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**FORMER SHRUBLANDS NURSERY,
ROUNDSTONE LANE, ANGMERING**

TRANSPORT STATEMENT



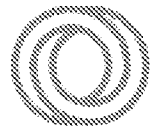
**FORMER SHRUBLANDS NURSERY, ROUNDSTONE LANE,
ANGMERING**

**TRANSPORT STATEMENT
ON BEHALF OF SIGMA HOMES**

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February 2021

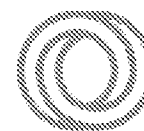


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Project No. 20-016

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-	Draft	ESH	BM	ESH	BM	02/02/21
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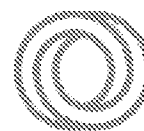
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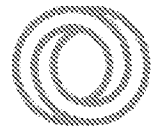
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1.0 INTRODUCTION

1.1 *Preamble*

1.1.1 Odyssey has been instructed by Sigma Homes to prepare a Transport Statement (TS) in support of a full planning application for the proposed development at the Former Shrublands Nursery Site, Roundstone Lane, Angmering. The site's location is highlighted in **Figure 1**, and **Appendix A** presents the red line boundary of the site.

1.1.2 The site is located within the administrative boundary of Arun District Council (ADC) and the local highway network is controlled by West Sussex County Council (WSCC).

1.1.3 The development site is approximately 1.33ha in area, and currently comprises of a horticultural nursery with access served from a simple priority junction with Roundstone Lane.

1.1.4 The development proposal will see the provision of 40 dwellings. Vehicular and pedestrian access to the development would be served from a new priority junction with Roundstone Lane, located circa 10m to the south of the current vehicular access to the site. The proposed site layout is presented in **Appendix A**.

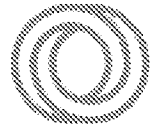
1.2 *Pre-Application Advice and Scoping*

1.2.1 Pre-application advice has been sought from WSCC; a copy of the Highways Scoping Note together with the WSCC highways pre-application advice is presented in **Appendix B**.

1.3 *Assessment Methodology and Report Structure*

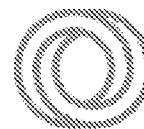
1.3.1 Accordingly, this TS sets out the suitability of the proposal, considering the sustainable location of the site, the expected vehicle trip generation and traffic impact of the scheme on the local highway network. In this regard, the TS is set out as follows:

- **Section 2.0** reviews highways related national and local planning policy relevant to the planning application.
- **Section 3.0** provides an assessment of the existing conditions in the vicinity of the site, alongside the site's current and future levels of accessibility by various modes of transport.
- **Section 4.0** presents the development proposals.
- **Section 5.0** calculates the expected traffic generation of the proposed development and describes the traffic distribution and assignment methodology used.



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- **Section 6.0** presents the results of capacity assessments conducted at the junctions identified at the highways pre-application scoping stage.
- **Section 7.0** details sustainable travel measures to be implemented for the development.
- **Section 8.0** summarises and concludes the report.



2.0 PLANNING POLICY

2.1 *National Planning Policy Framework*

2.1.1 The National Planning Policy Framework (NPPF), first published in March 2012 and last revised in June 2019, provides a structure for development within the UK, with a presumption in favour of sustainable development and promotion of economic growth.

2.1.2 The relevant transport related paragraphs from the current NPPF are set out below:

“109. 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.

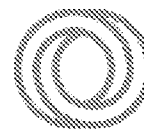
110. Within this context, applications for development should:

- 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;*
- address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
- 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;*
- allow for the efficient delivery of goods, and access by service and emergency vehicles; and*
- be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.*

111. All developments that will generate significant amounts of 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.”

2.2 *Arun District Council – Local Plan 2011-2031 (July 2018)*

2.2.1 ADC’s Local Plan, as adopted in 2018, sets out the vision for Arun up to and beyond 2031 prescribing guidance for developments, whilst encouraging sustainable development and managing future growth to meet local need.



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2.2.2 Chapter 15 of the Local Plan specifically relates to transport, which prescribes the overarching strategic objective for transport within the district to be: *"Reduce the need to travel and promote sustainable forms of transport."*

2.2.3 The following extracts of the transport policies as prescribed within the Local Plan, relevant to this application are as follows:

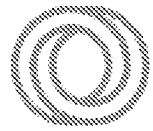
"Policy T SP1

Transport and Development

To ensure that growth in the District strengthens Arun's economic base, reduces congestion, works to tackle climate change and promotes healthy lifestyles; the Council will ensure that development: provides safe access on to the highway network; contributes to highway improvements and promotes sustainable transport, including the use of low emission fuels, public transport improvements and the cycle, pedestrian and bridleway network.

The Council will support transport and development which:

- a. Is designed to reduce the need to travel by car by identifying opportunities to improve access to public transport services and passenger transport services whilst making provision for safe access to the highway network through improvements to the existing road network and the promotion of vehicles which use low-carbon energy;*
- b. Is incorporated into the District's green infrastructure network and gives priority to pedestrian and cycle movements;*
- c. Protects committed and indicative lines of major road schemes from development and, where applicable, contributes towards new road schemes which improve north-south links between Bognor Regis and Littlehampton and the A27, to ensure that they are delivered in line with strategic growth in the District;*
- d. Incorporates appropriate levels of parking in line with West Sussex County Council guidance on parking provision and the forthcoming Arun Design Guide taking into consideration the impact of development upon on-street parking and;*
- e. Is supported by an effective and deliverable Transport Assessment which demonstrates that the transport effects of development on the local and strategic road network can be satisfactorily mitigated and a Travel Plan, which is effective and deliverable, and;*



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f. Explains how the development has been designed to:

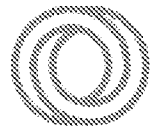
- i. accommodate the efficient delivery of goods and supplies;*
- ii. give priority to pedestrian and cycle movements and have access to high quality public transport facilities;*
- iii. create safe and secure layouts for traffic, cyclists and pedestrians whilst avoiding street clutter;*
- iv. incorporate facilities for charging electric and plug-in hybrid vehicles (where charging facilities are to be omitted from the development, evidence of market demand and viability must be provided); and*
- v. consider the needs of people with disabilities by all modes of transport.*

“Policy T DM1

Proposals for all new development must:

- a. Be located within easy access of established public transport service(s), existing pedestrian and cycle networks, the committed and aspirational cycle networks and the green infrastructure network which links the development with key destinations including places of work, education, leisure and town centres;*
- b. Where applicable, contribute to the extension of public transport services to serve the development and community transport services to ensure that a wide range of transport services are available to all residents;*
- c. Make provision for cycling and pedestrian facilities to meet the County Council Parking Standards, including cycle storage, convenient and secure cycle parking in association with retail and educational uses and sufficient secure parking and changing/showering facilities at places of work”;*

2.2.4 Parking provision and standards are set out in the Parking Standards Supplementary Planning Document (SPD) (ADC, January 2020); these are discussed in greater detail at **Section 4.0.**



2.3 Arun District Council – ‘Made’ Neighbourhood Plans

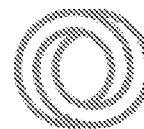
2.3.1 The site forms part of the ‘Made’ Neighbourhood Development Plan housing site, within the ‘Built-up Area Boundary’ of Angmering. The site is titled Bramley Green South (Mayflower Way) in the Angmering Neighbourhood Plan. As such, the development site forms part of the allocated site ‘HA1 Bramley South Green’ in the ADC Local Plan, with details extracted as follows:

“HA1: Bramley Green South (Mayflower Way)

Development at the site must provide at least 66 dwellings; associated open space; allotments; and screening to protect the outlook and minimise noise and disturbance for occupiers. Where possible, the proposal should seek to provide a safe route to the centre of the village and local school.”

The risks from any potential contamination on these sites must be fully investigated in line with Environment Agency recommendations.”

2.3.2 It should be noted that the ‘HA1: Bramley Green South’ site allocation as detailed above includes an additional plot of land known as the ‘Land North of Mayflower Way’ that has planning permission for the erection of 24 dwellings with access served from Mayflower Way (planning reference A/46/19/PL).



3.0 EXISTING CONDITIONS

3.1 *General*

3.1.1 The site is located on the western side of Roundstone Lane, approximately 220m to the north of the roundabout of the A259 Roundstone Bypass Road and Roundstone Lane (Junction 10 of the A259).

3.1.2 The site presently comprises of a horticultural nursery.

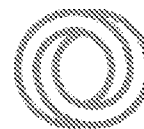
3.2 *Local Highway Network*

3.2.1 Roundstone Lane, which the site is and would continue to be served from, is a local distributor road connecting the residential area of Angmering (which is expanding as detailed in **Section 3.5**) with the A259 to the south of the site. Through pre-application correspondence with WSCC it is understood that a 20mph speed limit is to be implemented on Roundstone Lane as part of the development known as Creswell Park to the north of the site, however, at the time of writing no information relating to the change in speed limit can be found in the public domain.

3.2.2 Roundstone Lane adjacent to the site is circa 6.7m in width and provides connection to the roundabout of Bramley Way, Roundstone Lane and Hornbeam Avenue to the north, and to the roundabout of the A259 Roundstone Bypass Road and Roundstone Lane to the south.

3.2.3 The roundabout of the A259 Roundstone Bypass Road and Roundstone Lane to the south (Junction 10 of the A259) is presently undergoing improvement works as part of the works along the A259 corridor to increase capacity and reduce congestion, as well to better cater for the movement of pedestrians and cyclists. A plan of the proposed works which are presently being constructed is presented in **Appendix C**. As can be seen, the A259 will be widened to accommodate two 3.65m westbound and eastbound lanes, will be provided with a 3.0m cycleway adjacent to the westbound carriageway, and will be provided with improved pedestrian and cycle crossing facilities.

3.2.4 The A259 provides direct and convenient access to Littlehampton to the west, and further afield to Bognor Regis and Littlehampton. To the east the A259 connects to the A280 which in turn connects to the A27, which is part of the strategic road network connecting towns and cities along the south coast between Southampton and Eastbourne. The site is therefore well placed with respect to the local highway network.



3.3 Existing Traffic Conditions

3.3.1 In normal circumstances, in order to assess the impact of the proposed development in traffic terms, it would be proposed to undertake traffic surveys to establish the baseline traffic flows on the local highway network prior to carrying out any necessary junction capacity analysis. However, due to the change in travel behaviour owing to the Covid-19 pandemic, conducting surveys would not yield reliable or representative results.

3.3.2 In the absence of being able to conduct suitable surveys, it has been agreed through pre-application scoping that Automatic Traffic Count (ATC) data which WSCC hold from 2019 for Roundstone Lane can be utilised. The ATC survey was undertaken on Roundstone Lane to the North of the 'Quiet Waters' (reference A/132/17/OUT) access. **Table 3.1** presents the results of the 85th percentile vehicle speeds for Roundstone Lane. The full data as supplied by WSCC can be found in **Appendix D**.

Table 3.1: Roundstone Lane, 85th Percentile Vehicle Speeds (2019)

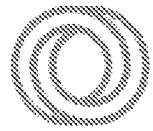
85 th Percentile Vehicle Speed	
Northbound	Southbound
33.9 mph	34.3 mph

3.3.3 It should be noted that if a 20mph speed limit is to be implemented on Roundstone Lane, it is considered that the 85th percentile vehicle speeds as presented in **Table 3.1** would be notably reduced.

3.4 Highway Safety Review

3.4.1 Road Traffic Collision (RTC) data has been obtained from Sussex Police for Roundstone Lane, circa 200m to the north and south of the site's access. The RTC data covers the period from 1st December 2015 to the 30th November 2020 (which was the most recent data at the time of request). The full data as provided by Sussex Police can be found in **Appendix E**. In total only two RTCs have been recorded in the vicinity of the site, summarised as follows:

- Dispute between a car driver and a motorcyclist results in the car driver intentionally colliding with the motorcyclist before taking the motorcyclist's keys and fleeing the scene. The incident occurred just north of the A259 Roundstone bypass.
- Van overlook a cyclist, resulting in a nearside collision. The incident occurred at the junction of Bramley Way with Roundstone Lane.



3.4.2 In summary, the RTCs that have been recorded in proximity to the site are as a result of human error and misjudgement. It is therefore not considered that there is an inherent safety concern on the local highways which would need to be addressed as part of this proposal.

3.5 Committed Developments

3.5.1 In the vicinity of the site there are a number of committed developments, as listed below. As part of these permitted developments improvements have been secured and/or implemented including improvements to public transport facilities as well as the local footway and cycleway network, as discussed in the following sections.

- Creswell Park (A/144/15/PL) – 246 dwellings;
- Quiet Waters (A/132/17/OUT) – 30 dwellings;
- Land north of Mayflower Way (A/46/19/PL) – 24 dwellings;
- Land south of Mayflower Way (A/219/17/PL) – 12 (social) dwellings;
- Pound Place (A/51/18/PL) – Creation of 64 bed care home;
- Manor Nursery (A/51/14/OUT) – 32 dwellings;
- Land South of Water Lane (A/99/17) – Angmering North Strategic Development, 175 dwellings;
- Land North of Water Lane (A/40/18) – Angmering North Strategic Development, 325 dwellings and 6,000 sqm of commercial land use; and
- Dappers Lane (A/76/20) – Angmering North Strategic Development, 84 dwellings.

3.6 Sustainable Accessibility

3.6.1 Sustainable accessibility is one of the key themes of the NPPF and an important factor in the determination of planning applications.

3.6.2 Within the National Travel Survey (2019) it has been identified that 31 minutes is the average length of a commuting trip in England. Of all journey to work trips, 39% are made by non-car/van modes of transport, with walking making up 12% and local buses making up 8% of trips.

3.6.3 At an average walking speed of three mph (80m per minute), and a novice cycling speed of 10mph, walking and cycling commuting trips can be made within 1.5 miles (2.5km) for walking and five miles (8km) for cycling.

3.6.4 The site has therefore been assessed in terms of local walking and cycling routes, as well as public transport access, to local amenities and facilities. In this respect, refer to **Figure 2** and

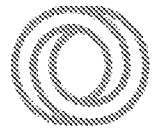


Figure 3 which highlight the proximity of the site to nodes of public transport, together with proximity to local facilities, and local cycle routes respectively.

3.7 Local Facilities and Amenities

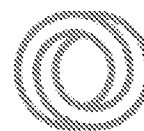
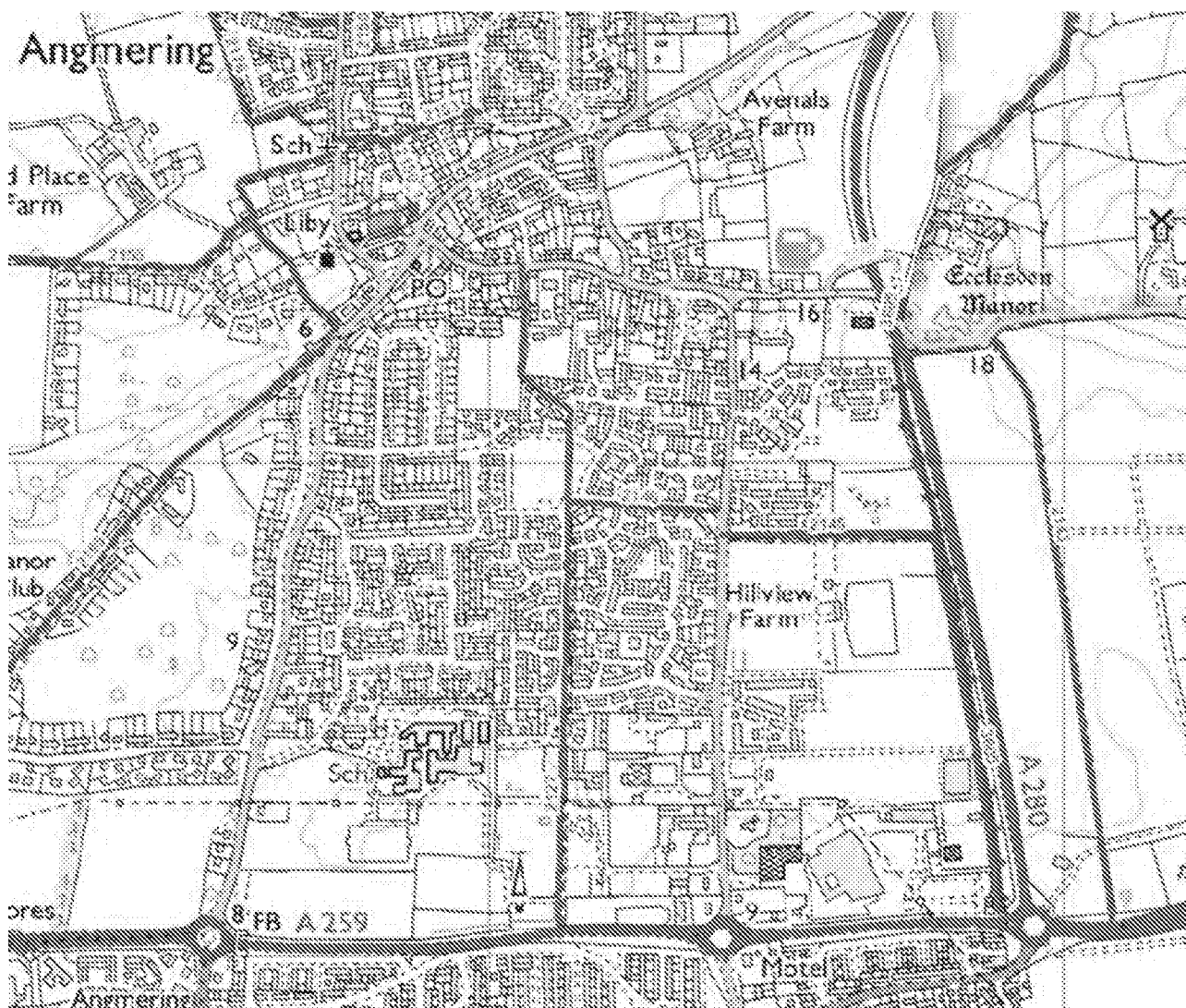
3.7.1 The site is well located for access to numerous key local facilities and amenities. A summary of the key facilities in proximity to the site, together with an approximate walking and cycling distance is presented in **Table 3.2**, whilst **Figures 2** and **3** illustrate their location relative to the site.

Table 3.1: Local Amenities and Facilities

Amenities and Facilities	Distance	Walking Time
The Roundstone (Pub)	270m	4 minutes
Costcutter	400m	5 minutes
Worthing Rugby and Football Club	500m	6 minutes
Skate Park	630m	8 minutes
Haskins Garden Centre	650m	8 minutes
The Angmering School	700m	9 minutes
Hobbycraft	700m	9 minutes
Angmering Community Centre	800m	10 minutes
The Spotted Cow (Pub)	1.0km	13 minutes
East Preston Infant & Junior School	1.2km	15 minutes
Angmering Train Station	1.3km	16 minutes
Sainsbury's	1.5km	19 minutes
Angmering Medical Centre	1.5km	19 minutes
Angmering Village Hall	1.6km	19 minutes
Asda	1.8km	22 minutes

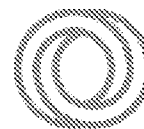
3.8 Walking and Cycling

3.8.1 From an interrogation of WSCC Public Right of Way (PRoW) iMap, there are no PRoWs that either transverse or abut the site, refer to **Extract 3.1**.

**Extract 3.1: West Sussex County Council Public Right of Way iMap**

3.8.2 Roundstone Lane is provided with a footway adjacent to at least one side of the carriageway along its whole length. To the south of the site the footway connects to the roundabout of Roundstone Lane and the A259 Roundstone Bypass, which as discussed in **Section 3.2** is currently undergoing improvements works that will include the provision of improved pedestrian and cycle facilities as presented in **Appendix C**.

3.8.3 To the north of the site the footway provision connects to the roundabout of Roundstone Lane, Hornbeam Avenue and Bramley Way. The roundabout has recently been constructed as part of the permitted development at Creswell Park, inclusive of pedestrian infrastructure such as dropped-kerb crossings with tactile paving being provided on all arms of the roundabout. To the north and east of the roundabout of Roundstone Lane, Hornbeam Avenue and Bramley Way



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Roundstone Lane is provided with at least one footway of suitable width adjacent to the carriageway; along with dropped kerbs and tactile paving as appropriate.

3.8.4 To the north of the site the permitted development at Manor Nursery (A/51/14/OUT) will see the provision of improved pedestrian facilities on High Street including the provision of a footway adjacent the carriageway, provided with dropped kerbs and tactile paving; refer to **Appendix F**. The improved footway provision will better serve Bridleway 3692 that crosses the A280, along with providing better pedestrian access to the Spotted Cow public house.

3.8.5 Further works are also proposed on High Street that will see the provision of a footway / cycleway to the development parcel at the Land South of Water Lane (A/99/17), which will provide a pedestrian / cycleway to the forthcoming residential areas to the north. The plan of the proposed works is presented in **Appendix F**, along with a plan showing the walking and cycling connections as part of the application at Land South of Water Lane, with further footway / cycleway provision in the north of Angmering being provided as part of Land North of Water Lane and Dappers Lane.

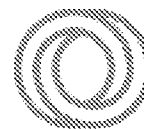
3.8.6 The site is also well placed to encourage cycling. As part of the ongoing works to improve the A259 a new 3.0m footway / cycleway is being provided to the south of the A259; refer to the proposed works presented in **Appendix C**. This footway / cycleway will also connect to the improved toucan crossing on the A259 which will provide connection to the footway / cycleway that travels in a north / south alignment from Angmering Community Centre south along Rowan Way to the A259.

3.8.7 To the west of the site, the new footway / cycleway adjacent to the A259 will connect to the existing footway / cycleway, providing connections to the suburbs of Littlehampton to the south and the centre of Angmering via Station Road.

3.8.8 In terms of routes to key local facilities and amenities in proximity to the site, these are all considered to be sufficient. For example, if walking from the site to The Angmering School, pedestrians would be able to travel northbound on Roundstone Lane, then travel eastbound on Bramley Way and then take the dedicated footway from Rowan Way to the school. The route is provided with a footway along its whole length. In a similar manner Angmering Community Centre is comparatively accessible, with Rowan Way being provided with a dedicated footway / cycleway taking individuals directly to the centre of Angmering. It is therefore not considered that any improvements to the local walking and cycling network would be required due to the development.

3.9 Public Transport

3.9.1 The nearest bus stops to the site will be the pair of bus stops committed to be implemented on Roundstone Lane as part of the Quiet Waters development, located c.100m to the south of the



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site's current access. Refer to **Appendix F** for the plan of where the proposed bus stops will be located, as approved as part of the Quiet Waters Development.

3.9.2 The pair of bus stops will serve Routes 8 and 9, operated by Compass Travel and Stagecoach respectively. The Route 8 bus service operates as a school bus service, with one service in the morning and afternoon for the school collection and drop-off respectively. Bus Route '9' operates on a weekday hourly basis providing access to Angmering railway station and Littlehampton, and destinations further afield, including Holmbush Shopping Centre in Shoreham-by-Sea and Arundel.

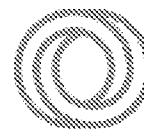
3.9.3 Most notably the site benefits from access to the Coastliner 700 route operating from Wick to Brighton, via Littlehampton and Worthing. The closest stops to the site are located on the B2140 Old Worthing Road, approximately a 650m (eight-minute) walk to the south of the site, with a day-time service approximately every 10 minutes.

3.9.4 Within the centre of Littlehampton, the 'central' (red) route of the Coastliner 700 service can be accessed, connecting Littlehampton to Chichester via Bognor Regis, with a service approximately every 20 minutes. From Bognor Regis the western extent of the Coastliner route can be accessed, connecting Bognor Regis to Portsmouth with a service approximately every 20 minutes.

3.9.5 The bus service timetables and maps are presented in **Appendix G**.

3.9.6 The closest railway station to the site is Angmering, located a 1.2km (15-minute) walk to the south west of the site. The railway station can also be accessed via bus Route 9. Angmering railway station is served by Great Western Railway, Southern and Thameslink services with up to seven services an hour off-peak (and during Covid-19 restrictions) to destinations between and including Portsmouth Harbour, Brighton (via Worthing), Littlehampton and London Victoria. Refer to **Appendix G** for the service timetables and network maps.

3.9.7 In summary the site is well placed to encourage trips to be undertaken on-foot, by-bicycle and by public transport modes.



4.0 DEVELOPMENT PROPOSALS

4.1 *Proposed Development*

4.1.1 The proposed development is for the provision of 40 dwellings, provided from a relocated site access on Roundstone Lane. The proposed site plan is presented in **Appendix A**.

4.2 *Site Access*

4.2.1 The site would be served from a new priority junction with Roundstone Lane, provided circa 10m to the south of the existing vehicular access. The proposed access arrangements are presented in **Drawing 20-016-001E**. The carriageway width serving the development site would be provided at 5.5m with a 1.8m wide footway provided to the north. Dropped-kerbs with tactile paving would be provided at the site access to allow pedestrians to safely cross the site access.

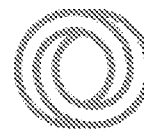
4.2.2 The speed limit on Roundstone Lane is 30mph, and as presented in **Table 3.1**, this corresponds with the recorded 85th percentile vehicle speeds of 33.9mph and 34.3mph northbound and southbound respectively. The visibility requirements as prescribed in Manual for Streets (MfS) are therefore considered to be appropriate at the site access, being applicable to recorded vehicle speeds of 37mph or less. As presented in **Drawing 20-081/001E** suitable visibility splays of 2.4m x 50m and 2.4m x 51m (as per MfS guidance for the recorded vehicle speeds) can be achieved from the site access.

4.3 *Pedestrian Access*

4.3.1 Internal to the development the 1.8m footway would provide access to the residential dwellings, and in some cases via shared surfaces. A footway would also be implemented adjacent to the southern boundary of the site to provide a direct east-west route through the development for pedestrians. At the point where pedestrians would be required to cross the access road a raised crossing with tactile paving would be provided as indicated on the proposed site plan presented in **Appendix A** and **Drawing 20-016-001E**.

4.4 *Parking Provision and Layout Review*

4.4.1 Car and cycle parking would be provided in accordance with ADC's Parking standards as prescribed within ADC's Parking Standards Supplementary Planning Document (January 2020). The car and cycle parking standards for residential land use is extracted in **Table 4.1** and **Table 4.2** respectively. The site is considered to be located within 'Zone 2' defined as '*peri-rural (large villages or small settlements close to towns e.g. Angmering, Barnham)*'.



TRANSPORT STATEMENT

Table 4.1: Arun District Council Residential Car Parking Standards

Number of Bedrooms	Expected Parking Provision - Zone 2
1	2
2	2
3	2
4+	3
Visitor	20%

Table 4.2: Arun District Council Residential Cycle Parking Standards

Dwelling Type	Cycle Parking Provision (per unit)
Houses - 1 and 2 Bedrooms	1
House - 3+ bedrooms	2
Flats - 1 and 2 bedrooms	1
Flats - 3+ Bedrooms	1

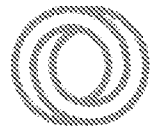
4.4.2 The schedule of accommodation together with the development's forecast parking requirement and proposed parking provision is presented in **Table 4.3**.

Table 4.3: Schedule of Accommodation, Car Parking Demand and Car Parking Provision

Schedule of Accommodation	Number of Dwellings	Parking Expectation	Parking Provision
1 bed flat	2	4	4
2 bed flat	2	4	4
2 bed house	8	16	16
3 bed house	16	32	32
4 bed house	12	36	35
Visitor	-	8	8
Total	40	100	99

4.4.3 As presented in **Table 4.3**, the proposal is broadly in accordance with the 'expected' parking standards requiring a total of 100 parking spaces, whereas 99 parking spaces are being provided. The forecast shortfall in parking spaces is emanating from one four-bedroom house (Plot 28).

4.4.4 When calculating the car parking provision any instance where parking has been provided three spaces in a row, for example where a garage or car port has been provided with two tandem driveway spaces in front, the garage or car port has been excluded from the parking calculation as it is unlikely that these spaces would be used for regular parking due to the inconvenient nature of

TRANSPORT STATEMENT

access. Any garages that have been counted towards the overall parking provision have been counted as contribution 0.5 of parking space in accordance with the parking standards.

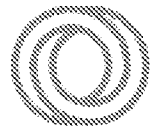
4.4.5 The proposed provision of car parking is considered to broadly accord with the 'expected' parking provision and is therefore considered to be acceptable. It is largely considered that the provision of one four-bedroom house being provided with two parking spaces is expected to meet the daily requirement for parking. It should be noted that Plot 28 is being provided with three parking spaces, however it is due to the proposed layout one space has been discounted from contributing to 'regular' parking. Any ad-hoc parking demand would be able to be accommodated in the visitor parking spaces distributed around the development.

4.4.6 With regards to Electric Vehicle (EV) charging facilities, ADC prescribe '*all new houses with a driveway and garage will be required to provide active EV charging points*'. As per the EV requirement all of the houses provided with a driveway and garage are being provided with electric vehicle charging infrastructure. In addition, all of the plots provided with a car port are also being provided with EV charging facilities, in addition to Plot 13. The proposed EV charging provision is presented in **Appendix H**. In total 24 (60%) dwellings are being provided with EV charging facilities.

4.4.7 It was set out in the pre-application advice that there should be an even distribution of parking around the development, noting a lack of visitor parking in the south west corner of the development. Owing to the need to provide driveway parking (and thereby facilitate the requirement for EV charging facilities) it has not been reasonably possible to locate visitor parking within the south western corner of the site. It is, however, considered that visitor parking has been evenly distributed around the site, with a visitor parking space being located within a 100m walk of all of the proposed dwellings. It is commonly accepted that a 200m walk is a reasonable distance that residents and visitors could be expected to park away from the dwelling they are visiting; therefore, the provision of visitors being able to park within 100m of their destination is considered to be acceptable.

4.4.8 To ensure that all of the proposed parking spaces are accessible, swept path analysis of the more onerous parking spaces has been conducted and demonstrates that all of the parking spaces are accessible; refer **Drawing 20-016/04B**.

4.4.9 All of the proposed houses are being provided with a secure shed within the rear garden which would provide secure and safe cycle parking. The four proposed flats are being provided with a cycle store to the rear of the flats capable of accommodating a minimum of four cycles. It is therefore considered that sufficient cycle parking is being provided on-site.



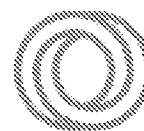
4.5 *Emergency Service and Refuse Vehicle Access*

4.5.1 **Drawing 20-016/002D** shows the suitable accessibility of a refuse vehicle navigating the development. In accordance with Buildings Regulations Approved Document H, residents are not required to drag their bins more than 30m and refuse vehicles are able to navigate to within 25m of bin stores or bin collection points. The accessibility within the site for refuse collection is therefore considered to be acceptable.

4.5.2 **Drawing 20-016/003B** shows suitable accessibility for a fire tender in accordance with Building Regulations Approved Document B. This requires fire tenders to be able to access within 45m of the platform of all dwellings.

4.6 *Stage 1 Road Safety Audit*

4.6.1 A Stage 1 Road Safety Audit has been undertaken of the proposed site access and internal highway arrangements. The Safety Audit together with Designer's Response is presented in **Appendix I**.



5.0 DEVELOPMENT TRAFFIC GENERATION, DISTRIBUTION AND ASSIGNMENT

5.1 *Traffic Generation*

5.1.1 In order to determine the traffic generation arising from the proposed development, vehicle trip rates appropriate for the proposed residential use have been obtained from the TRICS database. For this assessment trip rates have been obtained from surveys of comparable sites made up of private houses across the whole development. It is considered that utilisation of trip rates from sites wholly comprising private houses results in a robust assessment, given the generally higher trip rates of such dwellings when compared to social / local authority houses and to flats. The vehicle trip rates were presented in the Highways Pre-Application Scoping Note, which have been deemed to be acceptable by WSCC; refer to **Appendix B**.

5.1.2 **Table 5.1** summarises the trip rates obtained from TRICS together with the traffic generation for 40 dwellings. The full TRICS output reports inclusive of details for each site surveyed are contained in **Appendix J**.

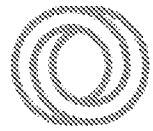
Table 5.1: Vehicle Trip Rates and Traffic Generation for 40 Private Dwellings

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Vehicle Trip Rate per Dwelling	0.12	0.41	0.52	0.44	0.18	0.62
Traffic Generation - 40 dwellings	5	16	21	18	7	25

5.2 *Baseline Traffic Data*

5.2.1 Owing to the Covid-19 pandemic drastically changing travel behaviour, it has not been suitable to conduct traffic surveys to obtain 'normal' traffic flows on the local highway network. In the absence of being able to conduct suitable traffic surveys, data from nearby developments has been utilised which also allows for consistency with their Transport Assessment / Statements.

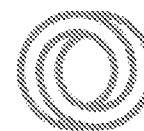
5.2.2 To the north of the site, the Transport Assessment for the development known as Creswell Park (Reference A/144/15/PL) has presented an assessment for a 2023 year of opening taking into account six local committed developments (Manor Nurseries, Roundstone Lane, Pound Nursery, Pound Place, Worthing Rugby Club and 'site 101'), as well as applying TEMPro growth factors to account for further traffic growth locally. In the absence of being able to suitably undertake new traffic surveys, and owing to the robust analysis presented in the Creswell Park Transport Assessment, it is proposed that this traffic data is used. This approach is also considered suitable as the aforementioned committed developments are in the process of being built and occupied, and it cannot reasonably be quantified how many of the permitted dwellings are generating vehicle trips.



5.3 Traffic Distribution and Assignment

5.3.1 Traffic resulting from the proposed development has been distributed and assigned onto the local highway network based upon travel to work Census data. The specific dataset *WU03EW – Location of Usual Residence and Place of Work by Method Travel* has been used whereby the location of usual residence is the middle super output area that the development is located in (Arun 005), the location of work has been defined as Arun, and the method of travel to work has been set as 'driving a car or van'. The results have then been input into a journey planner for peak times (a typical weekday morning at 08:00) to determine the route car drivers would take from the development to their destination. This has demonstrated that 8% of development traffic would route to / from the north and 92% would route to / from the south. This distribution is considered to be determined by the proximity of the A259 which being part of the strategic road network would facilitate access across the borough.

5.3.2 The traffic distribution and assignment for the proposal is presented in **Figures 4 and 5** respectively.



6.0 TRAFFIC IMPACT ASSESSMENT

6.1 *Pre-Application Scoping*

6.1.1 As detailed within the pre-application scoping (refer to **Appendix B**), it was agreed with WSCC that owing to the low level of vehicle trips the development would generate, combined with the fact that the junctions in proximity to the development are operating with significant spare capacity, and subject to a financial contribution towards these wider highways works, that no wider junction modelling would be required. It has however been recommended that the priority junction of the site access with Roundstone Lane is modelled, as set out in this section.

6.2 *Junction Modelling*

6.2.1 The capacity of the of the priority junction of the site access and Roundstone Lane has been assessed using the industry standard assessment software PICADY 9.

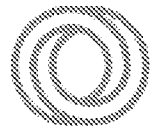
6.2.2 In assessing the capacity of the priority junction of the site access and Roundstone Lane, AM and PM peak scenarios have been assessed using the Creswell Park's 2023 with Committed Development and (Creswell Park) development scenario; refer to **Figure 6**. The 2023 traffic flows with the (Former Shrublands Nursery) development scenario is presented in **Figure 7**.

6.2.3 As presented in **Table 6.1**, the site access is forecast to operate with significant spare capacity for an assessed 2023 year of opening. The full results of the junction capacity assessment is presented in **Appendix K**.

Table 6.1: Priority Junction of Site access with Roundstone Lane

	AM Peak			PM Peak		
	Queue (Vehicles)	RFC	Delay (Seconds)	Queue (Vehicles)	RFC	Delay (Seconds)
	2023 + Development					
Site Access	0	0.05	11	0	0.02	10
Roundstone Lane	0	0.00	0	0	0.00	5

6.2.4 Given the results of the above it is considered that no capacity analysis is required for the year 2025, which would be typical being the five-years following the planning application. The proposed development will have a negligible impact on the local highway network, and that off-site capacity improvements are not required.



7.0 TRAVEL PLAN STATEMENT

7.1 *General*

7.1.1 This Travel Plan Statement has been prepared in accordance with WSCC Guidance for Travel Plan Statements and following the pre-application advice received (refer to **Appendix B**).

7.1.2 Travel Plan Statements are intended for smaller developments and provide a focus on providing sustainable travel options; however, unlike full Travel Plans, do not require modal shift targets to be met or monitoring or enforcement to be undertaken. Targets should however be set as a method to encourage sustainable modes of transport and reduce car usage.

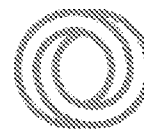
7.2 *Travel Plan Statement Targets*

7.2.1 The targets of this Travel Plan Statement are (1) to provide residents with a choice of travel modes in order to promote sustainable forms of transport, and (2) to reduce the number of vehicle trips to the site, with a particular focus on reducing the number of Single Occupancy Vehicle (SOV) trips.

7.3 *Measures*

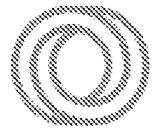
7.3.1 In order to achieve the Travel Plan Statements targets a series of hard (physical) and soft (promotional) measures would be implemented as part of the proposals, and would be in place from initial occupation. The measures to be implemented are detailed below:

- An appropriate provision of car parking will be provided, as per ADC's car parking standards. Providing unfettered car parking can lead to high car ownership by residents.
- All properties will be provided with covered and secure cycle parking in accordance with ADC's cycle parking standards.
- The design of the development has taken into account the needs of pedestrians, providing footways and a footpath that connect to Roundstone Lane and the shared surfaces to be provided within the development. All of the development is therefore suitably accessible by foot.
- A Travel Plan Coordinator (TPC) would be appointed prior to occupation of the development, whose responsibility it would be to implement the 'soft' measures of this Travel Plan Statement, and to act as a point of contact for any travel related queries to be addressed.



TRANSPORT STATEMENT

- Upon occupation, each dwelling will be provided with a Travel Information Pack. The pack would contain a range of information relating to travel from the development. The final content of the pack will depend upon up-to-date information at the time of issue, but the pack is likely to include:
 - Contact details for the TPC.
 - Local facilities map, including the nearest bus stops, train stations, and community facilities.
 - Pedestrian, cycle and public transport network maps and information, including typical journey times and routes to local facilities.
 - Information on the health benefits of walking and cycling, using websites such as www.walkit.com.
 - Full set of published timetables for bus and train services operating in and through Angmering, including contact details for operators.
 - Cost comparison details between non-car modes of travel and car travel (including parking costs).
 - Contact details of local taxi companies, used to avoid the need to own or use a private car.
 - Details of the local car clubs / car sharing schemes (such as Liftshare.com).
 - Information regarding local businesses selling bicycles and protective clothing and providing cycle maintenance services, including <https://www.westsussex.gov.uk/roads-and-travel/travel-and-public-transport/travelwise-sustainable-transport/cycle-to-work-scheme/>
 - Internet links to local authority road safety information relating to walking, cycling and vehicle speeds.
 - Details of local businesses providing home delivery services, including the benefits of using such businesses and internet shopping.
 - Details on how to apply for a Travel Voucher. A Travel Voucher up to the value of £150 would be offered to every household to be exchanged for one of the following:
 - a) a season ticket for the local bus service
 - b) a rail season ticket or network card
 - c) a contribution towards the purchase of a new bicycle and/or equipment
 - d) Bikeability training up to four members of the household (further details and course costs are available at www.westsussex.gov.uk/roadsafety)
 - e) 12 months free membership to any local Car Club (including joining fee)



8.0 SUMMARY AND CONCLUSIONS

8.1 *Overview*

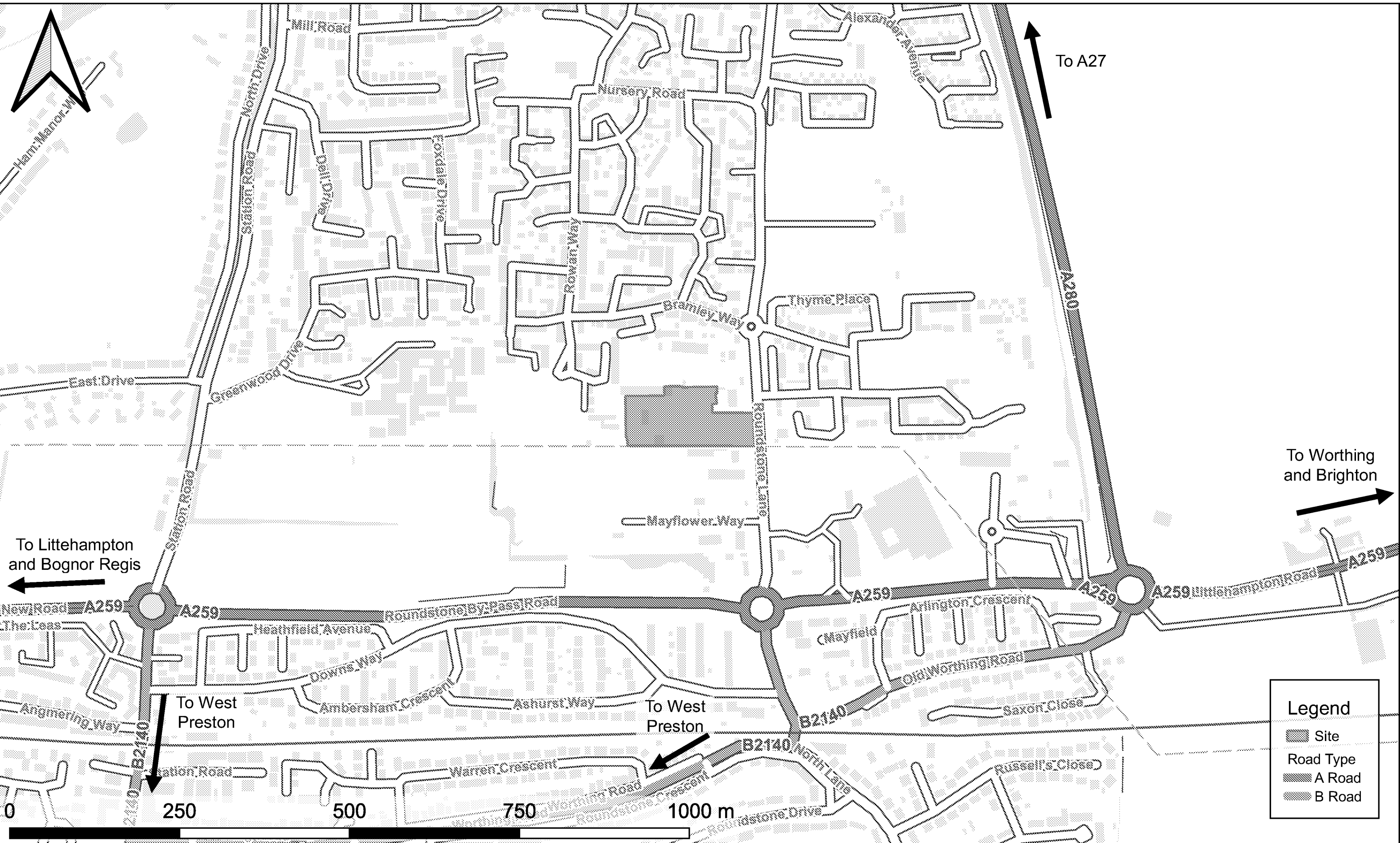
8.1.1 This Transport Statement has been prepared in support of a proposed development for the provision of 40 dwellings at the Former Shrublands Nursery, Roundstone Lane, Angmering. The development is proposed to be accessed via a relocated priority junction on Roundstone Lane.

8.1.2 The proposed development accords with national and local development policy regarding sustainable travel. A review of the local area has shown that the site is sustainably located with access to regular public transport services, and local facilities and amenities being within walking and cycling distance of the development.

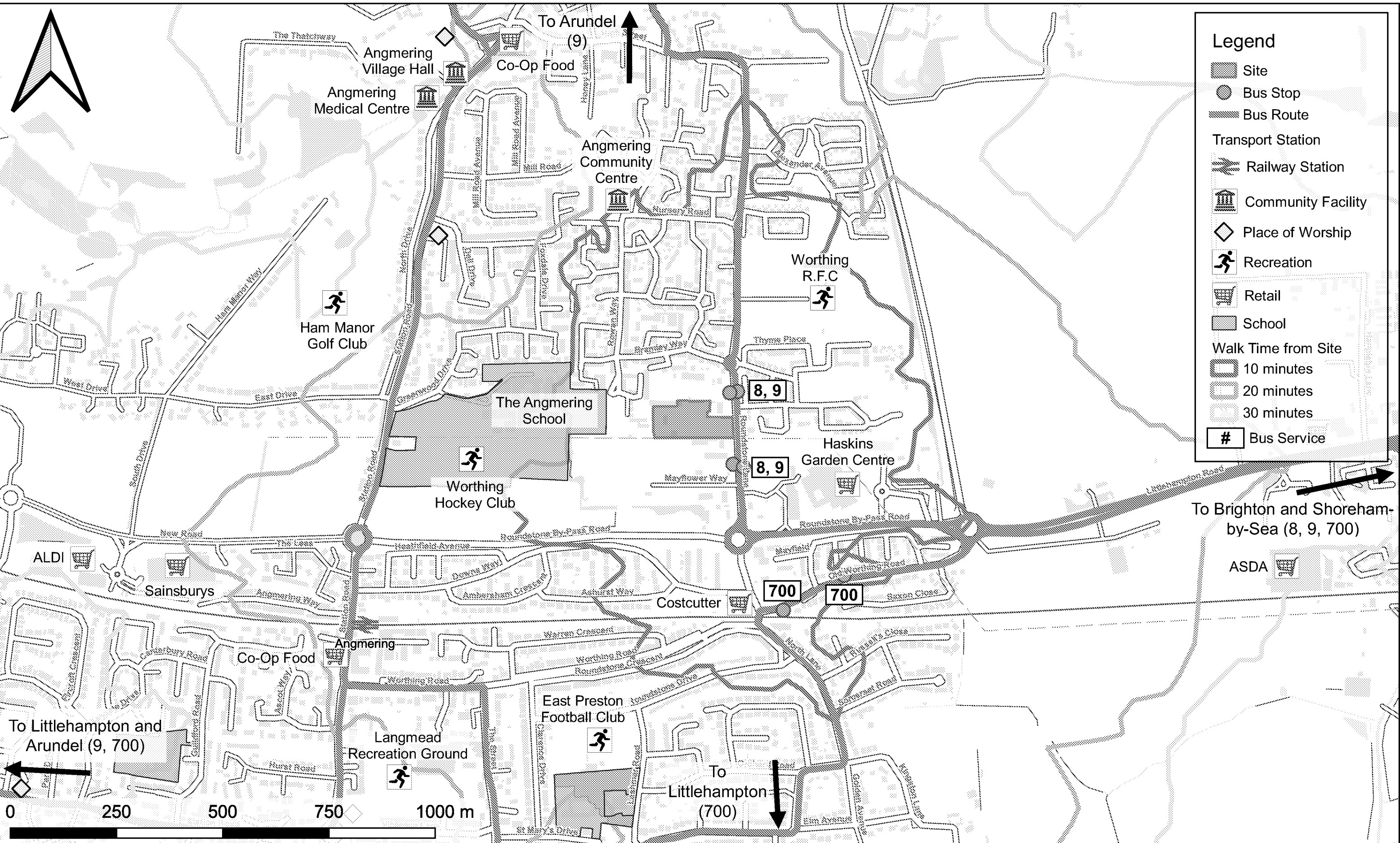
8.1.3 The proposed provision of parking, together with a review of the internal layout of the site has demonstrated that the proposal complies with the required design standard and guidance and is therefore considered to be acceptable.

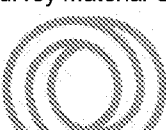
8.1.4 An assessment of the vehicle trip generation and traffic impact of the proposed development has ascertained that there will be no material impact on the local highway, and that off-site highway capacity improvements are not required. The proposal is therefore considered to be acceptable on highway grounds, as per the NPPF which prescribes that developments should only be refused on highways and transport grounds if the impact is 'severe'.

FIGURES

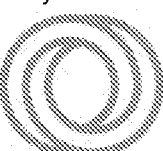


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 18-21 Morley Street London SE1 7QZ Telephone: 0207 620 2444 Fax: 0207 620 1168 E: info@odysseyconsult.co.uk Q: www.odysseyconsult.co.uk				Drawn AG	Checked ESH	Approved BM	
				Job No 20-016	Figure No FIGURE 1		Rev
Drawing Title SITE LOCATION AND LOCAL HIGHWAY NETWORK							



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				Job No 20-016	Figure No FIGURE 2	Rev	
		Drawing Title PUBLIC TRANSPORT, LOCAL AMENITIES AND WALKING ACCESSIBILITY PLAN					

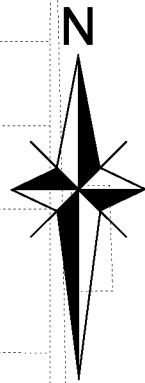


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				Job No 20-016		Figure No FIGURE 3		Rev	
Drawing Title LOCAL AMENITIES AND CYCLING ACCESSIBILITY PLAN									

DRAWINGS

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ARUN DISTRICT COUNCIL\A\64\21\PL

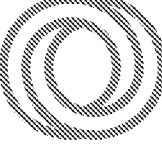


NOTES

KEY:-

- SITE BOUNDARY
- HIGHWAY BOUNDARY
- 2.4m x 51m VISIBILITY SPLAY (33.9mph MfS)
- 2.4m x 52m VISIBILITY SPLAY (34.3mph MfS)
- 2.4m x 25m VISIBILITY SPLAY (20mph MfS)
- 17m FORWARD VISIBILITY SPLAY (15mph MfS)
- 1.5m x 17m PEDESTRIAN VISIBILITY SPLAY (15mph MfS)

E	PEDESTRIAN VISIBILITY AMENDED	MS	ESH	BM	22/02/21
D	PEDESTRIAN VISIBILITY ADDED	MS	ESH	BM	12/02/21
C	SITE LAYOUT UPDATED	MS	ESH	BM	11/02/21
B	SITE LAYOUT AND COMMENTS UPDATED	MS	ESH	BM	21/01/21
A	SITE LAYOUT UPDATED	MS	ESH	BM	16/12/20
Rev	Amendments	Drm	Chk	App	Date



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Job Title

**ROUNDSTONE LANE,
ANGMERING**

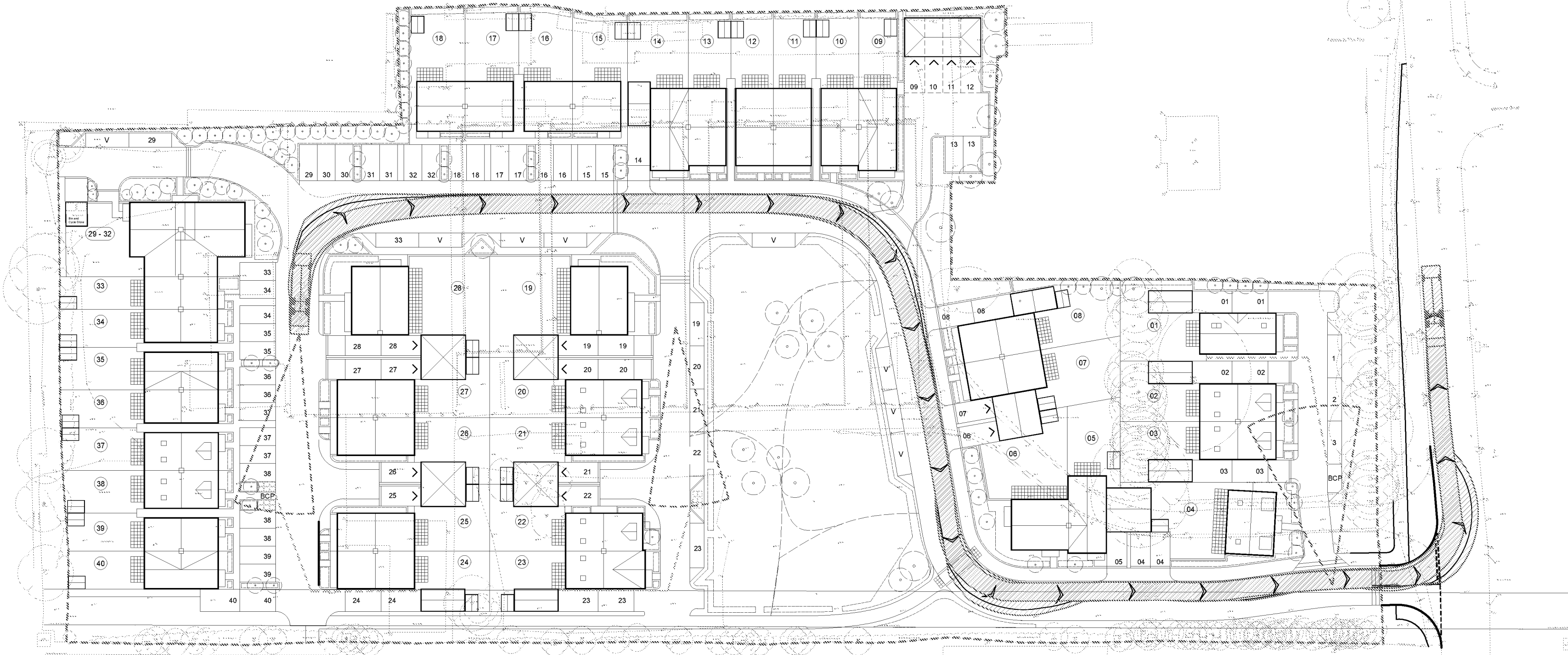
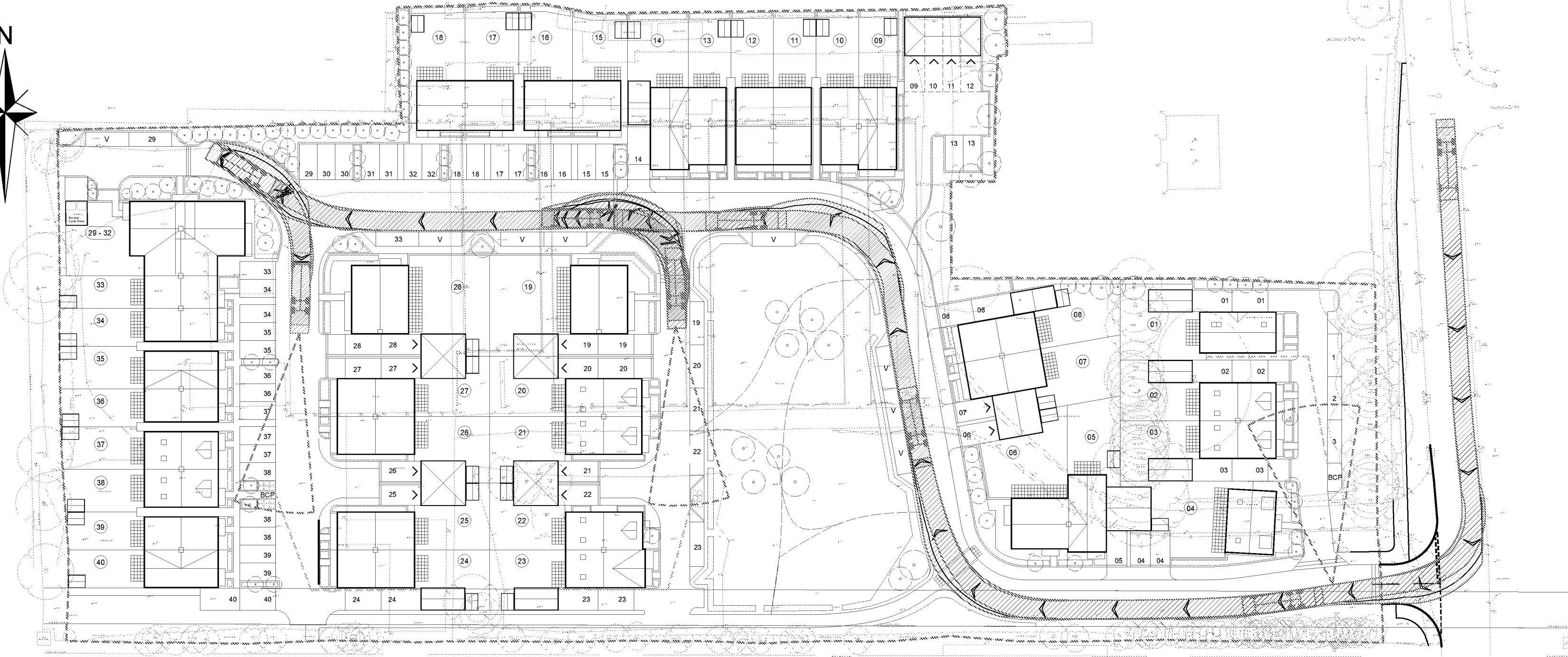
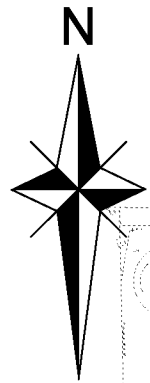
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GENERAL ARRANGEMENT

Client

SIGMA HOMES

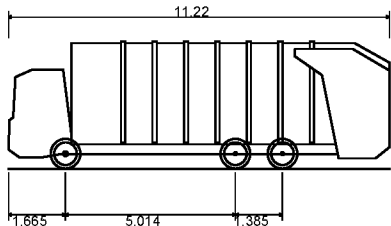
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20-016	20-016/001	E



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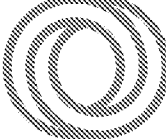
KEY:-

-  SITE BOUNDARY
-  25m OPERATIVE DRAG DISTANCE
-  30m RESIDENT DRAG DISTANCE



Phoenix 2 Duo Recycler (P2-15W with Elite 6x4 chassis)
Overall Length 11.220m
Overall Width 2.530m
Overall Body Height 3.756m
Min Body Ground Clearance 0.309m
Track Width 2.530m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 11.550m

D	SITE LAYOUT UPDATED	MS	ESHBM	12/02/21	
C	SITE LAYOUT UPDATED	MS	ESHBM	11/02/21	
B	SITE LAYOUT UPDATED	MS	ESHBM	21/01/21	
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Rev	Amendments	Drn	Chk	App	Date



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ANGMERING

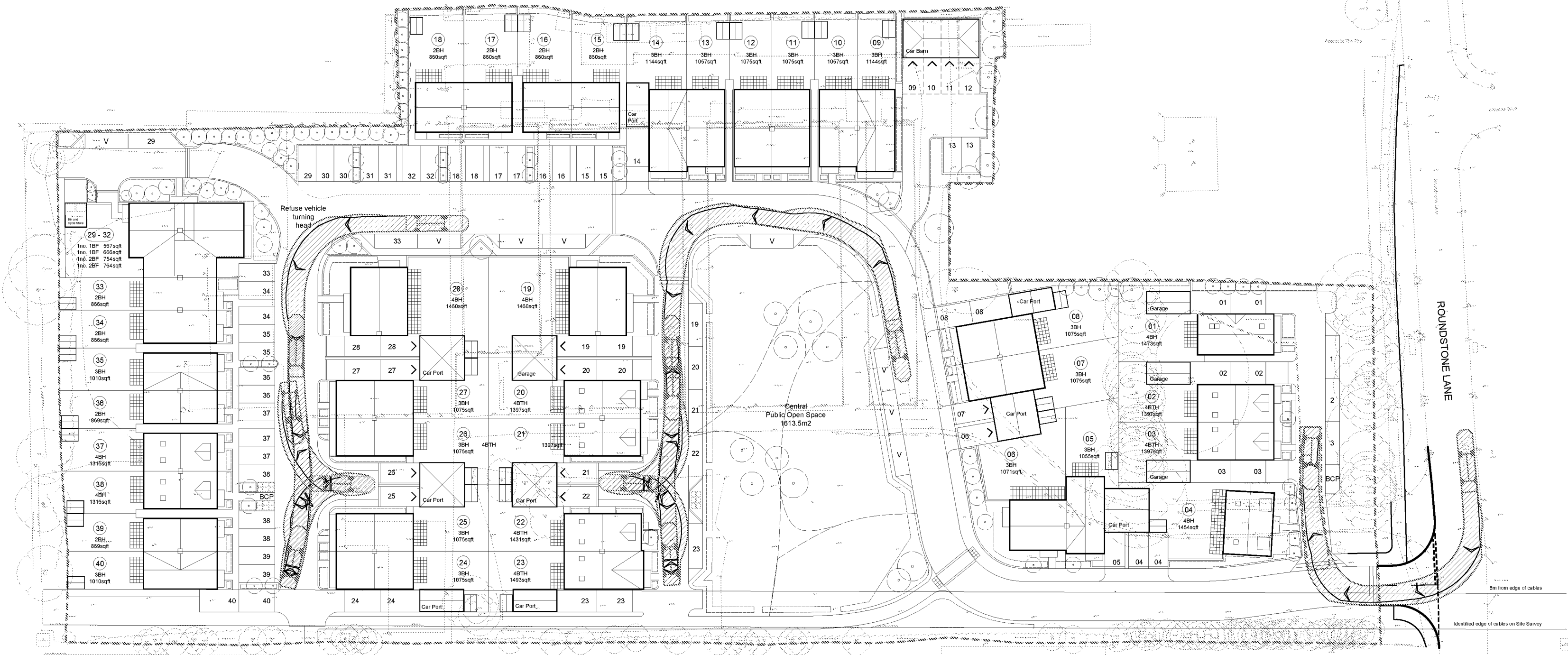
Drawing Title

REFUSE VEHICLE
SWEPT PATH ANALYSIS

Client

SIGMA HOMES

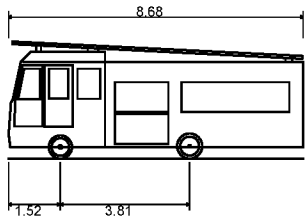
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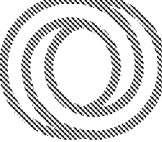
KEY:-

- SITE BOUNDARY
- 20m MANOEUVRE SPACE FROM JUNCTION
- HOSE DRAG DISTANCE (NOT EXCEEDING MAXIMUM 45m PERMISSIBLE LENGTH)



DB32 Fire Appliance
Overall Length 8.680m
Overall Width 2.180m
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

B	SITE LAYOUT UPDATED	MS	ESH	BM	12/02/21
A	SITE LAYOUT UPDATED	MS	ESH	BM	11/02/21
Rev	Amendments	Drm	Chk	App	Date



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Job Title

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ANGMERING

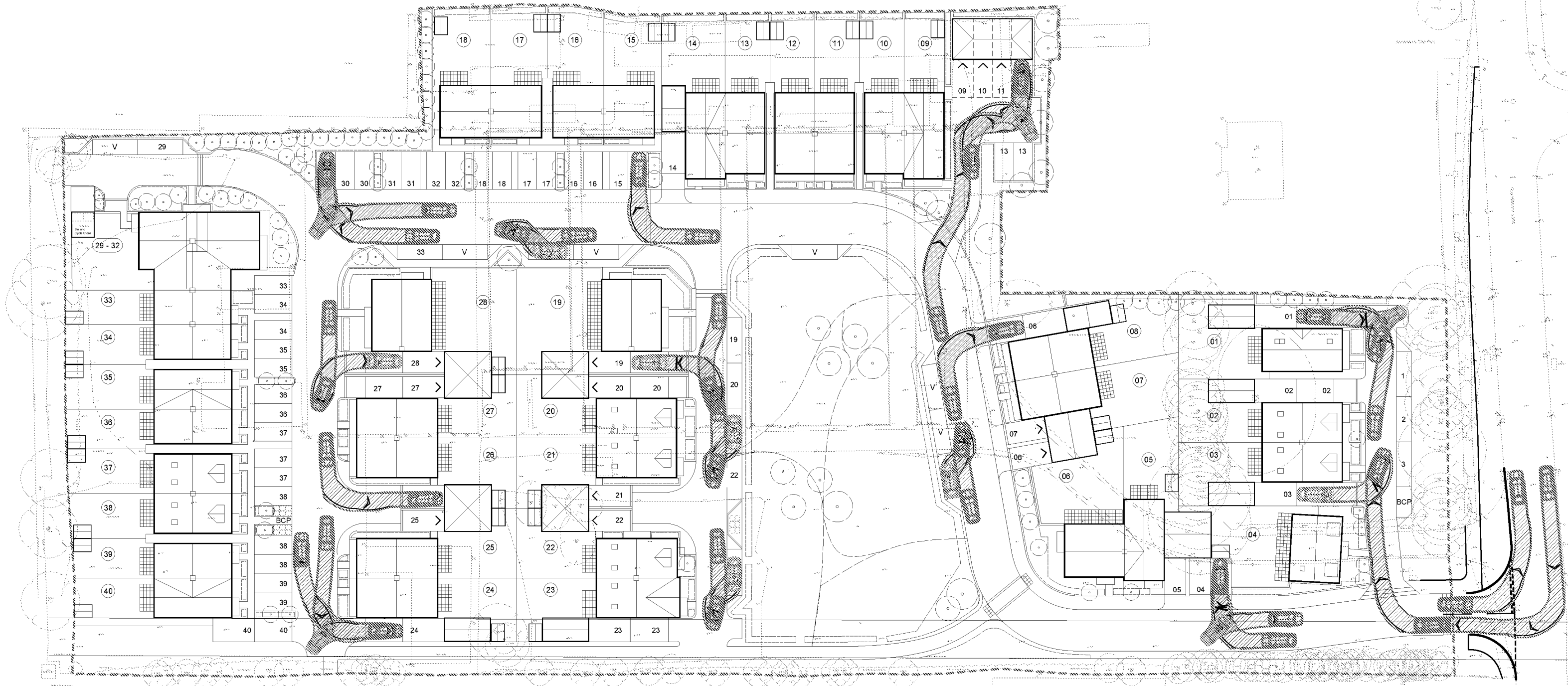
Drawing Title

FIRE TENDER
SWEPT PATH ANALYSIS

Client

SIGMA HOMES

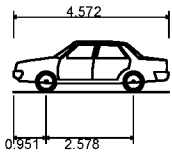
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NOTES

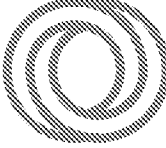
KEY:-

 SITE BOUNDARY



Skoda Octavia
Overall Length 4.572m
Overall Width 1.769m
Overall Body Height 1.488m
Min Body Ground Clearance 0.249m
Max Track Width 1.713m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 5.100m

B	SITE LAYOUT UPDATED	MS	ESH	BM	12/02/21
A	SITE LAYOUT UPDATED	MS	ESH	BM	11/02/21
Rev	Amendments	Drn	Chk	App	Date



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W: www.odysseyconsult.co.uk

Job Title

ROUNDSTONE LANE,
ANGMERING

Drawing Title

CAR PARKING
SWEPT PATH ANALYSIS

Client

SIGMA HOMES

Scale	Date	Designed
1:500 @A2	FEB 21	MS
Drawn	Checked	Approved
MS	ESH	BM
Job No	Drawing No	Rev
20-016	20-016/004	B