

Residential Travel Plan

Project: Land West of Arundel Road, Angmering

Client: Redrow Homes

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1 INTRODUCTION

1.1 Description

- 1.1.1 JNP have been appointed by Redrow Homes to prepare a Travel Plan (TP) in support of the construction of 160 dwellings, 1,393sqm of commercial/employment land use (Class E) on land to the west of Arundel Road, Angmering. The site will be served by two points of access from Arundel Road, with the north access serving the residential portion of the site and the south access connecting to the commercial/industrial land use.
- 1.1.2 An outline planning application (ref. A/122/19/OUT) with some matters reserved was submitted to Arun District Council in September 2019. The application was approved with conditions in March 2020 and a Residential Travel Plan was prepared by Croft Transport Solutions (CTS) in support of the proposals.
- 1.1.3 Subsequent to this outline consent being granted, the site has been acquired by Redrow Homes and the proposals have subsequently been approved under a reserved matters application (A/282/22/RES). The Local Highway Authority (LHA) is West Sussex County Council (WSCC).
- 1.1.4 The location of the site is shown below as Figure 1.1 and the proposed layout of the development is provided at the rear of this report.



Figure 1.1 - Site Location

1.2 Travel Plan Objectives

1.2.1 The aim of this Travel Plan is to encourage an uptake in the use of sustainable modes of transport, whilst also minimising dependency on the private car. The key objectives of this Travel Plan are as follows:



- Encourage a modal shift towards sustainable modes through implementing a package of Travel Plan measures;
- Promote the health benefits associated with sustainable travel;
- Raise awareness of the environmental impacts of car travel, such as those associated with air quality;
- Provide a safe environment within and around the development for all residents and visitors; and
- Minimise dependency on the private car, particularly for journeys which could be made using sustainable modes.

1.3 Report Structure

- 1.3.1 This Travel Plan builds on the previous Residential Travel Plan which was prepared by Croft Transport Solutions (CTS) in support of the outline application. Following this introductory section, the Travel Plan is structured as follows:
 - Section 2 Policy and Good Practice Guidance: This section summarises policy which is relevant to the Travel Plan;
 - Section 3 Baseline Conditions: This section describes the existing highway conditions in the vicinity of the site, including access by sustainable modes of transport;
 - Section 4 Consented Development Proposals: This section describes the residential development;
 - Section 5 Objectives and Targets: This section sets out the Travel Plan objectives and targets;
 - **Section 6 Travel Plan Measures:** This section describes the package of measures that will be delivered as part of the Travel Plan;
 - Section 7 Monitoring and Review: This section provides details on the Travel Plan monitoring and review strategy;
 - **Section 8 Action Plan:** This section sets out an action plan for implementing the Travel Plan and achieving its targets; and
 - **Section 9 Summary and Conclusions:** This section concludes the report and summarises its findings.



2 POLICY AND GOOD PRACTICE GUIDANCE

2.1 Introduction

2.1.1 The following policy and guidance documents have been reviewed within the course of the preparation of the Travel Plan:

National Policy and Guidance

- National Planning Policy Framework (NPPF), 2021;
- Local Transport Note 1/20 Cycle Infrastructure Design, 2020.

Local Policy and Guidance

- Arun District Local Plan 2011-2031 (2018);
- West Sussex Transport Plan 2011 2026 (2011) (LTP3);
- West Sussex County Council Guidance on Parking at New Developments (2020); and
- Arun District Council Parking Standards Supplementary Planning Document (SPD) (2020).

2.2 National Planning Policy Framework, July 2021

- 2.2.1 The Ministry of Housing, Communities and Local Government published the revised NPPF in July 2021, which replaces the previous versions of NPPF published in 2012, 2018 and 2019.
- 2.2.2 It revokes and replaces the previous system of Planning Policy Guidance Notes and Planning Policy Statements, all of which are superseded by NPPF except the Waste Policies. The NPPF should be consulted and considered when local plans are drawn up and it is also an important part of the planning decision making process. The revised versions of NPPF implement around 85 reforms, which were announced within the Housing White Paper and consultation regarding planning for the right homes in the right places.
- 2.2.3 The July 2021 revisions to the NPPF place a greater emphasis on beauty, place-making, the environment, sustainable development and underlines the importance of local design codes. The revised Framework implores Local Authorities to provide maximum clarity about design expectations at an early stage, including through the preparation of design guides or codes. This reflects the principles set out within the National Design Guide and National Model Design Code.
- 2.2.4 National Planning Policy reflects and responds to growing concerns over environmental issues and a greater public awareness of the problems associated with unrestrained car use. Current policies place a greater emphasis on increasing accessibility by more sustainable modes, such as walking, cycling and public transport. The NPPF also states that sustainable developments are more favourable, and this approach should be reflected by local planning authorities in their local plans and the decision-making process.
- 2.2.5 Paragraph 104 of the NPPF states that transport should be considered from the earliest stages of plan making so that:
 - 'The potential impacts of development on transport networks can be addressed;



- Opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;
- Opportunities to promote walking, cycling and public transport use are identified and pursued;
- The environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and
- Patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high quality places.'
- 2.2.6 Paragraph 105 goes on to state that 'Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help reduce congestion and emissions and improve air quality and public health'.
- 2.2.7 Paragraph 110 of NPPF provides information on the transport considerations that should be given in determining applications for development. These are as follows:
 - 'Appropriate opportunities to promote sustainable transport modes can be or have been – taken up, given the development type and its location;
 - Safe and suitable access to the site can be achieved for all users;
 - 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; 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.'
- 2.2.8 Paragraph 111 states that '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.'
- 2.2.9 Paragraph 113 states that all developments which will generate significant amounts of movement must be supported by a Travel Plan and a Transport Statement / Transport Assessment so that the cumulative impacts of the proposal can be assessed.
- 2.3 Local Transport Note 1/20 Cycle Infrastructure Design, July 2020
- 2.3.1 The Department for Transport (DfT) Published Local Transport Note 1/20 (LTN1/20) on cycle infrastructure design in July 2020. The Note provides national guidance for local authorities and designers to help cycling become a form of mass transport in more areas than at present.
- 2.3.2 LTN1/20 sets out five core design principles which present the essential requirements to achieve more people travelling by cycle or on foot. The key principles state that networks and routes should be:



- Coherent planned and designed to allow people to reach their day-to-day destinations easily;
- Safe The cycle infrastructure must be safe and also perceived as safe by those using it;
- Direct Cycle routes should preferably be more direct than the routes available for motor vehicles;
- Comfortable The route should have good quality, well-maintained, smooth surfaces; and
- Attractive cycle infrastructure should help deliver public spaces that are well
 designed and finished in attractive materials. They should be places which people
 want to spend time using.

2.4 Arun District Local Plan 2011-2031 (2018)

- 2.4.1 The Arun District Local Plan 2011 2031 was adopted on the 18th of July 2018, with a stated central purpose:
 - "...to encourage sustainable development and manage future growth whilst ensuring that change across the District is appropriate to meet local need."
- 2.4.2 Where transport is concerned, the strategic objectives 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; and
 - 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."
- 2.4.3 Policy T SP1, Transport and Development, is stated as follows;
 - "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;
 - f) Explains how the development has been designed to:
 - i. Accommodate the efficient delivery of goods and supplies;
 - 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; and
 - g) Provides improved crossing points over the railway line to improve transport links between the coast and the A27, in particular at Ford."
- 2.4.4 Policy T DM1, Sustainable Travel and Public Rights of Way, is stated as follows;
 - "New development must ensure ease of movement, prioritising safe pedestrian and cycle access to the green infrastructure network and access to public transport and community transport services where a need has been identified. Access to alternative modes of transport including public transport services, the public right of



way and cycle networks, must be available and accessible to all members of the community.

- 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;
 - 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; and
 - d) Contribute towards the provision of a joined up cycle network and Public Rights of Way network, taking into account the aspirational cycle network, which provides convenient, accessible, safe, comfortable and attractive routes for pedestrians and cyclists and; where appropriate, horse riders, both within the development and in the form of links between the development and;
 - i. Places of work, education, leisure and food retail;
 - ii. The South Downs National Park;
 - iii. Along the coast particularly between Bognor Regis and Littlehampton;
 - iv. Along the coast to Chichester;
 - v. Bognor Regis to Arundel; and
 - vi. Littlehampton to Goring."
- 2.4.5 The plan makes specific reference to the village of Angmering in the Visions and Objectives section:
 - Visions and Objectives
 - Barnham, Eastergate, Westergate and Angmering will develop their roles as well-connected large villages serving inland Arun; providing an enhanced range of shops, employment, housing, community facilities and local services, supported by improved transport links.
- 2.4.6 The plan discusses site specific developments occurring within Angmering, however none of these are relevant to this site.



2.5 West Sussex Transport Plan 2011 – 2026 (2011) (LTP3)

- 2.5.1 West Sussex's 3rd Local Transport Plan (LTP3) was adopted in 2011 and covers the period through to 2026.
- 2.5.2 It provides a framework for guide highways and infrastructure investment and the transport infrastructure requirements associated with future development across the County.
- 2.5.3 The four guiding strategies for LTP3 are stated as:
 - 1. "Promoting economic growth;
 - 2. Tackling climate change;
 - 3. Providing access to services, employment and housing; and
 - 4. Improving safety, security and health."

2.5.4 The overall vision of LTP3 is to:

- "... achieve efficient, safe and less congested transport networks, which contribute towards:
 - a more competitive and thriving economy;
 - reductions in emissions;
 - improved access to services;
 - jobs and housing, especially for those in need; and
 - improved quality of life for all those who live and work within our beautiful and unique County."
- 2.5.5 The key transport issues within Arun district specifically as identified within LTP3 are:
 - "Access by road and rail, and local perception of parking provision and cost, deters visitors and businesses from Littlehampton and Bognor Regis, inhibiting aims for regeneration of the District;
 - Road congestion during peak periods affects many parts of the highway network, especially the A27 at Arundel, A29 and A259, disrupting journey times and causing poor air quality. The lack of safe crossing points on these routes also causes community severance;
 - Large numbers of access links (estate roads and private drives) onto the A259 increase journey times, levels of congestion and traffic pollution within Bognor Regis;
 - Traffic travelling between the A27 and A259 via the A284 and A29 to access
 Littlehampton, Bognor Regis and the coastal area is often delayed due to the level
 crossings at Wick and Woodgate which also create congestion and poor air quality;
 - In order to avoid congestion and maintain journey times HGVs are diverting onto unsuitable residential and rural roads, causing concerns over safety;



- Rail services to and from the District, particularly between both Littlehampton and Bognor Regis, and London, are perceived as slow and there is a limited supply of modern rail stock available to provide extra capacity along the West Coastway;
- Bognor Regis Station, in particular, is in need of improvement to make it a more attractive transport interchange for visitors and local commuters;
- The current provision of pedestrian and cycling facilities throughout the District, and
 in particular within Bognor Regis and Littlehampton, are unable to support and
 maintain sustainable travel, as much of the network is disjointed and suffers from
 inadequate signing, safe crossing points and poor surfacing;
- The current public right of way network linking the South Downs with the coastal plain is disjointed, deficient in terms of bridleway access and requires surface enhancements in many places;
- Due to the low use of some bus services, there is uncertainty over the future viability of some services; and
- There is limited funding available for infrastructure improvements."
- 2.5.6 Accordingly, the key transport aims to address the above issues within Arun district specifically as identified within LTP3 are;
 - "Major improvements to the A27 at Arundel, such as a bypass, to reduce congestion and rat-running, and to improve the safety record and community cohesion.
 - Maintaining roads and public rights of way to a good standard.
 - Improving street lighting through the contract with Southern Electric.
 - All new development should be designed to promote 'local living', for example shops, jobs and homes all being within easy reach of each other.
 - All new development should provide enough secure cycle parking to meet the needs of the development and be within close proximity to public transport.
 - Parking provision at new residential development should provide enough spaces to accommodate the expected number of vehicles at the site or provide measures such as car clubs which reduce the number of vehicles to match the space available.
 - Ensuring that all new development contributes to the regeneration aspirations and the transport issues in Bognor Regis and Littlehampton.
 - Continuing to work towards the development-led completion of the A259 Bognor Regis relief road and provide an associated package of measures, including junction improvements to Comet Corner (in Middleton-on-sea), traffic management measures (in Felpham and North Bersted) and a cycle route on Rowan Way.
 - Developing opportunities through new development that will improve the access along the A29, including the potential to bridge the railway level crossing at Woodgate.
 - Developing opportunities through new development to improve the access along the A259 including improvements that will achieve better bus journey times.



- Generating opportunities through new development to secure the delivery of the Fitzalan Link Road Extension and Lyminster bypass to improve safety, accessibility and contribute to regeneration in Littlehampton and Bognor Regis.
- A series of town centre measures in Bognor Regis, including improvements to The Esplanade, provision of a 20mph (limit or zone), and the introduction of variable message signs to support the use of car parks.
- Making the best use of the existing road network and improving the way in which
 the network is managed to reduce levels of congestion. For example, through the
 introduction of intelligent transport systems and improving public transport
 reliability.
- Safeguarding against traffic generated by new development resulting in the capacity
 of the highway network being exceeded, by including measures to encourage
 sustainable travel behaviour. Liaising with the rail industry to ensure the best
 possible service provision to Arun as a result of the evolving Thameslink Programme,
 and also explore opportunities for the provision of faster services between both
 Littlehampton and Bognor Regis, and London.
- Liaising with the rail industry to encourage the provision of additional modern rail capacity and faster services along the West Coastway while retaining a suitable balance of stopping services, and plan for signalling works along the Arun Valley Line which improve service timings.
- Liaising with the rail industry to investigate ways to reduce the delays caused by level crossings.
- Working with partners to explore opportunities for improving Bognor Regis Station, and others in the District, to improve access and integration with other modes of transport.
- Working with the Sussex CRP through the Arun Valley Line Group to further promote rail travel amongst residents and visitors to Arun.
- Discourage HGVs from less suitable local routes while maintaining access to areas which businesses need access to.
- Manage any AQMAs that might be declared by Arun District Council through development and implementation of AQAPs, while avoiding potential poor air quality areas in the first place by developing a Low Emissions Strategy.
- Encouraging sustainable travel by improving the existing cycle and pedestrian network through improved signing, connecting routes where appropriate and repairing and maintaining surfaces.
- Developing and implementing schemes which contribute to the completion of the Bognor Regis and Littlehampton cycle networks, particularly maximising opportunities for seafront cycle routes and enhancing routes which will be of particular interest to tourists.
- Improving pedestrian accessibility throughout the District by enhancing existing pedestrian crossings and providing new pedestrian crossing facilities at identified key locations.



- Encourage the use of cleaner vehicles such as electric cars, by for example providing electric recharging posts and recharging bays in partnership with the District Council as part of a wider network available to all users of electric vehicles.
- Promoting sustainable transport choices through projects such as Safer Routes to School.
- Supporting opportunities which will improve and protect the rights of way network throughout the District.
- Improving access through the urban rights of way network within the Littlehampton area, to help improve community cohesion, community safety, tourism, access to local shops and services and to change travel modes and habits.
- Manage on-street parking in Littlehampton, Bognor Regis and Arundel and introduce controlled parking zones, where appropriate, which balance the needs of residents, visitors and businesses.
- Continuing to work with our bus operators and developing quality bus partnerships, to improve the capacity and quality of the bus fleet, and to improve the way services are marketed, particularly supporting the Coastal Transport System major scheme when funding is available to deliver it.
- Improving the accessibility and quality of information available through the introduction of RTPI at well used bus stops and where the whole life costs are affordable."

2.6 West Sussex County Council Guidance on Parking at New Developments (2020)

- 2.6.1 The WSCC Guidance on Parking at New Developments document details the expected parking requirements at residential and non-residential developments for each district within West Sussex.
- 2.6.2 Guiding Principles for parking standards are described within the guidance. The principles are as follows:
 - A Accommodate Parking Demand;
 - B Electric Vehicle Charging Infrastructure;
 - C Sustainable Transport;
 - D Traffic Regulation Orders;
 - E Design Considerations; and
 - F Sustainable Drainage.
- 2.6.3 The districts within the county are split into 'Parking Behaviour Zones', which determine the expected parking provision per dwelling based on bedrooms / number of habitable rooms. The village of Angmering is designated as a Parking Behaviour Zone 2 Peri-Rural.
- 2.6.4 The parking requirements for new residential developments in Parking Behaviour Zone 2 are as follows:



- 1 Bedroom (1 3 Habitable Rooms) 1.4 parking spaces per dwelling;
- 2 Bedrooms (4 Habitable Rooms) 1.7 parking spaces per dwelling;
- 3 Bedrooms (5 6 Habitable Rooms) 2.1 parking spaces per dwelling; and
- 4 or more Bedrooms (7 or more Habitable Rooms) 2.7 parking spaces per dwelling.
- 2.6.5 The standards outline above accommodate for the likely occurrence of parking obstructions, such as refuse skips and caravans.

2.6.6 WSCC state that

- "To accommodate potential variations in parking demand within a single ward, consideration may be given to varying the expected parking demand by 10% above or below, which is based on the average variation in demand between PBZs. In order to determine whether or not this is acceptable, the applicant will need to provide justification through, for example, the provision of parking beat surveys."
- 2.6.7 It is acknowledged that demand for electric vehicles is likely to change rapidly over time and so any standard detailed would become quickly out of date. Therefore, developers should consider the Guiding Principles for parking standards when designing parking provision.
- 2.6.8 The guidance also states that
 - "As part of their planning application, applicants will be expected to provide a schedule of parking provision, detailing the number of allocated and unallocated spaces, including garages and EV charging facilities (active and passive). The planning application should include an explanation of how the provision of parking will meet the needs of the development"
- 2.7 Arun District Council Parking Standards Supplementary Planning Document (SPD) (2020)
- 2.7.1 Arun District Council adopted its own parking standards on the 15th of January 2020. Residential parking requirements for new development are set out within this document.
- 2.7.2 Arun District Council's parking standards are based on standards outlined in the WSCC Guidance on Parking at New Developments (2020), but with simplified integer values. As with West Sussex County Council Guidance on Parking at New Developments (2020), the guidance Arun is split into 'Parking Behaviour Zones', with Angmering being located within Parking Behaviour Zone 2 Peri-rural (large villages or small settlements close to towns e.g., Angmering, Barnham). Accordingly, the below extract has been taken from Table 3.1 of the Parking Standards SPD:
 - 1 Bedroom (1 3 Habitable Rooms) 2 parking spaces per dwelling;
 - 2 Bedrooms (4 Habitable Rooms) 2 parking spaces per dwelling;
 - 3 Bedrooms (5 6 Habitable Rooms) 2 parking spaces per dwelling; and
 - 4 or more Bedrooms (7 or more Habitable Rooms) 3 parking spaces per dwelling.
- 2.7.3 In terms of EV parking the parking standards note that 100% of parking spaces provided as driveways or garages should be provided with EV charging points. For other parking spaces not on plot, a phased approach should be taken, with developments proposed to come



- forward in 2018, 2023, 2028 and 2033 providing 20, 30, 50 and 100% of parking spaces with EV charging facilities, respectively.
- 2.7.4 It is noted that planning pre application advice from Arun District Council on 26th January 2021 stated that:
 - "Developers should note the requirement for an EV charge point in all houses with a garage OR driveway (not garage AND driveway as is incorrectly stated in the ADC Parking Standards SPD)."
- 2.7.5 Visitor Parking should be provided at a rate of 0.2 spaces per dwelling.
- 2.7.6 Garages will not count towards parking provision unless they have internal dimensions of at least 6m x 3m, in which case they will count as 0.5 parking spaces. Open car ports / car barns of the same dimensions will count as a full parking space.
- 2.7.7 Cycle parking should be provided per the below recommended levels:
 - 1 − 2 Bedroom House − 1 cycle parking space;
 - 3 + Bedroom House 2 cycle parking spaces;
 - 1 − 2 Bedroom Flat − 1 cycle parking space; and
 - 3 + Bedroom Flat 1 cycle parking space.

2.8 Summary

2.8.1 The review demonstrates that the proposed residential development accords with policy and guidance, both at a national and local level. In accordance with the policy analysed within this section of the report, the Travel Plan seeks to encourage sustainable travel behaviour among residents, with the aim of minimising the impact of the development on the surrounding highway network.



3 BASELINE CONDITIONS

3.1 Introduction

3.1.1 This chapter provides information on the existing site, summarising the baseline conditions in respect of the consented development. Consideration is made to the accessibility of the site to local amenities, public transport services, pedestrian and cycle linkages.

3.2 Site Location

3.2.1 The site is located on Arundel Road, to the north of the village of Angmering, in West Sussex. Arundel Road provides a direct link between the village centre and the A27 dual carriageway, 1.3km to the north. The site location is shown below on Figure 3.1.





3.2.2 As shown above, the site is located on the edge of the urban extent of Angmering, approximately 1km north of the village centre and 0.3km south of the A27. The site is bound to the north and west by greenfield land and bound to the south by sports pitches. The site is bound to the east by Arundel Road and commercial units situated along Arundel Road.

3.3 Local Highway Network

3.3.1 The site is bound to the east by Arundel Road, which is a single carriageway road in a north-south orientation through Angmering. The carriageway is approximately 7.3m wide in the vicinity of the site, with one lane for each direction of traffic. The road is broadly straight; however, the northern access point is on the outside of a gentle curve and the southern access is on the inside of a gentle curve of the carriageway.



- 3.3.2 There is an existing access to the site approximately 350m south of the A27, where the road is subject to a speed limit of 40mph. The junction provides access to the existing commercial premises on the site; however, it has no road markings or footways. This junction will be upgraded under the development proposals, which are discussed further in Section 4 of this report.
- 3.3.3 Approximately 30m south of the existing commercial access point is a traffic calming measure in the form of a chicane, with priority for northbound vehicles.
- 3.3.4 Arundel Road has streetlighting along its southern end, near to the existing residential properties, however the streetlighting extends no further north than the location of the existing access to the commercial premises on the development site.
- 3.3.5 At its southern end Arundel Road meets Water Lane/Station Road, which runs in a northeast southwest orientation through the village. Water Lane leads northeast from Arundel Road to meet the A280 near to the eastern boundary of the village. Station Road leads southwest from Arundel Road to meet Roundstone Bypass Road, at the southern edge of the village.
- 3.3.6 At its northern end Arundel Road meets the westbound carriageway of the A27 dual carriageway. The A27 leads west towards the market town Arundel and leads east towards Worthing, however, vehicle users will need to drive 2.0km west along the A27 to reach the first available turning point onto the eastbound carriageway.

3.4 Strategic Highway Network

- 3.4.1 As noted in the Local Highway Network section, the A27 passes in an east-west orientation approximately 300m to the north of the site. The A27 is a dual carriageway that spans a large swathe of towns and cities along the south coast, between Portsmouth and Eastbourne.
- 3.4.2 To the east of the junction with Arundel Road the A27 leads to Worthing (8km), Brighton (27km), Newhaven (42km) and Eastbourne (60km). To the west of the junction with Arundel Road the A27 leads to Arundel (11km), Chichester (28km) and Portsmouth (51km).
- 3.4.3 The A27 meets the A23 near to Brighton, which leads north from Brighton towards the M23, the M25 and London.
- 3.4.4 The A27 meets the A3 near to Portsmouth, which also leads northeast towards the M25 and London.

3.5 Pedestrian and Cyclist Accessibility

Walking

- 3.5.1 Walking is traditionally recognised as a sustainable mode of travel which can replace shorter trips that are often made by car, particularly those under 2km. This was reflected in the now withdrawn 'PPG:13 Transport' guidance. Although the guidance has been superseded, it provides a useful indication of the walking distances that are considered reasonable for pedestrians.
- 3.5.2 The Institution of Highways and Transportation (IHT) publication 'Providing for Journeys on Foot' provides preferred maximum walking distances to key facilities based upon their



- purposes. The document considers 2km a maximum walk distance for commuting purposes, 800m a preferred maximum for town centres and 1.2km for other purposes.
- 3.5.3 CIHT's 'Planning for Walking' (2015) guidance document recognises that most short journeys are made wholly on foot, however walking also forms part of longer, multi-modal journeys. The guidance states that people will choose to walk if the length of their journey is less than one mile (1.6km).
- 3.5.4 In summary, 2km can be viewed as a maximum acceptable walking distance though preferably destinations should be accessible within one mile (1.6km). A summary of local facilities, amenities, and services accessible to future residents of the site are contained in Table 3.1 below. Distances are indicative from an approximate centre of the site.

Table 3.1 - Existing Local Facilities, Amenities and Services

_	200	
Transport	Chantryfield Road Bus Stops	0.5km
	Arundel Road Garage	0.9km
 Retail	Big Fry Fish & Chip Shop	1.2km
nelan	The Cooperative	1.2km
	Lloyds Pharmacy	1.3km
	Angmering Sports & Social Club / Palmer Road Recreation Ground	0.5m
	The Woodman Arms	0.6km
Leisure	Angmering Library	1.1km
	St Margaret's Church	1.1km
	The Lamb at Angmering Public House	1.2km
Folyandina	St Margaret's C of E Primary School	0.35km
Education	Saint Wilfrid's Catholic Primary School	0.9km

- 3.5.5 As shown above in Table 3.1, there are a wide range of amenities available within a 2km walking distance from the site at present, including a bus stop, shops, pubs and schools.
- 3.5.6 Angmering Medical Centre and Angmering Surgery are located on Station Road, to the southwest of the junction with Arundel Road. They are approximately a 1.3km walk from the site.
- 3.5.7 Arundel Road has a footway on the western side of the carriageway for its entire length, including in the vicinity of the site. It has a footway on the eastern side of the carriageway at its southern end that terminates outside St Margaret's C of E Primary School, approximately 130m of the proposed commercial access point. The road has streetlights at the south end of the road. The surrounding network of footways are 1.7m in the vicinity of the site and are expected to be suitable for pedestrians.
- 3.5.8 A Public Right of Way (PROW) Footpath runs in a north-south orientation along the western boundary of the site. The PROW footpath provides a pedestrian route between the A27 and Saint Wilfrid's Catholic Primary School.



Cycling

- 3.5.9 CIHT's 'Planning for Cycling' (2014) guidance document states that the majority of cycling trips are made over short distances, with 80% being less than 5 miles (8km) and 40% being less than 2 miles (3.2km). Similarly, 'Chapter 10 Cycling in New Developments' of the Sustrans Design Manual (draft, 2015) advises that distances up to five miles (8km) represents a reasonable cycling commute for most users.
- 3.5.10 The Department for Transport's 'Walking and Cycling Statistics, England: 2016' statistical release was published in January 2018. It states that shorter cycling trips under five miles (8km) made up 79% of all cycling trips in 2016, with 43% of all trips being under two miles (3.2km). The most common purpose for cycling trips is commuting, which accounts for an average of 36% of trips made by this mode.
- 3.5.11 The consensus among recent guidance and statistics is that 8km represents the maximum reasonable cycling distance, however a significant proportion of cycling trips are likely to be around 3km. Figure 3.2 shows the destinations accessible within an 8km cycling distance of the site utilising the OpenRouteService.org.

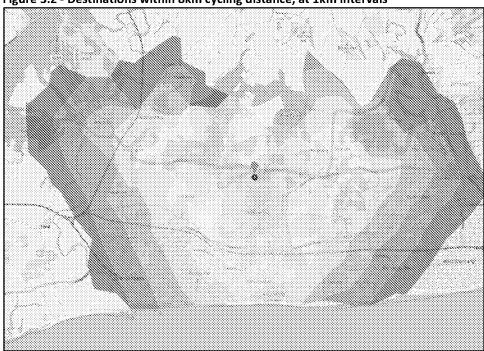


Figure 3.2 - Destinations within 8km cycling distance, at 1km intervals

Source: openrouteservice.org

- 3.5.12 As shown in Figure 3.2, all of Angmering is within an 8km cycling distance from the site and much of Arundel, Littlehampton and Worthing are too. Some of the key locations that are accessible within this distance include; Angmering Station, Angmering Community Centre, Angmering Skate Park, Littlehampton Station, East Preston Beach, Littlehampton Pier and Arundel Station.
- 3.5.13 Many of the roads in and around the local area are likely to be suitable for cyclists due to their gentle inclines and smooth surfacing. It is expected that the carriageways within the site will similarly be suitable for cycle users.



3.6 Public Transport Provision

Bus Travel

- 3.6.1 CIHT's 'Buses in Urban Developments' (2018) publication considered 400m as a maximum walking distance to bus stops. It recognises that in some instances it may be appropriate to increase this distance in order to access services on core bus corridors.
- 3.6.2 The nearest pair of bus stops are the Chantryfield Road bus stops, which are located on Arundel Road, near the junction with Chantryfield Road. This is approximately 500m south of the site's southern boundary, with longer walking distances for those who reside further north within the development.
- 3.6.3 Table 3.2 summarises the existing frequency of the number 9 bus from the Chantryfield Road bus stops.

Table 3.2 - Bus routes, frequencies, and destinations accessible from Chantryfield Road

	rable 3.2 Bus routes, irequencies, and destinations decessible from chantryficia Road						
	Rosse				connectant (secretary)		
9	Arundel – Shoreham-By- Sea	Hourly between 0800 – 1800	Hourly between 0800 – 1800	N/A	Roundstone ByPass – 10mins Marine Parade, Worthing – 40mins Worthing Hospital – 50mins Holmbush Shopping Centre – 1hr 30mins		
	Shoreham-By- Sea - Arundel	Hourly between 0700 – 1900	Hourly between 0800 – 1900	N/A	Angmering Station – 10mins Beaumont Park, Littlehampton – 20mins Arundel Station – 50mins Arundel – 1hr		

^{*}Correct as of July 2023

- 3.6.4 As shown in Table 3.2, the number 9 bus route provides a regular service to several key locations in and around Angmering on weekdays and Saturdays. Several urban centres can be accessed via the bus including Littlehampton, Worthing and Shoreham-By-Sea. The frequency of the bus service may be suitable for those travelling for both commuting and leisure purposes.
- 3.6.5 The number 9 service also provides a connection that may be suitable for persons travelling to nearby railway stations. This includes stations in Angmering, Littlehampton, Arundel, Durrington-on-Sea, West Worthing, and Lancing.



<u>Rail</u>

- 3.6.6 The nearest railway station to the site is Angmering Station. The station is managed by Southern and is situated on the West Coastway Line, which connects Brighton to Portsmouth/Southampton. Key stations which are directly accessible from Angmering Station include Littlehampton, Portsmouth Harbour, Southampton, Brighton, Worthing and London Victoria.
- 3.6.7 The station is approximately a 2.4km walk from the site and is expected to take 30 minutes by foot, depending on speed and ability of the person. The number 9 bus also delivers passengers from the Chantryfield Road bus stop to the station within 10 minutes.
- 3.6.8 The main entrance and ticket office is located to the north of Platform 1 and be accessed from Station Road. There is step-free access available to Platform 1 via a locked gate, which can be unlocked upon request from the ticket office. Step-free access to Platform 2 is available directly from Station Road via a ramp that leads from the footway. Passengers wishing to cross between Platform 1 and Platform 2 using step-free methods will have to leave the station, cross the level crossing and re-enter the station using the respective platform's step-free access.
- 3.6.9 Table 3.3 summarises key services that operate from Angmering Station and their frequencies during the AM and PM peak periods.

Table 3.3 - Existing Rail Services at Angmering Station

			Description (Const.)
Littlehampton	2 services	2 services	10mins
Worthing	5 services	4 services	10mins
Brighton	3 services	3 services	15mins
Portsmouth & Southsea	2 services	0 services	50mins
Gatwick Airport	2 services	2 services	1hr
Southampton	1 service	1 service	1hr 10mins
London Victoria	2 services	2 services	1hr 40mins

- 3.6.10 As shown in Table 3.3, a range of towns and cities are accessible via train from Angmering Station. The short journey times between some of the destinations may be suitable for those commuting to and from work in nearby towns and cities.
- 3.6.11 The information presented in Table 3.3 was correct at the time of this report being prepared.

3.7 Summary

3.7.1 A review of the existing walking, cycling and public transport provision has confirmed that there are several opportunities to travel by sustainable modes in the vicinity of the development.



4 CONSENTED DEVELOPMENT PROPOSALS

4.1 Introduction

4.1.1 This section of the Transport Statement discusses the consented development, including the means of access, servicing and parking arrangements.

4.2 Development Proposals

- 4.2.1 The development comprises the construction of 160 dwellings and 1,393sqm of Class E commercial/employment land use. An area of open space will also be constructed along the site's southern boundary. There are several existing commercial units on site, which will be demolished under the proposals.
- 4.2.2 The overall quantum of development under each land use is identical to that which was approved under application A/122/19/OUT.
- 4.2.3 The approved dwelling mix associated with the residential development is provided below in Table 4.1. The proposed site layout is provided at the rear of this report as drawing 30598A_ 10 Proposed Site Layout Plan P5.

Table 4.1 - Accommodation Schedule

F 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
1-bedroom flat	10
2-bedroom flat	18
2-bedroom house	39
3-bedroom house	49
4-bedroom house	44
1000	

- 4.2.4 Of the 160 proposed dwellings, 48 (30%) are to be affordable properties (rented or shared ownership) and 112 (70%) are to be in private ownership. The private ownership element of the development will be marketed by Redrow as 'Harvest Rise'.
- 4.2.5 A quantum of commercial developments is proposed at the south-east of the site with a cumulative Gross Floor Area (GFA) of 1,393sqm. The units fall under the Class E land use class, and they will be accompanied by 37 parking bays. Access arrangements to the commercial land use are discussed further in section 4.3 of this report. It is noted that at the time of writing, the Reserved Matters application for this element of the works has not been granted planning permission, however it does benefit from a 'No Objection (Subject to Conditions' response from the Local Highway Authority.

4.3 Site Access

4.3.1 The development will be served by two separate access points from Arundel Road. The site access proposals were previously approved under the outline application for the site (A/122/19/OUT). Each access is discussed in turn overleaf.



Residential Access (Northern Access Junction)

- 4.3.2 The northern access point is located approximately 170m south from the A27 along Arundel Road and will provide access to the residential element of the site. The access will take the form of a simple priority junction, with a carriageway width of 5.5m and kerb radii of 6m. A footway will be provided on both the north and south sides of the access, which will tie into the existing footway provision along Arundel Road. Dropped kerbs and tactile paving will be provided at the bellmouth to facilitate pedestrian access across the carriageway.
- 4.3.3 The residential access has been submitted to WSCC for technical approval under a Section 278 agreement in August 2021. At the time of this report being prepared, the submission is under consideration by WSCC.
- 4.3.4 Footways will be constructed on both sides of the northern access road. The footway on the north side of the access road will extend 20m into the site and the footway on the southern side of the road will follow the internal carriageway throughout the site.

4.3.5 Commercial Access (Southern Access)

- 4.3.6 The southern site access point is located a further 170m south of the northern access point along Arundel Road. An existing informal vehicular access point exists in this location at present; however, it does not have footways or road markings. This access point will be redesigned and constructed as a simple bellmouth priority junction.
- 4.3.7 The general arrangement of the commercial access was designed by CTS and approved under the outline application (A/122/19/OUT). The construction of the access was secured under Condition 16 of the planning consent, however a later review confirmed that the general arrangement of the approved commercial access was not viable or deliverable within the constraints of the land ownership and adopted highway boundary.
- 4.3.8 The commercial access design was revised to provide 1no footway on the north side of the carriageway and a 0.5m service strip on the south side of the carriageway. The revisions to the commercial access were approved by ADC under a Section 73 application in November 2021 (ref: A/207/21/PL). The application was approved in November 2021.

4.4 Internal Road Layout

- 4.4.1 The northern access point will lead to a spine road that runs through the residential site towards the western boundary. Several secondary roads will form junctions with the spine road, providing access to the dwellings. It should also be noted that the internal road network will not provide a connection between the two junctions which will provide access to the site from Arundel Road, with the exception of an emergency access link to the residential parcel from the commercial access road. The emergency access will be controlled by bollards.
- 4.4.2 The geometry of the internal road network accords with the design speed of 20mph. The spine road maintains a width of 5.5m throughout the site, with 2m footways on both sides of the carriageway throughout.
- 4.4.3 Traffic calming in the form of raised tables will be provided throughout the site. Localised widening has been provided on the bends within the site to facilitate a car to travel side by side with a larger vehicle (e.g., refuse collection vehicle). Footways are provided on both



- sides of the spine road from the first bend within the site onwards, with a width of 2m. At the site access, the north footway terminates around 20m west of the bellmouth.
- 4.4.4 The secondary roads are primarily 4.8m wide, though localised widening to 5.0m and 5.5m has been incorporated throughout the site where a larger vehicle is expected to pass a smaller vehicle. This is in a similar manner to that of the spine road. Secondary roads have 2m footways on at least one side of the carriageway and other pedestrian routes are incorporated throughout the site via landscaped areas. Turning heads are provided on each secondary road.

4.5 Off-Site Highway Improvements

- 4.5.1 As part of the agreed matters within outline planning application A/122/19/OUT, a pedestrian crossing is to be provided across Arundel Road adjacent to St Margaret's C of E Primary School. The crossing will be a signalised crossing with minimum 50m visibility along the carriageway on either side.
- 4.5.2 The agreed design for the pedestrian crossing is shown on drawing 2020-F05 which was produced by CTS.

4.6 Vehicular Parking Provision

- 4.6.1 There are two relevant parking standards associated with residential developments in Angmering, namely the 'Arun District Council Parking Standards Supplementary Planning Document' (SPD) (2020) and the 'West Sussex County Council Guidance on Parking at New Developments' (2020).
- 4.6.2 The two standards are marginally different, with the ADC standards setting a parking requirement per dwelling and the WSCC standards presenting the expected parking demand per dwelling. The standards produce different parking requirements. The level of parking provision at the development falls between the requirements of both standards.
- 4.6.3 The parking requirements for new residential developments in Angmering as detailed in the 'West Sussex County Council Guidance on Parking at New Developments' are shown below as Table 4.2.

Table 4.2 - Parking Requirements based on WSCC Guidance on Parking at New Developments

			Transfer of the second
1	10	1.4	14
2	57	1.7	97
3	49	2.1	103
4+	44	2.7	119
	333		

4.6.4 The WSCC standards state that a 10% discrepancy between the provision of parking and the WSCC standard across any given site may be considered acceptable in order to accommodate for variation in demand if the applicant can provide justification. Based on the parking demand presented in Table 4.2, this would result in a lower level of 300 spaces or a higher provision of 366 spaces.



- 4.6.5 The calculations shown in Table 4.2 factor visitor spaces into the requirement per dwelling. It should also be noted that garages count as 0.5 spaces if they accord with the required internal dimensions of 6m x 3m.
- 4.6.6 The parking requirements for new residential developments in Angmering as detailed in Arun District Council SPD are shown below as Table 4.3.

Table 4.3 - Parking Requirements based Arun District Council Parking Standards SPD

_		_				
1	10	2	20			
2	57	2	114			
3	49	2	98			
4+	44	3	132			
Visi	32					
	Total					

- 4.6.7 As shown above, Arun District Council's standards require 64 additional parking spaces when compared to WSCC's parking standards for this site.
- 4.6.8 As with the WSCC standards, garages count as 0.5 spaces if they accord with the required internal dimensions of 6m x 3m.
- 4.6.9 A total of 358 allocated parking spaces plus an additional 49 garage spaces and 34 visitor spaces will be provided. The level of parking provision therefore falls between each Council's standards, ensuring that sufficient parking is provided on plot for residents. Visitor spaces are provided throughout the development, which seek to discourage instances of on-street parking for non-residents.
- 4.6.10 The level of parking provision has been approved as part of the reserved matters application.

4.7 Cycle Parking Provision

- 4.7.1 Arun District Council outline the Cycle Parking standards for residential developments in 'Arun District Council Parking Standards Supplementary Planning Document (2020)'. The requirements are shown below:
 - 1 − 2 Bedroom House − 1 cycle parking space;
 - 3 + Bedroom House 2 cycle parking spaces;
 - 1 − 2 Bedroom Flat − 1 cycle parking space; and
 - 3 + Bedroom Flat 1 cycle parking space.
- 4.7.2 Cycle parking will be provided within the residential curtilage of each dwelling to meet these standards. Garages will serve as cycle parking for dwellings which are provided with a garage, while those without garages will be provided with a suitable covered storage area. Each dwelling has rear access, ensuring that the bicycle does not need to be carried through the dwelling.



5 OBJECTIVES AND TARGETS

5.1 Objectives

- 5.1.1 This Travel Plan aims to achieve a reduction in the number of car journeys to and from the development, particularly those which are Single Occupancy Vehicle (SOV) trips.
- 5.1.2 This will be achieved through encouraging a modal shift towards sustainable modes of travel, including walking, cycling and public transport. The principal objectives of the Travel Plan are as follows:
 - To ensure responsibility and accountability is taken towards the success of the Travel Plan;
 - To promote and raise awareness of the Travel Plan process to residents;
 - To raise awareness of the benefits of sustainable travel, including those relating to health, cost savings and air quality;
 - To encourage sustainable travel behaviour among residents of the development, including walking and cycling to local destinations;
 - To reduce the number of SOV trips and encourage a modal shift towards sustainable transport;
 - To gauge initial travel patterns of residents so that site specific targets can be established; and
 - To continually develop, implement, monitor, evaluate and review the progress of the Travel Plan towards achieving the targets it sets out.
- 5.1.3 The above objectives will be achieved by implementing a package of measures which will be marketed to residents of the development.
- 5.1.4 The progress towards meeting the Travel Plan objectives will be monitored and quantified through the modal share targets identified below.

5.2 Targets

- 5.2.1 For any Travel Plan to be successfully implemented, it is essential that robust targets are set to assess its progress.
- 5.2.2 These targets are measurable goals and should be SMART, meaning they meet the following criteria:
 - Specific to ensure the targets are clear and easily understood;
 - Measurable to ensure the progress of the Travel Plan can be assessed;
 - Achievable whilst also requiring effort to attain;
 - Realistic based on the nature of the development; and,
 - Time bound with clearly defined periods over which they will be measured.



- 5.2.3 In line with the Residential Travel Plan prepared by Croft Transport Solutions, dated July 2019 and submitted with the outline application (hereafter referred to as "the 2019 Croft Travel Plan"), the overall target of the Travel Plan is to:
 - 1. Achieve a 12-hour weekday vehicle trip rate that is 10% lower than predicted in the Transport Assessment (TA).
- 5.2.4 This target is itself derived from communication Croft Transport Solutions conducted with the Sustainable Travel Officer at the LHA.
- 5.2.5 The resultant reduction in vehicular trips can be seen in the screenshot below in Figure 5-1.

Figure 5.1: Previously agreed reduction in vehicular trip generation as a result of 10% target



Peak Hour	Trip Generation		Target Including 10% Reduction	
	Arr	Dep	Arr	Dep
12hr	476	504	428	454

Table 5.1 - Trip Generation with 10% Vehicle Reduction Applied

- 5.2.6 It is noted that while the 2019 Croft Travel Plan referred to the construction of 160 dwellings, the trip generation figures presented in Table 5.1 (Figure 5.1 above) appear to have been applied to 200 dwellings. The approved trip rates multiplied by 200 produce the numbers shown in Table 5.1 (Figure 5.1). The construction of 200 dwellings was proposed at an earlier stage in the planning process and it is assumed that the targets were not updated within the 2019 Croft Travel Plan.
- 5.2.7 To account for the trips associated with 160 dwellings, the same trip rates (as appended to the 2019 Croft TA) have been applied to the correct dwelling quantum, with the resultant trip generation figures shown below in Table 5-1 below.

Table 5.1: Trip Generation Figures – 160 Dwellings

07:00 - 19:00	2.381	381	2.521	403

5.2.8 The resultant trip generation figures with the previously agreed 10% reduction applied are shown in Table 5-2 overleaf.



Table 5.2: Trip Generation with 10% Reduction Target applied – 160 Dwellings

07:00 - 19:00	381	403	343	363

- 5.2.9 The Travel Plan aims to achieve a modal shift comprising a reduction in car trips and an increase in trips made by sustainable modes of transport.
- 5.2.10 The Travel Plan aims to achieve its targets within five years of the site's occupation, and it is noted that monitoring will occur in Years 1, 3 and 5.
- 5.2.11 This overall target reduction is in line with that outlined in the Croft 2019 Travel Plan, albeit the trip generation figures have been amended as a result of the application of the corrected 160 dwelling quantum.
- 5.2.12 Upon 50% occupation of the development, a baseline survey should be undertaken to determine site-specific travel habits. This will provide an accurate baseline against which the progress of the Travel Plan can be measured. If appropriate, the above targets may be revised to reflect the actual travel behaviour of residents at the development.
- 5.2.13 TRICS SAM surveys are expected to be carried out in Years 1, 3 and 5. The TPC will be responsible for overseeing the monitoring strategy and organising the SAM surveys with TRICS.
- 5.2.14 The annual review will be used to assess how the Travel Plan is performing and trigger any additional measures necessary to ensure that the targets are met. These additional measures should be agreed with WSCC and may include Travel Plan measures that are aimed at achieving wider reduction in traffic growth.
- 5.2.15 The monitoring strategy for the Travel Plan is discussed further in Section 7 of this report.



6 TRAVEL PLAN MEASURES

6.1 Introduction

- 6.1.1 A package of measures has been developed which collectively aim to encourage sustainable travel behaviours among residents of the development. The measures are targeted mainly at residents; however, some may also be appropriate for regular visitors to the site.
- 6.1.2 The measures are intended to facilitate the success of the Travel Plan objectives and sufficiently encourage a modal shift towards the previously discussed targets.
- 6.1.3 A Travel Plan Coordinator (TPC) will be appointed to oversee the delivery and implementation of the Travel Plan for a period of five years, an action plan for which is provided in Section 8.
- 6.1.4 As far as possible, the proposals and strategies detailed below are designed to be reviewed, monitored and altered through a dynamic approach from the TPC. In addition, it is to be noted that the measures are not designed to be limiting and there is scope for further ideas to be implemented if targets are not met, which is discussed further in Section 7.
- 6.1.5 The measures presented in this section of the Travel Plan reflect those which were previously agreed within the 2019 Croft Travel Plan, approved under the outline application.

6.2 Site Layout and Infrastructure Measures

- 6.2.1 The access roads throughout the site are designed so as to encourage low vehicular speeds that result in a safe and welcoming environment for pedestrians and cyclists.
- 6.2.2 The principal access to both the residential and commercial development will be from Arundel Road.
- 6.2.3 The internal site road network has been designed to facilitate visibility and encourage low driver speeds, creating a place where pedestrians and cyclists will not feel intimidated.
- 6.2.4 A 2m wide footway is provided on much of the northern and southern side of the main spine road of the site, with only a short break in the northern footway close to the site entrance. Footpaths for non-motorised users will also be provided within the site, providing links to areas of public open space and a play area.
- 6.2.5 A signalised pedestrian crossing is to be constructed adjacent to St Margaret's C of E Primary School along Arundel Road. The crossing will be of benefit for both existing and future residents of the site.

6.3 Promotion of Walking and Cycling

- 6.3.1 In addition to the physical 'hard' measures implemented in the form of pedestrian links and pedestrian/cyclist friendly geometry and cycle parking, a number of 'soft' measures are proposed to increase the potential for journeys to be made using active modes of travel.
- 6.3.2 Walking will be promoted within the Travel Packs which will be issued to residents. This will include the health benefits of walking and highlight the network of walking routes in the local area.



- 6.3.3 The appointed TPC will seek to encourage a Bicycle User Group. The user group will enable cyclists to share information on routes, safety, cycle maintenance etc. It will also enable less experienced cyclists to contact established cyclists and therefore to obtain information, guidance and potentially a 'cycling buddy' to accompany them on cycle journeys.
- 6.3.4 The TPC will assist with the dissemination of information regarding the user group and will help residents get in contact with one another.
- 6.3.5 A contribution towards the purchase of a new bicycle / related equipment will be made, alongside the provision for LHA endorsed Bikeability training for up to 4 household members. Further information on Bikeability is available here. The TPC will assist with the coordination of this.
- 6.3.6 A personalised journey planning service will be provided to all residents. This will include providing information to the residents on relevant walking and cycling routes to destinations they require.

6.4 Promotion of Public Transport

- 6.4.1 There are a number of public transport options available in the vicinity of the site and these will be promoted through provision of information and promotional material in the Travel Information Pack such as route maps, timetables and fare information.
- 6.4.2 Links to the National Rail journey planners, live bus stop tracking websites and smartphone applications will be promoted within the Travel Packs.
- 6.4.3 To further encourage the use of the local rail, each household will be offered a rail season ticket or network card to be arranged with the local Train Operating Company. The Travel Plan co-ordinator will contact the Train Operating Company for more information prior to residents moving into the development, as providing these from the on-set will assist in encouraging sustainable travel habits.
- 6.4.4 A similar approach will be undertaken to encourage the use of the local bus services, with each household offered a free bus season ticket which could be arranged through Stagecoach. Again, the Travel Plan co-ordinator will contact Stagecoach for more information prior to residents moving into the development.

6.5 Promotion of Car Sharing

- 6.5.1 The Travel Plan Co-ordinator will promote the use of car sharing via registering on the Liftshare website. It allows users to register their details, where they are travelling to in the area if they are offering a lift or need a lift to their destination.
- 6.5.2 Further details can be found at the following location https://liftshare.com/uk.
- 6.5.3 The Travel Plan Coordinator could also investigate the viability of establishing a Car Sharing Club for the residential development, however, it is likely that the promotion of the Lift Share scheme will be more beneficial to local residents.
- 6.5.4 It is also proposed that 12 months of membership (including the joining fee) will be made available to all households, and this will be coordinated by the TPC.



6.6 Travel Plan Coordinator (TPC)

- 6.6.1 The future developer of the site will be responsible for appointing a TPC for the development. It is possible that the TPC role will be undertaken inhouse by a dedicated employee, a senior manager, a steering group, or a management company/consultant.
- 6.6.2 Contact details of the TPC will be provided to West Sussex County Council upon their appointment. The TPC is to be appointed at least one month prior to the first occupation in order to ensure all pre-occupation measures such as the preparation of a Resident's Travel Information Pack are available to the first occupants of the site.
- 6.6.3 The TPC's main responsibilities are as follows:
 - Leading the delivery of the Travel Plan and overseeing the implementation of its measures;
 - Communicating regularly with residents via newsletters, email drops, community noticeboards, the development website and so forth;
 - Investigating the possibility of collaborating with a local cycle shop to provide residents with discount vouchers or similar;
 - Running promotional events (possibly in line with those set out within Table 6-2 below) to encourage residents to travel sustainably and highlight the existing opportunities to do so;
 - Acting as the main point of contact for residents, ensuring residents can easily discuss matters with the TPC when appropriate;
 - Organising the review of the Travel Plan and liaising with West Sussex County Council during the monitoring process;
 - Providing personalised Travel Planning for individual residents;
 - Reviewing the effectiveness of the Travel Plan towards achieving its targets, making suitable changes if necessary; and
 - Submitting monitoring reports to West Sussex County Council on the progress of the Travel Plan per the schedule set out within their Travel Plan Guidance document.
- 6.6.4 Table 6.1 sets out the roles for the TPC and the estimated amount of time that will be spent on each task.

Table 6.1 Travel Plan Coordinator Roles and Responsibilities

940 (6)1					
Issuing and updating marketing information	2 days per year (Years 1-5)				
Provides a personalised travel planning service to residents	2 days per year (Years 1-5)				
Communicates regularly with residents (using newsletters,	2 days per year (Years 1-5)				
email, development website, via the residents'					
association/site management company, noticeboards etc.)					
Investigates whether local cycle shops can provide a	2 days per year (Years 1-5)				
discount to residents;					
Running promotional events (possibly in line with those set	2 days per year (Years 1-5)				
out within Table 6-2 below) to encourage residents to					
travel sustainably and highlight the existing opportunities					
to do so;					



Liaise with West Sussex County Council over local	1.5 days per year (Years 1-5)						
initiatives							
Promotion/Participation in events	2 days per year (Years 1-5)						
Arranging surveys and data collection	1 day per year (Years 1, 3 &5)						
Analysis of survey data	1 day per year (Years 1, 3 & 5)						
Updating the Travel Plan as required	1 day per year (Years 1-5)						

6.6.5 It is expected that the TPC will carry out their role for a period of five years following the first occupation of the site, however, it is acknowledged that some fluidity in this timeframe may be required based on the rate of occupation and success of the Travel Plan.

6.7 Travel Plan Promotion and Awareness

Resident's Travel Information Packs

- 6.7.1 To ensure residents are aware of the sustainable travel options available to them from the outset, Resident's Travel Information Packs will be provided to residents. The TPC will be responsible for preparing and distributing the Resident's Travel Information Packs, which will contain the following information:
 - The name of the TPC and their contact details;
 - Information about how to access the above by bus, including approximate journey times, route numbers etc and a cost comparison with car travel and parking;
 - Information on the benefits of sustainable travel, including those related to cost savings, health and the environment;
 - Advice on how to reduce the need to travel where appropriate, such as local home delivery services for groceries;
 - Maps showing local amenities and facilities, highlighting their location in relation to the development and how they can be accessed by sustainable modes;
 - Details of local walking and cycling routes which can be used for leisure and commuting purposes to within the local area;
 - Provide residents with a list of useful websites which relate to sustainable travel and the details of local taxi service operators.
 - Information about bike shops offering discounts to residents living on developments where a Travel Plan is operating.
- 6.7.2 It is understood that the County Council has negotiated various discounts on behalf of developers and further details can be found on the following website: https://www.westsussex.gov.uk/roads-and-travel/travel-and-public-transport/travelwise-sustainable-transport/cycle-to-work-scheme/
- 6.7.3 The provision of a Residential Travel Information Pack will form part of the terms of the sale or occupancy of the dwellings and therefore residents are aware in advance of what is required of them within the Travel Plan.
- 6.7.4 As part of the Travel Information Pack, residents will be also offered personalised journey planners, which is a free service offered by Traveline.



- 6.7.5 A form will be included within the Travel Information Pack for residents to request a journey planner. The residents will complete the form including a start and end point of their journey, which will then be processed by the TPC. The TPC may also choose to provide advice to the resident on how to use Traveline to obtain the journey planner themselves, allowing the resident to utilise this service for a range of different journeys over time.
- 6.7.6 Dependent on the length of the occupation process, it may be appropriate for the TPC to review the contents of the Resident's Travel Information Pack every six months to ensure the information has not been superseded.

Reducing the Need to Travel

- 6.7.7 The TPC will encourage residents to reduce their need to travel, such as through working from home or using online delivery services. All dwellings at the development will have a broadband connection, which facilitates working from home, attending virtual meetings and the use of online shopping services.
- 6.7.8 The financial and environmental benefits of making fewer journeys will set out within the Resident's Travel Information Packs. For example, residents will be provided with a list of local vendors who provide home delivery services, such as for groceries. Promotional materials will also be distributed to residents promoting the benefits of reducing the need to travel, such as through leaflets and posters.

Sustainable Travel Events

6.7.9 The TPC will actively encourage residents to participate in sustainable travel events throughout the calendar year. Such events include but will not be limited to those listed in below.

Table 6.2 Sustainable Travel Events

Barrones Sourcerons French	System Months of Superi
Walk to School Week	October
National Bike Week	June
Cycle to Work Day	August
European Mobility Week / Travelwise Week	September
<u>Ride Anywhere Week</u>	March
National Liftshare Week	October
International Walk to School Month	May
Road Safety Week	May

^{*}The TPC must maintain an up-to-date record of planned national events. Events do not strictly take place at the same time each year.

6.7.10 The marketing of the above events will be carried out by the TPC approximately 4-6 weeks prior to the event. Information could be shared through posters or a newsletter, depending on the resources and contact details which are available.

Smartphone Applications

6.7.11 Smartphones and third-party applications are widely used, with many apps available to download which provide access to sustainable travel information. The TPC should collate a list of suitable smartphone applications which promote sustainable travel and share this information with residents.



- 6.7.12 Many applications offer real-time transport information and journey planning functions, which will enable residents to appropriately plan their journeys using sustainable travel modes. Many apps are designed to simplify the journey planning process and can be tailored to the needs of the user, such as providing alerts for when to set off or service disruptions. Through raising awareness of these services, residents may be encouraged to try using sustainable transport due to the additional information and support they can access through their smartphone.
- 6.7.13 Raising awareness of sustainable transport applications could take the form of an appendix to the Resident's Travel Information Pack or a poster which is shared with residents.



7 MONITORING AND REVIEW

7.1 Introduction

- 7.1.1 An integral part of the Travel Plan implementation is the monitoring process, which assesses its progress towards achieving the objectives and target which are discussed in Section 5.
- 7.1.2 If ultimately required, the monitoring strategy detailed below will enable the Travel Plan to be refined in order to improve its performance and progression over time.

7.2 Monitoring Strategy

- 7.2.1 As discussed previously, the overarching aim within the Travel Plan is to encourage sustainable travel behaviours and achieve a reduction in vehicle trips to and from the development. This will be measured through a quantitative survey of the multi-modal trips generated by the development.
- 7.2.2 The Standard Assessment Methodology (SAM) developed by TRICS will be used to carry out the Travel Plan monitoring. The SAM process involves TRICS undertaking a detailed site visit and multi-modal survey, which is processed, sent to the TPC and later added to the TRICS database. The survey will take account of the multi-modal trips generated by the site and determine its peak hour trip generation.
- 7.2.3 Upon completion of the survey and analysis of its results, the TPC will provide feedback to West Sussex County Council. This will take the form of a monitoring report which will summarise the survey outcomes, as well as discussing any potential changes which are required in order to successfully implement the Travel Plan.
- 7.2.4 It is expected that the SAM survey will be undertaken for a period of five years, with the first baseline survey carried out within one month of 50% occupation of the development. Surveys are expected to be carried out in Years 1, 3 and 5. The TPC will be responsible for overseeing the monitoring strategy and organising the SAM surveys with TRICS.
- 7.2.5 Table 7.1 overleaf details the monitoring programme which will be implemented by the TPC.



Table 7.1 Indicative Monitoring Plan

Table 7.1 indicative	IVIUI	iitOl	mig	ridi	•										
1800															
Appointment of TPC															
Baseline Travel Survey															
Production of Resident's															
Travel Information Pack															
TRICS SAM Survey															
Submission of Biennial Monitoring Report															
Production of Updated Travel Plan															
Implementation of Remedial measures (if necessary)															

7.2.6 The above monitoring plan is purely indicative, therefore any changes in the schedule of construction may alter the timescales in which each stage of the monitoring strategy is triggered. However, it should be treated as a guide to the implementation of each element and the order in which they will be delivered. It is expected that this monitoring plan will be adjusted by the TPC upon their appointment.

7.3 Remedial Measures

- 7.3.1 Continued enforcement of the Travel Plan is essential to ensure that it is successful in monitoring, managing and mitigating the impacts of the development.
- 7.3.2 As stated previously, it is anticipated that the Travel Plan will be administered and monitored for a period of five years. Where a development is continually failing to meet the milestone targets a review of the Travel Plan should be undertaken and additional measures rolled out.
- 7.3.3 These targets will be reviewed annually in consultation with West Sussex County Council once the results of the TRICS survey are available.
- 7.3.4 The annual review will be used to assess how the Travel Plan is performing and trigger any additional measures necessary to ensure that the targets are met.



- 7.3.5 These additional measures should be agreed with WSCC and may include Travel Plan measures that are aimed at achieving wider reduction in traffic growth.
- 7.3.6 It is noted that the measures required by WSCC will be repeated if the overall modal shift target is not reached after the Travel Plan has been running for 5 years.



8 ACTION PLAN

8.1 Description

- 8.1.1 This section addresses the delivery of the Travel Plan and the actions which are triggered by the measures outlined previously. Most of the responsibility will be held by the TPC; however, assistance will be required from the developer and West Sussex County Council where appropriate.
- 8.1.2 This document and the action plan for its implementation should be updated and revised regularly, as site-specific conditions change over time.
- 8.1.3 Table 8.1 below illustrates the Action Plan for the residential development.

Table 8.1 Action Plan

idble 8.1 Action Plan	Establish .	
Appoint a Travel Plan Coordinator and provide their contact details to West Sussex County Council	Appoint prior to first occupation, notify West Sussex County Council upon their appointment	Redrow Homes
Prepare a Resident's Travel Information Pack which provides residents with sustainable travel information and advice	 Resident's Travel Information Pack to be prepared upon appointment of the TPC Resident's Travel Information Pack to be provided to new residents upon occupation of their dwelling 	TPC
Coordinate provision of season ticket for local bus services – one per household	As required following occupation of each dwelling	TPC – Redrow Homes to make money available
Coordinate provision of season ticket for local train services – one per household	As required following occupation of each dwelling	TPC – Redrow Homes to make money available
Coordinate the provision of a contribution towards the purchase of a new bicycle and/or equipment	As required following occupation of each dwelling	TPC – Redrow Homes to make money available
Coordinate the provision of Bikeability training for up to 4 members of each household	As required following occupation of each dwelling	TPC – Redrow Homes to make money available



Coordinate membership of each household to a local car club of each household	As required following occupation of each dwelling	TPC – Redrow Homes to make money available (inc. joining fee)
Provide personalised travel planning to residents	As required following occupation of each dwelling	TPC
Communicate regularly with residents via newsletters, email drops, community noticeboards and the development website	Ongoing	TPC
Promote sustainable travel events to residents	Promote each event 4-6 weeks before it occurs	TPC
Share information on sustainable transport related smartphone apps with residents	Upon occupation of each dwelling and promote annually thereafter	TPC
Undertake the baseline Travel Plan monitoring survey	Within 1 month of the site reaching 50% occupation.	TPC with assistance from TRICS
Agree Travel Plan targets	1 month after initial travel survey undertaken	TPC
Undertake Travel Plan Surveys for a period of five years, assessing progress towards target of reducing 12hr trips by 10%	Years 1, 3, 5	TPC with assistance from TRICS
Submit monitoring reports to West Sussex County Council based on the results of the Travel Plan monitoring	Three months following the monitoring surveys in Years 1, 3, 5.	TPC

8.2 Legacy

8.2.1 The TPC will not necessarily be expected to promote the Travel Plan at the end of the five-year monitoring period provided the mode – share targets are met however it is important that there is a lasting legacy of the Travel Plan. In the scenario where the mode share targets are met, it will still be encouraged that residents of the site will take up a voluntary role similar to that of the TPC assisting others with journey planning and promoting sustainable travel events either through social media or a leaflet drop.



9 SUMMARY AND CONCLUSIONS

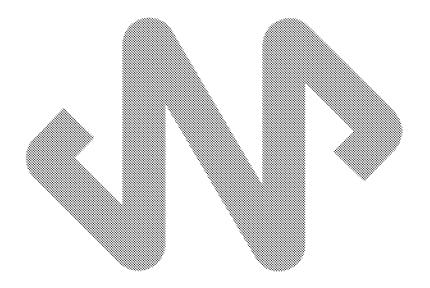
9.1 Summary

- 9.1.1 JNP have been appointed by Redrow Homes to prepare a Residential Travel Plan (RTP) in support of a forthcoming residential development in Angmering, Arun. The development comprises the construction of 160 dwellings and the development of 1,393sqm of Class E commercial units on land to the west of Arundel Road, Angmering.
- 9.1.2 The Travel Plan prepared by Croft Transport Solutions (CTS) was provided as part of the outline application (A/122/19/OUT). This was refined through the Reserved Matters application (A/282/22/RES) and has been updated to reflect the final dwelling mix.
- 9.1.3 The Travel Plan has also been prepared to take account of national and local planning policy, including the National Planning Policy Framework (2021), West Sussex Transport Plan 2011-2026 (2011); and Arun District Local Plan 2011-2031 (2018).
- 9.1.4 A review has been undertaken of the baseline conditions, including the local highway network and access to sustainable modes of transport. The nearest pair of bus stops are the Chantryfield Road bus stops, which are located on Arundel Road, approximately 500m south of the site's southern boundary. The bus service facilitates frequent, efficient connectivity to a range of local destinations, including the town centres of Littlehampton, Worthing and Shoreham-By-Sea and thus will likely be able to accommodate a variety of trips that may otherwise be made by private car.
- 9.1.5 The Travel Plan will encourage the use of these existing sustainable modes of transport and make residents aware of the options which are available to them.
- 9.1.6 The overarching aim of the Travel Plan is to reduce the number of vehicle trips and encourage a shift towards sustainable modes of transport. Over a period of five years, the Travel Plan aims to achieve a 12-hour weekday vehicle trip rate that is 10% lower than predicted in the Transport Assessment (TA).
- 9.1.7 To meet the Travel Plan objectives and targets, a package of measures have been developed. A TPC will be appointed to oversee the implementation of the Travel Plan and will prepare a Resident's Travel Information Pack for residents. A number of measures outlined above will be implemented to further encourage trips by sustainable modes of transport.
- 9.1.8 The success of the Travel Plan will be assessed regularly through a travel plan monitoring survey in liaison with Arun District Council. The progress towards the targets will be measured using SAM surveys which will be validated by TRICS, with the results shared with WSCC thereafter. The first baseline survey carried out within one month of 50% occupation of the development. Surveys are expected to be carried out in Years 1, 3 and 5. If the target shift in mode share is not met in Year 5, Travel Plan monitoring and measures will need to continue past this date.



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