



JNP GROUP
CONSULTING ENGINEERS

Transport Statement

Project: Land to the South of Parcel 15, Hogwood Farm

Client: Cala Homes Thames Ltd.

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- **Section 2 - Baseline Conditions:** summarises the existing and future conditions applicable to the site including access for all modes of transport.
- **Section 3 - Development Proposals:** outlines the development proposals including the access arrangements, internal site layout and parking.
- **Section 4 - Trip Generation:** provides details on the likely impact of the development in terms of vehicular trip generation.
- **Section 5 - Conclusion:** summarises and concludes the findings of the above sections.

2 BASELINE CONDITIONS

2.1 Site Location

- 2.1.1 The proposed development is located immediately south of Parcel 15. It is bound by allotments to the south and the sports pitches and pavilion to the west. Units associated with a commercial premises and green open space are along the eastern boundary.

2.2 Local Highway Network

Parcels 14 and 15 – Internal Road Layout

- 2.2.1 The development will be accessed via the internal road layout of Parcel 15 the north, which is bound by Parcel 14 to the north-east.
- 2.2.2 Parcels 14 and 15 were approved under reserved matters application 220175 (and varied under applications 222334 and 223479) and construction is ongoing at the time of this Transport Statement being prepared.
- 2.2.3 The principal route through Parcels 14 and 15 has a 6.1m carriageway width, with localised widening on bends to ensure a bus and car can pass each other at the same time.
- 2.2.4 The design principles that were established within the consent for Parcels 14 and 15 have been continued into the proposed development, which is discussed further in Section 3 of this report. This includes a 6.1m wide carriageway width along the road leading south towards the sports pitches, pavilion and allotments. It should also be noted that the junction bellmouth for the allotments falls within the red line boundary for the proposed development.

Nine Mile Ride Extension South (NMRE(S))

- 2.2.5 The main access to Parcels 14 and 15 is via a priority junction with the NRME(S) to the northeast.
- 2.2.6 The NMRE(S) comprises the construction of 1.25km of new carriageway, verges, swales, and foot/cycleways between NMRE(N) and Park Lane in the east along with three new roundabouts (and provision for priority junctions) to facilitate access into the Hogwood Farm development site.
- 2.2.7 A link of approximately 170m will take access off the sites most easterly roundabout northwards towards Hogwood Industrial Estate and Park Lane. This has been delivered as part of the construction of the NMRE(S) and is referred to separately as Hogwood Spur Road (HSR). The total length of new highway infrastructure delivered through the NMRES will be approximately 1.42km.
- 2.2.8 The NMRE(S) received reserved matters planning permission under Wokingham Borough Council (WBC) ref 192997 in February 2020 and has since undergone detailed design. The NMRE(S) opened in November 2022.

Nine Mile Ride Extension North

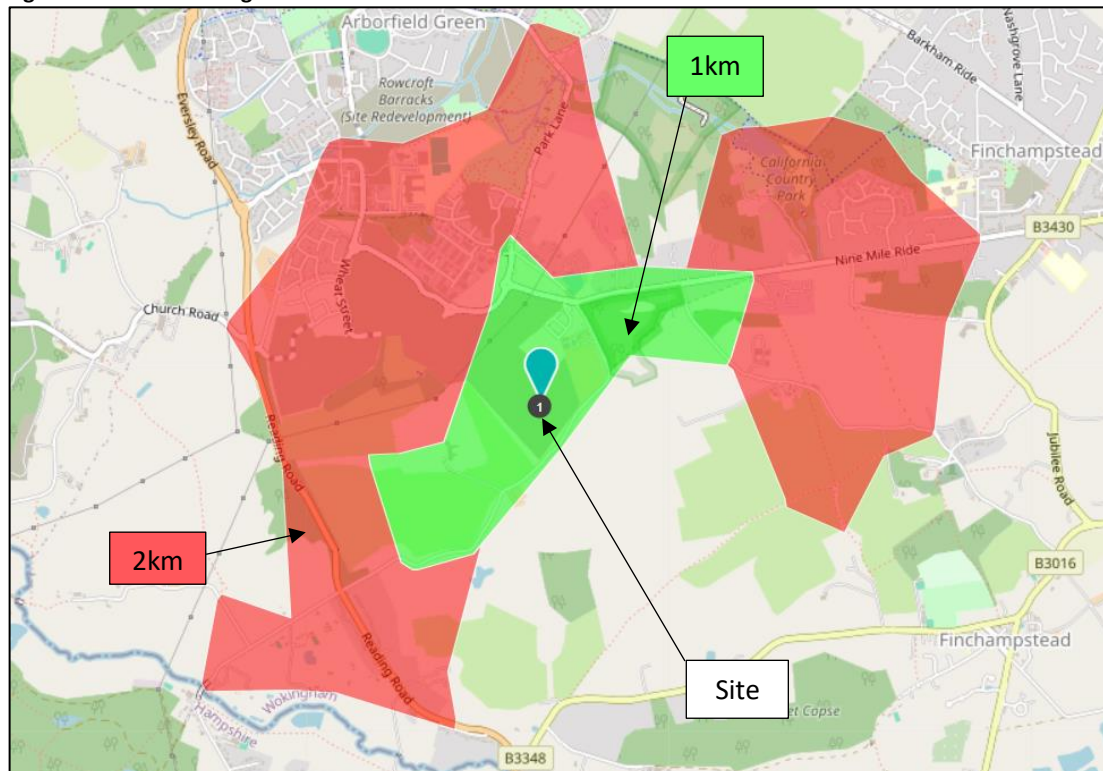
- 2.2.9 The northern section of the Nine Mile Ride Extension (NMRE(N)) connects the existing A327 Eversley Road in the north and joins the NRME(S) to the south.

- 2.2.10 A TS was prepared by iTransport in December 2015 to supplement traffic modelling undertaken as part of a separate study for the delivery of the NRME(N).
- 2.2.11 AECOM were the principal designers of the NMRE(N) and the alignment was consistent with that approved under the hybrid application (O/2017/2280) and the 'Movement and Access Parameter Plan' prepared by idpartnership on behalf of Crest Nicholson.
- 2.2.12 The new roundabout connecting NMRE(N) with the A327 received full planning permission as part of the hybrid application and thus was not subject to discussion within the TS submitted in support of the NMRE(N).
- 2.2.13 Following detailed design and construction, the NMRE(N) opened on 26th June 2017 to serve the northern part of the Arborfield Garrison Strategic Development Location (AGSDL), including Bohunt Secondary School.

2.3 Access for Pedestrians

- 2.3.1 Walking is traditionally recognised as a sustainable mode of travel which can replace shorter trips that are often made by car, particularly those under 2km. This was reflected in the now withdrawn 'PPG:13 Transport' guidance. Although the guidance has been superseded, it provides a useful indication of the walking distances that are considered reasonable for pedestrians.
- 2.3.2 CIHT's 'Planning for Walking' (2015) guidance document recognises that most short journeys are made wholly on foot, however walking also forms part of longer, multi-modal journeys. The guidance states that people will choose to walk if the length of their journey is less than one mile (1.6km). A typical catchment area is around half this distance at 800m or a 10-minute walk.
- 2.3.3 The IHT document 'Guidelines for Providing Journeys on Foot' (2000) provides preferred maximum walking distances for the purposes of commuting and other journeys. The distances are as follows:
 - Town centres: 800m;
 - Commuting/school/sightseeing: 2,000m; and
 - Elsewhere: 1,200km.
- 2.3.4 A range of areas are within a 2km walking distance of the land to the south of P15, as shown in Figure 2.1. The isochrones have been measured from the centre of the development area.

Figure 2.1 - 2km Walking Isochrones



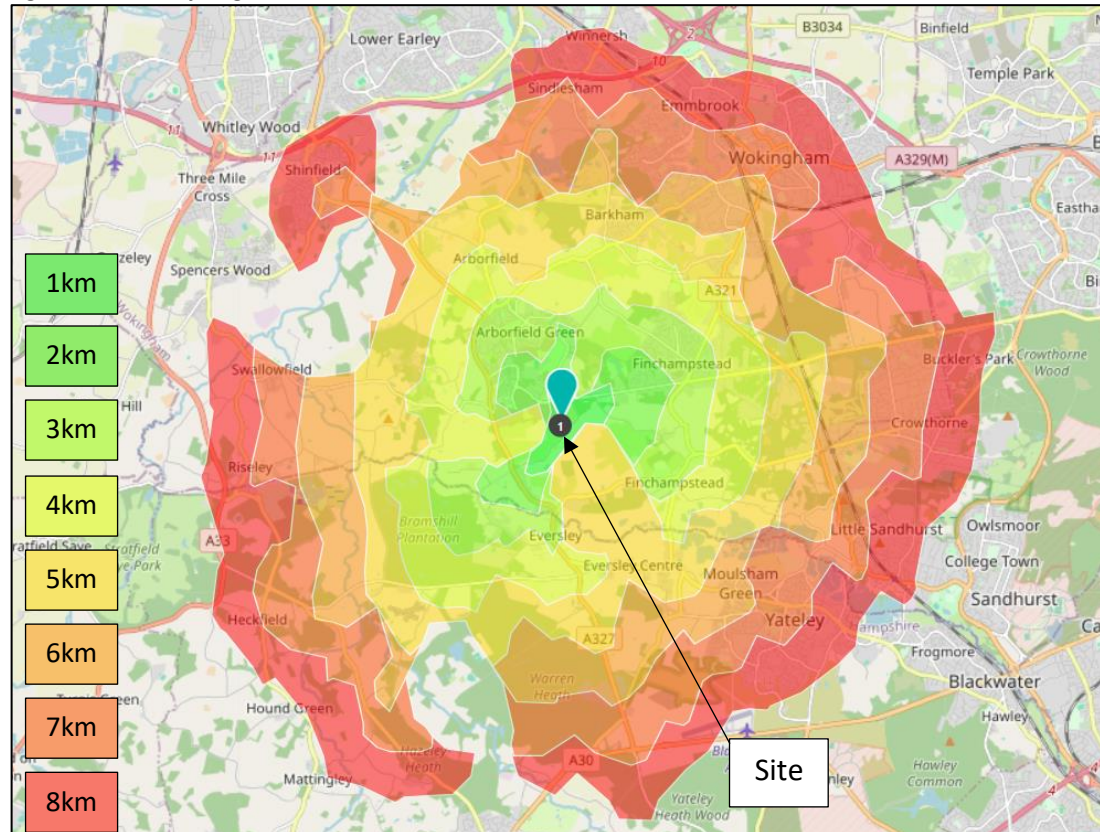
- 2.3.5 The proposed development is within 2km walking distance of the majority of the Hogwood Farm development, with a small area of Parcel 1 falling outside of the 2km radius. Some residential areas to the east along the Nine Mile Ride are also within a 2km distance.
- 2.3.6 The proposals include a continuous footway along both sides of the road leading to Parcels 14 and 15. A footway is provided on the north side of the road through Parcels 14 and 15, which ultimately connects to the NRME(S). This facilitates onward connections to other parcels. Dropped kerbs and tactile paving is provided at junctions.
- 2.3.7 A PROW Bridleway runs in a north – south orientation between the pavilion and the car park, west of the proposed development. This provides onwards connections to the residential parcels to the north, the SANG and Park Lane.

2.4 Access for Cyclists

- 2.4.1 CIHT's 'Planning for Cycling' (2014) guidance document states that most cycling trips are made over short distances, with 80% being less than 5 miles (8km) and 40% being less than 2 miles (3.2km). Similarly, 'Chapter 10 – Cycling in New Developments' of the Sustrans Design Manual (draft, 2015) advises that distances up to five miles (8km) represents a reasonable cycling commute for most users.
- 2.4.2 The Department for Transport's 'Walking and Cycling Statistics, England: 2016' statistical release was published in January 2018. It states that shorter cycling trips under five miles (8km) made up 79% of all cycling trips in 2016, with 43% of all trips being under two miles (3.2km). The most common purpose for cycling trips is commuting, which accounts for an average of 36% of trips made by this mode.

- 2.4.3 The consensus among recent guidance and statistics is that 8km represents the maximum reasonable cycling distance, however a significant proportion of cycling trips are likely to be around 3km. Figure 2.2 shows the destinations within an 8km cycling distance of the site.

Figure 2.2 - 8km Cycling Isochrones



- 2.4.4 As shown in Figure 2.2, the entirety of the Hogwood Farm development and the wider Arborfield Green and Finchampstead areas are within a 4km cycling distance of the site. A 3m footway/cycleway is provided along the southern side of the NRME(S).

2.5 Public Transport

- 2.5.1 The nearest bus stops to the site are located north-west on Park Lane. The walking distance to the bus stops is around 700m.
- 2.5.2 The bus stops are served by Service 3, which is operated by Reading Buses. The route, frequencies and journey times to key destinations is summarised in Table 2.1.

Table 2.1 - Bus Services and Frequencies

Route	Frequency	Journey Times
Wokingham Town Centre to Reading Town Centre (northbound bus stop)	Weekdays: hourly Saturdays: hourly Sundays: no service	30 minutes to Royal Berkshire Hospital 50 minutes to Reading town centre
Reading Town Centre to Wokingham Town Centre (southbound bus stop)	Weekdays: Hourly Saturdays: Hourly Sundays: No service	25 minutes to Wokingham Town Centre

- 2.5.3 The nearest railway station to Hogwood Farm is Wokingham Station. The journey time to the station using Service 3 is 20 minutes and there is a bus stop adjacent to the station's interchange. The station provides regular services to Reading, London Waterloo and Gatwick Airport.

3 DEVELOPMENT PROPOSALS

3.1 Introduction

- 3.1.1 The development proposals comprise the construction of 48 dwellings of private tenure. The scheme comprises a mix of two, three and four-bedroom houses.

3.2 Vehicular Access and Internal Road Layout

- 3.2.1 The development will be accessed via the internal road network of Parcel 15 to the north, which is bound to the north-east by Parcel 14.
- 3.2.2 The carriageway width is 6.1m, which accords with WBC's requirements for bus access routes and aligns with the adjoining carriageway width through Parcels 14 and 15 towards the NMRE(S).
- 3.2.3 The internal road network of Parcel 14 forms a priority junction with the NMRE(S). A secondary access from Parcel 15 to the internal road network of Parcel 10 will also be provided to the north-west, meaning there are two access routes to the proposed development.
- 3.2.4 The carriageway width is 6.1m, which accords with WBC's requirements for bus access routes and aligns with the adjoining carriageway width through Parcels 14 and 15 towards the NMRE(S). The route will continue south beyond the proposed development towards the car park for the sports pitches and pavilions.
- 3.2.5 The bellmouth for the allotments falls within the red line boundary for the proposed development, while the car park and allotments themselves fall within the boundary of the sports pitches, allotments and pavilion reserved matters application. The junction will have a carriageway width of 5m, with 6m kerb radii. Visibility splays of 2.4m x 25m are achievable from the access.
- 3.2.6 The proposed geometry is shown on drawing **M44541-JNP-66-XX-SK-T-7007**.

3.3 Access for Non-Motorised Users

- 3.3.1 Pedestrian and cyclist permeability has been considered with recognition of key desire lines and the need to provide links between existing and future infrastructure.
- 3.3.2 Footways are provided along both sides of the north-south access route through the development and on at least one side of the adjoining roads. The footways are 2m wide.
- 3.3.3 The internal road layout of the proposed development and Parcels 14 and 15 is considered suitable for on-carriageway cycling, owing to the posted speed limit of 20mph and gentle topography. When cyclists reach the NRME(S), an off-carriageway shared cycle/pedestrian route is available which provided segregation from vehicle traffic.

3.4 Junction, Forward and Pedestrian Visibility

- 3.4.1 Junction visibility has been assessed in accordance with a site-wide design speed of 20mph. The proposals meet the requirements of Manual for Streets and visibility splays of 2.4m x 25m are achievable at all priority junctions. This can be seen on drawing **M44541-JNP-66-XX-SK-T-7007**.

- 3.4.2 Forward visibility on bends has also been assessed in accordance with Table 8.2 of Manual for Streets 2. Table 8.2 sets out percentage speed reductions on bends based on the centre radius of the lane where the vehicle will be travelling, which in turn provides an updated stopping Sight Distance (SSD) value.
- 3.4.3 JNP Group have prepared a calculator which produces this SSD value and utilised it for each bend within the site. This is contained within **Appendix C** of this report. The forward visibility splays are shown on drawing **M44541-JNP-66-XX-SK-T-7007**.
- 3.4.4 A plan has been prepared to show 2m x 2m visibility splays from private driveways abutting footways throughout the layout, as shown on drawing **M44541-JNP-66-XX-SK-T-7008**. No issues have been identified.
- 3.4.5 Any trees located with visibility envelopes will be 'clear stem' trees to reduce the extent of any obstruction.

3.5 Refuse Vehicle Access

- 3.5.1 In order to ensure the suitability of the development in accommodating refuse collection vehicles, swept path analysis of the scheme has been undertaken using an 11.3m long refuse vehicle as advised for use by WBC Highway Development Control.
- 3.5.2 The turning movements are shown on drawing **M44541-JNP-66-XX-SK-T-7010**, which is provided at the rear of this report. The drawings demonstrate that suitable refuse collection arrangements exist for all dwellings and that the turning heads provided are of appropriate size.
- 3.5.3 A review of carry distances in accordance with WBC's Living Streets Design Guide and Waste & Recycling Guidance for developers has been carried out. The dwellings have been assessed against maximum operatives carry distance of 25m and a maximum residents carry distance of 30m. As shown on the drawings, these distances can be achieved for all dwellings. Bin presentation points will be utilised where necessary.
- 3.5.4 Swept path analysis has also been carried out for a refuse vehicle passing a large car on all secondary and tertiary roads within the site. This is shown on drawings **M44541-JNP-66-XX-SK-T-7012** and **M44541-JNP-66-XX-SK-T-7013**, which are provided at the rear of this report.
- 3.5.5 On bends where the vehicles would not be able to pass without extensive road widening, sufficient forward intervisibility is available between the two vehicles to allow one to wait for the other to pass.

3.6 Fire Tender Access

- 3.6.1 Access for fire tenders has been assessed both in terms of swept path requirements and distances to dwellings. It can be seen on **M44541-JNP-66-XX-SK-T-7011** that the layout suitably accommodates the movements of fire tender vehicles.
- 3.6.2 The drawing also demonstrates that a pump appliance can access all parts of a dwelling house within 45m, in accordance with Building Regulations Approved Document Part B.

3.7 Car Parking

- 3.7.1 Car parking is required to be provided at a level that meets the forecasted demand within WBC's 'Parking Demand Calculation Spreadsheet'. The spreadsheet requires details to be entered of the proposed property type, tenure, number of habitable rooms, number of allocated spaces and number of garages in order to calculate the unallocated parking demand.
- 3.7.2 The development location has been selected as 'Village' where standards for unallocated parking are more onerous. It is worth noting that following completion of Hogwood Farm, the site will provide a mix of land uses including a neighbourhood centre, primary school, employment land and sports pitches that support localised movements by foot/cycle without the reliance on a private car and thus need for parking.
- 3.7.3 Once complete, the area could be viewed as less of a 'Village' location and more of a 'Town and Fringe' location but for now the 'Village' category has been maintained.
- 3.7.4 In the calculator's guidance notes, it states *'visitor (sic) parking is taken as being unallocated parking provision. It is calculated on the basis of 0.2 spaces per dwelling, where at least 1 allocated space is provided per dwelling'*.
- 3.7.5 The calculator considers garages as forming 0.5 of a space to reflect their underutilisation and where they are sometimes used for the purposes of storage.
- 3.7.6 The use of the parking calculator and the counting of garages has been discussed with WBC in relation to other Parcels at Hogwood Farm. It was agreed for Parcels 4 and 5 that two versions of the parking calculator would be prepared – one which factors the garages into the overall parking provision and another which discounts the garages. The latter would be used to determine the level of unallocated and visitor parking spaces. The same approach has been taken for the proposed development and both parking calculators are provided in **Appendix A** of this report.
- 3.7.7 When garages are discounted, the unallocated parking requirement is 22 spaces per the calculator. A total of 22 spaces will be provided throughout the development accords with the standards.
- 3.7.8 The quantum of unallocated spaces equates to an average provision of 0.4 spaces per dwelling, thus exceeding the typically referenced requirements of 0.2 spaces per dwelling¹.
- 3.7.9 In terms of the distribution of visitor spaces, each plot has been assessed to determine the number of visitor or unallocated spaces that are within a 50m walking distance. This has been measured as the crow flies, however spaces that are not within a logical walking route of a dwelling have been discounted. Some dwellings along the northern edge are within a 50m walking distance of a visitor bay within Parcel 15 and these have been counted in the total.
- 3.7.10 Table 3.1 provides a summary of how many plots are within a 50m walking distance of 1, 2, 3 and 4 or more unallocated parking spaces.

¹ Typically referenced standard of 0.2 spaces per dwelling comes from the Department for Communities and Local Government (DCLG) 2007 publication 'Residential Car Parking Research'.

Table 3.1 - Walking Distances to Unallocated/Visitor Bays

Summary	Number of Plots	Percentage of Plots	Cumulative Percentage
Plots with 1 space within 50m	1	2%	100%
Plots with 2 spaces within 50m	7	15%	98%
Plots with 3 spaces within 50m	9	19%	81%
Plots with 4+ spaces within 50m	31	65%	64%

- 3.7.11 As shown in Table 3.1, two thirds are within a 50m walking distance of 4 or more visitor/unallocated spaces. In total, 98% of plots are within a 50m walking distance of at least 2 spaces and only 1 plot is within 50m of one unallocated space. The proposed quantity and distribution of spaces is therefore considered suitable for ensuring that all dwellings are within a reasonable distance of a visitor or unallocated bay.
- 3.7.12 It is noted that 10 proposed visitor spaces at the southern boundary of Parcel 15 have since been removed from the plans since the Reserved Matters application for Parcels 14 and 15 were approved. These spaces have been replaced with new dwellings that form part of the Land South of Parcel 15 proposals. However, new visitor parking is proposed within the Land South of Parcel 15, ensuring that plenty of visitor parking is still available across all parcels. The total number of visitor parking spaces within Parcels 14 and 15 is still in excess of WBC's visitor parking requirements, with 14 additional visitor parking spaces compared to the standard.
- 3.7.13 A review of Reserved Matters applications for other Parcels within Hogwood Farm has confirmed that the requirement for electric vehicle charging and details pertaining to this will be secured by condition. The same approach is proposed to be followed for the proposed development. All dwellings will have either active or passive provision.
- 3.7.14 With regards to geometry, driveways are 3.1m wide and parking bays within parking courts are 2.5m x 5m. Parallel bays are 6.5m x 2.5m and have a 1m service margin.

3.8 Cycle Parking

- 3.8.1 Cycle parking is to be provided for all dwellings in accordance with the standards set out in WSP's Parking Standards Study Report prepared on behalf of WBC. The requirements are provided in Table 3.2.

Table 3.2 - Cycle Parking Standards

Dwelling Type	Bedrooms	Requirement
Houses	1 Bedroom (1/2 Habitable Rooms)	1 per dwelling
	2 Bedroom (4 Habitable Rooms)	2 per dwelling
	3+ Bedroom (6 Habitable Rooms)	3 per dwelling

Source: WSP Parking Standards Study Report

Note: Standards are based on no. of habitable rooms though no. of bedrooms is not prescribed within WBC's Parking Calculator Conversion Table for dwellings with 3 habitable rooms. For reference, 3 habitable rooms require 1 space per dwelling.

- 3.8.2 Garages have been designed to have internal dimensions of 3m x 7m, meaning they are suitable for use as cycle parking in accordance with the WBC standards. All dwellings without garages will be provided with cycle storage lockers or sheds in their rear gardens, and it is expected that this will be specified further at the detailed design stage.

4 TRIP GENERATION

4.1 Background

- 4.1.1 The trip generation for the proposals has been calculated using the same methodology contained within the original TA for Hogwood Farm and that used within Transport Statements' submitted in support of reserved matters applications for Parcels within the wider SDL.

4.2 Vehicular Trip Generation

- 4.2.1 Trip rates produced from the Wokingham Strategic Transport Model 4 (WSTM4) have been used to assess the likely number of vehicular trips resulting from 48 dwellings proposed at the proposed development. The results are shown in Table 4.1 below.

Table 4.1: Trip Rates and Trips (48 dwellings)

Time Range	Inbound		Outbound		Two-way	
	Trip Rate	Trips	Trip Rate	Trips	Trip Rate	Trips
08:00-09:00	0.17	8	0.41	20	0.58	28
17:00-18:00	0.36	17	0.16	8	0.51	25

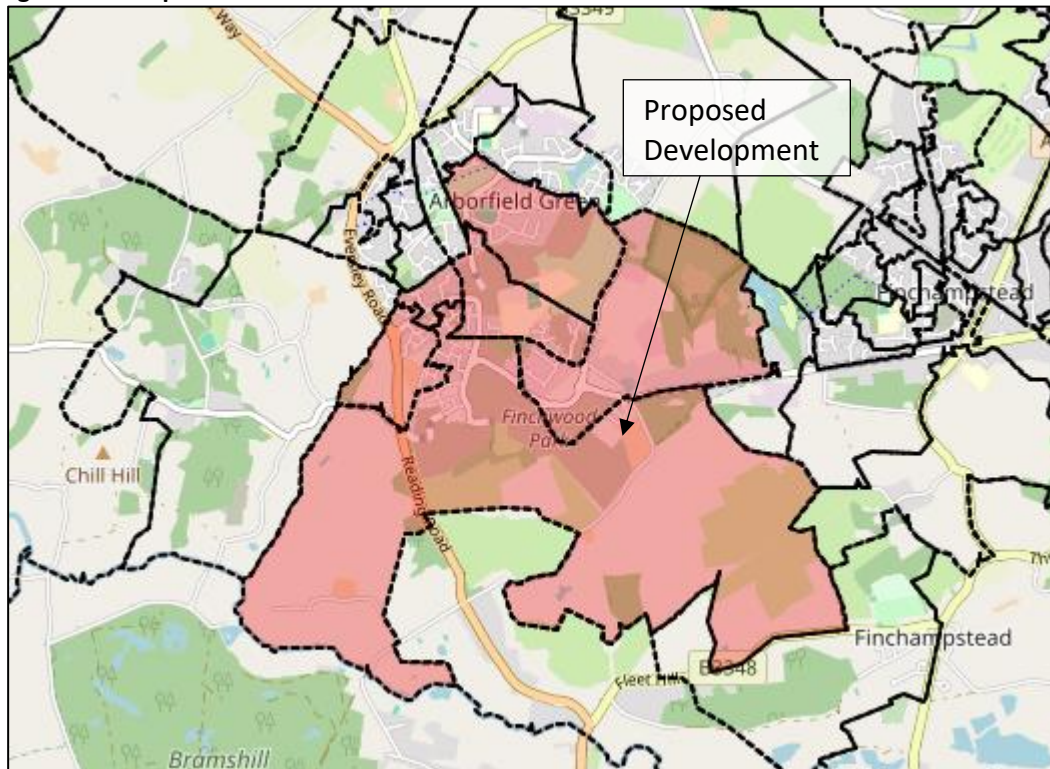
**Errors in arithmetic are due to rounding*

- 4.2.2 The trip rates show that the dwellings can be expected to generate 28 two-way trips during the AM peak period and 25 two-way trips during the PM peak hour.
- 4.2.3 It is acknowledged that the use of this area of the site for residential development does not form part of the original proposals for Hogwood Farm. The trip generation and subsequent traffic impact assessment within the Transport Assessment in the outline consent therefore does not account for these 48 dwellings. A further trip distribution assessment to account is not considered necessary.
- 4.2.4 The forecast trip generation equates to one additional vehicle arriving and departing every 2-3 minutes, on average. This is not expected to place significant strain on the primary or secondary access points for Parcels 14 and 15, which vehicles will route to and from.

4.3 Multi-Modal Trip Generation

- 4.3.1 In order to assess the likely travel methods used by future residents, 'Method of Travel to Work' data obtained during the 2021 census has been analysed for the output areas surrounding the site.
- 4.3.2 The development is located within the E00188503 output area which covers Finchwood Park. Given that the Finchwood Park development was only partly occupied at the time of the 2021 census, five surrounding output areas which incorporate earlier parcels of residential development and wider SDL have been included. This is illustrated in Figure 4.1 overleaf.

Figure 4.1: Output Areas



Source: Nomis Statistics

4.3.3 Data for the output area has been adjusted to remove those who stated that they work from home. From calculating the likely number of vehicular trips, it is possible to derive the likely number of trips made by other methods using the 2021 census modal split. This is provided in Table 4.2 with raw data contained as **Appendix B**.

Table 4.2: 2021 Census Method of Travel to Work – 48 dwellings

Method of Travel	Percentage of total	AM 2 Way Trips	PM 2 Way Trips
Underground, Metro, Light Rail, Tram	0%	0	0
Train	2%	1	1
Bus, Minibus or Coach	3%	1	1
Taxi	0%	0	0
Motorcycle, Scooter or Moped	1%	0	0
Driving a Car or Van	85%	28	25
Passenger in a Car or Van	3%	1	1
Bicycle	2%	1	1
On Foot	3%	1	1
Other	1%	0	0

4.3.4 The travel characteristics of those residing in the local area have been calculated using data collected during the 2021 census. It is recognised that there are limitations to the validity of this dataset, as Nomis have confirmed the following COVID-19 related matters which may have affected travel to work on the census day:

- A nationwide lockdown was still in place, requiring people to work from home wherever possible.

- Non-essential retail and businesses were closed.
 - Around 7% of the population were self-isolating with symptoms consistent with COVID-19.
 - Key workers who were working outside of their homes were encouraged to avoid public transport where possible.
 - The Government's furlough scheme was in place and affected up to 5.6 million people in England and Wales. While guidance was issued with the census on how furloughed individuals should respond to the question, Nomis have stated they are unable to determine if people followed the guidance.
- 4.3.5 As such, the travel to work data from the 2021 census may not accurately reflect travel patterns throughout the period covered by the census. While the data will be used to determine the baseline modal share, the actual profile of how residents travel may be more sustainable than reflected in the census data once the site is occupied.
- 4.3.6 The data is also based on a relatively small sample size of 585 people who were over the age of 16 and in employment the week before the census, when removing those that work from home.
- 4.3.7 Importantly, this data also does not take into consideration the full build out of all infrastructure provided as part of Hogwood Farm or the wider SDL, all of which will facilitate more sustainable travel and make the development less reliant on the private car. This is further supported through careful site design with opportunities taken to maximise permeability on foot and cycle.
- 4.3.8 The trips generated by the development across all modes of transport are not expected to have a severe or detrimental impact on the safety and operation of the surrounding highway network. The predicted trip generation is also consistent with that of the Transport Assessment and wider principles of assessment which formed part of the outline consent for Hogwood Farm.

5 CONCLUSION

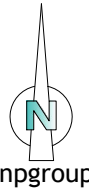
- 5.1.1 This TS has been prepared to accompany a full planning application for the construction of 48 dwellings on land to the south of Parcel 15 of Hogwood Farm (Finchwood Park). Details of access, appearance, landscaping, layout and scale are to be considered.
- 5.1.2 The development will be served by one point of access from the internal road layout of Parcel 15, which is located immediately north and currently under construction. The primary route through Parcels 14, 15 and the proposed development is 6.1m wide to ensure it can accommodate bus movements to and from the sports pitches to the south.
- 5.1.3 Visibility splays at junctions and internal bends has been assessed in accordance with MfS and WBC requirements. Swept path analysis has also confirmed that the layout can be utilised by both refuse and fire vehicles.
- 5.1.4 With regards to parking, a total of 22 unallocated/visitor spaces will be provided throughout the site, with 98% of plots being within a 50m walking distance of two or more visitor/unallocated bays.
- 5.1.5 Overall, this TS demonstrates that the proposals meet the design standards and principles set out within local and national guidance. Safe access is achievable for motorised and non-motorised users of the site and the local highway network is deemed suitable in accommodating the vehicular movements associated with the proposed development.

FIGURES / DRAWINGS



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Legend

2.4m x 25m visibility splay in accordance with Manual for Streets (MIS) Table 7.1 and 20mph design speed

Forward visibility splay, calculated in accordance with Table 8.2 of Manual for Streets 2 (2010)

P01	07/10/2024	First Issue	ELIABKM
Rev	Date	Description	Drawn / Checked / App'd

Subsidiary: S2 - Suitable for Information

Client Logo:



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Client: CALA Homes

Site: Land to the South of Parcel 15, Hogwood Farm

Title: Highway Geometry and Visibility Splays

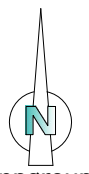
Classification: FL_60_20	Scale @ A1: 1:500	Constructionline	Supplier No: 000000
Project - Originator - Volume/System - Level/Location - Type - Discipline - Number	Revision		

M44541 - JNP-66-XX-DR-T-7007 P01



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Legend

2m x 2m pedestrian visibility splay where the driveway crosses a footway



P01	07/10/2024	First Issue	ELIAB/KM
Rev.	Date	Description	Dm / Chkd / App'd

S2 - Suitable for Information

Client Log



Client

CALA Homes

Jobx

Land to the South of Parcel 15, Hogwood Farm

Title:

Pedestrian Visibility Splays

Classification:
FI_60_20

Scale @ A1:
1:500

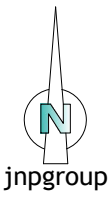


Project - Originator - Volume/System - Level/Location - Type - Discipline - Number

M44541 - JNP-66-XX- DR - T - 7008

Revision:

Document/Drawing Number	
INP Group Internal Project Number	MA

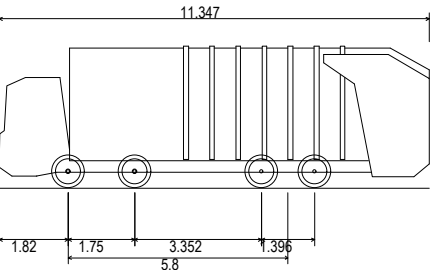


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Legend

- Maximum 30m carry distance for residents in accordance with WBC Living Streets Design Guide (2019) —
- Maximum 25m carry distance for operatives in accordance with WBC Waste Management Facilities in New Developments Guidance Notes for Developers (2021) —
- Maximum 10m carry distance from bin stores to parked collection vehicles in accordance with WBC Waste & Recycling Guidance for Developers — 10m



Large Refuse Vehicle (4 axle)	
Overall Length	11.347m
Overall Width	2.500m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	6.00s
Wall to Wall Turning Radius	11.330m

P01	07/10/2024	First Issue	ELIABKM
Rev	Date	Description	Drawn / Checked / App'd

Subsidiary: S2 - Suitable for Information

Client Logo:



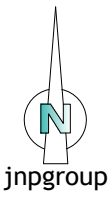
Client: CALA Homes

Job: Land to the South of Parcel 15, Hogwood Farm

Title: Swept Path Analysis - Refuse Vehicle

Classification: FL_60_20				
Scale @ A1: 1:500	Accredited Contractor	Accredited Contractor	Accredited Contractor	Supplier No. 00000

Project - Originator - Volume/System - Level/Location - Type - Discipline - Number	Revision
M44541 - JNP - 66 - XX - DR - T - 7010	P01
Document/Drawing Number	JNP Group Internal Project Number: M44541

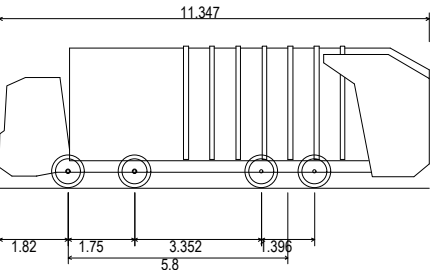


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Legend

- Maximum 30m carry distance for residents in accordance with WBC Living Streets Design Guide (2019) —
- Maximum 25m carry distance for operatives in accordance with WBC Waste Management Facilities in New Developments Guidance Notes for Developers (2021) —
- Maximum 10m carry distance from bin stores to parked collection vehicles in accordance with WBC Waste & Recycling Guidance for Developers — 10m



Large Refuse Vehicle (4 axle)	
Overall Length	11.347m
Overall Width	2.500m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	6.00s
Wall to Wall Turning Radius	11.330m

P01	07/10/2024	First Issue	ELIABKM
Rev	Date	Description	Drawn / Checked / App'd

Subsidiary: S2 - Suitable for Information

Client Logo:



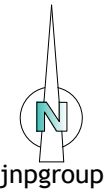
Client: CALA Homes

Job: Land to the South of Parcel 15, Hogwood Farm

Title: Swept Path Analysis - Refuse Vehicle

Classification: FL_60_20				
Scale @ A1: 1:500	Accredited Contractor	Accredited Contractor	Accredited Contractor	Supplier No. 00000

Project - Originator - Volume/System - Level/Location - Type - Discipline - Number	Revision
M44541 - JNP - 66 - XX - DR - T - 7010	P01
Document/Drawing Number	JNP Group Internal Project Number: M44541

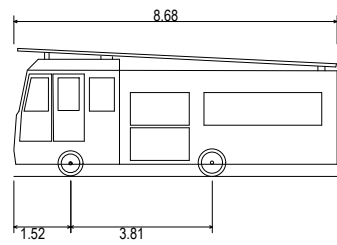


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Legend

- Access for pumping appliance within 45m of all parts of dwelling, in accordance with Building Regulations Approved Document B (2019 edition, incorporating 2020 and 2022 amendments)
- Maximum 20m reversing distance from turning point, in accordance with Building Regulations Approved Document B (2019 edition, incorporating 2020 and 2022 amendments)



DB32 Fire Appliance	
Overall Length	8.680m
Overall Width	2.181m
Overall Body Height	3.452m
Min Body Ground Clearance	0.337m
Max Track Width	2.121m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	7.910m

P01	07/10/2024	First Issue	ELIABKM
Rev.	Date	Description	Dim / Check / App'd

Subsidiary:	S2 - Suitable for Information
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Client: CALA Homes

Ref: Land to the South of Parcel 15, Hogwood Farm

Title: Swept Path Analysis - Fire Tender

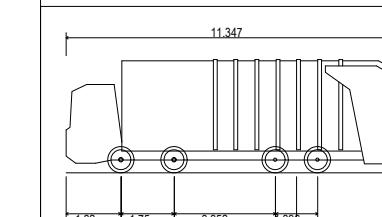
Classification: FL_60_20
Scale @ A1: 1:500

Project - Originator - Volume/System - Level/Location - Type - Discipline - Number	Revision
M44541 - JNP - 66 - XX - DR - T - 7011	P01
Document/Drawing Number	JNP Group Internal Project Number: M44541

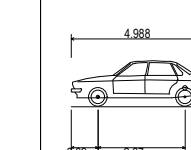
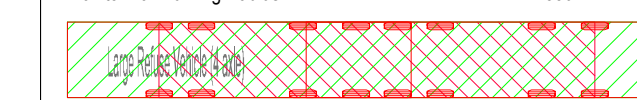


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Large Refuse Vehicle (4 axle)	
Overall Length	11.347m
Overall Width	2.500m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	6.00s
Wall to Wall Turning Radius	11.330m



Large Car	
Overall Length	4.988m
Overall Width	1.793m
Overall Body Height	1.502m
Min Body Ground Clearance	0.287m
Track Width	1.700m
Lock to Lock time	4.00s
Kerb to Kerb Turning Radius	6.200m



P01	07/10/2024	First Issue	E/ABKM	
Rev.	Date	Description	Dm / Chx1 / App	

S2 - Suitable for Information

Client Log



2

CALA Homes

	Job:
--	------

Land to the South of Parcel 15, Hogwood Farm

	Title
--	-------

Swept Path Analysis - Refuse Vehicle and Large Car
Sheet 1 of 2

Classification:

FI 60 20

Scale @ A1:



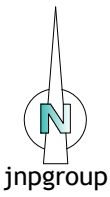
Project - Originator - Volume/System - Level/Location - Type - Discipline - Number

M44541 - JNP-66-XX-DR-T-7012

	Revision:
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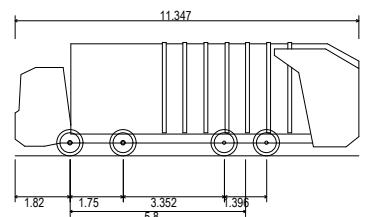
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Document/Drawing Number	
INP Group Internal Project Number	M46

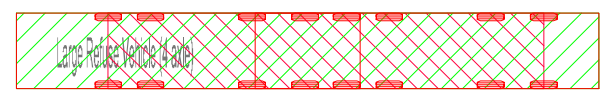


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Large Refuse Vehicle (4 axle)	
Overall Length	11.347m
Overall Width	2.500m
Overall Body Height	3.751m
Min Body Ground Clearance	0.344m
Track Width	2.500m
Lock to lock time	6.00s
Wall to Wall Turning Radius	11.330m



Large Car	
Overall Length	4.988m
Overall Width	1.793m
Overall Body Height	1.502m
Min Body Ground Clearance	0.287m
Track Width	1.700m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	6.200m

Adequate forward visibility available on bend in accordance with MS2 Table 8.2 to allow intervisibility between estate car and refuse vehicle

Trim Trail Station 4&5
475m2

BMX Pump Track
800m2

Adequate forward visibility available on bends in accordance with MS2 Table 8.2 to allow intervisibility between estate car and refuse vehicle

CLAP / LAP
1200m2

Parking Area (94 spaces)

CALA



CALA Homes

Hogwood Farm P16

Swept Path Analysis - Refuse Vehicle and Large Car
Sheet 1 of 2

Classification: FL_60_20				
Scale @ A1: 1:500				

Project - Originator - Volume/System - Level/Location - Type - Discipline - Number M44541 - JNP - 66 - XX - DR - T - 7013	Revision P01
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APPENDIX A: WBC PARKING DEMAND CALCULATOR SPREADSHEET

Parking Calculator - with garages



PARKING DEMAND CALCULATION SHEET

Search your development location area by postcode

Hogwood Farm

enter postcode with no spaces (e.g. RG40 1BN as RG401BN) and click on "find postcode"

Find Postcode

Select your development location from a map

Access Map

click "access map" and click on where your development is located

Development location

Village

Reset Sheet

Total number of properties	48
Total allocated spaces	112
Total unallocated spaces	38

Development composition

Property type	Tenure	no. habitable rooms	no. allocated spaces per property, excluding garages	Total number of properties	Total number of garages for property type	unallocated spaces (including visitor parking and 50% for garages)	allocated spaces (including 50% garages)
House or flat (choose from drop down list)	Owned or rented/shared (choose from drop down list)	1 to 4+ (choose from drop down list)	0-2				
Choose from drop down lists				Enter below			
House	owned	5	2	6	0	1.8	12.0
House	owned	5	2	10	0	3.0	20.0
House	owned	5	2	3	3	2.4	7.5
House	owned	7	2	7	7	6.3	17.5
House	owned	8	2	4	4	4.4	10.0
House	owned	8	2	9	9	9.9	22.5
House	owned	8	2	9	9	9.9	22.5

Blackthorne (2 bed)

Fennel (2 bed)

Everglade (3 bed)

Laurel (4 bed)

Magnolia (4 bed)

Palm (4 bed)

Rowan (4 bed)

Parking Calculator - No Garages



PARKING DEMAND CALCULATION SHEET

Search your development location area by postcode

Hogwood Farm

enter postcode with no spaces (e.g. RG40 1BN as RG401BN) and click on "find postcode"

Find Postcode

Total number of properties	48
Total allocated spaces	96
Total unallocated spaces	22

Select your development location from a map

Access Map

click "access map" and click on where your development is located

Development location

Village

Reset Sheet

Development composition

Property type	Tenure	no. habitable rooms	no. allocated spaces per property, excluding garages	Total number of properties	Total number of garages for property type	unallocated spaces (including visitor parking and 50% for garages)	allocated spaces (including 50% garages)
House or flat (choose from drop down list)	Owned or rented/shared (choose from drop down list)	1 to 4+ (choose from drop down list)	0-2				
Choose from drop down lists				Enter below			
House	owned	5	2	6	0	1.8	12.0
House	owned	5	2	10	0	3.0	20.0
House	owned	5	2	3	0	0.9	6.0
House	owned	7	2	7	0	2.8	14.0
House	owned	8	2	4	0	2.4	8.0
House	owned	8	2	9	0	5.4	18.0
House	owned	8	2	9	0	5.4	18.0

Blackthorne (2 bed)
Fennel (2 bed)
Everglade (3 bed)
Laurel (4 bed)
Magnolia (4 bed)
Palm (4 bed)
Rowan (4 bed)

APPENDIX B: 2021 CENSUS TRAVEL TO WORK DATA

TS061 - Method used to travel to work

ONS Crown Copyright Reserved [from Nomis on 13 September 2024]

population
units
date

All usual residents aged 16 years and over in employment the week before the census
Persons
2021

Method of travel to workplace	E00084002	E00188347	E00188374	E00188424	E00188465	E00188503	Total	Total w/o WFH	%
Total: All usual residents aged 16 years and over in employment the week before the census	131	179	195	230	185	171	1,091	551	100%
Work mainly at or from home	70	102	95	72	105	96	540	0	-
Underground, metro, light rail, tram	0	0	0	0	0	0	0	0	0%
Train	2	1	2	0	3	2	10	9	2%
Bus, minibus or coach	0	0	3	7	0	4	14	18	3%
Taxi	0	0	0	0	0	0	0	0	0%
Motorcycle, scooter or moped	0	0	1	3	0	0	4	4	1%
Driving a car or van	50	68	91	133	68	59	469	469	85%
Passenger in a car or van	2	2	2	4	5	4	19	19	3%
Bicycle	1	0	0	5	0	2	8	9	2%
On foot	6	6	1	2	4	4	23	17	3%
Other method of travel to work	0	0	0	4	0	0	4	5	1%

In order to protect against disclosure of personal information, records have been swapped between different geographic areas and counts perturbed by small amounts. Small counts at the lowest geographies will be most affected.

Census 2021 took place during a period of rapid change. We gave extra guidance to help people on furlough answer the census questions about work. However, we are unable to determine how furloughed people followed the guidance. Take care when using this data for planning purposes. Read more about specific quality considerations in our <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/methodologies/traveltoworkqualityinformationforcensus2021>.

APPENDIX C: MANUAL FOR STREETS 2 – TABLE 8.2 SPEED REDUCTION ON BENDS CALCULATOR

Land to the South of Parcel 15, Hogwood Farm

Speed Reduction Bend SSD Calculator



JNP GROUP
CONSULTING ENGINEERS

Design Speed (KPH)	32
Radius (M)	7.25

	V ²	Radius of vehicle path (M)
20mph (32kph)	1024	7.25

V ² /R	From 50%ile speed	Calc to get 50%ile Speed
20	3.5	0.175
28	5	0.178571429
40	7	0.175
56	10	0.178571429
80	14	0.175
141	25	0.176428571

Design Speed	Units	Adjustment factor (%)	Adjusted Design Speed
20	mph	25%	15.02 mph
32	kph	25%	24.03 kph

Speed	15.02	MPH
SSD =	16.02987361	M
V	6.712840727	MPS
T	1.5	secs
D	3.68	m/s2



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