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Gleeson Homes

Proposed Residential Development, Uldale View, Egremont

August 2023

Vectos ref: VN222370

Transport Assessment

Report control

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Primary Author:	John Lancaster	Initialled:	JL
Contributor:	Charlie Jones	Initialled:	CJ
Review by:	Richard Whiting	Initialled:	RW

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1 Introduction

Background

1.1 Vectos has been appointed to provide highways and transport advice in support of a proposed residential development on land to the east of Uldale View, Egremont.

1.2 The site lies within the jurisdiction of Cumberland Council, who act as the planning and highway authority.

Site Location

1.3 The location of the site is shown in **Plan 1** with **Plan 2** showing the location in a more local context. The site is also shown in **Figure 1.1** below which also shows an indicative red-line boundary.

Figure 1.1: Site Location

1.4 The site lies to the southwest of Egremont town centre, and to the east of Uldale View. The site is presently undeveloped.

Development Proposals

1.5 The planning application proposes a residential development of 164 two, three, four and five bedroom dwellings.

1.6 Vehicle access is proposed from the western side of the site via a priority controlled junction with Uldale View.

1.7 The proposed site layout is shown in **Plan 3**, with the development proposals described in detail in Section 5 of this report.

Scope of the Report

1.8 This Transport Assessment has been prepared in accordance with guidance provided by the Department for Transport's (DfT) 'Travel Plans, Transport Assessment and Statements' (2014) document. Following this introduction, the report provides the following information:

- Section 2: A review of the pertinent national planning policy guidance;
- Section 3: A review of baseline conditions;
- Section 4: A review of the accessibility of the site by sustainable modes;
- Section 5: A description of the development proposals;
- Section 6: A traffic impact assessment of the proposals; and
- Section 7: Report summary and conclusions.

2 Planning Policy Overview

National Planning Policy Framework

2.1 The latest National Planning Policy Framework (NPPF) was published in July 2021 by the Ministry of Housing, Communities and Local Government, replacing the previous versions published in 2012, 2018 and 2019. The NPPF sets out the government's planning policies for England and how these are expected to be applied. 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 revised NPPF states that in assessing applications for development, it should be ensured that:

a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location.

b) safe and suitable access to the site can be achieved for all users;

c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and

d) 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*".

3 Baseline Conditions

Introduction

3.1 Section 3 sets out the baseline highway conditions in the vicinity of the site.

Surrounding Highway Network

3.2 The highway network in the vicinity of the site is illustrated in **Figure 3.1**, with the site identified by the red star.

Figure 3.1: Surrounding Highway Network (Source: OpenStreetMap)

3.3 As **Figure 3.1** illustrates, Uldale View forms the western boundary of the site. At its northern end it features a carriageway of approximately 6.0 metres in width, and provides access to residential properties, both directly and via a priority controlled junction with Royal Drive.

3.4 To the south of the site the urban area of Egremont ends, and from this point Uldale View becomes more rural in nature, providing access to a small number of farms and other residential properties. Although Uldale View historically provided access to the B5345 this route has now been blocked, with the road signposted as a dead end.

3.5 In the immediate vicinity of the site, Uldale View is subject to a 30 mph speed limit. The speed limit changes to 60mph (national speed limit) approximately 200 metres to the south of the proposed site access junction.

3.6 To the north of the proposed site Uldale View forms the minor arm of a priority-controlled junction with Bookwell and Queens Drive. This junction is shown in **Figure 3.2**.

Figure 3.2: Uldale View/ Bookwell/ Queens Drive Junction (Source Google Earth)

3.7 Bookwell provides a single carriageway road that is subject to a 30mph speed restriction. It runs east from the Uldale View junction providing connections into Egremont town centre. The route includes a short section of traffic calming (through speed cushions) in the vicinity of Bookwell Primary School.

3.8 On approach to the town centre Bookwell is renamed Castle Villas, before it ultimately terminates as the minor arm of a priority-controlled junction with Main Street.

3.9 Main Street provides access to the majority of retail premises, general amenities, and food/drink establishments within Egremont. There are a range of retail establishments and services including food retail, general retail, pharmacy, and post office along with food and drink venues.

3.10 From the Castle Villas junction, the northern Main Street arm provides connections to Whitehaven via the A595, while the southern arm provides connections towards Barrow, again via the A595.

3.11 Queens Drive forms the western arm of the Uldale View junction and acts as the main route to the south-west of Egremont town centre. It provides a carriageway of around 5.5 – 6.0 metres in width. In the vicinity of Uldale View it is subject to a 30mph speed limit, however, as this changes to a national speed limit restriction as Queens Drive leaves the urban area of Egremont.

Road Safety Review

3.12 A review of accident records for the local highway network has been undertaken using data available on the Crashmap website. Crashmap uses data collected by the police about road traffic crashes occurring on British roads where someone is injured. This data is approved by the National Statistics Authority and reported on by the Department for Transport each year.

3.13 The Crashmap analysis has been undertaken for the most recent five-year period, between 2017 and 2021. The locations of accidents are shown in **Figure 3.3** below.

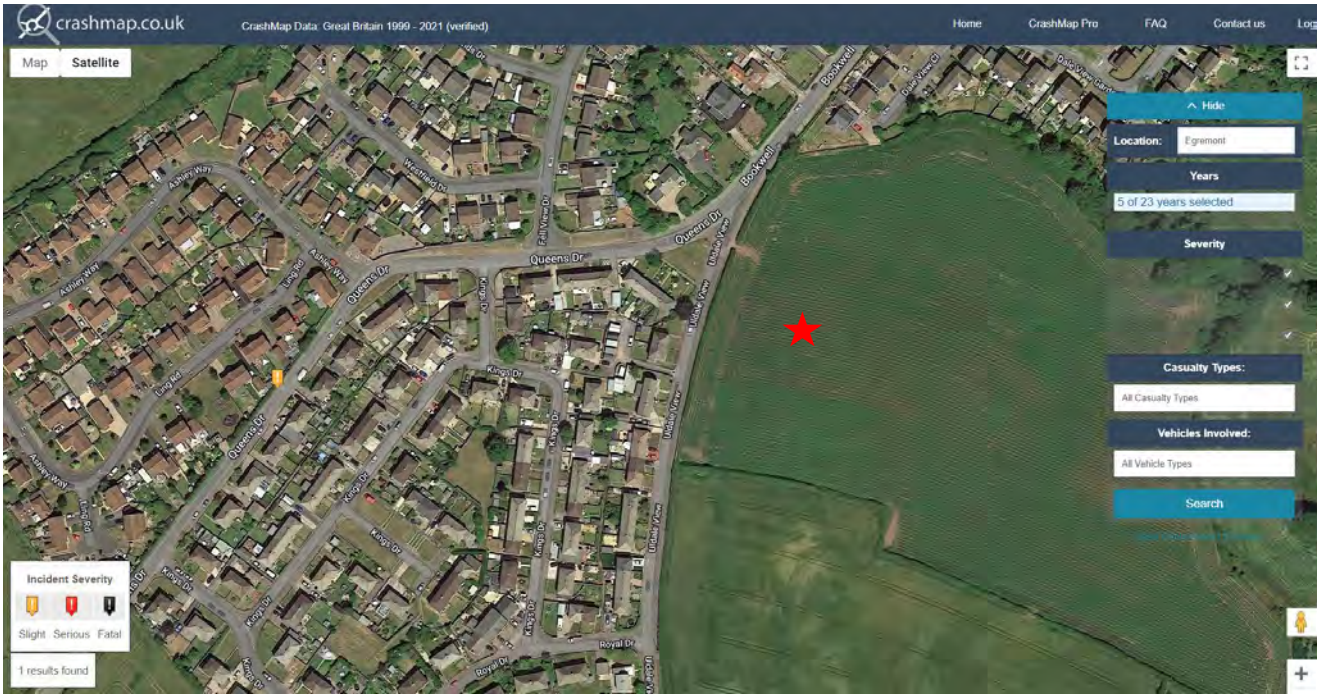


Figure 3.3: Accident Statistics (Source: Crashmap)

3.14 The data confirms that there have been no accidents recorded on Uldale View in the last five years, including at the junction with Royal Drive. This confirms that there is no existing safety issue relating to the operation of priority controlled junctions on this section of highway.

3.15 The accident data also confirms that no incidents have been recorded at the Uldale View/ Bookwell/ Queens Drive junction.

3.16 It is therefore concluded that there are no safety issues with the design or operation of the highway network in the vicinity of the site.

4 Accessibility by Sustainable Travel Modes

Introduction

4.1 This section describes the accessibility of the site by sustainable modes. It also considers access to key amenities which may be required by residents.

Accessibility on Foot

4.2 The Institution of Highways and Transportation (IHT) document 'Guidelines for Providing for Journeys on Foot' (2000) contains suggested acceptable walking distances for pedestrians without mobility impairment for some common destinations and journey purposes. The guidelines suggest that an acceptable walking distance for commuting/ school purposes is 1 kilometre, with the preferred maximum distance of 2 kilometres. Walking can also be promoted as part of a multi-modal journey, particularly with public transport.

4.3 The more recent CIHT document 'Planning for Walking' (2015) affirms this by stating that 80% of journeys shorter than a mile (approximately 1.6 kilometres) are made wholly on foot.

4.4 An analysis of the pedestrian catchment of the site has been completed to illustrate the site's 1 and 2 kilometre walking catchments, and is shown in **Plan 4**. This demonstrates that the majority of Egremont, including the whole of the town centre is within the pedestrian catchment of the site. Egremont is a market town and provides a wide range of key amenities including:

- A primary and secondary school;
- Convenience store;
- Post office;
- Library;
- Dentist;
- Medical Centre and Pharmacy;
- Place of worship;
- Social Club;
- Hairdressers; and
- Public house and take-away restaurant.

4.5 In addition, there are industrial and employment land uses on the outskirts of the town which provide convenient employment opportunities.

4.6 To support trips on foot the development will provide a new footway along the site frontage to the north of the proposed access, which will then connect to the existing provision which is available at the Uldale View/ Bookwell/ Queens Drive junction. This street lit footway then provides connections into Egremont town centre supported by dropped kerbs at key junctions. Movements across Bookwell are supported by a pedestrian refuge which is provided close to the junction with Castle Close.

4.7 The site is therefore situated within convenient walking distance of a range of day-to-day amenities, with the existing pedestrian network able to safely accommodate trips on foot. The site is therefore considered accessible on foot.

Accessibility by Cycle

4.8 Cycling is becoming an increasingly popular mode of trans and is an effective mode for short trips. The DfT's Local Transport Note 2/08 'Cycle Infrastructure Design' (2008) states that many utility cycle journeys are under 3 miles (approximately 5 kilometres) although for commuters a trip distance of over 5 miles is not uncommon. Consequently, cycling has the potential to replace short car journeys, particularly those under 5 kilometres. At a leisurely cycle speed of 10 miles per hour this would equate to a journey of around 25 minutes.

4.9 A 5 kilometre cycle catchment from the site is shown in **Plan 5**. This cycle catchment covers the whole of Egremont, in addition to a number of villages in the surrounding area, including Thornhill, Bigrigg and Cleator, along with the fringe of St Bees. The significant employment site of Sellafield is approximately 7.5 kilometres from the site which is not an unreasonable cycle journey from Egremont.

4.10 To support trips by bicycle National cycle route 72 runs through the centre of Egremont. This route runs from Kendal along the Cumbrian coast to Barrow-in-Furness, Whitehaven and Silloth.

4.11 The site is therefore concluded to be accessible by bicycle.

Accessibility by Public Transport

4.12 The IHT document 'Guidelines for Planning for Public Transport in Developments' (1999) suggests that the maximum walking distance to the nearest bus stop should not exceed 400 metres. Notwithstanding this, the NPPF recognises that sites in rural areas may not have access to public transport to the same extent as urban sites, with Paragraph 105 confirming that opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making.

4.13 The closest bus stops to the site are located on Main Street, approximately 750 metres walking distance from the site. The bus stops have timetable information and are also provided with shelters. The stops can be safely reached via the existing and proposed pedestrian infrastructure located in the vicinity of the site.

4.14 While the walking distance is slightly further than typically desirable, the potential for residents to consider these bus services as a viable travel option does reflect the above NPPF guidance. Based on this guidance, the bus stops on Main Street are considered accessible from the proposed development site.

4.15 A summary of the bus services and frequencies that operate along Main Street is shown in **Table 4.1** below.

Bus	Route	Frequency (services per hour)			
		Weekday Daytime	Weekday Evening	Saturday	Sunday
30	Maryport – Workington - Whitehaven - Egremont - Thornhill	2	1	2	1

Table 4.1: Local Bus Services

4.16 As **Table 4.1** demonstrates, the closest bus stops to the site accommodate the No. 30 service, which operates a regular weekday, Saturday, and Sunday route between Whitehaven and Workington.

4.17 In addition to public bus services, there are also some dedicated services operated for employees of the Sellafield site, which is a significant local employer. Services operate from the centre of Egremont and include the following:

— A shuttle service from the company's Whitehaven offices and the Sellafield site, via Egremont.

— A park and ride service from the Moresby Parks park and ride (to the east of Whitehaven), via Cleator Moor and Egremont to the Sellafield site.

4.18 The site is therefore considered accessible by public transport.

Summary

4.19 The site location provides access to key day-to-day services and amenities, which are accessible by active travel modes. In addition, there are industrial and employment sites on the outskirts of the town which provide convenient local employment opportunities. The site is also accessible by public transport, with regular weekday and weekend services operated to key local towns.

4.20 The site can therefore be considered accessible by sustainable travel modes.

5 Development Proposals

Proposed Development

5.1 The planning application proposes the development of a total of 164 residential dwellings, which are to comprise:

- 13 x 2 bedroom dwellings;
- 90 x 3 bedroom dwellings;
- 57 x 4 bedroom dwellings; and
- 4 x 5 bedroom dwellings.

5.2 The proposed site layout is shown in **Plan 3**.

Access

5.3 Vehicle access to the site is proposed from Uldale View via a priority-controlled junction. This is to be located approximately 45 metres to the south of the junction with Bookwell and Queens Drive.

5.4 A general arrangement drawing of the proposed site access is shown in **Plan 6**. This also shows visibility splays of 2.4 x 43 metres, which is the recommended visibility splay in Manual for Streets for a 30mph road. In view of the proximity to the junction of Bookwell and Queens Drive, it is expected that traffic speeds will be less than 30 mph in the vicinity of the site.

5.5 The internal layout has been developed with reference to the Highway Design Guidance issued by Cumbria County Council as part of their Development Design Guide. This includes a hierarchy of 5.5 metre and 4.8 metre carriageway roads, followed by areas with shared surface treatments. Two metre footways and service strips are provided as appropriate for the primary and secondary sections of carriageway.

5.6 It is proposed that the internal road network will be adopted and subject to a maximum 20mph speed restriction.

5.7 The development also provides an emergency vehicle access onto Uldale View, which is positioned opposite Plot 72. This can also serve as a secondary point of access for pedestrians and cyclists, albeit the principal desire line is via the main site access.

Pedestrian & Cycle Access

5.8 Pedestrian access to the site is proposed from Uldale View, with footways proposed on both sides of the new access junction. The site layout also includes a new section of 2 metre footway on the northern side of the access, which runs along the site frontage and will connect with the existing provision at the Uldale View/ Bookwell junction.

5.9 Within the site a comprehensive network of footways is provided, which provide direct access to properties, or lead to areas of shared surface treatment.

5.10 Cycle access to the site will be achieved from the Uldale View junction.

Parking

5.11 Resident's parking is to be provided within the curtilage of each property.

5.12 Cumbria County Council's adopted parking standards are provided in Appendix 1 of their Development Design Guide. This guidance states 2 spaces/ 2 bedroom property, 2.5 spaces / 3 and 4 bedroom property, and 3 spaces/ 5 bedroom property.

5.13 The Development Design Guide notes that developments should be considered on a site-by-site basis, and as such the parking standards are not provided as 'maximum' or 'minimum' values. It confirms that developments may prove acceptable without offering parking levels as indicated in the document.

5.14 The proposed development will provide a total of 410 car parking spaces. These are identified in **Plan 7** and comprise:

- 341 driveway parking spaces;
- 36 detached garages (dimensions 3 metres x 7 metres);
- 21 dedicated visitor bays alongside additional on street visitor parking (12 spaces).

5.15 It should also be noted that in addition to above spaces, 46 dwellings will have integral single garages of standard size (less than 21 sqm), which residents could also use to park their vehicles if they wish.

5.16 It is noted that every home contains a minimum of 2 private parking spaces with every 5 bed home a minimum of 3 private parking spaces on drive or within acceptably dimensioned garages. Whilst there are some 4 bed homes that contain 2 spaces, these are generally smaller 4 bed house types where there is not expected to be a demand for more than 2 private vehicles.

5.17 All properties will offer electric vehicle charging points.

Servicing

5.18 The proposed internal layout has been tracked using an 11.2 metre refuse vehicle. This assessment is presented in **Plan 8** which demonstrates that all required vehicle movements can be safely undertaken. Where areas cannot be serviced in accordance with Manual for Streets guidance bin store areas have been identified.

Travel Plan

5.19 In accordance with Cumberland Council's guidance an Interim Travel Plan has been prepared to support the planning application. This provides a 'heads of terms' for a Full Travel Plan which will be prepared once the development has planning permission.

5.20 The Interim Travel Plan is provided in **Appendix A**.

6 Traffic Impact Assessment

Introduction

6.1 Section 6 provides a traffic impact assessment for the proposed development.

Study Area

6.2 The following junctions have been considered as part of this traffic impact assessment:

- Uldale View/ Bookwell/ Queens Drive priority junction; and
- Uldale View/ Proposed Site Access priority junction.

Baseline Traffic Flows and Network Peak Hours

6.3 A classified traffic counts of the Uldale View/ Bookwell/ Queens Drive junction was undertaken on Thursday 15th September 2022 between 07:00–10:00 and 16:00-19:00. The traffic data has been included as **Appendix B** of this report.

6.4 The recorded vehicle numbers have been converted to Passenger Car Units (PCUs) for modelling purposes and the following peak hours have been identified and adopted in this assessment:

- AM Peak 08:00-09:00.
- PM Peak 17:00-18:00.

6.5 The surveyed traffic flows are shown in **Figure 1** for both the AM and PM peaks.

Baseline 'Without Development' Traffic Flows

6.6 The Department for Transport Trip End Model Presentation Programme (TEMPro) has been used to calculate traffic growth rates for a 2023 Baseline survey year and a 2028 Baseline 'Without Development' year. The 2023 year has been adopted as the year of application submission, while the 2028 year has been adopted as a five year post-application registration scenario, which is an industry-standard horizon year for use in the assessment of local roads.

6.7 The NTM adjusted TEMPro growth factors have been calculated for the Middle Layer Super Output Area (MSOA) Copeland 006. This includes the existing urban area of Egremont and is considered to best represent the proposed development site.

6.8 The derived growth factors are summarised in **Table 6.1** below.

Year	AM Peak	PM Peak
2022 – 2023	1.0088	1.0081
2022 - 2028	1.0442	1.0408

Table 6.1: TEMPRO (NTM) Growth Factors for Copeland 006 (MSOA)

6.9 The traffic growth factors have been applied to the 2022 surveyed traffic flows to generate the 2023 Baseline and 2028 Baseline 'Without Development' traffic flow scenarios. These are presented in **Figures 2** and **3**, both of which provide the AM and PM peak hour flows.

6.10 The application of traffic growth factors is considered to provide an allowance for any committed developments in the area, the generally accepted position being that the application of growth factors and committed development traffic results in the double counting of traffic flows.

Trip Generation

6.11 To determine the traffic generation of the proposals the industry-standard TRICS database has been interrogated for the 'Residential/ Houses Privately Owned' range of sites. The analysis has focused upon analogous sites in terms of location and accessibility, as per the TRICS Good Practice Guidelines. In this manner, the trip rates analysis selected sites in Edge of Town and Suburban locations, and of between 70 and 300 dwellings, with adjustments then also made for local population catchments.

6.12 The resultant AM and PM peak hour trip rates are presented in **Table 6.2** below, together with the associated traffic generations. The full TRICS output files are provided as **Appendix C** of this report.

Period	Trip Rate		Trip Generation		
	Arr	Dep	Arr	Dep	Two Way
08:00-09:00	0.145	0.336	24	55	79
17:00-18:00	0.358	0.171	59	28	87

Table 6.2: Proposed Development Trip Rates and Trip Generations

6.13 As can be seen, the proposed development is forecast to result in a maximum of 79 two-way trips in the AM peak hour with 87 two-way trips in the PM peak hour.

Development Trip Distribution and Assignment

6.14 To the south of the site, Uldale View only provides access to a limited number of residential properties. As such it has been reasonably assumed that all development traffic will travel through the Uldale View/ Bookwell/ Queens Drive junction. In this location, development traffic flows have been assigned based upon surveyed turning proportions.

6.15 The resultant development flows are shown in **Figure 4**.

Baseline 'With Development' Traffic Flows

6.16 The development traffic flows have been added to the 2028 Baseline 'Without Development' flows, with the resultant 2028 Baseline 'With Development' traffic flows presented in **Figure 5** for the AM and PM peak hours.

Junction Capacity Assessment

6.17 The industry standard JUNCTIONS modelling software produced by TRL has been used in the assessment of junctions within the study area. The PICADY module of the software has been used which expresses a junction's performance as a Ratio of Flow to Capacity (RFC) and queue length. A model operating with an RFC of less than 0.85 is generally regarded as operating within capacity and should experience low levels of queueing. A model operating at an RFC of 1.00 is regarded as a junction operating at its maximum theoretical capacity and will experience queuing.

Uldale View/ Bookwell/ Queens Drive Junction

6.18 **Table 6.3** summarises the results of the PICADY assessment of the Uldale View/ Bookwell/ Queens Drive junction for the 2023 Base, 2028 Baseline 'Without Development' and 2028 Baseline 'With Development' scenarios. The modelling outputs are included as **Appendix D** of this report.

Arm	Stream	AM Peak		PM Peak	
		RFC	Queue	RFC	Queue
2023 Baseline					
Uldale View (LT)	Stream B-C	0.00	0	0.00	0
Uldale View (RT)	Stream B-A	0.06	0	0.03	0
Queens Drive	Stream C-AB	0.00	0	0.00	0
2028 Baseline 'Without Development'					
Uldale View (LT)	Stream B-C	0.00	0	0.00	0
Uldale View (RT)	Stream B-A	0.06	0	0.03	0
Queens Drive	Stream C-AB	0.00	0	0.00	0
2028 'Baseline With Development'					
Uldale View (LT)	Stream B-C	0.01	0	0.00	0
Uldale View (RT)	Stream B-A	0.17	0	0.09	0
Queens Drive	Stream C-AB	0.01	0	0.00	0

Table 6.3: Bookwell / Queens Drive / Uldale View Junction Analysis Summary

6.19 As demonstrated in **Table 6.3**, under the 2028 'Without Development' scenario the Uldale View/ Bookwell/ Queens Drive junction is forecast to operate within capacity in both the AM and PM peak hours. The addition of development traffic does not materially change the operation of the junction, with all arms continuing to operate well within capacity.

6.20 On this basis the impact of traffic from the proposed development on the operation of the junction is concluded to be negligible.

Uldale View/ Site Access Junction

6.21 The proposed site access junction with Uldale View has also been assessed using the 2028 Baseline 'With Development' traffic flows. The results of this assessment are summarised in **Table 6.4**, with the full model outputs in **Appendix E**.

Arm	Stream	AM Peak		PM Peak	
		RFC	Queue	RFC	Queue
Site Access	Stream B-AC	0.12	0	0.06	0
Uldale View (RT)	Stream C-AB	0.00	0	0.00	0

Table 6.4: Site Access / Uldale View Junction Analysis Summary

6.22 The results presented in **Table 6.4** confirm that the proposed priority controlled junction with Uldale View provides sufficient capacity to accommodate traffic generated by the proposed development.

Traffic Impact Assessment Conclusions

6.23 The results of the traffic impact assessment clearly demonstrate that the proposed development will not materially alter the operation of any existing junction on the surrounding highway network, and that the proposed site access junction provides sufficient capacity to accommodate development traffic.

6.24 Based on the findings of the traffic impact assessment it is also concluded that there is no evidence to suggest that the proposed development would have any detrimental impact on highway safety.

6.25 It is therefore concluded that the traffic impact of the development cannot be considered severe.

7 Summary and Conclusions

Summary

7.1 Vectos has been appointed to provide highways and transport advice in support of a proposed residential development on land to the east of Uldale View in Egremont.

7.2 The planning application proposes a residential development of 164 two, three, four and five bedroom dwellings. Vehicle access is proposed from the western side of the site via a junction with the Uldale View.

7.3 This Transport Assessment has been prepared in accordance with recognised guidance and draws the following key conclusions:

- In accordance with planning policy guidance which promotes sustainable development, the site has been demonstrated to be accessible on foot, by cycle and by public transport.
- The site is located within convenient walking and cycling distance of a range of day-to-day amenities within Egremont. The site also benefits from suitable access to regular public transport services.
- A review of historical collision data has demonstrated that there are no existing highway safety issues in the vicinity of the site.
- Vehicle access to the site is to be taken from Uldale View Lane via a new priority-controlled junction, which will also be used by pedestrians and cyclists. The proposed site access junction, and internal road network, has been designed with reference to the Development Design Guide issued by Cumbria County Council.
- A traffic generation exercise has been undertaken. This forecast that the proposed development will generate 79 two-way trips during the AM peak hour and 87 two-way trips in the PM peak hour.
- Capacity assessments were undertaken at the Uldale View/ Bookwell/ Queens Drive priority controlled junction, and at the proposed site access junction with Uldale View. Based upon these assessments it was concluded that the proposed development will have no material impact upon the safe and efficient operation of the surrounding highway network, and that the volume of traffic generated by the proposed development can be suitably accommodate by the site access junction.
- An appropriate level of car parking is provided.
- The site can be safely serviced using an 11.2 metre refuse vehicle.

Conclusions

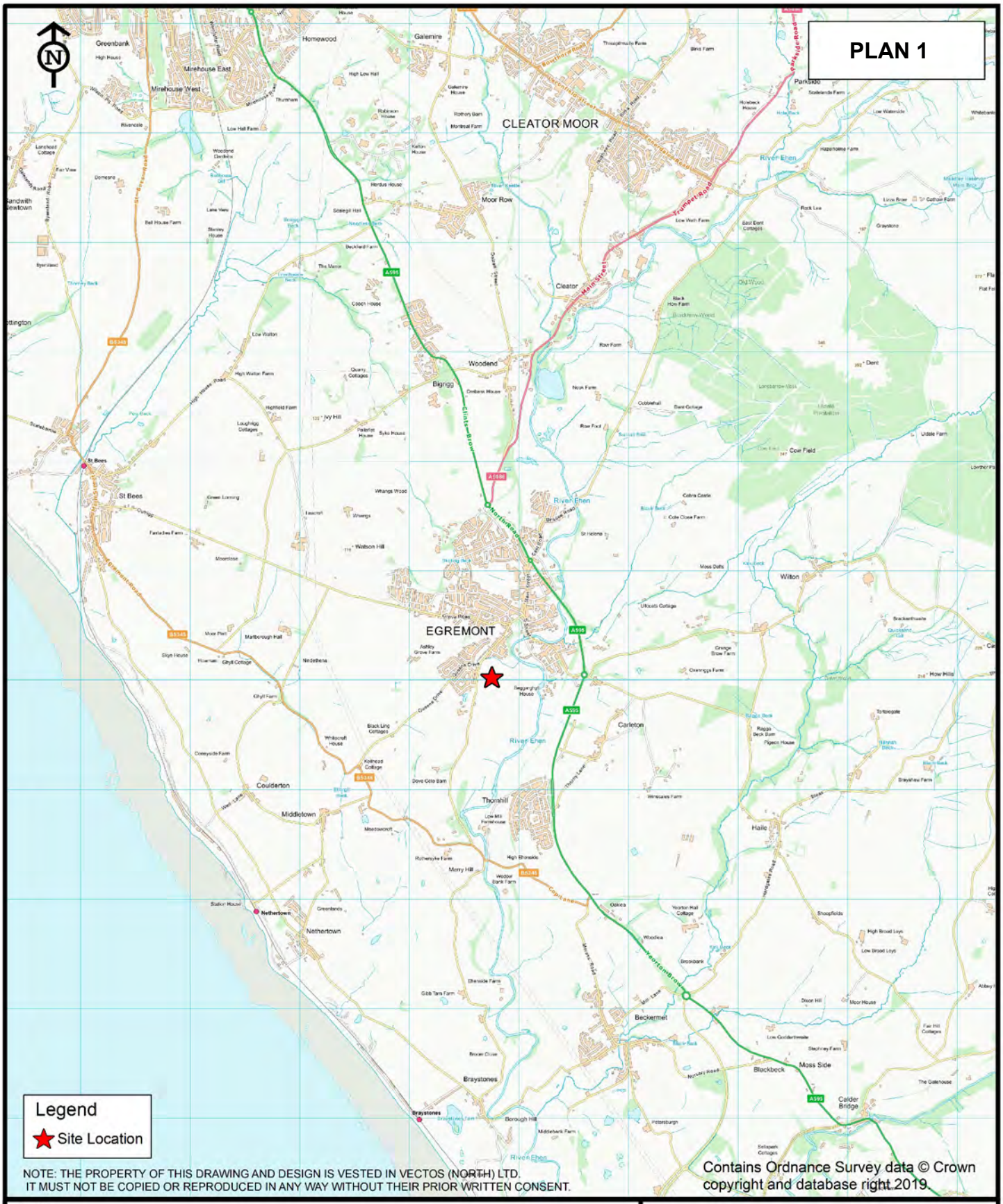
7.4 The development site is in a sustainable location and would not have a detrimental impact upon either the operation or safety of the local highway network. It provides an appropriate level of car parking and can be safely serviced.

7.5 The National Planning Policy Framework states that "*Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe*."

7.6 This report has demonstrated that the proposed development would have no impact upon highway safety and that the residual cumulative impacts of the proposed development would not be severe. Therefore, it is considered there are no reasons why the planning application should be refused on highway or transportation grounds.

Plans

PLAN 1



CLIENT:
Gleeson Homes

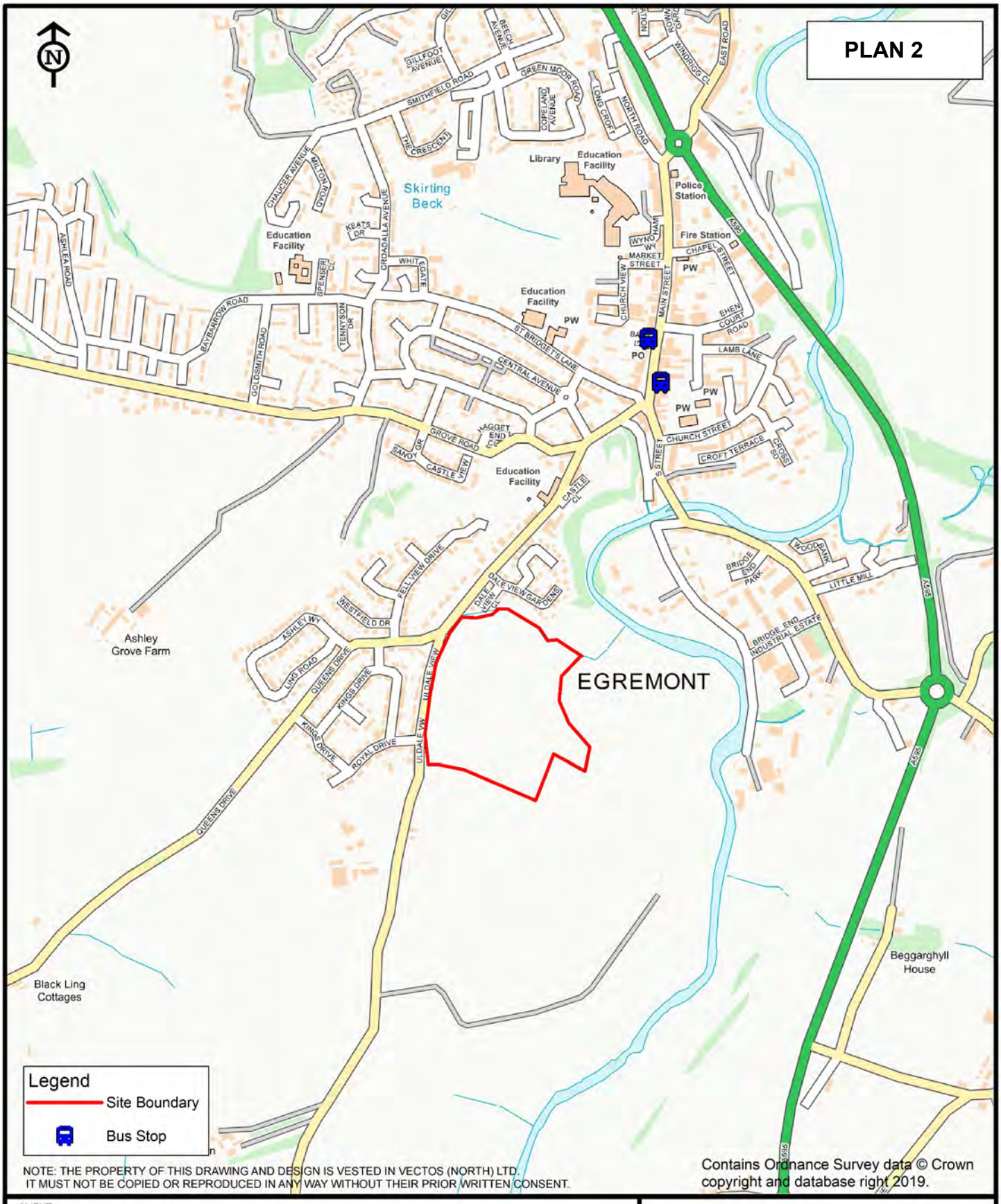
PROJECT TITLE:
Uldale View, Egremont

DRAWING TITLE:
Site Location (Wider Context)

vectos. | PART OF SLR

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

DRAWN:	CHECKED:	DATE	SCALE:	DRAWING NO:	REVISION:
CJ	RW	October 2022	1:48,000 at A4	VN222370-G100	-



CLIENT:
Gleeson Homes

PROJECT TITLE:
Uldale View, Egremont

DRAWING TITLE:
Site Location (Local Context)

vectos. | PART OF SLR

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

DRAWN:	CHECKED:	DATE	SCALE:	DRAWING NO:	REVISION:
CJ	RW	October 2022	1:10,000 at A4	VN222370-G101	-

NOTES

Do not scale from this drawing. Only figured dimensions are to be taken from this drawing.

The contractor must verify all dimensions on site before commencing any work or shop drawings.

The contractor must report any discrepancies to design by pod ltd before commencing work. If this drawing exceeds the quantities taken in any way, design by pod ltd is to be ir formed before the work is initiated.

Ordnance Survey information is used on design by pod ltd drawings. design by pod ltd is not responsible for the accuracy of dimensions relating to any Ordnance Survey data, or beyond the boundary of the inserted topographic survey data.

Work within The Construction (Design and Management) Regulations 2015 is not to start until a Health and Safety Plan has been produced.

PLAN 3

Uldale View, Egremont - 164 Units 22/06/23 73D-MJG-100-E

SCHEDULE OF ACCOMMODATION

Ref	House Name/Type No.	House Type	Sq.Ft	Garage/Parking	No.	Total Sq.Ft.
Standard Units						
201	CORK	2 bed semi or terraced	651	Front / Side Parking	10	6510
254	MOY	2 bed detached bungalow	697	Front / Side Parking	3	2091
301	TYRONE	3 bed semi or terraced	759	Front / Side Parking	13	9867
302	AVONMORE	3 bed semi or end terrace	759	Front / Side Parking	11	8349
340	KEADY	3 bed semi	839	Integral Garage	10	8390
369	369	3 bed semi	1061	Side / Front Parking	2	2122
390	390	3 bed semi / 2.5	1086	Side / Front Parking	10	10860
304	KILKENNY	3 bed detached	772	Front / Side Parking	7	5404
337	CALRY	3 bed detached	864	Integral Garage	8	6912
359	CLIFDEN	3 bed detached	984	Side / Front Parking	20	19680
360	MILFORD	3 bed detached	919	Side / Front Parking	9	8271
490	490	4 bed semi / 2.5	1212	Side / Front Parking	12	14544
401	LONGFORD	4 bed detached	1066	Side / Front Parking	11	11726
435	CALRY	4 bed detached	1221	Integral Garage	13	15873
436	KEADY	4 bed detached	1096	Integral Garage	15	16440
455	455	4 bed detached	1138	Detached garage	6	6828
590	590	5 bed detached / 2.5	1586	Detached garage	4	6344
					164	
Total Number of Units and Square Foot					**164**	**160211**

Gross Site Area in Metres	77875.8414
Gross Site Area in Acres	19.24
Strategic Public open Space in M	24507.3611
Strategic Public open Space in Ac	6.06
Net Site Area in Metres	53368.4803
Net Site Area in Acres	13.18
Net Site Area in Hectares	5.33
Density (Sq.Ft per Acre)	12156
Density (Units Per Acre)	12
Density (Units Per Hectare)	30.75

SCALE BAR 1:500

0 10 25 50

design by pod

99 galgate/barnard castle/
county durham/dl12 8es
e: andy@designbypod.co.uk
tel: 01833 696 600
web:www.designbypod.co.uk

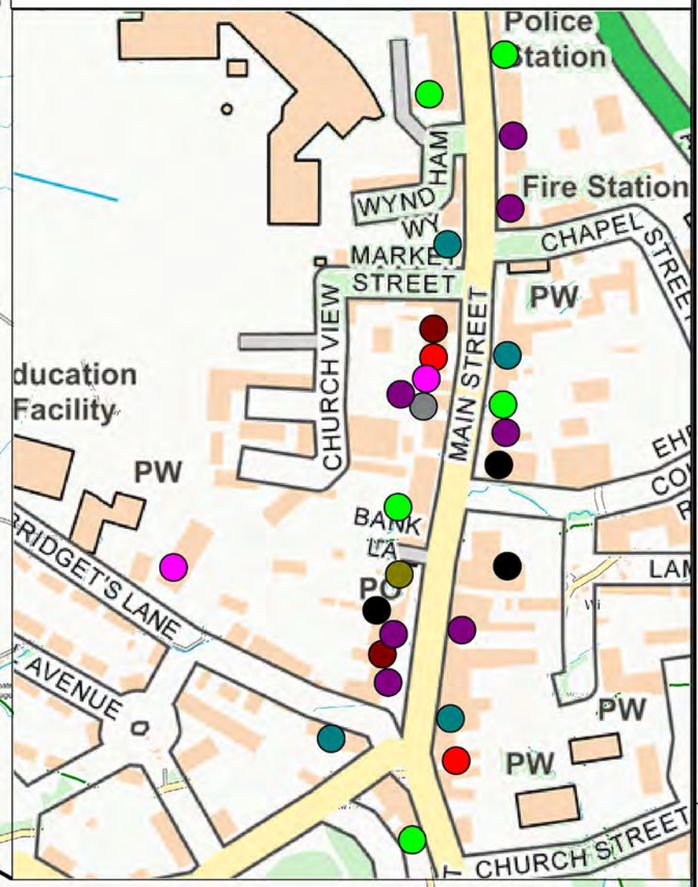
PROJECT:
Land off Uldale View, Egremont

DRAWING TITLE:
Detailed Site Layout Plan Coloured

CLIENT:		DATE:
MJG		06/23
STATUS: PLANNING	DWN BY: JG	CKD BY: AD
SCALE: 1:500	SHEET SIZE: A0	REVISION:
PROJECT NO: 73D-MJG	DRAWING NO: 101	

PLAN 4

Egremont Town Centre



Legend

- Site Location
- Bus Stop
- Public Right of Way

Local Amenities

- Convenience Store
- Dentist
- Hairdresser
- Medical Centre
- Pharmacy
- Post Office
- Public House
- Social Club
- Takeaway Food Outlet
- Gym
- Library
- Nursery
- Petrol Filling Station
- Primary School
- Secondary School

Walking Catchment

- 0 - 1km
- 1 - 2km

This is not a construction drawing and is intended for illustrative purposes only.

CLIENT:
Gleeson Homes

PROJECT TITLE:
Uldale View, Egremont

DRAWING TITLE:
Walking Catchment with Local Amenities

SCALE: N.T.S

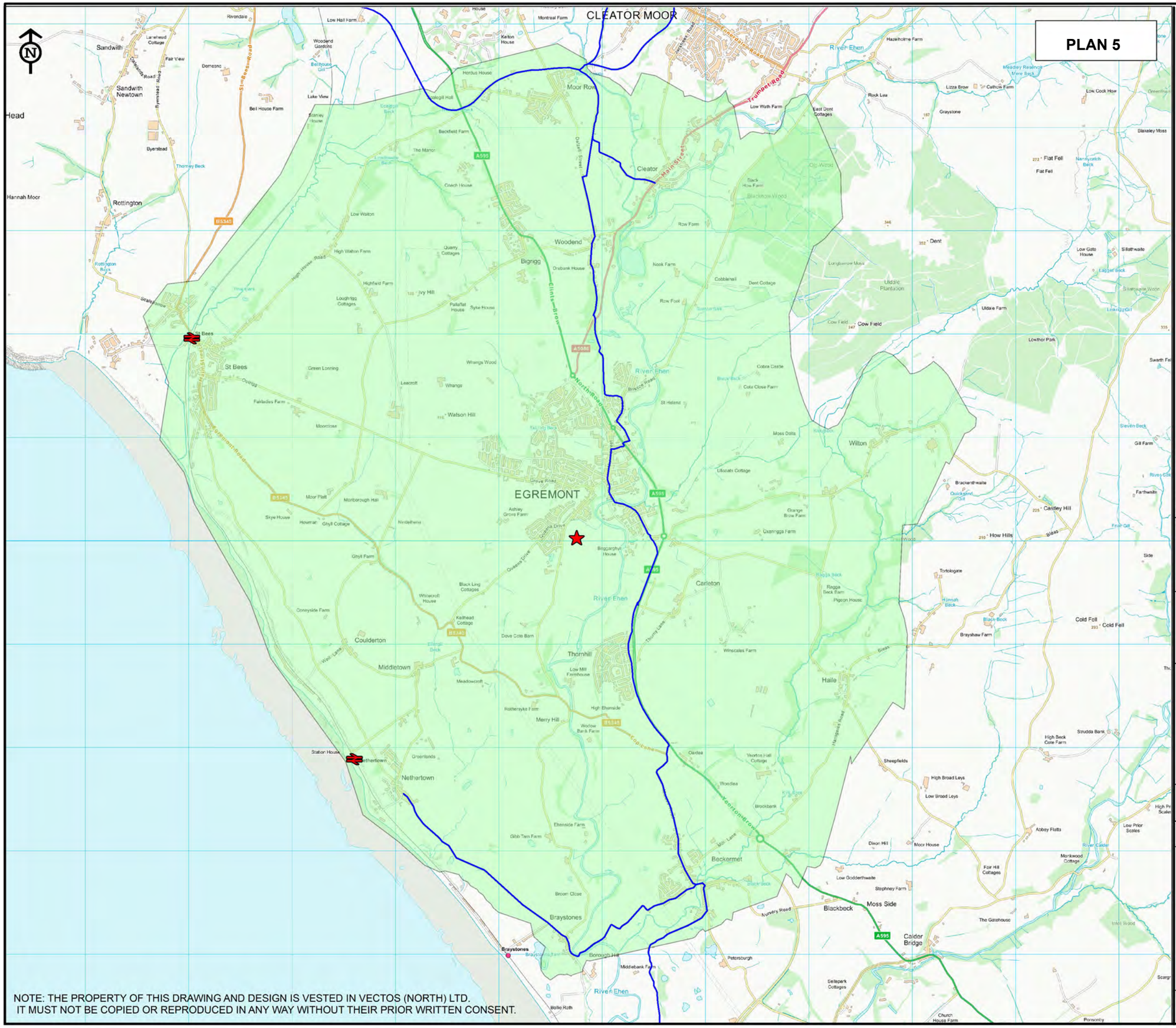
DRAWN:	CHECKED:	DATE:
CJ	RW	Oct 2022

vectos. | PART OF SLR

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

DRAWING NO: VN222370-G102

REVISION:



Legend

- Site Location
- Railway Station
- National Cycle Network

Cycling Catchment

- 0 - 5km

This is not a construction drawing and is intended for illustrative purposes only.

CLIENT:

Gleeson Homes

PROJECT TITLE:

Uldale View, Egremont

DRAWING TITLE:

Cycling Catchment

SCALE: N.T.S

DRAWN:	CHECKED:	DATE:
CJ	RW	Oct 2022

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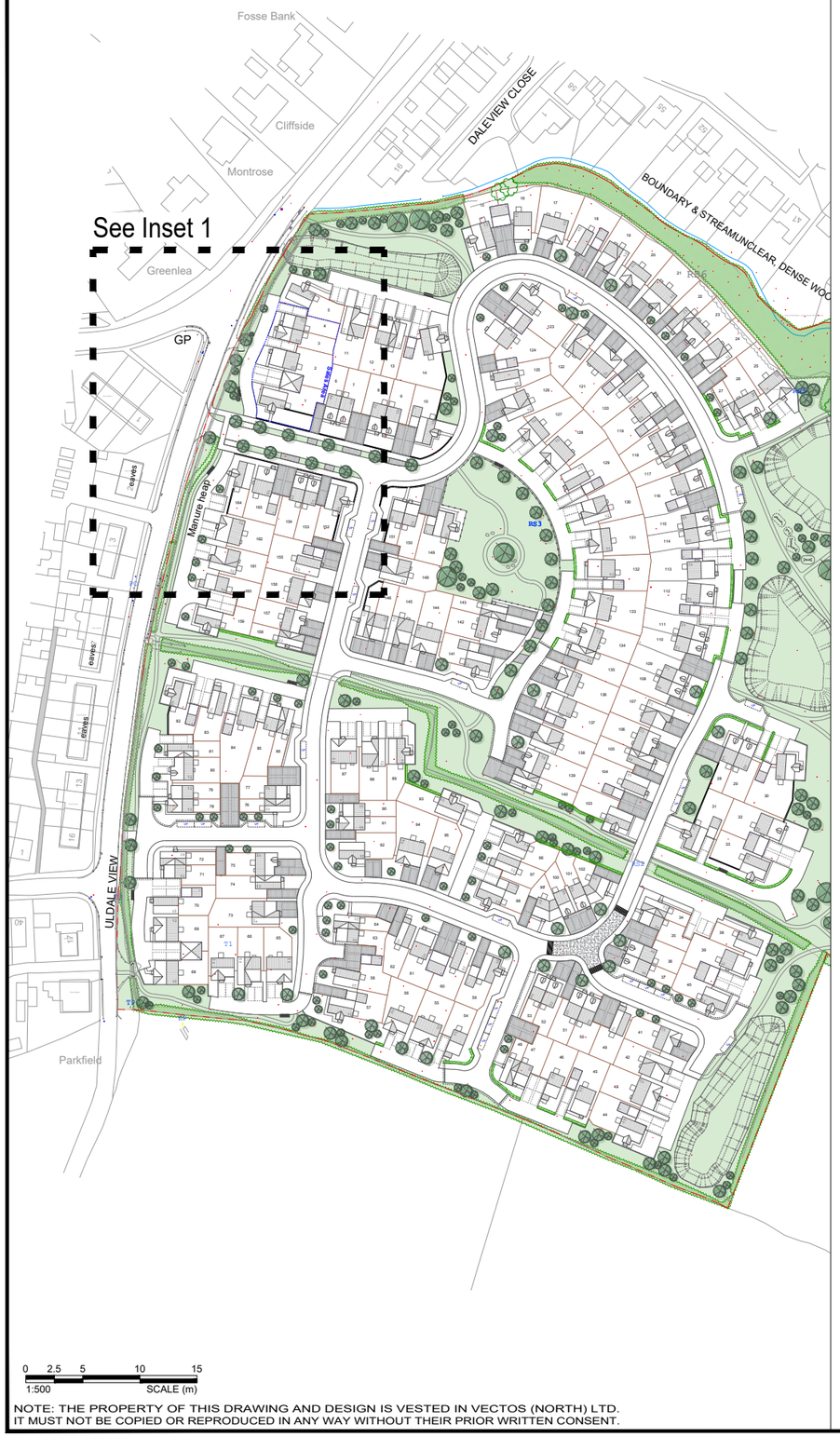
Oxford Place, 61 Oxford Street, Manchester M1 6EQ
t:0161 228 1008 e:manchester@vectos.co.uk

DRAWING NO: VN222370-G103

REVISION:

Scale 1:2000



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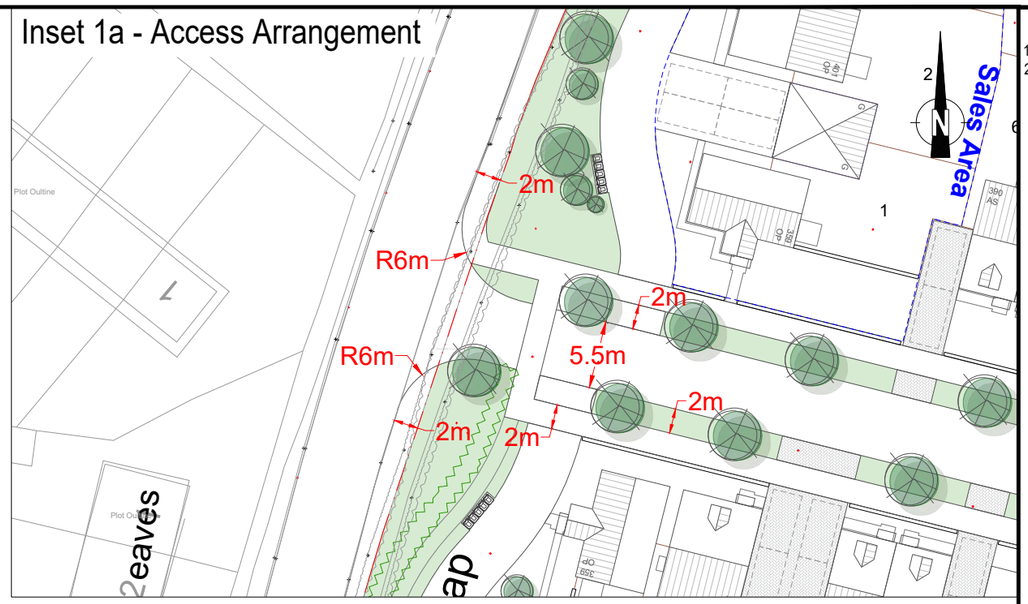

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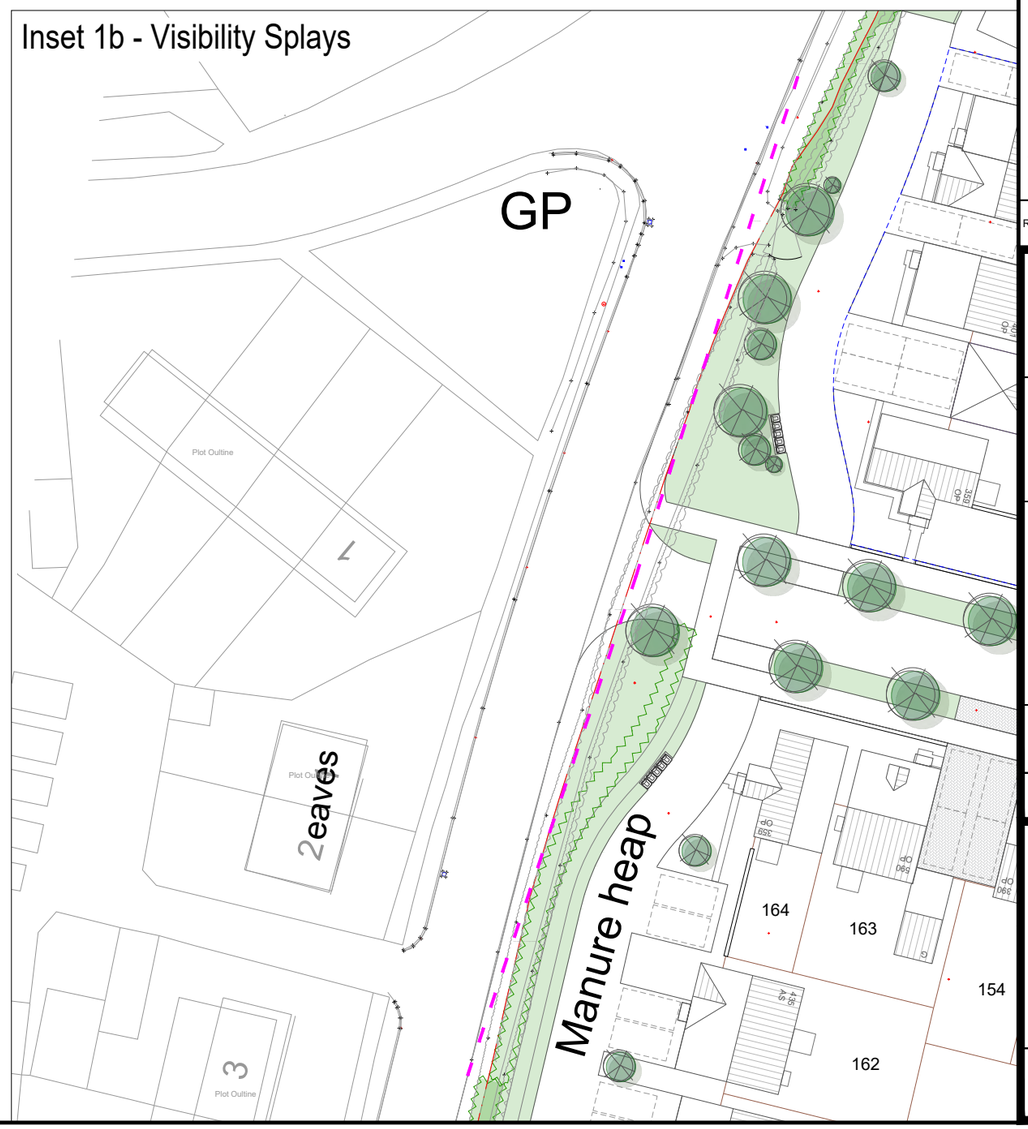

Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

PLAN 6

2.4 x 43m Visibility Splays

REV.	DETAILS	DRAWN	CHECKED	DATE
A	Topo survey added to layout	WD	RW	01.06.23
B	Site layout updated	WD	RW	01.08.23

CLIENT:
Gleeson Homes

PROJECT:
Uldale View, Egremont

DRAWING TITLE:
General Arrangement & Visibility Splays

SCALES:
1:500 at A3 - Unless Shown

DRAWN:	CHECKED:	DATE:
WD	RW	03.05.23

vectos. | PART OF SLR
4th Floor Oxford Place
61 Oxford Street
Manchester
M1 6EQ

t: 0161 228 1008
e: manchester@vectos.co.uk

DRAWING NUMBER: VN222370-D101

REVISION: B

NOTES

Do not scale from this drawing. Only figured dimensions are to be taken from this drawing.

The contractor must verify all dimensions on site before commencing any work or shop drawings.

The contractor must report any discrepancies to design by pod ltd before commencing work. If this drawing exceeds the quantities taken in any way, design by pod ltd is to be informed before the work is initiated.

Ordnance Survey information is used on design by pod ltd drawings. design by pod ltd is not responsible for the accuracy of dimensions relating to any Ordnance Survey data, or beyond the boundary of the inserted topographic survey data.

Work within The Construction (Design and Management) Regulations 2015 is not to start until a Health and Safety Plan has been produced.

Legend

- 341no Driveway Spaces
- 36no 21m2 Allowable Garage Parking
- 21no Visitor Parking Bays
- 12no On Road Visitor Parking
- 46no Integral Garage spaces

PLAN 7

Uldale View, Egremont - 164 Units 22/06/23 73D-MJG-100-E

SCHEDULE OF ACCOMMODATION

Ref	House Name/Type No.	House Type	Sq.Ft	Garage/Parking	No.	Total Sq.Ft.
Standard Units						
201	CORK	2 bed semi or terraced	651	Front / Side Parking	10	6510
254	MOY	2 bed detached bungalow	697	Front / Side Parking	3	2091
301	TYRONE	3 bed semi or terraced	759	Front / Side Parking	13	9867
302	AVONMORE	3 bed semi or end terrace	759	Front / Side Parking	11	8349
340	KEADY	3 bed semi	839	Integral Garage	10	8390
369	369	3 bed semi	1061	Side / Front Parking	2	2122
390	390	3 bed semi / 2.5	1086	Side / Front Parking	10	10860
304	KILKENNY	3 bed detached	772	Front / Side Parking	7	5404
337	CALRY	3 bed detached	864	Integral Garage	8	6912
359	CLIFDEN	3 bed detached	984	Side / Front Parking	20	19680
360	MILFORD	3 bed detached	919	Side / Front Parking	9	8271
490	490	4 bed semi / 2.5	1212	Side / Front Parking	12	14544
401	LONGFORD	4 bed detached	1066	Side / Front Parking	11	11726
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455	455	4 bed detached	1138	Detached garage	6	6828
590	590	5 bed detached / 2.5	1586	Detached garage	4	6344
					164	
Total Number of Units and Square Foot					**164**	**160211**

Gross Site Area in Metres	77875.8414
Gross Site Area in Acres	19.24
Strategic Public open Space in M	24507.3611
Strategic Public open Space in Ac	6.06
Net Site Area in Metres	53368.4803
Net Site Area in Acres	13.18
Net Site Area in Hectares	5.33
Density (Sq.Ft per Acre)	12156
Density (Units Per Acre)	12
Density (Units Per Hectare)	30.75

N W E S

SCALE BAR 1:500

0 10 25 50

design by pod

99 galgate/barnard castle/ county durham/dl12 8es
e: andy@designbypod.co.uk
tel: 01833 696 600
web:www.designbypod.co.uk

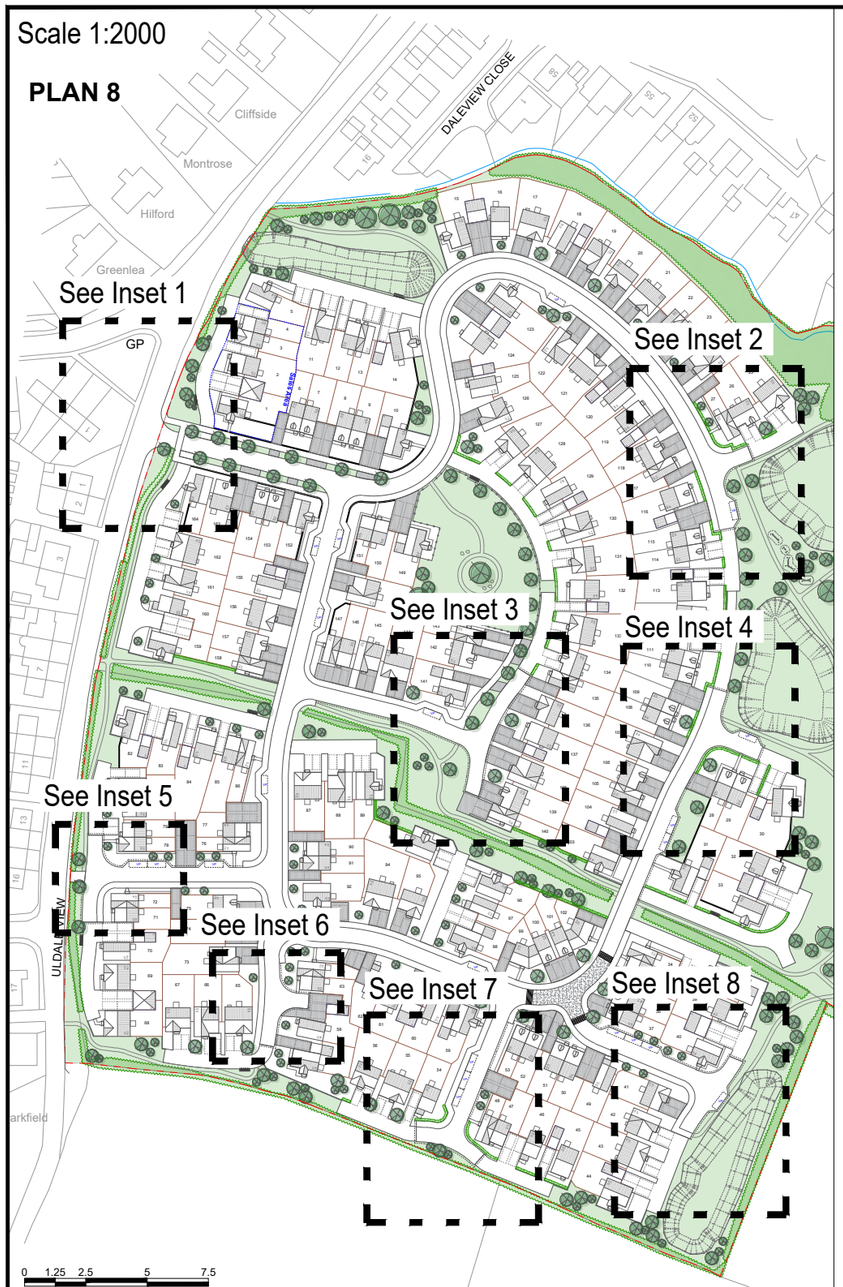
PROJECT: Land off Uldale View, Egremont

DRAWING TITLE: Proposed Parking Provision Plan

CLIENT:		DATE:
MJG		05/23
STATUS: PLANNING	DWN BY: JG	CKD BY: AD
SCALE: 1:500	SHEET SIZE: A0	REVISION: A
PROJECT NO: 73D-MJG	DRAWING NO: 104	

Scale 1:2000

PLAN 8



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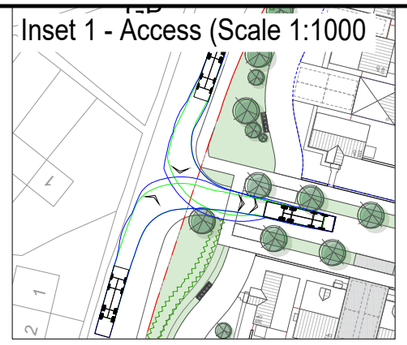

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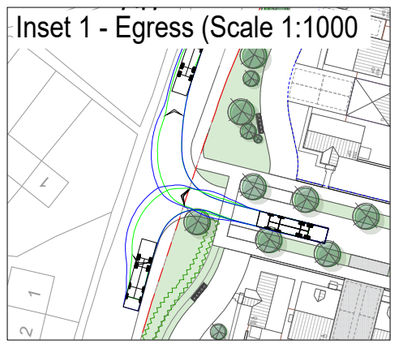

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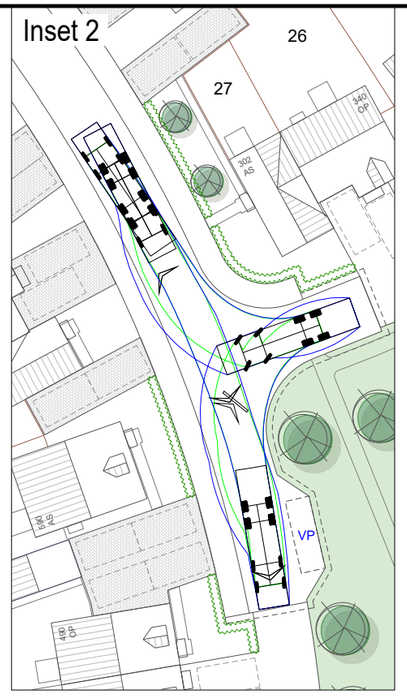

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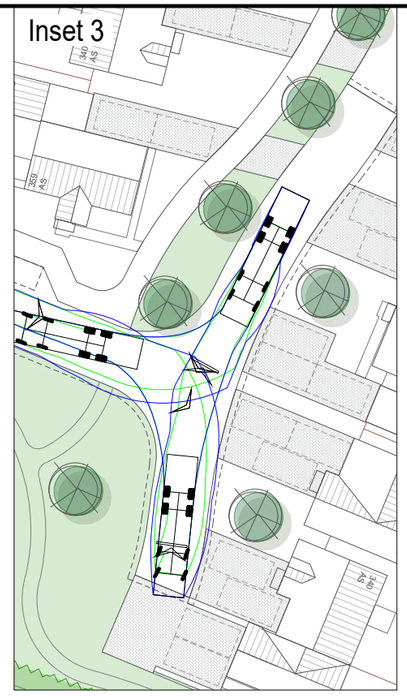

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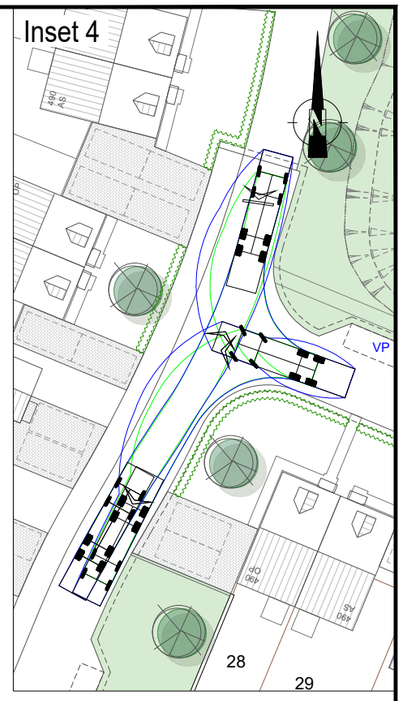

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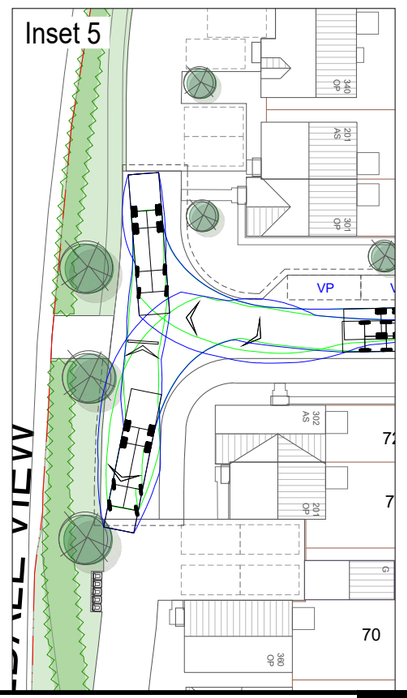

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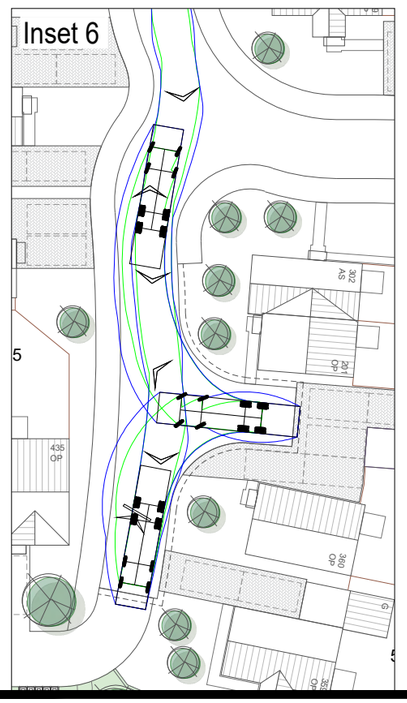

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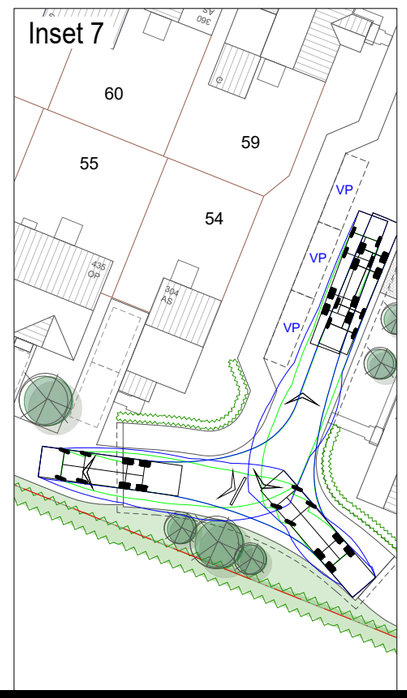

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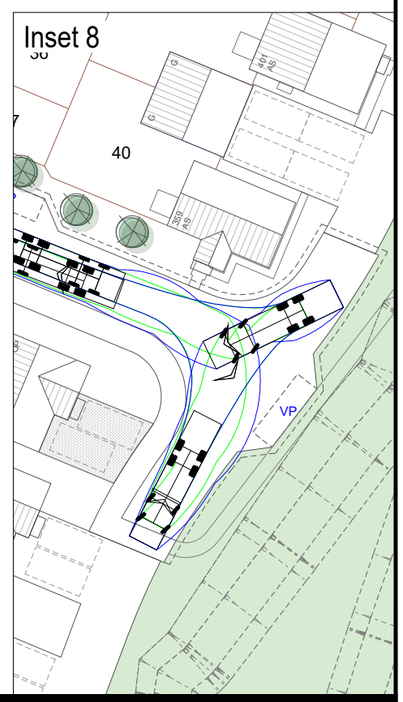
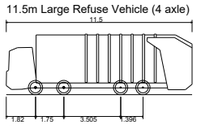


REV.	DETAILS	DRAWN	CHECKED	DATE
A	Site layout udpated	WD	RW	01.08.23

Notes:

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

11.5m Large Refuse Vehicle (4 axle)



Overall Length	11.500m
Overall Width	2.500m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	6.00s
Wall to Wall Turning Radius	11.330m

Uldale View, Egremont

Gleeson Homes

Swept Path Analysis - Refuse Vehicle

vectos. | PART OF SLR
4th Floor Oxford Place
61 Oxford Street
Manchester
M1 6EQ

t: 0161 228 1008
e: manchester@vectos.co.uk

DRAWN:	CHECKED:	DATE:	SCALES:	DRAWING NUMBER:	REVISION:
WD	RW	18.04.23	1:500 at A3 - Unless Shown	VN222370-TR100	A

Figures

KEY:

	PCUs AM Peak (08:00-09:00)
	PCUs PM Peak (17:00-18:00)

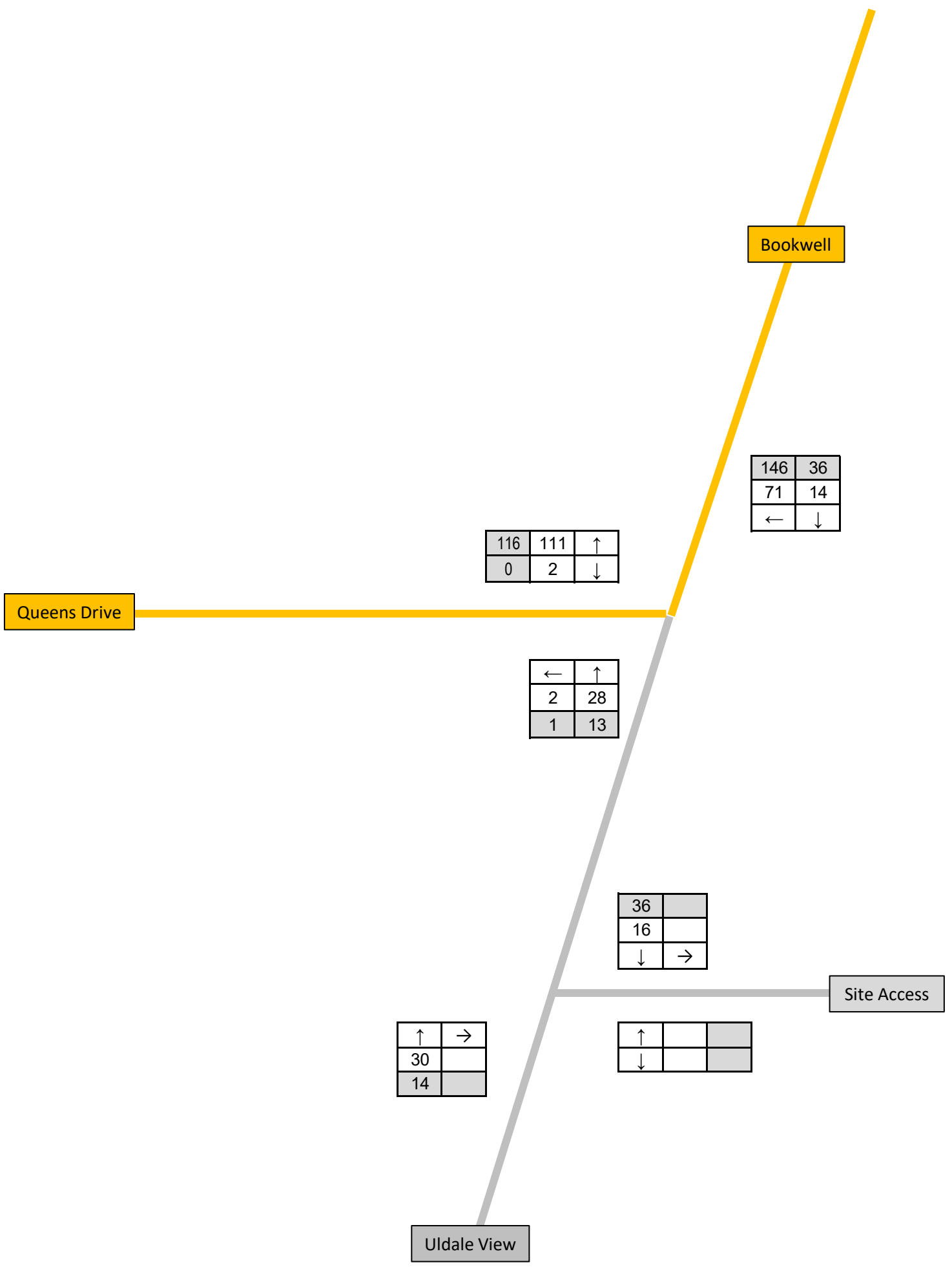


Figure 1	2022 Base Flows From Traffic Survey	vectos. | PART OF SLR

KEY:

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	PCUs PM Peak (17:00-18:00)

	TEMPRO Growth Factors
AM	1.0088
PM	1.0081

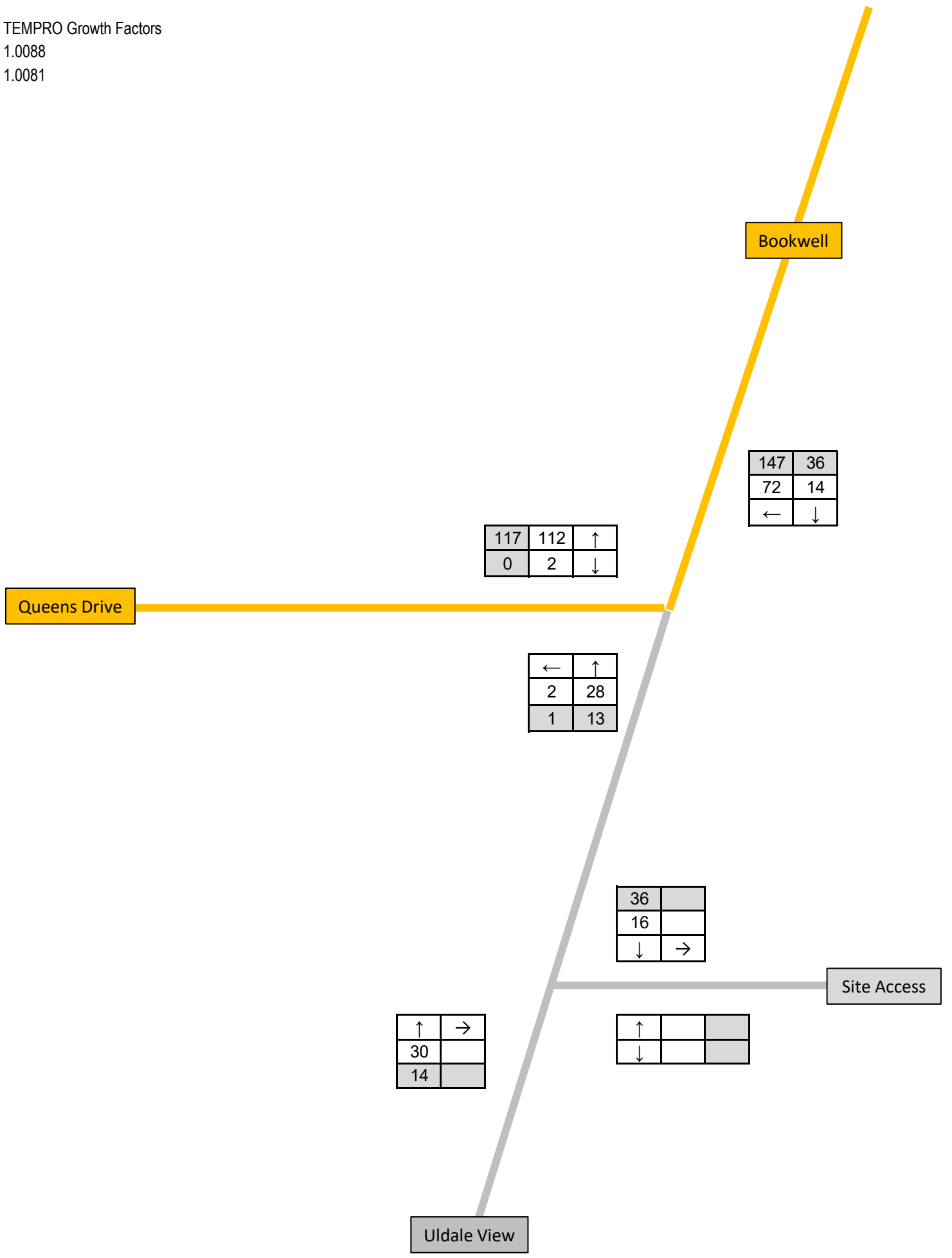

Figure 2	2023 Base	vectos. | PART OF SLR

KEY:

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	PCUs PM Peak (17:00-18:00)

	TEMPRO Growth Factors
AM	1.0442
PM	1.0408

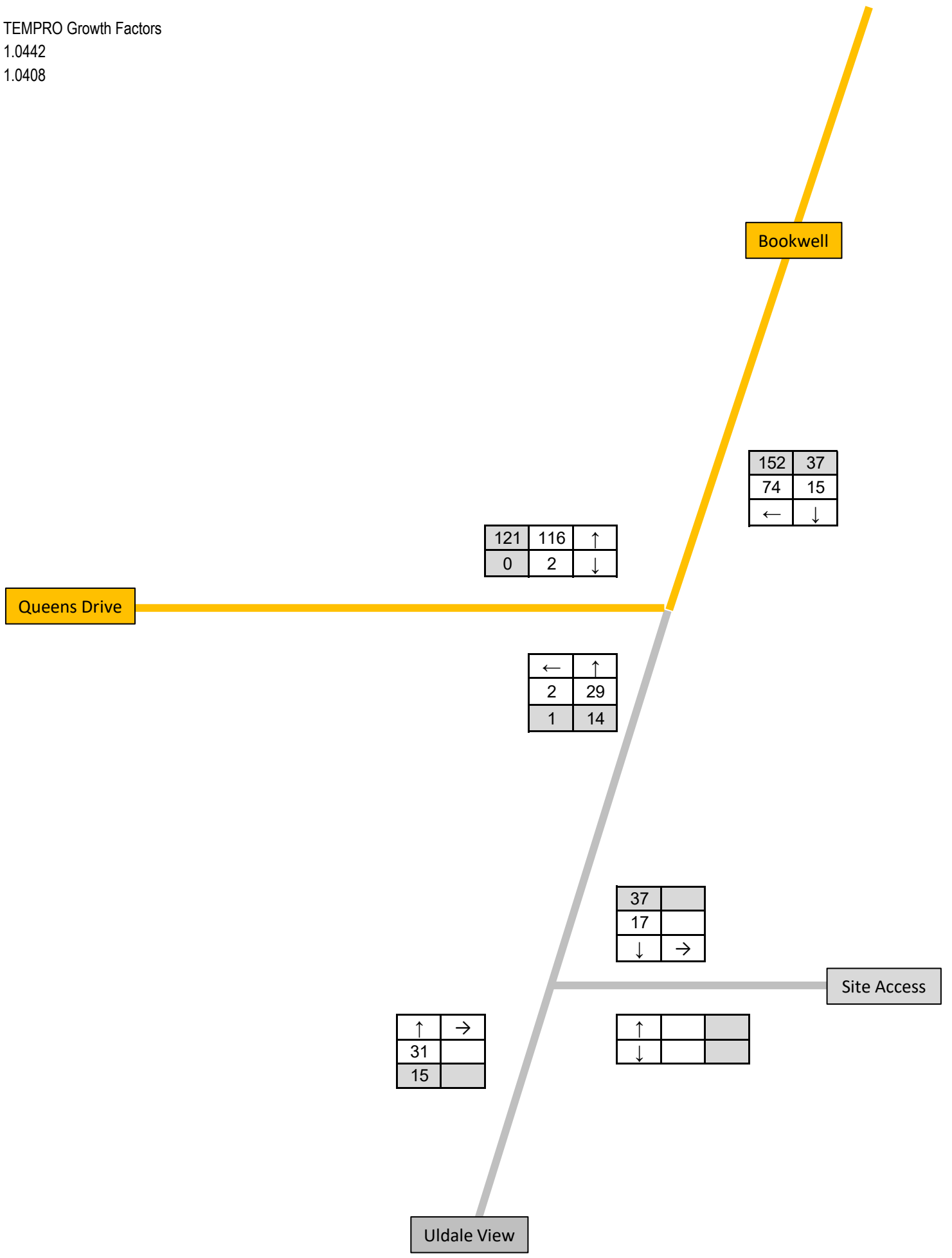

Figure 3	2028 Base	vectos. | PART OF SLR

KEY:

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	PCUs PM Peak (17:00-18:00)

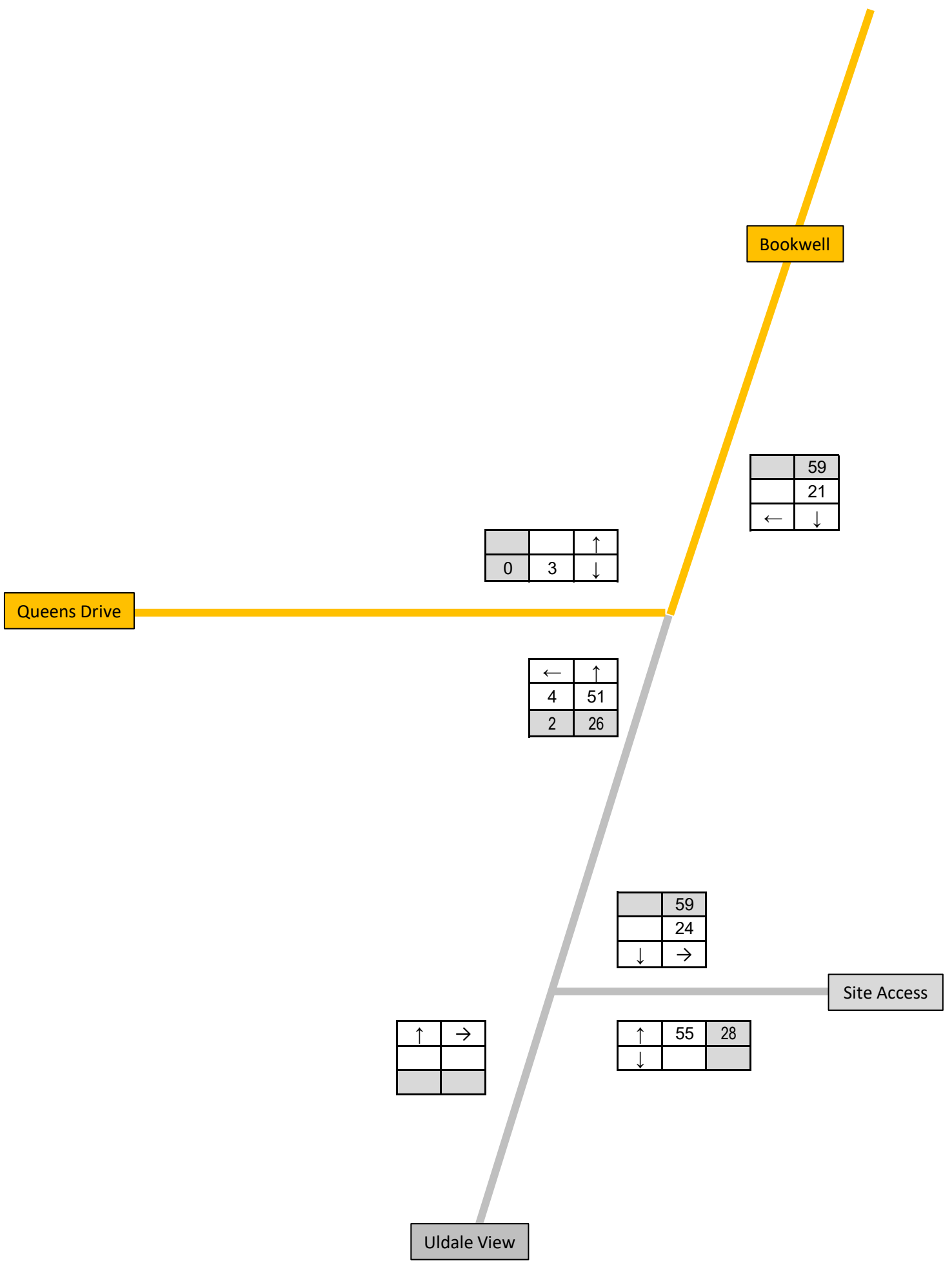

Figure 4	Development Traffic Flows	vectos. | PART OF SLR

KEY:

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PCUs PM Peak (17:00-18:00)

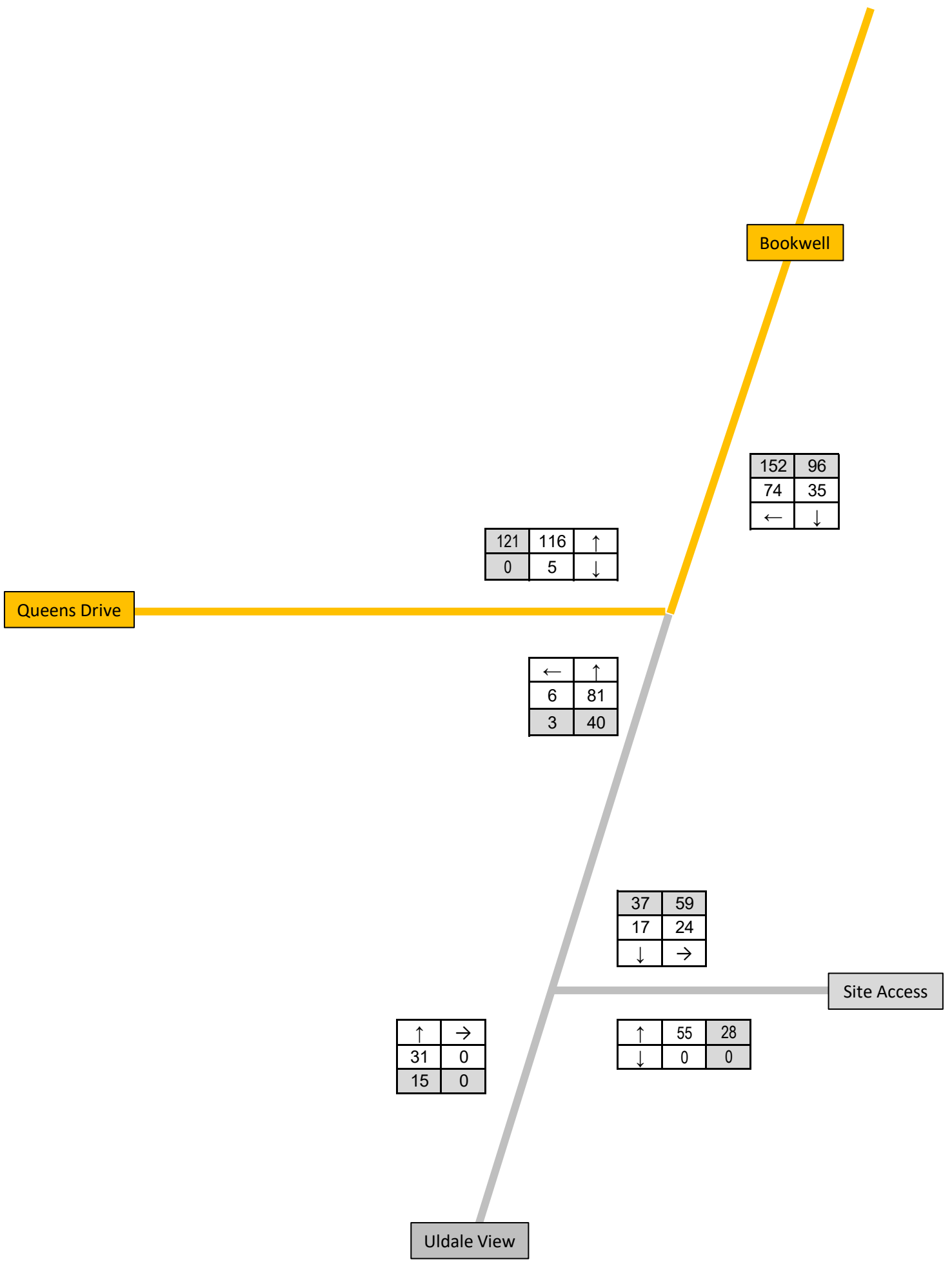


Figure 5	2028 Base With Development	vectos. | PART OF SLR

Appendix A

Interim Travel Plan

vectos. | PART OF SLR

Gleeson Homes

Proposed Residential Development, Uldale Drive, Egremont

August 2023

Vectos Ref: VN222370

Interim Travel Plan

Report control

Document:	Interim Travel Plan
Project:	Uldale View, Egremont
Client:	Gleeson Homes
Job number:	VN222370
File origin:	N:\Vectos Job Data\2022\VN222370 Uldale View, Egremont\Docs\Reports\VN222370 Uldale Interim Travel Plan.docx

Document checking

Primary Author:	Adelaide Tsim	Initialled:	AT
Contributor:	John Lancaster	Initialled:	JL
Review by:	Richard Whiting	Initialled:	RW

Issue	Date	Status	Checked for issue
1	02/05/2023	First Issue	RW
2	12/06/2023	Second Issue	RW
3	02/08/2023	FINAL	RW

Contents

Plans

1 Introduction

Background

1.1 Vectos has been appointed to provide highways and transport advice in support of a proposed residential development on land to the east of Uldale View, Egremont.

1.2 The site lies within the jurisdiction of Cumberland Council, who act as the planning and highway authority.

1.3 This document should be read in conjunction with the June 2023 Transport Assessment also prepared by Vectos.

Site Location

1.4 The site lies to the southwest of Egremont town centre, and to the east of Uldale View. The site is presently undeveloped.

1.5 The location of the site is shown in **Plan 1**, with **Plan 2** illustrating the site in a more local context. The site is also shown in **Figure 1.1** below which also shows an indicative red-line boundary.

Figure 1.1: Site Location

Development Proposals

1.6 The planning application proposes the development of 164 residential dwellings. These are to comprise:

- 13 x 2 bedroom dwellings;
- 90 x 3 bedroom dwellings;
- 57 x 4 bedroom dwellings; and
- 4 x 5 bedroom dwellings.

1.7 Vehicle access is proposed from the western side of the site via a priority controlled junction with Uldale View. Pedestrian and cycle access to the site is also proposed from this location.

1.8 The site layout also includes a new section of footway on the northern side of the access, which runs along the site frontage and will connect with the existing provision at the Uldale View/ Bookwell junction. Within the site a comprehensive network of footways is provided, which provide direct access to properties, or lead to areas of shared surface treatment.

1.9 The proposed site layout is provided as **Plan 3**.

Interim Travel Plan

1.10 This document outlines the framework for the Full Travel Plan which will be prepared and submitted to the Council for agreement prior to first occupation of the development.

Purpose of the Travel Plan

1.11 This Travel Plan aims to reduce the impacts of transport on the local environment and increase methods of access to the site. It will include measures to increase travel choice and reduce dependency on the car by way of the following:

- Reducing the need for travel;
- Reducing single-occupancy car travel; and
- Encouraging the use of more sustainable travel choices, such as walking, cycling, public transport and car sharing.

1.12 A Residential Travel Plan can be thought of as a pyramid of measures. The plan is built from the bottom up, with decisions and actions at each level creating the conditions that provide the foundation for success at the next level up. A diagrammatical explanation of this is provided in **Figure 1.2.**

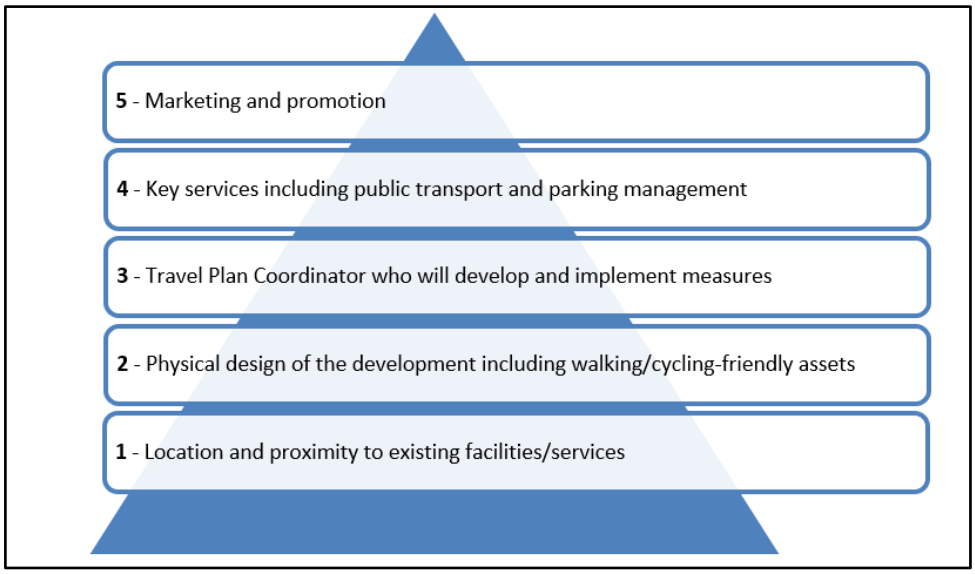


Figure 1.2: Residential Travel Plan Pyramid

1.13 A Residential Travel Plan addresses all types of trips to and from the development. It sets out the implementation, marketing, monitoring and review of a variety of travel measures to meet pre-agreed travel targets.

1.14 It is expected that trips occurring from the proposed residential development would include the following four predominant types:

- Journeys to places of work;
- Journeys to educational facilities, such as schools and higher education;
- Journeys to health facilities, such as GP surgeries and hospital appointments; and
- Journeys of a leisure and recreational nature to nearby amenities.

1.15 Travel Plans offer many benefits such as increasing safety and creating healthier environments for residents. The document is site-specific and takes into account the characteristics of the development such as its location, surrounding transport infrastructure and proximity to local facilities.

1.16 It is important that it is not considered a static document, rather that it be flexible so that it can adapt to suit changes in the site's characteristics over time.

Travel Plan Aims

1.17 The main aim of the Travel Plan will be to ensure that the new development conforms to the principles of sustainable transport. To best achieve its potential benefits, a Travel Plan should involve the following:

- The genuine and committed support of the Site Developer;
- Address residents' needs for access to a full range of facilities of work, education, health, leisure, recreation and shopping;
- Encourage good urban design principles which open up the permeability of the development for walking and cycling;
- Combine physical measures of site design, infrastructure and new facilities with the behavioural measures of marketing, promotion and awareness-raising among residents; and
- A designated Travel Plan Co-ordinator (TPC) appointed by the Site Developer before first occupation of the site.

1.18 Experience has shown the following are a number of key elements to the successful implementation of a Residential Travel Plan:

- Commitment in promoting and marketing the plan to prospective residents, and to all residents from first occupation;
- Regular completion of travel surveys and auditing of travel patterns across the whole site;
- The involvement of residents and the local community as appropriate; and
- Identifying targets and monitoring the ongoing Travel Plan process.

1.19 In this document we describe the methods that Gleeson Homes will use to implement the Travel Plan.

2 Travel Planning Policy Considerations

Introduction

2.1 It will be ensured that the Residential Travel Plan will adhere to relevant planning policy. Considerations in regard to both national and local travel planning policy are now discussed.

National Policy Context

National Planning Policy Framework (NPPF)

2.2 The National Planning Policy Framework (July 2021) surrounds the notion of achieving sustainable development. The NPPF aims for plans to protect and exploit opportunities for the use of sustainable transport modes. Paragraph 113 of the NPPF states that:

"*All developments that will generate significant amounts of movement should be required to provide a travel plan*"

2.3 A Travel Plan is a long-term management strategy for a site that seeks to encourage more sustainable travel and to reduce single occupancy car use.

2.4 As traffic problems can arise from new developments, the Travel Plan will be best addressed through working in partnership with outside organisations which could be useful in developing elements of the plan.

Overarching Principles on Travel Plans, Transport Assessments and Statements (DCLG)

2.5 In March 2014 the Department for Communities and Local Government published guidance on the overarching principles on Travel Plans, Transport Assessments and Statements.

2.6 Within this guidance it is specified that a Travel Plan is a long-term management strategy for integrating proposals for sustainable travel into the planning process.

2.7 It is also detailed that a Travel Plan can positively contribute to a range of benefits, including the below:

- Encouraging sustainable transport
- Lessening traffic generation and its detrimental impacts
- Reducing Carbon Emissions and climate impacts
- Creating accessible, connected, and inclusive communities;
- Improving road safety; and
- Reducing the need for new development to increase existing road capacity or provide new roads.

Local Policy Context

Cumbria County Council – Travel Plans and the Planning Process: Guidance for developers

2.8 Cumberland Council is a unitary authority which commenced on 1st April 2023. It replaced Cumbria County Council, Allerdale Borough Council, Carlisle City Council and Copeland Borough Council.

2.9 The Council's website does not yet provide any specific Travel Plan guidance. For this reason reference is made to the guidance previously provided by Cumbria County Council in their capacity as highway authority.

2.10 This outlined that developers will be expected to submit a Residential Travel Plan in support of any application that exceeds 80 dwellings, and to assist with this the then County Council provided a guidance document entitled 'Travel Plans and the Planning Process: Guidance for Developers'.

2.11 Within Section 4 of this guidance document, it was stated that the essential elements of a Residential Travel Plan should be establishing the roles and responsibilities of the Travel Plan Coordinator, an assessment of the site, a strategy for undertaking travel surveys, the aims and objectives of the Travel Plan and the targets for modal shift.

2.12 It also stated that proposed measures should be included, along with a strategy for marketing the Travel Plan and a means to monitoring its progress.

2.13 Within Appendix D of this guidance document is a list of potential sustainable transport measures. This list has been reviewed in context of the development proposals and suitable measures have been applied accordingly.

Good Practice Guidelines

2.14 The preparation and adoption of a Travel Plan is an important element in managing the demand for travel to all modern developments. The Department for Transport issued a guide on the preparation of such Travel Plans in April 2009 in a document entitled "Good Practice Guidelines – Delivering Travel Plans through the Planning Process".

3 Accessibility by Sustainable Modes of Travel

Introduction

3.1 Accessibility to good transport infrastructure has the potential to reduce the need to travel by single occupancy car and to encourage people to make sustainable transport choices to access jobs, local facilities, and services.

3.2 This section considers the accessibility of the site by the following modes of transport:

- Accessibility on foot;
- Accessibility by cycle; and
- Accessibility by public transport.

Accessibility on Foot

3.3 The site is well located to encourage journeys to be undertaken on foot.

3.4 The Institution of Highways and Transportation (IHT) document 'Guidelines for Providing for Journeys on Foot' (2000) contains suggested acceptable walking distances for pedestrians without mobility impairment for some common facilities. The guidelines suggest that an acceptable walking distance for commuting/ school purposes is 1 kilometre, with a preferred maximum distance of 2 kilometres. Walking can also be promoted as part of a multi-modal journey, particularly with public transport.

3.5 The more recent CIHT document 'Planning for Walking' (2015) affirms this by stating that 80% of journeys shorter than a mile (approximately 1.6 kilometres) are made wholly on foot.

3.6 An analysis of the pedestrian catchment of the site has been completed to illustrate the site's 1 and 2 kilometre walking catchments, and is shown in **Figure 3.1**.

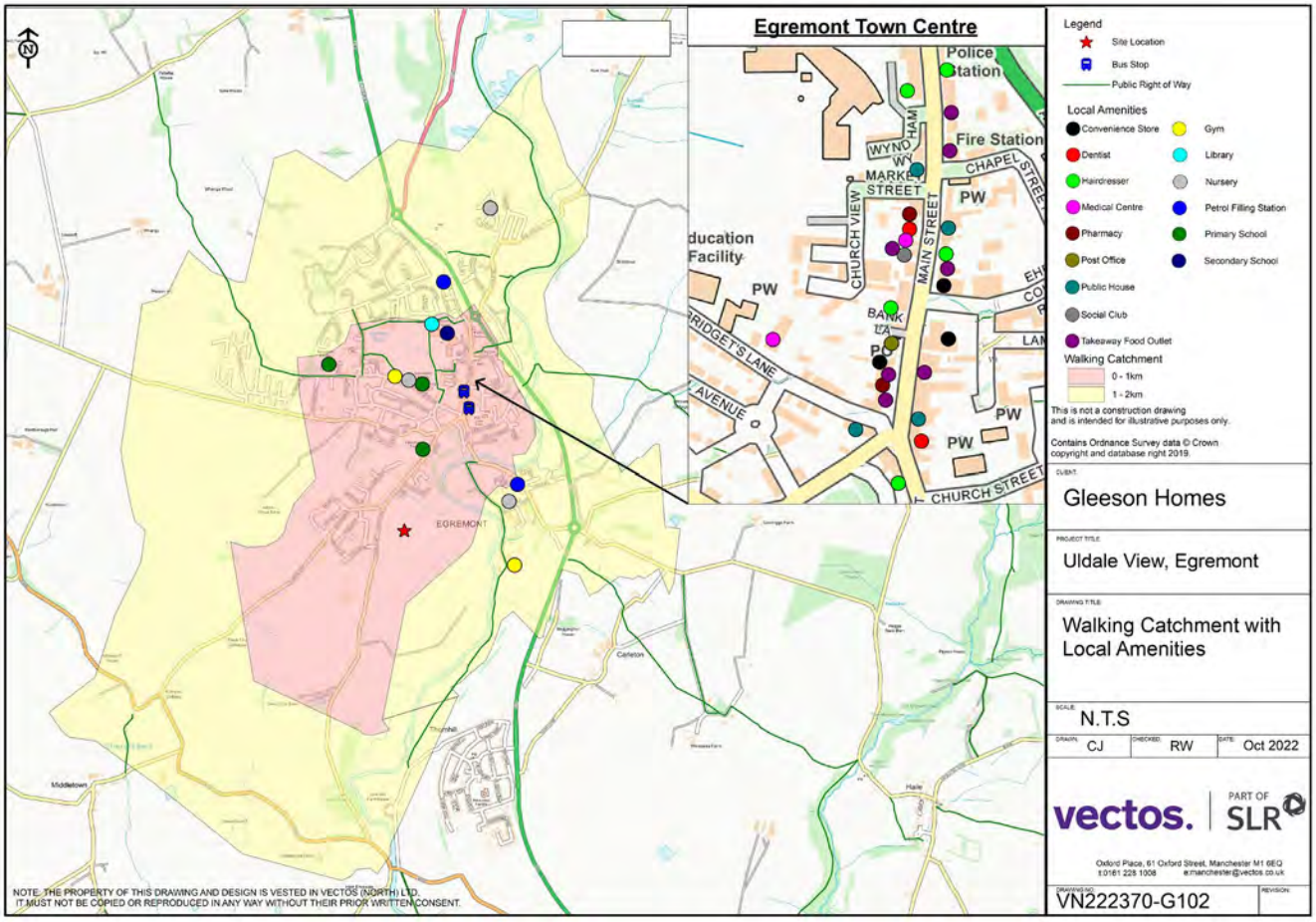


Figure 3.1: Pedestrian Catchment Plan

3.7 This demonstrates that the majority of Egremont, including the whole of the town centre is within the pedestrian catchment of the site. Egremont is a market town and provides a wide range of key amenities including:

- A primary and secondary school;
- Convenience store;
- Post office;
- Library;
- Dentist;
- Medical Centre and Pharmacy;
- Place of worship;
- Social Club;
- Hairdressers; and

— Public house and take-away restaurant.

3.8 In addition, there are industrial and employment land uses on the outskirts of the town which provide convenient employment opportunities.

3.9 To support trips on foot the development will provide a new footway along the site frontage to the north of the proposed access, which will then connect to the existing provision which is available at the Uldale View/ Bookwell/ Queens Drive junction. This street lit footway then provides connections into Egremont town centre supported by dropped kerbs at key junctions. Movements across Bookwell are supported by a pedestrian refuge which is provided close to the junction with Castle Close.

3.10 The site is therefore situated within convenient walking distance of a range of day-to-day amenities, with the existing pedestrian network able to safely accommodate trips on foot. The site is therefore considered accessible on foot.

Accessibility by Cycle

3.11 Cycling is becoming an increasingly popular mode of transport and is an effective mode for short trips. The Department for Transport's (DfT) Local Transport Note 2/08 Cycle Infrastructure Design (2008) states that, 'many utility cycle journeys are under 3 miles (5 km) although for commuters a trip distance of over 5 miles (8 km) is not uncommon'.

3.12 A 5 kilometre cycle catchment from the site is shown in **Figure 3.2**. This cycle catchment covers the whole of Egremont, in addition to a number of villages in the surrounding area, including Thornhill, Bigrigg and Cleator, along with the fringe of St Bees. The significant employment site of Sellafield is approximately 7.5 kilometres from the site which is not an unreasonable cycle journey from Egremont.

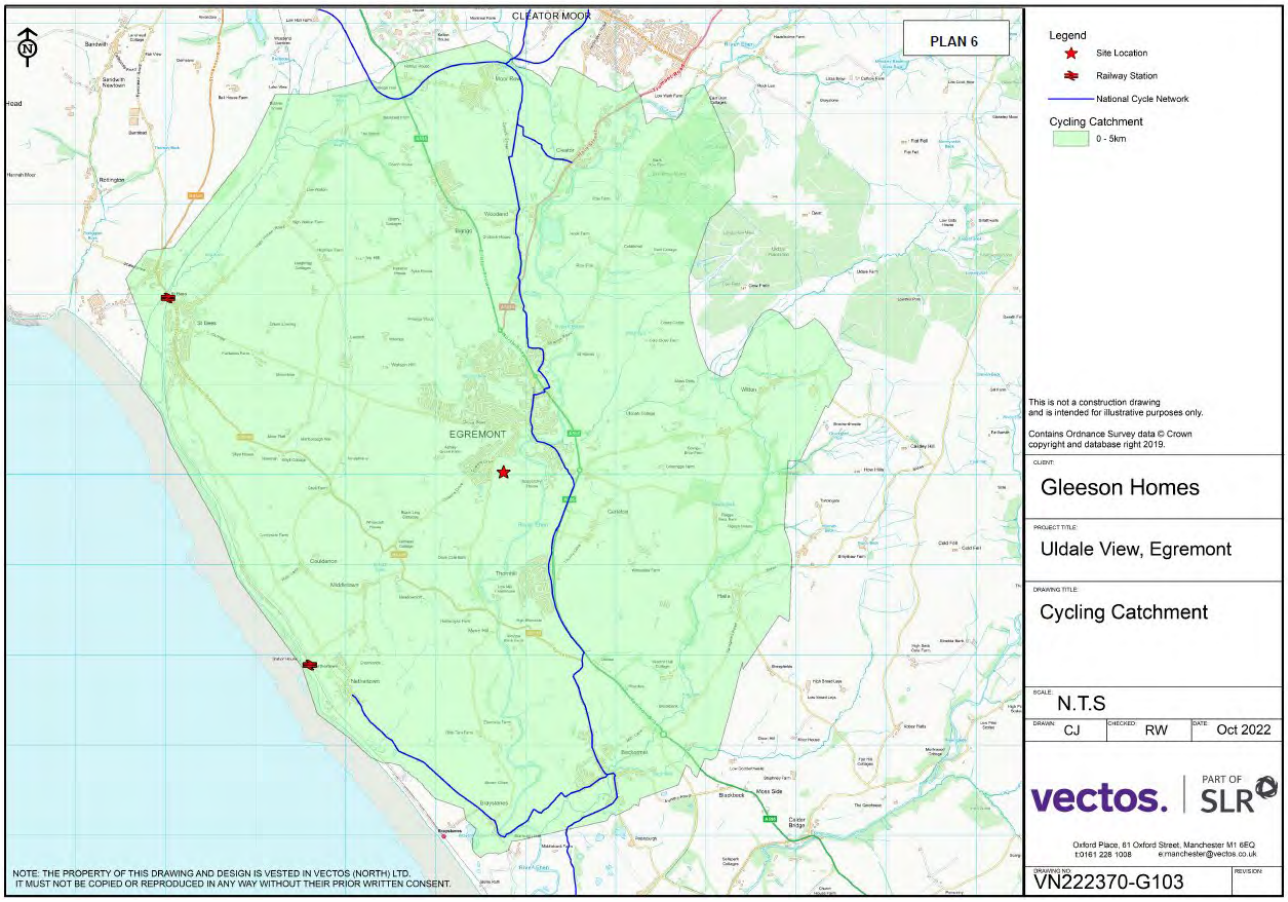


Figure 3.2: Cycling Catchment

3.13 To support trips by bicycle National cycle route 72 runs through the centre of Egremont. This route runs from Kendal along the Cumbrian coast to Barrow-in-Furness, Whitehaven and Silloth.

3.14 The site is therefore concluded to be accessible by bicycle.

Accessibility by Public Transport

3.15 The IHT document 'Guidelines for Planning for Public Transport in Developments' (1999) suggests that the maximum walking distance to the nearest bus stop should not exceed 400 metres. Notwithstanding this, the NPPF recognises that sites in rural areas may not have access to public transport to the same extent as urban sites, with Paragraph 105 confirming that opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making.

3.16 The closest bus stops to the site are located on Main Street, approximately 750 metres walking distance from the site. The bus stops have timetable information and are also provided with shelters. The stops can be safely reached via the existing and proposed pedestrian infrastructure located in the vicinity of the site.

3.17 While the walking distance is slightly further than typically desirable, the potential for residents to consider these bus services as a viable travel option does reflect the above NPPF guidance. Based

on this guidance, the bus stops on Main Street are considered accessible from the proposed development site.

3.18 A summary of the bus services and frequencies is shown in **Table 3.1** below.

Bus	Route	Frequency (services per hour)			
		Weekday Daytime	Weekday Evening	Saturday	Sunday
30	Maryport – Workington - Whitehaven - Egremont - Thornhill	2	1	2	1

Table 3.1: Local Bus Services

3.19 As **Table 3.1** demonstrates, the closest bus stops to the site accommodate the No. 30 service, which operates a regular weekday, Saturday, and Sunday route between Whitehaven and Workington.

3.20 In addition to public bus services, there are also some dedicated services operated for employees of the Sellafield site, which is a significant local employer. Services operate from the centre of Egremont and include the following:

- A shuttle service from the company's Whitehaven offices and the Sellafield site, via Egremont.
- A park and ride service from the Moresby Parks park and ride (to the east of Whitehaven), via Cleator Moor and Egremont to the Sellafield site.

3.21 The site is therefore considered accessible by public transport.

4 Travel Plan Management

Introduction

4.1 This Interim Travel Plan has been prepared by Vectos on behalf of Gleeson Homes.

Travel Plan Co-ordinator

4.2 As the scheme progresses towards construction and promotion of the site for potential occupiers then a Travel Plan Co-ordinator (TPC) will be appointed by Gleeson Homes who will implement the measures and progress the Plan as the site develops.

4.3 Until the TPC is appointed responsibility for managing this Interim Travel Plan lies with:

- Richard Whiting
- Associate Director, SLR Consulting
- richard.whiting@slrconsulting.com

4.4 The Gleeson Homes representative commissioning this Interim Travel Plan is:

- Jordan Tyson
- Gleeson Homes

4.5 The roles may evolve as the scheme moves from the Interim Plan to a Full Travel Plan and Cumberland Council would be advised accordingly.

Travel Plan Commitment

4.6 Gleeson Homes recognises that by developing a Travel Plan, sustainable travel patterns can be established from the outset and maintained over time, minimising the impact that the development has upon the local environment and ensuring that, as far as possible, all residents are able to make informed journey choices.

4.7 Gleeson Homes has adopted a corporate approach to Travel Plan implementation across many of their sites, to ensure promotion of sustainable travel is targeted and ultimately, effective. This Interim Travel Plan is reflective of this wider approach.

4.8 Gleeson Homes commit themselves to implementing the measures contained within this Interim Travel Plan, monitoring the progress of the plan, amending it where necessary. To achieve this the necessary resources and funding will be made available to the TPC.

5 Measures to Reduce Car Use

Introduction

5.1 The objectives of the Travel Plan will be supported by a series of physical and behavioural measures for the site. These are to encourage greater use of public transport, cycling and walking for trips to and from the site, and to minimise the level of single occupancy private car trips.

Plan Management

5.2 Effective management is essential if the car travel reduction measures are to be successfully implemented. Day-to-day operation and management of the plan will be carried out by the TPC who will promote, maintain, monitor and review it. The TPC will be the focal point and point of contact for all travel-related issues among residents and prospective residents.

5.3 Gleeson Homes will procure the services of the TPC for the site. The role of the TPC will include (but not be limited to):

- Preparation and distribution of travel information and marketing material;
- Liaising with the sales team to ensure the sustainable travel credentials of the site are promoted from the outset;
- Engaging with residents on site on travel and transport related issues; and
- Responding to travel issues/questions.

Publicity and Promotion

5.4 One of the best times to influence travel patterns and habits is before they are established. For this reason, it is important that all prospective residents are made aware of the travel options available to them at the point at which they are considering moving to the development.

5.5 The sales team dealing with residential occupations will therefore be made fully aware of the Travel Plan and its aims and objectives. The sales office will be provided with copies of the travel information guide from first opening and will be provided with a briefing note detailing how these should be distributed.

On Line Information

5.6 All Gleeson Homes developments include a dedicated web page on the company website.

5.7 In each instance this provides information for existing and future residents on the transport characteristics of the site, including bus services, local schools, locally available amenities, and local leisure facilities. This helps to inform residents of the opportunities for travel by non-car modes.

5.8 An example of the webpage for the Briar Lea Park scheme in Cumbria is provided in **Figure 5.1** below.

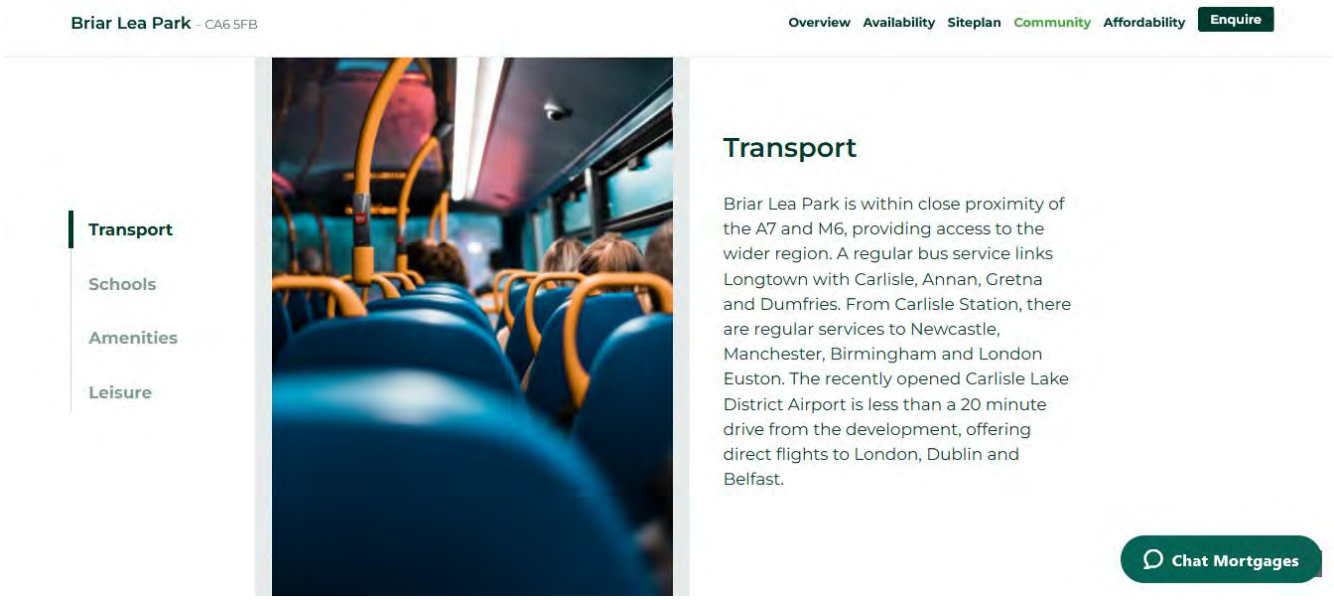


Figure 5.1: Briar Lea Park On-Line Information

Resident's Travel Brochure

5.9 To ensure an effective distribution of information the first occupier of each residential property will be provided with a Resident's Travel Brochure. A copy of the Brochure will also be made available within any sales office and sent out to prospective buyers upon request.

5.10 Sales and marketing staff should be made fully aware of the sustainable transport opportunities so that they can promote them to potential purchasers.

5.11 The Residents Travel Brochure will provide the information outlined below.

Information on the Benefits of Sustainable Travel

5.12 The Resident's Travel Brochure will include current information on the health and financial benefits associated with use of sustainable forms of transport. This may include reference to campaigns such as '10,000 steps per day'.

5.13 There are well documented health benefits associated with active travel, such as walking and cycling, which are increasingly being recognised as ways to reduce sedentary lifestyles.

- "26% of adults classified as obese in 2018, up from 15% in 1993."
- "Physical activity levels are low in the UK: 33% of men and 42% of women do not meet the minimum recommendations for physical activity in adults."

Source: 'Statistics on Obesity, Physical Activity and Diet, NHS Health and Social Care Information Centre,' 2018.

Walking and Cycling Opportunities

5.14 Walking is the most sustainable and accessible mode of travel. Furthermore, 30 minutes of moderate activity 5 or more times per week is likely to enhance the health and fitness of the individual.

5.15 The development will incorporate high-quality pedestrian routes within the site, and these will connect to established off-site routes. All residential properties will be able to securely store bicycles within the curtilage of their dwelling.

5.16 The Resident's Travel Brochure will also highlight websites which help to support and encourage walking and cycling, such as:

- The www.walkit.com website for journey planning on foot,
- The cycling information, including route maps and useful tips and guidance on the Sustrans website www.sustrans.org.uk

Public Transport Information

5.17 As noted earlier, a regular local bus service operates on Main Street.

5.18 The Resident's Travel Brochure will include information on the location of local bus stops and safe walking routes to these. The Brochure will also include links to relevant timetable information, including:

- https://tiscon-maps-stagecoachbus.s3.amazonaws.com/Timetables/Cumbria/West%20Cumbria/CNL_30_0422_WEB.pdf
- https://www.cumberland.gov.uk/parking-roads-and-transport/bus-services

Personalised Journey Planning

5.19 In order to encourage the adoption of sustainable travel habits, a link will be provided to enable residents to prepare Personal Journey Plans (PJPs). A PJP will outline an individual's journey from home to work or other regular destinations to help build confidence for those using public transport for the first time or undertaking a new journey.

5.20 Individuals can prepare their own journey plans and can be directed to the 'traveline' website:

- www.traveline.info

Travel Awareness

5.21 There are many mobile phone apps which are relevant to travel activity, and which can help to influence travel behaviour. The Resident's Travel Brochure will therefore promote relevant mobile phone travel apps/websites that can help plan and map out journeys by pedestrian, cycle, and public transport within the local area. These may include the following:

- UK Bus Checker – brings you live transit times, smart journey planning and comprehensive route maps for all of the UK. You can check the timetable or get live departures from your nearest stop or use its journey-planning feature to prepare for upcoming trips;

- Strava Cycling – track your rides and see your progress. Compare your performance against others and join sponsored challenges;

- Walk4Life – Plan your walk on a map, Record and save your favourite walks, as you walk. Measure walk duration, distance, speed, calories burnt. Join walk events, take up challenges and add photos of interesting things.

- Rome to Rio – a journey planning app which provides information on how to get from A to B, anywhere in the world, on a mobile or tablet. This provides multiple options and modes for journeys.

Car Sharing

5.22 The Resident's Travel Brochure will include information on the benefits of car sharing. If sufficient interest exists, the TPC will set up a database of resident's who wish to car share and will act as a point of contact to bring car sharers with similar requirements together.

Taxi Services

5.23 Taxi services provide the opportunity for residents to make occasional journeys which are not served by sustainable trave options without the need to own a car. The Resident's Travel Brochure will provide information on local taxi operators.

6 Monitoring of Success

Introduction

6.1 When delivering a Travel Plan it is important to monitor its progress and success. One easy way of understanding the impact of the Plan is to consider the modal split of trips being made from the site. A monitoring strategy has been set out below, which details how the success of the Travel Plan will be recorded and reported to the pertinent authorities.

6.2 To monitor the progress of the Travel Plan regularly surveys of resident's travel habits will be undertaken. The following survey pattern is envisaged:

- A baseline survey to determine travel patterns once the occupation level passes 100 dwellings. The surveys will be used to validate the initial modal split targets;
- A second survey of residents 12 months after the baseline during the same neutral month; and
- Thereafter bi-annually over a 4 year period.

6.3 The surveys will seek to identify any change in travel habits and will also be a means of identifying areas in which the TPC efforts can best be directed. The survey results and Travel Plan outcomes will be shared with Cumberland Council's Travel Plan Officer if required.

6.4 The baseline and follow-up surveys will include the following:

- A short survey will be distributed to all households during the same week to allow directly comparable data to be collected without seasonal effects. The survey should ask about the usual travel habits at the household, as well as providing an opportunity for residents to comment on improvements which would encourage them to use more sustainable travel modes. In order to encourage a high response rate, the survey will take no more than 2 minutes to complete and be advertised. The survey could also be made available via the development website.
- Cycle and pedestrian counts on routes into the development and the use of cycle stands provided to determine if more residents are walking and cycling to / from the site.

6.5 Information will be shared with Cumberland Council's Travel Plan Officer and the residents themselves, so they feel their time spent is valued and productive.

6.6 It is expected that the travel survey will be posted to each dwelling on the site and will then be collected 1 week from that date.

6.7 The results of the surveys will be presented in a Monitoring Report, which can be submitted to Cumberland Council on request. This Report will review progress towards the mode share target and identify any actions deemed necessary in the forthcoming period.

6.8 At the end of the initial 5-year period, a thorough assessment will be made on the success of the Residential Travel Plan against its targets. Thereafter the strategy for its continuation will be reviewed with Cumberland Council

Targets

6.9 Targets must be related to the Travel Plan objectives and follow the SMART (Specific, Measurable, Achievable, Realistic and Time bound) principles to allow effective monitoring of performance over time.

6.10 Preliminary mode share targets have been based upon journey to work data collected as part of the 2011 Census. This data has been extracted for the ward in which the site is located (MSOA Copeland 006) and used to derive typical modal splits (shown below for the 'Year of Occupation'), and then the subsequent modal split targets.

Year	Car Driver	Car Passenger	Public Transport	Walking	Cycling	Other (E.g. Motorbike/ taxi)
Year of First Occupation	68%	12%	6%	10%	3%	1%
1	67%	12%	6%	11%	3%	1%
3	65%	13%	6%	11%	4%	1%
5	63%	13%	7%	12%	4%	1%

Table 6.1: Preliminary Travel Targets

6.11 The targets are suggested as preliminary values and will be discussed and agreed with Cumberland Council officers during the planning process. Should the baseline surveys suggest very different modal splits to those agreed as part of the planning process then the agreed targets may be adjusted accordingly.

6.12 Should targets not be met, or if there are site specific issues that limit or discourage the use of sustainable travel, then the TPC will identify what pattern of travel behaviour requires improvement and direct initiatives at that issue.

6.13 It should be noted that the targets for the sustainable modes are inter-changeable, as the key target is a reduction in single car occupancy driving.

7 Action Plan

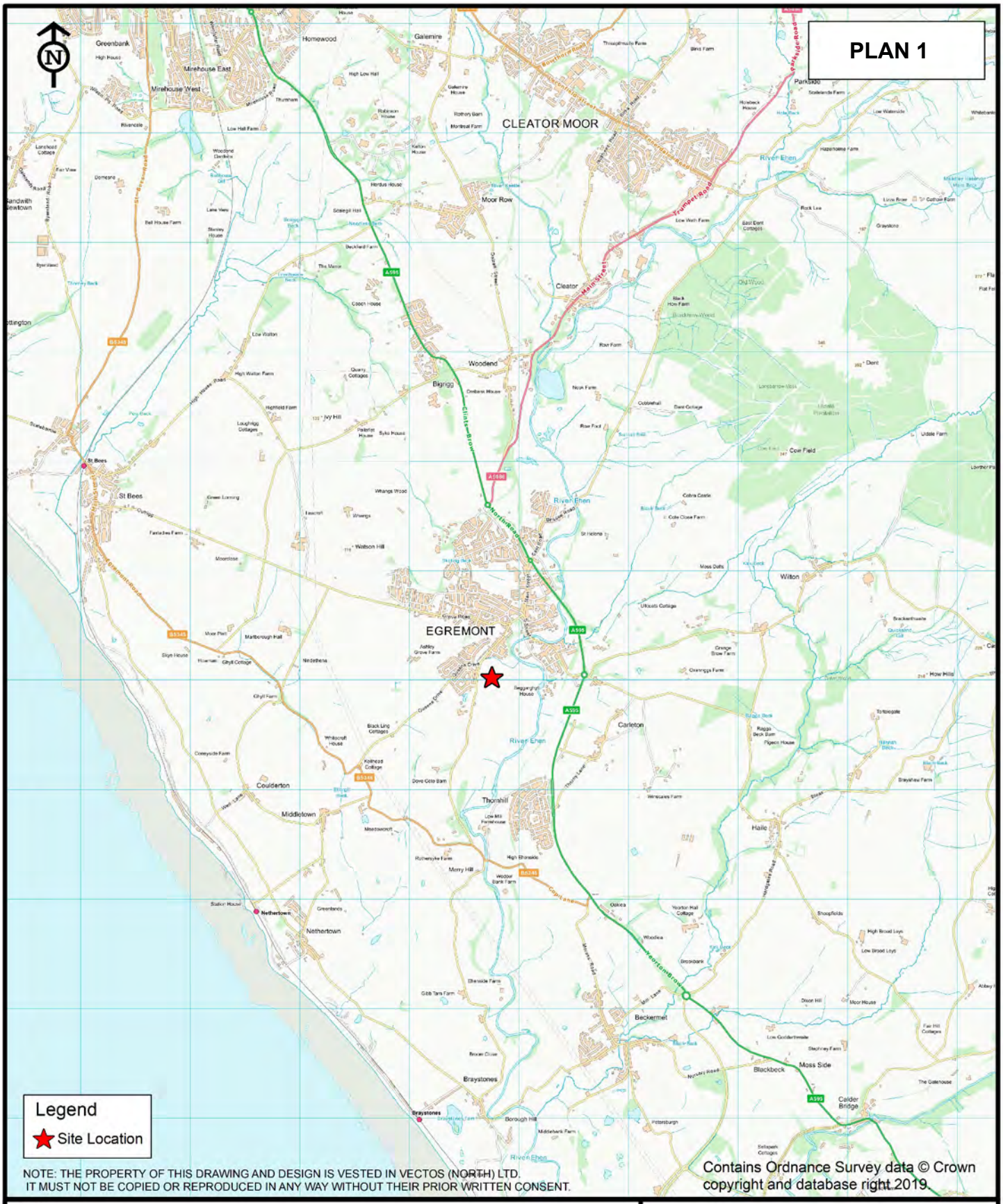
7.1 **Table 7.1** below provides a Travel Plan Action Plan and timescales for implementation.

Measure	Objective	Responsibility	Deadline
Interim Travel Plan	Prepare Interim Travel Plan	Vectos	Prior to Planning permission
Provide Pedestrian/Cycle Infrastructure	Promote Sustainable Travel Choices	Gleeson Homes	During construction
Appoint TPC	Provide person responsible for Plan	Gleeson Homes	Prior to first occupation
Set up development website	Provide person responsible for Plan	Gleeson Homes	Prior to first occupation
Prepare Resident's Travel Brochure	Promotion of sustainable travel	TPC	Prior to first occupation
Issue Resident's Travel Brochure	Promotion of sustainable travel	TPC	First occupant of each dwelling
Submit and agree Full Travel Plan	Promotion of sustainable travel	TPC	Prior to first occupation
Carry out baseline travel survey	Determine baseline travel patterns	TPC	Once occupation exceeds 100 units
Commission follow up travel survey	Monitor Travel Plan progress towards targets	TPC	12 months after baseline survey (and then in accordance with Travel Plan timescales)
Produce Progress Report	Tailor Travel Plan to site conditions and progress towards targets	TPC	1 month after each travel survey

Table 7.1: Action Plan

Plans

PLAN 1



CLIENT:
Gleeson Homes

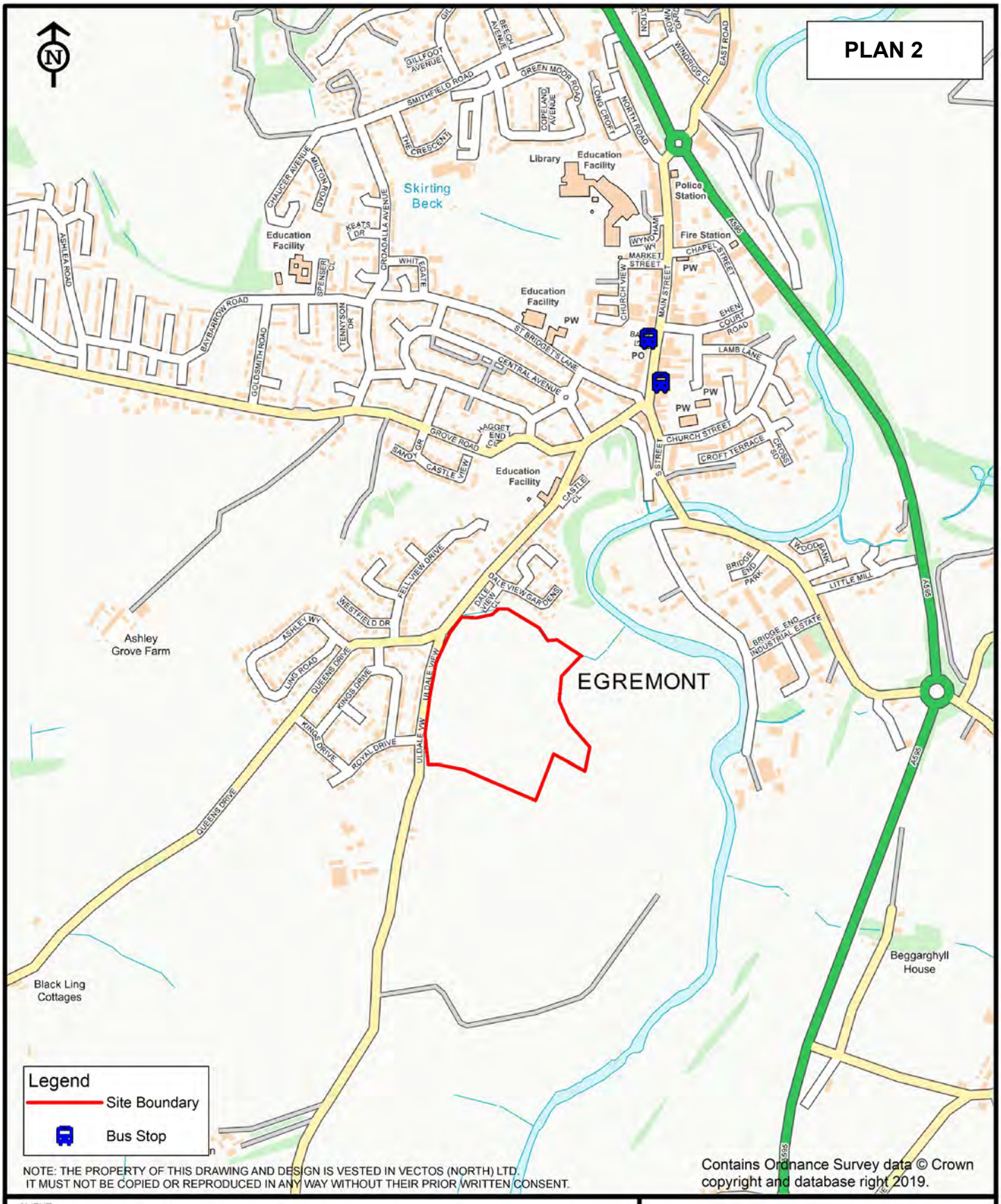
PROJECT TITLE:
Uldale View, Egremont

DRAWING TITLE:
Site Location (Wider Context)

vectos. | PART OF SLR

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

DRAWN:	CHECKED:	DATE	SCALE:	DRAWING NO:	REVISION:
CJ	RW	October 2022	1:48,000 at A4	VN222370-G100	-



CLIENT:
Gleeson Homes

PROJECT TITLE:
Uldale View, Egremont

DRAWING TITLE:
Site Location (Local Context)

vectos. | PART OF SLR

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

DRAWN:	CHECKED:	DATE	SCALE:	DRAWING NO:	REVISION:
CJ	RW	October 2022	1:10,000 at A4	VN222370-G101	-

NOTES

Do not scale from this drawing. Only figured dimensions are to be taken from this drawing.

The contractor must verify all dimensions on site before commencing any work or shop drawings.

The contractor must report any discrepancies to design by pod ltd before commencing work. If this drawing exceeds the quantities taken in any way, design by pod ltd is to be informed before the work is initiated.

Ordnance Survey information is used on design by pod ltd drawings. design by pod ltd is not responsible for the accuracy of dimensions relating to any Ordnance Survey data, or beyond the boundary of the inserted topographic survey data.

Work within The Construction (Design and Management) Regulations 2015 is not to start until a Health and Safety Plan has been produced.

PLAN 3

Uldale View, Egremont - 164 Units 22/06/23 73D-MJG-100-E

SCHEDULE OF ACCOMMODATION

Ref	House Name/Type No.	House Type	Sq.Ft	Garage/Parking	No.	Total Sq.Ft.
Standard Units						
201	CORK	2 bed semi or terraced	651	Front / Side Parking	10	6510
254	MOY	2 bed detached bungalow	697	Front / Side Parking	3	2091
301	TYRONE	3 bed semi or terraced	759	Front / Side Parking	13	9867
302	AVONMORE	3 bed semi or end terrace	759	Front / Side Parking	11	8349
340	KEADY	3 bed semi	839	Integral Garage	10	8390
369	369	3 bed semi	1061	Side / Front Parking	2	2122
390	390	3 bed semi / 2.5	1086	Side / Front Parking	10	10860
304	KILKENNY	3 bed detached	772	Front / Side Parking	7	5404
337	CALRY	3 bed detached	864	Integral Garage	8	6912
359	CLIFDEN	3 bed detached	984	Side / Front Parking	20	19680
360	MILFORD	3 bed detached	919	Side / Front Parking	9	8271
490	490	4 bed semi / 2.5	1212	Side / Front Parking	12	14544
401	LONGFORD	4 bed detached	1066	Side / Front Parking	11	11726
435	CALRY	4 bed detached	1221	Integral Garage	13	15873
436	KEADY	4 bed detached	1096	Integral Garage	15	16440
455	455	4 bed detached	1138	Detached garage	6	6828
590	590	5 bed detached / 2.5	1586	Detached garage	4	6344
					164	
Total Number of Units and Square Foot					164	160211

Gross Site Area in Metres	77875.8414
Gross Site Area in Acres	19.24
Strategic Public open Space in M	24507.3611
Strategic Public open Space in Ac	6.06
Net Site Area in Metres	53368.4803
Net Site Area in Acres	13.18
Net Site Area in Hectares	5.33
Density (Sq.Ft per Acre)	12156
Density (Units Per Acre)	12
Density (Units Per Hectare)	30.75

SCALE BAR 1:500

0 10 25 50

design by pod

99 galgate/barnard castle/ county durham/dl12 8es
e: andy@designbypod.co.uk
tel: 01833 696 600
web:www.designbypod.co.uk

PROJECT:
Land off Uldale View, Egremont

DRAWING TITLE:
Detailed Site Layout Plan Coloured

CLIENT:		DATE:
MJG		06/23
STATUS: PLANNING	DWN BY: JG	CKD BY: AD
SCALE: 1:500	SHEET SIZE: A0	REVISION:
PROJECT NO: 73D-MJG	DRAWING NO: 101	

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

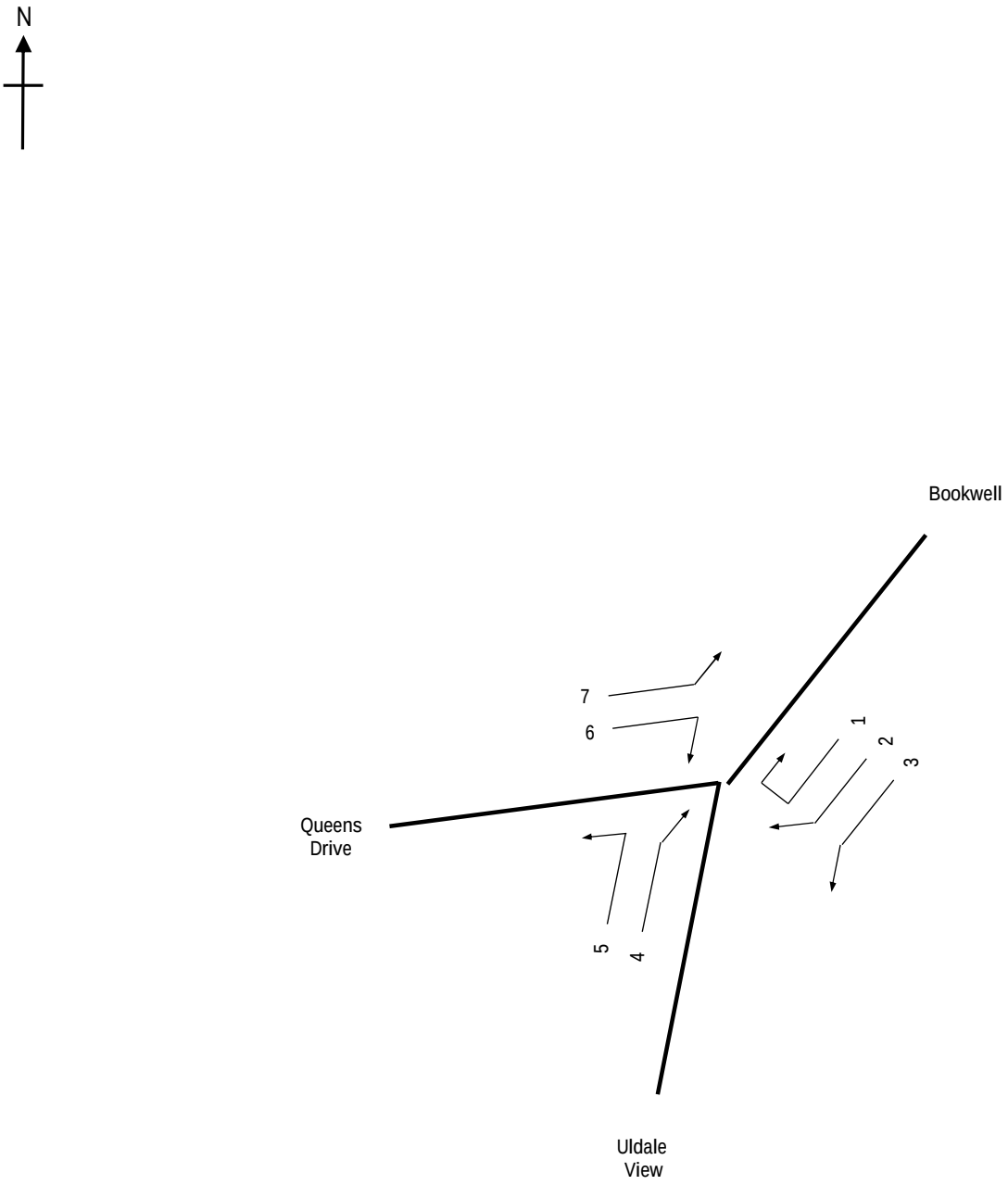
Appendix B

Traffic Survey Data

SURVEY CONTROL

Client:	Vectos North
Client Contact:	Rich Whiting
Survey Location:	Egremont
Date(s) of Survey:	Thursday 15th September 2022
Notes:	
On Site Supervisor:	Neil Harley
Data Checking:	David Cheng
Survey Reference:	22.091 Egremont
Status:	Final
Date of Issue:	16th September 2022

JUNCTION 1



DRAWING TITLE: TRAFFIC MOVEMENT REFERENCE			
JOB TITLE: 22.091 EGREMONT			
DRAWN BY: DC	DATE: SEP 2022	SCALE: NTS	REF: FIGURE 1

Transport Data Specialists Ltd
W: www.transportds.co.uk
E: enquiries@transportds.co.uk
T: 0777 625 2475 T: 0794 007 1260

Time Beginning	Bookwell/Uldale View/Queens Drive - Thursday 15th September 2022													
	1		2		3		4		5		6		7	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
0700	1	0	2	0	0	1	2	1	0	0	0	0	29	1
0715	0	0	4	0	4	0	3	0	0	0	0	0	24	1
0730	0	0	11	2	1	0	1	0	0	0	0	0	29	2
0745	0	0	12	0	6	0	5	0	0	0	0	0	25	0
0800	0	0	11	0	3	0	7	1	0	0	0	1	22	4
0815	2	0	12	1	1	1	3	4	0	1	0	0	22	0
0830	5	0	9	0	1	0	5	1	0	0	0	0	35	0
0845	2	0	26	1	5	1	1	0	0	0	0	0	22	1
0900	1	0	12	1	1	0	4	0	0	0	0	0	18	0
0915	0	0	12	0	3	0	4	0	0	0	0	0	15	1
0930	1	1	13	2	2	2	1	1	0	0	0	1	19	0
0945	1	0	9	0	1	1	5	0	0	0	0	0	16	0

Time Beginning	Bookwell/Uldale View/Queens Drive - Thursday 15th September 2022													
	1		2		3		4		5		6		7	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
1600	3	0	41	1	6	0	4	0	0	0	0	0	21	0
1615	3	0	29	0	3	0	3	1	0	0	0	0	12	0
1630	1	0	27	1	4	0	4	0	0	0	1	0	27	0
1645	0	0	31	1	7	0	3	0	1	0	0	0	17	0
1700	0	0	38	0	5	4	2	0	0	0	0	0	29	1
1715	1	0	34	0	5	0	2	1	1	0	0	0	29	1
1730	0	0	38	0	7	0	4	0	0	0	0	0	27	0
1745	0	0	35	0	9	1	3	0	0	0	0	0	27	0
1800	0	0	25	0	5	0	2	1	0	0	0	0	29	0
1815	0	0	18	0	3	0	3	0	0	0	0	0	24	0
1830	0	0	19	0	7	1	8	0	0	0	0	0	25	0
1845	0	0	19	0	7	3	4	0	0	0	0	0	16	0

Appendix C

TRICS Output: Private Residential

Calculation Reference: AUDIT-715001-220926-0905

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	2 days
	HC	HAMPSHIRE	1 days
	HF	HERTFORDSHIRE	1 days
	KC	KENT	1 days
03	SOUTH WEST		
	DV	DEVON	2 days
04	EAST ANGLIA		
	NF	NORFOLK	6 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: No of Dwellings
Actual Range: 70 to 297 (units:)
Range Selected by User: 70 to 300 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

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 16/11/21

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	2 days
Wednesday	4 days
Thursday	2 days
Friday	3 days

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

Selected survey types:

Manual count	8 days
Directional ATC Count	5 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	11

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

Selected Location Sub Categories:

Residential Zone	12
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:

C3	13 days

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	3 days
5,001 to 10,000	6 days
10,001 to 15,000	3 days

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

Population within 5 miles:

5,001 to 25,000	7 days
25,001 to 50,000	3 days
50,001 to 75,000	3 days

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

Car ownership within 5 miles:

1.1 to 1.5	12 days
1.6 to 2.0	1 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	9 days
No	4 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	13 days

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

LIST OF SITES relevant to selection parameters

1 DV-03-A-02 HOUSES & BUNGALOWS DEVON
MILLHEAD ROAD
HONITON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 116
Survey date: FRIDAY *25/09/15* *Survey Type: MANUAL*

2 DV-03-A-03 TERRACED & SEMI DETACHED DEVON
LOWER BRAND LANE
HONITON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 70
Survey date: MONDAY *28/09/15* *Survey Type: MANUAL*

3 ES-03-A-04 MIXED HOUSES & FLATS EAST SUSSEX
NEW LYDD ROAD
CAMBER

Edge of Town
Residential Zone
Total No of Dwellings: 134
Survey date: FRIDAY *15/07/16* *Survey Type: MANUAL*

4 ES-03-A-07 MIXED HOUSES & FLATS EAST SUSSEX
NEW ROAD
HAILSHAM
HELLINGLY
Edge of Town
Residential Zone
Total No of Dwellings: 91
Survey date: THURSDAY *07/11/19* *Survey Type: MANUAL*

5 HC-03-A-27 MIXED HOUSES HAMPSHIRE
DAIRY ROAD
ANDOVER

Edge of Town
Residential Zone
Total No of Dwellings: 73
Survey date: TUESDAY *16/11/21* *Survey Type: MANUAL*

6 HF-03-A-03 MIXED HOUSES HERTFORDSHIRE
HARE STREET ROAD
BUNTINGFORD

Edge of Town
Residential Zone
Total No of Dwellings: 160
Survey date: MONDAY *08/07/19* *Survey Type: MANUAL*

7 KC-03-A-07 MIXED HOUSES KENT
RECULVER ROAD
HERNE BAY

Edge of Town
Residential Zone
Total No of Dwellings: 288
Survey date: WEDNESDAY *27/09/17* *Survey Type: MANUAL*

8 NF-03-A-07 MIXED HOUSES & FLATS NORFOLK
SILFIELD ROAD
WYMONDHAM

Edge of Town
Out of Town
Total No of Dwellings: 297
Survey date: FRIDAY *20/09/19* *Survey Type: DIRECTIONAL ATC COUNT*

9 NF-03-A-16 MIXED HOUSES & FLATS NORFOLK
NORWICH COMMON
WYMONDHAM

Edge of Town
Residential Zone
Total No of Dwellings: 138
Survey date: TUESDAY *20/10/15* *Survey Type: DIRECTIONAL ATC COUNT*

LIST OF SITES relevant to selection parameters (Cont.)

10 NF-03-A-24 MIXED HOUSES & FLATS NORFOLK
HUNSTANTON ROAD
HUNSTANTON

Edge of Town
Residential Zone
Total No of Dwellings: 127
Survey date: WEDNESDAY *22/09/21* *Survey Type: DIRECTIONAL ATC COUNT*

11 NF-03-A-26 MIXED HOUSES NORFOLK
HEATH DRIVE
HOLT

Edge of Town
Residential Zone
Total No of Dwellings: 91
Survey date: WEDNESDAY *22/09/21* *Survey Type: DIRECTIONAL ATC COUNT*

12 NF-03-A-28 MIXED HOUSES NORFOLK
NORTH WALSHAM ROAD
NORTH WALSHAM

Edge of Town
Residential Zone
Total No of Dwellings: 100
Survey date: WEDNESDAY *22/09/21* *Survey Type: DIRECTIONAL ATC COUNT*

13 NF-03-A-30 MIXED HOUSES NORFOLK
BRANDON ROAD
SWAFFHAM

Edge of Town
Residential Zone
Total No of Dwellings: 266
Survey date: THURSDAY *23/09/21* *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 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	13	150	0.105	13	150	0.309	13	150	0.414
08:00 - 09:00	13	150	0.145	13	150	0.336	13	150	0.481
09:00 - 10:00	13	150	0.146	13	150	0.169	13	150	0.315
10:00 - 11:00	13	150	0.135	13	150	0.177	13	150	0.312
11:00 - 12:00	13	150	0.134	13	150	0.159	13	150	0.293
12:00 - 13:00	13	150	0.156	13	150	0.155	13	150	0.311
13:00 - 14:00	13	150	0.168	13	150	0.152	13	150	0.320
14:00 - 15:00	13	150	0.167	13	150	0.184	13	150	0.351
15:00 - 16:00	13	150	0.283	13	150	0.161	13	150	0.444
16:00 - 17:00	13	150	0.283	13	150	0.185	13	150	0.468
17:00 - 18:00	13	150	0.358	13	150	0.171	13	150	0.529
18:00 - 19:00	13	150	0.283	13	150	0.188	13	150	0.471
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.363			2.346			4.709

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.*

Parameter summary

Trip rate parameter range selected:	70 - 297 (units:)
Survey date date range:	01/01/14 - 16/11/21
Number of weekdays (Monday-Friday):	17
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Appendix D

Junction Assessment: Bookwell / Queens Drive / Uldale View

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.3.1598

For sales and distribution information, program advice and maintenance, contact TRL Software:
+44 (0)1344 379777 software@trl.co.uk trlsoftware.com

Filename: Queens Drive Uldale View_v2.j10
Path: N:\Vectos Job Data\2022\VN222370 Uldale View, Egremont\Picady
Report generation date: 13/06/2023 11:09:28

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Base									
Stream B-C	D1	0.0	4.89	0.00	A	D2	0.0	5.01	0.00	A
Stream B-A		0.1	7.09	0.06	A		0.0	7.20	0.03	A
Stream C-B		0.0	5.70	0.00	A		0.0	0.00	0.00	A
	2028 Base									
Stream B-C	D3	0.0	4.90	0.00	A	D4	0.0	5.02	0.00	A
Stream B-A		0.1	7.12	0.06	A		0.0	7.25	0.03	A
Stream C-B		0.0	5.71	0.00	A		0.0	0.00	0.00	A
	2028 Base + Dev									
Stream B-C	D5	0.0	5.10	0.01	A	D6	0.0	5.17	0.00	A
Stream B-A		0.2	8.09	0.17	A		0.1	7.80	0.09	A
Stream C-B		0.0	5.77	0.01	A		0.0	0.00	0.00	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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	
Location	
Site number	
Date	10/10/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	VECTOSNORTH\manchester.modelling
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

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		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)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15
D2	2023 Base	PM	ONE HOUR	16:45	18:15	15
D3	2028 Base	AM	ONE HOUR	07:45	09:15	15
D4	2028 Base	PM	ONE HOUR	16:45	18:15	15
D5	2028 Base + Dev	AM	ONE HOUR	07:45	09:15	15
D6	2028 Base + Dev	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Uldale View Priority	T-Junction	Two-way	Two-way	Two-way		0.96	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.96	A

Arms

Arms

Arm	Name	Description	Arm type
A	Bookwell		Major
B	Uldale View		Minor
C	Queens Drive		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	5.95			150.0		-

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	9.30	3.20	3.20	3.20		1.00	70	70

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	584	0.107	0.270	0.170	0.385
B-C	778	0.120	0.302	-	-
C-B	661	0.257	0.257	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	86	100.000
B		✓	30	100.000
C		✓	114	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	14	72
	B	28	0	2
	C	112	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	1
	C	0	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	4.89	0.0	A
B-A	0.06	7.09	0.1	A
C-A				
C-B	0.00	5.70	0.0	A
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	753	0.002	1	0.0	4.811	A
B-A	21	554	0.038	21	0.0	6.768	A
C-A	84			84			
C-B	2	644	0.002	1	0.0	5.628	A
A-B	11			11			
A-C	54			54			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	748	0.002	2	0.0	4.845	A
B-A	25	548	0.046	25	0.0	6.900	A
C-A	101			101			
C-B	2	641	0.003	2	0.0	5.659	A
A-B	13			13			
A-C	65			65			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	742	0.003	2	0.0	4.892	A
B-A	31	540	0.057	31	0.1	7.088	A
C-A	123			123			
C-B	2	637	0.003	2	0.0	5.703	A
A-B	15			15			
A-C	79			79			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	742	0.003	2	0.0	4.892	A
B-A	31	540	0.057	31	0.1	7.088	A
C-A	123			123			
C-B	2	637	0.003	2	0.0	5.703	A
A-B	15			15			
A-C	79			79			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	748	0.002	2	0.0	4.847	A
B-A	25	548	0.046	25	0.0	6.904	A
C-A	101			101			
C-B	2	641	0.003	2	0.0	5.659	A
A-B	13			13			
A-C	65			65			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	753	0.002	2	0.0	4.811	A
B-A	21	554	0.038	21	0.0	6.771	A
C-A	84			84			
C-B	2	644	0.002	2	0.0	5.628	A
A-B	11			11			
A-C	54			54			

2023 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Uldale View Priority	T-Junction	Two-way	Two-way	Two-way		0.31	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.31	A

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)
D2	2023 Base	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	183	100.000
B		✓	14	100.000
C		✓	117	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	36	147
	B	13	0	1
	C	117	0	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
B-C	0.00	5.01	0.0	A
B-A	0.03	7.20	0.0	A
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.75	738	0.001	0.75	0.0	4.880	A
B-A	10	537	0.018	10	0.0	6.837	A
C-A	88			88			
C-B	0	625	0.000	0	0.0	0.000	A
A-B	27			27			
A-C	111			111			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.90	730	0.001	0.90	0.0	4.934	A
B-A	12	527	0.022	12	0.0	6.985	A
C-A	105			105			
C-B	0	619	0.000	0	0.0	0.000	A
A-B	32			32			
A-C	132			132			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1	720	0.002	1	0.0	5.009	A
B-A	14	515	0.028	14	0.0	7.200	A
C-A	129			129			
C-B	0	609	0.000	0	0.0	0.000	A
A-B	40			40			
A-C	162			162			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1	720	0.002	1	0.0	5.009	A
B-A	14	515	0.028	14	0.0	7.200	A
C-A	129			129			
C-B	0	609	0.000	0	0.0	0.000	A
A-B	40			40			
A-C	162			162			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.90	730	0.001	0.90	0.0	4.934	A
B-A	12	527	0.022	12	0.0	6.986	A
C-A	105			105			
C-B	0	619	0.000	0	0.0	0.000	A
A-B	32			32			
A-C	132			132			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.75	738	0.001	0.75	0.0	4.880	A
B-A	10	537	0.018	10	0.0	6.838	A
C-A	88			88			
C-B	0	625	0.000	0	0.0	0.000	A
A-B	27			27			
A-C	111			111			

2028 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Uldale View Priority	T-Junction	Two-way	Two-way	Two-way		0.96	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.96	A

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)
D3	2028 Base	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	89	100.000
B		✓	31	100.000
C		✓	118	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	15	74
	B	29	0	2
	C	116	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	1
	C	0	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	4.90	0.0	A
B-A	0.06	7.12	0.1	A
C-A				
C-B	0.00	5.71	0.0	A
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	753	0.002	1	0.0	4.816	A
B-A	22	553	0.040	22	0.0	6.790	A
C-A	87			87			
C-B	2	644	0.002	1	0.0	5.633	A
A-B	11			11			
A-C	56			56			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	747	0.002	2	0.0	4.851	A
B-A	26	547	0.048	26	0.0	6.928	A
C-A	104			104			
C-B	2	640	0.003	2	0.0	5.665	A
A-B	13			13			
A-C	67			67			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	740	0.003	2	0.0	4.900	A
B-A	32	538	0.059	32	0.1	7.124	A
C-A	128			128			
C-B	2	636	0.003	2	0.0	5.710	A
A-B	17			17			
A-C	81			81			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	740	0.003	2	0.0	4.900	A
B-A	32	538	0.059	32	0.1	7.124	A
C-A	128			128			
C-B	2	636	0.003	2	0.0	5.710	A
A-B	17			17			
A-C	81			81			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	747	0.002	2	0.0	4.853	A
B-A	26	547	0.048	26	0.1	6.932	A
C-A	104			104			
C-B	2	640	0.003	2	0.0	5.665	A
A-B	13			13			
A-C	67			67			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	753	0.002	2	0.0	4.818	A
B-A	22	553	0.040	22	0.0	6.796	A
C-A	87			87			
C-B	2	644	0.002	2	0.0	5.633	A
A-B	11			11			
A-C	56			56			

2028 Base , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Uldale View Priority	T-Junction	Two-way	Two-way	Two-way		0.33	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.33	A

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)
D4	2028 Base	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	189	100.000
B		✓	15	100.000
C		✓	121	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	37	152
	B	14	0	1
	C	121	0	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
B-C	0.00	5.02	0.0	A
B-A	0.03	7.25	0.0	A
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.75	737	0.001	0.75	0.0	4.890	A
B-A	11	535	0.020	10	0.0	6.868	A
C-A	91			91			
C-B	0	624	0.000	0	0.0	0.000	A
A-B	28			28			
A-C	114			114			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.90	729	0.001	0.90	0.0	4.946	A
B-A	13	526	0.024	13	0.0	7.024	A
C-A	109			109			
C-B	0	617	0.000	0	0.0	0.000	A
A-B	33			33			
A-C	137			137			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1	717	0.002	1	0.0	5.025	A
B-A	15	512	0.030	15	0.0	7.250	A
C-A	133			133			
C-B	0	607	0.000	0	0.0	0.000	A
A-B	41			41			
A-C	167			167			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1	717	0.002	1	0.0	5.025	A
B-A	15	512	0.030	15	0.0	7.250	A
C-A	133			133			
C-B	0	607	0.000	0	0.0	0.000	A
A-B	41			41			
A-C	167			167			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.90	729	0.001	0.90	0.0	4.948	A
B-A	13	526	0.024	13	0.0	7.024	A
C-A	109			109			
C-B	0	617	0.000	0	0.0	0.000	A
A-B	33			33			
A-C	137			137			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.75	737	0.001	0.75	0.0	4.890	A
B-A	11	535	0.020	11	0.0	6.871	A
C-A	91			91			
C-B	0	624	0.000	0	0.0	0.000	A
A-B	28			28			
A-C	114			114			

2028 Base + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Uldale View Priority	T-Junction	Two-way	Two-way	Two-way		2.25	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.25	A

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)
D5	2028 Base + Dev	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	109	100.000
B		✓	87	100.000
C		✓	121	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	35	74
	B	81	0	6
	C	116	5	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
B-C	0.01	5.10	0.0	A
B-A	0.17	8.09	0.2	A
C-A				
C-B	0.01	5.77	0.0	A
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	736	0.006	4	0.0	4.928	A
B-A	61	550	0.111	60	0.1	7.349	A
C-A	87			87			
C-B	4	640	0.006	4	0.0	5.671	A
A-B	26			26			
A-C	56			56			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	727	0.007	5	0.0	4.996	A
B-A	73	544	0.134	73	0.2	7.649	A
C-A	104			104			
C-B	4	636	0.007	4	0.0	5.714	A
A-B	31			31			
A-C	67			67			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	714	0.009	7	0.0	5.095	A
B-A	89	535	0.167	89	0.2	8.085	A
C-A	128			128			
C-B	6	630	0.009	5	0.0	5.775	A
A-B	39			39			
A-C	81			81			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	714	0.009	7	0.0	5.096	A
B-A	89	535	0.167	89	0.2	8.091	A
C-A	128			128			
C-B	6	630	0.009	6	0.0	5.775	A
A-B	39			39			
A-C	81			81			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	727	0.007	5	0.0	4.996	A
B-A	73	544	0.134	73	0.2	7.658	A
C-A	104			104			
C-B	4	636	0.007	5	0.0	5.716	A
A-B	31			31			
A-C	67			67			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	736	0.006	5	0.0	4.929	A
B-A	61	550	0.111	61	0.1	7.370	A
C-A	87			87			
C-B	4	640	0.006	4	0.0	5.671	A
A-B	26			26			
A-C	56			56			

2028 Base + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Uldale View Priority	T-Junction	Two-way	Two-way	Two-way		0.80	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.80	A

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)
D6	2028 Base + Dev	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	248	100.000
B		✓	43	100.000
C		✓	121	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	96	152
	B	40	0	3
	C	121	0	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
B-C	0.00	5.17	0.0	A
B-A	0.09	7.80	0.1	A
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	725	0.003	2	0.0	4.983	A
B-A	30	530	0.057	30	0.1	7.189	A
C-A	91			91			
C-B	0	613	0.000	0	0.0	0.000	A
A-B	72			72			
A-C	114			114			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	714	0.004	3	0.0	5.061	A
B-A	36	520	0.069	36	0.1	7.437	A
C-A	109			109			
C-B	0	604	0.000	0	0.0	0.000	A
A-B	86			86			
A-C	137			137			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	699	0.005	3	0.0	5.174	A
B-A	44	505	0.087	44	0.1	7.801	A
C-A	133			133			
C-B	0	591	0.000	0	0.0	0.000	A
A-B	106			106			
A-C	167			167			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	699	0.005	3	0.0	5.174	A
B-A	44	505	0.087	44	0.1	7.802	A
C-A	133			133			
C-B	0	591	0.000	0	0.0	0.000	A
A-B	106			106			
A-C	167			167			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	714	0.004	3	0.0	5.064	A
B-A	36	520	0.069	36	0.1	7.443	A
C-A	109			109			
C-B	0	604	0.000	0	0.0	0.000	A
A-B	86			86			
A-C	137			137			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	724	0.003	2	0.0	4.986	A
B-A	30	530	0.057	30	0.1	7.196	A
C-A	91			91			
C-B	0	613	0.000	0	0.0	0.000	A
A-B	72			72			
A-C	114			114			

Appendix E

Junction Assessment: Site Access

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: Site Access - v2.j10
Path: N:\Vectos Job Data\2022\VN222370 Uldale View, Egremont\Picady
Report generation date: 13/06/2023 11:01:51

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2028 Base With Development									
Stream B-AC	D1	0.1	8.09	0.12	A	D2	0.1	7.68	0.06	A
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	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	
Location	
Site number	
Date	13/10/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	VECTOSNORTH\manchester.modelling
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

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		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)
D1	2028 Base With Development	AM	ONE HOUR	07:45	09:15	15
D2	2028 Base With Development	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2028 Base With Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Uldale View Site Access	T-Junction	Two-way	Two-way	Two-way		3.50	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.50	A

Arms

Arms

Arm	Name	Description	Arm type
A	Uldale View (North)		Major
B	Site Access		Minor
C	Uldale View (South		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00			45.0	✓	0.00

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	2.75	95	45

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	518	0.094	0.238	0.150	0.340
B-C	636	0.097	0.246	-	-
C-B	600	0.232	0.232	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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)
D1	2028 Base With Development	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	41	100.000
B		✓	55	100.000
C		✓	31	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	24	17
	B	55	0	0
	C	31	0	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
B-AC	0.12	8.09	0.1	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	41	509	0.081	41	0.1	7.683	A
C-AB	0	593	0.000	0	0.0	0.000	A
C-A	23			23			
A-B	18			18			
A-C	13			13			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	49	508	0.097	49	0.1	7.854	A
C-AB	0	591	0.000	0	0.0	0.000	A
C-A	28			28			
A-B	22			22			
A-C	15			15			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	61	505	0.120	60	0.1	8.087	A
C-AB	0	590	0.000	0	0.0	0.000	A
C-A	34			34			
A-B	26			26			
A-C	19			19			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	61	505	0.120	61	0.1	8.090	A
C-AB	0	590	0.000	0	0.0	0.000	A
C-A	34			34			
A-B	26			26			
A-C	19			19			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	49	508	0.097	50	0.1	7.859	A
C-AB	0	591	0.000	0	0.0	0.000	A
C-A	28			28			
A-B	22			22			
A-C	15			15			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	41	509	0.081	41	0.1	7.697	A
C-AB	0	593	0.000	0	0.0	0.000	A
C-A	23			23			
A-B	18			18			
A-C	13			13			

2028 Base With Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Uldale View Site Access	T-Junction	Two-way	Two-way	Two-way		1.55	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.55	A

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)
D2	2028 Base With Development	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	96	100.000
B		✓	28	100.000
C		✓	15	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	59	37
	B	28	0	0
	C	15	0	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
B-AC	0.06	7.68	0.1	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	21	505	0.042	21	0.0	7.434	A
C-AB	0	583	0.000	0	0.0	0.000	A
C-A	11			11			
A-B	44			44			
A-C	28			28			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	25	503	0.050	25	0.1	7.539	A
C-AB	0	580	0.000	0	0.0	0.000	A
C-A	13			13			
A-B	53			53			
A-C	33			33			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	499	0.062	31	0.1	7.683	A
C-AB	0	575	0.000	0	0.0	0.000	A
C-A	17			17			
A-B	65			65			
A-C	41			41			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	499	0.062	31	0.1	7.685	A
C-AB	0	575	0.000	0	0.0	0.000	A
C-A	17			17			
A-B	65			65			
A-C	41			41			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	25	503	0.050	25	0.1	7.543	A
C-AB	0	580	0.000	0	0.0	0.000	A
C-A	13			13			
A-B	53			53			
A-C	33			33			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	21	505	0.042	21	0.0	7.441	A
C-AB	0	583	0.000	0	0.0	0.000	A
C-A	11			11			
A-B	44			44			
A-C	28			28			

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