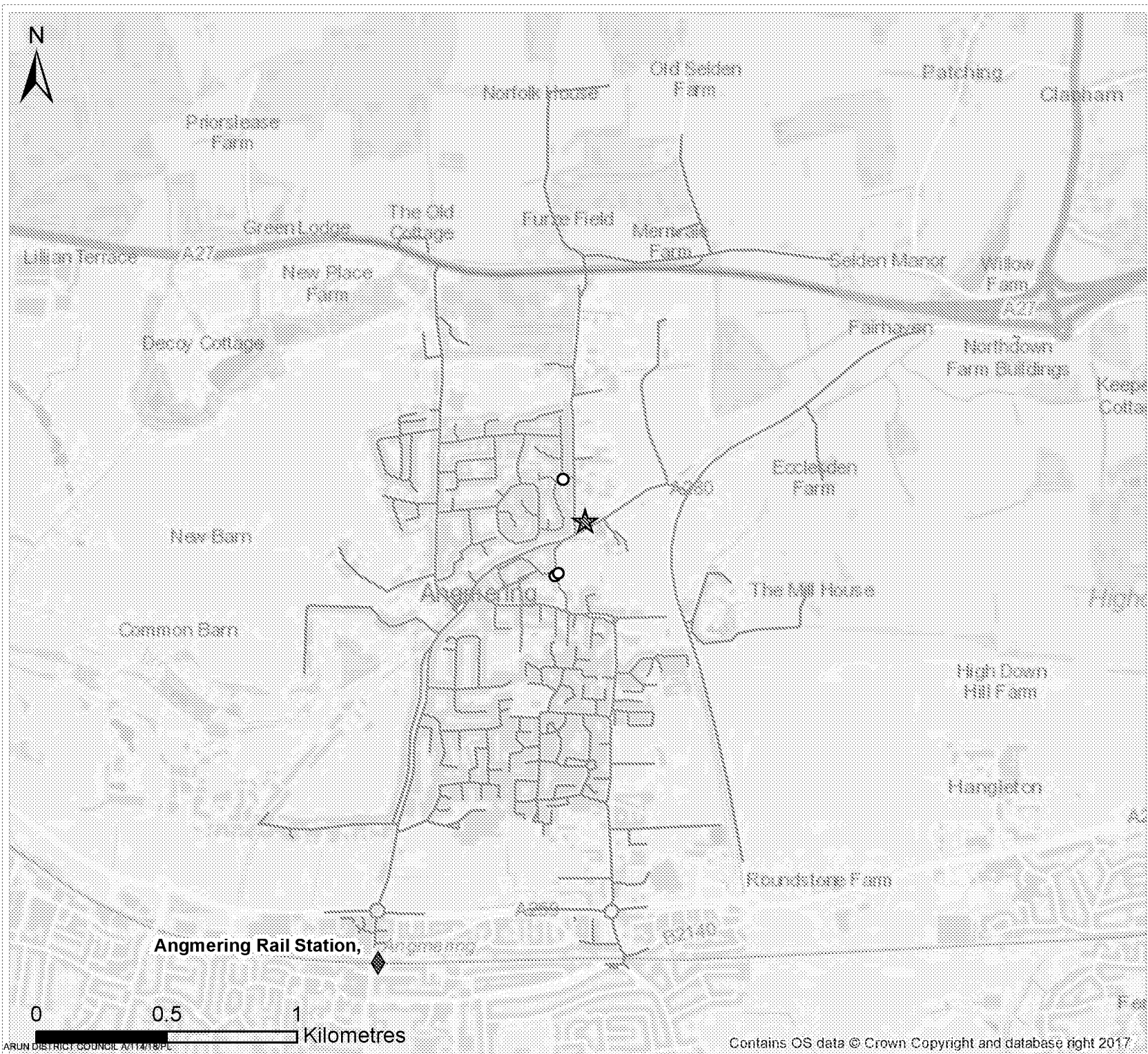


Appendix A – Walk Isochrone Plan



Key

- ★ The Site
- Bus
- ◆ National Rail

Walking Distance

- 1km
- 2km

Title	
Walking Isochrone Map	
Project	
Dapper's Lane, Angmering	
Job Number	
PB7724	
Date	Schaal
15/05/2018	1:20000
Figure	
Figure 2	
Drawn By: HMJ	Version
Checked By: CS	1



Royal HaskoningDHV

Enhancing Society Together

Appendix B – Cycle Isochrone Plan



Key

- ★ The Site
- Bus
- ◆ National Rail

Cycling Distance

- 2.5km
- 5km

Title
Cycling Isochrone Map

Project
Dapper's Lane, Angmering

Job Number
PB7724

Date	Schaal
15/05/2018	1:40000

Figure
Figure 1

Drawn By: HMJ	Version
Checked By: CS	1



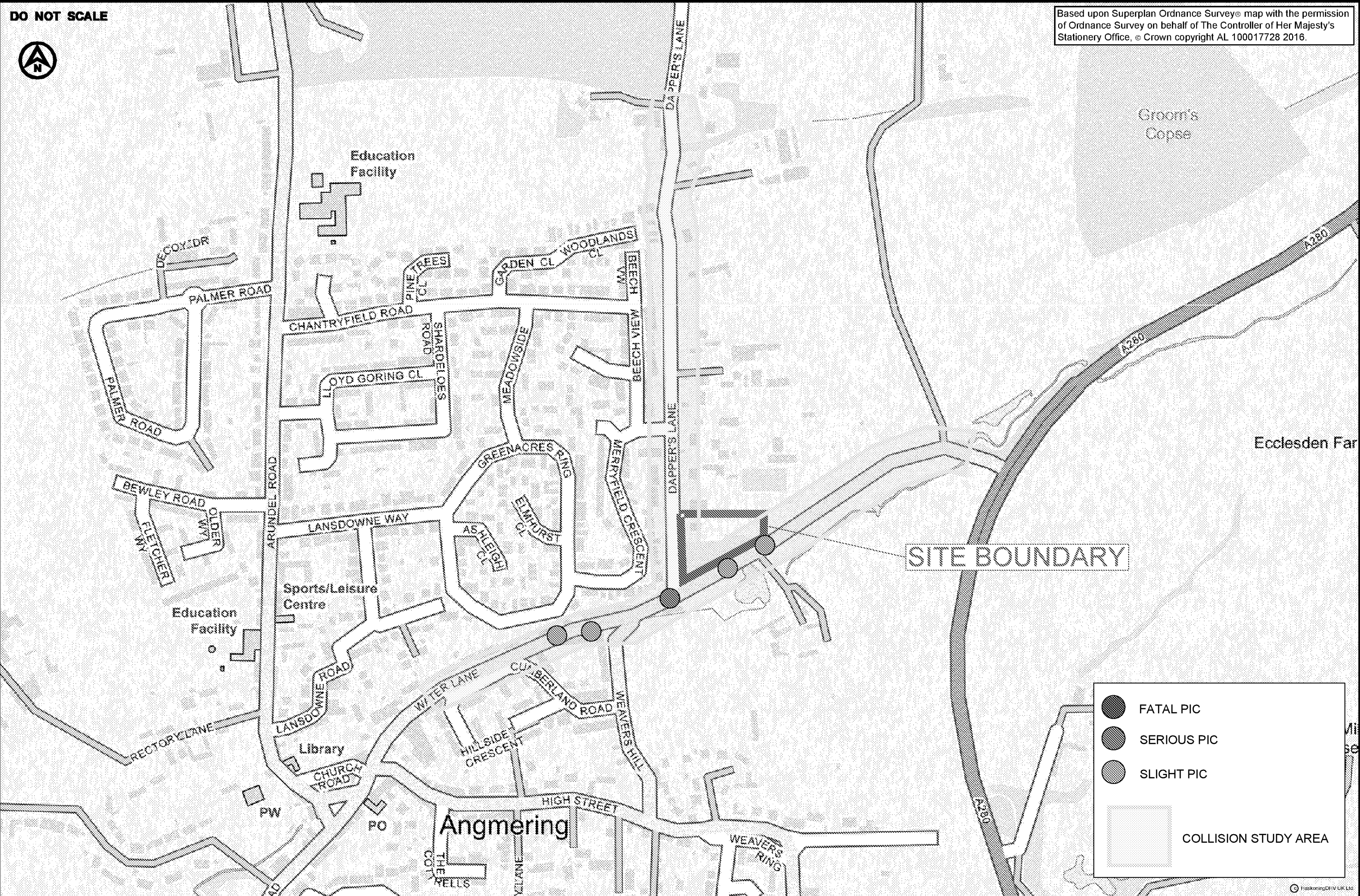
Royal HaskoningDHV
Enhancing Society Together

Appendix C – Collision Data and Study Area

DO NOT SCALE



Based upon Superplan Ordnance Survey® map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office, © Crown copyright AL 100017728 2016.



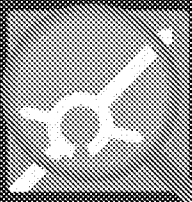
FATAL PIC

SERIOUS PIC

SLIGHT PIC

COLLISION STUDY AREA

TITLE COLLISION DATA STUDY AREA	PROJECT DAPPER'S LANE, ANGMERING	Royal HaskoningDHV Enhancing Society Together 2 Abbey Gardens Oxley College Road Weymouth Dorset, DT98 3BB Tel: +44(0)1305 325115 www.royalhaskoningdhv.co.uk	JOB No. PB7724	DATE 14/05/2018	SCALE N.T.S
			DRAWN JW	CHECKED CS	PASSED CS
			AUTOCAD REF. PB7724 SK04.DWG	DRG No. SK04	REV P0



2017 data is provisional and is subject to change

Crash Date:

Sunday, May 21, 2017

Time of Crash: 1:15:00 PM

Crash Reference: 2017471702801

Highest Injury Severity:

Slight

Road Number: U0

Number of Casualties: 1

Highway Authority:

West Sussex

Number of Vehicles: 2

Local Authority:

Arun District

OS Grid Reference: 507103 104562

Weather Description:

Fine without high winds

Road Surface Description:

Dry

Speed Limit:

40

Light Conditions:

Daylight: regardless of presence of streetlights

Carriageway Hazards:

None

Junction Detail:

Using private drive or entrance

Junction Pedestrian Crossing:

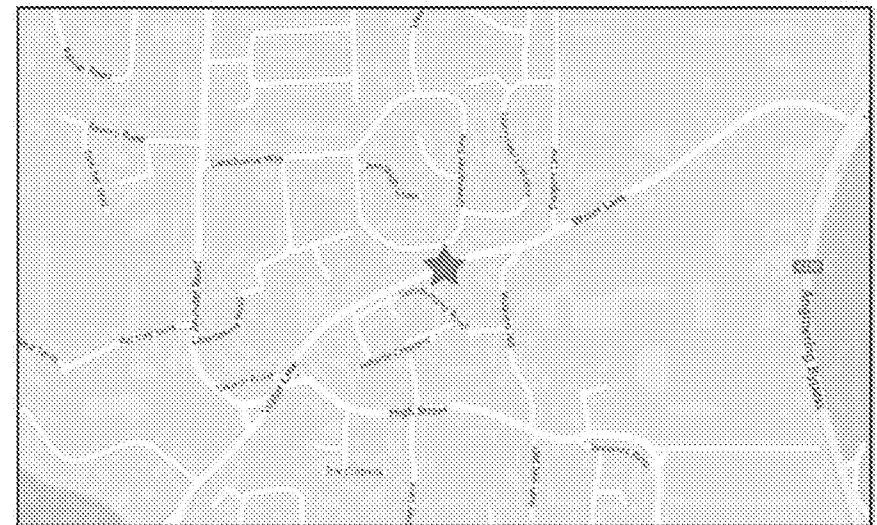
No physical crossing facility within 50 metres

Road Type:

Single carriageway

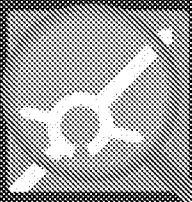
Junction Control:

Give way or uncontrolled



For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions





2017 data is provisional and is subject to change

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Female	16-24	Vehicle is in the act of turning right	Unknown	Other	None	None
2	Car (excluding private hire)	-1	Male	35-44	Vehicle proceeding normally along the carriageway, not on a bend	Unknown	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Female	16-24	Unknown or other	Unknown or other

Accident Description:

Accident description text currently unavailable for this highway authority / police force

For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions



**Crash Date:**

Friday, December 30, 2016

Time of Crash: 2:39:00 PM

Crash Reference: 2016471700019

Highest Injury Severity:

Slight

Road Number: U0

Number of Casualties: 1

Highway Authority:

West Sussex

Number of Vehicles: 2

Local Authority:

Arun District

OS Grid Reference: 507375 104674

Weather Description:

Fine without high winds

Road Surface Description:

Wet or Damp

Speed Limit:

30

Light Conditions:

Daylight: regardless of presence of streetlights

Carriageway Hazards:

None

Junction Detail:

Using private drive or entrance

Junction Pedestrian Crossing:

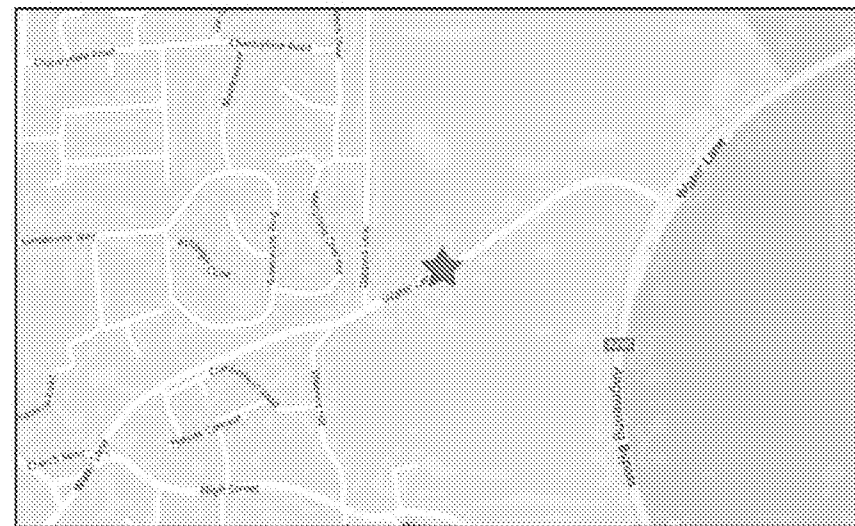
No physical crossing facility within 50 metres

Road Type:

Single carriageway

Junction Control:

Give way or uncontrolled



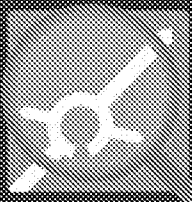
For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions

Page 1 of 2

5/14/2018 2:50:18 PM



INSIGHTwarehouse



Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	7	Female	26 - 35	Vehicle is in the act of turning right	Front	Journey as part of work	None	None
2	Car (excluding private hire)	12	Female	36 - 45	Vehicle proceeding normally along the carriageway, not on a bend	Nearside	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Driver or rider	Female	36 - 45	Unknown or other	Unknown or other

Accident Description:

Not Available

For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions



**Crash Date:**

Saturday, November 05, 2016

Time of Crash: 10:42:00 AM

Crash Reference: 2016471606658

Highest Injury Severity:

Slight

Road Number: U0

Number of Casualties: 1

Highway Authority:

West Sussex

Number of Vehicles: 3

Local Authority:

Arun District

OS Grid Reference: 507308 104635

Weather Description:

Fine without high winds

Road Surface Description:

Dry

Speed Limit:

30

Light Conditions:

Daylight: regardless of presence of streetlights

Carriageway Hazards:

None

Junction Detail:

Not at or within 20 metres of junction

Junction Pedestrian Crossing:

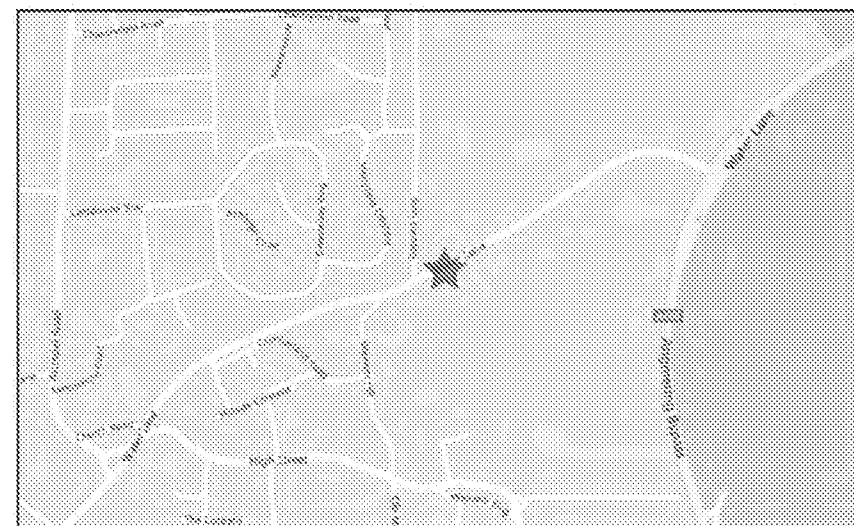
No physical crossing facility within 50 metres

Road Type:

Single carriageway

Junction Control:

Not Applicable

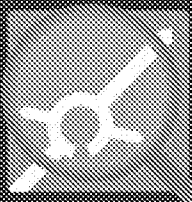


For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions

Page 1 of 2

5/14/2018 2:49:37 PM

INSIGHT  insightsonline.com



Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	10	Male	21 - 25	Vehicle proceeding normally along the carriageway, not on a bend	Back	Other	None	None
2	Car (excluding private hire)	3	Female	36 - 45	Vehicle proceeding normally along the carriageway, not on a bend	Back	Other	None	None
3	Car (excluding private hire)	8	Male	26 - 35	Vehicle is slowing down or stopping	Nearside	Journey as part of work	None	None

Casualties

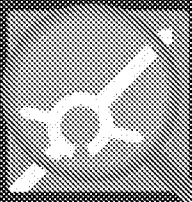
Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Driver or rider	Female	36 - 45	Unknown or other	Unknown or other

Accident Description:

Not Available

For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions





Crash Date:

Monday, December 22, 2014

Time of Crash: 12:54:00 PM

Crash Reference: 2014471407544

Highest Injury Severity:

Serious

Road Number: U0

Number of Casualties: 1

Highway Authority:

West Sussex

Number of Vehicles: 2

Local Authority:

Arun District

OS Grid Reference: 507257 104620

Weather Description:

Raining with high winds

Road Surface Description:

Wet or Damp

Speed Limit:

30

Light Conditions:

Daylight: regardless of presence of streetlights

Carriageway Hazards:

None

Junction Detail:

T or staggered junction

Junction Pedestrian Crossing:

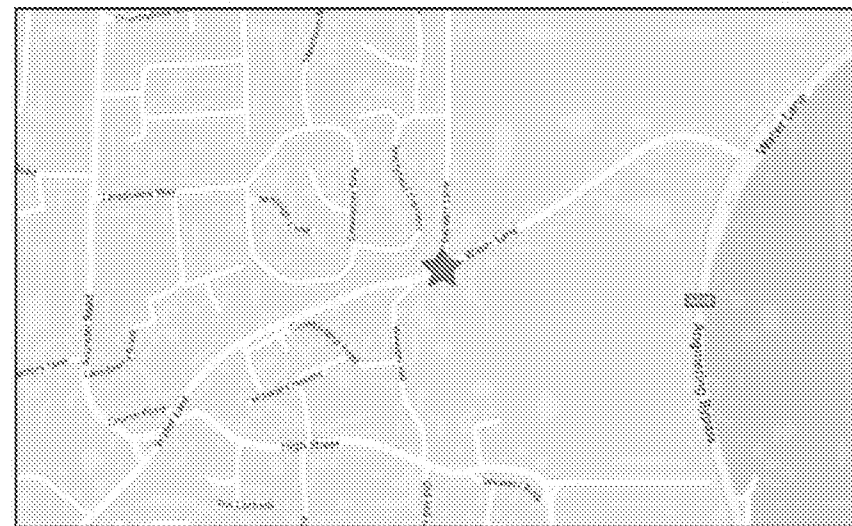
No physical crossing facility within 50 metres

Road Type:

Single carriageway

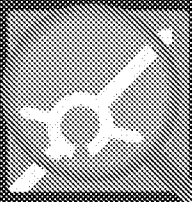
Junction Control:

Give way or uncontrolled



For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions





Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	17	Male	21 - 25	Vehicle proceeding normally along the carriageway, not on a bend	Nearside	Journey as part of work	Kerb	None
2	Car (excluding private hire)	10	Male	26 - 35	Vehicle proceeding normally along the carriageway, not on a bend	Offside	Other	Kerb	None

Casualties

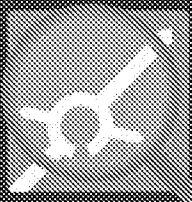
Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Serious	Vehicle or pillion passenger	Female	21 - 25	Unknown or other	Unknown or other

Accident Description:

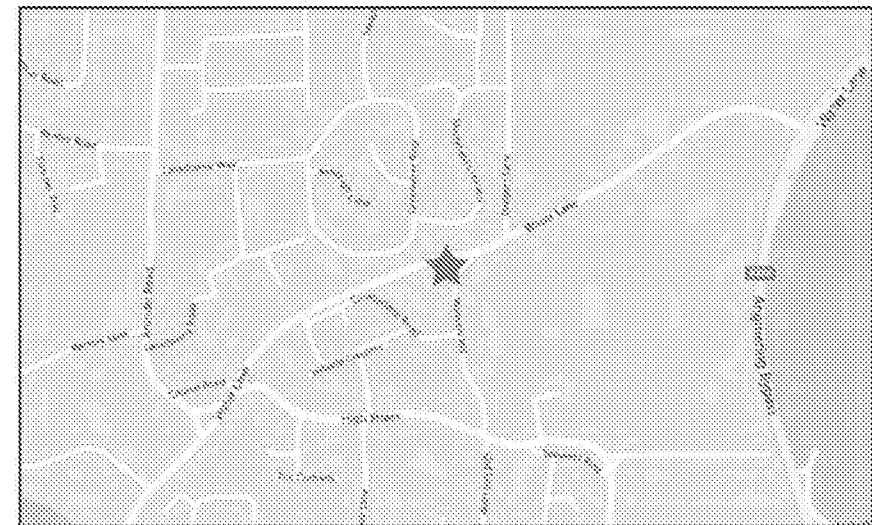
Accident description text currently unavailable for this highway authority / police force

For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions

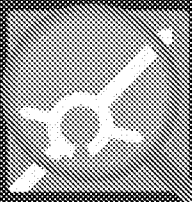




Crash Date:	Wednesday, December 18, 2013	Time of Crash:	3:30:00 PM	Crash Reference:	2013471400308
Highest Injury Severity:	Slight	Road Number:	U0	Number of Casualties:	1
Highway Authority:	West Sussex			Number of Vehicles:	2
Local Authority:	Arun District			OS Grid Reference:	507175 104580
Weather Description:	Unknown				
Road Surface Description:	Wet or Damp				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				



For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions



Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Unknown	Unknown	Vehicle is moving off	Nearside	Other	None	None
2	Pedal cycle	-1	Male	11 - 15	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Driver or rider	Male	11 - 15	Unknown or other	Unknown or other

Accident Description:

Accident description text currently unavailable for this highway authority / police force

For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions



Appendix D – Consented Scheme Stage 1 Road Safety Audit

REPORT

Dappers Lane, Angmering

Stage 1 Road Safety Audit

Client: Frontier Estates

Reference: INFRAPB3270RSA1F01

Revision: 01/Final

Date: 23 March 2016

HASKONINGDHV UK LTD.

Newater House
11 Newhall Street
Birmingham
B3 3NY
United Kingdom
Infrastructure

Document title: Dappers Lane, Angmering

Document short title: Dappers Lane - RSA1
Reference: INFRAPB3270RSA1F01
Revision: 01/Final
Date: 23 March 2016
Project name: Dappers Lane, Angmering
Project number: PB3270
Author(s): Sam Taylor

Drafted by: Sam Taylor

Checked by: Steve Bibb

Date / Initials: 24.03.2016

Approved by: Sam Taylor

Date / Initials: 24.03.2016

Classification
Project related



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2.2	Local Alignment	4
2.3	Junctions	5
2.4	Non-motorised User Provision	6
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Table of Figures

Figure 1 – Site Location Plan

Figure 2 – Problem Location Plan

Appendices

A - Audit Team Experience

B - Incoming Audit Information

1 Introduction

HaskoningDHV UK Limited has been appointed by Frontier Estates to undertake a Stage 1 Road Safety Audit for a proposed highway access and offsite highway improvements including a proposed footpath and uncontrolled crossing associated with 53 new extra care apartments, at a site located off Dappers Lane in Angmering.

The Audit Team for this Audit consists of:

Sam Taylor BEng (Hons), MCIHT, MSoRSA
HaskoningDHV UK Limited (Peterborough Office)

Steve Bibb FIHE, MCIHT, MSoRSA
HaskoningDHV UK Limited (Birmingham Office)

A summary of the Audit Team's qualifications and experience is provided as **Appendix A** of this report.

The Road Safety Audit took place at Royal HaskoningDHV's Peterborough office on Thursday 23 March 2016, undertaken in accordance with details provided within the Road Safety Audit Brief prepared by Andy Ward of Royal HaskoningDHV's London office. The Road Safety Audit comprised the examination of drawings associated with the development, which can be found at **Appendix B** of this report.

A site visit was undertaken by the Audit Team on Wednesday 23 March 2016 during daylight conditions. The site visit was undertaken during around midday where traffic conditions were light. The weather was overcast and the surface conditions were dry.

The proposed site location is shown on **Figure 1** of this report.

The terms of reference for this Audit are described in the Design Manual for Roads and Bridges; Volume 5, Section 2, Part 2 – HD 19/15 published in March 2015. The Authors of this Audit have examined and reported only on the road safety implications of the scheme as presented and have not examined or identified compliance of the design to any other criteria.

This Audit is concerned only with the proposed adoptable highway and access works associated with the proposed development and its interface with the existing public highway, Dappers Lane.

The following information has been provided to the Audit Team by Andy Ward of Royal HaskoningDHV (London Office), and is the subject of this Road Safety Audit.

- Transport Statement, Reference: T&PPB3270R001D01, Revision 01/Final
- Drawing PL(01)03, Revision C – Proposed Site Layout (inc Proposed Levels)
- Drawing TR02, Revision P1 – Swept Path Analysis – Refuse Collection Vehicle

Personal Injury Collision data is contained within the Transport Statement provided to the Audit Team, this reveals that there have been no reported collisions in the vicinity of the proposed site access within the latest three year period based upon a review of the Crash Map website <http://www.crashmap.co.uk>.

Further details about collisions in the vicinity of the site will require independent verification by the Client should the Local Highway Authority have any concerns relating to the collision history at this location.

Any recommendations included within this report should not be regarded as being prescriptive design solutions to the problems identified. They are only to indicate a proportionate and viable means of eliminating or mitigating the identified problem, in accordance with HD 19/15, and in no way imply that a formal design process has been undertaken.

There may be alternative measures of addressing a problem which would be equally acceptable or superior in achieving the desired degree of mitigation and these should be considered when responding to this report.

2 Matters Arising from this Audit

2.1 General

2.1.1 Departures from Standard

The Audit Team have been advised that there are no Departures from Standard relating to the proposals.

2.1.2 Drainage

2.1.2.1 Problem 1

Location: Extents of the development proposals and public highway interface.

Summary: Insufficient drainage provision could lead to slip/skid and loss of control collisions.

Description: Proposed drainage details have not been provided to the Audit Team at this stage. Unsuitable drainage provision may lead to ponding and subsequent slip/skid hazards for motor vehicles, cyclists and pedestrians.

RECOMMENDATION

Provide drainage details as part of the Stage 2 Road Safety Audit.

2.2 Local Alignment

2.2.1 Visibility

2.2.1.1 Problem 2

Location: Junction of the proposed site and Dappers Lane.

Summary: Existing landscaping sits within the proposed junction visibility splay. This landscaping could reduce forward visibility resulting in late breaking and side swipe collisions.

Description: The Transport Statement notes that a junction visibility splay of 2.4m by 43m will be provided at the new site access junction, however, this is not shown on the supporting plans. The Audit Team observed that to achieve the stated visibility splay would require the removal of some vegetation.

Notwithstanding, the proposed visibility splay of 43m does not include for bonnet length as detailed within Table 7.1 of the Department for Transport Publication Manual for Streets (MfS).

Failure to provide sufficient visibility at the junction of the proposed site and Dappers Lane could result in vehicles entering the main carriageway across the path of an oncoming vehicle which could lead to side-swipe collisions.



Existing visibility to the north of the proposed site access.

RECOMMENDATION

Ensure that visibility splay in accordance with MfS including for bonnet length is provided and all existing landscaping within the proposed visibility splays can be removed.

2.3 Junctions

2.3.1 Layout

2.3.1.1 Problem 3

Location: Junction of the proposed site and Dappers Lane.

Summary: Vehicles exiting the four parking bays immediately after the proposed junction could collide with vehicles entering the site.

Description: Four parking bays are shown immediately after the proposed junction. A vehicle reversing out of one of these bays would have limited visibility of vehicles entering the site. This could lead to vehicles entering the site colliding with the side of a vehicle leaving a parking bay.

Furthermore, a vehicle traveling south on Dappers Lane may break sharply to avoid a vehicle exiting a parking bay, this could result in a rear end shunt type collision as a following vehicle would not be expecting the turning vehicle to stop suddenly.

RECOMMENDATION

Relocate the proposed parking bays away from the proposed junction with Dappers Lane.

2.4 Non-motorised User Provision

2.4.1 Pedestrians

2.4.1.1 Problem 4

Location: Proposed new footway crossing of Dappers Lane.

Summary: Failure to provide appropriate visibility for pedestrians crossing the road could lead to pedestrians stepping out into the path of an oncoming vehicle.

Description: Existing vegetation overhangs the verge where the footpath will cross Dappers Lane; this vegetation could obscure a pedestrian's view of an oncoming vehicle potentially resulting in a pedestrian stepping out into the path of an oncoming vehicle leading to a collision.



Existing vegetation within the pedestrian visibility splay.

RECOMMENDATION

Ensure that existing vegetation is removed/cut back to provide appropriate visibility for pedestrians crossing Dappers Lane.

2.4.1.2 Problem 5

Location: Proposed new footway crossing of Dappers Lane.

Summary: Failure to provide appropriate tactile paving could lead to partially sighted pedestrians walking in the carriageway being struck by vehicles.

Description: Drawing PL(01)03 Revision C notes that tactile paving will be provided at the proposed pedestrian crossing point on Dappers Lane, however, no details regarding the type or proposed arrangement have been provided to the Audit Team. Failure to provide the appropriate tactile paving arrangement could result in confusion for partially sighted pedestrians potentially leading to pedestrians walking into the road and being struck by a passing vehicle.

RECOMMENDATION

Provide details of tactile paving as part of the Stage 2 Road Safety Audit.

2.5 Road Signs, Carriageway Markings and Lighting

2.5.1 Signing

2.5.1.1 Problem 6

Location: Dappers Lane and the junction of Dappers Lane with Water Lane.

Summary: Failure to relocate existing signing could reduce the available footway width causing pedestrians to walk in the road.

Description: There is an existing 30mph repeater sign and an existing horse warning sign located within the verge, following the completion of the works these signs would be located within the footway, this would result in a reduced footway width and could lead to pedestrians having to step off the footway into the road and potentially being struck by a passing vehicle.



Existing signs within the area of the proposed footway.

RECOMMENDATION

Relocate the existing signs to the back of the footway.

3 Audit Team Statement

We certify that we have examined the drawings and documents listed in the Appendices to this report. The examination has been carried out with the sole purpose of identifying any features of the design that could be removed or modified in order to improve the safety of the scheme. The problems identified have been noted in this report, together with associated safety improvements suggestions, which we recommend should be studied for implementation. The Writers have not been involved with the scheme design. This Road Safety Audit has been carried out in accordance with HD 19/15.

Audit Team Leader

Sam Taylor BEng (Hons), MCIHT, MSoRSA
Principal Transport Planner
Royal HaskoningDHV
Rightwell House
Bretton
Peterborough
PE3 8DW

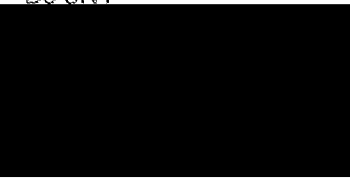


S. Taylor

Date 24.03.2016

Audit Team Member

S D Bibb FIHE, MCIHT, MSoRSA
Principal Transport Planner
Royal HaskoningDHV
5th Floor Newwater House
11 Newhall Street
Birmingham
B3 3NY

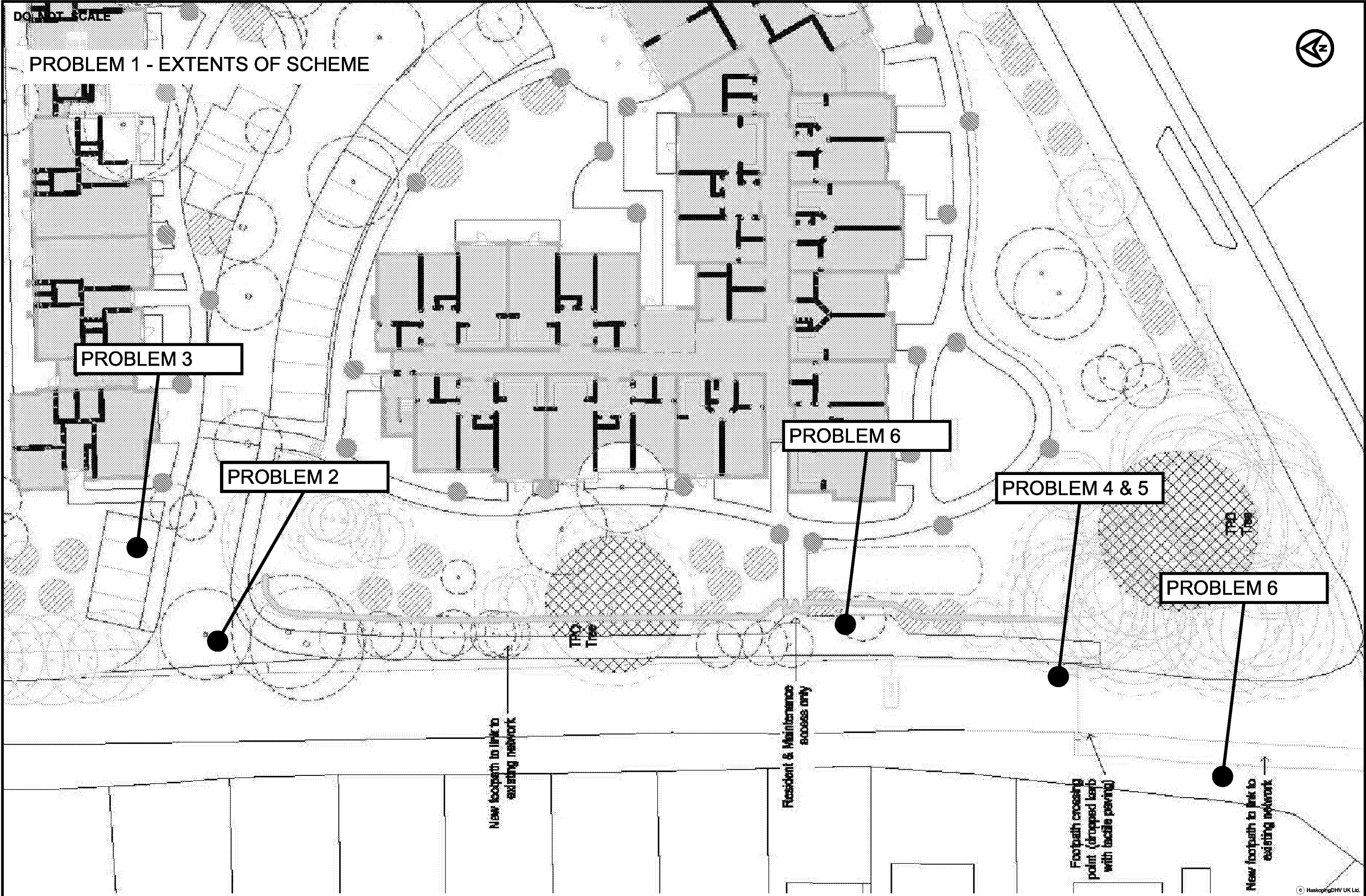


S. Bibb

Date 24.03.2016



TITLE SITE LOCATION PLAN	PROJECT DAPPERS LANE, ANGMERING STAGE 1 ROAD SAFETY AUDIT	 Works Division, Water & Civil Engineering, Planning, Ecology Strategy, PMO and the HaskoningDHV Group www.haskoningdhv.com	JOB No. PB3270	DATE MAR 16	SCALE N.T.S.	
			DRAWN SKT	CHECKED RNE	PASSED RNE	
			AUTOCAD REF.	DRG No. Figure 1	REV	



TITLE	PROJECT		JOB No.	DATE	SCALE	
PROBLEM LOCATION PLAN	DAPPERS LANE, ANGMERING STAGE 1 ROAD SAFETY AUDIT		PB3270	MAR 16	N.T.S.	
			DRAWN	SKT	CHECKED	RNE
			AUTOCAD REF.	DRG No.	Figure 2	REV

Appendix A

A - Audit Team Experience

Present Position Principal Transport Planner

Contact Information



Career	2010 – present	Royal HaskoningDHV
	2007 – 2010	Mayer Brown
	2005 – 2007	Scott Wilson
	2000 – 2005	Tamworth Borough Council

Qualifications	IHE	Fellow
	CIHT, CILT	Member
	SoRSA	Member
	RoSPA	Accident Investigation & Prevention (10 days), 2006
	Highways Agency Approved Certificate of Competency, 2012	

Recent Continuing Professional Development

Road Safety Audits: Principles and Good Practice (2 days)	PTRC, May 2015
Risk Assessment for Road Safety Practitioners (2 days)	TMS Consultancy, April 2015
Training Workshop on Design of Safe Cycle Facilities (2 days)	Royal HaskoningDHV, September 2014
Advanced Road Safety Engineering (2 days)	TMS Consultancy, January 2014

Summary of Road Safety Audit Experience

Steve has twelve years' road safety related experience spanning the areas of collision investigation and remedial engineering, in addition to some safety experience prior to this working in the public sector delivering capital works projects, design of Tamworth Town Centre Pedestrianisation, involvement with Safer Routes to School projects and implementation of signage schemes on safety camera routes identified by Staffordshire's Safety Camera Partnership.

Previously employed at Scott Wilson, Steve was involved with numerous local safety scheme undertaken on behalf of Wolverhampton City Council, involving collision analysis, preparation of AIP reports and design of collision reduction measures as part of local safety schemes.

During his time at Mayer Brown, Steve commenced his involvement with Road Safety Audits, undertaking the role of Observer on several audits associated with retail developments, residential schemes and cycle improvement schemes for local authorities.

Since joining Royal HaskoningDHV in 2010 Steve has increased his Road Safety Audit experience, having taken part in over 100 Audits at Stages 1, 2 and 3 primarily in the United Kingdom, but also in Saudi Arabia. Steve has also been involved in providing collision analysis as part of the preliminary works associated with the construction of Hinkley Point C nuclear power station, on-shore cabling works for the extension to Kentish Flats wind farm and the rebuttal of a road safety objection associated with the proposed Linton Wind Farm, Cambridgeshire.

Since 2010 Steve has also undertaken Road Safety Audits as an Audit Team Leader in accordance with the requirements of HD 19/15.

Recent Road Safety Audit Experience

Steve has undertaken numerous Road Safety Audits in the last two years as an Audit Team Member and Team Leader. A selection of these Audits are shown in the tables below and have been carried out in accordance with the requirements of HD19/15.

Strategic Road Network and Equivalent

Date	Audit Stage	Audit Team Role	Details
January 2016	3	Team Member	A49(T), Moreton-on-Lugg, Herefordshire – Stage 3 Audit of a shared footway / cycleway adjacent to and its interface with the A49(T).
January 2015	1 / 2	Team Leader	King Abdul Aziz Square & King Abdullah Road, Jeddah – Stage 1/2 Audit of proposed intersection options and route improvements along approach corridors to enhance capacity and improve road safety
May 2014	1	Team Leader	Jeddah Infrastructure Projects, Saudi Arabia – Interim Audit of Conceptual Design options to HD 19/03 standard for upgrade of two strategic intersections at King Abdul Aziz Road, 4.7km route improvements at Tahliya Street, improvements to the intersection of King Abdullah Aziz Square and its approaches and 20 pedestrian footbridges situated across the city of Jeddah.
January 2014	1	Team Member	Redevelopment of Newnham Court Shopping Village (M20, Junction 7) – highway works associated with mixed use commercial development including dualing an existing single carriageway road, part signalisation of M20 J7, signalisation of Bearsted Road & New Cut Road Roundabouts

All Other Roads

Date	Audit Stage	Audit Team Role	Details
January 2016	1 / 2	Team Member	Lea Bridge Road (Sections B-H), London Borough of Waltham Forest – enhancements to the existing cycle environment incl. upgraded bus stop and full segregation of cycle tracks associated with the Borough's Mini Holland scheme.
December 2015	3	Team Leader	Cannington Bypass, Somerset – highway works associated with a new bypass including pedestrian / cycle facilities, cattle crossings & new junctions.
November 2015	1	Team Leader	Acorn Way, Derby – Proposed residential development access onto a rural 2-way single carriageway subject to a national speed restriction.
June 2015	2	Team Leader	Orlando Street, Bolton - Highway works associated with bridge strengthening, inclusive of upgrade to existing cycle route
February 2015	2	Team Leader	Temporary Construction Access, Farnworth - Temporary access from A666 for HGV movements associated with Farnworth railway tunnel widening.
January 2015	3	Team Leader	Sainsbury's Dorridge - proposed highway works associated with mixed use development. Works include carriageway narrowing, junction improvements, public realm area and new crossings.
December 2014	3	Team Leader	Steeple Bumpstead Flood Alleviation Scheme - Highways and bridge works associated with culvert upgrade works as part of flood alleviation scheme
December 2014	3	Team Member	Lakeside, Cannock - proposed highway works associated with residential development. Works included pedestrian facilities, new highway & shared space
December 2014	2	Team Member	Dunsbury Hill Farm - provision of a new link road, roundabout junctions and HGV laybys associated with the construction of a new business park with associated hotel development.

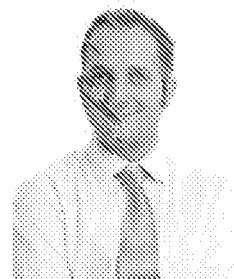
Collision Investigation Experience

Steve has a variety of collision investigation experience undertaken in the context of Transport Assessments, Environmental Statements, with some recent examples summarised below. Also detailed are other examples of Accident Investigation and Prevention studies undertaken on Local Safety Schemes.

Date	Context of Study	Details
June 2015	Transport Assessment	Cross Harbour Development, Isle of Dogs, London – Review and summarise 79 Personal Injury Collision records, associated with new District Centre, providing c2000 residential units, a supermarket and community facilities. The review required route analysis along East Ferry Road, Limeharbour, Marsh Wall and Preston's Road, with 6 cluster sites identified. Mitigation improvements included alterations to junction geometry, raised tables and traffic signal control.
April 2014	Environmental Statement	Rhiannon Offshore Wind Farm (Celtic Array) – Review and summarise collision analysis by others for associated onshore construction traffic routes across Anglesey along the A5025 to the proposed substation site at Rhosgoch and various cable landfill sites, identifying cluster sites and sensitive receptors in addition to route comparisons against national averages.
February 2014	Transport Statement	Walney Extension Offshore Wind Farm – Prepared Transport Statement associated with construction movements for onshore cabling and movements of materials. The TS considered impacts at the potential construction ports of Barrow, Heysham and Fleetwood. This included high level collision analysis of routes to each port, identifying a total of 919 collisions and 30 cluster sites. Further analysis would be required to determine suitable mitigations once the construction port had been selected.
April 2011	Environmental Statement	Hinkley Point C Preliminary Works, Somerset – Preparation of safety section for ES Transport chapter assessing impacts of Hinkley Point C Preliminary Works, including preparatory earthworks and construction of a temporary jetty to support main construction works. Investigation of 379 collisions on approach routes including strategic routes such as the M5, A38 & A39 to determine baseline safety conditions, relationships to national averages and accident rate to determine predicted collision numbers using future year traffic flows. Mitigation measures identified included funding for road safety monitoring and delivery of road safety schemes by Somerset County Council in accordance with their requirements.
Dec 2010	Environmental Statement	Angoflex, Lobito, Angola – Prepared Transport & Safety chapter identifying potential impacts of traffic required for construction of cable manufacturing plant close to Lobito port. No collision data was available to assess road safety conditions of construction routes, however with national reports of circa 2,500 fatalities in Angola in 2010 (to date) sensitive receptors were identified for collision monitoring throughout the works, with mitigation measures including driver safety awareness training, a vehicle inspection regime and introduction of an incident reporting process.
June 2010	Road Safety Rebuttal Statement	Linton Wind Farm, Cambridgeshire – Prepared statement as rebuttal of AECOM report prepared for Linton Parish Council relating proposed wind farm development situated 800 metres from the A1307 and its potential to increase collisions on this route as a result of driver distraction. Analysis of 3 years before and after collision data for 6 comparative sites, in addition to review of national and international policy, zone of theoretical visibility and local clusters of collisions identified by AECOM concluded these wind farm proposals would not adversely affect road safety at this location.
May 2006	Local Safety Scheme	Old Heath Road, Wolverhampton – Study of 15 route collisions (1km) in a 5 year period on route identified by the Council. Analysis identified pattern in speed related collisions, carriageway reduction through markings and physical measures were proposed in order to reduce vehicle speeds.

Present Position Principal Transport Planner

Contact Information



Career 2008 – present Royal HaskoningDHV
2006 – 2008 Cambridgeshire County Council

Qualifications BEng (Hons) Architectural Engineering
CIHT Member
SoRSA Member
Diploma in Management
Aston University Collision Reduction & Safer Highways (10 days) 2011-2012

Recent Continuing Professional Development

Road Safety Audit Certificate of Competency (2 days)	TMS Consultancy, March 2016
Structured Road Safety Reading (1 day)	RHDHV agreed training, May 2015
London Quietways training (1 day)	Sustrans, February 2015
Advanced Road Safety Engineering (2 days)	TMS Consultancy, January 2014
Road Safety Policy (2 days)	Newcastle University, April 2013
Crashes under Control (2 hrs)	CIHT, February 2012
CDM – Designing for Safety (2 hrs)	CIHT, January 2012

Summary of Road Safety Audit Experience

Employed as an Engineer at Cambridgeshire County Council, at the start of his career, Sam worked in the traffic management division based in Huntingdon; his responsibilities included the design of capital works including new cycleways, footways and speed reduction schemes. Sam was also involved with several Safer Routes to School projects designing schemes that included traffic calming and footways improvements as well as smaller signage and lighting improvements.

In 2008 Sam moved to Royal HaskoningDHV providing transport planning services, his key responsibilities include the preparation of Transport Assessments, Travel Plans and Environmental Impact Assessments, as well as preliminary highway design. As part of his work at Royal HaskoningDHV, Sam has been involved in providing collision analysis as part of the preliminary works associated with the construction and operation of a potash mine in the North York Moors and construction of on-shore cabling works for Dogger Bank Windfarm near Hull and Teesside.

Since 2012 Sam has been a member of the road safety team at Royal HaskoningDHV taking part in Stage 1, 2 and 3 audits, as both team member and team leader.

Recent Road Safety Audit Experience

Sam has undertaken numerous Road Safety Audits in the last two years, a selection of which are shown in the tables below and demonstrate compliance with HD19/15 standards.

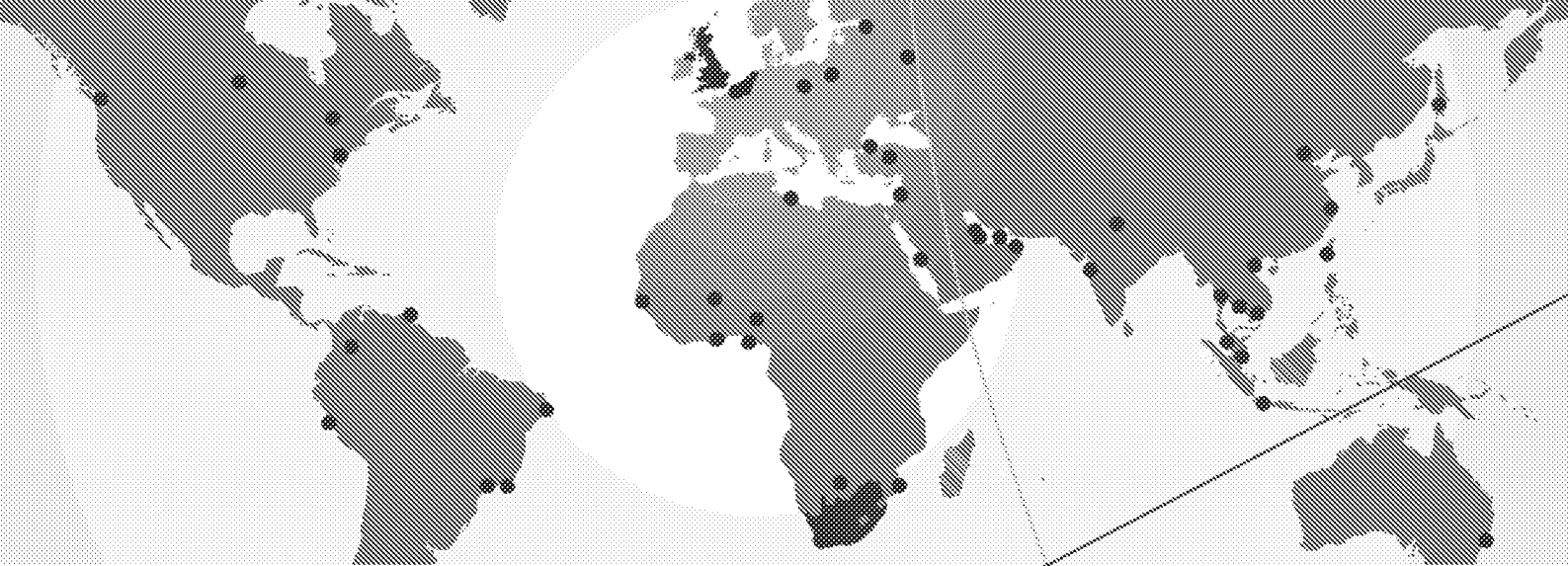
Date	Audit Stage	Audit Team Role	Details
March 2016	1/2	Team Member	Michaelson Road, Barrow-in-Furness – proposed highway works including the replacement of an existing priority junction with a signalised junction including pedestrian crossing facilities.
February 2016	2	Team Leader	Herne Bay Golf Club, Herne Bay – proposed highway works associated with the provision of a new signalised junction, pedestrian and cycle facilities and highway widening.
December 2015	3	Team Member	Cannington Bypass, Bridgwater – highway works associated with a new bypass including pedestrian, cycle facilities, cattle crossings and new priority and roundabout junctions.
December 2015	1	Team Leader	Penland Farm, Haywards Heath – proposed highway works including the conversion of an existing priority junction to a new roundabout and associated footpaths.
December 2015	1/2	Team Member	Site Redevelopment Programme, Barrow-in-Furness – Proposed highway works including closure of an existing access, upgrading of existing crossing facilities, replacement of an existing roundabout with a signalised junction and the provision of a new access.
October 2015	1	Team Member	Land at Eastway, Fulwood, Preston - highway works associated with new mixed use development. Audit of service yard priority access onto two-way single carriageway road and interfacing pedestrian / cycle infrastructure.
May 2015	1	Team Member	Acorn Way, Derby - Proposed residential development access with right-turn ghost island facilities onto Acorn Way.
November 2014	3	Team Member	Sainsbury's Dorridge - proposed highway works associated with mixed use development. Works include carriageway narrowing, junction improvements, public realm area and new crossings.
August 2014	1	Team Leader	South Coast Road, Peacehaven - Audit of small residential development and access junction with A259 South Coast Road, Peacehaven.
July 2014	1 / 2	Team Member	Rocket Green, Liverpool – Highway proposals associated with residential development.
June 2014	3	Team Member	Asda Guedgley – Audit of highway proposals associated with new retail development, comprising two priority junctions for customer and service access, new bus stop, new pedestrian crossing facilities, and footway widening to provide shared use footway / cycleway linking to existing facilities.

Collision Investigation Experience

Sam has a variety of collision investigation experience undertaken in the context of Transport Assessments and Environmental Statements, with some recent examples summarised below.

Date	Context of Study	Details
July 2015	Environmental Statement	East Anglia THREE, Suffolk - Preparation of a safety section for an Environmental Statement Transport chapter associated with constructing a 30km cable route for the onshore works for the East Anglia THREE Windfarm. The study reviewed baseline safety conditions within the study area. From an understanding of baseline road safety conditions the assessment of potential impacts and mitigation strategies were developed.
May 2015	Environmental Statement and Transport Assessment	Land South East of Bury St Edmunds, Suffolk - Preparation of a safety section for a Transport Assessment and supporting ES Transport chapter associated with a 1,250 home development. The study reviewed baseline safety conditions within the study area and from an understanding of baseline road safety conditions the assessment of potential impacts and mitigation strategies were developed.

Date	Context of Study	Details
January 2015	Environmental Statement	York Potash Project, Whitby and Teesside - Preparation of a safety section for a Transport Assessment and supporting ES Transport chapter associated with constructing and operating a potash mine in the North York Moors National Park and associated tunnel connecting the mine to processing and harbour facilities over 37km away in Teesside. The study reviewed baseline safety conditions, considering cluster sites and route collisions within the study area. From an understanding of baseline road safety conditions the assessment of potential impacts and mitigation strategies were developed.
August 2013	Environmental Statement and Transport Assessment	Dogger Bank Teesside, Redcar - Preparation of a safety section for a Transport Assessment and supporting ES Transport chapter associated with constructing an 8km cable route for the onshore works for the Dogger Bank Windfarm. The study reviewed baseline safety conditions within the study area, which included a number of key strategic routes such as the A66, A1053 and A174. From an understanding of baseline road safety conditions the assessment of potential impacts and mitigation strategies were developed.
April 2013	Non Motorised User Audit	Morton Business Park - Team member on a non-motorised user audit for proposed cycle, and bus stop improvements as part of an updated business Park off the A49 near Hereford.



Appendix B

B - Incoming Audit Information

Dappers Lane, Angmering

Transport Statement

Client: Frontier Estates

Reference: T&PPB3270R001D01

Revision: 01/Final

Date: 29 January 2016

Document title: Dappers Lane, Angmering

Document short title: Transport Statement

Reference: T&PPB3270R001D01

Revision: 01/Final

Date: 29 January 2016

Project name: Dappers Lane, Angmering

Project number: PB3270

Author(s): JG

Drafted by: JG

Checked by: AW

Date / Initials: 29/01/16 / AW

Approved by: JG

Date / Initials: 29/01/16 / JG

Classification

Open



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A	Site Location Plan
B	Proposed Site Plan
C	Swept Path Analysis
D	TRICS Output Files

1 Introduction

Royal Haskoning DHV UK Limited has been instructed by Frontier Estates to consider the highways and transportation implications of providing a Use Class C2 extra care facility on land north of Water Lane, Angmering in West Sussex. The location of the site is highlighted on the location plan provided at **Appendix A**.

The site is occupied by a residential property called Broadlees which is surrounded by grazing land and scrub. The proposed development seeks to demolish Broadlees and provide *'53 residential care apartments (within Class C2), parking, access, footpath, landscaping and other associated works'*. A proposed site layout plan is provided at **Appendix B**.

Pre-application discussions have been held with the Highway Authority, West Sussex County Council (WSCC). The main focus of discussions was the provision of a footway to connect the site with existing facilities at Water Lane which runs parallel to the southern site boundary. An alignment was provisionally agreed subject to the extent of the public highway and standard design considerations. This facility will be discussed in more detail later in this report.

This Transport Statement (TS) considers the highways and transportation issues relevant to the proposed development. In respect of transport impact National Planning Policy Framework (NPPF) provides guidance for local authorities when determining planning applications. Paragraph 32 bullet point three states that *'development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe'*.

With this in mind this TS will be set out in the following way:

- Section two establishes baseline conditions. It provides a description of the site and local highway network, appraises the sites accessibility by non-car modes and considers highway safety with reference to collision data;
- Section three provides an overview of the proposed development, describes the proposed site access, servicing and delivery arrangements and discusses car and cycle parking provision;
- Section four discusses the traffic implications of the development proposal in terms of forecast traffic generation;
- Finally, Section five provides a summary and our conclusions.

2 Site Appraisal

2.1 Preamble

The section provides a description of the site, the local highway network, the accessibility of the site by non-car modes, and reviews collision data. Consideration of these elements will provide a baseline against which the impact of the proposed development can be judged.

2.2 The Site & Local Highway Network

The site is occupied by a residential property called Broadlees which is surrounded by grazing land and scrub and is accessed from Dappers Lane which runs on a north / south alignment at the western site boundary. Dappers Lane is a single carriageway road, generally 6.0 metres wide and subject to a 30 mph speed limit in the vicinity of the site.

Some 100 metres south of the Broadlees access Dappers Lane forms a priority controlled junction with Water Lane, which is the main vehicular route through Angmering, linking with A280 to the northeast and A259 to the south. It is a single carriageway road, generally 6.0 metres wide and subject to a 30 mph speed limit in the vicinity of the site.

To control vehicle speed in the vicinity of the site there are several priority narrowing points along Water Lane. These give priority to eastbound traffic leaving Angmering meaning westbound traffic entering has to give-way thus reducing vehicle speeds into the village.

2.3 Accessibility by Non-Car Modes

Whilst efforts will be made to promote sustainable transport to employees, residents and visitors at the proposed development, it is inevitable that the majority of trips will be undertaken by car. The nature of the proposed development will mean that a high proportion of trips will be made by elderly people and employees working unsociable hours, most of who will use cars, either as a driver or passenger.

Nevertheless this section will establish the accessibility of the site by non-car modes in order to consider the potential for future employees, residents and visitors to travel by sustainable modes. It should be noted that there are improvements proposed which will be discussed in Section 3.

Walking

Historically 1.3 miles (2.0 kilometres) has been considered a distance many people could substitute car trips for trips on foot. The site is located within this distance of much of Angmering, the village centre, Angmering rail station and a significant amount of residential development so there are no barriers to residents, employees and visitors accessing the site on foot.

Being an extra care facility the majority of residents would be elderly and perhaps not able to maximise opportunities on foot. Nevertheless the village centre and supermarket are located approximately 600 metres from the site on foot. This represents a walk time of about seven minutes, perhaps longer for some elderly pedestrians, but within range for many.

Lit footways are provided along Water Lane from the Dappers Lane junction providing a continuous route into the village centre and to nearby bus stops. There are currently no footways along Dappers Lane in the vicinity of the site, however Section 3 discuss the potential for improvements in this respect. Should a

section of footway be provided at Dappers Lane between the site access and Water Lane it would provide a continuous pedestrian link to Angmering village centre and nearby bus stops.

Cycling

There are no dedicated cycle facilities in the immediate area, however there are no barriers to cycling to the site either. Historically 3.1 miles (5.0 kilometres) has been considered a distance many people could substitute car trips for cycle trips. Within this distance of the site is Angmering, East Preston, Rustington and Ferring and many residential areas.

Public Transport

Local bus services pass the site on Water Lane and can be accessed from bus stops some 250 metres from the site, within the widely accepted limit of 400 metres on foot. The following bus services are accessible from the site:

Route No.	Route	Approximate Daytime Frequency (services per hour in each direction)		
		Mon to Fri	Sat	Sun
9	Shoreham by Sea - Lancing - Worthing - Angmering - Littlehampton	1	1	No services
X4	Bognor Regis - Arundel - Holmbush Centre	1 per day	No services	No services

Table 2.1: Summary of Bus Services Accessible from the Site

It is evident from the table above that there are opportunities to travel by bus. Future employees, residents and visitors would be able to use local bus services to access the site areas such as Worthing, Littlehampton and Bognor Regis, all important local settlements.

2.4 Collision Data

Details of the most recently recorded Personal Injury Accident records were sought from the Crashmap database for a three year period. This revealed there have been no reported incidents in the vicinity of the proposed site access at Dappers Lane.

2.5 Summary

This section has considered the accessibility of the existing site by non-car modes. It has been demonstrated that there is scope for non-car trips and for future employees and visitors not to be reliant on the private car to access the site. Following proposed enhancements there are no demonstrable barriers to walking, cycling or using public transport with the degree of accessibility commensurate with the geographical location of the site.

There is not a pre-existing highway safety issue in the area that the proposed development should be required to address or would demonstrably worsen.

3 Development Proposal

3.1 Preamble

The proposed development seeks to provide a 53 unit extra care apartments, associated car parking and a new vehicular access at Dappers Lane. A proposed site layout plan is provided at **Appendix B**. The proposed development includes car and cycle parking, a new priority controlled junction formed with Dappers Lane and pedestrian enhancements.

3.2 Access

The proposed development includes a new priority controlled arrangement at the approximate location of an existing access into the site. The proposed access can accommodate visibility splays of 2.4 metres by 43.0 metres in both directions.

As touched upon in Section 2.3 the proposed development seeks to provide new infrastructure to improve the sites accessibility and thus its sustainability. A section of footway is proposed for Dappers Lane which would run between the site access on the east side of Dappers Lane and connect with a section on the western side that would link to the existing footway on Water Lane. A suggested arrangement is shown on the proposed site layout at **Appendix B**.

It is the intention that this would improve the accessibility of the site by providing a link enabling employees, residents and visitors to access the site on continuous footways and access nearby bus stops in Angmering.

3.3 Servicing & Deliveries

As the proposal falls within a C2 use class the largest vehicle that will regularly require access will be a refuse vehicle. To demonstrate the layout can accommodate this vehicle the drawing provided at **Appendix C** illustrates the swept path of a refuse vehicle. It is evident that such a vehicle can negotiate the site without any conflict arising.

In addition there is an occasional requirement for vehicles to visit a sewage works located in the southwest corner of the site. This would occur approximately twice per year. Due to the infrequent nature of this requirement it is proposed that a section of the footway on the east side of Dappers Lane be constructed to a sufficient standard to accommodate these service vehicles rather than provide a dedicated access for such an infrequent occurrence.

3.4 Parking

Car

The proposed extra care facility falls under C2 but does not fit within the classifications described. Based on the WSCC C2 standards the proposed development could provide 21 parking spaces, however this does not reflect the operational requirements of the proposed development.

Extra care is a relatively new form of accommodation which differs by being the residents own home, being designed for the elderly and providing access to care if required 24 hours per day, so it operates the same way as C3 in practice with support available if required. For C3 use the current policy regarding parking is contained within the WSCC document '*Guidance for Parking in New Residential Developments*'. The guidance provides a demand led process for determining car parking for residential use classes.

As the parking standards do not specifically relate to the proposed development the C3 methodology has been used to derive an operational level of parking which indicates up to 65 spaces would be appropriate. The proposed development includes 55 parking spaces and serve residents, staff and visitors. Of the 55 space provision six (11%) will be designated for blue badge holders.

Regarding staff parking, it is anticipated there would be three shifts around 07:00 to 15:00, 15:00 to 23:00 and 23:00 to 07:00 hours with up to six staff on-site during a shift. Of these there would be a mix of carers, kitchen staff and cleaners.

The TRICS data indicates that car travel would have an 85% mode share meaning five of the six staff typically on-site would travel by car. Therefore this indicates demand for 10 staff spaces to accommodate staff cars during shift changeovers (2x5 staff driving), leaving some 45 spaces free for residents and their guests (one space per 0.8 units).

Cycle

The proposed development also provides parking for cyclists, however again it falls outside of the specific categories for cycle parking standards. It is proposed therefore to provide long stay cycle parking at a ratio of one space per eight car parking spaces.

Consequently the proposed development will provide at least four Sheffield type stands which fulfils this requirement (at least seven spaces). These facilities would be provided close to the main and staff entrances for security and convenience.

4 Traffic Implications of Proposed Development

To calculate the traffic flows associated with the proposed development the TRICS database has been interrogated under the Health category, Care Home (Elderly Residential) sub-category. The interrogation looked for sites in England that primarily had a comparable number of residents, parking and geographical setting.

The table below provides a summary of the daily profile associated with the proposed development. The associated TRICS output files are provided at **Appendix D**.

Time Period	Trip Rates (per 100 sqm)			Trips (vehicles)		
	Arr	Dep	Two-Way	Arr	Dep	Two-Way
Weekday AM Peak Hour (08:15 to 09:15 Hours)	0.102	0.060	0.162	5	3	9
Weekday PM Peak Hour (17:00 to 18:00 Hours)	0.032	0.074	0.106	2	4	6
Typical Weekday (07:00 to 19:00 Hours)	0.783	0.769	1.552	41	41	82

Table 4.1: Proposed Development Traffic Generation

It is evident that the proposed development could generate nine and six two-way traffic movements during the weekday AM and PM peaks hours respectively and 82 during a typical weekday.

Consequently it is considered that the impact of the proposal during the weekday peak hours is minimal and could not be viewed as 'severe'.

5 Summary & conclusions

5.1 Summary

Royal Haskoning DHV UK Limited has been instructed by Frontier Estates to consider the highways and transportation implications of providing a Use Class C2 extra care facility on land north of Water Lane, Angmering in West Sussex.

The site is occupied by a residential property called Broadlees which is surrounded by grazing land and scrub. The proposed development seeks to demolish Broadlees and provide *'53 residential care apartments (within Class C2), parking, access, footpath, landscaping and other associated works'*.

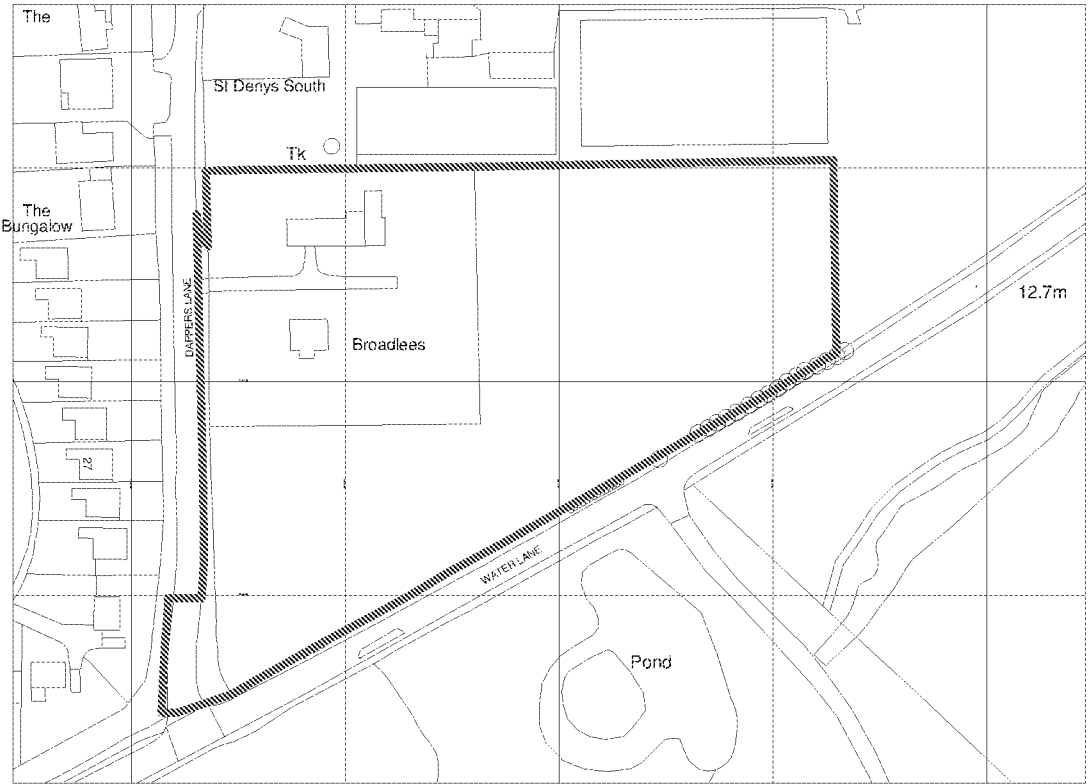
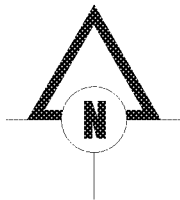
5.2 Conclusions

This report has demonstrated the following:

- It has been demonstrated that there is potential for cycle and public transport trips and for future employees and visitors not to be reliant on the private car to access the site;
- There is not a pre-existing highway safety problem in the area.
- The proposed development includes a new priority controlled vehicular access at Dappers Lane. Visibility splays of 2.4 x 43.0 metres are achievable in both directions;
- The proposed development includes a new footway along Dappers Lane connecting the site to existing pedestrian facilities at Water Lane. This ensures a continuous pedestrian link between the site and village centre and bus stops.
- The site layout can accommodate the largest vehicle expected to regularly visit the site. A refuse vehicle is able to negotiate it without conflict arising and enter and exit in a forward gear;
- The proposal will provide car and cycle parking in accordance with relevant standards;
- The proposed development could generate nine and six two-way traffic movements during the weekday AM and PM peaks hours respectively and 82 during a typical weekday;
- Consequently it has been demonstrated that no 'severe' residual impact results from the development proposal, and therefore the proposal accords with NPPF.

On the basis of the above we do not consider that the proposed development should be denied planning permission on highways or transportation grounds.

APPENDIX A



Ordnance Survey. (c) Crown Copyright 2014. All rights reserved. Licence number 100022432

Rev	Date	Description	Dr by
A	20/01/16	Red Line Amended to include new footpath	RSW
Revisions			

harrisirwin
architects & designers

ASKE STABLES, ASKE, RICHMOND
NORTH YORKSHIRE, DL10 5HG

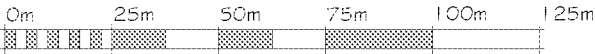
Project:
Proposed Extra Care
Dappers Lane
Angmering

Client:
FRONTIER

Drawing:
Location Plan

DRAFT

Scale @ A3: 1:1250	Date: 16/11/15	Drawn: RSW	Checked: JH
Project No.: 1877	Dwg No.: PL(01)01	Rev: A	



VISUAL SCALE 1:1250 @ A3

APPENDIX B



Schedule of Accommodation

45 two Bedroom apartments
8 one Bedroom apartments
TOTAL = 53 apartments

- Lighting Bollard
- Existing Trees
- TPO Trees
- Proposed Trees
- Root Protection Areas
- Trees to be removed
- Application Boundary

Please refer to TLP drawings for detailed landscape proposal, boundary treatments and materials

Project:
Proposed Extra Care
Dappers Lane
Anghmering

Clients: **FRONTIER**

Drawing Title:
Proposed Site Layout (inc Proposed Levels)

PLANNING

Scale @ A1	Date	Drawn by	Checked by
1:250	07/10/18	RSW	RI

Project No:	Draw No:	Rev:
1577	PL01/03	C

ARUN DISTRICT COUNCIL A218/PL

APPENDIX C

DO NOT SCALE



New footpath to link to existing network

TPO Tree

Building Type 1

TPO Tree

Building Type 2

Building Type 3

Main Entrance

INBOUND

Service Access

New footpath to link to existing network

TPO Tree

Building Type 1

TPO Tree

Building Type 2

Main Entrance

OUTBOUND

Service Access

Phoenix 2-23W (with Elite 2 6x2MS chassis)
Overall Length 10.42m
Overall Width 2.530m
Overall Body Height 3.211m
Min Body Ground Clearance 0.416m
Track Width 2.530m
Lock to Lock Time 4.00s
Kerb to Kerb Turning Radius 11.150m

Vehicle in a forward gear

Vehicle in reverse gear

This drawing has been produced using Harris Irwin Associates drawing: 1877 PL(01) 03 Revision C - Proposed Site Layout (inc Proposed Levels). HaskoningDHV UK Ltd cannot guarantee the accuracy of data.

TITLE		PROJECT	JOB No.		DATE	SCALE	
SWEPT PATH ANALYSIS - REFUSE COLLECTION VEHICLE		DAPPERS LANE, ANGMERING	PB3270		JAN 16	1:500	
			DRAWN DH		CHECKED AW	PASSED AW	
			AUTOCAD REF.		DRG No. TR02	REV P1	



APPENDIX D

Calculation Reference: AUDIT-703101-160128-0155

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 05 - HEALTH
Category : F - CARE HOME (ELDERLY RESIDENTIAL)

VEHICLES

Selected regions and areas:

02 SOUTH EAST	
WG WOKINGHAM	1 days
05 EAST MIDLANDS	
DS DERBYSHIRE	1 days
07 YORKSHIRE & NORTH LINCOLNSHIRE	
WY WEST YORKSHIRE	1 days
08 NORTH WEST	
GM GREATER MANCHESTER	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Filtering Stage 2 selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Number of residents
Actual Range: 30 to 70 (units:)
Range Selected by User: 17 to 180 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/07 to 21/10/14

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday 3 days
Wednesday 1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count 4 days
Directional ATC Count 0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre) 3
Edge of Town 1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone 4

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Filtering Stage 3 selection:Use Class:

C2

4 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,000 or Less

1 days

20,001 to 25,000

2 days

25,001 to 50,000

1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

125,001 to 250,000

1 days

250,001 to 500,000

2 days

500,001 or More

1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0

1 days

1.1 to 1.5

2 days

1.6 to 2.0

1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No

4 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

LIST OF SITES relevant to selection parameters

1	DS-05-F-01	NURSING HOME	DERBYSHIRE
	29 VILLAGE STREET		
	DERBY		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of residents:	70	
	Survey date: TUESDAY	21/10/14	Survey Type: MANUAL
2	GM-05-F-03	NURSING HOME	GREATER MANCHESTER
	HALIFAX ROAD		
	ROCHDALE		
	Edge of Town		
	Residential Zone		
	Total Number of residents:	30	
	Survey date: WEDNESDAY	29/05/13	Survey Type: MANUAL
3	WG-05-F-01	NURSING HOME	WOKINGHAM
	BARKHAM ROAD		
	WOKINGHAM		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of residents:	58	
	Survey date: TUESDAY	20/11/12	Survey Type: MANUAL
4	WY-05-F-01	NURSING HOME	WEST YORKSHIRE
	CLIFF ROAD		
	HYDE PARK		
	LEEDS		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of residents:	58	
	Survey date: TUESDAY	15/06/10	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
DC-05-F-02	Limited car parking
HF-05-F-01	High no. of residents
WK-05-F-01	Limited car parking

TRIP RATE for Land Use 05 - HEALTH/F - CARE HOME (ELDERLY RESIDENTIAL)

VEHICLES**Calculation factor: 1 RESIDE****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	54	0.102	4	54	0.051	4	54	0.153
08:00 - 09:00	4	54	0.102	4	54	0.060	4	54	0.162
09:00 - 10:00	4	54	0.051	4	54	0.028	4	54	0.079
10:00 - 11:00	4	54	0.056	4	54	0.019	4	54	0.075
11:00 - 12:00	4	54	0.042	4	54	0.065	4	54	0.107
12:00 - 13:00	4	54	0.046	4	54	0.028	4	54	0.074
13:00 - 14:00	4	54	0.060	4	54	0.065	4	54	0.125
14:00 - 15:00	4	54	0.079	4	54	0.083	4	54	0.162
15:00 - 16:00	4	54	0.042	4	54	0.102	4	54	0.144
16:00 - 17:00	4	54	0.042	4	54	0.051	4	54	0.093
17:00 - 18:00	4	54	0.032	4	54	0.074	4	54	0.106
18:00 - 19:00	4	54	0.032	4	54	0.037	4	54	0.069
19:00 - 20:00	4	54	0.065	4	54	0.037	4	54	0.102
20:00 - 21:00	4	54	0.032	4	54	0.069	4	54	0.101
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.783			0.769			1.552

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP \times FACT$. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected: 30 - 70 (units:)
 Survey date range: 01/01/07 - 21/10/14
 Number of weekdays (Monday-Friday): 4
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 3

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 05 - HEALTH/F - CARE HOME (ELDERLY RESIDENTIAL)

TAXIS**Calculation factor: 1 RESIDE****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	54	0.000	4	54	0.000	4	54	0.000
08:00 - 09:00	4	54	0.005	4	54	0.005	4	54	0.010
09:00 - 10:00	4	54	0.005	4	54	0.005	4	54	0.010
10:00 - 11:00	4	54	0.000	4	54	0.000	4	54	0.000
11:00 - 12:00	4	54	0.000	4	54	0.000	4	54	0.000
12:00 - 13:00	4	54	0.009	4	54	0.005	4	54	0.014
13:00 - 14:00	4	54	0.005	4	54	0.009	4	54	0.014
14:00 - 15:00	4	54	0.014	4	54	0.014	4	54	0.028
15:00 - 16:00	4	54	0.005	4	54	0.005	4	54	0.010
16:00 - 17:00	4	54	0.005	4	54	0.005	4	54	0.010
17:00 - 18:00	4	54	0.005	4	54	0.005	4	54	0.010
18:00 - 19:00	4	54	0.005	4	54	0.005	4	54	0.010
19:00 - 20:00	4	54	0.005	4	54	0.005	4	54	0.010
20:00 - 21:00	4	54	0.000	4	54	0.000	4	54	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.063			0.063			0.126

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP \times FACT$. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected: 30 - 70 (units:)
 Survey date range: 01/01/07 - 21/10/14
 Number of weekdays (Monday-Friday): 4
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 3

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 05 - HEALTH/F - CARE HOME (ELDERLY RESIDENTIAL)

OGVS**Calculation factor: 1 RESIDE****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	54	0.009	4	54	0.009	4	54	0.018
08:00 - 09:00	4	54	0.000	4	54	0.000	4	54	0.000
09:00 - 10:00	4	54	0.000	4	54	0.000	4	54	0.000
10:00 - 11:00	4	54	0.005	4	54	0.000	4	54	0.005
11:00 - 12:00	4	54	0.005	4	54	0.005	4	54	0.010
12:00 - 13:00	4	54	0.000	4	54	0.005	4	54	0.005
13:00 - 14:00	4	54	0.000	4	54	0.000	4	54	0.000
14:00 - 15:00	4	54	0.000	4	54	0.000	4	54	0.000
15:00 - 16:00	4	54	0.000	4	54	0.000	4	54	0.000
16:00 - 17:00	4	54	0.000	4	54	0.000	4	54	0.000
17:00 - 18:00	4	54	0.000	4	54	0.000	4	54	0.000
18:00 - 19:00	4	54	0.000	4	54	0.000	4	54	0.000
19:00 - 20:00	4	54	0.000	4	54	0.000	4	54	0.000
20:00 - 21:00	4	54	0.000	4	54	0.000	4	54	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.019			0.019			0.038

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP * FACT$. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected: 30 - 70 (units:)
 Survey date date range: 01/01/07 - 21/10/14
 Number of weekdays (Monday-Friday): 4
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 3

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 05 - HEALTH/F - CARE HOME (ELDERLY RESIDENTIAL)

PSVS**Calculation factor: 1 RESIDE****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	54	0.005	4	54	0.005	4	54	0.010
08:00 - 09:00	4	54	0.000	4	54	0.000	4	54	0.000
09:00 - 10:00	4	54	0.000	4	54	0.000	4	54	0.000
10:00 - 11:00	4	54	0.005	4	54	0.005	4	54	0.010
11:00 - 12:00	4	54	0.000	4	54	0.000	4	54	0.000
12:00 - 13:00	4	54	0.005	4	54	0.000	4	54	0.005
13:00 - 14:00	4	54	0.000	4	54	0.005	4	54	0.005
14:00 - 15:00	4	54	0.000	4	54	0.000	4	54	0.000
15:00 - 16:00	4	54	0.009	4	54	0.009	4	54	0.018
16:00 - 17:00	4	54	0.005	4	54	0.005	4	54	0.010
17:00 - 18:00	4	54	0.000	4	54	0.000	4	54	0.000
18:00 - 19:00	4	54	0.000	4	54	0.000	4	54	0.000
19:00 - 20:00	4	54	0.000	4	54	0.000	4	54	0.000
20:00 - 21:00	4	54	0.000	4	54	0.000	4	54	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.029			0.029			0.058

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP \times FACT$. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected: 30 - 70 (units:)
 Survey date date range: 01/01/07 - 21/10/14
 Number of weekdays (Monday-Friday): 4
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 3

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 05 - HEALTH/F - CARE HOME (ELDERLY RESIDENTIAL)

CYCLISTS**Calculation factor: 1 RESIDE****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	54	0.005	4	54	0.005	4	54	0.010
08:00 - 09:00	4	54	0.005	4	54	0.000	4	54	0.005
09:00 - 10:00	4	54	0.005	4	54	0.000	4	54	0.005
10:00 - 11:00	4	54	0.000	4	54	0.000	4	54	0.000
11:00 - 12:00	4	54	0.000	4	54	0.000	4	54	0.000
12:00 - 13:00	4	54	0.000	4	54	0.000	4	54	0.000
13:00 - 14:00	4	54	0.000	4	54	0.000	4	54	0.000
14:00 - 15:00	4	54	0.005	4	54	0.009	4	54	0.014
15:00 - 16:00	4	54	0.000	4	54	0.000	4	54	0.000
16:00 - 17:00	4	54	0.000	4	54	0.000	4	54	0.000
17:00 - 18:00	4	54	0.000	4	54	0.005	4	54	0.005
18:00 - 19:00	4	54	0.000	4	54	0.000	4	54	0.000
19:00 - 20:00	4	54	0.000	4	54	0.000	4	54	0.000
20:00 - 21:00	4	54	0.000	4	54	0.000	4	54	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.020			0.019			0.039

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP * FACT$. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected: 30 - 70 (units:)
 Survey date date range: 01/01/07 - 21/10/14
 Number of weekdays (Monday-Friday): 4
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 3

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Designer's Response

Subject : Stage 1 Road Safety Audit - Proposed Highway Arrangements, Dappers Lane, Angmering

This document has been prepared in response to the Stage 1 Road Safety Audit undertaken by HaskoningDHV UK Limited's Peterborough Office. The Audit is undertaken with regard to the proposed site access arrangements and offsite highway improvements associated with a new residential development on land at Dappers Lane, Angmering. This document represents a Designer's Response to the Stage 1 Audit.

Problem Summary	Audit's Recommendation	Designer's Response
Problem 1: Insufficient drainage provision could lead to slip / skid and loss of control collisions. Proposed drainage details have not been provided to the Audit Team at this stage. Unsuitable drainage provision may lead to ponding and subsequent slip/skid hazards for motor vehicles, cyclists and pedestrians.	Provide drainage details as part of the Stage 2 Road Safety Audit.	It is accepted that the strategy for highway drainage can be considered as part of the Stage 2 Road Safety Audit. The applicant will provide drainage details and work with the Highway Authority in order that an acceptable drainage solution is adopted as part of the highway scheme.

Problem Summary	Audit's Recommendation	Designer's Response
Problem 2: Existing landscaping sits within the proposed junction visibility splay. This landscaping could reduce forward visibility resulting in late breaking and side swipe collisions. The Transport Statement notes that a junction visibility splay of 2.4m by 43m will be provided at the new site access junction, however, this is not shown on the supporting plans. The Audit Team observed that to achieve the stated visibility splay would require the removal of some vegetation. Notwithstanding, the proposed visibility splay of 43m does not include for bonnet length as detailed within Table 7.1 of the Department for Transport Publication Manual for Streets (MfS). Failure to provide sufficient visibility at the junction of the proposed site and Dappers Lane could result in vehicles entering the main carriageway across the path of an oncoming vehicle which could lead to sideswipe collisions.	Ensure that visibility splay in accordance with MfS including for bonnet length is provided and all existing landscaping within the proposed visibility splays can be removed.	Accepted, a drawing (number PB3270/SK/01) is provided in Appendix 1 and this drawing provides 2.4 x 43.0 metre visibility splays at the proposed site access. It is evident these splays can be provided in both directions wholly within the applicants land and the public highway. To the north, the visibility splay has a minor impact with the existing tree line. Manual for Streets (MfS) identifies that the impact of obstacles, such as street trees and street lighting columns, does not mean the access becomes unacceptable. In this case tree trunks have a minor impact at the back of the visibility splay only. MfS also suggests that in lightly trafficked situations, a 2 metre x-distance can be applied. In this case the Transport Statement for the application identifies 3 and 4 vehicle departures from the access in the weekday morning and evening peak hours respectively, indicating that this will be a lightly trafficked access. In the context of a lightly trafficked access, it is considered that the minor impact of the tree line on the 2.4 by 43m visibility splay is acceptable. However, it is recommended tree canopies that have the ability to impact on the visibility splay, are maintained at a height of at least 2 metres. For a 30mph visibility splay, a 43 metre y-distance does include vehicle bonnet length (reference Table 7.1, MfS).

Problem Summary	Audit's Recommendation	Designer's Response
Problem 3: Vehicles exiting the four parking bays immediately after the proposed junction could collide with vehicles entering the site. Four parking bays are shown immediately after the proposed junction. A vehicle reversing out of one of these bays would have limited visibility of vehicles entering the site. This could lead to vehicles entering the site colliding with the side of a vehicle leaving a parking bay. Furthermore, a vehicle traveling south on Dappers Lane may break sharply to avoid a vehicle exiting a parking bay, this could result in a rear end shunt type collision as a following vehicle would not be expecting the turning vehicle to stop suddenly.	Relocate the proposed parking bays away from the proposed junction with Dappers Lane.	Accepted There is an opportunity to relocate these parking bays away from the site access. Drawing (number PB3270/SK/01) is provided as Appendix 1 and this drawing provides alternative locations for the four parking spaces, addressing this issue.
Problem 4: Failure to provide appropriate visibility for pedestrians crossing the road could lead to pedestrians stepping out into the path of an oncoming vehicle. Existing vegetation overhangs the verge where the footpath will cross Dappers Lane; this vegetation could obscure a pedestrian's view of an oncoming vehicle potentially resulting in a pedestrian stepping out into the path of an oncoming vehicle leading to a collision.	Ensure that existing vegetation is removed / cut back to provide appropriate visibility for pedestrians crossing Dappers Lane.	It is accepted that existing vegetation can be cut back and maintained to ensure adequate visibility for pedestrians crossing Dappers Lane.

Problem Summary	Audit's Recommendation	Designer's Response
Problem 5: Failure to provide appropriate tactile paving could lead to partially sighted pedestrians walking in the carriageway being struck by vehicles. Drawing PL(01)03 Revision C notes that tactile paving will be provided at the proposed pedestrian crossing point on Dappers Lane, however, no details regarding the type or proposed arrangement have been provided to the Audit Team. Failure to provide the appropriate tactile paving arrangement could result in confusion for partially sighted pedestrians potentially leading to pedestrians walking into the road and being struck by a passing vehicle.	Provide details of tactile paving as part of the Stage 2 Road Safety Audit.	It is accepted that details of tactile paving can be provided as part of the Stage 2 Road Safety Audit.
Problem 6: Failure to relocate existing signing could reduce the available footway width causing pedestrians to walk in the road. There is an existing 30mph repeater sign and an existing horse warning sign located within the verge, following the completion of the works these signs would be located within the footway, this would result in a reduced footway width and could lead to pedestrians having to step off the footway into the road and potentially being struck by a passing vehicle.	Relocate the existing signs to the back of the footway.	Agreed, details relating to relocating existing signage will be provided as part of the Stage 2 Road Safety Audit.



**Royal
HaskoningDHV**
Enhancing Society Together

Signed:
Designer

Date: 21/04/16

Signed:
Checker

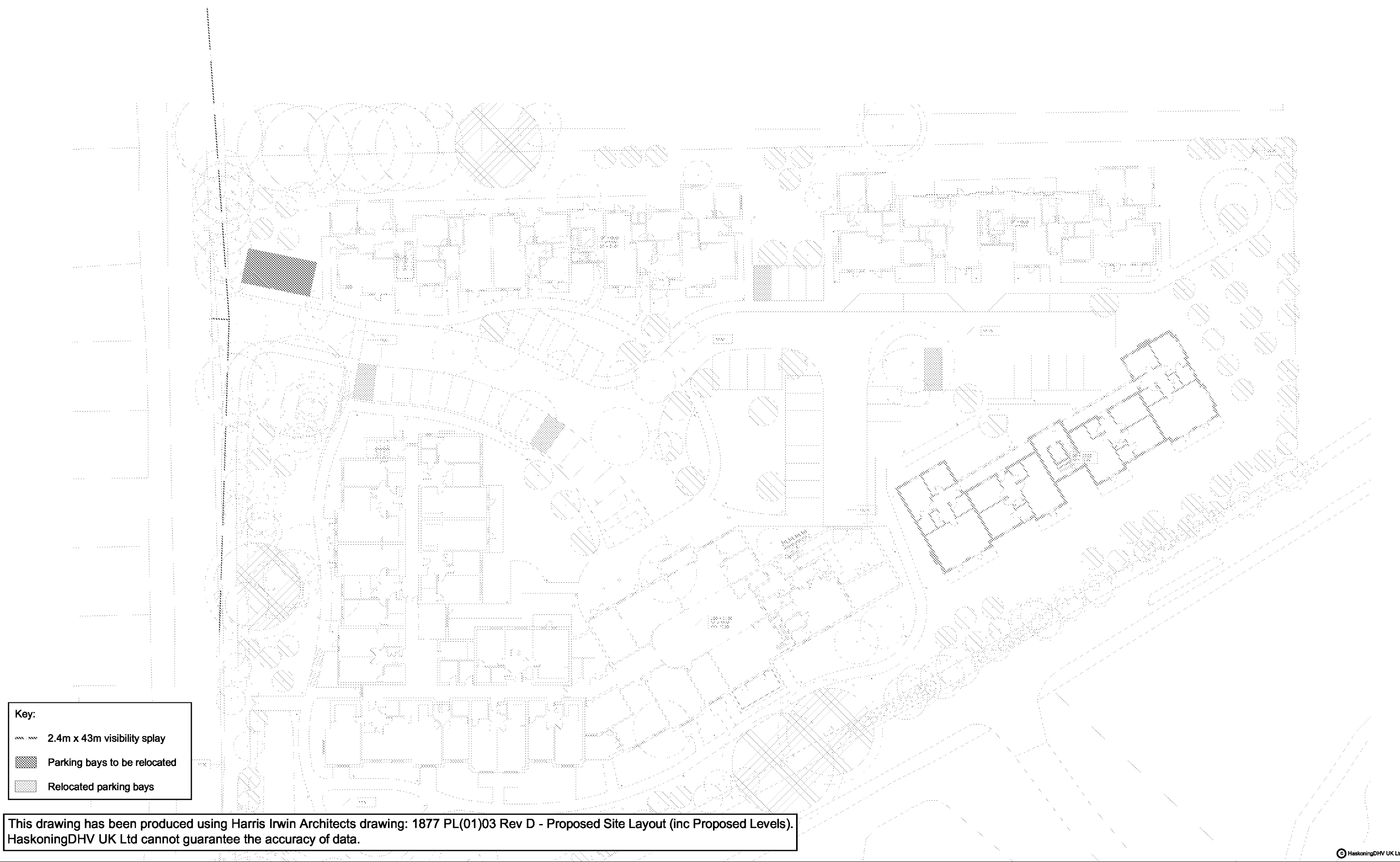
Date: 21/04/16

Signed:
Technical

Date: 21/04/2016

Appendix 1

DO NOT SCALE



Key:

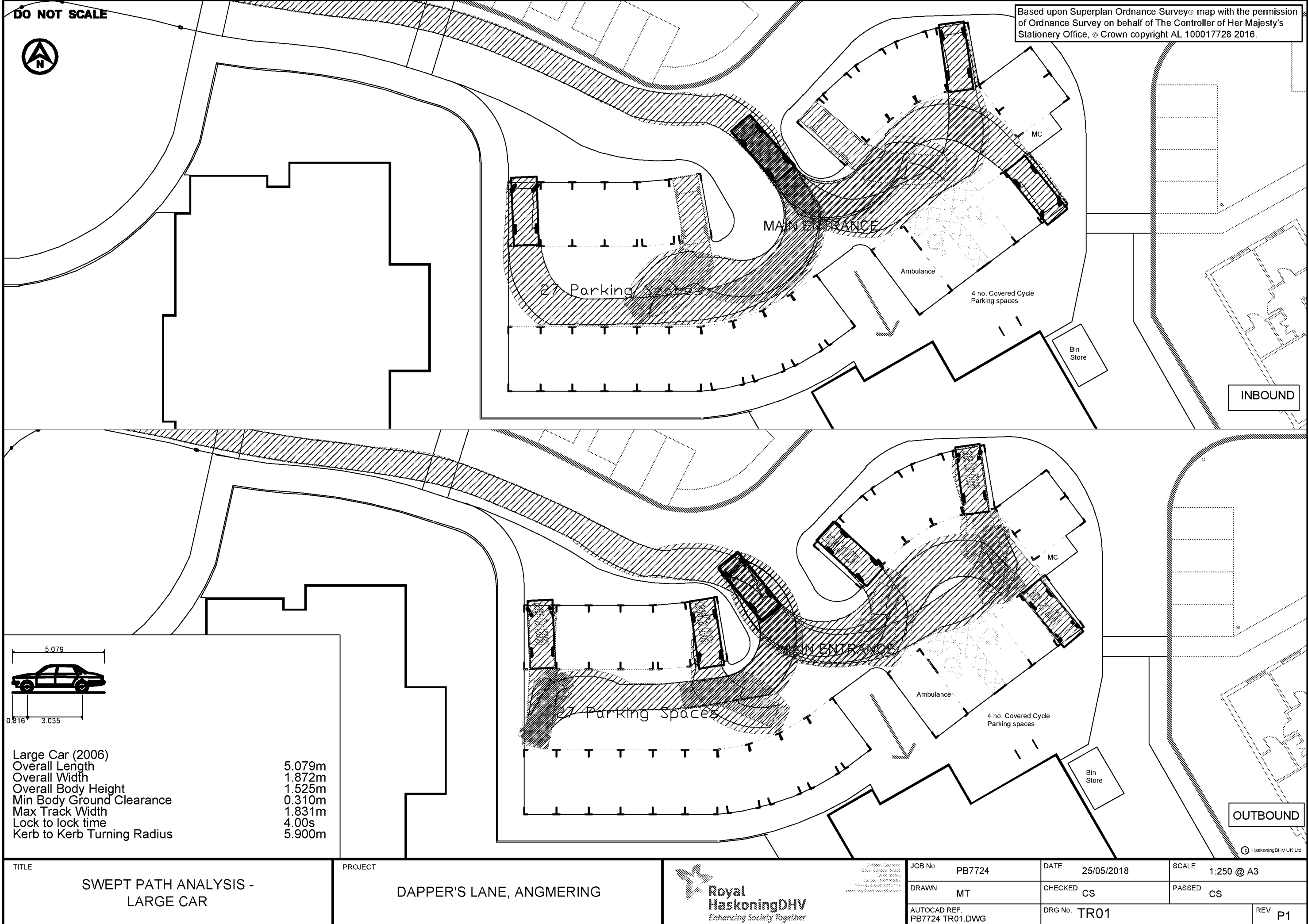
- 2.4m x 43m visibility splay
- Parking bays to be relocated
- Relocated parking bays

This drawing has been produced using Harris Irwin Architects drawing: 1877 PL(01)03 Rev D - Proposed Site Layout (inc Proposed Levels). HaskoningDHV UK Ltd cannot guarantee the accuracy of data.

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TITLE STAGE 1 ROAD SAFETY AUDIT REVISIONS	PROJECT DAPPERS LANE, ANGMERING	 Royal HaskoningDHV <i>Enhancing Society Together</i>	JOB No.	PB3270	DATE	APRIL 16	SCALE	1:500
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			AUTOCAD REF.	DRG No. SK01			REV	P1

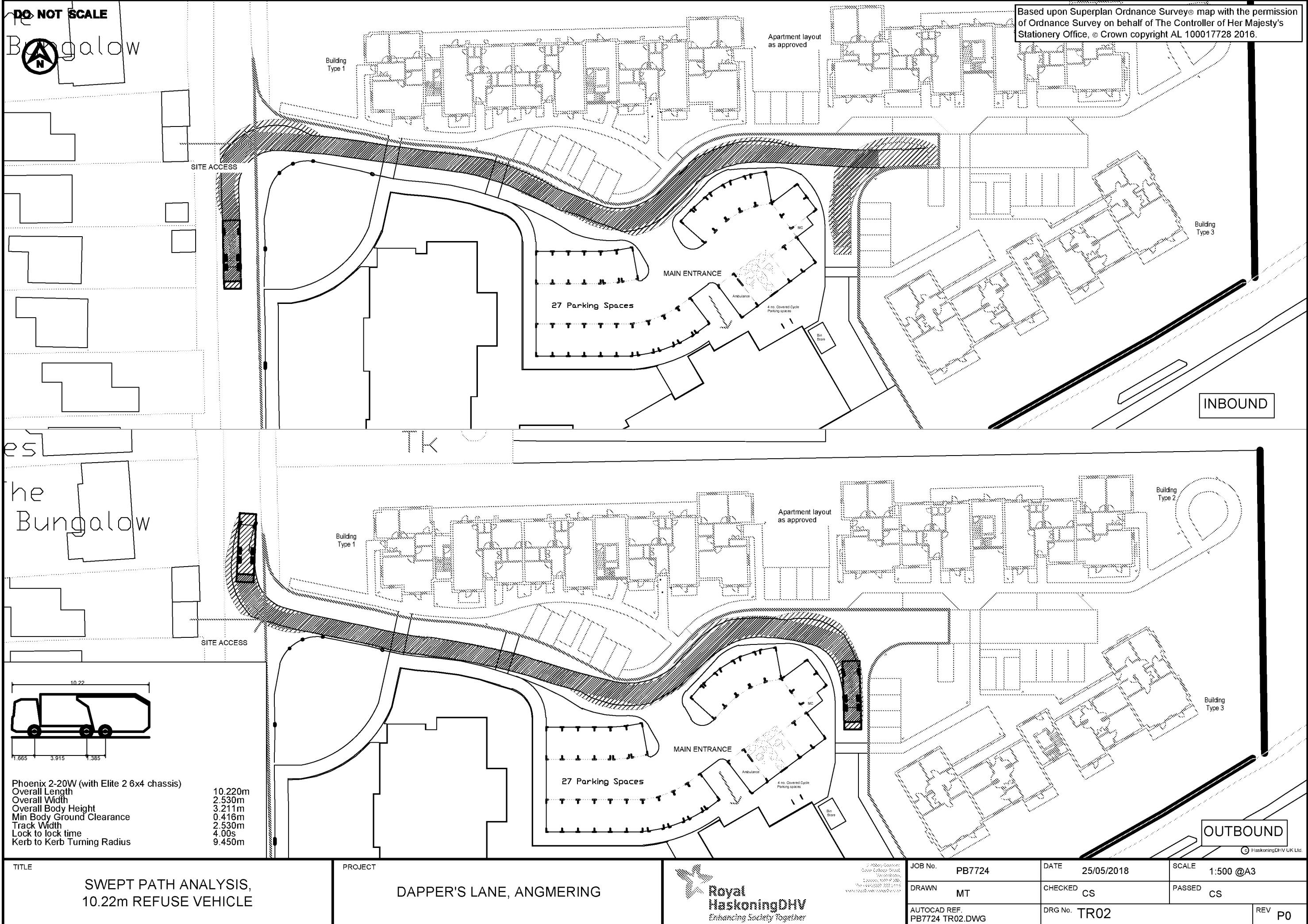
Appendix E – Vehicle Swept Path Analysis



5.079

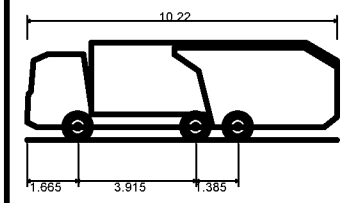
0.816 3.035

Large Car (2006)
Overall Length 5.079m
Overall Width 1.872m
Overall Body Height 1.525m
Min Body Ground Clearance 0.310m
Max Track Width 1.831m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 5.900m



DO NOT SCALE

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Phoenix 2-20W (with Elite 2 6x4 chassis)
Overall Length 10.220m
Overall Width 2.530m
Overall Body Height 3.211m
Min Body Ground Clearance 0.416m
Track Width 2.530m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 9.450m

TITLE
SWEPT PATH ANALYSIS,
10.22m REFUSE VEHICLE

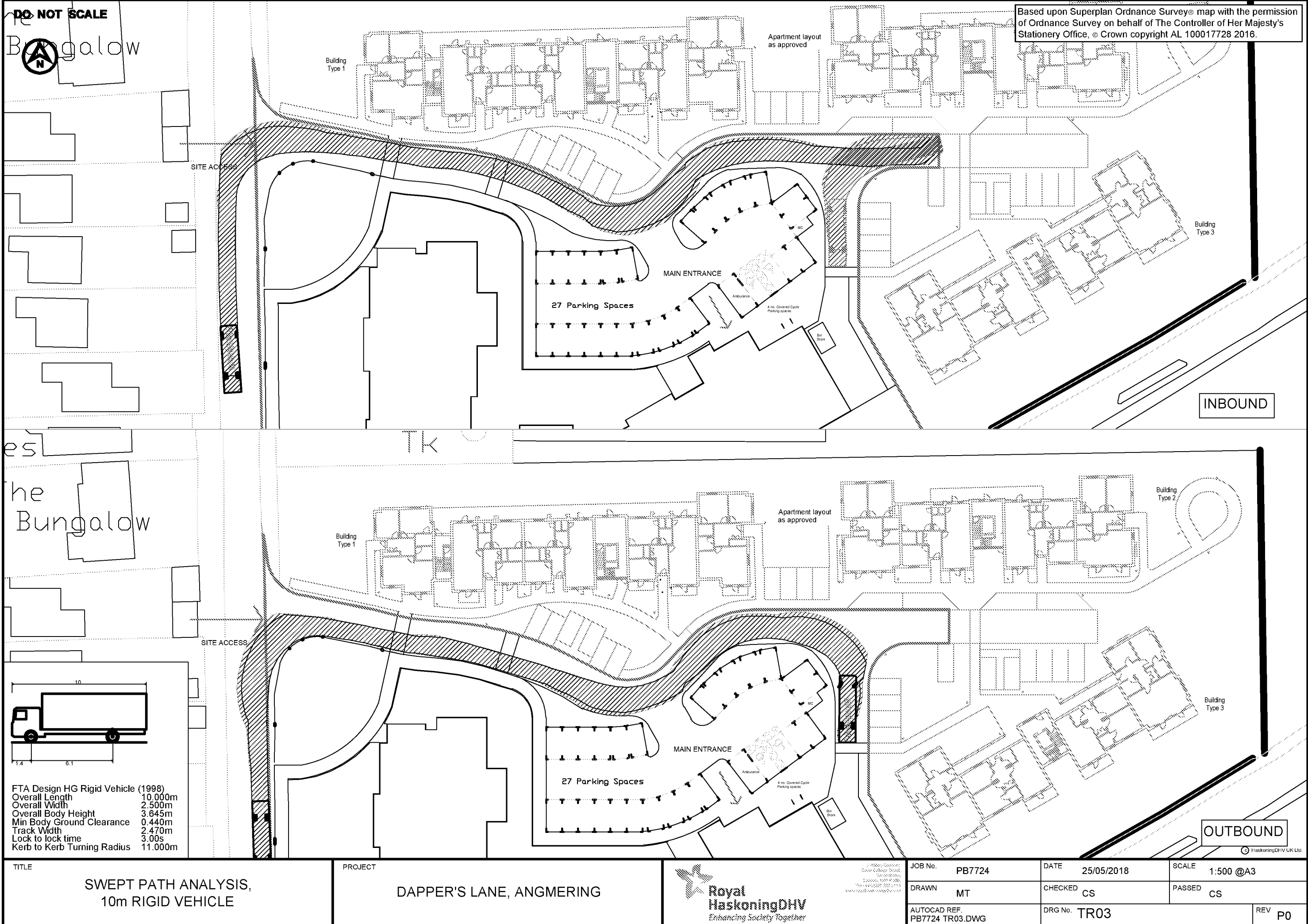
PROJECT
DAPPER'S LANE, ANGMERING

Royal HaskoningDHV
Enhancing Society Together

JOB No. PB7724
DRAWN MT
AUTOCAD REF. PB7724 TR02.DWG

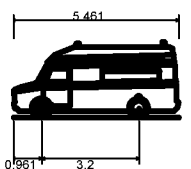
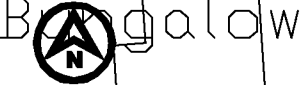
DATE 25/05/2018
CHECKED CS
DRG No. TR02

SCALE 1:500 @A3
PASSED CS
REV P0





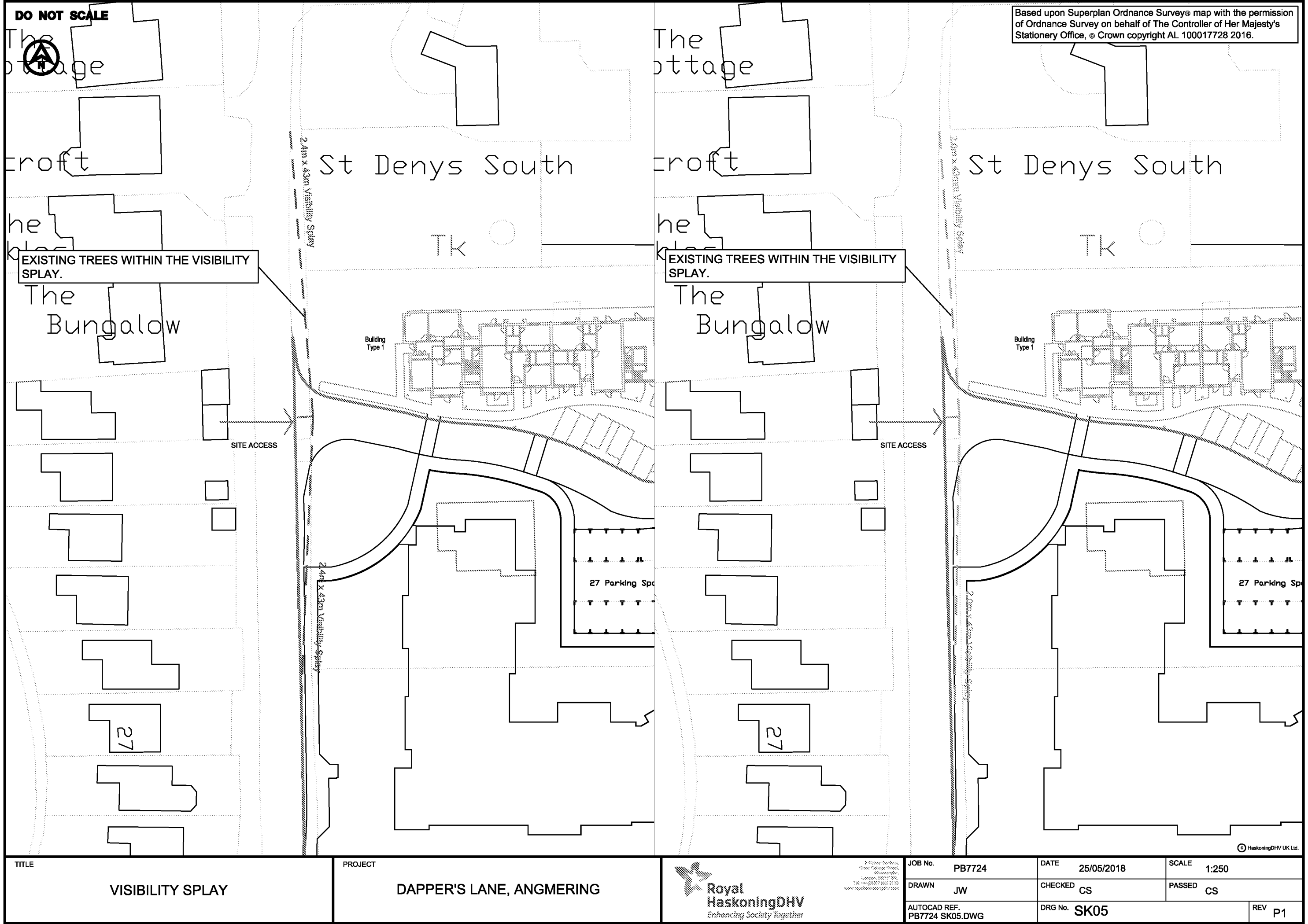
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Ambulance
Overall Length 5.461m
Overall Width 2.020m
Overall Body Height 2.498m
Min Body Ground Clearance 0.225m
Track Width 1.860m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 6.500m

TITLE SWEPT PATH ANALYSIS - AMBULANCE		PROJECT DAPPER'S LANE, ANGMERING	 2 Abbey Gardens, Cover College Road, "The Old Mill", Lutterworth, Leics, LE17 4JH Tel: +44(0)1509 222 1115 www.rh-dhv.com	JOB No. PB7724	DATE 25/05/2018	SCALE 1:500 @A3
				DRAWN MT	CHECKED CS	PASSED CS
				AUTOCAD REF. PB7724 TR04.DWG	DRG No. TR04	REV P0

Appendix F – Proposed Site Access Visibility Splays



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DO NOT SCALE



EXISTING TREES WITHIN THE VISIBILITY SPLAY.

EXISTING TREES WITHIN THE VISIBILITY SPLAY.

SITE ACCESS

SITE ACCESS

Building Type 1

Building Type 1

27 Parking Sp

27 Parking Sp

© HaskoningDHV UK Ltd.

TITLE
VISIBILITY SPLAY

PROJECT
DAPPER'S LANE, ANGMERING



Royal HaskoningDHV
Enhancing Society Together

24 New London, Brook Lodge Road, Wokingham, RG40 3AB, UK. Tel: +44 (0)118 752 2100 www.haskoningdhv.co.uk

JOB No.	PB7724	DATE	25/05/2018	SCALE	1:250
DRAWN	JW	CHECKED	CS	PASSED	CS
AUTOCAD REF.	PB7724 SK05.DWG	DRG No.	SK05	REV	P1

Appendix G – Architects Layout Plan



NOTES

Do not scale this drawing.

All dimensions are in millimetres unless stated otherwise.

This drawing is to be read in conjunction with all other relevant drawings and specifications.

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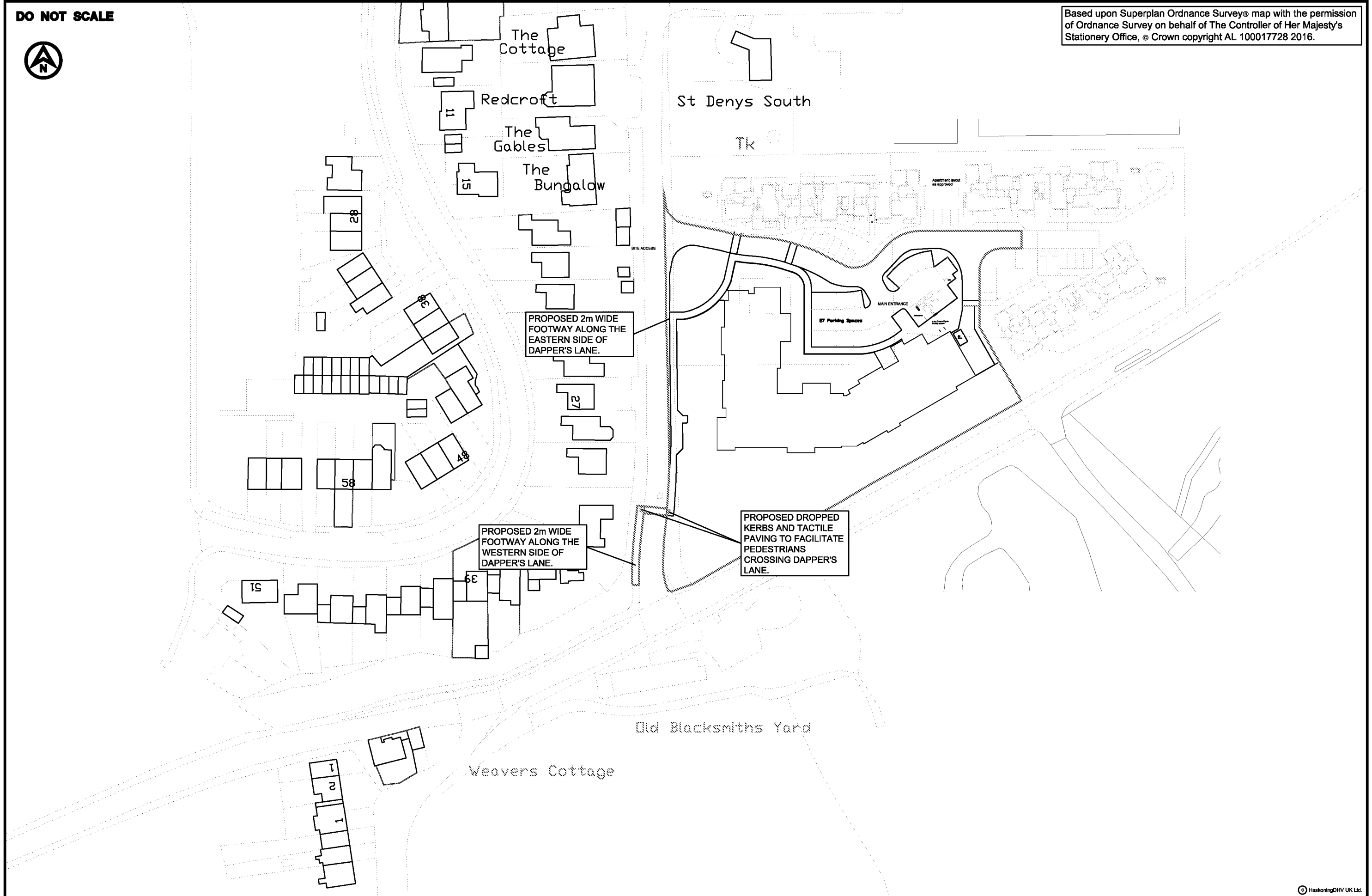
P1	03/05/2018	Preliminary Issue	APP	RSW	
Rev	Date	Description	Drawn By	Checked By	
Aske Stables, Aske, Richmond, North Yorkshire. DL10 5HG					
t: 01748 825675					
e: enquiries@harrisirwin.com					
w: www.harrisirwin.com					
Project: Proposed Care Home Dappers Lane Angmering					
Client: Frontier Estates					
Drawing Title: Proposed Boundary Plan and Utilities					
For Review and Comment					
HIA Project Number 1877		Scale W A1 1:250		Suitability S3	
Project: Originator: Volume: Level: Type: Role: Number 1877 - HIA - ZZ - XX - DR - A - 01002					

Appendix H – Proposed Pedestrian Infrastructure Improvements

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TITLE	PROJECT	</
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Appendix I – TRICS Output

TRICS 7.5.1

Trip Rate Parameter Number of residents

TRIP RATE for Land Use 05 - HEALTH/F - CARE HOME (ELDERLY RESIDENTIAL)

Calculation Factor: 1 RESIDE

Count Type: TOTAL PEOPLE

70

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use	05 - HEALTH		ARRIVALS	ARRIVALS	DEPARTURES	DEPARTURES	TOTALS	TOTALS
Category	F - CARE HOME (ELDERLY RESIDENTIAL)		Trip	Trips	Trip	Trips	Trip	Trips
MULTI-MODAL VEHICLES			Rate		Rate		Rate	
		Time Range						
		07:00-08:00	0.205	14	0.068	5	0.273	19
		08:00-09:00	0.114	8	0.045	3	0.159	11
		09:00-10:00	0.036	3	0.023	2	0.059	4
		10:00-11:00	0.105	7	0.036	3	0.141	10
		11:00-12:00	0.095	7	0.068	5	0.163	11
		12:00-13:00	0.055	4	0.068	5	0.123	9
		13:00-14:00	0.086	6	0.055	4	0.141	10
		14:00-15:00	0.068	5	0.105	7	0.173	12
		15:00-16:00	0.064	4	0.095	7	0.159	11
		16:00-17:00	0.055	4	0.105	7	0.16	11
		17:00-18:00	0.036	3	0.123	9	0.159	11
		18:00-19:00	0.059	4	0.132	9	0.191	13
		19:00-20:00	0.068	5	0.086	6	0.154	11
		20:00-21:00	0.023	2	0.095	7	0.118	8
			1.069	74.83	1.104	77.28	2.173	152.11

This section displays the number of survey days per TRICS® sub-region in the selected set

Secondary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parar Daily Trip Rate

Parameter: Number of residents

Actual Range: 38 to 76 (units:)

Range Selected: 17 to 180 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 16/10/16

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday 1 days

Sunday 3 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count 4 days

Directional ATC 0 days

This data display: the total a whilst ATC surveys are undertaking using machines.

Selected Locations:

Town Centre 0

Edge of Town Ce 0

Suburban Area (l 3

Edge of Town 1

Neighbourhood 0

Free Standing (PI 0

Not Known 0

This data display: Edge of Tc Suburban Area Neighbourhood C Edge of Tc Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone 0

Commercial Zone 0

Development Zo 0

Residential Zone 4

Retail Zone 0

Built-Up Zone 0

Village 0

Out of Town 0

High Street 0

No Sub Category 0

This data display: Industrial Development Zone Residential Zone Retail Zone Built-Up Zone

Secondary Filtering selection:

Use Class:

C2 4 days

This data display: which can be found within the Library module of TRICS®.

Village

Out of Town High Street and No Sub Category.

Population within 1 mile:

1,001 to 5,000 1 days

20,001 to 25,000 1 days

25,001 to 50,000 2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000 1 days

125,001 to 250,000 2 days

500,001 or More 1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0 2 days

1.1 to 1.5 2 days

This data display: within a radius of 5-miles of selected survey sites.

Travel Plan:

No 4 days

This data display: and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present 4 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

Site(1):	CA-05-F-01	Number of residents	48
Development Na NURSING HOME			
Location:	PETERBOR	Parking spaces:	20
Postcode:	PE1 4DX		
Main Location Ty	Suburban	/ Survey Date:	16/10/2016
Sub-Location Ty	Residentia	Survey Day:	Sunday
PTAL:	n/a		
Site(2):	LN-05-F-01	Number of residents	38
Development Na NURSING HOME			
Location:	LINCOLN	Parking spaces:	12
Postcode:	LN2 1RQ		
Main Location Ty	Suburban	/ Survey Date:	30/06/2013
Sub-Location Ty	Residentia	Survey Day:	Sunday
PTAL:	n/a		
Site(3):	NY-05-F-04	Number of residents	76
Development Na NURSING HOME			
Location:	BOROUGH	Parking spaces:	22
Postcode:	YO51 9LL		
Main Location Ty	Edge of To	/ Survey Date:	16/10/2011
Sub-Location Ty	Residentia	Survey Day:	Sunday
PTAL:	n/a		
Site(4):	WY-05-F-0	Number of residents	58
Development Na NURSING HOME			
Location:	LEEDS	Parking spaces:	25
Postcode:	LS6 2EZ		
Main Location Ty	Suburban	/ Survey Date:	15/06/2010
Sub-Location Ty	Residentia	Survey Day:	Tuesday
PTAL:	n/a		

This section prov it displays the selected trip rat the day of the we and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 05 - HEALTH/F - CARE HOME (ELDERLY RESIDENTIAL)

Calculation Factor: 1 RESIDE

Count Type: VEHICLES

75

	ARRIVALS	ARRIVALS	DEPARTURES	DEPARTURES	TOTALS	TOTALS	Parking Acc	27
Time Range	Trip Rate	Trips	Trip Rate	Trips	Trip Rate	Trips		
07:00-08:00	0.114	9	0.045	3	0.159	12	15	56%
08:00-09:00	0.064	5	0.014	1	0.078	6	19	70%
09:00-10:00	0.027	2	0.023	2	0.05	4	19	71%
10:00-11:00	0.055	4	0.023	2	0.078	6	22	80%
11:00-12:00	0.064	5	0.041	3	0.105	8	23	86%
12:00-13:00	0.032	2	0.05	4	0.082	6	22	81%
13:00-14:00	0.027	2	0.032	2	0.059	4	22	80%
14:00-15:00	0.036	3	0.045	3	0.081	6	21	78%
15:00-16:00	0.018	1	0.036	3	0.054	4	20	73%
16:00-17:00	0.041	3	0.05	4	0.091	7	19	70%
17:00-18:00	0.023	2	0.082	6	0.105	8	15	54%
18:00-19:00	0.036	3	0.077	6	0.113	8	11	42%
19:00-20:00	0.032	2	0.041	3	0.073	5	11	40%
20:00-21:00	0.014	1	0.055	4	0.069	5	8	28%
Daily Trip Rat	0.583	43.725	0.614	46.05	1.197	89.775		

TRIP RATE for Land Use 05 - HEALTH/F - CARE HOME (ELDERLY RESIDENTIAL)

Calculation Factor: 1 RESIDE

Count Type: PUBLIC TRANSPORT USERS

	ARRIVALS	DEPARTUR	TOTALS
Time Range	Trip Rate	Trip Rate	Trip Rate
07:00-08:00	0.027	0	0.027
08:00-09:00	0.014	0.014	0.028
09:00-10:00	0.005	0	0.005
10:00-11:00	0.009	0	0.009
11:00-12:00	0.009	0	0.009
12:00-13:00	0	0.005	0.005
13:00-14:00	0.009	0	0.009
14:00-15:00	0.005	0.018	0.023
15:00-16:00	0	0.005	0.005
16:00-17:00	0	0.005	0.005
17:00-18:00	0.005	0	0.005
18:00-19:00	0	0.009	0.009
19:00-20:00	0.018	0.009	0.027
20:00-21:00	0.005	0.009	0.014
Daily Trip Rat	0.106	0.074	0.18

TRIP RATE for Land Use 05 - HEALTH/F - CARE HOME (ELDERLY RESIDENTIAL)

Calculation Factor: 1 RESIDE

Count Type: PEDESTRIANS

	ARRIVALS	DEPARTUR	TOTALS
Time Range	Trip Rate	Trip Rate	Trip Rate
07:00-08:00	0.023	0.018	0.041
08:00-09:00	0.009	0.014	0.023
09:00-10:00	0.005	0	0.005
10:00-11:00	0.036	0.009	0.045
11:00-12:00	0.014	0.027	0.041
12:00-13:00	0.018	0.009	0.027
13:00-14:00	0.027	0.009	0.036
14:00-15:00	0.009	0.032	0.041
15:00-16:00	0.036	0.036	0.072
16:00-17:00	0.005	0.014	0.019
17:00-18:00	0.009	0.023	0.032
18:00-19:00	0.005	0.014	0.019
19:00-20:00	0.005	0.023	0.028
20:00-21:00	0	0.014	0.014
Daily Trip Rat	0.201	0.242	0.443

TRIP RATE for Land Use 05 - HEALTH/F - CARE HOME (ELDERLY RESIDENTIAL)

Calculation Factor: 1 RESIDE

Count Type: CYCLISTS

	ARRIVALS	DEPARTUR	TOTALS
Time Range	Trip Rate	Trip Rate	Trip Rate
07:00-08:00	0.005	0.005	0.01
08:00-09:00	0	0	0
09:00-10:00	0	0	0
10:00-11:00	0	0	0
11:00-12:00	0	0	0
12:00-13:00	0	0	0
13:00-14:00	0.005	0	0.005
14:00-15:00	0	0	0
15:00-16:00	0	0.005	0.005
16:00-17:00	0	0	0
17:00-18:00	0	0	0
18:00-19:00	0	0	0
19:00-20:00	0	0	0
20:00-21:00	0	0	0
Daily Trip Rat	0.01	0.01	0.02