

TRANSPORT STATEMENT

Built Group Ltd

Proposed Residential Development at Lyneham, Whiston

September 2022

Transport Statement
VN222261

Report control

Document: Transport Statement

Project: Proposed Residential Development at Lyneham, Whiston

Client: Built Group Ltd

Job number: VN222261

File origin: N:\Vectos Job Data\2022\VN222261 Lyneham, Whiston\Docs\Reports\Lyneham, Whiston - Transport Statement.docx

Document checking

Primary Author: Tom Reader Initialled: TR

Contributor: Will Donagain Initialled: WD

Review by: Phil Tilby Initialled: PT

Issue	Date	Status	Checked for issue
1	19.05.2022	Issue_01	PT
2	14.09.2022	Issue_02	PT
3			

Contents

1	Introduction	4
	Summary of the Proposals	4
	Scope of Report	4
	Report Structure	4
2	Transport Policy and Guidance.....	6
	National Planning Policy Framework	6
	Local Policy and Guidance	6
	Knowsley Replacement Unitary Development Plan (UDP) (2016) Saved Policies.....	6
	Knowsley Local Plan Core Strategy	7
	Knowsley Ensuring a Choice of Travel Supplementary Planning Document (SPD) (2010) ..	8
	Summary.....	8
3	Site Location and Existing Transport Conditions	10
	Site Location.....	10
	Surrounding Highway Network.....	10
	Car Parking Assessment	11
	Highway Safety Record.....	12
	Summary.....	12
4	Accessibility Audit.....	14
	Walking	14
	Cycling.....	14
	Public Transport – Bus and Rail.....	15
	Minimum Accessibility Standard Assessment (MASA).....	17

Travel Plan	17
Summary.....	17
5 Development Proposals	19
Proposals	19
Access and Parking.....	19
Servicing	20
Parking.....	20
Summary.....	21
6 Traffic Impact.....	23
Overview	23
Forecast Development Traffic Flows	23
Summary.....	23
7 Travel Plan Framework	24
Introduction.....	24
Travel Plan Approach.....	24
Key Travel Plan Policy.....	24
Aim of the Travel Plan	25
Travel Plan Objectives	25
Targets	26
Measures.....	27
Cycling	27
Walking	27
Public Transport	27
Car Sharing	28

The Travel Plan Co-ordinator.....	28
Promotion and Communication	28
Monitoring.....	29
8 Summary and Conclusion.....	30
Summary.....	30
Conclusion	31

Drawings

VN222261-D100 Rev B	– Proposed Access Arrangement
VN222261-TR100 Rev B	– Refuse Vehicle Swept Path Analysis
VN222261-TR101 Rev B	– Refuse Vehicle Swept Path Analysis

Appendices

Appendix A	– Parking Survey Results
Appendix B	– Completed MASA
Appendix C	– Proposed Site Layout Plan
Appendix D	– TRICS Report

1 Introduction

- 1.1 This Transport Statement (TS) has been prepared by Vectos on behalf of Built Group Ltd to consider highways and transport issues related to a planning application for a proposed residential development of 19 dwellings at land to the north of Lyneham in Whiston, Knowsley.
- 1.2 Whilst the proposed development is relatively small in scale, this TS has been prepared to assist the local planning and highway authority (Knowsley Metropolitan Borough Council – KMBC) in the positive determination of the planning application.

Summary of the Proposals

- 1.3 The proposal is for the construction of 19 new dwellings on land at the corner of Lyneham and Haslemere in Whiston. The land currently accommodates car parking associated with a small convenience store ('M P Food, News and Wine'). Access will be via a new access junction onto Haslemere and a revised access location on the northern side of Lyneham, similar to the location of the existing convenience store car park access.
- 1.4 The convenience store is expected to remain operational, however a revised car park and access arrangement is proposed to be provided for the store.

Scope of Report

- 1.5 This TS will consider the following:
- Relevant local and national transport policy and guidance.
 - The site and the local transport conditions.
 - Access to the site by sustainable modes of transport.
 - Proposed access, car and cycle parking arrangements.
 - Deliveries and servicing at the site.
 - The proposed trip generation associated with the site.
 - Assessment of the anticipated effects of the development traffic upon the surrounding highway network.

Report Structure

- 1.6 The remainder of the report is structured as follows:
- Section 2 provides a review of local and national transport policies and guidance relevant to the proposals.
 - Section 3 considers the site location and baseline transport conditions in the vicinity of the site, including an assessment of parking and the highway safety record.

- Section 4 provides an audit of the accessibility of the site by sustainable transport modes, including reference to the KMBC Minimum Accessibility Standard Assessment (MASA).
- Section 5 details the development proposals including access, servicing, car and cycle parking provision.
- Section 6 provides an assessment of the forecast trip generation of the development and consideration of effects upon surrounding transport networks.
- Section 7 provides a framework for a Travel Plan for the development.
- Section 8 provides a summary and conclusion.

2 Transport Policy and Guidance

National Planning Policy Framework

- 2.1 The National Planning Policy Framework (NPPF) was updated on 20th July 2021 and sets out the government's planning policies for England and how these are expected to be applied. This revised Framework replaces the previous version of the NPPF first published in 2012. At the heart of the Framework is a presumption in favour of sustainable development.
- 2.2 As part of promoting sustainable transport, paragraph 110 of the NPPF states that in assessing applications for development, it should be ensured that:
- *“appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
 - *safe and suitable access to the site can be achieved for all users;*
 - *the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code 46; and*
 - *any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree”.*
- 2.3 Paragraph 111 goes on to state that, *“development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe”.*
- 2.4 It is considered that the proposed development site accords with the aims of the NPPF as it is well located for access by sustainable transport modes, which helps to maximise the use of public transport, cycling and walking for accessing the site.

Local Policy and Guidance

Knowsley Replacement Unitary Development Plan (UDP) (2016) Saved Policies

- 2.5 The Knowsley Replacement UDP was adopted in June 2006 but much of it has been replaced by the Local Plan Core Strategy. There are 39 UDP Policies that continue to be saved, with those relevant to transport detailed below.
- 2.6 **Policy T7** 'New Development and Walking and Cycling Routes' states that:
- “New development should preserve and where possible enhance the walking & cycling network, as it can help enhance and provide access to green corridors & the countryside as well as promoting and encouraging exercise and healthy living for all.*

In considering proposals for new development which will block (either partially or wholly) an existing right of way or other existing or proposed walking or cycling route, a balanced consideration of the following factors will be undertaken:

- a) The contribution that the route makes or will make to the walking and/or cycling network in the area and the harm that would be caused to accessibility between existing uses in the surrounding area if the route were no longer available; and*
- b) Any benefits to community safety or security that could arise from the closure of the route”.*

2.7 It should be noted that there are no Public Rights of Way within the site.

Knowsley Local Plan Core Strategy

2.8 The Local Plan Core Strategy sets out the vision, objectives and policies which will guide development within Knowsley up to the year 2028. **Policy CS7** replaces Policy T6 from the UDP and concerns Transport Networks. It addresses the overall transport strategy for the area, the requirements for new development and strategic transport schemes and programmes.

2.9 In relation to the overall transport strategy, the policy states that:

“Planning powers and other interventions will be used to support a sustainable and integrated transport system that will:

- a) Support the economy by facilitating efficient movement of people and goods within the borough and linking to Liverpool City Centre, the Port of Liverpool, Liverpool John Lennon Airport and other destinations in the surrounding area;*
- b) Help meet the development needs of the borough through to 2028;*
- c) Ensure people can get to where they need to by a choice of walking, cycling and public transport;*
- d) Enhance road safety;*
- e) Seek to reduce carbon emissions; and*
- f) Improve the health and wellbeing of local people”.*

2.10 In relation to requirements for new development, the policy states that:

“New development will be required to be:

- a) Located and designed to prioritise accessibility and sustainable modes of travel through a choice of walking, cycling, public transport, and incorporate access for private vehicles. Where deficiencies are identified, developer contributions will be required to improve the accessibility of the location;*
- b) Located and designed to ensure that larger scale proposals (attracting a lot of visitors, customers and/or employees) are located in the most accessible locations;*

c) Where subject to a planning application, accompanied (except in the case of smaller scale proposals) by Transport Assessments and/or Travel Plans;

d) In compliance with adopted cycle, car, disabled and service vehicle parking standards for different types and scales of new development;

e) Inclusive of measures that will mitigate carbon emissions and improve air quality where appropriate; and

f) Consistent with safeguarding arrangements that secure the operational integrity and safety of Liverpool John Lennon Airport”.

Knowsley Ensuring a Choice of Travel Supplementary Planning Document (SPD) (2010)

2.11 The Ensuring a Choice of Travel SPD aims to show how development can satisfy the requirements of accessibility policies contained within Knowsley’s Development Plan. It aims to assist developers in ensuring that their proposals are accessible, promote sustainable travel patterns and minimise the congestion and pollution caused by vehicles. The main objective of the SPD is to ensure a good choice of travel modes to all new development.

2.12 The SPD contains the Council’s parking standards to be applied to new development. It also sets out expectations for the content of Transport Assessments and Travel Plans prepared in support of proposed developments. The parking standards applicable to residential development are reproduced below.

Land Use	Unit Size	Other Areas (Maximum)
C3 Dwelling Houses	1-bed	1 space
	2-3 bed	2 spaces

Table 2.1: Knowsley Council Car Parking Standards

2.13 The SPD also contains the Minimum Accessibility Standard Assessment (MASA), which is a standardised accessibility assessment scoring system developed in consultation with other Merseyside authorities, and used to help in assessing the accessibility of proposed developments. The results of the assessment can be used to inform potential contributions requested by the Council from developers towards the cost of providing necessary accessibility improvements for pedestrians, cyclists and public transport users.

Summary

2.14 The national and local transport planning policy context for the development has been reviewed. The proposed development meets the transport policy goals set out in the NPPF, being a sustainable development in terms of transport as it is located in an accessible area with good access to everyday facilities and amenities without the need to travel by car.

- 2.15 Local policy reinforces the emphasis placed upon sustainable travel within the NPPF, highlighting the need to design for pedestrians and cyclists as a priority. The proposals have been developed taking into account these policy aims, and thought has been given as to how active travel modes can be promoted through good site layout design.

3 Site Location and Existing Transport Conditions

Site Location

- 3.1 The site comprises land to the north of Lyneham and to the west of Haslemere in the Whiston area within Knowsley Council. The location of the site is shown in **Figure 3.1**.

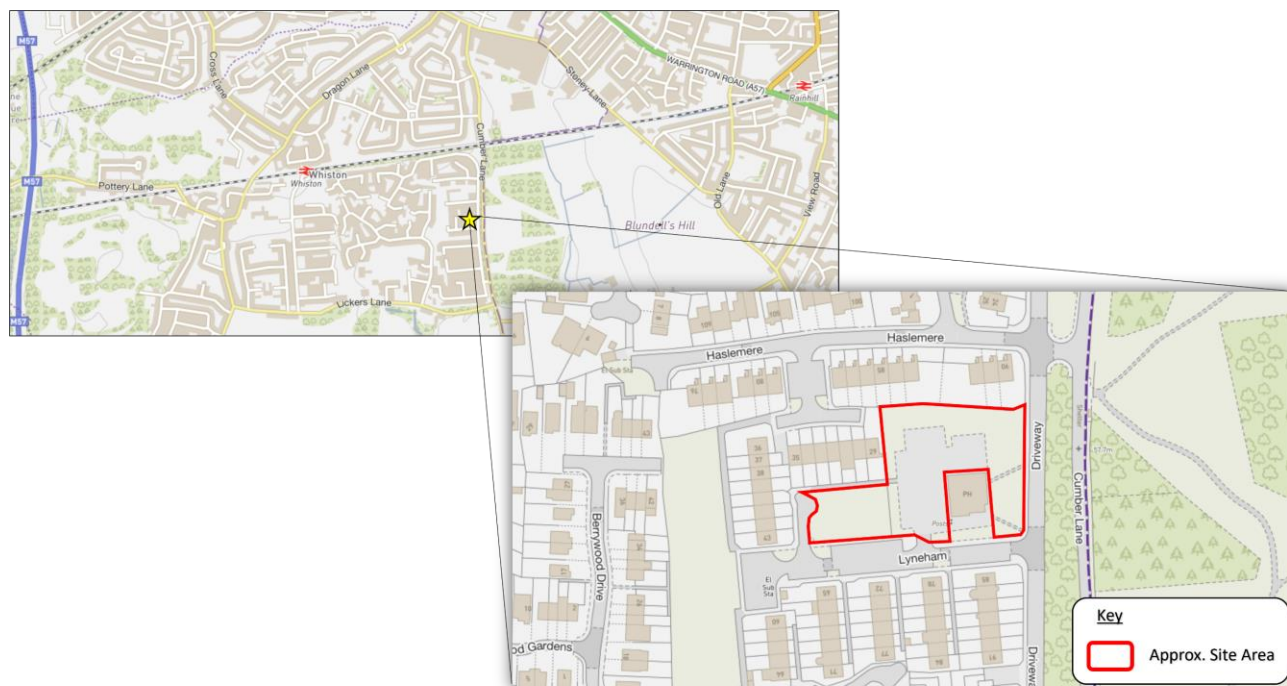


Figure 3.1: Site Location Plan

- 3.2 It can be seen from **Figure 3.1** that the site lies within an established residential area at the eastern edge of Whiston. Lyneham forms the southern boundary of the site and Haslemere forms the eastern boundary. There are residential properties to the west and north of the site. The convenience store and attached dwelling sits adjacent to the site. The convenience store was previously a pub and it is understood that the area of car parking adjacent to the store was associated with the pub, but it is now used informally as a car parking area and is mainly used by people accessing the convenience store.

Surrounding Highway Network

- 3.3 Lyneham is a residential cul-de-sac approximately 120m in length extending west from the junction with Haslemere. It is approximately 5m in width and is subject to a 20mph speed limit. There is a speed cushion traffic calming feature around 35m from the junction with Haslemere and another a further 50m to the west. Street lighting and footways are present along both sides of the carriageway.
- 3.4 There are on-street parking bays along the southern side of the road and a row of 13 perpendicular parking bays along the northern side of the road. Access to the convenience store car park is

provided from the northern side of Lyneham. At the western end of Lyneham the carriageway widens out as it previously provided car parking for a row of flats adjacent that were demolished circa 2016.

- 3.5 At the junction with Haslemere, there is a raised table traffic calming feature. Haslemere is around 6m in width and is also subject to a 20mph speed limit with street lighting present and a footway along the western side of the road. It is relatively straight in alignment in the vicinity of the site and there are raised table traffic calming features at the side road junctions. The roads in the immediate vicinity of the site do not appear to experience any capacity or congestion issues and are generally lightly trafficked.
- 3.6 Around 90m to the north of the junction with Lyneham, Haslemere forms a priority crossroads junction with Driveway and immediately to the east Haslemere is a priority T-junction arrangement with Cumber Lane. Cumber Lane provides access to the wider highway network including Lickers Lane to the south and Stoney Lane to the north. Cumber Lane can also be accessed from Haslemere via a priority junction around 300m to the south of Lyneham. Cumber Lane is subject to a 30mph speed limit and is also a bus route.

Car Parking Assessment

- 3.7 An on-street car parking survey was undertaken to capture the on-street parking situation within 200m of the site. This survey followed the principles of the Lambeth parking survey methodology employed in many London Boroughs, and adopted by other local authorities, when assessing car parking effects of new residential development.
- 3.8 200m is approximate to a 2 to 3-minute walk and covers the area where residents of a proposed development may want to park. The survey was undertaken on two weekday mornings in April 2022, between 00:30-05:30, also in line with the Lambeth methodology, which recommends that a snapshot survey between the hours of 00:30-05:30 should be undertaken on two separate weekday nights (i.e. Monday, Tuesday, Wednesday or Thursday), as this should be when residents are likely to be home and therefore on-street car parking demand should be highest.
- 3.9 The 200m walk catchment from the site covers Lyneham, Selbourne, Kingsnorth, parts of Haslemere and parts of Cumber Lane. The survey was undertaken on Wednesday 27th and Thursday 28th April 2022 by Total Traffic Surveys Ltd. The full survey results are included at **Appendix A**, whilst a summary for Lyneham is provided in **Table 3.1**.

		Total Parked Vehicles	
		Wednesday	Thursday
	Legal Parking Spaces		
Lyneham	40 unrestricted spaces	23 (58% stress)	21 (53% stress)

Table 3.1: Summary of Parking Survey on Lyneham

- 3.10 It can be seen from Table 3.1 that only around half of the available parking bays on Lyneham were occupied at the time of the two surveys meaning that a minimum of 17 car parking spaces were available at any one time, therefore there is significant spare capacity in this area to accommodate an increase in parking demand if required.

- 3.11 An additional parking survey was undertaken focusing upon the parking demand generated by the convenience store ('M P Food, News and Wine'). This survey was undertaken on Thursday 28th April for the three-hour period between 16:00 and 19:00 and on Saturday 30th April for the period between 09:00-12:00. It recorded parking activity within the car park attached to the convenience store on Lyneham. The survey data is shown at **Appendix A** to this report and in summary, the maximum parking accumulation within the car park was 5 vehicles on the Thursday and 3 vehicles on the Saturday.

Highway Safety Record

- 3.12 A review of the road accident data has been undertaken with reference to the CrashMap online database for the most recent five-year period for which data is available (2016 – June 2021). The accident plot is shown in **Figure 3.2**.

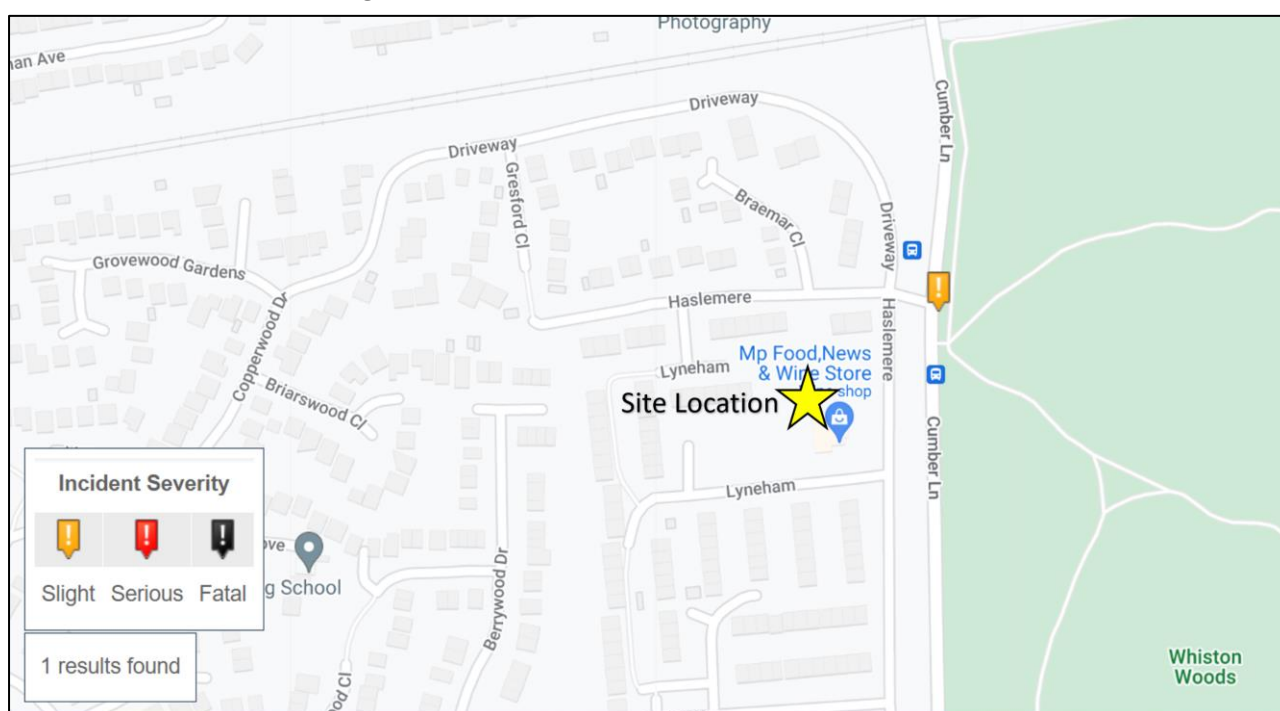


Figure 3.2: Accident Location Plot

- 3.13 It can be seen from **Figure 3.2** that there have been no recorded accidents along Lyneham or Haslemere, with just one slight accident recorded at the Haslemere / Cumber Lane priority junction. The accident record does therefore not indicate any highway safety issue that would be materially affected by the development proposals.

Summary

- 3.14 The site comprises land to the north of Lyneham and to the west of Haslemere in the Whiston area within Knowsley Council.
- 3.15 The surrounding highway network has been reviewed and the site is well located in relation to the existing highway network. A parking survey has been undertaken and this revealed that there is significant spare capacity on Lyneham to accommodate an increase in parking demand if required.

Parking activity associated with the convenience store on Lyneham has also been surveyed and this reveals a maximum accumulation of 5 vehicles within the car park adjacent to the convenience store.

- 3.16 A review of highway safety has been undertaken via reference to accident records on the Crashmap database, and it is concluded that there are no highway safety concerns that would arise from the development proposals.

4 Accessibility Audit

Walking

- 4.1 Guidelines produced by the Institution of Highways of Transportation (IHT) within their document entitled 'Guidelines for Providing for Journeys on Foot', state that the preferred maximum walking distance for developments to town centres is 800m. The same document also identifies a distance of 2km as being a 'preferred maximum' distance for commuting, school and sight-seeing journeys, whilst 400m is the preferred maximum for access to a bus stop and 1.2km a preferred maximum for a number of other facilities.
- 4.2 There are numerous amenities and facilities within a reasonable walking distance of the site, and some of these are summarised in **Table 4.1**.

Local Amenity / Facility	Walk Distance from Site
Local Convenience Store	<50m
Bus stops on Cumber Lane	120m
Whiston Woods	150m
Halsnead Primary School	900m
Southmead Children's Centre	420m
St Leo's and South Mead Catholic Primary & Nursery School	780m
Whiston Station	900m
St Edmund Arrowsmith Catholic Academy	500m

Table 4.1: Selected Local Amenities Walk Distances

- 4.3 The site is therefore very well located to encourage everyday trips to be made on foot, being within walking distance of a wide range of key amenities and facilities including a local shop and Whiston Rail Station.
- 4.4 The site is embedded within an established residential area with a network footways and paths permeating the surrounding area. The pedestrian infrastructure in the vicinity of the site is therefore of a good standard and the development proposals include new footways to link to the existing provision on Lyneham and Haslemere.

Cycling

- 4.5 It is generally accepted that the bicycle is an effective mode for short trips of up to 3 to 5 miles (5 - 8km). A 5km cycle catchment from the site would equate to a journey of around 25 minutes at a leisurely cycle speed of 12km per hour, and this catchment represents the lower threshold of the potential cycle catchment of the site and includes large residential areas such as Whiston, Rainhill, Huyton, Roby, Huyton Quarry, Tarbock, Halsnead Park, Prescot and Ecclestone.

- 4.6 It can be seen from **Figure 4.1** that Haslemere is designated as a traffic calmed route and Cumber Lane is a suggested cycle route, linking to the centre of Whiston. Whiston Rail Station is within a circa three-minute cycle journey and there are five cycle hoops provided at the station.

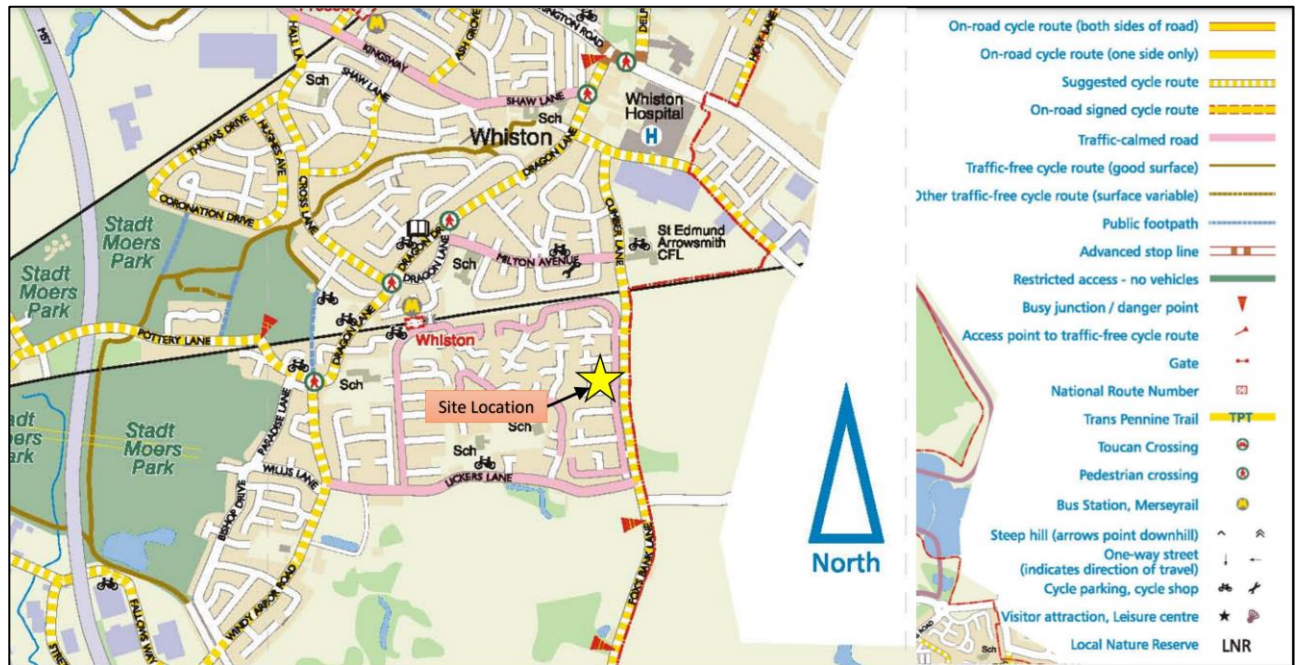


Figure 4.1: Extract from Knowsley Cycle Map

- 4.7 The site is therefore considered to be suitably accessible by cycle.

Public Transport – Bus and Rail

- 4.8 Guidance published by the IHT 'Planning for Public Transport in Developments', recommends that the maximum distance to a bus stop from new development should be 400m – roughly equating to a five-minute walk.
- 4.9 The nearest bus stops are located within around 120m of the site on Cumber Lane. These stops are served by three bus services, and an extract from the Liverpool Bus Map is shown in **Figure 4.2**.



Figure 4.2: Extract from Liverpool Bus Map

4.10 The public bus services available from the stops on Cumber Lane are summarised in **Table 4.2**.

Service	Route	Typical Frequency
99	Whiston Station – Prescott Circular	60 mins between 10:04 and 17:04
239	Prescot – Broadgreen Hospital Circular	40 mins
248	Huyton – Prescott Circular	60 mins (early morning / evening only)

Table 4.2: Summary of Public Bus Services Within 400m of the Site

4.11 It can be seen from Table 4.2 that the bus services available within 400m of the site provide connections to a wide range of local destinations including Whiston Station, Huyton, Broadgreen Hospital and Prescott. All services operate on weekdays and Saturdays.

4.12 The bus stops on Cumber Lane provide a shelter with seating and timetable information.

4.13 The closest rail station to the site is Whiston Rail Station, which is located within a 1km walk distance away to the northwest and can be accessed via the existing network of footways. This is an acceptable walk distance to rail stations according to the IHT document ‘Guidelines for Providing for Journeys on Foot’. Whiston lies on the Crewe – Liverpool line with direct connections provided to many local and regional destinations including Liverpool Lime Street, Edge Hill, Roby, Huyton, St Helens Junction, Manchester Piccadilly and Wilmslow.

- 4.14 Travel by bus and rail therefore represents a feasible option for journeys to and from the site, which will help to facilitate sustainable and active travel amongst future residents.

Minimum Accessibility Standard Assessment (MASA)

- 4.15 A MASA has been carried out to provide an indication of the site's accessibility using the Council's accessibility tool. The completed MASA is provided at **Appendix B** with a summary provided in **Table 4.3**.

	Walking	Cycling	Public Transport	Vehicle Access / parking
Target Score (medium residential development in 'other urban' location)	4	3	5	1
Actual Score	4	3	4	1

Table 4.3: MASA Summary

- 4.16 Table 4.3 shows that the site scores well for the MASA, meeting or exceeding the target score in all but the public transport categories. Whilst the public transport score is below the target of 5, as detailed in this section, the site is considered to be accessible by public transport with bus services available from Cumber Lane within 400m the site and rail services available from Whiston Station within 1km of the site. The existing bus infrastructure has been found to be of a good standard. Given these facts and the small scale of the residential development proposals, it is considered that the site benefits from good sustainable accessibility and it would not be necessary for a contribution to be made to public transport to make the development acceptable in planning terms.

Travel Plan

- 4.17 A Travel Plan Framework is provided in Section 7 of this report, to outline the potential measures that could be employed at the proposed residential development to help promote journeys by active travel and public transport modes amongst residents and visitors.

Summary

- 4.18 The site is very well located to facilitate everyday trips by foot, being within walking distance of a wide range of key amenities and facilities. The pedestrian infrastructure in the vicinity of the site is of a good standard and those using the site will benefit from this provision.
- 4.19 The site is within a short walk of bus stops on Cumber Lane, and services provide direct connections to a wide range of destinations including Whiston Station, Huyton, Broadgreen Hospital and Prescot. All services operate on weekdays and Saturdays.
- 4.20 Whiston Rail Station is easily accessible from the site to the northwest, providing links to local and regional destinations such as Liverpool Lime Street, Edge Hill, Roby, Huyton, St Helens Junction, Manchester Piccadilly and Wilmslow. Travel by bus and rail therefore represents a feasible option for

journeys to and from the site, which will help to facilitate sustainable and active travel amongst future residents.

- 4.21 A MASA has been undertaken for the site, in line with Knowsley Council's policies, and the site scores well for all areas. Whilst the public transport score is below the target of 5, as detailed in this section, the site is considered to be accessible by public transport with bus services available from Cumber Lane within 400m the site and rail services available from Whiston Station within 1km of the site.

5 Development Proposals

Proposals

- 5.1 The planning application is made in detail and seeks permission for a residential development of 19 dwellings. A copy of the proposed site layout plan is provided at **Appendix C** to this report.
- 5.2 The dwellings will comprise of:
- 4 x 2-bed houses.
 - 3 x 4-bed houses.
 - 12 x 2-bed cottage flats.
- 5.3 Additionally, the application includes provision of a proposed new car parking area for the convenience store.

Access and Parking

- 5.4 The residential development will provide two new access points onto the existing highway network via a new junction onto Haslemere approximately 42m north of the Lyneham junction, an access on the northern side of Lyneham around 40m to the west of Haslemere, which will be in a similar location to the existing access to the shop car park and is in effect a minor relocation of this access. The two access points will be linked so that vehicles can enter and exit at either access points. The internal highway layout will be designed as a 20mph road and will be 5.5m in width. There is also an existing cul-de-sac on the north side of Lyneham that is located approximately 95m to the west of the junction with Haslemere that is proposed to be utilised in its existing form to serve four of the residential dwellings.
- 5.5 Suitable visibility splays can be provided at the proposed access junctions, in line with Manual for Streets guidance, as shown in **Drawing VN222261-D100 B**. A 2.4m ('x' distance) by 25m ('y' distance) visibility from the proposed site access junctions can be achieved, in accordance with the 20mph speed limit in force on the adjacent roads. The drawing also shows that the existing speed cushion traffic calming feature will need to be removed or relocated to accommodate the proposed residential access junction on Lyneham, and this matter will need to be reviewed in more detail with KMBC Highways at the post application submission stage to agree an appropriate approach and associated proposal.
- 5.6 Access for pedestrians will be via new footways that run alongside the internal road and tie into the existing footways on Lyneham and Haslemere. Dropped kerbs and tactile paving will be provided at the newly created side road crossings. On the outside of the internal road, the footways will be 2m in width and on the inside of the road there will be a 1m footway strip. This is considered to be acceptable given that the inside of the road does not serve the main desire lines that will be created by the development and pedestrian access to the convenience store is facilitated from Lyneham and Haslemere.

- 5.7 Access to the development for a refuse vehicle has been designed into the scheme, and a swept path assessment demonstrating this is provided in **Drawing VN222261-TR100 B** and **Drawing VN222261-TR101 B**.
- 5.8 The scheme will also incorporate a small car park for the existing convenience store at the corner of Lyneham and Haslemere. The car park will be accessed from Lyneham and will provide six spaces. This is expected to be sufficient to meet anticipated parking demand as revealed through the car parking survey of the existing shop car park, as detailed earlier in Section 3. The proposed access location to the car park is considered to be suitable in terms of visibility splays and junction spacing between the proposed new residential access and the Haslemere junction given the slow speed of vehicles on Lyneham.

Servicing

- 5.9 Refuse collection will occur via kerbside collections. A large refuse vehicle will be able to route through the site to complete collections, as demonstrated by the swept path analysis shown in **Drawing VN222261-TR100 Rev B** and **Drawing VN222261-TR101 Rev B**.

Parking

- 5.10 The relevant parking standards are those contained within the KMBC 'Ensuring A Choice of Travel Supplementary Planning Document' and are reproduced below.

Land Use	Unit Size	Other Areas (Maximum)
C3 Dwelling Houses	2-3 bed	2 spaces
	4+ bed	3 spaces

Table 5.1: KMBC Parking Standards

- 5.11 Car parking will be provided in line with these standards with a total of 25 spaces equating to 1.3 spaces per dwelling, which is around 61% of the KMBC standards. It is appropriate to provide less than the maximum standard given the good opportunities for travel by non-car modes and the availability of amenities and facilities within walking distance, as detailed earlier in Section 4.
- 5.12 Policy T6 of the SPD states that proposals for new development should provide, "*car parking facilities which do not exceed the Council's maximum standards*". There is no policy stipulation that parking should meet the maximum standards, indeed the SPD goes on to state in paragraph 4.5 that the standards define 'upper limits' for new developments and that:

"In all areas there may be instances where provision should be less than the maximum specified for example where a site is particularly accessible by modes of transport other than the private car".

- 5.13 As set out earlier in this TS report, the development site is within an acceptable walking distance of a range of shops and amenities, and there are no significant accessibility constraints for pedestrians between the site and these facilities. Furthermore, there are bus stops available within a 400m walk

of the site on Cumber Lane. These stops are served by three bus services, and number 99 connects to Whiston Rail Station, which is also around 900m walk away to the northwest. The site is clearly accessible by modes of transport other than the private car and therefore this development is in a location that is appropriate for providing less than the maximum car parking standards, in accordance with the policy and guidance set out in the Ensuring a Choice of Travel SPD.

5.14 Furthermore, a review of car ownership data in this area (super output area - middle layer Knowsley 013), as revealed through 2011 Census data shows that only 20% of households in this area had more than one car, with over a third having no car at all.

5.15 The Census data is summarised in **Table 5.2**.

Car or Van Availability	Percentage of Households
No cars or vans in household	36%
1 car or van in household	44%
2 cars or vans in household	17%
3 cars or vans in household	3%
4 or more cars or vans in household	0%

Table 5.2: Local Car Ownership Data (Census Dataset QS416EW)

5.16 The above table indicates a car parking demand of around 17 spaces for the proposed residential development of 19 dwellings. It is also noted that the car parking survey of Lyneham as described in Section 3 of this report, showed that there is significant spare capacity along Lyneham to accommodate any increased demand, with a minimum of 17 spaces available during the survey period. This is ample space to safely accommodate any visitor parking associated with the proposed development.

5.17 In summary, the TS in support of the planning application has provided a comprehensive review of the site's sustainable accessibility and highlighted the accessible credentials of the site in justifying the proposed parking provision being below the maximum standard. The proposed level of residential parking of 25 spaces in total is considered to be entirely appropriate for this development.

5.18 Cycle parking will be provided for the flats in a cycle store at the north-east corner of the site, providing space for 18 cycles. Cycle parking for the houses will be accommodated within the curtilage of each dwelling.

Summary

5.19 The planning application is made in detail and seeks permission for a residential development of 19 dwellings. The residential development will provide two new access points onto the existing highway network via a junction onto Haslemere and an access on the northern side of Lyneham, which will be in a similar location to the existing access to the shop car park. These access points are considered

to generally meet the relevant design criteria, and the proposals also seek to utilise an existing cul-de-sac on the north side of Lyneham to serve four of the residential dwellings.

- 5.20 The scheme will also incorporate a small car park for the existing convenience store at the corner of Lyneham and Haslemere. The car park will be accessed from Lyneham and will provide six spaces.
- 5.21 Access for pedestrians will be via new footways that run alongside the internal road and tie into the existing footways on Lyneham and Haslemere.
- 5.22 Access to the development for a refuse vehicle has been designed into the scheme.
- 5.23 Car parking will be provided in line with the Knowsley Council standards with a total of 25 spaces equating to around 1.3 spaces per dwelling. It is considered appropriate to provide less than the maximum standard given the good opportunities for travel by non-car modes, the availability of amenities and facilities within walking distance, the car ownership patterns in this area and the significant spare capacity of parking on Lyneham that provides space for any additional parking demand such as visitor parking associated with the proposed development.

6 Traffic Impact

Overview

- 6.1 Having established that the development site is highly accessible by modes of transport other than the private car, the following section of this report will set out the forecast traffic generation of the development scheme as well as providing an assessment of the general impact on the local highway network.

Forecast Development Traffic Flows

- 6.2 The development proposals comprise a residential scheme of 19 dwellings with a mix of two-bed houses, four-bed houses and two-bed cottage flats. To establish the peak hour vehicular trip rates for the proposed residential use, reference has been made to the latest TRICS database (7.9.1) searching for residential developments of similar scale.
- 6.3 The weekday peak hour TRICS output is summarised below in **Table 6.1** and provided in full at **Appendix D**.

	Vehicles – Trip Rates			Trip Forecasts (19 dwellings)		
	Arr	Dep	2 way	Arr	Dep	2 way
AM Peak	0.142	0.362	0.504	3	7	10
PM Peak	0.248	0.193	0.441	5	4	9

Table 6.1: Forecast Peak Hour Vehicle Trips

- 6.4 It can be seen from Table 6.1 that the proposed residential development is forecast to generate a total of ten trips in the weekday morning peak hour and nine in the evening peak hour. In the weekday morning peak this averages at an additional vehicle trip every 6 minutes and in the evening peak one every 6-7 minutes. As such, the development is not expected to give rise to any perceptible change in the operation of the local highway network.

Summary

- 6.5 A trip forecasting exercise for the proposed residential development has been undertaken based upon TRICS trip rates. This has demonstrated that the proposals are expected to generate just ten two-way vehicle trips in the weekday morning peak hour and nine in the evening peak hour, and this will have no perceptible effect upon the operation of the local highway network.
- 6.6 It is therefore concluded that the vehicle trips expected to be generated by the development will not result in a severe impact and can be safely accommodated on the surrounding highway network.

7 Travel Plan Framework

Introduction

- 7.1 This section of the report sets out a Travel Plan Framework for the proposed residential development, which could be taken forward and developed into a more detailed Travel Plan if required following the occupation of the development, at which point accurate baseline travel information could be obtained.

Travel Plan Approach

- 7.2 Travel Plans are an important tool in order to facilitate sustainable development. Together with Transport Assessments / Statements, they provide the mechanism for assigning and managing multi-modal access to development sites.
- 7.3 The benefits of a Travel Plan include an increased choice of transport mode and reduced journey times. Benefits should include a strong emphasis towards the personal advantages of using sustainable transport initiatives and include cost saving, time saving and social benefits.
- 7.4 The development and implementation of the Travel Plan should be a dynamic process subject to a continuous cycle of action monitoring and review. This should be achieved in order to give the Travel Plan a recognisable direction and focus towards its goals. It is therefore vital that objectives are set out for both the developer and occupiers of the development.

Key Travel Plan Policy

- 7.5 The future Travel Plan will be developed with reference to specific policy and guidance. This will ensure that a high-quality Travel Plan is developed. The documentation includes:
- National Planning Policy Framework.
 - Good Practice Guidelines: Delivering Travel Plans through the Planning Process.
 - Travel Plans, Transport Assessments and Statements in Decision-Taking.
 - Making Residential Travel Plans Work: Guidelines for New Development.
 - Knowsley Ensuring a Choice of Travel SPD (2010).

- 7.6 Within the Department for Transport (DfT) guidance ‘Good Practice Guidelines: Delivering Travel Plans through the Planning Process’, the Travel Plan pyramid sets out the various facets of a Travel Plan that are key to ensuring the Travel Plan is successful. The pyramid within the aforementioned guidance is reproduced in **Figure 7.1**.



Figure 7.1: The Travel Plan Pyramid

Aim of the Travel Plan

- 7.7 The aim of the Travel Plan will be to minimise the number of car trips generated by the development as well as encourage residents and visitors to use sustainable modes of transport.
- 7.8 Whilst the scope of the detailed Travel Plan is to be agreed at a later date, it is certain that the Travel Plan would include a number of objectives and identify a range of measures that are to be implemented in order to achieve these objectives.

Travel Plan Objectives

- 7.9 In summary, the objectives of the Travel Plan would include the following:
- To provide residents with convenient, safe and viable alternatives to the car in order to access the site as well as local destinations and amenities.
 - To regularly monitor the means of travel used by residents to encourage transfer to the most sustainable modes, as achieved through the implementation of the Travel Plan.
 - To reduce the environmental impact of the site as a whole, and promote a commitment to environmental values.

7.10 The following is a sub-set of objectives, which are reflective of the aforementioned overarching objectives:

- To raise awareness amongst residents of the detrimental impacts of car use in order to encourage the use of alternatives. This would be achieved by promoting benefits such as cost savings and health advantages etc.
- To encourage safe and viable alternatives to single occupancy car trips for trips generated by the residential development.
- To ensure the ongoing development and implementation of sustainable travel practices in the longer term.

Targets

7.11 The success of the Travel Plan will be measured against a series of targets. However, as the development is not operational and baseline travel surveys have not yet been undertaken, it is not possible to set targets. This section therefore sets out the process for establishing appropriate targets.

7.12 Appropriate targets for a residential development mainly surround the reduction of vehicle trips, especially in the peak hours. Indicators of this target include monitoring the number walking, cycling, bus and rail trips to and from the site. It should be noted that specific aims of the Travel Plan must take account of factors including housing occupancy, the residential composition and realistic transport options available to residents and visitors.

7.13 Guidance produced by the DfT suggests that the main target should be to reduce the number of car trips generated by the site per day. It is also suggested that targets could also be set for other modes of transport, for example, bus patronage or walking trips.

7.14 Following the completion of the baseline travel surveys, a range of targets would be developed, with a view to:

- Promoting healthy lifestyles and sustainable, vibrant communities.
- Minimising the number of single occupancy car trips generated by the site.
- Providing adequately for those with mobility difficulties.
- Maximising the number of trips made by sustainable modes.
- Supporting access to and from the site by residents.

7.15 It is important that the targets are SMART (Specific, Measurable, Achievable, Relevant and Time-based) and meaningful to residents.

Measures

- 7.16 The Travel Plan's proposed measures need to be linked with its targets and desired outcomes. It would therefore be necessary to implement a number of "hard" and "soft" measures in order to achieve such outcomes. The measures would be part of an action plan with timescales for delivery and individuals responsible identified, and could include:
- The distribution of maps to residents showing safe walking and cycling routes.
 - On-site provision of public transport information, including bus routes and rail services.
 - Car share promotion including events with opportunities for finding a match amongst residents.
 - Access to electric charging points and car club vehicles.
 - Providing the service of personal travel advice.
 - Publication and effective distribution of both the Travel Plan and specific initiatives.

Cycling

- 7.17 Residents may wish to cycle, and in addition to being able to accommodate bikes within dwellings, consideration will be given to the potential provision of some visitor cycle parking within the development. Other measures could include:
- Production of maps showing cycle routes and facilities.
 - Arrange organised cycle rides for residents.

Walking

- 7.18 Walking offers many health benefits and fits in well with the growing interest in a healthy lifestyle. As mentioned earlier in this report, the walking facilities surrounding the development site are of a good standard and should encourage travel on foot with the proposed development providing new footway infrastructure and connections to the adjacent footway network. Walking maps and information on access to local amenities could be made available to users of the site along with other potential measures.

Public Transport

- 7.19 The following initiatives will be considered to encourage uptake of trips by bus and rail modes:
- Seek to negotiate discounted / free travel passes from local public transport operators.
 - Provision of public transport information and timetables for residents.

Car Sharing

- 7.20 Car sharing offers significant benefits not just for the environment but also financially. Therefore, consideration will be given to organising a car sharing scheme that is specifically aimed at finding matches amongst residents who would be able to car share when travelling to and from their daily commutes and other journeys.

The Travel Plan Co-ordinator

- 7.21 It would be necessary to appoint a Travel Plan Co-ordinator for the development prior to it becoming operational to deliver the Travel Plan initiatives and prepare associated action plan. The Travel Plan will be implemented under the control of a Travel Plan Co-ordinator who will drive the work forward, promote the measures and be a key contact point for residents. Initially, the Travel Plan Co-ordinator role could be the responsibility of the developer or the Housing Association involved with the site.
- 7.22 As well as ensuring the success in terms of improving modal split, the Travel Plan Co-ordinator should liaise with residents to ensure the promotion of sustainable alternatives. The Travel Plan Co-ordinator should also liaise with the Local Planning Authority on a regular basis to obtain information and share ideas. This would also provide the opportunity to review the Travel Plan on a periodic basis to monitor its effectiveness and to agree new measures required to meet the Travel Plans aims, objectives and targets.
- 7.23 The following bullet points summarise the role of the Travel Plan Co-ordinator:
- To be the key decision maker on day-to-day matters of implementation of the Travel Plan.
 - Liaise with users of the site as well as external organisations, stakeholders, the Council, Merseytravel and public transport operators in the local area.
 - To provide a point of contact for residents in relation to travel advice.
 - To promote the use of travel modes other than the car, including the distribution of publicity material and travel information.
 - Ensuring that all relevant information is available to users and that up-to-date information is clearly displayed and distributed.
 - To co-ordinate the implementation of Travel Plan measures.
 - Data collection, surveys, monitoring and report production.

Promotion and Communication

- 7.24 The Travel Plan Co-ordinator will be responsible for the promotion of the Travel Plan and for the communication of its targets and objectives to residents. The following measures could be undertaken to ensure that this is done:
- Provide information in communal areas around the site.

- Provide residents with a Travel Information Brochure on available travel options.
- Promote and reinforce the aims of the Travel Plan to users on a regular basis.

Monitoring

7.25 Once the site is operational, then it would be necessary to monitor the plan on a regular basis. This would be one of the roles of the Travel Plan Co-ordinator, and the likely steps would include:

- Post occupation travel survey.
- Annual Progress reviews (including travel surveys).
- Liaison with KMBC / Travel Plan Officer.

8 Summary and Conclusion

Summary

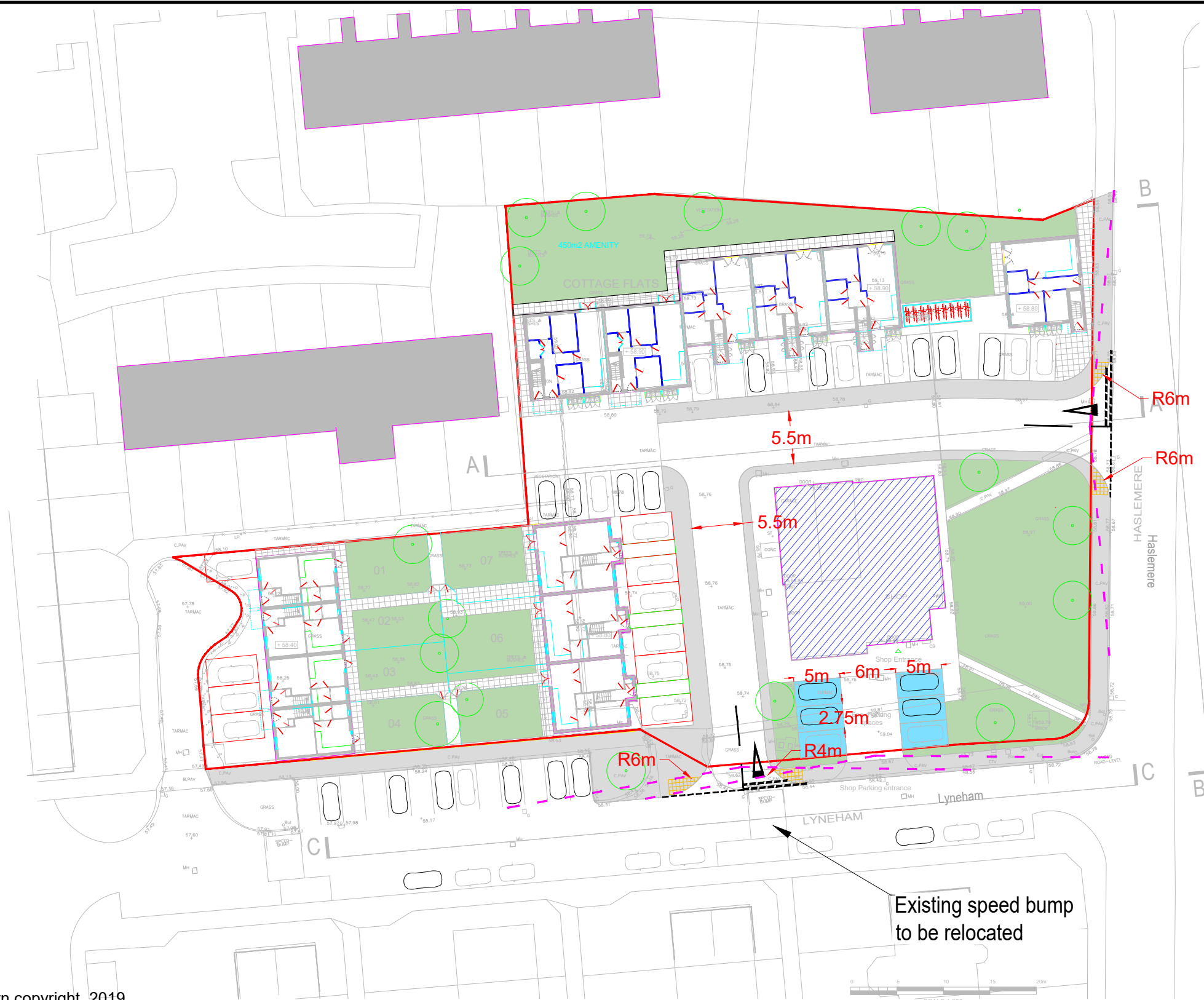
- 8.1 This TS report has been prepared by Vectos on behalf of Built Group Ltd to consider highways and transport issues related to a planning application for a proposed residential development of 19 dwellings at land to the north of Lyneham in Whiston, Knowsley.
- 8.2 The site comprises land to the north of Lyneham and to the west of Haslemere in the Whiston area within Knowsley Council.
- 8.3 The surrounding highway network has been reviewed and the site is well located in relation to the existing highway network. A parking survey has been undertaken and this revealed that there is significant spare capacity on Lyneham with regard to on-street parking to accommodate an increase in parking demand if required. Parking activity associated with the convenience store on Lyneham has also been surveyed and this reveals a maximum accumulation of 5 vehicles within the car park attached to the convenience store.
- 8.4 A review of highway safety has been undertaken via reference to accident records on the Crashmap database, and it is concluded that there are no highway safety concerns that would arise from the development proposals.
- 8.5 The national and local transport planning policy context for the development has been reviewed. The proposed development meets the transport policy goals set out in the NPPF, being a sustainable development in terms of transport as it is located in an accessible area with good access to everyday facilities and amenities without the need to travel by car. Local policy reinforces the emphasis placed upon sustainable travel within the NPPF, highlighting the need to design for pedestrians and cyclists as a priority. The proposals have been developed taking into account these policy aims, and thought has been given as to how active travel modes can be promoted through good site layout design.
- 8.6 The site is very well located to facilitate everyday trips by foot, being within walking distance of a wide range of key amenities and facilities. The pedestrian infrastructure in the vicinity of the site is of a good standard and those using the site will benefit from this provision. The site is within a short walk of bus stops on Cumber Lane, and services provide direct connections to a wide range of destinations including Whiston Station, Huyton, Broadgreen Hospital and Prescot. Whiston Rail Station is easily accessible from the site to the northwest, providing links to local and regional destinations such as Liverpool Lime Street, Edge Hill, Roby, Huyton, St Helens Junction, Manchester Piccadilly and Wilmslow.
- 8.7 A MASA has been undertaken for the site, in line with Knowsley Council's policies, and the site scores well for all areas. Whilst the public transport score is below the target of 5, as detailed in this section, the site is considered to be accessible by public transport with bus services available from Cumber Lane within 400m the site and rail services available from Whiston Station within 1km of the site.
- 8.8 The residential development will provide two access points onto the existing highway network via a new junction onto Haslemere and an access on the northern side of Lyneham, which will be in a

similar location to the existing access to the shop car park. These access points are considered to generally meet the relevant design criteria, and the proposals also seek to utilise an existing cul-de-sac on the north side of Lyneham to serve four of the residential dwellings. It is noted that an existing speed cushion traffic calming feature on Lyneham will need to be removed or relocated to accommodate the proposed residential access junction, and this matter will need to be reviewed in more detail with KMBC Highways at the post application submission stage to agree an appropriate approach and associated proposal.

- 8.9 The scheme will also incorporate a small car park for the existing convenience store at the corner of Lyneham and Haslemere. The car park will be accessed from Lyneham and will provide six spaces. Access for pedestrians will be via new footways that run alongside the internal road and tie into the existing footways on Lyneham and Haslemere. Access to the development for a refuse vehicle has been designed into the scheme.
- 8.10 Car parking will be provided in line with the Knowsley Council standards with a total of 25 spaces for the proposed residential scheme equating to around 1.3 spaces per dwelling. It is appropriate to provide less than the maximum standard given the good opportunities for travel by non-car modes, the availability of amenities and facilities within walking distance, the car ownership patterns in this area and the significant spare capacity of parking on Lyneham that provides space for any additional parking demand such as visitor parking associated with the proposed development. The scheme also includes an appropriate level of cycle parking provision in line with the KMBC requirements.
- 8.11 A trip forecasting exercise for the proposed residential development has been undertaken based upon TRICS trip rates. This has demonstrated that the proposals are expected to generate just ten two-way vehicle trips in the weekday morning peak hour and nine in the evening peak hour, and this will have no perceptible effect upon the operation of the local highway network. It is therefore concluded that the additional vehicle trips expected to be generated by the development will not result in a severe impact and can be safely accommodated on the surrounding highway network.

Conclusion

- 8.12 It is concluded that the proposed development is in accordance with national and local transport policies and is acceptable in highways and transport terms.



0 1.25 2.5 5 7.5
1:250 SCALE (m)

Ordnance Survey © Crown copyright 2019.
All rights reserved. Licence No. 100052073.

NOTE: THE PROPERTY OF THIS DRAWING AND DESIGN IS VESTED IN VECTOS (NORTH) LTD.
IT MUST NOT BE COPIED OR REPRODUCED IN ANY WAY WITHOUT THEIR PRIOR WRITTEN CONSENT.

REV.	DETAILS	DRAWN	CHECKED	DATE
A	Site layout updated	WD	TR	17.05.22
B	Site layout updated	DJR	TR	13.09.22

Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

— — — — — 2.4 x 25m Visibility Splays

Lyneham, Whiston

General Arrangement & Visibility Splays

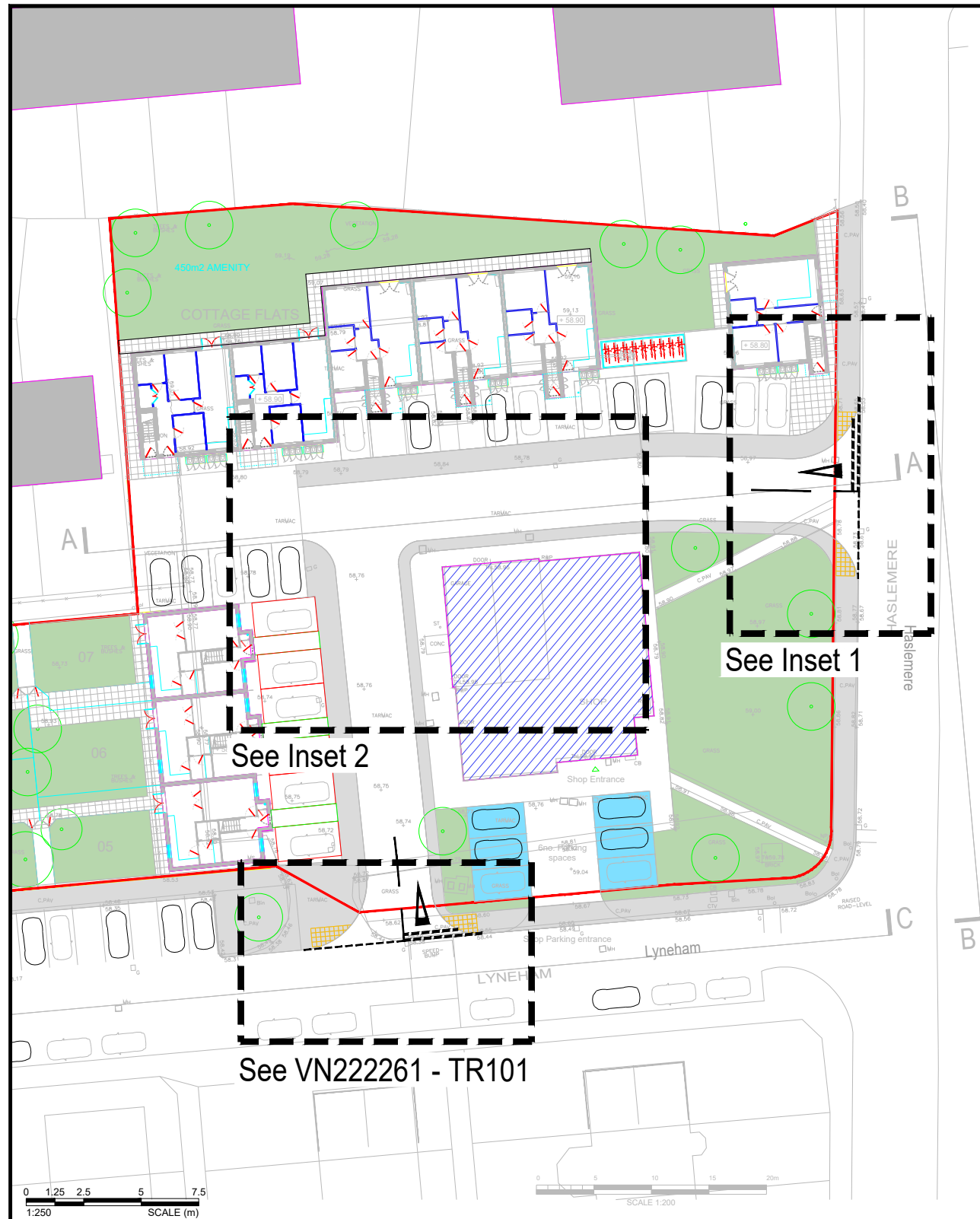
DRAWN:	CHECKED:	DATE:	SCALES:
WD	TR	27.04.22	1:500 at A3

Built Group Ltd

vectos.

4th Floor Oxford Place, 61 Oxford Street, Manchester, M1 6EQ
0161 228 1008 e: manchester@vectos.co.uk

DRAWING NUMBER:	REVISION:
VN222261-D100	B



Ordnance Survey © Crown copyright 2019.
All rights reserved. Licence No. 100052073.
NOTE: THE PROPERTY OF THIS DRAWING AND DESIGN IS VESTED IN VECTOS (NORTH) LTD.
IT MUST NOT BE COPIED OR REPRODUCED IN ANY WAY WITHOUT THEIR PRIOR WRITTEN CONSENT.

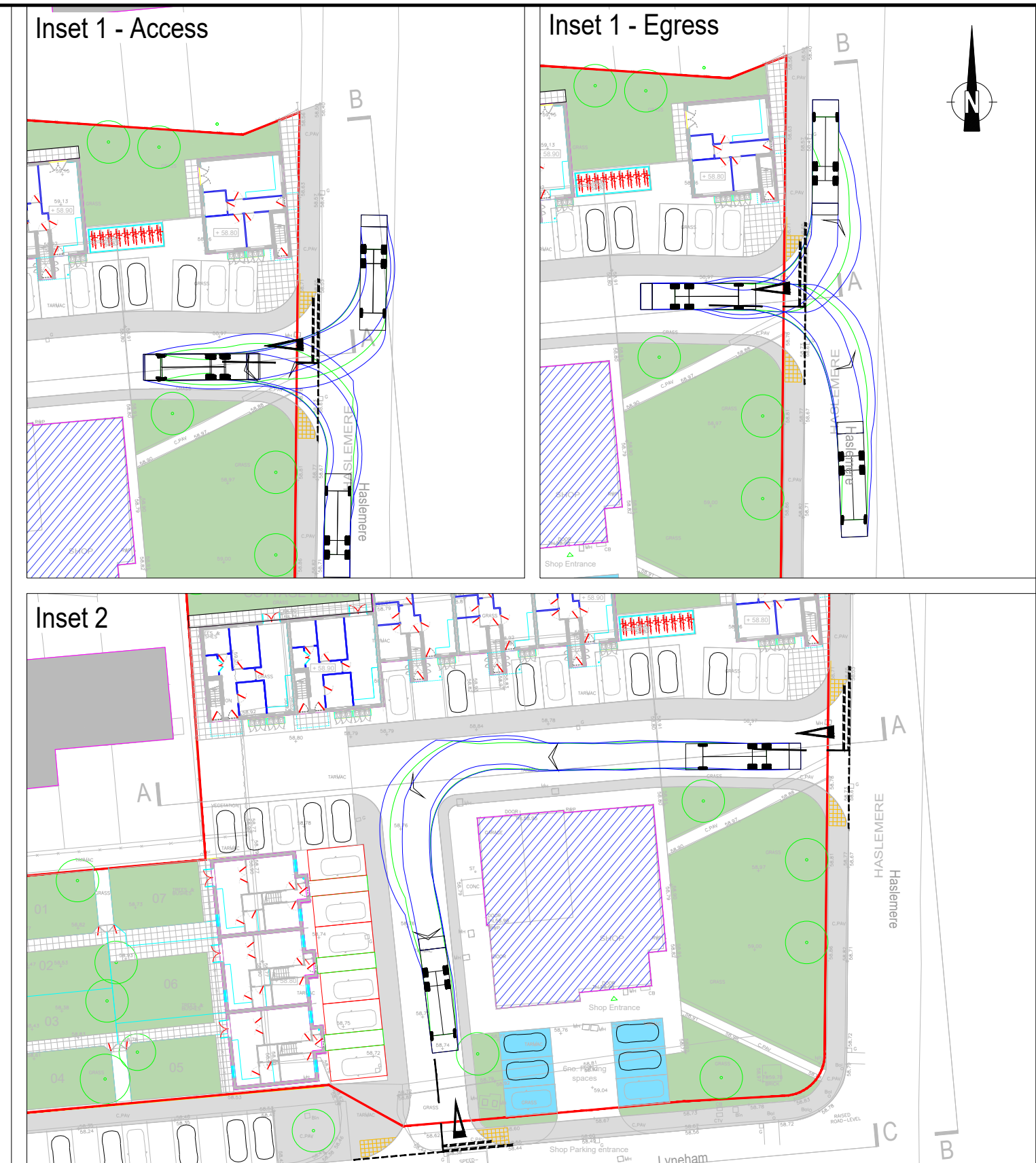
REV.	DETAILS	DRAWN	CHECKED	DATE
A	Site layout updated	WD	TR	17.05.22
B	Site layout updated	DJR	TR	13.09.22

Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)

Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Track Width
Lock to lock time
Kerb to Kerb Turning Radius

11.200m
2.530m
3.751m
0.304m
2.500m
4.00s
9.500m



Lyneham, Whiston

Swept Path Analysis - Refuse Vehicle

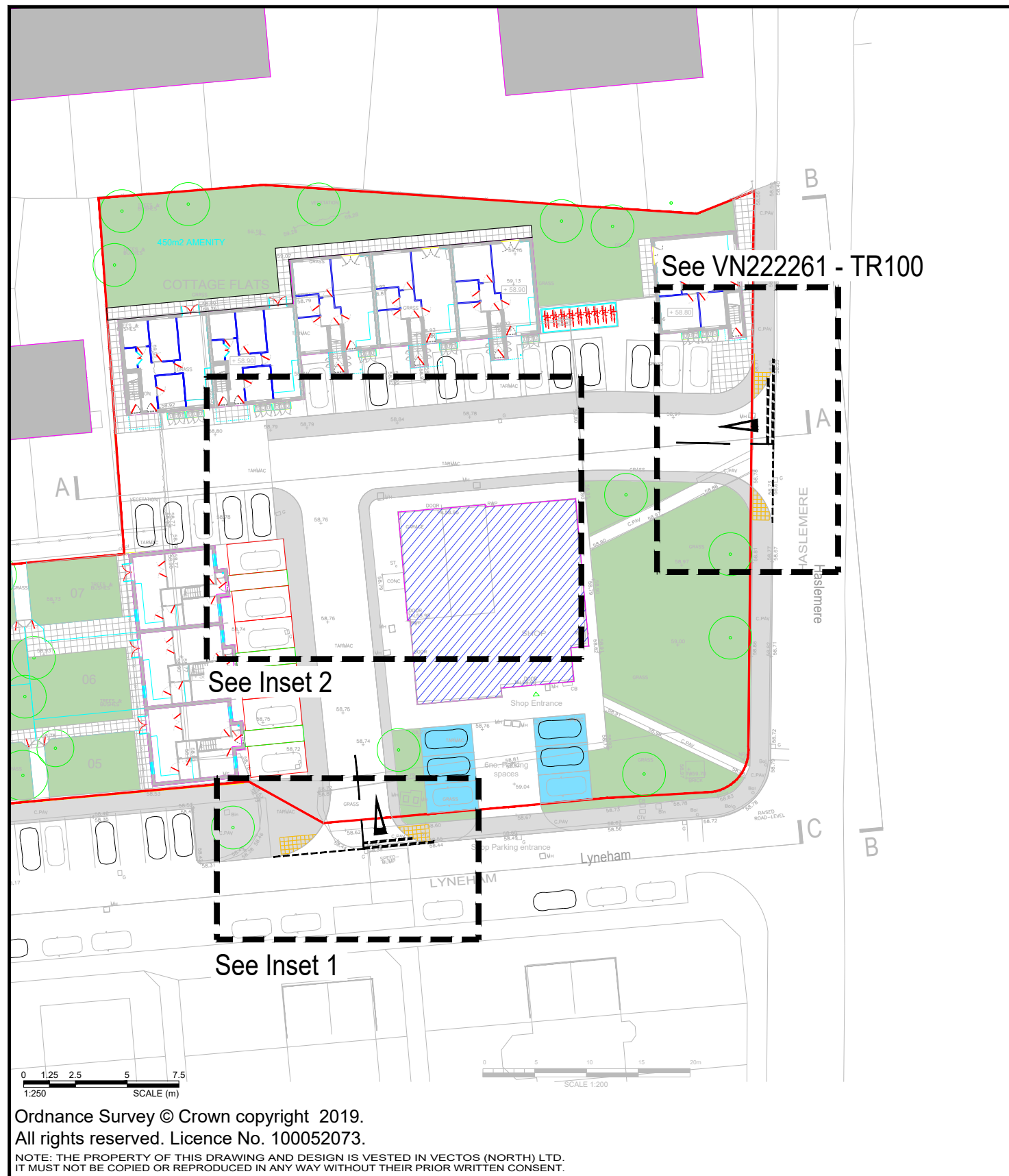
Drawn: WD
Checked: TR
Date: 27.04.22
Scales: 1:500 at A3

Built Group Ltd

vectos.

4th Floor Oxford Place, 61 Oxford Street, Manchester, M1 6EQ
0161 228 1008 e: manchester@vectos.co.uk

Drawing Number: VN222261-TR100
Revision: B



REV.	DETAILS	DRAWN	CHECKED	DATE
A	Site layout updated	WD	TR	17.05.22
B	Site layout updated	DJR	TR	13.09.22

Notes:

- This is not a construction drawing and is intended for illustrative purposes only.
- White lining is indicative only.

Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)

Overall Length 11.200m
Overall Width 2.530m
Overall Body Height 3.751m
Min Body Ground Clearance 0.304m
Track Width 2.500m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 9.500m



Lyneham, Whiston

Swept Path Analysis - Refuse Vehicle

DRAWN:	CHECKED:	DATE:	SCALES:
WD	TR	27.04.22	1:500 at A3

Built Group Ltd

vectos.

4th Floor Oxford Place, 61 Oxford Street, Manchester, M1 6EQ
0161 228 1008 e: manchester@vectos.co.uk

DRAWING NUMBER:	REVISION:
VN222261-TR101	B

Appendices

Appendix A

Parking Survey Data



TOTAL TRAFFIC
SURVEYS LTD
DATA COLLECTION

Job Title: Lyneham, Whiston

Job Number: TTS-1390-Apr

Client: Vectos

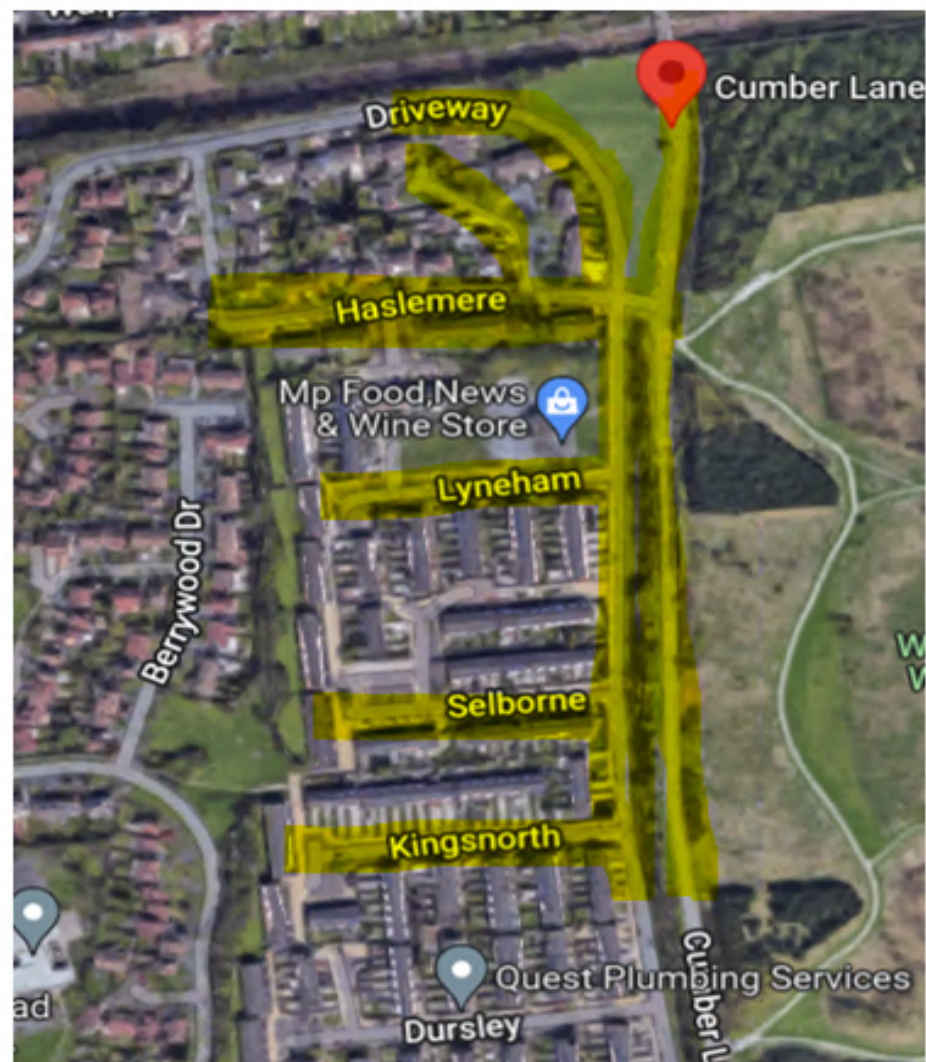
Survey Date: Wednesday 27th & Thursday 28th April 2022

Survey Period: 00:30-05:30

Survey Type: Parking Surveys

Comments & Weather: Dry and fine

200m Area/Roads to cover



TOTAL TRAFFIC
SURVEYS LTD
DATA COLLECTION

--

An aerial photograph of a residential street. A red double-headed arrow is drawn across the middle of the image, pointing left and right, indicating the Kingsnorth Road corridor. The street is lined with houses and trees. Labels 'Kingsnorth' and 'Kingsnorth' are visible on the image.

Parking Type	Legal Parking Areas										Illegal Parking Areas										
	Un-restricted	Parking Bays	Permit Holder Bays	Pay and Display Bays	Shared Bays	Disabled Bays	Loading Bays	M/C Bays	Doctor Bays	Car Club Bays	Single Yellow Line	Other (F-way)	Driveway / Drop Kerb	Single Yellow Line	Double Yellow Line	Single Red Line	Double Red Line	Keep Clear / Zig-zag	Cycle / Bus Lane	Other	
Number of Spaces	42	46	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	
	Total Legal Spaces												Total Illegal Spaces								16

Parking Type	Legal Parking Areas										Illegal Parking Areas									
	Un-restricted	Parking Bays	Permit Holder Bays	Pay and Display Bays	Shared Bays	Disabled Bays	Loading Bays	M/C Bays	Doctor Bays	Car Club Bays	Single Yellow Line	Other (Fwy)	Driveway / Drop Kerb	Single Yellow Line	Double Yellow Line	Single Red Line	Double Red Line	Keep Clear / Zig-zag	Cycle Lane / Bus Lane	Bus Stop
Metres	210	110	0	0	0	0	0	0	0	0	0	0	32	0	0	0	0	0	0	0
	Total Legal Space										320	Total Illegal Space								32

Time	Legal Parking Areas										Illegal Parking Areas								Legally Parked Vehicles	Legal Parking Stress	Total Parked Vehicles	Total Parking Stress		
	Un-restricted	Parking Bays	Permit Holder Bays	Pay and Display Bays	Shared User Bays	Disabled Bays	Loading Bays	M/C Bays	Doctor Bays	Car Club Bays	Single Yellow Line	Other (F'way)	Driveway / Drop Kerb	Single Yellow Line	Double Yellow Line	Single Red Line	Double Red Line	Keep Clear / Zig-zag					Cycle Lane / Bus Lane	Bus Stop
Wednesday	6	15	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	25%	22	25%
Thursday	5	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	20%	18	20%

Total Traffic Surveys Ltd



Client: Vectos
Project Number: TTS-1390-Apr
Date of Survey: Tuesday 26th & Weds 27th January 2021
Survey Type: Parking Surveys
Road Name: Selbourne

Parking Restrictions:

Parking bays: Yes
 Pay and Display: N/A
 Shared Users: N/A
 Loading Bays: N/A
 Double Yellow: No
 Cycle / Bus Lane: No
 Bus Stops: No

Notes (reasons for any overstress and details of 'Other' parking types):

Small car park area (shown)

Aerial View:



Street Views:



Parking Inventory

Parking Type	Legal Parking Areas												Illegal Parking Areas							
	Un-restricted	Parking Bays	Permit Holder Bays	Pay and Display Bays	Shared User Bays	Disabled Bays	Loading Bays	M/C Bays	Doctor Bays	Car Club Bays	Single Yellow Line	Other (Fway)	Driveway / Drop Kerb	Single Yellow Line	Double Yellow Line	Single Red Line	Double Red Line	Keep Clear / Zig-zag	Cycle Lane / Bus Lane	Bus Stop
Number of Spaces	60	27	0	0	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0
Total Legal Spaces												87								
												</								

Total Traffic Surveys Ltd



Client: Vectos
Project Number: TTS-1390-Apr
Date of Survey: Tuesday 26th & Wednesday 27th January 2021
Survey Type: Parking Surveys
Road Name: Lyneham

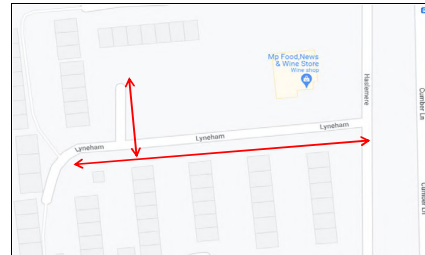
Parking Restrictions:

Parking bays: Yes - Unrestricted parking bays
 Pay and Display: N/A
 Shared Users: N/A
 Loading Bays: N/A
 Double Yellow: Yes
 Cycle / Bus Lane: No
 Bus Stops: No

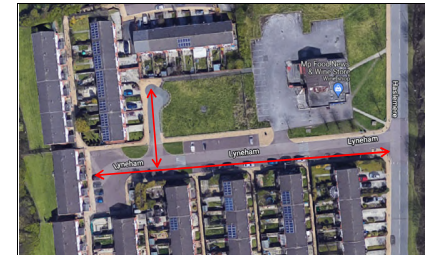
Notes (reasons for any overstress and details of 'Other' parking types):

Small parking area at end, mainly laybys

Aerial View:



Street Views:



Parking Inventory

Parking Type	Legal Parking Areas												Illegal Parking Areas							
	Un-restricted	Parking Bays	Permit Holder Bays	Pay and Display Bays	Shared User Bays	Disabled Bays	Loading Bays	M/C Bays	Doctor Bays	Car Club Bays	Single Yellow Line	Other (F'way)	Driveway / Drop Kerb	Single Yellow Line	Double Yellow Line	Single Red Line	Double Red Line	Keep Clear / Zig-zag	Cycle Lane / Bus Lane	Bus Stop
	Number of Spaces	0	40	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
Total Legal Spaces											40									
											Total Illegal Spaces									
											2									

Restrictions

Parking Inventory (M)

Parking Type	Legal Parking Areas												Illegal Parking Areas							
	Un-restricted	Parking Bays	Permit Holder Bays	Pay and Display Bays	Shared User Bays	Disabled Bays	Loading Bays	M/C Bays	Doctor Bays	Car Club Bays	Single Yellow Line	Other (F'way	Driveway / Drop Kerb	Single Yellow Line	Double Yellow Line	Single Red Line	Double Red Line	Keep Clear / Zig-zag	Cycle Lane / Bus Lane	Bus Stop
	Metres	200	154	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0
Total Legal Space											354									
Total Illegal Space											15									

Parking Beat Data

Time	Legal Parking Areas												Illegal Parking Areas								Legally Parked Vehicles	Legal Parking Stress	Total Parked Vehicles	Total Parking Stress
	Un-restricted	Parking Bays	Permit Holder Bays	Pay and Display Bays	Shared User Bays	Disabled Bays	Loading Bays	M/C Bays	Doctor Bays	Car Club Bays	Single Yellow Line	Other (Fway)	Driveway / Drop Kerb	Single Yellow Line	Double Yellow Line	Single Red Line	Double Red Line	Keep Clear / Zig-zag	Cycle Lane / Bus Lane	Bus Stop				
Wednesday	3	19	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	23	58%	23	58%
Thursday	3	17	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	21	53%	21	53%

Client: Vectos
Project Number: TTS-1390-Apr
Date of Survey: Tuesday 26th & Weds 27th January 2021
Survey Type: Parking Surveys
Road Name: Driveway

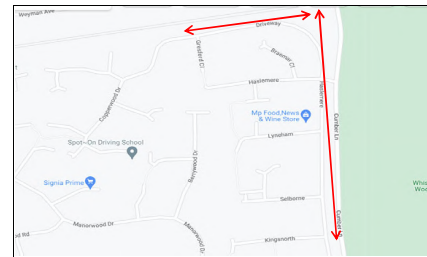


Parking bays:	No
Pay and Display:	N/A
Shared Users:	N/A
Loading Bays:	N/A
Double Yellow:	No
Cycle / Bus Lane:	No
Bus Stops:	No

Notes (reasons for any overstress and details of 'Other' parking types):

--	--

Aerial View:



Street Views:



Parking Inventory

Parking Type	Legal Parking Areas												Illegal Parking Areas													
	Un-restricted	Parking Bays	Permit Holder Bays	Pay and Display Bays	Shared User Bays	Disabled Bays	Loading Bays	M/C Bays	Doctor Bays	Car Club Bays	Single Yellow Line	Other (P'way)	Driveway / Drop Kerb	Single Yellow Line	Double Yellow Line	Single Red Line	Double Red Line	Keep Clear / Zig-zag	Cycle Lane / Bus Lane	Bus Stop						
	Number of Spaces	205	0	0	0	0	0	0	0	0			24	0	0	0	0	0	0	0						
Total Legal Spaces										205												Total Illegal Spaces				24

Restrictions

Parking Inventory (M)

Parking Type	Legal Parking Areas												Illegal Parking Areas							
	Un-restricted	Parking Bays	Permit Holder Bays	Pay and Display Bays	Shared User Bays	Disabled Bays	Loading Bays	M/C Bays	Doctor Bays	Car Club Bays	Single Yellow Line	Other (F'way	Driveway / Drop Kerb	Single Yellow Line	Double Yellow Line	Single Red Line	Double Red Line	Keep Clear / Zig-zag	Cycle Lane / Bus Lane	Bus Stop
	Metres	1034	0	0	0	0	0	0	0	0	0	0	48	0	0	0	0	0	0	0
Total Legal Space											1034	Total Illegal Space								48

Parking Beat Data

Time	Legal Parking Areas												Illegal Parking Areas								Legally Parked Vehicles	Legal Parking Stress	Total Parked Vehicles	Total Parking Stress
	Un-restricted	Parking Bays	Permit Holder Bays	Pay and Display Bays	Shared User Bays	Disabled Bays	Loading Bays	M/C Bays	Doctor Bays	Car Club Bays	Single Yellow Line	Other (Fwyay)	Driveway / Drop Kerb	Single Yellow Line	Double Yellow Line	Single Red Line	Double Red Line	Keep Clear / Zip-zag	Cycle Lane / Bus Lane	Bus Stop				
Wednesday	4	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	7	3%	7	3%
Thursday	5	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	7	3%	7	3%

TOTAL TRAFFIC
SURVEYS LTD
DATA COLLECTION

Parking Restrictions:

Notes (reasons for any overstress and details of 'Other' parking types):

--

A map of the area around the proposed site. The map shows several roads: Dunsford Rd, Kingsnorth Rd, Dunsford Dr, and Kingsnorth Dr. Landmarks include King School, a bus stop, and the proposed site location marked with a blue pin. The map also shows the location of the proposed site relative to the Kingsnorth Rd and Dunsford Dr intersection.

Restrictions

Parking Type	Legal Parking Areas												Illegal Parking Areas								
	Un-restricted	Parking Bays	Permit Holder Bays	Pay and Display Bays	Shared Bays	Disabled Bays	Loading Bays	M/C Bays	Doctor Bays	Car Club Bays	Single Yellow Line	Other (F'way)	Driveway / Drop Kerb	Single Yellow Line	Double Yellow Line	Single Red Line	Double Red Line	Keep Clear / Zig-zag	Cycle / Bus Lane	Bus Stop	
Number of Spaces	186	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
	Total Legal Spaces										186										
											Total Illegal Spaces										1

Parking Type	Legal Parking Areas										Illegal Parking Areas											
	Un-restricted	Parking Bays	Permit Holder Bays	Pay and Display Bays	Shared Bays	Disabled Bays	Loading Bays	M/C Bays	Doctor Bays	Car Club Bays	Single Yellow Line	Other (Fway	Driveway / Drop Kerb	Single Yellow Line	Double Yellow Line	Single Red Line	Double Red Line	Keep Clear / Zig-zag	Cycle Lane / Bus Lane	Bus Stop		
Metres	930	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	20		
	Total Legal Space										930	Total Illegal Space										20

[illegible]

Total Traffic Surveys Ltd



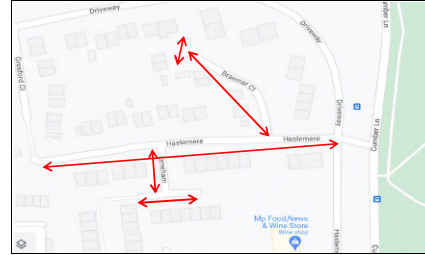
Client: Vectos
Project Number: TTS-1390-Apr
Date of Survey: Tuesday 26th & Weds 27th January 2021
Survey Type: Parking Surveys
Road Name: Hazelmere & Braemar Close

Parking Restrictions:

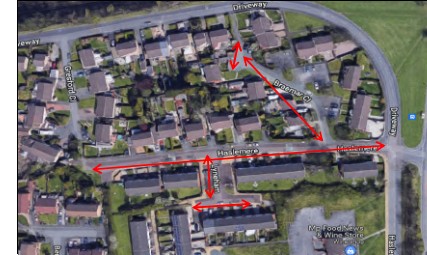
Parking bays:	Yes
Pay and Display:	N/A
Shared Users:	N/A
Loading Bays:	N/A
Double Yellow:	Yes
Cycle / Bus Lane:	No
Bus Stops:	No

Notes (reasons for any overstress and details of 'Other' parking types):

Aerial View:



Street Views:



Parking Inventory

Parking Type	Legal Parking Areas												Illegal Parking Areas								
	Un-restricted	Parking Bays	Permit Holder Bays	Pay and Display Bays	Shared User Bays	Disabled Bays	Loading Bays	M/C Bays	Doctor Bays	Car Club Bays	Single Yellow Line	Other (F-way)	Driveway / Drop Kerb	Single Yellow Line	Double Yellow Line	Single Red Line	Double Red Line	Keep Clear / Zig-zag	Cycle Lane / Bus Lane	Bus Stop	
	Number of Spaces	102	40	0	0	0	0	0	0	0	0	0	39	0	0	0	0	0	0	0	
Total Legal Spaces												142	Total Illegal Spaces								39

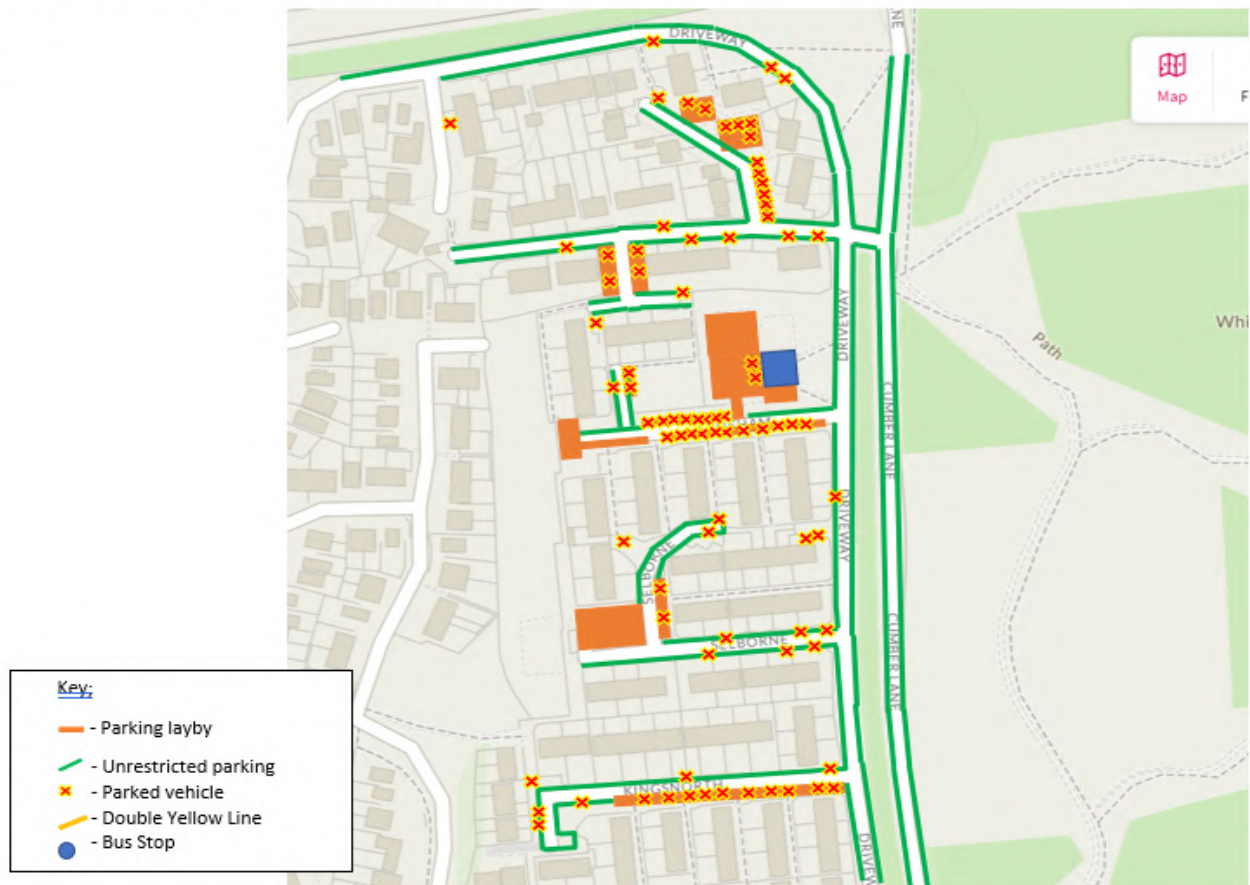
Restrictions

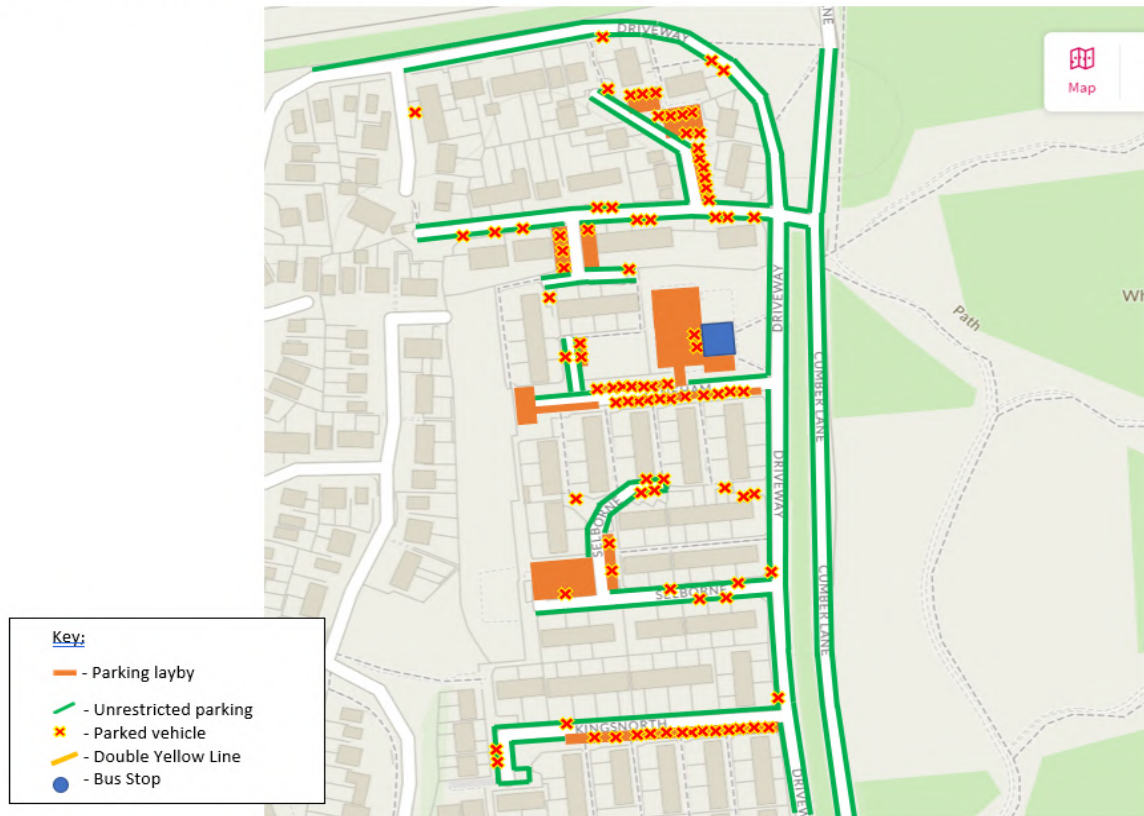
Parking Inventory (M)

Parking Type	Legal Parking Areas												Illegal Parking Areas										
	Un-restricted	Parking Bays	Permit Holder Bays	Pay and Display Bays	Shared User Bays	Disabled Bays	Loading Bays	M/C Bays	Doctor Bays	Car Club Bays	Single Yellow Line	Other (F'way	Driveway / Drop Kerb	Single Yellow Line	Double Yellow Line	Single Red Line	Double Red Line	Keep Clear / Zig-zag	Cycle Lane / Bus Lane	Bus Stop			
	Metres	510	80	0	0	0	0	0	0	0	0	0	80	0	0	0	0	0	0	0			
Total Legal Space												590		Total Illegal Space								80	

Parking Beat Data

	Legal Parking Areas												Illegal Parking Areas								Legally Parked Vehicles	Legal Parking Stress	Total Parked Vehicles	Total Parking Stress
Time	Un-restricted	Parking Bays	Permit Holder Bays	Pay and Display Bays	Shared User Bays	Disabled Bays	Loading Bays	M/C Bays	Doctor Bays	Car Club Bays	Single Yellow Line	Other (Fway)	Driveway / Drop Kerb	Single Yellow Line	Double Yellow Line	Single Red Line	Double Red Line	Keep Clear / Zig-zag	Cycle Lane / Bus Lane	Bus Stop				
Wednesday	9	16	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	26	18%	26	18%
Thursday	11	19	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	31	22%	31	22%





Site: 1

Spaces ?

Location: Lyneham (M&P Store)

In at start 2

TIME	Entry		TOT	Use Store?	Exit		TOT	TIME	Accumulation
	LV	HV			LV	HV			
16:00	0	1	1	N-1	0	1	1	16:00	2
16:15	0	0	0	0	0	0	0	16:15	2
16:30	3	0	3	Y-3	3	0	3	16:30	2
16:45	0	0	0	0	1	0	1	16:45	1
P/TOT	3	1	4	0	4	1	5	P/TOT	1
17:00	0	0	0	0	0	0	0	17:00	1
17:15	2	0	2	Y-1 N-1	0	0	0	17:15	3
17:30	0	0	0	0	0	0	0	17:30	3
17:45	2	0	2	Y-2	2	0	2	17:45	3
P/TOT	4	0	4	0	2	0	2	P/TOT	3
18:00	6	0	6	N-1 Y-5	4	0	4	18:00	5
18:15	4	0	4	Y-4	7	0	7	18:15	2
18:30	3	0	3	Y-3	3	0	3	18:30	2
18:45	4	0	4	Y-3 N-1	3	0	3	18:45	3
P/TOT	17	0	17	0	17	0	17	P/TOT	3
TOT	24	1	25	0	23	1	24	0	3

In at end

Site: 1

Spaces ?

Location: Lyneham (M&P Store)

In at start 2

TIME	Entry		TOT	Use Store?	Exit		TOT	TIME	Accumulation
	LV	HV			LV	HV			
09:00	1	0	1	Y-1	1	0	1	09:00	2
09:15	1	0	1	Y-1	1	0	1	09:15	2
09:30	3	0	3	Y-3	4	0	4	09:30	1
09:45	0	0	0	0	0	0	0	09:45	1
P/TOT	5	0	5	0	6	0	6	P/TOT	1
10:00	0	0	0	0	0	0	0	10:00	1
10:15	1	0	1	Y-1	1	0	1	10:15	1
10:30	0	0	0	0	0	0	0	10:30	1
10:45	1	0	1	Y-1	1	0	1	10:45	1
P/TOT	2	0	2	0	2	0	2	P/TOT	1
11:00	5	0	5	Y-5	3	0	3	11:00	3
11:15	0	0	0	0	2	0	2	11:15	1
11:30	0	0	0	0	0	0	0	11:30	1
11:45	2	0	2	Y-1 N-1	2	0	2	11:45	1
P/TOT	7	0	7	0	7	0	7	P/TOT	1
TOT	14	0	14	0	15	0	15	0	1

In at end

Appendix B

Completed MASA

MASA – Lyneham, Whiston

A – Access on Foot			
Location	Is the site within 800m of a district or local centre?	Yes (2 points)	Local Centre to the north just north of the rail line, within 800m.
Internal Layout	Does circulation and access inside the site reflect direct, safe and easy to use pedestrian routes for all, with priority given to pedestrians when they have to cross roads or cycle routes?	Yes (1 point)	There are clear and direct pedestrian access points leading to the front doors. Dropped kerbs and tactile paving will be provided at junction bell mouths.
External Layout	Are there barriers between site and local facilities or housing, which restrict pedestrian access?	No (1 point)	There is good footway provision leading to the local centre to the north and to the bus stops and rail station.
	Min Score Required	4	
	Actual Score	4	

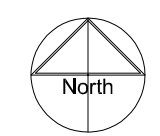
B – Access by Cycle			
Location	Is the site within 1500m of a district or local centre?	Yes (2 points)	Local Centre to the north just north of the rail line, within 800m.
Internal Layout	Does the circulation and access inside the site reflect direct, safe cycle routes, with priority given to cyclists where they meet motor vehicles?	Yes (1 point)	Convenient access for cyclists will be provided owing to the 20mph speed limit on the proposed roads within the site.
External Layout	Is the development within 400m of an existing or proposed designated cycle route and / or proposes to create a link to a cycle route or develop a route?	No (-1 point)	
Other	Development includes shower facilities and lockers for cyclists	Yes (1 Points)	Residents would have their own bathrooms.
	Min Score Required	3	
	Actual Score	3	

C – Access by Public Transport			
Location and access to public transport	Is the site within a 200m walk of a bus stop and / or 400m of a rail station	Yes (2 points)	Nearest bus stops around 100m walk from site.
	Are there barriers on direct and safe pedestrian routes to bus stops or rail stations	No (1 point)	There is good footway provision leading to the bus stops on Cumber Lane with a dropped kerb, tactile paving crossing of Cumber Lane in place for access to the bus stop on the eastern side of the road.
Frequency	High (4 buses / hr) Medium (2 or 3 buses / hr) Low (less than 2 / hr)	Medium (1 point)	Typically 2-3 buses per hour.
Other	Contribution to bus stops	0 point	
	Min Score Required	5	
	Actual Score	4	

Criteria	Description	Score	Justification
D – Vehicle Access and Parking			
Parking	The off-street parking provided is as advised for the development type.	Yes (1 point)	Parking in accordance with policy.
	The off-street parking is less than 75% of the amount for that development type or shares parking provision with another development)	No (0 points)	
	Min Score Required	n/a	
	Actual Score	N/A	

Appendix C

Proposed Site Layout Plan



- KEY**
- Application Site
 - Existing Shop
 - Trees to be removed
 - New trees
 - Footpaths to adoptable standards.
 - Natural grey concrete slabs or setts
 - Rowlawn turf/ Amenity
 - +58.68 Existing Levels
 - +58.72 Proposed Levels
 - Section Planes (see PLN13 and PLN14)
 - Electric Vehicle Charging
 - Shop Car Parking

Schedule of Accommodation

4 x 2bed Houses
3 x 4bed Houses
12 x 2bed Cottage Flats
TOTAL 19 Dwellings

A3

Level 2
architects

Project Lyneham, Whiston		
Title Proposed Site Plan		
Scale 1:400	Drawing 418-1-PLN-002	Rev A
PLANNING APPLICATION		

©Level 2 Architects. This design and drawing is the copyright of Level 2 Architects and may not be reproduced in any form whatsoever without prior written consent. Issue of the drawing does not impart any real or implied copyright licence. This drawing must be read in conjunction with all consultants, subcontractors and specialists drawings. All dimensions must be checked on site.

Appendix D

TRICS Report

Calculation Reference: AUDIT-715001-220517-0536

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED
 TOTAL VEHICLES

Selected regions and areas:

04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	2 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	1 days
	ST STAFFORDSHIRE	1 days
	WK WARWICKSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	2 days
10	WALES	
	PS POWYS	1 days
	VG VALE OF GLAMORGAN	1 days

Primary Filtering selection:

Parameter: No of Dwellings
 Actual Range: 10 to 28 (units:)
 Range Selected by User: 10 to 30 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: Selected: 0.23 to 4 Actual: 0.23 to 6.26

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 16/06/21

Selected survey days:

Monday	4 days
Wednesday	5 days
Thursday	2 days

Selected survey types:

Manual count	10 days
Directional ATC Count	1 days

Selected Locations:

Suburban Area (PPS6 Out of Centre)	5
Edge of Town	6

Selected Location Sub Categories:

Residential Zone	11
------------------	----

Secondary Filtering selection:

Use Class:

C3	11 days
----	---------

Population within 500m Range:

All Surveys Included

Vectos (North) Limited 4th Floor, Oxford Place, 61 Oxford St Manchester

Licence No: 715001

Secondary Filtering selection (Cont.):

Population within 1 mile:

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

Population within 5 miles:

5,001 to 25,000	2 days
25,001 to 50,000	1 days
50,001 to 75,000	2 days
75,001 to 100,000	3 days
125,001 to 250,000	2 days
250,001 to 500,000	1 days

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	8 days

Travel Plan:

Yes	1 days
No	10 days

PTAL Rating:

No PTAL Present	11 days
-----------------	---------

LIST OF SITES relevant to selection parameters

1	CA-03-A-05 EASTFIELD ROAD PETERBOROUGH	DETACHED HOUSES	CAMBRIDGESHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 28 Survey date: MONDAY 17/10/16		Survey Type: MANUAL
2	CH-03-A-09 GREYSTOKE ROAD MACCLESFIELD HURDSFIELD	TERRACED HOUSES	CHESHIRE
	Edge of Town Residential Zone Total No of Dwellings: 24 Survey date: MONDAY 24/11/14		Survey Type: MANUAL
3	CH-03-A-11 LONDON ROAD NORTHWICH LEFTWICH	TOWN HOUSES	CHESHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 24 Survey date: THURSDAY 06/06/19		Survey Type: MANUAL
4	NF-03-A-03 HALING WAY THETFORD	DETACHED HOUSES	NORFOLK
	Edge of Town Residential Zone Total No of Dwellings: 10 Survey date: WEDNESDAY 16/09/15		Survey Type: MANUAL
5	NF-03-A-10 HUNSTANTON ROAD HUNSTANTON	MIXED HOUSES & FLATS	NORFOLK
	Edge of Town Residential Zone Total No of Dwellings: 17 Survey date: WEDNESDAY 12/09/18		Survey Type: DIRECTIONAL ATC COUNT
6	NY-03-A-13 CATTERICK ROAD CATTERICK GARRISON OLD HOSPITAL COMPOUND	TERRACED HOUSES	NORTH YORKSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 10 Survey date: WEDNESDAY 10/05/17		Survey Type: MANUAL
7	PS-03-A-02 GUNROG ROAD WELSHPOOL	DETACHED / SEMI-DETACHED	POWYS
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 28 Survey date: MONDAY 11/05/15		Survey Type: MANUAL
8	SH-03-A-06 ELLESMERE ROAD SHREWSBURY	BUNGALOWS	SHROPSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 16 Survey date: THURSDAY 22/05/14		Survey Type: MANUAL
9	ST-03-A-08 SILKMORE CRESCENT STAFFORD MEADOWCROFT PARK	DETACHED HOUSES	STAFFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 26 Survey date: WEDNESDAY 22/11/17		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

- | | | | |
|----|--|--------------------------|-------------------|
| 10 | VG-03-A-01
ARTHUR STREET
BARRY | SEMI-DETACHED & TERRACED | VALE OF GLAMORGAN |
| | Edge of Town
Residential Zone
Total No of Dwellings: 12
Survey date: MONDAY 08/05/17 Survey Type: MANUAL | | |
| 11 | WK-03-A-03
BRESE AVENUE
WARWICK
GUYS CLIFFE | DETACHED HOUSES | WARWICKSHIRE |
| | Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 23
Survey date: WEDNESDAY 25/09/19 Survey Type: MANUAL | | |

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
KC-03-A-09	covid

Vectos (North) Limited 4th Floor, Oxford Place, 61 Oxford St Manchester

Licence No: 715001

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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									
06:00 - 07:00									
07:00 - 08:00	11	20	0.087	11	20	0.248	11	20	0.335
08:00 - 09:00	11	20	0.142	11	20	0.362	11	20	0.504
09:00 - 10:00	11	20	0.119	11	20	0.179	11	20	0.298
10:00 - 11:00	11	20	0.156	11	20	0.174	11	20	0.330
11:00 - 12:00	11	20	0.165	11	20	0.170	11	20	0.335
12:00 - 13:00	11	20	0.206	11	20	0.179	11	20	0.385
13:00 - 14:00	11	20	0.165	11	20	0.183	11	20	0.348
14:00 - 15:00	11	20	0.211	11	20	0.216	11	20	0.427
15:00 - 16:00	11	20	0.312	11	20	0.239	11	20	0.551
16:00 - 17:00	11	20	0.326	11	20	0.183	11	20	0.509
17:00 - 18:00	11	20	0.248	11	20	0.193	11	20	0.441
18:00 - 19:00	11	20	0.257	11	20	0.156	11	20	0.413
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.394			2.482			4.876

Parameter summary

Trip rate parameter range selected: 10 - 28 (units:)
 Survey date range: 01/01/14 - 16/06/21
 Number of weekdays (Monday-Friday): 11
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 0
 Surveys manually removed from selection: 1

Contact

London

Network Building,
97 Tottenham Court Road,
London W1T 4TP.
Tel: 020 7580 7373

Bristol

5th Floor, 4 Colston Avenue,
Bristol BS1 4ST
Tel: 0117 203 5240

Cardiff

Helmont House, Churchill Way,
Cardiff CF10 2HE
Tel: 029 2072 0860

Exeter

6 Victory House,
Dean Clarke Gardens,
Exeter EX2 4AA
Tel: 01392 422 315

Birmingham

Great Charles Street,
Birmingham B3 3JY
Tel: 0121 2895 624

Manchester

Oxford Place, 61 Oxford Street,
Manchester M1 6EQ.
Tel: 0161 228 1008

Leeds

7 Park Row, Leeds LS1 5HD
Tel: 0113 512 0293

Bonn

Stockenstrasse 5, 53113,
Bonn, Germany
Tel: +49 176 8609 1360
www.vectos.eu

Registered Office

Vectos (North) Limited
Oxford Place
61 Oxford Street
Manchester M1 6EQ.
Company no. 07794057