

1a. Contact Details	
Title	
First Name	
Last Name	
Job Title (where relevant)	
Organisation (where relevant)	
Address	
Post Code	
Telephone Number	
Email Address	

1b. I am...	
Owner of the site	Parish/Town Council
Developer	Community Group
Land Agent	Local Resident
Planning Consultant	Registered Social Landlord
Other (please specify):	

1c. Client/Landowner Details (if different from question 1a)	
Title	
First Name	
Last Name	
Job Title (where relevant)	
Organisation (where relevant)	
Address	
Post Code	
Telephone Number	
Email Address	

2. Site Details	
Site location / address and post code (please include as an attachment to this response form a location plan of the site on an scaled OS base with the boundaries of the site clearly shown)	
Grid reference (if known)	
Site area (hectares)	

Site Ownership		
3a. I (or my client)....		
Is the sole owner of the site	Is a part owner of the site	Do/Does not own (or hold any legal interest in) the site whatsoever
3b. Please provide the name, address and contact details of the site's landowner(s) and attach copies of all relevant title plans and deeds (if available).		
3c. If the site is in multiple landownerships do all landowners support your proposal for the site?	Yes	No
3d. If you answered no to the above question please provide details of why not all of the sites owners support your proposals for the site.		

Current and Historic Land Uses		
4a. Current Land Use (Please describe the site's current land use e.g. agriculture, employment, unused/vacant etc.)		
4b. Has the site been previously developed?	Yes	No

4c. Describe any previous uses of the site. (please provide details of any relevant historic planning applications, including application numbers if known)

--

Proposed Future Uses

5a. Please provide a short description of the development or land use you proposed (if you are proposing a site to be designated as local green space please go directly to question 6)

--

5b. Which of the following use or uses are you proposing?

Market Housing	Business & offices	Recreation & Leisure
Affordable Housing	General industrial	Community Use
Residential Care Home	Storage & distribution	Public Open Space
Gypsy & Traveller Pitches	Tourism	Other (Please Specify)

5c. Please provide further details of your proposal, including details on number of houses and proposed floorspace of commercial buildings etc.

--

5d. Please describe any benefits to the Local Area that the development of the site could provide.

--

Local Green Space

If you are proposed a site to be designated as Local Green Space please complete the following questions. These questions do not need to be completed if you are not proposing a site as Local Green Space. Please consult the guidance notes for an explanation of Local Green Space Designations.

6a. Which community would the site serve and how would the designation of the site benefit that community.

6b. Please describe why you consider the site to be of particular local significance e.g. recreational value, tranquillity or richness in wildlife.
--

Site Features and Constraints

Are there any features of the site or limitations that may constrain development on this site (please give details)?
--

7a. Site Access: Is there a current means of access to the site from the public highway, does this access need to be improved before development can take place and are there any public rights of way that cross or adjoin the site?
--

7b. Topography: Are there any slopes or significant changes of in levels that could affect the development of the site?
--

7c. Ground Conditions: Are ground conditions on the site stable? Are there potential ground contamination issues?
--

7d. Flood Risk: Is the site liable to river, ground water or surface water flooding and if so what is the nature, source and frequency of the flooding?
--

7e. Legal Issues: Is there land in third party ownership, or access rights, which must be acquired to develop the site, do any restrictive covenants exist, are there any existing tenancies?
--

7f. Environmental Issues: Is the site located next to a watercourse or mature woodland, are there any significant trees or hedgerows crossing or bordering the site are there any known features of ecological or geological importance on or adjacent to the site?

--

7g. Heritage Issues: Are there any listed buildings, Conservation Areas, Historic Parklands or Schedules Monuments on the site or nearby? If so, how might the site's development affect them?

--

7h. Neighbouring Uses: What are the neighbouring uses and will either the proposed use or neighbouring uses have any implications?

--

7i. Existing uses and Buildings: are there any existing buildings or uses that need to be relocated before the site can be developed.

--

7j. Other: (please specify):

--

Utilities

8a. Which of the following are likely to be readily available to service the site and enable its development? Please provide details where possible.

	Yes	No	Unsure
Mains water supply			
Mains sewerage			
Electricity supply			
Gas supply			
Public highway			
Broadband internet			

Other (please specify):	
8b. Please provide any further information on the utilities available on the site:	

Availability	
9a. Please indicate when the site could be made available for the land use or development proposed.	
Immediately	
1 to 5 years (by April 2021)	
5 - 10 years (between April 2021 and 2026)	
10 – 15 years (between April 2026 and 2031)	
15 - 20 years (between April 2031 and 2036)	
9b. Please give reasons for the answer given above.	

Market Interest		
10. Please choose the most appropriate category below to indicate what level of market interest there is/has been in the site. Please include relevant dates in the comments section.		
	Yes	Comments
Site is owned by a developer/promoter		
Site is under option to a developer/promoter		
Enquiries received		

Site is being marketed		
None		
Not known		

Delivery	
11a. Please indicate when you anticipate the proposed development could be begun.	
Up to 5 years (by April 2021)	
5 - 10 years (between April 2021 and 2026)	
10 – 15 years (between April 2026 and 2031)	
15 - 20 years (between April 2031 and 2036)	
11b. Once started, how many years do you think it would take to complete the proposed development (if known)?	

Viability			
12a. You acknowledge that there are likely to be policy requirements and Community Infrastructure Levy (CIL) costs to be met which will be in addition to the other development costs of the site (depending on the type and scale of land use proposed). These requirements are likely to include but are not limited to: Affordable Housing; Sports Pitches & Children's Play Space and Community Infrastructure Levy			
	Yes	No	Unsure
12b. Do you know if there are there any abnormal costs that could affect the viability of the site e.g. infrastructure, demolition or ground conditions?			
12c. If there are abnormal costs associated with the site please provide details:			
12d. Do you consider that the site is currently viable for its proposed use taking into account any and all current planning policy and CIL considerations and other abnormal development costs associated with the site?			

12e. Please attach any viability assessment or development appraisal you have undertaken for the site, or any other evidence you consider helps demonstrate the viability of the site.

Other Relevant Information

13. Please use the space below to for additional information or further explanations on any of the topics covered in this form

Check List	
Your Details	
Site Details (including site location plan)	
Site Ownership	
Current and Historic Land Uses	
Proposed Future Uses	
Local Green Space (Only to be completed for proposed Local Green Space Designations)	
Site Features and Constraints	
Utilities	
Availability	
Market Interest	
Delivery	
Viability	
Other Relevant Information	
Declaration	

14. Declaration	
<p>I understand that:</p> <p>Data Protection and Freedom of Information</p> <p>The Data Controller of this information under the Data Protection Act 1998 will be Norfolk County Council, which will hold the data on behalf of Broadland District Council, Norwich City Council and South Norfolk District Council. The purposes of collecting this data are:</p> <ul style="list-style-type: none"> • To assist in the preparation of the Greater Norwich Local Plan • To contact you, if necessary, regarding the answers given in your form. • To evaluate the development potential of the submitted site for the uses proposed within the form. <p>Disclaimer</p> <p>The responses received as part of the Greater Norwich Local Plan "Call for Sites" will be published and made available for public viewing. By submitting this form you are consenting to the details about you and your individual sites being stored by Norfolk County Council, and the details being published for consultation purposes. Any information you consider to be confidential is clearly marked in the submitted response form and you have confirmed with the Council(s) in advance that such information can be kept confidential as instructed in the Greater Norwich Local Plan Call for Sites Response Form Guidance Notes.</p> <p>I agree that the details within this form can be held by Norfolk County Council and that those details can be shared with Broadland District Council, Norwich City Council and South Norfolk District Council for the purposes specified in this declaration.</p>	
Name	Date

G.H. ALLEN (FARMS) LIMITED

LAND AT THE STREET, HEMPNALL PROPOSED RESIDENTIAL DEVELOPMENT

ACCESS STATEMENT





LAND AT THE STREET, HEMPNALL

ACCESS STATEMENT

ON BEHALF OF G.H. ALLEN (FARMS) LIMITED

REPORT (DRAFT)

PROJECT NO.: 70033864

DATE: MAY 2017

WSP

WSP.COM

QUALITY MANAGEMENT

ISSUE/REVISION	FIRST ISSUE	REVISION 1
Remarks	Draft	Final
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Signature		
Checked by	Jonathan Delahoche	Jonathan Delahoche
Signature		
Authorised by	Nigel Eggar	Nigel Eggar
Signature		
Project number	70033864	70033864
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SIGNATURES

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APPROVED BY:

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Associate Director

This report was prepared by WSP for the account of G.H. ALLEN (FARMS) LIMITED, in accordance with the professional services agreement. The disclosure of any information contained in this report is the sole responsibility of the intended recipient. The material in it reflects WSP's best judgement in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. WSP accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. This limitations statement is considered part of this report.

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PRODUCTION TEAM

CLIENT - G.H. ALLEN (FARMS) LIMITED

WSP

Associate Director	Nigel Eggar
Principal Engineer	Jonathan Delahoche
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D	ACCIDENT DATA
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1 INTRODUCTION

1.1 APPOINTMENT

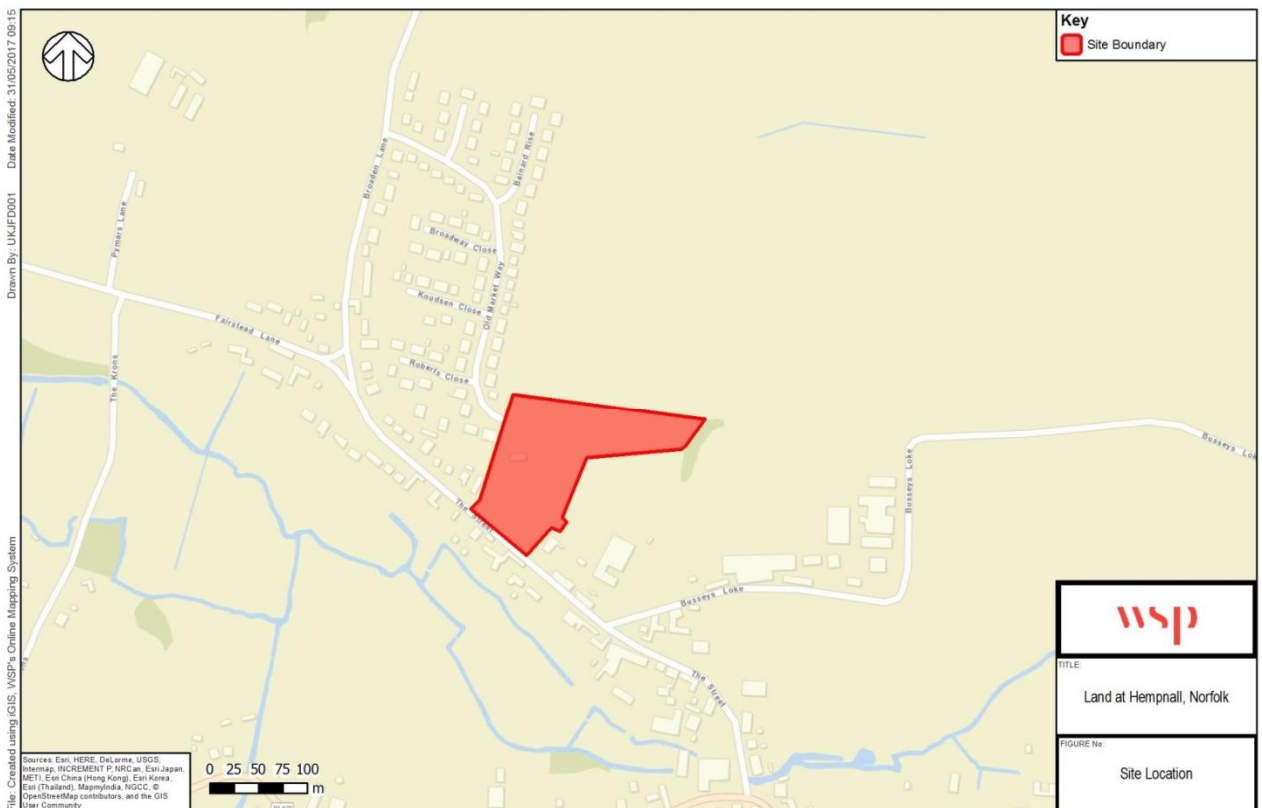
1.1.1 WSP has been commissioned by G.H. Allen (Farms) Limited to carry out an access appraisal and provide transportation advice in relation to a proposed residential development on land north east of The Street, Hempnall, Norfolk.

1.2 SITE LOCATION

1.2.1 The village of Hempnall is located approximately 22km south of Norwich. The main highway serving the village is the B1527 Bungay Road, which leads to the A140 Norwich Road approximately 5km to the west of the village.

1.2.2 The site is located to the north east of The Street, and is bounded to the east by Hempnall Primary School, to the west by a residential housing estate and to the north by agricultural fields.

Figure 1-1 Site Location



1.3 CURRENT USE

1.3.1 Part of the site is currently occupied by the Manor Cottages, comprising 2 residential units which are located to the northwest. Access to the site is available from two locations; a private drive serving the cottages located at the north western end of the site frontage to The Street, and a further private access road serving the Hempnall Primary School car park. Both access points are within the control of the client.

1.4 PROPOSED USE

- 1.4.1 Albeit this project is at an early stage, an indicative layout has been prepared by Savills to demonstrate the potential of the site; the layout indicates that the site could accommodate around 19 residential units. A copy of the indicative layout plan is enclosed at Appendix A.

1.5 REPORT STRUCTURE

- 1.5.1 A site visit was conducted by WSP on Thursday 11th May 2017 and a detailed review of the exiting highway characteristics was undertaken.
- 1.5.2 This report presents the findings of the site investigation, reviews the potential impact and identifies the transport infrastructure necessary to support the development, with due regard to the limited scale and nature of the proposal.
- 1.5.3 The remainder of this report is set out in the following sections:
2. Existing Highway Network
 3. Existing Traffic Conditions
 4. Non-Motorised User Network
 5. Potential Development
 6. Summary and Conclusions

2 EXISTING HIGHWAY NETWORK

2.1 SITE CONNECTION

2.1.1 As identified in Figure 1-1, the primary means of access to the site is via The Street.

2.2 EXISTING HIGHWAY CONDITIONS

2.2.1 THE STREET

- 2.2.2 The Street carriageway is approximately 5.2m wide to the north of the Hempnall Primary School access road junction, and 5.1m wide to the south. A footway exists on the south western side of The Street, approximately 1.1m wide. There is no footway on the site side of the carriageway.
- 2.2.3 The current Hempnall Primary School access road is 5m wide. At the junction with The Street, the current visibility is 2.4m x 33m to the south east and 2.4m x 22m to the northwest. The envelope of visibility is currently restricted by a recently planted hedge both sides of the junction bell mouth.
- 2.2.4 The existing bell mouth radius kerbs are approximately 4m on the south east side and 3.5m on the north west side, with reinforced verge/ over-run areas to the rear of the radius kerbs.

Figure 2-1 View of Existing School Car Park Access Road



- 2.2.5 The roadway provides only for vehicles, with the main school pedestrian access located to the south-east on The Street.
- 2.2.6 To the north west of the site frontage is the vehicular access to Manor Cottages. In the vicinity of the access the carriageway of The Street is 5.4m wide with a 1.3m wide footpath on the south western side. The verge on the north side of The Street is between 0.6m and 0.9m wide.
- 2.2.7 The existing access is only a single vehicle width, and visibility is restricted by adjacent vegetation to approximately 2.4m x 6m in each direction.

Figure 2-2 View of Manor Cottages Vehicular Access



2.3 HIGHWAY BOUNDARY

2.3.1 THE STREET

2.3.2 Highway boundary information has been obtained from Norfolk County Council website.

2.3.3 As shown below on Figure 2-3, the Local Highway Authority maintains The Street carriageway/footway, and the narrow verge on the northern side. The access to the Manor Cottages and the Hemphall Primary School access road are privately maintained.

Figure 2-3 The Street Frontage Highway Boundary



Source: Norfolk County Council

3 EXISTING TRAFFIC CONDITIONS

3.1 INTRODUCTION

- 3.1.1 In order to understand the current highway conditions, traffic surveys in the form of Automatic Traffic Counts were undertaken on The Street and Old Market Way between the 16th and 23rd of May 2017. The ATC on the cul-de-sac of Old Market Way was installed to determine a locally derived vehicle trip rate.
- 3.1.2 The first ATC was positioned on The Street near the School access road; the second ATC was located in Old Market Way, near the junction with Broaden Lane.
- 3.1.3 Road traffic data are appended to this report at Appendix B.

3.2 THE STREET

- 3.2.1 From the Automatic Traffic Counts, it was possible to determine an average traffic base across weekdays. Table 3-1 below summarises the observed traffic conditions.

Table 3-1 Observed 2017 Traffic – The Street

DIRECTION	WEEKDAY			85% PERCENTILE VEHICLE SPEEDS	
	AM (08-09)	PM (17-18)	Daily (24hrs)	Dry Weather	Wet Weather
Northbound	103	74	808	29.5mph	27.0mph
Southbound	45	96	673	29.1mph	26.6mph
Total 2-way	148	169	1481	-	-

- 3.2.2 The traffic counts confirmed that traffic flows are low and commensurate with the rural location of the village. Similarly, the 85% percentile vehicle speed confirms that drivers respect the 30mph speed limit.
- 3.2.3 In order to determine 85th%ile wet weather speeds the principles of Highway Agency (England) Technical Advice Note TA22/81 – ‘Vehicle Speed Measurement on All-Purpose Roads’ have been applied. With due regard to the dry to wet weather adjustment contained within TA22/81, the 85th%ile wet weather approach speeds are also shown in Table 3-1.

3.3 ACCESS VISIBILITY – THE STREET

- 3.3.1 To determine the desirable level of visibility from the site access junction with in relation to the approaching speed of vehicles on The Street, reference is made to the access principles contained within Department for Transport and the Chartered Institute of Highways and Transportation document ‘Manual for Streets’ (MfS) 1 & 2, appropriate for development in a low speed village environment.
- 3.3.2 Applying the 85th%ile wet weather speeds to the Sight Stopping Distance (SSD) calculation contained at Para 10.1.5: (where $SSD = vt + \sqrt{v^2 / 2 (d+0.1a)}$) MfS2, indicates the following visibility splay requirements. The visibility splay calculation sheets are enclosed at Appendix C.
 - South east of access: 2.4m x 37m
 - North west of access: 2.4m x 36m

3.4 OLD MARKET WAY

3.4.1 The traffic generated by the dwellings served by Old Market Way is summarised below in Table 3-2 below. The traffic data demonstrates that on average the estate generate approximately 566 2-way vehicle movements on a daily basis (weekday).

Table 3-2 Observed 2017 Traffic – Old Market way

DIRECTION	WEEKDAY		
	AM (08-09)	PM (17-18)	Daily (24hrs)
Eastbound	8	44	280
Westbound	36	15	286
Total 2-way	44	59	566

3.4.2 The Royal Mail website was interrogated to obtain the number of address served by Old Market Way and subsequent cul-de-sac.

3.4.3 The following addresses were found in the Royal Mail web site post code finder.

Table 3-3 Existing Number of Dwellings served by Old Market Way

STREET NAME	DWELLINGS
Old Market Way	48
Nuttele Cl	14
Bainard Rise	21
Broadway Cl	15
Knudsen Cl	11
Roberts Cl	15
Total	124

3.4.4 On the basis of the ATC data and the number of dwelling served on Old Market Way, it is possible to derive a local residential vehicular trip rate, as follows:

Table 3-4 Local Residential Trip Rates (Per Dwelling)

DIRECTION	WEEKDAY		
	AM (08-09)	PM (17-18)	Daily (24hrs)
Eastbound	0.068	0.367	2.333
Westbound	0.302	0.127	2.380
Total 2-way	0.370	0.493	4.713

3.4.5 It is therefore anticipated that a dwelling located in Hempnall village would generate 0.370 trips in the AM peak period and 0.493 trips in the PM peak period and around 4.713 trips daily.

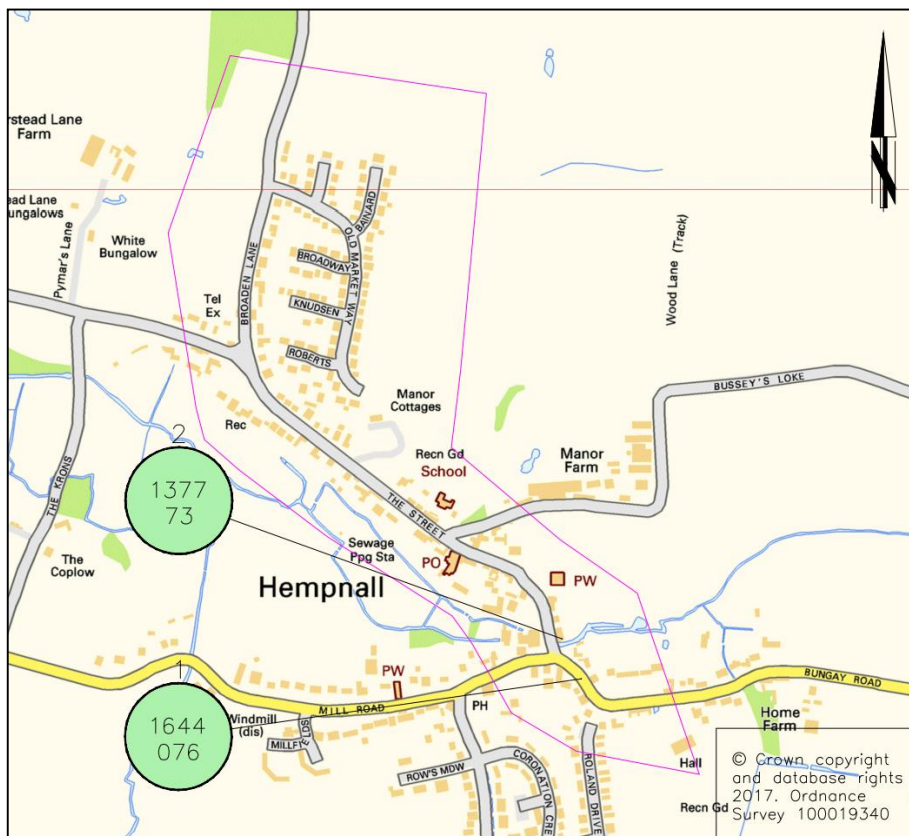
3.5 ACCIDENT DATA

3.5.1 Accident data was provided by Norfolk County Council for the past 5 years, from April 2012 to March 2017. During this period, only two accidents were recorded in the study area outlined in purple in Figure 3-1 below; the full data is enclosed at Appendix D.

3.5.2 Both accidents were due to the vehicle drivers losing control. The accident data records describe them as follows:

- Accident Reference 1644076: The slight accident involving one vehicle and one slight casualty, the driver, occurred on Mill Road on 31 Jan 2016 at 2.46pm. The vehicle was travelling along Mill Road towards the A140 in the west. The road surface was wet due to rain. When approaching the corner with The Street, the driver lost control and the vehicle spun 180 degrees mounting the kerb and making contact with the brick wall.
- Accident Reference 137773: The slight accident occurred on 28 November 2011 at 6.26am and involved 4 vehicles (3 parked) and one slight casualty. The road surface was icy and it was dark with lights not lit. Vehicle 1 was driving along Bungay Road, attempting to turn into The Street. The driver lost control, hit the wall on the nearside and 3 parked cars at a car garage.

Figure 3-1 Traffic Accident Map



3.5.3 Both accidents occurred near the junction of The Street and the B1527. Neither of the recorded injury accidents were close to the proposed site accesses, which suggests that the existing highway layout does not give rise to any apparent safety concerns.

3.5.4 Considering that neither of the accidents were caused by the road layout, road safety enhancement do not seem pressing

4 NON-MOTORISED USERS NETWORK

4.1 LOCAL NMU INFRASTRUCTURE

- 4.1.1 The Street is a quiet single carriageway with on-street parking. On some stretches of The Street, pavements are located on both sides. Near the current primary school access road, the pavement only runs along the western side of The Street and has a width of 1.1m. The primary school access road does not provide any infrastructure for non-motorised users.

Figure 4-1 The Street / Primary School Access



Figure 4-2 Hempnall Primary School Access Road



- 4.1.2 The nearest Public Footpath is located to the east of the School, starting on Bussey's Loke, and crossing the site at the northeast edge. The footpath is heads north towards Saxlingham Nethergate village. A second footpath, starting on The Street, near to "Ivy House" opposite the site, heads southbound towards the B1527 Mill Road. These are shown in Figure 4-3 below.

Figure 4-3 Public Right of Way Map

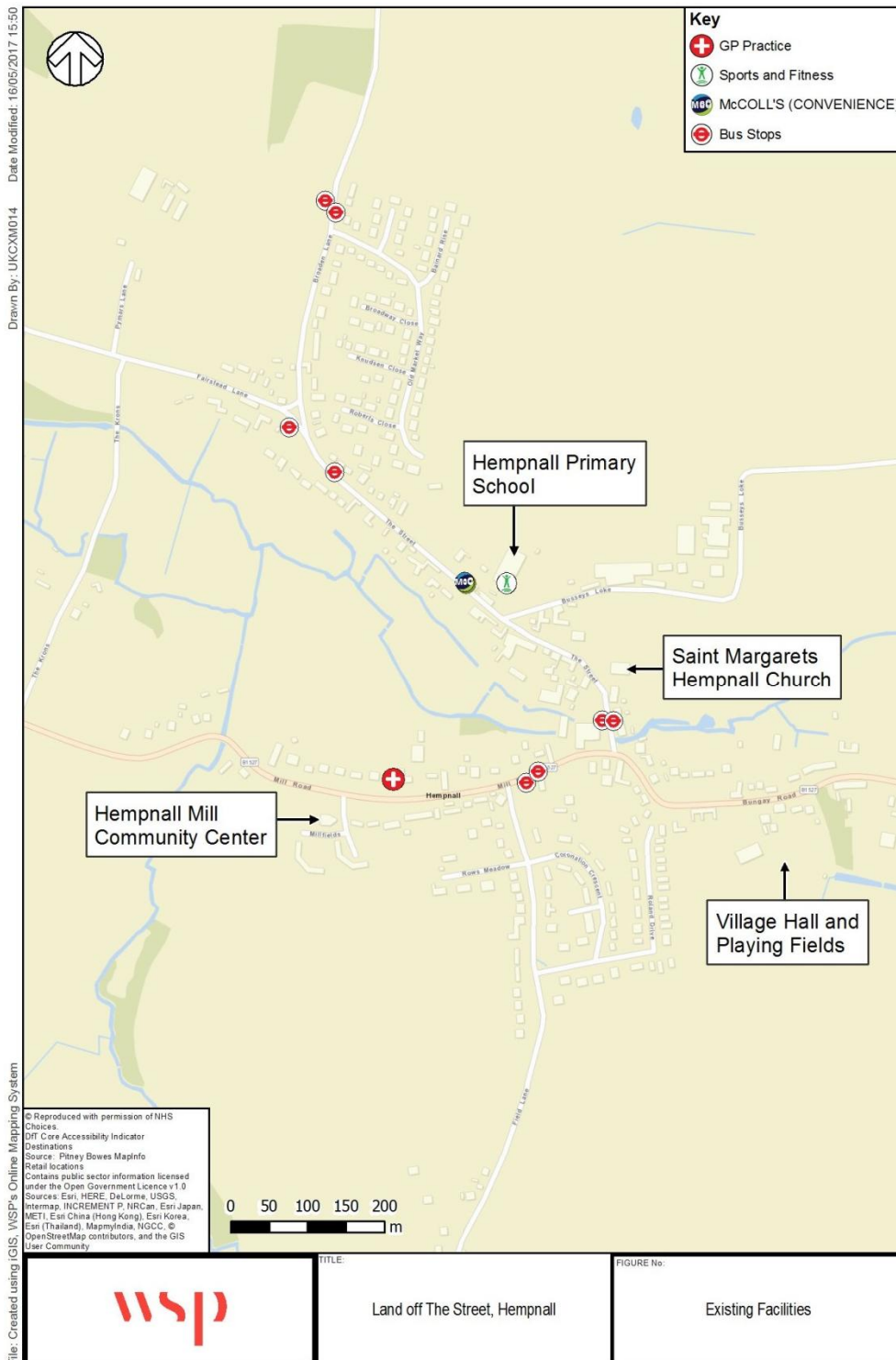


- 4.1.3 In addition there is a footpath connecting The Street, approximately 100m north of Manor Cottages access and Roberts Close, leading to Old Market Way.

4.2 LOCAL FACILITIES

- 4.2.1 Within Hempnall, various facilities are located within the village, within walking or cycling distance of the site. As shown in Figure 4-4 below, located on The Street are Hempnall Primary School, Saint Margarets Hempnall Church, as well as the McColls convenience store. Along the B1527 are the Hempnall Mill Community Centre, a GP practice, the Hempnall Butchers, the village hall and playing fields.

Figure 4-4 Existing Facilities in Hempnall



4.3 PUBLIC TRANSPORT NETWORK

4.3.1 Hempnall is serviced by AnglianBus number 84 which stops at bus stops along The Street as shown in Figure 4-4. The 2-hourly service runs Monday to Saturday between Norwich and Harleston, via Hempnall. Going towards Norwich, the earliest service leaves Hempnall at 7.43am and the latest at 2.44pm. Towards Harleston, the earliest service is at 8.53am and the latest at 6.41pm. The timings and bus frequency are summarised in Table 4-1.

Table 4-1 AnglianBus 84 Timetable and Route Information

DAY	FIRST AND LAST BUS	FREQUENCY
Harleston – Hempnall - Norwich		
Monday to Saturday	7.43am to 2.44pm	approx. every 2 hours
Sunday & Bank Holiday	N/A	no service
Norwich – Hempnall – Harleston		
Monday to Saturday	8.53am to 6.41pm	approx. every 2 hours
Sunday & Bank Holiday	N/A	no service

Source : AnglianBus <<https://www.anglianbus.co.uk/timetables/84#timetable>>

5 POTENTIAL DEVELOPMENT

5.1 DEVELOPMENT LAYOUT

- 5.1.1 The proposed development on the land off The Street comprises approximately 19 dwellings, with associated public open space and 11 additional car parking spaces for the school.
 - 5.1.2 It is proposed to improve the existing access arrangements serving the school car park, close the existing access to the cottages and providing a single enhanced access serving the school car park, the proposed development and the existing cottages.
-

5.2 PROPOSED ACCESS ARRANGEMENTS

- 5.2.1 The proposed access layout is shown on WSP Drawing 3864/SK/003 enclosed at Appendix E of this report. The proposed junction and access would provide the following characteristics.
 - **Carriageway** – provide minimum 5.0m width
 - **Bell mouth** – increase junction radii to 6.0m minimum
 - **Footway** – provide two footways of 1.8m both sides of access road
 - **Visibility** – visibility of the existing access is being encroached by recently growing hedge /bush. The calculated required envelopes of visibility are 2.4m set back by 36m to the north and 37m to the south. Therefore vegetation should be trimmed back to achieve this visibility.
 - **Pedestrian crossing points** – provide uncontrolled pedestrian crossing points across The Street to allow pedestrian to join existing footway.
 - 5.2.2 The proposed access arrangements are presented as being appropriate to serve the limited scale residential development and the existing school with the small car park extension.
-

5.3 POTENTIAL TRAFFIC GENERATION

- 5.3.1 Using the calculated trip rates detailed in Table 3-4 of this report it was possible to calculate the potential traffic generation of the proposed development.

Table 5-1 Potential Traffic Generation – 19 Residential Dwellings

DIRECTION	WEEKDAY		
	AM (08-09)	PM (17-18)	Daily (24hrs)
Arrivals	1	7	44
Departures	6	2	45
Total 2-way	7	9	90

- 5.3.2 As detailed in the above Table, the development of 19 residential dwellings would have the potential to generate 7 2-way movements in the AM peak, 9 2-way movements in the PM peak periods, and around 90 2-way daily movements.

6 SUMMARY AND CONCLUSIONS

6.1 SUMMARY

- 6.1.1 The site is located off The Street in Hempnall, Norfolk.
 - 6.1.2 The site is currently fallow/ agricultural land with the exception of the Manor Cottages, two residential units. Two vehicular accesses currently exist, serving the Manor Cottages and Hempnall Primary School car park.
 - 6.1.3 An indicative layout plan has been prepared which demonstrates that the site has the potential to accommodate around 19 residential units, with associated infrastructure, play area and an extended car park for Hempnall Primary School.
 - 6.1.4 The site is located near existing village facilities, and bus stops.
 - 6.1.5 The local road network is consistent with infrastructure in a rural location, and carries limited daily flows with traffic travelling at speeds commensurate with the posted speed limit.
 - 6.1.6 Based upon existing surveys at an existing estate, this report has demonstrated that the traffic generated by the proposed development would be of a low level, and would be highly unlikely to have an adverse impact on the local highway network.
-

6.2 ACCESSES

- 6.2.1 All access will be gained from The Street via the existing Hempnall Primary School access road; the existing substandard access serving Manor Cottages would be closed.
 - 6.2.2 The existing school access road will be improved to provide 6.0m radius kerbs, with new footways and to link with the existing footway on the south side of The Street.
 - 6.2.3 Access visibility will be cleared to provide visibility splays commensurate with recorded vehicle speeds on The Street.
-

6.3 CONCLUSIONS

- 6.3.1 This report concludes that the development of around 19 residential dwellings can be achieved in accordance with appropriate standards, and that the development will not have a detrimental impact upon capacity or safety.
-

6.4 LIMITATIONS

- 6.4.1 A topographical survey should be conducted in the fullness of time to confirm exact dimensions of the highway and adjacent features, including position of road signs and telegraph posts, etc.
- 6.4.2 Potential improvements to bus stops may be required to encourage the use of sustainable transport.
- 6.4.3 WSP has not performed a review of the proposed layout, such as internal road layout alignment, which will be subject to a detailed design.

APPENDIX

A INDICATIVE SITE LAYOUT





APPENDIX

B TRAFFIC DATA





Client: WSP

Project Number: TSP13134

Project Name: The Street, Hempnall, Norfolk

Survey Type: ATC

Location: Old Market Way

Survey Date: 16th to 23rd of May 2017

Survey Time: 24 hours x 7 days



TSP13134-Old Market Way, Hempnall, Norfolk ATC Data Location Plan

TSP Class Profile All Days 15 Mins

Globals

Report Id CustomList-57
Descriptor TSP Class Profile All Days 15 Mins
Created by MetroCount Traffic Executive
Creation Time (UTC) 2017-05-25T10:42:43
Legal Copyright (c)1997 - 2016 MetroCount
Graphic header.gif
Language English
Country United Kingdom
Time UTC + 120 min
Create Version 5.0.2.0
Metric Non metric
Speed Unit mph
Length Unit ft
Mass Unit ton

Dataset

Site Name NORFOLK 001
Site Attribute TSP 13134
File Name E:\TSP13234-The St Hempnall Norfolk\NORFOLK 00119May2017-p2.EC0
File Type Plus
Algorithm Factory default axle
Description OLD MARKET WAY [30M]
Lane 0
Direction 8
Direction Text 8 - East bound A]B, West bound B]A.
Layout Text Axle sensors - Paired (Class/Speed/Count)
Setup Time 2017-05-19T11:47:02
Start Time 2017-05-19T11:47:02
Finish Time 2017-05-19T11:54:02
Operator PK
Configuration 40 MC5600 00 00 00 00 00 ? FB12WG9X MC56-L5 [MC55] (c)Microcom 19C

Dataset

Site Name NORFOLK 001
Site Attribute TSP 13134
File Name E:\TSP13234-The St Hempnall Norfolk\NORFOLK 00119May2017.EC0
File Type Plus
Algorithm Factory default axle
Description OLD MARKET WAY [30M]
Lane 0
Direction 8
Direction Text 8 - East bound A]B, West bound B]A.
Layout Text Axle sensors - Paired (Class/Speed/Count)
Setup Time 2017-05-15T02:11:27
Start Time 2017-05-15T02:11:27
Finish Time 2017-05-19T11:46:54
Operator PK
Configuration 40 MC5600 00 00 00 00 00 ? FB12WG9X MC56-L5 [MC55] (c)Microcom 19C

Dataset

Site Name NORFOLK 001
Site Attribute TSP 13134
File Name E:\TSP13234-The St Hempnall Norfolk\NORFOLK 00123May2017.EC0
File Type Plus
Algorithm Factory default axle
Description OLD MARKET WAY [30M]

Lane 0
Direction 8
Direction Text 8 - East bound A]B, West bound B]A.
Layout Text Axle sensors - Paired (Class/Speed/Count)
Setup Time 2017-05-19T11:54:49
Start Time 2017-05-19T11:54:49
Finish Time 2017-05-23T21:01:49
Operator PK
Configuration 40 MC5600 00 00 00 00 00 ? FB12WG9X MC56-L5 [MC55] (c)Microcom 19C

Profile

Name TSP Class Profile All Days New15 mins
Title TSP Traffic Reports
Graphic Logo C:\and Settings\Documents\3.21_on_us_logo_cmyk 50.BMP
Header
Footer
Percentile 1 85
Percentile 2 95
Pace 12
Filter Start 2017-05-16T00:00:00
Filter End 2017-05-23T00:00:00
Class Scheme ARX
F Cls(1-10) Dir(E) Sp(0,120) Headway(]0) Span(0 - 328.084) Lane(0-16)
Low Speed 0
High Speed 120
Posted Limit 30
Speed Limits 35 45 30 30 30 0 0 0 0 30
Separation 0.000
Separation Type Headway
Direction East
Encoded Direction 2



Oct04

Oct04

Oct04

TSP Class Profile All Days 15 Mins

Column

Time	24-hour time (0000 - 2359)
Total	Number in time step
Cls 1	Class totals
Cls 2	Class totals
Cls 3	Class totals
Cls 4	Class totals
Cls 5	Class totals
Cls 6	Class totals
Cls 7	Class totals
Cls 8	Class totals
Cls 9	Class totals
Cls 10	Class totals
Fix1	User defined fixed text
Time	24-hour time (0000 - 2359)
Vbin 0 5	Speed bin totals
Vbin 5 10	Speed bin totals
Vbin 10 15	Speed bin totals
Vbin 15 20	Speed bin totals
Vbin 20 25	Speed bin totals
Vbin 25 30	Speed bin totals
Vbin 30 35	Speed bin totals
Vbin 35 40	Speed bin totals
Vbin 40 45	Speed bin totals
Vbin 45 50	Speed bin totals
Vbin 50 55	Speed bin totals
Vbin 55 60	Speed bin totals
Vbin 60 130	Speed bin totals
Mean	Average speed
Vpp 85	Percentile speed
JPSL 30	Number exceeding Posted Speed Limit
JPSL% 30	Percent exceeding Posted Speed Limit
JSL1 35 ACPO	Number exceeding Speed Limit 1
JSL1% 35 ACPO	Percent exceeding Speed Limit 1
JSL2 45 DFT	Number exceeding Speed Limit 2
JSL2% 45 DFT	Percent exceeding Speed Limit 2
Fix1	User defined fixed text

2115	2	0	2	0	0	0	0	0	0	0	0	2115	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.2	-	0	0	0	0	0	0	
2130	0	0	0	0	0	0	0	0	0	0	0	2130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2145	1	0	1	0	0	0	0	0	0	0	0	2145	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2200	2	0	2	0	0	0	0	0	0	0	0	2200	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2215	3	0	3	0	0	0	0	0	0	0	0	2215	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2230	1	0	1	0	0	0	0	0	0	0	0	2230	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2245	0	0	0	0	0	0	0	0	0	0	0	2245	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2300	1	0	1	0	0	0	0	0	0	0	0	2300	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2315	0	0	0	0	0	0	0	0	0	0	0	2315	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2330	0	0	0	0	0	0	0	0	0	0	0	2330	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2345	0	0	0	0	0	0	0	0	0	0	0	2345	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-19	200	5	181	1	12	0	1	0	0	0	0	07-19	0	2	24	87	85	20	1	1	0	0	0	0	0	0	0	0	20.1	24.3	2	1	1	0.85	0	0	0	0	0	0	0		
06-22	242	6	219	2	14	0	1	0	0	0	0	06-22	0	3	30	92	102	23	1	1	0	0	0	0	0	0	0	19.8	24.1	2	0.826	1	0.413	0	0	0	0	0	0	0	0		
06-00	249	6	226	2	14	0	1	0	0	0	0	06-00	0	3	30	87	104	23	1	1	0	0	0	0	0	0	0	19.9	24	2	0.803	1	0.402	0	0	0	0	0	0	0	0		
00-00	251	6	228	2	14	0	1	0	0	0	0	00-00	0	3	30	87	106	23	1	1	0	0	0	0	0	0	0	19.9	24	2	0.797	1	0.398	0	0	0	0	0	0	0	0		

Grand Total

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 5	Vbin 10	Vbin 15	Vbin 20	Vbin 25	Vbin 30	Vbin 35	Vbin 40	Vbin 45	Vbin 50	Vbin 55	Vbin 60	Vbin 100	Mean	Vpp 85	JPSL 30	JPSL% 35	JSL1 ACPO	JSL1% 35	JSL2 ACPO	JSL2% 45	Fix1
--	1896	28	1754	10	95	5	3	0	0	1	0	--	1	37	178	774	781	121	3	1	0	0	0	0	0	0	19.5	23.2	4	0.211	1	0.653	0	0	0

TSP Class Profile All Days 15 Mins

Report Id - CustomList 57
Site Name - NORFOLK 001
Description - OLD MARKET WAY [30M]
Direction - West

16 May 2017

Table with columns: Time, Total, C1s-10, Fix1, Time, Vbin 0-60, Mean, Vpp, JPSL, JPSL%, JSL1, JSL1%, JSL2, JSL2%, Fix1. Rows represent time intervals from 0000 to 0600.











17 May 2017

Table with columns: Time, Total, C1s-10, Fix1, Time, Vbin 0-60, Mean, Vpp, JPSL, JPSL%, JSL1, JSL1%, JSL2, JSL2%, Fix1. Rows represent time intervals from 0000 to 1545.

2115	1	0	1	0	0	0	0	0	0	0	0	0	2115	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	-	0	0	0	0	0	0	
2130	0	0	0	0	0	0	0	0	0	0	0	0	2130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2145	2	0	2	0	0	0	0	0	0	0	0	0	2145	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2200	0	0	0	0	0	0	0	0	0	0	0	0	2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2215	0	0	0	0	0	0	0	0	0	0	0	0	2215	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2230	0	0	0	0	0	0	0	0	0	0	0	0	2230	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2245	0	0	0	0	0	0	0	0	0	0	0	0	2245	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2300	0	0	0	0	0	0	0	0	0	0	0	0	2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2315	0	0	0	0	0	0	0	0	0	0	0	0	2315	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2330	0	0	0	0	0	0	0	0	0	0	0	0	2330	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2345	0	0	0	0	0	0	0	0	0	0	0	0	2345	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-19	218	6	195	2	14	0	1	0	0	0	0	0	07-19	0	6	23	57	93	35	4	0	0	0	0	0	0	0	0	0	0	0	0	0	20.7	25.5	4	1.933	0	0	0	0	0
06-22	252	7	228	2	16	0	1	0	0	0	0	0	06-22	0	6	27	73	104	38	4	0	0	0	0	0	0	0	0	0	0	0	0	20.6	25.4	4	1.987	0	0	0	0	0	
06-00	252	7	228	2	16	0	1	0	0	0	0	0	06-00	0	6	27	73	104	38	4	0	0	0	0	0	0	0	0	0	0	0	20.6	25.4	4	1.987	0	0	0	0	0		
00-00	255	8	227	2	17	0	1	0	0	0	0	0	00-00	0	6	28	75	104	38	4	0	0	0	0	0	0	0	0	0	0	0	20.5	25.4	4	1.999	0	0	0	0	0		

Grand Total

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 5	Vbin 10	Vbin 15	Vbin 20	Vbin 25	Vbin 30	Vbin 35	Vbin 40	Vbin 45	Vbin 50	Vbin 55	Vbin 60	Vbin 100	Mean	Vpp 85	JPSL 30	JPSL%	JSL1 35	JSL1% ACPO	JSL2 45	JSL2% DFT	JSL2% 45	Fix1
--	1919	36	1753	10	115	1	2	0	2	0	0	--	1	45	178	632	815	231	17	0	0	0	0	0	0	0	20.2	24.6	17	0.888	0	0	0	0	0	0

Automatic Traffic Counts Classification Scheme							
Length	Axles & Groups		Vehicle Type	ARX Classification			
Type	Axles	Groups	Description	Class	Parameters	Dominant Vehicle	
Short up to 5.5m	Light Vehicles						
	2	1 or 2	Very Short Bicycle or Motorcycle	MC	1	$d(1) < 1.7$ and axles = 2	
	2	1 or 2	Short Saloon, Hatchback, Estate, 4WD, Pick-Up, Light Van, Bicycle, Motorcycle, etc.	SV	2	$d(1) > 1.7m$. $d(1) < = 3.2m$ and axles = 2	
Medium 5.5m to 14.5m	3, 4 or 5	3	Short - Towing Trailer, Caravan, Boat, etc.	SVT	3	groups = 3, $d(1) > 2.1m$. $d(1) < = 3.2m$. $d(2) > = 2.1m$ and axles = 3,4,5	
	Heavy Vehicles						
	2	2	Two Axle Truck or Bus	TB2	4	$d(1) > 3.2m$ and axles = 2	
	3	2	Three Axle Truck or Bus	TB3	5	axles = 3 and groups = 2	
	> 3	2	Four Axle Truck	T4	6	$d(1) > 3.2m$. axles = 3 and groups = 3	
Long 11.5m to 19.0m	3	3	Three Axle Articulated Three axle articulated vehicle or rigid vehicle and trailer	ART3	7	$d(1) > 3.2m$. Axles = 3 and groups = 3	
	4	> 2	Four Axle Articulated Four axle articulated vehicle or rigid vehicle and trailer	ART4	8	$d(2) < 2.1m$ or $d(1) < 2.1m$ or $d(1) > 3.2m$ axles = 5 and groups < 2	
	5	> 2	Five Axle Articulated Five axle articulated vehicle or rigid vehicle and trailer	ART5	9	axles = 6 and groups > 2 or axles 6 and groups = 3	
	> = 6	> 2	Six Axle Articulated Six (or more) axle articulated vehicle or rigid vehicle and trailer	ART6	10	axles = 6 and groups > 2 or axles > 6 and groups = 3	
Ungrouped classes							
			Unclassifiable Vehicle		13		
			Unclassifiable Axle Event		0		



Client: WSP

Project Number: TSP13134

Project Name: The Street, Hempnall, Norfolk

Survey Type: ATC

Location: The Street

Survey Date: 16th to 23rd of May 2017

Survey Time: 24 hours x 7 days



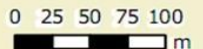
Key
 — ATC Locations



TITLE
 Hempnall, Norfolk

FIGURE No:
 ATCs Surveys

Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, ©



TSP Class Profile All Days 15 Mins

Globals

Report Id	CustomList-57
Descriptor	TSP Class Profile All Days 15 Mins
Created by	MetroCount Traffic Executive
Creation Time (UTC)	2017-05-25T10:55:05
Legal	Copyright (c)1997 - 2016 MetroCount
Graphic	header.gif
Language	English
Country	United Kingdom
Time	UTC + 120 min
Create Version	5.0.2.0
Metric	Non metric
Speed Unit	mph
Length Unit	ft
Mass Unit	ton

Dataset

Site Name	NORFOLK 002
Site Attribute	TSP13134
File Name	E:\TSP13234-The St Hempnall Norfolk\NORFOLK 00219May2017-p2.EC0
File Type	Plus
Algorithm	Factory default axle
Description	THE STREET [30M]
Lane	0
Direction	7
Direction Text	7 - North bound A]B, South bound B]A.
Layout Text	Axle sensors - Paired (Class/Speed/Count)
Setup Time	2017-05-19T12:01:49
Start Time	2017-05-19T12:01:49
Finish Time	2017-05-19T12:16:54
Operator	PK
Configuration	40 MC5600 00 00 00 00 00 ? FH37TR4X MC56-L5 [MC55] (c)Microcom 19Oct

Dataset

Site Name	NORFOLK 002
Site Attribute	TSP13134
File Name	E:\TSP13234-The St Hempnall Norfolk\NORFOLK 00219May2017.EC0
File Type	Plus
Algorithm	Factory default axle
Description	THE STREET [30M]
Lane	0
Direction	7
Direction Text	7 - North bound A]B, South bound B]A.
Layout Text	Axle sensors - Paired (Class/Speed/Count)
Setup Time	2017-05-15T02:44:33
Start Time	2017-05-15T02:44:33
Finish Time	2017-05-19T12:01:34
Operator	PK
Configuration	40 MC5600 00 00 00 00 00 ? FH37TR4X MC56-L5 [MC55] (c)Microcom 19Oct

Dataset

Site Name	NORFOLK 002
Site Attribute	TSP13134
File Name	E:\TSP13234-The St Hempnall Norfolk\NORFOLK 00223May2017.EC0
File Type	Plus
Algorithm	Factory default axle

Description THE STREET [30M]
Lane 0
Direction 7
Direction Text 7 - North bound A]B, South bound B]A.
Layout Text Axle sensors - Paired (Class/Speed/Count)
Setup Time 2017-05-19T12:17:46
Start Time 2017-05-19T12:17:46
Finish Time 2017-05-23T21:13:46
Operator PK
Configuration 40 MC5600 00 00 00 00 00 ? FH37TR4X MC56-L5 [MC55] (c)Microcom 19Oct

Profile

Name TSP Class Profile All Days New15 mins
Title TSP Traffic Reports
Graphic Logo C:\and Settings\Documents\3.21_on_us_logo_cmyk 50.BMP
Header
Footer
Percentile 1 85
Percentile 2 95
Pace 12
Filter Start 2017-05-16T00:00:00
Filter End 2017-05-23T00:00:00
Class Scheme ARX
F Cls(1-10) Dir(N) Sp(0,120) Headway(I)0 Span(0 - 328.084) Lane(0-16)
Low Speed 0
High Speed 120
Posted Limit 30
Speed Limits 35 45 30 30 30 0 0 0 0 30
Separation 0.000
Separation Type Headway
Direction North
Encoded Direction 1



104

104

TSP Class Profile All Days 15 Mins

Column	
Time	24-hour time (0000 - 2359)
Total	Number in time step
Cls 1	Class totals
Cls 2	Class totals
Cls 3	Class totals
Cls 4	Class totals
Cls 5	Class totals
Cls 6	Class totals
Cls 7	Class totals
Cls 8	Class totals
Cls 9	Class totals
Cls 10	Class totals
Fix1	User defined fixed text
Time	24-hour time (0000 - 2359)
Vbin 0 5	Speed bin totals
Vbin 5 10	Speed bin totals
Vbin 10 15	Speed bin totals
Vbin 15 20	Speed bin totals
Vbin 20 25	Speed bin totals
Vbin 25 30	Speed bin totals
Vbin 30 35	Speed bin totals
Vbin 35 40	Speed bin totals
Vbin 40 45	Speed bin totals
Vbin 45 50	Speed bin totals
Vbin 50 55	Speed bin totals
Vbin 55 60	Speed bin totals
Vbin 60 130	Speed bin totals
Mean	Average speed
Vpp 85	Percentile speed
JPSL 30	Number exceeding Posted Speed Limit
JPSL% 30	Percent exceeding Posted Speed Limit
JSL1 35 ACPO	Number exceeding Speed Limit 1
JSL1% 35 ACPO	Percent exceeding Speed Limit 1
JSL2 45 DFT	Number exceeding Speed Limit 2
JSL2% 45 DFT	Percent exceeding Speed Limit 2
Fix1	User defined fixed text

TSP Class Profile All Days 15 Mins











Report Id - CustomList-57
Site Name - NORFOLK 002
Description - THE STREET [30M]
Direction - South

16 May 2017

Table with columns: Time, Total, Cls 1-10, Fix1, Time, Vbin 0-60, Mean, Vpp 85, JPSL 30, JPSL 35, JSL1 ACPO, JSL2 ACPO, JSL2 DFT, Fix1. Contains data for 16 May 2017.

17 May 2017

Table with columns: Time, Total, Cls 1-10, Fix1, Time, Vbin 0-60, Mean, Vpp 85, JPSL 30, JPSL 35, JSL1 ACPO, JSL2 ACPO, JSL2 DFT, Fix1. Contains data for 17 May 2017.

Automatic Traffic Counts Classification Scheme							
Length	Axles & Groups		Vehicle Type	ARX Classification			
Type	Axles	Groups	Description	Class	Parameters	Dominant Vehicle	
Short up to 5.5m	Light Vehicles						
	2	1 or 2	Very Short Bicycle or Motorcycle	MC	1	$d(1) < 1.7$ and axles = 2	
	2	1 or 2	Short Saloon, Hatchback, Estate, 4WD, Pick-Up, Light Van, Bicycle, Motorcycle, etc.	SV	2	$d(1) > 1.7m$. $d(1) < = 3.2m$ and axles = 2	
Medium 5.5m to 14.5m	3, 4 or 5	3	Short - Towing Trailer, Caravan, Boat, etc.	SVT	3	groups = 3, $d(1) > 2.1m$. $d(1) < = 3.2m$. $d(2) > = 2.1m$ and axles = 3,4,5	
	Heavy Vehicles						
	2	2	Two Axle Truck or Bus	TB2	4	$d(1) > 3.2m$ and axles = 2	
	3	2	Three Axle Truck or Bus	TB3	5	axles = 3 and groups = 2	
	> 3	2	Four Axle Truck	T4	6	$d(1) > 3.2m$. axles = 3 and groups = 3	
Long 11.5m to 19.0m	3	3	Three Axle Articulated Three axle articulated vehicle or rigid vehicle and trailer	ART3	7	$d(1) > 3.2m$. Axles = 3 and groups = 3	
	4	> 2	Four Axle Articulated Four axle articulated vehicle or rigid vehicle and trailer	ART4	8	$d(2) < 2.1m$ or $d(1) < 2.1m$ or $d(1) > 3.2m$ axles = 5 and groups < 2	
	5	> 2	Five Axle Articulated Five axle articulated vehicle or rigid vehicle and trailer	ART5	9	axles = 6 and groups > 2 or axles 6 and groups = 3	
	> = 6	> 2	Six Axle Articulated Six (or more) axle articulated vehicle or rigid vehicle and trailer	ART6	10	axles = 6 and groups > 2 or axles > 6 and groups = 3	
Ungrouped classes							
			Unclassifiable Vehicle		13		
			Unclassifiable Axle Event		0		

C VISIBILITY
SPLAYS
CALCULATIONS

Visibility Splay Test Sheet - The Street, Hempnall - Northbound

85th%ile Dry: 29.5

85th%ile Wet 27

MfS2 Para 10.1.5: $SSD = vt + v^2 / 2 (d+0.1a)$

v = speed m/s

t = driver reaction-perception time (seconds)

d = deceleration (m/s²)

a = longitudinal gradient (%) (+ for upgrade and - for downgrades)

Standard t and d criteria:

Origin	Reaction Time (t)	Deceleration (d)
MfS	1.5 Secs	4.41 m/s
DMRB	2 Secs	2.45 m/s

MfS2 Table 10.1 Reaction Time Vehicle Type/ Speed		
(t)	(d)	Application
2s	0.25g (2.45)	All vehs above 37mph Desirable Min SSD
2s	0.375g (3.68)	All vehs above 37mph Absolute Min SSD
1.5s	0.375g (3.68)	HGV's below 37mph
1.5s	0.375g (3.68)	Buses below 37mph
1.5s	0.45g (4.41)	Light vehicles below 37mph

TA22/81 Speed Value = **27** Insert 85th%ile wet weather speed (mph)

v = **12.07008** Converted to m/s from mph cell (C17)

t = **1.5** Insert relevant reaction time (t)

d = **4.41** Insert relevant deceleration time (d)

a = Insert gradient as applicable (+/-)

v * t = 18.10512

v² = 145.6868312

(d+0.1a) 4.41

2d = 8.82

v² / 2d = 16.51778132

Vis Basic = **34.62290132**

Vis + Bonnet = **37.023** Resultant visibility splay Length

Cross Check	
1	8.82
2	0
3	8.82
4	145.6868312
5	16.51778132
6	18.10512
7	34.62290132
8	37.023

Visibility Splay Test Sheet - The Street, Hempnall - Southbound

85th%ile Dry: 29.1
 85th%ile Wet 26.6

MfS2 Para 10.1.5: $SSD = vt + v^2 / 2 (d+0.1a)$

v = speed m/s
 t = driver reaction-perception time (seconds)
 d = deceleration (m/s²)
 a = longitudinal gradient (%) (+ for upgrade and - for downgrades)

Standard t and d criteria:

Origin	Reaction Time (t)	Deceleration (d)
MfS	1.5 Secs	4.41 m/s
DMRB	2 Secs	2.45 m/s

MfS2 Table 10.1 Reaction Time Vehicle Type/ Speed		
(t)	(d)	Application
2s	0.25g (2.45)	All vehs above 37mph Desirable Min SSD
2s	0.375g (3.68)	All vehs above 37mph Absolute Min SSD
1.5s	0.375g (3.68)	HGV's below 37mph
1.5s	0.375g (3.68)	Buses below 37mph
1.5s	0.45g (4.41)	Light vehicles below 37mph

TA22/81 Speed Value = **26.6** Insert 85th%ile wet weather speed (mph)

v = **11.891264** Converted to m/s from mph cell (C17)
 t = **1.5** Insert relevant reaction time (t)
 d = **4.41** Insert relevant deceleration time (d)
 a = Insert gradient as applicable (+/-)

v * t = 17.836896

v² = 141.4021595

(d+0.1a) 4.41

2d = 8.82

v² / 2d = 16.03199088

Vis Basic = **33.86888688**

Vis + Bonnet = **36.269** Resultant visibility splay Length

Cross Check	
1	8.82
2	0
3	8.82
4	141.4021595
5	16.03199088
6	17.836896
7	33.86888688
8	36.269

APPENDIX

D ACCIDENT DATA



Full Details Report Summary -

Accidents Found Date Range: 31/01/2016 - 28/11/2016

Grid Coordinate Range: 624127,294314 - 624154,294370

Accident Date BETWEEN '01-Apr-2012' AND '31-Mar-2017'

Accident Severity

	2016	Total
Slight	2	2
Total	2	2

Casualty Severity

	2016	Total
Slight	2	2
Total	2	2

Casualty KSI

	2016	Total
Slight	2	2
Total	2	2

Accident Date BETWEEN '01-Apr-2012' AND '31-Mar-2017'

1.3 Accident Reference:1644076 Slight MILL ROAD UNSPECIFIED ROAD OR LOCATION Accident 1 of 2

1.7 Date & 1.9 Time.....Sunday 31/01/2016 14:46	1.15 Speed limit.....30 Mph
1.11 Grid co-ordinates.....624154/294314	1.14 Road type.....Single c'way
1.10 Local Authority.....South Norfolk	1.16 Junction detail.....Not at or within 20m of junction
1.12/1.13 1st road identity..B1527	1.17 Junction control.....
1.18/1.19 2nd road identity..	1.24 Special conditions...None
1.22 Weather.....Rain	1.25 Carriageway hazards..None
1.21 Light conditions.....Daylight	1.5 Number of vehicles...1
1.20a Crossing(human).....No Human control within 50m	1.6 Number of casualties..1
1.20b Crossing(physical).....No crossing facility within 50m	1.23 Surface.....Wet

Did a police officer attend?
Yes

Accident Description

V1 WAS TRAVELLING ALONG MILL LANE, A140 BOUND. WHEN APPROACHING THE CORNER, LOST CONTROL & THE VEHICLE SPUN MOUNTING THE KERB & MAKING CONTACT WITH A BRICK WALL. VEHICLE SPUN 180D FACING THE DIRECTION TRAVELLING FROM.

1 Vehicle

2.4 Veh ref no.....1	2.16 First impact.....Offside
2.17 Other vehicle.....0	2.12 Hit object in c'way..None
2.5 Vehicle class.....Car	2.14 Hit object off c'way.None
2.10 Junction location...Not at junction	2.18 Parts damaged..... / /
2.9 Restricted location.On main carriageway	2.21 Driver gender.....Female
2.8 Movement from/to...West South east	2.22 Driver age.....30
2.7 Manoeuvres.....Turning right	
2.11 Skidding.....No	2.24 Hit and Run.....No
2.13 Left c'way.....Did not leave c'way	2.23 Breath test.....Negative
2.6 Towing.....No	2.29 Journey purpose.....Unknown
2.28 Foreign vehicle.....Not foreign	

1 Casualty

3.5 Cas ref no.....1	3.15 Car passenger.....No
3.6 Casualty class.....Driver or Rider	3.16 PSV passenger.....No
3.7 Gender.....Female	3.14 Seat belt usage.....
3.8 Age.....30	3.13 School pupil.....Other (3.19 School
3.9 Severity.....Slight	3.10 Pedestrian location..Not a pedestrian
3.4 Vehicle no.....1	3.11 Pedestrian movement..Not a pedestrian
3.12 Ped Direction.....Not a pedestrian	3.19 Roadworker injured...No

Accident Date BETWEEN '01-Apr-2012' AND '31-Mar-2017'

1.3 Accident Reference:137773 Slight KILBOURN & SON GARAGE THE STREET C367 BUNGAY ROAD Accident 2 of 2
 B1527
 1.7 Date & 1.9 Time.....Monday 28/11/2016 06:26 1.15 Speed limit.....30 Mph
 1.11 Grid co-ordinates.....624127/294370 1.14 Road type.....Single c'way
 1.10 Local Authority.....South Norfolk 1.16 Junction detail.....T or Staggered junction
 1.12/1.13 1st road identity..C367 1.17 Junction control.....Give way sign or uncontrolled
 1.18/1.19 2nd road identity..B1527 1.24 Special conditions...None
 1.22 Weather.....Other 1.25 Carriageway hazards..None
 1.21 Light conditions.....Dark/lights not lit 1.5 Number of vehicles...4
 1.20a Crossing(human).....No Human control within 50m 1.6 Number of casualties.1
 1.20b Crossing(physical).....No crossing facility within 50m 1.23 Surface.....Ice

Did a police officer attend?
 Yes

Accident Description

Vehicle 1 driving along Bungay Road and attempting to turn into The Street. Lost control, hitting the wall on the nearside, hitting 3 parked cars @ a car garage and landing on its roof.

4 Vehicles

2.4 Veh ref no.....1
 2.17 Other vehicle.....0 2.16 First impact.....Front
 2.5 Vehicle class.....Car 2.12 Hit object in c'way..None
 2.10 Junction location...Approaching or parked on approach 2.14 Hit object off c'way.
 2.9 Restricted location.On main carriageway 2.18 Parts damaged..... / /
 2.8 Movement from/to...South North 2.21 Driver gender.....Male
 2.7 Manoeuvres.....Turning right 2.22 Driver age.....26
 2.11 Skidding.....Yes & Overturned
 2.13 Left c'way.....Left c'way near-side 2.24 Hit and Run.....No
 2.6 Towing.....No 2.23 Breath test.....Not requested
 2.28 Foreign vehicle.....Not foreign 2.29 Journey purpose.....Commuting to/from work

2.4 Veh ref no.....2
 2.17 Other vehicle.....0 2.16 First impact.....Front
 2.5 Vehicle class.....Car 2.12 Hit object in c'way..None
 2.10 Junction location...Cleared junction or parked at jun 2.14 Hit object off c'way..None
 2.9 Restricted location.Footway 2.18 Parts damaged..... / /
 2.8 Movement from/to...Parked Parked 2.21 Driver gender.....Not known
 2.7 Manoeuvres.....Parked 2.22 Driver age.....-1
 2.11 Skidding.....No
 2.13 Left c'way.....Did not leave c'way 2.24 Hit and Run.....No
 2.6 Towing.....No 2.23 Breath test.....Not applicable
 2.28 Foreign vehicle.....Not foreign 2.29 Journey purpose.....Unknown

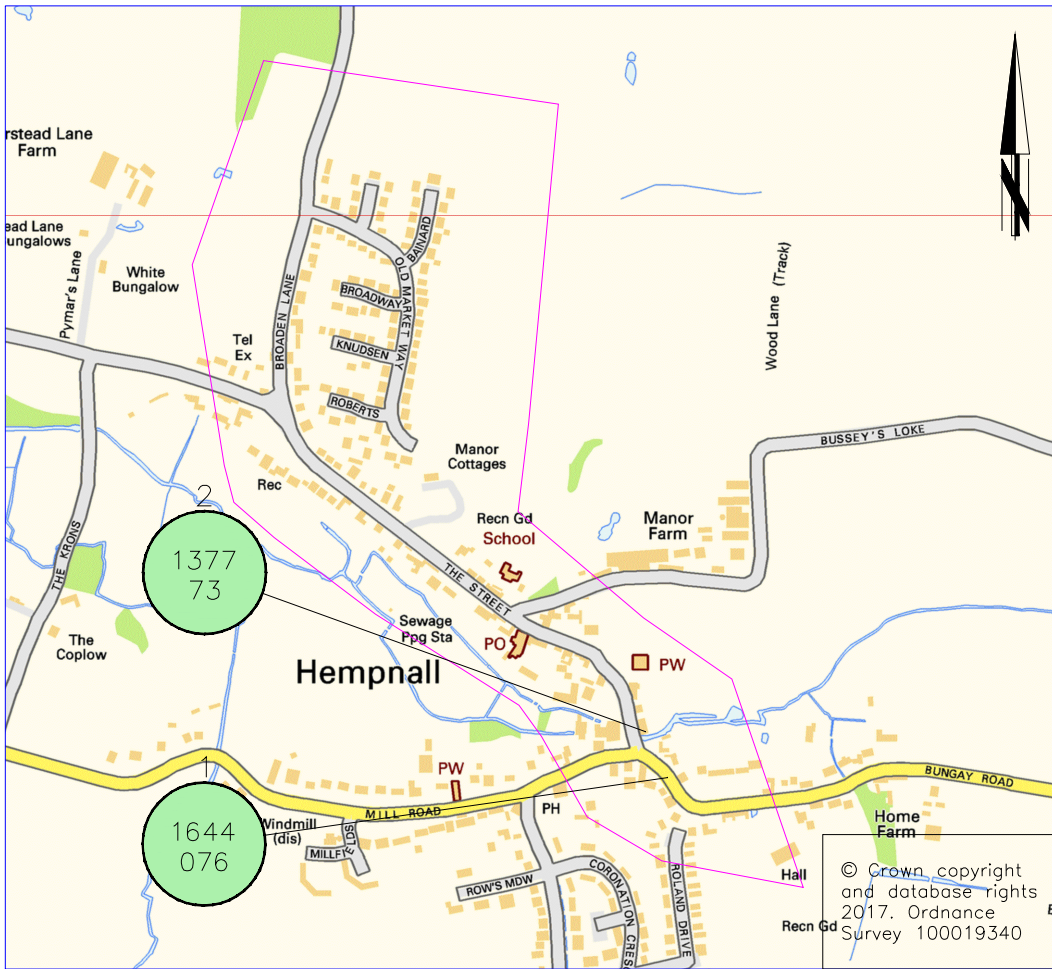
2.4 Veh ref no.....3
 2.17 Other vehicle.....0 2.16 First impact.....Front
 2.5 Vehicle class.....Car 2.12 Hit object in c'way..None
 2.10 Junction location...Cleared junction or parked at jun 2.14 Hit object off c'way..None
 2.9 Restricted location.Footway 2.18 Parts damaged..... / /
 2.8 Movement from/to...Parked Parked 2.21 Driver gender.....Not known
 2.7 Manoeuvres.....Parked 2.22 Driver age.....-1
 2.11 Skidding.....No
 2.13 Left c'way.....Did not leave c'way 2.24 Hit and Run.....No
 2.6 Towing.....No 2.23 Breath test.....Not applicable
 2.28 Foreign vehicle.....Not foreign 2.29 Journey purpose.....Unknown

2.4 Veh ref no.....4
 2.17 Other vehicle.....0 2.16 First impact.....Front
 2.5 Vehicle class.....Car 2.12 Hit object in c'way..None
 2.10 Junction location...Cleared junction or parked at jun 2.14 Hit object off c'way..None
 2.9 Restricted location.Footway 2.18 Parts damaged..... / /
 2.8 Movement from/to...Parked Parked 2.21 Driver gender.....Not known
 2.7 Manoeuvres.....Parked 2.22 Driver age.....-1
 2.11 Skidding.....No
 2.13 Left c'way.....Did not leave c'way 2.24 Hit and Run.....No
 2.6 Towing.....No 2.23 Breath test.....Not applicable
 2.28 Foreign vehicle.....Not foreign 2.29 Journey purpose.....Unknown

1 Casualty

3.5 Cas ref no.....1 3.15 Car passenger.....No
 3.6 Casualty class.....Driver or Rider 3.16 PSV passenger.....No
 3.7 Gender.....Male 3.14 Seat belt usage.....Not applicable
 3.8 Age.....26 3.13 School pupil.....Other
 (3.19 School)
 3.9 Severity.....Slight 3.10 Pedestrian location..Not a pedestrian
 3.4 Vehicle no.....1 3.11 Pedestrian movement..Not a pedestrian
 3.12 Ped Direction.....Not a pedestrian 3.19 Roadworker injured...No

Five years to end March 2017



Reference Number
Date / Day Month Year Time
Severity
Dark / Lit
Weather Conditions
Road Surface
Special Conditions
Carriageway Hazards
Vehicle Manoeuvres
Vehicle 1 5 e
Vehicle 2 6 t
Vehicle 3 7 c
Vehicle 4 8
Casualty /age

1	2
1644 076	1377 73
Su31 Jan 2016 1446	Mo28 Nov 2016 0626
SI	SI
30	26
	??
	??
	??
30 	26

APPENDIX

E DRAWINGS

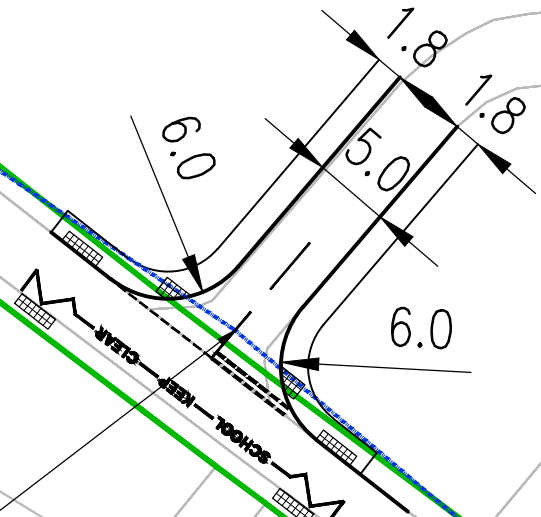


DO NOT SCALE

EXTENT OF NCC
HIGHWAY BOUNDARY

EXISTING ACCESS TO
MANOR COTTAGES TO
BE EXTINGUISHED

VISIBILITY SPLAYS:
• 2.4M SET BACK
• 36M TO THE NORTH
• 37M TO THE SOUTH



REV	DATE	BY	DESCRIPTION	CHK	APP
A	01/06/2017	JFD	FIRST ISSUE	NE	NE

DRAWING STATUS: S2 - FOR INFORMATION



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PROJECT: LAND OFF THE STREET, HEMPSTALL

TITLE:

SCALE @ A3: 1:500 CHECKED: NJE APPROVED: NJE

PROJECT No: 70033864 DESIGNED: JFD DRAWN: JFD DATE: June 17

DRAWING No: 3864-SK-003 REV: A

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G.H. ALLEN (FARMS) LIMITED

LAND AT THE STREET, HEMPSTALL PROPOSED RESIDENTIAL DEVELOPMENT

ACCESS STATEMENT





LAND AT THE STREET, HEMPNALL

ACCESS STATEMENT

ON BEHALF OF G.H. ALLEN (FARMS) LIMITED

REPORT (DRAFT)

PROJECT NO.: 70033864

DATE: MAY 2017

WSP

WSP.COM

QUALITY MANAGEMENT

ISSUE/REVISION	FIRST ISSUE	REVISION 1
Remarks	Draft	Final
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Signature		
Checked by	Jonathan Delahoche	Jonathan Delahoche
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PRODUCTION TEAM

CLIENT - G.H. ALLEN (FARMS) LIMITED

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C	VISIBILITY SPLAYS CALCULATIONS
D	ACCIDENT DATA
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1 INTRODUCTION

1.1 APPOINTMENT

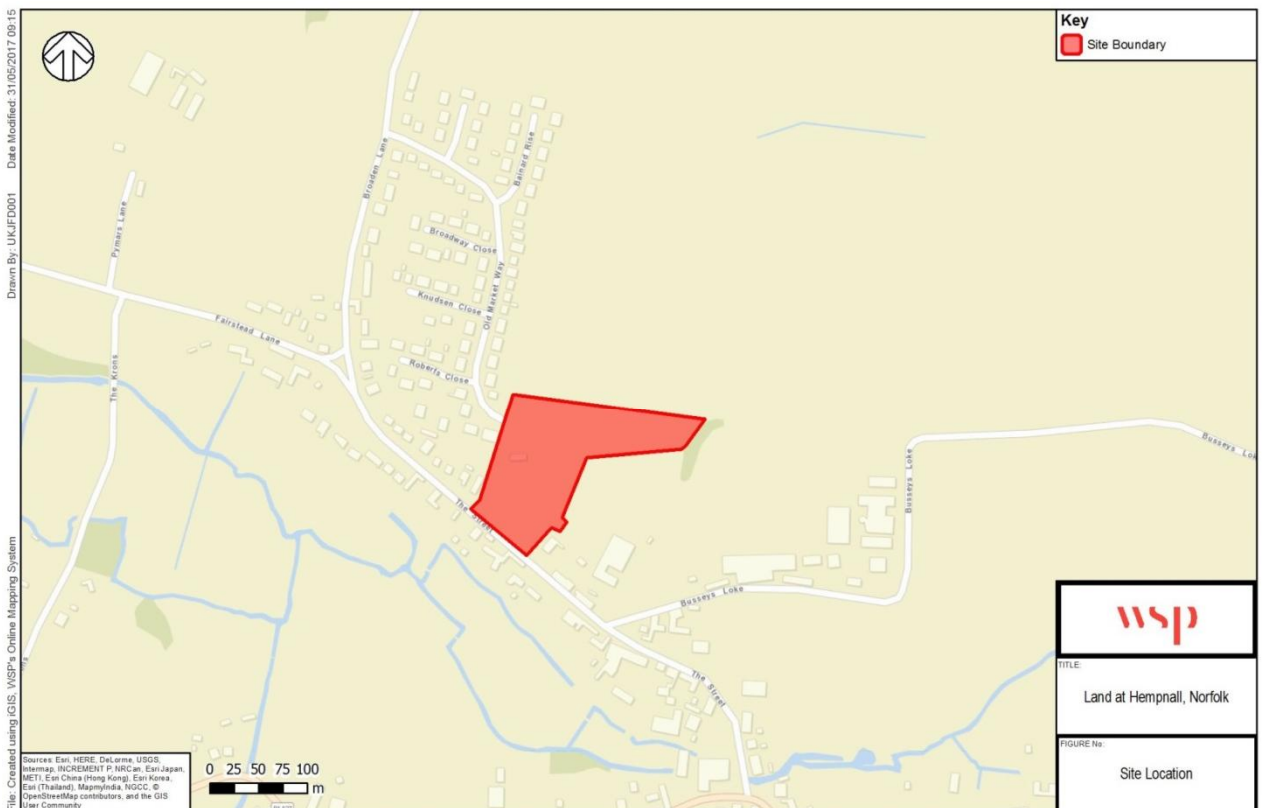
1.1.1 WSP has been commissioned by G.H. Allen (Farms) Limited to carry out an access appraisal and provide transportation advice in relation to a proposed residential development on land north east of The Street, Hempnall, Norfolk.

1.2 SITE LOCATION

1.2.1 The village of Hempnall is located approximately 22km south of Norwich. The main highway serving the village is the B1527 Bungay Road, which leads to the A140 Norwich Road approximately 5km to the west of the village.

1.2.2 The site is located to the north east of The Street, and is bounded to the east by Hempnall Primary School, to the west by a residential housing estate and to the north by agricultural fields.

Figure 1-1 Site Location



1.3 CURRENT USE

1.3.1 Part of the site is currently occupied by the Manor Cottages, comprising 2 residential units which are located to the northwest. Access to the site is available from two locations; a private drive serving the cottages located at the north western end of the site frontage to The Street, and a further private access road serving the Hempnall Primary School car park. Both access points are within the control of the client.

1.4 PROPOSED USE

- 1.4.1 Albeit this project is at an early stage, an indicative layout has been prepared by Savills to demonstrate the potential of the site; the layout indicates that the site could accommodate around 19 residential units. A copy of the indicative layout plan is enclosed at Appendix A.

1.5 REPORT STRUCTURE

- 1.5.1 A site visit was conducted by WSP on Thursday 11th May 2017 and a detailed review of the exiting highway characteristics was undertaken.
- 1.5.2 This report presents the findings of the site investigation, reviews the potential impact and identifies the transport infrastructure necessary to support the development, with due regard to the limited scale and nature of the proposal.
- 1.5.3 The remainder of this report is set out in the following sections:
2. Existing Highway Network
 3. Existing Traffic Conditions
 4. Non-Motorised User Network
 5. Potential Development
 6. Summary and Conclusions

2 EXISTING HIGHWAY NETWORK

2.1 SITE CONNECTION

2.1.1 As identified in Figure 1-1, the primary means of access to the site is via The Street.

2.2 EXISTING HIGHWAY CONDITIONS

2.2.1 THE STREET

- 2.2.2 The Street carriageway is approximately 5.2m wide to the north of the Hempnall Primary School access road junction, and 5.1m wide to the south. A footway exists on the south western side of The Street, approximately 1.1m wide. There is no footway on the site side of the carriageway.
- 2.2.3 The current Hempnall Primary School access road is 5m wide. At the junction with The Street, the current visibility is 2.4m x 33m to the south east and 2.4m x 22m to the northwest. The envelope of visibility is currently restricted by a recently planted hedge both sides of the junction bell mouth.
- 2.2.4 The existing bell mouth radius kerbs are approximately 4m on the south east side and 3.5m on the north west side, with reinforced verge/ over-run areas to the rear of the radius kerbs.

Figure 2-1 View of Existing School Car Park Access Road



- 2.2.5 The roadway provides only for vehicles, with the main school pedestrian access located to the south-east on The Street.
- 2.2.6 To the north west of the site frontage is the vehicular access to Manor Cottages. In the vicinity of the access the carriageway of The Street is 5.4m wide with a 1.3m wide footpath on the south western side. The verge on the north side of The Street is between 0.6m and 0.9m wide.
- 2.2.7 The existing access is only a single vehicle width, and visibility is restricted by adjacent vegetation to approximately 2.4m x 6m in each direction.

Figure 2-2 View of Manor Cottages Vehicular Access



2.3 HIGHWAY BOUNDARY

2.3.1 THE STREET

2.3.2 Highway boundary information has been obtained from Norfolk County Council website.

2.3.3 As shown below on Figure 2-3, the Local Highway Authority maintains The Street carriageway/footway, and the narrow verge on the northern side. The access to the Manor Cottages and the Hemphall Primary School access road are privately maintained.

Figure 2-3 The Street Frontage Highway Boundary



Source: Norfolk County Council

3 EXISTING TRAFFIC CONDITIONS

3.1 INTRODUCTION

- 3.1.1 In order to understand the current highway conditions, traffic surveys in the form of Automatic Traffic Counts were undertaken on The Street and Old Market Way between the 16th and 23rd of May 2017. The ATC on the cul-de-sac of Old Market Way was installed to determine a locally derived vehicle trip rate.
- 3.1.2 The first ATC was positioned on The Street near the School access road; the second ATC was located in Old Market Way, near the junction with Broaden Lane.
- 3.1.3 Road traffic data are appended to this report at Appendix B.

3.2 THE STREET

- 3.2.1 From the Automatic Traffic Counts, it was possible to determine an average traffic base across weekdays. Table 3-1 below summarises the observed traffic conditions.

Table 3-1 Observed 2017 Traffic – The Street

DIRECTION	WEEKDAY			85% PERCENTILE VEHICLE SPEEDS	
	AM (08-09)	PM (17-18)	Daily (24hrs)	Dry Weather	Wet Weather
Northbound	103	74	808	29.5mph	27.0mph
Southbound	45	96	673	29.1mph	26.6mph
Total 2-way	148	169	1481	-	-

- 3.2.2 The traffic counts confirmed that traffic flows are low and commensurate with the rural location of the village. Similarly, the 85% percentile vehicle speed confirms that drivers respect the 30mph speed limit.
- 3.2.3 In order to determine 85th%ile wet weather speeds the principles of Highway Agency (England) Technical Advice Note TA22/81 – ‘Vehicle Speed Measurement on All-Purpose Roads’ have been applied. With due regard to the dry to wet weather adjustment contained within TA22/81, the 85th%ile wet weather approach speeds are also shown in Table 3-1.

3.3 ACCESS VISIBILITY – THE STREET

- 3.3.1 To determine the desirable level of visibility from the site access junction with in relation to the approaching speed of vehicles on The Street, reference is made to the access principles contained within Department for Transport and the Chartered Institute of Highways and Transportation document ‘Manual for Streets’ (MfS) 1 & 2, appropriate for development in a low speed village environment.
- 3.3.2 Applying the 85th%ile wet weather speeds to the Sight Stopping Distance (SSD) calculation contained at Para 10.1.5: (where $SSD = vt + \sqrt{v^2 / 2 (d+0.1a)}$) MfS2, indicates the following visibility splay requirements. The visibility splay calculation sheets are enclosed at Appendix C.
 - South east of access: 2.4m x 37m
 - North west of access: 2.4m x 36m

3.4 OLD MARKET WAY

3.4.1 The traffic generated by the dwellings served by Old Market Way is summarised below in Table 3-2 below. The traffic data demonstrates that on average the estate generate approximately 566 2-way vehicle movements on a daily basis (weekday).

Table 3-2 Observed 2017 Traffic – Old Market way

DIRECTION	WEEKDAY		
	AM (08-09)	PM (17-18)	Daily (24hrs)
Eastbound	8	44	280
Westbound	36	15	286
Total 2-way	44	59	566

3.4.2 The Royal Mail website was interrogated to obtain the number of address served by Old Market Way and subsequent cul-de-sac.

3.4.3 The following addresses were found in the Royal Mail web site post code finder.

Table 3-3 Existing Number of Dwellings served by Old Market Way

STREET NAME	DWELLINGS
Old Market Way	48
Nuttele Cl	14
Bainard Rise	21
Broadway Cl	15
Knudsen Cl	11
Roberts Cl	15
Total	124

3.4.4 On the basis of the ATC data and the number of dwelling served on Old Market Way, it is possible to derive a local residential vehicular trip rate, as follows:

Table 3-4 Local Residential Trip Rates (Per Dwelling)

DIRECTION	WEEKDAY		
	AM (08-09)	PM (17-18)	Daily (24hrs)
Eastbound	0.068	0.367	2.333
Westbound	0.302	0.127	2.380
Total 2-way	0.370	0.493	4.713

3.4.5 It is therefore anticipated that a dwelling located in Hempnall village would generate 0.370 trips in the AM peak period and 0.493 trips in the PM peak period and around 4.713 trips daily.

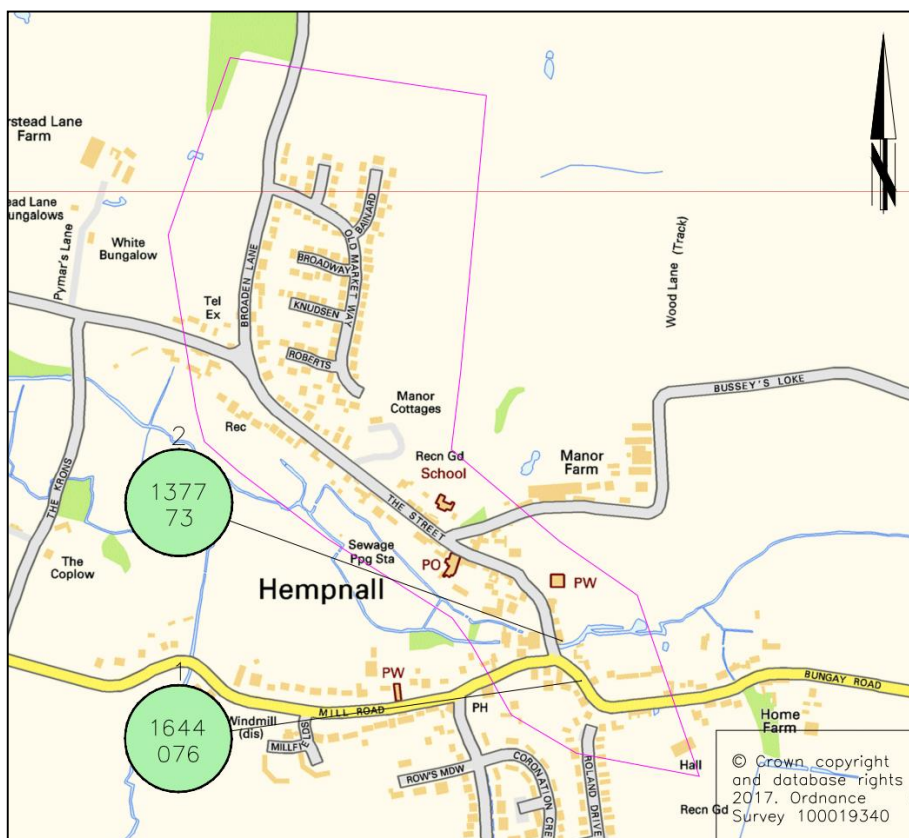
3.5 ACCIDENT DATA

3.5.1 Accident data was provided by Norfolk County Council for the past 5 years, from April 2012 to March 2017. During this period, only two accidents were recorded in the study area outlined in purple in Figure 3-1 below; the full data is enclosed at Appendix D.

3.5.2 Both accidents were due to the vehicle drivers losing control. The accident data records describe them as follows:

- Accident Reference 1644076: The slight accident involving one vehicle and one slight casualty, the driver, occurred on Mill Road on 31 Jan 2016 at 2.46pm. The vehicle was travelling along Mill Road towards the A140 in the west. The road surface was wet due to rain. When approaching the corner with The Street, the driver lost control and the vehicle spun 180 degrees mounting the kerb and making contact with the brick wall.
- Accident Reference 137773: The slight accident occurred on 28 November 2011 at 6.26am and involved 4 vehicles (3 parked) and one slight casualty. The road surface was icy and it was dark with lights not lit. Vehicle 1 was driving along Bungay Road, attempting to turn into The Street. The driver lost control, hit the wall on the nearside and 3 parked cars at a car garage.

Figure 3-1 Traffic Accident Map



3.5.3 Both accidents occurred near the junction of The Street and the B1527. Neither of the recorded injury accidents were close to the proposed site accesses, which suggests that the existing highway layout does not give rise to any apparent safety concerns.

3.5.4 Considering that neither of the accidents were caused by the road layout, road safety enhancement do not seem pressing

4 NON-MOTORISED USERS NETWORK

4.1 LOCAL NMU INFRASTRUCTURE

- 4.1.1 The Street is a quiet single carriageway with on-street parking. On some stretches of The Street, pavements are located on both sides. Near the current primary school access road, the pavement only runs along the western side of The Street and has a width of 1.1m. The primary school access road does not provide any infrastructure for non-motorised users.

Figure 4-1 The Street / Primary School Access

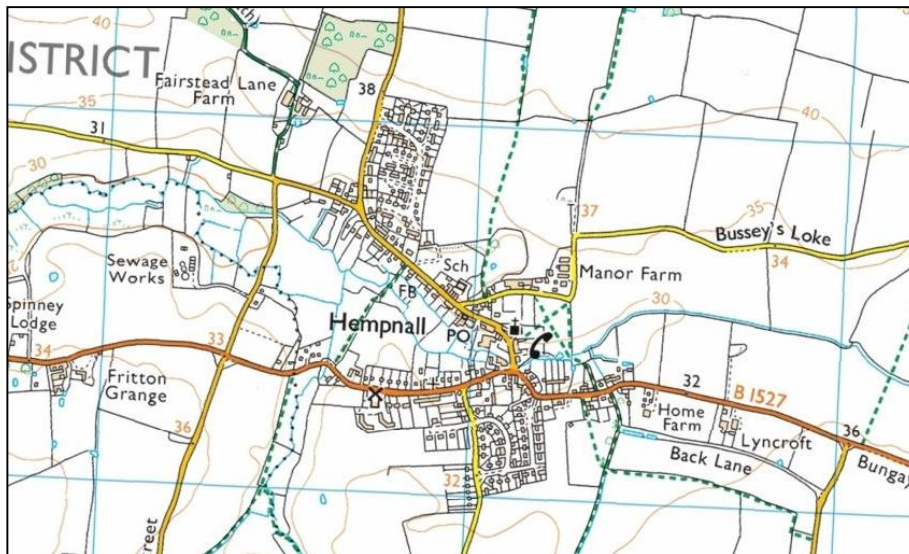


Figure 4-2 Hempnall Primary School Access Road



- 4.1.2 The nearest Public Footpath is located to the east of the School, starting on Bussey's Loke, and crossing the site at the northeast edge. The footpath is heads north towards Saxlingham Nethergate village. A second footpath, starting on The Street, near to "Ivy House" opposite the site, heads southbound towards the B1527 Mill Road. These are shown in Figure 4-3 below.

Figure 4-3 Public Right of Way Map

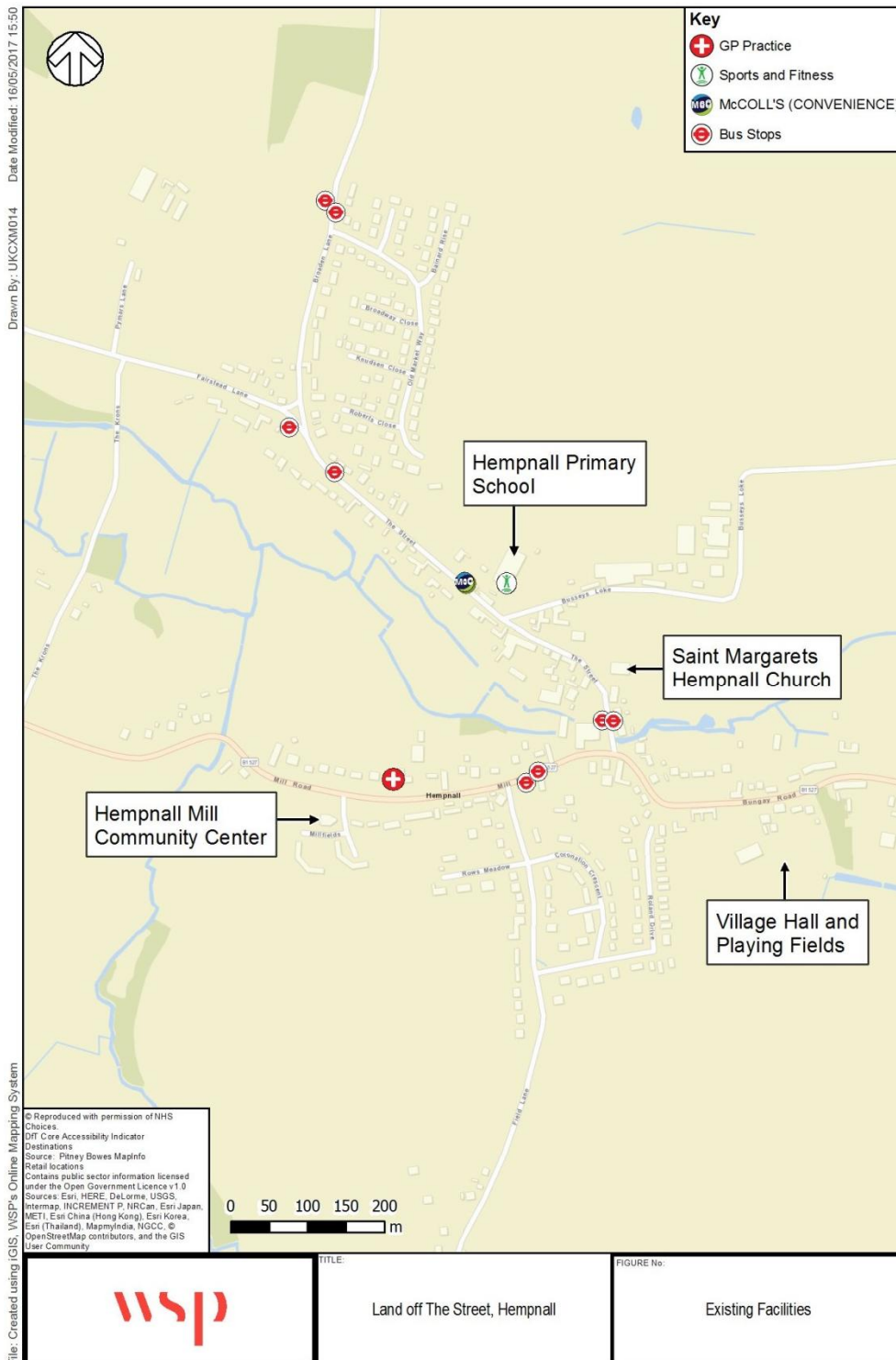


- 4.1.3 In addition there is a footpath connecting The Street, approximately 100m north of Manor Cottages access and Roberts Close, leading to Old Market Way.

4.2 LOCAL FACILITIES

- 4.2.1 Within Hempnall, various facilities are located within the village, within walking or cycling distance of the site. As shown in Figure 4-4 below, located on The Street are Hempnall Primary School, Saint Margarets Hempnall Church, as well as the McColls convenience store. Along the B1527 are the Hempnall Mill Community Centre, a GP practice, the Hempnall Butchers, the village hall and playing fields.

Figure 4-4 Existing Facilities in Hempnall



4.3 PUBLIC TRANSPORT NETWORK

4.3.1 Hempnall is serviced by AnglianBus number 84 which stops at bus stops along The Street as shown in Figure 4-4. The 2-hourly service runs Monday to Saturday between Norwich and Harleston, via Hempnall. Going towards Norwich, the earliest service leaves Hempnall at 7.43am and the latest at 2.44pm. Towards Harleston, the earliest service is at 8.53am and the latest at 6.41pm. The timings and bus frequency are summarised in Table 4-1.

Table 4-1 AnglianBus 84 Timetable and Route Information

DAY	FIRST AND LAST BUS	FREQUENCY
Harleston – Hempnall - Norwich		
Monday to Saturday	7.43am to 2.44pm	approx. every 2 hours
Sunday & Bank Holiday	N/A	no service
Norwich – Hempnall – Harleston		
Monday to Saturday	8.53am to 6.41pm	approx. every 2 hours
Sunday & Bank Holiday	N/A	no service

Source : AnglianBus <<https://www.anglianbus.co.uk/timetables/84#timetable>>

5 POTENTIAL DEVELOPMENT

5.1 DEVELOPMENT LAYOUT

- 5.1.1 The proposed development on the land off The Street comprises approximately 19 dwellings, with associated public open space and 11 additional car parking spaces for the school.
 - 5.1.2 It is proposed to improve the existing access arrangements serving the school car park, close the existing access to the cottages and providing a single enhanced access serving the school car park, the proposed development and the existing cottages.
-

5.2 PROPOSED ACCESS ARRANGEMENTS

- 5.2.1 The proposed access layout is shown on WSP Drawing 3864/SK/003 enclosed at Appendix E of this report. The proposed junction and access would provide the following characteristics.
 - **Carriageway** – provide minimum 5.0m width
 - **Bell mouth** – increase junction radii to 6.0m minimum
 - **Footway** – provide two footways of 1.8m both sides of access road
 - **Visibility** – visibility of the existing access is being encroached by recently growing hedge /bush. The calculated required envelopes of visibility are 2.4m set back by 36m to the north and 37m to the south. Therefore vegetation should be trimmed back to achieve this visibility.
 - **Pedestrian crossing points** – provide uncontrolled pedestrian crossing points across The Street to allow pedestrian to join existing footway.
 - 5.2.2 The proposed access arrangements are presented as being appropriate to serve the limited scale residential development and the existing school with the small car park extension.
-

5.3 POTENTIAL TRAFFIC GENERATION

- 5.3.1 Using the calculated trip rates detailed in Table 3-4 of this report it was possible to calculate the potential traffic generation of the proposed development.

Table 5-1 Potential Traffic Generation – 19 Residential Dwellings

DIRECTION	WEEKDAY		
	AM (08-09)	PM (17-18)	Daily (24hrs)
Arrivals	1	7	44
Departures	6	2	45
Total 2-way	7	9	90

- 5.3.2 As detailed in the above Table, the development of 19 residential dwellings would have the potential to generate 7 2-way movements in the AM peak, 9 2-way movements in the PM peak periods, and around 90 2-way daily movements.

6 SUMMARY AND CONCLUSIONS

6.1 SUMMARY

- 6.1.1 The site is located off The Street in Hempnall, Norfolk.
 - 6.1.2 The site is currently fallow/ agricultural land with the exception of the Manor Cottages, two residential units. Two vehicular accesses currently exist, serving the Manor Cottages and Hempnall Primary School car park.
 - 6.1.3 An indicative layout plan has been prepared which demonstrates that the site has the potential to accommodate around 19 residential units, with associated infrastructure, play area and an extended car park for Hempnall Primary School.
 - 6.1.4 The site is located near existing village facilities, and bus stops.
 - 6.1.5 The local road network is consistent with infrastructure in a rural location, and carries limited daily flows with traffic travelling at speeds commensurate with the posted speed limit.
 - 6.1.6 Based upon existing surveys at an existing estate, this report has demonstrated that the traffic generated by the proposed development would be of a low level, and would be highly unlikely to have an adverse impact on the local highway network.
-

6.2 ACCESSES

- 6.2.1 All access will be gained from The Street via the existing Hempnall Primary School access road; the existing substandard access serving Manor Cottages would be closed.
 - 6.2.2 The existing school access road will be improved to provide 6.0m radius kerbs, with new footways and to link with the existing footway on the south side of The Street.
 - 6.2.3 Access visibility will be cleared to provide visibility splays commensurate with recorded vehicle speeds on The Street.
-

6.3 CONCLUSIONS

- 6.3.1 This report concludes that the development of around 19 residential dwellings can be achieved in accordance with appropriate standards, and that the development will not have a detrimental impact upon capacity or safety.
-

6.4 LIMITATIONS

- 6.4.1 A topographical survey should be conducted in the fullness of time to confirm exact dimensions of the highway and adjacent features, including position of road signs and telegraph posts, etc.
- 6.4.2 Potential improvements to bus stops may be required to encourage the use of sustainable transport.
- 6.4.3 WSP has not performed a review of the proposed layout, such as internal road layout alignment, which will be subject to a detailed design.

APPENDIX

A INDICATIVE SITE LAYOUT





APPENDIX

B TRAFFIC DATA





Client: WSP

Project Number: TSP13134

Project Name: The Street, Hempnall, Norfolk

Survey Type: ATC

Location: Old Market Way

Survey Date: 16th to 23rd of May 2017

Survey Time: 24 hours x 7 days



TSP13134-Old Market Way, Hempnall, Norfolk ATC Data Location Plan

TSP Class Profile All Days 15 Mins

Globals

Report Id CustomList-57
Descriptor TSP Class Profile All Days 15 Mins
Created by MetroCount Traffic Executive
Creation Time (UTC) 2017-05-25T10:42:43
Legal Copyright (c)1997 - 2016 MetroCount
Graphic header.gif
Language English
Country United Kingdom
Time UTC + 120 min
Create Version 5.0.2.0
Metric Non metric
Speed Unit mph
Length Unit ft
Mass Unit ton

Dataset

Site Name NORFOLK 001
Site Attribute TSP 13134
File Name E:\TSP13234-The St Hempnall Norfolk\NORFOLK 00119May2017-p2.EC0
File Type Plus
Algorithm Factory default axle
Description OLD MARKET WAY [30M]
Lane 0
Direction 8
Direction Text 8 - East bound A]B, West bound B]A.
Layout Text Axle sensors - Paired (Class/Speed/Count)
Setup Time 2017-05-19T11:47:02
Start Time 2017-05-19T11:47:02
Finish Time 2017-05-19T11:54:02
Operator PK
Configuration 40 MC5600 00 00 00 00 00 ? FB12WG9X MC56-L5 [MC55] (c)Microcom 19C

Dataset

Site Name NORFOLK 001
Site Attribute TSP 13134
File Name E:\TSP13234-The St Hempnall Norfolk\NORFOLK 00119May2017.EC0
File Type Plus
Algorithm Factory default axle
Description OLD MARKET WAY [30M]
Lane 0
Direction 8
Direction Text 8 - East bound A]B, West bound B]A.
Layout Text Axle sensors - Paired (Class/Speed/Count)
Setup Time 2017-05-15T02:11:27
Start Time 2017-05-15T02:11:27
Finish Time 2017-05-19T11:46:54
Operator PK
Configuration 40 MC5600 00 00 00 00 00 ? FB12WG9X MC56-L5 [MC55] (c)Microcom 19C

Dataset

Site Name NORFOLK 001
Site Attribute TSP 13134
File Name E:\TSP13234-The St Hempnall Norfolk\NORFOLK 00123May2017.EC0
File Type Plus
Algorithm Factory default axle
Description OLD MARKET WAY [30M]

Lane 0
Direction 8
Direction Text 8 - East bound A]B, West bound B]A.
Layout Text Axle sensors - Paired (Class/Speed/Count)
Setup Time 2017-05-19T11:54:49
Start Time 2017-05-19T11:54:49
Finish Time 2017-05-23T21:01:49
Operator PK
Configuration 40 MC5600 00 00 00 00 00 ? FB12WG9X MC56-L5 [MC55] (c)Microcom 19C

Profile

Name TSP Class Profile All Days New15 mins
Title TSP Traffic Reports
Graphic Logo C:\and Settings\Documents\3.21_on_us_logo_cmyk 50.BMP
Header
Footer
Percentile 1 85
Percentile 2 95
Pace 12
Filter Start 2017-05-16T00:00:00
Filter End 2017-05-23T00:00:00
Class Scheme ARX
F Cls(1-10) Dir(E) Sp(0,120) Headway(I) Span(0 - 328.084) Lane(0-16)
Low Speed 0
High Speed 120
Posted Limit 30
Speed Limits 35 45 30 30 30 0 0 0 0 30
Separation 0.000
Separation Type Headway
Direction East
Encoded Direction 2



Oct04

Oct04

Oct04

TSP Class Profile All Days 15 Mins










Column

Time	24-hour time (0000 - 2359)
Total	Number in time step
Cls 1	Class totals
Cls 2	Class totals
Cls 3	Class totals
Cls 4	Class totals
Cls 5	Class totals
Cls 6	Class totals
Cls 7	Class totals
Cls 8	Class totals
Cls 9	Class totals
Cls 10	Class totals
Fix1	User defined fixed text
Time	24-hour time (0000 - 2359)
Vbin 0 5	Speed bin totals
Vbin 5 10	Speed bin totals
Vbin 10 15	Speed bin totals
Vbin 15 20	Speed bin totals
Vbin 20 25	Speed bin totals
Vbin 25 30	Speed bin totals
Vbin 30 35	Speed bin totals
Vbin 35 40	Speed bin totals
Vbin 40 45	Speed bin totals
Vbin 45 50	Speed bin totals
Vbin 50 55	Speed bin totals
Vbin 55 60	Speed bin totals
Vbin 60 130	Speed bin totals
Mean	Average speed
Vpp 85	Percentile speed
JPSL 30	Number exceeding Posted Speed Limit
JPSL% 30	Percent exceeding Posted Speed Limit
JSL1 35 ACPO	Number exceeding Speed Limit 1
JSL1% 35 ACPO	Percent exceeding Speed Limit 1
JSL2 45 DFT	Number exceeding Speed Limit 2
JSL2% 45 DFT	Percent exceeding Speed Limit 2
Fix1	User defined fixed text

2115	2	0	2	0	0	0	0	0	0	0	0	0	0	2115	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.2	-	0	0	0	0	0	0			
2130	0	0	0	0	0	0	0	0	0	0	0	0	0	2130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0			
2145	1	0	1	0	0	0	0	0	0	0	0	0	0	2145	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.2	-	0	0	0	0	0	0
2200	2	0	2	0	0	0	0	0	0	0	0	0	0	2200	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.2	-	0	0	0	0	0	0
2215	3	0	3	0	0	0	0	0	0	0	0	0	0	2215	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.6	-	0	0	0	0	0	0
2230	1	0	1	0	0	0	0	0	0	0	0	0	0	2230	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.9	-	0	0	0	0	0	0
2245	0	0	0	0	0	0	0	0	0	0	0	0	0	2245	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0		
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2315	0	0	0	0	0	0	0	0	0	0	0	0	0	2315	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0		
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2345	0	0	0	0	0	0	0	0	0	0	0	0	0	2345	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0
07-19	200	5	191	1	12	0	1	0	0	0	0	0	0	07-19	0	2	24	87	85	20	1	1	0	0	0	0	0	0	0	0	20.1	24.3	2	1	1	0.85	0	0	0	0	0	0	0		
06-22	242	6	219	2	14	0	1	0	0	0	0	0	0	06-22	0	3	30	92	102	23	1	1	0	0	0	0	0	0	0	19.8	24.1	2	0.826	1	0.413	0	0	0	0	0	0	0	0	0	0
06-00	249	6	226	2	14	0	1	0	0	0	0	0	0	06-00	0	3	30	87	104	23	1	1	0	0	0	0	0	0	19.9	24	2	0.803	1	0.402	0	0	0	0	0	0	0	0	0	0	
00-00	251	6	228	2	14	0	1	0	0	0	0	0	0	00-00	0	3	30	87	106	23	1	1	0	0	0	0	0	0	19.9	24	2	0.797	1	0.398	0	0	0	0	0	0	0	0	0	0	

Grand Total

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 5	Vbin 10	Vbin 15	Vbin 20	Vbin 25	Vbin 30	Vbin 35	Vbin 40	Vbin 45	Vbin 50	Vbin 55	Vbin 60	Vbin 100	Mean	Vpp	JPSL	JPSL%	JSL1	JSL1%	JSL2	JSL2%	Fix1		
--	1896	28	1754	10	95	5	3	0	0	1	0	--	--	1	37	178	774	781	121	3	1	0	0	0	0	0	19.5	23.2	4	0.211	1	0.953	0	0	0	0	0

Automatic Traffic Counts Classification Scheme							
Length	Axles & Groups		Vehicle Type	ARX Classification			
Type	Axles	Groups	Description	Class	Parameters	Dominant Vehicle	
Short up to 5.5m	Light Vehicles						
	2	1 or 2	Very Short Bicycle or Motorcycle	MC	1	$d(1) < 1.7$ and axles = 2	
	2	1 or 2	Short Saloon, Hatchback, Estate, 4WD, Pick-Up, Light Van, Bicycle, Motorcycle, etc.	SV	2	$d(1) > 1.7m$. $d(1) < = 3.2m$ and axles = 2	
Medium 5.5m to 14.5m	3, 4 or 5	3	Short - Towing Trailer, Caravan, Boat, etc.	SVT	3	groups = 3, $d(1) > 2.1m$. $d(1) < = 3.2m$. $d(2) > = 2.1m$ and axles = 3,4,5	
	Heavy Vehicles						
	2	2	Two Axle Truck or Bus	TB2	4	$d(1) > 3.2m$ and axles = 2	
	3	2	Three Axle Truck or Bus	TB3	5	axles = 3 and groups = 2	
	> 3	2	Four Axle Truck	T4	6	$d(1) > 3.2m$. axles = 3 and groups = 3	
Long 11.5m to 19.0m	3	3	Three Axle Articulated Three axle articulated vehicle or rigid vehicle and trailer	ART3	7	$d(1) > 3.2m$. Axles = 3 and groups = 3	
	4	> 2	Four Axle Articulated Four axle articulated vehicle or rigid vehicle and trailer	ART4	8	$d(2) < 2.1m$ or $d(1) < 2.1m$ or $d(1) > 3.2m$ axles = 5 and groups < 2	
	5	> 2	Five Axle Articulated Five axle articulated vehicle or rigid vehicle and trailer	ART5	9	axles = 6 and groups > 2 or axles 6 and groups = 3	
	> = 6	> 2	Six Axle Articulated Six (or more) axle articulated vehicle or rigid vehicle and trailer	ART6	10	axles = 6 and groups > 2 or axles > 6 and groups = 3	
Ungrouped classes							
			Unclassifiable Vehicle		13		
			Unclassifiable Axle Event		0		



Client: WSP

Project Number: TSP13134

Project Name: The Street, Hempnall, Norfolk

Survey Type: ATC

Location: The Street

Survey Date: 16th to 23rd of May 2017

Survey Time: 24 hours x 7 days



TSP Class Profile All Days 15 Mins

Globals

Report Id CustomList-57
Descriptor TSP Class Profile All Days 15 Mins
Created by MetroCount Traffic Executive
Creation Time (UTC) 2017-05-25T10:55:05
Legal Copyright (c)1997 - 2016 MetroCount
Graphic header.gif
Language English
Country United Kingdom
Time UTC + 120 min
Create Version 5.0.2.0
Metric Non metric
Speed Unit mph
Length Unit ft
Mass Unit ton

Dataset

Site Name NORFOLK 002
Site Attribute TSP13134
File Name E:\TSP13234-The St Hempnall Norfolk\NORFOLK 00219May2017-p2.EC0
File Type Plus
Algorithm Factory default axle
Description THE STREET [30M]
Lane 0
Direction 7
Direction Text 7 - North bound A]B, South bound B]A.
Layout Text Axle sensors - Paired (Class/Speed/Count)
Setup Time 2017-05-19T12:01:49
Start Time 2017-05-19T12:01:49
Finish Time 2017-05-19T12:16:54
Operator PK
Configuration 40 MC5600 00 00 00 00 00 00 ? FH37TR4X MC56-L5 [MC55] (c)Microcom 19Oct

Dataset

Site Name NORFOLK 002
Site Attribute TSP13134
File Name E:\TSP13234-The St Hempnall Norfolk\NORFOLK 00219May2017.EC0
File Type Plus
Algorithm Factory default axle
Description THE STREET [30M]
Lane 0
Direction 7
Direction Text 7 - North bound A]B, South bound B]A.
Layout Text Axle sensors - Paired (Class/Speed/Count)
Setup Time 2017-05-15T02:44:33
Start Time 2017-05-15T02:44:33
Finish Time 2017-05-19T12:01:34
Operator PK
Configuration 40 MC5600 00 00 00 00 00 00 ? FH37TR4X MC56-L5 [MC55] (c)Microcom 19Oct

Dataset

Site Name NORFOLK 002
Site Attribute TSP13134
File Name E:\TSP13234-The St Hempnall Norfolk\NORFOLK 00223May2017.EC0
File Type Plus
Algorithm Factory default axle

Description THE STREET [30M]
Lane 0
Direction 7
Direction Text 7 - North bound A]B, South bound B]A.
Layout Text Axle sensors - Paired (Class/Speed/Count)
Setup Time 2017-05-19T12:17:46
Start Time 2017-05-19T12:17:46
Finish Time 2017-05-23T21:13:46
Operator PK
Configuration 40 MC5600 00 00 00 00 00 ? FH37TR4X MC56-L5 [MC55] (c)Microcom 19Oct

Profile

Name TSP Class Profile All Days New15 mins
Title TSP Traffic Reports
Graphic Logo C:\and Settings\Documents\3.21_on_us_logo_cmyk 50.BMP
Header
Footer
Percentile 1 85
Percentile 2 95
Pace 12
Filter Start 2017-05-16T00:00:00
Filter End 2017-05-23T00:00:00
Class Scheme ARX
F Cls(1-10) Dir(N) Sp(0,120) Headway(I)0 Span(0 - 328.084) Lane(0-16)
Low Speed 0
High Speed 120
Posted Limit 30
Speed Limits 35 45 30 30 30 0 0 0 0 30
Separation 0.000
Separation Type Headway
Direction North
Encoded Direction 1



104

104

TSP Class Profile All Days 15 Mins

Column	
Time	24-hour time (0000 - 2359)
Total	Number in time step
Cls 1	Class totals
Cls 2	Class totals
Cls 3	Class totals
Cls 4	Class totals
Cls 5	Class totals
Cls 6	Class totals
Cls 7	Class totals
Cls 8	Class totals
Cls 9	Class totals
Cls 10	Class totals
Fix1	User defined fixed text
Time	24-hour time (0000 - 2359)
Vbin 0 5	Speed bin totals
Vbin 5 10	Speed bin totals
Vbin 10 15	Speed bin totals
Vbin 15 20	Speed bin totals
Vbin 20 25	Speed bin totals
Vbin 25 30	Speed bin totals
Vbin 30 35	Speed bin totals
Vbin 35 40	Speed bin totals
Vbin 40 45	Speed bin totals
Vbin 45 50	Speed bin totals
Vbin 50 55	Speed bin totals
Vbin 55 60	Speed bin totals
Vbin 60 130	Speed bin totals
Mean	Average speed
Vpp 85	Percentile speed
JPSL 30	Number exceeding Posted Speed Limit
JPSL% 30	Percent exceeding Posted Speed Limit
JSL1 35 ACPO	Number exceeding Speed Limit 1
JSL1% 35 ACPO	Percent exceeding Speed Limit 1
JSL2 45 DFT	Number exceeding Speed Limit 2
JSL2% 45 DFT	Percent exceeding Speed Limit 2
Fix1	User defined fixed text

TSP Class Profile All Days 15 Mins










Report Id - CustomList-57
 Site Name - NORFOLK 002
 Description - THE STREET [30M]
 Direction - South

16 May 2017

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 130	Mean	Vpp 85	JPSL 30	JPSL 35	JSL1 ACPO	JSL1 35 ACPO	JSL2 45 DFT	JSL2 45 DFT	Fix1		
0000	0	0	0	0	0	0	0	0	0	0	0	0	0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

17 May 2017

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 130	Mean	Vpp 85	JPSL 30	JPSL 35	JSL1 ACPO	JSL1 35 ACPO	JSL2 45 DFT	JSL2 45 DFT	Fix1		
0000	0	0	0	0	0	0	0	0	0	0	0	0	0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Automatic Traffic Counts Classification Scheme							
Length	Axles & Groups		Vehicle Type	ARX Classification			
Type	Axles	Groups	Description	Class	Parameters	Dominant Vehicle	
Short up to 5.5m	Light Vehicles						
	2	1 or 2	Very Short Bicycle or Motorcycle	MC	1	$d(1) < 1.7$ and axles = 2	
	2	1 or 2	Short Saloon, Hatchback, Estate, 4WD, Pick-Up, Light Van, Bicycle, Motorcycle, etc.	SV	2	$d(1) > 1.7m$. $d(1) < = 3.2m$ and axles = 2	
Medium 5.5m to 14.5m	3, 4 or 5	3	Short - Towing Trailer, Caravan, Boat, etc.	SVT	3	groups = 3, $d(1) > 2.1m$. $d(1) < = 3.2m$. $d(2) > = 2.1m$ and axles = 3,4,5	
	Heavy Vehicles						
	2	2	Two Axle Truck or Bus	TB2	4	$d(1) > 3.2m$ and axles = 2	
	3	2	Three Axle Truck or Bus	TB3	5	axles = 3 and groups = 2	
	> 3	2	Four Axle Truck	T4	6	$d(1) > 3.2m$. axles = 3 and groups = 3	
Long 11.5m to 19.0m	3	3	Three Axle Articulated Three axle articulated vehicle or rigid vehicle and trailer	ART3	7	$d(1) > 3.2m$. Axles = 3 and groups = 3	
	4	> 2	Four Axle Articulated Four axle articulated vehicle or rigid vehicle and trailer	ART4	8	$d(2) < 2.1m$ or $d(1) < 2.1m$ or $d(1) > 3.2m$ axles = 5 and groups < 2	
	5	> 2	Five Axle Articulated Five axle articulated vehicle or rigid vehicle and trailer	ART5	9	axles = 6 and groups > 2 or axles 6 and groups = 3	
	> = 6	> 2	Six Axle Articulated Six (or more) axle articulated vehicle or rigid vehicle and trailer	ART6	10	axles = 6 and groups > 2 or axles > 6 and groups = 3	
Ungrouped classes							
			Unclassifiable Vehicle		13		
			Unclassifiable Axle Event		0		

C VISIBILITY
SPLAYS
CALCULATIONS

Visibility Splay Test Sheet - The Street, Hempnall - Northbound

85th%ile Dry: 29.5

85th%ile Wet 27

MfS2 Para 10.1.5: $SSD = vt + v^2 / 2 (d+0.1a)$

v = speed m/s

t = driver reaction-perception time (seconds)

d = deceleration (m/s²)

a = longitudinal gradient (%) (+ for upgrade and - for downgrades)

Standard t and d criteria:

Origin	Reaction Time (t)	Deceleration (d)
MfS	1.5 Secs	4.41 m/s
DMRB	2 Secs	2.45 m/s

MfS2 Table 10.1 Reaction Time Vehicle Type/ Speed		
(t)	(d)	Application
2s	0.25g (2.45)	All vehs above 37mph Desirable Min SSD
2s	0.375g (3.68)	All vehs above 37mph Absolute Min SSD
1.5s	0.375g (3.68)	HGV's below 37mph
1.5s	0.375g (3.68)	Buses below 37mph
1.5s	0.45g (4.41)	Light vehicles below 37mph

TA22/81 Speed Value = **27** Insert 85th%ile wet weather speed (mph)

v = **12.07008** Converted to m/s from mph cell (C17)

t = **1.5** Insert relevant reaction time (t)

d = **4.41** Insert relevant deceleration time (d)

a = Insert gradient as applicable (+/-)

v * t = 18.10512

v² = 145.6868312

(d+0.1a) 4.41

2d = 8.82

v² / 2d = 16.51778132

Vis Basic = **34.62290132**

Vis + Bonnet = **37.023** Resultant visibility splay Length

Cross Check	
1	8.82
2	0
3	8.82
4	145.6868312
5	16.51778132
6	18.10512
7	34.62290132
8	37.023

Visibility Splay Test Sheet - The Street, Hempnall - Southbound

85th%ile Dry: 29.1
 85th%ile Wet 26.6

MfS2 Para 10.1.5: $SSD = vt + v^2 / 2 (d+0.1a)$

v = speed m/s
 t = driver reaction-perception time (seconds)
 d = deceleration (m/s²)
 a = longitudinal gradient (%) (+ for upgrade and - for downgrades)

Standard t and d criteria:

Origin	Reaction Time (t)	Deceleration (d)
MfS	1.5 Secs	4.41 m/s
DMRB	2 Secs	2.45 m/s

MfS2 Table 10.1 Reaction Time Vehicle Type/ Speed		
(t)	(d)	Application
2s	0.25g (2.45)	All vehs above 37mph Desirable Min SSD
2s	0.375g (3.68)	All vehs above 37mph Absolute Min SSD
1.5s	0.375g (3.68)	HGV's below 37mph
1.5s	0.375g (3.68)	Buses below 37mph
1.5s	0.45g (4.41)	Light vehicles below 37mph

TA22/81 Speed Value = **26.6** Insert 85th%ile wet weather speed (mph)

v = **11.891264** Converted to m/s from mph cell (C17)
 t = **1.5** Insert relevant reaction time (t)
 d = **4.41** Insert relevant deceleration time (d)
 a = Insert gradient as applicable (+/-)

v * t = 17.836896

v² = 141.4021595

(d+0.1a) 4.41

2d = 8.82

v² / 2d = 16.03199088

Vis Basic = **33.86888688**

Vis + Bonnet = **36.269** Resultant visibility splay Length

Cross Check	
1	8.82
2	0
3	8.82
4	141.4021595
5	16.03199088
6	17.836896
7	33.86888688
8	36.269

APPENDIX

D ACCIDENT DATA



Full Details Report Summary -

Accidents Found Date Range: 31/01/2016 - 28/11/2016

Grid Coordinate Range: 624127,294314 - 624154,294370

Accident Date BETWEEN '01-Apr-2012' AND '31-Mar-2017'

Accident Severity

	2016	Total
Slight	2	2
Total	2	2

Casualty Severity

	2016	Total
Slight	2	2
Total	2	2

Casualty KSI

	2016	Total
Slight	2	2
Total	2	2

Accident Date BETWEEN '01-Apr-2012' AND '31-Mar-2017'

1.3 Accident Reference:1644076 Slight MILL ROAD UNSPECIFIED ROAD OR LOCATION Accident 1 of 2

1.7 Date & 1.9 Time.....Sunday 31/01/2016 14:46	1.15 Speed limit.....30 Mph
1.11 Grid co-ordinates.....624154/294314	1.14 Road type.....Single c'way
1.10 Local Authority.....South Norfolk	1.16 Junction detail.....Not at or within 20m of junction
1.12/1.13 1st road identity..B1527	1.17 Junction control.....
1.18/1.19 2nd road identity..	1.24 Special conditions...None
1.22 Weather.....Rain	1.25 Carriageway hazards..None
1.21 Light conditions.....Daylight	1.5 Number of vehicles...1
1.20a Crossing(human).....No Human control within 50m	1.6 Number of casualties.1
1.20b Crossing(physical).....No crossing facility within 50m	1.23 Surface.....Wet

Did a police officer attend?
Yes

Accident Description

V1 WAS TRAVELLING ALONG MILL LANE, A140 BOUND. WHEN APPROACHING THE CORNER, LOST CONTROL & THE VEHICLE SPUN MOUNTING THE KERB & MAKING CONTACT WITH A BRICK WALL. VEHICLE SPUN 180D FACING THE DIRECTION TRAVELLING FROM.

1 Vehicle

2.4 Veh ref no.....1	2.16 First impact.....Offside
2.17 Other vehicle.....0	2.12 Hit object in c'way..None
2.5 Vehicle class.....Car	2.14 Hit object off c'way.None
2.10 Junction location...Not at junction	2.18 Parts damaged..... / /
2.9 Restricted location.On main carriageway	2.21 Driver gender.....Female
2.8 Movement from/to...West South east	2.22 Driver age.....30
2.7 Manoeuvres.....Turning right	
2.11 Skidding.....No	2.24 Hit and Run.....No
2.13 Left c'way.....Did not leave c'way	2.23 Breath test.....Negative
2.6 Towing.....No	2.29 Journey purpose.....Unknown
2.28 Foreign vehicle.....Not foreign	

1 Casualty

3.5 Cas ref no.....1	3.15 Car passenger.....No
3.6 Casualty class.....Driver or Rider	3.16 PSV passenger.....No
3.7 Gender.....Female	3.14 Seat belt usage.....
3.8 Age.....30	3.13 School pupil.....Other (3.19 School
3.9 Severity.....Slight	3.10 Pedestrian location..Not a pedestrian
3.4 Vehicle no.....1	3.11 Pedestrian movement..Not a pedestrian
3.12 Ped Direction.....Not a pedestrian	3.19 Roadworker injured...No

Accident Date BETWEEN '01-Apr-2012' AND '31-Mar-2017'

1.3 Accident Reference:137773 Slight KILBOURN & SON GARAGE THE STREET C367 BUNGAY ROAD Accident 2 of 2
 B1527
 1.7 Date & 1.9 Time.....Monday 28/11/2016 06:26 1.15 Speed limit.....30 Mph
 1.11 Grid co-ordinates.....624127/294370 1.14 Road type.....Single c'way
 1.10 Local Authority.....South Norfolk 1.16 Junction detail.....T or Staggered junction
 1.12/1.13 1st road identity..C367 1.17 Junction control....Give way sign or uncontrolled
 1.18/1.19 2nd road identity..B1527 1.24 Special conditions...None
 1.22 Weather.....Other 1.25 Carriageway hazards..None
 1.21 Light conditions.....Dark/lights not lit 1.5 Number of vehicles...4
 1.20a Crossing(human).....No Human control within 50m 1.6 Number of casualties.1
 1.20b Crossing(physical)....No crossing facility within 50m 1.23 Surface.....Ice

Did a police officer attend?
 Yes

Accident Description

Vehicle 1 driving along Bungay Road and attempting to turn into The Street. Lost control, hitting the wall on the nearside, hitting 3 parked cars @ a car garage and landing on its roof.

4 Vehicles

2.4 Veh ref no.....1
 2.17 Other vehicle.....0 2.16 First impact.....Front
 2.5 Vehicle class.....Car 2.12 Hit object in c'way..None
 2.10 Junction location...Approaching or parked on approach 2.14 Hit object off c'way.
 2.9 Restricted location.On main carriageway 2.18 Parts damaged..... / /
 2.8 Movement from/to...South North 2.21 Driver gender.....Male
 2.7 Manoeuvres.....Turning right 2.22 Driver age.....26
 2.11 Skidding.....Yes & Overturned
 2.13 Left c'way.....Left c'way near-side 2.24 Hit and Run.....No
 2.6 Towing.....No 2.23 Breath test.....Not requested
 2.28 Foreign vehicle....Not foreign 2.29 Journey purpose.....Commuting to/from work

2.4 Veh ref no.....2
 2.17 Other vehicle.....0 2.16 First impact.....Front
 2.5 Vehicle class.....Car 2.12 Hit object in c'way..None
 2.10 Junction location...Cleared junction or parked at jun 2.14 Hit object off c'way..None
 2.9 Restricted location.Footway 2.18 Parts damaged..... / /
 2.8 Movement from/to...Parked Parked 2.21 Driver gender.....Not known
 2.7 Manoeuvres.....Parked 2.22 Driver age.....-1
 2.11 Skidding.....No
 2.13 Left c'way.....Did not leave c'way 2.24 Hit and Run.....No
 2.6 Towing.....No 2.23 Breath test.....Not applicable
 2.28 Foreign vehicle....Not foreign 2.29 Journey purpose.....Unknown

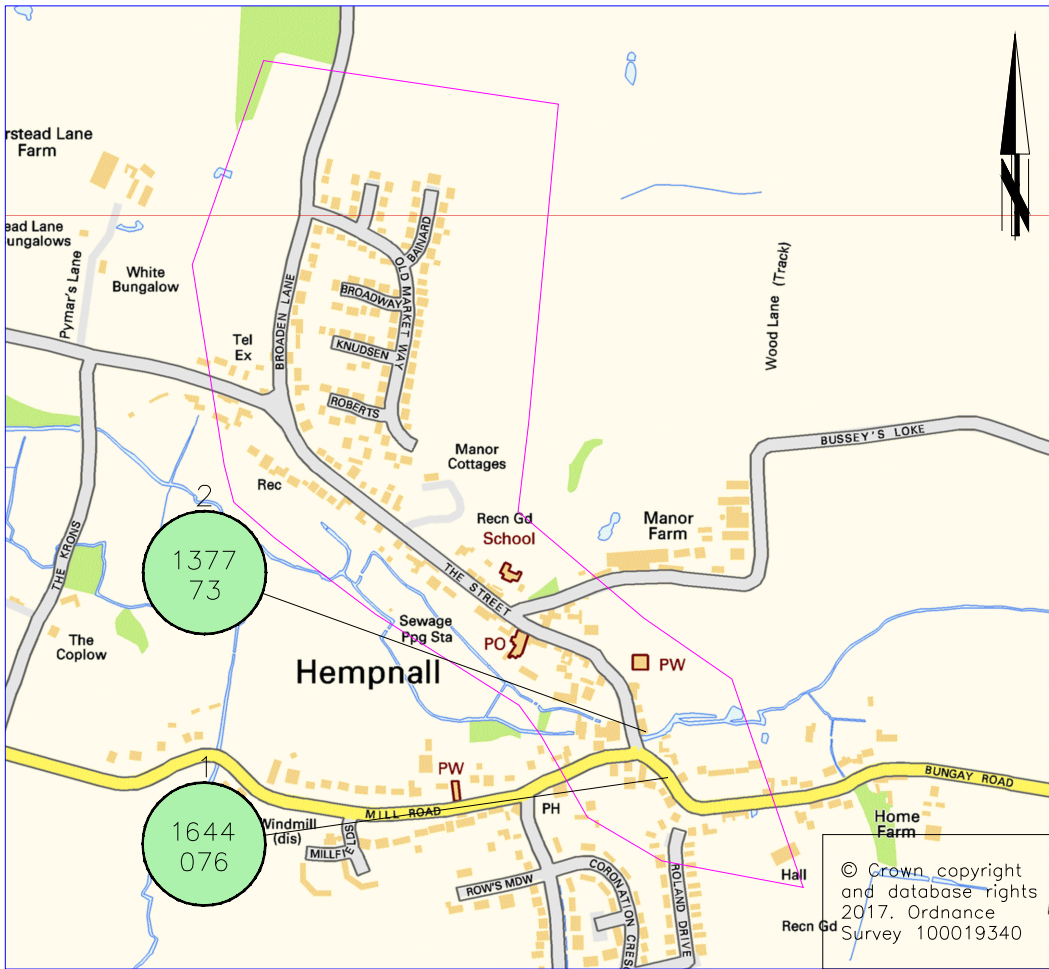
2.4 Veh ref no.....3
 2.17 Other vehicle.....0 2.16 First impact.....Front
 2.5 Vehicle class.....Car 2.12 Hit object in c'way..None
 2.10 Junction location...Cleared junction or parked at jun 2.14 Hit object off c'way..None
 2.9 Restricted location.Footway 2.18 Parts damaged..... / /
 2.8 Movement from/to...Parked Parked 2.21 Driver gender.....Not known
 2.7 Manoeuvres.....Parked 2.22 Driver age.....-1
 2.11 Skidding.....No
 2.13 Left c'way.....Did not leave c'way 2.24 Hit and Run.....No
 2.6 Towing.....No 2.23 Breath test.....Not applicable
 2.28 Foreign vehicle....Not foreign 2.29 Journey purpose.....Unknown

2.4 Veh ref no.....4
 2.17 Other vehicle.....0 2.16 First impact.....Front
 2.5 Vehicle class.....Car 2.12 Hit object in c'way..None
 2.10 Junction location...Cleared junction or parked at jun 2.14 Hit object off c'way..None
 2.9 Restricted location.Footway 2.18 Parts damaged..... / /
 2.8 Movement from/to...Parked Parked 2.21 Driver gender.....Not known
 2.7 Manoeuvres.....Parked 2.22 Driver age.....-1
 2.11 Skidding.....No
 2.13 Left c'way.....Did not leave c'way 2.24 Hit and Run.....No
 2.6 Towing.....No 2.23 Breath test.....Not applicable
 2.28 Foreign vehicle....Not foreign 2.29 Journey purpose.....Unknown

1 Casualty

3.5 Cas ref no.....1 3.15 Car passenger.....No
 3.6 Casualty class.....Driver or Rider 3.16 PSV passenger.....No
 3.7 Gender.....Male 3.14 Seat belt usage.....Not applicable
 3.8 Age.....26 3.13 School pupil.....Other
 (3.19 School)
 3.9 Severity.....Slight 3.10 Pedestrian location..Not a pedestrian
 3.4 Vehicle no.....1 3.11 Pedestrian movement..Not a pedestrian
 3.12 Ped Direction.....Not a pedestrian 3.19 Roadworker injured...No

Five years to end March 2017



Reference Number			
Date / Day			
Month			
Year			
Time			
Severity			
Dark / Lit			
Weather Conditions			
Road Surface			
Special Conditions			
Carriageway Hazards			
Vehicle Manoeuvres			
Vehicle	1	5	e
Vehicle	2	6	t
Vehicle	3	7	c
Vehicle	4	8	
Casualty /age			

1	2
1644 076	1377 73
Su31 Jan	Mo28 Nov
2016	2016
1446	0626
SI	SI
30	26
	??
	??
	??
30 	26

APPENDIX

E DRAWINGS



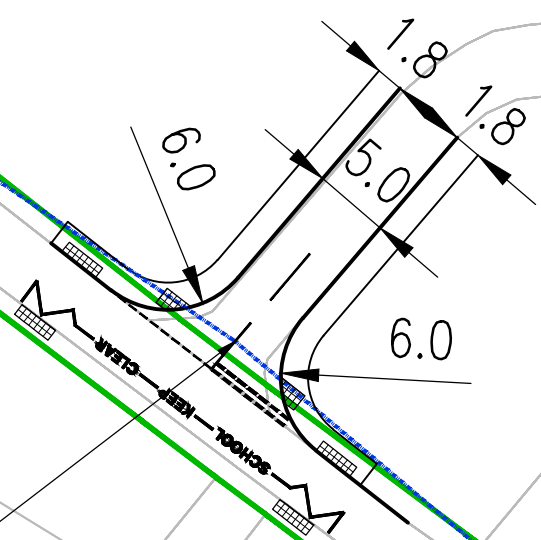
DO NOT SCALE



EXTENT OF NCC
HIGHWAY BOUNDARY

EXISTING ACCESS TO
MANOR COTTAGES TO
BE EXTINGUISHED

VISIBILITY SPLAYS:
• 2.4M SET BACK
• 36M TO THE NORTH
• 37M TO THE SOUTH



A	01/06/2017	JFD	FIRST ISSUE	NE	NE
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: S2 - FOR INFORMATION



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CLIENT: G.H. ALLEN (FARMS) LIMITED

ARCHITECT:

PROJECT: LAND OFF THE STREET, HEMPSTALL

TITLE:

SCALE @ A3: 1:500 CHECKED: NJE APPROVED: NJE

PROJECT No: 70033864 DESIGNED: JFD DRAWN: JFD DATE: June 17

DRAWING No: 3864-SK-003 REV: A

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File name \\UK.WSPGROUP.COM\CENTRAL_DATA\PROJECTS\70033864 - LAND AT HEMPSTALL\02 WIP\TP TRANSPORT PLANNING\02 DRAWING\03 SKETCHES\3864-SK-003.DWG, printed on 05 June 2017 10:33:47, by Delahochie, Jonathan

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Proposed residential development
The Street, Hempnall, Norfolk
Vision document
June 2017



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Produced by Savills Urban Design Studio
for G.H. Allen (Farms) Ltd



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1. Vision

“The vision is simple, to deliver new, high quality and appropriate residential development on land which is available and close to village facilities.”



Aerial photograph of Hempnall

2. Introduction

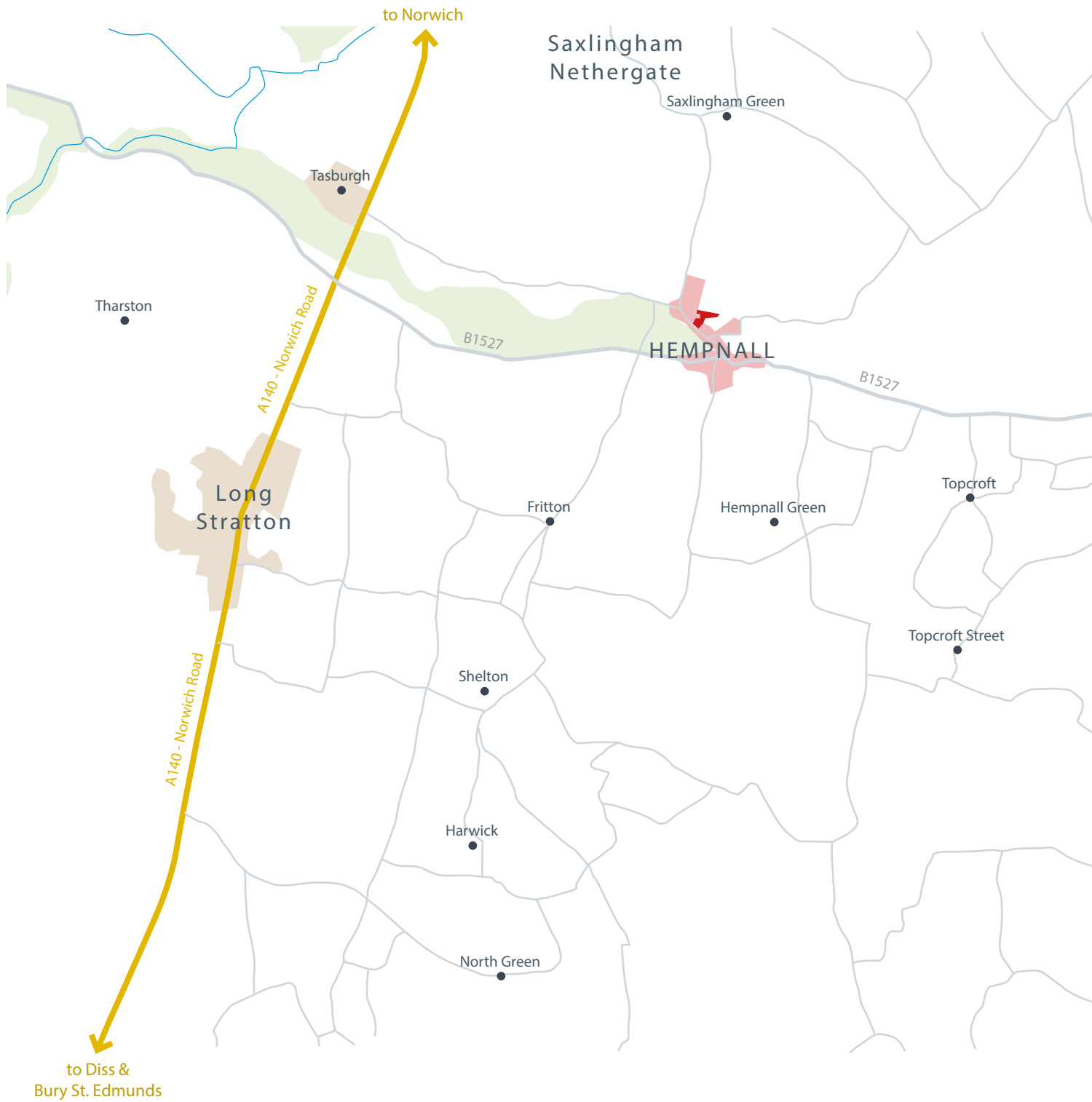
This document has been prepared by Savills Planning & Urban Design Studio on behalf of the landowner, G.H. Allen (Farms) Ltd.

The purpose of this document is to support the submission of representations for residential development on land to the north east of The Street, Hempnall. Through a combination of text, sketches and photographs, this document provides baseline analysis of the site and the village of Hempnall and begins to set out an initial design rationale and concept for residential development.

The site boundary totals approximately 1.45 hectares (3.58 acres). It has been estimated that the site could deliver around 19 new homes, although this is subject to further, more detailed technical analysis and consultation.

At this early stage of the design process, the ideas within this document are concepts based on placemaking and best practice design principles. The early concepts within this document look to explore scale, massing and form for future development, and are to be the basis for future, on-going discussions and engagement with key stakeholders.





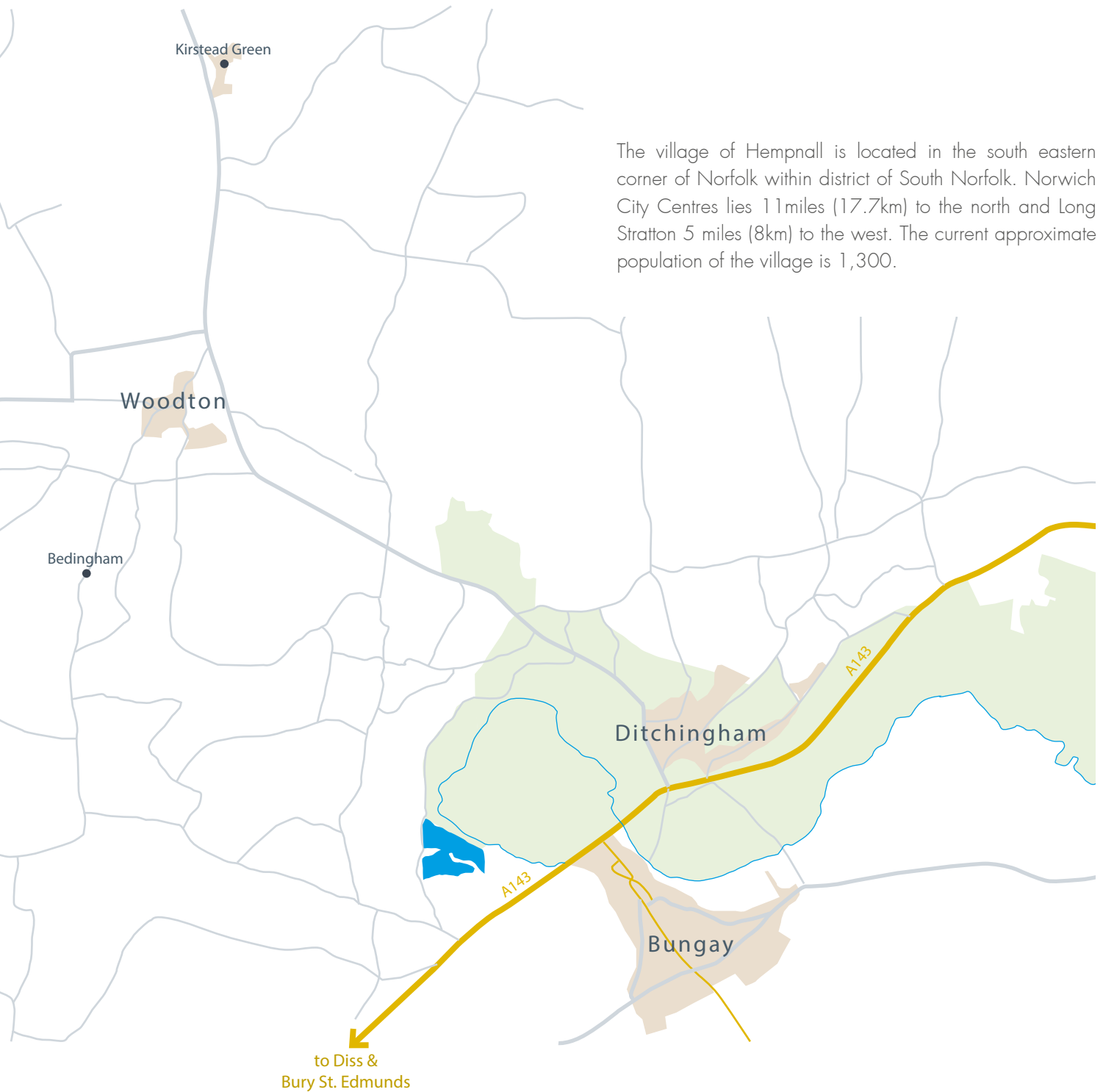
Site location plan

Key

- Proposed site
- Hempnall village
- 'A' roads
- local roads

3. Site location

The village of Hempnall is located in the south eastern corner of Norfolk within district of South Norfolk. Norwich City Centres lies 11 miles (17.7km) to the north and Long Stratton 5 miles (8km) to the west. The current approximate population of the village is 1,300.



4. Planning policy context

South Norfolk, together with Broadland District and Norwich City Council's are working with Norfolk County Council to prepare the Greater Norwich Local Plan (GNLP). Upon adoption, the GNLP will form the Development Plan for these local authority areas.

In the case of the South Norfolk local authority area, within which the site lies, the GNLP will replace the Joint Core Strategy for Broadland, Norwich and South Norfolk (the JCS) and the South Norfolk Site Specific Allocations and Policies Document (the Site Allocations Document) along with Area Action Plans for Wymondham and Long Stratton and a Development Management Policies Document.

Within the JCS, Hempnall is defined as a 'Service Village' under Policy 15, which states that 'land will be allocated for small-scale housing development subject to form and character'. In accordance with this policy, the Site Allocations Document subsequently identified land to the East of Roland Drive, Hempnall for the development of approximately 20 dwellings, under Policy HEM1. The landowner of that site is the same as that for the site which is the subject of this document, namely GH Allen (Farms) Ltd.

In preparing the GNLP, the local authorities for the constituent areas to be covered by the document have re-established the joint working arrangements from the preparation of the JCS, under the Greater Norwich Development Partnership (the GNDP). The GNDP is in the early stages of preparing the GNLP. A 'Call for Sites' was issued by the GNDP in May 2016. The next stage of consultation will be carried out under 'Regulation 18' and this is currently programmed to take place in October 2017, with 'Regulation 19' consultation to take place in Summer 2019, Public

Examination in Summer 2020, followed by final adoption by the end of 2020.

The Greater Norwich Development Partnership Board agreed at its meeting on 23 March 2017, that details of sites that are available for development will be accepted up until the Regulation 18 consultation in the autumn. It is in accordance with this, that this submission in relation to development at The Street, Hempnall is being made.

In anticipation that the development strategy to form the basis the GNLP will be similar to that forming the basis of the JCS, it is considered that Hempnall should provide the opportunity to accommodate further growth within the context of the GNLP. On the basis of Hempnall's continued designation as a Service Village, or similar, it is considered that the scale of development proposed by this document would be consistent with this.

With the current policy requiring that proposals are subject to being of appropriate 'form and character', this document seeks to demonstrate that a scheme for development of the site can be delivered at the site which is appropriate in these terms. More specifically, we seek to demonstrate an understanding of the site and its context, to identify a deliverable vision for the site, which also provides particular benefits for the local community.

We therefore invite the GNDP to consider this proposal within the context of the process for preparing the emerging GNLP. We would be pleased to answer any questions arising and we shall look forward to engaging throughout the remaining stages of the GNLP's preparation.

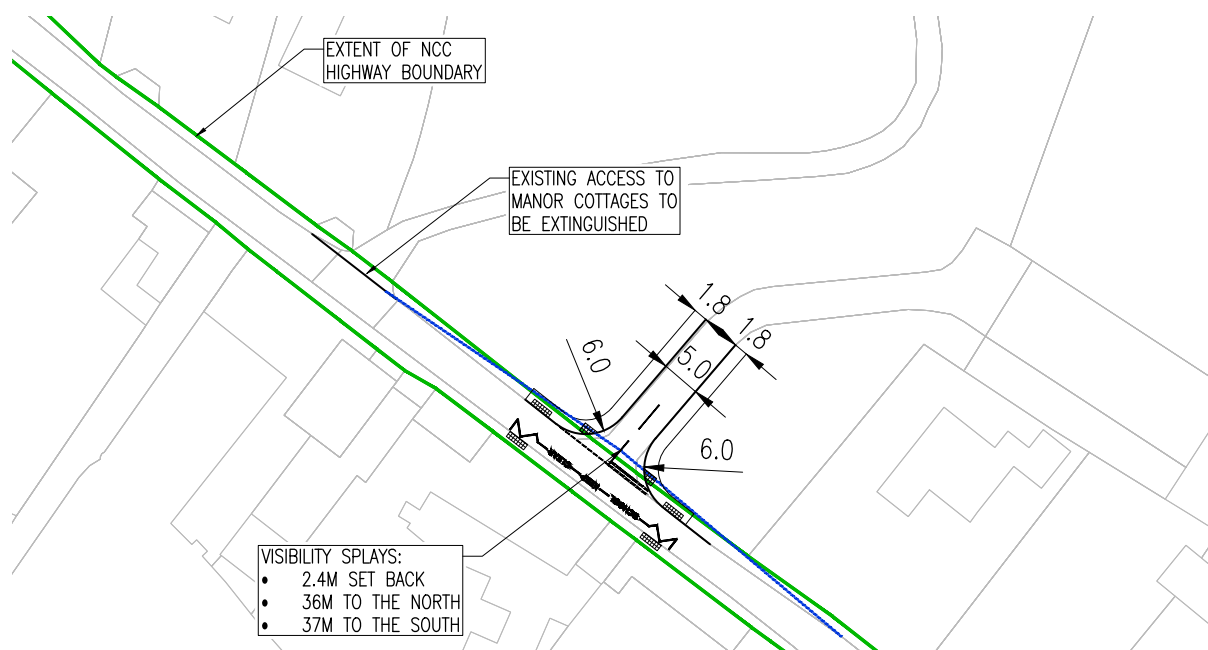
5. Highways context

The proposed access layout is shown opposite. The proposed junction and access would provide the following characteristics.

- **Carriageway** – provide minimum 5.0m width
- **Bell mouth** – increase junction radii to 6.0m minimum
- **Footway** – provide two footways of 1.8m both sides of access road
- **Visibility** – visibility of the existing access is being encroached by recently growing hedge /bush. The calculated required envelopes of visibility are 2.4m set back by 36m to the north and 37m to the south. Therefore vegetation should be trimmed back to achieve this visibility.
- **Pedestrian crossing points** – provide uncontrolled pedestrian crossing points across The Street to allow pedestrian to join existing footway.

The proposed access arrangements are presented as being appropriate to serve the limited scale residential development and the small school car park.

The submitted access statement concludes that the development of around 19 residential dwellings can be achieved in accordance with appropriate standards, and that the development will not have a detrimental impact upon capacity or safety.



Preliminary access arrangement





6. Village context

Townscape character

Before beginning the design process for the new development, it is important to have an understanding and appreciation of the existing built form, character and context of the immediate and wider area.

Hempnall provides a wide variation in design and architecture, reflecting the changes the village has been through over time. The majority of the properties in the village are detached and semi-detached dwellings, including bungalows. Properties are generally set-back behind front gardens with driveways and garages providing private on-plot parking.

The evolving design and masterplan aims to incorporate the best elements of the context and character of Hempnall to create a new, vibrant, attractive and safe environment for all new residents. In essence, it is a masterplan that is rooted in the principles of placemaking and creates a connection between people and place, through an integrated and holistic design approach.

A rich palette of architectural detailing, materials and colour will all combine to create strong sense of character to the development.

Brick, render and timber can all be found around the village, with many of the houses having simple door and window details. Red pantiles are the dominant roof covering, but slate can also be found as well as some examples of thatch.

There are a number of brickwork boundary walls throughout the village which also provide an important contribution to the historic character of Hempnall.




Hempnall historic context

Source: Historic England & South Norfolk Council



Key

-  Proposed site
-  Conservation Area
-  Listed buildings



The Long House (Grade II)
Church of St Margaret (Grade I)



The Chequers (Grade II)



Manor Cottages (Grade II)

Heritage context

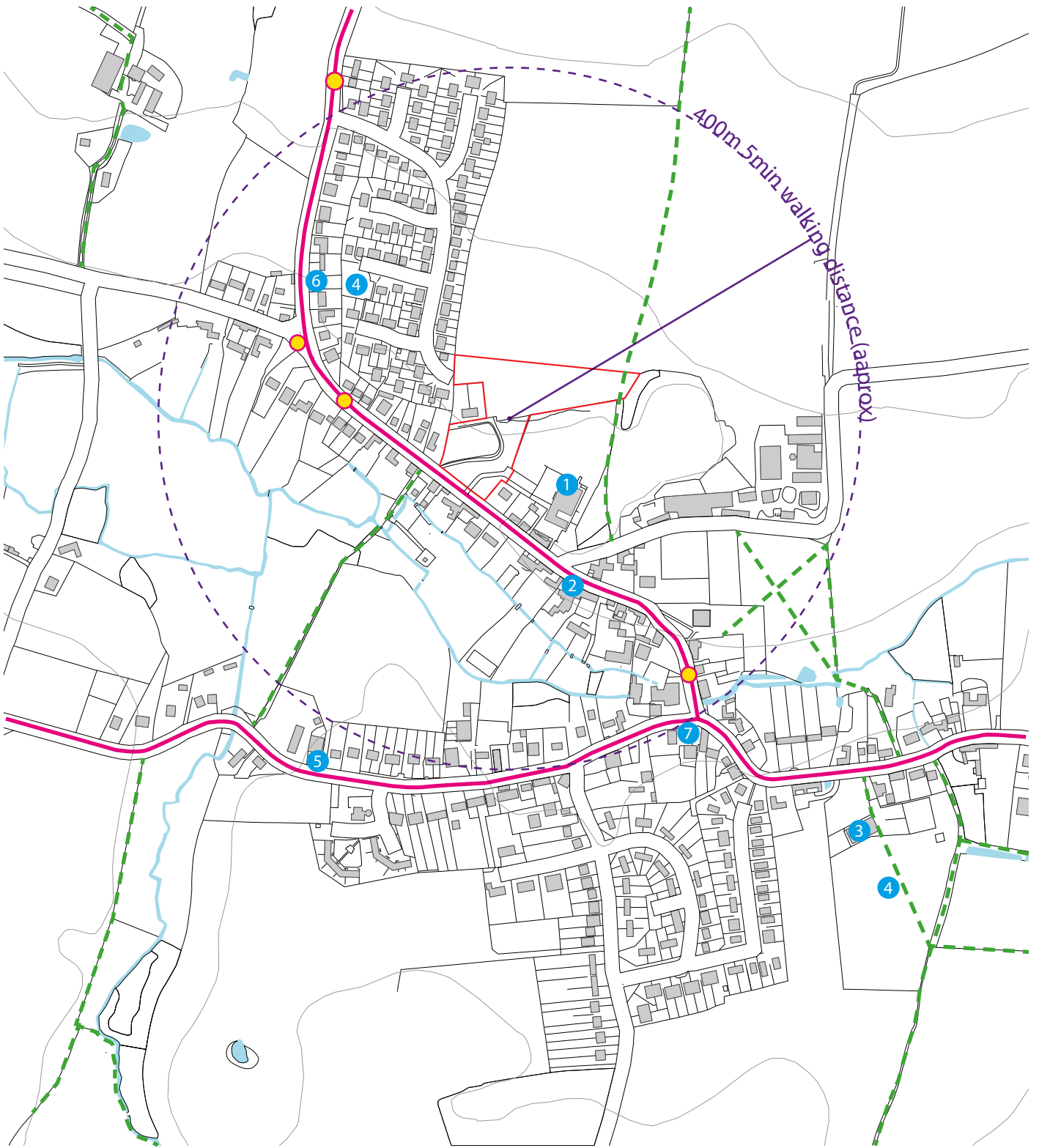
Much of the village lies within the Hempnall Conservation Area. There are around 22 listed buildings or structures in the village, at the heart of which is the Grade I Church of St Margaret. Indeed, part of the proposed site falls within the Conservation Area.

It's these older, historic buildings that provide the greatest variation in materials, textures, colours and detailing of architecture in the village.

Although still at the early stages of the design process, it is important that the initial concept designs and ideas begin to acknowledge the historic form and structure of the village.







Lime Tree Cottage (Grade II)



Hempnall historic context
 Source: Historic England & South Norfolk Council



Key

-  Proposed site
-  Public rights of way
-  Bus routes
-  Bus stops
-  1 Primary School
-  2 Village shop
-  3 Village hall
-  4 Playing fields / children's play space
-  5 Doctors surgery
-  6 Veterinary surgery
-  7 Butchers & delicatessens



Hempnall Primary School



Hempnall village shop



Hempnall Village Hall

Services and facilities

The site is located close to the centre of the village. The map opposite shows the location of the site within its context.

With a population of around 1 300 people, the village has a small number of local facilities, which are highlighted on the plan opposite.

The plan illustrates how the proposed site is within close proximity of the facilities within the village, and all within easy walking or cycling distance. The site is also within walking distance of bus stops along The Street.



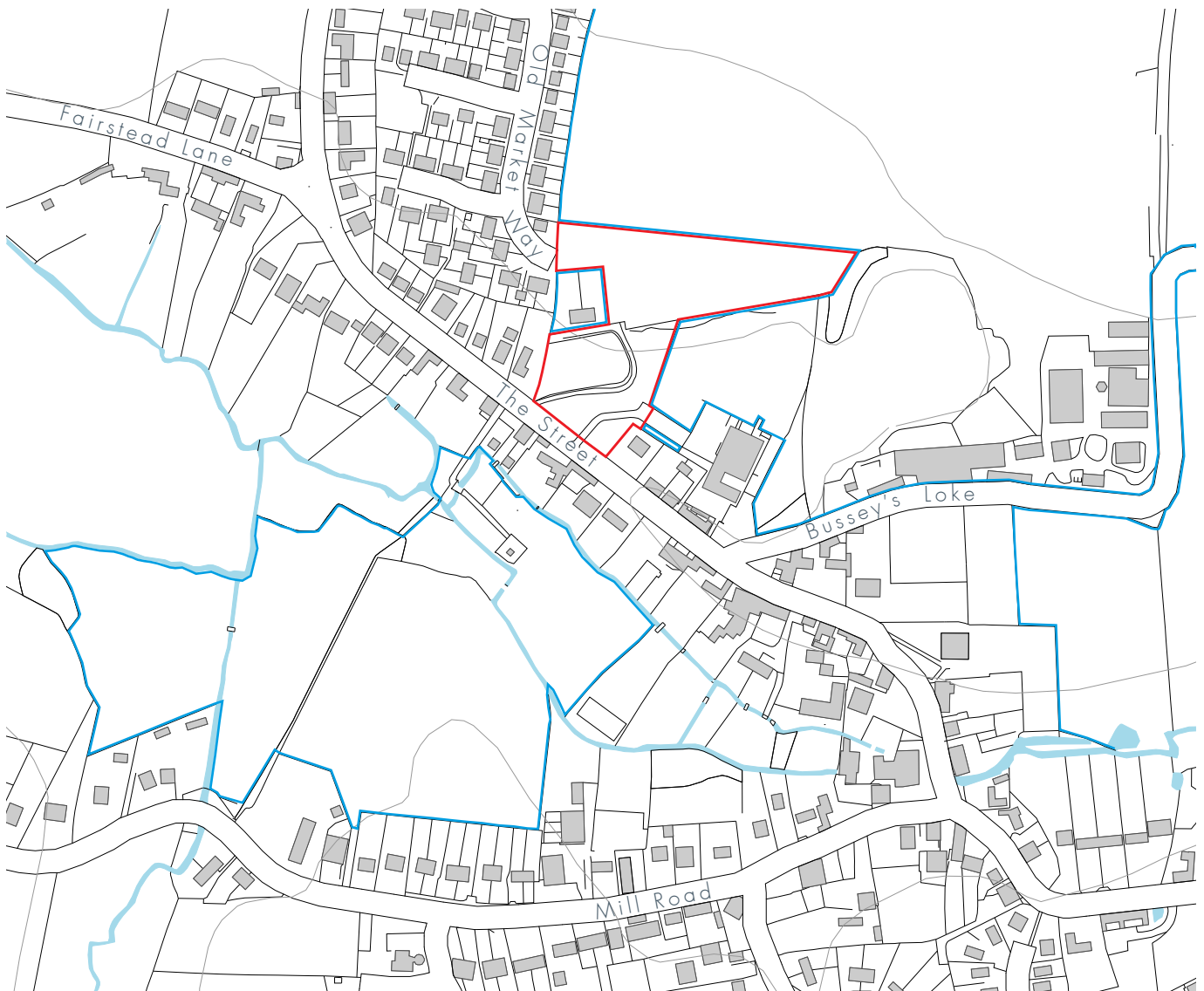
7. The site

Landownership

Key

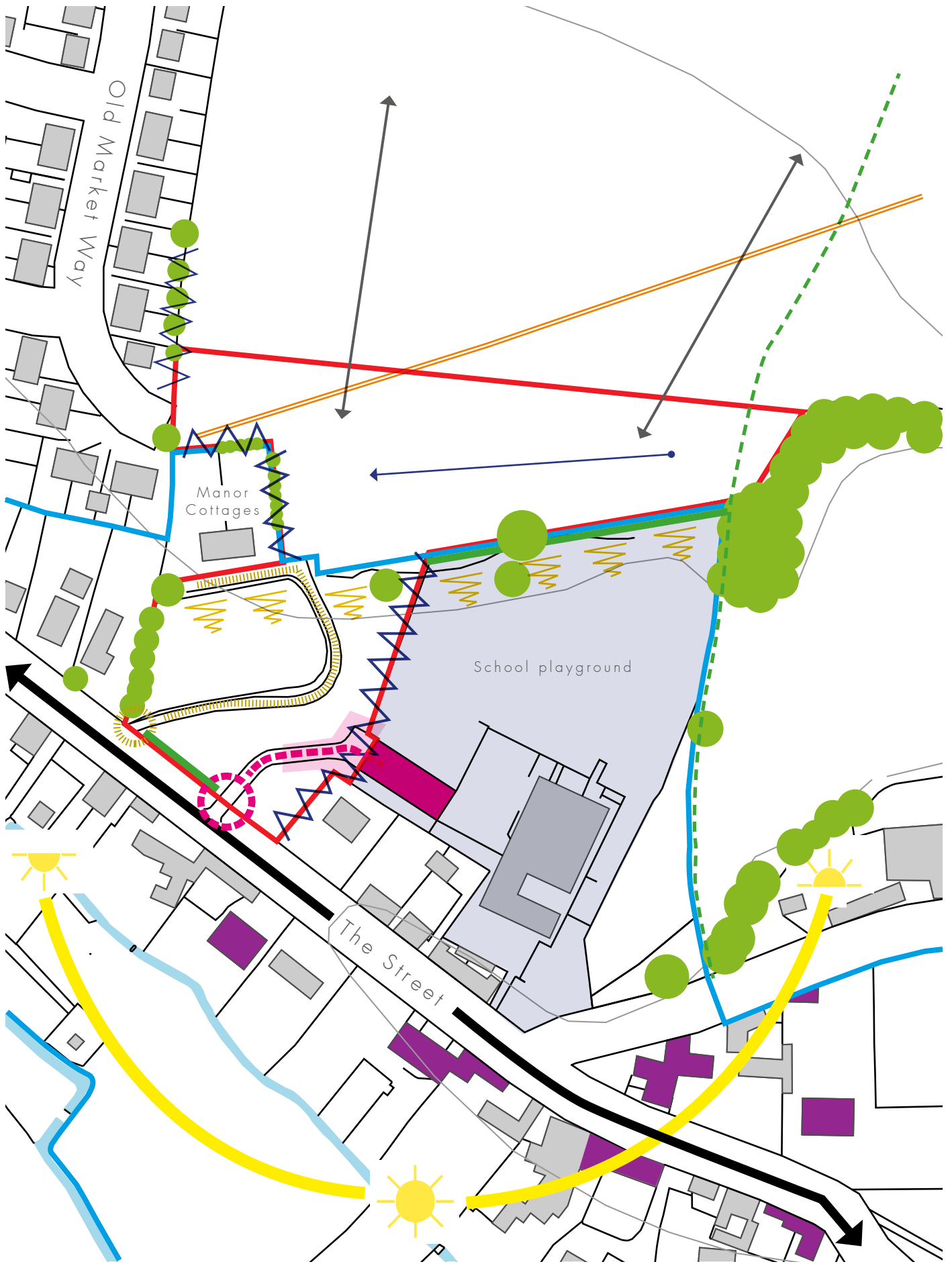
- Proposed site
- Other land within the ownership of G.H. Allen (Farms) Ltd

The entire application site is within the single ownership of G.H. Allen (Farms) Ltd. The plan opposite highlights the proposed site and other adjacent land within their ownership.



Land ownership plan























Baseline site analysis plan



Key

-  Proposed site
-  Main road - The Street
-  Primary school vehicular access
-  Primary school parking
-  Primary school overspill parking
-  Manor Cottages vehicular access
-  Existing access route to Manor Cottages
-  Embankment
-  Existing trees
-  Existing hedgerows
-  Public right of way
-  Sensitive edges
-  Overhead power lines
-  Conservation Area boundary
-  Listed building (Grade II)
-  Views into and out of site
-  Direction of slope (down)
-  Sun path

Baseline site analysis

The proposed site is formed by southern and northern parcels of land and together are approximately 1.45 hectares.

The southern area of the site and that of the adjoining school are on lower ground adjacent to existing development. This is as a result of previous sand extraction during the Second World War.

The Street forms the southern boundary, with mature trees and hedgerow planting to the west, to the north by an embankment, with the primary school and a residential property to the east.

There are two existing points of access from The Street. One in the form of a track serving the Manor Cottages, and the second serving the primary school parking area. The southern area of the site also lies within the village Conservation Area.

As a result of the past sand extraction, the northern area of the site is on higher ground and forms part of a larger agricultural field. The southern boundary of the northern area is formed by tree and hedgerow planting. An existing public right of way passes through the eastern corner of the site with a small copse forming the eastern boundary. The short western boundary is formed by the garden boundaries of the Manor Cottages and the properties on Old Market Way. Overhead power lines cross and terminate in the western corner of the site.

Photographs of the site and its immediate context are provided on the following pages.



1. Looking south west across the lower (southern) area of the site.



2. Looking west across the lower (southern) area of the proposed site.

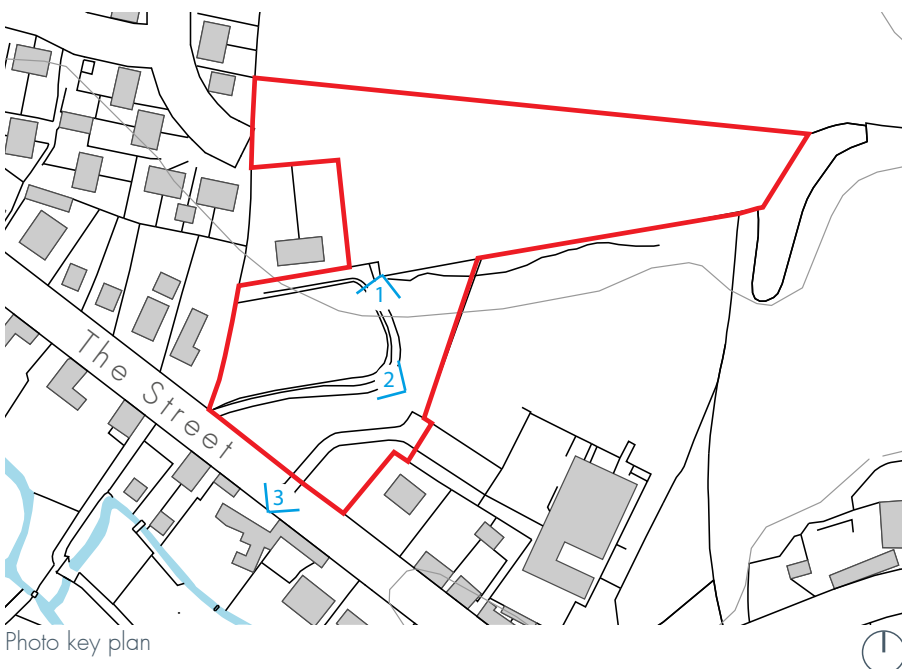
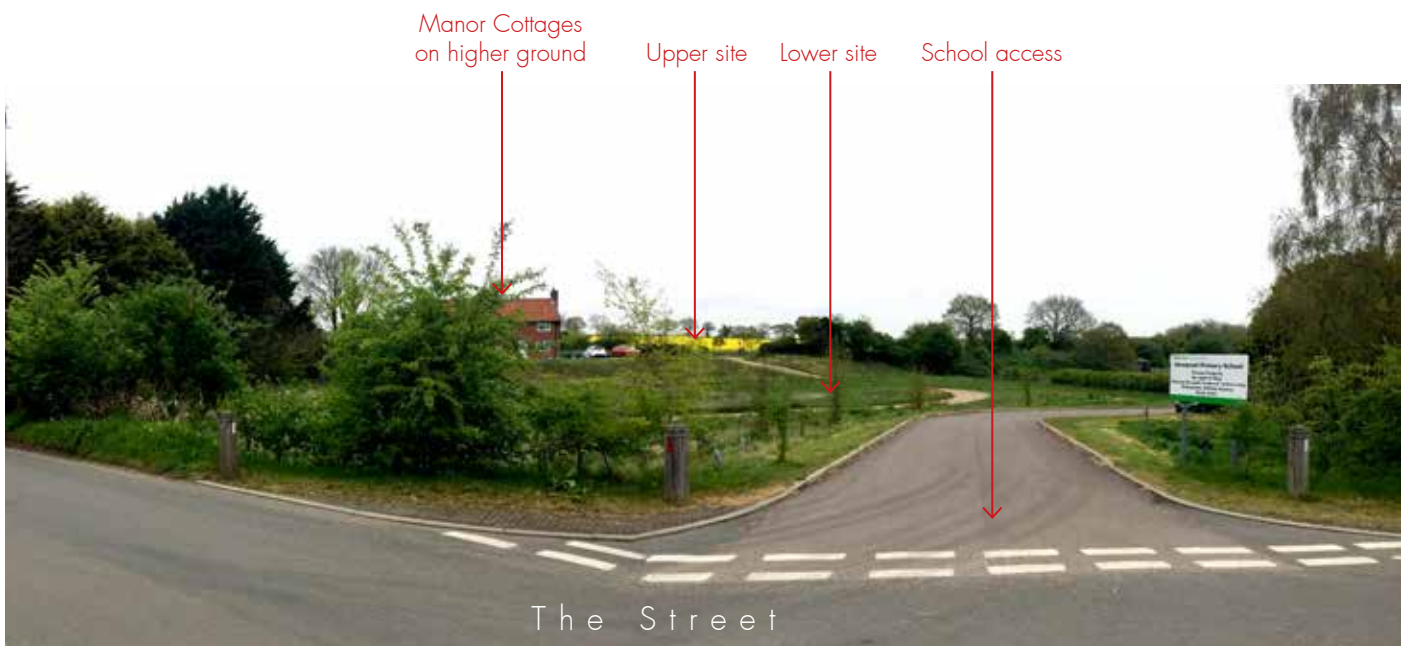


Photo key plan



3. Looking north east across the site from The Street.



4. View from the eastern boundary of the northern area of the site back towards the existing properties on Old Market Way



5. Looking east across the northern area of the site.

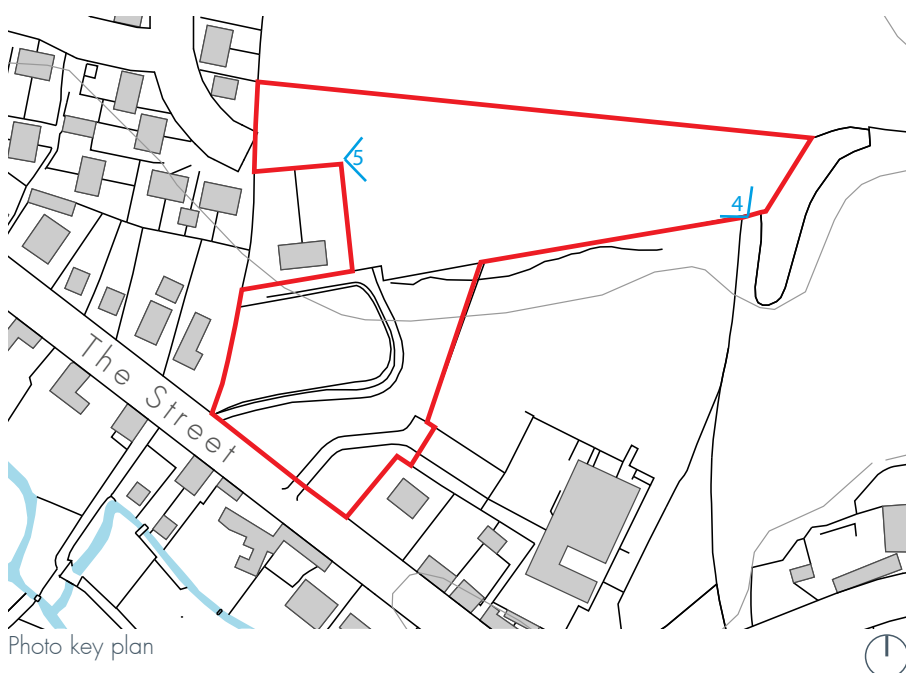


Photo key plan

Public Right of Way












Illustrative concept layout



8. Design

Key

-  Proposed site
-  Public Right of Way
-  Proposed development
-  Open space
-  Vehicular access from The Street
-  Additional school car parking (11 spaces)
-  Open space / children's play space

Illustrative concept layout

The illustrative concept layout opposite has been produced to give an idea of how the site could be designed to deliver around 19 new homes or possibly more, having regard to the specific issues and opportunities the site presents.

Vehicular access to the scheme is served solely from The Street (1). The existing access from The Street would be remodelled providing access to both the school parking area, the new residential development and Manor Cottages.

Existing trees and hedgerows are to be retained and enhanced where appropriate. New tree and soft landscaping is also incorporated within the design of the scheme. An area of open space/children's play space has also been provided (3).

The new homes will front on to The Street to reflect and maintaining the existing townscape character.

As part of these proposals, a new area of much needed additional car parking for the primary school is proposed (2), providing an additional 11 spaces.



Illustrative concept layout



9. Conclusion

Summary of the proposals

In preparing this Vision document, we have sought to develop a high quality proposal for housing development of our client's land at The Street, Hempnall. We consider that this document demonstrates how this can be achieved within the context of a good understanding of the site's context and constraints.

The resultant scheme is considered to be one involving a coherent extension of the built form of the village, without significant incursion into the open countryside. We have sought to continue historic grain of built form in the village and achieve this in a sensitive way.

In addition to the achievement of sensitively designed proposal, which sits within its surroundings, the scheme also makes provides benefit to the local community in the form of a affordable housing and an extended car park for Hempnall Primary School.

We therefore consider the site to represent a sustainable opportunity for housing development. This development would also be deliverable, with the site being available and suitable for development and with this being achievable.

We therefore invite the GNDP to consider this proposal within the context of the currently emerging GNLP. We shall look forward to engaging with the remainder of the GNLP process going forward and we would be pleased to answer any questions about the proposal.

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Proposed residential development
The Street, Hempnall, Norfolk
Vision document
June 2017



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Produced by Savills Urban Design Studio
for G.H. Allen (Farms) Ltd



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1. Vision

“The vision is simple, to deliver new, high quality and appropriate residential development on land which is available and close to village facilities.”



Aerial photograph of Hempnall

2. Introduction



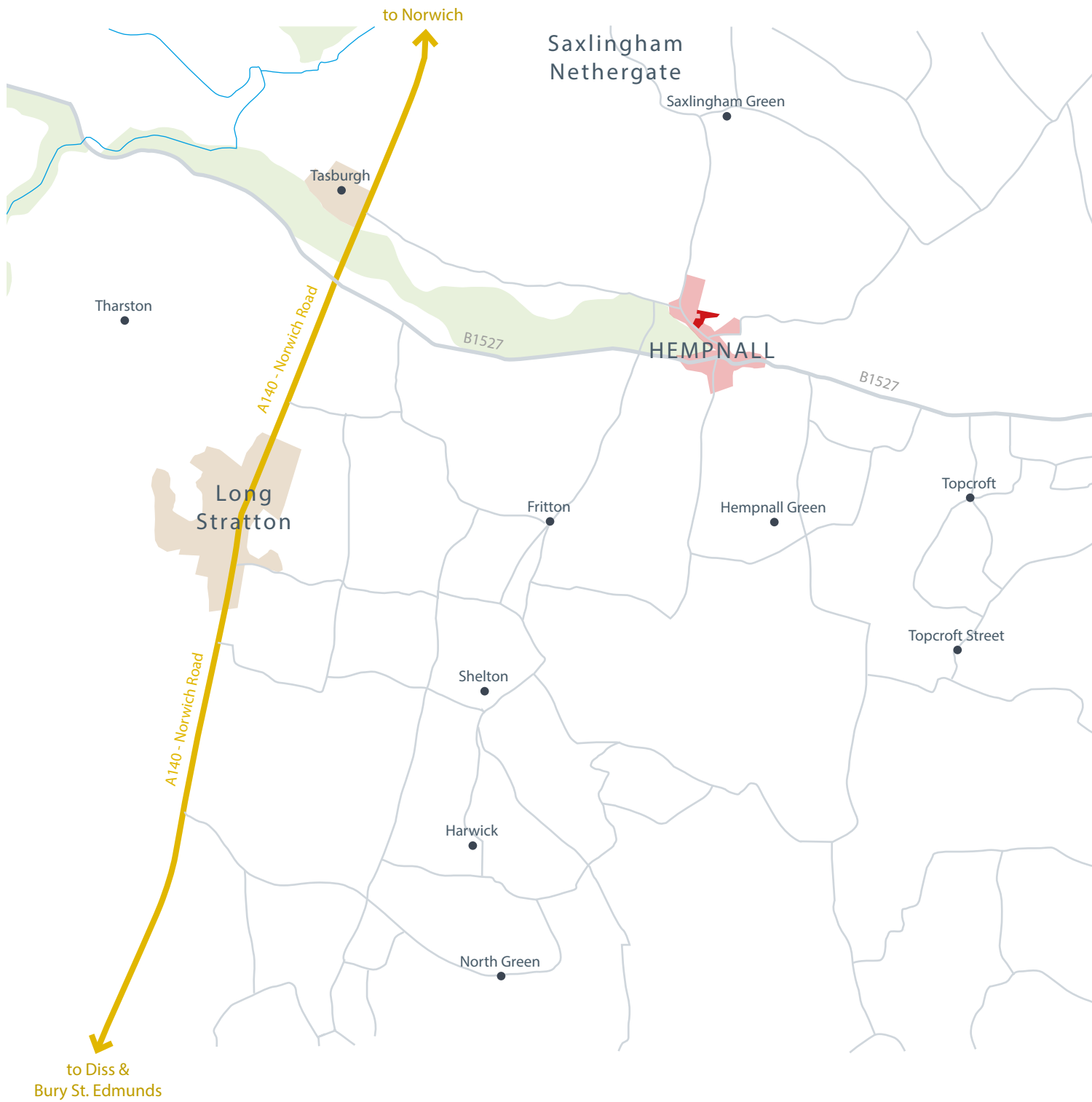
This document has been prepared by Savills Planning & Urban Design Studio on behalf of the landowner, G.H. Allen (Farms) Ltd.

The purpose of this document is to support the submission of representations for residential development on land to the north east of The Street, Hempnall. Through a combination of text, sketches and photographs, this document provides baseline analysis of the site and the village of Hempnall and begins to set out an initial design rationale and concept for residential development.

The site boundary totals approximately 1.45 hectares (3.58 acres). It has been estimated that the site could deliver around 19 new homes, although this is subject to further, more detailed technical analysis and consultation.

At this early stage of the design process, the ideas within this document are concepts based on placemaking and best practice design principles. The early concepts within this document look to explore scale, massing and form for future development, and are to be the basis for future, on-going discussions and engagement with key stakeholders.





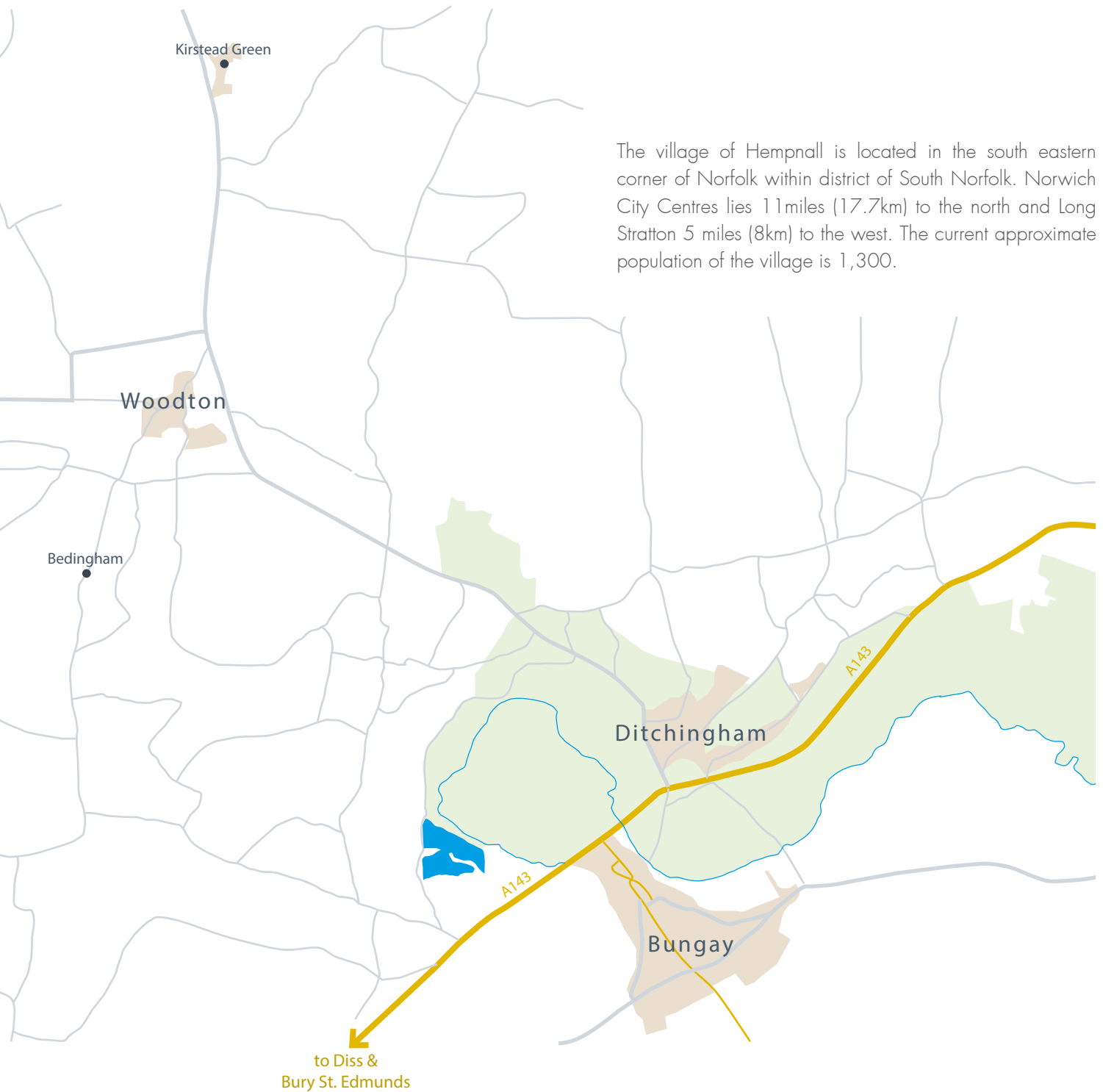
Site location plan

Key

- Proposed site
- Hempnall village
- 'A' roads
- local roads

3. Site location

The village of Hempnall is located in the south eastern corner of Norfolk within district of South Norfolk. Norwich City Centres lies 11 miles (17.7km) to the north and Long Stratton 5 miles (8km) to the west. The current approximate population of the village is 1,300.



4. Planning policy context

South Norfolk, together with Broadland District and Norwich City Council's are working with Norfolk County Council to prepare the Greater Norwich Local Plan (GNLP). Upon adoption, the GNLP will form the Development Plan for these local authority areas.

In the case of the South Norfolk local authority area, within which the site lies, the GNLP will replace the Joint Core Strategy for Broadland, Norwich and South Norfolk (the JCS) and the South Norfolk Site Specific Allocations and Policies Document (the Site Allocations Document) along with Area Action Plans for Wymondham and Long Stratton and a Development Management Policies Document.

Within the JCS, Hempnall is defined as a 'Service Village' under Policy 15, which states that 'land will be allocated for small-scale housing development subject to form and character'. In accordance with this policy, the Site Allocations Document subsequently identified land to the East of Roland Drive, Hempnall for the development of approximately 20 dwellings, under Policy HEM1. The landowner of that site is the same as that for the site which is the subject of this document, namely GH Allen (Farms) Ltd.

In preparing the GNLP, the local authorities for the constituent areas to be covered by the document have re-established the joint working arrangements from the preparation of the JCS, under the Greater Norwich Development Partnership (the GNDP). The GNDP is in the early stages of preparing the GNLP. A 'Call for Sites' was issued by the GNDP in May 2016. The next stage of consultation will be carried out under 'Regulation 18' and this is currently programmed to take place in October 2017, with 'Regulation 19' consultation to take place in Summer 2019, Public

Examination in Summer 2020, followed by final adoption by the end of 2020.

The Greater Norwich Development Partnership Board agreed at its meeting on 23 March 2017, that details of sites that are available for development will be accepted up until the Regulation 18 consultation in the autumn. It is in accordance with this, that this submission in relation to development at The Street, Hempnall is being made.

In anticipation that the development strategy to form the basis the GNLP will be similar to that forming the basis of the JCS, it is considered that Hempnall should provide the opportunity to accommodate further growth within the context of the GNLP. On the basis of Hempnall's continued designation as a Service Village, or similar, it is considered that the scale of development proposed by this document would be consistent with this.

With the current policy requiring that proposals are subject to being of appropriate 'form and character', this document seeks to demonstrate that a scheme for development of the site can be delivered at the site which is appropriate in these terms. More specifically, we seek to demonstrate an understanding of the site and its context, to identify a deliverable vision for the site, which also provides particular benefits for the local community.

We therefore invite the GNDP to consider this proposal within the context of the process for preparing the emerging GNLP. We would be pleased to answer any questions arising and we shall look forward to engaging throughout the remaining stages of the GNLP's preparation.

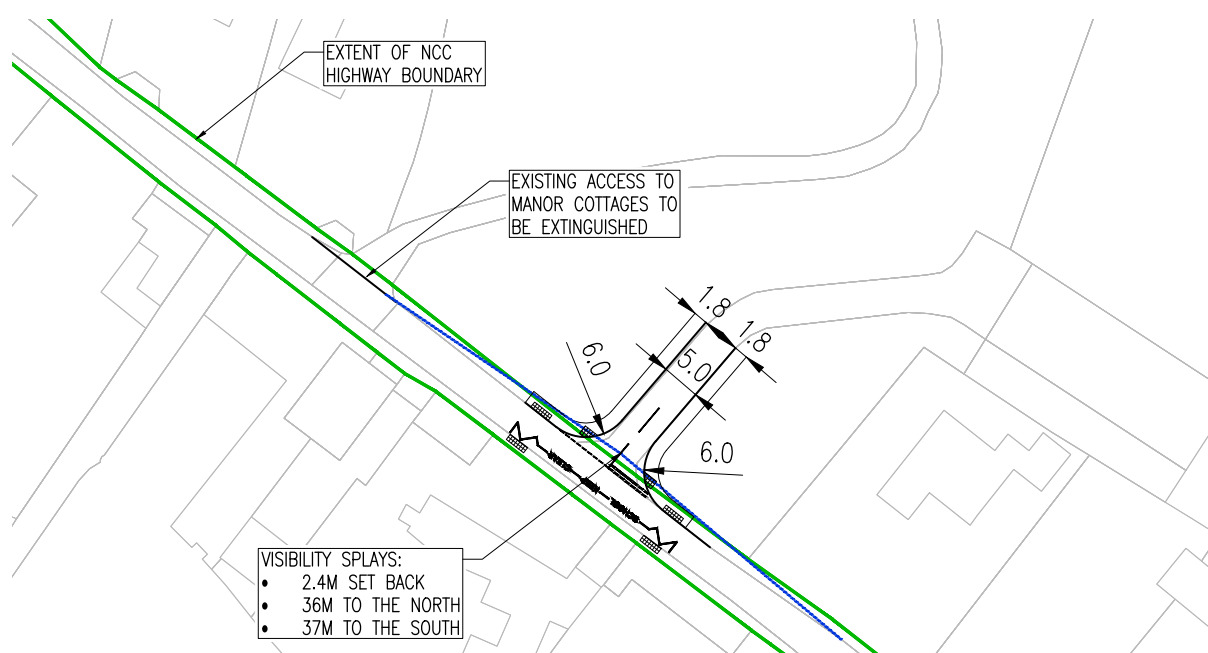
5. Highways context

The proposed access layout is shown opposite. The proposed junction and access would provide the following characteristics.

- **Carriageway** – provide minimum 5.0m width
- **Bell mouth** – increase junction radii to 6.0m minimum
- **Footway** – provide two footways of 1.8m both sides of access road
- **Visibility** – visibility of the existing access is being encroached by recently growing hedge /bush. The calculated required envelopes of visibility are 2.4m set back by 36m to the north and 37m to the south. Therefore vegetation should be trimmed back to achieve this visibility.
- **Pedestrian crossing points** – provide uncontrolled pedestrian crossing points across The Street to allow pedestrian to join existing footway.

The proposed access arrangements are presented as being appropriate to serve the limited scale residential development and the small school car park.

The submitted access statement concludes that the development of around 19 residential dwellings can be achieved in accordance with appropriate standards, and that the development will not have a detrimental impact upon capacity or safety.



Preliminary access arrangement





6. Village context

Townscape character

Before beginning the design process for the new development, it is important to have an understanding and appreciation of the existing built form, character and context of the immediate and wider area.

Hempnall provides a wide variation in design and architecture, reflecting the changes the village has been through over time. The majority of the properties in the village are detached and semi-detached dwellings, including bungalows. Properties are generally set-back behind front gardens with driveways and garages providing private on-plot parking.

The evolving design and masterplan aims to incorporate the best elements of the context and character of Hempnall to create a new, vibrant, attractive and safe environment for all new residents. In essence, it is a masterplan that is rooted in the principles of placemaking and creates a connection between people and place, through an integrated and holistic design approach.

A rich palette of architectural detailing, materials and colour will all combine to create strong sense of character to the development.

Brick, render and timber can all be found around the village, with many of the houses having simple door and window details. Red pantiles are the dominant roof covering, but slate can also be found as well as some examples of thatch.

There are a number of brickwork boundary walls throughout the village which also provide an important contribution to the historic character of Hempnall.






Hempnall historic context

Source: Historic England & South Norfolk Council



Key

-  Proposed site
-  Conservation Area
-  Listed buildings



The Long House (Grade II)
Church of St Margaret (Grade I)



The Chequers (Grade II)



Manor Cottages (Grade II)

Heritage context

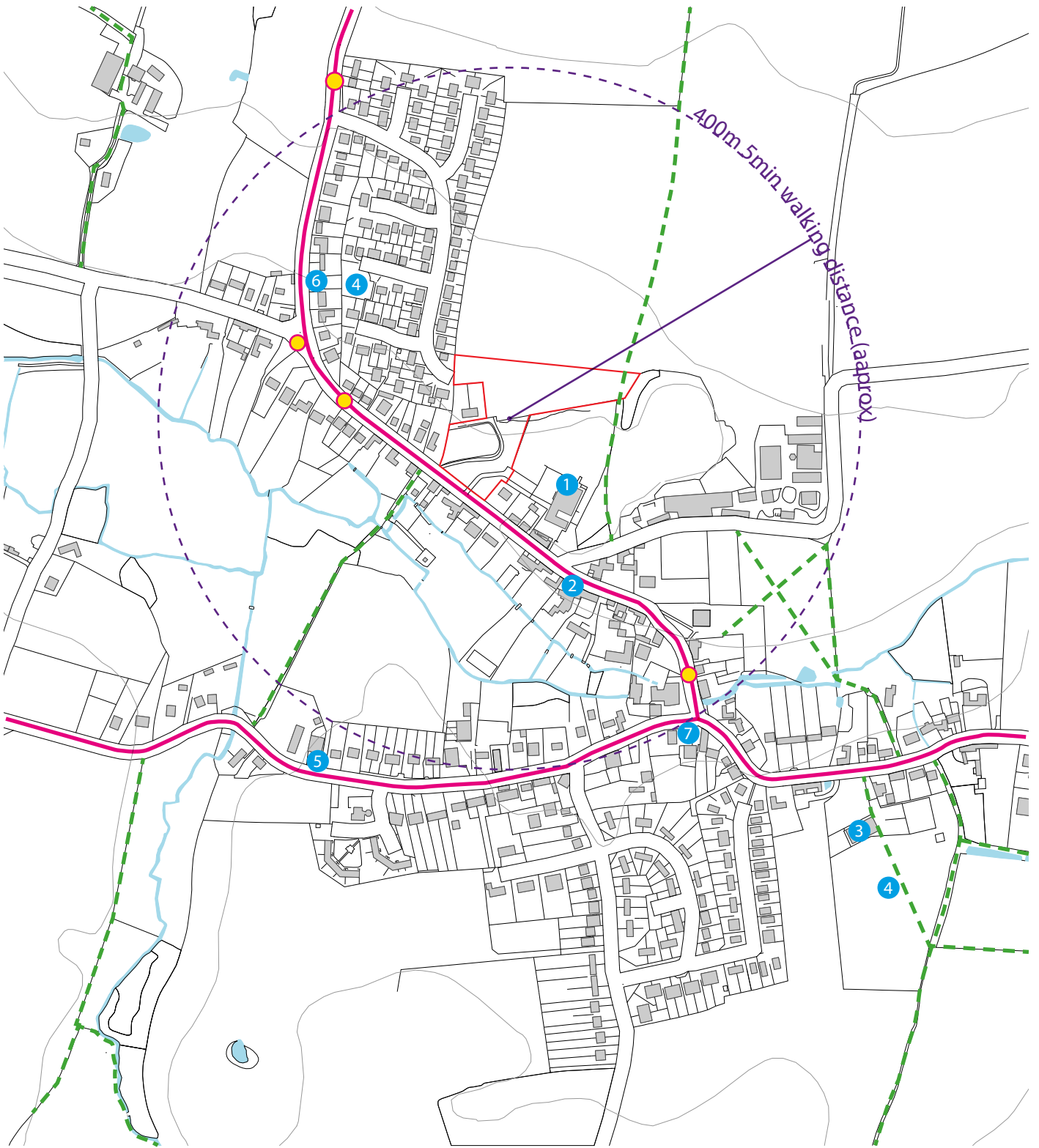
Much of the village lies within the Hempnall Conservation Area. There are around 22 listed buildings or structures in the village, at the heart of which is the Grade I Church of St Margaret. Indeed, part of the proposed site falls within the Conservation Area.

It's these older, historic buildings that provide the greatest variation in materials, textures, colours and detailing of architecture in the village.

Although still at the early stages of the design process, it is important that the initial concept designs and ideas begin to acknowledge the historic form and structure of the village.




Lime Tree Cottage (Grade II)



Hempnall historic context
 Source: Historic England & South Norfolk Council



Key

-  Proposed site
-  Public rights of way
-  Bus routes
-  Bus stops
-  1 Primary School
-  2 Village shop
-  3 Village hall
-  4 Playing fields / children's play space
-  5 Doctors surgery
-  6 Veterinary surgery
-  7 Butchers & delicatessens



Hempnall Primary School



Hempnall village shop



Hempnall Village Hall

Services and facilities

The site is located close to the centre of the village. The map opposite shows the location of the site within its context.

With a population of around 1 300 people, the village has a small number of local facilities, which are highlighted on the plan opposite.



The plan illustrates how the proposed site is within close proximity of the facilities within the village, and all within easy walking or cycling distance. The site is also within walking distance of bus stops along The Street.



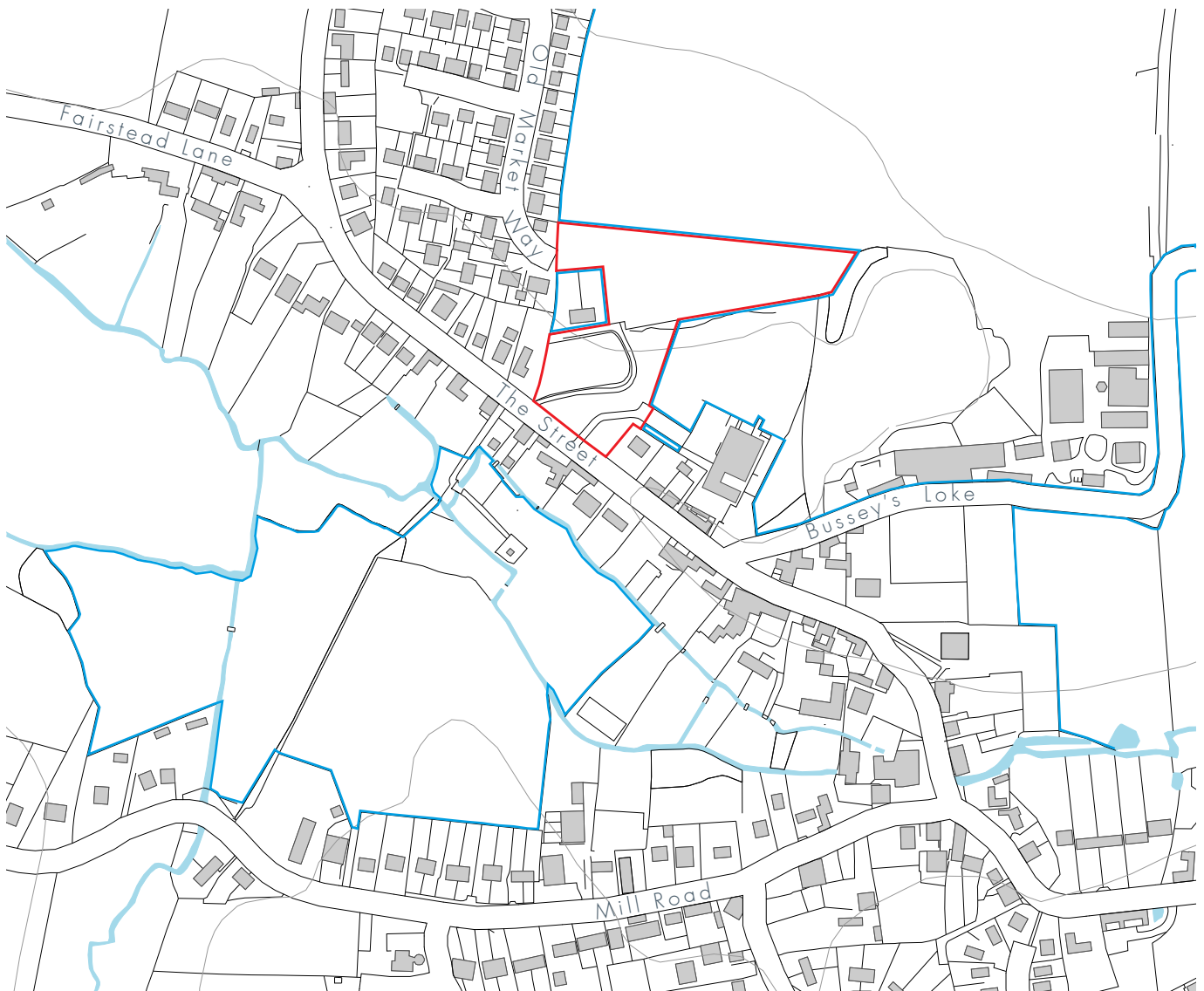
7. The site

Landownership

Key

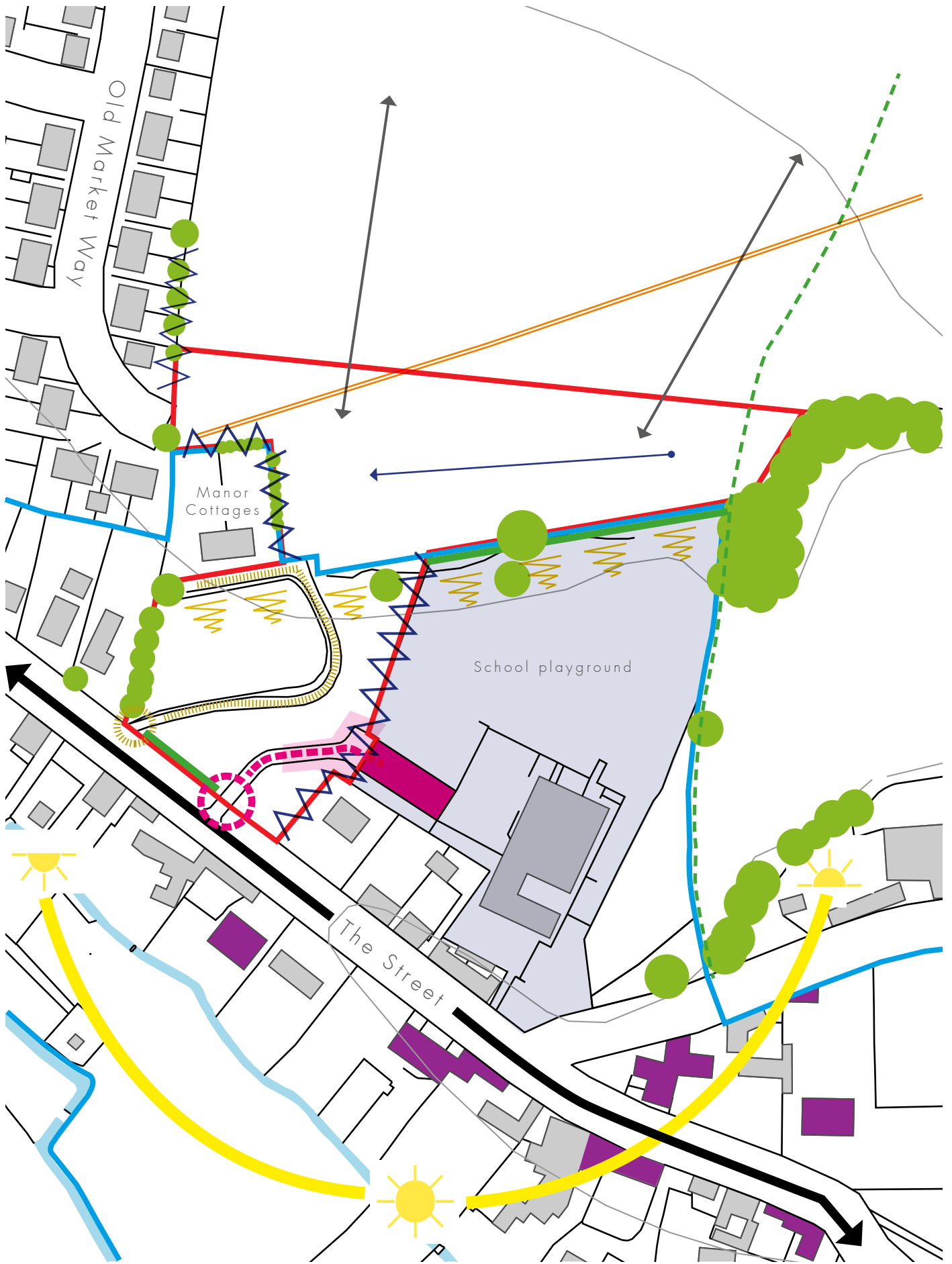
-  Proposed site
-  Other land within the ownership of G.H. Allen (Farms) Ltd

The entire application site is within the single ownership of G.H. Allen (Farms) Ltd. The plan opposite highlights the proposed site and other adjacent land within their ownership.





















Land ownership plan





Baeline site analysis plan

Key

-  Proposed site
-  Main road - The Street
-  Primary school vehicular access
-  Primary school parking
-  Primary school overspill parking
-  Manor Cottages vehicular access
-  Existing access route to Manor Cottages
-  Embankment
-  Existing trees
-  Existing hedgerows
-  Public right of way
-  Sensitive edges
-  Overhead power lines
-  Conservation Area boundary
-  Listed building (Grade II)
-  Views into and out of site
-  Direction of slope (down)
-  Sun path

Baseline site analysis

The proposed site is formed by southern and northern parcels of land and together are approximately 1.45 hectares.

The southern area of the site and that of the adjoining school are on lower ground adjacent to existing development. This is as a result of previous sand extraction during the Second World War.

The Street forms the southern boundary, with mature trees and hedgerow planting to the west, to the north by an embankment, with the primary school and a residential property to the east.

There are two existing points of access from The Street. One in the form of a track serving the Manor Cottages, and the second serving the primary school parking area. The southern area of the site also lies within the village Conservation Area.

As a result of the past sand extraction, the northern area of the site is on higher ground and forms part of a larger agricultural field. The southern boundary of the northern area is formed by tree and hedgerow planting. An existing public right of way passes through the eastern corner of the site with a small copse forming the eastern boundary. The short western boundary is formed by the garden boundaries of the Manor Cottages and the properties on Old Market Way. Overhead power lines cross and terminate in the western corner of the site.

Photographs of the site and its immediate context are provided on the following pages.



1. Looking south west across the lower (southern) area of the site.



2. Looking west across the lower (southern) area of the proposed site.

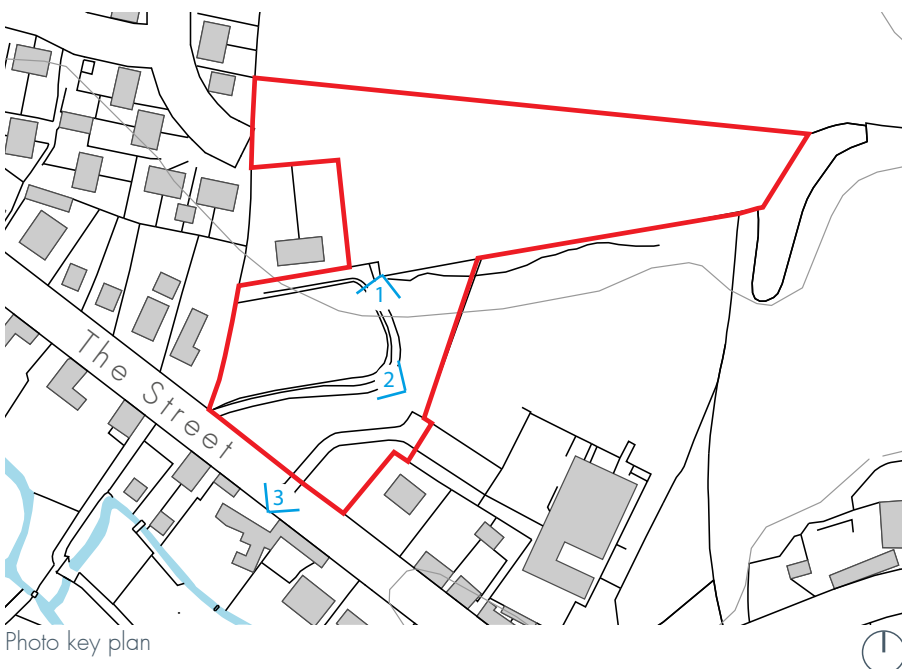
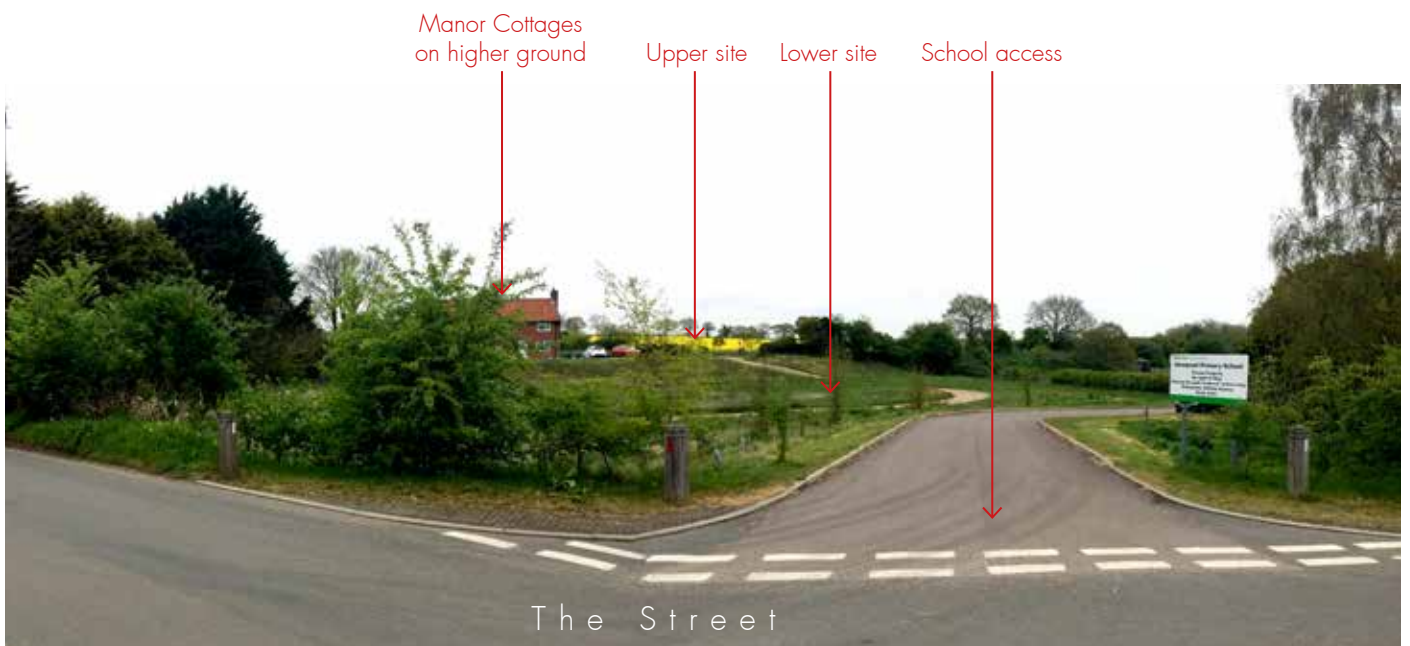


Photo key plan



3. Looking north east across the site from The Street.



4. View from the eastern boundary of the northern area of the site back towards the existing properties on Old Market Way



5. Looking east across the northern area of the site.

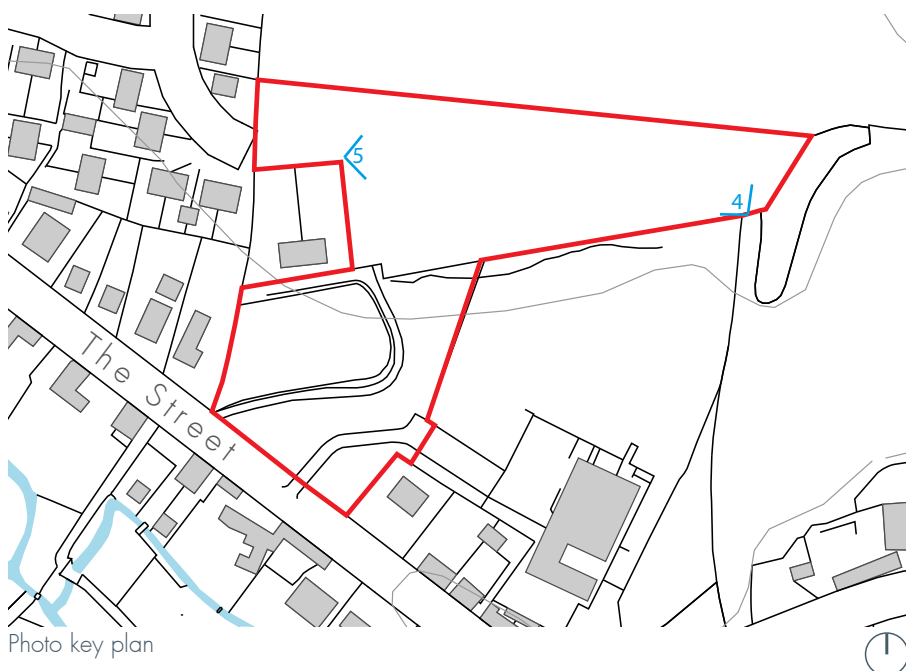


Photo key plan

Public Right of Way












Illustrative concept layout



8. Design

Key

-  Proposed site
-  Public Right of Way
-  Proposed development
-  Open space
-  Vehicular access from The Street
-  Additional school car parking (11 spaces)
-  Open space / children's play space

Illustrative concept layout

The illustrative concept layout opposite has been produced to give an idea of how the site could be designed to deliver around 19 new homes or possibly more, having regard to the specific issues and opportunities the site presents.

Vehicular access to the scheme is served solely from The Street (1). The existing access from The Street would be remodelled providing access to both the school parking area, the new residential development and Manor Cottages.

Existing trees and hedgerows are to be retained and enhanced where appropriate. New tree and soft landscaping is also incorporated within the design of the scheme. An area of open space/children's play space has also been provided (3).

The new homes will front on to The Street to reflect and maintaining the existing townscape character.

As part of these proposals, a new area of much needed additional car parking for the primary school is proposed (2), providing an additional 11 spaces.



Illustrative concept layout



9. Conclusion

Summary of the proposals

In preparing this Vision document, we have sought to develop a high quality proposal for housing development of our client's land at The Street, Hempnall. We consider that this document demonstrates how this can be achieved within the context of a good understanding of the site's context and constraints.

The resultant scheme is considered to be one involving a coherent extension of the built form of the village, without significant incursion into the open countryside. We have sought to continue historic grain of built form in the village and achieve this in a sensitive way.

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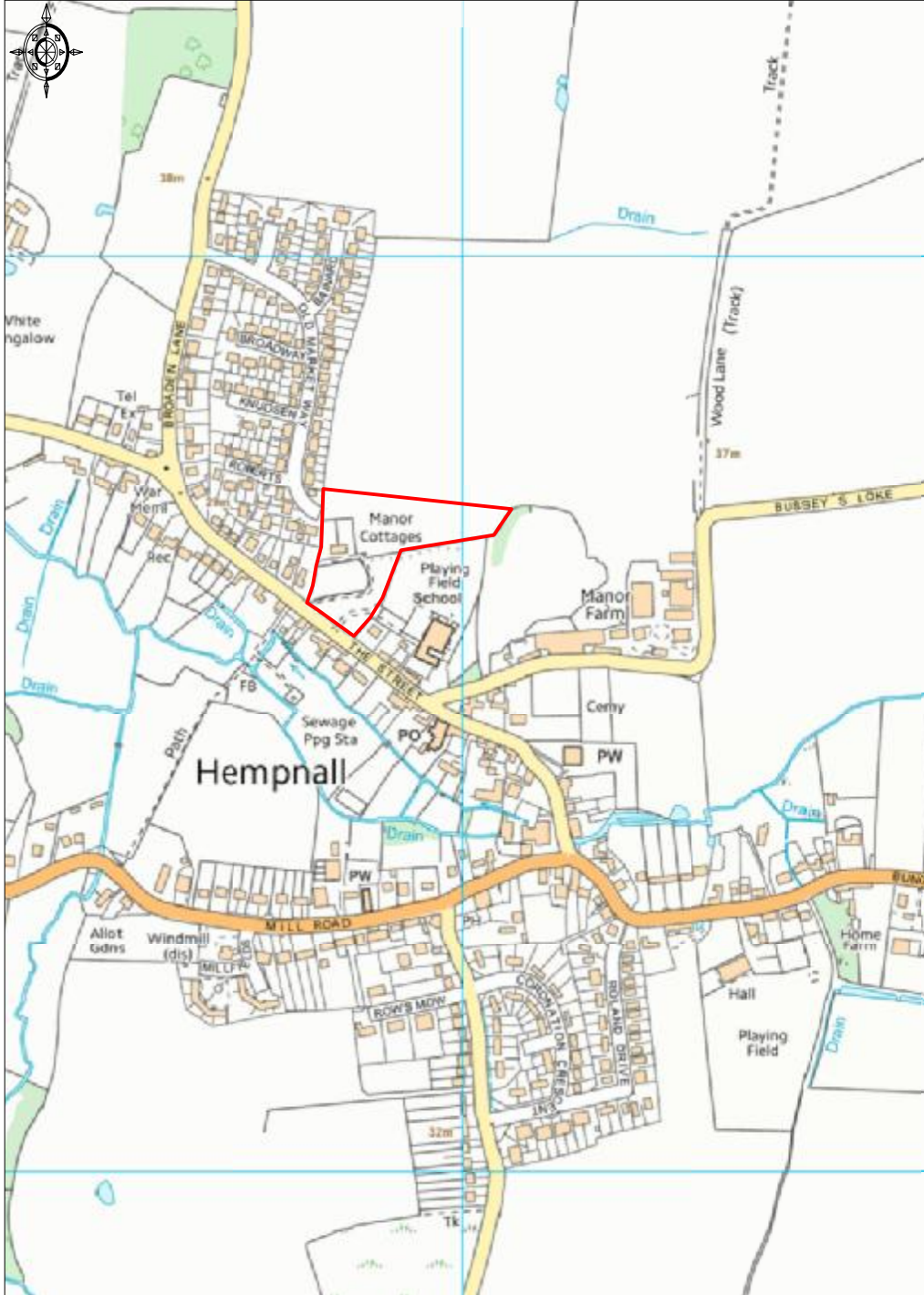
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Land Adjacent to Primary School



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