



PROPOSED RESIDENTIAL
DEVELOPMENT
HART ROAD, THUNDERSLEY

TRANSPORT STATEMENT

DECEMBER 2021

PROPOSED RESIDENTIAL DEVELOPMENT HART ROAD, THUNDERSLEY

TRANSPORT STATEMENT

Legal and General

Final Issue

Project no: 21255-001

Date: December 2021

Andrew Moseley Associates

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Q U A L I T Y M A N A G E M E N T

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P R O D U C T I O N T E A M

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TABLE OF CONTENTS

1	INTRODUCTION	6
1.1	OVERVIEW	6
1.2	REPORT STRUCTURE	6
2	EXISTING CONDITIONS.....	7
2.1	SITE LOCATION	7
2.2	LOCAL HIGHWAY NETWORK	7
2.3	PERSONAL INJURY COLLISION.....	8
3	EXISTING SUSTAINABLE TRANSPORT PROVISION	9
3.1	INTRODUCTION	9
3.2	PEDESTRIAN / CYCLE ACCESS.....	9
3.3	PUBLIC TRANSPORT	10
3.4	SUMMARY	11
4	PROPOSED DEVELOPMENT	12
4.1	DEVELOPMENT PROPOSAL AND SITE LAYOUT.....	12
4.2	ACCESS AND SERVICING ARRANGEMENTS	12
4.3	PARKING.....	13
5	POTENTIAL DEVELOPMENT IMPACTS.....	14
5.1	INTRODUCTION	14
5.2	DEVELOPMENT TRAFFIC GENERATION	14
6	SUMMARY	15
	APPENDICES.....	17

T A B L E S

Table 3-1	Local Bus Services.....	10
Table 5-1	Peak Hour Trip Rates and Trip Generation.....	14

F I G U R E S

Figure 1 – Site Location Plan
Figure 2 – 2km Walking Isochrone
Figure 3 – Public Rights of Way Map
Figure 4 – 5km Cycling Isochrone
Figure 5 – Bus Stop Location Plan

A P P E N D I C E S

A p p e n d i x	A	Proposed Site Layout
A p p e n d i x	B	Site Access Arrangement & Visibility Splays
A p p e n d i x	C	Swept Path Analysis
A p p e n d i x	D	TRICS Data

1 INTRODUCTION

1.1 OVERVIEW

- 1.1.1 Andrew Moseley Associates (AMA) have been commissioned by Legal and General to produce this Transport Statement (TS) in connection with the submission of a full planning application for a residential development of 46 affordable dwellings, on land to the south of Hart Road, Thundersley. A copy of the site layout is contained in **Appendix A**.
- 1.1.2 The site currently consists of undeveloped land as well as one existing residential dwelling situated to the northern extent of the site.
- 1.1.3 The site is bound to the north by existing residential properties and Hart Road; to the east by residential dwellings accessed from Greenleas; to the south by undeveloped land and to the west by Cedar Hall School. The location of the site is shown at **Figure 1**.
- 1.1.4 Vehicular, walking and cycling access is proposed to the north of the application site via a proposed new T-junction onto Hart Road. The existing residential dwelling will be demolished to make way for the proposed access T-junction and access road. The access road will have pedestrian footways on either side of the carriageway and will connect into the existing footway provision on Hart Road and will be fully adopted.
- 1.1.5 The Local Planning Authority (LPA) is Castle Point Borough Council (CPBC) and Local Highway Authority (LHA) is Essex County Council (ECC).
- 1.1.6 The purpose of this report is to review the local highway network, the sustainable accessibility of the proposed development site and to assess the development in a local transport context.
- 1.1.7 This TS will demonstrate that the site is in an accessible location with access to sustainable transport modes in accordance with the National Planning Policy Framework (NPPF). It will also demonstrate that the traffic generated as a result of the development proposals would not be material.

1.2 REPORT STRUCTURE

- 1.2.1 The structure of the report is set out as follows;
- ▶ Section 2 – describes in detail the site location and the local highway network in the vicinity of the proposed development site;
 - ▶ Section 3 – describes existing and proposed sustainable transport infrastructure in and around the proposed development site;
 - ▶ Section 4 – sets out the development proposals including the proposed access / egress, servicing arrangements and car parking;
 - ▶ Section 5 – sets out the estimated traffic generation of the proposed development, including an assessment of the estimated impact of the development on the local highway network; and
 - ▶ Section 6 – provides a summary of this TS derived from the review and analysis set out in the above Sections.

2 EXISTING CONDITIONS

2.1 SITE LOCATION

- 2.1.1 The site currently consists of undeveloped land as well as one existing residential dwelling situated to the northern extent of the site.
- 2.1.2 The site is bound to the north by existing residential properties and Hart Road; to the east by residential dwellings accessed from Greenleas; to the south by undeveloped land and to the west by Cedar Hall School. The location of the site is shown at **Figure 1**.

2.2 LOCAL HIGHWAY NETWORK

- 2.2.1 Hart Road, from which the site would be accessed to the north, is a single carriageway two-way residential road. Hart road is subject to a 30mph speed restriction, is street lit and has 2.0m footways present along both sides of the carriageway. An advisory 20mph speed limit is in place in the vicinity of Cedar Hall School when the lights are shown at drop-off and pick-up times.
- 2.2.2 Hart Road runs in a general east / west alignment providing access to a number of smaller residential roads. To the east Hart Road provides access to the A129 Rayleigh Road and to the west Hart Road provides access to Church Road and later access to South Benfleet.
- 2.2.3 Located approximately 300m to the east of the proposed site access junction, Hart Road forms a priority dumbbell roundabout junction with the A129 Rayleigh Road and Daws Heath Road. Footways are present along both sides of each arm and uncontrolled zebra crossings are present across each arm of the junction which are equipped with dropped kerbs and tactile paving. Both the northern and southern arms to the junction, are also equipped with a central refuge island.
- 2.2.4 Forming the northern and southern arms of the junction, A129 Rayleigh Road is a single carriageway two-way road and is subject to a 30mph speed restriction. The carriageway is street-lit and has pedestrian footways on either side of the carriageway.
- 2.2.5 The A129 Rayleigh Road runs in a general north / south alignment providing access to the A127 Southend Arterial Road and later Rayleigh (c. 2.5km) in the north and to the A13 and later Hadleigh (c. 2km) in the south.
- 2.2.6 Located approximately 1.2km to the north of the site, the A129 forms a grade separated traffic signal-controlled roundabout with the A127 Southend Arterial Road. The A127 is a dual carriageway road which is subject to a 50mph speed restriction. The carriageway runs in an east-west alignment, providing vehicular travel towards Southend-on-Sea to the east and west towards London.
- 2.2.7 Situated approximately 1.8km to the south of the application site, the A129 forms a four-armed priority roundabout with the A13 and the B1014. The A13 runs in a general east / north west alignment providing access to destinations such as Southend-on-Sea (c.8km) to the east and to Basildon (c. 10km) in the west.
- 2.2.8 To the west, A13 London Road meets with Canvey Way / A130 at a five-arm roundabout junction. From here, A13 London Road becomes a dual-carriageway road and continues west, providing vehicular travel towards London.
- 2.2.9 The site is considered to be well located for access to the local and regional highway networks.

2.3 PERSONAL INJURY COLLISION

- 2.3.1 Personal Injury Collision (PIC) data for the local highway network in the vicinity of the site for the period 2016 – 2020 has been obtained from Crashmap providing the latest 5 years accident data available.
- 2.3.2 The PIC data demonstrates that three slight collisions occurred within the vicinity of the proposed development. None of the PIC's involved a pedestrian or pedal cyclist details include;
- ▶ A collision resulting in slight injury occurred approximately 50m to the west of the proposed site access on the 2nd June 2018. The collision involved a total of two vehicles, none of which were recorded as non-motorised users (NMUs);
 - ▶ A serious in severity collision occurred approximately 110m to the west of the proposed site access on the 4th March 2016. The collision involved a single vehicle and a pedal cycle; and
 - ▶ A collision resulting in slight injury occurred at the Hart Road / Woodlow priority T-junction, approximately 100m to the east of the proposed site access. The collision occurred on 8th October 2019 and involved a total of three vehicles, none of which were recorded as non-motorised users (NMUs).
- 2.3.3 Given the infrequent nature of the PIC's recorded and their severity; it is considered that there are no existing road safety issues within close proximity to the sit nor any associated with the adjacent Cedar Hall School.

3 EXISTING SUSTAINABLE TRANSPORT PROVISION

3.1 INTRODUCTION

- 3.1.1 The Government's objectives set out in the NPPF are to ensure that new developments are provided in sustainable locations, where the need to travel is minimised and the use of sustainable modes can be maximised.
- 3.1.2 The site has a good level of accessibility by sustainable modes of transport which will encourage the use of alternative modes of travel.
- 3.1.3 This section outlines the existing walking, cycling and public transport facilities within the vicinity of the development site and describes the accessibility of the site in terms of its proximity to key services and destinations.

3.2 PEDESTRIAN / CYCLE ACCESS

- 3.2.1 Walking is recognised as the most important mode of travel at a local level in that it offers the greatest potential to replace short car trips, particularly those under two kilometres. As such, consideration has been given to the existing pedestrian facilities in the vicinity of the proposed development. A plan showing the 2km walking catchment from the centre of the site is attached in **Figure 2**.
- 3.2.2 The plan attached at **Figure 2** shows that areas within the 2km catchment area includes the entirety of Thundersley and the surrounding residential areas of Hadleigh, Daws Heath and the southern extents of Rayleigh. The 2km catchment area also provides access to a range of local facilities and services including; Cedar Hall School, Thundersley Primary School, convenience stores and supermarkets, GP surgery, dentist, post office, areas of employment and areas of recreation.
- 3.2.3 Footways are present along both sides of Hart Road, with the existing pedestrian footways providing quality access to the facilities detailed above. Formal uncontrolled pedestrian crossings in the form of zebra crossings are located across the A129 Rayleigh Road providing a safe route for pedestrians to access the surrounding facilities.
- 3.2.4 A number of Public Rights of Way (PRoWs) are located within the vicinity of the application site providing a safe off-road options for pedestrians. Benfleet Footpath 5 runs in a general east / west alignment, providing an off-road path between Main Road and Dark Lane. PRoW Footpath 5 also provides access to Benfleet Footpath 39 which in turn provides an off-road route in a north / south alignment to The Chase in the south. Details of the PRoWs are provided in **Figure 3**.
- 3.2.5 Cycling has the potential to substitute for short car trips, particularly less than five kilometres. As such, those areas and facilities within a reasonable walking distance can also be considered to be within a reasonable cycling distance. The plan attached at **Figure 4** shows the 5km cycling catchment from the site. The plan identifies that the surrounding areas of; South Benfleet, Benfleet and Rayleigh are situated within a 5km catchment area of the proposed development.

3.3 PUBLIC TRANSPORT

- 3.3.1 The proposed development site is well located in terms of its proximity to public transport services, with a bus stop located approximately 200m from the site access and within 400m from the furthest point within the site.

Bus Services

- 3.3.2 A total of six bus stops are situated within a 400m walking distance of the site; two bus stops located on Hart Road to the west of the proposed site access, and a further three bus stops are located on the A129 Rayleigh Road, and a single bus stop is located on Daws Heath Road.
- 3.3.3 All of the identified bus stops are equipped within timetable information, bus poles and QR codes which provide access to live timetabling information. In addition to the timetable information, the westbound bus stop on Hart Road, northbound and southbound bus stops on Rayleigh Road and the westbound bus stop on Daws Heath Road are also equipped with a bus shelter and seating area.
- 3.3.4 All bus stops are accessed via the existing footway provision on the surrounding road network. A plan showing all bus stops located within 400m of the site is provided at Figure 5.
- 3.3.5 The Hart Road bus stops are serviced by the 1, 21, 21B buses, the Rayleigh Road bus stops are serviced by the 1, 3, 21, 21B services, and the Daws Heath Road bus stops are serviced by the 3 service. The frequencies of the buses are summarised in Table 3-1.

Table 3-1 Local Bus Services

SERVICE	ROUTE	MONDAY – FRIDAY	SATURDAY	SUNDAY
1	Shoebury - Rayleigh	Up to every 10 mins 05:55 – 23:25	Up to every 12 mins 06:55 – 23:25	Up to every 30 mins 09:17 – 23:29
3	Chelmsford – Southend-on-Sea	School Service	No Service	No Service
21	Southend – Canvey	Every 30 mins from 05:20 – 19:20	Every 30 mins from 07:00 – 18:30	Every hour from 09:00 – 19:00
21B	Southend – Canvey	Every 60 mins from 19:45 – 21:45	Every hour from 19:45 – 22:45	-

- 3.3.6 Table 3-1 sets out that the bus stop provides access to four services which provide services towards Southend, Canvey, Rayleigh and Shoebury. The services combine to provide a frequency of approximately 7 buses per hour Monday – Saturday and 3 buses per hour on Sundays.

Rail Services

- 3.3.7 The nearest railway station to the proposed residential development is Rayleigh railway station, which is situated approximately 2.9km to the north of the site. The rail station provides direct services to Southend and London.
- 3.3.8 It is considered that the railway station is highly accessible by either cycle, car or public transport and therefore presents a viable option to encourage modal interchange and commuting to and from the development site to regional destinations and those on the national rail network, particularly for employment and commuting purposes. The station provides storage facilities for up to 110 cycles and is accessible on the no. 1 bus service.

3.4 SUMMARY

- 3.4.1 A review of the existing facilities for access to the site by a range of non-car modes has been carried out. The existing pedestrian facilities within the vicinity of the site are of a high quality. The local road network within the vicinity of the site is considered conducive to cycling,
- 3.4.2 The site is therefore considered to be in a sustainable location for access by non-car modes and in line with local and national planning policy.

4 PROPOSED DEVELOPMENT

4.1 DEVELOPMENT PROPOSAL AND SITE LAYOUT

- 4.1.1 The proposed development is for 46 affordable residential dwellings with associated parking, road layout, landscaping and access arrangements. A copy of the proposed site layout is included in **Appendix A**.
- 4.1.2 A breakdown of the proposed residential dwellings includes:
- ▶ 26 x two-bedroom dwellings; and
 - ▶ 20 x three-bedroom dwellings.

4.2 ACCESS AND SERVICING ARRANGEMENTS

- 4.2.1 Vehicular, walking and cycling access is proposed to the north of the application site via simple priority T-junction with Hart Road. It is proposed that a residential dwelling (No. 244) will be demolished to cater for the new site access junction and route.
- 4.2.2 The T-junction and associated access road will be located where the existing residential dwelling is located, which will be demolished to make way for the development. The access will be fully accessible by all modes of transport and adopted to the ECC Highways standard. The access plan is detailed in **Appendix B**.
- 4.2.3 The site will provide access to 46 residential units containing a mixture of housing styles and sizes, therefore in line with the ECC residential design guide, the access road is proposed with a 5.5m road width and initial 2 x 2m footways.
- 4.2.4 The internal road network has been designed in accordance with Manual for Streets (MfS) to encourage vehicles to travel at an appropriate speed throughout the development. The proposed speed limits will be achieved through the adoption of appropriate design standards based on the primary function of the street and will include a reduction in forward visibility at junctions to achieve appropriate vehicle speeds to create environments which are attractive to pedestrians and cyclists.
- 4.2.5 Based on the residential characteristics of the High Street, it is proposed that Manual for Streets (MfS) design standards are considered appropriate. Visibility splays are therefore provided in line with the required MfS standard for a 30mph road at 2.4m x 43m. The proposed access junction layout on the High Street with associated visibility splays is provided in **Appendix B**.
- 4.2.6 It is proposed that the internal footways will be provided along both sides of the access road which will connect into the existing facilities provided along Hart Road.
- 4.2.7 The site would be serviced by an ECC standard refuse vehicle, therefore a vehicle swept path of the site is detailed in AMA Drawing No. 21255-ATR-003.1 and 21255-ATR-003.2, provided at **Appendix C**. The drawing demonstrates the vehicle can satisfactorily access and egress the site using the turning heads provided on site. It is therefore considered that the proposed service arrangements are satisfactory to accommodate the proposed vehicle with minimal conflicts with other site users.

4.3 PARKING

- 4.3.1 Parking for the dwellings is to be provided in line with the required ECC standards as detailed below:
- ▶ 2 + bedroom dwellings – 2 parking spaces; and
 - ▶ Visitor parking – 0.25 spaces per dwelling.
- 4.3.2 In accordance with the ECC design standards, the development therefore proposes a total of two parking spaces per each residential dwelling as well as 12 visitor parking spaces.
- 4.3.3 Secure cycle parking will be provided across the site. Where garages are proposed with (or within) a property this will accommodate the provision, those without garages will have secure cycle storage provided within the curtilage of the property.

5 POTENTIAL DEVELOPMENT IMPACTS

5.1 INTRODUCTION

- 5.1.1 This section sets out the methodology used to estimate the number of trips that are expected to be generated by the proposed development site and its impact on the local highway network.

5.2 DEVELOPMENT TRAFFIC GENERATION

- 5.2.1 The proposals comprise 46 affordable residential dwellings, located within an edge of town centre, predominantly residential area.
- 5.2.2 Based upon an understanding of the highway network, the weekday morning and evening peak hours are understood to be between 08:00 to 09:00 and 17:00 to 18:00. The TRICS database has been interrogated, with the TRICS output attached at **Appendix D**.
- 5.2.3 The average weekday morning and evening peak hour trip rates and the anticipated traffic generations associated with 46 dwellings are set out in **Table 5-1**:

Table 5-1 Peak Hour Trip Rates and Trip Generation

	AM PEAK		PM PEAK	
	Arrivals	Departures	Arrivals	Departures
Land Use 03 – RESIDENTIAL/B- AFFORDABLE				
Residential Trip Rates	0.153	0.244	0.249	0.185
Trip Generation	7	11	11	9

- 5.2.4 **Table 5-1** demonstrates that the development proposals are forecast to generate the following vehicular trips during the highway network peak hours:
- ▶ AM Peak – 7 arrivals and 11 departures – 18 Two-Way Trips; and
 - ▶ PM Peak - 11 arrivals and 9 departures – 20 Two-Way Trips.
- 5.2.5 This equates to approximately one additional vehicle on the local highway network every three minutes.
- 5.2.6 On this basis, the trip generation of the proposed scheme is considered to be negligible and would an imperceptible impact on the local highway network.

6 SUMMARY

- 6.1.1 Andrew Moseley Associates (AMA) have been commissioned by Legal and General to produce this Transport Statement (TS) in connection with the submission of a full planning application for a residential development of 46 affordable dwellings, on land to the south of Hart Road, Thundersley.
- 6.1.2 A review of the existing facilities for access to the site by a range of non-car modes has been carried out. The existing pedestrian facilities within the vicinity of the site are of a high quality. The local road network within the vicinity of the site is considered conducive to cycling.
- 6.1.3 Vehicular, walking and cycling access is proposed to the north of the application site via Hart Road. Footways are proposed along both sides of the proposed access and will tie in with the existing footways present on Hart Road.
- 6.1.4 The proposals will provide car and cycle parking in accordance with the local standards.
- 6.1.5 This TS has highlighted that the site is in an accessible location with access to sustainable transport modes in accordance with the National Planning Policy Framework (NPPF).
- 6.1.6 The development proposals have the potential to generate 18 and 20 two-way vehicle movements during the AM and PM peak hour periods respectively. This equates to approximately one additional vehicle on the local highway network every three minutes and is therefore considered to be imperceptible.
- 6.1.7 It is concluded that the site would not result in any severe impact on highway capacity or road safety and as such is acceptable in terms of NPPF considerations.
- 6.1.8 Therefore, there are no overriding traffic and transportation reasons why planning permission could not be granted.

FIGURES

Figure 1 – Site Location Plan

Figure 2 – 2km Walking Isochrone

Figure 3 – Public Rights of Way Map

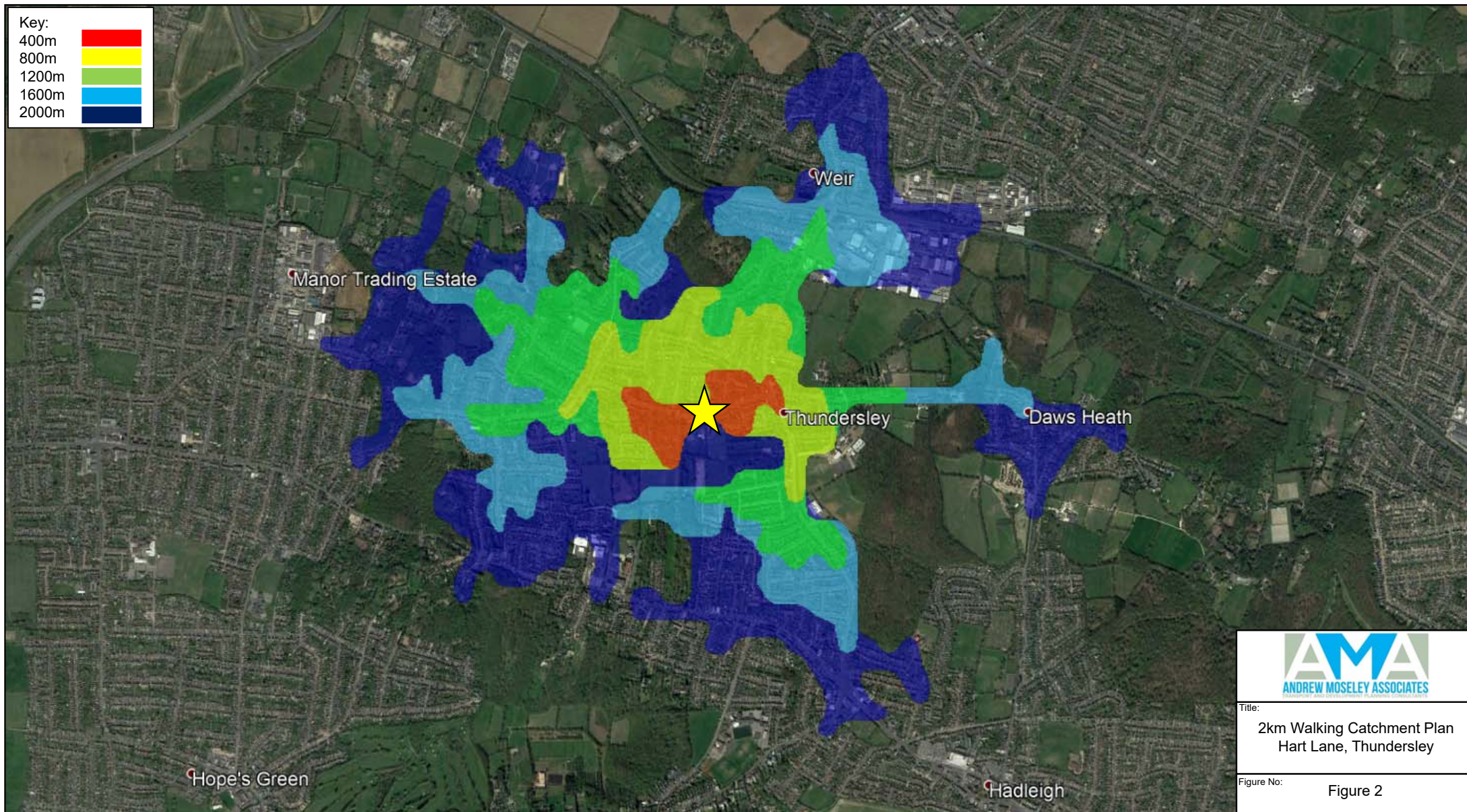
Figure 4 – 5km Cycling Isochrone

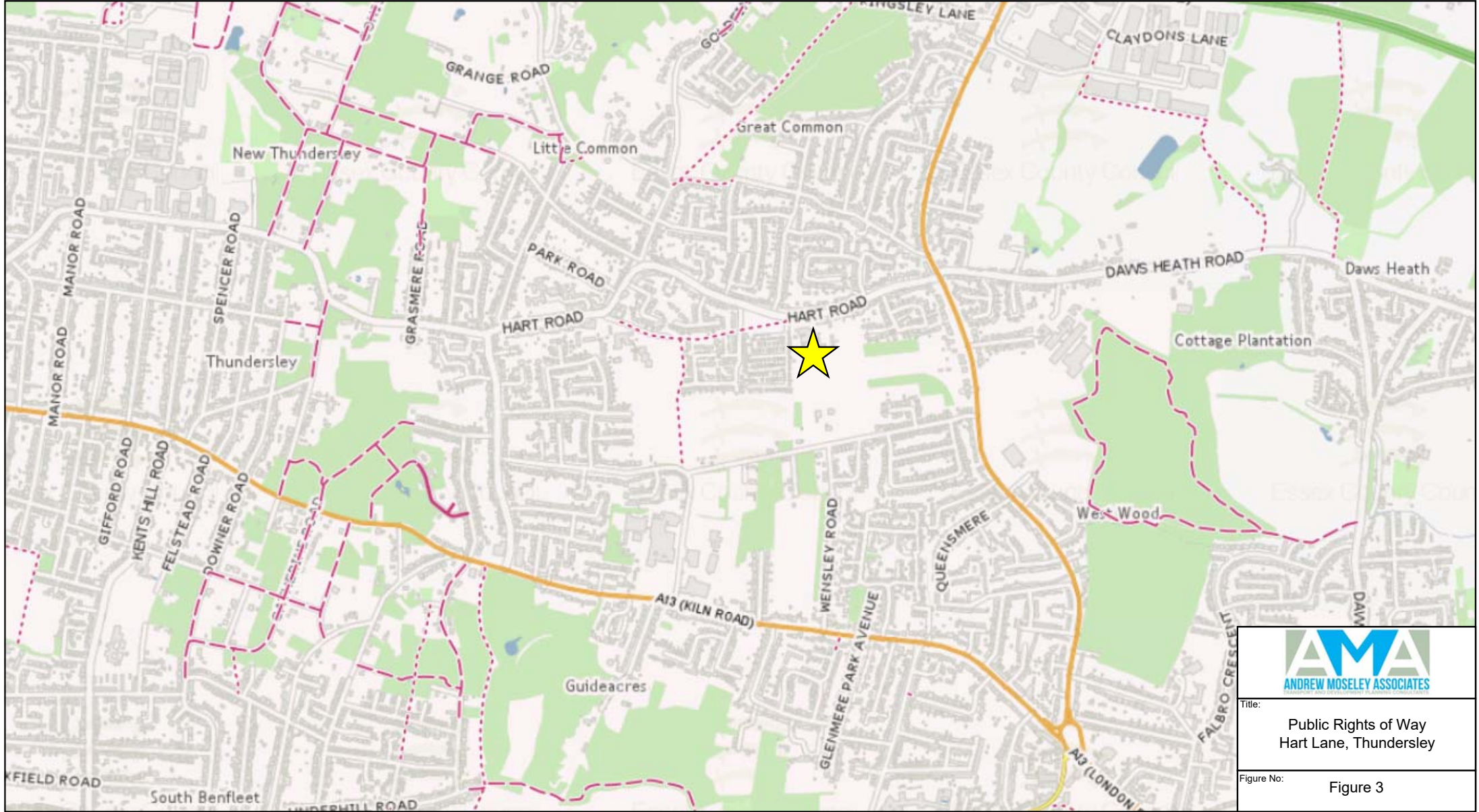
Figure 5 – Bus Stop Location Plan

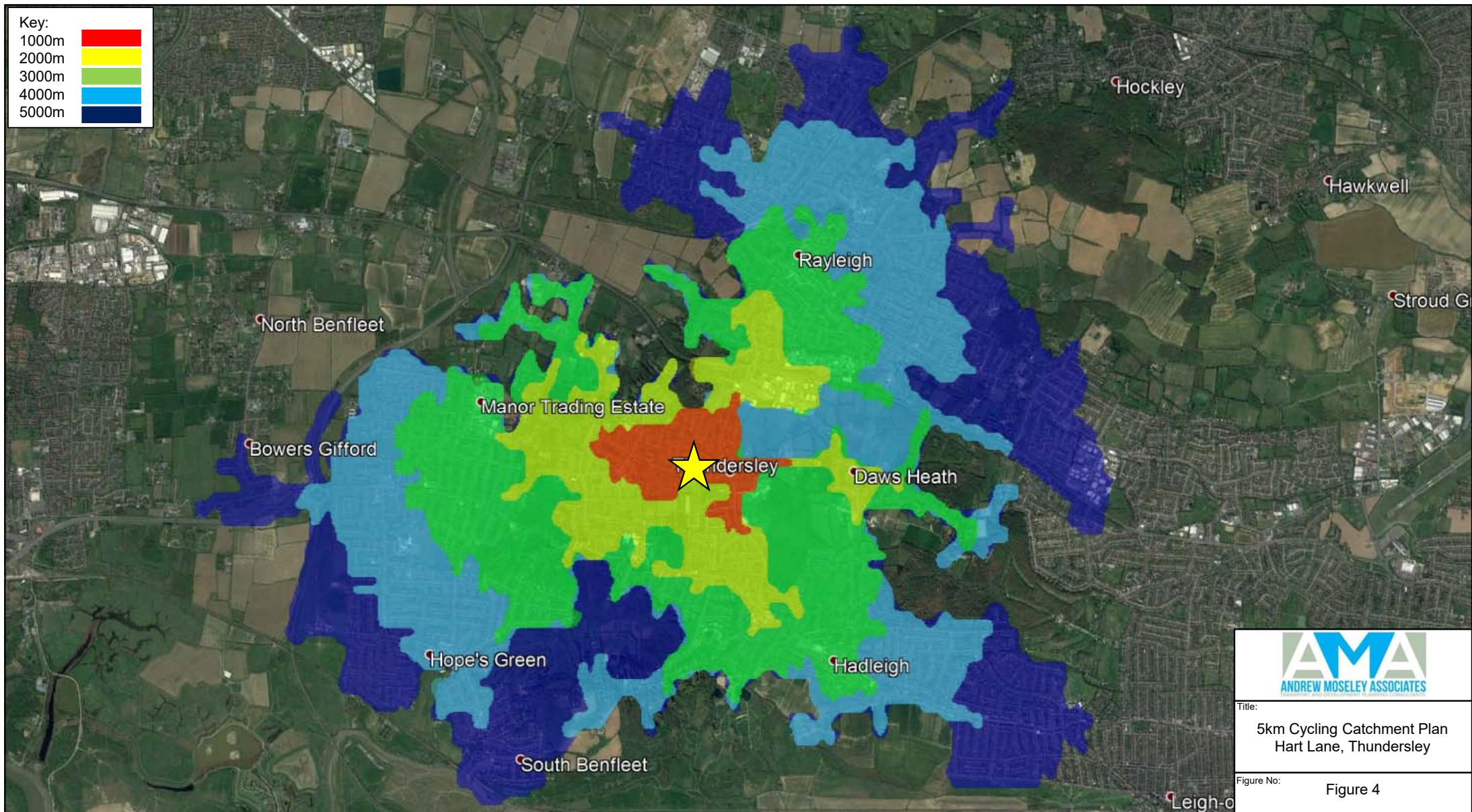


Title: Indicative Site Location Plan
Hart Lane, Thundersley

Figure No: Figure 1







APPENDICES

[Appendix A](#) [Proposed Site Layout](#)

[Appendix B](#) [Site Access Arrangement & Visibility Splays](#)

[Appendix C](#) [Swept Path Analysis](#)

[Appendix D](#) [TRICS Data](#)

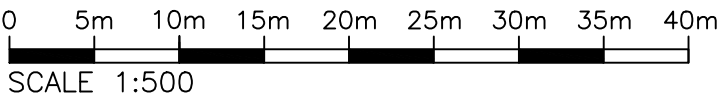
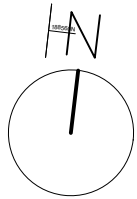
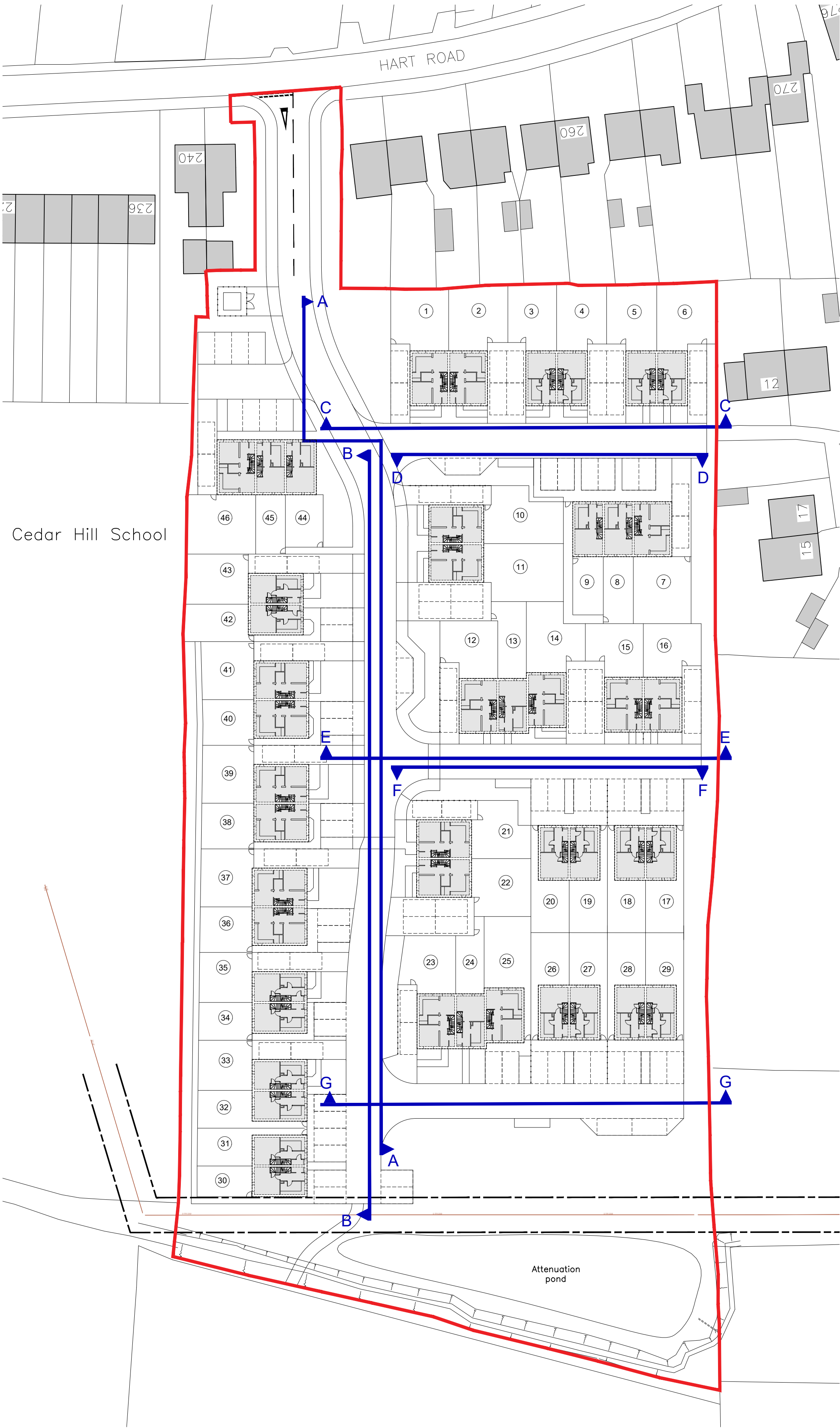
Appendix A

PROPOSED SITE LAYOUT

Hart Road, Thundersley

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Planning



Schedule of Accommodation						
Plot No.	Type	Storeys	Beds/ People	Internal m²	Area ft²	Parking Spaces
1	House	2	3b/5p	106.0	1141	2
2	House	2	3b/5p	106.0	1141	2
3	House	2	2b/4p	82.4	887	2
4	House	2	2b/4p	82.4	887	2
5	House	2	2b/4p	82.4	887	2
6	House	2	2b/4p	82.4	887	2
7	House	2	3b/5p	106.0	1141	2
8	House	2	2b/4p	82.4	887	2
9	House	2	2b/4p	82.4	887	2
10	House	2	3b/5p	106.0	1141	2
11	House	2	3b/5p	106.0	1141	2
12	House	2	3b/5p	106.0	1141	2
13	House	2	2b/4p	82.4	887	2
14	House	2	3b/5p	106.0	1141	2
15	House	2	3b/5p	106.0	1141	2
16	House	2	3b/5p	106.0	1141	2
17	House	2	2b/4p	82.4	887	2
18	House	2	2b/4p	82.4	887	2
19	House	2	2b/4p	82.4	887	2
20	House	2	2b/4p	82.4	887	2
21	House	2	3b/5p	106.0	1141	2
22	House	2	3b/5p	106.0	1141	2
23	House	2	3b/5p	106.0	1141	2
24	House	2	2b/4p	82.4	887	2
25	House	2	3b/5p	106.0	1141	2
26	House	2	2b/4p	82.4	887	2
27	House	2	2b/4p	82.4	887	2
28	House	2	2b/4p	82.4	887	2
29	House	2	2b/4p	82.4	887	2
30	House	2	2b/4p	82.4	887	2
31	House	2	2b/4p	82.4	887	2
32	House	2	2b/4p	82.4	887	2
33	House	2	2b/4p	82.4	887	2
34	House	2	2b/4p	82.4	887	2
35	House	2	2b/4p	82.4	887	2
36	House	2	3b/5p	106.0	1141	2
37	House	2	3b/5p	106.0	1141	2
38	House	2	3b/5p	106.0	1141	2
39	House	2	3b/5p	106.0	1141	2
40	House	2	3b/5p	106.0	1141	2
41	House	2	3b/5p	106.0	1141	2
42	House	2	2b/4p	82.4	887	2
43	House	2	2b/4p	82.4	887	2
44	House	2	2b/4p	82.4	887	2
45	House	2	2b/4p	82.4	887	2
46	House	2	3b/5p	106.0	1141	2
Total				4262	45880	92

Proposed Street Scenes
For Proposed Street Scenes A–G, see Ashby Design drg. 59/19/FUL/PL2001.

Proposed Block Plan



ASHBY DESIGN

13 Arm & Sword Lane
Old Hatfield - Herts - AL9 5EH
www.AshbyDesign.co.uk
01707 270 077

Project
Hart Road,
Thundersley

Title
Proposed Block Plan

Scale
1:500 @ A2

Date
December '21

Drawn
LS/CP

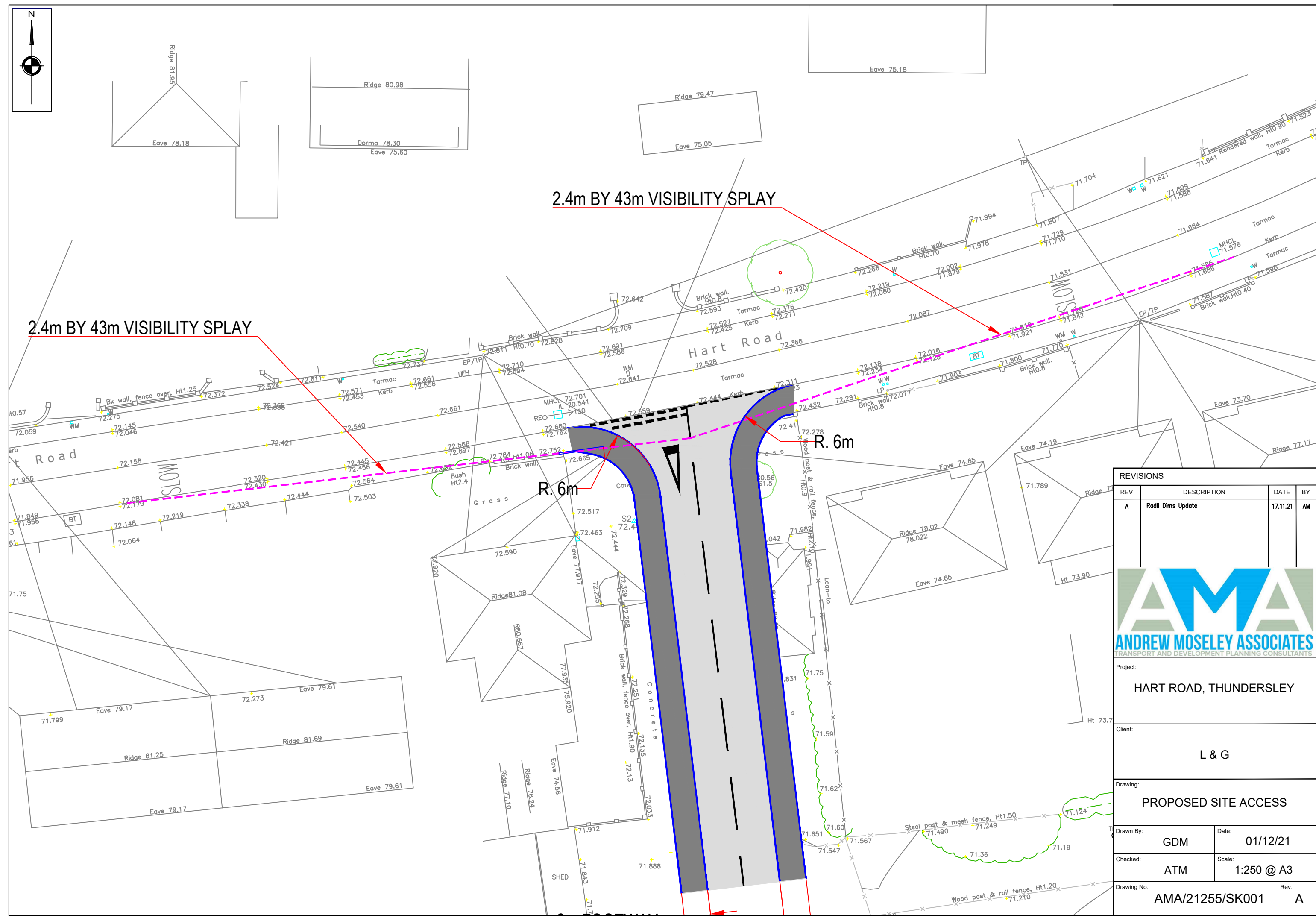
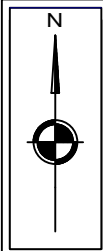
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LS

Drawing No.
519/19/FUL/PL1003


Revision
-

Appendix B

SITE ACCESS ARRANGEMENT & VISIBILITY SPLAYS



REVISIONS			
REV	DESCRIPTION	DATE	BY
A	Radii Dims Update	17.11.21	AM



ANDREW MOSELEY ASSOCIATES
TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS

Project:		HART ROAD, THUNDERSLEY	
Client:		L & G	
Drawing:		PROPOSED SITE ACCESS	
Drawn By:	GDM	Date:	01/12/21
Checked:	ATM	Scale:	1:250 @ A3
Drawing No.	AMA/21255/SK001		Rev. A

Appendix C

SWEPT PATH ANALYSIS



NOTES

Phoenix 2-25W (with Volvo FM12 chassis)
Overall Length 11.125m
Overall Width 2.530m
Overall Body Height 3.205m
Min Body Ground Clearance 0.410m
Track Width 2.500m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 9.250m

P1 Preliminary - Initial Issue

ANDREW MOSELEY ASSOCIATES
TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS

Project:

HART ROAD, THUNDERSLEY

Client:

L & G

Drawing:

SWEPT PATH ANALYSIS

Drawn By:

RID

Date:

01/12/2021

Checked:

AJA

Scale:

1:500

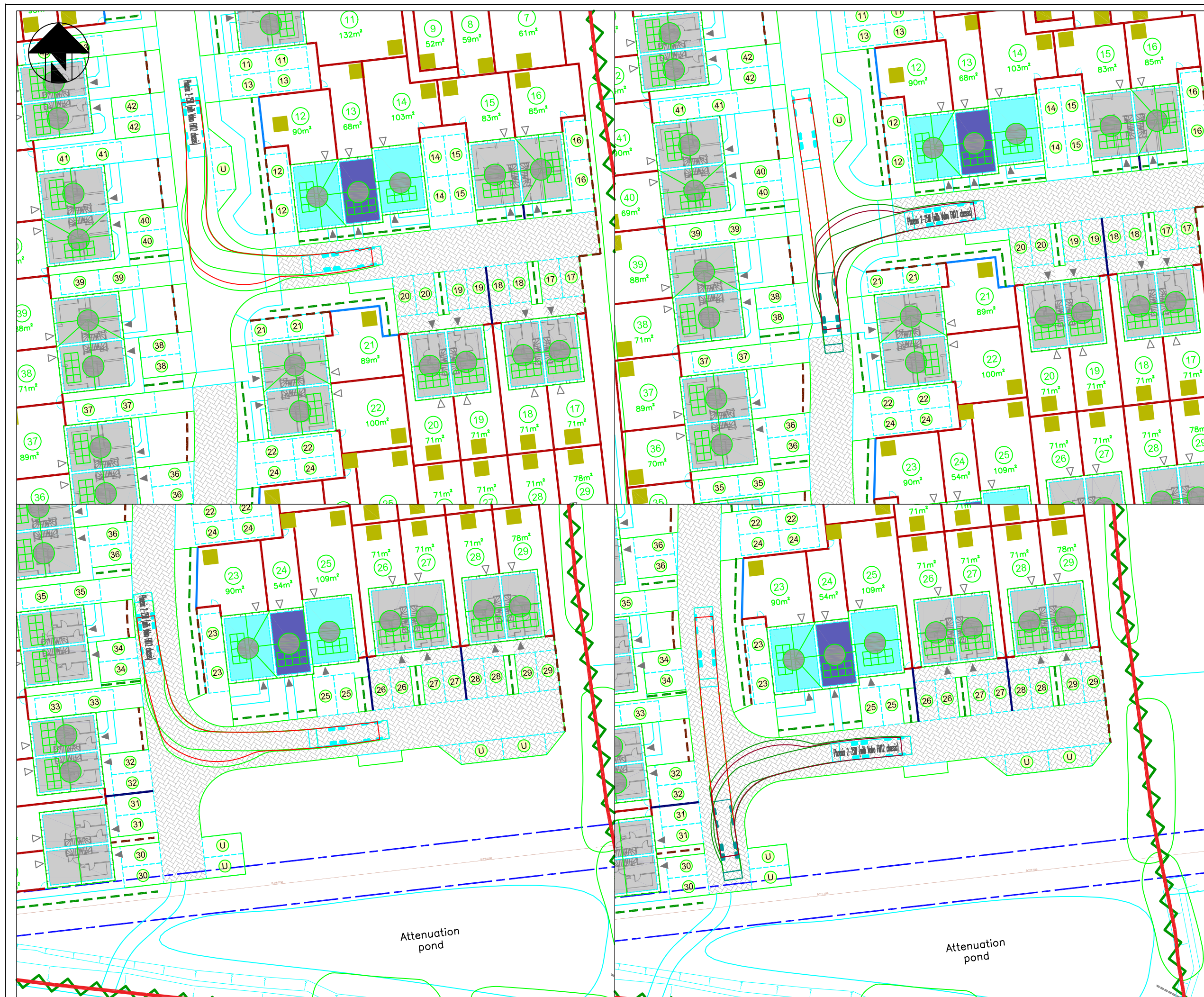
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Drawing No.

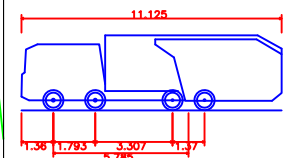
AMA/21255/ATR/003.1

Rev.

-



NOTES



Phoenix 2-25W (with Volvo FM12 chassis)
Overall Length 11.125m
Overall Width 2.530m
Overall Body Height 3.205m
Min Body Ground Clearance 0.410m
Track Width 2.500m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 9.250m

P1 Preliminary - Initial Issue



Project:
HART ROAD, THUNDERSLEY

Client:
L & G

Drawing:
SWEPT PATH ANALYSIS

Drawn By: RID	Date: 01/12/2021	
Checked: AJA	Scale: 1:500	A3
Drawing No. AMA/21255/ATR/003.2	Rev. -	

Appendix D

TRICS DATA

AMA - Leeds

Licence No: 710001

Calculation Reference: AUDIT-710001-211112-1112

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : B - AFFORDABLE/LOCAL AUTHORITY HOUSES

TOTAL VEHICLESSelected regions and areas:

03	SOUTH WEST	
	WL WILTSHIRE	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	2 days
08	NORTH WEST	
	CH CHESHIRE	1 days
	GM GREATER MANCHESTER	1 days
11	SCOTLAND	
	DU DUNDEE CITY	1 days

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

Primary Filtering 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: No of Dwellings
 Actual Range: 29 to 80 (units:)
 Range Selected by User: 20 to 80 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 18/09/18

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:

Monday	1 days
Tuesday	2 days
Wednesday	2 days
Thursday	1 days
Friday	1 days

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

Selected survey types:

Manual count	7 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:

Edge of Town Centre	1
Suburban Area (PPS6 Out of Centre)	4
Edge of Town	2

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	5
Built-Up Zone	1

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.

Secondary Filtering selection:

Use Class:

C3 7 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 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	2 days
25,001 to 50,000	3 days

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

Population within 5 miles:

25,001 to 50,000	1 days
75,001 to 100,000	3 days
125,001 to 250,000	2 days
250,001 to 500,000	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	5 days
1.1 to 1.5	2 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 7 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.

PTAL Rating:

No PTAL Present 7 days

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

LIST OF SITES relevant to selection parameters

1	CH-03-B-01	HOUSES & FLATS	CESHIRE
	WORDSWORTH CRES.		
	CHESTER		
	BLACON		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	80	
	Survey date: MONDAY	17/11/14	Survey Type: MANUAL
2	DU-03-B-01	TERRACED BUNGALOWS	DUNDEE CITY
	307-441 BALUNIE DRIVE		
	DUNDEE		
	DOUGLAS & ANGUS		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	68	
	Survey date: FRIDAY	21/04/17	Survey Type: MANUAL
3	GM-03-B-01	TERRACED HOUSES	GREATER MANCHESTER
	NEWBOLD		
	ROCHDALE		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total No of Dwellings:	43	
	Survey date: WEDNESDAY	21/10/15	Survey Type: MANUAL
4	NF-03-B-01	TERRACED HOUSES	NORFOLK
	NELSON ROAD NORTH		
	GREAT YARMOUTH		
	Edge of Town Centre		
	Residential Zone		
	Total No of Dwellings:	45	
	Survey date: WEDNESDAY	13/09/17	Survey Type: MANUAL
5	WL-03-B-01	TERRACED HOUSES	WILTSHIRE
	BUTTERFIELD DRIVE		
	AMESBURY		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	54	
	Survey date: TUESDAY	18/09/18	Survey Type: MANUAL
6	WY-03-B-02	MIXED HOUSES	WEST YORKSHIRE
	WHITEACRE STREET		
	HUDDERSFIELD		
	DEIGHTON		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	54	
	Survey date: TUESDAY	17/09/13	Survey Type: MANUAL
7	WY-03-B-03	TERRACED HOUSES	WEST YORKSHIRE
	LINCOLN GREEN ROAD		
	LEEDS		
	Suburban Area (PPS6 Out of Centre)		
	Built-Up Zone		
	Total No of Dwellings:	29	
	Survey date: THURSDAY	19/09/13	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.

AMA - Leeds

Licence No: 710001

TRIP RATE for Land Use 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	7	53	0.062	7	53	0.131	7	53	0.193
08:00 - 09:00	7	53	0.153	7	53	0.244	7	53	0.397
09:00 - 10:00	7	53	0.169	7	53	0.225	7	53	0.394
10:00 - 11:00	7	53	0.161	7	53	0.153	7	53	0.314
11:00 - 12:00	7	53	0.131	7	53	0.113	7	53	0.244
12:00 - 13:00	7	53	0.153	7	53	0.126	7	53	0.279
13:00 - 14:00	7	53	0.126	7	53	0.131	7	53	0.257
14:00 - 15:00	7	53	0.139	7	53	0.174	7	53	0.313
15:00 - 16:00	7	53	0.225	7	53	0.180	7	53	0.405
16:00 - 17:00	7	53	0.231	7	53	0.137	7	53	0.368
17:00 - 18:00	7	53	0.249	7	53	0.185	7	53	0.434
18:00 - 19:00	7	53	0.150	7	53	0.123	7	53	0.273
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.949			1.922			3.871

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.

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Parameter summary

Trip rate parameter range selected:	29 - 80 (units:)
Survey date range:	01/01/13 - 18/09/18
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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.



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