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ARCADIS Design & Consultancy for natural and built assets

OTTERPOOL PARK GARDEN SETTLEMENT

Transport Assessment Scoping Report

AUGUST 2017

Incorporating

EC HARRIS BUILT ASSET CONSULTANCY

Hyder

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1 Introduction and Background

1.1 Introduction

Arcadis was appointed in August 2016 to develop a masterplan and planning submission in respect of the proposed garden settlement called Otterpool Park.

A Transport Assessment (TA) will be produced to accompany the planning application, which is anticipated to be submitted in 2018, that will set out the transport issues relating to the development proposals. Measures will be identified to mitigate adverse transport effects of the scheme. Consideration will be given to the effects on all modes of travel.

The purpose of this Scoping Report is to provide Kent County Council (KCC) and Shepway District Council (SDC) with a description of the work proposed to be undertaken as part of the TA. This is based on our current understanding of the issues and data available.

This Scoping Report sets out the proposed technical, spatial and temporal scope of the TA.

1.2 Structure of this Note

The remainder of this Note is structured as follows:

Chapter 2 **Policy and Technical Content**

Chapter 3 **Baseline**

Chapter 4 **Assessment Methods and Forecasting**

1.3 Consultation

A number of consultation meetings have been held with KCC, SDC and Highways England (HE) to allow methodologies and outcomes to be agreed at an early stage, assist in prioritising work, and enable consideration and feedback on potential mitigation solutions during the assessment phase. In addition, consultation events have been held involving wider stakeholders.

During the development of the TA, we propose to maintain a continuing dialogue with KCC, SDC and HE through meetings and email/telephone correspondence. It is intended that this will facilitate discussion on a number of elements of the TA, as the work progresses.

In addition, we anticipate the need to consult with other transport stakeholders during the course of the planning application development. These will include, but not necessarily be limited to, the emergency services, transport operators, cycling and walking organisations.

2 Policy and Technical Content

2.1 Policy

The TA will include a summary of current transport planning policy and planning guidance in the context of the sites and the surrounding area. The TA will demonstrate how the development complies with transport and other relevant policies.

Relevant transport policies at the national, regional and local level will be outlined. The following documents will be consulted:

National Policy:

1. National Planning Policy Framework (NPPF) (March 2012 and various updates);
2. The Strategic Road Network and the Delivery of Sustainable Development – Department for Transport (DfT) Circular 02/13 (DfT, September 2013);
3. The Strategic Road Network: Planning for the Future (Highways England, September 2015);

Regional Policy:

4. Local Transport Plan 4: Delivering Growth without Gridlock 2016-2031, (KCC, October 2016);
5. Growth Without Gridlock: A Transport Delivery Plan for Kent, (KCC, December 2010);
6. Supplementary Planning Guidance SPG4: Kent Vehicle Parking Standards (KCC, July 2006);

Local Policy:

7. Shepway Core Strategy, (SDC, 2013);
8. Shepway District Council Transport Strategy, (SDC, February 2011);
9. Places and Policies Local Plan, Preferred Options, (SDC, October 2016).

2.2 Technical Guidance

KCC guidelines for the preparation of TAs for development[1] have been archived along with the national guidelines[2] produced by the DfT. TA guidance is now incorporated into the NPPF. Paragraph 32 of the NPPF states:

> *"All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:*
>
> - *the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;*
> - *safe and suitable access to the site can be achieved for all people; and*
> - *Improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe. "*

[1] Guidance on Transport Assessments and Travel Plans (KCC, October 2008)
[2] Guidance on Transport Assessment (DfT, 2007)

A set of Planning Practice Guidance has been published to inform how the principle of the NPPF should be practiced. Those that specifically relate to transport matters are:

1. Travel Plans, Transport Assessments and Statements in Decision-Taking (March 2014); and
2. Transport Evidence Bases in Plan Making and Decision Taking (October 2014).

These guidelines provide a common approach which are aimed at ensuring that all relevant issues have been addressed within an assessment.

The TA for the Otterpool Park site will adopt the national guidelines and approaches where possible, taking account of the specific nature of the development. If divergence from the guidelines is required to address project-specific issues, an alternative approach will be discussed and agreed with KCC prior to the planning application submission.

Where appropriate a range of other technical reference documents will be consulted in developing the assessment and mitigation proposals. These may include:

1. The Kent Design Guide (Kent Design Initiative, December 2005);
2. The Design Manual for Roads and Bridges, (DfT, various dates);
3. The Manual for Streets, (Department for Communities and Local Government (DCLG) / DfT, 2007);
4. The Manual for Streets 2, CIHT, 2010 – a companion guide to Manual for Streets (DCLG / DfT, 2010); and
5. Travel Plan Guidelines, (DfT, various dates).

3 Baseline

3.1 Introduction

Existing transport conditions in and around the site will be established to provide baseline data against which the potential effects arising from the scheme can be assessed.

Baseline observations will be informed by site visits, collation of available information from KCC, SDC and other sources and on-site data collection.

The following sections describe the baseline data to be provided within the TA report.

3.2 Data Collection

A variety of methods will be used to collect data that may be relevant to the preparation of the TA. These divide into two primary sources; 'desk-top' information and 'on-site' information.

3.2.1 Desk-top information

This information includes:

1. Accident record data for the most recent 36 months covering an area within the site boundary and up to 500m from it;
2. Bus timetable and routing information. Bus patronage data will be included if the data is made available;
3. Rail timetable and routing information. Rail patronage data will be included if the data is made available;
4. Traffic flow data provided by SDC, as listed in Appendix A;
5. Traffic signal timing data for all signalled junctions included in the scope of the highway capacity modelling. The list of junctions in included in Table 1 in Chapter 4; and
6. Pedestrian and cycle route networks.

3.2.2 On-site information

A programme of on-site data collection has been developed through discussion with KCC/ SDC with the aim of undertaking the majority of the necessary field work prior to the end of September 2017.

The data to be collected is described in the following sections.

1. Manual classified vehicle turning counts: This data is being collected at junctions that are included in the scope of the highway capacity modelling, as described in Chapter 4. A list of junctions at which this data is to be collected in contained in Appendix B;
2. Automatic number plate recognition (ANPR) surveys: Locations at which ANPR data is to be collected is shown in Appendix C;
3. Pedestrian flow surveys: This data will be collected on the existing pedestrian network in the vicinity of the site. Appendix D presents the extent of the network on which survey data may be collected.

3.3 Baseline Scenarios

Four baseline scenarios will be created to inform the assessment. These will comprise:

1. A pre-construction 'no scheme' baseline, drawing on existing data. It is anticipated that this will be for the year 2017;
2. A future year 'no scheme' baseline, reflecting anticipated baseline conditions in 2027. The future year 'no scheme' baseline will make allowance for the effects of committed development or infrastructure schemes; and
3. A future year 'no scheme' baseline, reflecting anticipated baseline conditions at the end of the Local Plan period of 2037, including allowance for the effects of committed development or infrastructure schemes.

3.4 Site Location and Description

The TA will describe and illustrate the geographical location of the proposed site in relation to current land uses and the local transport networks and amenities.

3.5 Pedestrian and Cycle Networks

The TA will describe existing walking and cycling networks and facilities, including pedestrian / Toucan crossings, cycle routes and cycle parking.

Pedestrian and cycle flows derived from data collection sources will be presented.

3.6 Public Transport

The TA will outline existing public transport services operating in the area surrounding the site together with known proposals for new services.

The geographic threshold for considering public transport services will reflect the thresholds considered as accessible to the site, typically covering distances of 400m and 960m from the site for bus and rail services respectively.

Information will be provided on the routes/lines and frequency of nearby mainline rail services.

A review of the existing bus network will be undertaken to provide details on bus routes and frequencies to form the baseline for assessment. Any current enhancement proposals likely to be implemented during the construction period will be identified and included. This will be undertaken in conjunction with KCC and SDC.

Details of existing bus stop and stand locations and bus priority measures within the site boundary will be recorded.

Details of any specific taxi infrastructure, such as rank locations, will be included in the baseline conditions.

3.7 Local Highway Network

The TA will identify the road hierarchy, authority responsibilities and key elements of the surrounding highway network.

Existing traffic conditions on the local highway network will be established from traffic surveys and modelled data.

As agreed, baseline traffic forecasts for the four baseline scenarios will be obtained from KCC from the regional traffic model.

3.8 Adjacent Developments

The TA will identify existing access provision for parking and servicing at properties adjacent to the development to ensure that any effects on access to these properties are identified as part of the assessment.

3.9 On-Street Parking

The TA will identify existing on-street parking within the site boundary.

It will outline existing parking conditions, including on-street loading provision and controls.

3.10 Road Safety

The TA will include an analysis of accident data for the local roads within the site boundary and within 500 metres of it for the most recent 36 months of data available.

The analysis will consider the severity, casualty type and location of recorded accidents.

3.11 Committed Developments

Information will be assembled to identify current committed developments on site or in the surrounding area that are likely to affect transport conditions on the local networks. Consideration will also be given to planned development identified in policy documents where this is likely to occur within the timeframe identified for assessment.

Committed transport infrastructure schemes will also be taken into account at a strategic level, together with known planned schemes that are considered reasonably likely to be implemented within the assessment period.

It is anticipated that any committed and planned developments and infrastructure schemes will be included in the future baseline traffic data to be provided by KCC from the regional traffic model.

4 Assessment Methods and Forecasting

4.1 Development Proposals

The TA will include a description of the development proposals, including site layout, access strategies for vehicles, pedestrians and public transport, as well as outline parking and servicing proposals.

The TA will demonstrate the adequacy of access points in relation to capacity and vehicle manoeuvring. It will provide preliminary junction layouts and consider safety for all users.

4.2 Temporal Scope of Assessment

For each assessment year a weekday morning peak period (0800 to 0900) and a weekday evening peak period (1700 to 1800) will be assessed.

4.3 Trip Generation, Mode Share and Distribution

The method for the calculation of trip generation, the determination of trip mode share and the distribution of trips is described in a series of technical notes[3][4][5] that form the agreement to the methods for use in the assessment with KCC and SDC.

These notes will be updated to reflect the agreed methods once discussions have been completed and provided as appendices to the Scoping Note once the scope is agreed.

4.4 Method of Assessment

4.4.1 General Approach

The methodology for the assessment will vary depending upon the mode of transport being examined. However, the general approach will be to assess the proposals, identify effects, determine any additional or different mitigation necessary, and revise the assessments accordingly.

4.4.2 Pedestrian and Cycle Routes

The TA will outline the assessed effects on pedestrian and cycle networks within the development site after full build-out and occupation, taking into account any committed pedestrian and cycle improvement schemes and any mitigation measures proposed as part of the Otterpool Park development. Consideration will also be given to linkages to key pedestrian or cycle destinations that would be affected by the project.

The assessment will identify the likely effects on pedestrians and cyclists in terms of severance, safety, altered journey times and the needs of mobility-impaired users.

4.4.3 Public Transport

The assessment of the public transport networks will identify the expected additional loads on local rail and bus connections based on the agreed mode share and assignment methodology. Where relevant, the assessment will use the outcomes of the highway network assessment to indicate whether road-based public transport services would be likely to experience changes in journey time.

The assessment will take account of any changes to infrastructure, network routing and frequencies resulting from committed public transport proposals and proposals that form part of the public transport access strategy for Otterpool Park.

[3] Otterpool Park Garden Settlement Trip Generation Calculation Method Technical Note (Arcadis, May 2017)
[4] Otterpool Park Garden Settlement Method for deriving Mode Splits (Arcadis, June 2017)
[5] Otterpool Park Garden Settlement Method for the Distribution of External Vehicle Trips (Arcadis, July 2017)

4.4.4 Highway Capacity

4.4.4.1 Scope of assessment

The extent of highway network to be included in the assessment was discussed with KCC, SDC and HE on 24th May 2017. Table 1 presents the junctions identified for assessment.

Table 1 Junctions to be Assessed

No.	Junction	Type
1	M20 J10	Signalised roundabout
2	M20 J11	Non-signalised roundabout
3	Ashford Road (A20) / Swan Lane	Priority junction
4	Ashford Road (A20) / Stone Hill	Priority junction
5	Ashford Road (A20) / Station Road / Church Road	Priority junction
6	Hythe Road (A20) / Meersham	Priority junction
7	Hythe Road (A20) / The Street	Priority junction
8	Hythe Road (A20) / The Street	Priority junction
9	A20 Ashford Road / B2067 Otterpool Lane	Signalised junction
10	B2067 Otterpool Lane / Aldington Road	Priority junction
11	Aldington Road / Stone Street	Priority junction
12	A20 Ashford Road / A261 Hythe Road /Stone Street	Priority junction
13	Aldington Road / Lympne Hill	Priority junction
14	A261 Hythe Road / Aldington Road	Priority junction
15	A261 London Road / Barrack Hill	Priority junction
16	A259 / Dymchurch Road / Military Road	Signalised gyratory
17	A20 Ashford Road / A20 J11 offslip	Priority junction
18	Ashford Road / Sandling Road	Priority junction
19	A20 Ashford Road / Stone Street	Priority junction
20	A259 Prospect Road / A259 Seabrook Road / Station Road / High Street	Priority roundabout
21	M20 J11A	Priority junction
22	M20 J12	Priority junction
23	M20 J13	Priority junction
24	B2064 Cheriton High Street / B2063 Risborough Lane	Priority junction
25	B2064 Cheriton High Street / A2034 Cherry Garden Avenue	Priority junction
26	A259 Prospect Road / Stade Street	Priority junction
27	M20 J9	Signalised roundabout
28	A260 Spitfire Way / White Horse Hill / A20 Slip Roads	Priority roundabout
29	Alkham Valley Road / A20 slip roads	Priority roundabout
30	A260 Canterbury Road / Alkham Valley Road	Priority roundabout

4.4.4.2 Method of Assessment

It was requested in discussion with the highway authorities that a VISSIM model be produced to assess the local junctions most likely to be impacted by the development while a number of other junctions would be assessed using the appropriate LinSig, Arcady or Picady software. These methods of assessment are expected to cover junctions 1 to 26 in Table 1. In addition, other junctions further from the site would be considered in terms of the percentage increase in vehicle flows expected as a result of the development (junctions 27 to 30 in Table 1).

The distribution of development vehicle flows between the site and a number of off-site origins/destinations has been calculated using a gravity model method. This distribution will be input a VISUM model to distribute the development flows on the network and allow us to identify the likely routing. A volume to capacity ratio analysis will then be carried out to identify sections across the network which perform above

an 85% ratio and these junctions will then be assessed in a VISSIM model. The development flow distribution will be extracted from the VISUM model and input the VISSIM model statically. The model will be validated against the observed turning counts and journey time captured on site. The proposed extent of the VISUM model is shown in Appendix E.

4.4.4.3 Assessment years and scenarios

As described in Chapter 3, we anticipate the creation of three baseline scenarios; for 2017, 2027 and 2037. Future year 'no-scheme' baseline scenarios will be created and used as the basis for forecasting the 'with-scheme' situation for each assessment year.

The assessment will add the expected transport network activity to the future year baseline scenarios. Although the year of completion of construction and full occupation of the site is beyond 2037, the effects of trips generated by the full scheme will be assessed in the 2037 scenario.

The following assessment scenarios will be undertaken for each assessment year:

1. Base traffic flows + committed development traffic flows; and
2. Base traffic flows + committed development traffic flows + Otterpool Park development flows.

4.4.4.4 Traffic Data

The baseline and future baseline scenarios will be developed using a combination of on-site data collection and information drawn from existing highway models to produce a set of baseline information to which forecast scheme traffic can be added.

Traffic count data for a number of the junctions in Table 1 has been provided by SDC. This data was collected in October 2016 and it has been agreed that it is suitable for use for the assessment of the Otterpool Park development. Further traffic data has been collected in June 2017, the results of which are pending at the time of production of this Note. The results of the surveys will be validated against the 2016 traffic counts. The data collected in June 2017 included Automatic Number Plate Recognition data for roundabouts, gyratories and all entries/exits to/from the VISSIM model area.

It was agreed with KCC, SDC and HE that the future year base traffic flows would be provided from the strategic highway model.

4.4.4.5 Highway mitigation

Where the assessment identifies effects which will require mitigation, appropriate mitigation solutions will be developed and discussed with KCC, SDC and, where necessary, HE.

Agreement will be sought on the most appropriate solutions to mitigate effects and the agreed solutions will be re-assessed and reported in the TA.

4.5 Parking Assessment

The TA will identify the effects of the development proposals on existing on-street parking facilities where these are affected. The assessment will consider the level of usage of existing parking and the implications of, or requirements for, relocation or replacement.

Within this element of the assessment particular consideration will be given to the needs of disabled vehicle users and car parking for them.

4.6 Implementation Plan

The TA will present a proposed strategy for the coordination and implementation of the mitigation measures identified from the assessment.

This Implementation Plan will integrate the key elements of the construction logistics strategy, construction activity programme and identified mitigation measures to present a comprehensive strategy for managing and mitigation transport effects arising from the scheme.

The Implementation Plan is intended to act as the 'umbrella' under which more detailed discussions can take place with stakeholders during the construction phase. It will recognise the need for flexibility to respond to changing circumstances during the construction period, to allow all parties to review progress and address transport issues that may arise.

APPENDIX A

Vehicle Traffic Survey Data Provided by SDC

	Classified turning counts
1	B2067 Aldington Road / B2067 Otterpool Lane
2	Aldington Road / Stone Street
3	Aldington Road / Lympne Hill
4	A20 Ashford Road / B2067 Otterpool Lane
5	A20 Ashford Road / Swan Lane
6	A20 Ashford Road / Stone Street / Hythe Road
7	A20 roundabout
8	M20 / A20 / B2068
9	A20 Ashford Road / Sandling Road
10	A260 Canterbury Road / Alkham Valley Road
11	White Horse Hill / A20 EB slips / A260 / A260 Spitfire Way
12	A20 WB slips / Alkham Valley Road
13	M20 WB off slip / A259 Churchill Avenue / A2034 Cherry Garden Avenue / M20 WB on slip / A20 Castle Hill Bridge
14	Eurotunnel EB slip road (Eurotunnel entry flow)
15	Eurotunnel WB slip road (Eurotunnel exit flow)
16	A20 Cheriton Interchange / B2064 Cheriton High Street
17	M20 J12
	Classified link counts
1	A20 Ashford rd (Cheriton It)
2	A20 (N of Sadling) E
3	A20 (N of Sadling) W
4	Stone Street N
5	Stone Street S
6	Aldington Road W
7	Aldington Road E
8	B2067 Aldington Road W
9	B2067 Aldington Road E
10	A20 Barron Hill N
11	A20 Barron Hill S
12	A20 Ashford rd (W Sellindge)
13	Hythe Road W
14	Hythe Road E
15	M20 J13 EB
16	M20 J13 WB
17	B2064 Cheriton App N
18	B2064 Cheriton App S
19	M20 (W OF J11)
20	M20 (N of Sandling)

APPENDIX B

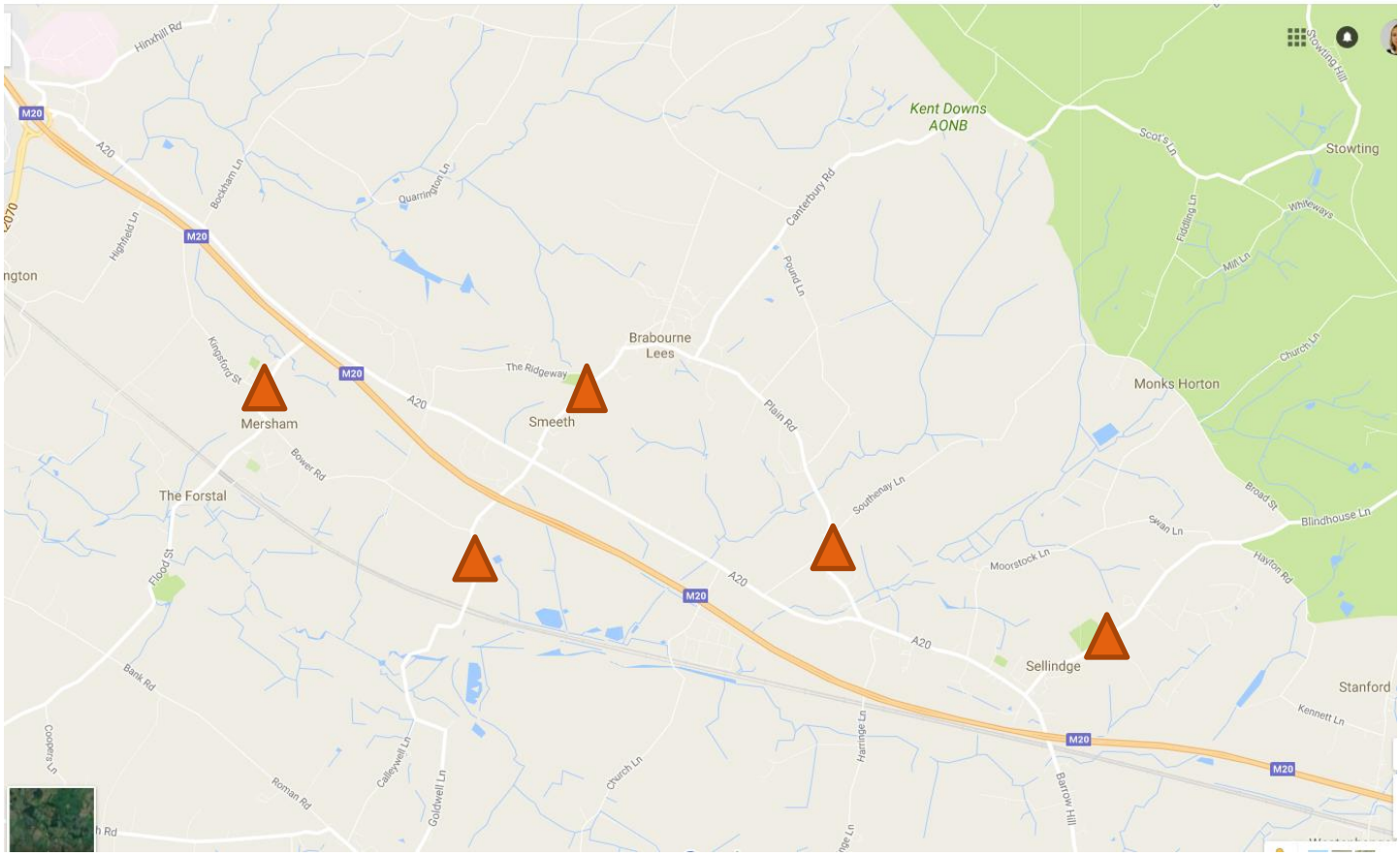
Vehicle Traffic Survey Data Commissioned to be Collected July 2017

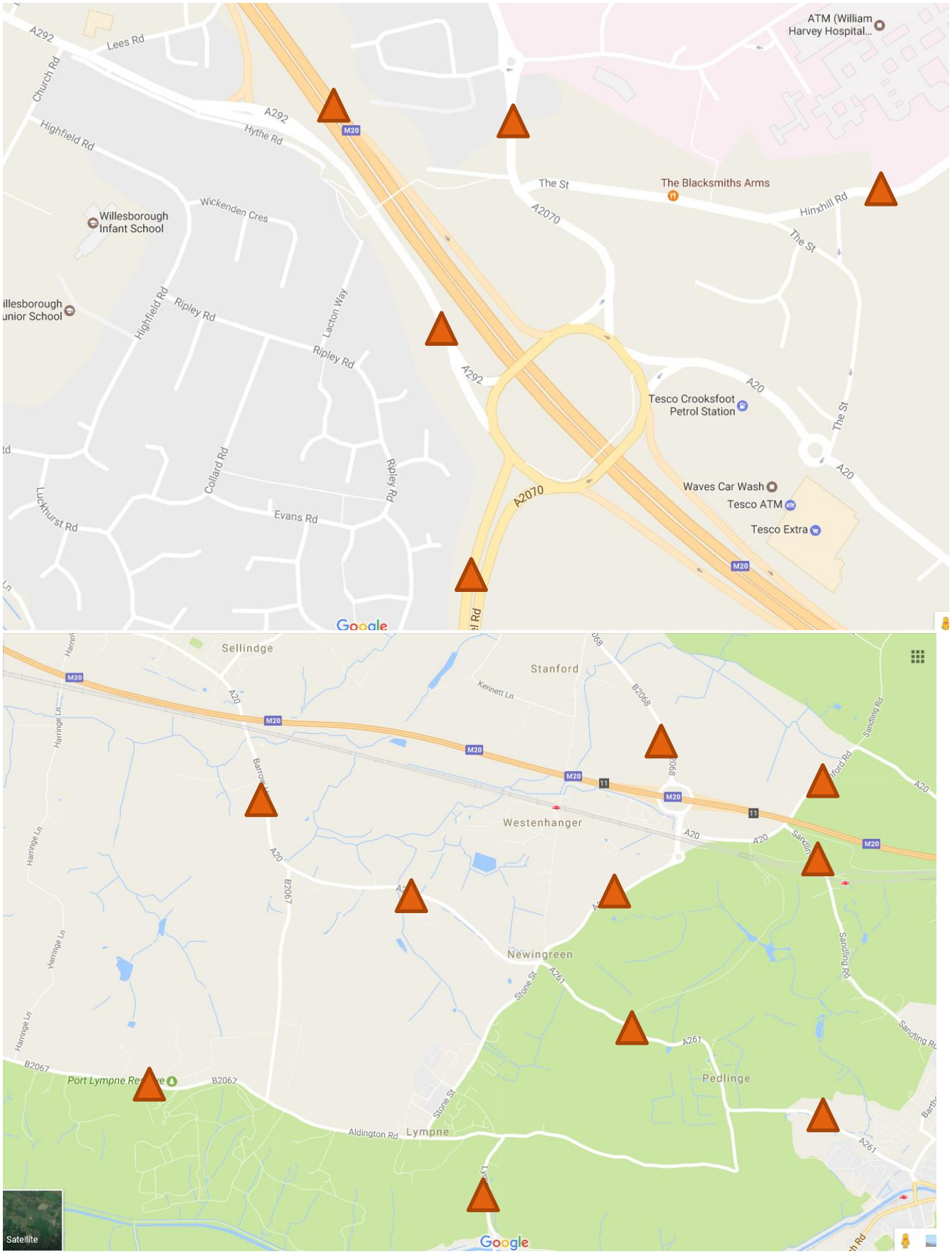
M20 J10- signalised roundabout- full OD (including underpass)
Ashford Rd (A20)/ Stone Hill- priority- turning count
Ashford Rd (A20)/ Station Rd/ Church Rd- priority- turning counts
Hythe Rd (A20)/ Meersham- priority- turning counts
Hythe Rd (A20)/ The Street- priority- turning counts (2 junctions A and B)
A20 Ashford Rd/ A261 Hythe Rd/Stone St- priority- turning counts
A261 London Rd/ Barrak Hill- priority- turning counts
A259/ Dymchurch Rd/ Military Rd gyratory- signalised- full OD
A259 Prospect Rd/ A259 Seabrook Rd/ Station Rd/ High St- priority roundabout- full OD
A20 Ashford Rd/ A20 J11 offslip- priority- turning counts
M20 J11A- priority full OD required including all on/ offslips and M20 overpass
M20 J12- priority full OD required including all on/ offslips and M20 overpass
M20 J13- priority full OD required including all on/ offslips and M20 overpass
A20 Ashford Rd/ Stone Street- priority- turning counts
M20 J9- signalised full OD including all on/ offslips and M20 overpass
B2064 Cheriton High street / B2063 Risborough Lane – priority – turning counts
B2064 Cheriton High street / A2034 Cherry Garden avenue – priority – turning counts
A259 Prospect Road / Stade Street – priority – turning counts

APPENDIX C

ANPR Data Commissioned to be Collected July 2017

ANPR data collection locations marked as ▲

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Highfield Rd
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The St
The Blacksmiths Arms
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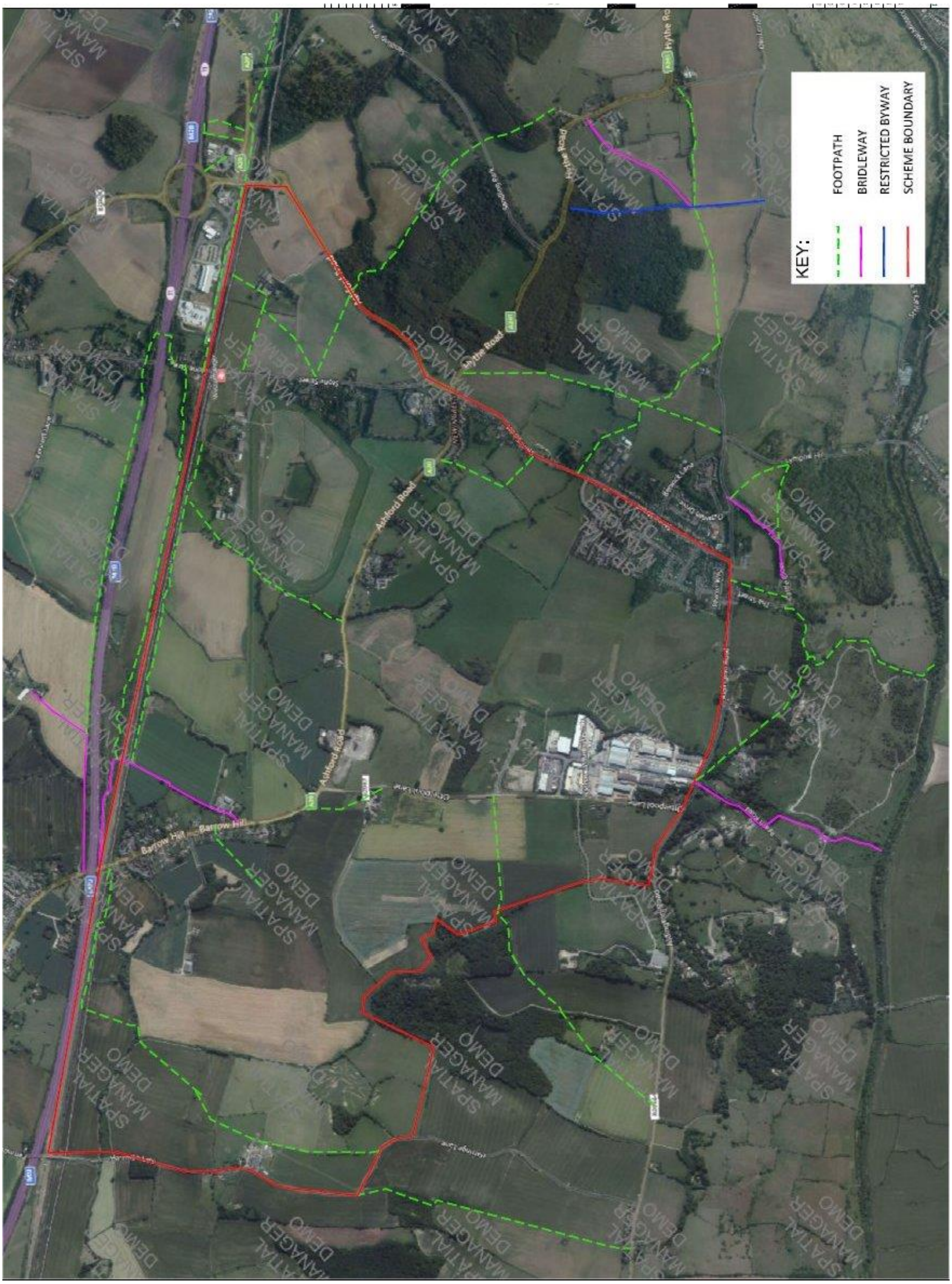
Willesborough Infant School
The St
Highfield Rd
Ripley Rd
Lacton Way
Ripley Rd
A292
A20
Tesco Crooksfoot Petrol Station
The St
A20
Collard Rd
Ripley Rd
Waves Car Wash
Tesco ATM
Luckhurst Rd
Evans Rd
A2070
Tesco Extra
M20
Google
Sellindge
Stanford
Kennett Ln
B2068
M20
A20
M20
M20
11
M20
Westenhanger
A20
A20
M20
Harringe Ln
A20
B2067
Newingreen
Stone St
A261
Sandling Rd
A261
Pedlinge
B2067
Port Lympne Reserve
B2067
Stone St
Aldington Rd
Lympne
A261
Satellite
Google


Peene
Newington
Frogholt
Eurotunnel
M20
A20
A259
B2064
B2063
Cheriton Rd
Folkestone
Sandgate
Hythe
North Rd
Princes Parade
South Rd
Blackhouse Hill
Tanner's Hill
Bargrove
Sandling Rd
A2034


North Rd
Hillcrest Rd
Sir John Moore Ave
St Leonards Church
Church Rd
Hillside St
Sainsbury's
A259
Hythe
Dental St
High St
Aldi
Waitrose
Dymchurch Rd
Chapel St
Twiss Ave
Twiss Rd
Portland Rd
Royal Military Canal
Fort Rd
The Green
Cricket Ground
Albert Rd
Albert Ln
Stade St
South Rd

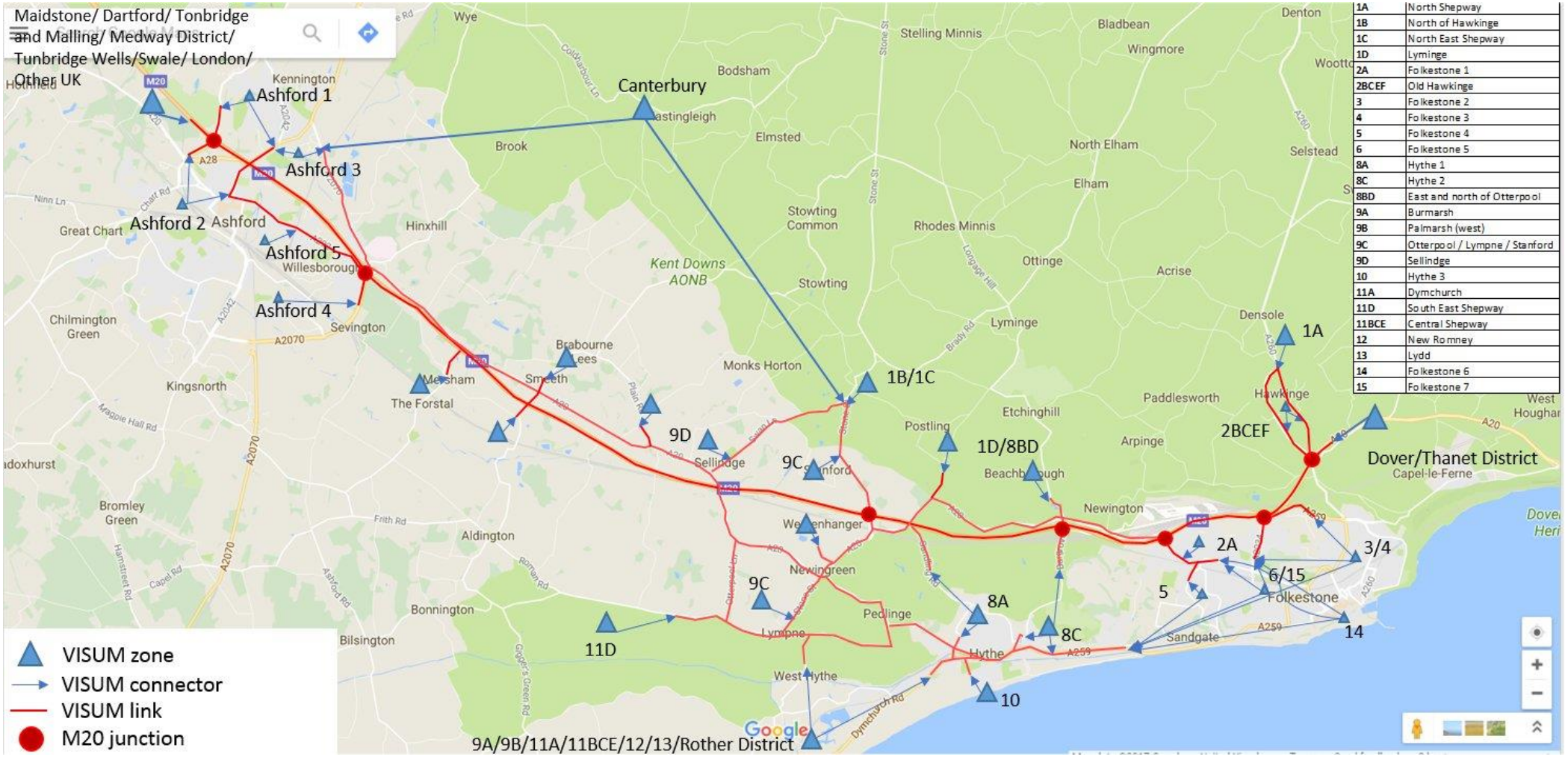
APPENDIX D

Local Footpaths and Bridleways



APPENDIX E

Extent of VISUM model



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