

Redevelopment of Deacon Business Park, Knowsley

EEIP II ARUNDEL PROPCO 2 HOLDINGS LIMITED

Transport Statement

Februarv 2022



Contents

1	INTRODUCTION.....	3
1.1	Introduction	3
2	DEVELOPMENT SITE AND PROPOSALS.....	4
2.1	Existing Site Information	4
2.2	Development Proposals	5
2.3	Vehicular Access.....	6
2.4	Pedestrian and Cycle Access	7
2.5	Servicing.....	8
2.6	Car Parking.....	8
2.7	Cycling/Motorcycling Parking	8
3	ACCESSIBILITY BY NON CAR MODES	9
3.1	Introduction	9
3.2	Accessibility on Foot.....	10
3.3	Accessibility by Cycle	11
3.4	Accessibility by Bus	12
3.5	Accessibility Summary.....	15
4	PROMOTING SMARTER CHOICES VIA TRAVEL PLANS.....	16
4.1	Introduction	16
4.2	Travel Planning Guidance	16
5	TRAFFIC IMPACT ANALYSIS	17
5.1	Introduction	17
5.2	Existing Site Traffic	17
5.3	Proposed Development.....	18
5.4	Net Impact	19
5.5	Impact on Site Access Junctions.....	20
5.6	Traffic Impact Summary	23
6	CONCLUSIONS.....	24

Contents

PLANS

Plan 1	Site Location
Plan 2	Indicative Site Masterplan
Plan 3	Proposed Vehicular Access Arrangement – Northern Access
Plan 4	Proposed Vehicular Access Arrangement – Southern Access
Plan 5	Swept Path Analysis – 16.5metre Articulated HGV
Plan 6	Swept Path Analysis – Fire Tender
Plan 7	Pedestrian Catchment

FIGURES

APPENDICES

Appendix 1	Travel Plan Framework
Appendix 2	TRICS Output – Consented Employment Development
Appendix 3	TRICS Output – Proposed Employment Development
Appendix 4	Traffic Count Data
Appendix 5	Junctions 9 Output – A5027 Moorgate Road North/Deacon Business Park Access North

1 INTRODUCTION

1.1 Introduction

- 1.1.1 Eddisons have been instructed by EEIP II Arundel Propco 2 Holdings Limited to produce a Transport Statement to assist the Local Planning Authority's determination of a te following planning application at the Deacon Business Park in Knowsley;

"Demolition of existing industrial accommodation and erection of warehouse (Use Class B8) with ancillary offices (Use Class E(g)), reconfigured points of access, new security gatehouses and associated works."

- 1.1.2 This report provides information on the traffic and transport planning aspects of the development proposals.
- 1.1.3 Following this introduction, Section 2 provides a description of the existing site and the development proposals.
- 1.1.4 Section 3 provides an assessment of the existing accessibility of the site by non-car travel before Section 4 discusses the Travel Plan Framework.
- 1.1.5 The traffic impact of the proposed development on the local highway network is considered at Section 5, whilst Section 6 draws together the conclusions to this report.

2 DEVELOPMENT SITE AND PROPOSALS

2.1 Existing Site Information

- 2.1.1 The location of the development site in relation to Kirkby and the surrounding area is shown in **Plan 1**.
- 2.1.2 The development site is located to the east of Kirkby town centre. It is located within the Deacon Business Park, it is bound to the north, south and east by existing employment provision within the Business Park, whilst the A5207 Moorgate Road North bounds the site to the west.
- 2.1.3 The site is broadly rectangle in shape. It is currently occupied by an employment unit, security buildings and areas of car parking and landscaping. The existing employment unit has an approximate floor area of 47,596 sqm, which has a planning consent for B1, B2 and B8 land-uses and is currently occupied.
- 2.1.4 Primary vehicular access into the site is provided for via the existing A5207 Moorgate Road North/Deacon Business Park priority controlled junction to the north, which provides access only into the site.
- 2.1.5 Whilst vehicular egress from the site is provided for via an exit only priority controlled junction onto the A5207 Moorgate Road North, which is located at the southern end of the application site. The existing vehicular access points are also used by vehicles associated with the wider Deacon Business Park.
- 2.1.6 In addition, vehicular access into the site from the east is provided for off Hornhouse Lane and the internal road layout of the Business Park.

- 2.1.7 The A5207 Moorgate Road North which bounds the site to the west runs in an approximate north-south alignment and is subject to a 40mph speed. It is a dual carriageway with footways located on either side of the carriageway.
- 2.1.8 To the north it provides an arm of the A5027 Moorgate Road North/A5027 County Road/South Boundary Road/Lees Road roundabout. South Boundary Road and Lees Road provide vehicle access to the employment land-uses located to the north and east, whilst the A5027 County Road provides access to Kirkby.
- 2.1.9 Approximately 1 kilometre south of the application site, the A5207 Moorgate Road North provides an arm of the signal controlled A580 East Lancs Road/A5207 Moorgate Road North/Junction 4 M57 Slip road junction.
- 2.1.10 To the west the A580 East Lancs Road provides access into Liverpool whilst to the east it provides access to Greater Manchester, M6 and the M60. To south, the Junction 4 of the M57 is an all movements junction which provides access to the M57 and the wider strategic highway network.

2.2 Development Proposals

- 2.2.1 This document has been produced in support of a planning application for an employment development (B8 land-use). The proposals will provide a single unit with 41,114 sqm of employment floorspace on the site.
- 2.2.2 The proposed site layout is shown in **Plan 2**.

2.3 Vehicular Access

2.3.1 It is proposed that vehicular access into the site will be provided via the existing vehicular access points off the A5027 Moorgate Road North, but these will be amended as part of the development proposals to enable all vehicle movements. The following section will provide details on the proposed access arrangements.

A5027 Moorgate Road North/Trident Business Park Access North

2.3.2 It is proposed that the main vehicular access for the development proposals will be via the northern of the existing access junctions off the A5027 Moorgate Road North. The junction will provide access to the car park and servicing areas for the proposed development as well as providing access to areas of the wider Business Park.

2.3.3 The junction is currently used as the access junction for the existing Business Park and therefore no amendments are required to the A5027 Moorgate Road North carriageway, which already has a right-turn lane. However, on the site access arm, it is proposed to access road width to 7.3 metres to facilitate 2-way vehicle movements.

2.3.4 Given the proposed B8 land-use, it is anticipated that a large proportion, if not all HGV movements will travel to and from site via the southern section of the A5027 Moorgate Road North to access the wider higher network i.e. the A580 and the M57. The mechanism of controlling routing this can be agreed with the local highway authority at a more advanced stage of the planning process.

2.3.5 The proposed junction layout is displayed in **Plan 3**.

A5027 Moorgate Road North/Trident Business Park Access South

- 2.3.6 It is proposed that the secondary vehicular access for the development proposal will be via the southern of the existing access junctions off the A5027 Moorgate Road North. This junction will provide access to the car park and emergency access of the proposed unit as well as the area of existing car park located to the south of the application site.
- 2.3.7 To facilitate two-way vehicle movements at the junction it is proposed to provide the following amendments to junction layout;
- Widening of the opening on the A5027 Moorgate Road North to 15 metres in accordance with Paragraph of CD 123;
 - Increase of southern corner radii on site access arm to 10 metres;
 - Widening of the site access arm to 7.3 metres.
- 2.3.8 The proposed junction layout is displayed in **Plan 4**.

2.4 Pedestrian and Cycle Access

- 2.4.1 It is proposed that access for pedestrians and cyclists will be provided for via the proposed northern access into the site off the A5027 Moorgate Road North.
- 2.4.2 A pedestrian footway of 2 metres will be located on the southern side of the access road carriageway, this will link with proposed internal layout of the site. This footway will link with existing provision located on the A5207 Moorgate Road North including the crossing facilities located along the A5207 Moorgate Road along the frontage of the site.

2.5 Servicing

- 2.5.1 To demonstrate the proposed site layout can accommodate service vehicles, a swept path analysis has been undertaken using a 16.5metre articulated HGV, this swept path analysis is displayed on **Plan 5** and demonstrates that the site can be serviced in a safe and efficient manner.
- 2.5.2 In addition, swept path analysis for a Fire Tender has also been undertaken and is shown in **Plan 6**. This exercise demonstrates that such vehicles can enter and exit the site in a safe and efficient manner. The

2.6 Car Parking

- 2.6.1 It is proposed that a total of 385 car parking spaces including 20 mobility impaired spaces are to be provided on the site. These parking spaces can be accessed via both of the site access junctions.
- 2.6.2 The proposed level of parking is considered to reach the right balance between promoting alternatives to the private car and ensuring that car parking needs are met and not result in a severe impact on the surrounding highway network.

2.7 Cycling/Motorcycling Parking

- 2.7.1 As part of the development proposals, secure and covered cycle parking provision will be provided within the site.
- 2.7.2 The location and details of the cycle and motorcycle parking will be agreed with the local planning authority at more advanced stage of the planning application.

3 ACCESSIBILITY BY NON CAR MODES

3.1 Introduction

3.1.1 In order to accord with the aspirations of the NPPF, any new proposals should extend the choice in transport and secure mobility in a way that supports sustainable development.

3.1.2 The presumption in favour of sustainable development is a central theme running through the framework and transport planning policies are seen as a key element of delivering sustainable development as well as contributing to wider sustainability and health objectives. One of the core principles of the NPPF is to '*ensure opportunities to promote walking, cycling and public transport use are identified and pursued.*'

3.1.3 To achieve this objective, paragraph 108 of the NPPF states when making decisions 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."

3.1.4 New proposals should therefore attempt to influence the mode of travel to the development in terms of gaining a shift in modal split towards non-car modes, thus assisting in meeting the aspirations of current national and local planning policy.

3.1.5 The accessibility of the proposed site has been considered by the following modes of transport:

- accessibility on foot.
- accessibility by cycle.
- accessibility by bus.

3.2 Accessibility on Foot

- 3.2.1 It is important to create a choice of direct, safe, and attractive routes between where people live and where they need to travel in their day-to-day life. This philosophy clearly encourages the opportunity to walk whatever the journey purpose and also helps to create more active streets and a more vibrant neighbourhood.
- 3.2.2 Pedestrian footways with widths of at least 3.7 metres are provided along the A5207 Moorgate Road North to the west of the application site. These footways links with the extensive pedestrian footway located within the vicinity of the site including the footways located on the A5208 Country Road and within the Northwood area of Knowsley.
- 3.2.3 Safe pedestrian across the A5207 Moorgate Road North along the frontage of the site is provided for in a range of locations. A staggered signal controlled pedestrian crossing with associated pedestrian refuge, dropped kerbs and tactile paving is located to the north of the existing site egress junction. Whilst pedestrian refuges with dropped kerbs and tactile paving are provided on the A5027 Moorgate Road North either side of its junction with Britonside Avenue and to the north of the existing site access junction.
- 3.2.4 To the south of the application site, further crossing facilities are provided at all major junction along the A5027 Moorgate Road North including crossing facilities at the A5027 Moorgate Road North/Bewley Drive signal controlled junction.
- 3.2.5 To the north of the site, dropped kerbs, tactile paving and pedestrian refuges are located on the A5208 South Boundary Road, Lees Road, the A5208 Country Road and the A5207 Moorgate Road North roundabout.

- 3.2.6 These pedestrian facilities provide safe pedestrian access to the residential areas located to the west, south and east of the development site.
- 3.2.7 The CIHT document 'Planning for Walking' from 2015 states, in paragraph 2.1, that in 2012 that 79% of all journeys made in the UK of less than a mile (1.6 kilometres) are carried out on foot.
- 3.2.8 **Plan 7** shows the pedestrian catchment for 2 kilometres from the centre of the site and provides an illustrative indication of the areas that can be reached based on a leisurely walk from the site.
- 3.2.9 The 2 kilometre catchment encompasses the south-eastern areas of Kirby including Southdene and Northwood, showing that the proposed development is within walking distance of a number of existing residential areas, which will provide the opportunity for staff to travel to the proposed development by foot, therefore reducing the reliance on the private car.
- 3.2.10 Based on the above the site can therefore be considered as being accessible by foot.

3.3 Accessibility by Cycle

- 3.3.1 An alternative mode of travel to the site could be achieved by bicycle.
- 3.3.2 A distance of 5 kilometres is generally accepted as a distance where cycling has the potential to replace short car journeys. This distance equates to a journey of around 25 minutes based on a leisurely cycle speed of 12 kilometres per hour and would encompass the entirety of Knowsley and Kirkby and parts of Norris Green, Fazakerley, Melling Mount and Knotty Ash.

- 3.3.3 There are no designated cycle facilities along the A5027 Moorgate Road North in the vicinity of the site. An off-road cycle route is provided along the A580 East Lancs Road to the south, whilst cycle facilities are located within the vicinity of the Knowsley Industrial Estate to the north.
- 3.3.4 These facilities provide the opportunity for future employees to travel between the development site and the nearby residential areas by cycle.
- 3.3.5 The site can therefore be considered as being accessible by cycle.

3.4 Accessibility by Bus

- 3.4.1 The nearest bus stops to the site are located on the A5207 Moorgate Road North all of which are within 400 metres from the centre of the site and can be accessed on foot via the existing pedestrian infrastructure. The location of the bus stops within the 400 metres of the application site are shown on **Plan 6**.
- 3.4.2 The closest bus stops to the site provide bus shelters displaying bus service information, raised kerbs and on road markings. A summary of the services available from these bus stops are provided in **Table 3.1** below.

Service No	Route	Monday – Friday (per hour)				Sat	Sun
		AM Peak	Midday	PM Peak	Eve		
14A	Liverpool City Centre - Kirkby, Tower Hill	2	2	2	1	2	2
14X	Knowsley Industrial – Liverpool	Service at 6:40 then every 15 mins 7:01 – 7:31				-	-
133	Waterloo (Mersyd) – Knowsley Industrial	Service at 7:46	-	-	-	Service at 7:46	-
17	Liverpool ONE Bus Station – Kirkby	2	2	2	1	2	2
17X	Liverpool ONE Bus Station – Kirkby	Service at 5:36 & 6:36				-	-
217	Kirkby Civic Centre - Huyton Bus Station	Service at 7:43	-	-	-	-	1
217A	Kirkby Civic Centre - Huyton Bus Station	-	-	-	Service at 22:30 & 00:30	Service at 22:30 & 00:30	0.5
898	Terminus Road / Stockbridge Lane – Heath Road / Stockbridge Lane	Service every hour from 5:41 – 8:41					
899	Stockbridge Lane Circular	1	1	1	1	-	-
97A	Kirkby Station - Kirkby Station	2	-	-	4	-	-

Table 3.1 - Existing Bus Services in Vicinity of the Site

- 3.4.3 As can be seen from Table 3.1, the nearest bus stops to the site provides direct access to the number 14A service that runs throughout the day to destinations such as Kirby, Liverpool and Gillmoss. The above services operate from around 6:47am to around 23:15pm, making travel by public transport a real alternative to travelling by car for commuting trips.
- 3.4.4 In order to demonstrate the level of accessibility, some example journey times by bus are presented below **Table 3.2** below.

Destination	Duration
Liverpool	54 minutes
Kirkby	8 minutes
Huyton	30 minutes

Table 3.2 - Example Bus Journey Times from the Site

- 3.4.5 The above table demonstrates that Kirby is an approximate 8-minute bus journey from the site and Huyton is a 30-minute bus journey.
- 3.4.6 As such, the bus services located within the vicinity of the site provide services to and from Liverpool city centre, Huyton and Kirkby throughout the day and provide the opportunity for staff to travel to and from work by bus.
- 3.4.7 It is therefore concluded that the proposed development site is accessible by bus.

3.5 Accessibility Summary

3.5.1 The proposals have been considered in terms of accessibility by non-car modes for the proposed development site. The following conclusions can be drawn from this section of the Report:

- The site is accessible by foot and cycle. The existing infrastructure will provide excellent pedestrian linkages with the surrounding areas within the Kirkby area of Knowsley.
- The site's location will encourage linked pedestrian trips for staff between the proposed development and the local residential areas.
- The site is accessible by bus with bus stops located within 400 metres of the site, these services provide access to Liverpool, Kirkby and Huyton.

3.5.2 In light of the above, the site is accessible and will cater for needs of the development and assist in promoting a choice of travel modes other than the private car.

4 PROMOTING SMARTER CHOICES VIA TRAVEL PLANS

4.1 Introduction

- 4.1.1 In order to manage the travel by residents on the new development, the applicant wishes to offer a Travel Plan to encourage travel to the site by non-car modes.

4.2 Travel Planning Guidance

- 4.2.1 The objective of the Travel Plan is the delivery of the objectives of National Planning Policy, i.e. to encourage employees to travel by non-car modes of travel. The Travel Plan outlines physical and management measures that are designed to achieve this objective.
- 4.2.2 The effectiveness of Travel Plans in assisting the use of non-car modes for journeys is intrinsically linked to the accessibility of a given site by means other than the private car.
- 4.2.3 The proposed development has been demonstrated to benefit from good non-car accessibility and it should, therefore, be expected that the adoption of a Travel Plan would be effective.
- 4.2.4 A draft Travel Plan Framework is contained within **Appendix 1**.

5 TRAFFIC IMPACT ANALYSIS

5.1 Introduction

- 5.1.1 Having established that the development site is accessible by modes of transport other than the private car and that the proposals will be supported by a robust Travel Plan; the following section considers the traffic impact of the development proposals on the local highway network.

5.2 Existing Site Traffic

- 5.2.1 In considering the likely changes in traffic that will occur on the local highway network as a result of the proposed development, account must first be taken of the traffic that could be generated by the existing use on the site, without the need for further planning consent.
- 5.2.2 As previously stated, the existing employment units on the site have a gross floor area of 47,596 sqm.
- 5.2.3 In order to establish the vehicular trip rates for the existing employment land-use, reference has been made to the latest TRICS database in the field of Employment – Industrial Estates for all sites in the range of 6,000 to 67,000 sqm excluding those located in Greater London and Ireland.
- 5.2.4 **Table 5.1** below summarises the trip rates and traffic flows for the consented land-use, whilst the full TRICS output is contained within **Appendix 2**.

Mode	Period	Trip Rate		Traffic Flow	
		Arr	Dep	Arr	Dep
Vehicle	AM Peak Hour	0.340	0.034	162	16
	PM Peak Hour	0.067	0.330	32	157

Table 5.1 – Existing Development and Traffic Generation (47,596 sqm)

5.2.5 As can be seen in Table 5.1 the existing land-use is forecast to generate a total of 178 two-way vehicle movements in the Weekday AM peak and 189 two-way vehicle movements in the Weekday PM peak.

5.3 Proposed Development

5.3.1 To consider the proposed development traffic generation, reference has been made to the TRICS database in the field of 'Employment – Warehouse (Commercial)' for all sites excluding those located in Greater London and Ireland. The TRICS output is contained within **Appendix 3**, whilst the forecast trip rates and trip generation for the proposed unit are summarised in **Table 5.2** below;

Mode	Period	Trip Rate		Traffic Flow	
		Arr	Dep	Arr	Dep
Vehicle	AM Peak Hour	0.112	0.074	46	30
	PM Peak Hour	0.082	0.122	34	50

Table 5.2 – Proposed B8 Trip Rates and Traffic Generation (41,114sqm)

- 5.3.2 As can be seen in Table 5.2 above, the proposed employment development is forecast to generate a total of 76 two-way trips during the Weekday AM peak and 84 two-way trips in the Weekday PM peak.

5.4 Net Impact

- 5.4.1 **Table 5.3** below provides a comparison of the existing and proposed development traffic flows for the Weekday peak periods.

Land-use	AM Peak			PM Peak		
	Arr	Dep	2-Way	Arr	Dep	2-Way
Existing Development	162	16	178	32	157	189
Proposed Development	46	30	77	34	50	84
Difference +/-	-116	+14	-102	+2	-107	-105

Table 5.3 – Comparison of Existing and Proposed Development Flows

- 5.4.2 As can be seen in Table 5.3, the proposed development is forecast to result in a reductions of around 100 2-way vehicle movements when compared to the consented development.
- 5.4.3 Therefore it is concluded that the proposed development will have a beneficial impact on the operation of the local highway network when compared to the existing consented unit.

5.5 Impact on Site Access Junctions

5.5.1 Although the above traffic generation exercise has demonstrated that the proposed development will result in a reduction in vehicle movements when compared to the existing unit. It is noted that the development proposals will result in changes to the access arrangements onto the A5027 Moorgate Road North.

5.5.2 Therefore, to assist the local highway authority with the determination of the planning application, the following section of this document will consider the operation of the A5027 Moorgate Road North/Deacon Business Park Access North junction which will be the primary vehicular access into the site.

Surveyed Flows

5.5.3 In order to assess the impact of the proposed development on the local highway network traffic surveys were undertaken at the existing A5027 Moorgate Road North/Deacon Business Park Access priority controlled junctions on Tuesday 18th October 2022.

5.5.4 The full traffic survey data is contained within **Appendix 4**. The AM and PM peak hours were identified as 0730 to 0830 hours and 1630 to 1730 hours.

5.5.5 The resultant 2022 Surveyed Flows for the Weekday AM and PM peak periods are displayed in **Figures 1 to 2**.

Growthed Flows

5.5.6 In order to factor the surveyed traffic flows to the future assessment year of 2027 (5 years post submission of the application) a NTEM Model growth factor was applied for the Knowsley 005 Middle Super Output which is where the site is located.

5.5.7 The derived Knowsley 005 growth factors are displayed below;

- 2022 to 2027 AM Peak = 1.0465
- 2022 to 2027 PM Peak = 1.0449

5.5.8 The resultant growthed traffic flows are shown in **Figures 3** and **4** for the 2027 Growthed traffic flows AM and PM peak periods.

Proposed Trip Distribution

5.5.9 To derive the likely trip distribution for the proposed development, reference has been given to the observed traffic movements from the traffic surveys, for the purpose of this analysis it has been assumed that for robustness, all development traffic will use the northern access into the site off the A5027 Moorgate Road North.

5.5.10 The resultant proposed trip distribution for the AM and PM peak periods is displayed in **Figures 5** and **6**.

Proposed Traffic Generation

5.5.11 The proposed traffic generation flows displayed in Table 5.2 above, have been assigned to the local highway network using the trip distribution contained within **Figures 5** and **6**.

5.5.12 The resultant proposed development flows for the weekday peak periods are displayed in **Figures 7** and **8**.

With Development Flows

5.5.13 To calculate the 2027 'With Development' Flows, the proposed development flows contained within Figures 7 and 8 have been added to the 2027 Growthed Flows displayed in Figures 3 and 4.

- 5.5.14 The 2027 'With Development' flows for the weekday AM and PM peak periods are displayed in **Figures 9** and **10**.

Capacity Assessment

- 5.5.15 To assess the operation of the A5027 Moorgate Road North/Deacon Business Park Site Access (North) priority controlled junction the computer program JUNCTIONS 9 has been utilised using the junction layout displayed in **Plan 3** and the 2027 'With Development' Flows.
- 5.5.16 The results of this analysis are summarised below in **Table 5.4** whilst the full output is contained within **Appendix ?**.

Arm	2027 With Development Flows			
	Weekday AM		Weekday PM	
	RFC	Q	RFC	Q
Deacon Business Park Access North	0.12	0	0.11	0
A5027 Moorgate Road North	0.22	0	0.07	0

Table 5.4- Summary of JUNCTIONS 9 Results for the A5027 Moorgate Road North/Deacon Business Park Junction – 2027 With Development Flows

- 5.5.17 As can be seen in Table 5.4, the proposed A5027 Moorgate Road/North Deacon Business Park junction is forecast to operate well within its theoretical capacity.

- 5.5.18 Based on the above it is concluded that junction can accommodate the levels of traffic forecast to be generated by the proposed development.

5.6 Traffic Impact Summary

- 5.6.1 Based on the above, it is therefore concluded that the proposed development will have a minimal impact on the operation of the local highway.

- 5.6.2 In summary, the traffic impact analysis section of this report has demonstrated the following:

- The improved site access junctions on the A5027 Moorgate Road North designed to accord with highway design standards and will have sufficient capacity to accommodate the proposed development traffic.
- The proposed development will have minimal impact on the operation of the junctions on the wider highway network.

- 5.6.3 Based on the above it is concluded that the proposed development will have a minimal impact on the local highway network and that no further consideration of the impact of the development is required.

6 CONCLUSIONS

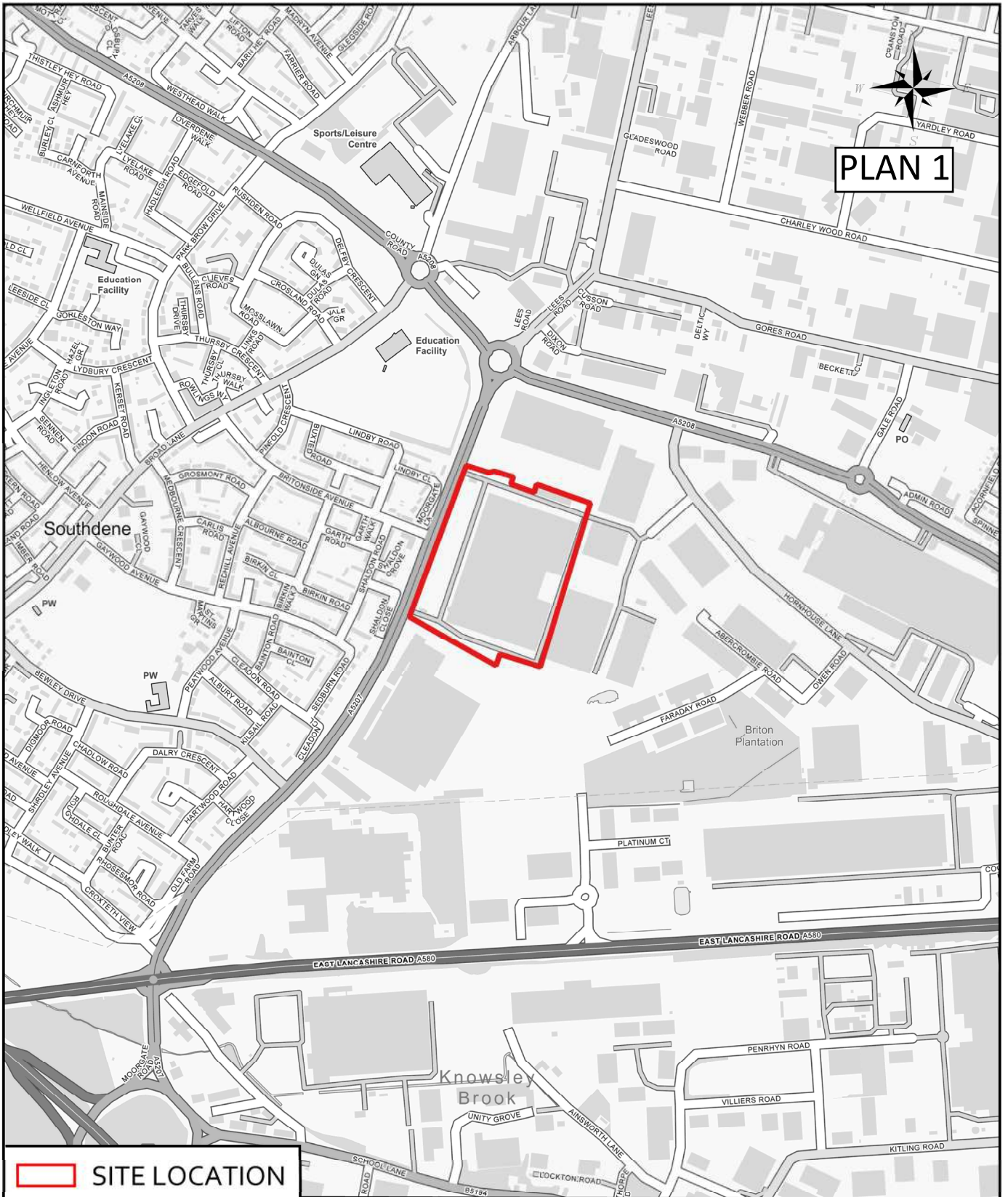
6.1.1 This Report has considered proposals for an employment development at the Deacon Business Park in Knowsley.

6.1.2 The following conclusions have been drawn with regard to the proposed development:

- The proposed development will be accessed by safe and efficient vehicular access arrangements.
- The car parking will accommodate the likely demand from the proposed development.
- The site is accessible by foot and cycle. The existing infrastructure will provide excellent pedestrian linkages with the surrounding areas within the Kirkby area of Knowsley.
- The site is accessible by bus with bus stops located within 400 metres of the site, these services provide access to Liverpool, Kirkby and Huyton.
- A Framework Travel Plan will be implemented to encourage the use of non-car modes.
- The proposed development will have minimal impact on the operation of the local highway network.

6.1.3 In conclusion, the proposals for an employment development will provide a sustainable development in transport terms and planning permission should be granted in accordance with the Framework.

PLANS



CLIENT: **EEIP II ARUNDEL PROPCO 2 HOLDINGS LIMITED**

DRAWING TITLE: **DEACON BUSINESS PARK, KNOWSLEY (EQT EXETER) SITE LOCATION**

Eddisons
340 Deansgate
Manchester
M3 4LY

Email: info@crofts.co.uk
Tel: 0161 837 7380
Web: www.eddisons.com/services/transport-planning

DRAWING NUMBER:	3892-01	REVISION:	-
-----------------	---------	-----------	---

DRAWN:	DATE:	CHECKED:	DATE:	SCALES:
LG	15.11.22	TSB	15.11.22	NTS @ A4

Eddisons



Proposed Site Plan
Scale 1:1000

10m SCALE 1:1000

- Dimensions are in millimeters, unless stated otherwise.
- It is the recipient's responsibility to print this document to the correct scale.
- All relevant drawings and specifications should be read in conjunction with this drawing.



SCHEDULE OF ACCOMMODATION (Gross Internal Area)	
Unit 1	
Warehouse Area	- 417,295 sq ft (38,768m²)
Office (2 storey)	- 25,941 sq ft (2,410m²)
Transport Office	- 2,500 sq ft (232m²)
Gatehouse	- 300 sq ft (28m²)
Total Area	- 442,556 sq ft (41,114m²)
Loading Docks	- 40
Level Access	- 3
HGV Parking	- 65
Car Parking	- 385
Plot Area	- 21.89 Acres (8.86 Hectares)
Site Density	- 46.41%

Parking Standards Knowsley Council	
Draft Ensuring a Choice of Travel Supplementary Planning Document (February 2010)	
B8- Storage and Distribution (max) 1 space per 100 m² GFA	

PLAN 2

P1	Issued For Planning	MS	AD	15.12.22
rev	amendments	by	ckd	date

Deacon Business Park, Knowsley

Proposed Site Plan

Information Container LOD:	LOD 200
----------------------------	---------

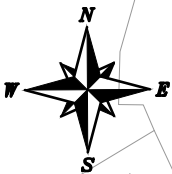


RIBA PoW Stage:	3 - Spatial Coordination
Document Suitability:	S3
Drawn / Checked:	MS / AD
Date:	13/10/2022
Scale:	As Drawn @A1
UMC Project Number:	21241
Document Reference:	Drawing no: Revision:
21241 - UMC - 0001 - SI - DR - A	0601 P1

PLANNING
THIS DRAWING IS TO BE USED FOR THE STATED PURPOSE
ONLY AND SHOULD NOT BE USED FOR ANY OTHER



NORTH SOUTH AERIAL VIEW



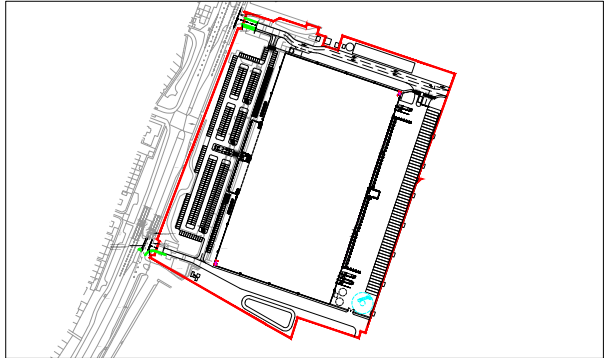
NOTES

THIS IS NOT A CONSTRUCTION DRAWING AND IS FOR INDICATIVE PURPOSES ONLY.
THE DRAWING WILL BE SUBJECT TO CHANGE FOLLOWING LOCAL AUTHORITY REVIEW AND CONFIRMATION OF PUBLIC HIGHWAY AND THIRD PARTY LAND BOUNDARIES.

- INDICATIVE SITE BOUNDARY
- DENOTES NEW KERBS

PLAN 3

LOCAL AUTHORITY: KNOWSLEY COUNCIL
TOTAL AREA OF SITE: 8.76Ha



SITE LAYOUT NTS

REV	DETAILS	DRAWN	CHECKED	DATE

CLIENT:
EEIP II ARUNDEL PROPCO 2 HOLDINGS LIMITED

PROJECT:
DEACON BUSINESS PARK, KNOWSLEY

DRAWING TITLE:
PROPOSED SITE ACCESS PLAN

SCALES:
1:500 @ A3

DRAWN: LB	CHECKED: MC	DATE: NOV 22
-----------	-------------	--------------

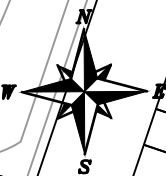
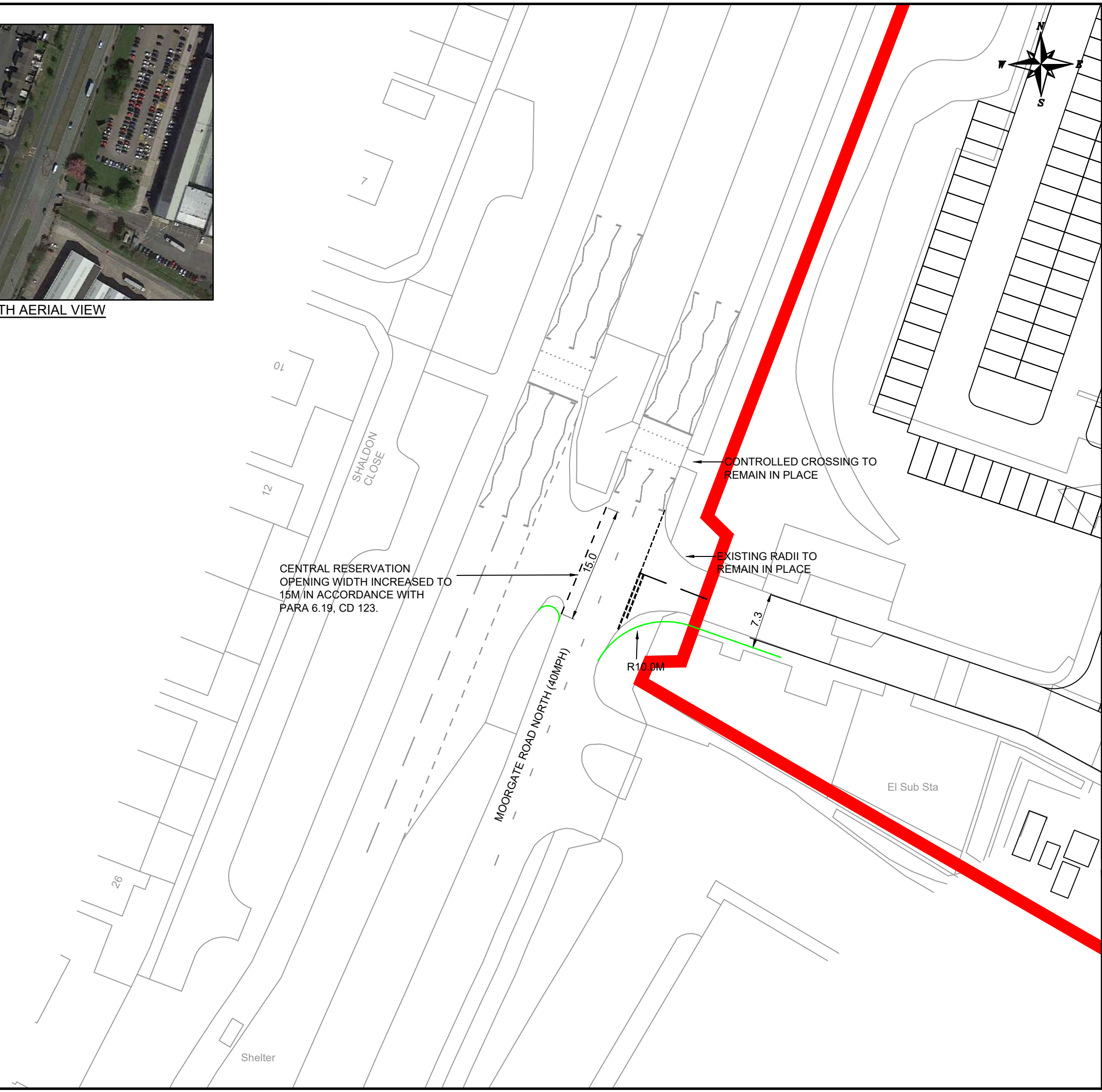
Eddisons
340 Deansgate
Manchester
M3 4LY
Email: info@crofts.co.uk
Tel: 0161 837 7380
Web: www.eddisons.com/services/transport-planning

DRAWING NUMBER: 3892-F01	REVISION: -
------------------------------------	----------------





NORTH SOUTH AERIAL VIEW



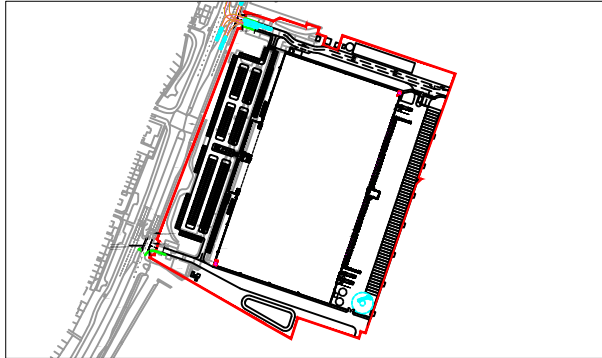
NOTES

THIS IS NOT A CONSTRUCTION DRAWING AND IS FOR INDICATIVE PURPOSES ONLY.
THE DRAWING WILL BE SUBJECT TO CHANGE FOLLOWING LOCAL AUTHORITY REVIEW AND CONFIRMATION OF PUBLIC HIGHWAY AND THIRD PARTY LAND BOUNDARIES.

- INDICATIVE SITE BOUNDARY
- DENOTES NEW KERBS

PLAN 4

LOCAL AUTHORITY: KNOWSLEY COUNCIL
TOTAL AREA OF SITE: 8.76Ha



SITE LAYOUT NTS

REV	DETAILS	DRAWN	CHECKED	DATE

CLIENT:
EIIP II ARUNDEL PROPCO 2 HOLDINGS LIMITED

PROJECT:
DEACON BUSINESS PARK, KNOWSLEY

DRAWING TITLE:
PROPOSED SITE ACCESS PLAN

SCALES:
1:500 @ A3

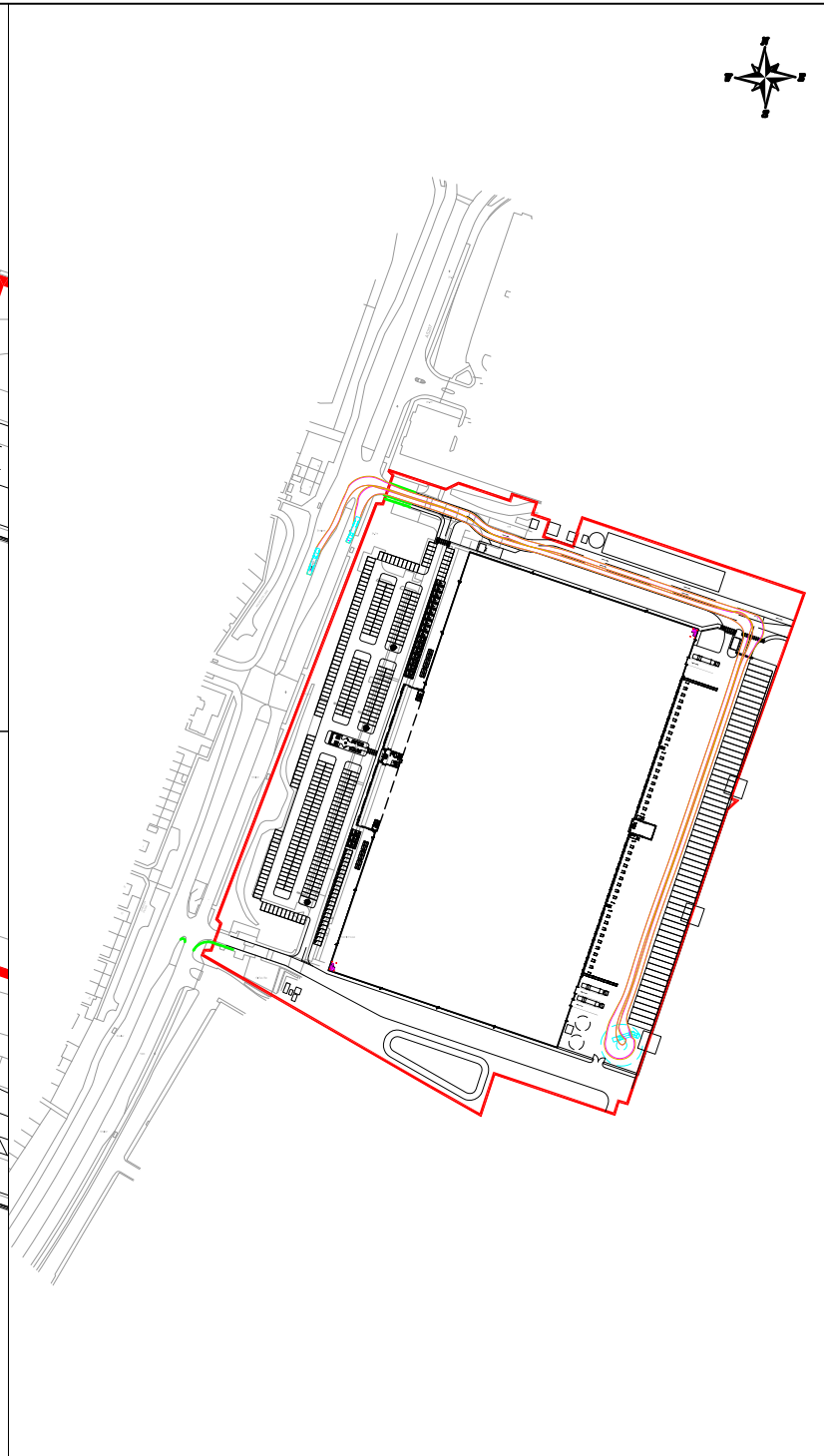
DRAWN: LB	CHECKED: MC	DATE: NOV 22
-----------	-------------	--------------

Eddisons
340 Deansgate
Manchester
M3 4LY

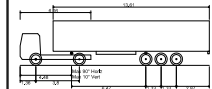
Email: info@crofts.co.uk
Tel: 0161 837 7380
Web: www.eddisons.com/services/transport-planning

DRAWING NUMBER: 3892-F02	REVISION: -
------------------------------------	----------------





NOTES



FTA Design Articulated Vehicle (2016)

Overall Length	16.400m
Overall Width	2.550m
Overall Body Height	3.200m
Min Body Ground Clearance	0.510m
Max Track Width	2.470m
Lock to lock time	3.00s
Kerb to Kerb Turning Radius	8.800m



PLAN 5

REV	DETAILS	DRAWN	CHECKED	DATE
-----	---------	-------	---------	------

CLIENT: EEIP II ARUNDEL PROPCO
2 HOLDINGS LIMITED

PROJECT: DEACON BUSINESS PARK,
KNOWSLEY (EQT EXETER)

DRAWING TITLE: SWEPT PATH ANALYSIS

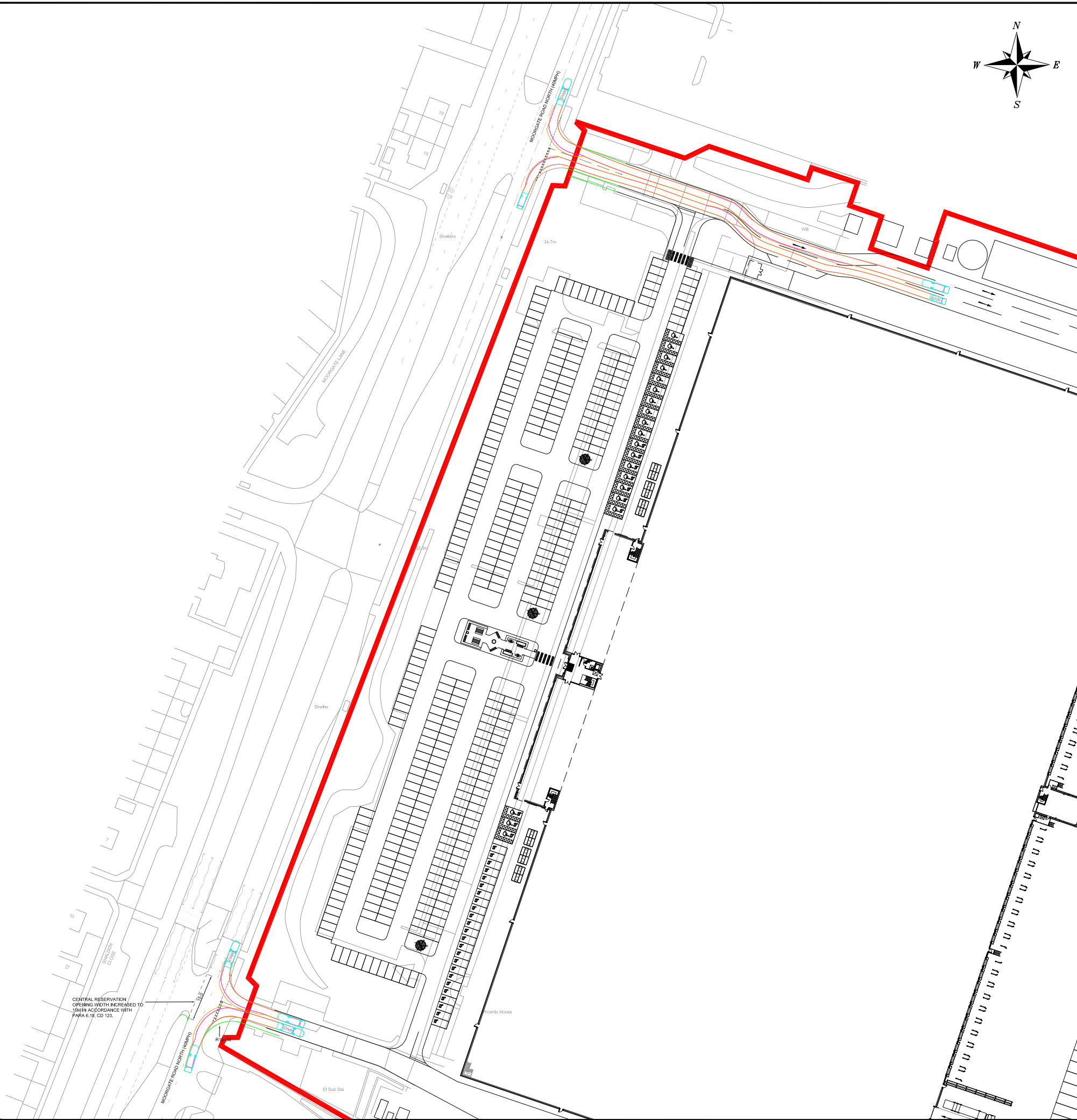
SCALES: 1:1000 @ A2

DRAWN	CHECKED	DATE
GW	GM	16.11.2022

Eddisons
340 Deansgate
Manchester
M3 4LY
Email: info@eddisons.co.uk
Tel: 0161 837 7300
Web: www.eddisons.com/services/transport-planning

DRAWING NUMBER:	REVISION:
3892-SP04	-

Eddisons



NOTES

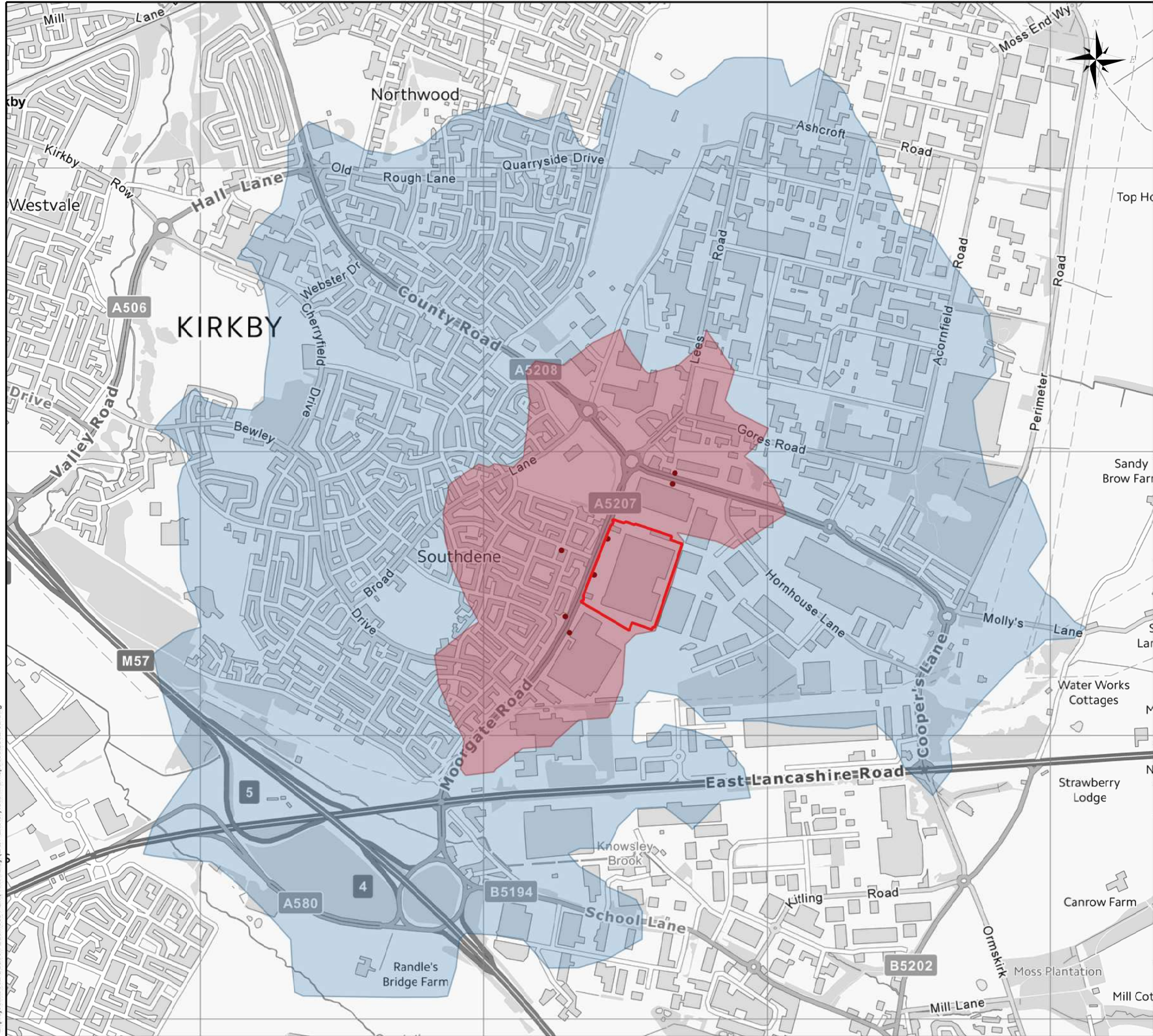
DB32 Fire Appliance

DB32 Fire Appliance	8.680m
Overall Length	2.180m
Overall Width	3.452m
Overall Body Height	0.337m
Min Body Ground Clearance	2.121m
Max Track Width	6.00s
Lock to lock time	7.910m
Kerb to Kerb Turning Radius	

Large Car (2006)

Large Car (2006)	5.079m
Overall Length	1.872m
Overall Width	1.525m
Overall Body Height	0.310m
Min Body Ground Clearance	1.831m
Max Track Width	4.00s
Lock to lock time	5.900m
Kerb to Kerb Turning Radius	

REV	DETAILS	DRAWN	CHECKED	DATE
CLIENT: EEIP II ARUNDEL PROPCO 2 HOLDINGS LIMITED				
PROJECT: DEACON BUSINESS PARK, KNOWSLEY (EQT EXETER)				
DRAWING TITLE: SWEPT PATH ANALYSIS				
SCALES: 1:1000 @ A3				
DRAWN: LG		CHECKED: TSB		DATE: FEB 23
Eddisons 340 Deansgate Manchester M3 4LY Email: info@croftts.co.uk Tel: 0161 837 7380 Web: www.eddisons.com/services/transport-planning				
DRAWING NUMBER: 3892-SP03				REVISION: -



NOTES

PLAN 7

Site Location

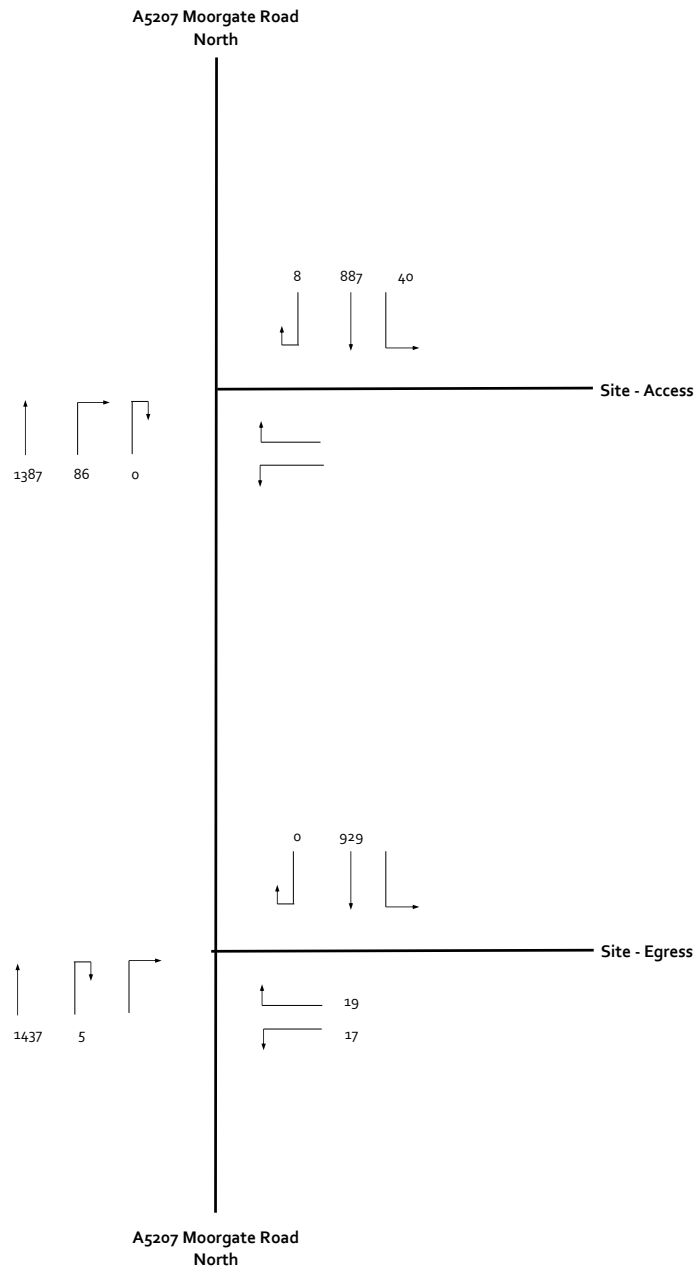
800m Pedestrian Catchment

2km Pedestrian Catchment

Nearest Bus Stops

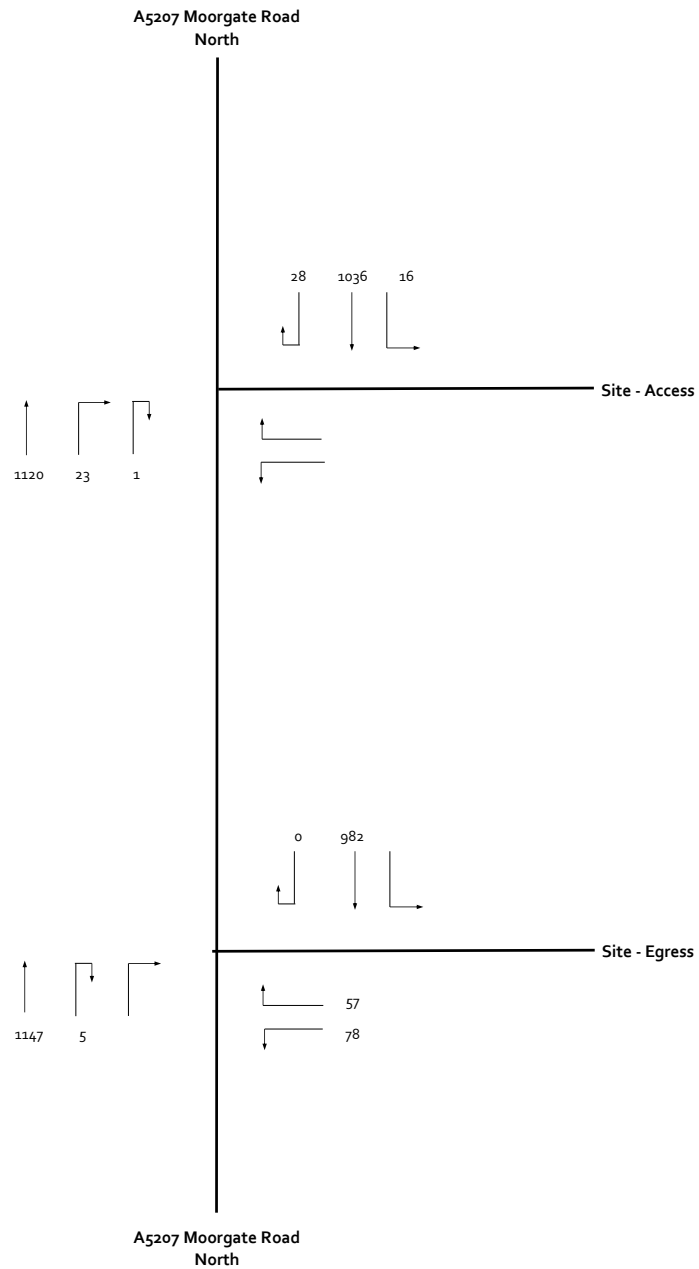
REV	DETAILS	DRAWN	CHECKED	DATE
CLIENT: EEIP II ARUNDEL PROPCO HOLDINGS LIMITED				
PROJECT: DEACON BUSINESS PARK, KNOWSLEY (EQT EXETER)				
DRAWING TITLE: 800M & 2KM PEDESTRIAN CATCHMENT WITH BUS STOPS				
SCALES: NTS @ A3				
DRAWN:	LG	CHECKED:	TSB	DATE: NOV 22
Eddisons 340 Deansgate Manchester M3 4LY Email: info@crofts.co.uk Tel: 0161 837 7380 Web: www.eddisons.com/services/transport-planning				
DRAWING NUMBER: 3892-03				REVISION: -
Eddisons				

FIGURES



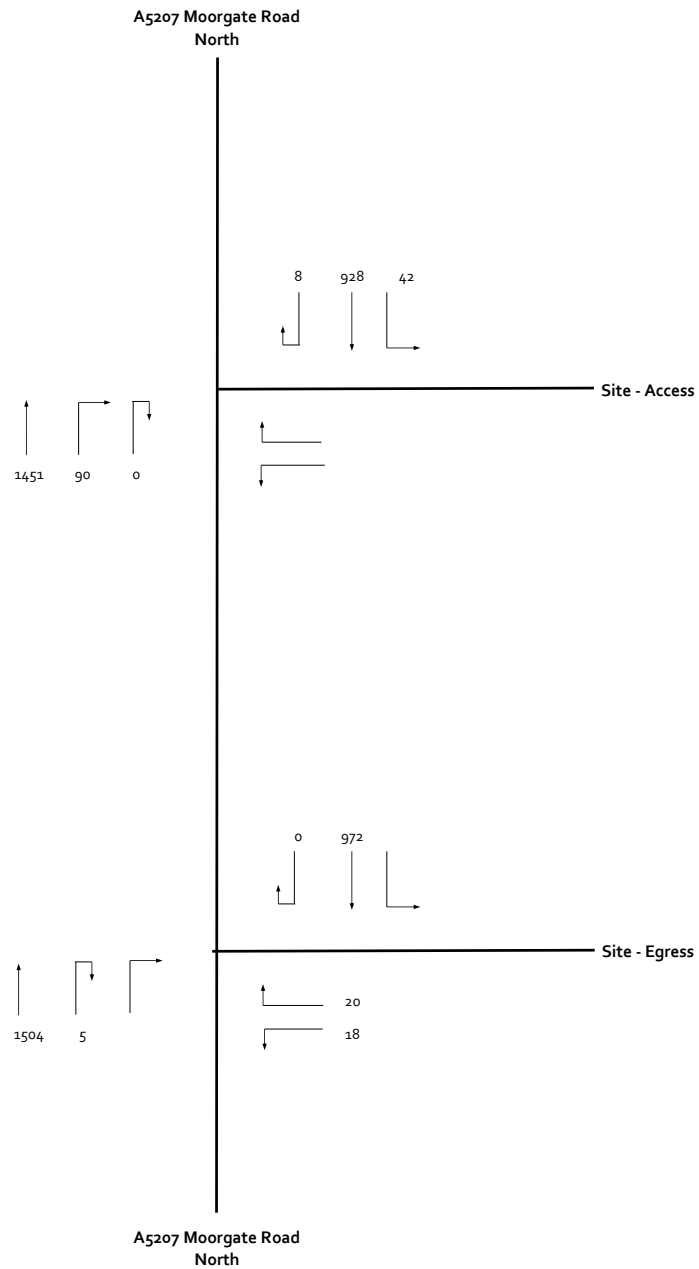
Flows in PCUs

Figure 1 2022 Surveyed Flows - Weekday AM Peak (0730 - 0830)



Flows in PCUs

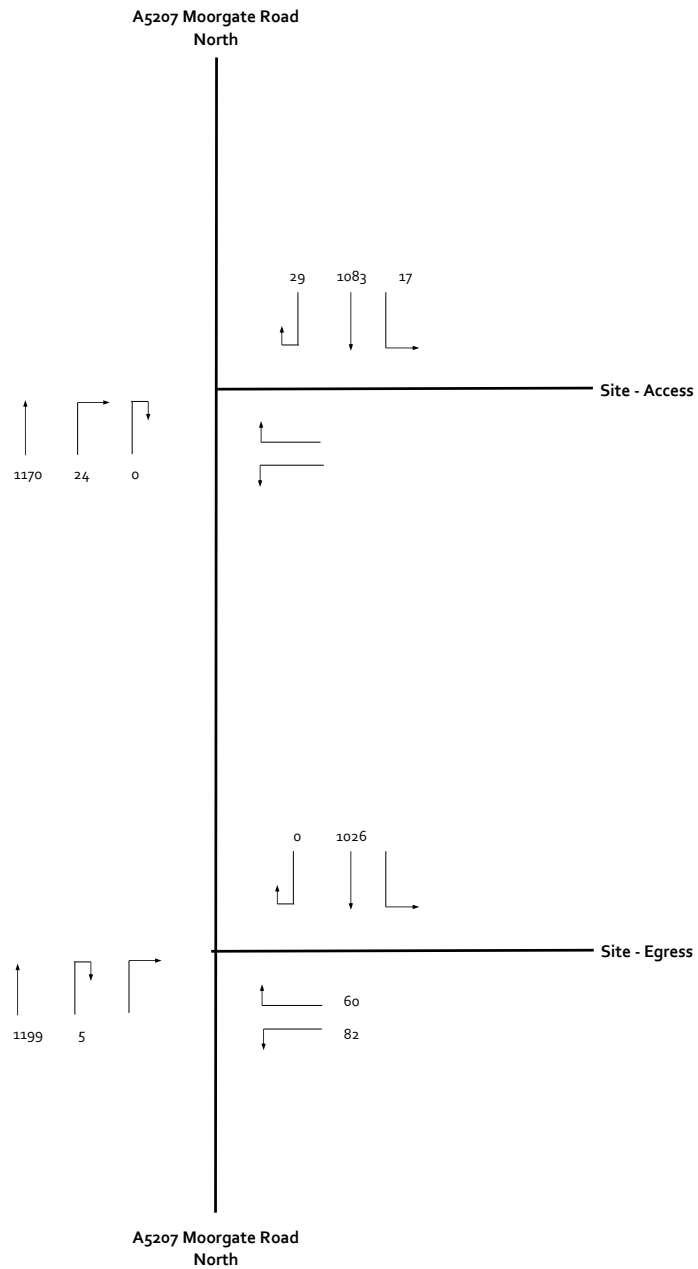
Figure 2 2022 Surveyed Flows - Weekday PM Peak (1630 - 1730)



2022-2027 Growth Factor

1.047

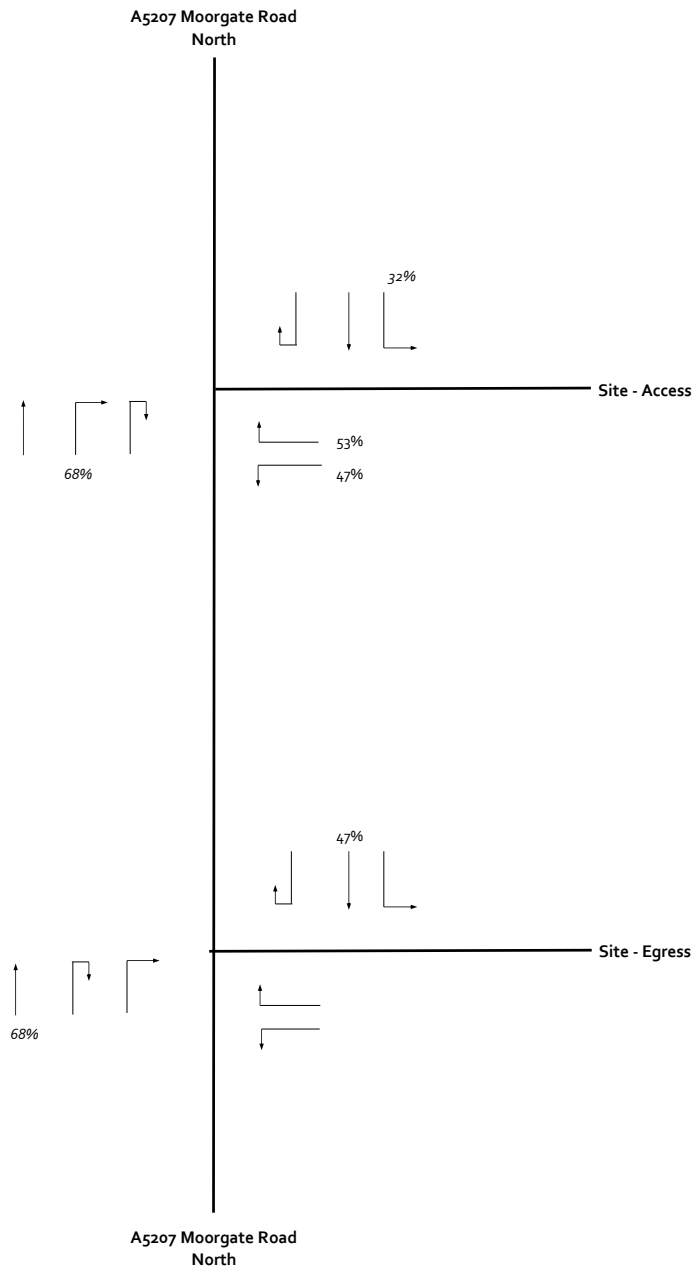
Figure 3 2027 Growthed Flows - Weekday AM Peak



2022-2027 Growth Factor

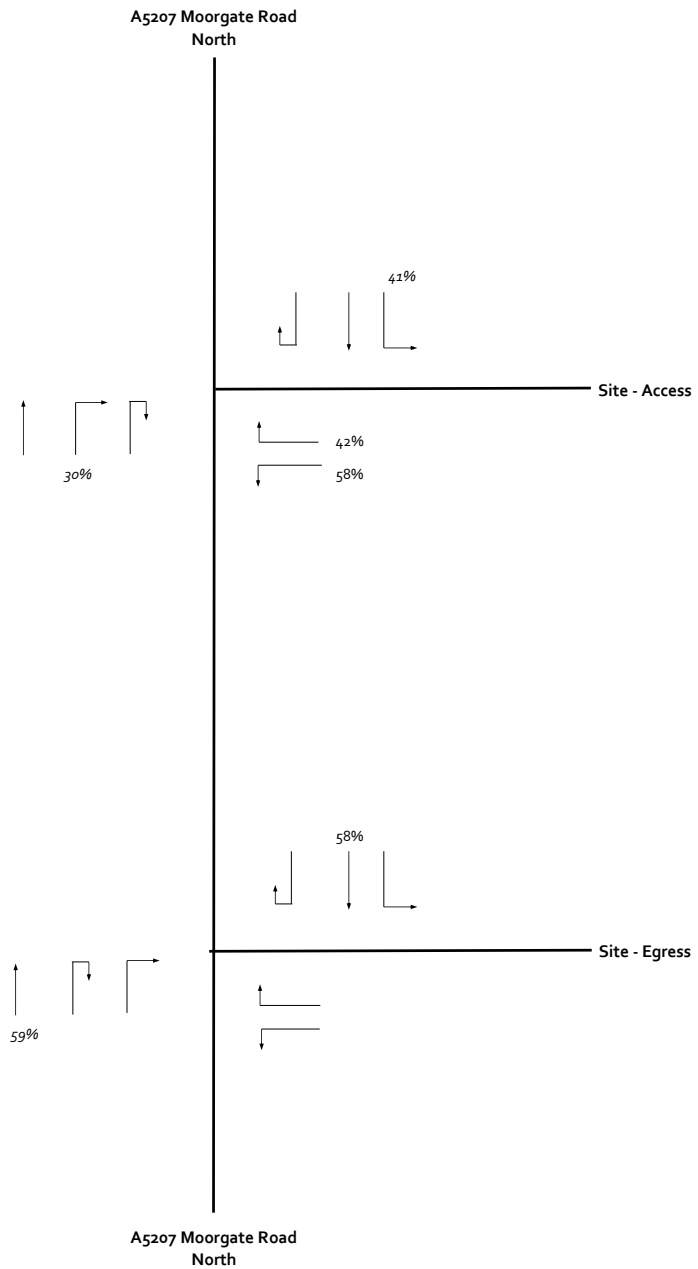
1.045

Figure 4 2027 Growthed Flows - Weekday PM Peak



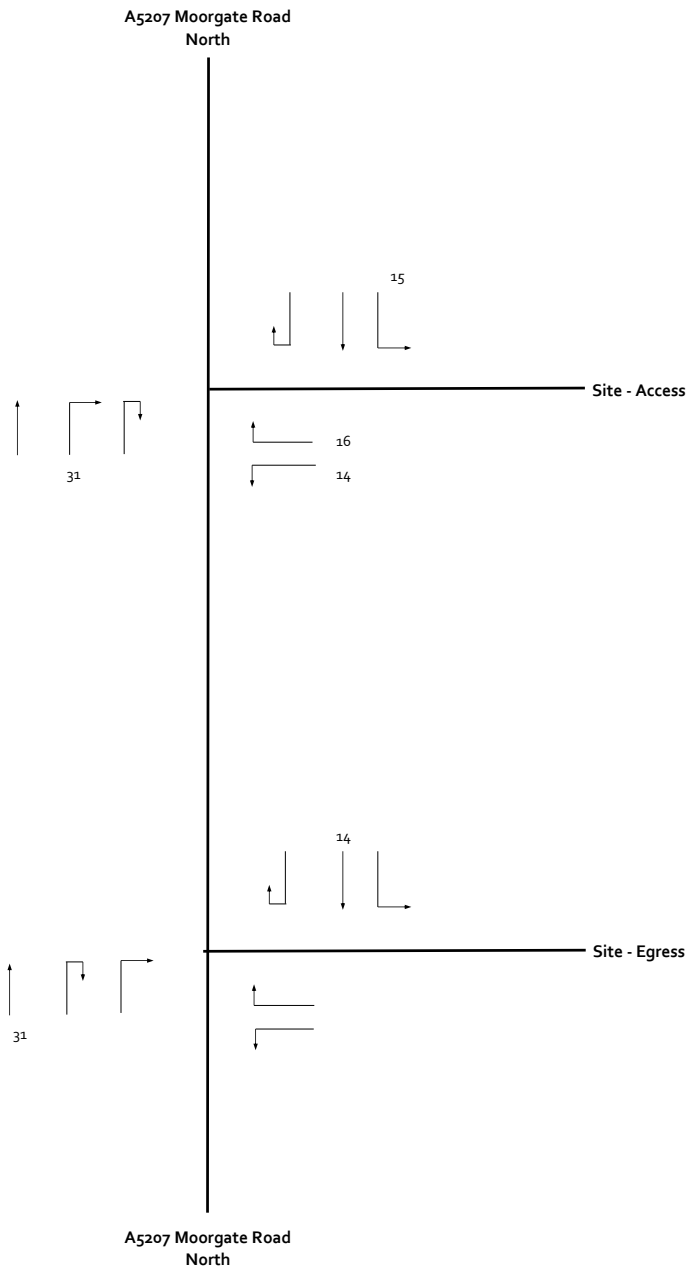
ARR
DEP

Figure 5 Proposed Trip Distribution - Weekday AM Peak



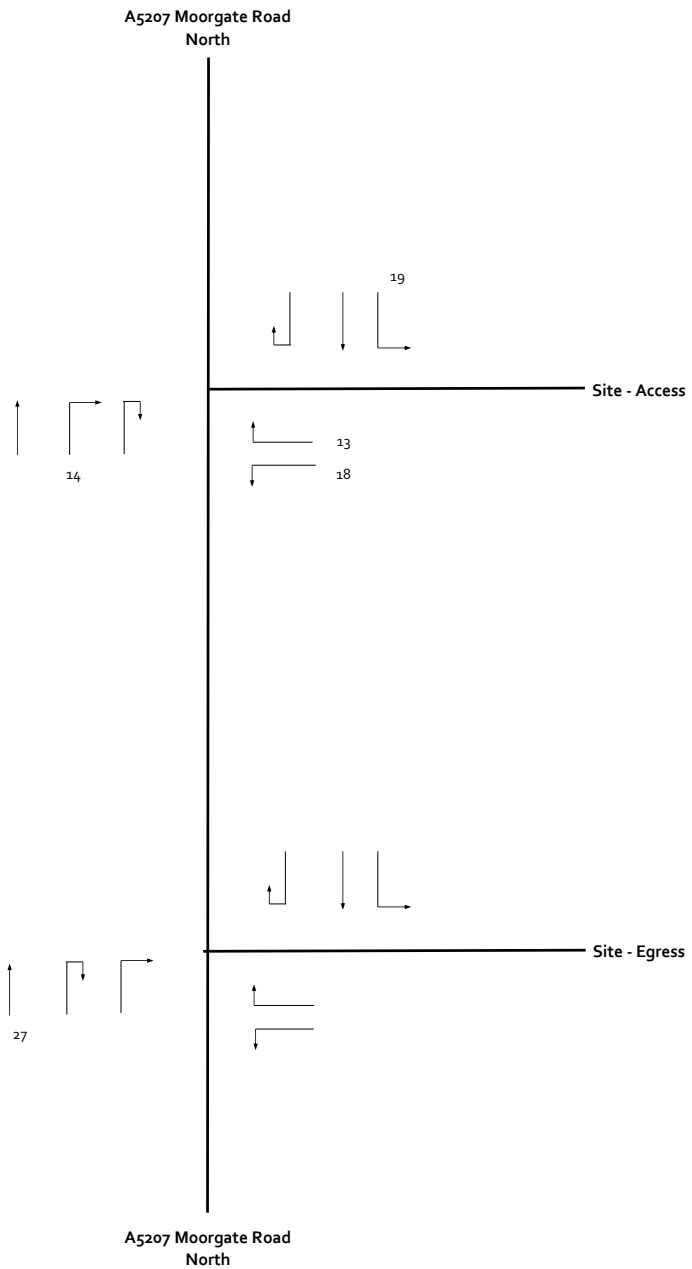
ARR
DEP

Figure 6 Proposed Trip Distribution - Weekday PM Peak



ARR 46
DEP 30

Figure 7 Proposed Development Flows - Weekday AM Peak



ARR 46
DEP 30

Figure 6 Proposed Development Flows - Weekday PM Peak

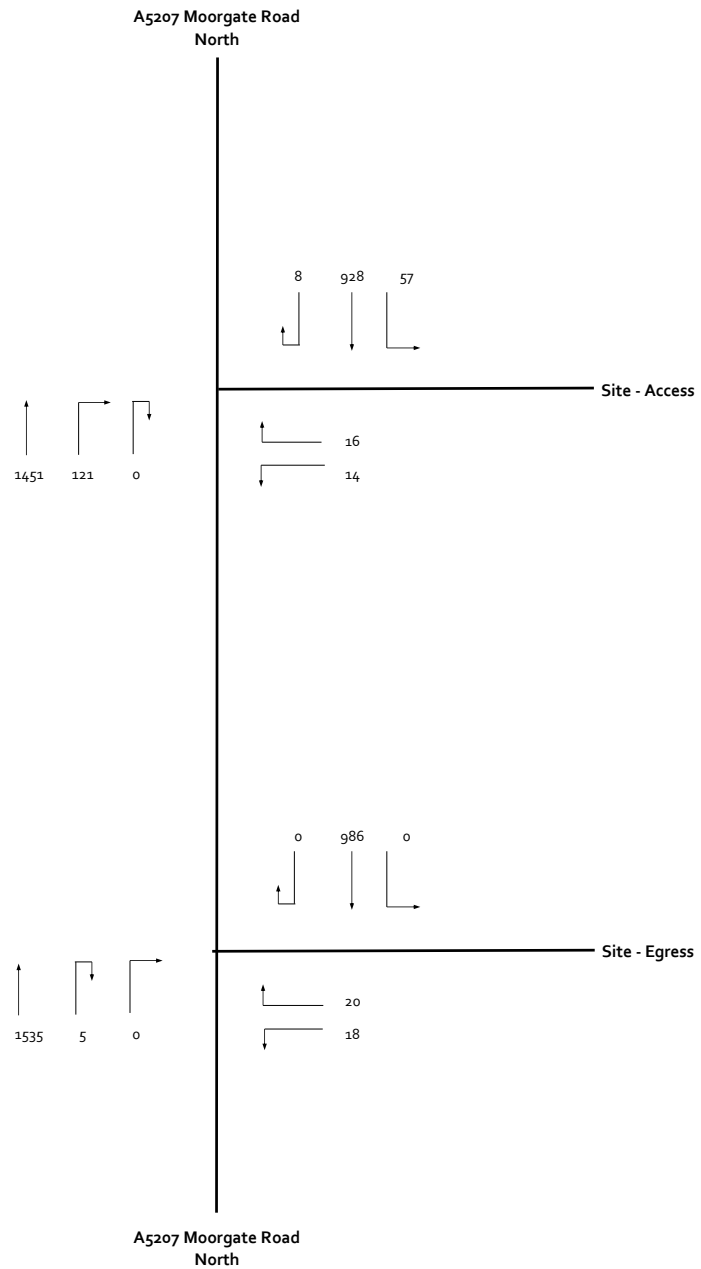


Figure 9 2027 With Development Flows - Weekday AM Peak

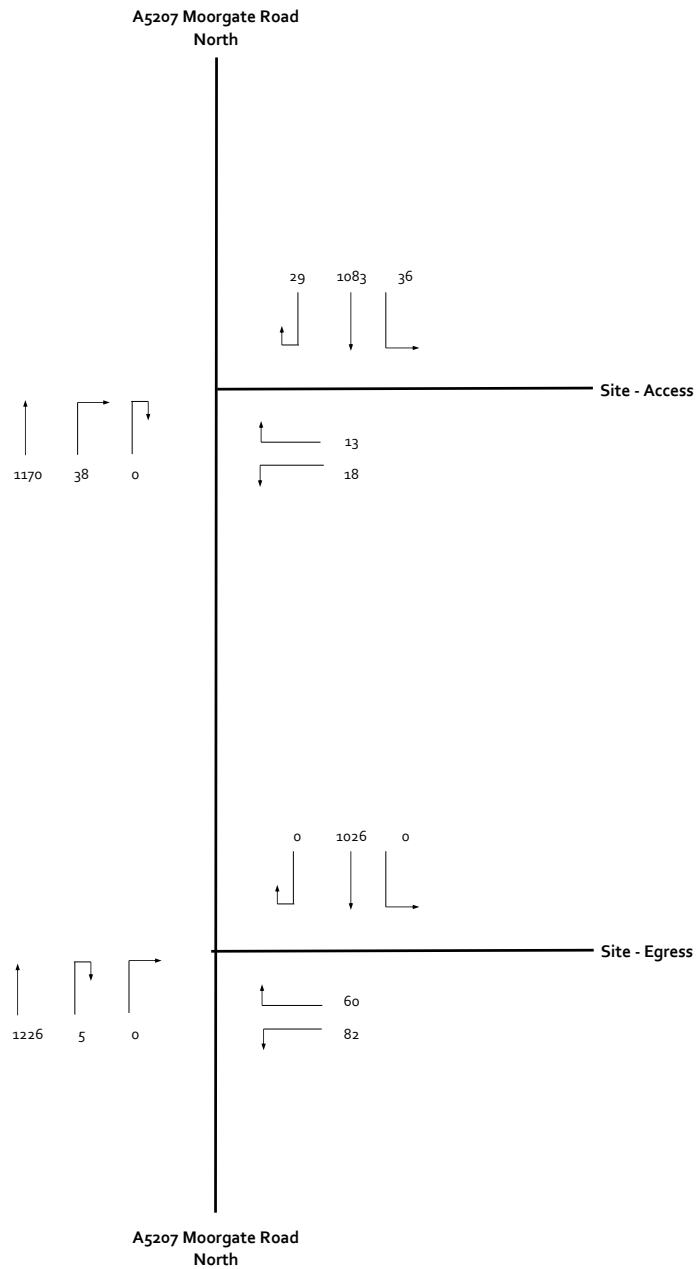


Figure 10 2027 With Development Flows - Weekday PM Peak

APPENDICES

APPENDIX 1

Travel Plan Framework

Proposed Employment Development, Deacon Business Park, Knowsley

EEIP II ARUNDEL PROPCO 2 HOLDINGS LIMITED

Travel Plan Framework

February 2023





Contents

1	INTRODUCTION.....	1
1.1	Preamble.....	1
1.2	Development Site and Its Location	1
1.3	Vehicular Access.....	2
1.4	Pedestrian and Cycle Access	2
1.5	Plan Administration	2
2	ACCESSIBILITY BY NON CAR MODES	5
2.1	Introduction	5
2.2	Accessibility on Foot.....	6
2.3	Accessibility by Cycle.....	7
2.4	Accessibility by Bus	8
2.5	Accessibility Summary.....	11
3	MANAGEMENT MEASURES	12
3.1	Introduction	12
3.2	Travel Plan Co-ordinator and Travel Plan Action Group	12
3.3	Travel Awareness.....	13
3.4	Baseline Data	13
3.5	Travel Information	14
3.6	Car Sharing Scheme.....	14
3.7	Cycling Measures	14
3.8	New Employee 'Welcome Pack'	15
3.9	Car Park Management.....	16
3.10	Fleet Management and Vehicles.....	16
4	TRAVEL PLAN TARGETS	17
4.1	Introduction	17
4.2	Travel Targets	17
4.3	Potential Targets.....	17
4.4	Travel Plan Framework.....	18
4.5	Plan Monitoring and Assessment	19



Contents

PLANS (See Transport Statement)

1 INTRODUCTION

1.1 Preamble

1.1.1 Eddisons have been instructed by EEIP II Arundel Propco 2 Holdings Limited to advise on the traffic and transportation issues relating to a planning application for the provision of an employment development on land at the Deacon Business Park in Knowsley.

1.1.2 This document sets out a framework for a workplace Travel Plan to be submitted to supplement the planning application.

1.1.3 Planning Practice Guidance 'Travel Plans, Transport Assessments and Statements' advises that *'The primary purpose of a Travel Plan is to identify opportunities for the effective promotion and delivery of sustainable transport initiatives eg walking, cycling, public transport and tele-commuting, in connection with both proposed and existing developments and through this to thereby reduce the demand for travel by less sustainable modes. As noted above, though, they should not be used as way of unfairly penalising drivers.'*

1.1.4 This Travel Plan sets out a framework for employees who will be employed at the site.

1.2 Development Site and Its Location

1.2.1 The development is located to the east of Kirkby town centre. It is located within the Deacon Business Park, bounded to the north, south and east by existing employment provision within the park. The A5207 Moorgate Road North bounds the site to the west.

1.2.2 The location of the site in relation to the surrounding area is presented in **Plan 1** of the Transport Statement.

1.2.3 The site is broadly rectangle in shape. It is currently occupied by an employment unit, security buildings and areas of car parking and landscaping. The existing employment unit has an approximate floor area of 47,596 sqm, this unit has planning consent for B1, B2 and B8 land-uses.

1.2.4 The site layout is included at **Plan 2** of the Transport Statement.

1.3 Vehicular Access

1.3.1 It is proposed that vehicular access into the site will be provided via the existing vehicular access points off the A5027 Moorgate Road North but these will be amended as part of the development proposals to enable all vehicle movements.

1.4 Pedestrian and Cycle Access

1.4.1 It is proposed that access for pedestrians and cyclists will be provided for via the proposed northern access into the site off the A5027 Moorgate Road North.

1.4.2 A pedestrian footway of 2 metres will be located on the southern side of the carriageway, this will link with the proposed internal layout of the site. This footway will link with existing provision located on the A5207 Moorgate Road North including the crossing facilities located along the A5207 Moorgate Road along the frontage of the site.

1.5 Plan Administration

1.5.1 The administration of the Travel Plan will be the responsibility of the developer, in this case EEIP II Arundel Propco 2 Holdings Limited. The developer will be required to designate a Travel Co-ordinator for the development. Essentially this Co-ordinator will provide a liaison in implementing the plan with the employees and Knowsley BC.

- 1.5.2 Details of the nominated Travel Plan Co-ordinator will be submitted to Knowsley BC's Travel Plan Officer and the appropriate local bus companies. Similarly, the Co-ordinator will be advised of appropriate contact personnel at the development.
- 1.5.3 The Travel Plan Co-ordinator will be the first point of contact for staff and visitors and other outside organisations in all matters regarding travel. He/she will maintain an up to-date file containing all correspondence to and from colleagues and visitors relating to the Travel Plan.
- 1.5.4 The post of the Travel Plan Co-ordinator of the development will be overseen by a management company or the developer. However, once the site is fully completed it is likely that the role of Travel Plan Co-ordinator will be transferred to the occupier(s) of the development.
- 1.5.5 Knowsley BC will be informed of any changes to the contact details of the Travel Plan Co-ordinator. The role of Travel Plan Co-ordinator will be place for the life of the planning application.
- 1.5.6 In addition, the Travel Plan will form part of the terms of any lease or sale of the buildings for commercial, employment generating purposes and as such any future occupier will be aware in advance of what is required of them within the Travel Plan Framework. This will ensure the long term continuation of the Travel Plan and ongoing commitment, even when a new occupier moves into one of the buildings at the site.
- 1.5.7 The role of the Travel Plan Co-ordinator will also be to develop and manage the Travel Plan for the site.
- 1.5.8 The duties will include monitoring, reviewing targets and forming action plans to remedy areas where the Travel Plan is not performing. Annual progress reports will be prepared and submitted to Knowsley BC.



- 1.5.9 An annual budget allocation would be made available to manage the Plan, with the site Travel Plan Co-ordinator responsible for expenditure and budget control. The annual budget will be set and agreed with Knowsley BC's Travel Plan Officer.

2 ACCESSIBILITY BY NON CAR MODES

2.1 Introduction

2.1.1 In order to accord with the aspirations of the NPPF, any new proposals should extend the choice in transport and secure mobility in a way that supports sustainable development.

2.1.2 The presumption in favour of sustainable development is a central theme running through the framework and transport planning policies are seen as a key element of delivering sustainable development as well as contributing to wider sustainability and health objectives. One of the core principles of the NPPF is to '*ensure opportunities to promote walking, cycling and public transport use are identified and pursued.*'

2.1.3 To achieve this objective, paragraph 108 of the NPPF states when making decisions 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."

2.1.4 New proposals should therefore attempt to influence the mode of travel to the development in terms of gaining a shift in modal split towards non-car modes, thus assisting in meeting the aspirations of current national and local planning policy.

2.1.5 The accessibility of the proposed site has been considered by the following modes of transport:

- accessibility on foot.
- accessibility by cycle.
- accessibility by bus.

2.2 Accessibility on Foot

- 2.2.1 It is important to create a choice of direct, safe, and attractive routes between where people live and where they need to travel in their day-to-day life. This philosophy clearly encourages the opportunity to walk whatever the journey purpose and also helps to create more active streets and a more vibrant neighbourhood.
- 2.2.2 Pedestrian footways with widths of at least 3.7 metres are provided on the A5207 Moorgate Road North to the west of the application site. These footways links with the extensive pedestrian footway located within the vicinity of the site including the footways located on the A5208 Country Road and within the Northwood area of Knowsley.
- 2.2.3 Safe pedestrian across the A5207 Moorgate Road North along the frontage of the site is provided for in a range of locations. A staggered signal controlled pedestrian crossing with associated pedestrian refuge, dropped kerbs and tactile paving is located to the north of the existing site egress junction. Whilst pedestrian refuges with dropped kerbs and tactile paving are provided on the A5027 Moorgate Road North either side of its junction with Britonside Avenue and to the north of the existing site access junction.
- 2.2.4 To the south of the application site, further crossing facilities are provided at all major junction along the A5027 Moorgate Road North including crossing facilities at the A5027 Moorgate Road North/Bewley Drive signal controlled junction.
- 2.2.5 To the north of the site, dropped kerbs, tactile paving and pedestrian refuges are located on the A5208 South Boundary Road, Lees Road, the A5208 Country Road and the A5207 Moorgate Road North roundabout.
- 2.2.6 These pedestrian facilities provide safe pedestrian access to the residential areas located to the west, south and east of the development site.

- 2.2.7 The CIHT document 'Planning for Walking' from 2015 states, in paragraph 2.1, that in 2012 that 79% of all journeys made in the UK of less than a mile (1.6 kilometres) are carried out on foot.
- 2.2.8 **Plan 6** shows the pedestrian catchment for 2 kilometres from the centre of the site and provides an illustrative indication of the areas that can be reached based on a leisurely walk from the site.
- 2.2.9 The 2 kilometre catchment encompasses the south-eastern areas of Kirby including Southdene and Northwood, showing that the proposed development is within walking distance of a number of existing residential areas, which will provide the opportunity for staff to travel to the proposed development by foot, therefore reducing the reliance on the private car.
- 2.2.10 Based on the above the site can therefore be considered as being accessible by foot.

2.3 Accessibility by Cycle

- 2.3.1 An alternative mode of travel to the site could be achieved by bicycle.
- 2.3.2 A distance of 5 kilometres is generally accepted as a distance where cycling has the potential to replace short car journeys. This distance equates to a journey of around 25 minutes based on a leisurely cycle speed of 12 kilometres per hour and would encompass the entirety of Knowsley and Kirkby and parts of Norris Green, Fazakerley, Melling Mount and Knotty Ash.
- 2.3.3 There are no designated cycle facilities along the A5027 Moorgate Road North in the vicinity of the site. An off-road cycle route is provided along the A580 East Lancs Road to the south, whilst cycle facilities are located within the vicinity of the Knowsley Industrial Estate to the north.

2.3.4 These facilities provide the opportunity for future employees to travel between the development site and the nearby residential areas by cycle.

2.3.5 The site can therefore be considered as being accessible by cycle.

2.4 Accessibility by Bus

2.4.1 The nearest bus stops to the site are located on the A5207 Moorgate Road North all of which are within 400 metres from the centre of the site and can be accessed on foot via the existing pedestrian infrastructure. The location of the bus stops within the 400 metres of the application site are shown on **Plan 5**.

2.4.2 The closest bus stops to the site provide bus shelters displaying bus service information, raised kerbs and on road markings. A summary of the services available from these bus stops are provided in **Table 2.1** below.

Service No	Route	Monday – Friday (per hour)				Sat	Sun
		AM Peak	Midday	PM Peak	Eve		
14A	Liverpool City Centre - Kirkby, Tower Hill	2	2	2	1	2	2
14X	Knowsley Industrial - Liverpool	Service at 6:40 then every 15 mins 7:01 – 7:31				-	-
133	Waterloo (Mersyd) – Knowsley Industrial	Service at 7:46	-	-	-	Service at 7:46	-
17	Liverpool ONE Bus Station – Kirkby	2	2	2	1	2	2
17X	Liverpool ONE Bus Station – Kirkby	Service at 5:36 & 6:36				-	-
217	Kirkby Civic Centre - Huyton Bus Station	Service at 7:43	-	-	-	-	1
217A	Kirkby Civic Centre - Huyton Bus Station	-	-	-	Service at 22:30 & 00:30	Service at 22:30 & 00:30	0.5
898	Terminus Road / Stockbridge Lane – Heath Road / Stockbridge Lane	Service every hour from 5:41 – 8:41					
899	Stockbridge Lane Circular	1	1	1	1	-	-
97A	Kirkby Station - Kirkby Station	2	-	-	4	-	-

Table 2.1 - Existing Bus Services in Vicinity of the Site

- 2.4.3 As can be seen from Table 2.1, the nearest bus stops to the site provides direct access to the number 14A service that runs throughout the day to destinations such as Kirby, Liverpool and Gillmoss. The above services operate from around 6:47am to around 23:15pm, making travel by public transport a real alternative to travelling by car for commuting trips.
- 2.4.4 In order to demonstrate the level of accessibility, some example journey times by bus are presented below **Table 2.2** below.

Destination	Duration
Liverpool	54 minutes
Kirkby	8 minutes
Huyton	30 minutes

Table 2.2 - Example Bus Journey Times from the Site

- 2.4.5 The above table demonstrates that Kirby is an approximate 8-minute bus journey from the site and Huyton is a 30-minute bus journey.
- 2.4.6 As such, the bus services located within the vicinity of the site provide services to and from Liverpool city centre, Huyton and Kirkby throughout the day and provide the opportunity for staff to travel to and from work by bus.
- 2.4.7 It is therefore concluded that the proposed development site is accessible by bus.

2.5 Accessibility Summary

2.5.1 The proposals have been considered in terms of accessibility by non-car modes for the proposed development site. The following conclusions can be drawn from this section of the Report:

- The site is accessible by foot and cycle. The existing infrastructure will provide excellent pedestrian linkages with the surrounding areas within the Kirkby areas of Knowsley.
- The site's location will encourage linked pedestrian trips for staff between the proposed development and the local residential areas.
- The site is accessible by bus with bus stops located within 400 metres of the site, these services provide access to Liverpool, Kirkby and Huyton.

2.5.2 In light of the above, the site is accessible and will cater for needs of the development and assist in promoting a choice of travel modes other than the private car.

3 MANAGEMENT MEASURES

3.1 Introduction

3.1.1 The following measures will be delivered through the Travel Plan by the Travel Plan Co-ordinator.

- i. Appointment of a Travel Plan Co-ordinator and creation of Travel Plan action group;
- ii. Ensuring travel awareness,
- iii. Baseline data;
- iv. Ensuring the availability of travel information,
- v. The establishment of a car sharing scheme,
- vi. Implementation of measures to encourage cycling;
- vii. Provision of a new employee 'Welcome Pack'.
- viii. Introduction of Car Park Management,
- ix. Fleet Management and Vehicle's

3.2 Travel Plan Co-ordinator and Travel Plan Action Group

3.2.1 A Travel Plan Co-ordinator will be appointed prior to the proposed development commencing operation.

- 3.2.2 Once the site is fully operational an Action Group will be created which involves the Travel Plan Co-ordinator, other employees as appropriate, relevant authorities and special interest groups.

3.3 Travel Awareness

- 3.3.1 Employees will be made aware of the existence of the Travel Plan and a copy will be made available to Knowsley BC.
- 3.3.2 Welcome Packs/Starter Packs will be given to new employees when they start work at the site.
- 3.3.3 Targets for achieving a lower mode share by car and reducing the level of car usage by a given extent over a certain period will be established. These targets will be set upon occupation of the store following results of the employee travel survey.

3.4 Baseline Data

- 3.4.1 In order to set the targets, information will have to be obtained in order to establish against which to set the targets. In order to define baseline data prior to occupation, this information will be related to existing patterns of movement (i.e. the proportion of employees who travel to their workplace by non-car mode) and may be obtained from sources such as the National Travel Survey and the National Census.
- 3.4.2 In order to establish the existing travel patterns of employees once occupied, a travel survey will be carried out and will form the basis of the final Travel Plan document. This will survey, amongst other issues, current employee travel patterns to and from work.
- 3.4.3 The availability of this data will assist in more accurately defining travel requirements and the specific measures to be implemented to maximise the success of the plan.

3.5 Travel Information

- 3.5.1 Travel Information for employees could be provided for in numerous ways, such as websites, newsletters and cycle and walking maps for the surrounding areas. Employees could also be provided with personalised journey planners.
- 3.5.2 In addition, information on existing key local services and publicity material from Traveline will be included.

3.6 Car Sharing Scheme

- 3.6.1 The Travel Plan Co-ordinator will promote the use of car sharing scheme and employees will be encouraged to register on the Liftshare website.
- 3.6.2 This allows users to register their details, where they are travelling to in the Leyland area and if they are offering a lift or require a lift to their destination.
- 3.6.3 Regular leaflets will be distributed to employees to allow potential car sharers to register an interest. The Travel Plan Co-ordinator will be required to maintain a database of employees who register an interest in car sharing and will be required to facilitate success of the scheme.

3.7 Cycling Measures

- 3.7.1 The proposed development will provide cycle parking spaces. As the site is still at outline design stage the exact provision is not known at this time but this will be agreed at a more advanced stage of the planning process.

- 3.7.2 The Travel Information Brochure provided to staff will include details on cycling to the site, including the location of designated safe cycle routes and where these can be accessed, and the location of cycle parking on the site. Similar information will also be provided on staff noticeboards and will be distributed using other mediums as appropriate.
- 3.7.3 The Travel Plan Co-ordinator will establish contact with Knowsley BC's cycling officers and will retain active contact with officers to ensure that any future improvements to the cycling network and cycling maps are fed through to staff.
- 3.7.4 The employee travel survey will identify the potential for cycling amongst the workforce. The Travel Plan Co-ordinator could produce information relating to cycling routes in the area which could be included within a 'Welcome Pack'.
- 3.7.5 Should sufficient interest exist, the Travel Plan Co-ordinator will explore the opportunity to establish a Bike User Group (BUG).
- 3.7.6 Should end occupiers participate in the Cycle to Work Scheme (or similar), the Travel Plan Co-ordinator will ensure this is publicised to staff, including via the Welcome Pack.
- 3.7.7 End occupiers will also consider the opportunity to provide pool bicycles.

3.8 New Employee 'Welcome Pack'

- 3.8.1 A 'Welcome Pack' will be provided to employees starting work at the site. The pack will include information contained within the Accessibility section of this Travel Plan.
- 3.8.2 The 'Welcome Pack' will include details on the intentions of the Travel Plan and why the Travel Plan has been produced, as well as contacts for the Travel Plan Co-ordinator. The packs will include current information on walking and cycling routes in the area and information on current bus/rail services, i.e. timetables.

- 3.8.3 In addition, employees will be offered personalised journey planners as an on-going part of the monitoring process the 'Welcome Pack' will be reviewed and updated annually. Information regarding any changes to the bus services in the area will be passed to employees via leaflets or a company website.

3.9 Car Park Management

- 3.9.1 The Travel Plan Co-ordinator will encourage each occupier to consider the implementation of a car park management strategy.

3.10 Fleet Management and Vehicles

- 3.10.1 Measures which can be delivered regarding fleet management and vehicles will depend greatly upon the organisation of each end occupiers. However, where possible occupiers should consider opportunities for:

- Review of company car policy;
- Reviewing business vehicle mileage rates;
- Driver training to encourage eco-driving;
- Use of efficient or electric fleet vehicles;
- Use of clean fuel fleet vehicles, and
- Review of company car policy;

4 TRAVEL PLAN TARGETS

4.1 Introduction

4.1.1 This section of the Travel Plan will provide details of the targets against which the success of the Plan in achieving its objectives will be measured.

4.1.2 The objective of the Travel Plan is to minimise trips to the Site by car, particularly by single occupancy car journeys, and encourage access by sustainable modes of travel.

4.2 Travel Targets

4.2.1 As previously stated, in order to define baseline data prior to occupation, reference will be made to existing patterns of movement, which may be obtained from sources such as the National Travel Survey and the National Census.

4.2.2 Based on this data, suitable targets for reducing the need to travel by private car will be set and agreed with Knowsley BC's Travel Plan Officer. Targets should be detailed in terms of both percentage mode share and actual trip numbers.

4.2.3 Thereafter, the main source of baseline information would however come from the employees travel survey, which will be completed 6 months post full occupation of the development and will be completed every two years thereafter.

4.3 Potential Targets

4.3.1 Targets that may potentially be included in the Travel Plan include the following:

- Certain percentage of employees who travel to work by non-car modes. This is to be achieved within a 5 year timeframe of the development commencing operation and continue at the same level thereafter;

- Certain percentage model shift of employees on the proposed development away from the public car to non-car modes. To be achieved within the 5 year timeframe discussed below;
- Certain percentage decrease in the number of single occupancy journeys to and from the site by employees;
- Certain percentage increase in the number of employees joining and participating in the car share scheme. This will be reviewed and re-evaluated annually to promote the objectives of the Travel Plan.

4.3.2 Whilst it is considered that the Travel Plan targets should be challenging, it is essential that they are also realistic and achievable.

4.3.3 Experience suggests that a Travel Plan containing only marketing and promotional initiatives is unlikely to achieve a shift in the mode of travel used, whereas one also incorporating car sharing and cycle measures may achieve a 3% to 5% reduction in single occupancy car-based commuting.

4.3.4 Further shifts to public transport, walking and cycling away from private car use may be achieved through the above measures being supplemented by other initiatives. It is clear, therefore, that in making a meaningful contribution to the achievement of the above targets, the Travel Plan must incorporate a range of initiatives that go beyond marketing and promotion.

4.4 Travel Plan Framework

4.4.1 **Table 4.1** below provides a framework and guidance as to timescales for the Travel Plan.

Timescale	Action
3 months prior to occupation	Appoint Travel Plan Co-ordinator.
0-6 months	Organise Travel Plan Action Group. Complete employee travel surveys. Establish modal user groups (such as car share clubs, bike user clubs, taxi share clubs).
6-12 months	Submission of revised Travel Plan and modal split targets to Knowsley BC. Continuous updating of Travel Plan database. Continuous updating of all public transport information.
12+ months	Update and monitor travel questionnaire annually; The Travel Plan will be in place for the life of the development.

Table 4.2 – Travel Plan Framework Timescales

4.5 Plan Monitoring and Assessment

- 4.5.1 The Travel Plan Co-ordinator will be responsible for on-going monitoring and regular employee travel surveys. These will assess the travel habits of employees to the site and thus enable the success of the Travel Plan.

- 4.5.2 In order to assess the travel habits, all employees will be asked to complete an annual survey. Principally these surveys will aim to establish the location of employees, how they currently travel to the site and what other modes of transport they would consider using to travel to the site.
- 4.5.3 Each survey will result in an annual monitoring report, which will present results and progress. Any problems will be identified and specific actions noted and carried forward to the next annual report.
- 4.5.4 In addition to snap shot surveys, full employee surveys will be completed between every 2 to 3 years. These surveys will provide a more in-depth understanding of colleague travel habit, shift patterns and options that would encourage employees to travel by sustainable modes.
- 4.5.5 The timescale for Travel Plan reviews and repeat travel surveys will be included within the Final Travel Plan. However, it is anticipated that these reviews should occur annually to provide on-going information on the impact of the Plan. Monitoring should take place over a wide range of time periods to reflect the different pattern of journeys that can be generated by the development.
- 4.5.6 The monitoring will include items such as:
- Full employee surveys to be completed between every 2 to 3 years, in addition to snap shot surveys which will be completed every 12 months;
 - Feedback from bus operators to establish demand for local bus services;
 - Monitoring of the usage of employee cycle parking facilities;
 - Car park and traffic count surveys;

- Information gathered as part of the continuous monitoring process will be made available to the local authority to assist the assessment of ongoing modal split.
- 4.5.7 Future strategies for further delivering plan objectives can be considered in partnership between the occupier(s) and Knowsley BC.
- 4.5.8 The monitoring and assessment of the plan will include the submission of annual progress reports detailing the results of the travel surveys with regards to targets, budgets, general effectiveness and current initiatives. An annual report is to be submitted to the local authority no later than one month following the anniversary of the approval of the Travel Plan. This will allow effective measures to be promoted and increased while ineffective measures can be revised and rectified.
- 4.5.9 Mitigation measures/new initiatives for the coming year will also be contained within the report and submitted to officers at Knowsley BC.

APPENDIX 2

TRICS Output – Consented Employment Development

Calculation Reference: AUDIT-851401-221019-1048

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : C - INDUSTRIAL UNIT
 TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	HC HAMPSHIRE	1 days
	WS WEST SUSSEX	2 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	1 days
08	NORTH WEST	
	AC CHESHIRE WEST & CHESTER	1 days
	EC CHESHIRE EAST	1 days
10	WALES	
	CF CARDIFF	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 6658 to 67459 (units: sqm)
 Range Selected by User: 5000 to 67459 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 10/11/21

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

Selected survey days:

Monday	2 days
Tuesday	1 days
Wednesday	3 days
Thursday	2 days

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

Selected survey types:

Manual count	8 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	3
Neighbourhood Centre (PPS6 Local Centre)	2
Free Standing (PPS6 Out of Town)	1

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	4
Development Zone	1
Village	2
Out of Town	1

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,

Secondary Filtering selection:

Use Class:

Not Known 8 days

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

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,000 or Less	2 days
1,001 to 5,000	1 days
5,001 to 10,000	2 days
10,001 to 15,000	1 days
25,001 to 50,000	2 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	2 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
1.6 to 2.0	2 days

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

Travel Plan:

Yes	2 days
No	6 days

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

PTAL Rating:

No PTAL Present	8 days
-----------------	--------

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

LIST OF SITES relevant to selection parameters

1	AC-02-C-02	INDUSTRIAL MATERIALS	CHESHIRE WEST & CHESTER
	JUPITER DRIVE		
	CHESTER		
	CHESTER W. EMP. PARK		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	8100 sqm	
	Survey date: WEDNESDAY	19/11/14	Survey Type: MANUAL
2	CF-02-C-02	BAKERY	CARDIFF
	MAES-Y-COED ROAD		
	CARDIFF		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	14125 sqm	
	Survey date: THURSDAY	06/10/16	Survey Type: MANUAL
3	EC-02-C-01	OFFICE FURNITURE	CHESHIRE EAST
	BRUNEL ROAD		
	MACCLESFIELD		
	LYME GREEN BUS. PARK		
	Edge of Town		
	Development Zone		
	Total Gross floor area:	6658 sqm	
	Survey date: MONDAY	19/09/16	Survey Type: MANUAL
4	HC-02-C-02	GIN DISTILLERY	HAMPSHIRE
	LONDON ROAD		
	LAVERSTOKE		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total Gross floor area:	8000 sqm	
	Survey date: WEDNESDAY	09/05/18	Survey Type: MANUAL
5	WK-02-C-01	MACHINE ENGINEERING	WARWICKSHIRE
	CASTLE MOUND WAY		
	RUGBY		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	9216 sqm	
	Survey date: WEDNESDAY	10/11/21	Survey Type: MANUAL
6	WS-02-C-02	AVIATION COMPANY	WEST SUSSEX
	MAYDWELL AVENUE		
	NEAR HORSHAM		
	SLINFOLD		
	Free Standing (PPS6 Out of Town)		
	Out of Town		
	Total Gross floor area:	11375 sqm	
	Survey date: THURSDAY	23/01/14	Survey Type: MANUAL
7	WS-02-C-03	ROLLS-ROYCE HQ & PLANT	WEST SUSSEX
	STANE STREET		
	NEAR CHICHESTER		
	WESTHAMPNETT		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total Gross floor area:	67459 sqm	
	Survey date: TUESDAY	24/09/19	Survey Type: MANUAL
8	WY-02-C-02	FLUID SYSTEMS	WEST YORKSHIRE
	BROWN LANE WEST		
	LEEDS		
	HOLBECK		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	13350 sqm	
	Survey date: MONDAY	19/10/15	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/C - INDUSTRIAL UNIT

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	2	38338	0.480	2	38338	0.005	2	38338	0.485
06:00 - 07:00	4	25350	0.308	4	25350	0.055	4	25350	0.363
07:00 - 08:00	8	17285	0.329	8	17285	0.035	8	17285	0.364
08:00 - 09:00	8	17285	0.340	8	17285	0.034	8	17285	0.374
09:00 - 10:00	8	17285	0.131	8	17285	0.064	8	17285	0.195
10:00 - 11:00	8	17285	0.115	8	17285	0.068	8	17285	0.183
11:00 - 12:00	8	17285	0.054	8	17285	0.064	8	17285	0.118
12:00 - 13:00	8	17285	0.092	8	17285	0.103	8	17285	0.195
13:00 - 14:00	8	17285	0.168	8	17285	0.108	8	17285	0.276
14:00 - 15:00	8	17285	0.265	8	17285	0.299	8	17285	0.564
15:00 - 16:00	8	17285	0.053	8	17285	0.244	8	17285	0.297
16:00 - 17:00	8	17285	0.048	8	17285	0.300	8	17285	0.348
17:00 - 18:00	8	17285	0.067	8	17285	0.330	8	17285	0.397
18:00 - 19:00	8	17285	0.036	8	17285	0.165	8	17285	0.201
19:00 - 20:00	3	9530	0.024	3	9530	0.056	3	9530	0.080
20:00 - 21:00	2	8608	0.006	2	8608	0.081	2	8608	0.087
21:00 - 22:00	1	8000	0.000	1	8000	0.000	1	8000	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.516			2.011			4.527

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.

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Parameter summary

Trip rate parameter range selected:	6658 - 67459 (units: sqm)
Survey date range:	01/01/14 - 10/11/21
Number of weekdays (Monday-Friday):	8
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.

APPENDIX 3

TRICS Output – Proposed Employment Development

Calculation Reference: AUDIT-851401-221019-1037

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : F - WAREHOUSING (COMMERCIAL)
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	EX ESSEX	1 days
	HC HAMPSHIRE	1 days
	MW MEDWAY	1 days
03	SOUTH WEST	
	DV DEVON	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	SY SOUTH YORKSHIRE	1 days
	WY WEST YORKSHIRE	1 days
09	NORTH	
	TW TYNE & WEAR	1 days
11	SCOTLAND	
	LO WEST LOTHIAN	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: 5855 to 80100 (units: sqm)
 Range Selected by User: 5000 to 80100 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 22/11/21

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

Selected survey days:

Monday	1 days
Tuesday	2 days
Thursday	3 days
Friday	3 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:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	5
Free Standing (PPS6 Out of Town)	1

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
Commercial Zone	1
Residential Zone	1
Out of Town	1

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,

Secondary Filtering selection:

Use Class:

n/a	1 days
B8	8 days

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

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

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

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

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	4 days
250,001 to 500,000	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	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
-----------------------	-----	--

LIST OF SITES relevant to selection parameters

1	DV-02-F-03 CHILLPARK BRAKE NEAR EXETER CLYST HONITON Free Standing (PPS6 Out of Town) Out of Town Total Gross floor area: 49081 sqm Survey date: MONDAY 22/11/21	LIDL DISTRIBUTION CENTRE DEVON	Survey Type: MANUAL
2	EX-02-F-01 BRUNEL WAY COLCHESTER SEVERALLS INDUSTRIAL PK Edge of Town Industrial Zone Total Gross floor area: 6560 sqm Survey date: FRIDAY 18/05/18	SPORTS SUPPLEMENTS ESSEX	Survey Type: MANUAL
3	HC-02-F-02 RUTHERFORD ROAD BASINGSTOKE Suburban Area (PPS6 Out of Centre) Commercial Zone Total Gross floor area: 13200 sqm Survey date: THURSDAY 16/06/16	LOGISTICS HAMPSHIRE	Survey Type: MANUAL
4	LO-02-F-01 BATHGATE ROAD ARMADALE Edge of Town Residential Zone Total Gross floor area: 5855 sqm Survey date: TUESDAY 08/06/21	LOGISTICS SERVICE WEST LoTHIAN	Survey Type: MANUAL
5	LO-02-F-02 INCHMUIR ROAD BATHGATE WHITEHILL IND. ESTATE Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 17626 sqm Survey date: THURSDAY 11/11/21	HAULAGE COMPANY WEST LoTHIAN	Survey Type: MANUAL
6	MW-02-F-02 MILLS ROAD AYLESFORD QUARRY WOOD Edge of Town Industrial Zone Total Gross floor area: 11200 sqm Survey date: FRIDAY 22/09/17	COMMERCIAL WAREHOUSING MEDWAY	Survey Type: MANUAL
7	SY-02-F-01 MIDDLE BANK DONCASTER Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 80100 sqm Survey date: TUESDAY 21/09/21	TESCO DISTRIBUTION CENTRE SOUTH YORKSHIRE	Survey Type: MANUAL
8	TW-02-F-01 MANDARIN WAY WASHINGTON PATTISON IND. ESTATE Edge of Town Industrial Zone Total Gross floor area: 31000 sqm Survey date: FRIDAY 13/11/15	ASDA DISTRIBUTION CENTRE TYNE & WEAR	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9	WY-02-F-02	DISTRIBUTION COMPANY	WEST YORKSHIRE
	STAITHGATE LANE		
	BRADFORD		
	NEWHALL		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	10446 sqm	
	Survey date: THURSDAY	14/03/19	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/F - WAREHOUSING (COMMERCIAL)
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	5	32622	0.138	5	32622	0.044	5	32622	0.182
06:00 - 07:00	5	32622	0.095	5	32622	0.095	5	32622	0.190
07:00 - 08:00	9	25008	0.120	9	25008	0.068	9	25008	0.188
08:00 - 09:00	9	25008	0.112	9	25008	0.074	9	25008	0.186
09:00 - 10:00	9	25008	0.102	9	25008	0.087	9	25008	0.189
10:00 - 11:00	9	25008	0.096	9	25008	0.089	9	25008	0.185
11:00 - 12:00	9	25008	0.092	9	25008	0.084	9	25008	0.176
12:00 - 13:00	9	25008	0.092	9	25008	0.105	9	25008	0.197
13:00 - 14:00	9	25008	0.097	9	25008	0.104	9	25008	0.201
14:00 - 15:00	9	25008	0.078	9	25008	0.128	9	25008	0.206
15:00 - 16:00	9	25008	0.085	9	25008	0.089	9	25008	0.174
16:00 - 17:00	9	25008	0.077	9	25008	0.099	9	25008	0.176
17:00 - 18:00	9	25008	0.082	9	25008	0.122	9	25008	0.204
18:00 - 19:00	9	25008	0.045	9	25008	0.094	9	25008	0.139
19:00 - 20:00	5	32622	0.033	5	32622	0.049	5	32622	0.082
20:00 - 21:00	4	36371	0.040	4	36371	0.043	4	36371	0.083
21:00 - 22:00	1	5855	0.034	1	5855	0.017	1	5855	0.051
22:00 - 23:00	1	5855	0.000	1	5855	0.000	1	5855	0.000
23:00 - 24:00									
Total Rates:			1.418			1.391			2.809

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.

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Parameter summary

Trip rate parameter range selected:	5855 - 80100 (units: sqm)
Survey date range:	01/01/14 - 22/11/21
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.

APPENDIX 5

Junctions 9 Output – A5027 Moorgate Road North/Deacon Business Park North Access

Junctions 9						
PICADY 9 - Priority Intersection Module						
Version: 9.5.2.1013						
© Copyright TRL Limited, 2019						
For sales and distribution information, program advice and maintenance, contact TRL:						
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk						
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution						

Filename: Moorgate Road North - (Northern) Site Access.j9
 Path: Z:\projects\3892 Deacon Business Park, Knowsley (EQT Exeter)\Picady
 Report generation date: 16/11/2022 09:50:41

»2027 With Development, AM
 »2027 With Development, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2027 With Development										
Stream B-AC	D1	0.1	14.87	0.12	B	D2	0.1	12.66	0.11	B
Stream C-AB		0.3	7.61	0.22	A		0.1	6.77	0.07	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Moorgate Road North - Site Access
Location	Liverpool
Site number	
Date	16/11/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	3892
Enumerator	EDD
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2027 With Development	AM	ONE HOUR	08:00	09:30	15	✓
D2	2027 With Development	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2027 With Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.53	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Moorgate Road North (N)		Major
B	Northern Site Access		Minor
C	Moorgate Road North (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	15.00		✓	5.00	90.0	✓	7.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.65	32	22

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	531	0.059	0.149	0.094	0.213
B-C	679	0.063	0.160	-	-
C-B	817	0.193	0.193	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2027 With Development	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	993	100.000
B		ONE HOUR	✓	30	100.000
C		ONE HOUR	✓	1572	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	57	938
	B	16	0	14
	C	1451	121	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.12	14.87	0.1	B	28	41
C-AB	0.22	7.61	0.3	A	111	167
C-A					1331	1997
A-B					52	78
A-C					859	1288

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	6	388	0.059	22	0.0	0.1	9.901	A
C-AB	91	23	673	0.135	90	0.0	0.2	6.174	A
C-A	1092	273			1092				
A-B	43	11			43				
A-C	705	178			705				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	341	0.079	27	0.1	0.1	11.455	B
C-AB	109	27	645	0.169	109	0.2	0.2	6.710	A
C-A	1304	328			1304				
A-B	51	13			51				
A-C	841	210			841				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	275	0.120	33	0.1	0.1	14.841	B
C-AB	133	33	606	0.220	133	0.2	0.3	7.598	A
C-A	1598	399			1598				
A-B	63	16			63				
A-C	1031	258			1031				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	275	0.120	33	0.1	0.1	14.889	B
C-AB	133	33	606	0.220	133	0.3	0.3	7.607	A
C-A	1598	399			1598				
A-B	63	16			63				
A-C	1031	258			1031				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	341	0.079	27	0.1	0.1	11.481	B
C-AB	109	27	645	0.169	109	0.3	0.2	6.723	A
C-A	1304	328			1304				
A-B	51	13			51				
A-C	841	210			841				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	6	386	0.059	23	0.1	0.1	9.924	A
C-AB	91	23	673	0.135	91	0.2	0.2	6.190	A
C-A	1092	273			1092				
A-B	43	11			43				
A-C	705	176			705				

2027 With Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.27	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2027 With Development	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1148	100.000
B		ONE HOUR	✓	31	100.000
C		ONE HOUR	✓	1208	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	38	1112
	B	13	0	18
	C	1170	38	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.11	12.66	0.1	B	28	43
C-AB	0.07	6.77	0.1	A	35	52
C-A					1074	1610
A-B					33	50
A-C					1020	1531

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	6	418	0.056	23	0.0	0.1	9.118	A
C-AB	29	7	650	0.044	28	0.0	0.0	5.786	A
C-A	881	220			881				
A-B	27	7			27				
A-C	837	209			837				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	7	378	0.074	28	0.1	0.1	10.297	B
C-AB	34	9	618	0.055	34	0.0	0.1	6.163	A
C-A	1052	263			1052				
A-B	32	8			32				
A-C	1000	250			1000				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	9	319	0.107	34	0.1	0.1	12.650	B
C-AB	42	10	573	0.073	42	0.1	0.1	6.770	A
C-A	1288	322			1288				
A-B	40	10			40				
A-C	1224	306			1224				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	9	319	0.107	34	0.1	0.1	12.663	B
C-AB	42	10	573	0.073	42	0.1	0.1	6.770	A
C-A	1288	322			1288				
A-B	40	10			40				
A-C	1224	306			1224				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	7	378	0.074	28	0.1	0.1	10.310	B
C-AB	34	9	618	0.055	34	0.1	0.1	6.165	A
C-A	1052	263			1052				
A-B	32	8			32				
A-C	1000	250			1000				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	6	418	0.056	23	0.1	0.1	9.135	A
C-AB	29	7	650	0.044	29	0.1	0.0	5.789	A
C-A	881	220			881				
A-B	27	7			27				
A-C	837	209			837				



Croft Transport Planning & Design

340 Deansgate

Manchester

M3 4LY

0161 837 7380

croftts.co.uk

Offices across the UK





Croft Transport Planning & Design

340 Deansgate

Manchester

M3 4LY

0161 837 7380

croftts.co.uk

Offices across the UK

