

Story Lodge, Holmes Lane, Hanbury

Worcester Diocesan Board of Finance Ltd.

Technical Note January 2024





Document Control

Job No.	23-0467	
Project Name	Story Lodge, Holmes Lane, Hanbury	
Document Title	Technical Note	
Status	Issue 01	
Client	Worcester Diocesan Board of Finance Ltd.	
	Name	Date
Prepared By	Jack Harris	January 2024
Checked By	Brendan Quinn	January 2024
Approved By	Brendan Quinn	January 2024

Record of Revisions

Revision	Date	Details	Made By

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1 Introduction

General

- 1.1 Rappor have been instructed by Worcester Diocesan Board of Finance Ltd. to prepare a Technical Note (TN) in relation to a proposed development at Story Lodge, Holmes Lane, Hanbury. Planning permission is sought for the development of a single residential dwelling.
- 1.2 The application site comprises an existing static caravan, parking area and non-permanent outbuildings. The site is located adjacent to a larger farmhouse and associated agricultural buildings with which it currently shares an access, formed as a private driveway. The application site is bounded by Holmes Lane to the east, the farm complex to the north and open agricultural land to the south and west.
- 1.3 The proposal is for the caravan to be replaced by the permanent residential dwelling with a separate private driveway onto Holmes Lane.
- 1.4 The site location in its local context is presented in **Figure 1.1**.



Figure 1.1: Site Location

- 1.5 This TN has been produced to demonstrate the potential impact of the development on the local transport network, illustrate that safe and effective access can be achieved and to support a forthcoming planning application for the proposed development.
- 1.6 The site boundary is presented at **Appendix A.**
- 1.7 Taking account of the above, the key issues that are addressed within this TN are:
 - a) Summary of relevant transport planning policy;
 - b) Review of the site location, composition, and local highway network;



- c) Analysis of local highway safety data for the most recent five-year period available; and
- d) Description of the development proposals, including access arrangements, swept path analysis and parking provision.



2 Policy Context

National Planning Policy Framework

- 2.1 National guidance on planning is set out in the revised National Planning Policy Framework (NPPF) published in July 2021 by the Ministry of Housing, Communities and Local Government. It sets out the Government's planning policies for England and how these are expected to be applied. At the heart of the NPPF is a presumption in favour of sustainable development.
- 2.2 Chapter 9 of the NPPF deals with 'Promoting sustainable transport'; Paragraph 104 of the NPPF states:

"Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:

- a) the potential impacts of development on transport networks can be addressed;
- b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised for example in relation to the scale, location or density of development that can be accommodated;
- c) opportunities to promote walking, cycling and public transport use are identified and pursued;
- d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and
- e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places."
- 2.3 Paragraph 105 goes on to state:

"Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making."

2.4 Paragraph 110 states:

"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- a) appropriate opportunities to promote sustainable transport modes can be or have been taken up, given the type of development and its location;
- b) safe and suitable access to the site can be achieved for all users;
- c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code 46; and



- d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree."
- 2.5 Paragraph 111 states that "Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe".
- 2.6 Paragraph 112 states:

"Applications for development should:

- a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second so far as possible to facilitating access to high quality public transport, with layouts that maximise the catchment areas for bus or other public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;
- b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;
- c) create places that are safe, secure, and attractive which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;
- d) allow for the efficient delivery of goods, and access by services and emergency vehicles; and
- e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations."
- 2.7 Paragraph 79 within the NPPF states that local authorities should:

"promote sustainable development in rural areas... housing should be located where it will enhance or maintain the vitality of rural communities. Planning policies should identify opportunities for villages to grow and thrive, especially where this will support local services. Where there are groups of smaller settlements, development in one village may support services in a village nearby."

2.8 The section of the NPPF goes on to state that development of isolated homes should be supported where:

"the development would re-use redundant or disused buildings and enhance its immediate setting".

- 2.9 The development aligns with following points set out below.
- 2.10 Firstly, whilst the existing static caravan is currently in use, the non-permanent nature of the structure means that, in time, there is a possibility that it becomes unused and or dilapidated. The lifespan of static caravans is significantly less than a permanent dwelling and this possibility will increase over time.
- 2.11 Secondly, the development of a new, permanent residential building will enhance the setting of the site. An improved and separate private drive onto Holmes Lane will improve access



and separate existing farm traffic from movements associated with the proposed development.

2.12 Furthermore, paragraph 111 states that:

"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe".

2.13 It is therefore clear that the NPPF is seeking to ensure that developments are not refused on highway grounds, unless there is an unacceptable highway safety impact, or a severe impact on the highway network.



3 Highway Network Review

Local Highway Network

- 3.1 The development is located to the west of Holmes Lane, in a rural location 7km to the east of Droitwich Spa and 5km south of Bromsgrove. Holmes Lane operates as a rural road, providing access to limited residential dwellings and agricultural land. It is lightly trafficked and throughout much of its length can only accommodate a single vehicle, measuring between 3.5-4m in width. Regular passing places are located along its length to permit vehicles to pass safely.
- 3.2 To the north, Holmes Lane joins Woodgate Road and Whitford Bridge Roads in the form of a priority crossroads junction. Holmes Lane forms the minor arm on the southern side of the junction. Several residential dwellings front the north and south sides of the Woodgate Road carriageway in the vicinity of the junction. Woodgate Road provides onward connections to Bromsgrove to the north and other local destinations. To the south and east, it provides a route to rural areas to the east of the site.
- 3.3 At its southern terminus, Holmes Lane connects to Hanbury Road via a priority junction arrangement. Hanbury Road connects Bromsgrove with the village of Hanbury and forms a minor distributor road for traffic using routes in the area. Via subsequent roads, Hanbury Road provides a route to Junction 5 of the M5, located approximately 4.8km to the west of the site.

Existing Traffic Characteristics

- 3.1 In order to establish the existing traffic characteristics of the road network in the vicinity of the site, speed surveys were undertaken over seven consecutive days between 19th and 25th July. Given the timescales of the survey, undertaken just before the start of the school summer holidays, only the speeds recorded during the survey will be used within this assessment. The speeds will inform the design of the access, as set out in more detail at **Section 5**.
- 3.2 Nonetheless, the flows recorded are presented below for reference, and provide an indication as to the level of traffic that would typically utilise the road.
- 3.3 A summary of the survey is presented in **Table 3.1** with full results provided at **Appendix B**.

Northbound Traffic						
Weekday Average Traffic Flow (24hr)	Seven-day Average Traffic Flow (24hr)	Average Speed	85 th Percentile			
101	86	32.4mph	41.5mph			

Table 3.1: Speed Survey Summary - Northbound Traffic



Southbound Traffic						
Weekday Average Traffic Flow	Seven-day Average Traffic Flow	Average Speed	85 th Percentile			
88	74	31.6mph	41.5mph			

Table 3.2: Speed Survey Summary – Southbound Traffic

3.4 The speeds recorded have been incorporated into the visibility assessment set out at **Section 4** of this report.

Local Highway Safety

- 3.5 Personal Injury Collision data has been obtained from Worcestershire County Council (WCC) to inform a Highway Safety Review, to determine whether there are any existing highway safety issues within the vicinity of the site. Data has been obtained for the most recent five-year period (2018-2023). This demonstrated that only one incident has been recorded in the vicinity of the development.
- 3.6 This incident occurred in February 2023 on Holmes Lane, around 400m to the north of the site. The incident occurred after one vehicle waited for a second vehicle to pass, but the oncoming vehicle collided with the waiting vehicle by misjudging the speed and space required. The incident resulted in slight injuries only. The accompanying data provided by WCC is included at **Appendix C**, with the location of the incident shown at **Figure 3.1**.
- 3.7 Given that only one incident has occurred over five years, there does not appear to be any existing highway safety concerns within the vicinity of the site which need to be considered further as part of this assessment.



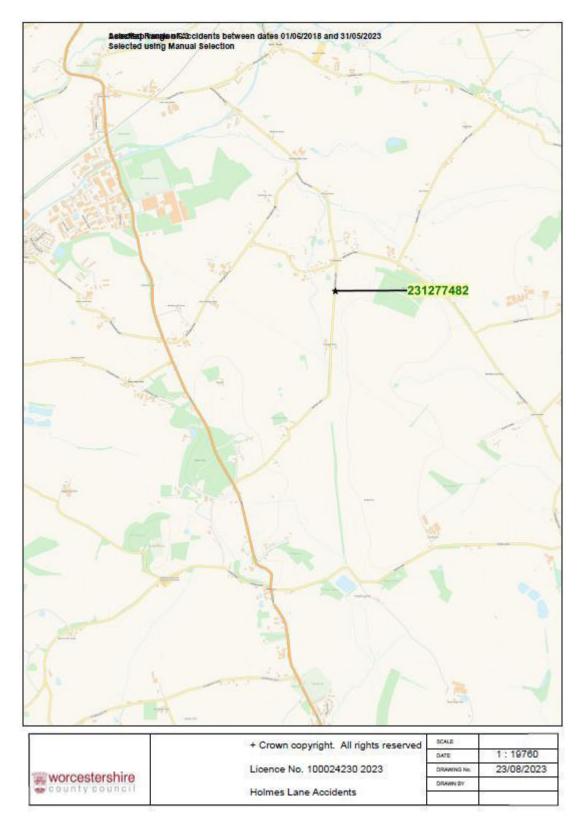


Figure 3.1: Highway Safety Review



4 Site Accessibility

Active Travel

- 4.1 The site is located in a rural setting, approximately 2km from the village of Hanbury. When considering the overall sustainability of a site, with regards to highways, it is important to consider the available travel opportunities for future residents to travel to and from the application site in order to minimise the overall level of daily vehicular trips generated.
- 4.2 However, the National Planning Policy Framework (NPPF) recognises that not all new developments can be situated in locations which can be readily accessed on foot, bicycle or by public transport. Paragraph 105 of the NPPF, also included at Section 2, paragraph 2.4 of this report, states that "opportunities to maximise sustainable transport solutions will vary from urban to rural areas, which should be taken into account in both plan-making and decision-making".
- 4.3 Given the location of the development, there are limited pedestrian facilities in immediate proximity of the site. Holmes Lane could be used by pedestrians for some journeys. Indeed, Manual for Streets at paragraph 2.2.7 page 16, identifies that "lanes in rural areas can provide other functions than just movement, including various leisure activities such as walking, cycling and horse riding".
- 4.4 A range of Public Rights of Way (PROW) are located in the vicinity of the site and several of these provide a more direct route to Hanbury village to the south. These include PROW 582, a bridleway that connects to Holmes Lane 300m to the south of the site and provides a route towards Hanbury, via PROW 602(B).
- 4.5 The PROW network in the vicinity of the site is illustrated in **Figure 4.1** below:

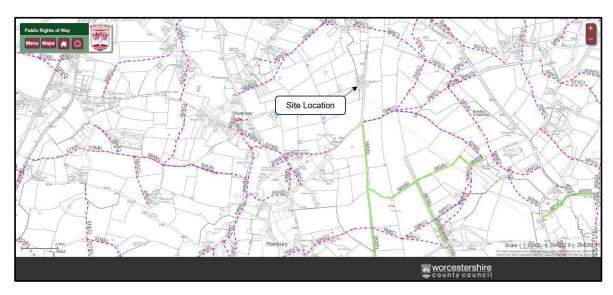


Figure 4.1: Local PROW Network

4.6 The local PROW network comprises of unsurfaced and unlit footpaths, and may not provide facilities suitable for all journeys, but the existence does provide an alternative option for future residents of the development.



Cycling

- 4.7 There are limited cycle facilities in the vicinity of the site, reflecting the rural location. However, the town of Bromsgrove is located approximately 5km to the north, providing a range of employment, retail and transport services reflecting its role as a local commercial centre. This distance the within the maximum 5km cycling distance that is generally prescribed for new development.
- 4.8 National Cycle Route 5 (NCR5) covers part of the route to Bromsgrove and utilises Copyholt Lane in the vicinity of the site, approximately 2km northeast of the site, accessible via Holmes Lane and Coalash Lane. The local highway network and the lightly trafficked characteristics suggests that it is suitable for cycle trips. This is substantiated by the heatmap at **Figure 4.2**, sourced from the online exercise platform Strava, which illustrates the level and preferred cycling routes in the local area.
- 4.9 Strava is an internet service that tracks physical exercise, predominantly cycling and running, using GPS data. The GPS data is stored in a database which allows Strava users to visually see the extent that routes and roads are used by other users in the form of heatmaps. The data is updated monthly.
- 4.10 The Strava heatmap indicates the more frequently used routes, by Strava users, on a Yellow (frequently used) to red (scarcely used) scale. **Figure 4.2** illustrates that the surrounding roads and routes, including Holmes Lane, are frequently utilised by Strava users.



Figure 4.2: Strava Heatmap

4.11 As shown, Strava users regularly cycle on Holmes Lane and on roads that connect to Bromsgrove, Hanbury and other local villages where a range of facilities are provided.

Public Transport

4.12 Given the rural location, there are limited public transport services in the immediate vicinity of the site on Holmes Lane. Despite this, Bromsgrove Railway Station is located around 3.5km to the north of the site. The station provides 350 car parking spaces, 27 cycle spaces and bus stops for onward travel in the area.



4.13 Three services per hour provide connections to Birmingham New Street as well as other locations in the West Midlands area. The station is easily accessible from the site via car or cycle and could provide a realistic option for onward commutes to Birmingham or other major destinations in the region.



5 Proposed Development

Development Proposals

- 5.1 The development proposals comprise a single residential dwelling, with an associated parking area. The dwelling will replace an existing static caravan that currently occupies the northern corner of the site.
- 5.2 The red line boundary is provided at **Appendix A**.

Proposed Access Arrangement

- 5.3 Access is proposed to be achieved via a new private driveway onto Holmes Lane from the east of the site. The driveway will be located approximately at the location of an existing gateway in the hedgerow, thereby reducing the need to unnecessarily remove additional hedgerow to accommodate the access. This arrangement will also separate the access to the proposed development from the existing farm access junction, ensuring there is no conflict with farm vehicles, or any other uses associated with the adjacent farm operation.
- 5.4 The proposed access arrangement is shown at **Appendix D**.

Visibility Assessment

- 5.5 It is considered that any new or intensified access point should be subject to a visibility assessment to determine its suitability. Holmes Lane is subject to national speed limit in the vicinity of the site access, albeit given the single carriageway and rural character, actual speeds are considerably lower.
- 5.6 To establish the actual speeds, speed surveys were undertaken, as detailed in **Section 3**, and illustrate that the 85th percentile speeds are 41.5mph for both northbound and southbound traffic.
- 5.7 Based on these speeds, appropriate visibility splays have been calculated with reference to Worcestershire Design Guide parameters. Specifically, section 3.7 'Access Visibility Splays'. This equates to emerging visibility splays of 115m in both directions.
- 5.8 Taking into consideration of the above, the achievable visibility at the site access is deemed suitable to accommodate the proposed uses of the development. Visibility analysis is contained within **Appendix D**.

Swept Path Analysis

- 5.9 It is also important to establish that appropriate vehicles can enter and access the site from the highway safely and efficiently.
- 5.10 To do so, Swept Path Analysis has been completed to demonstrate the ability of vehicles to be able to use the private drive. Both a delivery vehicle and an estate car have been assessed and the results show that both vehicles can access and egress safely. Given the site uses, there are not anticipated to be any requirement for a larger vehicle to enter the site.



- 5.11 Refuse collection will be undertaken from the highway, as is currently the case for the static caravan and adjacent farm buildings.
- 5.12 The Swept Path Analysis is provided at **Appendix E.**



6 Summary and Conclusions

Summary

- 6.1 Rappor have been instructed by Worcester Diocesan Board of Finance Ltd. to prepare a Technical Note in support of a proposed residential development at Story Lodge, Holmes Lane, Hanbury.
- 6.2 The Technical Note has demonstrated the following:
 - A review of the local highway network and collision data in the vicinity of the site indicates that there are no inherent problems in relation to the current operation or safety of the local highways;
 - b) The site is located in a rural location, but a range of facilities are available within cycle distance of the site, whilst rail stations are accessible by bicycle provide frequent connections to a range of local and regional destinations;
 - c) The proposals comprise of a single residential dwelling, replacing an existing static caravan in the northern part of the site;
 - d) Access is proposed to be achieved via a new private driveway from the east of the site onto Holmes Lane, and
 - e) The proposed access arrangements are suitable to accommodate vehicles associated with the site and have been designed with reference to traffic speeds recorded on the Holmes Lane.

Conclusions

6.3 Rappor conclude that the proposed development at the site will not have an unacceptable impact upon the safety or a severe impact upon operation of the surrounding local highway network, in relation to paragraph 111 of the NPPF, and as such, there are no significant highways and transportation matters that would preclude the Local Highway Authority from recommending 'no objection' to this planning application.



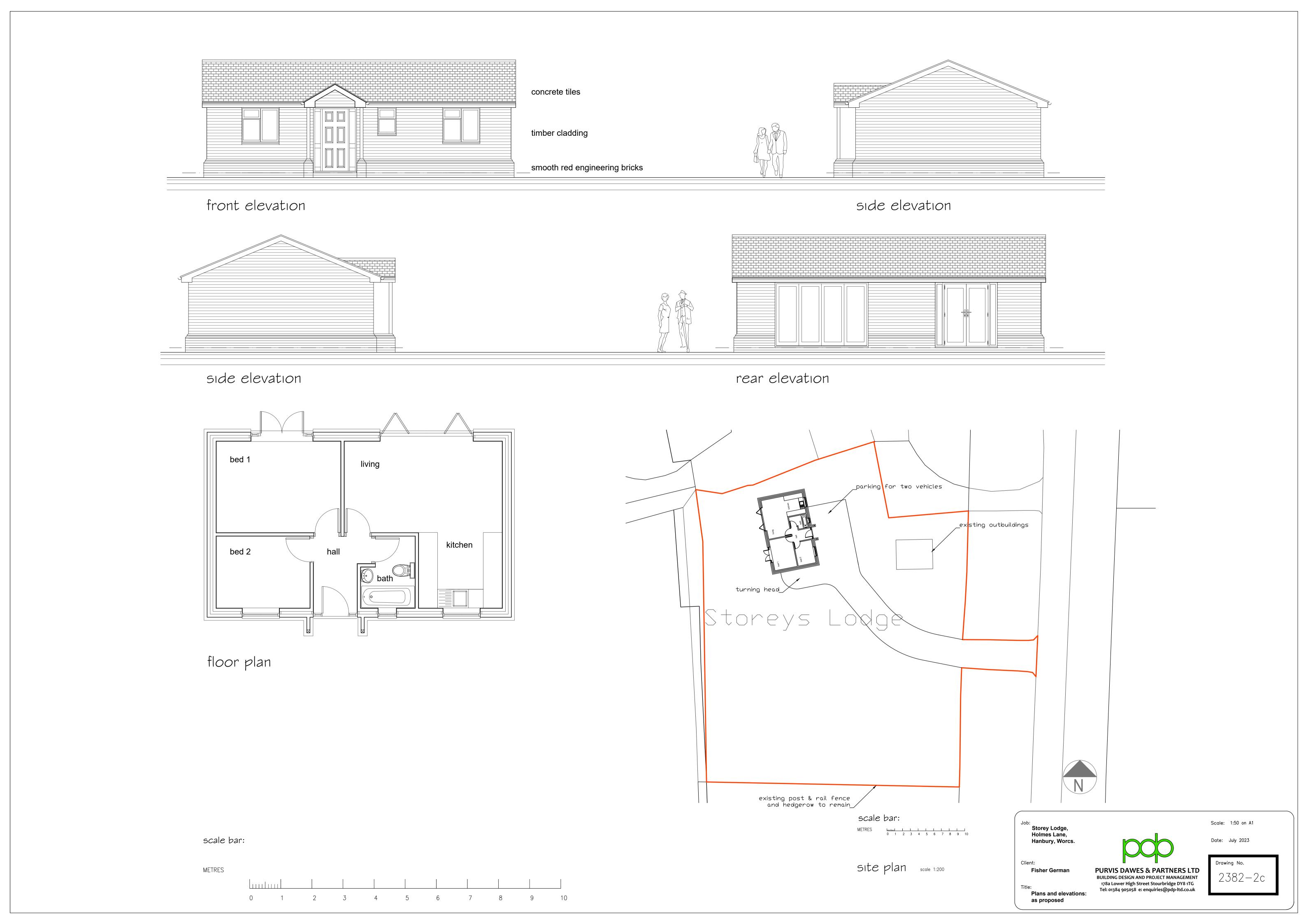
Appendix A – Site Boundary



SCALE	DATE	Media	Drawing number
1:500	June 2023	A4	2382-5

DESCRIPTION

Storeys Lodge, Holmes Lane B60 4HQ PROPOSED SITE PLAN





Appendix B – Traffic Survey Data

Direction: Northbound Direction: Total Flow



Hour Beginning	Wed 19/07/2023	Thu 20/07/2023	Fri 21/07/2023	Sat 22/07/2023	Sun 23/07/2023	Mon 24/07/2023	Tue 25/07/2023	5-Day Ave.	7-Day Ave.
00:00	0	0	0	1	0	0	1	0	0
01:00	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0
05:00	0	0	1	0	0	0	0	0	0
06:00	2	2	1	0	1	0	0	1	1
07:00	6	5	6	0	0	7	6	6	4
08:00	11	11	17	2	1	4	8	10	8
09:00	2	7	6	9	1	5	1	4	4
10:00	5	6	11	5	3	2	3	5	5
11:00	6	12	5	4	4	5	4	6	6
12:00	3	3	7	8	6	3	9	5	6
13:00	3	9	7	4	2	3	5	5	5
14:00	8	8	7	3	4	7	4	7	6
15:00	15	20	23	4	5	6	10	15	12
16:00	10	7	11	2	3	4	11	9	7
17:00	12	16	6	3	1	5	9	10	7
18:00	4	8	4	0	6	5	4	5	4
19:00	2	6	3	4	2	3	5	4	4
20:00	6	4	4	0	2	1	5	4	3
21:00	1	5	2	0	0	1	4	3	2
22:00	2	1	2	2	1	0	2	1	1
23:00	1	0	2	0	0	0	1	1	1
Total									
12H(7-19)	85	112	110	44	36	56	74	87	74
16H(6-22)	96	129	120	48	41	61	88	99	83
18H(6-24)	99	130	124	50	42	61	91	101	85
24H(0-24)	99	130	125	51	42	61	92	101	86
AM Peak	08:00	11:00	08:00	09:00	11:00	07:00	08:00	08:00	08:00
	11	12	17	9	4	7	8	10	8
PM Peak	15:00	15:00	15:00	12:00	12:00	14:00	16:00	15:00	15:00
	15	20	23	8	6	7	11	15	12

Hour Beginning	Wed 19/07/2023	Thu 20/07/2023	Fri 21/07/2023	Sat 22/07/2023	Sun 23/07/2023	Mon 24/07/2023	Tue 25/07/2023	5-Day Ave.	7-Day Ave.
00:00	0	0	0	0	1	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0
02:00	0	0	0	3	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0
05:00	1	0	0	0	0	0	0	0	0
06:00	1	0	0	0	0	0	0	0	0
07:00	6	4	7	1	0	2	1	4	3
08:00	7	14	23	5	1	5	2	10	8
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19:00	9	1	5	1	2	2	5	4	4
20:00	2	3	1	1	1	3	6	3	2
21:00	0	5	3	1	0	0	1	2	1
22:00	5	1	2	0	1	0	6	3	2
23:00	0	1	1	0	0	0	0	0	0
Total									
12H(7-19)	80	90	95	32	32	52	60	75	63
16H(6-22)	92	99	104	35	35	57	72	85	71
18H(6-24)	97	101	107	35	36	57	78	88	73
24H(0-24)	98	101	107	38	37	57	78	88	74
AM Peak	08:00	08:00	08:00	08:00	11:00	08:00	10:00	08:00	08:00
	7	14	23	5	6	5	6	10	8
PM Peak	17:00	12:00	14:00	18:00	15:00	14:00	17:00	17:00	17:00
	16	12	12	5	5	9	15	9	7

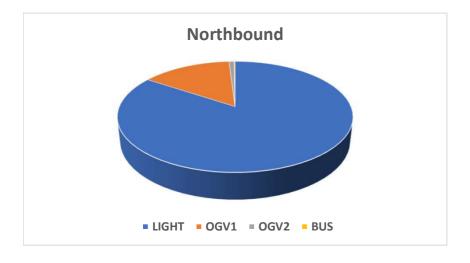
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Direction: Northbound

	Total Volume	LIGHT	OGV1	OGV2	BUS
Wed 19 Jul 2023	99	82	15	2	0
Thu 20 Jul 2023	130	107	21	1	1
Fri 21 Jul 2023	125	110	15	0	0
Sat 22 Jul 2023	51	44	7	0	0
Sun 23 Jul 2023	42	37	5	0	0
Mon 24 Jul 2023	61	47	13	1	0
Tue 25 Jul 2023	92	79	12	1	0
5 Day Ave.	101	85	15	1	0
7 Day Ave.	86	72	13	1	0

	Total				
	Volume	LIGHT	OGV1	OGV2	BUS
Wed 19 Jul 2023	100.0%	82.8%	15.2%	2.0%	0.0%
Thu 20 Jul 2023	100.0%	82.3%	16.2%	0.8%	0.8%
Fri 21 Jul 2023	100.0%	88.0%	12.0%	0.0%	0.0%
Sat 22 Jul 2023	100.0%	86.3%	13.7%	0.0%	0.0%
Sun 23 Jul 2023	100.0%	88.1%	11.9%	0.0%	0.0%
Mon 24 Jul 2023	100.0%	77.0%	21.3%	1.6%	0.0%
Tue 25 Jul 2023	100.0%	85.9%	13.0%	1.1%	0.0%
5 Day Ave.	100.0%	83.8%	15.0%	1.0%	0.2%
7 Day Ave.	100.0%	84.3%	14.7%	0.8%	0.2%

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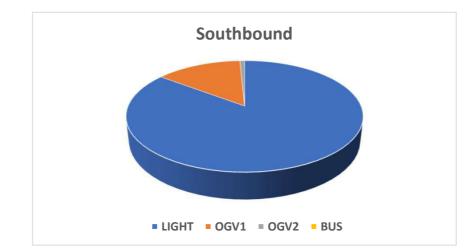


Direction: Southbound

	Total Volume	LIGHT	OGV1	OGV2	BUS
Wed 19 Jul 2023	98	87	9	2	0
Thu 20 Jul 2023	101	83	17	1	0
Fri 21 Jul 2023	107	91	16	0	0
Sat 22 Jul 2023	38	32	6	0	0
Sun 23 Jul 2023	37	35	2	0	0
Mon 24 Jul 2023	57	46	10	1	0
Tue 25 Jul 2023	78	66	12	0	0
5 Day Ave.	88	75	13	1	0
7 Day Ave.	74	63	10	1	0

	Total				
-	Volume	LIGHT	OGV1	OGV2	BUS
Wed 19 Jul 2023	100.0%	88.8%	9.2%	2.0%	0.0%
Thu 20 Jul 2023	100.0%	82.2%	16.8%	1.0%	0.0%
Fri 21 Jul 2023	100.0%	85.0%	15.0%	0.0%	0.0%
Sat 22 Jul 2023	100.0%	84.2%	15.8%	0.0%	0.0%
Sun 23 Jul 2023	100.0%	94.6%	5.4%	0.0%	0.0%
Mon 24 Jul 2023	100.0%	80.7%	17.5%	1.8%	0.0%
Tue 25 Jul 2023	100.0%	84.6%	15.4%	0.0%	0.0%
5 Day Ave.	100.0%	84.6%	14.5%	0.9%	0.0%
7 Day Ave.	100.0%	85.3%	14.0%	0.8%	0.0%

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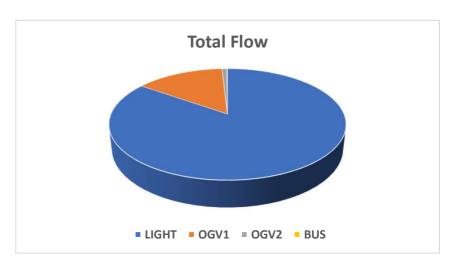


Direction: Total Flow

	Total Volume	LIGHT	OGV1	OGV2	BUS
Wed 19 Jul 2023	197	169	24	4	0
Thu 20 Jul 2023	231	190	38	2	1
Fri 21 Jul 2023	232	201	31	0	0
Sat 22 Jul 2023	89	76	13	0	0
Sun 23 Jul 2023	79	72	7	0	0
Mon 24 Jul 2023	118	93	23	2	0
Tue 25 Jul 2023	170	145	24	1	0
5 Day Ave.	190	160	28	2	0
7 Day Ave.	159	135	23	1	0

	Total				
	Volume	LIGHT	OGV1	OGV2	BUS
Wed 19 Jul 2023	100.0%	85.8%	12.2%	2.0%	0.0%
Thu 20 Jul 2023	100.0%	82.3%	16.5%	0.9%	0.4%
Fri 21 Jul 2023	100.0%	86.6%	13.4%	0.0%	0.0%
Sat 22 Jul 2023	100.0%	85.4%	14.6%	0.0%	0.0%
Sun 23 Jul 2023	100.0%	91.1%	8.9%	0.0%	0.0%
Mon 24 Jul 2023	100.0%	78.8%	19.5%	1.7%	0.0%
Tue 25 Jul 2023	100.0%	85.3%	14.1%	0.6%	0.0%
5 Day Ave.	100.0%	84.2%	14.8%	0.9%	0.1%
7 Day Ave.	100.0%	84.8%	14.3%	0.8%	0.1%

Paul Castle Associates



Direction: Northbound

		Total	85th	Mean	Standard	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
		Volume	Percentile	Average	Deviation	<10mph	10<15	15<20	20<25	25<30	30<35	35<40	40<45	45<50	50<55	55<60	>=60
V	Ved 19 Jul 2023	99	40.9	32.3	8.3	0	1	9	7	18	29	17	11	7	0	0	0
7	Thu 20 Jul 2023	130	40.1	31.9	7.9	0	0	13	9	27	41	19	16	4	0	1	0
	Fri 21 Jul 2023	125	44.0	35.0	8.6	1	2	3	5	18	33	32	22	4	2	2	1
	Sat 22 Jul 2023	51	42.7	35.0	7.5	0	0	2	1	7	20	9	7	3	2	0	0
	Sun 23 Jul 2023	42	38.3	30.4	7.7	0	0	5	6	9	8	10	4	0	0	0	0
N	/lon 24 Jul 2023	61	40.8	31.1	9.4	0	1	7	9	7	21	7	5	3	0	0	1
7	Tue 25 Jul 2023	92	41.7	31.6	9.7	2	3	8	6	17	22	18	11	3	0	2	0
	5 Day Ave.	101	41.5	32.4	8.8	1	1	8	7	17	29	19	13	4	0	1	0
	7 Day Ave.	86	41.2	32.5	8.4	0	1	7	6	15	25	16	11	3	1	1	0

Paul Castle Associates

Direction: Southbound

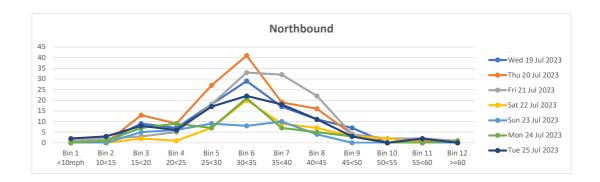
	Total	85th	Mean	Standard	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
	Volume	Percentile	Average	Deviation	<10mph	10<15	15<20	20<25	25<30	30<35	35<40	40<45	45<50	50<55	55<60	>=60
Wed 19 Jul 2023	98	40.1	30.2	9.6	0	2	16	14	18	15	16	12	4	0	1	0
Thu 20 Jul 2023	101	39.2	29.3	9.5	1	7	11	11	23	23	11	8	5	1	0	0
Fri 21 Jul 2023	107	42.8	33.8	8.7	0	5	5	4	16	23	29	18	6	1	0	0
Sat 22 Jul 2023	38	40.0	32.9	6.8	0	0	2	2	5	18	6	4	0	1	0	0
Sun 23 Jul 2023	37	39.3	29.0	9.9	0	4	6	1	7	8	6	4	1	0	0	0
Mon 24 Jul 2023	57	43.6	32.9	10.3	1	2	4	5	7	14	10	8	3	3	0	0
Tue 25 Jul 2023	78	41.8	32.0	9.5	1	3	7	2	17	20	13	9	4	2	0	0
5 Day Ave.	88	41.5	31.6	9.5	1	4	9	7	16	19	16	11	4	1	0	0
7 Day Ave.	74	41.0	31.4	9.2	0	3	7	6	13	17	13	9	3	1	0	0

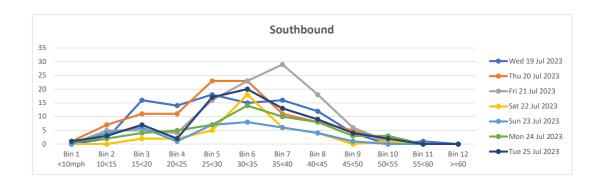
Paul Castle Associates

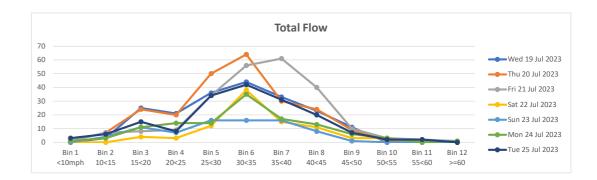
Direction: Total Flow

	Total	85th	Mean	Standard	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
	Volume	Percentile	Average	Deviation	<10mph	10<15	15<20	20<25	25<30	30<35	35<40	40<45	45<50	50<55	55<60	>=60
Wed 19 Jul 2023	197	40.6	31.3	9.0	0	3	25	21	36	44	33	23	11	0	1	0
Thu 20 Jul 2023	231	39.8	30.7	8.7	1	7	24	20	50	64	30	24	9	1	1	0
Fri 21 Jul 2023	232	43.4	34.5	8.7	1	7	8	9	34	56	61	40	10	3	2	1
Sat 22 Jul 2023	89	41.6	34.1	7.3	0	0	4	3	12	38	15	11	3	3	0	0
Sun 23 Jul 2023	79	38.8	29.7	8.8	0	4	11	7	16	16	16	8	1	0	0	0
Mon 24 Jul 2023	118	42.2	32.0	9.8	1	3	11	14	14	35	17	13	6	3	0	1
Tue 25 Jul 2023	170	41.7	31.8	9.6	3	6	15	8	34	42	31	20	7	2	2	0
5 Day Ave.	190	41.5	32.1	9.2	1	5	17	14	34	48	34	24	9	2	1	0
7 Day Ave.	159	41.2	32.0	8.8	1	4	14	12	28	42	29	20	7	2	1	0

Paul Castle Associates







Direction: Northbound

	Total	85th	Mean	Standard	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
	Volume	Percentile	Average	Deviation	<10mph	10<15	15<20	20<25	25<30	30<35	35<40	40<45	45<50	50<55	55<60	>=60
Wed 19 Jul 2023	11	41.6	28.9	12.3	0	1	2	2	2	1	0	1	2	0	0	0
Thu 20 Jul 2023	18	39.2	31.1	7.8	0	0	2	2	3	6	2	3	0	0	0	0
Fri 21 Jul 2023	16	39.6	30.9	8.3	0	1	1	1	3	5	3	2	0	0	0	0
Sat 22 Jul 2023	9	42.7	35.3	7.1	0	0	0	0	1	5	2	0	0	1	0	0
Sun 23 Jul 2023	7	32.2	23.9	8.0	0	0	3	2	0	1	1	0	0	0	0	0
Mon 24 Jul 2023	7	41.7	31.1	10.3	0	0	1	2	0	1	1	2	0	0	0	0
Tue 25 Jul 2023	7	40.8	29.6	10.7	0	0	2	0	2	1	1	0	1	0	0	0
5 Day Ave.	12	40.6	30.3	9.9	0	0	2	1	2	3	1	2	1	0	0	0
7 Day Ave.	11	39.7	30.1	9.2	0	0	2	1	2	3	1	1	0	0	0	0

Paul Castle Associates

Direction: Southbound

	Total	85th	Mean	Standard	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
	Volume	Percentile	Average	Deviation	<10mph	10<15	15<20	20<25	25<30	30<35	35<40	40<45	45<50	50<55	55<60	>=60
Wed 19 Jul 2023	7	22.4	19.6	2.7	0	0	4	3	0	0	0	0	0	0	0	0
Thu 20 Jul 2023	18	36.5	25.3	10.8	1	2	4	2	3	3	1	1	1	0	0	0
Fri 21 Jul 2023	16	43.7	33.8	9.6	0	2	0	0	2	2	6	4	0	0	0	0
Sat 22 Jul 2023	4	50.2	38.8	11.1	0	0	0	0	1	1	0	1	0	1	0	0
Sun 23 Jul 2023	9	39.3	26.4	12.4	0	3	0	1	1	2	1	0	1	0	0	0
Mon 24 Jul 2023	5	30.4	24.5	5.7	0	0	1	2	1	1	0	0	0	0	0	0
Tue 25 Jul 2023	12	44.3	33.3	10.6	0	1	1	0	2	2	2	3	1	0	0	0
5 Day Ave.	12	35.5	27.3	7.9	0	1	2	1	2	2	2	2	0	0	0	0
7 Day Ave.	10	38.1	28.8	9.0	0	1	1	1	1	2	1	1	0	0	0	0

Paul Castle Associates

Direction: Total Flow

	Total	85th	Mean	Standard	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
	Volume	Percentile	Average	Deviation	<10mph	10<15	15<20	20<25	25<30	30<35	35<40	40<45	45<50	50<55	55<60	>=60
Wed 19 Jul 2023	18	36.3	25.3	10.6	0	1	6	5	2	1	0	1	2	0	0	0
Thu 20 Jul 2023	36	38.3	28.2	9.8	1	2	6	4	6	9	3	4	1	0	0	0
Fri 21 Jul 2023	32	41.6	32.3	8.9	0	3	1	1	5	7	9	6	0	0	0	0
Sat 22 Jul 2023	13	44.8	36.3	8.2	0	0	0	0	2	6	2	1	0	2	0	0
Sun 23 Jul 2023	16	36.2	25.3	10.5	0	3	3	3	1	3	2	0	1	0	0	0
Mon 24 Jul 2023	12	37.7	28.3	9.0	0	0	2	4	1	2	1	2	0	0	0	0
Tue 25 Jul 2023	19	42.9	32.0	10.5	0	1	3	0	4	3	3	3	2	0	0	0
5 Day Ave.	23	39.3	29.2	9.8	0	1	4	3	4	4	3	3	1	0	0	0
7 Day Ave.	21	39.7	29.7	9.6	0	1	3	2	3	4	3	2	1	0	0	0

Paul Castle Associates

Direction: Northbound

	Total	85th	Mean	Standard	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
	Volume	Percentile	Average	Deviation	<10mph	10<15	15<20	20<25	25<30	30<35	35<40	40<45	45<50	50<55	55<60	>=60
Wed 19 Jul 2023	23	37.3	31.0	6.1	0	0	2	1	5	10	4	1	0	0	0	0
Thu 20 Jul 2023	28	37.8	30.9	6.7	0	0	2	3	6	11	3	3	0	0	0	0
Fri 21 Jul 2023	30	44.4	36.2	8.0	0	1	1	1	1	7	7	11	1	0	0	0
Sat 22 Jul 2023	7	38.2	30.4	7.6	0	0	1	0	2	3	0	1	0	0	0	0
Sun 23 Jul 2023	9	39.8	30.8	8.7	0	0	1	2	1	1	3	1	0	0	0	0
Mon 24 Jul 2023	13	43.7	32.7	10.6	0	0	0	2	3	6	1	0	0	0	0	1
Tue 25 Jul 2023	14	40.6	30.4	9.9	1	1	0	0	2	7	2	0	1	0	0	0
5 Day Ave.	22	40.8	32.2	8.3	0	0	1	1	3	8	3	3	0	0	0	0
7 Day Ave.	18	40.3	31.8	8.2	0	0	1	1	3	6	3	2	0	0	0	0

Paul Castle Associates

Direction: Southbound

	Total	85th	Mean	Standard	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
	Volume	Percentile	Average	Deviation	<10mph	10<15	15<20	20<25	25<30	30<35	35<40	40<45	45<50	50<55	55<60	>=60
Wed 19 Jul 2023	20	37.4	29.3	7.8	0	0	4	0	8	3	3	2	0	0	0	0
Thu 20 Jul 2023	16	39.9	31.9	7.7	0	0	1	1	5	5	1	2	1	0	0	0
Fri 21 Jul 2023	22	46.7	37.5	8.9	0	1	0	1	1	4	5	7	2	1	0	0
Sat 22 Jul 2023	5	40.4	34.5	5.7	0	0	0	0	1	2	1	1	0	0	0	0
Sun 23 Jul 2023	7	45.4	33.9	11.1	0	1	0	0	1	1	1	3	0	0	0	0
Mon 24 Jul 2023	17	47.9	35.1	12.3	0	1	2	0	2	3	4	1	1	3	0	0
Tue 25 Jul 2023	10	38.2	29.0	8.8	0	1	1	0	3	3	1	1	0	0	0	0
5 Day Ave.	17	42.0	32.6	9.1	0	1	2	0	4	4	3	3	1	1	0	0
7 Day Ave.	14	42.2	33.0	8.9	0	1	1	0	3	3	2	2	1	1	0	0

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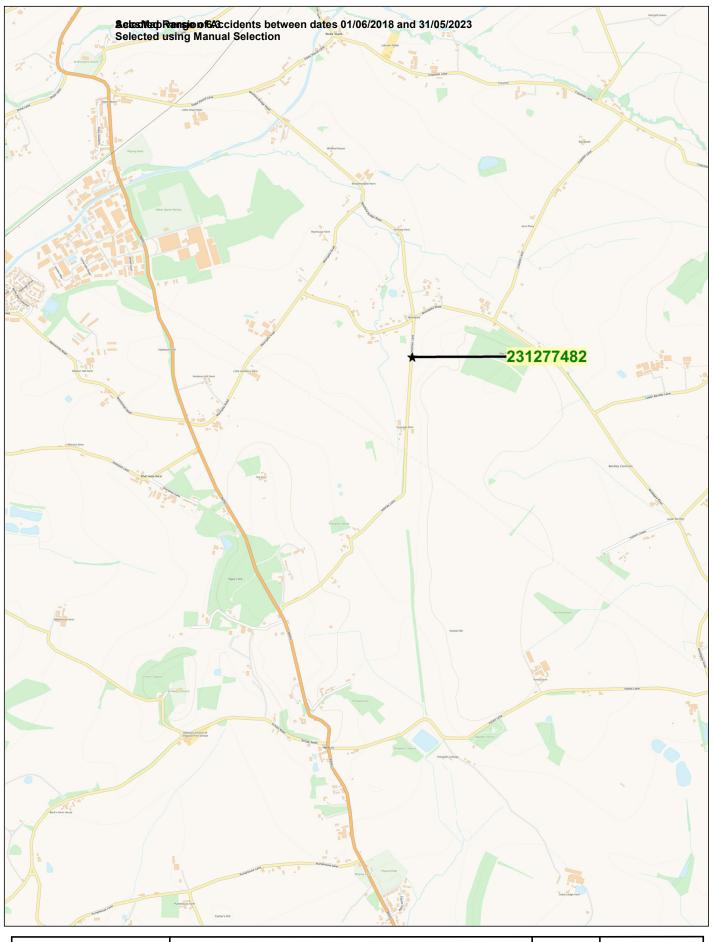
Direction: Total Flow

	Total	85th	Mean	Standard	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
	Volume	Percentile	Average	Deviation	<10mph	10<15	15<20	20<25	25<30	30<35	35<40	40<45	45<50	50<55	55<60	>=60
Wed 19 Jul 2023	43	37.4	30.2	6.9	0	0	6	1	13	13	7	3	0	0	0	0
Thu 20 Jul 2023	44	38.5	31.3	7.0	0	0	3	4	11	16	4	5	1	0	0	0
Fri 21 Jul 2023	52	45.3	36.7	8.3	0	2	1	2	2	11	12	18	3	1	0	0
Sat 22 Jul 2023	12	39.2	32.1	6.9	0	0	1	0	3	5	1	2	0	0	0	0
Sun 23 Jul 2023	16	42.1	32.2	9.6	0	1	1	2	2	2	4	4	0	0	0	0
Mon 24 Jul 2023	30	46.0	34.1	11.5	0	1	2	2	5	9	5	1	1	3	0	1
Tue 25 Jul 2023	24	39.4	29.8	9.3	1	2	1	0	5	10	3	1	1	0	0	0
5 Day Ave.	39	41.3	32.4	8.6	0	1	3	2	7	12	6	6	1	1	0	0
7 Day Ave.	32	41.1	32.3	8.5	0	1	2	2	6	9	5	5	1	1	0	0

Paul Castle Associates



Appendix C – Personal Injury Collision Data





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Holmes Lane Accidents

SCALE	
DATE	1 : 19760
DRAWING No.	23/08/2023
DRAWN BY	

TRAFFMAP INTERPRETED LISTING Run on: 08/23/2023

AccsMap - Accident Analysis System

Accidents between dates 01/06/2018 and 31/05/2023 (60) months Selection: Notes:

Selected using Manual Selection

231277482 16/02/2023 Thursday Time 1525 Vehicles 2 Casualties 1 Slight Contrib factor.

Fine without high winds Road surface Dry Daylight:street lights present
Special Conditions None Road Type Single carriageway

I WAS DRIVING DOWN THE ROAD GOING ABOUT 30MPH, I SAW THERE WAS A NARROW PART OF THE ROAD BUT I WAS FINE TO CARRY ON. I THEN SAW IN THE DISTANCE A VAN COMING TOWARDS ME SO I WAS ABOUT TO PULL INTO THE OPEN PART TO ALLOW US BOTH TO CARRY ON AND HE TRIED TO SQUEEZE THROUGH AND HIT MY CAR.

Occurred on HOLMES LANE, LOWER BENTLEY, WORCESTERSHIRE

Causation

	Factor:	Participant:	Confidence:
1st:	Road layout (eg bend, hill etc.)	Vehicle 1	Very Likely
2nd:	Poor turn or manoevre	Vehicle 1	Very Likely
3rd:	Careless/Reckless/In a hurry	Vehicle 1	Very Likely
4th:	Failed to judge other persons path or speed	Vehicle 1	Very Likely
5th:			
6th:			

Vehicle Reference 1 Goods <= 3.5 tonnes mgw Going ahead

Not in restricted lane

No skidding, jack-knifing or overturning

First point of impact Offside Age of Driver 24 Breath test Driver not contacted

Vehicle direction N to S Driver Postcode DY2

FRV Journey as part of work

Vehicle Reference 2 Car Going ahead

Not in restricted lane

No skidding, jack-knifing or overturning

First point of impact Offside Age of Driver 24 Breath test Driver not contacted

Vehicle direction S to N Driver Postcode CR0

FRV Journey 6

Casualty Reference: 1 Age: 24 Female Driver/rider Severity: Slight

Registered to: Worcestershire CC

TRAFFMAP INTERPRETED LISTING Run on: 08/23/2023

AccsMap - Accident Analysis System

Accidents between dates 01/06/2018 and 31/05/2023 (60) months

Selection: Notes:

Selected using Manual Selection

Accidents involving:

	Fatal	Serious	Slight	Total
Motor vehicles only (excluding	0	0	1	1
2-wheeled motor vehicles	0	0	0	0
Pedal cycles	0	0	0	0
Horses & other	0	0	0	0
Total	0	0	1	1

Casualties:

	Fatal	Serious	Slight	Total
Vehicle driver	0	0	1	1
Passenger	0	0	0	0
Motorcycle rider	0	0	0	0
Cyclist	0	0	0	0
Pedestrian	0	0	0	0
Other	0	0	0	0
Total	0	0	1	1

Registered to: Worcestershire CC 2

SUMMARY REPORT

Run on: 23/08/2023

Accidents between dates 01/06/2018 and 31/05/2023 (60) months

Selection: Notes:

Selected using Manual Selection

Police Ref.	Acc Class	Date	Day	Time	Grid References	C: Ftl	asualt ~-	ies Ser	Causation Factors/ Prob	Ped L M D	Light	Weather	Road Surface	Vehicle Types
231277482	Slight	16/02/2023	Thu	1525	396642 266137	0	0	1	108V1A 403V1A 602V1A 406V1A	0 0 0	Light	Fine without high winds	Dry	19 9
Column Totals	Slight : Serious : Fatal :	1 0 0				0	0	0			ight: 1 ark: 0		Dry: 1 Wet: 0	

Total number of accidents listed:

SELECTION RESULTS Run on: 23/08/2023

Accidents between dates 01/06/2018 and 31/05/2023 (60) months

Selection: Notes:

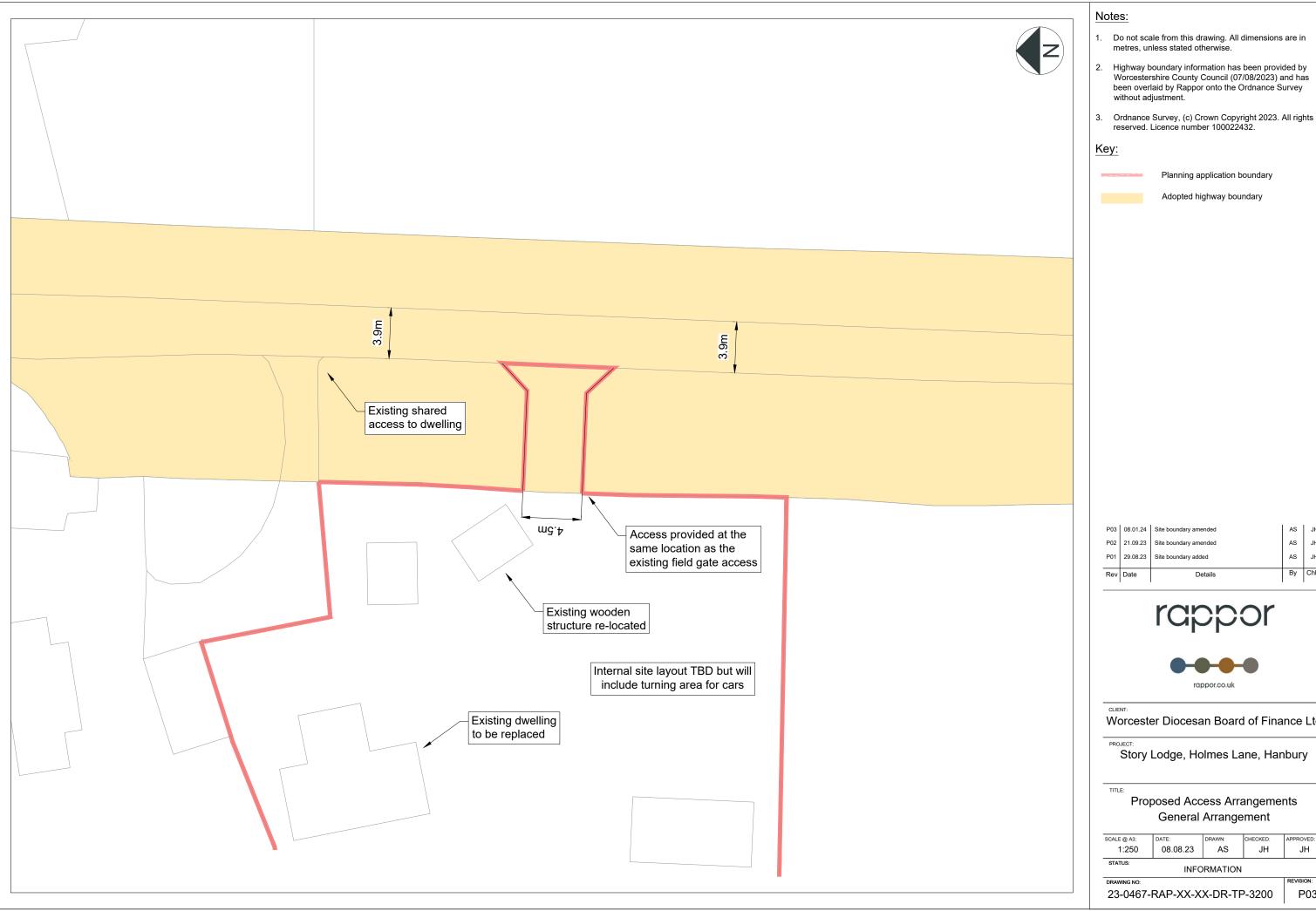
Selected using Manual Selection

Police Ref.	Date	Cas.	Sev.	P2W	Cycs	Peds	Ch	60+	Vis.	Manv.	Road Cond.	Time	Location
231277482	16/02/2023	1	Slight	0	0	0	0	0	Light	No turn	Dry	1525	HOLMES LANE, LOWER BENTLEY, WORCESTERSHIRE
Column Totals No. of Accidents		1		•	Ü	0 0	•	•					

Total number of accidents listed: 1



Appendix D – Access and Visibility Assessment



- Worcestershire County Council (07/08/2023) and has been overlaid by Rappor onto the Ordnance Survey

Planning application boundary

P03	08.01.24	Site boundary amended	AS	JH
P02	21.09.23	Site boundary amended	AS	JH
P01	29.08.23	Site boundary added	AS	JH
Rev	Date	Details	Ву	Chkd





Worcester Diocesan Board of Finance Ltd

Story Lodge, Holmes Lane, Hanbury

Proposed Access Arrangements **General Arrangement**

SCALE @ A3:	DATE:	DRAWN:	CHECKED:	APPROVED:
1:250	08.08.23	AS	JH	JH
STATUS:				

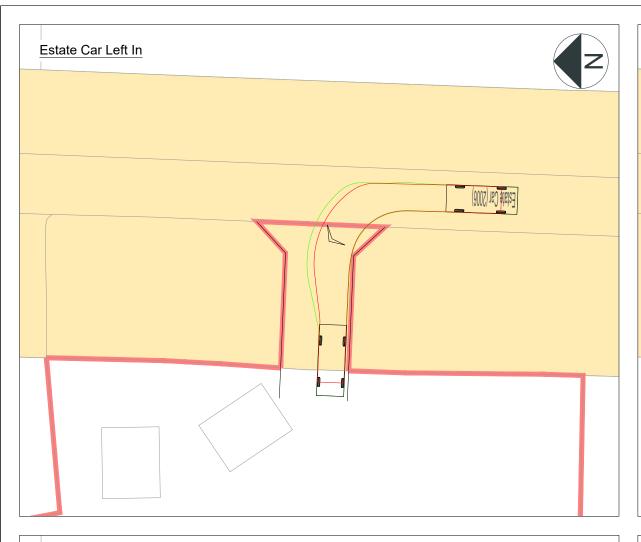
23-0467-RAP-XX-XX-DR-TP-3200

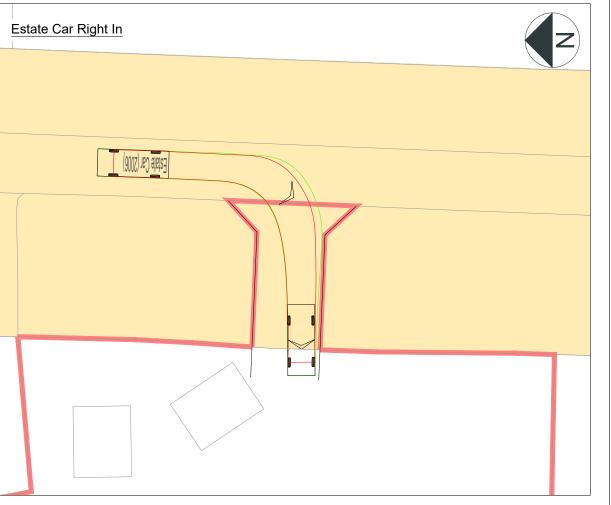
P03 RESERVED COPYRIGHT





Appendix E – Swept Path Analysis





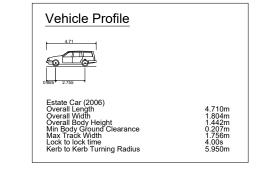


- Do not scale from this drawing. All dimensions are in metres, unless stated otherwise.
- Highway boundary information has been provided by Worcestershire County Council (07/08/2023) and has been overlaid by Rappor onto the Ordnance Survey without adjustment.
- Ordnance Survey, (c) Crown Copyright 2023. All rights reserved. Licence number 100022432.

Key:

Planning application boundary

Adopted highway boundary



P01 29.08.23 Site boundary added A	AS	JH
P02 21.09.23 Site boundary amended A	AS	JH
P03 08.01.24 Site boundary amended A	AS	JH





Worcester Diocesan Board of Finance Ltd

DDO IECT.

Story Lodge, Holmes Lane, Hanbury

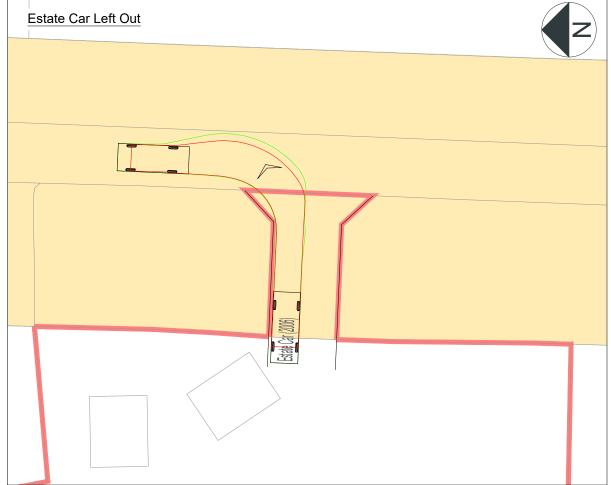
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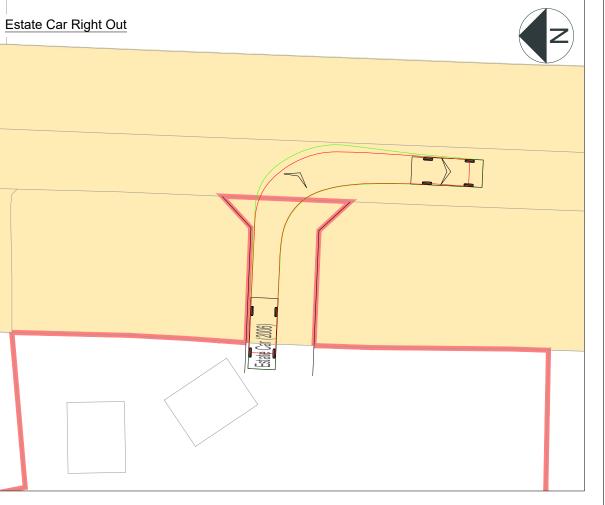
Proposed Access Arrangements Swept Path Analysis - Car

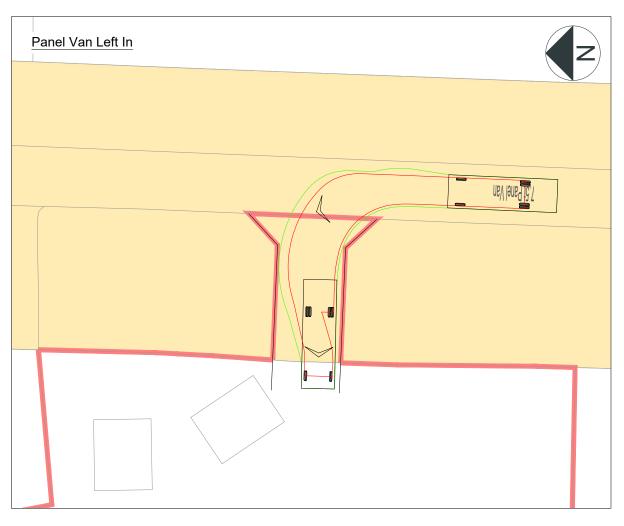
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1:500	08.08.23	AS	JH	JH	
STATUS:					

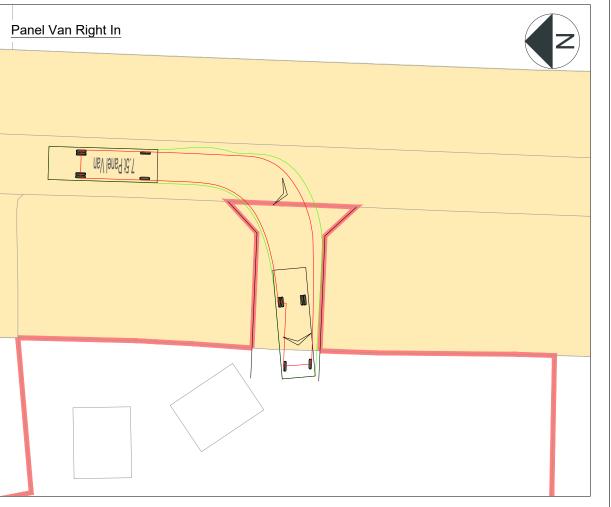
INFORMATION

23-0467-RAP-XX-XX-DR-TP-4100 P03









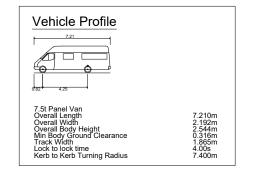


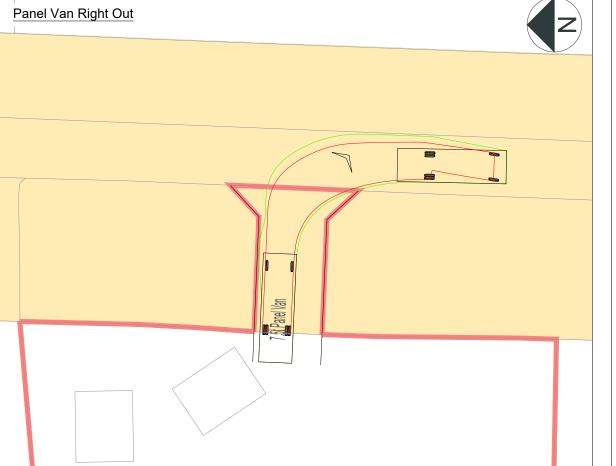
- Do not scale from this drawing. All dimensions are in metres, unless stated otherwise.
- Highway boundary information has been provided by Worcestershire County Council (07/08/2023) and has been overlaid by Rappor onto the Ordnance Survey without adjustment.
- Ordnance Survey, (c) Crown Copyright 2023. All rights reserved. Licence number 100022432.

Key:

Planning application boundary

Adopted highway boundary











CLIENT:

Worcester Diocesan Board of Finance Ltd

DDO IECT.

Story Lodge, Holmes Lane, Hanbury

TITLE

Proposed Access Arrangements Swept Path Analysis - Panel Van

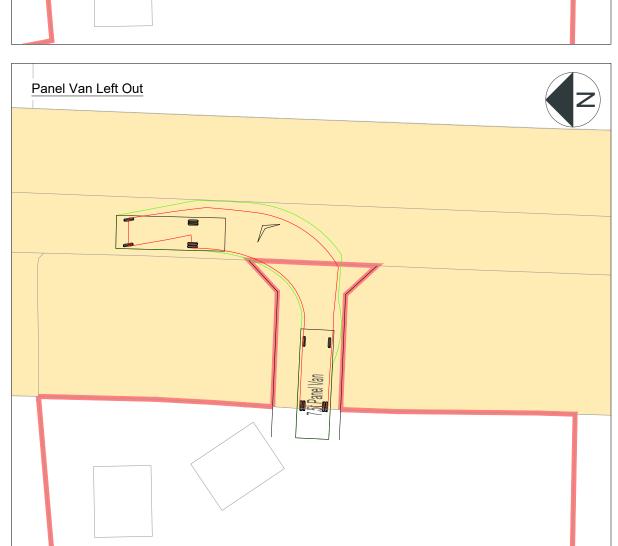
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INFORMATION

DRAWING NO: 23-0467-RAP-XX-XX-DR-TP-4101

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