

Transport Assessment

Land at Former Gasworks Site, Park Road, Worthing, West Sussex

Iceni Projects Limited on behalf of St William Homes LLP

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EXECUTIVE SUMMARY

This report has been prepared in support of a planning application for a residential development comprising 209 apartments at the Land at Former Gasworks Site, Park Road, Worthing, West Sussex.

Scoping for this assessment has been undertaken with West Sussex County Council. The methodologies and assumptions used within this Transport Assessment have been discussed and agreed with the relevant officer.

The development has been designed to comply with Policy DM15 'Sustainable Transport and Active Travel' of the Submission Draft Worthing Local Plan (January 2021), which seeks to direct development to sustainable locations with good sustainable transport options nearby. The policy also seeks to ensure that the design and layout of new development prioritises the needs of pedestrians and cyclists over car users.

The key design features of the scheme in respect of Policy DM15 are set out below:

- Widening of footpaths on Lyndhurst Road and Park Road (to be set out under a S278 agreement);
- Safeguarding an area of land for the provision of a cycle path on Lyndhurst Road should this be required by West Sussex County Council in the future (currently shown on the landscape plan as an area of landscaped planting);
- Tying-in of land levels within the surrounding streets to ensure level and step free accesses on Lyndhurst and Park roads (at significant cost to the applicant given the constraints around potentially contaminated land);
- The setting back of properties on Park Road and Lyndhurst roads combined with the removal of the oppressive boundary wall, tree planting and high-quality architecture create a far more attractive and inviting walking / cycling environment;
- Significantly increasing permeability through the Site with a high-quality public realm will also encourage walking for future and existing residents providing options to move through what is currently a closed-off Site;
- An ambition of the scheme is to allow a link through to the current Waitrose car park and the landscape design allows for such a connection to come forward in the future;
- Reduced number of car parking spaces to encourage sustainable modes of travel; and
- Cycle parking over-provision (in relation to West Sussex County Council standards) to encourage sustainable modes of transport.

A trip generation assessment has been undertaken which has demonstrated that the impact of the proposed development will be negligible. The assessment was agreed in principle with West Sussex County Council, who confirmed that no off-site junction capacity assessments are required.

In summary, the Proposed Development is considered to accord with national, regional and local transport policies and will not have a severe impact on local transport infrastructure.

1. INTRODUCTION

- 1.1 Iceni Projects have been appointed by St William Homes LLP (the Applicant) to advise on transport planning matters in relation to the proposed residential development of the Land at Former Gasworks Site, Park Road, Worthing, West Sussex (the Site).
- 1.2 As illustrated at **Figure 1.1**, the Site is located to the south-east of Worthing, and therefore falls within the jurisdiction of Worthing Borough Council (WBC) as planning authority and West Sussex County Council (WSCC) as highway authority.



Figure 1.1 – Site Location

1.3 It should be noted that the Site has been identified for development within the existing Development Plan (specifically the Worthing Core Strategy (2011)) for a mixed residential development under Area of Change 7. The Site has also been identified within the Submission Draft Worthing Local Plan (SDWLP), with an indicative capacity of 150 residential units. The SDWLP was formally submitted to the Secretary of State on 11th June 2021 for independent examination.

- 1.4 This TA assesses the proposed development with regard to transport and highways and demonstrates how the proposals will not result in a severe or detrimental impact to the local highway network. Further, this TA demonstrates the Site is located within a highly sustainable location and is therefore suitable for development, as outlined within the SDWLP.
- 1.5 The methodology used in the preparation of this TA follows the document 'Travel Plans, Transport Assessments and Statements in decision taking' (March 2014), which forms part of the National Planning Practice Guidance, in addition to all relevant WBC and WSCC policy.
- 1.6 In the lead up to this planning submission, Iceni Projects have undertaken scoping discussions with WSCC to agree the broad principles of the work required to support the application coming forward. A Scoping Note (SN) was prepared and set out the proposals and content of the TA, including the proposed structure of the assessment work, methodologies used, trip generation and connectivity. The SN and correspondence with WSCC is available for review at Appendix A1.
- 1.7 The contents of the SN, including the trip generation rates / methodology used, was accepted in principle by the highway officer. It was agreed with WSCC that no impact assessment or modelling of local junctions would be required given the low level of associated vehicular traffic as result of the trip generation assessment.
- 1.8 The full response is attached at **Appendix A2**. This response is referred to where necessary throughout the report.

Report Structure

- 1.9 Following this introductory section, the remainder of this TA is structured as follows:
 - Chapter 2: Planning Policy
 - Chapter 3: Site and Surroundings
 - Chapter 4: Development Proposals
 - Chapter 5: Trip Generation and Transport Impact Assessment
 - Chapter 6: Summary and Conclusions

2. PLANNING POLICY

- 2.1 This chapter of the TA examines the context of the Site and how this relates to relevant planning policies and guidelines. The following national and local planning documents have been reviewed:
 - The National Planning Policy Framework (NPPF) 2019;
 - The Planning Practice Guidance (PPG) 2021;
 - Worthing Core Strategy 2011;
 - Submission Draft Worthing Local Plan 2021; and
 - WSCC Guidance on Parking at New Developments 2020.

National Planning Policy Framework (2019)

- 2.2 The NPPF sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally-prepared plans for housing and other development can be produced. Planning law requires that applications for planning permission be determined in accordance with local development plans and that the NPPF must be taken into account when preparing the development plan, and is therefore a material consideration in planning decisions. The main objective of the NPPF is to achieve sustainable development.
- 2.3 The NPPF was adopted in March 2012, however, a revised document was published in July 2018 which replaced the 2012 version. This revised version was then updated on 19th February 2019 and therefore replaces the previous two versions.
- 2.4 With regard to transport policy, the revised NPPF includes a section on 'Promoting sustainable transport' which includes the following text relevant to this proposal:

Paragraph 102

Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:

- a) 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;
- c) opportunities to promote walking, cycling and public transport use are identified and pursued;
- d) 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.

Paragraph 108

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

- appropriate opportunities to promote sustainable transport modes can be or have been taken up, given the type of development and its location;
- b) safe and suitable access to the site can be achieved for all users; and
- c) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.

Paragraph 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.

Paragraph 110

Within this context, applications for development should:

- a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second so far as possible to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;
- b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;
- create places that are safe, secure and attractive which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;
- d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and
- e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.
- 2.5 The NPPF is therefore clear that development should only be refused on transport grounds where the residual cumulative impact of the development can be considered "severe", and that there should be a focus on sustainable modes of travel as opposed to a reliance on the private car.

- 2.6 The Site is in a sustainable location, with a good level of opportunity to travel by modes such as rail and bus and is within cycle and walking distance of Worthing Town Centre, which has wide ranging amenities and services for everyday use. The development proposals ensure that this is encouraged through local improvements, such as widening of the footway along Lyndhurst Road, and improved connectivity, as detailed throughout this report. The proposals therefore follow the advice provided within the NPPF in regard to transport.
- 2.7 As a result of the NPPF being adopted, all Planning Policy Guidance and Planning Policy Statements have been superseded, including PPG13 (Transport), which was formerly used as a basis for national transport policy.
- 2.8 Whilst no longer policy, there are two key aspects within PPG13 which are still of relevance when determining a site's level of sustainable travel access. The document contains sections on walking and cycling, which includes the following text at Paragraph 74 and 77:

Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under two kilometres. Walking also forms an often-forgotten part of all longer journeys by public transport and car.

Cycling also has potential to substitute for short car trips, particularly those under five kilometres, and to form part of a longer journey by public transport.

2.9 It is considered that the walking and cycling distances referred to in PPG13 remain valid and should not be overlooked when determining the walking and cycling accessibility of development sites.

National Planning Practice Guidance

2.10 Information contained as part of the NPPG provides advice for travel plans, transport assessments and statements in decision taking. Paragraph 002 of the document contains a section on the requirement of TA's, which includes the following text:

Travel Plans, Transport Assessments and Statements are all ways of assessing and mitigating the negative transport impacts of the development in order to promote sustainable development. They are required for all developments which generate significant amounts of movement.

2.11 This TA follows the advice provided within the NPPG and accords with providing the information which should be included as part of an assessment. A Framework Travel Plan has also been produced which accompanies the planning submission documents.

Worthing Core Strategy (2011)

2.12 The Worthing Core Strategy was adopted by the council in April 2011. The document forms the key part of the Local Development Framework and the intention was to guide planning and development in the borough up to 2026. Whilst Worthing are preparing a Local Plan, it is a draft document and not formally adopted. As such, consideration has also been given to the adopted Worthing Core Strategy document in preparation of this planning application. The policies pertinent to this proposal are outlined below.

Policy 19 - Sustainable Travel

The Council will work closely with its transport partners to produce a consistent and integrated approach to spatial planning and transport strategies. Utilising common priorities and goals as set out in the Statement of Common Ground and the Local Transport Plan will ensure that the travelling environment for residents and visitors is safe, accessible and sustainable. This will be achieved by:

- Supporting continued improvements to public transport services.
- Improving walking and cycling networks to create sustainable links between the town centre and the suburbs.
- Producing a car parking strategy for the town centre which will provide a balance between parking demand and overall provision, which will maintain the economic viability of the town centre, whilst promoting it as an area which is safe and accessible for pedestrians and cyclists.

The demands that users have for local public transport services and the impacts that car users have on the surrounding road network will be assessed for all new development. Developer contributions will be sought to implement any necessary measures to reduce local road congestion.

Major new development will require the provision of a Transport Assessment, which will specify how it will affect the surrounding transport environment and how it can mitigate against any adverse effects. Where appropriate, new development will require the provision of a Travel Plan and/or a Transport Assessment, which will need to demonstrate what infrastructure is needed to promote the priorities set out in the Local Transport Plan and the Statement of Common Ground.

2.13 This TA assesses the predicted impact of the proposed development and associated traffic. Details provided within the following sections demonstrate that the development proposals will not result in a detrimental impact to the local highway network.

Submission Draft Worthing Local Plan (2021)

2.14 The SDWLP will replace the Core Strategy (2011) when formally adopted. Whilst not currently adopted, it should be noted that the consultation on the document ran for eight weeks between Tuesday 26th January and Tuesday 23rd March 2021. This was the formal 'Regulation 19' stage for the consultation process, prior to submission to the Secretary of State for Examination. The SDWLP was formally submitted to the Secretary of State on 11th June 2021 for independent examination. As such, the policies within the document are a material consideration in the determination of the application and therefore carries weight in the planning balance. The transport / highways policy pertinent to this proposal is outlined below.

Policy DM15 – Sustainable Transport and Active Travel

In order to manage the anticipated growth in demand for travel, development proposals which promote an improved and integrated transport network, with a re-balancing in favour of non-car modes as a means of access to jobs, homes, services and facilities, will be encouraged and supported.

a) Worthing Borough Council will promote and support development that prioritises active travel by walking, cycling, Non-Motorised User routes and public transport, and reduces the proportion of journeys made by car. This will help to achieve a rebalancing of transport in favour of sustainable modes by:

- ensuring that new development is located in sustainable locations with good access to schools, shops, jobs and other key services by walking, cycling and public transport in order to reduce the need to travel by car;
- ii) ensuring that the design and layout of new development prioritises the needs of pedestrians, cyclists and users of public transport over ease of access by the motorist;
- iii) ensuring that new development minimises the need to travel and, where appropriate, incorporates measures to mitigate for any transport impacts which may arise from that development;
- iv) requiring new development to provide for an appropriate level of cycle, car parking and electric vehicle space allocations that takes into consideration the impact of development upon on-street parking and accords with West Sussex County Council standards / guidance;
- v) promoting the provision of, and participation in, car club schemes;
- vi) requiring development which generates a significant demand for travel, and/or is likely to have other transport implications to:

• be supported by a Transport Assessment / Transport Statement and sustainable Travel Plan (in line with West Sussex County Council guidance and the NPPF);

- contribute to improved sustainable transport infrastructure, including the provision of safe and reliable sustainable transport modes; and
- provide facilities and measures to support sustainable travel modes.

b) The local planning authority will work with West Sussex County Council and other relevant agencies to encourage and support measures that promote improved accessibility, create safer roads, reduce the environmental impact of traffic movements, enhance the pedestrian environment, or facilitate highway improvements. In particular, the local planning authority will:

- i) support the expansion and improvement of public transport services;
- encourage improvements to existing rail services, new or enhanced connections or interchanges between bus and rail services, and improvements to the quality and quantity of car and cycle parking at railway stations;
- support the development of a network of high quality walking and cycling routes throughout the borough, including those identified in the Local Cycling and Walking Infrastructure Plan, including improved access across the A27, and railway line and better connectivity with the South Downs National Park and green infrastructure network;

- iv) support the development of key arterial cycle routes at: National Cycle Network Route 2; George
 V Avenue and Sea Lane and A24 Worthing Town Centre to Washington; phase 1 Findon Valley to
 Findon Village as identified in the WSCC Local Transport Investment Programme
- v) ensure new development contributes to the mitigation of air pollution, particularly in Air Quality Management Areas. New development should be located and designed to incorporate facilities for electric vehicle charging points, thereby extending the current network;
- vi) pursue ways of managing the impact of HGVs and implement measures as appropriate;
- vii) support improvements to the road network including the A259 and A27 and, as identified in the Worthing Local Plan Transport Study, provide appropriate mitigation measures to address capacity issues at a number of key junctions and road safety impacts on identified road links.
- 2.15 The SDWLP has identified the Site as being located in a 'highly sustainable location'. This has been further demonstrated within **Section 2** of this report, with various opportunities identified for future residents to travel by sustainable modes such as walking, cycling, rail and bus. The development proposals ensure that sustainable travel is encouraged by providing improved pedestrian connectivity throughout the Site, reduced car parking, two car club bays and cycle parking in excess of standards in sheltered and secure storage areas. In addition, 40% of the car parking spaces will have electric charging facilities, an overprovision when compared with guidance set out in WSCC Parking at New Development guidance document.
- 2.16 The potential traffic impact of the proposed development on the local highway network is detailed within Section 5. In summary, it has been demonstrated that the proposed development is unlikely to cause any impact to the local highway network within each morning and afternoon peak hour. Therefore, following scoping discussion with WSCC, it was agreed in principle that no off-site junction assessments are necessary.
- 2.17 With regards to servicing, SPA has been undertaken to demonstrate that the vehicles expected to arrive at the Site are able to enter the Site, perform a 3-point turn manoeuvre and exit the Site in forward gear.
- 2.18 Lastly, a TA (this document) is being submitted with the planning application.

WSCC Guidance on Parking at New Development (2020)

2.19 This document is a guidance document which outlines WSCC's approach to parking at new development, including residential schemes such as this. It is used to help determine the level of car parking at new developments and provides the basis for WSCC advice on planning applications.

2.20 The specific car parking requirement and provision is detailed within **Section 4** of this report, including disabled and electric vehicle charging facilities. Both disabled car parking and electric charging provision are provided to accord with standards set out in the WSCC Guidance on Parking at New Development document.

Summary

- 2.21 The Site is well located in terms of walking and cycling routes and has good connectivity to local public transport. The development proposals aim to provide high-quality walking and cycling networks within the Site as well as improving existing routes surrounding the Site.
- 2.22 The Proposed Development accords with the NPPF policies, being well located in a sustainable part of Worthing, close to everyday needs of residents. The Site has good connectivity to pedestrian and cycling opportunities as well as links to public transport making it well suited for the Proposed Development, in accordance with national policy.
- 2.23 Furthermore, the proposals have been designed and progressed with consideration to the pertinent regional and local planning policies, including the aspirations set out within the SDWLP.

3. SITE AND SURROUNDINGS

- 3.1 The Site is a former gasholder facility located to the east of Worthing Town Centre and is bound to the north by Lyndhurst Road, to the east by Park Road, to the south by existing residential properties and to the west by Waitrose car park. Along much of the boundary of the Site is a brick wall, which in places is circa 2m high.
- 3.2 The gasholders have been decommissioned and removed from the Site. An area of land, which falls outside of the application Site boundary, located to the north-east of the Site, between Park Road and Lyndhurst Road is retained to accommodate a Gas Governor compound.
- 3.3 The location of the Site in consideration of its surroundings is shown in **Figure 3.1**.



Figure 3.1 – Context of Site (indicative boundary)

- 3.4 Currently the following uses are in operation on the Site:
 - Partnership for Growth (charity): offices for storing, packing and loading items collected for overseas aid and ancillary office space for administration;
 - SGN: depot and ancillary office use within Class B1 or B8 of the Town and Country Planning (Use Classes) order 1987 or such other use within Class B1 and B8 as shall be approved by the landlord such approval not to be reasonably withheld or delayed; and
 - NHS: use as a 93-space car park for the parking during business hours of private motor cars belonging to the officer's staff and employees of the Tenants employed or working at or visiting the Tenant's premises.

Site Access

- 3.5 The Site currently features a single point of access, which is situated in the very south-eastern corner of the Site and taken from Park Road. The existing vehicular access is gated, approximately 9m wide and provides a narrow footway on the northern side. There are small kerb radii provided where the entrance junctions with Park Road, although the access is more akin to a wide dropped kerb vehicle crossover.
- 3.6 The existing visibility from the access for egressing drivers is limited in both directions by brick boundary walls either side, as shown at **Photo 3.1 below**.



Photo 3.1 – Existing Site Access on Park Road

3.7 Visibility has been measured using the industry standard methodology set out within Manual for Streets (MfS). The methodology includes measuring back from the carriageway edge, along the centreline of the access (known as the 'X' distance), by a distance along the kerb edge of the adjoining road (known as the 'Y' distance). An extract taken from MfS showing the 'X' and 'Y' measurements is provided at **Figure 3.2**.





3.8 Measuring 2.4m (the 'X' distance) by the maximum achievable 'Y' distance, a 16m visibility splay can be achieved to the south. The 'Y' distance has been taken 1m off the kerb as it is likely northbound vehicles will be travelling towards the centre of Park Road due to on-street parking spaces being present. The existing junction visibility splays are shown at drawing 20-T082_21, included at **Appendix A3**.

Local Highway Network

3.9 **Figure 3.3** illustrates the location of the Site within the context of the local highway network and connections to the wider strategic network.



Figure 3.3 Local Highway Network

- 3.10 Park Road forms the eastern boundary of the Site and follows a north / south alignment between Brighton Road to the south and Lyndhurst Road to the north. The width of Park Road carriageway is circa 5m and it provides on-street parking along the majority of the west side, in marked bays, subject to use by permit holders only Monday – Saturday 9am – 6pm. Park Road is one-way working northbound and predominantly serves direct access to existing residential properties on both sides of the road in addition to providing access to residential cul-de-sacs. Footways and street lighting are both present, with dropped kerbs provided at each crossing point.
- 3.11 Park Road junctions with Lyndhurst Road to the north via a priority crossroad junction. A second section of Park Road continues north of Lyndhurst Road, where it connects to Newland Road which routes between the A259 to the east and the B2223 to the west.
- 3.12 Lyndhurst Road is a two-way working single carriageway road which forms the northern boundary of the Site and is subject to a 30mph speed restriction. It also forms part of a bus route with bus stops located along is length. The carriageway is circa 6m wide and follows an east / west alignment between East Worthing and Worthing Town Centre.

- 3.13 Within the vicinity of the Site, Lyndhurst Road provides direct access to residential dwellings on the northern side of the road, with a circa 2m wide footway present for pedestrians. The footway on the southern side of Lyndhurst Road is narrow in places, reducing to circa 1.2m in width for a short length.
- 3.14 Lyndhurst Road connects to the A259 and B2223 at its east and west ends respectively. The B2223 and the A259, via the A24, roads provide connections to the A27 north of the Site which forms part of the wider strategic network along the south coast of England.
- 3.15 Both Park Road and Lyndhurst Road are adopted and maintained by WSCC. The extent of the maintainable highway runs along the Site frontage boundaries, which is illustrated at **Figure 3.4** and included at **Appendix A4**.



Figure 3.4 Extract of WSCC Highway Boundary Plan

Note: Site Boundary is Indicative

Highway Safety Assessment

3.16 A qualitative highway safety assessment has been undertaken for the highway network surrounding the Site for the previous five years. This assessment, which referenced the www.crashmap.co.uk website, indicated that there has not been any recorded collisions at the location of the existing Site access.

- 3.17 In addition, only one accident has occurred along the Site frontage to Lyndhurst Road in the five year period and only two at Park Road/Lyndhurst Road junction. It is considered that the number of recorded collisions within the five year period are not in clusters relating to the existing highway alignment.
- 3.18 An extract taken from Crash Map is provided at **Figure 3.5.**



Figure 3.5 – PIC Location

Walking and Cycling

Walking

- 3.19 The Institute of Highways and Transportation (IHT) provide guidance on desirable walk distances in their publication '*Providing for Journeys on Foot*' which recommends suggested acceptable walking distances of between 500m (6 minutes, "Desirable") and 2km (25 minutes, "Preferred Maximum") for commuting and journeys to school.
- 3.20 For non-commuter journeys, the guidance suggests that a walk distance of up to 1,200 metres can be "considered", with the "acceptable" and "desirable" distances being 800 and 400 metres respectively.
- 3.21 **Table 3.1,** below, summarises the approximate walk journey times that can be "Considered", "Acceptable", and those that are "Desirable" for different journey purposes.

IHT Standards	Distance (m)		Approx. Walk Time (mins) ¹	
	Commuting, Walking to School and Recreation	Other Non- Commuter Journeys	Commuting, Walking to School and Recreation	Other Non- Commuter Journeys
'Desirable'	500	400	6.25	5
'Acceptable'	1000	800	12.5	10
'Considered'	2000	1200	25	15

Table 3.1: Suggested Acceptable Walking Distance & Approximate Walk Times

Note: ¹ Calculated assuming an average walk speed of 5kph Source: IHT 'Guidelines for Providing Journeys on Foot' (2000)

- 3.22 The '*Manual for Streets*' (*MfS*) identifies walkable neighbourhoods as being those typically characterised by having a range of facilities within an 800m (10 minute) walk distance. However, this is not an upper limit, with walking offering the greatest potential to replace short car trips, particularly those under 2km.
- 3.23 The area surrounding the Site and further afield has good pedestrian links, with an established network of footways. All public highways in the vicinity of the Site have footways and street lighting providing good quality, safe connections to the surrounding area, services and public transport access points.
- 3.24 Due to the Site being within close proximity to the town centre, a vast and wide range of local facilities and amenities are accessible within a short walk or cycle from the Site. This includes bus stops, hospital, supermarket, schools, gymnasiums, dentists, and other shops typically found within a town centre, all of which are within a ten-minute walk / five-minute cycle from the Site and therefore fall within desirable and acceptable walking distances as per **Table 3.1** above.
- 3.25 In addition to the facilities and amenities which are available within the town centre, it should also be noted that there are leisure facilities within a short walk from the Site. This includes a number of public parks, the nearest being Beach House Park directly to the east of the Site, which can be accessed within a minutes' walk. Further, the coast is located 500m to the south of the existing Site access (approximate six-minute walk from the Site), where walking and cycling leisure routes are available.

Cycling

- 3.26 Many of the local roads are suitable for cycling and there are several cycle routes identified by the local council running through Worthing. Whilst on a Site visit, it was also observed on Site that several temporary cycle routes had been implemented during Covid restrictions, which provided routes along the A259 between the Site and Worthing Rail Station. It is unknown if these cycle routes will become permanent.
- 3.27 There are proposals for the cycle network in Worthing. Sustrans has produced a plan for Adur and Worthing, which is provided at **Figure 3.6**.



Figure 3.6 Extract of Sustrans 'Worthing Proposed Walking and Cycling Network

- 3.28 **Figure 3.6** shows that Lyndhurst Road is identified as a 'Secondary Cycle Route'. Following discussions with WSCC, it is understood that Adur and Worthing Council have aspirations to improve cycle connectivity within Worthing and the surrounding area. This includes consideration of a cycle route along Lyndhurst Road. At the time of writing, the exact detail / type of cycle route is unknown. However, it should be noted that the development proposals include widening the existing footway along the Site frontage on Lyndhurst Road, with buildings set back accordingly, to allow for a future route, should it be progressed.
- 3.29 **Figure 3.6** also shows that the Site is located within the 'Primary Walking Zone', which further demonstrates that the Site is well located for walking.

Public Transport

Bus

- 3.30 The nearest bus stops to the Site are located approximately 120m to the west of the Site boundary, along Lyndhurst Road, which are accessible within a two-minute walk. The bus stops serve bus routes 9, 16, 106 and 'Pulse', providing services towards Durrington, Arundel, Tarring, Broadwater, Lancing and Shoreham-by-Sea.
- 3.31 In addition, there are bus stops approximately 270m to the east of the Site, along Chapel Road, which provide additional services. The bus stops along Chapel Road serve routes 1, 5, 7, 10,16 and 21 towards Worthing, Broadwater, Salvington, Midhurst, Durrington, Crawley, Tarring, Lancing and Petworth.
- 3.32 The bus services on Lyndhurst Road and connections to other bus routes are illustrated at **Figure 3.7**.



Figure 3.7 Worthing Bus Map

3.33 As such, there is a range of bus services within very close proximity to the Site which give access to a variety of destinations across Worthing and the surrounding area, and therefore provide a good range of options for future residents to travel both to and from the Site via bus. This therefore provides a reasonable and reliable mode of transport other than the private car.

Rail

- 3.34 Worthing Station is located approximately 1km to the north-west of the Site and is accessible within a 12-minute walk or five-minute cycle. There are footways along the full route to the station which provide a step-free route, including at-grade pedestrian crossings such as signal controlled and zebra crossings. In addition, should future residents wish to cycle to the station, Southern Railway provide a cycle parking facility known as 'Cycle Hub', within the station car park. This facility provides an opportunity for cyclists to obtain a smart card which provides access to a lockable and sheltered cycle parking area.
- 3.35 Worthing Railway Station is located on the West Coastal Railway Line which routes to / from London Victoria, Littlehampton, Brighton, Portsmouth Harbour and other destinations along the line. It is therefore considered that the Site has good levels of access to a wide range of rail services providing connections both to London and on a local and national scale. The network map for Worthing Rail Station is illustrated at **Figure 3.8**.



Figure 3.8 Extract of Local Rail Network Map

Summary

- 3.36 The application Site is located to the east of Worthing town centre. It is bound by Lyndhurst Road to the north and Park Road to the east. There are various facilities / amenities within close proximity, which include bus stops, hospital, supermarket, schools, gymnasiums, dentists, and other shops typically found within a town centre, all of which are within a ten-minute walk / five-minute cycle from the Site and therefore fall within desirable and acceptable walking distances as per **Table 3.1**.
- 3.37 Worthing Station is located approximately 1km to the north-west of the Site and is accessible within a 12-minute walk or five-minute cycle. The nearest bus stops to the Site are located approximately 120m to the west of the Site boundary, along Lyndhurst Road, which are accessible within a twominute walk.
- 3.38 It is considered that the Site is well located to take advantage of the existing local services, amenities and access to sustainable transport, making it suitable for a residential development.

4. DEVELOPMENT PROPOSALS

4.1 The description of development is as follows:

Full Planning Application for the demolition of existing structures, partial removal of boundary walls and the construction of 209 residential apartments spread across 5 blocks ranging in height from 3-7 storeys, associated access, parking, open space and landscaping'.

- 4.2 The proposed scheme comprises five blocks of apartments with the following mix:
 - 10 x Studio apartments;
 - 50 x 1-bedroom apartments;
 - 141 x 2-bedroom apartments; and
 - 8 x 3-bedroom apartments;
- 4.3 The proposed layout, including proposed vehicular access points, is illustrated at **Figure 4.1**, with the full plan included at **Appendix A5**.



Figure 4.1 Development Layout

Proposed Access Arrangements

- 4.4 It is proposed to relocate the existing access slightly on Park Road and provide a second access on Lyndhurst Road. The two access points will serve separate areas of the Site and there will be no vehicular through route between them.
- 4.5 The access on Park Road will provide access 105 car parking spaces, whilst Lyndhurst Road will provide access to five, as well as delivery and servicing.
- 4.6 As part of the proposals, a third access is provided to the retained Gas Governor compound. This is located on Lyndhurst Road, directly west of the Gas Governor Compound.
- 4.7 It is also relevant to note the tying-in of land levels within the surrounding streets to ensure level and step free accesses on Lyndhurst and Park Roads (at significant cost to the applicant given the constraints around potentially contaminated land).

Park Road Access

- 4.8 The Park Road access is proposed to be relocated approximately 5.6m north of the existing access. By doing so, visibility at the junction is improved for egressing drivers. Junction visibility has been measured using the same methodology set out within paragraph 3.7 of this report. An 'X' distance of 2.4m by a 'Y' distance (measured along the Park Road kerb, to 1m into the carriageway) of 23m splay is achievable to the south, which increases driver visibility by 7m on the existing access arrangement. A plan showing access junction visibility splays is included at **Appendix A6**.
- 4.9 In addition to measuring visibility from a 2.4m setback, visibility from a 2m setback has also been assessed. It is considered that an 'X' distance of 2m is appropriate for measuring visibility splays at the Park Road access, as per guidance outlined in MfS, which states a 2m setback can be considered for lightly trafficked and slow speed situations and where traffic is one-way. From a 2m setback, a 33m visibility splay is achievable. Further, approaching vehicles on Park Road will be travelling along the eastern side of the carriageway and consequently driver visibility from the proposed access will extend further than 1m off the nearside kerb. Therefore, driver visibility would be far greater than what has been demonstrated.
- 4.10 In addition, **Section 5** of this report considers the existing and proposed trip generation and highlights that there will be a negligible change in vehicle trips comparing the existing Site uses and proposed residential development. As such, considering there will be no intensification of trips associated with the Site during both the AM and PM peak hours, it is considered that the proposed Park Road access will provide an overall improvement for the access into the Site.

- 4.11 The level of junction visibility at the proposed access at Park Road appears to be consistent with other residential accesses along the road at which there have been no recorded Personal Injury Collisions in the last 5-year period, according to www.crashmap.co.uk.
- 4.12 The visibility achievable from proposed accesses has been discussed and agreed in principle with WSCC.
- 4.13 The Park Road access is proposed as a 7.6m wide shared surface type arrangement for pedestrians, cyclists and vehicles creating a 'courtyard' environment into the Site, accessed via a dropped kerb vehicle cross over. This arrangement is consistent with similar development accesses, such as the King's Mews development to the south of the Site along Park Road and Birch Court, located on the section of Park Road to the north of Lyndhurst Road.
- 4.14 A plan showing the proposed Park Road access is included at **Appendix A6**. In order to demonstrate the access is suitable to accommodate the expected vehicle types, Swept Path Analysis (SPA) has been undertaken. A plan showing the SPA is included at **Appendix A7**, which includes a refuse vehicle, pumping appliance and 10m rigid delivery vehicle.

Lyndhurst Road Access

- 4.15 A second access to the development is proposed along the Lyndhurst Road frontage, approximately 55m west of the junction with Park Road. This access is predominantly for pedestrian and cycle use with access to five parking spaces and delivery and servicing vehicles.
- 4.16 The access is proposed to be 12m wide and forms a dropped kerb leading to shared surface type arrangement for pedestrians, cyclists and vehicles creating a 'courtyard' environment to access the Site.
- 4.17 Junction visibility is provided in accordance with MfS at an 'X' distance of 2.4m and a 'Y' distance of 43m in both directions along Lyndhurst Road. A plan showing the proposed Site access with the visibility splays is included at **Appendix A6**. SPA has also been undertaken to demonstrate the access can accommodate the expected vehicle types as listed above. A plan showing the SPA is included at **Appendix A7**.

Gas Governor Access (Lyndhurst Road)

4.18 A Gas Governor is housed within the Gas Governor compound to the north-east of the Site, outside of the application Site boundary. We have been advised that access to the Gas Governor compound is required on an infrequent basis for maintenance work. A new 4.4m wide access, adjacent to the Gas Governor compound, is proposed on Lyndhurst Road via a dropped kerb vehicle crossover with a gate set back to allow a vehicle to wait off the Lyndhurst Road carriageway and footway.

- 4.19 A turning area is provided to the rear of the Gas Governor compound which enables maintenance vehicles to turn around and egress to Lyndhurst Road in forward gear. The proposed access and SPA are illustrated on plans included at **Appendix A7**. The access arrangement for the Gas Governor compound has been discussed and agreed in principle with WSCC. The arrangement has also been discussed and agreed in principle with SGN, who operate the Gas Governor.
- 4.20 In addition to the proposed accesses, there is also an opportunity to widen footways on Park Road and Lyndhurst Road along the Site frontages. It is proposed to widen the footway along the Site frontage on Park Road and Lyndhurst Road to 1.8m. A further 1.8m is safeguarded along the Site frontage along Lyndhurst Road, should a cycle lane be provided in the future.
- 4.21 As agreed during scoping discussions with WSCC, Stage 1 Road Safety Audits (RSA) of the proposed Site accesses at Park Road and Lyndhurst Road have been undertaken. The three audits, including the Gas Governor Compound dropped kerb access, were undertaken by Allen Transport Consultancy Ltd in May 2021.
- 4.22 The safety audits made a series of comments and recommendations based on the proposed layout drawings provided. These recommendations did not raise any fundamental concerns with the proposed highways and access arrangements, all of which are considered to be able to be addressed at the detailed design stage.
- 4.23 Full details of the safety audit and Designers Response are attached at **Appendix A8** of this report.

4.24 It is proposed for all refuse and servicing to be undertaken within the Site. Each block provides a refuse store at ground floor, where all waste will be located on collection day. A Block Plan is provided at **Figure 4.2**.

Figure 4.2 Development Block Plan and Refuse Store Locations



- 4.25 Figure 4.2 illustrates the locations of the bin stores and their proximity to turning areas for refuse vehicle access. With regard to distances to stores for residents and waste collection vehicles, WSCC supports the approach set out in MfS (as stated within the Local Design Guidance document), which states residents should not be required to carry waste more than 30m and waste collection vehicles should be able to get within 25m of the storage point.
- 4.26 The location of the proposed bin stores do not require residents to carry waste in excess of 30m and waste collection vehicles can get within 25m of the storage point, therefore the proposals are in accordance with MfS guidance.

- 4.27 Refuse stores for blocks A, B and E are accessed via the Park Road access. There are two turning heads proposed within the car park area which can accommodate the turning manoeuvres of the refuse vehicle.
- 4.28 In order to access to blocks C and D, refuse vehicles will be required to enter the Site via the Lyndhurst Road access and manoeuvre into a position whereby refuse stores will be accessible within a short walk from the vehicle. To exit, vehicles will be required to perform a 3-point turn manoeuvre, within the Site, before leaving in a forward gear.
- 4.29 In addition, an external refuse store is located on the very eastern section of the Site for the units which front onto Park Road. The refuse collectors will be required to walk circa 20m from the Park Road access to the external refuse store, as highlighted on Figure 4.2
- 4.30 A plan showing the SPA for refuse vehicles is included at **Appendix A7**. The size of refuse vehicle was confirmed with Adur and Worthing Council. In all cases the refuse stores are within recommended distances of refuse vehicle turning heads in line with MfS guidance as mentioned above.
- 4.31 General deliveries and servicing will follow the same strategy as outlined above for the refuse collection. In short, delivery vehicles servicing blocks C and D will access via Lyndhurst Road, and vehicles servicing blocks A, B and E will utilise the Park Road access, using the turning areas provided within the layout to temporarily set down.
- 4.32 The application Site also allows for access for emergency vehicles as stated in MfS:

"There should be vehicle access for a pump appliance within 45m of every dwelling entrance for single family houses, flats and maisonettes"

4.33 SPA for a Pumping Appliance has also been undertaken. A plan showing the SPA is included at Appendix A7, which demonstrates a 7.9m Pumping Appliance can enter in a forward gear, perform a 3-point turn manoeuvre and exit in a forward gear.

Parking

4.34 Car parking standards pertinent to this proposal are contained within the 'Guidance on Parking at New Developments' (September 2020), which was produced by WSCC and approved by the Cabinet Member for Highways and Infrastructure in July 2019. 4.35 The document provides different standards based on five 'Parking Behaviour Zones' (PBZ), which are highlighted on a map included at Appendix 1 of the guidance document. The development Site falls within PBZ5, therefore the standards in **Table 4.1** apply.

Number of Bedrooms	Number of Habitable Rooms	PBZ5 Requirement
1	1-3	0.6
2	4	1.1
3	5 to 6	1.6
4+	7 or more	2.2

Table 4.1 Car Parking Standards (spaces per dwelling)

- 4.36 The Site has been identified as being in a 'highly sustainable location' within the SDWLP. Policy DM15 'Sustainable Transport and Active Travel', contained within the SDWLP, sets out how WBC will promote and support development that priorities active travel (walking, cycling and public transport) and reduces the proportion of journeys made by car. Given the Site is located within a highly sustainable location, it is considered key to design the scheme in such a way that promotes active travel and discourages the use of a private car, in line with Policy DM15.
- 4.37 Having assessed the sustainability of the Site, particularly the proximity to public transport services and town centre facilities and Policy DM15, a lower car parking provision is considered to be appropriate to encourage the use of sustainable travel. It is important to note that the parking provision was discussed with WSCC whereby a lower provision was considered acceptable in principle.
- 4.38 Two planning applications (Union Place Car Park, App no. AWDM/0461 and Teville Gate Car Park and Land to West of Teville Road, App no. AWDM/0325/19) have been reviewed in relation to parking provision.
- 4.39 The most recently approved scheme is 'Union Place', located circa 350m to the west of the Site, which obtained outline planning permission in November 2020 for the construction of a mixed-use development comprising 186 new homes, along with commercial, hotel, theatre and cultural space. A 0.35 car parking ratio was considered acceptable by WBC and WSCC for the residential element.

- 4.40 The second application reviewed was the Former Teville Car Park application, located directly to the south of Worthing Station. The application proposes a residential development comprising 378 units and a 1,814sqm discount food store on ground floor. It is important to note that of the 378 residential units, 198 will be private sale units and the remaining 180 units will be private rented. As the units proposed on the development Site will be private sales, consideration has been given to the 198 units. Having reviewed the TA, it is known that for the 198 units, 100 car parking spaces is proposed, equating to a 0.51 car parking ratio.
- 4.41 Whilst the application has not been approved, WSCC highways have provided a number of consultation responses, whereby it has been confirmed that a lower ratio can be considered if robust alternatives to travel, such as a car club space, can be offered.
- 4.42 2011 Car Ownership Census Data has been assessed for the Worthing 011 Middle Super Output Area, which the Site is located in. The data shows that car ownership for the area is 0.7 cars per dwelling, which is reflective of the sustainable location of the Site. It is important to note that the car ownership ratio is taken from 2011 Census Data and is likely to be lower in recent years as the trend is moving towards more sustainable travel, particularly for younger populations in a highly sustainable location such as this. In addition, changes in working practices due to COVID, where working from home is deemed more acceptable, are further reducing the need to travel.
- 4.43 In addition, it is important to note that the development proposals include the provision of two car club bays. It is generally recognised that a singular car club bay can reduce car ownership by 10-15%. Therefore, providing two car club bays is considered to reduce car ownership greatly.
- 4.44 Taking all of the above into consideration, a 0.53 per unit car parking ratio is proposed. This equates to 110 parking spaces based on 209 apartments. The level is considered appropriate to encourage the use of sustainable travel and discourage the use of a private car, which accords with local policy, specifically DM15 'Sustainable Transport and Active Travel'.
- 4.45 It should be noted that future residents of the development will be restricted from applying for residential parking permits to further discourage the use of a private car. The restriction will also ensure the proposed development does not add to the demand for parking in local roads.
- 4.46 With regards to disabled parking, the standards require 5% of the total number of car parking spaces to be disabled. The proposals will meet this requirement with one space being provided in the Lyndhurst Road courtyard and six within the parking area along the southern boundary of the Site.
- 4.47 Electric vehicle charging points (EVCPs) will also be provided within the car parks in accordance with the WSCC Guidance on Parking at New Developments (September 2020), which sets out a future minimum provision starting at 20% in 2018 and increasing to 70% by 2030.

- 4.48 It is anticipated that the development will commence in 2022, at which time the standards require 37% of spaces to have EVCPs, with the remainder being passive electric spaces. The development proposal includes 40% spaces with EVCPs, with the remainder being passive electric spaces. Therefore the provision is in excess of standards.
- 4.49 Cycle parking standards pertinent to the proposal are set out within the 'Guidance on Parking at New Development' document.

Туре	Dwellings Size	Standard	Requirement
Flats	Up to 3 rooms (1 & 2 bed)	0.5 space (if communal storage otherwise same as 1& 2 bed house)	96 (191 x 1-2 bed apartments)
Flats	4+ rooms (3+ bed)	1 space	13 (13 x 3-bedroom apartments)
	109		

Table 4.2 Cycle Parking Standards and Requirement

- 4.50 Cycle parking will be provided in excess of standards taken from the 'Guidance on Parking at New Development' document. A total of 205 cycle parking spaces are provided within the proposed scheme, which equates to 96 spaces above the requirement. Of the 205 spaces, 20 spaces are provided to the front of Block A, 30 spaces to the north of Block B, 40 spaces to the west of Block B, 76 spaces within Block C and 21 spaces within Block D. The spaces which are located outside of buildings will be within secure and covered cycle storage facilities.
- 4.51 It is important to reiterate that all of the above has been discussed and with WSCC in advance of the planning application.

5. TRIP GENERATION

- 5.1 This section outlines the existing and proposed development trip generation and provides justification for the trip rates used and outlines the forecast development impact.
- 5.2 It should be noted that the traffic generation for the existing and proposed development has been agreed in principle following discussions with WSCC at the pre-application stage.

Existing Trip Generation

- 5.3 As set out in **Section 3**, the Site currently has the following uses which generate trips to and from the Site:
 - Partnership for Growth (charity): offices for storing, packing and loading items collected for overseas aid and ancillary office space for administration;
 - SGN: depot and ancillary office use within Class B1 or B8 of the Town and Country Planning (Use Classes) order 1987 or such other use within Class B1 and B8 as shall be approved by the landlord such approval not to be reasonably withheld or delayed;
 - NHS: Use as a 93 space car park for the parking during business hours of private motor cars belonging to the officers staff and employees of the Tenants employed or working at or visiting the Tenant's premises.
- 5.4 Given the unique nature of the current uses, the most accurate way to establish how many vehicular trips currently arrive and depart the Site was to undertake a traffic survey at the Site access. As such, in order to determine the trip generation of the extant uses, a 24hr traffic survey has been undertaken to count all traffic entering and exiting the Site. The traffic survey was undertaken on Wednesday 21st October 2020 and it is acknowledged that this is during the time where government restrictions were being enforced. However, this approach was discussed with WSCC prior to any assessment, and it was confirmed that surveys of Site accesses were acceptable for use if the current Site uses were operating as normal, which was confirmed at the time the survey was undertaken. As such, the survey results are considered to provide an accurate representation of how many vehicular trips arrive and depart during a neutral day.
- 5.5 Full results of the Traffic Survey are included at **Appendix A9**, with a summary of the AM and PM Peaks outlined in **Table 5.1**.
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	Arrive	Depart	Two-way
AM Peak (08:00 - 09:00)	67	3	70
PM Peak (17:00 – 18:00)	0	42	42

5.6 **Table 5.1** shows that the existing Site typically attracts 70 two-way trips in the AM peak hour and 42 two-way trips in the PM Peak hour.

Proposed Development Trip Generation

- 5.7 Following a review of the Union Place planning application (Planning Application REF: AWDM/0461), it is known that the trip generation methodology used was accepted by WSCC. As the Union Place scheme is within close proximity to the development Site (circa. 350m to the west), it is considered suitable to replicate the assessment for the proposals.
- 5.8 The Union Place Car Park TA used a 'Total Person' Trip Rate obtained from the TRICS database, which was then factored by 2011 Census Data. For clarity, a 'Person Trip Rate' includes all types of trips being made to the site, including by public transport, taxi, motorcycle, driving, walking and cycling. This methodology and the person trip rate used within the Union Place TA is considered to reflect the trip generation for a Site such as that being proposed for redevelopment.
- 5.9 The outputs for the 'Total Person' trip rate for 'Flats Privately Owned' are included at **Appendix A10**, with a summary of the AM and PM peaks provided in **Table 5.2**, along with the resultant trips based on the 209 unit scheme.

Table 5	5.2 TRICS	6 – Total	Person	Trip	Rate
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		Arrive	Depart	Two-way	Arrive	Depart	Two-way
AM Pea	k (08:00 – 09:00)	0.103	0.551	0.654	22	115	137
PM Pea	k (17:00 – 18:00)	0.388	0.205	0.593	81	43	124
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Note: Based on 209 residential Units

5.10 Using the methodology approved in the Union Place Car Park TA, the trip rates outlined in **Table 5.2** have been applied to the modal splits from the 2011 Census Data, specifically the MSOA Worthing 011, which the Site is located in. **Table 5.3** presents the multi-modal trip generation in both the AM and PM peaks.

		AM Peak				PM peak	
Mode		Arrive	Depart	Two-way	Arrive	Depart	Two-way
Rail and underground	10%	2	11	13	8	4	12
Bus	6%	1	7	8	5	3	8
Taxi	0%	0	0	0	0	0	0
Motorcycle	1%	0	1	1	1	0	1
Car driver	41%	9	47	56	33	17	50
Car passenger	5%	1	6	7	4	2	6
Bicycle	5%	1	6	7	4	2	6
On foot	32%	7	37	44	26	14	40
Total	100%	22	115	137	81	43	124

Table 5.3 Multi Modal Trip Generation

Note: Based on 209 residential Units

5.11 Based on the multimodal trip generation shown in **Table 5.3**, **Table 5.4** provides a comparison between the existing Site use and proposed development vehicle trip generation.

		Arrive	Depart	Two-way
Evicting	AM Peak (08:00 - 09:00)	67	3	70
LAISting	PM Peak (17:00 - 18:00)	0	42	42
Brananad	AM Peak (08:00 - 09:00)	9	47	56
Fioposed	PM Peak (17:00 - 18:00)	33	17	50
Not Difforonco	AM Peak (08:00 - 09:00)	-58	44	-14
Net Difference	PM Peak (17:00 – 18:00)	33	-25	8

- 5.12 It can be seen from **Table 5.4** that 14 less vehicular trips are expected in the AM peak hour and an additional eight vehicular trips are expected in the PM peak hour. This equates to an additional two-way trip every eight to nine minutes and is therefore considered to be negligible. Whilst there is a slight difference, it is considered that the low number of vehicular trips will not have a detrimental impact to the surrounding highway network.
- 5.13 Given the low level of vehicular trip generation associated with the proposed development, as detailed above, it is considered that detailed analysis of local junctions will not be required as the traffic impact will be minimal compared to the existing situation. This was agreed with WSCC during scoping discussions. However, to demonstrate the Park Road Site access will operate with spare capacity, a junction capacity assessment has been undertaken.

Park Road Flow Data

- 5.14 As noted earlier, a traffic count survey was undertaken at the Site access to establish the existing trip generation. Whilst this survey data has been considered acceptable to establish the existing trip generation, it may not give an accurate representation of the number of vehicles travelling northbound along the Park Road, given there were some UK Government restrictions in place to encourage residents to stay at home, where possible, and avoid unnecessary travel due to the COVID 19 Pandemic. As such, a nearby count survey was provided by WSCC which included 2021 flows and 2019 flows (pre-pandemic) along Lyndhurst Road. A ratio was calculated for each peak hour along this extent and factored with the Park Road survey data to provide a pre-pandemic baseline figure to be used for the junction capacity assessment.
- 5.15 This approach was discussed and agreed in principle with WSCC.

Future Year Conditions

- 5.16 Growth factors have been calculated from the Trip Ends Model Program (TEMPRO) to project the pre-pandemic baseline flows to a future assessment year of 2026 for both weekday peak hour periods.
- 5.17 For the purposes of this modelling assessment, the future assessment year has been used based on a 5-year period from the year of the submission of the planning application. Growth Rates have been obtained from the Middle Super Output Area (MSOA) Worthing 011, which the Site is located within. The following traffic growth rates have therefore been applied to the observed traffic flow data.

Growth Periods	Road Type	Worthing 011			
		AM	PM		
2021 - 2026	Principle	1.0665	1.0647		

5.18 The TEMPRO output and calculation and The Background Growth traffic flow diagrams are available for review at **Appendix A11** of this report.

Modelling Methodology – Site Access

- 5.19 The PICADY module of the industry-standard Transport Research Laboratory's (TRL) modelling software Junctions 9 has been used to model the operation of the Site access junction.
- 5.20 PICADY has been used to model the maximum predicted Ratio of Flow to Capacity (RFC), in association with each give-way manoeuvre during each modelled period, together with the maximum average queue (in vehicles) and the average overall delay incurred by every vehicle passing through the junction. An RFC value of 0.85 is usually taken as indicating that the manoeuvre is operating at around practical capacity, while a value of 1.00 indicates that it is operating at theoretical capacity. Once a manoeuvre is operating at an RFC above 0.85 the junction model can become sensitive to any increase in traffic, often providing excessive queuing and traffic delay results which do not correspond with the 'actual' additional traffic forecast through the junction itself. For clarity, it is normally accepted that a junction, or in this case the site access, is not at capacity until the RFC reaches 1.00. Even at levels beyond this a junction can still perform within acceptable limits.
- 5.21 It should be noted that only the site access taken from Park Road has been modelled as it serves the majority of car parking spaces (105). The access from Lyndhurst Road only serves five spaces and therefore a very limited number of movements will occur. As such, it has not been considered necessary to undertake a junction capacity assessment.

Proposed Park Road Site Access Junction

- 5.22 The design of the proposed Park Road Site access junction (included at **Appendix A6**) has been modelled in the PICADY module within Junctions 9. In order to provide a robust model of the proposed access junction, the ONE HOUR / ODTab traffic profile has been used to synthesize a 'peak within a peak' scenario. It is considered that this function within PICADY is valid for 'new' junctions to ensure a robust assessment and demonstrate delays, if any, on Park Road
- 5.23 The results of the modelling are shown in **Table 5.5** and the full PICADY output is attached at **Appendix A10**.

Movement	2026 Development Case						
	AM	Peak	PM Peak				
	RFC	Queue	RFC	Queue			
B – AC	0.33	0.5	0.12	0.2			

Table 5.5 Park Road / Site Access - PICADY Results

Arm A – Park Road (S), Arm B – Site Access, Arm C –Park Road (N)

5.24 The results in **Table 5.5** demonstrate that the junction will operate well under practical capacity in the AM and PM peak periods in the Development Case with the proposed development fully occupied. A maximum RFC of 0.33 occurs in the PM peak period on the Park Road arm for the movement turning into the Site. No residual queuing is predicted on any arm and therefore there is not perceived to be any capacity or safety concerns at the Park Road Site access junction.

Summary

- 5.25 This section has considered the forecast traffic impact of the proposed development on the local highway network, with both trip rates and junction analysis agreed in principle with WSCC.
- 5.26 The design of the proposed Site access off Park Road has been modelled in the PICADY module of Junctions 9. This shows that, based on the proposed layout, the junction would operate significantly below practical capacity in future year scenarios.
- 5.27 In summary, the traffic impact of the Proposed Development on the operation of the local highway network is considered immaterial and cannot be considered severe.

6. SUMMARY AND CONCLUSIONS

- 6.1 Iceni Projects have been appointed by St William Homes LLP to advise on transport planning matters in relation to the proposed residential development of Land At Former Gasworks Site, Park Road, Worthing, West Sussex.
- 6.2 It should be noted that the Site has been identified for development within the existing Development Plan (specifically the Worthing Core Strategy (2011)) for a mixed residential development under Area of Change 7. The Site has also been identified within the SDWLP, with an indicative capacity of 150 residential units.
- 6.3 Policy DM15 'Sustainable Transport and Active Travel', contained within the SDWLP, sets out how Worthing Borough Council will promote and support development that priorities active travel (walking, cycling and public transport) and reduces the proportion of journeys made by car. Given the Site is located within a highly sustainable location, the scheme has been designed in such a way that promotes active travel and discourages the use of a private car, in line with Policy DM15.
- 6.4 Iceni has undertaken several scoping meetings and discussions with WSCC in the lead up to this application which has ensured the broad principles of development from a transport perspective are agreed including access, delivery and servicing, visibility and trip generation.
- 6.5 Proposed access to the Site is split between Park Road, which serves the main car parking area, and Lyndhurst Road, which provides access for five car parking spaces, delivery and servicing vehicles.
- 6.6 It is proposed to widen the footway along the Site frontage on Park Road and Lyndhurst Road to 1.8m. A further 1.8m is safeguarded along the Lyndhurst Road Site frontage should a cycle lane be provided in the future.
- 6.7 This assessment has demonstrated that the Site is well connected to walking, cycling and public transport facilities, alongside all the facilities and amenities located within Worthing Town Centre.
- 6.8 The development layout provides a total of 110 car parking spaces, inclusive of 5% disabled spaces. A total of 44 spaces (40%) will have EVCPs, which exceeds local parking standards. Two car club bays will also be provided on Site.
- 6.9 A total of 205 cycle parking spaces will be provided, which is in excess of the cycle parking standards contained within 'Guidance on Parking at New Development' document, which is considered likely to encourage the use of cycling for short trips within 5km and therefore aligns with Policy DM15.

- 6.10 A trip generation assessment has been undertaken which demonstrates that the trip generation associated with the proposed development will not have a negative impact on the surrounding network. In addition, a high proportion of trips will be undertaken utilising sustainable modes of transport. As such, WSCC determined that no off-site junction capacity assessments are considered necessary. However, for completeness, a junction capacity assessment has been undertaken at the Site access with Park Road. The results have demonstrated that the junction will operate well below capacity.
- 6.11 The Proposed Development has been considered against national, regional and local planning policy. The Site has good connectivity to pedestrian and cycling opportunities, as well as links to public transport, ensuring it is well suited for the development in accordance with national policy.
- 6.12 In view of the above, and the assessment contained within this report, it is considered that the proposals satisfy the criteria of the NPPF and local planning policy, and as such there is no justifiable reason to object to the application on highways and transportation grounds.

A1. SCOPING NOTE



To:	West Sussex County Council
From:	Iceni Projects (Transportation)
Date:	December 2020
Title:	Former Gasholder Site, Lyndhurst Road, Worthing – Scoping Note

a. Scoping Note

- 1. This Transport Scoping Note provides an outline of the Transport Assessment (TA) that will be provided in support of a future planning application regarding the proposed redevelopment of the former Gasholder site to provide a residential development of circa 220 units.
- 2. The scope of this assessment will consider the surrounding highway network to provide early input into proposed access arrangements, car and cycle parking provision, trip generation, highway impact and other aspects of highway design relevant to this site.
- 3. The location of the site is shown in **Figure 1** below.



b. Section 1 - Introduction

4. This section of the TA will provide a brief introduction to the site in addition to a review of the development proposals.

- 5. The development site falls within the jurisdiction of Worthing Borough Council (WBC) as planning authority and West Sussex County Council (WSCC) as highway authority. The TA will contain all relevant detail and refer to discussions and agreements with both authorities, WBC and WSCC.
- 6. WSCC Transport Plan and the 'Travel Plans, Transport Assessments and Statements in decision taking' (March 2014) document, which forms part of the National Planning Practice Guidance (NPPG), will also be adhered to.
- 7. The Worthing Core Strategy (2011) identifies the Site as an Area of Change (AOC) site (Area of Change 7 British Gas Site Lyndhurst Road) and, whilst at its early stages, the WBC Draft Local Plan also includes the site as an 'Area of Change'. The Draft Local Plan considers there to be a number of important sites within Worthing where change is expected and encouraged over the plan period, outside of the allocated sites. Such sites are identified in the plan as 'Area of Change' in order to recognise the contribution they can make to meeting development needs. As such, whilst not as advanced as the sites allocated, it is clear that the site has been recognised as a potentially suitable site for development, therefore the TA will seek to provide detail on the transport / highway elements to confirm it is suitable and will not have any detrimental impacts to the surrounding area.

c. Section 2 – Site Description, Highway Conditions and Sustainable Travel Assessment

- 8. The site is located approximately 300m to the east of Worthing Town Centre, directly south-west of the Lyndhurst Road / Park Road crossroad junction. The existing access to the site is taken from the eastern boundary, along Park Road, which is a one-way working road following a north to south alignment. The width of Park Road carriageway is circa 5m and it provides on-street parking along the majority of the west side, in marked bays, subject to use by permit holders only Monday Saturday 9am 6pm. Footways and street lighting are both present, with dropped kerbs provided at each crossing point.
- 9. Lyndhurst Road forms the northern boundary of the site, although no direct access to the site is currently taken from this road, requiring all arrivals and departures to use the access on Park Road. Lyndhurst Road is a two-way working carriageway which follows an east to west alignment between East Worthing and Worthing Town Centre. The carriageway is circa 6m wide and provides footways and street lighting on both sides.
- 10. The area surrounding the site and further afield has good pedestrian links with an established network of footways. All public highways in the vicinity of the site have existing footways alongside and street lighting providing good quality, safe connections to the surrounding area, services and public transport access points.
- 11. Due to the site being within close proximity to the town centre, a number of local facilities and amenities are accessible within a short walk or cycle from the site. This includes bus stops, hospital, supermarket, schools, gymnasiums, dentists, and other shops typically found within a town centre, all of which are within a ten-minute walk / five minute cycle from the site.
- 12. In addition to the facilities and amenities which are available within the town centre, it should also be noted that there are leisure facilities within a short walk from the site. This includes a number of public parks, the nearest being Beach House Park directly to the east of the site, which can be accessed within a minutes' walk.

- 13. Further, the coast is located 500m to the south of the existing site access (approximate six-minute walk from the site), where walking and cycling leisure routes are available.
- 14. Worthing Station is located approximately 1km to the north-west of the site and is accessible within a 12-minute walk or five-minute cycle. There are footways along the full route to the station which provide a step-free route, including at grade pedestrian crossings such as signal controlled and zebra crossings. In addition, should future residents wish to cycle to the station, Southern Railway provide a cycle parking facility known as 'Cycle Hub', within the station car park. This facility provides an opportunity for cyclists to obtain a smart card which gives access into a lockable and sheltered cycle parking area.
- 15. The nearest bus stops to the site are located approximately 120m to the west of the site boundary, along Lyndhurst Road, which are accessible within a two-minute walk. The bus stops serve bus routes 9, 16, 106 and 'Pulse', providing services towards Durrington, Arundel, Tarring, Broadwater, Lancing and Shoreham-by-Sea.
- 16. In addition, there are also bus stops approximately 270m to the east of the site, along Chapel Road, which provide additional services. The bus stop along Chapel Road serve routes 1, 5, 7, 10,16 and 21 towards Worthing, Broadwater, Salvington, Midhurst, Durrington, Crawley, Tarring, Lancing and Petworth.
- 17. As such, there is a range of bus services within very close proximity to the site which give access to a variety of destinations across Worthing and the surrounding area, and therefore provide a good range of options for future residents to travel both to and from the site via bus. This therefore provides a reasonable and reliable mode of transport other than the private car.
- 18. Therefore, the site is considered to be situated in an extremely accessible location and the intention is to design a scheme in such a way to encourage future residents to take advantage of the sustainable nature of the site and walk or cycle to the nearby facilities / amenities.

d. Section 4 – Development Proposals and Access Arrangements

19. The proposal is to demolish all existing structures on the former Gas Works to facilitate a residential development comprising circa 220 apartments, split within four separate blocks. It is worth noting that a gas facility will be retained on site, however it will be outside of the application boundary, in the north eastern corner of the site. An indicative site layout plan is included at **Appendix A1**.

Access

20. The site currently features a single point of access, which is situated in the very south-eastern corner of the site and taken from Park Road. The existing vehicular access is approximately 9m wide and provides a narrow footway on the northern side, leading into the 'Worthing Holder' part of the site. Whilst a separate footway is present, it should be noted that the surface of the footway is uneven, has vegetation growing through and not considered adequate for use.

21. It is proposed to provide two points of access into the site, with the first being a slight relocation of the existing access mentioned above, from Park Road, and the second being from Lyndhurst Road to the north. The two access points will serve separate car parks and there will be no vehicular through route between them. Figure 2 shows the location of the existing and proposed vehicular access points.



Figure 2 – Access Locations

- 22. The existing Park Road access is situated directly along the southern ownership boundary. It is proposed to relocate this access approximately 8m north to provide better junction visibility for future residents exiting the site. The visibility has been measured and a 2m x 40m splay is achievable to the south, for approaching traffic. Whilst the 'Y' distance (40m) is in accordance with Manual for Streets (MfS), it is acknowledged that the 'X' distance is reduced to 2m. However, a 2m setback is considered appropriate, as per guidance outlined in MfS, which states a 2m setback can be considered for lightly trafficked and slow speed situations and traffic is one-way. Further, given there are on-street bays either side of the proposed access, drivers would naturally protrude slightly into the running carriageway. In addition, the following section considers the existing and proposed trip generation and highlights that there will not be a significant increase. As such, given the proposals will provide greater visibility from the access in this location, it will be an overall improvement for the access into this site.
- 23. Further, the level of visibility at the proposed access on to Park Road appears to be consistent with other residential accesses along the road at which there have been no recorded Personal Injury Collisions in the last 5 year period, according to <u>www.crashmap.co.uk</u>.

- 24. In addition to the slight relocation, it is proposed to create a shared surface type arrangement for pedestrians, cyclists and vehicles creating a 'courtyard' type environment to access the site. Having been to site and walked the surrounding area, it is acknowledged that this is similar with the King's Mews development, to the south of the site along Park Road. The aspiration is for this access to serve the majority of car parking spaces, with the most recent iteration of the layout showing 103 spaces.
- 25. In addition to the shared surface access, it is proposed to provide a footway to the south of the vehicular access, separated from the vehicular access by landscaping / verge. The footway will lead into the site and to the front of the apartment blocks.
- 26. A plan showing the proposed site access is included at **Appendix A2**. In order to demonstrate the access is suitable to accommodate the expected vehicle types, Swept Path Analysis (SPA) will be undertaken and included within the TA being submitted with the planning application.
- 27. In addition, it is proposed to create a new vehicular access onto Lyndhurst Road, approximately 30m from the western boundary to the middle of the access. The access is proposed to be a 12m wide dropped kerb and provide a similar shared surface type arrangement for pedestrians, cyclists and vehicles creating a 'courtyard' type environment to access the site. The intention is for the surfacing to be consistent throughout, with centrelines and give-way lines not being provided to give an open and spacious area for future residents.
- 28. 2.4m x 40m junction visibility is achievable in both directions for drivers departing the site. A plan showing the site access with the visibility splays is included at **Appendix A2**. SPA will also be undertaken to demonstrate the access can accommodate the expected vehicle types and will be submitted within the TA.
- 29. It is also worth noting that the footway running along Lyndhurst Road is currently not wide enough for two pedestrians to pass comfortably. In order to create an improved environment for existing residents and commuters, it is proposed to widen the footway into the site to create a 3.5m wide footway along the site frontage. We recognise that beyond the site boundary the footway will 'pinch' back down to its existing width.
- 30. Widening the full extent of footway on the southern side of Lyndhurst has been considered, but, unfortunately, the width of Lyndhurst Road does not provide opportunity for widening the footway within adopted land without impacting on the free-flow of traffic and bus routes. However, it should be noted that the footway widens approximately 70m to the west of the site boundary, therefore only a relatively short length of footway, which would take under one minute to walk, would be considered narrow. Should the adjacent site come forwards for redevelopment, there is a potential for the extension of the 3.5m footway to be provided along the site frontage.
- 31. Further, with regards to cycling, it is known that Adur and Worthing Council have aspirations to improve cycle connectivity within Worthing and the surrounding area. From high level discussions with WSCC, it is understood that Adur and Worthing are considering a plan for a cycle route along Lyndhurst Road, directly to the north of the site, however it was confirmed that the exact detail / type of cycle route is unknown at this stage. If any other information is released, it will be taken into account as the scheme progresses.

Refuse and Servicing

- 32. It is proposed for all refuse and servicing to be undertaken within the site. Each building provides a refuse store at ground floor, where all waste will be located on collection day.
- 33. For the northern two blocks, the refuse vehicle will be required to enter the site via the Lyndhurst Road access and will manoeuvre into a position whereby refuse stores will be accessible within a short walk from the vehicle. To exit, vehicles will be required to perform a 3-point turn manoeuvre, within the site, before leaving in a forward gear.
- 34. For the southern two blocks, refuse vehicles will be required to enter the site via the Park Road access. A turning head is proposed on the northern side of the car park, between the two blocks, whereby the vehicle will reverse into the area to collect the waste. The refuse stores will be within a short walk from the turning head.
- 35. The site layout plan, included at **Appendix A1**, shows the location of each refuse store and turning areas provided. In order to ensure the layout can accommodate a vehicle turning, SPA has been undertaken, with a plan showing the SPA included at **Appendix A2**. The size of refuse vehicle was confirmed with Adur and Worthing Council.
- 36. General deliveries and servicing will follow the same strategy as outlined above for the refuse collection. In short, vehicles servicing the northern two blocks will enter via Lyndhurst Road, and vehicles servicing the southern two blocks will be required to enter the site via the Park Road access.
- 37. AutoTrack swept path analysis of emergency vehicles accessing the site layout will be provided within the Transport Assessment.

Parking

- 38. It is understood that the car parking standards pertinent to this proposal are contained within the 'Guidance on Parking at New Developments' (September 2020) document, which was produced by WSCC and approved by the Cabinet Member for Highways and Infrastructure in July 2019.
- 39. The document provides different standards based on five 'Parking Behaviour Zone' (PBZ), which are highlighted on a map included at Appendix 1 of the guidance document. The development site falls within PBZ5, therefore the standards in **Table 1.1** apply.

Number of Bedrooms	Number of Habitable Rooms	PBZ5 Requirement
1	1-3	0.6
2	4	1.1
3	5 to 6	1.6
4+	7 or more	2.2

Table 1.1	Car Parking	Standards	(spaces	per dwelling)

40. Whilst the final unit mix is not known at this stage, it is likely that approximately 50% (109) of units will have one bedroom, 40% (89) will have two bedrooms and 10% (7) will have three bedrooms. As such, applying the above standards, 177 spaces would be required.

- 41. Having assessed the sustainability of the site, particularly the proximity to public transport services and town centre facilities, a lower car parking provision is considered to be appropriate. Two recently approved schemes, near to the development site, have been reviewed in relation to parking provision and it is apparent that both proposed a lower car parking provision, which was considered appropriate by WBC and WSCC.
- 42. Firstly, the most recently approved scheme is 'Union Place', located circa 350m to the west, which obtained outline planning permission in November 2020 for the construction of a mixed-use development comprising 186 new homes, along with commercial, hotel, theatre and cultural space. A 0.35 car parking ratio was considered acceptable by WBC and WSCC for the residential element.
- 43. The second application reviewed was the Former Teville Car Park application, located directly to the south of Worthing Station. The application proposes a residential development comprising 378 units and a 1,814sqm discount food store on ground floor. It is important to note that of the 378 residential units, 198 will be private sale units and the remaining 180 units will be private rented. As the units proposed on the development site will be private sales, consideration has been given to the 198 units. Having reviewed the TA, it is known that for the 198 units, 100 car parking spaces is proposed, equating to a 0.51 car parking ratio. Whilst the application has not been approved, WSC highways have provided a number of consultation responses, whereby it has been confirmed that a lower ratio can be considered if robust alternatives to travel, such as a car club space, can be offered. The applicant will liaise with local car club operators to determine the likely demand and will provide car club bays in accordance with this.
- 44. Given the site is well located for walking, cycling and public transport links and the recent local applications providing parking provisions below the minimum standards, we consider that a similar approach to parking provision is suitable for the proposed scheme.
- 45. In addition, 2011 Car Ownership Census Data has been assessed for the Worthing 011 Middle Super Output Area, which the site is located in. The data shows that car ownership for the area is 0.7 and is therefore considered to reflect the sustainable nature of the site.
- 46. As such, taking all of the above into consideration, a 0.6 car parking ratio is proposed; based on the most recent unit schedule (222-unit scheme) this equates to 133 parking spaces being proposed. This accords with standards for the majority of the units as they are one beds, however is slightly lower for the two and three bed units to reflect the sustainable nature of the site and Car Ownership Census Data. This ratio will also encourage future residents to choose sustainable modes of travel, instead of using a private car.
- 47. With regards to disabled parking, the standards require 5% of the total number of car parking spaces to be disabled. The proposals will meet this requirement.
- 48. Electric vehicle charging points (EVCPs) will also be provided within the car parks in accordance with the WSCC Guidance on Parking at New Developments (September 2020), which sets out a future minimum provision starting at 20% in 2018 and increasing to 70% by 2030. It is anticipated that the development will be commence in 2022, at which time the standards require 37% of spaces to have EVCPs, with the remainder being passive electric spaces.
- 49. Cycle parking will also be provided with consideration to the 'Guidance on Parking at New Development' document.

50. The car parking layout can be seen from the most recent site layout plan included at **Appendix A1.** SPA analysis will be undertaken of the car parking layout and included within the TA.

e. Section 5 – Trip Generation

- 51. A multi-modal trip generation assessment has been undertaken to determine the likely number of trips associated with the proposed development.
- 52. The existing uses on site currently comprise:
 - Partnership for Growth (charity): offices for storing, packing and loading items collected for overseas aid and ancillary office space for administration;
 - SGN: depot and ancillary office use within Class B1 or B8 of the Town and Country Planning (Use Classes) order 1987 or such other use within Class B1 and B8 as shall be approved by the landlord such approval not to be reasonably withheld or delayed;
 - NHS: Use as a 93 space car park for the parking during business hours of private motor cars belonging to the officers staff and employees of the Tenants employed or working at or visiting the Tenant's premises.
- 53. Given the unique nature of the current uses, the most accurate way to establish how many vehicular trips currently arrive and depart the site was to undertake a traffic survey. As such, in order to determine the trip generation of the extant uses, a 24hr traffic survey has been undertaken to count all traffic entering and exiting the site. The traffic survey was undertaken on Wednesday 21st October 2020 and it is acknowledged that this is during the time where government restrictions were being enforced. However, a telephone conversation with Ian Gledhill at WSCC was held to discuss this type of traffic survey and it was confirmed that surveys of site accesses were being accepted if the uses on site were operating as normal, which was the case for the site at the time. As such, the survey results are considered to provide an accurate representation of how many vehicular trips arrive and depart during a neutral day
- 54. Full results of the Traffic Survey are included at **Appendix A3**, with a summary of the AM and PM Peaks outlined in **Table 1.2**

	Arrive	Depart	Two-way
AM Peak (08:00 – 09:00)	67	3	70
PM Peak (17:00 – 18:00)	0	42	42

 Table 1.2
 Summary of Traffic Surveys Results

- 55. It can be seen that the existing site typically attracts 70 two-way trips in the AM peak and 42 twoway trips in the PM Peak. It is worth nothing that the survey has not captured what the site could generate at maximum capacity (i.e. all 93 car parking spaces being occupied) in a single peak.
- 56. The Union Place scheme has recently been approved, including the TA. Having reviewed the TA, it is understood that a 'Total Person' Trip Rate was obtained from the TRICS database, which was then factored by 2011 Census Data. We consider this methodology and the person trip rate used withing the Union Place TA to be suitable for the proposed development.

57. The outputs for the 'Total Person' trip rate for 'Flats Privately Owned' which was used for the Union Place scheme are included at Appendix A4, with a summary of the AM and PM peaks provided in Table 1.3, along with the resultant trips based on the 222 unit scheme.

	Arrive	Depart	Two-way	Arrive	Depart	Two-way
AM Peak (08:00 - 09:00)	0.118	0.389	0.507	26	86	113
PM Peak (17:00 – 18:00)	0.392	0.253	0.645	87	56	143
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Table 1.3 TRICS – Total Person Trip Rate

Note: Based on 222 residential Units

58. Using the approved method from the Union Place TA, the trip generation outlined in the Table 1.3 has been factored using 2011 Census Data, specifically the (MSOA Worthing 011, which the site is located in. Table 1.4 presents the multi-modal trip generation in both AM and PM peaks.

			AM Peak			PM peak	
Mode		Arrive	Depart	Two-way	Arrive	Depart	Two-way
Rail and underground	10%	3	8	11	8	5	14
Bus	6%	2	5	7	5	3	9
Taxi	0%	0	0	0	0	0	0
Motorcycle	1%	0	1	1	1	1	1
Car driver	41%	11	35	46	35	23	58
Car passenger	5%	1	4	6	5	3	7
Bicycle	5%	1	4	6	4	3	7
On foot	32%	8	28	36	28	18	46
Total	100%	26	86	113	87	56	143

Table 1.4 Multi Modal Trip Generation

Note: Based on 222 residential Units

- 59. It can be seen from the above that the majority of residents (53%) use sustainable modes of travel when travelling to work, including 32% on foot, 5% by bike and 16% using public transport. It can also be seen that 41% of residents living within the Worthing 011 MSOA use the private car.
- 60. **Table 1.5** provides a comparison between the existing and proposed trip generation.

		Arrive	Depart	Two-way
Evicting	AM Peak (08:00 - 09:00)	67	3	70
Existing	PM Peak (17:00 - 18:00)	0	42	42
Broposod	AM Peak (08:00 - 09:00)	11	35	46
Floposed	PM Peak (17:00 – 18:00)	35	23	58
Not Difference	AM Peak (08:00 - 09:00)	-56	+32	-24
Net Difference	PM Peak (17:00 - 18:00)	+35	-19	+16

Table 1.5 TRICS – Total Person Trip Rate

- 61. It can be seen from **Table 1.5** that 24 less vehicular trips are expected in the AM Peak Hour and an additional 16 vehicular trips are expected in the PM peak, which is circa one vehicle every four minutes. Whilst there is a slight difference, it is considered that the low number of vehicular trips will not have a detrimental impact to the surrounding highway network.
- 62. In addition, it was also worth noting that the vehicular trips for the proposed development will be split between two access points, some to/from Lyndhurst Road and others from Park Road. This means that Park road is likely to have less vehicles on the road and a low uplift on Lyndhurst, given it will only serve circa. 30 car parking spaces.
- 63. Given the low level of vehicular trip generation associated with the proposed development, as detailed above, it is considered that detailed analysis of local junctions will not be required as the traffic impact will be minimal compared to the existing situation.
- 64. The TA will include a full assessment of the trip generation.

f. Section 7 – Travel Plan

65. A Framework Travel Plan (FTP) will be submitted with the application, which will be produced in line with the relevant WSCC guidance. This FTP will set out measures to reduce the dependence on the private vehicle, and instead focus on sustainable modes of travel.

g. Section 8 – Additional Information Required

66. In addition, it would be helpful to agree at this stage whether there is a requirement for any further documents to be provided in order to support any forthcoming planning application for this proposed development.

A1. SITE LAYOUT PLAN (SCOPING NOTE APPENDIX)



A2. PROPOSED ACCESS ARRANGEMENTS

(SCOPING NOTE APPENDIX)







A3. TRAFFIC SURVEY RESULTS (SCOPING NOTE APPENDIX)



Intelligent Data Collection Limited Worthing

Client: Project Number: Junction Number: Date of Survey: Junction Name: Junction Type: Iceni Projects ID05518 Site 1 21.10.2020 Park Road T-Junction



Quality Assurance and Issue Record

Quality Assurance

Revision	Rev A		
Date	28.10.2020		
Prepared by	Richard Collins		
Signature			
Checked by	Luke Martin		
Signature			
Project Director	Paul O'Neill		
Signature			
Project number	ID05518		
	ID05518 Worthing -		
File Ref	MCC Site 1 -		
	21.10.2020		

Issue Sheet

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Issued to	28.10.2020			
Ryan Broom	E-mail			



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Location Plan & Summary MCC Data PCU Data Movement Matrices



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Arm A: Park Road (N) **Arm B:** Park Road (S) **Arm C:** Site Access (W)

Count Method:	Vehicles	Classes I	ncluded:	All Classes		Select the co	unt method	and desired u	ıser class	es from the drop-downs in cells D10 and G10
Maximum 15-minute	Junction Flow		AM Peak	from:	08:30	until:	08:45	flow:	21	AM Peak covers 06:00 until 10:00
			Inter-Peak	from:	13:45	until:	14:00	flow:	7	Inter-Peak covers 10:00 until 16:00
			PM Peak	from:	17:00	until:	17:15	flow:	15	PM Peak covers 16:00 until 20:00





laximum Hourly Junction Flow:	AM Peak	from:	08:00	until:	00:60	flow:	69
	Inter-Peak	from:	13:00	until:	14:00	flow:	20
	PM Peak	from:	16:45	until:	17:45	flow:	23

Period Starting: 00:00 *Select the time from the drop-down in cell D34 to show the hourly data for that period*



Bold entries in the above tables indicate the maximum movement, approach and exit flows for the selected time period, and similarly with the HGV proportions

A4. TRICS OUTPUTS (TAKEN FROM UNION PLACE SCHEME) (SCOPING NOTE APPENDIX)
Calculation Reference: AUDIT-152301-190304-0354

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use Category MULTI-M(: : : :	03 - RESIDENTIAL C - FLATS PRIVATELY OWNED DAL VEHICLES	
Colostaduas		a and average	

Selec	lea reg	JIONS AND ALEAST	
02	SOUT	TH EAST	
	EX	ESSEX	1 days
	HC	HAMPSHIRE	1 days
04	EAST	ANGLIA	
	NF	NORFOLK	1 days
	SF	SUFFOLK	1 days
08	NOR'	TH WEST	
	GM	GREATER MANCHESTER	1 days
09	NOR'	ГН	
	CB	CUMBRIA	1 days

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

Secondary Filtering selection:

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

Parameter:	Number of dwellings
Actual Range:	20 to 94 (units:)
Range Selected by User:	20 to 154 (units:)
Parking Spaces Range:	Selected: 10 to 140 Actual: 10 to 140

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision: Selection by:

Date Range: 01/01/10 to 05/06/18

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

Include all surveys

Selected survey days:	
Tuesday	2 days
Thursday	3 days
Friday	1 days

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

Selected survey types:	
Manual count	6 days
Directional ATC Count	0 days

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

Selected Locations:	
Town Centre	2
Edge of Town Centre	4

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

Selected Location	Sub Categories:	
Residential Zone		
Built-Up Zone		

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

1 5

Secondary Filtering selection:

<u>Use Class:</u> C3

6 days

1 days

1 days

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

Population within 1 mile:
10,001 to 15,000
15,001 to 20,000

25,001 to 50,0004 daysThis data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:	
50,001 to 75,000	2 days
75,001 to 100,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	1 days
500,001 or More	1 days

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

Car ownership within 5 miles:	
0.6 to 1.0	2 days
1.1 to 1.5	4 days

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

<u>Travel_Plan:</u>	
Yes	1 days
No	5 days

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

<u>PTAL Rating:</u> No PTAL Present

6 days

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

Monday 04/03/19

Licence No: 152301

Page 3

VECTOS 97 TOTTENHAM COURT ROAD LONDON

LIST OF SITES relevant to selection parameters

1	CB-03-C-01 KING STREET CARLISLE	BLOCK OF FLATS		CUMBRIA
2	Town Centre Built-Up Zone Total Number of dwe <i>Survey date:</i> EX-03-C-02 WESTCLIFF PARADE SOUTHEND-ON-SEA WESTCLIFF Edge of Town Centre Posidential Zono	llings: THURSDAY BLOCK OF FLATS	40 12/06/14	Survey Type: MANUAL ESSEX
3	Total Number of dwe Survey date: GM-03-C-03 FAIRFIELD STREET MANCHESTER	llings: TUESDAY BLOCK OF FLATS	94 <i>22/10/13</i>	Survey Type: MANUAL GREATER MANCHESTER
4	Town Centre Built-Up Zone Total Number of dwe <i>Survey date:</i> HC-03-C-01 CROSS STREET PORTSMOUTH	llings: FRIDAY BLOCKS OF FLATS	20 14/10/11	Survey Type: MANUAL HAMPSHIRE
5	Edge of Town Centre Built-Up Zone Total Number of dwe <i>Survey date:</i> NF-03-C-01 PAGE STAIR LANE KING'S LYNN	llings: TUESDAY BLOCKS OF FLATS	90 <i>05/06/18</i>	Survey Type: MANUAL NORFOLK
6	Edge of Town Centre Built-Up Zone Total Number of dwe <i>Survey date:</i> SF-03-C-01 STATION HILL BURY ST EDMUNDS	llings: THURSDAY BLOCKS OF FLATS	51 11/12/14	Survey Type: MANUAL SUFFOLK
	Edge of Town Centre Built-Up Zone Total Number of dwe Survey date:	llings: THURSDAY	85 18/12/14	Survey Type: MANUAL

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
GM-03-C-02	predominantly student accommodation

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED **MULTI-MODAL VEHICLES Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period**

		ARRIVALS		I	DEPARTURES	5		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	63	0.055	6	63	0.116	6	63	0.171
08:00 - 09:00	6	63	0.063	6	63	0.161	6	63	0.224
09:00 - 10:00	6	63	0.079	6	63	0.079	6	63	0.158
10:00 - 11:00	6	63	0.097	6	63	0.118	6	63	0.215
11:00 - 12:00	6	63	0.100	6	63	0.100	6	63	0.200
12:00 - 13:00	6	63	0.132	6	63	0.111	6	63	0.243
13:00 - 14:00	6	63	0.121	6	63	0.132	6	63	0.253
14:00 - 15:00	6	63	0.095	6	63	0.100	6	63	0.195
15:00 - 16:00	6	63	0.074	6	63	0.066	6	63	0.140
16:00 - 17:00	6	63	0.134	6	63	0.076	6	63	0.210
17:00 - 18:00	6	63	0.153	6	63	0.108	6	63	0.261
18:00 - 19:00	6	63	0.124	6	63	0.082	6	63	0.206
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.227			1.249			2.476

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

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

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Parameter summary

Trip rate parameter range selected:20 - 94 (units:)Survey date date range:01/01/10 - 05/06/18Number of weekdays (Monday-Friday):6Number of Saturdays:0Number of Sundays:0Surveys automatically removed from selection:0Surveys manually removed from selection:1

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED **MULTI-MODAL TAXIS Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period**

		ARRIVALS			DEPARTURES	5		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	63	0.003	6	63	0.003	6	63	0.006
08:00 - 09:00	6	63	0.000	6	63	0.003	6	63	0.003
09:00 - 10:00	6	63	0.003	6	63	0.003	6	63	0.006
10:00 - 11:00	6	63	0.003	6	63	0.003	6	63	0.006
11:00 - 12:00	6	63	0.011	6	63	0.011	6	63	0.022
12:00 - 13:00	6	63	0.013	6	63	0.013	6	63	0.026
13:00 - 14:00	6	63	0.003	6	63	0.003	6	63	0.006
14:00 - 15:00	6	63	0.000	6	63	0.000	6	63	0.000
15:00 - 16:00	6	63	0.000	6	63	0.000	6	63	0.000
16:00 - 17:00	6	63	0.011	6	63	0.008	6	63	0.019
17:00 - 18:00	6	63	0.005	6	63	0.003	6	63	0.008
18:00 - 19:00	6	63	0.005	6	63	0.005	6	63	0.010
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.057			0.055			0.112

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED **MULTI-MODAL OGVS Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period**

		ARRIVALS			DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	63	0.008	6	63	0.008	6	63	0.016
08:00 - 09:00	6	63	0.000	6	63	0.000	6	63	0.000
09:00 - 10:00	6	63	0.003	6	63	0.003	6	63	0.006
10:00 - 11:00	6	63	0.000	6	63	0.000	6	63	0.000
11:00 - 12:00	6	63	0.000	6	63	0.000	6	63	0.000
12:00 - 13:00	6	63	0.003	6	63	0.003	6	63	0.006
13:00 - 14:00	6	63	0.003	6	63	0.003	6	63	0.006
14:00 - 15:00	6	63	0.000	6	63	0.000	6	63	0.000
15:00 - 16:00	6	63	0.000	6	63	0.000	6	63	0.000
16:00 - 17:00	6	63	0.000	6	63	0.000	6	63	0.000
17:00 - 18:00	6	63	0.000	6	63	0.000	6	63	0.000
18:00 - 19:00	6	63	0.000	6	63	0.000	6	63	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.017			0.017			0.034

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED **MULTI-MODAL CYCLISTS Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period**

		ARRIVALS			DEPARTURES	5		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	63	0.003	6	63	0.008	6	63	0.011
08:00 - 09:00	6	63	0.003	6	63	0.003	6	63	0.006
09:00 - 10:00	6	63	0.003	6	63	0.000	6	63	0.003
10:00 - 11:00	6	63	0.000	6	63	0.008	6	63	0.008
11:00 - 12:00	6	63	0.011	6	63	0.003	6	63	0.014
12:00 - 13:00	6	63	0.003	6	63	0.013	6	63	0.016
13:00 - 14:00	6	63	0.000	6	63	0.000	6	63	0.000
14:00 - 15:00	6	63	0.003	6	63	0.000	6	63	0.003
15:00 - 16:00	6	63	0.005	6	63	0.003	6	63	0.008
16:00 - 17:00	6	63	0.000	6	63	0.003	6	63	0.003
17:00 - 18:00	6	63	0.016	6	63	0.003	6	63	0.019
18:00 - 19:00	6	63	0.003	6	63	0.000	6	63	0.003
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:	Total Rates: 0.050					0.044			0.094

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED **MULTI-MODAL VEHICLE OCCUPANTS Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period**

		ARRIVALS			DEPARTURES	5		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	63	0.074	6	63	0.142	6	63	0.216
08:00 - 09:00	6	63	0.079	6	63	0.229	6	63	0.308
09:00 - 10:00	6	63	0.100	6	63	0.103	6	63	0.203
10:00 - 11:00	6	63	0.129	6	63	0.158	6	63	0.287
11:00 - 12:00	6	63	0.132	6	63	0.134	6	63	0.266
12:00 - 13:00	6	63	0.166	6	63	0.161	6	63	0.327
13:00 - 14:00	6	63	0.174	6	63	0.155	6	63	0.329
14:00 - 15:00	6	63	0.111	6	63	0.139	6	63	0.250
15:00 - 16:00	6	63	0.113	6	63	0.092	6	63	0.205
16:00 - 17:00	6	63	0.203	6	63	0.092	6	63	0.295
17:00 - 18:00	6	63	0.203	6	63	0.147	6	63	0.350
18:00 - 19:00	6	63	0.174	6	63	0.105	6	63	0.279
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.658			1.657			3.315

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED **MULTI-MODAL PEDESTRIANS Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period**

		ARRIVALS		l	DEPARTURES	5		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	63	0.021	6	63	0.066	6	63	0.087
08:00 - 09:00	6	63	0.016	6	63	0.084	6	63	0.100
09:00 - 10:00	6	63	0.024	6	63	0.055	6	63	0.079
10:00 - 11:00	6	63	0.053	6	63	0.071	6	63	0.124
11:00 - 12:00	6	63	0.047	6	63	0.055	6	63	0.102
12:00 - 13:00	6	63	0.074	6	63	0.074	6	63	0.148
13:00 - 14:00	6	63	0.068	6	63	0.053	6	63	0.121
14:00 - 15:00	6	63	0.071	6	63	0.045	6	63	0.116
15:00 - 16:00	6	63	0.042	6	63	0.050	6	63	0.092
16:00 - 17:00	6	63	0.097	6	63	0.082	6	63	0.179
17:00 - 18:00	6	63	0.118	6	63	0.103	6	63	0.221
18:00 - 19:00	6	63	0.097	6	63	0.042	6	63	0.139
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.728			0.780			1.508

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED **MULTI-MODAL BUS/TRAM PASSENGERS Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period**

		ARRIVALS			DEPARTURES	5		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	63	0.003	6	63	0.026	6	63	0.029
08:00 - 09:00	6	63	0.018	6	63	0.050	6	63	0.068
09:00 - 10:00	6	63	0.005	6	63	0.016	6	63	0.021
10:00 - 11:00	6	63	0.000	6	63	0.000	6	63	0.000
11:00 - 12:00	6	63	0.003	6	63	0.003	6	63	0.006
12:00 - 13:00	6	63	0.008	6	63	0.011	6	63	0.019
13:00 - 14:00	6	63	0.000	6	63	0.016	6	63	0.016
14:00 - 15:00	6	63	0.003	6	63	0.000	6	63	0.003
15:00 - 16:00	6	63	0.003	6	63	0.000	6	63	0.003
16:00 - 17:00	6	63	0.018	6	63	0.000	6	63	0.018
17:00 - 18:00	6	63	0.024	6	63	0.000	6	63	0.024
18:00 - 19:00	6	63	0.013	6	63	0.003	6	63	0.016
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.098			0.125			0.223

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

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TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED **MULTI-MODAL TOTAL RAIL PASSENGERS Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period**

		ARRIVALS			DEPARTURES	5		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	63	0.000	6	63	0.024	6	63	0.024
08:00 - 09:00	6	63	0.003	6	63	0.024	6	63	0.027
09:00 - 10:00	6	63	0.000	6	63	0.008	6	63	0.008
10:00 - 11:00	6	63	0.003	6	63	0.005	6	63	0.008
11:00 - 12:00	6	63	0.000	6	63	0.005	6	63	0.005
12:00 - 13:00	6	63	0.005	6	63	0.003	6	63	0.008
13:00 - 14:00	6	63	0.003	6	63	0.011	6	63	0.014
14:00 - 15:00	6	63	0.003	6	63	0.003	6	63	0.006
15:00 - 16:00	6	63	0.008	6	63	0.000	6	63	0.008
16:00 - 17:00	6	63	0.024	6	63	0.000	6	63	0.024
17:00 - 18:00	6	63	0.032	6	63	0.000	6	63	0.032
18:00 - 19:00	6	63	0.003	6	63	0.003	6	63	0.006
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.084			0.086			0.170

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

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TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED **MULTI-MODAL PUBLIC TRANSPORT USERS Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period**

		ARRIVALS			DEPARTURES	5		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	63	0.003	6	63	0.050	6	63	0.053
08:00 - 09:00	6	63	0.021	6	63	0.074	6	63	0.095
09:00 - 10:00	6	63	0.005	6	63	0.024	6	63	0.029
10:00 - 11:00	6	63	0.003	6	63	0.005	6	63	0.008
11:00 - 12:00	6	63	0.003	6	63	0.008	6	63	0.011
12:00 - 13:00	6	63	0.013	6	63	0.013	6	63	0.026
13:00 - 14:00	6	63	0.003	6	63	0.026	6	63	0.029
14:00 - 15:00	6	63	0.003	6	63	0.003	6	63	0.006
15:00 - 16:00	6	63	0.011	6	63	0.000	6	63	0.011
16:00 - 17:00	6	63	0.042	6	63	0.000	6	63	0.042
17:00 - 18:00	6	63	0.055	6	63	0.000	6	63	0.055
18:00 - 19:00	6	63	0.016	6	63	0.005	6	63	0.021
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.178			0.208			0.386

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

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TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED **MULTI-MODAL TOTAL PEOPLE Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period**

		ARRIVALS			DEPARTURES	5		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	63	0.100	6	63	0.266	6	63	0.366
08:00 - 09:00	6	63	0.118	6	63	0.389	6	63	0.507
09:00 - 10:00	6	63	0.132	6	63	0.182	6	63	0.314
10:00 - 11:00	6	63	0.184	6	63	0.242	6	63	0.426
11:00 - 12:00	6	63	0.192	6	63	0.200	6	63	0.392
12:00 - 13:00	6	63	0.255	6	63	0.261	6	63	0.516
13:00 - 14:00	6	63	0.245	6	63	0.234	6	63	0.479
14:00 - 15:00	6	63	0.187	6	63	0.187	6	63	0.374
15:00 - 16:00	6	63	0.171	6	63	0.145	6	63	0.316
16:00 - 17:00	6	63	0.342	6	63	0.176	6	63	0.518
17:00 - 18:00	6	63	0.392	6	63	0.253	6	63	0.645
18:00 - 19:00	6	63	0.289	6	63	0.153	6	63	0.442
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.607			2.688			5.295

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

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A2. HIGHWAYS RESPONSE AND CORRESPONDENCE

WEST SUSSEX COUNTY COUNCIL PRE APPLICATION CONSULTATION

то:	Organisation: Icini
	FAO: Ryan Broom
FROM:	Stephen Gee WSCC - Highways Authority
DATE:	8 January 2021
LOCATION:	Former Gasholder Site,
	Lyndhurst Road,
	Worthing,
	BN11 2BS
SUBJECT:	Internal Reference: PRE-142-20
	Proposed redevelopment of the former Gasholder site to provide a residential development of circa 220 units.
DATE OF SITE VISIT:	n/a
RECOMMENDATION:	Advice
S106 CONTRIBUTION TOTAL:	see comments below

The Highways Authority has been consulted for pre-application advice in regard to the proposed development at Former Gasholder Site, Lyndhurst Road, Worthing,

BN11 2BS.

The pre application advice is based upon technical note dated December 2020 and a video call meeting on the 23/12/2020.

The site is a proposed allocation in the draft Worthing local plan 2018

The following highway issues were highlighted with the plan:

- Address provision for suitable access/egress on Park Road and Lyndhurst Road; and
- Enhance permeability and provide an attractive and accessible pedestrian link from the site to the High Street and town centre.

Development Proposals

The scoping note details the site would be redeveloped to provide approximately 220 units within two blocks. With one block served from Lyndhurst Road and providing access to approximately 35 parking

spaces and a second block served from Park Road providing access to approximately 100 parking spaces.

Access

The existing access onto Park Road will be relocated 8m north, Visibility splay of 2x 40m are shown on the plan, at 2.4m only 30m can be provided however it is noted that due to the presence of the parking bays vehicles and one way nature of Park Road then vehicles are unlikely to be near the nearside kerb.

Following consultation It would be the highway engineers preference for a bell mouth to be provided over a footway crossover at the Park Road Access given the number of units/level of parking provided here, should a crossover still be proposed then standard details can be found here https://www.westsussex.gov.uk/roads-and-travel/information-for-developers/road-agreements/

It was confirmed the revised access would not impact the existing on street parking bays and vehicle tracking provided to demonstrate this.

A stage 1 RSA and if applicable a GG119 Appendix F compliant designers response should be provided. This can be considered prior to the submission of any planning application if required.

New Lyndhurst Road Access

A second access would be provided to the site on Lyndhurst Road, approximately 30m from the western boundary of the site, no through route for vehicles would be created. Visibility splays of 2.4m x 43m are shown on the plan in keeping with the posted speed limit.

Vehicle tracking has been provided and whilst it shows that a refuse vehicle would over run the centre line given the limited weekly movement would not raise concern from WSCC. stage 1 RSA should be provided for the access.

The existing footway would be widened to 3.5m along the site frontage, it is acknowledged that the footpath would pinch back to existing width in front of adjoining sites.

Sustainable Transport

The site is located within close proximity to Wothing town centre and station. WSCC are currently developing a north south cycle route alongside the A29 to the west of the site to which it is anticipated the application would provide contributions towards.

A plan of the scheme has been sent with this document. In the future it would be beneficial for the site to link into this provision however negotiation with third party landowners would be required and cannot be guaranteed to be secured via a future application. The provision of the 3.5m footway in front of the site would provide future opportunities to be explored by the highway authority should third party land become available.

The site should identify any offsite improvements such as dropped kerbs/tactile paving's that would benefit future users of the site accessing local facilities.

Parking

Parking level

It is proposed to provide 133 spaces at a rate of 0.6 spaces per dwelling in accordance with WSCC parking standards, given the accessible location and vicinity to key services then no issue with the level is raised. It is advised that a car park management strategy would be required to indicate how spaces would be managed and allocated.

Spaces should be provided in accordance with widths contained within manual for streets and vehicle tracking provided to show access to the extreme parking spaces.

Electric vehicle parking spaces should be provided in accordance with WSCC standards. <u>https://www.westsussex.gov.uk/media/1847/guidance_parking_res_dev.pdf</u>

Cycle parking - should be in excess of standards given the low level of parking

Residents parking

The site is located within a controlled parking zone and the following informative is likely to be added to any planning recommendation

Residents Parking Permits in Controlled Parking Zones (CPZs)

The applicant and potential future occupiers of the development are advised that future tenants/homeowners may not be entitled to purchase Resident or Visitor Permits that entitle users to park on-street in the roads around the development site. Alternatively, Non-Resident permits may be available in some roads where capacity allows, or some tenants/homeowners may have to join a waiting list before permits are issued. Eligibility for permits will be in accordance with existing WSCC parking policy and procedures. Tenants/homeowners are advised to contact the local District/Borough Parking Services Team for further clarification. Further information and key questions and answers about how Controlled Parking Zones work can be found here

https://www.westsussex.gov.uk/roads-and-travel/parking/residents-parking-schemes/how-parking-sch emes-work/

Trip Generation

Surveys of the existing site usage have been provided and detail 70 AM peak and 42 PM peak trips are generated by the existing site usages of Partnership for Growth facilities, SGN and a NHS staff car park.

The use of TRICS information has been utilised from the union place scheme, given the inclusion of small sites within the database it is recommended that it is rerun to show a larger range of units.

The Trip rates presented would result in a net reduction in AM trips and increase of 16 two way trips in the PM peak.

As such no junction modelling is required by WSCC. During the meeting it was discussed that it may be beneficial in presenting the application to members to undertake modelling of the site accesses.

Travel Plan

A travel plan would be a requirement for the site, the potential of a car club for the site should be explored.

Contributions

The site would be anticipated to provide a highways contribution. The WSCC TAD calculator can be found here <u>https://www.westsussex.gov.uk/media/11706/s106_calculator_tad.xlsx</u>

Construction Management Plan/Phasing

It is recommended to provide information on the above within any application documents to reduce concerns of construction traffic on Park Road.

The Highway Authority would require the following documents to be submitted as part of any future application:

- A site location plan scale (1:1250) with site boundary indicated
- Schedule of existing uses including planning history with reference numbers
- Description, including site layout plans, of the proposed development and schedule of uses
- Summary of reasons supporting the site access/highways works proposals, including plan (scale 1:250 or similar) with achievable visibility splays indicated
- Design Audit of any proposed highway works, including plan identified departures from standards
- Final Stage 1 Road Safety Audit of site access and any proposed highway works, with designers response and including amended plans.
- A Transport Statement/Assessment, including location plan of key services, availability of sustainable modes of transport and existing/future vehicular generation
- Reference to supporting national, regional, and local planning documents and policies
- Parking strategy, including provision of parking for all modes of transport
- Relevant data collected to date
- Proposed trip rates supported with TRICS outputs and site selection methodology
- Junction capacity assessment in accordance with the WSCC Transport Assessment Methodology

I have provided, below, some standard guidance relating to road design and current standards.

There are two sets of guidance which govern road design: Manual for Streets (MfS) for lightly trafficked residential streets; and Design Manual for Roads and Bridges (DMRB) for all other roads, including rural roads. I have included links to both below.

WSCC supports the approach set out in MFS, which has been adopted guidance for residential street design since its introduction in 2007. Within this document there are some very useful references to visibility splays, turning circles and car parking layouts. The document does not however provide specific measurements for visibility splays, so:

"X "Distances from the (kerb back) are typically:

- 2.0 metres -domestic single accesses
- 2.4 metres- for shared or busy crossovers
- 4.5 metres- for busy junctions
- 9.0 metres-major junctions

"Y "Distances are based on vehicle speed, and for lightly trafficked residential streets MFS would be applied:

- 20 mph- 25 metres
- 25 mph- 33 metres
- 30 mph- 43 metres

For a road where the 85th percentile speed is in excess of 39 mph and for roads where MFS does not apply, CD 109 distances from DMRB would be applied:

- 40 mph-120 metres
- 50 mph-160 metres
- 60 mph-215 metres

I have attached a link to our Local Design Guide which provides further advice on how MfS is to be interpreted and applied within West Sussex.

The 'Additional Information' section of the WSCC Pre-application advice for roads and transport webpage provides a range of additional advice and guidance which you may find useful in preparing your application. Please click the link below and navigate to the 'Additional Information' section.

https://www.westsussex.gov.uk/roads-and-travel/information-for-developers/pre-application-advice-fo r-roads-and-transport

Here you will be able to access our Local Design Guide which provides further advice on how MfS is to be interpreted and applied within West Sussex.

The page also includes a link to our latest parking standards which we adopted in August 2019 as Supplementary Planning Guidance (SPG) that sets out parking standards for development in West Sussex. Within you will find recommended levels for cycle parking and also guidance on levels of Electric Vehicle charging points for new developments.

Manual for Streets:

http://www2.dft.gov.uk/pgr/sustainable/manforstreets/pdfmanforstreets.pdf

DMRB supplementary documents CD 109 (Search for "CD 109"):

https://standardsforhighways.co.uk/dmrb/

I trust you appreciate that any advice given by council officers for pre-application enquiries does not constitute a formal response or decision of the council with regard to the granting of planning permission in the future. Any views or opinions expressed are given in good faith, and to the best of ability, without prejudice to the formal consideration of any application, which will be the subject of public consultation and ultimately decided by the Local Planning Authority.

Stephen Gee Planning Services

Ryan Broom

From: Sent:	Stephen Gee <stephen.gee@westsussex.gov.uk> 20 January 2021 09:35</stephen.gee@westsussex.gov.uk>
То:	Ryan Broom
Cc:	Hugo Maudsley; Rob Amey
Subject:	RE: Former Gas Holder Site, Lyndhurst Road, Worthing - Highways Pre-App Meeting

Ryan

Access

As advised the response from the highway engineer was that a bell mouth should be provided. Id been interested to see what the Stage 1 RSA identifies before providing any other comments.

Trip Rates The revised trip rates would be acceptable

Junction Modelling

A WSCC permanent traffic counter is located outside the hospital and can be accessed by signing up to the WSCC database <u>https://wstrafficdata.cdmf.info/Default</u>

Regards

Stephen

From: Ryan Broom <rbroom@iceniprojects.com>
Sent: 14 January 2021 11:14
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: Hugo Maudsley <hugo.maudsley@stwilliam.co.uk>; Rob Amey <ramey@iceniprojects.com>
Subject: RE: Former Gas Holder Site, Lyndhurst Road, Worthing - Highways Pre-App Meeting

Hi Stephen,

Following a review of the comments, I write to provide the additional information and points for clarification, outlined below.

<u>Access</u>

Thanks for confirming the location of proposed accesses are acceptable in principle. I acknowledge that a standard bell-mouth would be preferred at the Park Road access, which we will take into consideration. However, at this time, it is likely that the cross-over option will be proposed as our intention is to create an entrance to the site which is inviting and not car dominated, instead an attractive place for pedestrians and cyclists, similar to the access circa. 50m to the north of the site, other side of Lyndhurst Road – see screenshot below. Thank you for providing details for a cross-over type access should this option be progressed, it is extremely helpful.



<u>Trip Gen</u>

The TRICS assessment has been revisited as requested. We were able to include a greater number of surveys due to the parameters being widened, particularly the date range. See TRICS output sheet attached and tables below.

Table 1.1 TRICS – Total Person Trip Rate – REVISED

	Arrive	Depart	Two-way	Arrive	Depart	Two-way
AM Peak (08:00 - 09:00)	0.103	0.551	0.654	23	122	145
PM Peak (17:00 - 18:00)	0.388	0.205	0.593	86	46	132

Note: Based on 222 residential Units

Using the approved method from the Union Place TA, the trip generation outlined in the **Table 1.1** has been factored using 2011 Census Data, specifically the (MSOA Worthing 011, which the site is located in. **Table 1.2** presents the multi-modal trip generation in both AM and PM peaks.

Table 1.2	Multi Modal	Trip	Generation -	<u>REVISED</u>	

		AM Peak			PM peak		
Mode		Arrive	Depart	Two-way	Arrive	Depart	Two-way
Rail and underground	10%	2	12	14	8	4	13
Bus	6%	1	7	9	5	3	8
Taxi	0%	0	0	0	0	0	0
Motorcycle	1%	0	1	1	1	0	1
Car driver	41%	9	50	59	35	19	54
Car passenger	5%	1	6	8	4	2	7
Bicycle	5%	1	6	7	4	2	7
On foot	32%	7	39	47	28	15	42
Total	100%	23	122	145	86	46	132

Note: Based on 222 residential Units

It can be seen from the above that the majority of residents (53%) use sustainable modes of travel when travelling to work, including 32% on foot, 5% by bike and 16% using public transport. It can also be seen that 41% of residents living within the Worthing 011 MSOA use the private car.

Table 1.3 provides a comparison between the existing and proposed trip generation.

Table 1.3 TRICS – Total Person Trip Rate - REVISED						
		Arrive	Depart	Two-way		
Existing	AM Peak (08:00 - 09:00)	67	3	70		
	PM Peak (17:00 - 18:00)	0	42	42		
Proposed	AM Peak (08:00 - 09:00)	9	50	59		
	PM Peak (17:00 - 18:00)	35	19	54		
Net Difference	AM Peak (08:00 - 09:00)	-58	+47	-11		
	PM Peak (17:00 - 18:00)	+35	-23	+12		

Whilst the parameters were increased, the results are shown to be very similar to that previously included within the scoping note with a negative or minimal impact on the local highway way network.

Junction modelling

I note you have suggested that it may be beneficial for members to undertake modelling of the site accesses. Are you aware of any existing traffic flow information for Lyndhurst Road and Park Road that could be used? I appreciate undertaking surveys during this time would not provide an accurate reflection of flows along the road, therefore would be grateful if you could suggest flow data which is considered accurate and acceptable to use.

Hopefully the above and attached are clear. I would be grateful if you could provide clarification on the points above and confirm the revised rates are acceptable.

Thanks in advance and do let me know if you have any questions or wish to discuss.

Kind regards, Ryan

Rvan Broom Engineer, Transport

telephone: 020 3435 4224 mobile: 07712 435 802 email: rbroom@iceniprojects.com



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Winner: Award for Planning Consultancy of the Year

Winner: Award for Best Use of Arts, Culture of Sport in Placemaking (Illuminated River) Winner: Planning Permission of the Year (Leven Road Gasworks, St William)

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From: Stephen Gee <<u>Stephen.Gee@westsussex.gov.uk</u>> Sent: 08 January 2021 10:52

To: Ryan Broom <<u>rbroom@iceniprojects.com</u>>

Cc: Hugo Maudsley <<u>hugo.maudsley@stwilliam.co.uk</u>>; Rob Amey <<u>ramey@iceniprojects.com</u>> **Subject:** RE: Former Gas Holder Site, Lyndhurst Road, Worthing - Highways Pre-App Meeting

Ryan,

Thanks for the additional information in the email below and your notes.

Please find attached your formal pre app response and the plan of the proposed cycle route improvements.

Regards

Stephen

From: Ryan Broom <<u>rbroom@iceniprojects.com</u>>
Sent: 23 December 2020 16:08
To: Stephen Gee <<u>Stephen.Gee@westsussex.gov.uk</u>>
Cc: Hugo Maudsley <<u>hugo.maudsley@stwilliam.co.uk</u>>; Rob Amey <<u>ramey@iceniprojects.com</u>>
Subject: RE: Former Gas Holder Site, Lyndhurst Road, Worthing - Highways Pre-App Meeting

Hi Stephen,

Thank you for your time earlier, it was very useful to run through the highways/ transport points with you. I have summarised the points discussed below in sections, access, parking etc. I would be grateful if you can confirm this reflects our discussion accurately.

Access

- Principle of split accesses acceptable;
- It is acknowledged that a 2m setback is acceptable at the Park Road access, for the reasons outlined within the scooping note, but a separate drawing to show what is achievable from a 2.4m setback is required.
 Please find attached 20-T082_08, which demonstrates the visibility achievable from a 2.4m setback. As shown, 30m is achievable. We have shown visibility to kerb and as discussed, in reality on coming traffic will be 2-2.5m off the kerb due to parking, so visibility to traffic is actually greater than shown;
- It was confirmed that no on-street parking is effected along Park Road;
- Visibility from Lyndhurst Road access is achievable, a new drawing is provided to show 43m 'Y' distance. Please see attached 20-T082_04A, demonstrating that 43m is achievable;
- RSA's at both accesses required;
- You would be happy for us to send you revised drawings which you can agree to being acceptable in principle; and
- The type of access being proposed (courtyard / shared surface) is considered acceptable in principle by yourself but you would need to run this past engineers. Please see below.

As discussed, the intention is to provide a dropped kerb / shared surface, courtyard type arrangements for both accesses. This type of access would allow the footway fronting the access to be flush with existing footways along the road and will create an inviting environment for pedestrians, both existing and future, as opposed to a wide priority junction type access. An example of the arrangement is shown below, with the first image being from circa 100m from the site along Lyndhurst Road and the second being a scheme in Essex.





Parking

- 0.6 spaces per dwelling considered acceptable in principle;
- Scheme to provide cycle parking in excess of standards to compensate for lower car parking provision;
- TA to highlight that there is a long waiting list for existing residents within Worthing to obtain a parking permit, therefore future residents are unlikely to be able to obtain one;
- 5% disabled acceptable;
- TA to include short section on Car Park Management; and
- Stephen to confirm dimensions of parking bay.

Trip Generation

- There is no concern with trip generation assessment;
- Whilst rates are acceptable, Iceni to replicate person trip rate but amend unit numbers within TRICS to provide a comparable second scenario; and
- It was agreed that junction modelling is not required.

Delivery and Servicing

- It was agreed that the internal delivery and servicing strategy is acceptable in principle;
- It was agreed to include a short section of delivery and servicing within TA;
- It was agreed to include the basic principles of construction access within the TA from both Lyndhurst Road and Park Road

Local Cycle Infrastructure

- Stephen confirmed that no significant progress has been made and exact detail on Lyndhurst Road improvements are not known at this stage; and
- Stephan confirmed that a contribution would be expected for the north / south cycle infrastructure being planned.

Other

- Stephen confirmed that a Travel Plan is required for the scheme.
- Stephan confirmed that a Construction Management section should be incorporated within the TA.
- Stephen to provide Total Access Demand (TAD) contribution calculator

Hopefully this includes the main points discussed, but please do add or change as necessary. Thanks again for your time and I look forward to working with you in the new year.

Kind regards, Ryan

Ryan Broom Engineer, Transport

telephone: 020 3435 4224 mobile: 07712 435 802 email: rbroom@iceniprojects.com

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x

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From: Ryan Broom <<u>rbroom@iceniprojects.com</u>>

Sent: 22 December 2020 18:13

To: Hugo Maudsley <<u>hugo.maudsley@stwilliam.co.uk</u>>; Stephen Gee <<u>Stephen.Gee@westsussex.gov.uk</u>>; Rob Amey <<u>ramey@iceniprojects.com</u>>

Subject: Former Gas Holder Site, Lyndhurst Road, Worthing - Highways Pre-App Meeting

Evening all,

I have attached a brief agenda for tomorrows meeting. Please let me know if there is anything you wish to add.

Look forward virtually meeting with you all tomorrow.

Kind regards, Ryan

Ryan Broom Engineer, Transport

telephone: 020 3435 4224 mobile: 07712 435 802 email: rbroom@iceniprojects.com



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From: Ryan Broom <rbroom@iceniprojects.com>
Sent: 29 April 2021 12:51
To: Stephen Gee <<u>Stephen.Gee@westsussex.gov.uk</u>>
Cc: Rob Amey <<u>ramey@iceniprojects.com</u>>
Subject: RE: Former Gas Holder Site, Lyndhurst Road, Worthing

Hi Stephen,

I hope this email finds you well?

The layout for the above mentioned scheme has evolved slightly since we last spoke. Therefore, I wanted to write to you and provide an update of the changes made . I have attached the latest layout and bulleted the relevant changes from our scoping discussions below:

- The number of units has been reduced from 222 to circa 203 apartments. The total car parking provision has also been reduced from 133 to 121, although the same spaces per unit ratio as previously discussed. -Acceptable
- The car parking layout has been reconfigured to show all, except for one space, to be provided within the main car park accessed from the Park Road which is the same as existing, although it is still proposed to formalise the access junction. Should be acceptable, The lyndhust road access would be utilised for servicing/fire tender/refuse and the car club (signing etc would be required)
- The location of the Park Road access has altered very slightly. I attach a plan showing visibility which is achievable from both a 2m and 2.4m setback and therefore still a betterment on the existing access arrangement as presented to you during scoping. Some concern is raised with the reduction (albeit a betterment on existing) has the scheme been safety audited? A robust justification should be provided.
- The SGN unit (in the most north-eastern corner of the site) was previously accessed from driving within the undercroft parking area. Now this area has been removed, it is proposed to provide a small, dropped kerb type arrangement from Lyndhurst Road. We are informed that the SGN unit is serviced only once every few weeks by a small van. Vehicle crossover arrangement would be acceptable.

I would be grateful if you can review and confirm the changes are acceptable in principle to you.

As always, I would be happy to run through the changes with you on the telephone if easier. We are working to a tight program, but I wanted to ensure you were kept in the loop to avoid any surprises at submission. If you could respond on the above at your earliest opportunity would be greatly appreciated.

Kind regards, Ryan

Ryan Broom Engineer, Transport

telephone: 020 3435 4224 mobile: 07712 435 802 email: rbroom@iceniprojects.com

A3. EXISTING JUNCTION VISIBILITY SPLAYS



A4. HIGHWAY BOUNDARY INFORMATION



A5. PROPOSED SITE LAYOUT



A6. PROPOSED ACCESS AND VISIBILITY




