Orion Homes Ltd

Denby Lane
Grange Moor

Transport Statement

sanderson associates
consulting engineers

Control Sheet

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Grange Moor

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Acknowledgements

Google My Maps has been used to generate figures included in this report for illustrative purposes only.

The Crashmap Pro Collision Analysis System has been utilised to carry out a road traffic incident review.

OpenRouteService has been used to generate figures included in this report for illustrative purposes only.

Extract of CIHT 'Planning for Walking' (April 2015) has been included in this report.

An extract from OpenStreetMap has been used in this report for illustrative purposes only https://www.openstreetmap.org/copyright.

Extract of CIHT 'Buses in Urban Developments' (January 2018) has been included in this report.

The TRICS database v7.11.1 has been used in this report to calculate traffic generations.

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1. Introduction

1.1 Sanderson Associates Consulting Engineers has been appointed by Orion Homes Ltd to prepare this Transport Statement to support the planning application for 21 dwellings on land off Denby Road, Grange Moor.

1.2 In accordance with the National Planning Policy Guidance (NPPG) for the requirements of a Transport Statement, as outlined in 'Travel Plans, Transport Assessments and Statements,' published in March 2014, this report will investigate:

- → The local highway network and its highway safety record;
- → The existing use of the site;
- → The proposed development;
- → Accessibility of the site, in relation to local facilities by sustainable modes;
- → The predicted multimodal trip generations; and,
- → The impact of the development on the local highway network in terms of highway safety and capacity.

2. Planning Policy Context

2.1 National Planning Policy

2.1.1 In December 2023 the latest National Planning Policy Framework (NPPF) was published, which sets out the Government's planning policies for England and how these are expected to be applied. The following NPPF transport paragraph is most relevant to this proposed development:

2.1.2 At NPPF paragraph 38 it states that;

'Local planning authorities should approach decisions on proposed development in a positive and creative way. They should use the full range of planning tools available, including brownfield registers and permission in principle, and work proactively with applicants to secure developments that will improve the economic, social and environmental conditions of the area. Decision-makers at every level should seek to approve applications for sustainable development where possible.'

2.1.3 In considering development proposals NPPF paragraph 114 states that;

'In assessing sites that may be allocated for development in plans, or specific 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 46; 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.'

2.1.4 NPPF paragraph 115 states:

'Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.'

2.1.5 NPPF paragraph 116 states in relation to paragraph 115 that:

'Within this context, applications for development should:

a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;

b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;

c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;

d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and

e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.'

2.1.6 NPPF paragraph 117 concludes that:

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

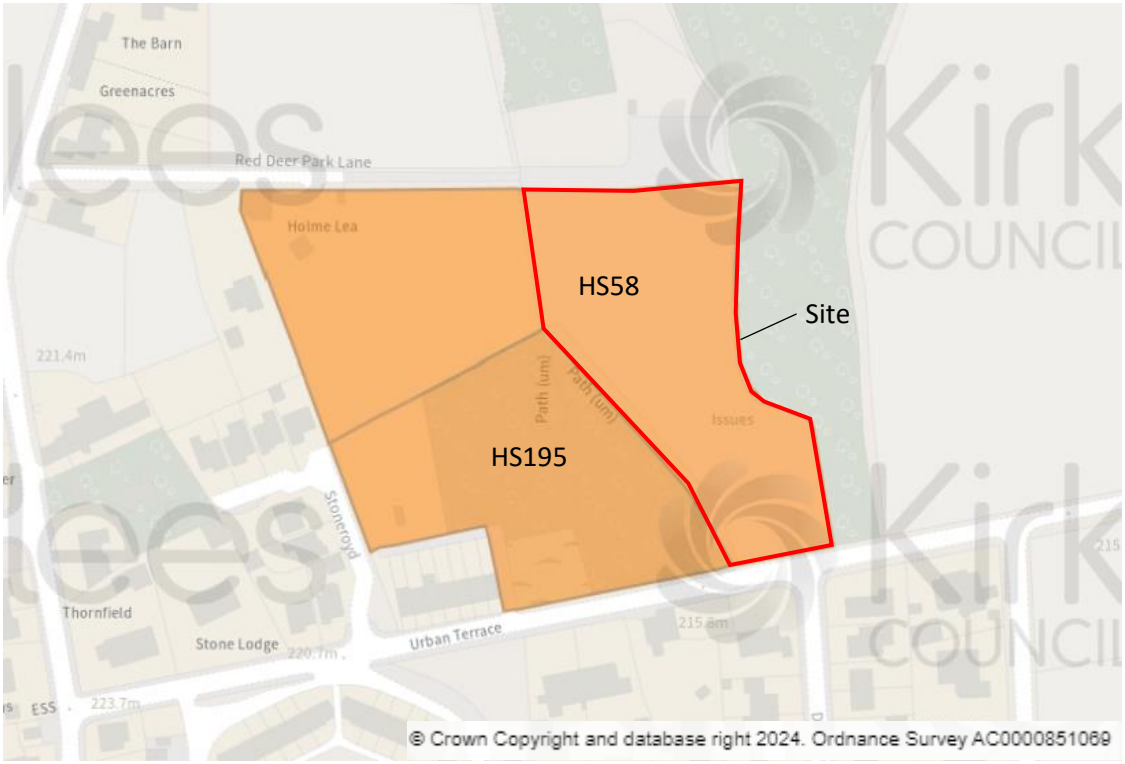
2.2 Local Planning Policy

2.2.1 The Kirklees Local Plan was adopted in February 2019 and is the "*statutory development plan and its purpose is to set out the policies necessary to achieve the strategy and how much new development there should be in the district and where it will go."*

2.2.2 The Local Plan follows NPPF with regards sustainable development with Policy LP1 stating *"When considering development proposals, the council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework. The council will always work pro-actively with applicants jointly to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area."*

2.2.3 As demonstrated in **Figure 1**, overleaf, the site forms part of allocated housing site HS58 Land south of Red Deer Park Lane, Briestfield (42 dwellings) and sits adjacent to allocated housing site HS195 Land to the north west of Urban Terrace, Denby Lane (22 dwellings).

Figure 1 – Extract of Kirklees Development Plan policies map



2.3 Planning History

2.3.1 The site was previously the subject of planning application reference 2021/62/94747/E for the "Erection of 18 dwellings and associated works". However, the application was withdrawn prior to a decision being issued.

2.3.2 Nevertheless, Kirklees Highways Development Management provided a consultation response, dated 23 August 2022, on the proposals. Elements of the comments that are considered relevant to the current proposals are included below:

- → Each dwelling was proposed to have off-street parking commensurate with the recommendations set out in Kirklees' Highway Design Guide SPD. It was requested that visitor parking should be provided at a rate of one per four dwellings spread throughout the site.
- → Visibility splays of 2.4 x 43m were required at the site access.
- → The internal turning of an 11.85m refuse vehicle was required.
- → Concerns were raised with creating a junction less than 45m from Ben Booth Lane. However, the access for the current proposals is approximately 70m from Ben Booth Lane.

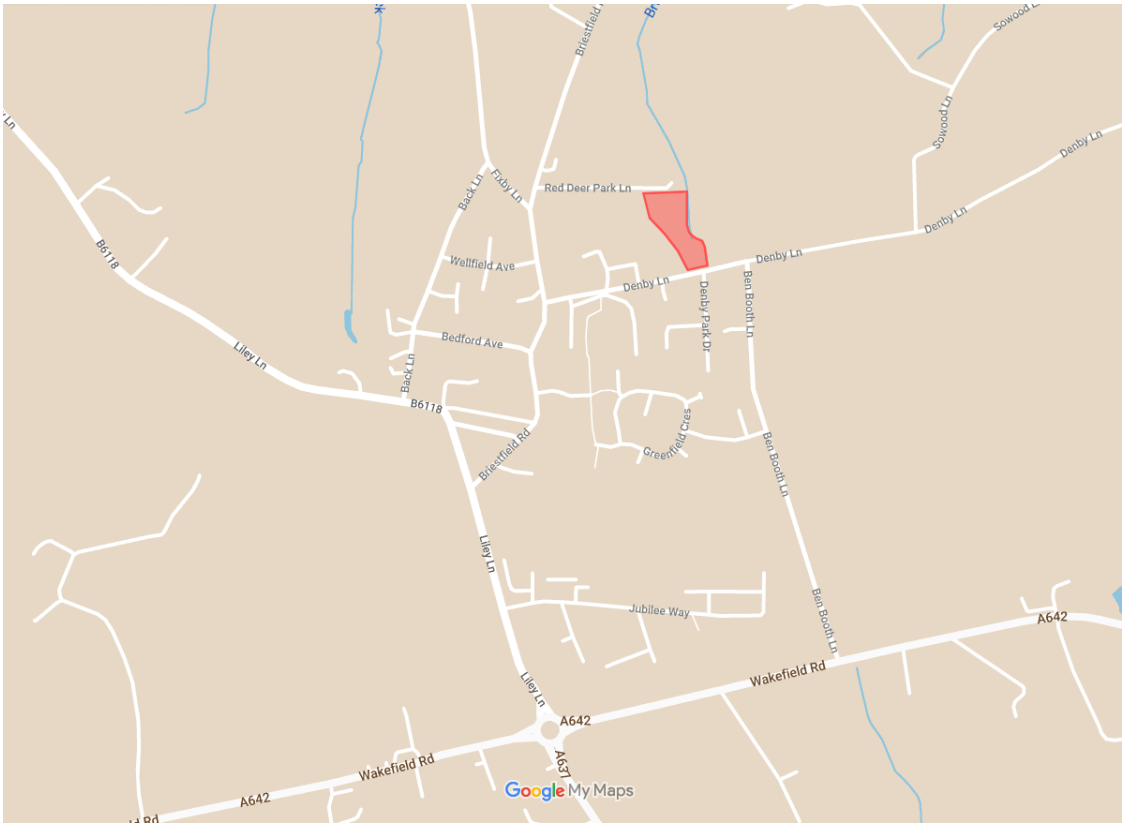
2.3.3 The adjacent allocated site HS195 also currently has a planning application ref 2023/62/93704/E for 10 dwellings which has been validated but a decision has not yet been made.

3. Existing Situation

3.1 The Site

3.1.1 The site is currently agricultural land which has a field gate access on Denby Lane. It is located on the edge on Grange Moor village and lies approximately 6.0km from Dewsbury and 7.5km from Huddersfield. The location of the site is shown in red on **Figure 2** below.

Figure 2 – Site Location ***[GoogleMyMaps]***



3.1.2 The site boundaries are:

- → North: Red Deer Park Lane
- → East: Woodland and agricultural land
- → South: Denby Lane
- → West: Land associated with allocated site (HS195)

3.1.3 For the benefit of this Study, the site was visited on the 10th June 2024 in order to observe and record the prevailing traffic conditions and to take highway measurements.

3.2 Highway Network

3.2.1 The site will take access onto Denby Lane, which is a local route that provides access to various residential properties and side streets within the locality.

3.2.2 Denby Lane is a single carriageway, which is street lit and subject to a 30mph speed limit.

3.2.3 Within the vicinity of the site, Denby Lane has a carriageway width of between 5.5m to 4.5m with a grass verge on its north flank (site side) around 1.5m in width and a grass verge on its south flank that varies in width from 1.8m to 3.5m.

3.2.4 From the site Denby Lane runs east and eventual becomes a rural track providing access to a small cluster of houses. To the west of the site it joins Briestfield Road via a priority junction, which runs through the centre of Grange Moor and provides access to the wider highway network.

3.3 Road Traffic Incident Review

3.3.1 National guidance states that Transport Assessments should include, *"an analysis of the injury accident records on the public highway in the vicinity of the site access for the most recent 3-year period, or 5-year period if the proposed site has been identified as within a high accident area."*

3.3.2 Whilst the local network is not considered to be a 'high accident area', in order to provide a robust assessment, the most recent 5-year period has been considered.

3.3.3 Road traffic collision data has been obtained from the Crashmap Pro Collision Analysis System v1.31 database for the most recent five-year period available (January 2018 – December 2022). The incident plot diagram within the vicinity of the site is shown in **Figure 3**.

Figure 3 – Crashmap Pro extract

3.3.4 As can be seen, no incidents have been recorded on the site frontage (including the junction of Denby Lane / Denby Park Drive) or at the junctions of Denby Lane / Denby Grange Lane, Denby Lane / Ben Booth Lane or Ben Booth Lane / A642 Wakefield Road. One incident has been recorded at the junction of Denby Lane / Briestfield Road. This incident is summarised below with the full report included at **Appendix A**.

→ Incident ref 20201377V0822 occurred on 31st July 2020 at 13:00 in fine and dry conditions. It involved a car turning left on to Briestfield Road from Denby Lane colliding with a car travelling north on Briestfield Road.

3.3.5 It is considered that this incident likely occurred as a result of driver error rather than any deficiency in the highway network.

3.3.6 This road traffic incident review has not highlighted a history or any trends that would be a concern with regards the proposals.

4. Accessibility by Sustainable Modes

4.1 This section of the Transport Statement includes an assessment of the accessibility of the site by sustainable modes of transport.

4.2 This section considers the accessibility of the development by the following modes of transport:

- → Walking
- → Cycling
- → Public Transport (Bus and Tram)

4.3 Accessibility by Walking

4.3.1 Walking is a sustainable mode of transport that can replace certain local car trips which contribute to congestion and pollution. As a mode of active travel, walking offers physical benefits and has also been linked to improvements in mental wellbeing.

4.3.2 The length of a journey a person considers to be 'walkable' often depends on the purpose of that journey. The IHT publication "Providing for Journeys on Foot" has produced guidelines on suggested acceptable walking distances for varying journey purposes, shown in **Figure 4**.

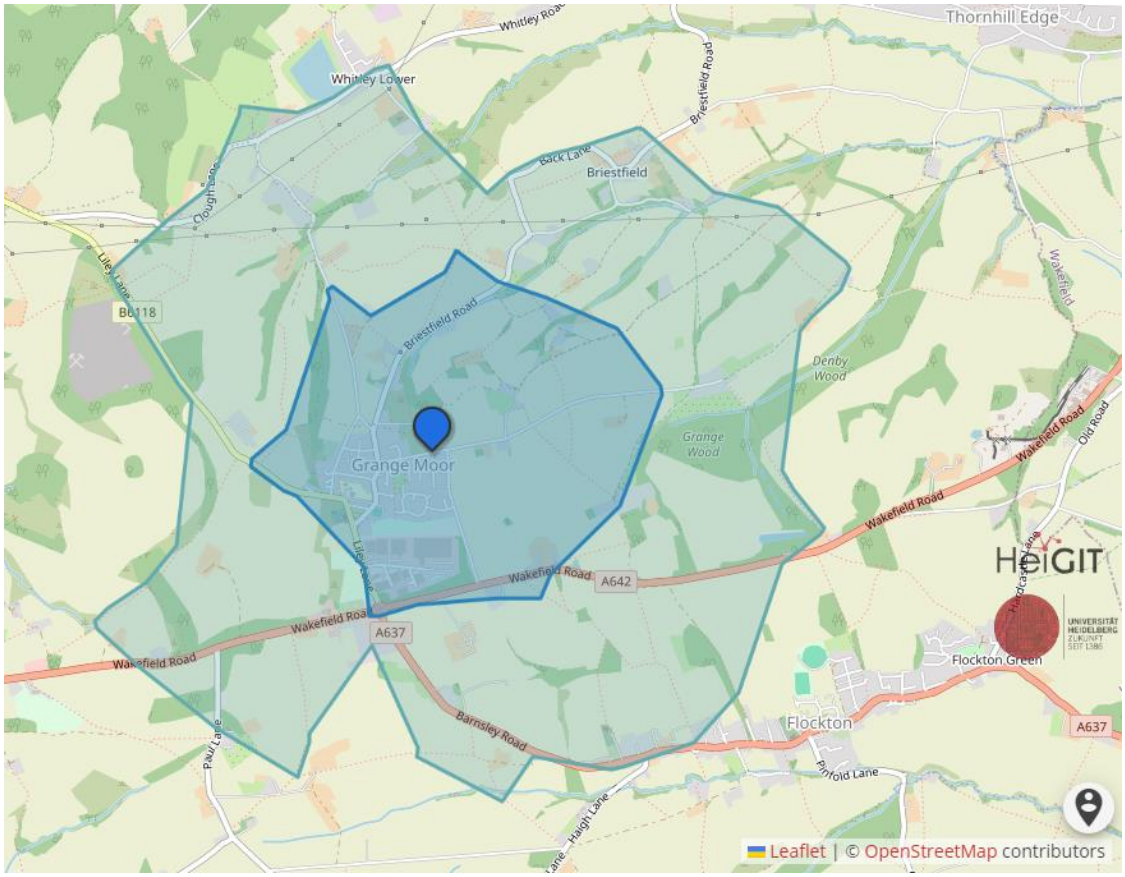
Figure 4 – Extract from Providing for Journeys on Foot, Walking Distances

Table 3.2: Suggested Acceptable Walking Distance.

	Town centres (m)	Commuting/School Sight-seeing (m)	Elsewhere (m)
Desirable	200	500	400
Acceptable	400	1000	800
Preferred maximum	800	2000	1200

4.3.3 **Figure 5**, overleaf, identifies 1000m and 2000m walking isochrones centred on the site, providing an illustration of the areas that potential residents of the development may consider to be within walking distance, in line with the 'acceptable' and 'preferred maximum' walking distances for commuting, school and sight-seeing.

Figure 5 – Indicative Walking Isochrones *[OpenRouteService]*



4.3.4 The entire area of Grange Moor lies within the 1km walking isochrone. Facilities and amenities within the village include:

- → Grange Moor Primary School
- → Fisheries
- → Post office
- → Premier convenience store
- → Hairdressers
- → The Grange public house
- → St. Bartholomew's Church

4.3.5 As can be seen from the above there are a range of existing facilities that are considered to be accessible by walking.

4.3.6 Jubilee Business Park is located within an 800m walking distance of the south of the site and houses a variety of businesses providing employment opportunities.

4.3.7 In general, Grange Moor is seen as suitable for walking. The main road through the village is Briestfield Road, which has street lit footways that connect to the wider area. South of the Briestfield Road/Denby Lane junction, footways are provided on either side and dropped kerbs are present at the majority of crossing points.

4.4 Accessibility by Cycling

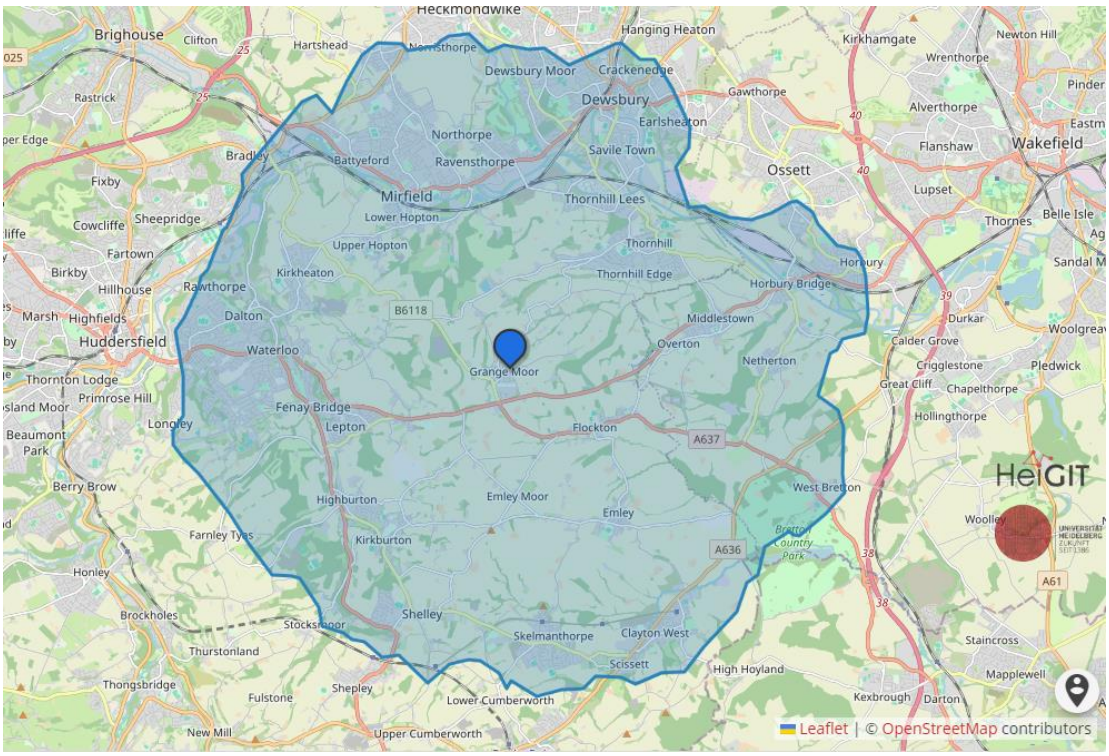
4.4.1 As with walking, cycling is an active and sustainable mode of transport that can be used to replace private cars on certain journeys, which reduces congestion and pollution. A bicycle is generally a lot cheaper than a car to purchase and maintain, meaning cycling can also provide social equity benefits, such as allowing people without cars access to destinations they may otherwise be unable to reach.

4.4.2 CIHT's Planning for Cycling (2014) states that:

"The majority of cycling trips are for short distances, with 80% being less than five miles and with 40% being less than two miles. However, the majority of trips by all modes are also short distances (67% are less than five miles, and 38% are less than two miles); therefore, the bicycle is a potential mode for many of these trips. Electric bicycles extend the range that can be cycled comfortably, and combined cycle-rail or cycle-bus journeys offer an alternative to car travel for many longer trips."

4.4.3 A 5-mile (~8km) journey by cycle is considered to be achievable by many people. **Figure 6** identifies destinations that lie within 8km of the site access.

Figure 6 – Indicative Cycling Isochrone (8km) ***[OpenRouteService]***



4.4.4 There are many local areas that are within an 8km cycle distance of Grange Moor, such as Dewsbury, Mirfield, Skelmanthorpe, Kirkburton and eastern areas of Huddersfield. This provides access to further facilities such as shops and employment opportunities, along with Mirfield train station.

4.5 Bus Services

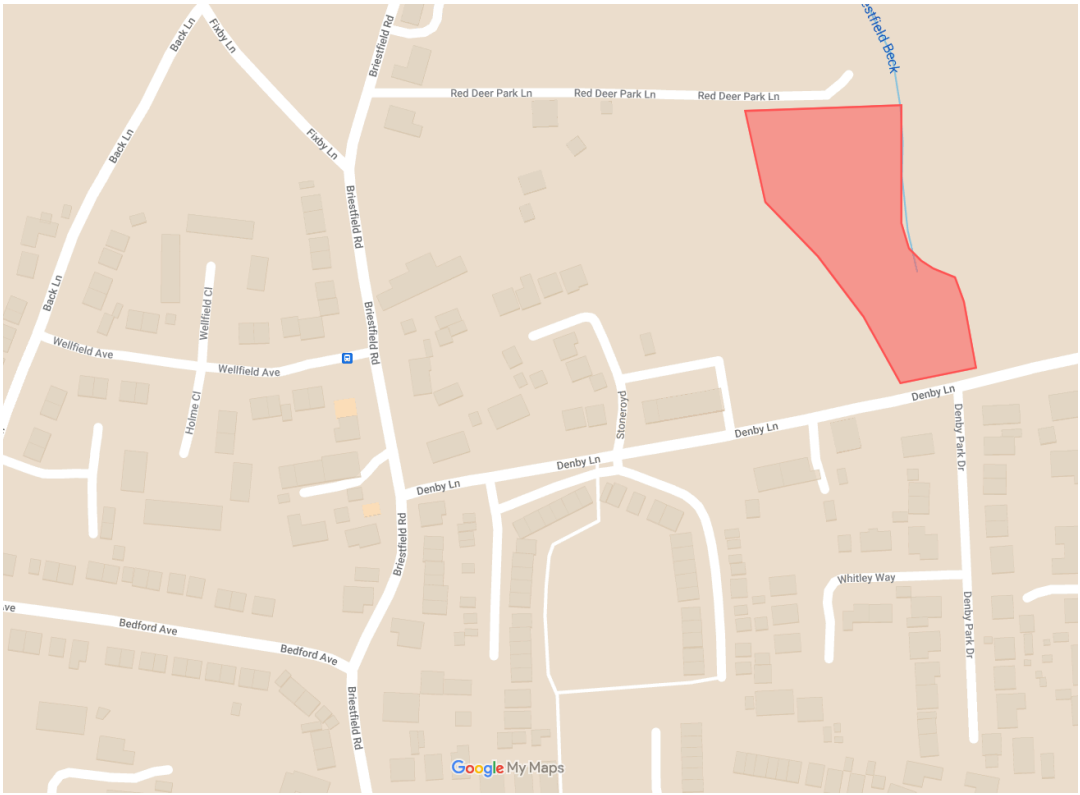
4.5.1 The Buses in Urban Developments Guidance (January 2018), published by CIHT outlines that, "the planning of development sites should consider the walking distance to bus stops and the corresponding bus catchment areas." **Figure 7**, an extract from the guidance outlines the maximum walking distance for different situations.

Figure 7 – Recommended Maximum Walking Distances to Bus Stops

Situation	Maximum walking distance
Core bus corridors with two or more high-frequency services	500 metres
Single high-frequency routes (every 12 minutes or better)	400 metres
Less frequent routes	300 metres
Town/city centres	250 metres

4.5.2 The closest bus stop to the site is located on Wellfield Avenue at a distance approximately 250m from the site. **Figure 8** shows the location of the nearest bus stops.

Figure 8 – Location of the nearest bus stops ***[GoogleMyMaps]***



4.5.3 A summary of the service available from the stops on Rolfe Street is shown in **Table 1** overleaf.

Table 1 – Bus Service from Rolfe Street

#	Route	Approximate Peak Frequency		
		Mon – Sat Daytime	Mon- Sat Evening	Sunday
230/ 230A	Dewsbury - Thornhill Lees - Thornhill - Whitley - Grange Moor	60 mins	No Service	No Service
231	Huddersfield - Waterloo - Lepton - Grange Moor - Flockton - Midgley - Netherton - Horbury - Lupset - Wakefield	60 mins	120 mins	120 mins
X41	Huddersfield - Lepton - Houses Hill - Grange Moor - Overton - Middlestown	120 mins	No Service	No Service

4.5.4 As can be seen from the above there are hourly services available which provide a connection to larger transport hubs such as Huddersfield and Wakefield. With the journey to Huddersfield taking approximately 28 minutes.

Rail Services

4.5.5 Mirfield rail station is located approximately 4.0km north of the site and is managed by Northern Rail. This station has the following facilities:

- → Real time displays
- → CCTV
- → Seating area
- → Car Park with 60 spaces including 3 accessible spaces
- → 24 cycle stands which are sheltered with CCTV

4.5.6 This station provides regular services (approximately every 30 minutes) towards both Huddersfield and Leeds. As can be seen above the station has cycle parking and the cycle time from the site to the station takes approximately 20-30 minutes depending on the direction of travel.

4.6 Accessibility Summary

4.6.1 It is considered that there are reasonable options of accessing the site by sustainable transport modes. There are local amenities within walking and cycling distance from the site and frequent bus services are also available which connect to the nearest major towns.

5. Development Proposals

5.1 The proposals comprise a residential development of 21 dwellings with access taken from Denby Lane. The proposed site layout is included at **Appendix B**.

5.2 The proposed schedule of accommodation is set out in **Table 2**, below:-

Table 2 – Schedule of accommodation

Number of bedrooms	Number of dwellings
3	10
3 (affordable)	4
4	7

5.3 The access road has a carriageway width of 5.5m with a 2m footway on one side and a 0.6m margin on the other. The northern end of the access road serving plots 11-19 is proposed as a shared surface. The junction with Denby Lane has 6m radii and 2m footways on both sides of the bellmouth. The proposals will provide a 2m footway along the site frontage which will link in with existing and proposed provision associated with the adjacent site (planning application ref 2023/62/93704/E for 10 dwellings).

5.4 Visibility from the access at 2.4m x 43m can be achieved in both directions which is considered acceptable given the 30mph plated speed limit, based on Manual for street stopping sight distance calculations. Given the adjacent boundaries and the grass verge the splays have been measured 300mm into the carriageway as per the guidance set out in paragraph 10.5.3 of Manual for Streets 2. The resulting visibility splays are shown on drawing 160136-001 which is attached at **Appendix C**.

5.5 Kirklees Highway Design Guide (November 2019) states that:

"Kirklees Council has not set local parking standards for residential and non-residential development. However, as an initial point of reference for residential developments (unless otherwise evidenced using the criteria in Para. 5.1), it is considered that new:

- *2 to 3 bedroom dwellings provide a minimum of two off-street car parking spaces*
- *4+ bedroom dwellings provide three off-street spaces.*
- *1-2 bedroom apartments provide one space (3+ bed two spaces)*

In most circumstances, one visitor space per 4 dwellings is considered appropriate. One cycle space per unit is recommended."

5.6 Based on these standards and the proposals it is considered that appropriate off street parking is provided based on the mix of dwellings proposed. The proposals also provide 5 visitors bays as per the recommended standards and it is considered that each dwelling can accommodate at least one bicycle within the curtilage of the property.

5.7 Refuse collection will take place from within the site and the Councils refuse vehicle will be able to access and egress the site in forward gear. Drawing 160136-002 attached at **Appendix C** shows swept path analysis of refuse vehicle servicing the site.

6. Traffic Impact Assessment

6.1 Overview

6.1.1 The trip generation for the proposed development has been estimated using the TRICS database (v7.11.1). The land use category 03 – Residential / A – Houses Privately Owned has been used to determine person trip rates for the proposals.

6.1.2 The search parameters have been refined to resemble the location of the site, as shown in **Table 3**. As the number of dwellings proposed is so low there are limited surveys available

Table 3 – TRICS selection criteria

Land Use	Trip Rate Selection Criteria
Residential	→ Land Use Category: 'Residential - Houses Privately Owned'; → Number of units: 5 to 35; → The regions of Greater London and Ireland were excluded; → Saturday and Sunday surveys were excluded; and, → Suburban area and neighbourhood centre sites were used.

6.2 Multimodal

6.2.1 The multimodal TRICS data is included at **Appendix D** and the resultant trip generations for the 21 dwellings proposed are summarised in **Table 4**. Although the PM peak shown does not generally coincide with the network peak hour, it is the hour with the highest generations so has been used as a worst-case scenario.

Table 4 – Multimodal trip generations

Time Period	Mode of Travel	Trip Rate (per unit)	Modal Split	Generations
AM Peak 08:00-09:00	Pedestrians	0.251	21.4%	5
	Cyclists	0.037	3.2%	1
	Public Transport Users	0.079	6.7%	2
	Vehicle Occupants	0.803	68.7%	17
	Total People Trips	1.172	100.0%	25
PM Peak 15:00-16:00	Pedestrians	0.289	22.4%	6
	Cyclists	0.025	1.9%	1
	Public Transport Users	0.043	3.3%	1
	Vehicle Occupants	0.932	72.4%	20
	Total People Trips	1.288	100.0%	28

6.2.2 Based on the TRICS data the proposed development could be expected to generate 31.3% of trips (8) by sustainable modes of travel in the AM peak period and 27.6% (8) in the PM peak period.

6.2.3 The predicted demand for walking, cycling and public transport on the local highway network is small and at a level which is unlikely to have a detrimental impact on the existing infrastructure.

6.3 Vehicular

6.3.1 The multimodal TRICS data is included at **Appendix D** and the resultant trip generations for the total of 21 dwellings that would be present on the site are summarised in **Table 5**. Although the PM peak shown does not generally coincide with the network peak hour, it is the hour with the highest generations so has been used as a worst-case scenario.

Table 5 – Vehicular trip generations

Time Period	Trip Rates (per unit)		Generations		
	Arrivals	Departures	Arrivals	Departures	Total
AM Peak 08:00-09:00	0.196	0.411	4	9	13
PM Peak 15:00-16:00	0.374	0.325	8	7	15

6.3.2 The development is estimated to generate 13 vehicle movements in the AM peak hour and 15 in the PM peak hour. It is not considered that this number of vehicle movements would have an adverse impact on the operation of the local highway network and does not warrant any junction capacity assessments.

6.3.3 In accordance with NPPF, it is considered that the proposals would not have an unacceptable impact on highway safety and the residual cumulative impacts of the development on the road network would not be severe.

7. Summary and Conclusions

7.1 Sanderson Associates Consulting Engineers has been appointed by Orion Homes Ltd to prepare this Transport Statement to support the planning application for 21 dwellings on land off Denby Road, Grange Moor.

7.2 The site is currently agricultural land which has a field gate access on Denby Lane and is located on the edge on Grange Moor village.

7.3 The proposals comprise a residential development of 21 dwellings with access taken from Denby Lane. The access road has a carriageway width of 5.5m with a 2m footway on one side and a 0.6m margin on the other.

7.4 Visibility from the access at 2.4m x 43m can be achieved in both directions which is considered acceptable given the 30mph plated speed limit, based on Manual for Streets stopping sight distance calculations.

7.5 It can be concluded that the frequency of incidents within the study area is low and that these are likely to be due to human error as opposed to deficiencies in the local highway network. There are no accident trends in close proximity to the site which are likely to be adversely affected by the proposal.

7.6 It is considered that there are reasonable options of accessing the site by sustainable transport modes. There are local amenities within walking and cycling distance from the site and frequent bus services are also available which connect to the nearest major towns.

7.7 The predicted traffic generation from the proposed site has been calculated using the TRICS database which has estimated a total of 13 vehicle movements in the AM peak period and 15 in the PM peak period. The trip generations estimated for the proposed site are considered unlikely to have a detrimental impact on the surrounding highway network.

7.8 This Transport Statement demonstrates that the development will not have an unacceptable impact on highway safety and that residual cumulative impacts of the development are not severe in transport terms, consequently the planning application should be supported by the Local Authority on transport grounds.

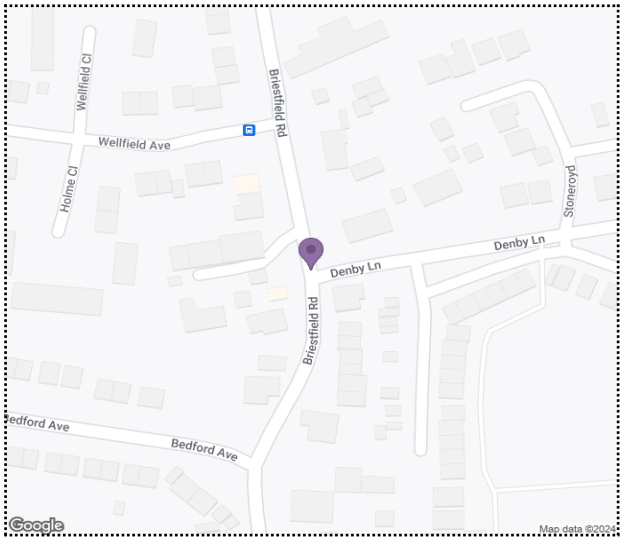
Appendix A

Crashmap Data

crashmap.co.uk

Validated Data

Crash Date:	Friday, July 31, 2020	**Time of Crash:**	13:00:00	**Crash Reference:**	20201377V0822
Highest Injury Severity:	Slight	**Road Number:**	U0	**Casualties:**	1
Highway Authority:	Kirklees			**Vehicles:**	2
Local Authority:	Kirklees			**OS Grid Reference:**	422171 416132
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				



For more information about the data please visit: www.crashmap.co.uk/home/faq

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powered by agilysis

Crash Date: Friday, July 31, 2020 **Time of Crash:** 13:00:00 **Crash Reference:** 20201377V0822

Vehicles Involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	17	Male	36 - 45	Vehicle is in the act of turning left	Front	Unknown	None	None
2	Car (excluding private hire)	13	Male	21 - 25	Vehicle proceeding normally along the carriageway, not on a bend	Offside	Unknown	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Vehicle or pillion passenger	Female	26 - 35	Unknown or other	Unknown or other

For more information about the data please visit: www.crashmap.co.uk/home/faq

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Appendix B

Proposed Site Plan

Denby Lane, Grange Moor

Denby Lane, Grange Moor
Orion Homes

Housetype	number	Beds	Storeys	sqft	total	% mix
Preston	2	3	2	1002	2004	9.52
Bamburgh	6	3	2	1002	6012	28.57
Falmouth	1	3	2	1153	1153	4.76
Gosford	1	3	2	1161	1161	4.76
Wentworth	4	4	2.5	1184	4736	19.05
Tewkesbury	1	4	2	1241	1241	4.76
Cheltenham	2	4	2	1303	2606	9.52
Private total	**17**				**18913**	**80.95**
Edinburgh	4	3	2	858	3432	19.05
Affordable total	**4**				**3432**	**19.05**
Site total	**21**				**22345**	**100.00**

Site Area - Gross	1.5 acres	/ 0.6117Hectares
Density	34.33dph	
coverage	14,896 sqft per acre	

Path (um)

Path (um)

2.4m x 43m Vis splay

2.4m x 43m Vis splay

215.8m

Revision notes:		
Rev:	Date:	Notes:
E	28.02.24	.. 2024 Redrawn - CD
F	29.02.24	Plots 6 and 7 & 15 to 18 amended, 3m easement to eastern boundary added - CD
G	02.03.24	Plots 1 & 2 moved back to allow for the existing FW manhole/sewer - CD
H	15.05.24	Amended to suit Sandersons comments - CD
I	31.05.24	Plots 1 to 6 moved forward to make gap between plots 6 & 7 wider to accommodate drainage easement - CD

Revision notes:		
Rev:	Date:	Notes:
J	06.06.24	Plots 1 & 2 parking spaces amended and VP amended - CD

Revision notes:		
Rev:	Date:	Notes:
..	..	..

Date: Feb 24

Scale @ A3: 1:500

Drawn By: CD

Project: Denby Lane, Grange Moor

Drawing Number: Site layout

Revision: J

OrionHomes
SO GOOD TO COME HOME TO
Unit 5, Benton Office Park, Bennett Avenue,
Horbury, Wakefield, WF4 5RA, Tel: 01924 831030

Appendix C

Drawing 160126-001

Drawing 160126-002

- Sanderson Associates Consulting Engineers ("the consultant"), has not checked or verified, and shall have no liability whatsoever for any inaccuracies which may be attributable to any data, reports, base plan(s) and drawings provided by the client, or purchased by the consultant on the client's behalf, that may have been utilised within this drawing.
- The consultant shall not be liable for the use by any person of any document for any purpose other than that for which the same were provided by the consultant.
- No liability whatsoever is accepted by the consultant for any error or omissions.

- The consultant accepts no liability for any vehicle specification errors within the vehicle track software used and / or it's vehicle libraries.

Rev	Amendment	Drawn	Date	Checked

sanderson associates consulting engineers
Highways | Traffic | Transportation | Water
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Client

Orion Homes Ltd

Project Title

Proposed Residential Development
Denby Lane, Grange Moor

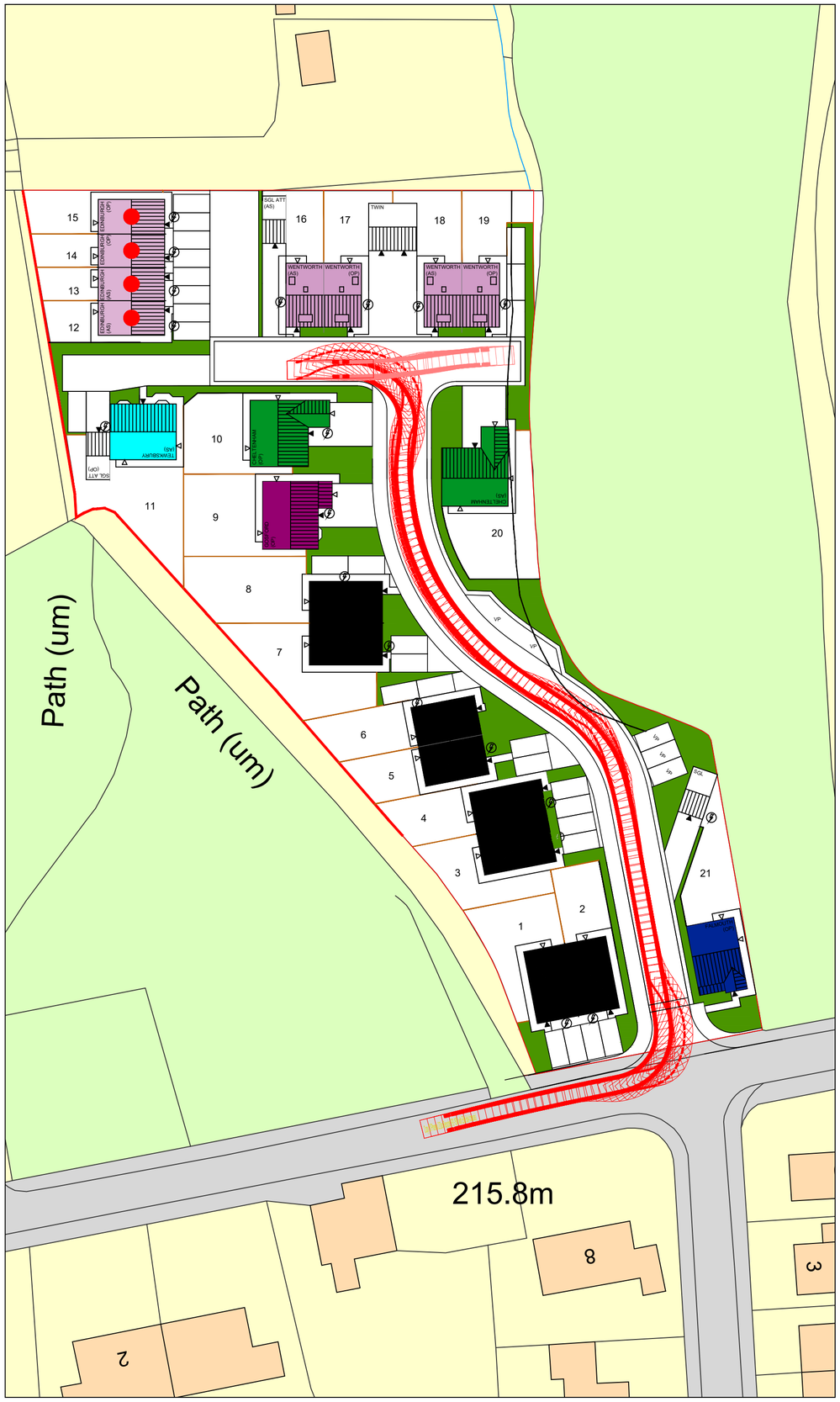
Drawing Title

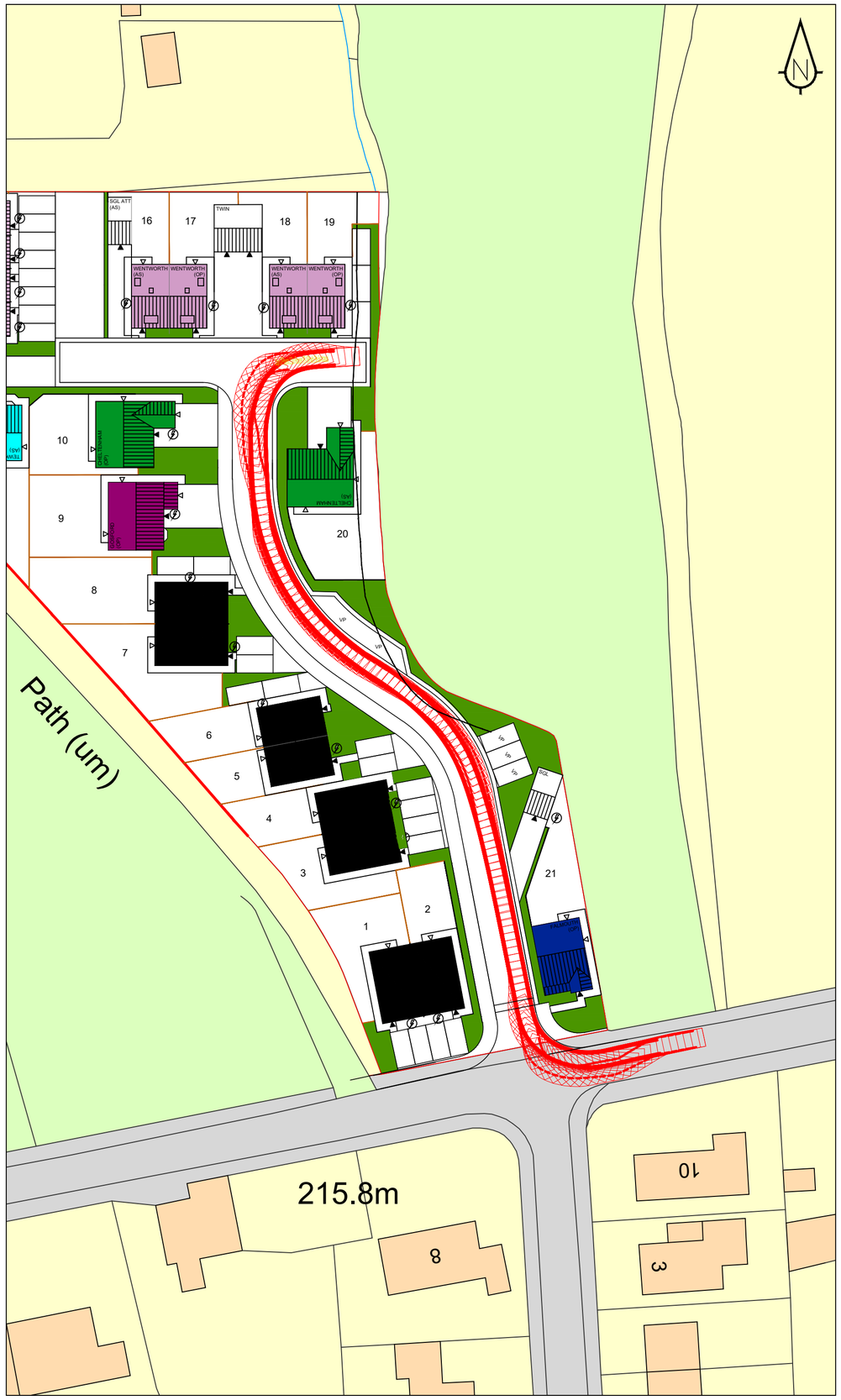
Visibility Splays

Scale	1:250	Drawn By	AA
Drawing Size	A2	Checked By	SB
Date	June 2024	Approved By	SB
		Drawing Number	Rev
		160126-001	

FILE REF:

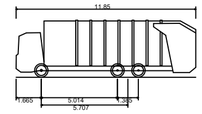
Sanderson Associates Consulting Engineers is a trading name of Fairhurst Group LLP, a limited liability partnership, registered in Scotland. Registered No. SO307306.





- Sanderson Associates Consulting Engineers ("the consultant"), has not checked or verified, and shall have no liability whatsoever for any inaccuracies which may be attributable to any data, reports, base plan(s) and drawings provided by the client, or purchased by the consultant on the client's behalf, that may have been utilised within this drawing.
- The consultant shall not be liable for the use by any person of any document for any purpose other than that for which the same were provided by the consultant.
- No liability whatsoever is accepted by the consultant for any error or omissions.

- The consultant accepts no liability for any vehicle specification errors within the vehicle track software used and / or it's vehicle libraries.



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

Overall Length	11.850m
Overall Width	2.530m
Overall Body Height	3.756m
Min Body Ground Clearance	0.309m
Track Width	2.530m
Lock to lock time	4.00s
Wall to Wall Turning Radius	11.035m

Rev	Amendment	Drawn	Date	Checked

sanderson associates consulting engineers
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Client

Orion Homes Ltd

Project Title

Proposed Residential Development
Denby Lane, Grange Moor

Drawing Title

Swept Path Analysis

Scale	1:250	Drawn By	AA
Drawing Size	A2	Checked By	SB
Date	June 2024	Approved By	SB
		Drawing Number	160126-002
		Rev	

FILE REF:

Sanderson Associates Consulting Engineers is a trading name of Fairhurst Group LLP, a limited liability partnership, registered in Scotland. Registered No. SO307306.

Appendix D

TRICS Data

Sanderson Associates (Consulting Engineers) Ltd Jubilee Way Wakefield Licence No: 109307

Calculation Reference: AUDIT-109307-240508-0504

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST		
	MW	MEDWAY	1 days
	SC	SURREY	1 days
03	SOUTH WEST		
	SD	SWINDON	1 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
	PB	PETERBOROUGH	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	1 days
08	NORTH WEST		
	AC	CHESHIRE WEST & CHESTER	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
Actual Range: 8 to 34 (units:)
Range Selected by User: 6 to 35 (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: 01/01/16 to 05/06/23

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

Selected survey days:

Monday	1 days
Tuesday	1 days
Wednesday	2 days
Thursday	2 days
Friday	1 days

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

Selected survey types:

Manual count	7 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	5
Neighbourhood Centre (PPS6 Local Centre)	2

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	5
Village	2

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	2 days - Selected
Servicing vehicles Excluded	7 days - Selected

Secondary Filtering selection:

Use Class:

C3	7 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

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

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

Population within 5 miles:

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

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	4 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	2 days
No	5 days

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

PTAL Rating:

No PTAL Present	7 days

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

LIST OF SITES relevant to selection parameters

1 AC-03-A-04 TOWN HOUSES CHESHIRE WEST & CHESTER
LONDON ROAD
NORTHWICH
LEFTWICH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 24
Survey date: THURSDAY *06/06/19* *Survey Type: MANUAL*

2 MW-03-A-01 DETACHED & SEMI-DETACHED MEDWAY
ROCHESTER ROAD
NEAR CHATHAM
BURHAM
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 8
Survey date: FRIDAY *22/09/17* *Survey Type: MANUAL*

3 NF-03-A-51 SEMI-DETACHED NORFOLK
CITY ROAD
NORWICH
LAKENHAM
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 34
Survey date: TUESDAY *13/09/22* *Survey Type: MANUAL*

4 NY-03-A-13 TERRACED HOUSES NORTH YORKSHIRE
CATTERICK ROAD
CATTERICK GARRISON
OLD HOSPITAL COMPOUND
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 10
Survey date: WEDNESDAY *10/05/17* *Survey Type: MANUAL*

5 PB-03-A-04 DETACHED HOUSES PETERBOROUGH
EASTFIELD ROAD
PETERBOROUGH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 28
Survey date: MONDAY *17/10/16* *Survey Type: MANUAL*

6 SC-03-A-10 MIXED HOUSES SURREY
GUILDFORD ROAD
ASH

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 32
Survey date: WEDNESDAY *14/09/22* *Survey Type: MANUAL*

7 SD-03-A-01 SEMI DETACHED SWINDON
HEADLANDS GROVE
SWINDON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 27
Survey date: THURSDAY *22/09/16* *Survey Type: MANUAL*

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

MANUALLY DESELECTED SURVEYS

Site Ref	Survey Date	Reason for Deselection
CA-03-A-07	27/05/21	Survey undertaken during Covid restrictions
ES-03-A-06	16/06/21	Survey undertaken during Covid restrictions

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period
Total People to Total Vehicles ratio (all time periods and directions): 1.71

	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	7	23	0.092	7	23	0.264	7	23	0.356
08:00 - 09:00	7	23	0.196	7	23	0.411	7	23	0.607
09:00 - 10:00	7	23	0.215	7	23	0.190	7	23	0.405
10:00 - 11:00	7	23	0.172	7	23	0.190	7	23	0.362
11:00 - 12:00	7	23	0.184	7	23	0.135	7	23	0.319
12:00 - 13:00	7	23	0.153	7	23	0.202	7	23	0.355
13:00 - 14:00	7	23	0.215	7	23	0.209	7	23	0.424
14:00 - 15:00	7	23	0.233	7	23	0.276	7	23	0.509
15:00 - 16:00	7	23	0.374	7	23	0.325	7	23	0.699
16:00 - 17:00	7	23	0.301	7	23	0.221	7	23	0.522
17:00 - 18:00	7	23	0.239	7	23	0.160	7	23	0.399
18:00 - 19:00	7	23	0.227	7	23	0.141	7	23	0.368
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.601			2.724			5.325

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

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

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Parameter summary

Trip rate parameter range selected:	8 - 34 (units:)
Survey date date range:	01/01/16 - 05/06/23
Number of weekdays (Monday-Friday):	9
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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL CYCLISTS
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	7	23	0.025	7	23	0.037	7	23	0.062
08:00 - 09:00	7	23	0.000	7	23	0.037	7	23	0.037
09:00 - 10:00	7	23	0.006	7	23	0.000	7	23	0.006
10:00 - 11:00	7	23	0.000	7	23	0.000	7	23	0.000
11:00 - 12:00	7	23	0.000	7	23	0.000	7	23	0.000
12:00 - 13:00	7	23	0.012	7	23	0.006	7	23	0.018
13:00 - 14:00	7	23	0.006	7	23	0.006	7	23	0.012
14:00 - 15:00	7	23	0.000	7	23	0.006	7	23	0.006
15:00 - 16:00	7	23	0.025	7	23	0.000	7	23	0.025
16:00 - 17:00	7	23	0.012	7	23	0.000	7	23	0.012
17:00 - 18:00	7	23	0.012	7	23	0.018	7	23	0.030
18:00 - 19:00	7	23	0.018	7	23	0.000	7	23	0.018
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.116			0.110			0.226

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLE OCCUPANTS
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	7	23	0.117	7	23	0.350	7	23	0.467
08:00 - 09:00	7	23	0.196	7	23	0.607	7	23	0.803
09:00 - 10:00	7	23	0.227	7	23	0.258	7	23	0.485
10:00 - 11:00	7	23	0.215	7	23	0.258	7	23	0.473
11:00 - 12:00	7	23	0.215	7	23	0.172	7	23	0.387
12:00 - 13:00	7	23	0.178	7	23	0.239	7	23	0.417
13:00 - 14:00	7	23	0.264	7	23	0.233	7	23	0.497
14:00 - 15:00	7	23	0.294	7	23	0.294	7	23	0.588
15:00 - 16:00	7	23	0.521	7	23	0.411	7	23	0.932
16:00 - 17:00	7	23	0.436	7	23	0.282	7	23	0.718
17:00 - 18:00	7	23	0.368	7	23	0.215	7	23	0.583
18:00 - 19:00	7	23	0.313	7	23	0.172	7	23	0.485
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.344			3.491			6.835

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

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TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PEDESTRIANS
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	7	23	0.012	7	23	0.049	7	23	0.061
08:00 - 09:00	7	23	0.061	7	23	0.190	7	23	0.251
09:00 - 10:00	7	23	0.092	7	23	0.043	7	23	0.135
10:00 - 11:00	7	23	0.055	7	23	0.067	7	23	0.122
11:00 - 12:00	7	23	0.025	7	23	0.043	7	23	0.068
12:00 - 13:00	7	23	0.031	7	23	0.067	7	23	0.098
13:00 - 14:00	7	23	0.037	7	23	0.092	7	23	0.129
14:00 - 15:00	7	23	0.092	7	23	0.043	7	23	0.135
15:00 - 16:00	7	23	0.166	7	23	0.123	7	23	0.289
16:00 - 17:00	7	23	0.067	7	23	0.043	7	23	0.110
17:00 - 18:00	7	23	0.043	7	23	0.031	7	23	0.074
18:00 - 19:00	7	23	0.061	7	23	0.031	7	23	0.092
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.742			0.822			1.564

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

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TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PUBLIC TRANSPORT USERS
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	7	23	0.025	7	23	0.055	7	23	0.080
08:00 - 09:00	7	23	0.018	7	23	0.061	7	23	0.079
09:00 - 10:00	7	23	0.000	7	23	0.049	7	23	0.049
10:00 - 11:00	7	23	0.025	7	23	0.012	7	23	0.037
11:00 - 12:00	7	23	0.006	7	23	0.012	7	23	0.018
12:00 - 13:00	7	23	0.018	7	23	0.025	7	23	0.043
13:00 - 14:00	7	23	0.000	7	23	0.000	7	23	0.000
14:00 - 15:00	7	23	0.000	7	23	0.006	7	23	0.006
15:00 - 16:00	7	23	0.031	7	23	0.012	7	23	0.043
16:00 - 17:00	7	23	0.043	7	23	0.000	7	23	0.043
17:00 - 18:00	7	23	0.031	7	23	0.018	7	23	0.049
18:00 - 19:00	7	23	0.043	7	23	0.000	7	23	0.043
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.240			0.250			0.490

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period
Total People to Total Vehicles ratio (all time periods and directions): 1.71

	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	7	23	0.178	7	23	0.491	7	23	0.669
08:00 - 09:00	7	23	0.276	7	23	0.896	7	23	1.172
09:00 - 10:00	7	23	0.325	7	23	0.350	7	23	0.675
10:00 - 11:00	7	23	0.294	7	23	0.337	7	23	0.631
11:00 - 12:00	7	23	0.245	7	23	0.227	7	23	0.472
12:00 - 13:00	7	23	0.239	7	23	0.337	7	23	0.576
13:00 - 14:00	7	23	0.307	7	23	0.331	7	23	0.638
14:00 - 15:00	7	23	0.387	7	23	0.350	7	23	0.737
15:00 - 16:00	7	23	0.742	7	23	0.546	7	23	1.288
16:00 - 17:00	7	23	0.558	7	23	0.325	7	23	0.883
17:00 - 18:00	7	23	0.454	7	23	0.282	7	23	0.736
18:00 - 19:00	7	23	0.436	7	23	0.202	7	23	0.638
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.441			4.674			9.115

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

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

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