gta
Civils &
Transport

Transport Statement

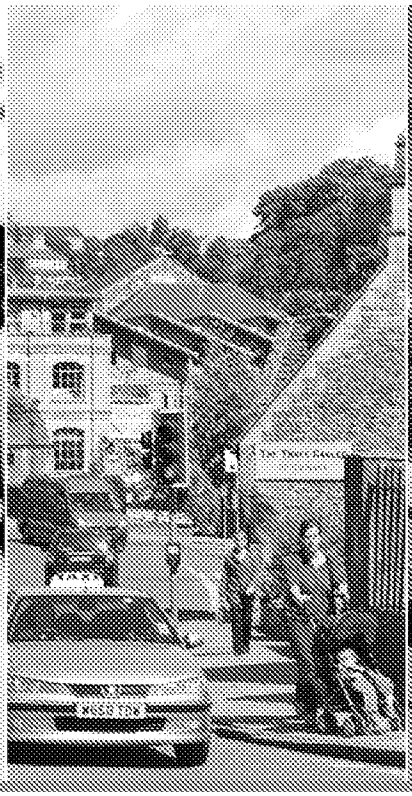
Morelands,

The Ridings,

Arundel Road,

Fontwell,

BN18 0SB



Client: Mo Al-samarale

Ref: 11636A

Date: April 2022

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Issue	Issue date	Compiled	Checked	Authorised
1	24-12-21	SH	RW	LS
1a	14-01-22	SH	LS	LS
1b	12-04-2022	EM	RW	LS

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Executive Summary

The site is located on Arundel Road, in Fontwell, West Sussex. The existing site comprises a single dwelling that is currently served by The Ridings via Arundel Road.

The proposed development is for the demolition of the single dwelling and construction of 5 dwellings. The proposal includes associated car and cycle parking and access changes.

This Transport Statement summarizes the existing situation, local and national transport policy, the local highway network and modal choices available to future residents and considers the likely transport impact of the proposed development through a trip forecasting exercise.

The proposals are in accordance with current policies and guidance provided by Arun District Council and West Sussex County Council and are compliant with national guidance documents such as Manual for Streets, Design Manual for Roads and Bridges (DMRB) and the National Planning Policy Framework 2021 (NPPF).

A trip forecasting exercise was undertaken using the TRICS database for the existing site and proposed development. This demonstrated that the estimated level of trips generated by the development will not have a detrimental impact on the surrounding highway network.

Overall, there are no material highway or transport impacts as a result of the proposed development.

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1 Introduction

1.1 This Transport Statement (TS) report has been prepared for Mo Al-samaraie in conjunction with the above development and no responsibility is accepted to any third party for all or part of this study in connection with this or any other development.

1.2 GTA Civils and Transport has been commissioned by Mo Al-samaraie to prepare a Transport Statement in connection with the proposed residential development at Morelands, The Ridings, Arundel Road.

1.3 Specifically, the report has been prepared to investigate and advise on the impacts of the proposed 5 dwellings to be served by The Ridings via Arundel Road.

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2 Policy Context

2.1 This Transport Statement has been written in accordance with the following frameworks:

- 2021 National Planning Policy Framework (NPPF);
- 2014 National Planning Policy Guidance (NPPG);
- Manual for Streets (MfS 1 & 2);
- West Sussex County Council Local Transport Plan (2011);
- West Sussex County Council Guidance on Parking at New Developments (2020);
- Arun Local Plan (2011-2031);
- Arun District Parking Standards Supplementary Planning Document (2020).

National Planning Policy Framework (NPPF)

2.2 The National Planning Policy Framework, first published in 2012 and last revised in July 2021, sets out the Governments planning policies for England and how these are expected to be applied. The NPPF provides a framework within which locally prepared plans for housing and other development can be produced.

2.3 NPPF supports sustainable development, with a 'presumption in favour of sustainable development', as set out in paragraph 10 and 11:

*"At the heart of the National Planning Policy Framework is a **presumption in favour of sustainable development**:*

*For **plan-making** this means that:*

a) plans all plans should promote a sustainable pattern of development that seeks to: meet the development needs of their area; align growth and infrastructure; improve the environment; mitigate climate change (including by making effective use of land in urban areas) and adapt to its effects;

b) strategic policies should as a minimum, provide for objectively assessed needs for housing and other uses, as well as any needs that cannot be met within neighbouring areas, unless:

i. the application of policies in this Framework that protect areas or assets of particular importance produces a strong reason for restricting the overall scale, type or distribution of development in the plan area; or

ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole;

*For **decision-taking** this means:*

c) approving development proposals that accord with an up-to-date development plan without delay; or

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d) *where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:*

e) *the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or*

f) *any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole."*

2.4 In the context of sustainable transport and in considering development proposals the NPPF states in paragraphs 110-113:

Paragraph 110, "In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- appropriate opportunities to promote sustainable transport modes can be - or have been - taken up, given the type of the development and its location;
- safe and suitable access to the site can be achieved for all users; and
- the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code 46; and
- any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.

Paragraph 111, "Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."

Paragraph 112, "Within this context, applications for development should:

a) *give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*

b) *address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*

c) *create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*

d) *allow for the efficient delivery of goods, and access by service and emergency vehicles; and*

e) *be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations."*

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Paragraph 113, "All developments that will generate significant movement should be required to provide a travel plan and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed."

National Planning Practice Guidance (NPPG)

2.5 National Planning Practice Guidance (NPPG) is supplementary advice intended to expand on and support the principals and practices of the National Planning Policy Framework (NPPF). It is managed and maintained by the Department of Communities & Local Government. Amongst other things, NPPG provides advice on the need for, and the preparation of, Travel Plans, Transports Statements and Transport Assessments.

2.6 NPPG states that Travel Plans, Transport Assessments and Transport Statements can positively contribute to:

- Encouraging sustainable travel;
- Lessening traffic generation and its detrimental impacts;
- Reducing carbon emissions and climate impacts;
- Creating accessible, connected, inclusive communities;
- Improving health outcomes and quality of life;
- Improving road safety;
- And reducing the need for new development to increase existing road capacity or provide new roads.

2.7 NPPG advises that the key transport issues to be considered in a transport evidence base should:

- Assess the existing situation and likely generation of trips over time by all modes and the impact on the locality in economic, social and environmental terms;
- And consider the cumulative impacts of existing and proposed development on transport networks.

Manual for Streets (MfS)

2.8 MfS and MfS2 were published in 2007 and 2010 respectively and are referred to throughout the report.

2.9 The 'Department for Transport' and 'Department for Communities and Local Government' support the guidance provided in the manuals, though importantly, they do not outline any new policies or legal requirements.

2.10 Some of the key aims for streets in the introduction, are as follows:

- help build and strengthen the communities they serve;

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- meet the needs of all;
- form part of a well-connected network;

It also discourages designs that:

- primarily meet motor traffic needs;
- are difficult to serve by public transport.

2.11 MfS 2 applies the same principles to a wider variety of situations including both rural and urban. Both aim to deliver contextually sensitive designs, which involves understanding the unique landscape and role of individual modes of transport in the area.

West Sussex County Council Local Transport Plan (2011)

2.12 The Local Transport Plan (LTP3) for West Sussex covers the period 2011 to 2026 and was adopted by the County Council on March 2011.

The 4 main objectives of LTP3 are:

- Promoting Economic Growth;
- Tackling a Changing Climate;
- Providing Access to Services, Employment and Housing;
- Improving Safety, Security and Health.

Under each of these main objectives are the LTP3 strategies as shown below in **Table 2.1:**

Table 2.1 LTP3 Themes and Objectives

LTP3 Objectives	LTP3 Strategies
Promoting Economic Growth	• Maintain or improve the reliability of journey times on key routes; • Improve connectivity and access to local labour markets and key centres; • Deliver transport improvements to support and facilitate sustainable growth; • Ensure local transport networks are resistant and adaptable to shocks and impacts including climate change.
Tackling a Changing Climate	• Adapt transport infrastructure to increase its resilience to the effects of climate change; • Support new low emission fuels, infrastructure and technologies; • Reduce unnecessary trips by motorised vehicles and encourage the use of more sustainable modes of transport; • Reduce the need to travel at all by encouraging provision of local services; • Reduce the carbon footprint of the County Council's own operations; • Maximise reuse and recycling of materials in construction and maintenance.

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Providing Access to Services, Employment and Housing	◦ Identify problem areas by using survey approaches and accessibility mapping techniques where appropriate; ◦ Work in partnership with service providers and stakeholders to set priorities; ◦ Ensure that accessibility is a central consideration when planning local services; ◦ Seek to ensure that places of work, education, leisure and food retail opportunities are located close together in new development; ◦ Enable disadvantage people to access employment opportunities, key services, social networks and goods; ◦ Encourage local delivery of services so that people have to travel less.
Improving Safety, Security and Health	◦ Reduce the risk of death or injury due to transport incidents through engineering, training and publicity particularly targeted at vulnerable road users; ◦ Reduce crime, fear of crime and anti-social behaviour on the transport network; ◦ Reduce the negative impacts of transport on public health; ◦ To encourage and to enable physically active travel such as walking and cycling through behaviour change initiatives and provision of information and education; ◦ Invest in new infrastructure which improves the County and creates safer conditions for all, and particularly vulnerable road users.

2.13 The West Sussex Transport Plan is currently being reviewed. This is to update the strategic approach to investment in, and management of the transport network. Until a new plan is adopted the current LTP for West Sussex will be used in planning decisions.

West Sussex Parking Guidance for New Developments (2020)

2.14 Section 1.2 of the West Sussex County Council Guidance on Parking at New Developments (2020) states:

'The County Council's overall ambition for parking at new developments is to ensure that sufficient parking is provided to meet the needs of the development while maintaining highway network operations, protecting surrounding communities and pursuing opportunities to encourage use of sustainable modes of transport. This ambition is not intended to replace relevant national and local planning policy on this issue'.

2.15 Table 2.2 below demonstrates the minimum cycle parking standards for new residential developments set out in table 1 in the WSGPND.

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Table 2.2 Minimum Cycle Parking Standards for New Residential Developments

Type	Dwelling Size	Cycle Provision (per unit)
Houses	Up to 4 rooms (1 & 2 bed)	1 space
Houses	5+ rooms (3+ bed)	2 spaces
Houses	Multiple Occupation	1 space
Flats	Up to 3 rooms (1 & 2 bed)	0.5 space (if communal storage otherwise same as 1 & 2 bed house)
Flats	4+ rooms (3+ bed)	1 space

2.16 The WSCC Parking Guidance for New Developments has also been used to determine the appropriate parking demand for the proposal.

Arun Local Plan 2011-2031

2.17 The Arun Local Plan was adopted in July 2018 and sets out a spatial vision, objectives and a sustainable strategy for delivering the needed growth of the District over the period of 2011-2031, excluding the area covered by the South Downs National Park Authority.

2.18 Arun's Local Plan strategic objectives for Transport are to:

- "Reduce the need to travel and promote sustainable forms of transport."
- "Plan for climate change and work in harmony with the environment to conserve natural resources and increase biodiversity".
- "Create vibrant, attractive, safe and accessible towns and villages that build upon their unique characters to provide a wide range of uses and which are a focus for quality shopping, entertainment, leisure, tourism and cultural activities."
- "Promote strong, well integrated and cohesive communities, through the promotion of healthy lifestyles, provision of good quality accessible community facilities and a safe environment, which delivers an enhanced quality of life to all. This includes meeting the needs of a growing elderly population."
- "Strengthen Arun's economic base and provide local job opportunities by increasing, diversifying and improving the quality of employment within the District through the provision of appropriate employment sites, better infrastructure, including road and rail access, quality affordable accommodation and the development of business support and partnerships."

2.19 Policies contained in the ALP that are relevant to the site include:

- **Policy T SP1 - Transport and Development**
- **Policy T DM1 - Sustainable Travel and Public Rights of Way**

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Arun District Parking Standards Supplementary Planning Document (2020)

2.20 The Arun District Council Parking Standards SPD was adopted in January 2020. The SPD relates to the amount of car and cycle parking and electric vehicle charging points expected to be provided for developments of differing sizes.

2.21 This document has been interrogated to determine the appropriate number of car and cycle spaces and EV charging points for the proposed development.

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3 Existing Site

Site Location

3.1 The existing site consists of a single dwelling located south of Arundel Road in Fontwell, Arundel West Sussex.

3.2 The existing site can be accessed by vehicles from Arundel Road, via The Ridings to the northwest corner of the site.

3.3 An aerial view of the existing site can be seen in **Figure 3.1**, indicated by the red boundary line.

Figure 3.1 - Aerial View of the Existing Site



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4 Local Highway Network

4.1 Arundel Road runs east-west past the site and is subject to a 30mph speed limit. Wide verges and footways are provided on both sides of the carriageway. Arundel Road connects to The Ridings at a t-junction providing access to the site.

4.2 To the west Arundel Road connects to the A27 and A29 at a large roundabout junction. Arundel Road connects to the A27 to the east for all westbound traffic. The A27 runs east-west linking to Chichester in the west and providing links to Littlehampton and Worthing to the east.

4.3 The A29 runs north-south running through Woodgate and leading into Bognor Regis to the south. Northeast of the site the A29 connects to the B2139 and A284 at a roundabout junction.

4.4 The closest bus stops are located along Arundel Road to the west of the site.

Accident Data

4.5 Local vehicle incident records in a 250m vicinity of the site were reviewed for the years 2016-2020 using www.crashmap.co.uk. CrashMap uses data collected by the police about road traffic accidents occurring on British roads where someone is injured. This data is approved by the National Statistics Authority and reported on by the Department for Transport each year.

4.6 There have been no recorded incidents during the 5-year review period (2016-2020) in a 250m radius of the site. Therefore, there is no evidence that proposed development would lead to an increase in the risk of accidents.

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5 Modal Choice & Travel Data

Bus Services

5.1 The nearest bus stops are located 140m west for westbound travel and 60m west for eastbound travel. The westbound stop is provided with shelter and timetable information. Services from these stops are operated by Amberley and Swindon Community Bus and Compass Travel. Services during peak hours can be seen below in **Table 5.1.**

Table 5.1 Bus Services from Fontwell Village Bus Stop

Services	Destinations Served	Weekday Frequency	Saturday Frequency	Sunday Frequency
1B	Rackham Street - Amberley - Slindon - Fontwell - Bognor Regis	Mondays only	-	-
1D	Rackham Street - Amberley - Slindon - Fontwell - Rustington	Wednesdays only	-	-
85	Arundel – Walberton - Fontwell - Chichester	3 return services daily	-	-

Rail

5.2 The nearest railway station is Barnham Railway Station, located approximately 4km which is too far to walk but is within the standard 5km cycle radius and is a 7-minute drive from the site.

5.3 Barnham Station facilities and services* include:

- 62 cycle parking spaces with storage CCTV;
- 130 Car parking spaces with 2 accessible spaces operated by APCOA Parking UK;
- Taxi point;
- Ticket office with height adjusted counter (including induction loop);
- Accessible ticket machines;
- Public Wi-Fi and refreshments;
- Heated waiting rooms on each platform;
- Accessible toilets and baby changing facilities;
- Ramp for train access; and
- Step free access (Category B2).

*Source: Nationalrail.co.uk (22/12/21)

5.4 Services from this Station are operated by Great Western Rail and Southern providing connections to Littlehampton, Brighton, Bognor Regis and London Victoria.

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Walking and Cycling

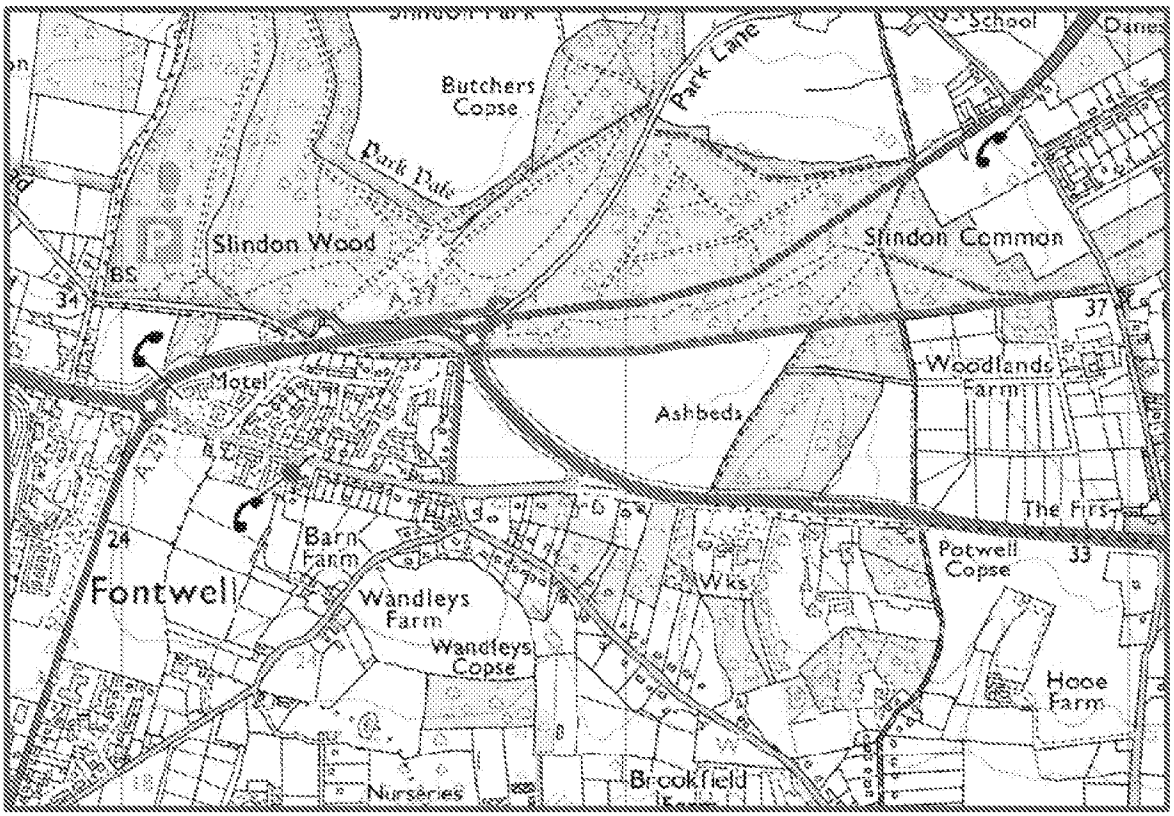
5.5 Manual for Streets suggests 800m can be considered a comfortable walking distance (paragraph 4.4.1). MfS also states, however, 800m is not the upper limit, walking offers potential to replace short car trips for journeys up to 2km (with reference to PPG13).

5.6 Whilst superseded by NPPF, the former PPG13 Transport document sets out useful guidance related to suitable walking and cycling distances:

- "Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2 kilometres' (Paragraph 74)
- 'Cycling also has potential to substitute short car trips, particularly those under 5 kilometres, and to form part of a longer journey by public transport' (Paragraph 77).

5.7 There are a few paths located within 500m of the site, however, there are none that run through the proposed development site. The location of the PRoWs (red) and the development site (blue) can be seen below in **Figure 5.1.**

Figure 5.1 – PRoW within 500m of site access



*Taken from the WSCC Public Rights of Way iMap

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Accessibility

5.8 There are some amenities within walking distance of the site including a convenience store at the shell garage 320m west, the Old Stables eating establishment located 465m west and the Fontwell Park racing track approximately 710m from the site.

5.9 Although not within walking distance there are a number of essential facilities within Eastergate, Westergate, Walberton and Woodgate. A list of key amenities within a 3km radius of the site is shown below.

Eastergate essential amenities:

- The Croft Surgery;
- St George's Church;

Westergate essential amenities;

- Ormiston Six Village Academy;
- Bright Starts Day Nursery;
- Aldingbourne Community Sports Centre;
- Hop Scotch Pre School.

Woodgate essential amenities:

- Aldingbourne Primary School;

Walberton essential amenities:

- Flintcroft Surgery;
- Walberton & Binsted C of E Primary School;
- St Mary's Church.

5.10 Although outside the 2km walking distance the above health and education amenities are within the standard 5km cycle radius.

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6 Proposed Development

6.1 The proposed development is for the demolition of the existing dwelling and the construction of 5 new residential dwellings together with associated car and cycle parking.

6.2 The proposed development layout plan can be seen in **Appendix A**.

Proposed Access

6.3 Currently vehicles can access the site from Arundel Road via The Ridings. The access will be widened to a minimum of 3.5m. It is also proposed to improve the radii on the east side of the access, as demonstrated in the plan in **Appendix B**.

6.4 Vehicle tracking is shown in **Appendix C**. This demonstrates that a car will be able to wait at the end of The Ridings for another vehicle exiting the site. As this drawing also demonstrates, a refuse 10.2m long refuse vehicle can access the dwellings and turn within the site. Since a refuse vehicle can access the site, a delivery vehicle can also turn on site to re-enter Arundel Road in a forward gear.

6.5 Manual for Streets 1 (MfS1) is the appropriate guidance for determining visibility splay requirements for a road of this type subject to a speed restriction of 30mph – MfS1 determines the Y distance visibility splay requirements for roads with speeds up to 37mph. It also confirms, in paragraph 7.7.6, that a distance of 2.4m is the appropriate X distance for most roads. However, the absolute minimum X distance of 2m is acceptable where roads are lightly trafficked.

6.6 Based on the speed limit of 30mph, in accordance with Table 7.1 of MfS1, visibility splays of 2.4m x 43m are required in each direction at the junction with Arundel Road. These splays are readily achievable at the access, therefore, adequate visibility to meet the Manual for Streets standards is achievable.

Proposed Parking

6.7 The West Sussex Parking Guidance for New Developments and the Arun District Parking Standards SPD sets out the minimum cycle parking standards for new residential development. The relevant standards to this Transport Statement can be seen below in **Table 6.1.**

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Table 6.1 – Minimum Cycle Parking Standards for New Residential Developments

Table 1: Minimum Levels of Cycle Provision		
Type	Dwelling Size	Cycle Provision (per unit)
Houses	Up to 4 rooms (1 & 2 bed)	1 space
Houses	5+ rooms (3+ bed)	2 spaces

6.8 In accordance with WSCC and ADC cycle parking standards (see **Table 6.1**) set out for new residential developments, a provision of 2 cycle parking spaces will be provided for each house. These will be provided in stores in the garden of each property,

6.9 The WSCC and ADC parking guidance documents also set out vehicle parking requirements for residential dwellings including Electric Vehicle charging points. Arun District Council parking standards are detailed in **Table 6.2** below.

Table 6.2 – Residential Parking Demand for PBZ1 (spaces per dwelling)

No. of bedrooms	No. of habitable rooms	Spaces required for PBZ1	Visitor Parking
1	1 or 3	2	0.2
2	4	2	
3	5 or 6	2	
4+	7 or more	3	

6.10 In line with this and the above guidance, provision has been made for 11 parking spaces for the proposed 5 new houses. This provision is shown on the proposed development plan in **Appendix A**.

6.11 Arun District Parking Standards SPD sets out the requirements for EV charging. Based on the guidance all new houses with a driveway or garage are required to provide active EV charging points. Therefore, EV charging points will be provided for all garage/driveway spaces of the proposed development.

Servicing & Emergency Access

6.12 It is considered the proposed development will be serviced from Arundel Road. Refuse and recycling collection points are located appropriately to meet the requirements set out in paragraph 6.8.9 of Manual for Streets 1 residents are not required to carry waste for more than 30m as set out in MfS1. Refuse vehicles will enter the site and collect from the bin stores as shown on the proposed plan.

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6.13 In accordance with Manual for Streets, a fire appliance will be able to access the site and reach within 45metres of all buildings. A swept path analysis has been produced to show emergency vehicles will be able to safely enter and exit the site onto Arundel Road.

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7 Trip Generation

7.1 The existing site consists of a single residential dwelling. The TRICS database has been interrogated to determine the likely trip generation for the existing site and proposed development. Trip rates for a single dwelling as shown in **Table 7.1** below.

Proposed Trip Generation - Methodology

7.2 The proposal is to replace the existing single dwelling with 5 new dwellings and associated parking.

7.3 The TRICS database has been examined for appropriate matches to the proposed uses with the following site selection parameters being applied:

- Post 2012 surveys;
- All regions in England, with the exception of Greater London;
- Weekdays only;
- Suburban and village location types;
- Residential use - private houses with a sample size between 5 and 50 units;

7.4 **Appendix C** holds details of sites selected and provides a full TRICS output report.

Trip Rates & Trips

7.5 **Table 7.1** below provides trip rate data for the proposed site, based on the site selection criteria.

Table 7.1 Privately Owned Dwellings – Weekday Trip Rates (per unit)

Privately Owned Houses	AM Peak (8:00 - 9:00)			PM Peak (17:00 - 18:00)			Daily (7:00 - 19:00)		
	In	Out	2-Way	In	Out	2-Way	In	Out	2-Way
Per Unit	0.130	0.341	0.471	0.346	0.178	0.524	2.409	2.567	4.976

7.6 Resultant weekday trips to and from a development of 5 dwellings is shown in **Table 7.2** below.

Table 7.2 Privately Owned Dwellings – Weekday Trip Rates (5 units)

Privately Owned Houses	AM Peak (8:00 - 9:00)			PM Peak (17:00 - 18:00)			Daily (7:00 - 19:00)		
	In	Out	2-Way	In	Out	2-Way	In	Out	2-Way
Per 5 units	0.650	1.705	2.355	1.730	0.890	2.620	12.045	12.835	24.880

7.7 Using the information from the TRICS database, the proposed development is likely to lead to:

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- Around 2 two-way vehicle trips in the weekday AM peak period (0800-0900);
- Around 3 two-way vehicle trips in the weekday PM peak period (1700-1800);
- Overall, around 25 two-way daily weekday vehicle trips are forecast.

7.8 As shown in **Table 7.1** above the existing single dwelling likely generates around 5 daily two-way trips. Based on the resultant trip generations in **Table 7.2** for 5 dwellings, the proposed development will likely lead to an additional 20 daily two-way trips compared to the exiting site. Therefore, the trips associated with the proposed development would not have a material impact and could be readily accommodated on the local highway network.

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8 Conclusion

8.1 This Transport Statement has summarised the existing situation and has provided an overview of the proposed land-use change from a transport perspective.

8.2 Key transport-relevant elements of the development, including parking, access, trip generation and the impacts upon the surrounding transport networks, have been considered from a policy context.

8.3 The sites provision of car / cycle parking complies with West Sussex County Council and Arun District Council parking standards. Electric Vehicle charging points will be provided in accordance with Arun District Parking Standards SPD.

8.4 A review of the local transport options and local amenities shows a number of schools, convenience stores and health facilities are within cycling distance or a short car journey from the site.

8.5 A trip forecasting exercise was undertaken using the TRICS database to determine the trip generation of the proposed development. This demonstrated that the estimated level of trips generated by the development will not have a detrimental impact on the surrounding highway network.

8.6 In conclusion, there are no unacceptable highway or transport impacts as a result of the proposed development.

- End of Report -

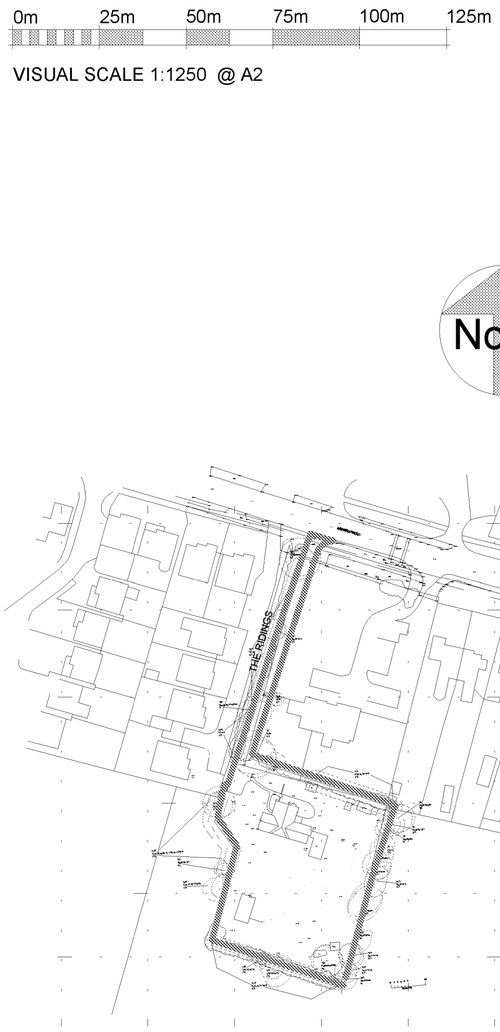
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Appendix A

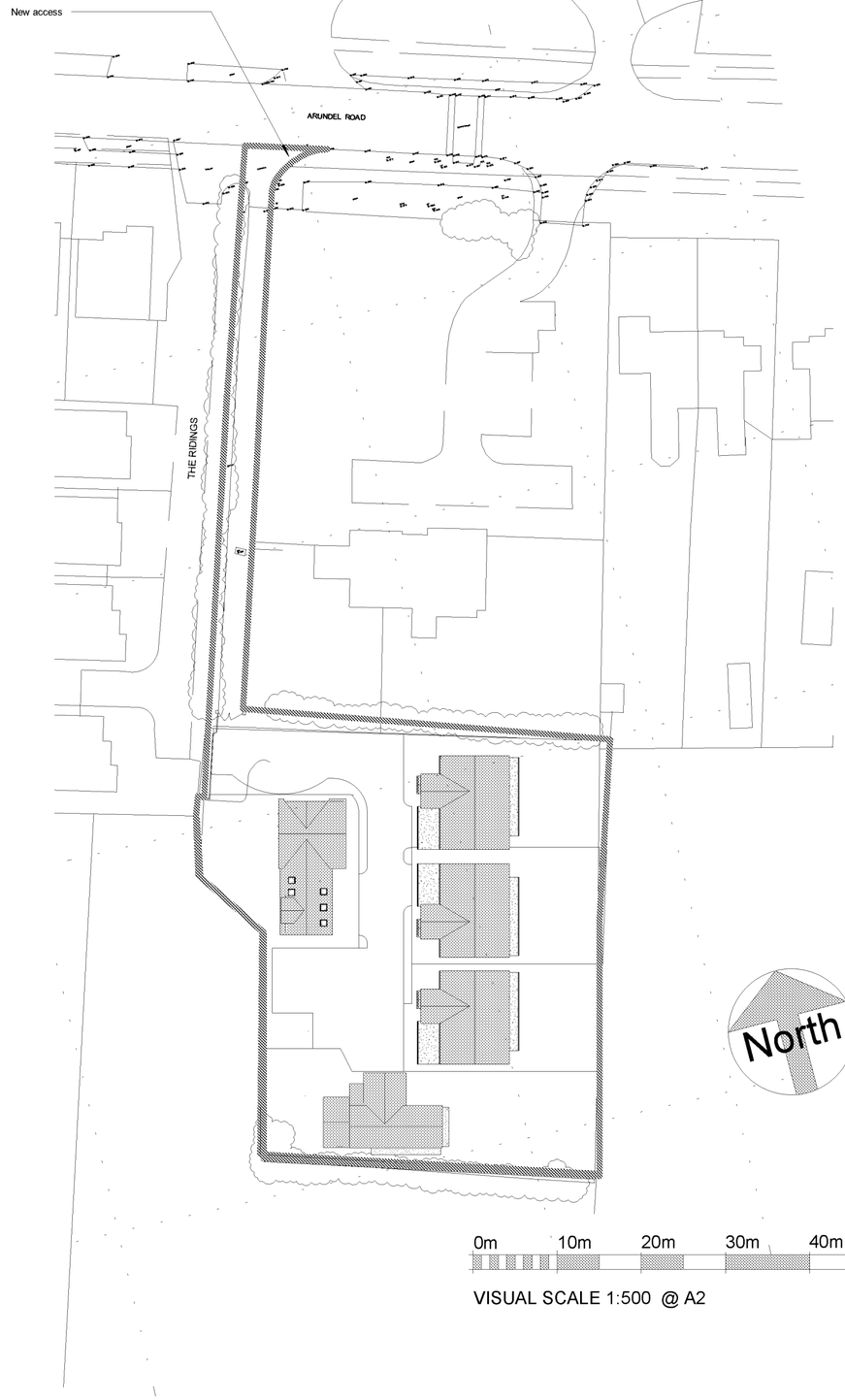
Proposed Site Layout Plan

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2 LOCATION PLAN
1 : 1250



1 SITE PLAN
1 : 500

0m 25m 50m 75m 100m 125m

VISUAL SCALE 1:1250 @ A2

North

0m 10m 20m 30m 40m 50m

VISUAL SCALE 1:500 @ A2

North

KRONA DESIGN
ARCHITECTURAL DESIGN & DRAFTING
4 Union Place | Worthing | BN11 1LG
info@kronadesign.co.uk | kronadesign.co.uk
Tel: 01903 256150 Mob: 07827 994111

PROJECT
Proposed Development of 5 Dwellings

ADDRESS
Morelands
Arundel Road
Arundel
BN18 0SB

TITLE
Site and Location Plan

CLIENT
Moreland Property Development Ltd

DRAWN	STATUS	DATE
JLB/SE	Planning	09/09/21

SCALE (@ A2)	PROJECT NUMBER
As indicated	KD.1000

DRAWING NUMBER	REV
A.001	B

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Treetops

ORCHARD

CRES

TCB

LB

31.4m

New access

7.5m RAD

3.5m

1

2

THE RIDINGS

THE RIDINGS

0m 4m 8m 12m 16m 20m

VISUAL SCALE 1:200 @ A1

The access road to be widened to minimum of 3.5m wide and built to adoptable standards (NO DIG CONSTRUCTION METHODS)

SOFT LANDSCAPING

Fire truck turning circle

North

Property-A1
Garden
122.93 m²
Hard Paved Patio
21.15 m²

Property-B
Garden
103.63 m²
Hard Paved Patio
21.70 m²

Property-A2
Hard Paved Patio
16.50 m²
Garden
106.81 m²

Property-A3
Garden
129.64 m²

Wildlife Habitat
45.78 m²

Hard Paved Patio
16.80 m²

Property-C
Garden
92.50 m²
Hard Paved Patio
33.45 m²
Garden
228.92 m²

Bin

Proposed turning head for refuse truck

Scheme 1 Legend

- Garden
- Hard Paved Patio
- Wildlife Habitat
- Electric charging point - 1 per dwelling and 1 for visitor space
- Retained trees and hedgerow
- Existing waste
- New waste

Site Properties areas

Name	Surface Area
Property-A1	294 m²
Property-A2	308 m²
Property-A3	291 m²
Property-B	338 m²
Property-C	491 m²

1 PR_01.Proposed landscaping and Vehicle access
1 : 200

Rev	Description	Date

KRONA DESIGN
ARCHITECTURAL DESIGN & DRAFTING
4 Union Place | Worthing | BN11 1LG
info@kronadesign.co.uk | kronadesign.co.uk
Tel: 01903 256150 Mob: 07827 994111

PROJECT
Proposed Development of 5 Dwellings

ADDRESS
Morelands
Arundel Road
Arundel
BN18 0SB

TITLE
Development Plan and Landscaping

CLIENT
Moreland Property Development Ltd

DRAWN	STATUS	DATE
JLB		09/09/21

SCALE (@ A1)	PROJECT NUMBER
1 : 200	KD.1000

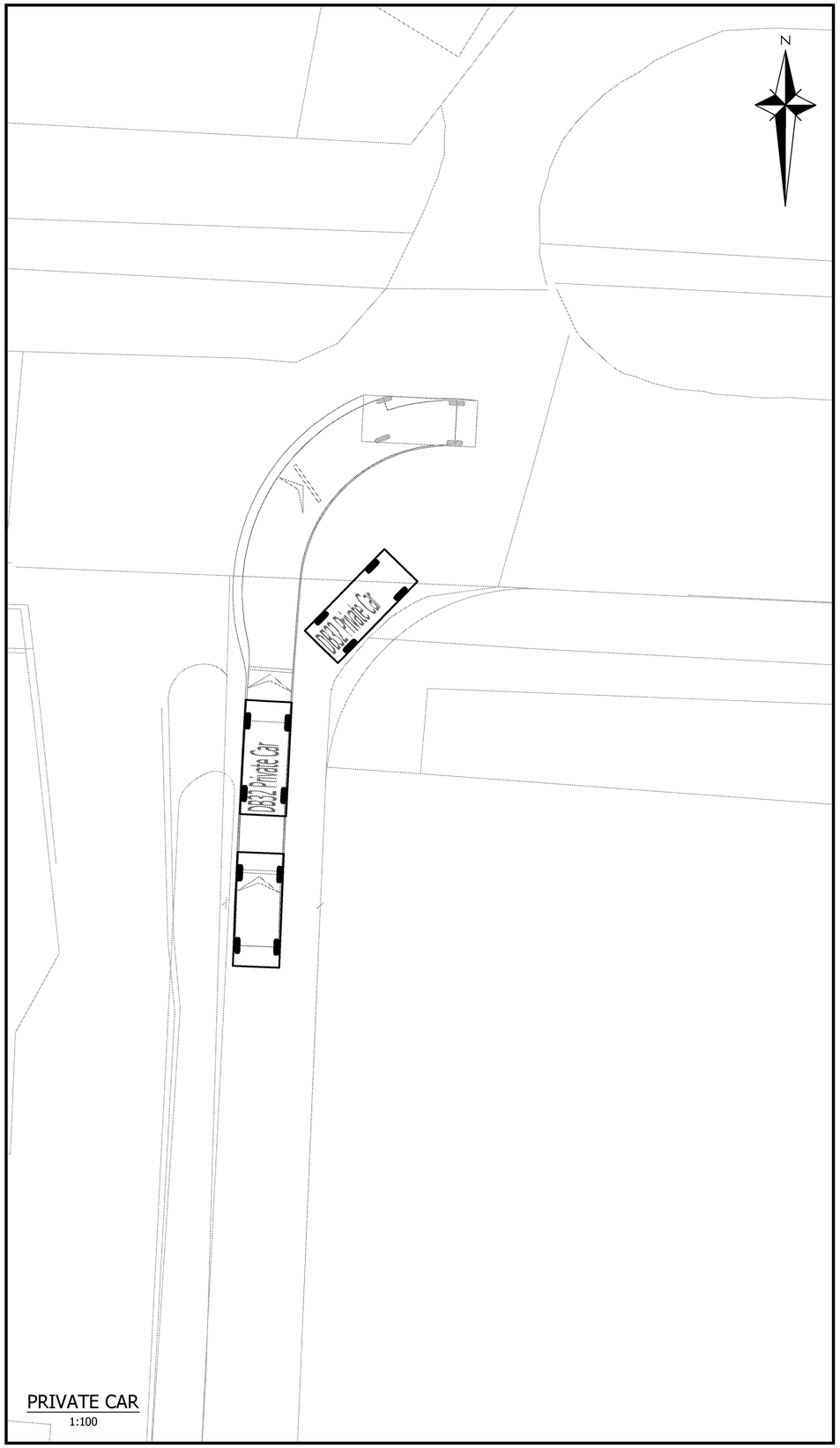
DRAWING NUMBER	REV
A.002	E

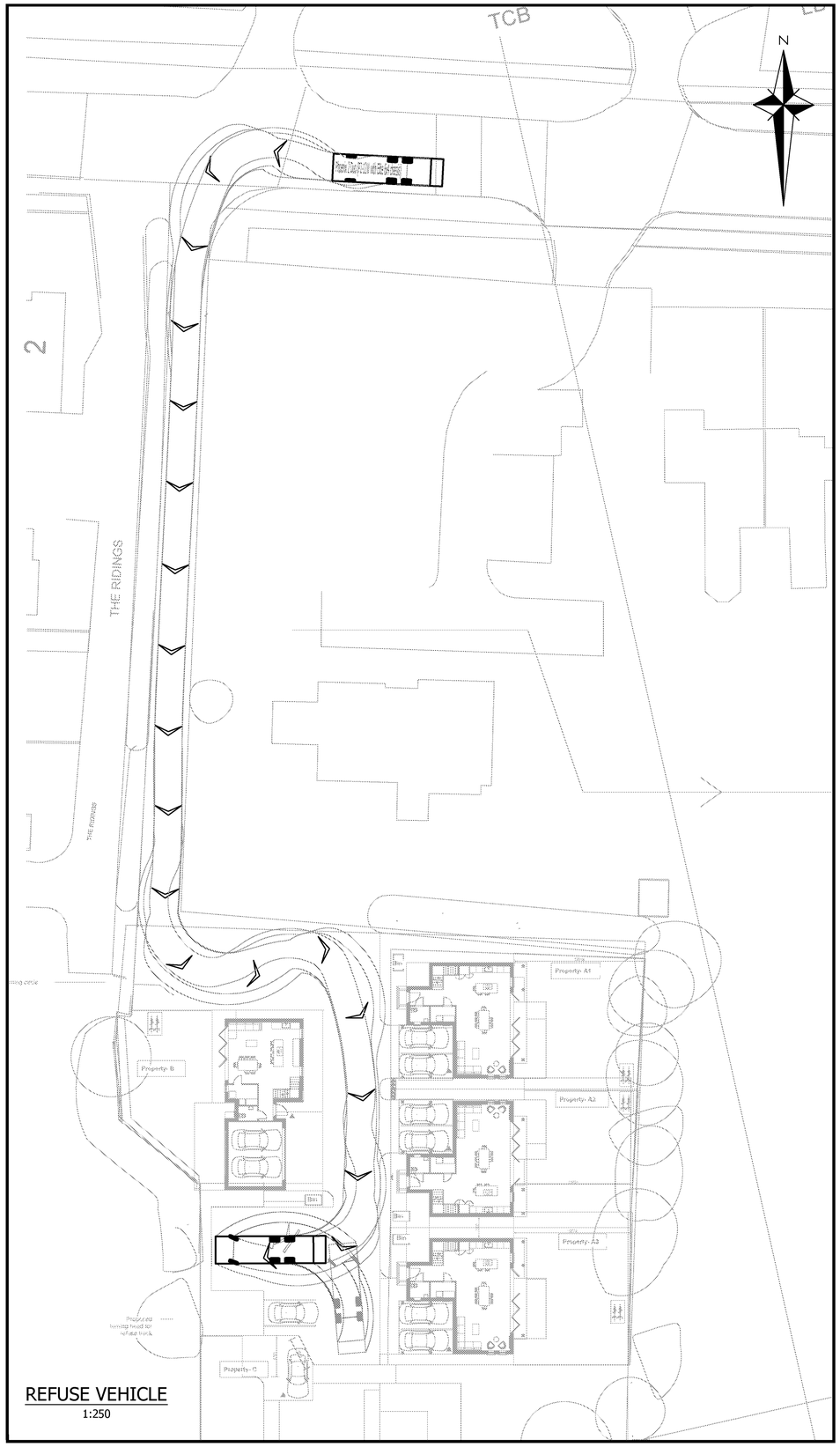
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Appendix B

Vehicle Tracking Plan

ARUN DISTRICT COUNCIL WA/42/22/PL





GENERAL NOTES

1. The location, size, depth and identification of existing services that may be shown or referred to on this drawing have been assessed from non intrusive observations , record drawings or the like. The contractor shall safely carry out intrusive investigations, trial holes or soundings prior to commencing work to satisfy himself that it is safe to proceed and that the assessments are accurate. any discrepancies shall be notified to gta prior to works commencing.

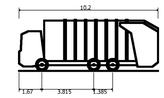
2. Tender or billing drawings shall not be used for construction or the ordering of materials.

3. Do not scale. All dimensions and levels to be site confirmed.

4. This drawing shall be read in conjunction with all relevant architects, consultants drawings and specifications, together with H&S plan requirements.

5. Copyright : This drawing must not be copied, amended nor reproduced without the prior written agreement of gta.

6. All drawings specifications and recommendations made by gta are subject to Local Authority and other relevant Statutory Authorities approval. Any works or services made abortive due to the client proceeding prior to these approvals is considered wholly at the Clients risk. gta hold no responsibility for resulting abortive works or costs.



Phoenix 2 Duo (P2-12W with Elite 6x4 chassis)

Overall Length	10.200m
Overall Width	2.530m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.800m



DB32 Private Car

Overall Length	4.223m
Overall Width	1.715m
Overall Body Height	1.392m
Min Body Ground Clearance	0.233m
Max Track Width	1.629m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.780m

Vehicle wheels outline

Vehicle Body envelope

Rev	Amendments	Date	Dsn	Chk
P7	UPDATED TO NEW LAYOUT	12.04.2022	EM	LS
P6	UPDATED TO COMMENTS	04.03.2022	SH	LS
P5	UPDATED LAYOUT	13.01.2022	SH	LS
P4	REFUSE VEHICLE TRACKING ADDED	11.01.2022	SH	LS
P3	UPDATED LAYOUT	10.01.2022	SH	LS
P2	UPDATED TO COMMENTS	22.09.2021	JMW	LS
P1	INITIAL ISSUE	14.09.2021	JMW	LS

Status: FOR PLANNING

Client: MO AL-SAMARAIE

Architect:

Project: MORELANDS, FONTWELL
WALBERTON, BN18 0SB

Title: VEHICLE TRACKING

Date: SEPT 2021	Scale @ A1: 1:200
Clients Ref.:	Project Ref.: 11636/2200

gta Civils & Transport
Gloucester House, 66a Church Walk,
Burgess Hill, West Sussex, RH15 9AS
Tel.01444 871444 Web: www.gtacivils.co.uk

Drawing Number: 11636/2200	Rev.: P7

ARUN DISTRICT COUNCIL WA/42/22/PL

Appendix C

TRICS Output Data

ARUN DISTRICT COUNCIL WA/42/22/PL

Calculation Reference: AUDIT-349901-211223-1242

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
TOTAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	HC	HAMPSHIRE	1 days
03	**SOUTH WEST**		
	WL	WILTSHIRE	1 days
04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	1 days
	NF	NORFOLK	1 days
	SF	SUFFOLK	1 days
05	**EAST MIDLANDS**		
	LN	LINCOLNSHIRE	1 days
08	**NORTH WEST**		
	CH	CHESHIRE	1 days
09	**NORTH**		
	DH	DURHAM	1 days

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

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
Actual Range: 7 to 50 (units:)
Range Selected by User: 6 to 50 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/12 to 16/06/21

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	5 days
Thursday	2 days

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

Selected survey types:

Manual count	8 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	8

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	8

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3	8 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

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

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

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	3 days
100,001 to 125,000	1 days
125,001 to 250,000	2 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	4 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	1 days
No	7 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	8 days

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

LIST OF SITES relevant to selection parameters

1 **CA-03-A-05** **DETACHED HOUSES** **CAMBRIDGESHIRE**
EASTFIELD ROAD
PETERBOROUGH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 28
Survey date: MONDAY *17/10/16* *Survey Type: MANUAL*

2 **CH-03-A-08** **DETACHED** **CHESHIRE**
WHITCHURCH ROAD
CHESTER
BOUGHTON HEATH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 11
Survey date: TUESDAY *22/05/12* *Survey Type: MANUAL*

3 **DH-03-A-01** **SEMI DETACHED** **DURHAM**
GREENFIELDS ROAD
BISHOP AUCKLAND

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 50
Survey date: TUESDAY *28/03/17* *Survey Type: MANUAL*

4 **HC-03-A-17** **HOUSES & FLATS** **HAMPSHIRE**
CANADA WAY
LIPHOOK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 36
Survey date: THURSDAY *12/11/15* *Survey Type: MANUAL*

5 **LN-03-A-03** **SEMI DETACHED** **LINCOLNSHIRE**
ROOKERY LANE
LINCOLN
BOULTHAM
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 22
Survey date: TUESDAY *18/09/12* *Survey Type: MANUAL*

6 **NF-03-A-01** **SEMI DET. & BUNGALOWS** **NORFOLK**
YARMOUTH ROAD
CAISTER-ON-SEA

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 27
Survey date: TUESDAY *16/10/12* *Survey Type: MANUAL*

7 **SF-03-A-04** **DETACHED & BUNGALOWS** **SUFFOLK**
NORMANSTON DRIVE
LOWESTOFT

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 7
Survey date: TUESDAY *23/10/12* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

8 WL-03-A-02 SEMI DETACHED WILTSHIRE
HEADLANDS GROVE
SWINDON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 27
Survey date: THURSDAY *22/09/16* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
CH-03-A-11	does not fit proposed development
DV-03-A-01	does not fit proposed development
NY-03-A-08	does not fit proposed development
NY-03-A-13	does not fit proposed development

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	26	0.058	8	26	0.250	8	26	0.308
08:00 - 09:00	8	26	0.130	**8**	**26**	**0.341**	8	26	0.471
09:00 - 10:00	8	26	0.139	8	26	0.178	8	26	0.317
10:00 - 11:00	8	26	0.183	8	26	0.163	8	26	0.346
11:00 - 12:00	8	26	0.188	8	26	0.159	8	26	0.347
12:00 - 13:00	8	26	0.178	8	26	0.202	8	26	0.380
13:00 - 14:00	8	26	0.159	8	26	0.202	8	26	0.361
14:00 - 15:00	8	26	0.197	8	26	0.264	8	26	0.461
15:00 - 16:00	8	26	0.288	8	26	0.231	8	26	0.519
16:00 - 17:00	8	26	0.298	8	26	0.245	**8**	**26**	**0.543**
17:00 - 18:00	**8**	**26**	**0.346**	8	26	0.178	8	26	0.524
18:00 - 19:00	8	26	0.245	8	26	0.154	8	26	0.399
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.409			2.567			4.976

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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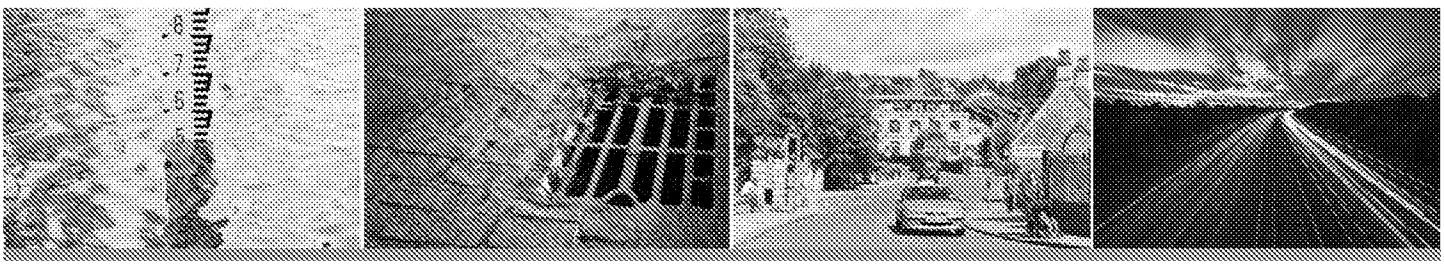
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Parameter summary

Trip rate parameter range selected:	7 - 50 (units:)
Survey date date range:	01/01/12 - 16/06/21
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	4

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

gta
Civils &
Transport



Civil Engineering · Transport Planning · Flood Risk

GTA Civils & Transport, Gloucester House, 66a Church Walk, Burgess Hill, West Sussex, RH15 9AS

[redacted]

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