

LAND ADJACENT TO SHERINGHAM HOUSE

Amenity Impact of 70 Residential Dwellings

Client: Sutherland Homes

Engineer: Create Consulting Engineers Limited
PO Box 63
Rose Lane Business Centre
Rose Lane
Norwich
Norfolk NR1 1JX

Tel No: 01603 723246

Report By: Jonathan Cage, BEng (Hons), MSc, CEng, MICE, MIHT

Checked By: Stuart Wilson, BSc (Hons), MIHT

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AMENITY IMPACT OF 70 RESIDENTIAL DWELLINGS

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1.0 INTRODUCTION

- 1.1 Create Consulting Engineers Ltd have been instructed by Sutherland Homes to review the potential impact that could be caused by a proposed residential development of 70 dwellings, off land adjacent to Sheringham House, Sheringham.
- 1.2 This report considers the impact of development serviced by both a single vehicular access off Willow Grove as well as a split access solution with 35 dwellings being served by each access.
- 1.3 The report considers the potential amenity impact of increased vehicle and pedestrian movements on the adjoining residential areas, including aspects such as noise, safety, privacy and sensitivity. This report does not consider any landscape or visual impact.
- 1.4 This report is to be read in conjunction with the Transport Assessment which has been prepared to support the proposed allocation by Create Consulting Engineers Ltd's Report Number JPC/KC/104/TS.

2.0 SITE DESCRIPTION

2.1 The proposed site is located adjacent to Sheringham House, which is a development of luxury apartments and bungalows which were constructed on the former Sheringham Convalescent Home in Sheringham, Norfolk. The site is located approximately 1km to the south of the main town centre of Sheringham, which is located on the North Norfolk Coast. See Drawing Number 104/01/01A.

2.2 The proposed development area is approximately 1.77 ha and is generally 'L' shaped. The southern boundary of the site is formed by residential development accessed by Cedar Grove, Willow Grove, Juniper Grove and Elm Grove. The western boundary is formed by an area known as Morley Hill. The northern boundary is formed by Sheringham House and an area of woodland which formed part of the grounds of the former hospital.

Proposed Development

2.3 For the purposes of this report, it has been assumed that the proposed development will consist of 70 residential dwellings. The North Norfolk Site Specific Proposals document requires any residential development to consist of 45% affordable housing. With this in mind, this assessment has assumed that 31 of the dwellings will be affordable.

Vehicle Access

2.4 This assessment considers the impact of two access scenarios. Scenario 1 assesses the impact of 70 residential dwellings served from Willow Grove, with scenario 2 considering the amenity impact of a split access solution, with 35 dwellings accessing Willow Grove and the remaining 35 using an alternative access point.

Scenario 1 – Willow Grove

2.5 It is proposed that the site will be served by a new access linking with Willow Grove, connecting to the southern boundary of the site. Willow Grove is a small cul-de-sac currently providing access to 16 dwellings and linking with Woodland Rise. Woodland Rise is a local distributor road serving the residential areas to the south of Sheringham.

- 2.6 There are ten residential properties with direct frontage to Willow Grove. Willow Grove carriageway is 5.5m wide with a 1.8m wide footway either side. The properties are all brick bungalows, built approximately 30 to 40 years ago. Each property has a drive and off-street parking along with front gardens. The nearest property to Willow Grove is Number 6 which is immediately adjacent to the turning head at the end of Willow Grove. A number of the properties have well maintained hedges enclosing their front gardens; in addition, Number 1 Willow Grove has a small retaining wall and hard landscaping. See Figure 1. The access point to the development is currently fenced off using a close boarded feature. See Figure 2. There will be no tree loss or hedge removed in forming the proposed access to the site.



Figure 1



Figure 2

2.7 There is adequate visibility in both directions at the junction between Willow Grove and Woodland Rise. See Figures 3 and 4.



Figure 3



Figure 4

Scenario 2 – Willow Grove/Second Access

- 2.8 This scenario assumes that 35 dwellings will be served by Willow Grove and the remaining 35 dwellings will be served by an alternative access.
- 2.9 There are a number of potential alternative access points to the site along the eastern boundary. These include Elm Grove, Poplar Grove, Ash Grove and Cedar Grove. All of these accesses would require third party land and the removal of some mature trees and landscaping. A more detailed appraisal of the potential alternative access is included Create Consulting's Report, Reference JPC/CS/104/03.
- 2.10 All of the above potential access points are similar in terms of the type and nature of the properties currently being accessed. For the purposes of this assessment, we have taken Poplar Grove as being the second access point into the site, even though Elm Grove has a wider carriageway and, in geometrical terms, would be the most suitable second access point, the landscape belt is denser at the end of Elm Grove and therefore for this reason the access has not been considered. Poplar Grove has a carriageway width of 4.0m with two 1.5m wide footways.

- 2.11 The houses are generally closer together than on Willow Grove, with the houses all being linked effectively forming a terrace. Ten houses front Poplar Grove and would be effected. All of the houses have front gardens, however, off-street parking provision is limited. Not all of the dwellings have drives and, as a result of this, residents park their vehicles on the street. The fronts of the houses are generally screened by hedges or timber fences. There is existing street lighting along Poplar Grove. See Figures 5 and 6.



Figure 5

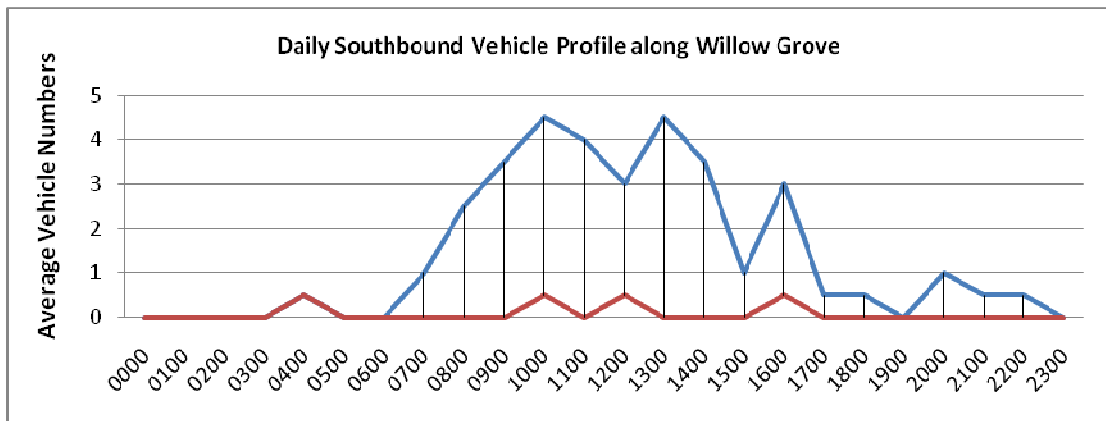


Figure 6

3.0 EXISTING SCENARIO

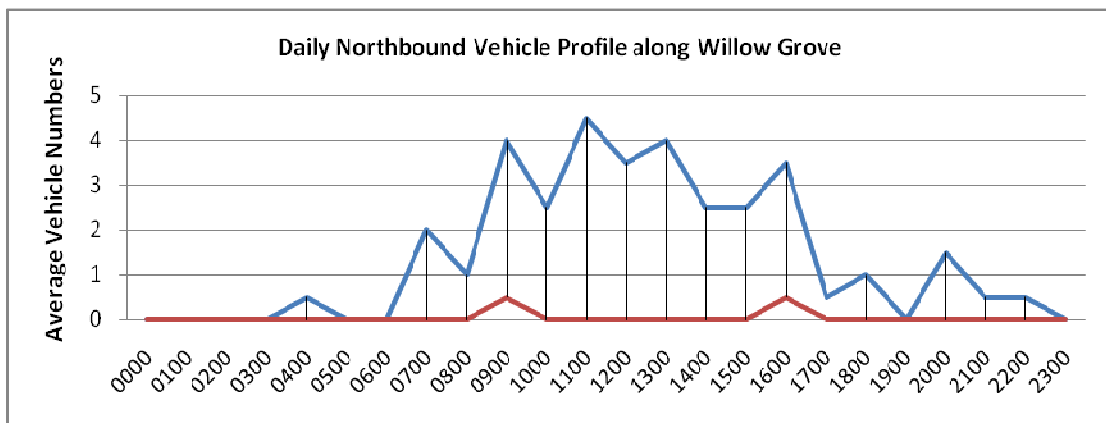
3.1 To enable the level of potential impact to be assessed on the properties along Willow Grove, an Automatic Traffic Counter (ATC) was installed across the entrance to the road on Wednesday 22 July through to Sunday 26 July 2009.

3.2 A summary of the results of this ATC are enclosed in Appendix A. The counter showed that the 12 hour two way movements totalled 61, with four two way movements between 08:00 and 09:00. A profile of vehicle movements in and out of Willow Grove is shown in Graphs 1 and 2 respectively. The blue line shows total vehicles whilst the red line shows the profile of HGVs.



Graph 1: Daily Southbound (outbound) Vehicle Profile along Willow Grove

Source: Count on Us, 2009



Graph 2: Daily Northbound (inbound) Vehicle Profile along Willow

Source: Count on Us, 2009

- 3.3 The profile shows that the maximum number of vehicles in and out of Willow Grove occurred between 12:00 and 13:00 hours. This profile would indicate that the majority of the residents along Willow Grove are retired.
- 3.4 The majority of the vehicles exiting Willow Grove turn right along Woodland Rise eventually connecting to Holway Road.
- 3.5 Willow Grove has existing street lighting mainly located around the junction with Juniper Grove. There is very little on street parking along Willow Grove, with the majority of the residents choosing to use their off street parking facilities.

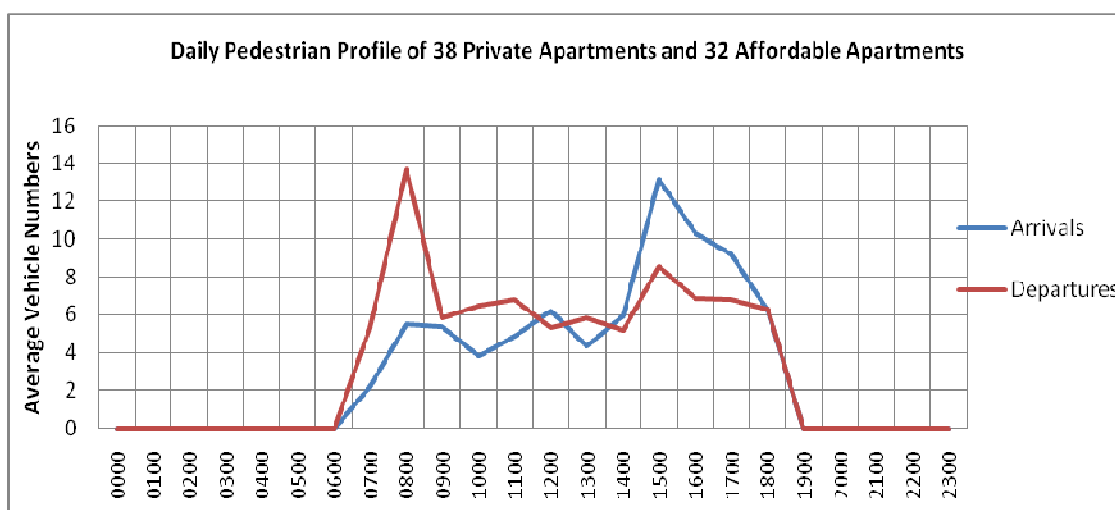
Poplar Grove

- 3.6 Following a site visit, it was observed that there was a clear difference between the types of development along Willow Grove to that of the other potential access points. The dwellings along Poplar Grove are owned by Victoria Housing Trust and it is anticipated that the vehicle movements to and from this area are likely to be similar to standard residential housing, with an AM and PM peak as a result of employment and school trips.

4.0 PROPOSED TRIP GENERATION

4.1 In order to assess the potential increase on both Willow Grove and the secondary access, a review of the TRICS database was undertaken of similar sites throughout the UK. The results of the TRICS review are shown in Appendix B.

4.2 The TRICS data demonstrated that the peak hours for a residential development are during the traditional peak hours of 08:00-09:00 and 17:00-18:00. This analysis shows that this development is likely to generate 275 two way vehicular trips over a 12 hour period. This analysis also indicated that the development would generate 28 two way movements between 08:00-09:00 and also 28 two way trips between 17:00-18:00. A daily profile is shown in Graph 3 below.



Graph 3: Daily Vehicle Profile of 70 Residential Apartments

Source: TRICS® 2009(b)v6.4.1 June 2009

4.3 It is expected that the proposed development flows will be distributed evenly along both accesses.

4.4 As part of the TRICS review, a number of sites contained multi-modal surveys; the analysis showed that a development of 70 private apartments is likely to generate 160 12 hour two way pedestrian movements and approximately 26 two way public transport movements. The main pedestrian destinations are to the north of the site where the majority of the residents are likely to use the Knowle Road/The Rise/Cremers Drift route into the town centre. Residents who use public transport are likely to use the footway link along Willow Grove to the nearest bus stop.

- 4.5 In summary, a development of 70 private apartments split between two access points is anticipated to generate an additional 138 two way vehicle trips over a 12 hour period along Willow Grove and 138 two way movements along the secondary access. In addition, it is estimated that 160 pedestrian movements and approximately 26 two way public transport trips will be made via Willow Grove and the secondary access, this will be split evenly. The peak hours periods occur during the traditional peak hour and the maximum number of additional vehicle trips in any one hour is projected to be 14 two way vehicle trips, equating to one vehicle every 1 minutes along either access.

5.0 NOISE ASSESSMENTS

5.1 When assessing the decibels caused by vehicular movement along Willow Grove, the following data is required:

- 18 hour vehicular flow;
- Average speed in KPH over an 18 hour period;
- Percentage of heavy vehicles;
- Gradient; and
- Road Surface.

5.2 This data is provided in Table 1 below:

	2009 Observed Traffic Flows	70 Units Based on TRICS Inc Private/Affordable
AM two-way	4	6
PM two-way	1	14
18 hour two-way	65	138
18 hour HGV % two-way	3.86%	3.86%
Two way average speed (kph)	25	
Road Surface	Impervious	

Table 1 – Traffic Flows along Willow Grove

5.3 The national method for predicting road traffic noise is described in the publication Calculation of Road Traffic Noise (CRTN) 1988. This document states that Calculations of noise levels for traffic flows below 50 veh/h or 1000 veh/18-hour day are unreliable on site.

5.4 With projected traffic levels of only 275 veh/18-hour days, it has been determined that the vehicular flows are so low that they will not be significant in terms of noise impact and therefore noise calculations are not thought necessary in this case.

6.0 PRIVACY AND SECURITY

- 6.1 With the anticipated level of vehicle movements and pedestrian movements likely to use Willow Grove being generally low, it is not considered that there will be a significant impact on the amenity of the residents in this area.
- 6.2 The road is of sufficient standard and width to deal with the projected levels of traffic safely and there are good pedestrian facilities both sides of the carriageway.
- 6.3 The majority of the frontage of the properties is screened by mature hedges or boundary walls and are generally set back from the rear of the kerb.
- 6.4 As all of the properties currently front onto adoptable highway and the proposed access from Willow Grove will not affect the layout of either carriageway or footway, it is therefore considered that there will be no change to the level of privacy of the dwellings along Willow Grove as a result of the proposed development.

7.0 CONCLUSION

- 7.1 From the information enclosed in this report and our on-site observations, a proposed development of 70 private/affordable apartments accessed from Willow Grove will have minimal impact on the amenity of the residents living in the area.
- 7.2 The very low levels of pedestrian and vehicular traffic anticipated to be using the access will not materially create any additional noise, safety concerns or changes in privacy levels to that which the existing properties currently enjoy.

APPENDIX A

ATC Summary @ Willow Grove Southbound Tuesday 21 July - Thursday 23 July		
	All Vehicles	HGV
0000	0	0
0100	0	0
0200	0	0
0300	0	0
0400	1	1
0500	0	0
0600	0	0
0700	1	0
0800	3	0
0900	4	0
1000	5	1
1100	4	0
1200	3	1
1300	5	0
1400	4	0
1500	1	0
1600	3	1
1700	1	0
1800	1	0
1900	0	0
2000	1	0
2100	1	0
2200	1	0
2300	0	0
07-19	32	2
06-22	33	2
06-00	34	2
00-00	34	2

ATC Summary @ Willow Grove Northbound Tuesday 21 July - Thursday 23 July		
	All Vehicles	HGV
0000	0	0
0100	0	0
0200	0	0
0300	0	0
0400	1	0
0500	0	0
0600	0	0
0700	2	0
0800	1	0
0900	4	1
1000	3	0
1100	5	0
1200	4	0
1300	4	0
1400	3	0
1500	3	0
1600	4	1
1700	1	0
1800	1	0
1900	0	0
2000	2	0
2100	1	0
2200	1	0
2300	0	0
07-19	32	1
06-22	34	1
06-00	34	1
00-00	35	1

APPENDIX B

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED						
Calculation Factor: 1 DWELLS						
38 dwellings						
Time Range	Arrival		Departure		Total	
	Trip Rate	Trips	Trip Rate	Trips	Trip Rate	Trips
00:00-01:00	0	0	0	0	0	0
01:00-02:00	0	0	0	0	0	0
02:00-03:00	0	0	0	0	0	0
03:00-04:00	0	0	0	0	0	0
04:00-05:00	0	0	0	0	0	0
05:00-06:00	0	0	0	0	0	0
06:00-07:00	0	0	0	0	0	0
07:00-08:00	0.082	3	0.235	9	0.317	12
08:00-09:00	0.181	7	0.387	15	0.568	22
09:00-10:00	0.178	7	0.205	8	0.383	15
10:00-11:00	0.17	6	0.212	8	0.382	15
11:00-12:00	0.238	9	0.204	8	0.442	17
12:00-13:00	0.207	8	0.2	8	0.407	15
13:00-14:00	0.173	7	0.174	7	0.347	13
14:00-15:00	0.189	7	0.187	7	0.376	14
15:00-16:00	0.292	11	0.219	8	0.511	19
16:00-17:00	0.278	11	0.202	8	0.48	18
17:00-18:00	0.334	13	0.223	8	0.557	21
18:00-19:00	0.271	10	0.239	9	0.51	19
19:00-20:00	0	0	0	0	0	0
20:00-21:00	0	0	0	0	0	0
21:00-22:00	0	0	0	0	0	0
22:00-23:00	0	0	0	0	0	0
23:00-24:00	0	0	0	0	0	0
Daily Trip Rates:	2.593	99	2.687	102	5.28	201

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED						
Calculation Factor: 1 DWELLS						
38 dwellings						
Time Range	Arrival		Departure		Total	
	Trip Rate	Trips	Trip Rate	Trips	Trip Rate	Trips
00:00-01:00	0	0	0	0	0	0
01:00-02:00	0	0	0	0	0	0
02:00-03:00	0	0	0	0	0	0
03:00-04:00	0	0	0	0	0	0
04:00-05:00	0	0	0	0	0	0
05:00-06:00	0	0	0	0	0	0
06:00-07:00	0	0	0	0	0	0
07:00-08:00	0.038	1	0.053	2	0.091	3
08:00-09:00	0.072	3	0.229	9	0.301	11
09:00-10:00	0.072	3	0.074	3	0.146	6
10:00-11:00	0.045	2	0.047	2	0.092	3
11:00-12:00	0.052	2	0.062	2	0.114	4
12:00-13:00	0.057	2	0.044	2	0.101	4
13:00-14:00	0.052	2	0.047	2	0.099	4
14:00-15:00	0.064	2	0.075	3	0.139	5
15:00-16:00	0.243	9	0.087	3	0.33	13
16:00-17:00	0.12	5	0.066	3	0.186	7
17:00-18:00	0.098	4	0.083	3	0.181	7
18:00-19:00	0.067	3	0.062	2	0.129	5
19:00-20:00	0	0	0	0	0	0
20:00-21:00	0	0	0	0	0	0
21:00-22:00	0	0	0	0	0	0
22:00-23:00	0	0	0	0	0	0
23:00-24:00	0	0	0	0	0	0
Daily Trip Rates	0.98	37	0.929	35	1.909	73

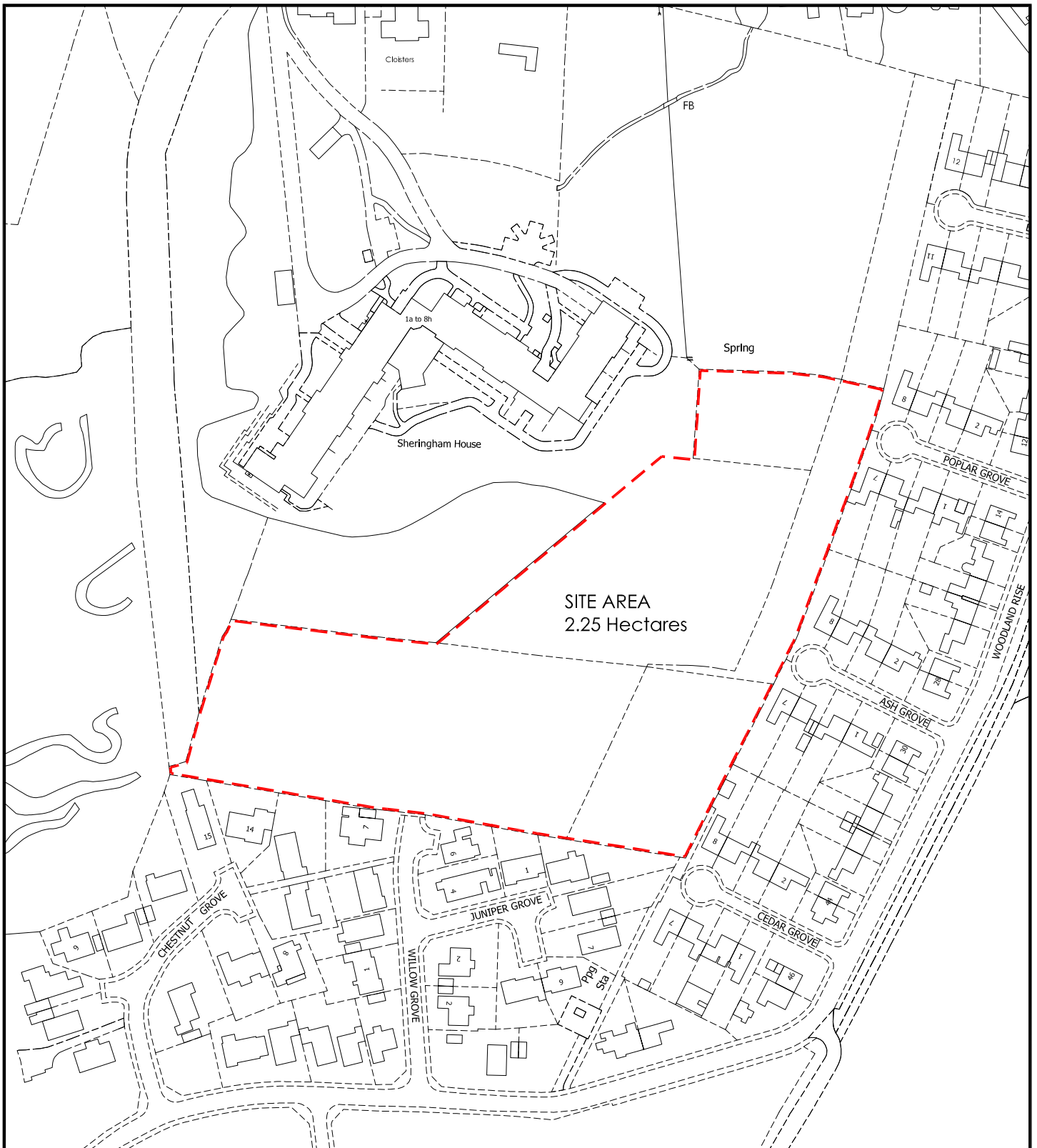
TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED						
Calculation Factor: 1 DWELLS						
38 units						
Time Range	Arrival		Departure		Total	
	Rate	Trips	Rate	Trips	Rate	Trips
00:00-01:00	0	0	0	0	0	0
01:00-02:00	0	0	0	0	0	0
02:00-03:00	0	0	0	0	0	0
03:00-04:00	0	0	0	0	0	0
04:00-05:00	0	0	0	0	0	0
05:00-06:00	0	0	0	0	0	0
06:00-07:00	0	0	0	0	0	0
07:00-08:00	0	0	0.016	1	0.016	1
08:00-09:00	0.004	0	0.023	1	0.027	1
09:00-10:00	0.004	0	0.013	0	0.017	1
10:00-11:00	0.005	0	0.017	1	0.022	1
11:00-12:00	0.01	0	0.012	0	0.022	1
12:00-13:00	0.006	0	0.01	0	0.016	1
13:00-14:00	0.006	0	0.005	0	0.011	0
14:00-15:00	0.01	0	0.004	0	0.014	1
15:00-16:00	0.018	1	0.012	0	0.03	1
16:00-17:00	0.029	1	0.01	0	0.039	1
17:00-18:00	0.028	1	0.015	1	0.043	2
18:00-19:00	0.008	0	0.004	0	0.012	0
19:00-20:00	0	0	0	0	0	0
20:00-21:00	0	0	0	0	0	0
21:00-22:00	0	0	0	0	0	0
22:00-23:00	0	0	0	0	0	0
23:00-24:00	0	0	0	0	0	0
Daily Trip Rates:	0.128	5	0.141	5	0.269	10

TRIP RATE for Land Use 03 - RESIDENTIAL/D - FLATS FOR RENT						
Calculation Factor: 1 DWELLS						
32 dwellings						
Time Range	Arrival		Departure		Total	
	Trip Rate	Trips	Trip Rate	Trips	Trip Rate	Trips
00:00-01:00	0	0	0	0	0	0
01:00-02:00	0	0	0	0	0	0
02:00-03:00	0	0	0	0	0	0
03:00-04:00	0	0	0	0	0	0
04:00-05:00	0	0	0	0	0	0
05:00-06:00	0	0	0	0	0	0
06:00-07:00	0	0	0	0	0	0
07:00-08:00	0.057	2	0.078	2	0.135	4
08:00-09:00	0.061	2	0.139	4	0.2	6
09:00-10:00	0.073	2	0.09	3	0.163	5
10:00-11:00	0.139	4	0.114	4	0.253	8
11:00-12:00	0.106	3	0.11	4	0.216	7
12:00-13:00	0.098	3	0.11	4	0.208	7
13:00-14:00	0.082	3	0.078	2	0.16	5
14:00-15:00	0.094	3	0.094	3	0.188	6
15:00-16:00	0.098	3	0.098	3	0.196	6
16:00-17:00	0.11	4	0.098	3	0.208	7
17:00-18:00	0.11	4	0.094	3	0.204	7
18:00-19:00	0.098	3	0.094	3	0.192	6
19:00-20:00	0	0	0	0	0	0
20:00-21:00	0	0	0	0	0	0
21:00-22:00	0	0	0	0	0	0
22:00-23:00	0	0	0	0	0	0
23:00-24:00	0	0	0	0	0	0
Daily Trip Rates:	1.126	36	1.197	38	2.323	74

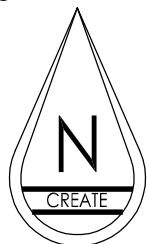
TRIP RATE for Land Use 03 - RESIDENTIAL/D - FLATS FOR RENT						
Calculation Factor: 1 DWELLS						
32 dwellings						
Time Range	Arrival		Departure		Total	
	Trip Rate	Trips	Trip Rate	Trips	Trip Rate	Trips
00:00-01:00	0	0	0	0	0	0
01:00-02:00	0	0	0	0	0	0
02:00-03:00	0	0	0	0	0	0
03:00-04:00	0	0	0	0	0	0
04:00-05:00	0	0	0	0	0	0
05:00-06:00	0	0	0	0	0	0
06:00-07:00	0	0	0	0	0	0
07:00-08:00	0.024	1	0.102	3	0.126	4
08:00-09:00	0.086	3	0.155	5	0.241	8
09:00-10:00	0.082	3	0.094	3	0.176	6
10:00-11:00	0.065	2	0.147	5	0.212	7
11:00-12:00	0.09	3	0.139	4	0.229	7
12:00-13:00	0.127	4	0.114	4	0.241	8
13:00-14:00	0.073	2	0.127	4	0.2	6
14:00-15:00	0.11	4	0.073	2	0.183	6
15:00-16:00	0.122	4	0.163	5	0.285	9
16:00-17:00	0.18	6	0.135	4	0.315	10
17:00-18:00	0.171	5	0.114	4	0.285	9
18:00-19:00	0.114	4	0.122	4	0.236	8
19:00-20:00	0	0	0	0	0	0
20:00-21:00	0	0	0	0	0	0
21:00-22:00	0	0	0	0	0	0
22:00-23:00	0	0	0	0	0	0
23:00-24:00	0	0	0	0	0	0
Daily Trip Rates:	1.244	40	1.485	48	2.729	87

TRIP RATE for Land Use 03 - RESIDENTIAL/D - FLATS FOR RENT						
Calculation Factor: 1 DWELLS						
32 dwellings						
Time Range	Arrival		Departure		Total	
	Trip Rate	Trips	Trip Rate	Trips	Trip Rate	Trips
00:00-01:00	0	0	0	0	0	0
01:00-02:00	0	0	0	0	0	0
02:00-03:00	0	0	0	0	0	0
03:00-04:00	0	0	0	0	0	0
04:00-05:00	0	0	0	0	0	0
05:00-06:00	0	0	0	0	0	0
06:00-07:00	0	0	0	0	0	0
07:00-08:00	0.007	0	0.028	1	0.035	1
08:00-09:00	0.028	1	0.055	2	0.083	3
09:00-10:00	0	0	0.055	2	0.055	2
10:00-11:00	0.014	0	0.021	1	0.035	1
11:00-12:00	0.007	0	0.028	1	0.035	1
12:00-13:00	0.007	0	0.021	1	0.028	1
13:00-14:00	0.055	2	0.014	0	0.069	2
14:00-15:00	0.021	1	0.028	1	0.049	2
15:00-16:00	0.014	0	0.014	0	0.028	1
16:00-17:00	0.034	1	0.021	1	0.055	2
17:00-18:00	0.034	1	0.007	0	0.041	1
18:00-19:00	0	0	0	0	0	0
19:00-20:00	0	0	0	0	0	0
20:00-21:00	0	0	0	0	0	0
21:00-22:00	0	0	0	0	0	0
22:00-23:00	0	0	0	0	0	0
23:00-24:00	0	0	0	0	0	0
Daily Trip Rates:	0.221	7	0.292	9	0.513	16

DRAWINGS



This plan shows the general position, not the exact line of the boundaries. The plan maybe subject to distortion and measurements scaled from this plan may not match measurements between the same points on the ground.



Create Consulting Engineers accept no responsibility for any unauthorised amendments to this drawing. Only figured dimensions are to be worked to. COPYRIGHT © RESERVED

PROJECT	DATE	DRAWING STATUS	
SHERINGHAM COURT GARDENS	30.07.09	INFORMATION	
DRAWING TITLE	SCALE(S)	DESIGNED	DRAWN
SITE LOCATION PLAN	1: 2,000	MJN	MJN
CLIENT	JOB No	CHECKED	APPROVED
SUTHERLAND HOMES	104	JPC	
	DRAWING No	REVISION	
	01/01A	-	



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