the amenities and rail station entrances.

## Appendix A

- 9.6.2. Within Swanley town centre, there are two disabled bays provided at the northern end of Station Road, within 100 metres of the town centre.
- 9.6.3. There is no formal on-street disabled parking provision within Hextable, Swanley Village and Crockenhill. However, blue badge holders are permitted to park on single and double yellow lines for up to three hours if it is safe to do so but not within 15 metres of a junction or where there are restrictions on loading or unloading. As such, blue badge holders are able to park at numerous locations throughout the study area without the need for formally marked bays.

**Observation** – The key stakeholder consultation raised concerns with regards indiscriminate parking by blue badge holders within Swanley town centre which impedes the free flow of traffic and also pedestrian movements and that the parking restrictions applicable to blue badge holders are not always enforced.

### 9.7. Servicing, Deliveries and Access to Premises

- 9.7.1. Within Swanley town centre, the shopping parade shops are serviced from the rear from Nightingale Way. All delivery and servicing vehicles access and egress this area via the Nightingale Way/B258/Asda car park access roundabout. The Asda service yard is currently accessed via Bartholomew Way whilst the Aldi service yard is accessed from St Mary's Road.
- 9.7.2. The commercial properties located on the north side of High Street between the pedestrian crossing and Park Road have rear servicing which is accessed via Park Road. The other commercial premises beyond these points and on the southern side of High Street have on-street servicing, outside the loading restrictions set out Chapter 5.

## 10. Socio- Economic Analysis

### 10.1. Introduction

10.1.1. The purpose of this chapter is to analyse socio-economic data for the study area to gain a greater understanding of the local population and economy.

10.1.2. In the United Kingdom, the Office for National Statistics breaks down the geographical areas of the UK into different levels (or codes). The study area is located in Kent County which is in the South East of England. Sevenoaks forms a local district within the County of Kent and there is a total of five wards within this district that form the study area for this report, which are:

- Crockenhill and Well Hill,
- Hextable,
- Swanley Christchurch and Swanley Village,
- Swanley St Mary's and
- Swanley White Oak

10.1.3. The following data sets have been collated and analysed for the study area, and for comparison (depending on data availability), the Sevenoaks District, Kent County, South East of England region and England:

- Population,
- Employment,
- Travel to Work Patterns and
- Car Ownership.

10.1.4. This section utilises the latest available data from the 2011 Census, unless otherwise stated.

### 10.2. Population

10.2.1. **Table 10.1** shows the total population (usual residents) of the wards within the study area compared to Sevenoaks District, Kent County, the South East of England and England. The percentage of working age (aged 16-64) and other related demographics are also included.

## Appendix A

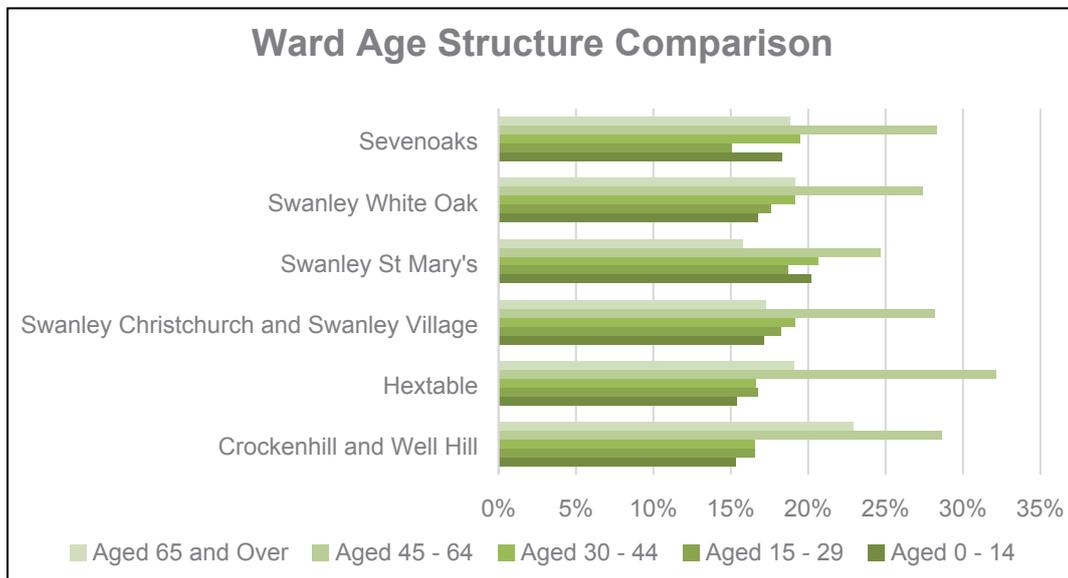
Administrative Hierarchy		All People	Male (%)	Female (%)	All People aged 16-64 (%)	Average Working Age
Crockenhill and Well Hill	Wards	1,909	48.8%	51.2%	66.3%	43.7
Hextable		4,092	48.2%	51.8%	70.4%	42.7
Swanley Christchurch and Swanley Village		5,744	49.1%	50.9%	70.1%	40.4
Swanley St Mary's		4,378	48.2%	51.8%	66.2%	38.4
Swanley White Oak		6,104	47.6%	52.4%	68.3%	41.5
Sevenoaks	District	114,893	48.5%	51.5%	67.1%	41.4
Kent	County	1,463,740	48.9%	51.1%	68.0%	40.3
South East	Region	8,634,750	49.1%	50.9%	68.7%	40.0
England	Country	53,012,456	49.2%	50.8%	69.5%	39.3

**Table 10.1 - Population Characteristics Comparison (based on Age Structure Table KS102EW, ONS Census 2011)**

- 10.2.2. Table 10.1 shows that the most populous ward is Swanley White Oak with over 6,000 residents, whilst Crockenhill and Well Hill ward has the fewest residents with less than 2,000. The other three wards have between 4,000 and 6,000 residents.
- 10.2.3. The total population of all the wards that make up the study area is approximately 22,000. Overall, the Sevenoaks District has a population of just under 115,000 residents, which makes up approximately 8% of the total Kent County population.
- 10.2.4. Hextable ward has the highest percentage of people of working age (aged 16 – 64), which is also higher than the county, regional and national percentage. Swanley St Mary's has the lowest percentage of people of working age within the study area, which is also lower than the county, regional and national average.
- 10.2.5. The male to female ratio is overall comparable with the regional and national split, with the exception of Swanley White Oak ward where the ratio is slightly skewed towards females.
- 10.2.6. Broadly speaking, the wards within the study area have a higher average age than the regional and national average, with the exception of the Swanley St Mary's ward. The average age of the Crockenhill and Well Hill, and Hextable wards is approximately 3 years higher than the regional and national average.

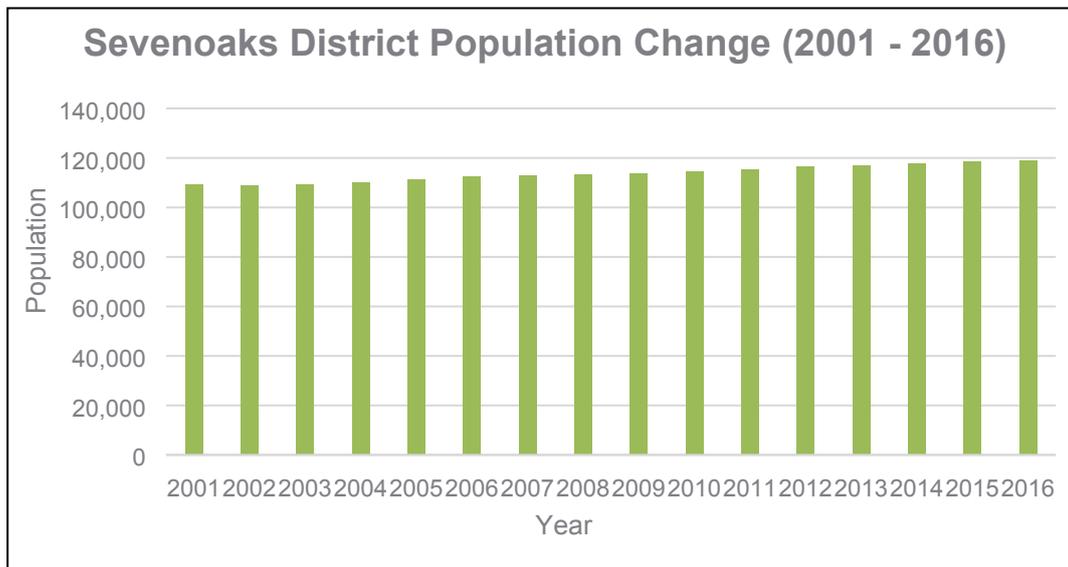
**Appendix A**

10.2.7. **Figure 10.1** shows the age structure of the population of the wards within the study area (in 2011) compared to the whole of the Sevenoaks District.



**Figure 10.1 - Study Area Wars Age Structure (2011) – (Source: Based on Age Structure Table (KS102EW) ONS Census 2011)**

10.2.8. **Figure 10.2** shows how the overall Sevenoaks District population has changed since 2001, based on historical data provided by the Office of National Statistics (ONS Midyear population estimates).



**Figure 10.2 - Sevenoaks District Population Change 2001 – 2016 (Source: ONS Midyear Population Estimates)**

## Appendix A

10.2.9. Figure 10.2 shows that the population of Sevenoaks increased by 9% between 2001 and 2016. For the same period the population of Kent, South East of England and England had increased by 16%, 12% and 12% respectively.

### 10.3. Study Area Employment Trends

10.3.1. Overall, the wards within the study area have a population of 16,261 aged 16 to 74, with females having a slightly higher percentage split. Using the latest Census data for the year 2011, **Table 10.2** shows the labour supply for the study area, compared to the District, County and region.

Economic Activity	Crockenhill and Well Hill	Hextable	Swanley Christchurch and Swanley Village	Swanley St Mary's	Swanley White Oak	Sevenoaks	Kent	South East
Economic activity (numbers)	1,393	3,060	4,269	3,081	4,458	82,098	1,055,397	6,274,341
Part-time (%)	14%	15%	15%	15%	15%	14%	14%	14%
Employee: Full-time (%)	37%	41%	40%	38%	39%	39%	38%	40%
Self-employed with employees: Part-time (%)	1%	0%	0%	0%	0%	1%	0%	0%
Self-employed with employees: Full-time (%)	3%	1%	2%	1%	1%	3%	2%	2%
Self-employed without employees: Part-time (%)	3%	3%	3%	2%	2%	4%	3%	3%
Self-employed without employees: Full-time (%)	6%	6%	6%	5%	5%	7%	6%	6%
Unemployed (%)	2%	3%	4%	5%	5%	3%	4%	3%
Full-time student (%)	3%	3%	2%	2%	2%	2%	3%	3%
Retired (%)	19%	17%	15%	13%	16%	15%	15%	14%
Student (including full-time students) (%)	3%	4%	5%	4%	4%	4%	5%	5%

## Appendix A

Looking after home or family (%)	5%	4%	4%	7%	5%	5%	5%	4%
Long-term sick or disabled (%)	2%	1%	1%	6%	5%	2%	4%	3%
Other (%)	2%	1%	2%	2%	2%	2%	2%	2%

**Table 10.2 - Labour Supply for the Study Area**

10.3.2. It can be seen from Table 10.2 that the Study Area broadly follows the district, county and regional trends in terms of labour supply. There are some slight differences with the largest difference appearing in four of the five wards within the study area showing a higher proportion of the economically inactive retired population in comparison to the national and regional proportions; for example, for Crockenhill and Well Hill this is 19% compared to between 14% and 15% regionally.

10.3.3. From the Economic Activity Data for those aged 16-64 available from the Office of National Statistics it can be seen that as of 2015 there is approximately 58,000 jobs available in Sevenoaks which gives a job density of 0.82 for every Sevenoaks District resident aged. The Sevenoaks job density is slightly lower than the regional and national averages of 0.86 and 0.82 respectively.

10.3.4. The Economic Activity Data also shows that the main sectors for employment in Sevenoaks are:

- Wholesale and Retail Trade (Repair of motor vehicles and motorcycles) – employing approximately 8000 people,
- Construction – employing approximately 6000 people,
- Professional, Scientific and Technical Activities – employing approximately 6000 people, and
- Administrative and Support Services Activities – employing approximately 6000 people.

10.3.5. The average gross weekly pay for full time works is £542.8 which is lower than the regional and national averages of £574.9 and £552.3 respectively.

### 10.4. Travel to Work Patterns – Resident Population

10.4.1. Utilising data from the 2011 Census, **Table 10.3** compares the travel to work patterns by mode of the residents of the study area wards, Sevenoaks District, Kent County and South-East England. In other words, the table below reveals the choice of mode used to travel to work of the selected study area ward residents and how it compares with the county and regional areas.

Method of Travel to Work	Crockenhill and Well Hill	Hextable	Swanley Christchurch and Swanley Village	Swanley St Mary's	Swanley White Oak	Sevenoaks	Kent	South East
All categories Method of	1,393	3,060	4,269	3,081	4,458	82,098	1,055,397	38,881,374

## Appendix A

travel to work (numbers)								
Work mainly at or from home (%)	5%	4%	4%	1%	2%	5%	4%	3%
Underground, metro, light rail, tram (%)	0%	0%	0%	0%	0%	0%	0%	3%
Train (%)	12%	10%	14%	11%	9%	14%	6%	3%
Bus, minibus or coach (%)	2%	2%	1%	3%	3%	1%	2%	5%
Taxi (%)	0%	0%	0%	0%	0%	0%	0%	0%
Motorcycle, scooter or moped (%)	0%	1%	1%	1%	1%	1%	1%	1%
Driving a car or van (%)	40%	45%	37%	35%	38%	38%	40%	37%
Passenger in a car or van (%)	3%	3%	2%	3%	3%	2%	3%	3%
Bicycle (%)	1%	0%	0%	1%	1%	1%	1%	2%
On foot (%)	3%	4%	6%	6%	6%	5%	7%	7%
Other method of travel to work (%)	1%	0%	1%	0%	0%	0%	0%	0%

**Table 10.3 - Method of Travel to Work (2011)**

10.4.2. It should be noted that people not in employment have been omitted from the above table. Table 10.3 shows that:

- Driving is the most popular mode of travel to work across the study area wards, Sevenoaks District and Kent County - there is roughly 40% of people choosing this mode.
- Hextable ward has the highest proportion of people driving to work (45%), whilst Swanley St Mary has the lowest proportion of people driving to work (35%).
- Broadly similar percentages of people using the bus, minibus or coach to travel to work in the wards compared to the regional average, but just slightly lower than the national average.
- Sevenoaks District and the wards in the study area show lower percentages of cycling or walking to work in comparison to the South East and England.
- The most popular form of public transport in the wards is Train travel where the proportion of people using this form of travel is nearly five times higher than the national average (Swanley Christchurch and Swanley Village). This is expected as many people are travelling to work in the London from these locations.
- Apart from Swanley St Mary and Swanley White Oak, the study area wards have approximately similar proportions of people working at or mainly from home compared to the regional or national rate.

## Appendix A

### 10.5. Travel to Work Patterns – Workday Population

10.5.1. The population of an area changes as people move in or out of an area to work. For the workday population the usual resident population is re-distributed to their places of work, while those not in work are recorded at their usual residence.

10.5.2. The workday population data series contain statistics about the characteristics of the workday population. The workday population is an estimate of the population during the working day for a particular area. It includes everybody who works in an area, wherever they usually live, and all respondents who live in the area but do not work. It should be noted that the workday and usual resident population analysis refers to those aged between 16 and 74.

10.5.3. **Table 10.4** shows the difference between the usual population and the workday (or daytime) population. This table shows the percentage change, for 16 to 74 year olds, experienced in each area, as recorded by the 2011 Census.

Area	Usual Resident Population	Workday Population	Change %
Crockenhill and Well Hill	1,909	1,424	-25%
Hextable	4,092	2,980	-27%
Swanley Christchurch and Swanley Village	5,744	5,720	0%
Swanley St Mary's	4,378	3,576	-18%
Swanley White Oak	6,104	5,122	-16%
Sevenoaks	114,893	105,267	-8%
Kent	1,463,740	1,409,267	-4%

**Table 10.4 - Usual Resident to Workday Population Change**

10.5.4. At the district level, Sevenoaks daytime population decreases by 8% and at the County Level the daytime population decreases by 4%. Indeed, the population decreases within four of the five wards within the study area, with the only exception being Swanley Christchurch and Swanley Village which has nearly the same resident and workday populations throughout the day. These trends confirm that the vast majority of the working population travel outside of the ward of residence to work, and thus implying that Swanley is a commuter town, and that the study area is not a key employment destination.

### 10.6. Distance Travelled to Work

10.6.1. Using the 2011 Census data on the distance travelled to work, **Table 10.5** shows how far usual residents aged 16 to 74 travelled to work.

10.6.2. It should be noted that 'distance travelled to work' in this context is the distance in kilometres between a person's residential postcode and their workplace postcode,

## Appendix A

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

10.6.3. The above Table indicates that the average distance travelled to work by residents

Distance travelled to work	Crockenhill and Well Hill	Hextable	Swanley Christchurch and Swanley Village	Swanley St Mary's	Swanley White Oak	Sevenoaks	Kent	South East	England
Average distance (km)	17	16	16	16	15	19	19	17	15
Less than 2km	5%	9%	15%	16%	15%	11%	17%	17%	17%
2km to less than 5km	13%	12%	5%	10%	10%	8%	14%	16%	18%
5km to less than 10km	17%	19%	18%	19%	19%	12%	12%	14%	17%
10km to less than 20km	19%	16%	17%	17%	18%	16%	13%	14%	15%
20km to less than 30km	19%	18%	21%	16%	17%	13%	9%	7%	6%
30km to less than 40km	2%	3%	2%	2%	1%	13%	5%	4%	3%
40km to less than 60km	1%	1%	1%	1%	1%	2%	5%	4%	2%
60km and over	2%	2%	1%	2%	2%	2%	5%	4%	3%
Work mainly at or from home	12%	11%	10%	7%	6%	14%	11%	12%	10%
Other	10%	9%	10%	10%	10%	10%	9%	9%	8%

within the

**Table 10.5 - Distance Travelled to Work Statistics**

10.6.4. The area is in line with the regional and national trends, but lower than that for the District and County. This is also true for many of the distance categories listed. However, there are noticeable differences in in people travelling between 20km to less than 30km in the study area wards which are significantly higher when compared to regionally and nationally figures. This may be due to a higher percentage of residents in these wards working in London, which is between 20km and 30 km (depending on location in the city). Similarly, the percentage of people travelling less then 2km from Crockenhill and Well Hill and Hextable is significantly less than the other wards within the study area, which are in line with regional and national trends. This may reflect the limited employment opportunities within these areas which require people to travel for work.

10.6.5. Furthermore, Table 10.5 shows that:

## Appendix A

- The average distance travelled to work is remarkably consistent between each ward at around 16 km. By comparison the average distance travelled is similar to that of regional and national level, 17 km and 15 km but lower than the District or County Average of 19 km.
- The percentages for those travelling to work above 30km are lower than the regional or national average.

### 10.7. Car Ownership

10.7.1. As per the travel to work pattern analysis, car ownership statistics have been obtained from the 2011 Census data. **Table 10.6** compares the number of households that have access to a car / van in the selected study area wards, Sevenoaks District, Kent County, the South East of England region and England.

Area	All Households	No cars or vans	1 car or van	2 cars or vans	3 cars or vans	4 or more cars or vans	Average Car or Van Ownership
Crockenhill and Well Hill	801	13%	40%	32%	9%	6%	1.53
Hextable	1,662	10%	41%	34%	11%	4%	1.58
Swanley Christchurch and Swanley Village	2,258	13%	42%	33%	9%	3%	1.47
Swanley St Mary's	1,786	25%	44%	24%	4%	2%	1.13
Swanley White Oak	2,746	27%	44%	22%	5%	2%	1.11
Sevenoaks	47,020	13%	40%	34%	9%	4%	1.51
Kent	605,638	20%	43%	28%	7%	3%	1.29
South East	3,555,463	19%	42%	30%	7%	3%	1.34
England	22,063,368	26%	42%	25%	5%	2%	1.16

**Table 10.6 Average Car Ownership**

10.7.2. Table 10.6 shows that three of the five study area wards have a higher car ownership compared with the regional or national average. The other two wards, Swanley St Marys' and Swanley White Oak, have lower household car ownership levels in comparison to the regional and national average. The Hextable ward has the highest average car or van ownership per household at 1.58.

## Appendix A

### 11. Measures and Opportunities Workshop

#### 11.1. Introduction

11.1.1. The previous studies and current policy and strategy documents for Swanley & Hextable and Sevenoaks District examined as part of the work undertaken to date, identified several locations within the Swanley Transport Study, study area that suffer from existing transport issues.

11.1.2. **Table 11.1** below sets out each key issue based on location, a brief description of the issue and where the issue has been raised. It should be noted that only issues and problems specifically related to the study area have been included.

11.1.3. The identified issues have been categorised into common themes based on the type of issue and the type of users affected. As a result, the issues have been grouped into the following categories within Table 4.1. For ease of reference, each issue has also been provided with a reference number.

- Accessibility to Green Space
- Accessibility for Pedestrians and Cyclists
- Accessibility to Bus Services
- Accessibility to Rail Services
- Public Realm
- Car Parking
- Vehicular Accessibility / General
- Traffic – Highway Safety
- Traffic – Congestion

ID	Location	Description	Source
<b>Accessibility to Green Space</b>			
01	Hextable Gardens	Poor quality of inaccessible green amenity space – Somewhat disconnected from Swanley Park and the rest of the village	Swanley Master Vision
02	Study Area as whole	Access to Swanley Park is indirect (convoluted) and difficult to access	
<b>Accessibility for Pedestrians and Cyclists</b>			
03	Swanley Square	Routes through to the south are narrow and lead to large areas of surface car parking and exposed service yards flanked by blank walls	Swanley Master Vision

## Appendix A

04	Swanley Town Centre	Pedestrian routes from and within the large areas of car parking are poorly catered for		
05		Crossing points are limited, particularly at the main junctions which form barriers to movements		
06	Hextable	Pedestrian links to Hextable are lacking		
07		Access to Hextable Village Green is undermined by traffic movements along Top Dartford Road		
08	London Road	Segregated stretch of cycle infrastructure west of the town centre on London Road – not connected to town centre		
09	Study Area as whole	Provision for cyclists generally low		SDC – Allocations and Development Management Plan
10		Very few cycle connections in Swanley		SDC Cycling Strategy
11		Away from London Road routes through Swanley are indirect, particularly to Swanley Park and within residential areas		Swanley Master Vision
<b>Accessibility to Bus Services</b>				
12	Bartholomew Way	Bus stops particularly poor – long walking routes and disconnected from town centre	Swanley Master Vision	
13	Study Area as whole	Major gaps in current bus network	SDC – Allocations and Development Management Plan	
14		Vast majority of bus routes are low frequency – service frequency commonly perceived as intermittent level of service. Localised nature of some services can also impact on connectivity	Sevenoaks District Strategy for Transport 2010-2016	

## Appendix A

<b>Accessibility to Rail Station</b>			
15	Swanley Station	Vehicular and pedestrian routes to the station are compromised and do not link well or obviously with the town centre	Swanley Master Vision
<b>Public Realm</b>			
16	Swanley Town Centre	Pedestrianised area of London Road is tired, lacks character, furniture and landscaping (outdated)	Swanley Master Vision
<b>Car Parking</b>			
17	Study Area as whole	High provision of car parking in the centre and the movement network is not conducive to walking and cycling	Swanley Master Vision
18		Parking problems exist around commuter stations and in town centres	SDC – Allocations and Development Management Plan
<b>Vehicular Accessibility – General</b>			
19	Swanley Town Centre	Diversion of traffic along Bartholomew Way and Goldsel Road has led to a traffic dominated arrangement	Swanley Master Vision
20		Convolutd highway arrangement	
21	Study Area as whole	Rural areas have dispersed population with reliance on car	SDC – Allocations and Development Management Plan
<b>Traffic – Highway Safety</b>			
22	Study Area as whole	Lack of traffic calming measures at certain locations	Swanley Master Vision
<b>Traffic – Congestion</b>			
23	Study Area as whole	Inability of existing junction to M25 to cope with current levels of traffic	Swanley Master Vision
24	Study Area as whole	Congestion around Swanley	SDC – Allocations and
25		High Car Ownership	

## Appendix A

			Development Management Plan
26	B2173 High Street/ Goldsel Road junction	Identified congestion hotspots	Sevenoaks District Strategy for Transport 2010-2016
27	B2173 London Road/ Birchwood Road junction		

**Table 11.1 – Summary of Existing Issues and Problems Identified from Background Research**

- 11.1.4. It is also noted that a number of the previous studies identified the potential for the provision of a “halt” station to the north of Swanley and/or the relocation of the existing station closer to the town centre. It is anticipated that these schemes would be subject to third party authorisation and funding, including developer funding. Furthermore, it was noted that these proposals were not supported by the rail operators. As a result, the provision of new station facilities is considered to be outside the scope of this Study.
- 11.1.5. In general, it was also noted that within the Study area, the railway line acts as a barrier to movement. This is particularly relevant for pedestrian and cycle movements and as such, potential for additional pedestrian and cycle infrastructure will also be considered as part of this study.
- 11.1.6. Indeed, within Sevenoak’s District including Swanley, it has been identified that there is a high dependency on rail for commuting particularly into London. Whilst commuting by rail isn’t an issue, the current high level of car trips to and from the station creates parking pressures in the town and congestion during the peak hours. As such, measures for improving modal choice to and from Swanley Station will form an integral part of the Swanley Transport strategy.
- 11.1.7. The above Issues and Problems table has been used as the starting point for identifying transport improvement measures that, in turn, will form the basis of the discussions at the Opportunities and Measures workshop. This is discussed in the following Chapter of this Note.
- 11.1.8. The data set out in the Workshop Briefing Note, which included any measures identified in the previous studies, was used as the starting point for discussions at the Measures and Opportunities workshop, the outcomes of which are discussed in detail within this chapter.

### 11.2. Workshop Purpose

- 11.2.1. To gain a greater understanding of the perceived problems and issues within the Study Area and to ensure that all existing issues within Swanley and the surrounding villages had been captured, key stakeholders were invited to the Phase 1 workshop at Swanley Town Council, Alexandra Suite, Swanley on Wednesday 7 February 2018.

## Appendix A

11.2.2. The purpose of the Phase 1 Measures and Opportunities Workshop was to brief key stakeholders on the aim of the study, the stages involved and a summary of the work undertaken to date and initial findings. The workshop also provided the opportunity to utilise the local knowledge and experience of the attendees and to gather their thoughts on the key issues affecting the study area that should be considered as part of the Study. The opportunity was also taken to gather the attendees' thoughts on potential measures and opportunities to mitigate the existing issues and problems identified.

### 11.3. Workshop Attendees

11.3.1. The Measures and Opportunities Workshop was facilitated by Sevenoaks District Council and Swanley Town Council and attended by Sevenoaks and Kent County Council officers and several Town, District and Parish Council Councillors, Ward Members and Clerks.

11.3.2. A list of the 17 invited attendees and those attending from the Sweco project team is provided below:

- Mark Fitch (Sweco)
- Lorna Parsons (Sweco)
- Tariq Ismail (Sweco)
- Simon Taylor (Sevenoaks District Council)
- David Joyner (Kent County Council)
- Louise Rowlands (Kent County Council)
- David Barton (Kent County Council)
- Lisa Daniels (Kent County Council)
- Barbara Morris (Clerk to Crockenhill Parish Council)
- Stephen Nash (Clerk to Swanley District Council)
- Dan Sutton (Estates Manager to Swanley Town Council)
- Councillor Wayne Stoneham (Hextable Parish Council)
- Councillor Ray Morris (Swanley Town Council)
- Councillor Dee Morris (SDC District Member: Hextable)
- Councillor Michael Hogg (SDC District Member: Swanley St Marys)
- Councillor Lesley Dyball (SDC District Member: Swanley St Marys)
- Councillor Nina Scott (SDC District Member: Swanley White Oak)
- Councillor Claire Barnes (SDC District Member: Swanley Christchurch & Swanley Village)

## Appendix A

- Councillor John Barnes (SDC District Member: Swanley Christchurch & Swanley Village)
- Councillor Michael Horwood (KCC Member: Swanley)

11.3.3. The following key stakeholders were also invited but were unable to attend:

- Councillor Stephen Lindsay (SDC District Member: Crockenhill & West Hill)
- Councillor Darren Kitchener (SDC District Member: Hextable)
- Councillor Tony Searles (SDC District Member: Swanley Christchurch & Swanley Village)
- Councillor Laurence Ball (SDC District Member: Swanley White Oak)
- Councillor James Halford (SDC District Member: Swanley White Oak)

### 11.4. Meeting Agenda

11.4.1. The agenda used to structure discussions at the Phase 1 Measures and Opportunities Workshop was as follows:

1. Introductions.
2. Study background and progress to date.
3. Summary of identified existing issues and problems.
4. Open round table discussions on issues and problems.
5. Summary of potential transport improvement measures.
6. Open round table discussions on potential transport improvement measures.
7. Next steps.

11.4.2. The next steps were not discussed at the Workshop however they are set out within Chapter 12 of this report.

### 11.5. Issues and Problems Discussions

11.5.1. The issues and problems discussions was an open forum in which the attendees at each table described what they perceived and understood to be the issues and problems in the study area.

11.5.2. A member of the Sweco team sat with the attendees to facilitate the discussions which were aided by the Briefing Note, together with study area maps indicating the location of the identified issues and problems.

11.5.3. The range of issues and problems discussed can be broadly categorised as follows:

- Traffic congestion issues
- Highway safety issues

## Appendix A

- Air quality issues
- Disabled access issues
- Access issues for pedestrians and cyclists
- Public transport issues
- Car Parking pressures
- Future pressures

11.5.4. Much of the issues and problems raised by the external attendees mirrored those already established through the data collection and analysis work undertaken to date and set out in Table 11.1 above.

11.5.5. However, the key issues raised by most of the external attendees related to traffic congestion and the resultant air quality issues, car parking pressure, access to the rail station and poor bus service provision.

11.5.6. All the issues and problems identified by the external attendees at the workshop are set out in **Table 11.2** below. The table includes comments received from key stakeholders following the Workshop. These have been grouped together into common themes with a reference number, but have not been arranged in any order of importance or priority.

ID	Location	Description
<b>Traffic – Air Quality</b>		
01	Study area as a whole	Air quality is very poor in and around Swanley due to the volume of traffic and congestion
<b>Traffic – Congestion</b>		
02	High Street / London Road / Goldsel Road	The pedestrian crossing on London Road by Lullingstone Castle pub is the cause of a lot of tailbacks, which then block the roundabouts each side as drivers don't hold back.
03	Swanley Lane	Swanley Lane congested on route into town centre all the time
04	Goldsel Road / London Road Roundabout	Congestion at Goldsel Road / London Road junction
05	Kingswood Avenue / London Road	Kingswood Avenue - School traffic causes congestion and delays on London Road during school drop-off/pick-up times
06	Study Area as a whole	Volume of through traffic in Swanley and Hextable - both on routes to several destinations e.g. Sidcup, Bexleyheath, Joydens Wood
07	Study Area as a whole	School run traffic and pick up and drop off causes congestion e.g. around High Firs

## Appendix A

08	Town Centre	Accesses at both ends of Asda cause congestion
09	London Road	Lorries unloading on London Road (no enforcement of parking and loading restrictions)
<b>Traffic – Congestion / Car Parking</b>		
10	Study Area as a whole	High levels of car ownership
11	Study Area as a whole	Introduction of Oyster has increased car journeys to the station from outside Swanley
12	Study Area as a whole	New development will increase car trips and car parking demand
<b>Car Parking</b>		
13	Rail Station	Parking at station should be increased – car park full by 7am
14	Study Area as a whole	Commuter Parking on residential streets
15	Town Centre	Car parks under used due to increased cost
16	Hilda May Avenue	Limited parking available at the Kent Children's Centre
17	Kingsbury Avenue	Lack of residential car parking
18	Swanley Park	Insufficient car parking within Swanley Park during the summer / events
19	St Mary's Ward Area of Study Area	Lack of on-street parking restrictions
20	Study Area as a whole	Little controlled parking (on-street) west of the railway line - better to the east - lack of consistency
21	Study Area as a whole	On-street parking restrictions are not always monitored / enforced
22	Town Centre	Lack of consistency in parking charges throughout the town - Asda being free means that this car park is always busy whilst others are underused
23	United House - Goldsel Road access	United House Access - concern that this will be used for commuter parking if there are not adequate parking restrictions in place
<b>Traffic – Congestion / Highway Safety</b>		
24	Salisbury Avenue	Salisbury Avenue is a popular rat run to avoid London Road - speeding an issue
25	Goldsel Road / London Road Roundabout	Cars drive on opposite side of the road to get into right hand lane
<b>Traffic – Highway Safety</b>		

## Appendix A

26	Rail Station	Lack of traffic calming on the approaches to the station
27	Hextable / North Swanley	College Road and New Barn are narrow and unsafe - can be congested
28	Hextable / North Swanley	New Barn Road /College Road junction is dangerous
29	Hextable / North-west Swanley	Leydenhatch Lane narrow and dangerous
30	Hextable / North-west Swanley	Birchwood Road (southern end) narrow and dangerous
31	Top Dartford Road	The chicanes on Top Dartford Road are a safety issue - drivers travelling on wrong side of road to get round and speeding
32	Nightingale Way	Link between Lidl and Nightingale Way - drivers bump over kerb to avoid one-way
33	Town Centre	Indiscriminate blue badge holder parking - not always appropriately placed on double yellow lines restricting access for others
<b>Vehicular Access - General</b>		
34	A20	No eastbound slip access from A20 therefore all traffic must access from east (High Street)
35	Crockenhill	Rat running through Crockenhill
36	A20	The lack of an all movements junction on the A20 to the east of Swanley means all traffic must go to junction 3 of the M25 and turn back into Swanley, which forces traffic through Swanley
37	Beechenlea Lane	Width and condition of Beechenlea Lane restricts its use for journeys to Swanley Village and Hextable further increasing through traffic in town centre
38	Wested Lane/Eynsford Road	Width of Wested Lane restricts its use for journeys to Crockenhill further increasing through traffic in town centre
39	Lower Road/Clement Street	Width and lack of useable passing places restricts its use for journeys to the Hospital and Bluewater further increasing through traffic in the town centre
40	Puddledock Lane	Width and lack of useable passing places restricts its use for journeys between Hextable and Birchwood Road, onto Bexley and the A2 further increasing traffic on the Leydenhatch Lane and College Road
41	Leydenhatch Lane/College Road/New Barn Lane	The lanes are narrow with few passing places restricting their use for journeys to and from Hextable

## Appendix A

		and around northern Swanley further increasing traffic through Hextable and Swanley town centre..
<b>Access to Bus Services</b>		
42	Study Area as a whole	Prohibitive fares on buses
43	Study Area as a whole	Buses caught up in traffic - lack of bus priority
44	Study Area as a whole	Bus stops in poorly lit areas and no shelters
45	Hilda May Avenue	Bus stop outside children's centre has no shelter
46	Study Area as a whole	No bus routes to Bexley
47	Study Area as a whole	Lack of realtime information - due to infrequency of services, waiting times at bus stops can be long
48	Study Area as a whole	Infrequent, unreliable bus services that stop early in the evening - services to hospital poor with no evening services tying in with visiting times or times that tie in with shift patterns meaning only option is to drive
49	Study Area as a whole	Lack of bus services which serve the surrounding villages to provide a frequent service to and from Swanley town centre/services
50	Study Area as a whole	Proposed U+I Market day service was a duplication of existing routes - did not serve the main catchment of the surrounding towns and villages
51	Study Area as a whole	Lack of bus information
52	Study Area as a whole	Cost of buses compared to driving discourages use
53	Study Area as a whole	Bluewater is a major local employer and retail and leisure destination but the bus is expensive, infrequent and finishes early in the evening.
<b>Disabled Access</b>		
54	Rail Station - Azalea Drive	Disabled access from Azalea Drive poor – alleyway has steps restricting access
55	Avenue of Limes	Disabled access to and along the Avenue of Limes is restricted
56	Rail Station - Everest Place	No step free access into the station
<b>Access for Pedestrians and Cyclists</b>		
57	Rail Station	Condition of footways on the approach to the station - limited visibility, levels of parked vehicles, no/poor lighting quality, crossings lack appropriate infrastructure such as dropped kerbs
58	Study Area as a whole	Parking on-street restricts visibility

## Appendix A

59	St Mary's Road	Pedestrian crossing facilities lacking on St Mary's Road - no dropped kerbs and tactile paving
60	Study Area as a whole	Crime deters walking and cycling
61	Alder Way	Lack of connection from Alder Way to Swanley Park and Hextable
62	Study Area as a whole	Poor quality or no wayfinding signage
63	Rail Station	Station waiting room insecure - lack of staff at the station
64	Rail Station	Poor quality/insufficient safe cycle parking at the station
65	Hextable	Walking to Swanley Park from Hextable difficult
66	United House Development	Insufficient footway width on the Goldsel Road vehicular access
67	Study Area as a whole	Footways throughout Swanley are narrow
68	Study Area as a whole	Lack of signs for Quietways
69	Hextable	Routes to Avenue of Limes and Swanley Park from Hextable are unsafe
70	Town Centre	Crossing points in and around the town centre are limited
71	Hextable	Hextable is lacking dedicated footways on main road
72	Study Area as a whole	Cycling within Swanley considered unsafe and lack of infrastructure a key deterrent to cycling
73	Azalea Drive - Route to Rail Station	Alley way from Station Approach to Azalea Drive unsafe - poor lighting and quality of route
74	Azalea Drive	Differing land ownership within Swanley can cause issues with regards the provision of adequate street furniture and consistency of provision
75	Study Area as a whole	Poor lighting and a feeling of being unsafe main deterrent to walking

**Table 11.2 – Summary of Issues and Problems Identified by External Attendees at Phase 1 Workshop**

11.5.7. The Issues and Problems discussions highlighted the traffic congestion issues within the town centre and how these are influenced by traffic diverting from the local lanes within the study area as well as the strategic road network to avoid congestion or because of poor connectivity between the A20 and the key distributor roads into and around Swanley.

## Appendix A

### 11.6. Identification of Potential Measures and Opportunities

11.6.1. Following the identification of the issues and problems within the study area, the next stage of the workshop was an open forum discussion on the potential measures and opportunities to mitigate the transport issues.

11.6.2. The potential measures and opportunities identified by the external attendees are set out in **Table 11.3** below. The table includes measures and opportunities identified by key stakeholders after the workshop. Whilst each measure has been assigned a reference number, they have not been arranged in any order of importance or priority.

ID	Description
<b>Air Quality</b>	
01	Planting of trees to alleviate air quality issues
<b>Road Network &amp; Traffic Management</b>	
02	All-movement junction to the west of Swanley to provide direct access to/from A20
03	Break Salisbury Avenue to prevent through movement and thus rat running
04	Close off service road within the town centre
05	Crossing over the railway line to the north of Swanley - suitable for all modes of transport
06	Eastbound slip access from A20
07	Improve junction of College Road / New Barn Road
08	Improve the access arrangements to Asda as part of any planning application that comes forward. Create a multi-storey car park on the western car park to free up space for highway improvements.
09	Mitigate rat running - one-way on residential roads
10	Move no entry signage on Nightingale to adjacent to Asda access
11	New link road from Birchwood Road (to avoid narrow section at southern end)
12	Northern bypass
13	Open up Bevan Lane to provide two-way route
14	Change Salisbury Avenue to one-way operation to prevent rat running
15	Rearrange the western access into Asda
16	The lanes around Hextable, Swanley and Crockenhill need more passing places and better maintenance. They could potentially take more traffic and help relieve Swanley Town Centre.
17	Traffic calming around the station
18	Westbound off-slip from M25 to A20 (south east of Swanley)

## Appendix A

19	Widen Beechenlea Lane– Provision of additional passing places
20	Widen Birchwood Road– Provision of additional passing places
21	Widen College Road– Provision of additional passing places
22	Widen Leydenhatch Lane – Provision of additional passing places
23	Widen New Barn Lane– Provision of additional passing places
24	Widen Wested Lane/Eynsford Road– Provision of additional passing places
25	Widen Lower Road/Clement Street – Provision of additional passing places
26	Yellow box / Keep Clear Marking in the Goldsel Road / London Road roundabout
<b>Highway Safety</b>	
27	Frequent and adequate maintenance of verges and hedgerows
28	Remove chicanes Top Dartford Road and replace with alternative traffic calming measures
29	Regular maintenance of footway infrastructure - surfacing, lighting, signage
<b>Disabled Access</b>	
30	Step free access to Station
<b>Car Parking</b>	
31	Car Parking Review - consistency of pricing and duration of stay restrictions
32	Enforce on-street car parking restrictions - particularly Double Yellow Line restrictions within the town centre
33	Increase car parking at station
34	Increase car parking at Swanley Park
35	Introduce charging in Asda car park
36	Introduce on-street car parking restrictions in area west of the railway line
37	Reducing permitted duration of stay within Asda car park
<b>Buses</b>	
38	Bus priority measures - FastTrack
39	Quality Bus service to Bluewater - link to FastTrack service from Dartford/Bluewater that ties in with working hours
40	Improve (create) services to the hospital
41	Improve bus stop facilities - shelters, realtime, lighting

## Appendix A

42	Provide a town centre to surrounding village bus service
43	Provide a young person's bus pass so they have an option to use the buses rather than, or if they cannot, drive.
44	Provide realtime passenger information at bus stops and key locations within the town centre
45	Provision of a market day bus service - price to be comparable to parking charges
46	Provision of improved evening bus services and frequencies - particularly to hospitals
47	Review fare structure of bus services, including the provision of Oystercards across all services
<b>Pedestrians and Cyclists</b>	
48	Improve footway provision within Hextable
49	Improve lighting and feel of Azalea Drive alleyway
50	Improve pedestrian crossing facilities in St Mary's Road - dropped kerb and tactile paving
51	Pedestrian crossing bridge over High Street (between the roundabouts)
52	Pedestrianise Station Road
53	Provision of a pedestrian bridge over the railway from Station Approach to town centre / recreation ground
54	Upgrade / change pelican crossing facility on High Street
55	Improve conditions along key pedestrian and cycle routes - surfacing, lighting and signage
56	New link through recreation ground from Station to town centre
57	Provide a dedicated pedestrian/cycle route between Swanley and Hextable - through Swanley Park and Avenue of Limes
58	Cycle hub at the station - secure parking with links to dedicated cycle ways
59	Cycling Improvements - new route to the east of Beechenlea Lane
60	Improve cycle routes and associated infrastructure
61	Provision of cycle routes through St Mary's Ward area of Swanley
62	Two-way cycle route to the Olympic facility

**Table 11.3 – Summary of Issues and Problems Identified by External Attendees at Phase 1 Workshop**

11.6.3. From the above Table, it can be established that the priority for the external attendees is schemes to alleviate the existing congestion issues within the town centre, which in turn will address air quality concerns. Improvements to the bus services was also a key improvement measure as was access to the rail station.

## Appendix A

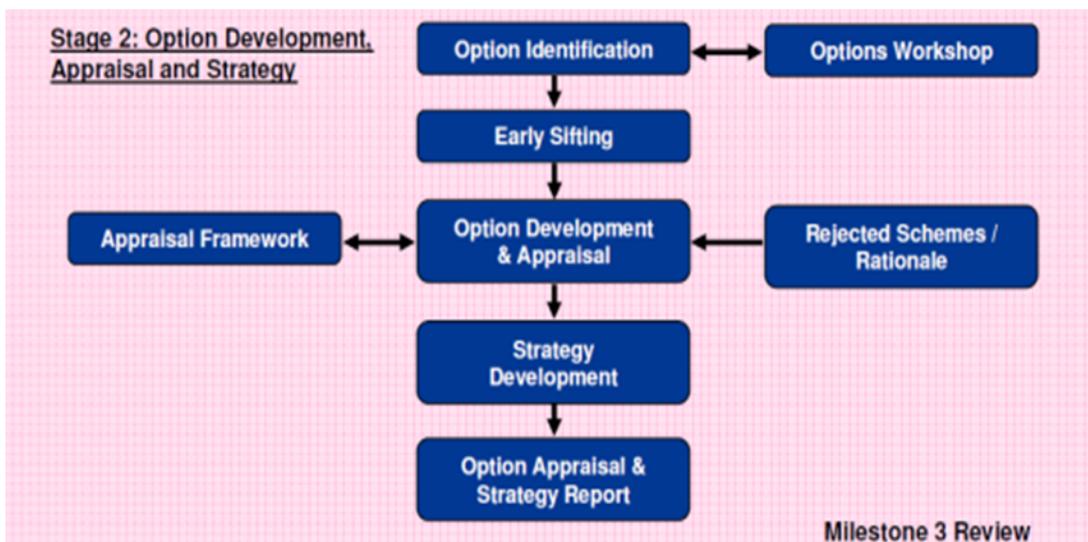
11.6.4. The measures and opportunities set out in Table 11.3 will be considered in greater detail through the development of this study as part of Phase 2.

## 12. Next Steps

### 12.1. Introduction

12.1.1. This report represents the conclusion of the Data Collection and Problem Identification Stage. A milestone review of the study will now be undertaken by Kent County Council and Sevenoaks District Council.

12.1.2. Following the milestone review the study will move into Stage 2. The key elements of Stage 2 are illustrated in **Figure 12.1** and discussed below.



**Figure 12.1: Option Development, Appraisal and Strategy Stage**

### 12.2. Option Identification

12.2.1. In line with best practice contained within DfT guidance, a range of potential solutions to the defined problems and issues will be identified. This will include consideration of both highway infrastructure and sustainable transport interventions aimed at resolving the identified issues and problems.

12.2.2. This stage in the process will generate a list of potential interventions to be considered for further development. It will include liaison with Essex County Council Officers, Braintree District Council Officers and key stakeholders as appropriate at an Options Workshop to ensure that a wide range of solutions are identified. This will also include consideration of historic proposals that have not been progressed in the past.

### 12.3. Early Sifting

12.3.1. Each option will be screened to ensure it is appropriate for further consideration as part of the study. The broad criteria on which this filtering process will focus is:

- Feasibility

## Appendix A

- Deliverability (including political issues, planning issues, timescales and third parties)
- Affordability / perceived value

12.3.2. A spreadsheet will be used to assess each option based upon the early sifting criteria. This exercise will be done in consultation with Essex County Council and Braintree District Council Officers as necessary.

12.3.3. All options that meet the sifting criteria will be added to the shortlist of options to be taken forward to the next stage of option development / appraisal. Any options that clearly do not achieve one or more of the above criteria will be discounted and not considered further as part of this study.

### 12.4. Option Development and Appraisal

12.4.1. Each option on the shortlist will be developed to provide a clear outline of the proposed measures and allow a full appraisal to be undertaken.

12.4.2. An appraisal framework will be developed in parallel to the option development process. It will be developed to an appropriate level of detail for the study and will be based upon the underlying principles set out within best practice DfT Guidance and the DfT's Early Assessment and Sifting Tool (EAST).

12.4.3. The appraisal framework will also be developed in conjunction with the County and District Councils and will provide a predominantly qualitative appraisal of each of the options put forward and used as the basis of selecting and prioritising the most appropriate solutions and recommendations going forward.

12.4.4. The exact appraisal framework to be used will be agreed with Kent County Council, but it is anticipated that this will focus on the following themes:

- Appraisal against LTP priorities for transport
- Appraisal against study objectives

12.4.5. It is proposed that each option is scored on a five-point scale (from -2 to +2) against all of the above, but this will be confirmed with Kent County Council prior to finalising the appraisal framework.

### 12.5. Strategy Development

12.5.1. A factual account of the likely benefits and the deliverability of each scheme will be presented, based upon the evidence and analysis which has been collated as part of the Integrated Transport Study.

12.5.2. In line with the project brief, a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis will be undertaken to help analyse the merits and challenges of the strategy.

## Appendix A

### **12.6. Phase 2 Report**

12.6.1. Phase 2 will culminate in the production of an Option Appraisal and Strategy Report, which will bring together the findings of the Option Development and Appraisal Stage as well as discussing the strategy development process.

12.6.2. The Phase 2 Report will be used to inform a Milestone Review which will be undertaken by the County and District Councils at the end of Phase 2. The Milestone Review will enable the delivery team to evaluate progress before proceeding to the next stage.

## Appendix A

### 13. Summary

13.1.1. This Phase 1 Report summarises the findings of the Data Collection and Problem Identification Stage.

13.1.2. Previous studies undertaken on behalf of Sevenoaks District Council and Kent County Council and current policy documents have been reviewed and summarised. This Phase 1 Report builds upon the findings of the previous studies that have been undertaken.

13.1.3. The issues and opportunities within the Swanley Transport Study, established during the Data Collection and Problem Identification Stage, can be categorized under the following headings:

- Accessibility to Green Space
- Accessibility for Pedestrians and Cyclists
- Accessibility to Bus Services
- Accessibility to Rail Services
- Public Realm
- Car Parking
- Vehicular Accessibility / General
- Traffic – Highway Safety
- Traffic – Congestion

13.1.4. The review of the baseline data identified some 27 specific issues within the study area that suffer from existing transport and accessibility issues. Of these 11 related to traffic including car parking, vehicular accessibility, highway safety and congestion. A further 4 related to public transport, 9 were pedestrian/cycle issues whilst the remaining 3 related to access to green space and public realm.

13.1.5. Many of the problems and issues raised by the external attendees mirrored those already established through the data collection and analysis work summarised above.

13.1.6. The workshop highlighted the importance of bringing forward transport improvements that will seek to reduce congestion within Swanley town centre and improve accessibility by sustainable modes of transport.

The next phase of the study is the Option Development, Appraisal and Strategy Phase (Phase 2) which includes the identification of potential options aimed at alleviating the underlying transport issues identified in Phase 1. These potential options will be appraised against the Transport Plan transport priorities and the study objectives. The findings of the Option Development and Appraisal Stage will be set out within a Phase 2 Report.

## Figures