Residential Development, Doncaster Road, Darfield

Transport Assessment

June 2024

Project number 1229C

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1.0 Introduction

1.1 Paragon Highways have been appointed to prepare this Transport Assessment relating to a proposed residential development on land off the Doncaster Road, Darfield in the district of Barnsley. Figure 1.1 below shows the site location in relation to the local highway network.

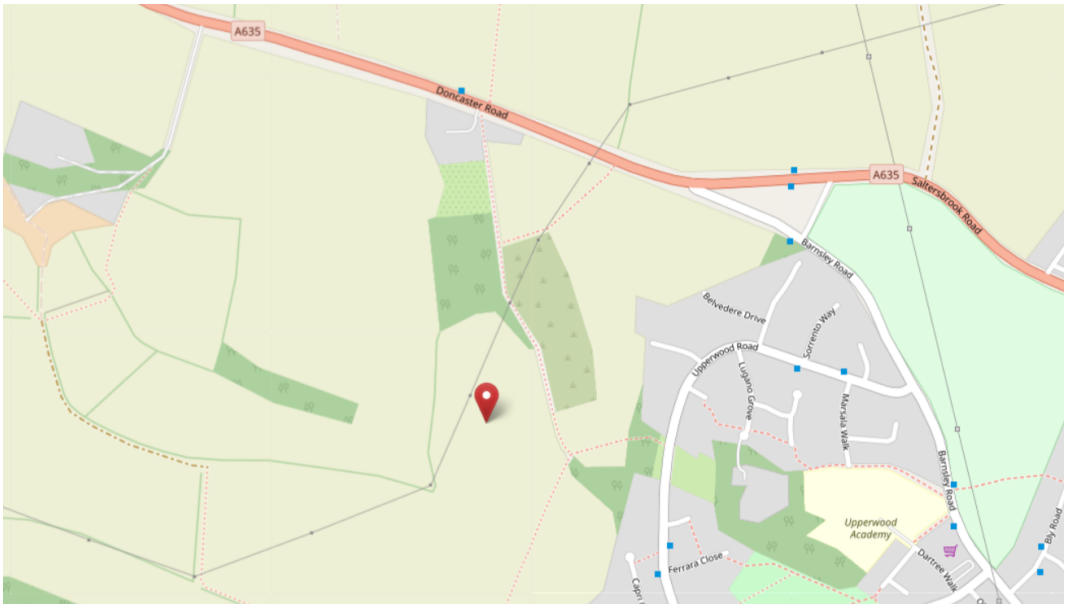


Figure 1.1 Site Location

1.2 The proposals are to develop the site for residential purposes for around 460 dwellings overall, with phase 1 of the development expected to be around 260 dwellings, which is the subject of this application. The dwellings would be a mix of detached, semi-detached and terrace type dwellings. Access to the site will be from a right turn lane junction off Doncaster Road, and a simple priority junction arrangement from Barnsley Road.

1.3 This Transport Assessment follows scoping with Barnsley Council (please refer to Transport Assessment Scoping Note -1 dated February 2024). The outcome of Transport Assessment scoping has been considered to adjust the layout and form the framework of this Transport Assessment.

1.4 This Transport Assessment considers the site access and traffic impact associated with the proposed development, and also considers the road safety record and the impact on the local highway network. This assessment demonstrates that the proposals should be acceptable for planning approval purposes.

2.0 Existing Situation

Site Description

2.1 The site is located on the far west side of the village of Darfield. The centre of the village is around 1.3km southeast of the application site and lies just over 5km to the east of the town of Barnsley. To the south/south-east of the site are the settlements of Wombwell, Middlecliff and Brampton.

2.2 The application site is a large open area of vacant greenfield land, bounded by Doncaster Road (A635) to the north, a large established residential development to the east and New Hall Farm and further open land to the west. Directly, adjacent to the site is a well-stocked garden centre and associated café. There is a mini supermarket placed approximately 700 metres to the east of the site in the established residential area. To the south of the site, and within the recommended maximum walking distance are a range of locally operated shops, placed around the junction of the B6096 and Snape Hill Road, these include, additional mini supermarkets, general stores, bakery, hairdressers/barbers, bakery café and chiropodist. To the south of the site and within the preferred walking distance is the larger settlement of Wombwell. The town of Wombwell offers numerous amenities including a rail station.

2.3 As part of the proposed development it is proposed to provide a new site access located off the A635 Doncaster Road and off Barnsley Road, which will serve the residential development.

Local Highway Network

2.4 The main site access is taken from the A635 Doncaster Road, with a secondary access located off Barnsley Road. Doncaster Road forms part of the A635 strategic highway, which is a primary route that links with Barnsley Town Centre to the west and the A638 on the outskirts of Doncaster Town Centre the east. The route travels through the settlements of Marr, Hickleton, Goldthorpe, Darfield, Ardsley, and the Barnsley areas of Stairfoot and Kendray, providing subsequent access to other strategic routes including the A6133, A633, A6195 and A1(M) Motorway. Given the status of the road, the A635 is subject to heavy traffic flows throughout the day.

2.5 Within the vicinity of the proposed site access Doncaster Road is a two way single carriageway with a wide verge provided on the south sides, and a shared footway/ cycleway provided along the north side of the road. The carriageway is around 9.2m in width and the south side verge generally ranges between 4 and 5m in width. The north side shared footway/ cycleway facility is signed and around 3m in width and provides a continuous cycle route between Darfield and Stairfoot to the west, the latter provides subsequent links to other routes including Barnsley town centre. The road contains edge of carriageway markings and is subject to a 50mph speed limit, although this changes to 40mph around 500m to the east of the Barnsley Road junction.

2.6 Doncaster Road starts to widen as it meets the Barnsley Road junction, forming a right turn lane/ ghost island arrangement. From this point eastwards, the road changes in name to Salterbrook Road providing a continuation of central hatch markings and traffic islands complete with illuminated bollards and lighting beacons. The layout and width of the road appears to be suitable for its day to day use.

2.7 Barnsley Road joins Doncaster Road via the right turn/ ghost island arrangement as described above. Barnsley Road is a local distributor road that connects with the A635 to the northwest and with the B6096 within the centre of Darfield. It is predominantly residential in nature and provides access to local access roads, residential streets, and individually served residential properties. Subsequently, Barnsley Road is subject to light traffic volumes throughout the day, with a noticeable increase during the network peak hours.

2.8 Barnsley is a two way single carriageway road with footways generally provided on both sides, although towards the application site the southwest side footway terminates, with a single footway along the north side being provided. In the vicinity of the proposed site access the carriageway is 9.2m in width, with a 1.6m wide footway on the northeast side and a grass verge along the south side that ranges between around 1m and 2m in width. The layout of the carriageway and footway appears suitable for its day to day use and provides a link to the nearest bus stop located around 50m southeast of the proposed site access. Barnsley Road is subject to a 30mph speed limit for the majority of its length through Darfield, however this changes to 50mph in the vicinity of the proposed site access.

2.9 Traffic speeds along Doncaster Road in the vicinity of the site access were carried out during October 2021 in accordance with Design Manual for Roads and Bridges. The data collected from the radar speed survey shows that the average 85th percentile speed was 46mph heading westbound and 50mph heading eastbound. Therefore, the majority of traffic appears to be travelling at or below the speed limit. The speed survey can be found at Appendix A.

2.10 Traffic speeds at Barnsley Road in the vicinity of the secondary site access are considered to be lower than the speed limit due to the layout of the road and location of the Doncaster Road junction. Therefore, an independent radar speed survey has been undertaken on the 24th June 2024 following the methodology within Design Manual for Roads and Bridges (TA 185 Vehicle Speed Measurement). The radar speed survey revealed an 85th percentile wet weather speed of 34mph and 33mph eastbound and westbound respectively. The speed survey can be found at Appendix A.

Walking and Cycling

2.11 The site is situated in easy reach of nearby services and amenities include a beauty salon, several convenience stores, a butcher, a public house, a restaurant, a café and a hot food takeaway. There are also two primary schools and a community centre located within walking distance, in addition to a wealth of independently owned and operated shops and businesses.

2.12 Footway provision is already provided along the northern edge of Doncaster Road in the form of a shared footway/ cycleway that links Darfield to Stairfoot before providing further links to Barnsley town centre. A shared footway/ cycleway facility will be provided within the site and will connect to the north side shared facility. The proposals include a footway along the south side of Doncaster Road and southwest side of Barnsley Road along the site frontage to provide improved connectivity with the local village amenities. Street lighting will also be provided as part of the works.

2.13 The walking catchment can be found below at Figure 2.1 and covers a 20-minute walking distance from the proposed development site.

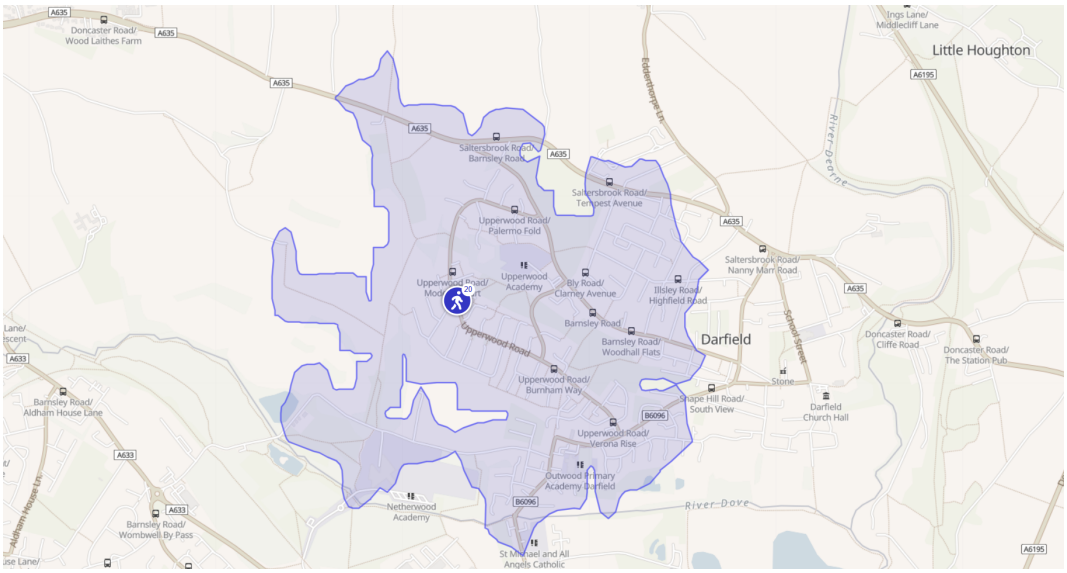


Figure 2.1 Walking Isochrone

2.14 Figure 2.2 below identifies the destinations which can be reached during s 20-minute cycle journey from the proposed development site. The areas of Little Houghton, Billingley, Edderthorpe, Darfield, Broomhill, Wombwell, Hemingfield, Ardsley and Stairfoot are all located within this catchment and provide further employment, social and leisure opportunities for residents.

2.15 Dearne Valley Old Moor nature reserve is situated to the east of the settlement of Wombwell and just falls within the 20-minute cycling distance. This offers leisure facilities for all age groups and includes other cycle tracks. There are also links to the Transpennine Trail within this catchment.

2.16 The proposals include an internal shared footway/ cycleway and links to existing cycle facilities along the local highway network.

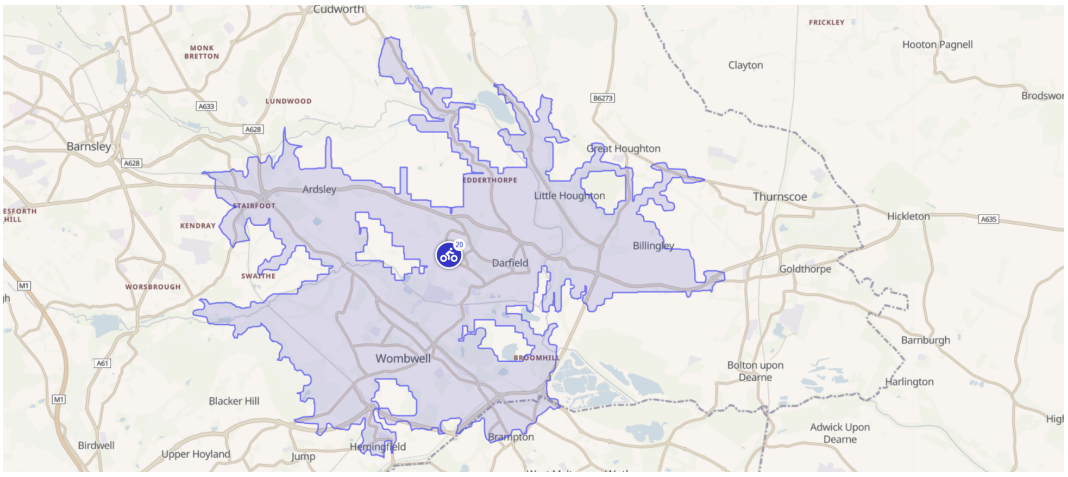


Figure 2.2 Cycling Isochrone

Public Transport

2.17 The bus stop located closest to the proposed development site is known as 'Barnsley Road / Doncaster Road' and is situated approximately 111 metres to the southeast of the proposed Barnsley Road access. This local fare stage has the benefit of a flagpole, timetable case and passenger shelter.

2.18 There is also a bus stop located on the A635 Doncaster Road around 155m west of the proposed site access. This includes tactile paving and flag pole.

2.19 The table below summarises the services which utilise these local fare stages.

Number	Route	Typical Frequency			Provider
		Mon – Fri	Sat	Sun	
218	Rotherham Town Centre / Interchange – Barnsley Town Centre / Interchange	30 mins	60 mins	N/A	Stagecoach Yorkshire
218a	Rotherham Town Centre / Interchange – Barnsley Town Centre / Interchange	60 mins	60 mins	N/A	Stagecoach Yorkshire
219	Doncaster Town Centre / Frenchgate Interchange – Barnsley Town Centre / Interchange	60 mins	60 mins	120 mins	Stagecoach Yorkshire
219a	Doncaster Town Centre / Frenchgate Interchange – Barnsley Town Centre / Interchange	Infrequent	Infrequent	N/A	Stagecoach Yorkshire
X19	Doncaster Town Centre / Frenchgate Interchange – Barnsley Town Centre / Interchange	30 mins – 60 mins	60 mins	60 mins	Stagecoach Yorkshire
481	Worsborough Bridge – Kendray	School service only	N/A	N/A	Peter Hodgson Travel

Figure 2.3 Bus Services

2.20 As can be identified from the above table, there are bus services that provide links to the settlements of Rawmarsh, Swinton, Manvers, Goldthorpe, Darfield, Ardsley, Spotborough, High Melton, Harlington, Thurnscoe, Great Houghton, Stairfoot, Grimethorpe, Worsborough Bridge, Ward Green, Monk Bretton, Worsborough Common, Lundwood, Cundy Cross and Kendray. In addition, there are links via bus to the interchanges at Rotherham, Mexborough, Barnsley and Doncaster Frenchgate which provide opportunities for travel to destinations further afield by sustainable means.

2.21 The development would include a bus route within the site if required. It is envisaged that the internal loop road that connects Doncaster Road and Barnsley Road access points would satisfy this requirement. Any bus stop infrastructure and internal routing would be agreed with South Yorkshire PTE and the LPA.

2.22 Wombwell railway station is also located within the range of a 20-minute cycling distance from the proposed development site. This station serves the following lines: Leeds to Nottingham and Leeds to Sheffield via Castleford; and the Huddersfield to Sheffield (Penistone Line). Wombwell station has the benefit of 12no. cycle storage stands which are sheltered and covered by CCTV, located on the platform.

2.23 The site is in a very sustainable location due to its proximity to local fare stages and rail station which provides connections to Doncaster, Rotherham, Sheffield, Leeds, and Wakefield that have a multitude of amenities, facilities and other transport opportunities. The site is also within walking distance of the many local facilities and amenities within Darfield and cycling distance of those essential services within Wombwell. Therefore, the site conforms to current Government directives for ensuring developments are located in a sustainable location.

Road Traffic Accidents

2.24 The injury accident record for the last 5 year period up to December 2022 has been obtained from the Crashmap website. The data is published by the Department for Transport which is based on records from police forces using the STATS19 accident reporting form.

2.25 The search area below includes Doncaster Road, Saltersbrook Road and Barnsley Road totalling a study length of some 900m of public highway.

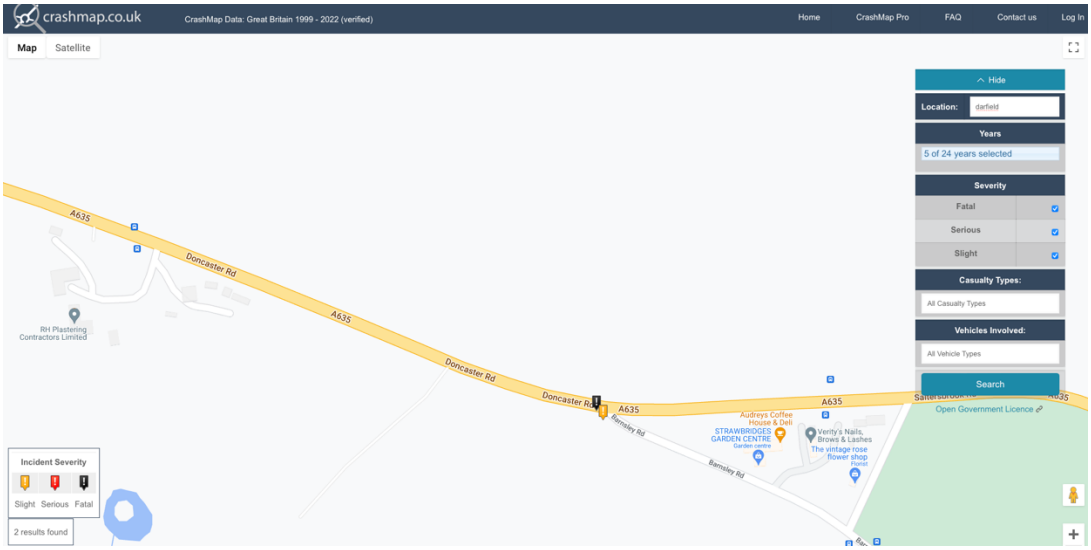


Figure 2.4 Accident Study Area

2.26 As can be seen from the study area above, there have been a total of 2 police reported injury accidents during the 5 year study period. Both of these collisions were situated at the Barnsley Road/ A635 Doncaster Road junction with one classified as slight and the other classified as fatal. The accident data can be found at Appendix B.

2.27 The first collision occurred during April 2018 in daylight hours and involved 2 vehicles. The weather was fine and the road surface conditions were dry. The collision involved a vehicle turning left out of the junction into the path of an oncoming car resulting a shunt type collision.

2.28 The second collision occurred during August 2020 in daylight hours and involved a car and pedal cycle. The weather was fine with dry road surface conditions. The collision data does not indicate a turning movement, although it confirms the cyclist had a nearside impact.

2.29 It should be noted that there were no collisions along the A635 Doncaster Road or Barnsley Road in the vicinity of the site access points.

2.30 Given the above, there are no significant clusters of accidents and it would appear that these collisions were disparate events with differing manoeuvres and vehicle types.

2.31 The proposals include a new right turn lane junction to serve the site access off Doncaster Road complete with central hatching and pedestrian/ traffic islands. The proposals also include red surfacing and 'SLOW' road markings. These measures can only reduce traffic speeds further along the A635 Doncaster Road and Salterbrook Road in the vicinity of the Barnsley Road junction.

2.32 The injury accident record along the section of Doncaster Road, Salterbrook Road and Barnsley Road does not indicate a road safety problem that would warrant treatment or be a cause for concern as a result of the change in traffic flows as a result of the development proposals.

3.0 Development Proposals

Proposed Development

3.1 The proposals are to develop the site for residential purposes and at the time of writing this report it is proposed to provide circa 260 new dwellings, which would be Phase 1 of the larger site that would accommodate around 460 dwellings in total.

3.2 As part of Phase 1 the 260 proposed dwellings will be a mix of detached, semi detached and terrace type dwellings. The internal arrangements will follow street hierarchy with a mix of traditional estate roads, shared surface streets, and shared driveways. The internal arrangement will follow Barnsley Council's adoptable standards and would conform to the South Yorkshire Residential Design Guide 2011.

3.3 The layout for Phase 1 includes a loop arrangement that connects Barnsley Road to the east with the A635 Doncaster Road to the northwest. The feeder road and loop will be 6.75m wide to enable future bus access into the site if considered necessary by the LPA.

Figure 3.1 Loop Road Proposal Connecting Doncaster Road and Barnsley Road

3.4 The proposed site layout can be found at Appendix C.

Access and Parking Provision

3.5 The main site access will be located off the A635 Doncaster Road, and will serve the main feeder road into the development and the majority of dwellings. A secondary access will be provided off Barnsley Road.

3.6 The main site access off Doncaster Road will include a new right turn lane arrangement situated over 160m west of the Barnsley Road/ A635 Doncaster Road junction. The junction spacing is suitable for speed limits of 50mph and accords with Design Manual for Roads and Bridges. The speed survey on Doncaster Road (see Appendix A) confirms that actual traffic speeds are lower than or at the speed limit.

3.7 The A635 Doncaster Road access proposals includes widening Doncaster Road along the site frontage to accommodate the new right turn lane. The proposed junction geometry will consist of a 15.0m radius on both sides, complete with suitable entry and exit tapers (1:6). The right turn lane will include a traffic island on the west side complete with illuminated bollards and beacon. The right turn lane also includes a pedestrian refuge island to the east, which will be 3m in width to assist cyclists crossing Doncaster Road from the development to the north side shared footway/ cycleway. The pedestrian refuge will include illuminated bollards and refuge beacon. Tactile paving will also be provided on both sides of the road and within the refuge island.

3.8 The right turn lane arrangement will fully comply with Design Manual for Roads and Bridges and will include 3.5m wide traffic lanes and a 3.5m wide right turn lane. Suitable direct taper and deceleration lane has also been provided. Details of the right turn junction arrangement can be found at Appendix C.

3.9 The speed survey at Appendix A confirms that the 85th percentile speed was 46mph heading westbound and 50mph heading eastbound. Using the SSD values set out in Design Manual for Roads and Bridges an 'X' distance of 4.5m and a 'Y' distance of 160.0m in both directions is required at the proposed access junction. This visibility is shown on the access proposals at Appendix C.

3.10 The secondary access located of Barnsley Road will take the form of a simple priority junction with giveway arrangement and includes 6m radii on both sides with a carriageway width of 6.75m wide to enable future bus access. Vehicle speeds at Barnsley Road in the vicinity of the secondary site access are considered to be lower than the speed limit due to the layout of the road and location of the Doncaster Road junction. The speed survey has revealed that the 85th percentile wet weather speed of 34mph and 33mph eastbound and westbound respectively. Using the speed data this requires a visibility splay of 2.4m x 90m in both directions based on Design Manual for Roads and Bridges. The proposals include visibility splays pf 2.4m x 90m to the east and 2.4m x 130m to the west.

3.11 The internal layout includes 6.75m wide internal feeder road width and 2.0m footway on one side and a 4.5m wide shared cycle link on the other side separated from the carriageway via a highway verge. The layout will also include traditional estate roads with a 5.5m wide carriageway and 2.0m wide footways on both sides. The shared surface streets will contain hard margins on both sides and suitable visitor parking in accordance with Council guidance.

3.12 It is intended that the site would accommodate a bus route (if required) and the initial feeder road off Doncaster Road and from Barnsley Road forming the loop would be used for this purpose for the phase 1 development. The bus route and infrastructure would be agreed with the PTE and LPA. For the remaining site the extension to the internal bus route would be considered as part of the proposals.

3.13 The site layout will comply with Barnsley Council's SPD Parking adopted November 2019 meeting or exceeding 1 space for dwellings with 1 or 2 bedrooms and 2 spaces for dwellings with 3 or more bedrooms.

3.14 Visitor spaces are proposed for shared surface streets. The SPD requirement for 1 space per 4 dwellings has generally been followed although the SPD allows for some flexibility on visitor parking.

Pedestrian and Cycle Provision

3.15 The proposals include footways within the site connecting to other internal streets along with pedestrian connections to neighbouring off site streets including Belvedere Drive, Genoa Close and through green space to the west of Upperwood Road.

3.16 The development proposes a shared pedestrian/ cycle facility along the main feeder road that runs from north to south and the loop arrangement from Barnsley Road. The shared facility is 4.5m in width and complies with geometric requirements contained within Local Transport Note 1/20 Cycle Infrastructure Design. The shared facility will connect to the existing shared cycleway facility along the north side of Doncaster Road via the proposed refuge island.

3.17 It is proposed to provide a footway across the site frontage along Doncaster Road and Barnsley Road, connecting both proposed access junctions via the external footway network. From the Barnsley Road junction it is proposed to provide a footway connection to the nearby bus stop.

3.18 Cycle parking will be provided for each dwelling in accordance with Barnsley Council's SPD.

Servicing

3.19 The site layout provides internal turning for a fire appliance and large refuse vehicle as appropriate in accordance with the South Yorkshire Residential Design Guide. The site servicing needs can be adequately catered for.

4.0 Transport Policy

4.1 When considering transport policy compliance for planning applications, the main thrust of local, regional and national policy is that new development should be conveniently accessible by a range of sustainable transport modes, including public transport, cycling and walking. Further details of the relevant policy documents are set out below.

National Policy

National Planning Policy Framework

4.2 The National Planning Policy Framework was first published in March 2012 and was updated most recently in December 2023. The framework sets out the Government's planning policies for England and how these are expected to be applied. It recommends that new 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. Within this context, applications for development with regards to Transport should:

Considerations	Proposals
Give priority first to pedestrians and cycle movements, both within the scheme and the surrounding network	Cycle parking facilities, footways and shared cycleway are proposed as part of the development to aid pedestrian and cycle access to the site
Address the needs of people with disabilities and reduced mobility in relation to all modes of transport	Access along the existing network to bus facilities is considered acceptable for people with reduced mobility due to provision of new footways
Create places that are safe, secure and attractive, and minimise the scope for conflict between all users	The architects have acknowledged these issues within the overall design
Allow for the efficient delivery of goods, and access by service and emergency vehicles	The site access and internal circulation area will allow for safe access within the site, and suitable access and egress onto the major road
Allow within the design for the charging of plug-in and ultra-low emission vehicles in safe and convenient locations	Charging points for plug-in vehicles will be provided as part of the development at a level to be agreed with the LPA

Figure 4.1 Transport Considerations

4.3 Paragraph 117 of the NPPF states, "All developments that will generate significant amounts of movement should be required to produce a Travel Plan, and the application should be supported by a Transport Statement or Transport Assessment so that the likely impacts of the proposals can be assessed."

Local Transport Plan

4.4 The Sheffield City Region Transport Strategy sets out the transport priorities for the region up to 2040. The Transport Strategy seeks to:

- To improve connection for residents and businesses to economic opportunity
- Provide a cleaner and greener Sheffield City Region
- provide a safe, reliable and accessible transport network

4.5 The Strategy seeks to strengthen the region's economy and provide sufficient housing to support economic and population growth. Also, the following will have to be considered as part of the Strategy:

- Improving the transport network connectivity and providing greater capacity are vital in enabling growth.
- Travel choices, enabling the public to make the most sustainable choices about when and how they travel need to be improved.
- Connectivity, ensuring people can make integrated and safe journeys using transport networks on which they can rely.
- Enhancements to improve the overall network to make it more fit for journeys in the future.

Local Policy

4.6 Barnsley Council's Local Plan was adopted January 2019. Chapter 12 deals with Transport and provides relevant policy.

4.7 Policy T3 deals with new development and sustainable travel. The policy states: -

New development will be expected to:

Be located and designed to reduce the need to travel, be accessible to public transport and meet the needs of pedestrians and cyclists;

Provide at least the minimum levels of parking for cycles, motorbikes, scooters, mopeds and disabled people set out in the relevant Supplementary Planning Document;

Provide a transport statement or assessment in line with guidance set out in the National Planning Policy Framework and guidance including where appropriate regard for cross boundary local authority impacts; and

Provide a travel plan statement or a travel plan in accordance with guidance set out in the National Planning Policy Framework including where appropriate regard for cross boundary local authority impacts. Travel plans will be secured through a planning obligation or a planning condition.

4.8 Policy T4 deals with new development and transport safety. The policy states: -

New development will be expected to be designed and built to provide all transport users within and surrounding the development with safe, secure and convenient access and movement.

If a development is not suitably served by the existing highway, or would create or add to problems of safety or the efficiency of the highway or any adjoining rail infrastructure for users, we will expect developers to take mitigating action to make a financial contribution to make sure the necessary improvements go ahead. Any contributions will be secured through a planning obligation or planning condition.

4.9 It is considered that this site is in compliance with local and national transport policies due to the sustainable location of the site with good quality facilities for travel from modes other than the single occupancy private car trips. The proposals include appropriate mitigation including new right turn lane, traffic islands, shared cycleway and new footway provision.

5.0 Traffic Impact

Proposed Development Traffic

5.1 To determine the anticipated traffic generations for the site it has been necessary to examine data from the national TRICS database.

5.2 Phase 1 of the development proposes 260 dwellings with the remaining site expected to deliver a further 200 dwellings. To provide a robust assessment and to provide some flexibility for the purpose of traffic generations for phase 1, 270 dwellings have been considered.

5.3 The tables below show the trip rates and generations for phase 1 (270 dwellings) and for the whole site (470 dwellings). The TRICS output can be found at Appendix D.

	AM peak			PM peak		
	Arrive	Depart	Total	Arrive	Depart	Total
270 residential properties						
Trip Rate	0.147	0.373	0.520	0.336	0.158	0.494
Traffic generations	40	100	140	91	42	133

Figure 5.1 Trip Rates & Traffic Generations (Phase 1 270 Dwellings)

	AM peak			PM peak		
	Arrive	Depart	Total	Arrive	Depart	Total
470 residential properties						
Trip Rate	0.147	0.373	0.520	0.336	0.158	0.494
Traffic generations	69	175	244	158	74	232

Figure 5.2 Trip Rates & Traffic Generations (Phase 2 470 Dwellings)

5.4 As can be seen from the tables above, the first phase of the development would generate between 133 and 140 trips during the network peak hours (between 0800 and 0900hrs and between 1700 and 1800hrs). The site overall (470 Dwellings) would generate between 232 and 244 trips during the network peak hours.

Traffic Distribution

5.5 To ascertain the proposed traffic distribution from the site, the census information has been used from the NOMIS website, which provides information on usual residence and place of work.

5.6 The NOMIS output can be found at Appendix E and identified that 43% of the site traffic would travel west towards Stairfoot (A635/A633 junction) and 48% would travel east to Cathill Roundabout (A6195/ A635 junction). The distribution shows that 9% would travel south along Barnsley Road.

5.7 Given the size of development and that there are two proposed access points, it has been considered justified to assign one of the two junctions to particular dwellings within the development. For example, it is not considered realistic for residents to travel to the Doncaster Road site access to travel west, if these residents are situated adjacent to a proposed access on Barnsley Road. Therefore, it is considered that to provide a robust assignment of development traffic to the Barnsley Road access around 40 dwellings located on the east side of the site would use this access. For vehicles travelling south along Barnsley Road, 9% of the total development traffic have been assigned to use the Barnsley Road junction, as this presents the least distance travelled to this destination. The remaining plots would utilise the Doncaster Road access for all other destinations. The traffic flow diagrams for the 270 dwellings and 470 dwellings can be found at Appendix F.

Traffic Impact

5.8 The traffic impact will be addressed within the Transport Assessment Addendum No1 that will follow this Transport Assessment. The addendum will include formal junction assessments for the application year and future year (plus 10 years) with and without development traffic scenarios. For traffic growth the TEMPRO program has been used for this purpose and revealed that for the AM weekday period from 2024 to 2034 would equate to a growth factor of 1.1013. Similarly for the PM weekday period this would have a growth factor of 1.1021.

5.9 The committed development is also to be included as part of the assessments.

5.10 The following junctions should be assessed as part of Transport Assessment Addendum No 1. These junctions have been agreed with Barnsley Council's Highways Officers.

- A635 Doncaster Road Site Access Junction
- A635 Doncaster Road/ Barnsley Road Junction
- Barnsley Road Site Access Junction
- Stairfoot Signalised Junction
- Cathill Roundabout (A635/ A6195) Junction
- A635/ ES10 Allocation Roundabout Junction

5.11 It is considered that the Transport Assessment Addendum No1 would confirm that the proposed development would not have a significant impact on the adjacent highway network and would not be severe as per the current test within the current NPPF.

6.0 Conclusion

6.1 This report presents the proposals to develop the site for residential purposes for circa 460 dwellings, with the first phase totalling some 260 dwellings. The dwellings will be a mix of detached, semi-detached, terrace type dwellings. Access to the site will be from two new junction arrangements off Doncaster Road and Barnsley Road. This report considers such matters as access, sustainability, car parking and servicing, and presents the proposals in relation to current guidance and data.

6.2 The report describes the existing highway network and the proposed development on the site and compares the traffic generations, highway safety and access proposals with the existing and proposed situation. The vehicular access and sustainable elements of the scheme are also assessed. The traffic impact associated with the current development proposals has also been presented.

6.3 Junction capacity assessments will be included as part of the following Transport Assessment Addendum No1. The assessments should determine that the proposed development would not have a significant impact on the local highway network.

Appendix A
Speed Surveys

ABACUS TRAFFIC SURVEYS
14 CLIFF HILL COURT, HOLMFIRTH, HD9 1JF

JOB NUMBER	
DATE OF SURVEY	22/10/21
START TIME	12:00
FINISH TIME	14:00

SPEED SURVEY

LOCATION Doncaster Road, Darfield
DIRECTION OF TRAVEL Eastbound

SPEED (MPH)	NO. OF READINGS	SPEED (MPH)	NO. OF READINGS	SPEED (MPH)	NO. OF READINGS	SPEED (MPH)	NO. OF READINGS
1		26		51	8	76	
2		27		52	12	77	
3		28		53	4	78	
4		29		54	4	79	
5		30		55	2	80	
6		31		56		81	
7		32		57		82	
8		33		58	1	83	
9		34		59		84	
10		35		60	2	85	
11		36		61	1	86	
12		37		62		87	
13		38	22	63		88	
14		39	6	64		89	
15		40	22	65		90	
16		41	8	66		91	
17		42	12	67		92	
18		43	26	68		93	
19		44	12	69		94	
20		45	24	70		95	
21		46	24	71		96	
22		47	36	72		97	
23		48	18	73		98	
24		49	8	74		99	
25		50	14	75		100	

	266	**DUAL CARRIAGEWAY?**	M
MEAN SPEED	45.3721805	**SINGLE CARRIAGEWAY?**	Y
STANDARD DEVIATION	4.55496997	**WET ROAD SURFACE?**	N
85th PERCENTILE	49.9271504		
85th PERCENTILE WET WEATHER SPEED	47.4421504 ✔		

ABACUS TRAFFIC SURVEYS
14 CLIFF HILL COURT, HOLMFIRTH, HD9 1JF

JOB NUMBER	
DATE OF SURVEY	22/10/21
START TIME	12:00
FINISH TIME	14:00

SPEED SURVEY

LOCATION Doncaster Road, Darfield
DIRECTION OF TRAVEL Westbound

SPEED (MPH)	NO. OF READINGS	SPEED (MPH)	NO. OF READINGS	SPEED (MPH)	NO. OF READINGS	SPEED (MPH)	NO. OF READINGS
1		26		51		76	
2		27		52		77	
3		28		53	4	78	
4		29		54	2	79	
5		30		55		80	
6		31		56		81	
7		32		57		82	
8		33		58		83	
9		34	2	59		84	
10		35	2	60		85	
11		36	2	61		86	
12		37	6	62		87	
13		38	14	63		88	
14		39	22	64		89	
15		40	10	65		90	
16		41	26	66		91	
17		42	40	67		92	
18		43	30	68		93	
19		44	20	69		94	
20		45	20	70		95	
21		46	10	71		96	
22		47	10	72		97	
23		48	10	73		98	
24		49	4	74		99	
25		50	4	75		100	

	238	**DUAL CARRIAGEWAY?**	M
MEAN SPEED	42.7058824	**SINGLE CARRIAGEWAY?**	Y
STANDARD DEVIATION	3.61747503	**WET ROAD SURFACE?**	N
85th PERCENTILE	46.3233574		
85th PERCENTILE WET WEATHER SPEED	43.8383574 ✔		

ABACUS TRAFFIC SURVEYS
14 CLIFF HILL COURT, HOLMFIRTH, HD9 1JF

Job Number	1229C
Survey Date	24-Jun-24
Start Time	9:30am
Finish Time	11:30am

Location	Barnsley Road, Darfield
Direction of Travel	Eastbound

Speed (Mph)	No. of Readings	Speed (Mph)	No. of Readings	Speed (Mph)	No. of Readings	Speed (Mph)	No. of Readings
1		26	12	51		76	
2		27	18	52		77	
3		28	12	53		78	
4		29	6	54		79	
5		30	4	55		80	
6		31	14	56		81	
7		32	8	57		82	
8		33	12	58		83	
9		34	4	59		84	
10		35	6	60		85	
11		36	12	61		86	
12		37	1	62		87	
13		38	5	63		88	
14		39	2	64		89	
15		40	2	65		90	
16		41	6	66		91	
17		42	2	67		92	
18		43		68		93	
19		44		69		94	
20		45		70		95	
21		46		71		96	
22	2	47		72		97	
23	6	48		73		98	
24	4	49		74		99	
25	6	50	1	75		100	

Overall Readings	145	Dual Carriageway?	N
Mean Speed	30.931	Single Carriageway?	Y
Standard Deviation	5.233	Wet Road Surface?	N
85th Percentile	36.164		
85th Percentile Wet Weather Speed	33.679	✓	

ABACUS
TRAFFIC SURVEYS
14 CLIFF HILL COURT,
HOLMFIRTH, HD9 1JF

Job Number	1229C
Survey Date	24-Jun-24
Start Time	9:30am
Finish Time	11:30am

Location	Barnsley Road, Darfield
Direction of Travel	Westbound

Speed (Mph)	No. of Readings	Speed (Mph)	No. of Readings	Speed (Mph)	No. of Readings	Speed (Mph)	No. of Readings
1		26	4	51		76	
2		27	6	52		77	
3		28	12	53		78	
4		29	4	54		79	
5		30	22	55		80	
6		31	14	56		81	
7		32	18	57		82	
8		33	14	58		83	
9		34	14	59		84	
10		35	4	60		85	
11		36	6	61		86	
12		37	4	62		87	
13		38	8	63		88	
14		39	1	64		89	
15		40	3	65		90	
16		41		66		91	
17		42		67		92	
18		43		68		93	
19		44		69		94	
20		45		70		95	
21	10	46		71		96	
22	2	47		72		97	
23	4	48		73		98	
24	2	49		74		99	
25	4	50		75		100	

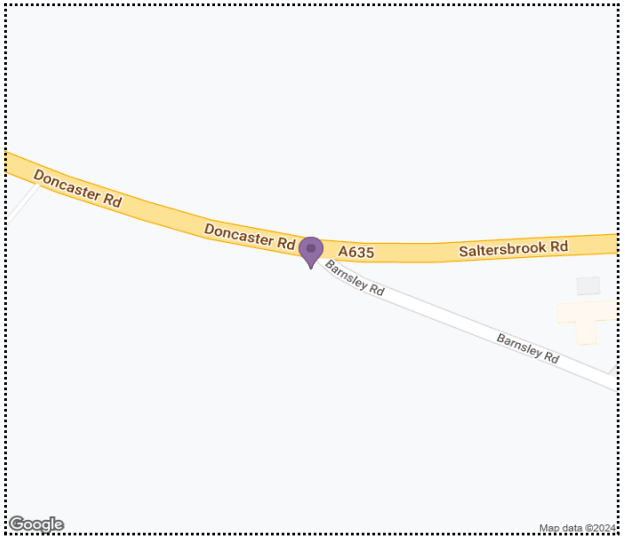
Overall Readings	156	Dual Carriageway?	N
Mean Speed	30.686	Single Carriageway?	Y
Standard Deviation	4.575	Wet Road Surface?	N
85th Percentile	35.260		
85th Percentile Wet Weather Speed	32.775	✓	

Appendix B
Road Traffic Accidents

crashmap.co.uk

Validated Data

Crash Date:	Tuesday, April 17, 2018	**Time of Crash:**	16:15:00	**Crash Reference:**	2018140289628
Highest Injury Severity:	Slight	**Road Number:**	U0	**Casualties:**	1
Highway Authority:	Barnsley			**Vehicles:**	2
Local Authority:	Barnsley			**OS Grid Reference:**	440391 405221
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:	Other 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

To subscribe to unlimited reports using CrashMap Pro visit: www.crashmap.co.uk/home/premium_services

powered by agilysis

Crash Date: Tuesday, April 17, 2018 **Time of Crash:** 16:15:00 **Crash Reference:** 2018140289628

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)	12	Male	46 - 55	Vehicle is in the act of turning left	Back	Other	None	None
2	Car (excluding private hire)	-1	Male	21 - 25	Vehicle proceeding normally along the carriageway, not on a bend	Front	Unknown	None	None

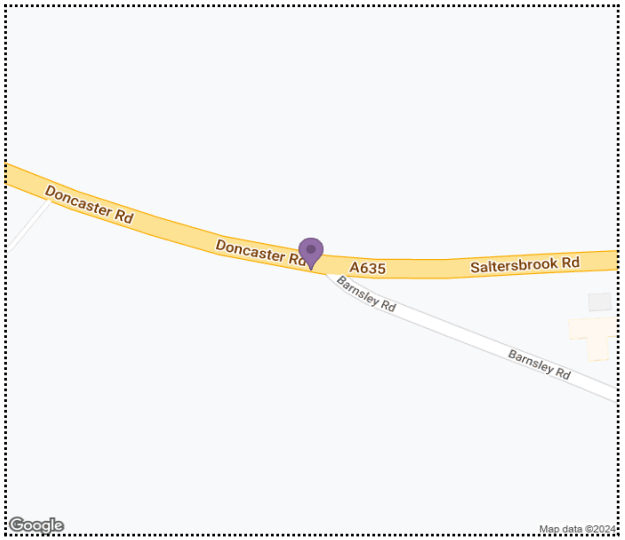
Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Male	46 - 55	Unknown or other	Unknown or other

crashmap.co.uk

Validated Data

Crash Date:	Tuesday, August 11, 2020	**Time of Crash:**	10:15:00	**Crash Reference:**	2020140971560
Highest Injury Severity:	Fatal	**Road Number:**	A635	**Casualties:**	1
Highway Authority:	Barnsley			**Vehicles:**	2
Local Authority:	Barnsley			**OS Grid Reference:**	440387 405227
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	50				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Other 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

To subscribe to unlimited reports using CrashMap Pro visit: www.crashmap.co.uk/home/premium_services

powered by agilysis

Crash Date: Tuesday, August 11, 2020 **Time of Crash:** 10:15:00 **Crash Reference:** 2020140971560

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	Pedal cycle	-1	Male	66 - 75	Vehicle proceeding normally along the carriageway, not on a bend	Nearside	Other	None	None
2	Car (excluding private hire)	8	Male	36 - 45	Vehicle proceeding normally along the carriageway, not on a bend	Did not impact	Unknown	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Fatal	Driver or rider	Male	66 - 75	Unknown or other	Unknown or other

Appendix C
Development Proposals

General Notes

- This drawing should not be scaled for setting out purposes.
- This drawing shows the provisional design only and is subject to Local Authority approval.
- This drawing is based upon a topographical / ordnance survey provided by others.

PARAGON HIGHWAYS

PROJECT TITLE
DONCASTER ROAD, DARFIELD

DRAWING TITLE
FORWARD VISIBILITY DRAWING

DRAWING NUMBER

ORIGINATOR	PROJECT	VOL	TYPE	ROLE	NUMBER
PRGN –	1229 –	HGN –	DR –	CH –	0001B

CLIENT
SAUL HOMES

SCALE	SIZE	DRAWN	CHECKED	AUTHORISED	DATE
1:1000	A1	JJH	LJO	JJH	JUN 24

PARAGON HIGHWAYS
20 – 21 THE WALLED GARDEN
NOSTELL ESTATE YARD
WAKEFIELD WF4 1AB

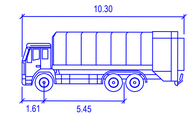
01924 291536
MAIL@PARAGONHIGHWAYS.COM

General Notes

- This drawing should not be scaled for setting out purposes.
- This drawing shows the provisional design only and is subject to Local Authority approval.
- This drawing is based upon a topographical / ordnance survey provided by others.

Gateway POS

Pocket Park



10.3m Refuse Vehicle

	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 35.3

PARAGON HIGHWAYS

PROJECT TITLE
DONCASTER ROAD, DARFIELD

DRAWING TITLE
VEHICLE TRACKING DRAWING

DRAWING NUMBER

ORIGINATOR	PROJECT	VOL.	TYPE	ROLE	NUMBER
PRGN –	1229 –	HGN –	DR –	CH –	0002B

CLIENT
SAUL HOMES

SCALE	SIZE	DRAWN	CHECKED	AUTHORISED	DATE
1:1000	A1	JJH	LJO	JJH	JUN 24

PARAGON HIGHWAYS
20 – 21 THE WALLED GARDEN
NOSTELL ESTATE YARD
WAKEFIELD WF4 1AB

01924 291536
MAIL@PARAGONHIGHWAYS.COM

General Notes

- This drawing should not be scaled for setting out purposes.
- This drawing shows the provisional design only and is subject to Local Authority approval.
- This drawing is based upon a topographical / ordnance survey provided by others.

PARAGON HIGHWAYS

PROJECT TITLE
DONCASTER ROAD, DARFIELD

DRAWING TITLE
REVISED JUNCTION ARRANGEMENT

DRAWING NUMBER

ORIGINATOR	PROJECT	VOL.	TYPE	ROLE	NUMBER
PRGN –	1229 –	HGN –	DR –	CH –	101D A

CLIENT
SAUL HOMES & KEEPMOAT

SCALE	SIZE	DRAWN	CHECKED	AUTHORISED	DATE
1:1000	A1	AH	LO	AH	JUN 24

PARAGON HIGHWAYS
20 – 21 THE WALLED GARDEN
NOSTELL ESTATE YARD
WAKEFIELD WF4 1AB

01924 291536
MAIL@PARAGONHIGHWAYS.COM

Appendix D
TRICS Output

Paragon Highways The Nostell Estate Wakefield Licence No: 742101

Calculation Reference: AUDIT-742101-240209-0210

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		
	ES	EAST SUSSEX	1 days
	HC	HAMPSHIRE	2 days
	HF	HERTFORDSHIRE	1 days
	KC	KENT	4 days
	SC	SURREY	1 days
	SP	SOUTHAMPTON	1 days
	WS	WEST SUSSEX	4 days
04	EAST ANGLIA		
	NF	NORFOLK	8 days
05	EAST MIDLANDS		
	DY	DERBY	1 days
06	WEST MIDLANDS		
	ST	STAFFORDSHIRE	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: 156 to 1146 (units:)
Range Selected by User: 150 to 1200 (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: 01/01/15 to 04/07/23

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	5 days
Tuesday	10 days
Wednesday	6 days
Thursday	3 days

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

Selected survey types:

Manual count	24 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)	1
Edge of Town	20
Neighbourhood Centre (PPS6 Local Centre)	3

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	18
Village	3
Out of Town	2
No Sub Category	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, Out of Town, High Street and No Sub Category.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	13 days - Selected
Servicing vehicles Excluded	19 days - Selected

Secondary Filtering selection:

Use Class:

C3	24 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	3 days
5,001 to 10,000	8 days
10,001 to 15,000	7 days
15,001 to 20,000	4 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:

5,001 to 25,000	4 days
25,001 to 50,000	3 days
50,001 to 75,000	3 days
75,001 to 100,000	5 days
125,001 to 250,000	6 days
250,001 to 500,000	3 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	7 days
1.1 to 1.5	15 days
1.6 to 2.0	2 days

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

Travel Plan:

Yes	18 days
No	6 days

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

PTAL Rating:

No PTAL Present	24 days

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

LIST OF SITES relevant to selection parameters

1 DY-03-A-01 MIXED HOUSES DERBY
RADBOURNE LANE
DERBY

Edge of Town
Residential Zone
Total No of Dwellings: 371
Survey date: TUESDAY *10/07/18* *Survey Type: MANUAL*

2 ES-03-A-03 MIXED HOUSES & FLATS EAST SUSSEX
SHEPHAM LANE
POLEGATE

Edge of Town
Residential Zone
Total No of Dwellings: 212
Survey date: MONDAY *11/07/16* *Survey Type: MANUAL*

3 HC-03-A-24 MIXED HOUSES & FLATS HAMPSHIRE
STONEHAM LANE
EASTLEIGH

Edge of Town
Residential Zone
Total No of Dwellings: 243
Survey date: WEDNESDAY *10/11/21* *Survey Type: MANUAL*

4 HC-03-A-33 MIXED HOUSES & FLATS HAMPSHIRE
CROW LANE
RINGWOOD
CROW
Edge of Town
Residential Zone
Total No of Dwellings: 195
Survey date: TUESDAY *04/07/23* *Survey Type: MANUAL*

5 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*

6 KC-03-A-06 MIXED HOUSES & FLATS KENT
MARGATE ROAD
HERNE BAY

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 363
Survey date: WEDNESDAY *27/09/17* *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 KC-03-A-08 MIXED HOUSES KENT
MAIDSTONE ROAD
CHARING

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 159
Survey date: TUESDAY *22/05/18* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 KC-03-A-11 MIXED HOUSES & FLATS KENT
COLDHARBOUR ROAD
GRAVESEND

Edge of Town
No Sub Category
Total No of Dwellings: 375
Survey date: MONDAY *20/03/23* *Survey Type: MANUAL*

10 NF-03-A-06 MIXED HOUSES NORFOLK
BEAUFORT WAY
GREAT YARMOUTH
BRADWELL
Edge of Town
Residential Zone
Total No of Dwellings: 275
Survey date: MONDAY *23/09/19* *Survey Type: MANUAL*

11 NF-03-A-09 MIXED HOUSES & FLATS NORFOLK
ROUND HOUSE WAY
NORWICH
CRINGLEFORD
Edge of Town
Residential Zone
Total No of Dwellings: 984
Survey date: TUESDAY *24/09/19* *Survey Type: MANUAL*

12 NF-03-A-23 MIXED HOUSES & FLATS NORFOLK
SILFIELD ROAD
WYMONDHAM

Edge of Town
Out of Town
Total No of Dwellings: 514
Survey date: WEDNESDAY *22/09/21* *Survey Type: MANUAL*

13 NF-03-A-28 MIXED HOUSES & FLATS NORFOLK
ATLANTIC AVENUE
NORWICH
SPROWSTON
Edge of Town
Residential Zone
Total No of Dwellings: 1146
Survey date: THURSDAY *22/09/22* *Survey Type: MANUAL*

14 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*

15 NF-03-A-38 MIXED HOUSES NORFOLK
BEAUFORT WAY
GREAT YARMOUTH
BRADWELL
Edge of Town
Residential Zone
Total No of Dwellings: 537
Survey date: TUESDAY *20/09/22* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

16 NF-03-A-39 MIXED HOUSES NORFOLK
HEATH DRIVE
HOLT

Edge of Town
Residential Zone
Total No of Dwellings: 212
Survey date: TUESDAY *27/09/22* *Survey Type: MANUAL*

17 NF-03-A-46 MIXED HOUSES & FLATS NORFOLK
BURGH ROAD
AYLSHAM

Edge of Town
Residential Zone
Total No of Dwellings: 300
Survey date: TUESDAY *14/09/21* *Survey Type: MANUAL*

18 SC-03-A-08 MIXED HOUSES SURREY
REIGATE ROAD
HORLEY

Edge of Town
Residential Zone
Total No of Dwellings: 790
Survey date: WEDNESDAY *04/05/22* *Survey Type: MANUAL*

19 SP-03-A-02 MIXED HOUSES & FLATS SOUTHAMPTON
BARNFIELD WAY
NEAR SOUTHAMPTON
HEDGE END
Edge of Town
Out of Town
Total No of Dwellings: 250
Survey date: TUESDAY *12/10/21* *Survey Type: MANUAL*

20 ST-03-A-07 DETACHED & SEMI-DETACHED STAFFORDSHIRE
BEACONSIDE
STAFFORD
MARSTON GATE
Edge of Town
Residential Zone
Total No of Dwellings: 248
Survey date: WEDNESDAY *22/11/17* *Survey Type: MANUAL*

21 WS-03-A-08 MIXED HOUSES WEST SUSSEX
ROUNDSTONE LANE
ANGMERING

Edge of Town
Residential Zone
Total No of Dwellings: 180
Survey date: THURSDAY *19/04/18* *Survey Type: MANUAL*

22 WS-03-A-11 MIXED HOUSES WEST SUSSEX
ELLIS ROAD
WEST HORSHAM
S BROADBRIDGE HEATH
Edge of Town
Residential Zone
Total No of Dwellings: 918
Survey date: TUESDAY *02/04/19* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

23 WS-03-A-15 MIXED HOUSES WEST SUSSEX
HILLAND ROAD
BILLINGSHURST

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 380
Survey date: TUESDAY *23/11/21* *Survey Type: MANUAL*

24 WS-03-A-18 MIXED HOUSES & FLATS WEST SUSSEX
LONDON ROAD
HASSOCKS

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 156
Survey date: MONDAY *15/05/23* *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 SITES

Site Ref	Reason for Deselection
HC-03-A-26	Covid
SF-03-A-09	Covid
WS-03-A-12	Covid
WS-03-A-13	Covid

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): 1.68

	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	24	397	0.074	24	397	0.292	24	397	0.366
08:00 - 09:00	24	397	0.147	24	397	0.373	24	397	0.520
09:00 - 10:00	24	397	0.132	24	397	0.155	24	397	0.287
10:00 - 11:00	24	397	0.109	24	397	0.130	24	397	0.239
11:00 - 12:00	24	397	0.118	24	397	0.127	24	397	0.245
12:00 - 13:00	24	397	0.141	24	397	0.136	24	397	0.277
13:00 - 14:00	24	397	0.141	24	397	0.127	24	397	0.268
14:00 - 15:00	24	397	0.144	24	397	0.160	24	397	0.304
15:00 - 16:00	24	397	0.231	24	397	0.151	24	397	0.382
16:00 - 17:00	24	397	0.255	24	397	0.154	24	397	0.409
17:00 - 18:00	24	397	0.336	24	397	0.158	24	397	0.494
18:00 - 19:00	24	397	0.281	24	397	0.145	24	397	0.426
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.109			2.108			4.217

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:	156 - 1146 (units:)
Survey date date range:	01/01/15 - 04/07/23
Number of weekdays (Monday-Friday):	24
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	4
Surveys manually removed from selection:	4

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 OGVS
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	24	397	0.001	24	397	0.001	24	397	0.002
08:00 - 09:00	24	397	0.002	24	397	0.002	24	397	0.004
09:00 - 10:00	24	397	0.002	24	397	0.001	24	397	0.003
10:00 - 11:00	24	397	0.002	24	397	0.002	24	397	0.004
11:00 - 12:00	24	397	0.002	24	397	0.001	24	397	0.003
12:00 - 13:00	24	397	0.002	24	397	0.002	24	397	0.004
13:00 - 14:00	24	397	0.002	24	397	0.001	24	397	0.003
14:00 - 15:00	24	397	0.002	24	397	0.001	24	397	0.003
15:00 - 16:00	24	397	0.001	24	397	0.002	24	397	0.003
16:00 - 17:00	24	397	0.001	24	397	0.001	24	397	0.002
17:00 - 18:00	24	397	0.001	24	397	0.001	24	397	0.002
18:00 - 19:00	24	397	0.001	24	397	0.001	24	397	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.019			0.016			0.035

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 PSVS
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	24	397	0.000	24	397	0.000	24	397	0.000
08:00 - 09:00	24	397	0.001	24	397	0.000	24	397	0.001
09:00 - 10:00	24	397	0.000	24	397	0.000	24	397	0.000
10:00 - 11:00	24	397	0.000	24	397	0.000	24	397	0.000
11:00 - 12:00	24	397	0.000	24	397	0.000	24	397	0.000
12:00 - 13:00	24	397	0.000	24	397	0.000	24	397	0.000
13:00 - 14:00	24	397	0.000	24	397	0.000	24	397	0.000
14:00 - 15:00	24	397	0.000	24	397	0.000	24	397	0.000
15:00 - 16:00	24	397	0.000	24	397	0.000	24	397	0.000
16:00 - 17:00	24	397	0.000	24	397	0.000	24	397	0.000
17:00 - 18:00	24	397	0.000	24	397	0.000	24	397	0.000
18:00 - 19:00	24	397	0.000	24	397	0.000	24	397	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.001			0.000			0.001

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 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	24	397	0.003	24	397	0.007	24	397	0.010
08:00 - 09:00	24	397	0.003	24	397	0.015	24	397	0.018
09:00 - 10:00	24	397	0.002	24	397	0.004	24	397	0.006
10:00 - 11:00	24	397	0.002	24	397	0.002	24	397	0.004
11:00 - 12:00	24	397	0.001	24	397	0.002	24	397	0.003
12:00 - 13:00	24	397	0.001	24	397	0.001	24	397	0.002
13:00 - 14:00	24	397	0.002	24	397	0.001	24	397	0.003
14:00 - 15:00	24	397	0.003	24	397	0.003	24	397	0.006
15:00 - 16:00	24	397	0.009	24	397	0.002	24	397	0.011
16:00 - 17:00	24	397	0.009	24	397	0.005	24	397	0.014
17:00 - 18:00	24	397	0.009	24	397	0.005	24	397	0.014
18:00 - 19:00	24	397	0.006	24	397	0.005	24	397	0.011
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.050			0.052			0.102

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	24	397	0.090	24	397	0.408	24	397	0.498
08:00 - 09:00	24	397	0.181	24	397	0.623	24	397	0.804
09:00 - 10:00	24	397	0.169	24	397	0.217	24	397	0.386
10:00 - 11:00	24	397	0.146	24	397	0.182	24	397	0.328
11:00 - 12:00	24	397	0.162	24	397	0.179	24	397	0.341
12:00 - 13:00	24	397	0.189	24	397	0.185	24	397	0.374
13:00 - 14:00	24	397	0.192	24	397	0.169	24	397	0.361
14:00 - 15:00	24	397	0.201	24	397	0.214	24	397	0.415
15:00 - 16:00	24	397	0.404	24	397	0.213	24	397	0.617
16:00 - 17:00	24	397	0.407	24	397	0.222	24	397	0.629
17:00 - 18:00	24	397	0.492	24	397	0.225	24	397	0.717
18:00 - 19:00	24	397	0.410	24	397	0.221	24	397	0.631
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.043			3.058			6.101

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 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	24	397	0.011	24	397	0.035	24	397	0.046
08:00 - 09:00	24	397	0.023	24	397	0.076	24	397	0.099
09:00 - 10:00	24	397	0.021	24	397	0.022	24	397	0.043
10:00 - 11:00	24	397	0.017	24	397	0.017	24	397	0.034
11:00 - 12:00	24	397	0.018	24	397	0.017	24	397	0.035
12:00 - 13:00	24	397	0.019	24	397	0.017	24	397	0.036
13:00 - 14:00	24	397	0.021	24	397	0.020	24	397	0.041
14:00 - 15:00	24	397	0.025	24	397	0.027	24	397	0.052
15:00 - 16:00	24	397	0.068	24	397	0.030	24	397	0.098
16:00 - 17:00	24	397	0.039	24	397	0.020	24	397	0.059
17:00 - 18:00	24	397	0.035	24	397	0.028	24	397	0.063
18:00 - 19:00	24	397	0.031	24	397	0.030	24	397	0.061
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.328			0.339			0.667

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 BUS/TRAM PASSENGERS
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	24	397	0.001	24	397	0.018	24	397	0.019
08:00 - 09:00	24	397	0.001	24	397	0.021	24	397	0.022
09:00 - 10:00	24	397	0.003	24	397	0.008	24	397	0.011
10:00 - 11:00	24	397	0.004	24	397	0.006	24	397	0.010
11:00 - 12:00	24	397	0.005	24	397	0.006	24	397	0.011
12:00 - 13:00	24	397	0.004	24	397	0.004	24	397	0.008
13:00 - 14:00	24	397	0.004	24	397	0.004	24	397	0.008
14:00 - 15:00	24	397	0.007	24	397	0.005	24	397	0.012
15:00 - 16:00	24	397	0.016	24	397	0.005	24	397	0.021
16:00 - 17:00	24	397	0.018	24	397	0.003	24	397	0.021
17:00 - 18:00	24	397	0.013	24	397	0.002	24	397	0.015
18:00 - 19:00	24	397	0.010	24	397	0.003	24	397	0.013
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.086			0.085			0.171

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 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	24	397	0.001	24	397	0.023	24	397	0.024
08:00 - 09:00	24	397	0.001	24	397	0.026	24	397	0.027
09:00 - 10:00	24	397	0.003	24	397	0.010	24	397	0.013
10:00 - 11:00	24	397	0.004	24	397	0.007	24	397	0.011
11:00 - 12:00	24	397	0.005	24	397	0.007	24	397	0.012
12:00 - 13:00	24	397	0.005	24	397	0.005	24	397	0.010
13:00 - 14:00	24	397	0.004	24	397	0.005	24	397	0.009
14:00 - 15:00	24	397	0.007	24	397	0.005	24	397	0.012
15:00 - 16:00	24	397	0.018	24	397	0.005	24	397	0.023
16:00 - 17:00	24	397	0.020	24	397	0.003	24	397	0.023
17:00 - 18:00	24	397	0.018	24	397	0.003	24	397	0.021
18:00 - 19:00	24	397	0.013	24	397	0.003	24	397	0.016
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.099			0.102			0.201

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): 1.68

	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	24	397	0.104	24	397	0.474	24	397	0.578
08:00 - 09:00	24	397	0.209	24	397	0.740	24	397	0.949
09:00 - 10:00	24	397	0.195	24	397	0.253	24	397	0.448
10:00 - 11:00	24	397	0.169	24	397	0.208	24	397	0.377
11:00 - 12:00	24	397	0.186	24	397	0.205	24	397	0.391
12:00 - 13:00	24	397	0.214	24	397	0.208	24	397	0.422
13:00 - 14:00	24	397	0.218	24	397	0.195	24	397	0.413
14:00 - 15:00	24	397	0.236	24	397	0.249	24	397	0.485
15:00 - 16:00	24	397	0.499	24	397	0.251	24	397	0.750
16:00 - 17:00	24	397	0.476	24	397	0.251	24	397	0.727
17:00 - 18:00	24	397	0.553	24	397	0.261	24	397	0.814
18:00 - 19:00	24	397	0.461	24	397	0.258	24	397	0.719
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.520			3.553			7.073

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 CARS
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	24	397	0.059	24	397	0.261	24	397	0.320
08:00 - 09:00	24	397	0.124	24	397	0.340	24	397	0.464
09:00 - 10:00	24	397	0.111	24	397	0.135	24	397	0.246
10:00 - 11:00	24	397	0.090	24	397	0.110	24	397	0.200
11:00 - 12:00	24	397	0.100	24	397	0.106	24	397	0.206
12:00 - 13:00	24	397	0.122	24	397	0.115	24	397	0.237
13:00 - 14:00	24	397	0.120	24	397	0.107	24	397	0.227
14:00 - 15:00	24	397	0.125	24	397	0.141	24	397	0.266
15:00 - 16:00	24	397	0.207	24	397	0.127	24	397	0.334
16:00 - 17:00	24	397	0.227	24	397	0.134	24	397	0.361
17:00 - 18:00	24	397	0.305	24	397	0.141	24	397	0.446
18:00 - 19:00	24	397	0.261	24	397	0.131	24	397	0.392
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.851			1.848			3.699

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 LGVS
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	24	397	0.011	24	397	0.025	24	397	0.036
08:00 - 09:00	24	397	0.015	24	397	0.022	24	397	0.037
09:00 - 10:00	24	397	0.016	24	397	0.016	24	397	0.032
10:00 - 11:00	24	397	0.015	24	397	0.015	24	397	0.030
11:00 - 12:00	24	397	0.015	24	397	0.017	24	397	0.032
12:00 - 13:00	24	397	0.015	24	397	0.016	24	397	0.031
13:00 - 14:00	24	397	0.016	24	397	0.017	24	397	0.033
14:00 - 15:00	24	397	0.013	24	397	0.014	24	397	0.027
15:00 - 16:00	24	397	0.016	24	397	0.015	24	397	0.031
16:00 - 17:00	24	397	0.023	24	397	0.014	24	397	0.037
17:00 - 18:00	24	397	0.026	24	397	0.012	24	397	0.038
18:00 - 19:00	24	397	0.015	24	397	0.010	24	397	0.025
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.196			0.193			0.389

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.*

Appendix E
Traffic Distribution

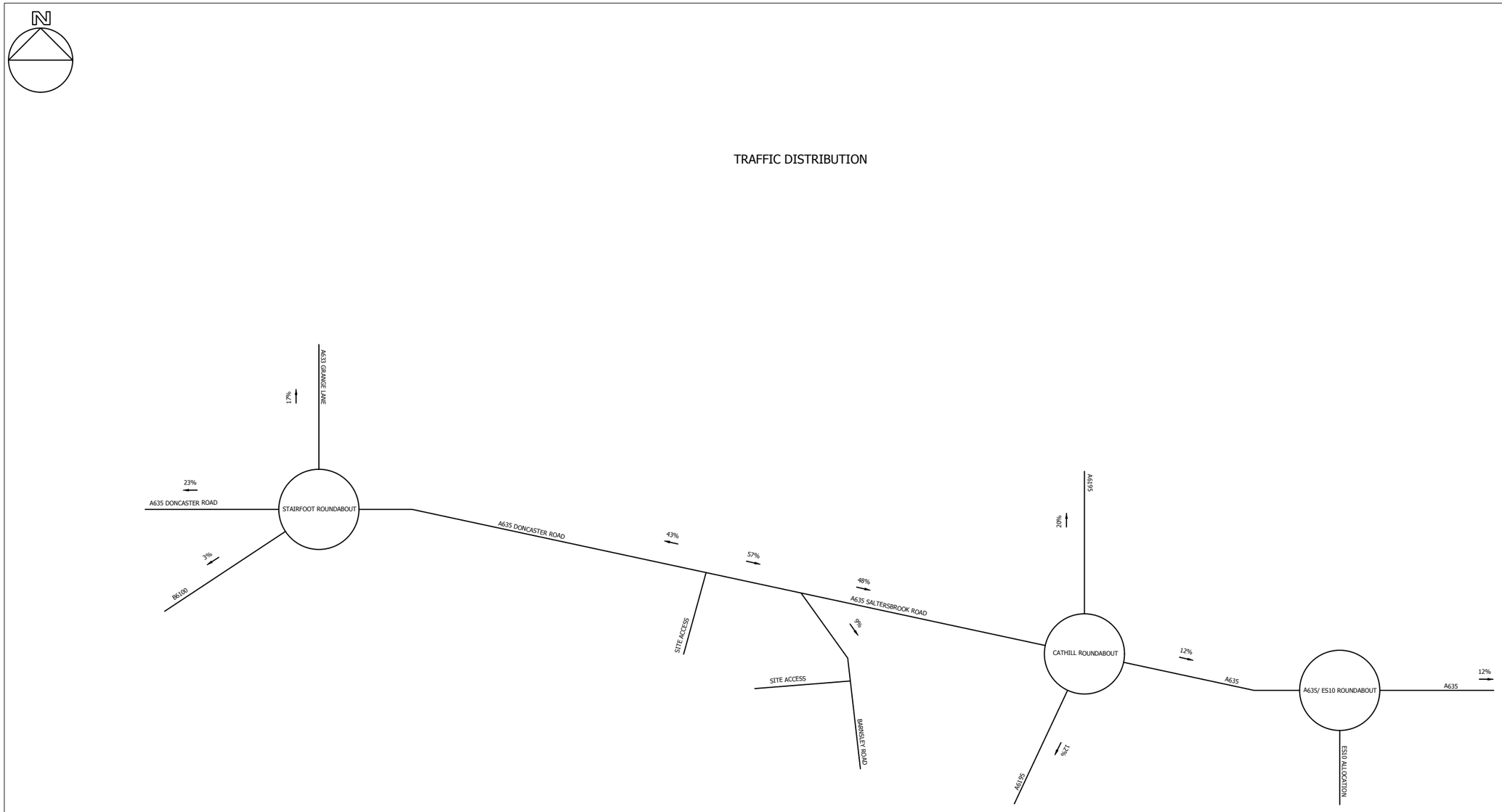
WU01EW - Location of usual residence and place of work by sex (MSOA level)

population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
sex	All persons

	usual residence		Stairfoot Signalised Roundabout					A6195/ A635 Roundabout			A635/ ES10 Allocation Roundabout
place of work	**E02001528 : Barnsley 020**	Doncaster Road (West	Doncaster Road A635	A633 North	B6100 Hunningley Lane	Doncaster Road (East)	Barnsley Road South	A635 East	A6195 North	A6195 South	A635 East
Bradford	8	8	8								
Calderdale	5	5	5								
Craven	1	1	1								
Doncaster	261					261		261			261
East Riding of Yorkshire	5					5			5		
Hambleton	2					2			2		
Harrogate	5	5	5								
Kingston upon Hull, City of	1					1		1			1
Kirklees	52	52	52								
Leeds	101	101	101								
North East Lincolnshire	1					1		1			1
North Lincolnshire	7					7		7			7
Richmondshire	2	2	2								
Rotherham	538					538				538	
Ryedale	1					1		1			1
Selby	14					14			14		
Sheffield	245					245			245		
Wakefield	231	231		231							
York	3					3			3		
E02001509 : Barnsley 001	6	6		6							
E02001510 : Barnsley 002	69	69		69							
E02001511 : Barnsley 003	9					9			9		
E02001512 : Barnsley 004	12	12		12							
E02001513 : Barnsley 005	40	40		40							
E02001514 : Barnsley 006	36					36			36		
E02001515 : Barnsley 007	36	36		36							
E02001516 : Barnsley 008	30					30					
E02001517 : Barnsley 009	17	17		17							
E02001518 : Barnsley 010	60	60		60							
E02001519 : Barnsley 011	33	33		33							
E02001520 : Barnsley 012	108	108	108								
E02001521 : Barnsley 013	305	305	305								
E02001522 : Barnsley 014	82					82			82		
E02001523 : Barnsley 015	170	170	85	85							
E02001524 : Barnsley 016	11	11	11								
E02001525 : Barnsley 017	31	31	31								
E02001526 : Barnsley 018	27	27			27						
E02001527 : Barnsley 019	27	27	27								
E02001528 : Barnsley 020	292					292			292		
E02001529 : Barnsley 021	21	21			21						
E02001530 : Barnsley 022	102					102		102			102
E02001531 : Barnsley 023	155					155	155				
E02001532 : Barnsley 024	13	13	13								
E02001533 : Barnsley 025	21					21		21			21
E02001534 : Barnsley 026	116					116	116				
E02001535 : Barnsley 027	9	9	9								
E02001536 : Barnsley 028	39	39			39						
E02001537 : Barnsley 029	17					17	17				
E02001538 : Barnsley 030	20	20			20						
	3,397	1,459	763	589	107	1,938	288	394	688	538	394
	100%	**43%**	**23%**	**17%**	**3%**	**57%**	**9%**	**12%**	**20%**	**16%**	**12%**

Appendix F
Traffic Flows

TRAFFIC DISTRIBUTION



PARAGON HIGHWAYS

PROJECT TITLE
DONCASTER ROAD, DARFIELD

DRAWING TITLE
DISTRIBUTION

DRAWING NUMBER

ORIGINATOR	PROJECT	VOL	TYPE	ROLE	NUMBER
PRGN	1229	HGN	DR	CH	0001

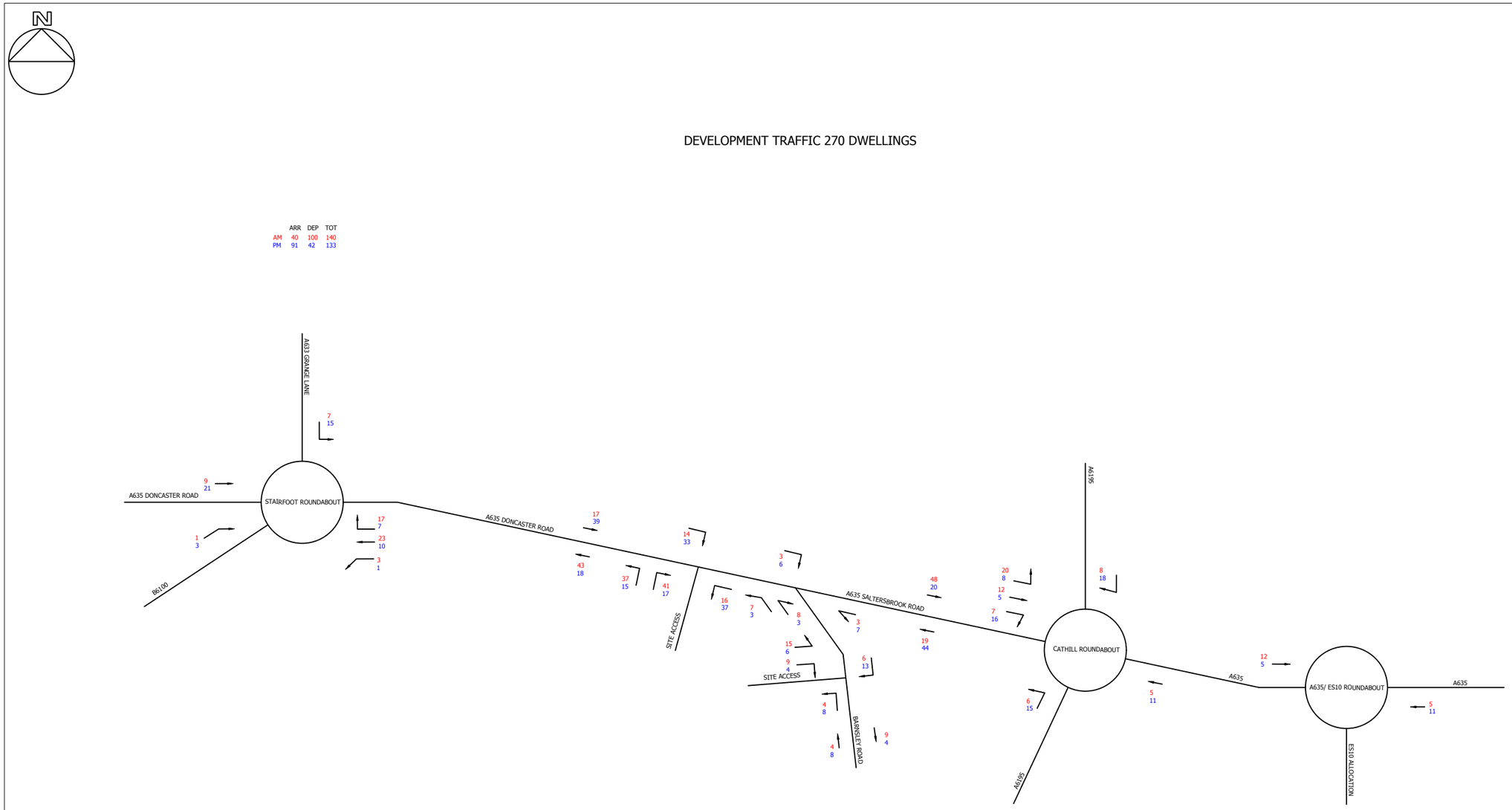
CLIENT
SAUL & KEEPMOAT

SCALE	SIZE	DRAWN	CHECKED	AUTHORISED	DATE
NTS	A3	LO	AH	AH	JUN 24

PARAGON HIGHWAYS
PEACH HOUSE WEST, THE WALLED GARDEN
NOSTELL ESTATE YARD
WAKEFIELD WF4 1AB

01924 291536
MAIL@PARAGONHIGHWAYS.COM

DEVELOPMENT TRAFFIC 270 DWELLINGS



PARAGON HIGHWAYS

PROJECT TITLE
DONCASTER ROAD, DARFIELD

DRAWING TITLE
DEVELOPMENT FLOWS – 270 DWELLINGS PHASE 1

DRAWING NUMBER

ORIGINATOR	PROJECT	VOL	TYPE	ROLE	NUMBER
PRGN –	1229 –	HGN –	DR –	CH –	0002

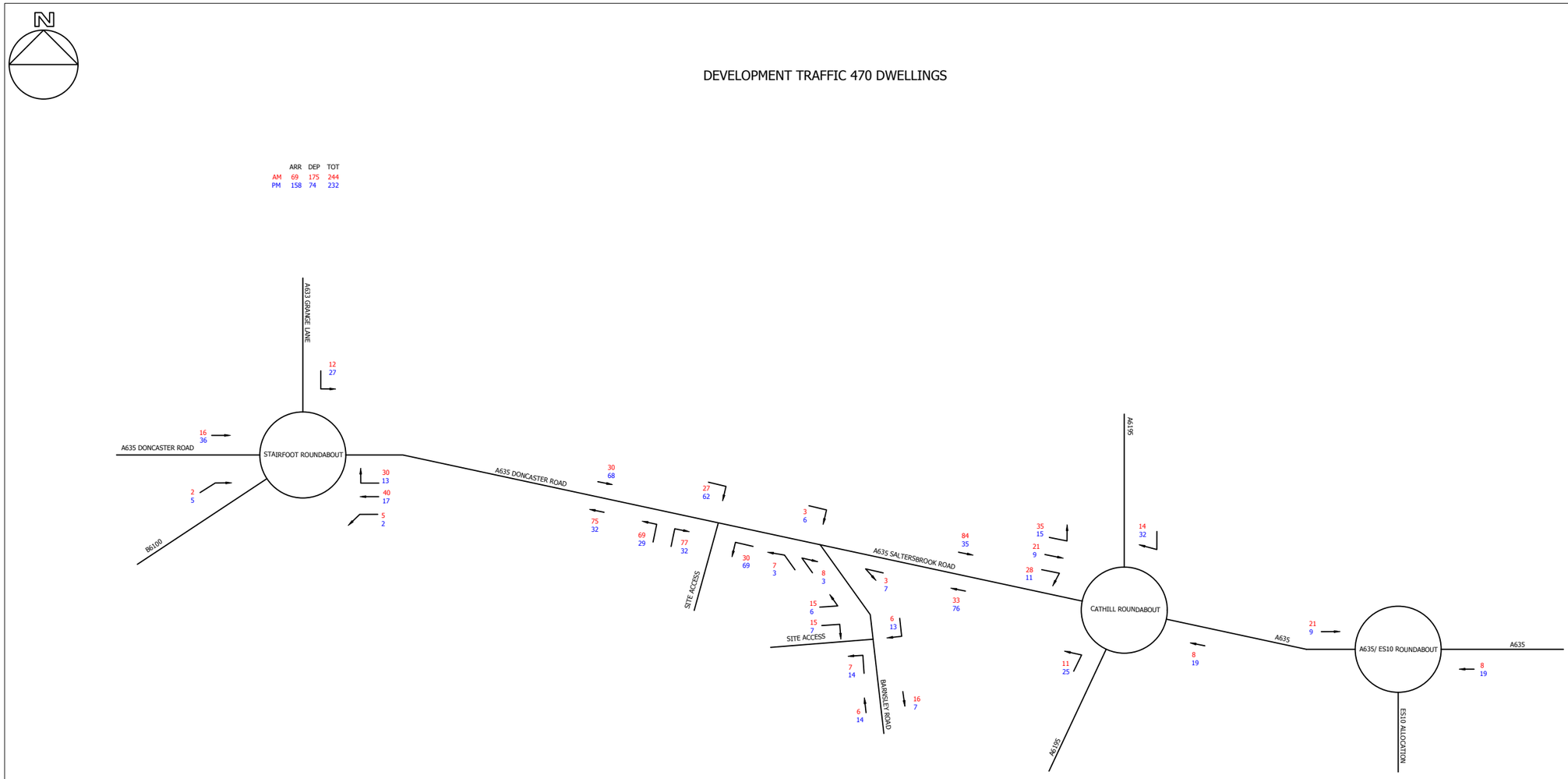
CLIENT
SAUL & KEEPMOAT

SCALE	SIZE	DRAWN	CHECKED	AUTHORISED	DATE
NTS	A3	LO	AH	AH	JUN 24

PARAGON HIGHWAYS
PEACH HOUSE WEST, THE WALLED GARDEN
NOSTELL ESTATE YARD
WAKEFIELD WF4 1AB

01924 291536
MAIL@PARAGONHIGHWAYS.COM

DEVELOPMENT TRAFFIC 470 DWELLINGS



PARAGON HIGHWAYS

PROJECT TITLE
DONCASTER ROAD, DARFIELD

DRAWING TITLE
DEVELOPMENT FLOWS – 470 DWELLINGS

DRAWING NUMBER

ORIGINATOR	PROJECT	VOL	TYPE	ROLE	NUMBER
PRGN –	1229 –	HGN –	DR –	CH –	0003

CLIENT
SAUL & KEEPMOAT

SCALE	SIZE	DRAWN	CHECKED	AUTHORISED	DATE
NTS	A3	LO	AH	AH	JUN 24

PARAGON HIGHWAYS
PEACH HOUSE WEST, THE WALLED GARDEN
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