

P e l l F r i s c h m a n n

Alchemy Way, Knowsley

Transport Assessment

106636

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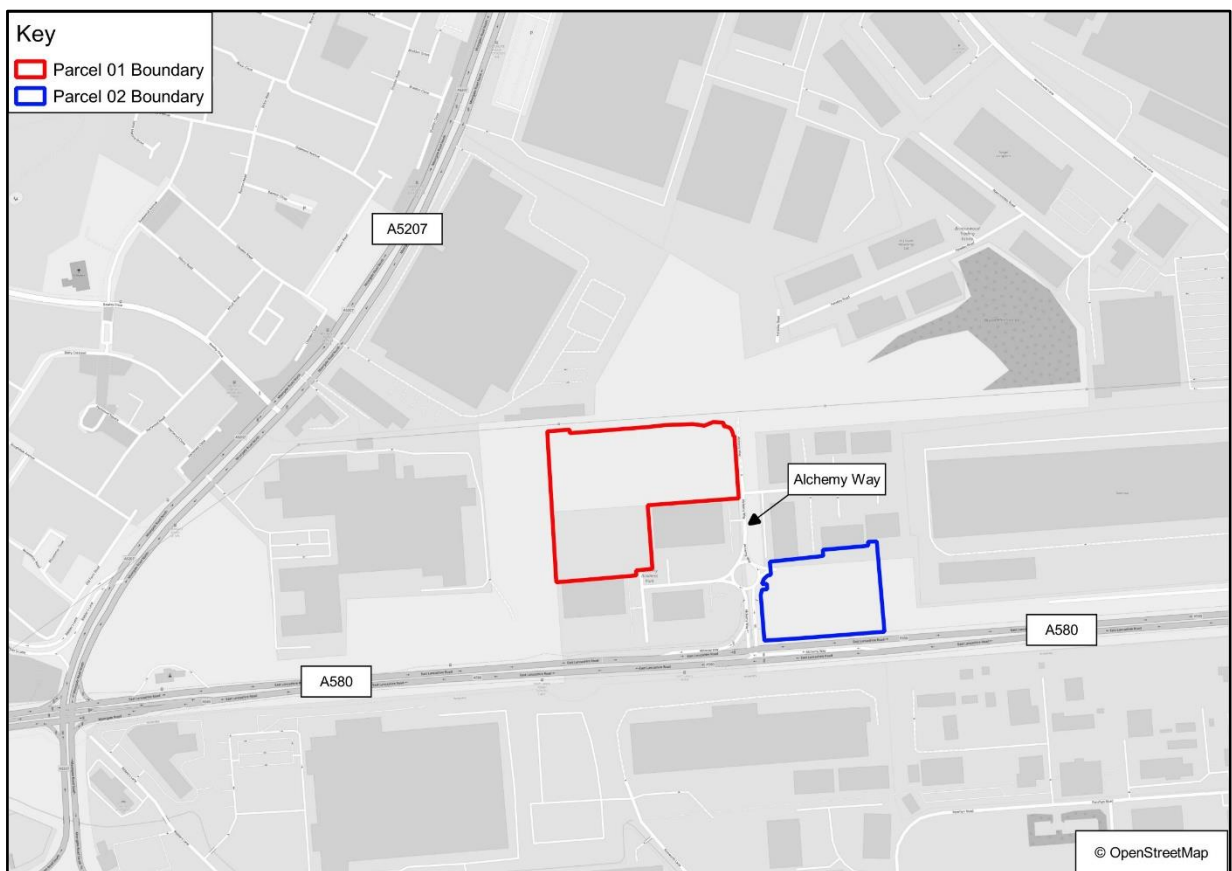
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1 Introduction

- 1.1.1 Pell Frischmann is commissioned by Network Space to provide transport planning and highway consultancy services in connection with a proposed employment development located off Alchemy Way in Knowsley.
- 1.1.2 The Site is split into two development plots, referred to as Land Parcel 1 which comprises two industrial units to the north west and Land Parcel 2 to the south east which for the purposes of this Assessment includes 3 industrial units.
- 1.1.3 This assessment covers both development plots. However, the application relates to Parcel 1 (Western plot). Land Parcel 2 will be developed at later stage as part of a separate phase.
- 1.1.4 The Planning Application description for Land Parcel 1 (Plot 1) is as follows: *“Full Application For Employment Development Comprising Two Units (Use Class E (G) (Ii) (Iii) / B2 / B8 Use) With Ancillary E (G) (I) Office Space, Car Parking And Vehicular, Pedestrian Circulation With Access Onto Alchemy Way”*
- 1.1.5 This assessment covers both development plots. However, the application relates to Parcel 1 (Western plot).
- 1.1.6 The location of the wider development site is shown on **Figure 1**.

Figure 1 Site Location Plan



- 1.1.7 This document is the Transport Assessment and should be read in conjunction with the Travel Plan.
- 1.1.8 Following this introductory Section, the Transport Assessment is structured as follows:

- **Section 2: Planning Policy Context** – summarises the key national and local transport related planning policies within the context of the scale and location of the proposed development.
- **Section 3: Planning History** – Sets out the planning history of the site.
- **Section 4: Existing Conditions** – describes the local highway network and details the recent accident record.
- **Section 5: Proposed Development** – provides details of the proposed development including the access arrangements, on-site infrastructure and parking provision.
- **Section 6: Trip Rates** – quantifies the estimated trip generation of the proposed development and compares it to the trip generation associated with the consented development.
- **Section 7: Summary and Conclusions.**

2 Policy Context

2.1 Introduction

- 2.1.1 This section of the Transport Assessments examines the context of the site and how this relates to the relevant transport and development planning policies and guidelines. It provides an overall spatial and planning context for the proposed development.
- 2.1.2 Policies have been adopted in national guidelines that seek to encourage more sustainable modes than the car and a planning system which places greater emphasis on the link between transport and land use planning policies to encourage transport decisions at a local level that are compatible with environmental and community goals and best reflect local circumstances and requirements.

2.2 National Planning Policy Framework

- 2.2.1 The Government's National Planning Policy Framework (NPPF) sets out the government's planning policies for England and how these should be applied. The NPPF was first published in March 2012 and was last updated in July 2021.
- 2.2.2 At the heart of the NPPF is a presumption in favour of sustainable development, and the NPPF notes that *'the purpose of the planning system is to contribute to the achievement of sustainable development'*. At a very high level, the objective of sustainable development can be summarised as *"meeting the needs of the present without compromising the ability of future generations to meet their own needs"*.
- 2.2.3 Chapter 9 of the NPPF relates to the promotion of sustainable development. Paragraph 104 states that: *"Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:*
- *the potential impacts of development on transport networks can be addressed;*
 - *opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;*
 - *opportunities to promote walking, cycling and public transport use are identified and pursued;*
 - *the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and*
 - *patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places."*
- 2.2.4 Paragraph 110 states that: *"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;*
 - *safe and suitable access to the site can be achieved for all users; and*
 - *any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree"*.
- 2.2.5 Paragraph 111 notes that *'development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe'*.
- 2.2.6 Within this context, paragraph 112 notes that *'applications for development should:*

- *give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*
- *address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
- *create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
- *allow for the efficient delivery of goods, and access by service and emergency vehicles; and*
- *be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.'*

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

2.3 Planning Practice Guidance

2.3.1 PPG sets out when Travel Plans, Transport Assessments and Statements for developments are required and was published in March 2014. PPG was produced to assist stakeholders in determining whether an assessment may be required and, if so, what the level and scope of that assessment should be. It provides guidance on the content and preparation of Transport Assessments and Transport Statements and the promotion of smarter choices via Travel Plans.

2.3.2 Planning Practice Guidance (PPG) suggests that the Transport assessment should be:

- *“proportionate to the size and scope of the proposed development to which they relate and build on existing information wherever possible;*
- *established at the earliest practicable possible stage of a development proposal;*
- *be tailored to particular local circumstances (other locally-determined factors and information beyond those which are set out in this guidance may need to be considered in these studies provided there is robust evidence for doing so locally);*
- *be brought forward through collaborative ongoing working between the local planning authority/transport authority, transport operators, rail network operators, Highways Agency where there may be implications for the strategic road network and other relevant bodies. Engaging communities and local businesses in Travel Plans, Transport Assessments and Statements can be beneficial in positively supporting higher levels of walking and cycling (which in turn can encourage greater social inclusion, community cohesion and healthier communities)”*.

2.3.3 In determining whether a Travel Plan will be needed for a proposed development, PPG states that *“the local planning authorities should take into account the following considerations:*

- *the Travel Plan policies (if any) of the Local Plan;*
- *the scale of the proposed development and its potential for additional trip generation (smaller applications with limited impacts may not need a Travel Plan);*
- *existing intensity of transport use and the availability of public transport;*
- *proximity to nearby environmental designations or sensitive areas;*
- *impact on other priorities/ strategies (such as promoting walking and cycling);*
- *the cumulative impacts of multiple developments within a particular area;*
- *whether there are particular types of impacts around which to focus the Travel Plan (e.g. minimising traffic generated at peak times); and*
- *relevant national policies”*.

2.4 Knowsley Local Plan Core Strategy

2.4.1 The Knowsley Local Plan Core Strategy was adopted in January 2016 and sets out the vision, objectives and policies which will guide development within Knowsley up to the year 2028.

2.4.2 Within this document, there are a number of policies which relate to development and transport as set out below.

2.4.3 Policy 'SD1' relates to sustainable development and is as follows:

- *"1) When considering development proposals, a positive approach will be taken, which reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework. Work will be undertaken proactively with applicants jointly to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.*
- *2) Planning applications that accord with the policies in this Local Plan (and any relevant policies in Neighbourhood Plans) will be approved without delay, unless material considerations indicate otherwise.*
- *3) Where there are no policies relevant to the application or relevant policies are out of date at the time of making the decision then permission will be granted unless material considerations indicate otherwise – taking into account whether:*
 - *a) Any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the National Planning Policy Framework taken as a whole;*
 - *or b) Specific policies in that Framework indicate that development should be restricted".*

2.4.4 Policy CS4 relates to economy and employment and the relevant section is as follows: *"Provision will be made for at least 164 hectares of land to be developed for employment uses between 2010 and 2028, to be located primarily within the following locations:*

- *Knowsley Industrial Park (including Knowsley Business Park);*
- *Huyton Business Park;*
- *Kings Business Park;*
- *South Prescott; and*
- *Jaguar Land Rover (Halewood)".*

2.4.5 Policy CS7 relates to transport network and includes policies related to the location, design and management of new development. It states that *"New development will be required to be:*

- a) Located and designed to prioritise accessibility and sustainable modes of travel through a choice of walking, cycling, public transport, and incorporate access for private vehicles. Where deficiencies are identified, developer contributions will be required to improve the accessibility of the location;*
- b) Located and designed to ensure that larger scale proposals (attracting a lot of visitors, customers and/or employees) are located in the most accessible locations;*
- c) Where subject to a planning application, accompanied (except in the case of smaller scale proposals) by Transport Assessments and/or Travel Plans;*
- d) In compliance with adopted cycle, car, disabled and service vehicle parking standards for different types and scales of new development;*
- e) Inclusive of measures that will mitigate carbon emissions and improve air quality where appropriate; and*
- f) Consistent with safeguarding arrangements that secure the operational integrity and safety of Liverpool John Lennon Airport".*

2.4.6 As detailed above the site is located within the Knowsley Industrial and Business Park area and Policy CS11 sets out the specific policies for this regeneration area. It states that *“Regeneration of Knowsley Industrial and Business Parks will be supported, which encourages a mix of new high quality employment development with a particular focus on the development of:*

- a) Class B1 ‘business’ uses within ‘gateway’ locations at: A580 West/Moorgate Road; A5208 County Road/South Boundary Road/Moorgate Road/Arbour Lane/Lees Road; and at A580 East/Coopers Lane;*
- b) Class B2 ‘General Industrial’ and B8 ‘Storage and Distribution’ uses north of South Boundary Road;*
- c) Class B1 and B8 uses south of South Boundary Road; and*
- d) A local service centre (or ‘Services Hub’) at South Boundary Road to provide small scale shopping and services to serve the needs of the workforce within the Park”.*

2.5 Policy Summary

2.5.1 The policies summarised in this section form the basis from which the transport aspects of the proposed development have been developed, conforming to the principles of the NPPF at a national level and the aspirations of policy and guidance at the local level.

3 Site Planning Application History

3.1.1 The Alchemy Business Park was originally granted outline planning permission in 2002 under reference 02/00480/OUT. This planning application included for 58,500sqm (629,689sqft) GFA of B1/B2/B8 industrial use, a 90 bedroom hotel, a 500qm (5381sqft) GFA pub/restaurant and a fast food unit of 300sqm (3,229sqft).

3.1.2 The 12 industrial units on land to the northeast of the site (Platinum Court) were constructed through this planning permission, as was the spine road into the site (Alchemy Way) and the accesses into the future development plots.

3.1.3 In March 2018 a hybrid planning application was granted for the remaining undeveloped plots at the business park under planning application reference 16/00567/HYB. The planning application comprised of the following:

“The outline application for employment development comprises B1(b), (c) / B2/B8 uses with ancillary B1(a) office space (up to 16351m² (176000 ft²)(gia)), landscaping works that relate specifically to the building areas that are being dealt with in outline; car parking and vehicular, pedestrian circulation and other associated works.

The full application for employment development comprising three B1(b), (c) / B2/B8 units uses (up to 9,707m²(104,490 ft²)(gea)), re-profiling of existing bunds and landscaping works that relate specifically to the building areas that are being dealt with in full; means of access, car parking and vehicular, pedestrian circulation and other associated works”.

3.1.4 The hybrid planning application was supported by a Transport Assessment report. This report concluded that *“The proposed development is expected to generate 139 two-way trips during the AM peak hour and 127 two-way trips during the PM peak hour. This equates to around two vehicles every minute in the peak hours, which cannot be considered to be a significant impact. The TA which was produced for the previously consented scheme assessed concluded that no off site highway improvements were needed (over-and-above those already been delivered by KMBC). Therefore, it follows that in the case of the proposed development due to the considerably smaller size and less trips generated, this remains the position”.*

3.1.5 Transport related planning conditions on the hybrid planning application related to the provision of a Travel Plan for each unit and the provision of parking, servicing and turning areas.

3.1.6 A Section 106 agreement was attached to the hybrid planning application, but this did not include any transport related contributions.

3.1.7 The units under the full planning application have been constructed and are operational.

3.1.8 Condition 4 on the decision note relates to the submission of reserved matter application for the outline portion of the site and states that *“Application for approval of reserved matters must be made not later than the expiration of five years from the date of this permission and the development must be begun no later than the expiration of two years from the final approval of the reserved matters or, in the case of approval on different dates, the final approval of the last such matter to be approved”.* Hence the outline application remains valid.

3.1.9 Notwithstanding the extant outline planning permission, the total floorspace which could be delivered across both land parcels has the potential to exceed the floorspace approved with the outline permission.

4 Existing Conditions

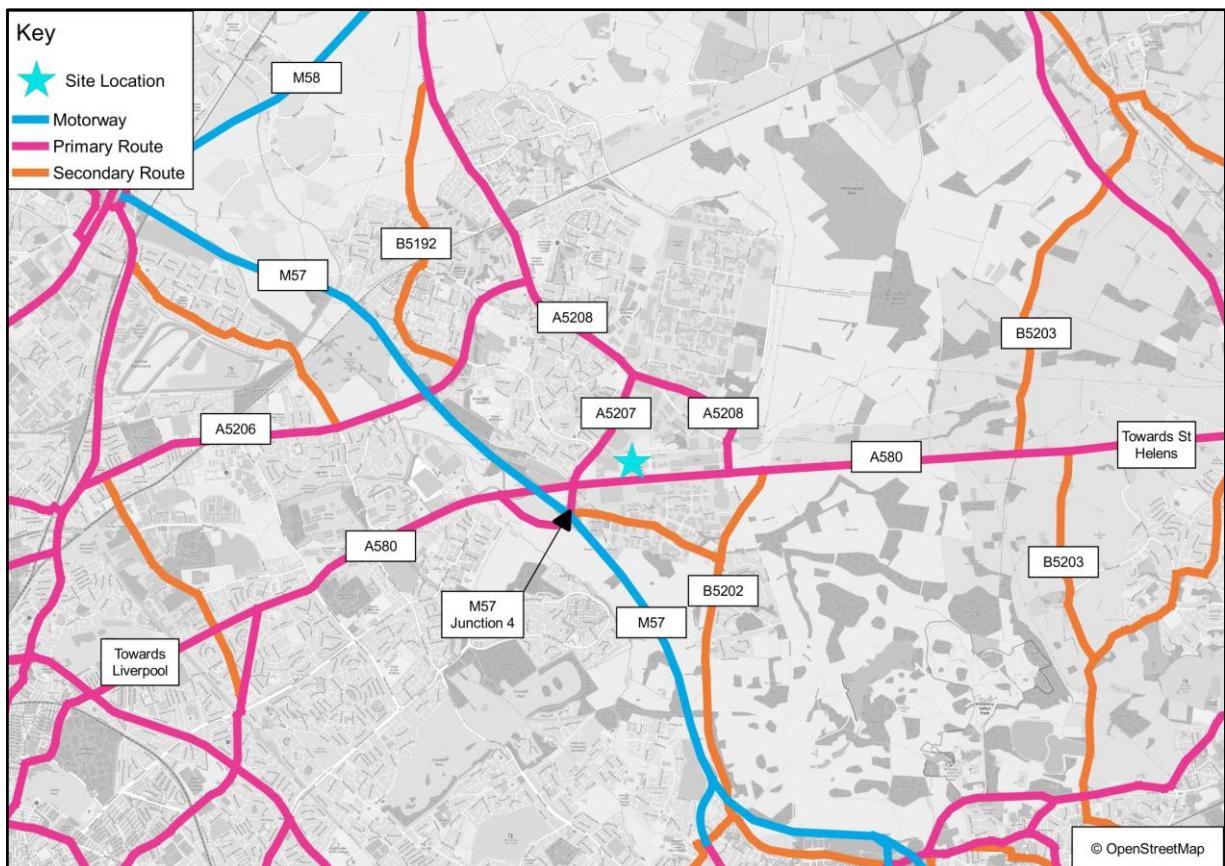
4.1 Development Location and Use

- 4.1.1 The development plots are located on the Alchemy Business Park which is located to the north of the A580 East Lancashire Road. Vehicle access to the business park is achieved via Alchemy Way which connects to the A580 via a signal controlled T-junction. Alchemy Way also provides access to Platinum Court which serves a number of industrial and storage and distribution units.
- 4.1.2 The development plots currently comprise of undeveloped land. Although junction bellmouths are provided in anticipation of the plots of land being developed.

4.2 Highway Network

- 4.2.1 The highway network surrounding the site is shown on **Figure 2**. This shows the A580 East Lancashire Road which runs west to east to provide a strategic connection between Liverpool and Manchester.

Figure 2 Highway Network



- 4.2.2 The A580 is a dual carriageway road which is subject to a 50mph speed limit. This road is approximately 7m wide, has a 3.5m shared footway/cycleway on the northern side of the carriageway and a 2m footway on the southern side. Street lighting is also provided.
- 4.2.3 The A5207 Moorgate Road North is located approximately 800m to the west of the Alchemy Business Park. This road runs in a broadly north to south direction. It is a dual carriageway road approximately 7m wide and has a continuous 2m footway on the eastern side of the carriageway and a 2m footway on the western side of the carriageway from approximately 230m north of the A580/A5207 signal junction. This road is subject to a 40mph speed limit and has street lighting. The A5207 Moorgate Road North routes along the western boundary of Knowsley Industrial Park and provides access into the residential areas to the west.

- 4.2.4 To the south of the A580, Moorgate Road South routes to the M57 Junction 4 roundabout (Randles Farm Interchange). This roundabout provides access to the NM57 in both directions. Slip roads to and from the M57 (north) are also provided directly from the A580 which enables drivers to avoid the M57 roundabout junction.
- 4.2.5 The A5208 Coopers Lane is located approximately 850 metres east of the business park. This road runs in a north to south orientation and is a dual carriageway subject to a 40mph speed limit. It is approximately 7m wide and street lighting is provided. There is a 2m footway on the eastern side of the carriageway and a 3.5m shared footway/cycleway on the western side of the carriageway.

4.3 Pedestrian Travel

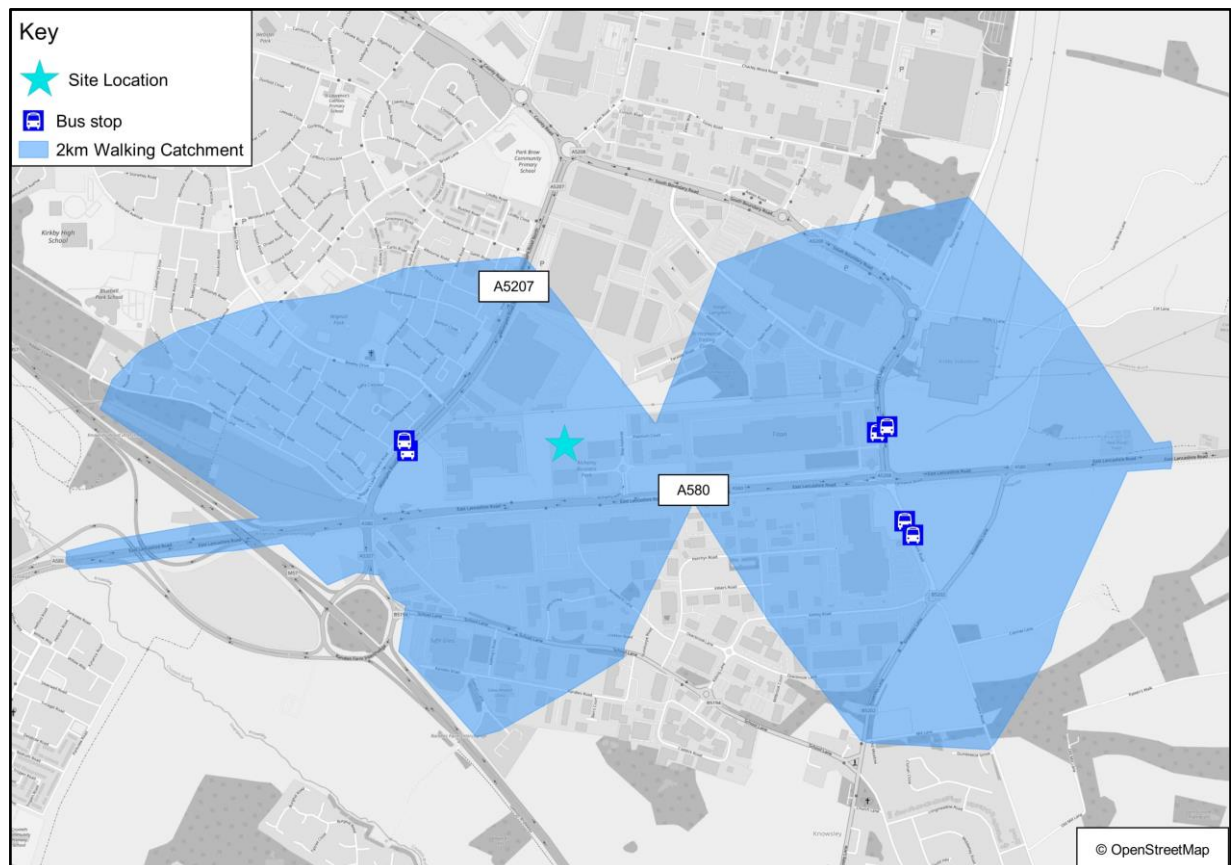
- 4.3.1 The Guidelines for Providing for Journeys on Foot (GPJF) document describes acceptable walking distances for pedestrians without mobility impairment. GPJF suggests that the maximum walking distance for commuting is approximately 2km. GPJF states that an average walking speed of approximately 1.4m/s (5km's/hr) can be assumed. The walking distance thresholds for commuting is set out in the GPJF document (within table 3.2) and summarised below in **Table 1**.

Table 1 GPJF Acceptable Walking Distances Guidance Table

Journey Purpose	Suggested Acceptable Walking Distance (Metres)
	Commuting
Desirable	500
Acceptable	1,000
Preferred Maximum	2,000

- 4.3.2 **Figure 3** identifies a 2km walking distance from the proposed development site.

Figure 3 Walking Catchment Area

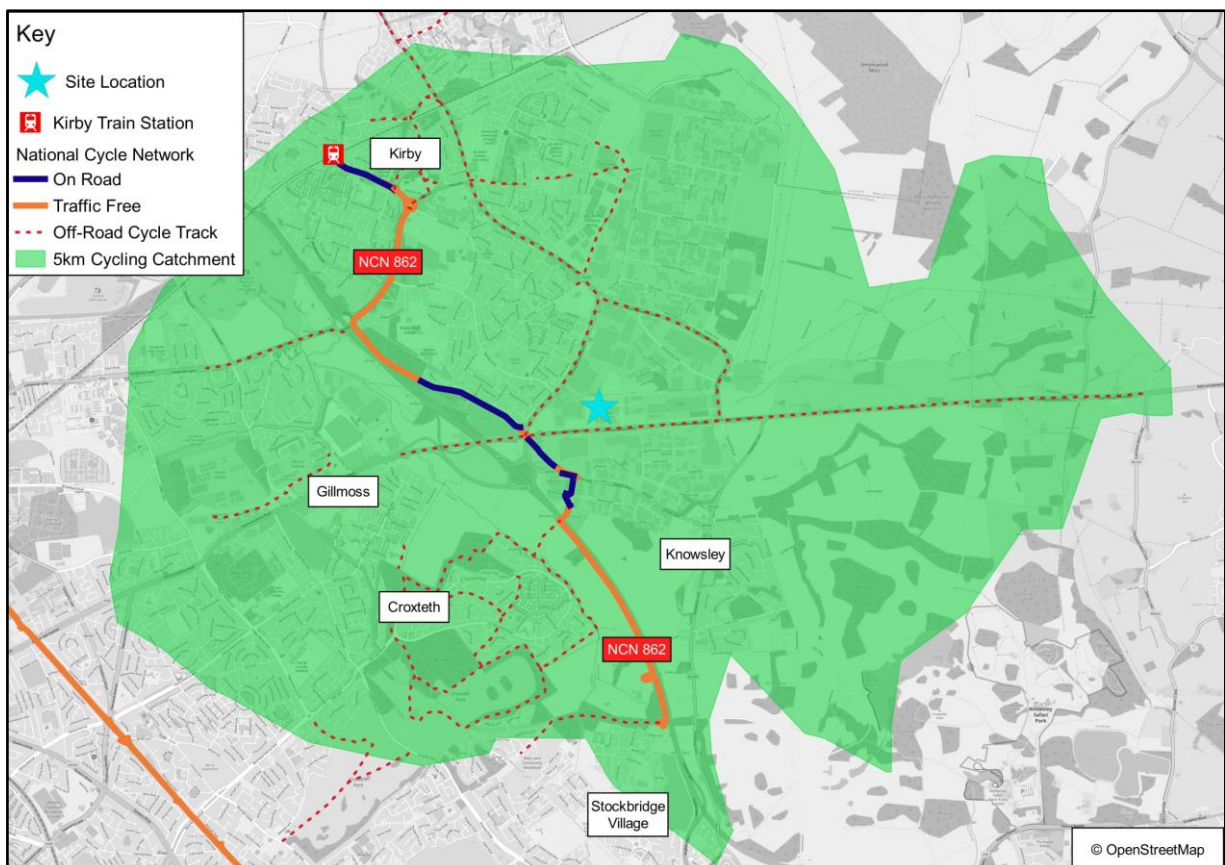


- 4.3.3 The isochrone plan shows that part of the residential area to the west and parts of the Knowsley Business and Industrial Park are within the 2km walking catchment area.
- 4.3.4 Footways are provided on either side of the roads within the Alchemy Business Park and these connect to the footway/cycleway provided on the northern side of the A580. Dedicated pedestrian/cycle crossing facilities are provided at the A580/Alchemy Way junction to enable pedestrians and cyclists to safely cross the carriageway.

4.4 Cycling

- 4.4.1 Local Transport Note (LTN) 1/04 states that there are limits to the distances generally considered acceptable for cycling. The mean average length for cycling is 4km (2.4 miles), although journeys of up to three times this distance are not uncommon for regular commuters. It is widely considered that cycling has the potential to substitute for short car trips, particularly those under 5km, and form part of a longer multi modal journey by public transport. Cycling is therefore an important journey to work mode that has the potential to substitute for short car journeys.
- 4.4.2 **Figure 4** shows a 5km cycling distance centred at the Alchemy Business Park. The figures shows that areas including Northwood, Kirkby, Aintree, Gillmoss, Croxteth, Stockbridge Village and Knowsley are located within a 5km cycling catchment

Figure 4 Cycle Catchment Area



- 4.4.3 **Figure 4** shows the route of National Cycle Network (NCN) route 862 which routes from Kirkby to Stockbridge Village and which crosses the A580 at the junction with Moorgate Road North. The Alchemy Business Park is linked to NCN 862 via the shared footway/cycleway provided on the northern side of the A580.

4.5 Public Transport

4.5.1 The nearest bus stops to the Alchemy Business Park are located on Moorgate Road North and Coopers Lane within convenient walking distance of the site. **Figure 5** shows an extract from the Merseytravel Liverpool Route Map which shows the buses available from the nearby bus stops.

Figure 5 Bus Routes



4.5.2 As shown on the figure, the bus stops are served by a variety of bus services. **Table 2** provides a summary of the most frequent bus services.

Table 2 Summary of Bus Services

Service number	Route	Weekday	Saturday	Sunday
14A/14X	Liverpool – Tower Hill / Kirkby	2 per hour	2 per hour	2 per hour
97/97A/98A	Kirkby Circular	2 per hour	2 per hour	No service
227	Bootle Bus Station – Halewood Shopping Centre	2 per hour	1 per hour	1 per hour
289	St Helens – Prescott or Kirkby	No service	1 per hour	No service
297	St Helens – Kirkby	6 per day	No service	No service
897	Huyton Industrial Estate – Kirkby Admin	2 per day	2 per day	2 per day
898	Page Moss – Kirkby Admin Circulares	1 per hour	1 per hour	1 per hour
899	Page Moss – Kirkby Industrial Estate / Knowsley Village Circular	1 per hour	No service	No service
X3	Queen Square Bus Station – Kirkby Admin	1 per hour	No service	No service

4.5.3 **Table 2** demonstrates that a number of bus services operate throughout the week providing regular and frequent services to a range of locations.

4.6 Sustainable Travel Summary

- 4.6.1 The Alchemy Business Park is situated in a sustainable location, in an existing and established urban area, within an allocated employment site. It is well suited to accommodate the proposals, being located in a well-established industrial/business park area connected by existing pedestrian, cycle and public transport networks.
- 4.6.2 The site location will encourage and promote sustainable travel behaviour, attract employees who choose to travel by sustainable modes and is fully in accordance with sustainable transport policies in the Local Plan and NPPF.

4.7 BREEAM Assessment

- 4.7.1 In addition to the above assessment of the options for sustainable travel to the site, the BREEAM assessment requires a number of other criteria to be assessed. These include detailing the number of existing accessible amenities within 500 metres of the site.
- 4.7.2 The amenities to be considered are set out in Table 7.1 of the BREEAM Technical Guidance and include amenities such as food outlets, access to cash, GP surgery and childcare facility or school. For the proposed development at the Alchemy Business Park, none of the listed amenities are available within 500 metres of the site.
- 4.7.3 The BREEAM criteria for public transport is assessed using the BREEAM Transport Accessibility Index Calculator.
- 4.7.4 This tool provides an indication of the accessibility and density of the public transport network at a the BREEAM-assessed buildings. The calculation is influenced by the proximity and diversity of the public transport network and the frequency of services at the accessible nodes. The greater the number of compliant nodes, services and their proximity to the building, the higher the calculated accessibility index.
- 4.7.5 The BREEAM guidance identifies that “A compliant node includes any bus service with a stop within 650m and any railway station within 1000m of the assessed building’s main entrance, measured via a safe pedestrian route (not ‘as the crow flies’), but along the actual route”.
- 4.7.6 For the proposed development at the Alchemy Business Park, none of the available bus stops located on Moorgate Road North and Coopers Lane are within 650 metres of the site. As such, there are no compliant nodes for the assessment. As detailed in **Figure 6**, the resulting accessibility index is therefore zero.

Figure 6 Transport Accessibility Index Calculation

BREEAM 2018 Tra01/02 Accessibility Index calculator BREEAM[®] UK
delivered by bre

Using the drop down boxes make the relevant selections and press the 'Select' button

Building type:

No. nodes required:

NODE 1

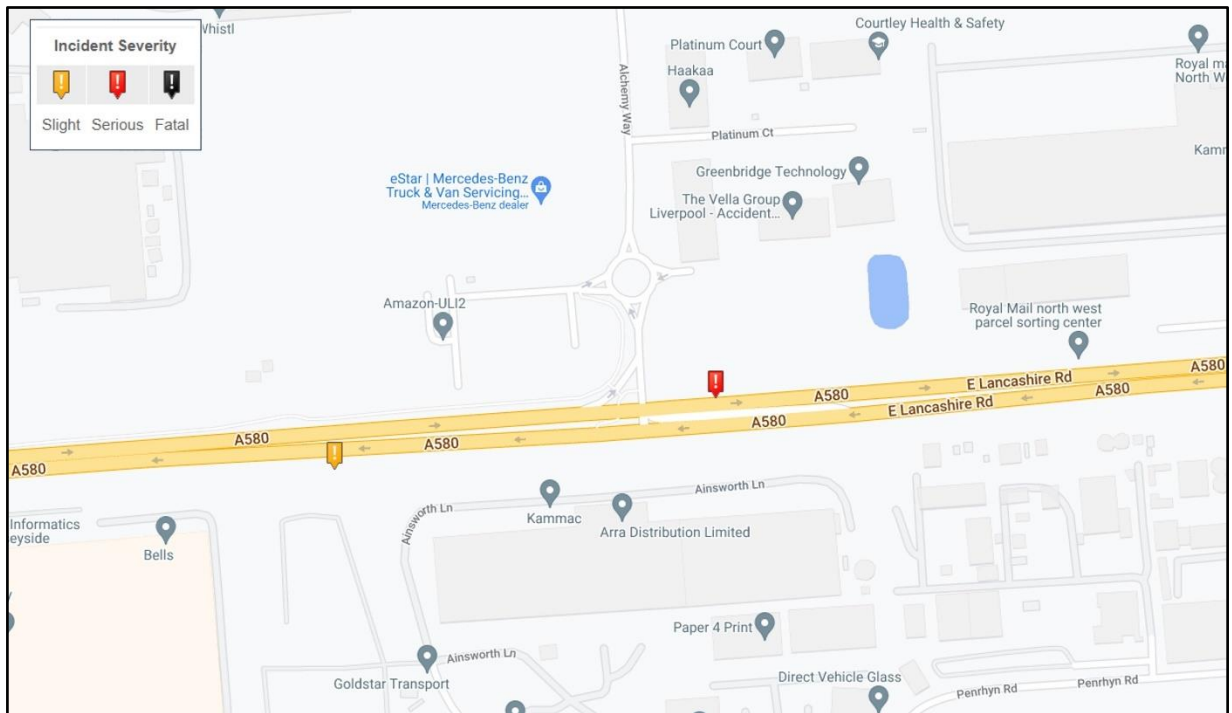
Public transport type	Distance to node (m)	Service 1	Service 2	Service 3	Service 4	Service 5	Service 6	Service 7	Service 8	Service 9	Service 10
Average frequency per hour											

Accessibility Index: 0.00

4.8 Road Traffic Collision Records

- 4.8.1 Data for road traffic collisions resulting in personal injury accident ('collision data') has been obtained from the Department for Transport's Road Safety Data Set (STATS19). The data has been collated for the most recently available five full years 2016 – 2020 inclusive as well as the half year data for 2021. The study area consists of the Alchemy Business Park and 400m around the perimeter.
- 4.8.2 **Figure 7** presents an extract from the Crashmap website which shows the collisions recorded within the study area.

Figure 7 Collision Study Area



- 4.8.3 The records shows that no collisions were recorded on Alchemy Way or within the Alchemy Business Park.
- 4.8.4 Two collisions were recorded on the East Lancashire Road. The first was classified as a serious collision which took place in June 2018 to the east of the junction with Alchemy Way. It involved a collision between a vehicle traveling east to west and one turning right when travelling southeast to east.
- 4.8.5 The second collision took place in May 2021 and was classified as being of slight severity. The collision took place to the west of the junction and involved two vehicles travelling east to west, one of which changed lanes resulting in the collision.
- 4.8.6 There does not appear to be any common causal factors to the two collisions and there is no indication that these collisions occurred due to the road or junction geometry. The number of collisions recorded over a 5-year period is also not uncommon for a road and junction that experiences very high volumes of traffic during peak periods. It is therefore considered that there is not an accident concern at this location.

5 Proposed Development

5.1 Planning Application

- 5.1.1 The Site is split into two development plots, referred to as Land Parcel 1 which comprises two industrial units to the north west and Land Parcel 2 to the south east which for the purposes of this Assessment includes 3 industrial units.
- 5.1.2 This assessment covers both development plots. However, the application relates to Parcel 1 (Western plot). Land Parcel 2 will be developed at later stage as part of a separate phase.
- 5.1.3 The Planning Application description for Land Parcel 1 (Plot 1) is as follows: “*Full Application For Employment Development Comprising Two Units (Use Class E (G) (li) / B2 / B8 Use) With Ancillary E (G) (l) Office Space, Car Parking And Vehicular, Pedestrian Circulation With Access Onto Alchemy Way*”
- 5.1.4 A copy of the masterplan is provided in **Appendix 1**. The floorspace proposed as part of the planning application for Land Parcel 1 includes:
- Unit 4 (Parcel 1) 9,768sqm
 - Unit 5 (Parcel 1) 3,906sqm.
 - Total 13,674sqm.
- 5.1.5 Land Parcel 2 which will be delivered as part of separate planning application includes:
- Units 1a to 1d 1,700sqm
 - Units 2a to 2d 1,258sqm
 - Units 3a to 3d 1,258sqm
 - Total 4,216sqm
- 5.1.6 The grand total floorspace across both land parcels is 17,890sqm of floorspace.

5.2 Access Proposals

- 5.2.1 Vehicle access to Units 1, 2 and 3 will be provided via the eastern arm of the existing roundabout on Alchemy Way. Access to Unit 4 will be provided via the existing spur from the western arm of the roundabout. Unit 5 will be served from a priority T-junction onto Alchemy Way which is located to the north of the junction with Platinum Court.
- 5.2.2 As detailed above, the vehicles accesses into the development plots have already been provided.
- 5.2.3 In terms of pedestrian access footways are provided adjacent to the roads within the Alchemy Business Park which will safely facilitate pedestrian access to the units.
- 5.2.4 The proposed units will be accessible to all users, including those who are disabled or struggle to walk, to ensure all users can access the site, i.e., step free access will be provided. Corridors and walkways throughout the buildings will also be well lit as appropriate, aiding those who are visually impaired.

5.3 Parking Provision

Parking Standards

- 5.3.1 The parking standards within Knowsley Metropolitan Borough Council (KMBC) are provided within the Ensuring a Choice of Travel Supplementary Planning Document (SPD) dated September 2010. The maximum parking standards for vehicles is as follows:

- B2 industrial use – one space per 45 sqm GFA
- B8 warehousing use – one space per 100 sqm GFA

5.3.2 Applying the worst case/most intensive B2 parking standard to the total floor space of 17,890sqm results in a maximum parking provision of 398 spaces. The proposed site layout plan in **Appendix 1** shows a total of 271 car parking spaces and is therefore in accordance with the standards (at 68% of the maximum levels). This parking provision is reasonable when taking into consideration the sustainable location of the site.

5.3.3 The SPD guidance states that a minimum of 5% of the total allocation of car parking spaces should be provided as disabled parking. A total of 22 disabled parking spaces are provided on the site, which equates to 8% of the actual total provision or 5.6% of the B2 standard maximum provision. The disabled parking space provision is therefore in accordance with the guidance in the SPD.

5.3.4 Disabled parking bays are provided at each unit and the spaces allow for an additional 1.2m hatched area around the side and rear of the space to enable safe access to vehicles for people with mobility impairments. The spaces are situated close to the building entrances and will have step free access from the spaces to the building entrance via suitable dropped kerbs and crossings

5.3.5 The minimum cycle parking standards are provided in the SPD as follows:

- B2 industrial use – one space per 450 sqm GFA
- B8 warehousing – one space per 850 sqm GFA

Land Parcel 1 Parking

5.3.6 Applying the worst case/most intensive B2 parking standard to the total floor space of 13,674sqm for land parcel 1 results in a maximum parking provision of 304 spaces. The proposed site layout plan in **Appendix 1** shows a total of 184 car parking spaces and is therefore in accordance with the standards (at 61% of the maximum levels). This parking provision is reasonable when taking into consideration the sustainable location of the site.

5.3.7 Applying the standards to the site would equate to a minimum of 31 cycle parking spaces based on the worst case B2 use standard. As shown on the site layout plan a total of 72 cycle parking spaces will be provided on land parcel 1 as follows:

- Unit 4 (Parcel 1) 48 spaces
- Unit 5 (Parcel 1) 24 spaces.

5.3.8 The cycle parking provision is therefore in accordance with the required level as specified in the SPD.

5.3.9 The SPD does not provide standards for the provision of electric vehicle charging spaces. However, it is proposed that EV charging spaces will be provided at a ratio of 10% of the provided car parking as follows:

- Unit 4 (Parcel 1) 14 spaces
- Unit 5 (Parcel 1) 5 spaces.

5.3.10 This level of EV charging is considered appropriate and would encourages more sustainable travel to and from the site.

Land Parcel 2 Parking

5.3.11 Land Parcel 2 which will be delivered as part of separate planning application nonetheless applying the worst case/most intensive B2 parking standard to the total floor space of 4,216sqm for land parcel 2

results in a maximum parking provision of 94 spaces. The proposed site layout plan in **Appendix 1** shows a total of 87 car parking spaces and is therefore in accordance with the standards (at 93% of the maximum levels). This parking provision is reasonable when taking into consideration the sustainable location of the site.

5.3.12 Applying the standards to the site would equate to a minimum of 9 cycle parking spaces based on the worst case B2 use standard. As shown on the site layout plan a total of cycle parking spaces will be provided on land parcel 2 as follows:

- Units 1 -3 32 spaces

5.3.13 The proposed amount of EV charging spaces on land parcel 2 at a ratio of 10% of the provided car parking as follows:

- Units 1 -3 16 spaces

5.4 HGV Tracking

5.4.1 The masterplan layout for both land parcels shows how the proposal allows for HGVs to turn appropriately and enter and exit in forward gear. The tracking assessment which details how HGVs can safely access the service areas for each unit is provided in **Appendix 2**.

6 Vehicle and Person Trip Rates

6.1 Introduction

- 6.1.1 As outlined above the outline planning permission remains extant and allows for up to 16,351sqm of employment floorspace at the Alchemy Business Park, however the total floorspace which could be delivered across both land parcels and assessed as part of this Transport Assessment shown on the site wide masterplan has the potential to exceed the floorspace approved with the outline permission with a total employment floorspace of 17,890sqm. As per the consented planning application an open E(g) (ii) (iii)/B2/B8 use with ancillary office use consent is sought.
- 6.1.2 The following sections set out the traffic generation of the proposals in comparison with the consented use.

6.2 Vehicle Trip Rates

- 6.2.1 The Transport Assessment produced to support the consented planning application utilised version 7.3.2 of the TRICS Database in order to calculate the trip rates associated with the proposed uses. As version 7.9.2 of the TRICS Database is available, the traffic generation assessment has been updated.
- 6.2.2 The 'Employment – Industrial Estates' category of the database was interrogated in line with methodology used for the consented application and to reflect the likely mixed B2/B8 employment uses that will be at the development. For the purpose of the trip generation assessment, the proposed development site was identified as being an 'Edge of Town' site. Sites in Greater London, Wales, Scotland and Ireland were also excluded from the search and a cut-off-date of 1st January 2014 was applied to exclude any surveys that were considered too old.
- 6.2.3 The TRICS outputs are provided in **Appendix 3** and summarised in **Table 3**. For comparison purposes the trip rates from the consented application are also provided in the table.

Table 3 Vehicle Trip Rates

Trip Type	Morning Peak Hour			Evening Peak Hour		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
Updated TRICS assessment	0.553	0.231	0.784	0.173	0.531	0.704
Consented planning application	0.374	0.166	0.540	0.213	0.281	0.494

- 6.2.4 **Table 3** identifies that the trip rates from the updated TRICS assessment are higher than those used in the previous assessment. Therefore, to provide a robust assessment the higher trip rates have been used.
- 6.2.5 The traffic generation for the consented and proposed uses is shown in **Table 4**.

Table 4 Proposed and Consented Vehicle Trips

Trip Type	Morning Peak Hour			Evening Peak Hour		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
Proposed development	99	41	140	31	95	126
Consented planning application	90	38	128	28	87	115
Difference	9	3	12	3	8	11

- 6.2.6 **Table 4** identifies that the proposals will result in an additional 12 two-way trips during the morning peak hour and 11 two-way trips during the evening peak hour when compared to the consented use. In summary, this level of additional traffic will not adversely impact on the operation of the surrounding highway network.

6.3 Modal Splits

- 6.3.1 To provide a more accurate representation of the existing and forecast modal split anticipated at the development site, the Census 2011 data has been analysed for the Knowsley 005 MSOA to establish the journey to work modal split for the workplace population.
- 6.3.2 The method of travel data to work for the 2011 Census has been examined and modal splits calculated, the results are summarised below in **Table 5**.

Table 5 Modal Splits

Method of Travel to Work	Modal Split
Car Driver	70.8%
Car Passenger	9.2%
Motorcycle	0.8%
Public Transport	10.5%
On Foot	4.6%
Bicycle	2.3%
Other	1.8%
Total	100.00%

Source: Nomis – Office for National Statistics

- 6.3.3 **Table 5** indicated that 10.5% of trips are made using public transport and 6.9% are walking / cycling trips.

6.4 Person Trip Generation

- 6.4.1 The light vehicle and HGV trip generation for the proposed development is set out in **Table 6**.

Table 6 Proposed Development Traffic Generation

Trip Type	Morning Peak Hour			Evening Peak Hour		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
Light Vehicles	95	36	131	30	94	124
HGVs	4	5	9	1	1	2
Total Vehicles	99	41	140	31	95	126

- 6.4.2 The modal splits outlines in **Table 5** have been combined with the vehicle trip generation in **Table 6** to calculate the two-way person trips associated with the proposed site, shown in **Table 7**.

Table 7 Person Trip Generation

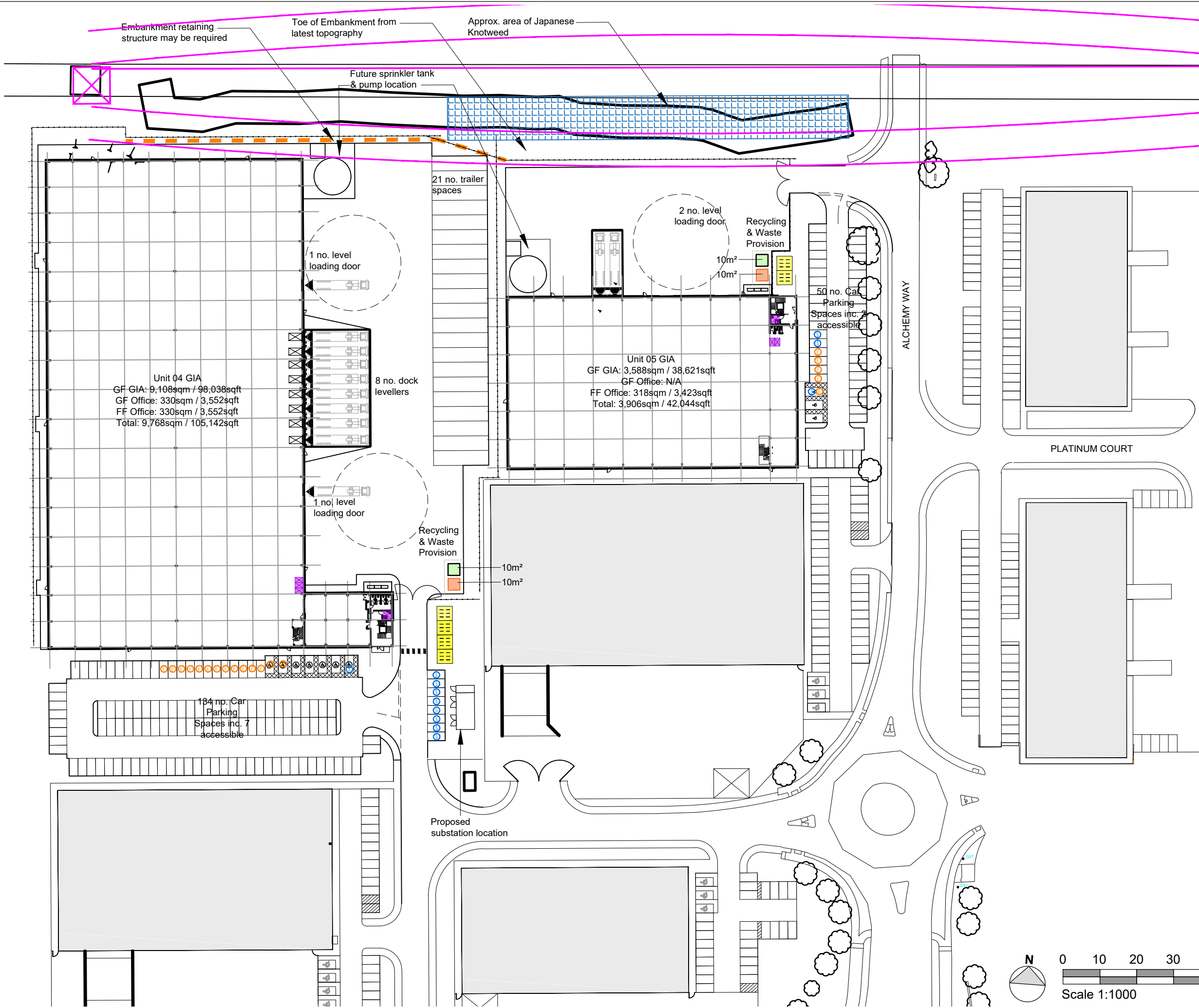
Mode	AM Peak 08:00 – 09:00			PM Peak 17:00 – 18:00		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
Car Driver	94	36	130	30	93	123
Car Passenger	12	5	17	4	12	16
Motorcycle	1	0	1	0	1	1
Public Transport	14	5	19	4	14	18
On Foot	6	2	8	2	6	8
Bicycle	3	1	4	1	3	4
Other	2	1	3	1	2	3
Total	133	50	183	42	132	174

- 6.4.3 Overall, it is anticipated that there will be 12 two-way walking/cycle trips in the morning peak hour and 12 in the evening peak hour. The development will also generate circa 19 two-way trips by public transport during the morning peak hour and 18 in the evening peak hour. These additional trips can be accommodated within the existing available sustainable infrastructure and public transport services.

7 Summary and Conclusions

- 7.1.1 Pell Frischmann is commissioned by Network Space to provide transport planning and highway consultancy services in connection with a proposed employment development located off Alchemy Way in Knowsley.
- 7.1.2 The Alchemy Business Park is situated in a sustainable location, in an existing and established urban area, within an allocated employment site. It is well suited to accommodate the proposals, being located in a well-established industrial/business park area connected by existing pedestrian, cycle and public transport networks.
- 7.1.3 The site location will encourage and promote sustainable travel behaviour, attract employees who choose to travel by sustainable modes and is fully in accordance with sustainable transport policies in the Local Plan and NPPF.
- 7.1.4 The proposed development within the 'Land Parcel 1' subject of this planning application is understood to comprise the construction of two large commercial buildings, with external yard and car parking areas. The development plot is understood to form part of a larger development area with land parcel 2 developed at a later stage as part of a separate application.
- 7.1.5 The development site is located on land to the northwest of Alchemy Business Park. The development plot, known as 'Land Parcel 1', comprises the northern western parts of the wider development site and covers an area of approximately 3.55ha.
- 7.1.6 This report covers both development plots. However, the application relates to Parcel 01 (Western plot).
- 7.1.7 The outline planning application for the site remains extant and this allowed for up to 16,351sqm of employment floorspace at the Alchemy Business Park. The site wide layout plan (including land parcel 1 and 2) assessed part of this Transport Assessment provided in **Appendix 1** shows that a slight increase in floorspace is now proposed with a total employment floorspace of 17,890sqm.
- 7.1.8 Vehicle access to Units 1, 2 and 3 will be provided via the eastern arm of the existing roundabout on Alchemy Way. Access to Unit 4 will be provided via the existing spur from the western arm of the roundabout. Unit 5 will be served from a priority T-junction onto Alchemy Way which is located to the north of the junction with Platinum Court.
- 7.1.9 The proposed car and cycle parking provision is in line with the local standards. In addition, it is proposed that EV charging spaces will be provided at a ratio of 10% of the provided car parking.
- 7.1.10 A trip generation exercise has been undertaken which has identified that the updated wider proposals will result in an additional 12 two-way trips during the morning peak hour and 11 two-way trips during the evening peak hour when compared to the consented use. This level of additional traffic will not adversely impact on the operation of the surrounding highway network.
- 7.1.11 Overall, it is concluded that the proposed development accords with the principles of NPPF and represents sustainable development and should therefore be acceptable in highways terms.

Appendix 1 Site Layout Plan



- NOTES**
- All dimensions and levels are to be checked on site.
 - Any discrepancies are to be reported to the architect before any work commences.
 - This drawing shall not be scaled to ascertain any dimensions. Work to figured dimensions only.
 - This drawing shall not be reproduced without express written permission from AEW.
 - Title overlay drawings and ownership boundaries are produced using all reasonable endeavors. AEW cannot be responsible for the accuracy or scale discrepancy of base plans supplied to them.
 - All works are to be undertaken in accordance with Building Regulations and the latest British Standards.
 - All proprietary materials and products are to be used strictly in accordance with the manufacturers recommendations.

CDM 2015

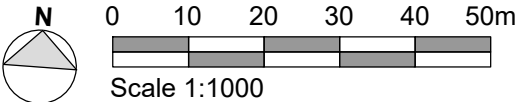
Client notified of duties: **Jan 2020**
Principal Designer: **Client**

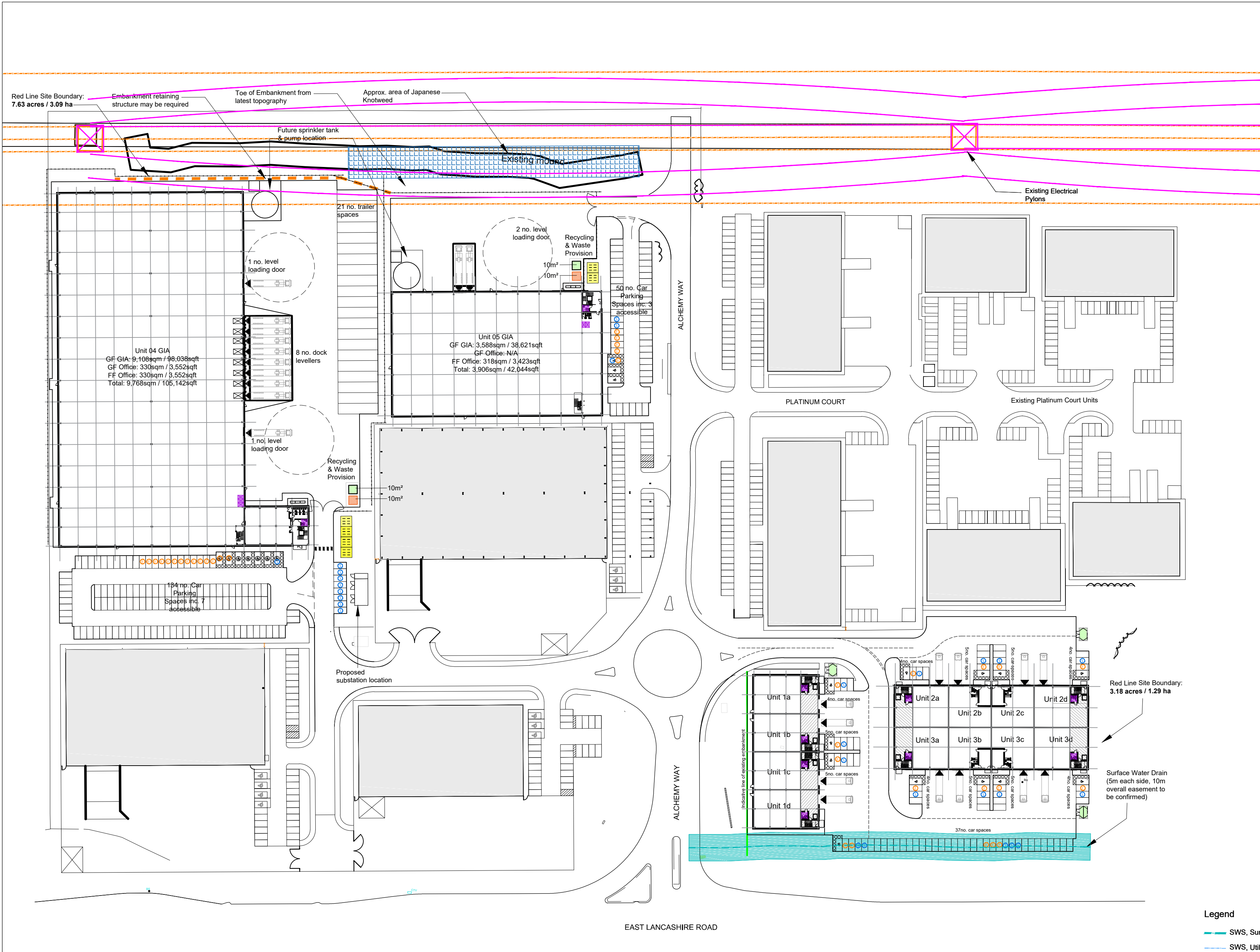
Unless noted below, all known hazards have been highlighted on the drawing.

Schedule of Accommodation Western							
Unit	Ground Floor GIA	Office GF GIA	Office FF GIA	TOTAL UNIT GIA	TOTAL UNIT GEA	Car Parking (Accessible)	Parking Ratio (/m²)
Unit 04	9,108m² / 98,038ft²	330m² / 3,552ft²	330m² / 3,552ft²	9,768m² / 105,142ft²	10,036m² / 108,026ft²	134 (7)	1:75
Unit 05	3,588m² / 38,621ft²	N/A	318m² / 3,423ft²	3,906m² / 42,044ft²	4,042m² / 43,507ft²	50 (3)	1:77
TOTAL SITE Areas				13,674m² / 147,186ft²	14,078m² / 151,534ft²	184 (10)	

- Legend**
- SWS, Survey data
 - SWS, Utility data
 - Existing Buildings
 - Cycle Store
 - Recycling & waste location

P01	29/03/23	DJS	DRS
Initial issue			
REV	Date	Drawn by: -	Checked by: -
Status	Purpose of Issue		
S2	For information		
drawing stage	Planning		
client			
Network Space Developments			
project			
Alchemy, Western Plot			
drawing title			
Proposed Site Plan			
date	Mar 23	drawn	DJS
scale@A3	1:1000	checked	DRS



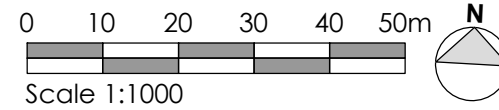


NOTES

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- All proprietary materials and products are to be used strictly in accordance with the manufacturers recommendations.

CDM 2015

Client notified of duties: Jan 2020
Principal Designer: Client
Unless noted below, all known hazards have been highlighted on the drawing:



Schedule of Accommodation Frontage							
Unit	Ground Floor GIA	Office GIA	Office FF	TOTAL UNIT GIA	TOTAL UNIT GEA	Car Parking (Accessibility)	Parking Ratio to GIA (m ²)
Unit 01A	336m ² 3,617m ²	88m ² 958m ²	425m ² 4,578m ²	475m ² 5,113 m ²	4	(1)	1:75
Unit 01B	336m ² 3,617m ²	88m ² 958m ²	425m ² 4,578m ²	475m ² 5,113 m ²	4	(1)	1:77
Unit 01C	336m ² 3,617m ²	88m ² 958m ²	425m ² 4,578m ²	475m ² 5,113 m ²	4	(1)	1:77
Unit 01D	336m ² 3,617m ²	88m ² 958m ²	425m ² 4,578m ²	475m ² 5,113 m ²	4	(1)	1:77
Unit 02A	336m ² 3,617m ²	88m ² 958m ²	425m ² 4,578m ²	475m ² 5,113 m ²	4	(1)	1:77
Unit 02B	240m ² 2,583m ²	N/A	240m ² 2,583m ²	287m ² 3,087m ²	5	(1)	1:77
Unit 02C	240m ² 2,583m ²	N/A	240m ² 2,583m ²	287m ² 3,087m ²	5	(1)	1:77
Unit 02D	300m ² 3,229m ²	88m ² 958m ²	388m ² 4,187m ²	445m ² 4,790 m ²	4	(1)	1:77
Unit 03A	300m ² 3,229m ²	88m ² 958m ²	388m ² 4,187m ²	445m ² 4,790 m ²	4	(1)	1:77
Unit 03B	240m ² 2,583m ²	N/A	240m ² 2,583m ²	287m ² 3,087m ²	5	(1)	1:77
Unit 03C	240m ² 2,583m ²	N/A	240m ² 2,583m ²	287m ² 3,087m ²	5	(1)	1:77
Unit 03D	300m ² 3,229m ²	88m ² 958m ²	388m ² 4,187m ²	445m ² 4,790 m ²	4	(1)	1:77
Overflow Parking						32	
TOTAL SITE AREAS				4,219m ² 45,309m ²	4,883 m ² 50,418m ²	87 (12)	

Schedule of Accommodation Western							
Unit	Ground Floor GIA	Office GIA	Office FF	TOTAL UNIT GIA	TOTAL UNIT GEA	Car Parking (Accessible)	Parking Ratio (m²)
Unit 04	9,106m² 98,038m²	330m² / 3,552m²	330m² / 3,552m²	9,768m² / 105,120m²	10,026 m² / 107,672 m²	134 (7)	1:75
Unit 05	3,088m² 38,621m²	N/A	318m² / 3,423m²	3,306m² / 42,044m²	4,042 m² / 43,507 m²	50 (3)	1:77
TOTAL SITE Areas				13,074m² / 147,166m²	14,078 m² / 151,534m²	184 (10)	

P01	21/03/23	DJS	DRS
Initial Issue			
REV	Date	Drawn by: -	Checked by: -
Status	Purpose of Issue		
S2	For Information		
drawing stage	Planning		
client			

Network Space Development

project

Alchemy, Frontage & Western Plot

drawing title

Proposed Site Plan

date Mar 22 drawn DJS

scale@A2 1:1000 checked DRS

Legend

- SWS, Survey data
- SWS, Utility data
- Existing Buildings
- Cycle Store
- Recycling & waste
- Shower provision

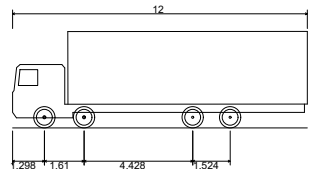
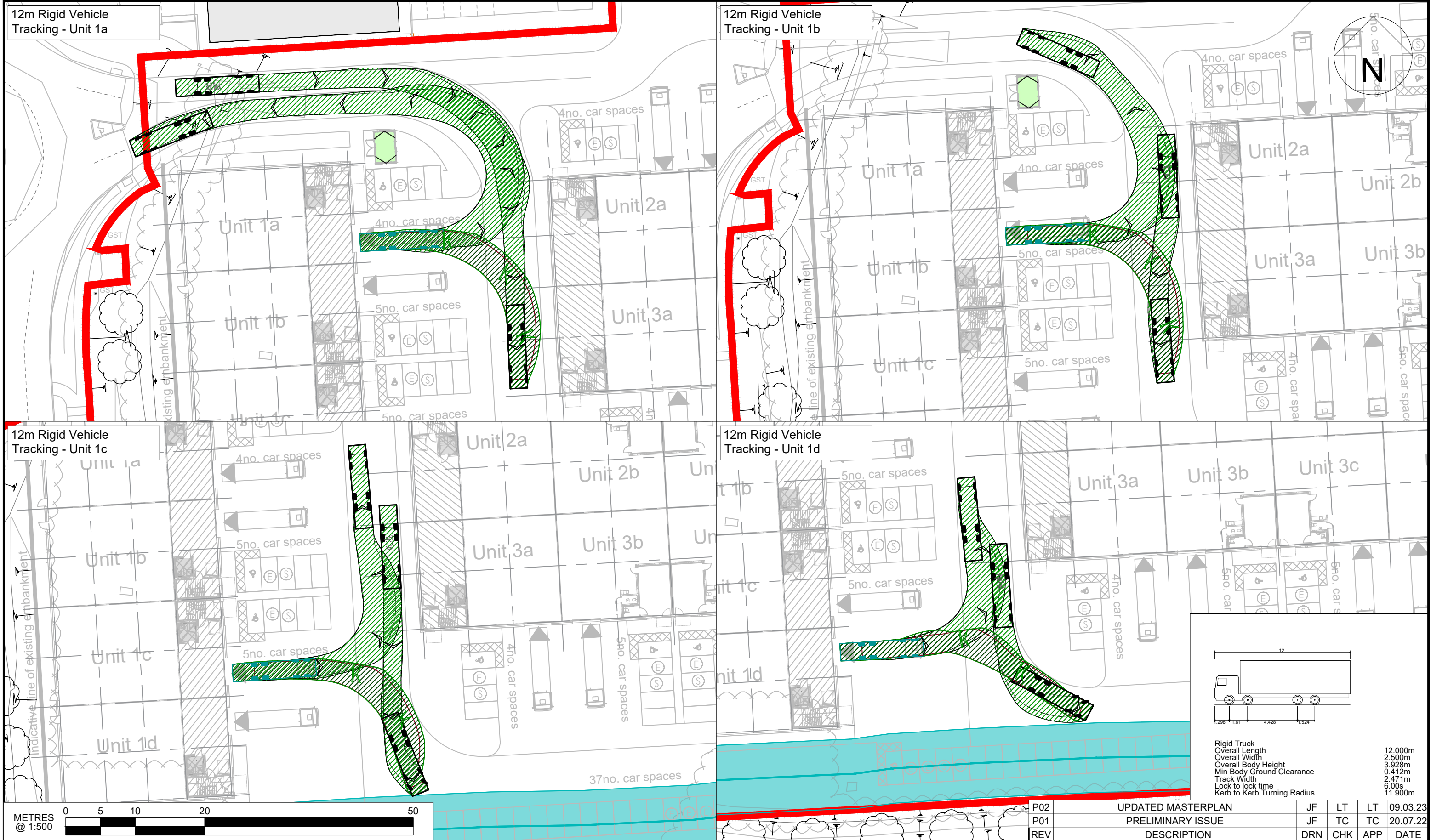
Rev P01

Job No 12474-AEW-SI-XX-DR-A-0503

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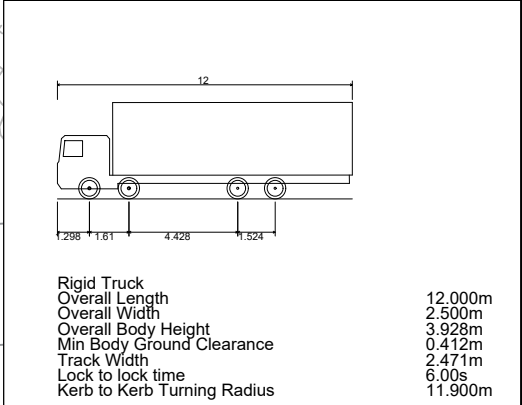
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Appendix 2 Tracking Drawing



Rigid Truck
Overall Length 12.000m
Overall Width 2.500m
Overall Body Height 3.928m
Min Body Ground Clearance 0.412m
Track Width 2.471m
Lock to lock time 6.00s
Kerb to Kerb Turning Radius 11.900m

Pell Frischmann SUITE 4.2 - 1, THE POYNT, WOLLATON STREET, NOTTINGHAM NG1 5FW Telephone +44 (0)115 784 8960 Email: pfnottingham@pellfrischmann.com www.pellfrischmann.com	Architect/Client/Contractor	Project	ALCHEMY WAY, LIVERPOOL			
			Drawing Title	VEHICLE TRACKING ASSESSMENT		
		12m RIGID TRUCK - UNITS 1a, 1b, 1c & 1d				
		Drawing Status				
		PRELIMINARY				
				Name	Date	Status Code
		Drawn	J.FARRELL	20.07.22	S2	
Designed	J.FARRELL	20.07.22	Scale			
Eng Chk	T.COOKE	20.07.22	1:500			
Approved	T.COOKE	20.07.22	Revision			
P02						
Drawing No.						
106636 - PEF - ZZ - XX - DR - TP - 000001						



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Architect/Client/Contractor

NETWORK SPACE

Project

ALCHEMY WAY, LIVERPOOL

Drawing Title

VEHICLE TRACKING ASSESSMENT
12m RIGID TRUCK - UNITS 2a, 2b, 2c & 2d

P02	UPDATED MASTERPLAN			JF	LT	LT	09.03.23
P01	PRELIMINARY ISSUE			JF	TC	TC	20.07.22
REV	DESCRIPTION			DRN	CHK	APP	DATE
Drawing Status							
PRELIMINARY							
	Name		Date	Status Code			
Drawn	J.FARRELL		20.07.22	S2			
Designed	J.FARRELL		20.07.22	Scale			
Eng Chk	T.COOKE		20.07.22	1:500			
Approved	T.COOKE		20.07.22	Revision			
				P02			
Drawing No.							
106636 - PEF - ZZ - XX - DR - TP - 000002							



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Architect/Client/Contractor

Project

ALCHEMY WAY, LIVERPOOL

Drawing Title

VEHICLE TRACKING ASSESSMENT
12m RIGID TRUCK - UNITS 3a, 3b, 3c & 3d

Drawing Status

PRELIMINARY

Drawn	J.FARRELL	20.07.22	Status Code	S2
Designed	J.FARRELL	20.07.22	Scale	1:500
Eng Chk	T.COOKE	20.07.22	Revision	P02
Approved	T.COOKE	20.07.22		

Drawing No.
106636 - PEF - ZZ - XX - DR - TP - 000003



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Architect/Client/Contractor

PROJECT

NETWORK SPACE

Project

ALCHEMY WAY, LIVERPOOL

Drawing Title

VEHICLE TRACKING ASSESSMENT
16.5m ARTICULATED HGV & REFUSE VEHICLE
UNIT 4

Drawing Status

PRELIMINARY

	Name	Date	Status Code
Drawn	J.FARRELL	20.07.22	S2
Designed	J.FARRELL	20.07.22	Scale
Eng Chk	T.COOKE	20.07.22	1:1000
Approved	T.COOKE	20.07.22	Revision
			P02

Drawing No.

106636 - PEF - ZZ - XX - DR - TP - 000004



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Architect/Client/Contractor

NETWORK SPACE

Project

ALCHEMY WAY, LIVERPOOL

Drawing Title

VEHICLE TRACKING ASSESSMENT

16.5m ARTICULATED HGV & REFUSE VEHICLE UNIT 5

P02	UPDATED MASTERPLAN	JF	LT	LT	09.03.23
P01	PRELIMINARY ISSUE	JF	TC	TC	20.07.22
REV	DESCRIPTION	DRN	CHK	APP	DATE
Drawing Status					
PRELIMINARY					
	Name	Date	Status Code		
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Designed	J.FARRELL	20.07.22	Scale		
Eng Chk	T.COOKIE	20.07.22	1:1000		
Approved	T.COOKIE	20.07.22	Revision		
			P02		
Drawing No.					
106636 - PEF - ZZ - XX - DR - TP - 000005					

Appendix 3 TRICS Database Outputs

Calculation Reference: AUDIT-610805-220712-0739

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : D - INDUSTRIAL ESTATE
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	EX ESSEX	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
	NR NORTHAMPTONSHIRE	2 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
	WY WEST YORKSHIRE	2 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 11265 to 37130 (units: sqm)
 Range Selected by User: 10000 to 50000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 21/10/20

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

Selected survey days:

Tuesday	1 days
Wednesday	2 days
Thursday	4 days
Friday	2 days

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

Selected survey types:

Manual count	9 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 undertaken using machines.

Selected Locations:

Edge of Town	9
--------------	---

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:

Industrial Zone	6
Out of Town	1
No Sub Category	2

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

Secondary Filtering selection:

Use Class:

Not Known 9 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®.

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

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

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

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	2 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	4 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	7 days

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

Travel Plan:

No 9 days

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

PTAL Rating:

No PTAL Present 9 days

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

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
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LIST OF SITES relevant to selection parameters

1	EX-02-D-04 PASTURE ROAD WITHAM	INDUSTRIAL ESTATE	ESSEX
	Edge of Town Industrial Zone Total Gross floor area: 37130 sqm Survey date: THURSDAY 10/05/18		Survey Type: MANUAL
2	LN-02-D-03 DEACON ROAD LINCOLN	INDUSTRIAL ESTATE	LINCOLNSHIRE
	Edge of Town Industrial Zone Total Gross floor area: 11265 sqm Survey date: FRIDAY 28/06/19		Survey Type: MANUAL
3	NR-02-D-01 ROBINSON WAY KETTERING	INDUSTRIAL ESTATE	NORTHAMPTONSHIRE
	Edge of Town Industrial Zone Total Gross floor area: 12900 sqm Survey date: THURSDAY 23/10/14		Survey Type: MANUAL
4	NR-02-D-02 CORNHILL CLOSE NORTHAMPTON LODGE FARM IND. ESTATE	INDUSTRIAL ESTATE	NORTHAMPTONSHIRE
	Edge of Town Industrial Zone Total Gross floor area: 12670 sqm Survey date: WEDNESDAY 21/10/20		Survey Type: MANUAL
5	NY-02-D-02 RACECOURSE ROAD RICHMOND	INDUSTRIAL ESTATE	NORTH YORKSHIRE
	Edge of Town Out of Town Total Gross floor area: 35183 sqm Survey date: TUESDAY 12/03/19		Survey Type: MANUAL
6	WK-02-D-03 EASTBORO WAY NUNEATON	INDUSTRIAL ESTATE	WARWICKSHIRE
	Edge of Town Industrial Zone Total Gross floor area: 20860 sqm Survey date: THURSDAY 26/09/19		Survey Type: MANUAL
7	WK-02-D-04 ABELES WAY ATHERSTONE	INDUSTRIAL ESTATE	WARWICKSHIRE
	Edge of Town No Sub Category Total Gross floor area: 17500 sqm Survey date: FRIDAY 27/09/19		Survey Type: MANUAL
8	WY-02-D-04 LAW STREET CLECKHEATON	INDUSTRIAL ESTATE	WEST YORKSHIRE
	Edge of Town Industrial Zone Total Gross floor area: 23226 sqm Survey date: THURSDAY 15/09/16		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9	WY-02-D-08	INDUSTRIAL ESTATE	WEST YORKSHIRE
	MILL LANE		
	HALIFAX		
	Edge of Town		
	No Sub Category		
	Total Gross floor area:	11305 sqm	
	Survey date: WEDNESDAY	17/10/18	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.

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	3	17010	0.059	3	17010	0.010	3	17010	0.069
06:00 - 07:00	4	15574	0.109	4	15574	0.032	4	15574	0.141
07:00 - 08:00	9	20227	0.427	9	20227	0.102	9	20227	0.529
08:00 - 09:00	9	20227	0.553	9	20227	0.231	9	20227	0.784
09:00 - 10:00	9	20227	0.358	9	20227	0.256	9	20227	0.614
10:00 - 11:00	9	20227	0.286	9	20227	0.266	9	20227	0.552
11:00 - 12:00	9	20227	0.282	9	20227	0.276	9	20227	0.558
12:00 - 13:00	9	20227	0.268	9	20227	0.338	9	20227	0.606
13:00 - 14:00	9	20227	0.299	9	20227	0.289	9	20227	0.588
14:00 - 15:00	9	20227	0.260	9	20227	0.315	9	20227	0.575
15:00 - 16:00	9	20227	0.221	9	20227	0.285	9	20227	0.506
16:00 - 17:00	9	20227	0.279	9	20227	0.466	9	20227	0.745
17:00 - 18:00	9	20227	0.173	9	20227	0.531	9	20227	0.704
18:00 - 19:00	9	20227	0.097	9	20227	0.191	9	20227	0.288
19:00 - 20:00	4	15574	0.088	4	15574	0.082	4	15574	0.170
20:00 - 21:00	4	15574	0.018	4	15574	0.050	4	15574	0.068
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.777			3.720			7.497

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:	11265 - 37130 (units: sqm)
Survey date range:	01/01/14 - 21/10/20
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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 shown. 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 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	3	17010	0.000	3	17010	0.002	3	17010	0.002
06:00 - 07:00	4	15574	0.003	4	15574	0.002	4	15574	0.005
07:00 - 08:00	9	20227	0.015	9	20227	0.013	9	20227	0.028
08:00 - 09:00	9	20227	0.023	9	20227	0.031	9	20227	0.054
09:00 - 10:00	9	20227	0.032	9	20227	0.028	9	20227	0.060
10:00 - 11:00	9	20227	0.031	9	20227	0.030	9	20227	0.061
11:00 - 12:00	9	20227	0.026	9	20227	0.025	9	20227	0.051
12:00 - 13:00	9	20227	0.025	9	20227	0.026	9	20227	0.051
13:00 - 14:00	9	20227	0.031	9	20227	0.023	9	20227	0.054
14:00 - 15:00	9	20227	0.027	9	20227	0.024	9	20227	0.051
15:00 - 16:00	9	20227	0.019	9	20227	0.023	9	20227	0.042
16:00 - 17:00	9	20227	0.013	9	20227	0.008	9	20227	0.021
17:00 - 18:00	9	20227	0.003	9	20227	0.005	9	20227	0.008
18:00 - 19:00	9	20227	0.002	9	20227	0.002	9	20227	0.004
19:00 - 20:00	4	15574	0.000	4	15574	0.000	4	15574	0.000
20:00 - 21:00	4	15574	0.003	4	15574	0.000	4	15574	0.003
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.253			0.242			0.495

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.