

TRANSPORT ASSESSMENT



Owl Lane, Chidswell

ON BEHALF OF

Barratt & David Wilson Homes

August 2019



Quality Management

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1. Introduction

- 1.1.1. Via Solutions has been appointed to prepare this Transport Assessment in support of an outline planning application for the proposed 252 dwelling residential development on land off Owl Lane, Chidswell, on behalf of Barratt and David Wilson Homes. Figure 1 at Appendix A shows the site location in relation to the local highway network.
- 1.1.2. The findings and recommendations from earlier work undertaken by Fore Consulting have been considered carefully when preparing this transport assessment and associated travel plan and actioned accordingly.
- 1.1.3. This Transport Assessment considers such matters as traffic impact, access, sustainability, car parking and servicing and presents the proposals in relation to current guidance and data.
- 1.1.4. Both Local and National Transport policy have been reviewed in respect of the development. A review of road safety has been undertaken within this report. Sustainable transport accessibility has also been reviewed within the report. The development proposals have been explained and the impact on the highway network considered.
- 1.1.5. A separate framework Travel Plan for the development proposals has also been prepared to accompany this Transport Assessment.
- 1.1.6. The following assessment concludes that an acceptable vehicular access can be provided in terms of safety and capacity.

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2. Transport Policy

- 2.1.1. 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 and a cycling and walking catchment plan is provided on Figure 2 in Appendix A.

2.1. NATIONAL PLANNING POLICY FRAMEWORK

- 2.1.1. On 19 February 2019, the Ministry of Housing, Communities and Local Government published an updated version of the National Planning Policy Framework (NPPF) following the initial document which was published on 24 July 2018.

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- 2.1.2. Paragraph 103 states that *“significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision making.”*

- 2.1.3. Paragraph 108 states that when considering planning applications, it should be ensured that:

- *Appropriate opportunities to promote sustainable transport can be - or have been - taken up, given the location and type of development;*
- *Safe and suitable access to the site can be achieved for all users; and*

- Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.

2.1.4. Paragraph 109 states that *“Development should only be prevented or refused on highway 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. Paragraph 110 states developments should:

- Give priority first to pedestrians 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;
- Address the needs of people with disabilities and reduced mobility in relation to all modes of transport;
- 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;
- Allow for the efficient delivery of goods, and access by service and emergency vehicles; and
- Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

2.1.6. Paragraph 111 of the NPPF states 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 current Local Transport Plan is the third West Yorkshire Local Transport Plan (LTP3), which covers the period 2011 to 2026. The key objectives of the LTP3 include:

- ✓ *To improve access to jobs, education and other key services for everyone;*
- ✓ *To reduce delays to the movement of people and goods;*
- ✓ *To improve safety for all highway users;*
- ✓ *To limit transport emissions of air pollutants, greenhouse gases and noise; and*
- ✓ *To improve the condition of the highway infrastructure.*

2.2.2. The LTP sets out the walking and cycling strategy for West Yorkshire to encourage more people to use these modes of travel to help reduce the dependency on private cars. With regards to cycling provision within development proposals, the WYCS seeks to 'ensure that new development proposals are located and designed to be cycle friendly and adopt guidelines for cycle parking standards'. With regards to walking, the LTP seeks to improve the local environment to make walking more attractive by enhancing safety, security and environmental quality.

2.2.3. The LTP also sets out a bus strategy for West Yorkshire and seeks to increase patronage for all categories of bus passenger and modal shift towards the bus and away from the car.

2.2.4. The new Kirklees Local Plan was approved on the 27th February 2019. The consistent objectives across all these documents are to look to developments that promote more sustainable transport choices and reduce the need to travel by car and improve the environment.

3. Existing Situation

3.1. SITE DESCRIPTION

- 3.1.1. The site is currently unoccupied greenfield to the east of Owl Lane which is located opposite the Dewsbury Rams Rugby Club. The existing vehicular access is a gated access to the north east of the site on Chidswell Lane. This access is used infrequently by farm vehicles only.
- 3.1.2. The administrative boundary between Kirklees Metropolitan Council (KMC) and Wakefield Metropolitan District Council (WMDC) lies to the southernmost edge of the development site and crosses both Owl Lane and Chidswell Lane at that point.

3.2. HIGHWAY NETWORK

- 3.2.1. Owl Lane runs along the western site boundary and is the main north / south route through Chidswell. The carriageway is 8.4m wide with footways provided at both sides of the carriageway and frequent street lighting provision of a high standard.
- 3.2.2. Owl Lane forms a simple priority junction with Windsor Road, which runs along the northern boundary of site. Windsor Road also forms a simple priority junction with Chidswell Lane around 350m north-east of the Owl Lane / Windsor Road junction. Windsor Road is generally 7.3m wide with vertical speed reducing measures provided approximately every 70m as a traffic calming measure. There is also a footpath provided to the north of Windsor Road that connects to the various residential areas to the north of site. Frequent street lighting of a high standard is also provided at both sides of the carriageway.

- 3.2.3. Chidswell Lane runs adjacent to the north-eastern site boundary with carriageway widths varying between 3.7m and 6.4m. There is a footway provided to the west of the carriageway that begins at the Chidswell Lane / Windsor Road junction and continues south for 150m. There is also suitable street lighting provided along the western side of the carriageway. The section of Chidswell Lane within the WMDC area also benefits from the provision of a series of vertical traffic calming measures located at frequent intervals.
- 3.2.4. The John Ormsby V C Way / Owl Lane / Churwell Vale roundabout is located around 330m north west of the proposed site access. Churwell Vale is an industrial estate with footways provided at both sides of the carriageway that link to Owl Lane and John Ormesby V C Way.
- 3.2.5. John Ormsby V C Way is a 140m stretch of road that continues north-west from the roundabout towards the Leeds Road / Challenge Way signalised crossroads. This provides vehicular access to Dewsbury Town Centre around 1.8km south-west of the crossroads via Leeds Road. Challenge Way continues north-west towards Batley Town Centre 2.8km from the crossroads. Leeds Road also heads towards Tingley roundabout 3.7km north-east of the crossroads which provides vehicular access to the strategic road network via the M62. This signalised junction provides signalised crossing facilities are provided on Challenge Way, John Ormesby V C Way and Leeds Road (north-east) which allow pedestrians to cross the junction safely.
- 3.2.6. Owl Lane also connects to Leeds Road 90m north-west of the signalised junction mentioned above, via the John Ormsby V C Way / Owl Lane / Churwell Vale roundabout. The Leeds Road / Owl Lane junction is a signalised T-junction with a signalised pedestrian crossing across Owl Lane. The junction layout restricts north-eastbound vehicles from turning right onto Owl Lane and vice versa.

3.2.7. The Owl Lane / Chancery Road / A638 / Leeds Road roundabout junction is located around 900m south-east of the proposed site access. There are footways and street lighting provided to both sides of Owl Lane from the site access to the roundabout. The A658 continues generally south-east and provides vehicular access to the M1, approximately 3.7km from the proposed site access.

3.3. PEDESTRIANS AND CYCLISTS

WALKING

3.3.1. The national policy relating to transport and development is set out Section 4 of the NPPF, however this does not provide guidance on desirable maximum walking distances from new developments. Reference has been made to “The Guidelines for Providing for Journeys on Foot” (Institution of Highways & Transportation, May 2000), which describe best practice in planning and providing for pedestrians within the UK policy and legislative framework. This allows an assessment of the sites compliance with policy guidance on recommended walking distances to local services for site user (as provided in Table 1 below).

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TABLE 1. PREFERRED MAXIMUM WALKING DISTANCES

	Town Centre	Commuting / School / Sightseeing	Elsewhere
Desirable	200m	500m	400m
Acceptable	400m	1000m	800m
Preferred Maximum	800m	2000m	1200m

Source: Providing for Journeys on Foot (IHT, 2000)

3.3.2. The facilities within the preferred maximum walking distances are summarised in the Table 2 below and are shown on Figure 1 in Appendix A. The walking distances are measured from the main vehicular and pedestrian entrance.

TABLE 2. FACILITIES LOCATED WITHIN PREFERRED MAXIMUM WALKING DISTANCES

	Facilities
400m	Bus stops, public house, garden centre, Dewsbury Rams Rugby Club
800m	Place of worship, primary school, further bus stops
1000m	Convenience store
2000m	Dewsbury Town Centre, primary school, secondary school

- 3.3.3. The footways at both sides of Owl Lane provide pedestrians with a north / south route through Chidswell. While there are currently no crossing facilities provided on Owl Lane a plan has been approved for a pedestrian crossing as part of a Section 278 works proposed by Harron Homes located to the south of their access.
- 3.3.4. Leeds Road is located around 490m north of the proposed site access and provides pedestrian access to the local facilities shown in Table 2

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CYCLING

- 3.3.5. National and Local policy encourage sustainable development and a shift away from private car use, however, there is no specific recommended maximum cycle distances for access to services/leisure facilities from new developments stated within the NPPF or local planning policy.
- 3.3.6. It is noted that the distances people will be willing to travel on a bicycle will be highly variable depending on the type of development, site users and age profile as well as the perception of personal safety in the local environment. However, Local Transport Note 2/08 (published by the Department for Transport) does provide a useful reference point; it indicates that an acceptable distance for general trips by cycle is considered to be up to 5km, but it also acknowledges that this may be slightly longer (up to 8km) for those commuting to employment uses by cycle.

- 3.3.7. All local facilities and services as detailed in Table 2 above, can be accessed readily by bicycle using predominantly residential roads and off-road cycle routes
- 3.3.8. Both Chidswell Lane and Windsor Road are advisory cycle routes. Chidswell Lane heads south west towards Gawthorpe around 1km from site where the Wonders of Wakefield cycle route begins.
- 3.3.9. Windsor Road connects to Owl Lane which is also an advisory cycle route that connects to High Street. This advisory cycle route heads north-west towards Hanging Heaton where cyclist can either head north towards Batley or south towards Dewsbury Town Centre. Further information on local cycle routes can be found on the following link.
- <https://fourpointmapping.sustrans.org.uk/westyorkshirecyclemap/westyorkshire.html>
- 3.3.10. In consideration of the above, it is considered that there are practical and convenient links available to and from the proposed development offering the potential for residents to walk or cycle to local facilities and employment areas.

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3.4. PUBLIC TRANSPORT

BUSES

- 3.4.1. The access to the site is within 100m of bus stop on Owl Lane. There are further bus stops on Windsor Road and Chidswell Lane. All the stops have a flag, pole and timetable boards as a minimum provision, but some also have a shelter. It is considered the level of facilities for bus passengers at these stops are good having due regard to their location.
- 3.4.2. In order to encourage bus penetration into the development site, it is likely that bus stops will be provided on the new spine road adjacent to the proposed amenity areas.

3.4.3. The Council has asked that bus stops should be provided on the new spine road. The positions for these and their specification will be agreed with KMC and Metro. An existing stop on Windsor Road will be adjusted as part of the proposals which will be agreed with KMC and Metro.

3.4.4. The table below provides a summary of bus routes in the area:

TABLE 3. SUMMARY OF BUS ROUTES

Route No	Route Summary	Frequency	
		Monday to Saturday	Late Eve & Sunday
116	Shaw Cross – Gawthorpe – Ossett Bus Station – Horbury Highfield Road – Lupset Hotel Horbury – Wakefield Bus Station	60 mins	No Services
117	Wakefield Bus Station – Roundwood – Ossett Bus Station – Gawthorpe – Shaw Cross – Westerton Frosts Corner – Tingley – White Rose Shopping Centre – Beeston Hill – Leeds Bus Station	60 mins	60 mins
119	Wakefield Bus Station – Thornes Road – Lupset – Horbury – Ossett Bus Station – Gawthorpe – Shaw Cross – Batley Bus Station	2 hours	No Services
120	Wakefield Bus Station – Thornes Road – Lupset – Horbury – Ossett Bus Station – Gawthorpe – Shaw Cross – Batley Bus Station	3 services per day	No Services
202	Huddersfield Bus Station – Bradley – Mirfield – Dewsbury Bus Station – Shaw Cross – Tingley – White Rose Shopping Centre – Beeston – Leeds Bus Station	30 mins	60 mins
205	Pudsey Bus Station – New Farnley – Morley Town Hall – Westerton Frosts Corner – Shaw Cross – Dewsbury Bus Station	60 mins	No Services
217	Overton – Netherton – Horbury – Ossett Bus Station – Shaw Cross – Tingley – Beeston – Leeds Bus Station	2 services per day	No Services

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Route No	Route Summary	Frequency	
		Monday to Saturday	Late Eve & Sunday
ML2	Hillesley Road – Chidswell Lane – Bywell Road – Crackenedge Lane – Thornton Street – Dewsbury Moor – Staincliffe Moor End Lane	60 mins	No Services

RAIL

- 3.4.5. Dewsbury Rail Station is located about 2.4km south west of the development and accessible by several of the above services and cycle. This station is on the main trans-Pennine route between York, Leeds, Manchester and Liverpool with regular services to each and to destinations beyond.
- 3.4.6. The proposed development is considered to be well served by public transport, utilising stops that are well within the desirable walking distances of 400m given in 'Providing for Journeys on Foot' and having a mainline station within reasonable cycling distance.

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3.5. INJURY COLLISION RECORDS

- 3.5.1. Injury collision data has been obtained from 1st January 2012 to 21st June 2017 from both Kirklees Council and Wakefield Council. The collision data include 27 incidents within the vicinity of the site access. Traffic data from June 22nd 2017 to June 30th 2018 has been obtained using the Crash Map website.
- 3.5.2. Incident data has been observed at various junctions within the vicinity of site between July 1st 2013 and June 30th 2018 This data has been analysed in more detail where a cluster of incidents have occurred to determine whether or not this is due to any issues with the existing road network. The relevant data is contained within Appendix C.

LEEDS ROAD / CHIDSWELL LANE

- 3.5.3. 5 incidents have occurred within the vicinity of the Leeds Road / Chidswell Lane junction in the 5 years of data analysed, with 4 being slight and one being serious. The serious incident occurred on the 26th June 2016 during daylight hours. This occurred when vehicle one turned across the path of vehicle two which caused a collision, contributory factors are very likely due to vehicle 1 failing to look properly and failure to judge the other persons path or speed.
- 3.5.4. The four slight incidents at this junction have listed such contributory factors as failure to look properly or failure to judge the other persons path or speed. These are all likely due to driver error and do not indicate any concerns in terms of road safety.

LEEDS ROAD / CHALLENGE WAY / JOHN ORMSBY V C WAY

- 3.5.5. 5 incidents have occurred within the vicinity of the Leeds Road / Challenge Way / John Ormsby V C Way in the 5 years of data analysed, all of which were slight. The 6 slight incidents at this junction have listed such contributory factors as failure to look properly and disobeying the traffic signals. These are all likely due to driver error and do not indicate any concerns in terms of road safety.

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A638 / OWL LANE / LEEDS ROAD

- 3.5.6. 9 incidents have occurred within the vicinity of the A638 / Owl Lane / Leeds Road roundabout junction with 8 being slight and 1 being serious. The serious incident occurred on the 26th May 2016 at 06:15. This occurred when a car failed to give way to a cyclist negotiating the roundabout, resulting in the cyclist falling and being seriously injured.

3.5.7. The 8 slight incidents at this junction have listed such contributory factors as failure to stop in time, failure to give way or loss of control. There are likely due to driver error and do not indicate any concerns in terms of road safety.

3.5.8. The number of collisions by year and severity, within the analysed accident clusters, are indicated in the table below:

TABLE 4. SUMMARY OF INCIDENT DATA RESULTS

Severity	2013	2014	2015	2016	2017	2018
Slight	1	1	8	1		2
Serious				2		
Fatal						

3.5.9. Any accidents within the vicinity of the proposed carriageway alterations associated with the development of our proposed site access will not be relevant to our proposals as the carriageway will be significantly altered.

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3.5.10. Whilst any incident which results in injury is regretted, having due regard to the significant volume of traffic which passes through the local road network, the addition of the traffic from the proposed development would not materially affect the road safety record.

3.5.11. It is considered that the accidents recorded above do not indicate a safety concern nor any safety trends on this section on the local highway network in the vicinity of the proposed development.

4. The Development Proposals

4.1. COMMITTED DEVELOPMENT

4.1.1. There are currently proposals for a mixed residential and employment development on land owned by the Church Commissioners, to the north-east of our client's proposed development. Their proposals are divided in to two sites as described below:

- ✦ Site A – Residential development up to 181 units
- ✦ Site B – Mixed development up to 1,354 residential units and up to 35 ha of employment land.

4.1.2. One of the access points to Site B will be taken from the proposed carriageway running through our client's site. Development traffic from this site is being considered as part of our traffic impact assessment on the local highway network.

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4.2. PROPOSED DEVELOPMENT

4.2.1. The applicant seeks outline planning application for the proposed development of 252 residential dwellings on land off Owl Lane, Chidswell. In the junction modelling we have modelled 275 dwellings to allow for variation in house types. Figure 1 at Appendix A shows the site location in relation to the local highway network.

4.2.2. The proposed site layout is indicated on the drawing contained within Appendix C.

4.3. VEHICULAR SITE ACCESS

4.3.1. The site access proposals are that a 4-arm roundabout is to be constructed, replacing the existing Owl Lane / Dewsbury Rams Rugby Club priority junction.

- 4.3.2. The design of the roundabout has taken account of the proposed highway works associated with the Harron Homes development on the opposite side of Owl Lane. The proposed north-eastern arm will form a spine road which will travel through site and will ultimately connect Owl Lane and Chidswell Lane which will provide vehicular access to both our proposed development and the committed development to the north east of our site.
- 4.3.3. A Stage 1 Road Safety Audit of the proposed roundabout has been carried out. The Audit Report and our Designer's Response were completed in time for the submission of the planning application and are attached in Appendix G. Following receipt of comments from KMC Highways, amended drawings will be submitted during the course of the planning application process.
- 4.3.4. Given it is likely that the development on our client's site will progress ahead of the development on the Church Commissioners land, it is probable that the new spine road will remain as a cul-de-sac and stop short of Chidswell Lane. Once the connection is formed to the Church Commissioners land then it is likely that the section of Chidswell Lane between Windsor Road and the new spine road will be closed at the latter and a turning head provided.
- 4.3.5. Part of our client's development will also be accessed from Windsor Road to serve around 39 units from five short cul-de-sacs. A further 16 units will have direct access from Chidswell Lane. However, the roundabout has been designed to cater for all development traffic using the main spine road as a robust assessment.

4.4. PEDESTRIANS AND CYCLE ACCESS

- 4.4.1. The proposed roundabout junction includes a 5m wide zone comprising a 3m wide shared cycle-footway and 2m wide verge along the north-eastern carriageway edge. These will continue along both sides of the proposed new spine road through the site.

4.4.2. Discussions with Council officers have indicated that a wider facility along the Owl Lane frontage is preferred and this will be discussed further during the application process.

4.4.3. A new 3m wide shared cycle-footway is also proposed along the southern side of Windsor Road. A footway is also proposed along the western side of Chidswell Lane fronting the site.

4.5. PARKING PROVISION

APPLICABLE PARKING STANDARDS

4.5.1. According to the Kirklees guidance, the following will apply to this proposed development:

- ✓ 1-2 bed apartments – 1 parking space
- ✓ 2-3 bedroom dwellings – 2 parking spaces
- ✓ 3+ bedroom dwelling – 2 spaces
- ✓ 4+ bedroom dwelling – 3 parking spaces
- ✓ 1 visitor parking space per 4 dwellings

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4.5.2. The parking provision on site has been indicated on the proposed layout in Appendix C and will comply with Council guidance. Charging points for electric / hybrid vehicles will be provided.

4.6. SERVICING AND BUSES

4.6.1. The internal layout will accommodate service refuse vehicles and emergency vehicles and all vehicles will be able to enter and leave the site in forwards gear.

4.6.2. In order to encourage bus penetration into the development site, it is likely that bus stops will be provided on the new spine road adjacent to the proposed amenity areas.

- 4.6.3. The positions for these and their specification will be agreed with KMC and Metro. An existing stop on Windsor Road will be adjusted as part of the proposals which will be agreed with KMC and Metro.

4.7. PROPOSED IMPROVEMENTS

- 4.7.1. The site allocation within the Local Plan requires that traffic from the new spine road serving the development would not be permitted to turn right in to Chidswell Lane (south). The allocation for the Church Commissioner's Land requires a similar restriction to prevent traffic from turning left from the spine road in to Chidswell Lane (south). The combination of these two restrictions would form a one way plug at the junction of the new spine road with Chidswell Lane (south) to prevent southbound movements at that point.
- 4.7.2. Following the public exhibition for our client's development proposals, it was apparent that residents of Chidswell Lane within WMDC are concerned about any increase in traffic along that road. However, when asked whether bans on vehicles entering / leaving the section under consideration from the spine road were acceptable, the resounding response was no. 17
- 4.7.3. Given the presence of the series of rather severe vertical speed reducing measures along Chidswell Lane, it is not anticipated that there would be a desire for development traffic to use that route except in extreme / rare circumstances (such as an accident on Owl Lane). We have therefore provided for the future closure of Chidswell Lane between Windsor Road and the spine road when the connection to the Church Commissioners land is formed.
- 4.7.4. Council Officers are asked to consider the above in relation to the suggested right turning restriction included with our client's site allocation and advise how or whether this should be included in the approved scheme.

- 4.7.5. The design of the new roundabout will ensure that capacity of the same is maximised and so reduce the desire for drivers to divert along Chidswell Lane to the south of the new spine road.
- 4.7.6. The new roundabout providing access into the development has been designed to cater for the anticipated highway works associated with the Harron Homes development on the other side of Owl Lane. It is anticipated the 40mph speed limit along the site frontage will be amended to 30mph up to the administrative boundary with WMDC and possibly about 50m beyond subject to KMC agreeing the same with that Authority.

5. Traffic Impact

5.1. BASE TRAFFIC DATA

JUNCTION TURNING COUNTS

5.1.1. Turning count surveys have been undertaken at the following junctions on Thursday 8th June 2017 between 07.00 and 09.00 and 16.00 and 18.00:

- ✓ Leeds Road / Chidswell Lane
- ✓ Leeds Road / Owl Lane
- ✓ Leeds Road / Challenge Way / John Ormesby V C Way
- ✓ Owl Lane / John Ormesby V C Way / Churwell Vale
- ✓ Owl Lane / Windsor Road
- ✓ Owl Lane / A638 / Leeds Road / Chancery Road.

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5.1.2. From these surveys it was possible to determine the network peak hours at each location and these are shown in Figures 4 and 5 in Appendix E.

TRAFFIC GROWTH

5.1.3. Use has been made of growth factors derived from Tempro 7.2 for the local area to calculate the increase in traffic from 2017 to 2019. These factors are 1.0214 and 1.0207 in the AM and PM peak periods respectively.

5.1.4. We are aware that the consultants acting for the Church Commissioners site to the north have been in discussions with KMC Highways Officers to agree the scope of their assessments. Part of those discussions included use of the Council's SATURN traffic model in the area to derive traffic growth rates beyond 2020 and it is understood that the following growth rates have been agreed:

TABLE 5. SATURN DERIVED GROWTH RATES

Period	Weekday Peak	Weighted Cordon Area Growth Rate
2019 to 2024	AM	1.0627 (1.0854)
2019 to 2024	PM	1.0469 (1.0686)
2019 to 2030	AM	1.1070 (1.1307)
2019 to 2030	PM	1.0739 (1.0961)

- 5.1.5. The above growth rates have then been applied to the 2019 flows determined from the 2017 surveys and are shown in Figures 6 to 9 in Appendix E for the AM and PM peak periods in 2024 and 2030. The combined growth rate from 2017 to 2024 and 2030 are shown in brackets in the above table.

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5.2. TRAFFIC IMPACT

TRAFFIC GENERATION

- 5.2.1. We are aware that the consultants acting for the Church Commissioners site to the north have been in discussions with KMC Highways Officers to agree the scope of their assessments. Part of those discussions included the trip rates to be used for the proposed development and it is proposed to use the same rates for our client's development.
- 5.2.2. These trip rates were derived for the submissions to the Inquiry for the then draft Local Plan and were agreed with Council Officers at that time in 2016. In essence, the TRICS database was used to determine the people trip rate for each proposed use and then the modal split for the local Ward area was derived from the 2011 Census (65% for car / van driver) and applied to the people trip rate.

5.2.3. This calculation is shown in the table below for the proposed residential use of 275 (actually only 252 proposed) on the application site:

TABLE 6. PROPOSED RESIDENTIAL TRIP RATES AND PREDICTED FLOWS

	Morning Peak		Evening Peak	
	Arrivals	Departures	Arrivals	Departures
People Trip Rates	0.233	0.818	0.605	0.390
Vehicle Trip Rates	0.154	0.540	0.399	0.257
Predicted Flows (275 Units)	42	148	110	71

TRAFFIC DISTRIBUTION

- 5.2.4. An assessment of the potential traffic distribution was undertaken using the 2011 Census. The population centroid for each residential LA/MSOA area was determined and the potential traffic route between each centroid was assessed. Google maps was used to determine the likely route between each centroid and the site.
- 5.2.5. Google maps uses aggregated anonymised data from in car mobile communications to accurately predict journey times and distances between two points for arrival to the site during the morning peak hour. The shortest distance/travel time were used for traffic routings. The Google Maps traffic routes between the site and each origin zone and the Census data analysis are contained in Appendix D.
- 5.2.6. The development traffic was assigned to the local highway network in accordance with the traffic distribution. The traffic flow diagrams of development trips are contained in Appendix E.

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COMMITTED DEVELOPMENT TRAFFIC

5.2.7. There are currently proposals for a mixed residential and employment development on land owned by the Church Commissioners, to the north-east of our client's proposed development. Their proposals include 2 sites as described below:

- ✎ Site A – Residential development up to 181 units
- ✎ Site B – Mixed development up to 1,354 residential units and up to 35 ha of employment land.

5.2.8. One of the access points to Site B will be taken from the proposed carriageway running through our client's site. Development traffic from this site is being considered as part of our traffic impact assessment on the local highway network.

5.2.9. We understand from the consultants acting for the Church Commissioners that the master plan for that site has yet to be finalised at the time of writing this report. Once these are made clearer, then an addendum to this Transport Assessment may be necessary.

5.2.10. In the interim, we have used base traffic survey gathered previously for our client in 2017 as described above. With regard to the Church Commissioners site we have been provided with the information which formed part of the 2016 submission to the draft Local Plan in terms of the predicted traffic volumes and distribution. It is understood this information was submitted to and agreed with KMC at that time and is already in the Council's possession (but can be provided if required). These are shown in Figures 10 to 11 in Appendix E to this report.

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TRAFFIC IMPACT

5.2.11. As part of the traffic impact analysis we are assessing the impact of development traffic on the following junctions:

- ✦ Owl Lane / Proposed Site Access / Dewsbury Rams Rugby Club
- ✦ Leeds Road / Chidswell Lane
- ✦ Leeds Road / Owl Lane
- ✦ Leeds Road / Challenge Way / John Ormesby V C Way
- ✦ Owl Lane / John Ormesby V C Way / Churwell Vale
- ✦ Owl Lane / Windsor Road
- ✦ Owl Lane / A638 / Leeds Road / Chancery Road

5.2.12. The proposed site access roundabout will be modelled in 2030 with all committed and proposed development traffic utilising the proposed roundabout. All other junctions listed above will be modelled in 2024 (application year plus 5 years) with all proposed development traffic and a 40% (assuming approval in 2020) proportion of committed development traffic to account for the 4 years of the latter being complete.

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5.2.13. The results from the assessments are summarised in the following paragraphs and provided in full in Appendix F to this report.

OWL LANE / PROPOSED SITE ACCESS / DEWSBURY RAMS RUGBY CLUB

5.2.14. The following scenarios have been modelled using the ARCADY module in the Junctions 9 software to determine how the proposed site access roundabout junction will perform in terms of capacity.

5.2.15. A 2030 + committed development + development scenario has been run to determine how the proposed junction will perform in the design year with the addition of traffic from all developments. This is shown in Table 7 below:

TABLE 7. TRAFFIC IMPACT AT OWL LANE / PROPOSED SITE ACCESS / DEWSBURY RAMS RUGBY CLUB IN 2030

Approach	Morning Peak		Evening Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
Proposed Site Access	0.31	0.5	0.37	0.6
Owl Lane (SE)	0.84	5.0	0.68	2.1
Dewsbury Rams Rugby Club	0.00	0.0	0.00	0.0
Owl Lane (NW)	0.66	1.9	0.78	3.5

5.2.16. The results of the ARCADY assessment show that the proposed junction will operate within capacity (RFC values lower than 0.85 with nominal queuing) with the maximum RFC being no more than 0.84 (on Owl Lane South in the AM peak) with nominal queuing.

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LEEDS ROAD / CHIDSWELL LANE

5.2.17. The following scenarios have been modelled using the PICADY module in the Junctions 9 software to determine how the existing priority junction will perform in terms of capacity with the addition of development traffic in the future design year of 2024.

5.2.18. The proposed junction has been modelled in the 2017 base scenario to determine how the junction performs in the surveyed year. This is shown in Table 8 below:

TABLE 8. TRAFFIC IMPACT AT LEEDS ROAD / CHIDSWELL LANE IN 2017

Approach	Morning Peak		Evening Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
Chidswell Lane Left	0.09	0.1	0.07	0.1
Chidswell Lane Right	0.37	0.6	0.13	0.2
Leeds Road (SW)	0.02	0.0	0.04	0.0

5.2.19. The results of the PICADY assessment show that the junction currently operates well within capacity (RFC values lower than 0.85 and no queuing) with the maximum RFC being no more than 0.37 on Chidswell Lane in the AM peak and negligible queuing.

5.2.20. A 2024 design year scenario has been run to determine how the junction will operate in the future design year without the addition of development traffic. This is shown in Table 9 below:

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TABLE 9. TRAFFIC IMPACT AT LEEDS ROAD / CHIDSWELL LANE IN 2024

Approach	Morning Peak		Evening Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
Chidswell Lane Left	0.10	0.1	0.08	0.1
Chidswell Lane Right	0.44	0.8	0.15	0.2
Leeds Road (SW)	0.03	0.0	0.04	0.0

- 5.2.21. The results of the PICADY assessment show that the junction will continue to operate well within capacity (RFC values lower than 0.85 and no queuing) with the maximum RFC being no more than 0.44 on Chidswell Lane in the AM peak and negligible queuing.
- 5.2.22. A 2024 + committed development traffic scenario has been run to determine how the junction will operate in the future design year with the addition of 40% committed development traffic. This is shown in Table 10 below:

TABLE 10. TRAFFIC IMPACT AT LEEDS ROAD / CHIDSWELL LANE IN 2024 + 40% COMMITTED

Approach	Morning Peak		Evening Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
Chidswell Lane Left	0.25	0.2	0.09	0.1
Chidswell Lane Right	0.58	1.3	0.21	0.3
Leeds Road (SW)	0.03	0.0	0.06	0.1

- 5.2.23. The results of the PICADY assessment show that the junction will continue to operate well within capacity (RFC values lower than 0.85 and no queuing) with the maximum RFC being no more than 0.58 on Chidswell Lane in the AM peak and negligible queuing.
- 5.2.24. A 2024 + committed development + development traffic scenario has been run to determine how the junction will operate in the future design year with the addition of both committed development and development traffic. This is shown in Table 11 below:

TABLE 11. TRAFFIC IMPACT AT LEEDS ROAD / CHIDSWELL LANE IN 2024 + 40% COMM + DEV

Approach	Morning Peak		Evening Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
Chidswell Lane Left	0.16	0.2	0.09	0.1
Chidswell Lane Right	0.61	1.5	0.23	0.3
Leeds Road (SW)	0.03	0.0	0.06	0.1

- 5.2.25. The results of the PICADY assessment show that the junction will continue to operate well within capacity (RFC values lower than 0.85 and no queuing) with the maximum RFC being no more than 0.61 on Chidswell Lane in the AM peak and negligible queuing.

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LEEDS ROAD / CHALLENGE WAY / OWL LANE

- 5.2.26. The following scenarios have been modelled using the LinSig modelling software to determine how the existing Leeds Road / Challenge Way / John Ormesby V C Way signalised crossroads (Junction 1) and Leeds Road / Owl Lane T-junction (Junction 2) will perform in terms of capacity with the addition of development traffic in the future design year of 2024.
- 5.2.27. The existing junction has been modelled in the 2017 base, 2024 base plus committed and 2024 base plus committed and development scenarios to determine how it will perform in the future design year in the AM and PM peak periods. This is shown in Tables 12 and 13 respectively below:

TABLE 12. LEEDS ROAD/CHALLENGE WAY/OWL LANE JUNCTION LINSIG RESULTS AM

Junction	Approach	2017 AM Base		2024 AM Base+committed		2024 AM Base+committed+dev	
		Max DoS (%)	Mean Max Queue (PCU)	Max DoS	Mean Max Queue (PCU)	Max DoS (%)	Mean Max Queue (PCU)
1	John Ormsby VC Way Left	45.5	4.5	54.7	5.2	55.7	6.0
	John Ormsby VC Way Ahead Right	81.8	11.1	98.6	18.9	87.8	13.5
	Leeds Road WB Ahead Left	78.4	14.1	85.1	17.3	93.1	15.7
	Leeds Road WB Right	14.8	1.8	15.7	0.9	17.2	1.3
	Leeds Road Left Ahead Right	98.1	34.2	106.3	69.6	124.6	148.4
	Challenge Way Left Ahead	96.2	17.2	116.7	48.7	100.9	23.3
	Challenge Way Right	7.8	0.7	9.4	0.8	8.1	0.8
	Challenge Way NB Exit peds Crossing Ahead	32.4	0.8	35.3	0.9	36.1	0.9
2	Leeds Rd WB Left	24.2	3.2	31.6	4.3	26.0	3.5
	Leeds Rd WB Ahead	52.7	9.9	71.2	15.7	58.8	11.8
	Leeds Rd EB Ahead	66.8	3.5	81.8	13.0	59.9	18.7
	Owl Lane Right	63.2	8.4	52.9	7.9	78.9	11.3
	RESERVE CAPACITY	-9.0%		-29.6		-38.4	

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TABLE 13. LEEDS ROAD/CHALLENGE WAY/OWL LANE JUNCTION LINSIG RESULTS PM

Approach	2017 PM Base		2024 PM Base+committed		2024 PM Base+committed+dev	
	Max DoS	Mean Max Queue (PCU)	Max DoS	Mean Max Queue (PCU)	Max DoS	Mean Max Queue (PCU)
John Ormsby VC Way Left	93.6	14.9	121.2	53.5	126.5	63.6
John Ormsby VC Way Ahead Right	65.8	7.8	83.6	10.2	85.4	10.8
Leeds Road WB Ahead Left	92.1	13.3	94.4	14.1	94.4	14.1
Leeds Road WB Right	7.3	0.7	7.4	0.6	7.4	0.6
Leeds Road EB Left Ahead Right	77.6	15.4	81.5	17.8	91.3	21.0
Challenge Way Left Ahead	101.1	22.8	127.9	67.9	130.6	73.2
Challenge Way Right	9.9	0.9	12.4	1.0	12.4	1.0
Challenge Way NB Exit peds Crossing Ahead	22.9	0.4	24.6	0.4	25.0	0.4
Leeds Rd WB Left	27.4	3.6	22.6	2.9	24.3	3.2
Leeds Rd WB Ahead	49.1	8.5	58.8	11.7	58.8	11.7
Leeds Rd EB Ahead	48.7	15.0	56.4	17.7	56.3	17.7
Owl Lane Right	88.1	11.7	77.853.5	10.3	80.3	10.9
RESERVE CAPACITY	-12.3		-42.1		-45.1	

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5.2.28. The results of the LinSig assessment shows that the Leeds Road/Challenge Way/Owl Lane junction network model indicates that there is no practical reserve capacity with the 2017 flows. However, no approach is overcapacity (overall degree of saturation (DoS) on approach exceeding 100%).

5.2.29. The addition of traffic growth and committed development traffic (without development) in 2024 results in the junction to go overcapacity. The addition of the small amount of development traffic does not create a material or significant difference to the without development scenario. It is concluded that the development related traffic from our client's site would not have a severe impact at this junction.

OWL LANE / JOHN ORMESBY V C WAY / CHURWELL VALE

5.2.30. The following scenarios have been modelled using the ARCADY module in the Junctions 9 software to determine how the existing roundabout junction will perform in terms of capacity with the addition of development traffic in the future design year.

5.2.31. The existing junction has been modelled in the 2017 base scenario to determine how the proposed junction will perform in the surveyed year. This is shown in Table 14 below:

TABLE 14. TRAFFIC IMPACT AT OWL LANE / JOHN ORMESBY V C WAY / CHURWELL VALE IN 2017

Approach	Morning Peak		Evening Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
Owl Lane (N)	0.25	0.3	0.24	0.3
Owl Lane (SE)	0.81	4.2	0.65	1.8
Churwell Vale	0.13	0.1	0.38	0.6
John Ormesby V C Way	0.55	1.2	0.50	1.0

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5.2.32. The results of the ARCADY assessment show that the Owl Lane (SE) approach to the existing junction is currently operating with RFC values of below the 0.85 figure often used as a guide on performance.

5.2.33. A 2024 design year scenario has been run to determine how the junction will operate in the future design year without the addition of development traffic. This is shown in Table 15 below:

TABLE 15. TRAFFIC IMPACT AT OWL LANE / JOHN ORMESBY V C WAY / CHURWELL VALE IN 2024

Approach	Morning Peak		Evening Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
Owl Lane (N)	0.28	0.4	0.27	0.4
Owl Lane (SE)	0.89	7.4	0.69	2.2
Churwell Vale	0.15	0.2	0.43	0.7
John Ormesby V C Way	0.60	1.5	0.54	1.2

5.2.34. The results of the ARCADY assessment show that the impact of traffic growth will result in the RFC value on Owl Lane (SE) approach to the existing junction increasing to 0.89 in the AM Peak so above the 0.85 figure often used as a guide on performance. The other arms in the AM peak and all arms in the PM all operate with RFC values of less than 0.85.

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5.2.35. A 2024 + 40% committed development traffic scenario has been run to determine how the junction will operate in the future design year with the addition of 40% committed development traffic. This is shown in Table 16 below:

TABLE 16. TRAFFIC IMPACT AT OWL LANE / JOHN ORMESBY V C WAY / CHURWELL VALE IN 2024 + 40% COMMITTED

Approach	Morning Peak		Evening Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
Owl Lane (N)	0.28	0.4	0.27	0.4
Owl Lane (SE)	0.90	7.7	0.70	2.3
Churwell Vale	0.15	0.2	0.43	0.8
John Ormesby V C Way	0.62	1.6	0.54	1.2

5.2.36. The results of the ARCADY assessment show that the addition of 40% committed development traffic will result in the RFC value on Owl Lane (SE) approach to the existing junction increasing to 0.90 in the AM Peak so above the 0.85 figure often used as a guide on performance. The other arms in the AM peak and all arms in the PM all operate with RFC values of less than 0.85.

5.2.37. A 2024 + 40% committed development + development traffic scenario has been run to determine how the junction will operate in the future design year with the addition of both 40% committed development and development traffic. This is shown in Table 17 below:

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TABLE 17. TRAFFIC IMPACT AT OWL LANE / JOHN ORMESBY V C WAY / CHURWELL VALE IN 2024 + 40% COMM + DEV

Approach	Morning Peak		Evening Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
Owl Lane (N)	0.29	0.4	0.29	0.4
Owl Lane (SE)	0.96	15.2	0.73	2.7
Churwell Vale	0.15	0.2	0.45	0.8
John Ormesby V C Way	0.62	1.8	0.58	1.4

- 5.2.38. The results of the ARCADY assessment show that the small increase in traffic from the proposed development has an out of proportion impact on the Owl Lane (SE) arm as traffic growth and 40% committed development has already increased the RFC value from its current level in 2017 just below 0.85 (0.81) to 0.90 in 2024. The closer the RFC value on an approach gets to unity results in any minor changes in flows to have an out of proportion effect on the results. The other arms in the AM peak and all arms in the PM all operate with RFC values of less than 0.85.
- 5.2.39. While the RFC value on the Owl Lane (SE) currently below the 0.85 figure used as a guide on performance in all assessed scenarios, the addition of both committed and proposed development traffic has on the operation of the junction is low compared to that of traffic growth. This is shown with the greater increase in Max RFC being from the growth of traffic from 2017 to 2024 (0.81 to 0.90) on Owl Lane (SE) in the AM peak.
- 5.2.40. Once the latest figures for the Church Commissioners site are provided then the modelling of the operation of this junction will be reviewed again probably using the Direct Input option to provide a more accurate appraisal.

OWL LANE / WINDSOR ROAD

5.2.41. The following scenarios have been modelled using the PICADY module in the Junctions 9 software to determine how the existing priority junction will perform in terms of capacity with the addition of development traffic in the future design year.

5.2.42. The existing junction has been modelled in the 2017 base scenario to determine how it will perform in the surveyed year. This is shown in Table 18 below:

TABLE 18. TRAFFIC IMPACT AT OWL LANE / WINDSOR ROAD IN 2017

Approach	Morning Peak		Evening Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
Windsor Road Left	0.16	0.2	0.48	0.9
Windsor Road Right	0.06	0.1	0.14	0.2
Owl Lane (SE)	0.21	0.4	0.15	0.2

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5.2.43. The results of the PICADY assessment show that the existing junction currently operates well within capacity (RFC values lower than 0.85 and no queuing) with the maximum RFC being no more than 0.48 on Windsor Road in the PM peak and negligible queuing.

5.2.44. A 2024 design year scenario has been run to determine how the junction will operate in the future design year without the addition of development traffic. This is shown in Table 19 below:

TABLE 19. TRAFFIC IMPACT AT OWL LANE / WINDSOR ROAD IN 2024

Approach	Morning Peak		Evening Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
Windsor Road Left	0.18	0.2	0.53	1.1
Windsor Road Right	0.08	0.1	0.17	0.2
Owl Lane (SE)	0.24	0.5	0.17	0.3

5.2.45. The results of the PICADY assessment show that the existing junction will continue to operate well within capacity (RFC values lower than 0.85 and no queuing) with the maximum RFC being no more than 0.53 on Windsor Road in the PM peak and negligible queuing.

5.2.46. A 2024 + 40% committed development traffic scenario has been run to determine how the junction will operate in the future design year with the addition of 40% committed development traffic. This is shown in Table 20 below:

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TABLE 20. TRAFFIC IMPACT AT OWL LANE / WINDSOR ROAD IN 2024 + 40% COMMITTED

Approach	Morning Peak		Evening Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
Windsor Road Left	0.21	0.3	0.55	1.2
Windsor Road Right	0.09	0.1	0.18	0.2
Owl Lane (SE)	0.25	0.6	0.19	0.3

5.2.47. The results of the PICADY assessment show that the existing junction will continue to operate well within capacity (RFC values lower than 0.85 and no queuing) with the maximum RFC being no more than 0.55 on Windsor Road in the PM peak and negligible queuing.

5.2.48. A 2024 + 40% committed development + development traffic scenario has been run to determine how the junction will operate in the future design year with the addition of both 40% committed development and development traffic. This is shown in Table 21 below:

TABLE 21. TRAFFIC IMPACT AT OWL LANE / WINDSOR ROAD IN 2024 + 40% COMM + DEV

Approach	Morning Peak		Evening Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
Windsor Road Left	0.22	0.3	0.59	1.4
Windsor Road Right	0.11	0.1	0.22	0.3
Owl Lane (SE)	0.27	0.6	0.21	0.4

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5.2.49. The results of the PICADY assessment show that the existing junction will continue to operate well within capacity (RFC values lower than 0.85 and no queuing) with the maximum RFC being no more than 0.59 on Windsor Road in the PM peak and negligible queuing.

OWL LANE / A638 / LEEDS ROAD / CHANCERY ROAD

5.2.50. The following scenarios have been modelled using the ARCADY module in the Junctions 9 software to determine how the existing roundabout junction will perform in terms of capacity with the addition of development traffic in the future design year.

5.2.51. The existing junction has been modelled in the 2017 base scenario to determine how it will perform in the surveyed year. This is shown in Table 22 below:

TABLE 22. TRAFFIC IMPACT AT OWL LANE / A638 / LEEDS ROAD / CHANCERY ROAD IN 2017

Approach	Morning Peak		Evening Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
A638	0.72	2.5	0.89	7.7
Leeds Road	0.74	2.8	0.64	1.8
Chancery Road	1.06	50.8	0.87	6.1
Owl Lane	0.69	2.2	0.80	3.7

5.2.52. The results of the ARCADY assessment show that several approaches to the existing junction experience RFC values greater than 0.85 often used as a guide on performance in both the AM and PM peak hours. The Chancery Road approach has an RFC value greater than unity in the AM peak.

5.2.53. A 2024 design year scenario has been run to determine how the junction will operate in the future design year without the addition of development traffic. This is shown in Table 23 below:

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TABLE 23. TRAFFIC IMPACT AT OWL LANE / A638 / LEEDS ROAD / CHANCERY ROAD IN 2024

Approach	Morning Peak		Evening Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
A638	0.79	3.6	0.97	19.4
Leeds Road	0.85	5.4	0.72	2.5
Chancery Road	1.21	130.5	0.95	13.5
Owl Lane	0.74	2.7	0.87	6.3

- 5.2.54. The results of the ARCADY assessment show that the application of traffic growth will cause several arms on the existing junction to continue to experience RFC values greater than 0.85 often used as a guide on performance in both the AM and PM peak hours. Conditions on the Chancery Road approach in the AM peak worsen significantly given the RFC value was already greater than unity in the AM peak in 2017.
- 5.2.55. A 2024 + 40% committed development traffic scenario has been run to determine how the junction will operate in the future design year with the addition of 40% committed development traffic. This is shown in Table 24 below:

TABLE 24. TRAFFIC IMPACT AT OWL LANE / A638 / LEEDS ROAD / CHANCERY ROAD IN 2024 + 40% COMMITTED

Approach	Morning Peak		Evening Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
A638	0.83	4.6	1.01	31.3
Leeds Road	0.90	8.0	0.74	2.8
Chancery Road	1.26	152.5	0.97	17.2
Owl Lane	0.78	3.5	0.94	11.9

5.2.56. The results of the ARCADY assessment show that the addition of committed development traffic causes a slight worsening of performance on several arms on the existing junction which are already operating with RFC values greater than 0.85 often used as a guide on performance in both the AM and PM peak hours.

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5.2.57. A 2024 + 40% committed development + development traffic scenario has been run to determine how the junction will operate in the future design year with the addition of both 40% committed development and development traffic. This is shown in Table 25 below:

TABLE 25. TRAFFIC IMPACT AT OWL LANE / A638 / LEEDS ROAD / CHANCERY ROAD IN 2024 + 40% COMM + DEV

Approach	Morning Peak		Evening Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
A638	0.84	5.0	1.03	42.7
Leeds Road	0.92	9.3	0.75	2.9
Chancery Road	1.27	159.0	1.00	23.5
Owl Lane	0.83	4.5	0.96	14.9

5.2.58. The results of the ARCADY assessment show that the addition of development traffic at this junction has no material or significant effect on its already poor performance in both the AM and PM peaks.

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5.2.59. While the junction currently exceeds capacity in all assessed scenarios, the impact of the addition of both committed and proposed development traffic has on the junction is neither material nor significant. This is shown with the greatest increase in Max RFC being from the growth of traffic from 2017 to 2024 (1.06 to 1.21) on Chancery Road in the AM peak.

5.2.60. Overall, the results of the modelling exercise show that the impact of the development traffic will be low on all the assessed junctions.

6. Conclusion

- 6.1.1. This Transport Assessment has considered the existing and proposed operation of the highway in terms of highway safety, sustainability and capacity. It has shown that the predicted traffic from the proposed development has no material or significant impact on any of the junctions assessed.
- 6.1.2. The site is considered to be in a highly sustainable location with a wide range of local services and facilities that can be accessed on foot and by cycle, including those in Dewsbury Town Centre. Frequent bus services operate near the site and other public transport options lie within a short walk or cycle.
- 6.1.3. In conclusion, it has been demonstrated that the proposed development can be accommodated on the adjacent highway network without any significant negative impact and there are therefore no highway capacity or safety reasons why this development should not be granted planning approval.

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APPENDICES



APPENDIX A: Site Location & Catchment Plans





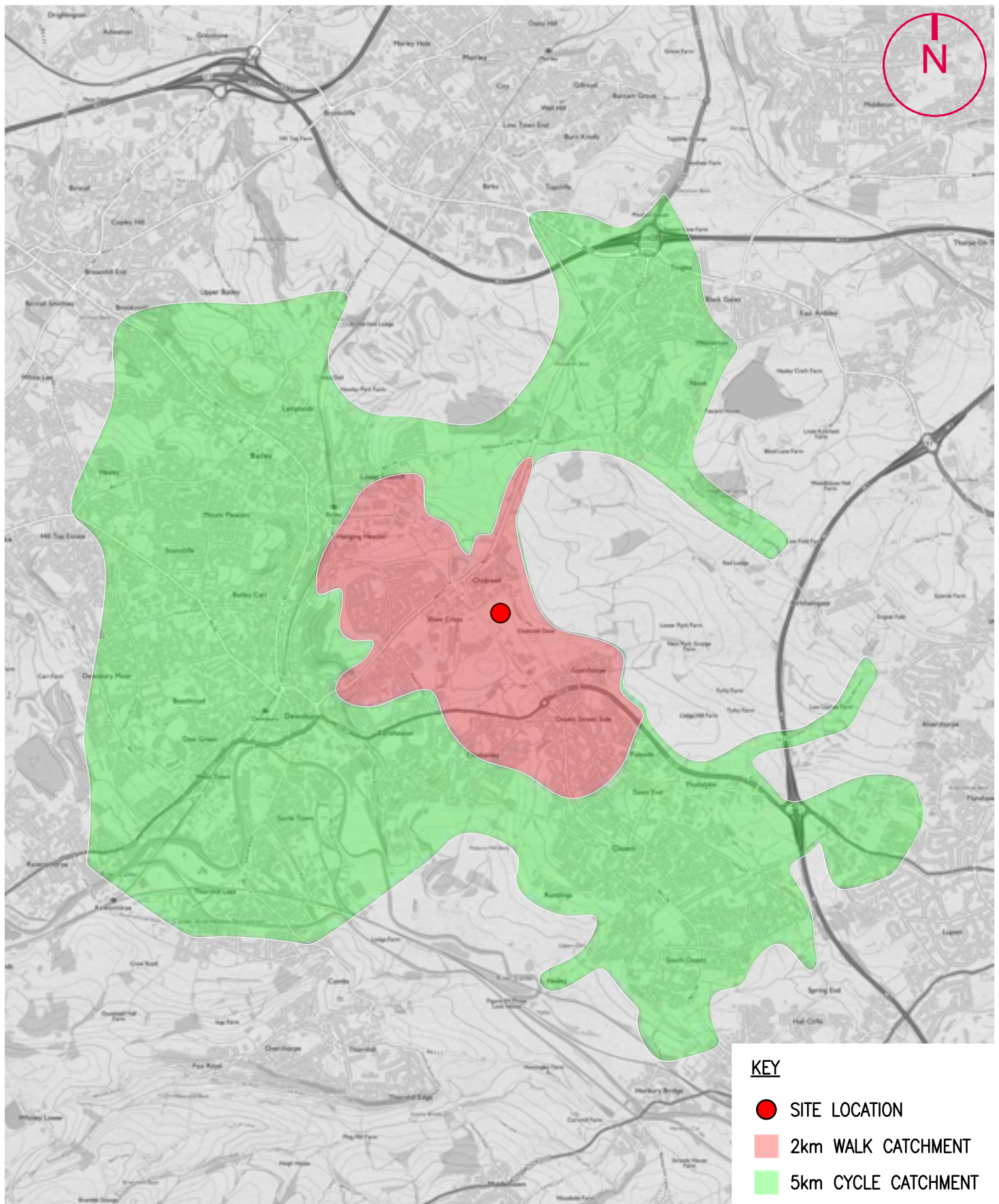
OWL LANE,
CHIDSWELL

SITE LOCATION PLAN

SCALE: 1:5000 @A4

DATE: JAN 2019

FIGURE 1



OWL LANE,
CHIDSWELL

CATCHMENT PLAN

SCALE: 1:50,000 @A4

DATE: JAN 2019

FIGURE 2

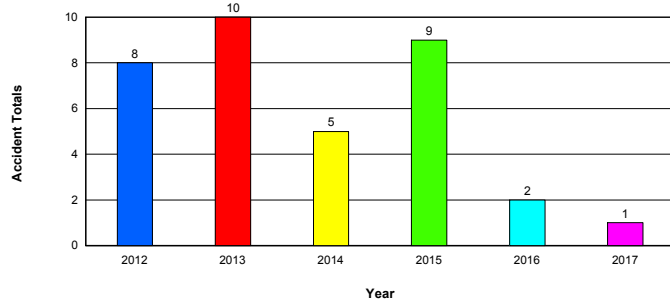
APPENDIX B: Accident Data



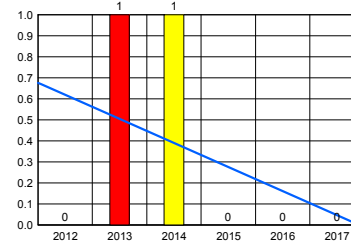
Vicinity of Windsor Road, Kirklees, RTC five years prior to date (21.06.2017)

Accident Date BETWEEN '19-Jun-2012' AND '18-Jun-2017'

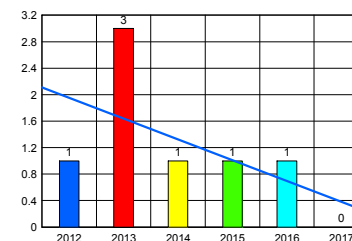
Accident Totals/Year



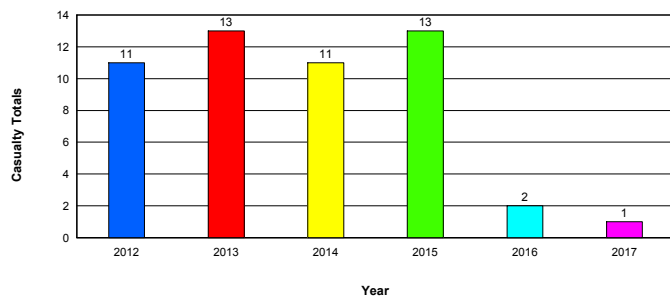
Pedestrians



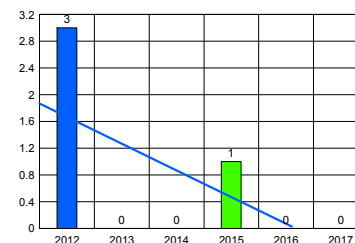
Pedal Cyclists



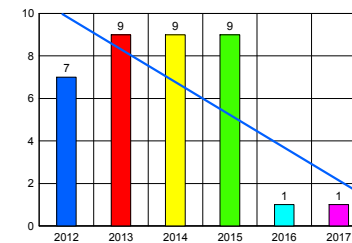
Casualty Totals/Year



Motor Cyclists



Car Occupants



Casualty Data

Acc	2012	2013	2014	2015	2016	2017	Total
Fatal	0	0	0	0	0	0	0
Serious	1	2	0	1	1	0	5
Slight	7	8	5	8	1	1	30
Damage	0	0	0	0	0	0	0
Total	8	10	5	9	2	1	35

Cas	2012	2013	2014	2015	2016	2017	Total
Fatal	0	0	0	0	0	0	0
Serious	1	2	0	1	1	0	5
Slight	10	11	11	12	1	1	46
Total	11	13	11	13	2	1	51

Accident Date BETWEEN '19-Jun-2012' AND '18-Jun-2017'

		PEDESTRIANS	PEDAL CYCLIST	PTW USER	HACKNEY PRI/HIRE	CAR DRIVER	CAR PASS	GOODS OCCUPANT	PSV	OTHER VEH OCCUPANT	TOTAL
0 to 4	Fatal	0	0	0	0	0	0	0	0	0	0
	Serious	0	0	0	0	0	0	0	0	0	0
	Slight	0	0	0	0	0	2	0	0	0	2
	TOTAL	0	0	0	0	0	2	0	0	0	2
5 to 15	Fatal	0	0	0	0	0	0	0	0	0	0
	Serious	0	0	0	0	0	0	0	0	0	0
	Slight	0	1	0	0	0	1	0	0	0	2
	TOTAL	0	1	0	0	0	1	0	0	0	2
16 to 19	Fatal	0	0	0	0	0	0	0	0	0	0
	Serious	0	0	0	0	0	0	0	0	0	0
	Slight	0	0	0	0	1	2	0	0	0	3
	TOTAL	0	0	0	0	1	2	0	0	0	3
20 to 29	Fatal	0	0	0	0	0	0	0	0	0	0
	Serious	0	2	0	0	0	0	0	0	0	2
	Slight	0	1	2	0	8	4	0	0	0	15
	TOTAL	0	3	2	0	8	4	0	0	0	17
30 to 59	Fatal	0	0	0	0	0	0	0	0	0	0
	Serious	0	0	0	0	2	0	0	0	0	2
	Slight	0	3	0	1	11	1	2	0	0	18
	TOTAL	0	3	0	1	13	1	2	0	0	20
60+	Fatal	0	0	0	0	0	0	0	0	0	0
	Serious	0	0	1	0	0	0	0	0	0	1
	Slight	2	0	1	0	2	1	0	0	0	6
	TOTAL	2	0	2	0	2	1	0	0	0	7
All Ages	Fatal	0	0	0	0	0	0	0	0	0	0
	Serious	0	2	1	0	2	0	0	0	0	5
	Slight	2	5	3	1	22	11	2	0	0	46
	TOTAL	2	7	4	1	24	11	2	0	0	51
Number of Casualties with unknown age: 0											

Vicinity of Windsor Road, Kirklees, RTC five years prior to date (21.06.2017)

ACCIDENT SEVERITY UPTO 2017

		2012	2013	2014	2015	2016	2017	Total
Fatal	0%	0	0	0	0	0	0	0
Serious	14%	1	2	0	1	1	0	5
Slight	86%	7	8	5	8	1	1	30
TOTAL		8	10	5	9	2	1	35

WEATHER

	No.	%
Fine	29	83
Rain	4	11
Fine Wind	1	3
Fog Mist	1	3
TOTAL	35	

ROAD SURFACE

	Number	%
Dry	25	71
Wet	9	26
Ice	1	3
TOTAL	35	

LIGHT CONDITIONS

	Number	%
Light	26	74
Dark	9	26
TOTAL	35	

PEDESTRIAN
ACCIDENTS

No.	%
2	6

SKIDDING
ACCIDENTS

No.	%
9	26

ACCIDENTS BY DAY AND TIME

	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
00:00 - 00:59	0	1	0	0	0	0	0	1
01:00 - 01:59	0	0	0	0	0	0	0	0
02:00 - 02:59	0	0	0	0	0	0	0	0
03:00 - 03:59	0	0	0	0	0	0	0	0
04:00 - 04:59	0	0	0	0	0	0	0	0
05:00 - 05:59	0	0	0	1	0	0	0	1
06:00 - 06:59	0	0	0	0	0	0	0	0
07:00 - 07:59	0	1	1	0	0	1	0	3
08:00 - 08:59	0	0	0	1	0	0	0	1
09:00 - 09:59	2	1	0	1	0	1	0	5
10:00 - 10:59	0	0	0	0	0	0	0	0
11:00 - 11:59	2	0	0	0	0	0	0	2
12:00 - 12:59	1	0	1	0	1	0	2	5
13:00 - 13:59	1	0	1	1	0	0	0	3
14:00 - 14:59	1	0	0	0	0	0	0	1
15:00 - 15:59	0	0	0	0	0	0	1	1
16:00 - 16:59	3	0	1	0	0	0	1	5
17:00 - 17:59	1	1	0	0	0	0	0	2
18:00 - 18:59	0	0	0	0	0	0	0	0
19:00 - 19:59	0	0	0	0	0	0	0	0
20:00 - 20:59	0	1	1	0	1	0	0	3
21:00 - 21:59	0	0	0	0	1	0	0	1
22:00 - 22:59	0	0	0	0	0	0	0	0
23:00 - 23:59	0	0	0	1	0	0	0	1
TOTAL	11	5	5	5	3	2	4	35
%	31%	14%	14%	14%	9%	6%	11%	100%

ACCIDENTS BY MONTH AND YEAR UPTO 2017

	2012	2013	2014	2015	2016	2017	Total
Jan	0	1	0	0	0	0	1
Feb	0	0	0	0	0	0	0
Mar	0	1	0	1	0	1	3
Apr	0	0	1	0	0	0	1
May	0	1	0	0	0	0	1
June	0	3	0	1	2	0	6
July	2	0	2	1	0	0	5
Aug	1	0	0	1	0	0	2
Sep	1	1	1	1	0	0	4
Oct	1	1	0	1	0	0	3
Nov	2	0	1	2	0	0	5
Dec	1	2	0	1	0	0	4
TOTAL	8	10	5	9	2	1	35
%	23%	29%	14%	26%	6%	3%	100%

Vicinity of Windsor Road, Kirklees, RTC five years prior to date (21.06.2017)

CASUALTY SEVERITY UPTO 2017

	2012	2013	2014	2015	2016	2017	Total
Fatal	0	0	0	0	0	0	0
Serious	1	2	0	1	1	0	5
Slight	10	11	11	12	1	1	46
TOTAL	11	13	11	13	2	1	51

JUNCTION DETAIL

	Number	%		Number	%
Roundabout and mini	2	6	ATS	10	29
T or staggered	11	31	Give way sign	13	37
Slip road	1	3	Not at junction	12	34
Cross roads	8	23	TOTAL	35	
Other junction	1	3			
Not at junction	12	34			
TOTAL	35				

CASUALTIES BY TYPE AND AGE GROUPING

	0 to 4	5 to 15	16 to 19	20 to 29	30 to 59	60 Plus	Total	%
Pedestrian	0	0	0	0	0	2	2	4
Pedal cyclist	0	1	0	3	3	0	7	14
PTW rider	0	0	0	1	0	2	3	6
Pillion pass	0	0	0	1	0	0	1	2
Car driver	0	0	1	8	13	2	24	47
Car passenger	2	1	2	4	1	1	11	22
Goods driver	0	0	0	0	1	0	1	2
Goods pass	0	0	0	0	1	0	1	2
Hack/pri driver	0	0	0	0	1	0	1	2
TOTAL	2	2	3	17	20	7	51	
%	4	4	6	33	39	14		

SPEED LIMIT

	Number	%		Number	%
30 MPH	25	71	A	20	65
40 MPH	10	29	B	11	35
TOTAL	35		TOTAL	31	

ROAD CLASS

Number of Casualties with unknown age: 0

Vicinity of Windsor Road, Kirklees, RTC five years prior to date (21.06.2017)

VEHICLES INVOLVED BY TYPE AND AGE OF DRIVER

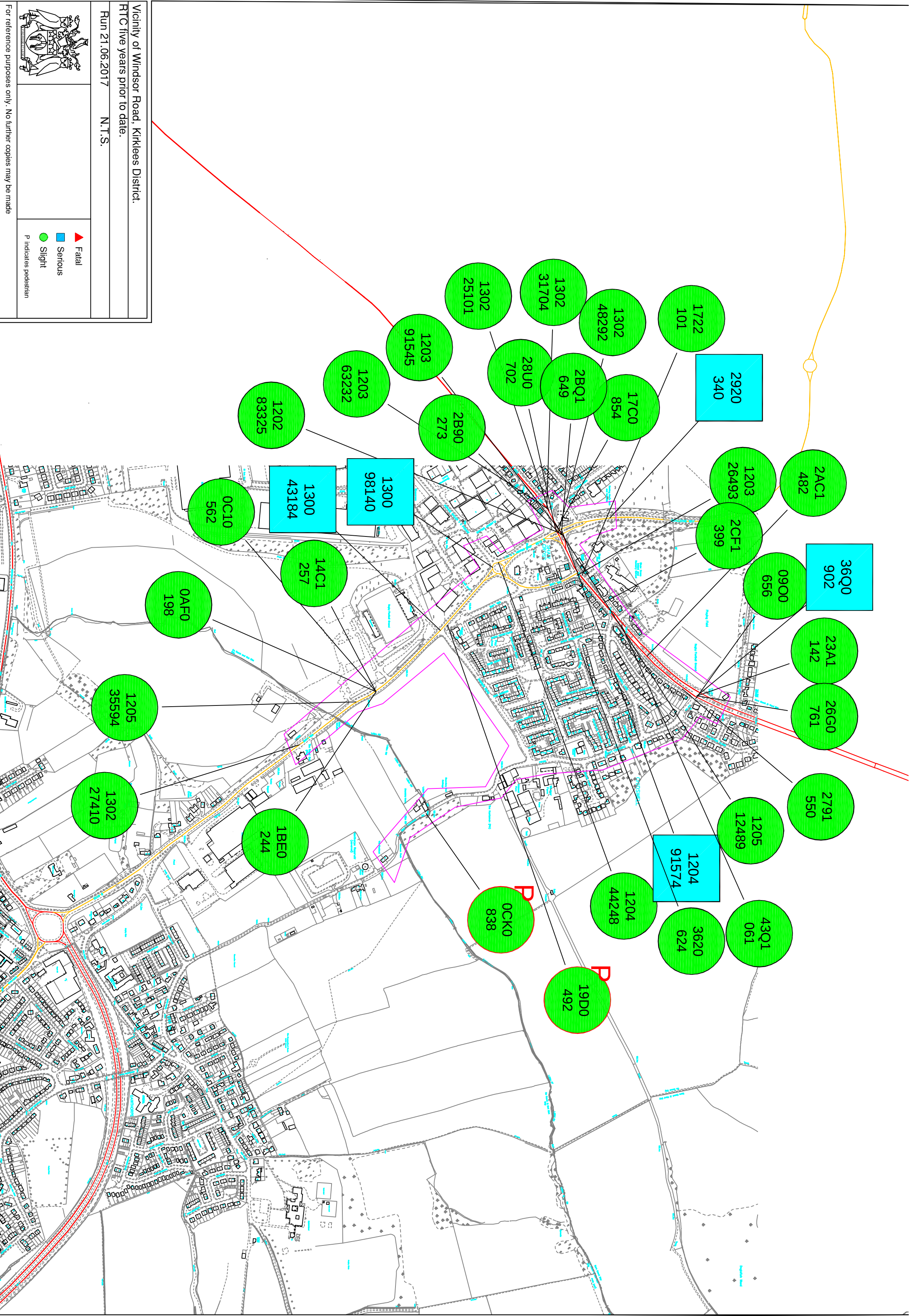
	0 to 15	16 to 19	20 to 29	30 to 59	60 Plus	Unknown	Total	%
Pedal Cycle	1	0	3	3	0	0	7	9
PTW	0	0	2	0	3	0	5	7
Car	0	1	15	28	6	4	54	72
PSV	0	0	0	1	0	0	1	1
Goods < 3.5T	0	0	0	3	1	0	4	5
Goods > 3.5T	0	0	1	1	0	0	2	3
Hackney/Private	0	0	0	2	0	0	2	3
TOTAL	1	1	21	38	10	4	75	
%	1	1	28	51	13	5		

VEHICLE MANOEUVRES

	Number	%
Parked	1	1
Waiting to go ahead but held up	5	7
Stopping	1	1
Starting	2	3
Turning left	3	4
Turning right	11	15
Waiting to turn right	2	3
Changing lane to left	1	1
Changing lane to right	1	1
Overtaking moving veh on its offside	2	3
Going ahead left hand bend	1	1
Going ahead other	45	60
TOTAL	75	

BREATH TEST

	Number	%
Not applicable	7	9
Positive	1	1
Negative	38	51
Not requested	13	17
Driver not contacted	14	19
Medical reasons	2	3
TOTAL	75	



Vicinity of Windsor Road, Kirklees, RTC five years prior to date (21.06.2017)

09O0656 SLIGHT 24/09/2013 002:31 426525 /423360 Junction of A653 Leeds Road and Chidswell Lane

VEHICLE ONE IS APPROACHING GIVE WAY JUNCTION WITH INTENTION OF TURNING RIGHT BY CROSSING DUAL CARRIAGEWAY. VEHICLE TWO IS COMING OUT THE SMALL GARAGE ENTRANCE AND IS NOT SEEN BY DRIVER OF VEHICLE ONE WHO HAS DONE OBSERVATIONS BUT CONCENTRATING MORE ON THE TRAFFIC COMING FROM THE RIGHT. VEHICLE ONE PULLS OUT AT SLOW SPEED AND VEHICLE TWO IS UNABLE TO STOP. CAUSING MINOR DAMAGE AND MINOR SEATBELT/WHIP LASH INJURIES.

Vehicles			From	To	Driver		Breath Test	Casualties			Veh	Sex	Age	Ped direction to
1	Car	Starting	SE	NW	Male	52	Negative	1	Driver/Rider	SLIGHT	2	Female	27	
2	Car	Going ahead other	NE	SW	Female	27	Negative	2	Passenger	SLIGHT	2	Female	24	
Contributory Factors														
Failed to look properly		V001	V.likely	Buildings, road signs, street furniture				V001	Possible					

0AF0198 SLIGHT 15/10/2013 007:17 426509 /422640 B6128 Owl Lane,ossett

V1 driving in excess of 40mph speed restriction towards Chancery Road, and overtaking line of slower moving vehicles, meets line of stationary vehicles in same carriageway, held at red temporary traffic lights. V1 driver attempts to stop, but loses control of vehicle on wet road covered in fallen leaves, and slides into V2, which in turn collides with V3. All vehicles sustain damage, (V1 and V2 almost certainly will be written off), and V2 and V3 drivers receive minor injuries.

Vehicles			From	To	Driver		Breath Test	Casualties			Veh	Sex	Age	Ped direction to
1	Car	Going ahead other	N	S	Male	40	Negative	1	Driver/Rider	SLIGHT	3	Male	23	
2	Car	Wait go ahead, held up	N	S	Male	29	Negative	2	Driver/Rider	SLIGHT	2	Male	29	
3	Car	Wait go ahead, held up	N	S	Male	23	Negative							
Contributory Factors														
Exceeding speed limit		V001	V.likely	Slippery road due to weather				V001	V.likely					

0C10562 SLIGHT 01/12/2013 009:55 426509 /422640 B6128 Owl Lane

Vehicle 1 travelling towards Shaw Cross, when V2 travelling towards. V2 goes to turn across the carriageway in front of V1 who brakes and skids and falls off his motorcycle. They argue the fact to whos fault it is. Minor graze to cyclists right leg and a broken indicator. Stats 19 done due to minor injury

Vehicles			From	To	Driver		Breath Test	Casualties			Veh	Sex	Age	Ped direction to
1	Car	Going ahead other	SE	NW	Male	34	Negative	1	Driver/Rider	SLIGHT	1	Male	34	
2	Car	Waiting to turn right	NW	SW	Male	44	Not contacted							
Contributory Factors														
Failed to look properly		V002 Possible												

Vicinity of Windsor Road, Kirklees, RTC five years prior to date (21.06.2017)

0CK0838 SLIGHT 20/12/2013 009:00 426784 /422753 Chidswell Lane Dewsbury

The circumstances of this collision are in dispute both parties giving different accounts. The reporting pedestrian will say that he was struck on the arm by a wing mirror of a vehicle being driven at speed. The driver will state that at low speed, the pedestrian who he knows walked into his mirror. Very minor injuries only. The road is a single track carriageaway and it is reported by the pedestrian that following the incident no details were exchanged and an argument ensued.

Vehicles		From	To	Driver	Breath Test	Casualties		Veh	Sex	Age	Ped direction to			
1	Van/Goods < 3.5t	Going ahead other	S	N	Male	40	Not contacted	1	Pedestrian	SLIGHT	1	Male	70	South
Contributory Factors														
Failed to look properly		V001	V.likely	Fail to judge other person path or speed			V001	V.likely	Pedestrian failed to look properly			C001	Possible	

120283325 SLIGHT 01/07/2012 001:34 426153 /423057 Leeds Road at Junction with Challenge Way, Dewsbury

Veh2 Taxi Travelling Along Challenge Way. Veh2 Intending to Carry Straight across Leeds Road on to Owl Lane. Veh1 Car Travelling in Opposite Direction Along Owl Lane. Veh1 Intending to Turn right on to Leeds Road Towards Leeds. Veh2 Enters Junction on Green Light. Veh1 Turns into Path of Veh2 and Collision Occurs.

Vehicles		From	To	Driver	Breath Test	Casualties		Veh	Sex	Age	Ped direction to		
1	Car	Turning right	SE	NE	Female	51	Negative	1	Driver/Rider	SLIGHT	2	Male	31
2	Taxi	Going ahead other	NW	SE	Male	31	Negative						
Contributory Factors													
Failed to look properly		V001	V.likely	Poor turn or manoeuvre			V001	V.likely					

120326493 SLIGHT 28/07/2012 002:30 426247 /423093 Owl Lane at Junction with Leeds Road, Dewsbury

V1 Travels Along A653 Leeds Road Approaching Jw Owl Lane to N/S Intending to Turn left into Owl Lane. as V1 Enters Owl Lane the Front Wheel Had Hit a Pot-Hole Causing Rider to Fall. Front Vehicle Receiving Slight Injury. no Other Vehicles Involved.

Vehicles		From	To	Driver	Breath Test	Casualties		Veh	Sex	Age	Ped direction to		
1	M/cycle > 500cc	Turning left	NE	SE	Male	64	Not contacted	1	Driver/Rider	SLIGHT	1	Male	64
Contributory Factors													

Vicinity of Windsor Road, Kirklees, RTC five years prior to date (21.06.2017)

120363232 SLIGHT 20/08/2012 007:30 426097 /423027 Leeds Road at Junction with High Street, Shaw Cross

V2 is Waiting to Turn right onto High Street Coming from Leeds Road. There Are 2 Lanes of Stationary Vehicles Queing at the Traffic Lights. V2 Turns Between Two Stationary Vehicles. as the Vehicle Turns, V1 which is a Pedal Cycle Travels up the Inside of Queing Traffic. V1 Collides with V2 Causing the Cyclist to Fall off the Cycle.

Vehicles		From	To	Driver	Breath Test	Casualties		Veh	Sex	Age	Ped direction to	
1	Pedal Cycle	NE	SW	Male	39	Not applicable	1	Driver/Rider	SLIGHT	1	Male	39
2	Car	NE	NW	Female	60	Not contacted						

Contributory Factors

120391545 SLIGHT 09/09/2012 003:05 426146 /423054 Leeds Road at Junction with Challenge Way, Dewsbury

V1 is Being Driven Along Leeds Road Towards the J/W Challenge Way. V2 is Also Being Driven Along Leeds Road Towards Dewsbury. Driver of V2 is Intending to Turn right into Challenge Way & Positions the Vehicle in the right Turn Lane. as V1 Approached the Crossroads V2 Begins to Turn Right, V2 Stops as Driver Sees V1 Approaching, V1 Continues across the Jct, Driver is Adamant his Signal was Showing Green & V1 Collides with F/N/S of V2.

Vehicles		From	To	Driver	Breath Test	Casualties		Veh	Sex	Age	Ped direction to	
1	Car	SW	NE	Male	57	Negative	1	Passenger	SLIGHT	2	Female	26
2	Car	SW	N	Female	23	Negative	2	Passenger	SLIGHT	2	Female	23
							3	Driver/Rider	SLIGHT	1	Male	57

Contributory Factors

Disobeyed ATS V001 Possible Disobeyed ATS V002 Possible

120444248 SLIGHT 14/10/2012 006:40 426218 /422916 Owl Lane, J/W Horace Waller, Dewsbury

V1 is a Motorcycle with a Pillion Passenger. V1 Approaches the Roundabout and Manouveres Around the Roundabout. V1 then Slides on Road Surface Causing V1 to Lose Balance.

Vehicles		From	To	Driver	Breath Test	Casualties		Veh	Sex	Age	Ped direction to	
1	M/cycle 125 - 500cc	SE	NE	Male	27	Not requested	1	Passenger	SLIGHT	1	Female	26

Contributory Factors

Poor road surface V001 V.likely

Vicinity of Windsor Road, Kirklees, RTC five years prior to date (21.06.2017)

120491574 SERIOUS 11/11/2012 007:06 426142 /423057 Leeds Road at Junction with John Ormsby V C Way / Challenge Way, Dewsbury

V1 Travels Along A653 Leeds Road Towards Dewsbury. V1 Held at a Red Light at Jw B6128 Challenge Way / John Ormsby V C Way. V2 Travels Along John Ormsby V C Way Approaching Jw Leeds Road Intending to Travel Straight ahead onto Challenge Way. Lights for V1 Change to Green and V1 Sets off when V2 Collides with V1 in Centre of Junction. V2 Beleived to Have Read Wrong Set of Lights.

Vehicles		From	To	Driver		Breath Test	Casualties		Veh	Sex	Age	Ped direction to
1	Car	NE	SW	Female	55	Not provided	1 Driver/Rider	SERIOUS	1	Female	55	
2	Taxi	SE	NW	Male	32	Not requested	2 Passenger	SLIGHT	1	Female	19	

Contributory Factors
Disobeyed ATS V002 Possible

120512489 SLIGHT 24/11/2012 005:50 426129 /423043 Leeds Road, J/W Challenge Way, Dewsbury

Veh 1 and Veh 2 Travel on Leeds Road in the General Direction of Shaw Cross. Veh 1 Enters the Wrong Slip Road. Veh 2 Starts to Pass Veh 1 on the Inside when Veh 1 Pulls Back into the Path of Veh 2 and a Collision Occurs

Vehicles		From	To	Driver		Breath Test	Casualties		Veh	Sex	Age	Ped direction to
1	Car	NE	SW	Male	23	Negative	1 Driver/Rider	SLIGHT	2	Male	23	
2	M/cycle > 500cc	NE	SW	Male	23	Negative						

Contributory Factors
Poor turn or manoeuvre V001 V.likely Failed to look properly V001 Possible

120535594 SLIGHT 10/12/2012 000:20 426532 /422595 Owl Lane Near Junction with Owl Lane Nurseries, Ossett

this is the Conclusion to a Pursuit Where the Suspect Vehicle (V1) is Brought to a Halt in Tpac Manoeuvre on Owl Lane. V1 Traveling in the Direction of Ossett when it Has Lost Control & Spun Around & Had Minor Contact with V2 (Police).

Vehicles		From	To	Driver		Breath Test	Casualties		Veh	Sex	Age	Ped direction to
1	Car	NW	SE	Male	27	Positive	1 Passenger	SLIGHT	1	Male	20	
2	Car	NW	SE	Male	44	Negative						

Contributory Factors
Impaired by alcohol V001 V.likely Stolen vehicle V001 V.likely Vehicle in course of crime V001 Possible

Vicinity of Windsor Road, Kirklees, RTC five years prior to date (21.06.2017)

130043184 SERIOUS 28/01/2013 007:35 426371 /422785 Owl Lane at Junction with Windsor Court, Dewsbury

Veh2 Pedal Cycle Travelling Along Owl Lane Towards Windsor Road. Veh2 Approaching Windsor Court on Nearside. Veh1 Car Exits Windsor Court into Path of Veh2. Veh2 Swerves Around Veh1 and no Contact is Made. Veh2 Rider Loses Control and Falls to Floor. Veh1 Driver Winds Window down to Check on Rider but Leaves the Scene Without Exchanging Details.

Vehicles		From	To	Driver	Breath Test	Casualties		Veh	Sex	Age	Ped direction to	
1	Car	NE	NW	Female	-1	Not contacted	1	Driver/Rider	SERIOUS	2	Male	23
2	Pedal Cycle	NW	SE	Male	23	Not applicable						

Contributory Factors

130098140 SERIOUS 06/03/2013 005:10 426229 /422903 Owl Lane at Junction with Horace Waller Vc Parade, Dewsbury

Veh1 Van Travelling Along Owl Lane Towards Leeds Road. Veh1 Approaches Junction with Horace Waller Vc Parade on Nearside. Veh2 Pedal Cycle Enters Roundabout from Offside of Veh1. Cyclist Wearing Visibility Jacket but no Lights on Veh2. Veh1 Enters Roundabout into Path of Veh2 and Collision Occurs.

Vehicles		From	To	Driver	Breath Test	Casualties		Veh	Sex	Age	Ped direction to	
1	Van/Goods < 3.5t	SE	NW	Male	69	Negative	1	Driver/Rider	SERIOUS	2	Male	25
2	Pedal Cycle	NE	SW	Male	25	Not applicable						

Contributory Factors

130225101 SLIGHT 01/05/2013 008:20 426102 /423030 Leeds Road at Junction with High Street, Dewsbury

V1 Travels Along High Street Stopping at Give Way Jw A653 Leeds Road Intending to Turn Left. V2 Travels Along Leeds Road Approaching Jw High Street to N/S. as V2 Crosses Mouth of Junction V1 Edges out Failing to See V2 Colliding with Same. Rider of V2 Falls from Vehicle Receiving Injury.

Vehicles		From	To	Driver	Breath Test	Casualties		Veh	Sex	Age	Ped direction to	
1	Car	NW	NE	Male	-1	Not contacted	1	Driver/Rider	SLIGHT	2	Male	34
2	Pedal Cycle	SW	NE	Male	34	Not applicable						

Contributory Factors

Vicinity of Windsor Road, Kirklees, RTC five years prior to date (21.06.2017)

130227410 SLIGHT 02/06/2013 006:05 426629 /422467 Owl Lane at House Name O/S Royal Oak Inn, Ossett

Veh2 Car Parked on Owl Lane Outside Royal Oak Inn. Veh1 Van Travelling Along Owl Lane Towards Ossett in Line of Traffic. Veh1 Suddenly Sees Veh2 and Attempts to Take Evasive Action. Veh1 Collides with Rear of Veh2.

Vehicles	From	To	Driver	Breath Test	Casualties	Veh	Sex	Age	Ped direction to
1 Van/Goods < 3.5t	NW	SE	Male	33 Negative	1 Driver/Rider	SLIGHT	2	Male	38
2 Car	P	P	Male	38 Negative					

Contributory Factors
 Failed to look properly V001 V.likely Careless, reckless or in a hurry V001 V.likely

130231704 SLIGHT 05/06/2013 003:10 426096 /423025 Leeds Road at Junction with High Street, Dewsbury

V2(Transit Van) turning right from Leeds Road onto High Street. V2 Slowed to a Stop to Make the Turn. V1 Has Been Travelling Behind V2 and Driven into Rear of V2 as it Has Been Turning.

Vehicles	From	To	Driver	Breath Test	Casualties	Veh	Sex	Age	Ped direction to
1 Car	NW	SE	Female	61 Not contacted	1 Driver/Rider	SLIGHT	1	Female	61
2 Goods 3.5 - 7.5t	NW	E	Male	24 Not contacted					

Contributory Factors

130248292 SLIGHT 16/06/2013 001:55 426150 /423051 Leeds Road at Junction with John Ormsby Vc Way, Dewsbury

V1 Travels Along Leeds Road in Direction of Dewsbury. V2 Travels Along John Ormsby Vc Way Towards Jw Leeds Road. V2 Enters Junction on a Green Light when V1 Collides with O/S of V2.

Vehicles	From	To	Driver	Breath Test	Casualties	Veh	Sex	Age	Ped direction to
1 Car	NE	SW	Female	35 Negative	1 Driver/Rider	SLIGHT	2	Male	35
2 Car	SE	NW	Male	35 Negative	2 Driver/Rider	SLIGHT	1	Female	35

Contributory Factors
 Disobeyed ATS V001 V.likely

Vicinity of Windsor Road, Kirklees, RTC five years prior to date (21.06.2017)

14C1257 SLIGHT 12/04/2014 00:16:47 426509 /422640 B6128 Owl Lane

V2 is driving on Owl Lane from Chancery Road towards Shaw Cross. V1 (single deck bus) is behind V2, travelling in same direction. V2 stops nearside to kerb, to pick up a pedestrian. V1 begins to overtake V2, but V2 driver begins to set off regardless of this. V1 stops, and driver motions for V2 driver to again set off. V2 does set off again, and then comes to a sudden halt, driver states that he had to perform an emergency stop because of a loose dog which ran out of an unmade road to his nearside. V1 driver attempts to stop, but V1 skids and hits rear of V2.

Vehicles			From	To	Driver	Breath Test	Casualties			Veh	Sex	Age	Ped direction to
1	Bus or Coach	Going ahead other	SW	NE	Male	45	Negative	1	Driver/Rider	SLIGHT	2	Male	25
2	Car	Going ahead other	SW	NE	Male	25	Negative						
Contributory Factors													
Following too close		V001 Possible	Sudden braking				V002 Possible						

1722101 SLIGHT 02/07/2014 00:23:35 426247 /423104 Junction of A653 Leeds Road,shaw Cross,dewsbury and Owl Lane

This is a 2 vehicle RTC involving a motor car and a pedal cyclist on the junction of a main road and minor road, controlled by way of automated traffic, where the motor car entering the main road from the minor road, with his lane showing a green light, begins to enter main road, when confronted by a pedal cycle entering the same junction from the motor cars nearside, intending to enter the minor road from the main road and having ridden off the pavement adjacent to the main road. The motor car and pedal cyclist collide with the pedal cyclist being thrown onto the bonnet of the motor car and smashing the windscreen, before falling onto the road surface and sustaining injuries. The pedal cyclist at the time was intoxicated and conveyed to the LGI for treatment.

Vehicles			From	To	Driver		Breath Test	Casualties				Veh	Sex	Age	Ped direction to	
1	Car	Turning right	W	S	Male	24	Negative	1	Driver/Rider	SLIGHT		2	Male	26		
2	Pedal Cycle	Turning right	N	W	Male	26	Not applicable									
Contributory Factors																
Cyclist entering road from pavement		V002	V.likely	Impaired by alcohol				V002								V.likely

Vicinity of Windsor Road, Kirklees, RTC five years prior to date (21.06.2017)

17C0854 SLIGHT 12/07/2014 00:2:37 426137 /423050 Junction of A653 Leeds Road Dewsbury and B6128 Challenge Way

I did not witness the collision, but it would appear that the collision happened at a traffic light controlled cross roads. there was 3 M/V involved in this incident all 3 vehicles were in the Leeds bound lane of two having travelled from the general direction of Dewsbury. MV 1 is a BMW, MV 2 is a parts delivery Fiat van, and MV 3 is a Volvo. All 3 are waiting at a red light, before continuing straight through the Cross Roads towards Leeds. The lights turned to Green and MV 1 does not move forward initially, MV 2 anticipates MV 1 is going to set of and therefore MV 2 moves forward, but then stops as MV 1 still hasn't moved, MV 3 assumed 1 and 2 have set of having seen MV 2 move forward initially but then it stops driver of MV 3 runs into the rear of MV 2, this is shunted forward into MV 1. The impact was extremely light in fact MV 3 did not have a mark on the front at all, MV 2 had a slightly pushed in bumper and MV 1 had a creased bumper. 2 slight injuries, and details exchanged.

Vehicles			From	To	Driver		Breath Test	Casualties				Veh	Sex	Age	Ped direction to
1	Car	Wait go ahead, held up	NW	SE	Male	50	Negative	1	Passenger	SLIGHT		1	Female	19	
2	Car	Wait go ahead, held up	NW	SE	Male	25	Not contacted	2	Passenger	SLIGHT		1	Male	7	
3	Car	Wait go ahead, held up	NW	SE	Male	49	Negative								

Contributory Factors

Stationary or parked vehicle V003 V.likely

19D0492 SLIGHT 14/09/2014 009:30 426359 /422801 Junction of B6128 Owl Lane and Windsor Road

Vehicle involved is Kawasaki 300 cc solo motorcycle, which is being ridden along Owl Lane in the general direction of Ossett. The rider of the motorcycle sees pedestrian standing on kerbside on his nearside just prior to junction with Windsor Road, the pedestrian appeared to be waiting to cross the road, the motorcyclist slows down and makes eye contact with the pedestrian. The motorcyclist believes that the pedestrian had seen him approach so he continues but as he gets nearer to the pedestrian the pedestrian steps into the carriageway into the path of the motorcycle. The rider is unable to avoid the pedestrian and collides with him. The pedestrian is knocked to the ground and receives slight injuries.

Vehicles			From	To	Driver		Breath Test	Casualties				Veh	Sex	Age	Ped direction to
1	M/cycle 125 - 500cc	Going ahead other	NW	SE	Male	62	Negative	1	Pedestrian	SLIGHT	1	Male	75	South west	

Contributory Factors

Pedestrian failed to look properly C001 Possible Ped careless, reckless or in a hurry C001 Possible

Vicinity of Windsor Road, Kirklees, RTC five years prior to date (21.06.2017)

1BE0244 SLIGHT 14/11/2014 007:55 426509 /422640 B6128 Owl Lane

V1 an AUDI A7 motor car was travelling from the direction of OSSETT, towards the A653, on B6128 Owl Lane, This takes V1 over the slight brow of a hill, to pass the ROYAL OAK pub to the offside and the DEWSBURY RAMS STADIUM to its nearside. As V1 has come over the brow of the hill, he starts an overtake manoeuvre. V1 travelling at speed in excess of the speed limit. V1 has collided with 7 other vehicles causing substantial damage and minor injuries over a 255 metre section of the carriageway. V1 at fault.

Vehicles			From	To	Driver		Breath Test	Casualties			Veh	Sex	Age	Ped direction to
1	Car	O/T moving veh on its O/S	SE	NW	Male	40	Negative	1	Driver/Rider	SLIGHT	1	Male	40	
2	Car	Going ahead other	NW	SE	Male	43	Not requested	2	Driver/Rider	SLIGHT	2	Male	43	
3	Car	Going ahead other	NW	SE	Male	38	Not requested	3	Passenger	SLIGHT	2	Male	3	
4	Car	Going ahead other	NW	SE	Male	32	Not requested	4	Passenger	SLIGHT	2	Male	3	
5	Car	Going ahead other	NW	SE	Male	30	Not requested	5	Driver/Rider	SLIGHT	7	Female	27	
6	Car	Going ahead other	SE	NW	Male	34	Not requested	6	Driver/Rider	SLIGHT	8	Female	27	
7	Car	Going ahead other	NW	SE	Female	27	Not requested							
8	Car	Going ahead other	SE	NW	Female	27	Not requested							

Contributory Factors

Exceeding speed limit V001 V.likely Careless, reckless or in a hurry V001 Possible

23A1142 SLIGHT 10/03/2015 016:45 426519 /423363 Junction of A653 Leeds Road, Dewsbury and Chidswell Lane,Dewsbury

This is a minor injury RTC involving a pedal cycle and motor car, both travelling Leeds Rd towards Dewsbury on dual carriageway section of road, with the pedal cyclist approaching a minor junction to the nearside, when it is overtaken by a motor car which turns left onto the minor road directly in front of the pedal cyclist causing the pedal cyclist to fall from their cycle and sustain minor injury. The offending vehicle failed to stop and was described as an Audi TT with partial reg no obtained. Further enqs to trace the Audi TT

Vehicles			From	To	Driver		Breath Test	Casualties				Veh	Sex	Age	Ped direction to
1	Pedal Cycle	Going ahead other	NE	SW	Male	47	Not applicable	1	Driver/Rider	SLIGHT		1	Male	47	
2	Car	Turning left	NE	SE	Not known	-1	Not contacted								

Contributory Factors

Failed to look properly V002 V.likely Fail to judge other person path or speed V002 V.likely

Vicinity of Windsor Road, Kirklees, RTC five years prior to date (21.06.2017)

26G0761 SLIGHT 16/06/2015 0013:30 426519 /423363 Junction of A653 Leeds Road and Chidswell Lane

This report submitted on behalf of PC3878 Coates. V1 travelling up Leeds Rd, Dewsbury towards Leeds. V2 travelling down Leeds Rd towards Dewsbury. V1 indicates to turn right onto Chidswell Lane. Driver of V1 misjudges speed of V2 believing he has time to make his turn but collides with oncoming V2. Slight injury to driver of V2, swollen left elbow and neck pain.

Vehicles			From	To	Driver	Breath Test	Casualties		Veh	Sex	Age	Ped direction to
1	Car	Turning right	SW	E	Male	34 Negative	1 Driver/Rider	SLIGHT	2	Male	42	
2	Car	Going ahead other	NE	SW	Male	42 Negative						

Contributory Factors

Fail to judge other person path or speed V001 V.likely

2791550 SLIGHT 09/07/2015 0020:22 426503 /423330 A653 Leeds Road

V1 and V2 are travelling in the Leeds Road towards Dewsbury. V1 is in lane 1 and V2 is in lane 2. V1 is following another vehicle which performs a U turn in the road, V1 does the same manoeuvre from lane, however he fails to see V2 in lane 2 as he is in his blind spot. V1 pulls across V2 and causes minor damage to both vehicles, driver of V1 suffers minor injury to the right shoulder.

Vehicles			From	To	Driver	Breath Test	Casualties		Veh	Sex	Age	Ped direction to
1	Car	Turning right	W	S	Male	18 Not requested	1 Driver/Rider	SLIGHT	1	Male	18	
2	Car	Going ahead other	W	E	Male	41 Not requested						

Contributory Factors

Fail to judge other person path or speed V001 V.likely

28U0702 SLIGHT 30/08/2015 0012:45 426149 /423046 Junction of A653 Leeds Road and B6128

This is a two vehicle collision with one of the occupant of vehicle two suffering minor injuries with damage caused to both of the vehicles. Vehicle one a Vauxhall Corsa was travelling along Owl Lane towards the junction with Leeds Road at Dewsbury and vehicle two a Vauxhall Vectra was travelling along Leeds Road towards Dewsbury from the Leeds direction. The collision occurred when vehicle one has rolled out of the junction into the path of vehicle two giving the driver of V2 no chance to react or avoid the collision. All occupants of both vehicles were assessed at the scene and the passenger of V2 was taken to Dewsbury Hospital for shock and whiplash type injury.

Vehicles			From	To	Driver	Breath Test	Casualties		Veh	Sex	Age	Ped direction to
1	Car	Going ahead other	S	N	Female	22 Negative	1 Passenger	SLIGHT	2	Female	80	
2	Car	Going ahead other	E	W	Male	82 Negative						

Contributory Factors

Failed to look properly V001 V.likely Nervous, uncertain or panic V001 Possible

Vicinity of Windsor Road, Kirklees, RTC five years prior to date (21.06.2017)

2920340 SERIOUS 02/09/2015 009:00 426118 /423167 B6128 Challenge Way Dewsbury

THIS COLLISION INVOLVES THREE VEHICLES , SERIOUS INJURY TO THE RIDER OF V3 WHICH IS A MOTORCYCLE..... V1 , A LIGHT GOODS VEHICLE ,IS TRAVELLING UP CHALLENGE WAY AWAY FROM DEWSBURY . V2 IS TRAVELLING DOWN CHALLENGE WAY TOWARDS DEWSBURY , V3 IS TRAVELLING IN THE SAME DIRECTION IMMEDIATELY BEHIND V2AS V2 AND V3 APPROACH DRIVER OF V1 PULLS OUT FROM SLOW MOVING TRAFFIC INTO OPPOSITE CARRIAGEWAY AND DIRECTLY INTO THE PATH OF V2 WHO MAKES AN EMERGENCY STOP TO AVOID A COLLISION , RIDER OF V3 ATTEMPTS TO STOP BUT COLLIDES WITH THE REAR OF V2 CAUSING SERIOUS INJURY(BROKEN FINGER).

Vehicles			From	To	Driver	Breath Test	Casualties			Veh	Sex	Age	Ped direction to
1	Goods > 7.5t	Going ahead other	N	S	Male	40	Negative	1	Driver/Rider	SERIOUS	3	Male	63
2	Car	Going ahead other	S	N	Male	30	Not contacted						
3	M/cycle > 500cc	Going ahead other	S	N	Male	63	Negative						
Contributory Factors													
Poor turn or manoeuvre		V001 V.likely											

2AC1482	SLIGHT	12/10/2015	00:28	426429 /423251	A653 Leeds Road
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V1, an ambulance responder with blue lights activated, travels along Leeds Road, Dewsbury. V2 is in front of V1 and appears hesitant to pull over. V1 strikes rear of V2. Minor injuries to driver and passenger of V1.

Vehicles			From	To	Driver		Breath Test	Casualties			Veh	Sex	Age	Ped direction to
1	Car	Going ahead other	NE	SW	Male	43	Negative	1	Driver/Rider	SLIGHT	1	Male	43	
2	Car	Stopping	NE	SW	Female	65	Negative	2	Passenger	SLIGHT	1	Male	36	
Contributory Factors														
Failed to look properly			V001	V.likely	Sudden braking			V002 Possible						

Vicinity of Windsor Road, Kirklees, RTC five years prior to date (21.06.2017)

2B90273 SLIGHT 09/11/2015 009:10 426156 /423058 Junction of A653 Leeds Road and B6128 Challenge Way

Vehicle One is travelling towards Batley from Ossett, along John Ormsby VC Way intending to cross Leeds Road into Challenge Way. Vehicle Two is travelling along Leeds Road away from Dewsbury, in the nearside lane of two. The junction is controlled by automated traffic signal which were showing green for traffic on Leeds Road. Vehicle 1 sets off from the junction and collides mid junction with Vehicle 2 on its offside, causing it to spin and then leave the road at the nearside knocking down a traffic signal post. Both drivers receive minor injuries. V1 driver suffers bruising and pain to chest and right shoulder and right ankle and was taken to Pinderfields hospital for check up. V2 driver sustained a blooded nose and did not go to hospital. Both vehicles suffered extensive front end damage. V2 also sustained damage to offside.

Vehicles			From	To	Driver		Breath Test	Casualties			Veh	Sex	Age	Ped direction to
1	Car	Going ahead other	S	N	Female	75	Not provided	1	Driver/Rider	SLIGHT	1	Female	75	
2	Car	Going ahead other	W	E	Female	39	Negative	2	Driver/Rider	SLIGHT	2	Female	39	
Contributory Factors														
Disobeyed ATS			V001	V.likely	Failed to look properly			V001	V.likely					

2BQ1649 SLIGHT 26/11/2015 021:40 426156 /423058 Junction of A653 Leeds Road and Challenge Way

I did not attend this collision and the details gathered within this report have been taken from various Police systems and from officer accounts from scene. V1 is travelling Leeds Road towards Leeds with Challenge Way to offside. V2 is travelling towards Challenge Way passing Leeds Road Dewsbury end to offside. As both vehicle are mid junction a collision occurs and both vehicles damaged, driver V2 injures wrist.

Vehicles			From	To	Driver		Breath Test	Casualties			Veh	Sex	Age	Ped direction to
1	Car	Going ahead other	S	N	Male	27	Not contacted	1	Driver/Rider	SLIGHT	2	Male	23	
2	Car	Going ahead other	E	W	Male	23	Not contacted							
Contributory Factors														
Failed to look properly			V001	V.likely	Failed to look properly			V002	V.likely					

Vicinity of Windsor Road, Kirklees, RTC five years prior to date (21.06.2017)

2CF1399 SLIGHT 15/12/2015 00:10 426308 /423154 A653 Leeds Road

The collision occurred on Leeds road, Dewsbury vehicle one was travelling in the direction of Tingley, Vehicle two was manoeuvring out of the drive of number 673. Number 673 is set back from the road and is boarded by a high wall belonging to the neighbouring school. The driver of vehicle two manoeuvred out of the drive and at this moment in time I am unsure whether the vehicle was entering the road in reverse or forward. The driver of vehicle one was presented with this vehicle and collided with the rear offside spinning it out of control. Vehicle one came to rest in the central reserve 20 yards beyond the collision point and vehicle two came to rest on the opposite pavement facing in the direction of number 673. At the time of the collision the road surface was damp, the weather was fine, street lights were illuminated and visibility was good. Further enqs to be made.

Vehicles			From	To	Driver	Breath Test	Casualties			Veh	Sex	Age	Ped direction to
1	Van/Goods < 3.5t	Going ahead other	SW	NE	Male	38	Negative	1	Driver/Rider	SLIGHT	2	Female	31
2	Car	Turning right	NW	SW	Female	31	Negative	2	Driver/Rider	SLIGHT	1	Male	38
								3	Passenger	SLIGHT	1	Female	36

Contributory Factors

Exceeding speed limit V001 Possible Poor turn or manoeuvre V002 Possible

3620624 SLIGHT 02/06/2016 01:10 426421 /423102 Hillesley Road

This is a pedal cycle and a motor car RTC. The pedal cyclist is an 8 year old child. The motor car did not stop and has not been identified. I did not attend this RTC. An 8 year old pedal cyclist is trying to cross Hillesley Road from the pavement. In order to pass a parked vehicle she puts her front wheel into the road to try and get a view. A red coloured 10 plate Vauxhall Astra passes the cyclist and collides with her front wheel, knocking the bike and the cyclist to the floor. The cyclist suffers minor scuffs and bruises. The motor car does not stop. The pedal cyclist attends at her local Police Station with her father and reports the incident.

Vehicles			From	To	Driver	Breath Test	Casualties			Veh	Sex	Age	Ped direction to
1	Car	Going ahead other	N	S	Not known	-1	Not contacted	1	Driver/Rider	SLIGHT	2	Female	8
2	Pedal Cycle	Starting	W	E	Female	8	Not applicable						

Contributory Factors

Vicinity of Windsor Road, Kirklees, RTC five years prior to date (21.06.2017)

36Q0902 SERIOUS 26/06/2016 004:15 426519 /423363 Junction of Leeds Road, Tingley and Chidswell Lane

I did not attend this collision. This collision involves 2 vehicles travelling along Leeds Road in opposite directions. V1 has the intention of turning right into Chidswell Lane. V1 stops at the junction and then turns across the path of V2 attempting to turn into Chidswell Road, at this point the vehicles collide.

Vehicles		From	To	Driver		Breath Test		Casualties			Veh	Sex	Age	Ped direction to
1	Car													
1	Car	Turning right	SW	E	Female	59	Negative	1	Driver/Rider	SERIOUS	1	Female	59	
2	Car	Going ahead other	NW	SE	Male	86	Negative							
Contributory Factors														
Failed to look properly		V001	V.likely	Fail to judge other person path or speed				V001	V.likely					

43Q1061 SLIGHT 26/03/2017 006:24 426360 /423193 Junction of A653 Leeds Road and A653 Leeds Road

V1 is a black Vauxhall corsa car; V2 is a black Peugeot 308 estate car

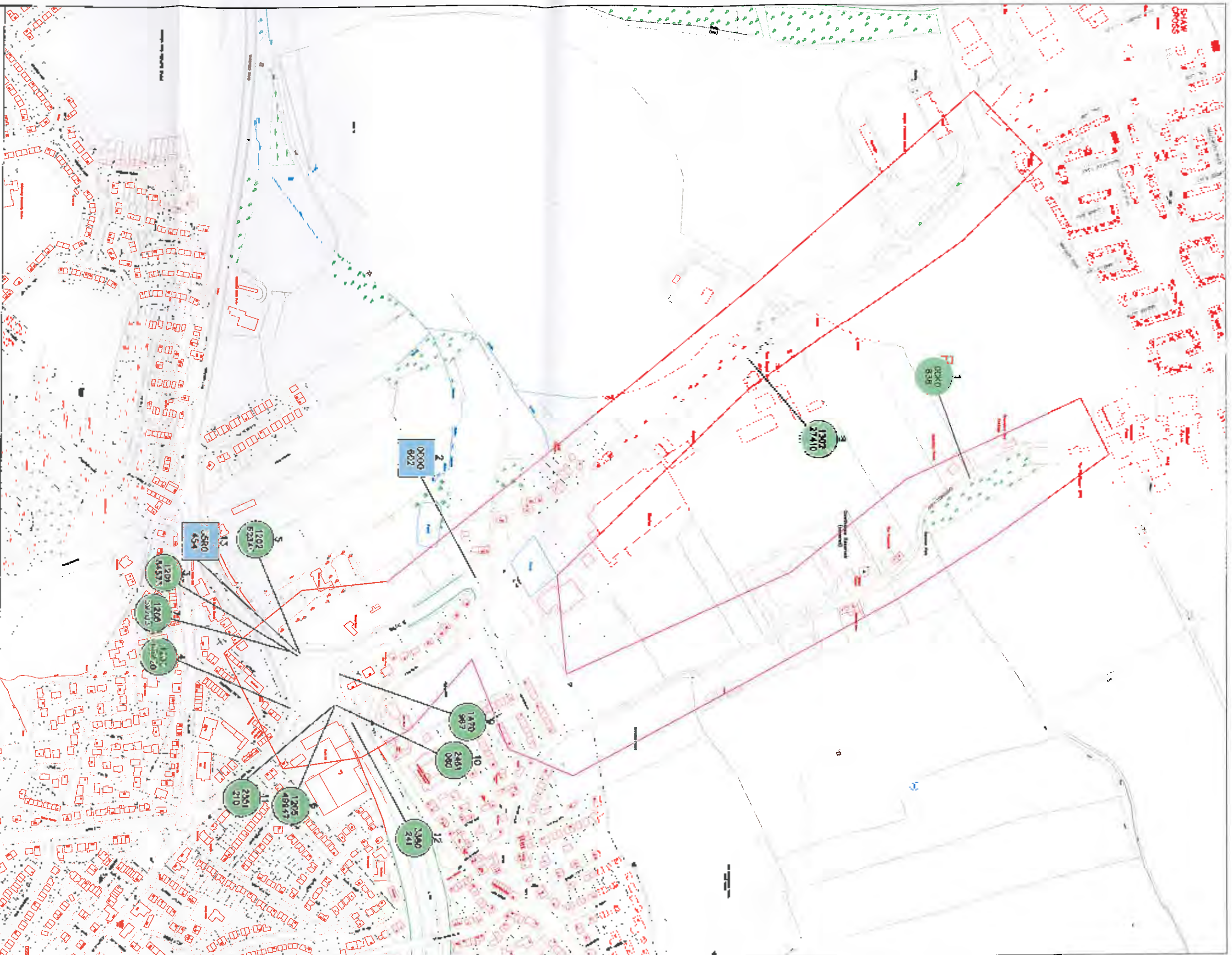
Vehicles		From	To	Driver		Breath Test		Casualties			Veh	Sex	Age	Ped direction to
1	Car													
1	Car	Change lane to right	NE	SW	Female	21	Not requested	1	Driver/Rider	SLIGHT	1	Female	21	
2	Car	O/T moving veh on its O/S	NE	SW	Male	57	Not requested							
Contributory Factors														
Failed to look properly		V001	V.likely	Fail to judge other person path or speed				V002	Possible					

Kirklees Council - Accident Data Request

Figure 1: General Location of Request







Wakefield Council
working for you

Regeneration & Economic Growth
Transportation & Highways
Planning & Highways
Neil Rodgers

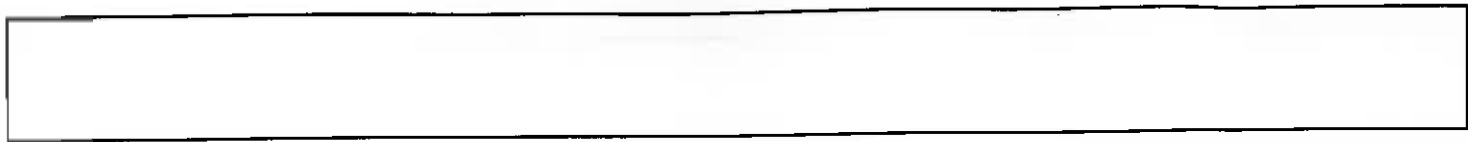
5 Year Accident Hot Spot
Cwl Lane, Ossett

Transportation and Highways

TEO/RG/OWL

22/6/17	Scales
RG	NTS
SIZE	A3

File Path: g:\transportation and highways\lin\traffic management\minor works cad\minor traffic\11-asset\accident reports\road\5 year accident hot spot\5 year accident hot spot.dwg



No.	Area L/A	Reference	Severity	Day	Date	Time	Grid Coords
Description: This two vehicle slight injury Police RTC occurred when, V1 a Ford Mondeo driven by a female identified at the time as a member of WYP Police Staff and V2 a Vauxhall Astra were approaching the roundabout towards Dewsbury, when traffic slowed causing V2 to stop, whilst V1 failed to stop in time and collided with the rear of V2 causing damage to both vehicles and slight injury to both driver and passenger of V2							
13	E08000036	35R0454	Serious	Thursday	26/05/2016	06:15	427002/421884
Location: Junction of A638 Leeds Road and Chancery Road 1st Rd: A638 2nd Rd: U							
Description: v2 IS PEDAL CYCLIST NEGOTIATING ROUNDABOUT WHEN CAR FAILS TO GIVE WAY ENTERING AT ROUNDABOUT JUNCTION TO NEARSIDE, CAR COLLIDES WITH REAR WHEEL OF CYCLE KNOCKING CYCLIST TO FLOPOR. INITIALLY REFUSES MEDICSL TREATMENT BUT LATER IS FOUND TO HAVE SERIOUS INJURY							

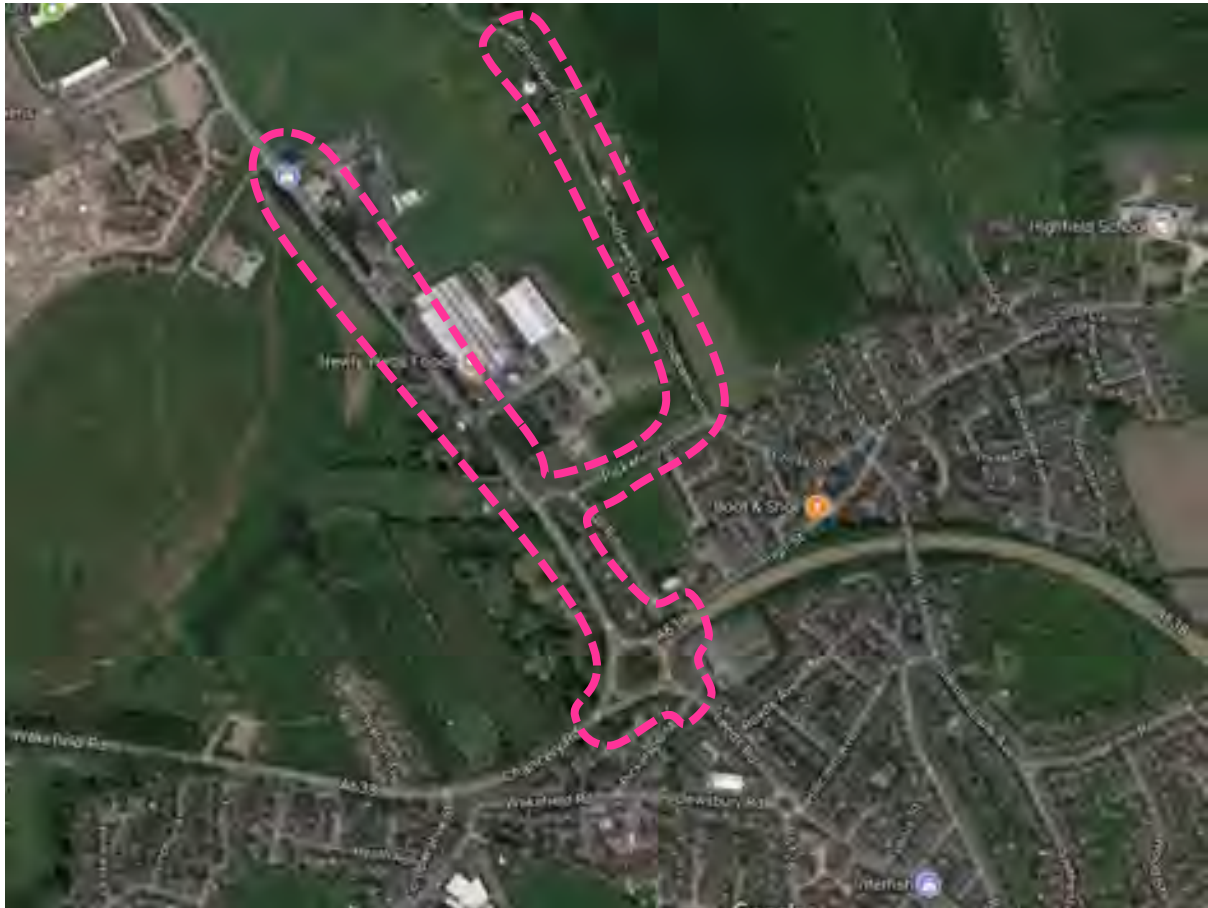
No	Area/L/A	Reference	Severity	Day	Date	Time	Grid Coords
1	EA00000000	00000000	Slight	Friday	20/12/2011 09:00		420000/422753
Location: Cheshamwell Lane, Newbury 1st Rd: 0 2nd Rd: Description: One Circumstances Of This Collision Are To Dispute Both Parties Giving Different Accounts. The Reporting Pedestrian Will Say That He Was Struck In The Arm By A Small Mirror Of A Vehicle Being Driven At Speed The Driver Will State That At Low Speed. The Pedestrian Who He Knew Walked Into His Mirror. Very Minor Injuries. Only The Road Is A Single Track Carriageway And It Is Reported By The Pedestrian That Following The Incident No Details Were Exchanged And An Argument Erupted.							
2	EA00000000	00000002	Slight	Tuesday	24/12/2011 09:00		420000/423114
Location: Junction Of Watlington Lane And Leoda Road 1st Rd: Watlington 2nd Rd: 0 Description: The pedal cyclist was riding his pedal cycle towards from the direction of Ossett Towards Watlington (Owl Lane, Ossett). He Cycled Into The Right Lane To Turn Right Onto Leoda Road. As He Set Off To Turn Right The Offending Vehicle Pulled Out Of Leoda Road onto Watlington Towards Watlington And The Driver Of The Vehicle Hit The Pedal Cyclist With The Front Of His Vehicle. The Cyclist Fell To The Road And Sustained A Possible Broken Wrist And Other Minor Injuries. On Police Attendance The Cyclist Was Laid Out In The Road, The Driver Of The Offending Vehicle Was Approaching Him Along With Other Members Of The Public. Driver Was Very Apologetic And Co-operated Regarding The Cyclist's Welfare. He Fully Admitted That He Had Not Seen The Cyclist And It Was His Fault. Requested No Further Action Against The Driver As This Was An Error Of Judgment. (No Reported or Estimated Injury)							
3	EA00000000	12010457	Slight	Friday	27/04/2012 02:00		420000/421000
Location: Cheshamwell Road At Junction With Owl Lane, Ossett 1st Rd: A608 2nd Rd: Watlington Description: Veh 1 Travelled On Watlington Road In The Direction Of Newbury. Veh 1 Driver Failed To Slow Down At Roundabout With Its Junction With Owl Lane. Veh 2 Crossed The Carriageway And Then A Heavy Vehicle Before Colliding With A Number Of Pedestrians.							
4	EA00000000	12020120	Slight	Wednesday	07/04/2012 14:10		420000/421011
Location: Leoda Road At Junction With Cheshamwell Road, Ossett 1st Rd: Watlington 2nd Rd: A608 Description: Veh2 motorcycle waiting in line roundabout from Leoda Road. Veh 1 car in behind Veh2. Veh2 moved forward slightly. Veh1 moved forward believing Veh1 to be in line roundabout and collision began.							
5	EA00000000	12020140	Slight	Sunday	11/04/2012 21:15		420000/421000
Location: Cheshamwell Road/Owl Lane Roundabout in Watlington Road, Ossett 1st Rd: A608 2nd Rd: A638 Description: V1 Is Travel Along With Cheshamwell Road, In The Direction Of Watlington. V1 Between Owl Lane Roundabout And Leoda Road. V1 Meets Traffic In Line And Collision With Road Sign.							
6	EA00000000	12040000	Slight	Monday	10/11/2012 18:00		420000/421933
Location: Ossett By Road At Junction With Owl Lane, Ossett 1st Rd: A608 2nd Rd: Watlington Description: V2 Stationary Waiting To Enter Roundabout V1 Has Pulled Up Behind V1 And As V1 Moved With The Head Of V1							
7	EA00000000	12020140	Slight	Thursday	27/12/2012 16:00		420000/421011
Location: Cheshamwell Road At Junction With Owl Lane, Ossett 1st Rd: A608 2nd Rd: Watlington Description: V1 Travels Along A608 Cheshamwell Road And Stops At Roundabout On Owl Lane. As V2 Is Stationary V1 Collides With Head Of V2.							
8	EA00000000	12020140	Slight	Monday	02/06/2013 14:00		420000/421000
Location: Owl Lane At Roundabout With Watlington Road, Ossett 1st Rd: Watlington 2nd Rd: Description: Veh2 car parked on Owl Lane outside Royal Oak Inn, Ossett. Veh1 was travelling along Owl Lane towards Ossett. In Line Of Traffic. Veh1 Suddenly Saw Veh2 And Attempted To Take Evasive Action. Veh1 Collided With Rear Of Veh2.							
9	EA00000000	12020140	Slight	Tuesday	02/10/2013 16:15		420000/421000
Location: Junction Of A608 Cheshamwell Road And Watlington Road 1st Rd: A608 2nd Rd: Watlington Description: The Circumstances Are That The Driver Of The Fiat Punto Was Leaving Work And Was Going Home. He Approached The Roundabout From The North Leoda Road And Turned Left Into The Roundabout. The cyclist was riding down Owl Lane And Was On The Roundabout Heading In The Opposite Direction Towards The Exit For The A608 Towards Watlington. The Driver Of The Roundabout Driven Into The Roundabout And Collided With The Side Of The Cyclist Causing him to fall. The cyclist was kept by emergency and had minor cuts and bruises to his arms and shoulder. The driver was uninjured.							
10	EA00000000	12020140	Slight	Monday	02/04/2013 16:00		420000/421000
Location: Junction Of A608 Watlington Road Ossett And Owl Lane, Ossett 1st Rd: Watlington 2nd Rd: 0 Description: Apparently Veh 1 was travelling along the A608 Watlington Road, Ossett approaching the roundabout junction with Owl Lane. Veh 2 was travelling behind Veh 1. As Veh 1 had reached the junction the driver of Veh 2 had begun to slow for the roundabout and Veh 1 had failed to see Veh 2 slowing in time and collided with the rear of Veh 1 causing damage to both vehicles and minor injuries to the rear seat passengers in Veh 1.							
11	EA00000000	12020140	Slight	Tuesday	02/04/2013 16:00		420000/421000
Location: Junction Of A608 Watlington Road Ossett And Leoda Road 1st Rd: A608 2nd Rd: 0 Description: I Attached This Report, Which Took Place During Peak Period Time. V1 And V2 Are Moving At A Steady Pace At The Roundabout Moving To Exit. V1 A H4 Ton Artic And Trailer Was Behind Moving Forward At 10Mph And Did Not Stop To Turn. V2 The Heavy Duty Traffic, Moving V2 Which Hit V1. V2 Driver Reported Whiplash Style Injuries.							
12	EA00000000	12020140	Slight	Thursday	20/01/2016 08:00		420000/421956
Location: A608 1st Rd: A608 2nd Rd:							

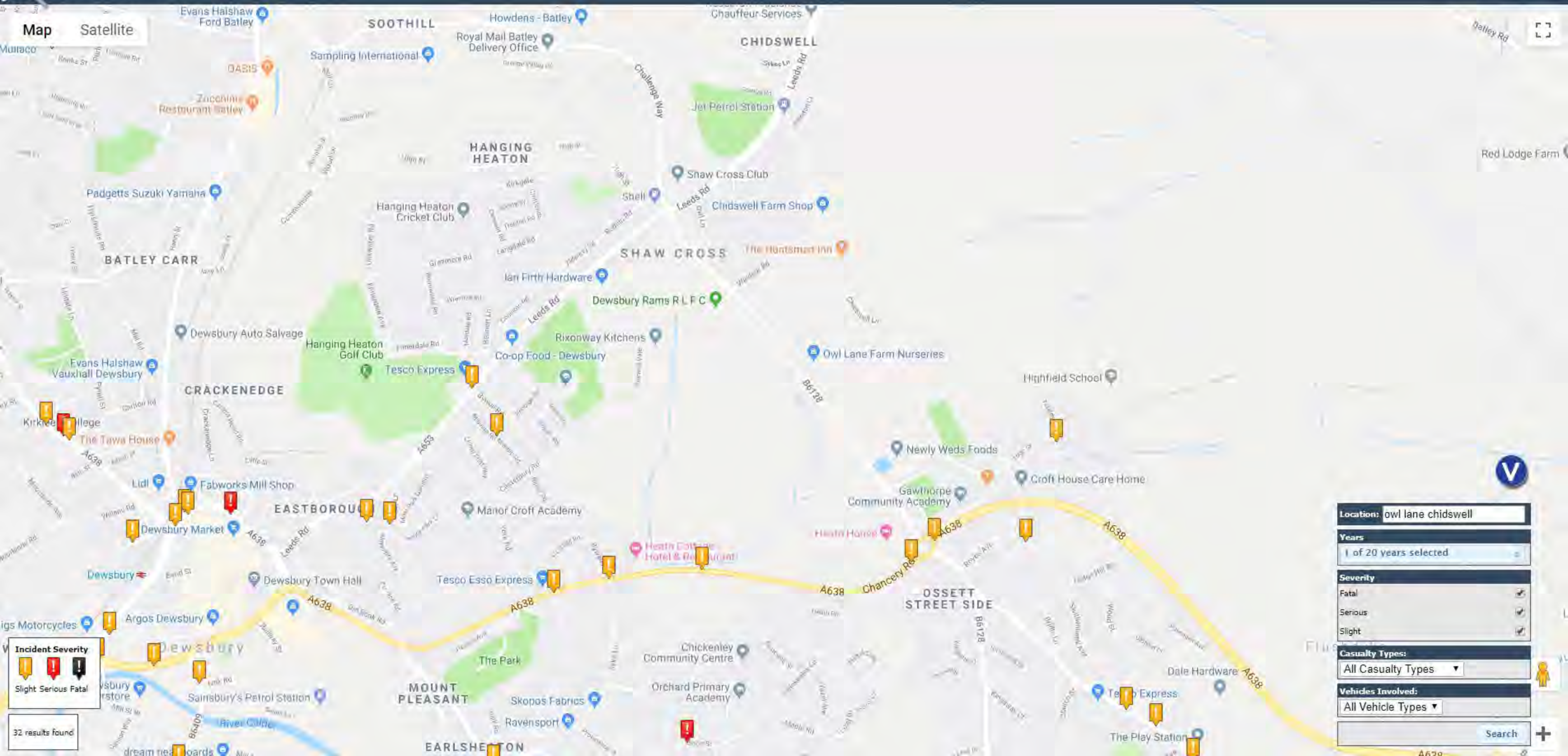
Wakefield Council - Accident Data

Figure 1: General Location of Request



Figure 2: Requested highway boundary







crashmap.co.uk

2018 data is provisional and is subject to change

Crash Date: Thursday, May 03, 2018

Time of Crash: 8:07:00 AM

Crash Reference: 2018135530235

Highest Injury Severity: Slight

Highway Authority: Wakefield

Local Authority: Wakefield

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: Roundabout

Junction Pedestrian Crossing: No physical crossing facility within 50 metres

Road Type: Roundabout

Junction Control: Give way or uncontrolled

Road Number: A638

Number of Casualties: 2

Number of Vehicles: 2

OS Grid Reference: 426996 421853



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



2018 data is provisional and is subject to change

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
2	Pedal cycle	-1	Male	45-54	Vehicle is moving off	Unknown	Other	None	None
1	Car (excluding private hire)	-1	Male	35-44	Vehicle is moving off	Unknown	Other	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	35-44	Unknown or other	Unknown or other
2	2	Slight	Driver or rider	Male	45-54	Unknown or other	Unknown or other

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



crashmap.co.uk

2018 data is provisional and is subject to change

Crash Date: Saturday, March 31, 2018

Time of Crash: 12:47:00 PM

Crash Reference: 20181353V0766

Highest Injury Severity: Slight

Highway Authority: Wakefield

Local Authority: Wakefield

Weather Description: Raining without high winds

Road Surface Description: Wet or Damp

Speed Limit: 50

Light Conditions: Daylight: regardless of presence of streetlights

Carriageway Hazards: None

Junction Detail: Roundabout

Junction Pedestrian Crossing: No physical crossing facility within 50 metres

Road Type: Dual carriageway

Junction Control: Give way or uncontrolled

Road Number: A638

Number of Casualties: 2

Number of Vehicles: 3

OS Grid Reference: 427073 421929



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



2018 data is provisional and is subject to change

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
3	Car (excluding private hire)	-1	Male	55-64	Vehicle is waiting to proceed normally but is held up	Unknown	Other	None	None
1	Car (excluding private hire)	-1	Female	25-34	Vehicle proceeding normally along the carriageway, not on a bend	Unknown	Other	None	None
2	Car (excluding private hire)	-1	Female	25-34	Vehicle is waiting to proceed normally but is held up	Unknown	Commuting to/from work	None	None

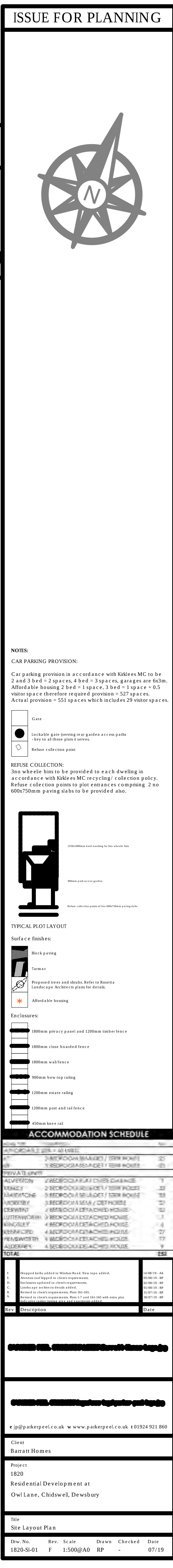
Casualties

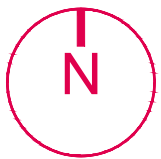
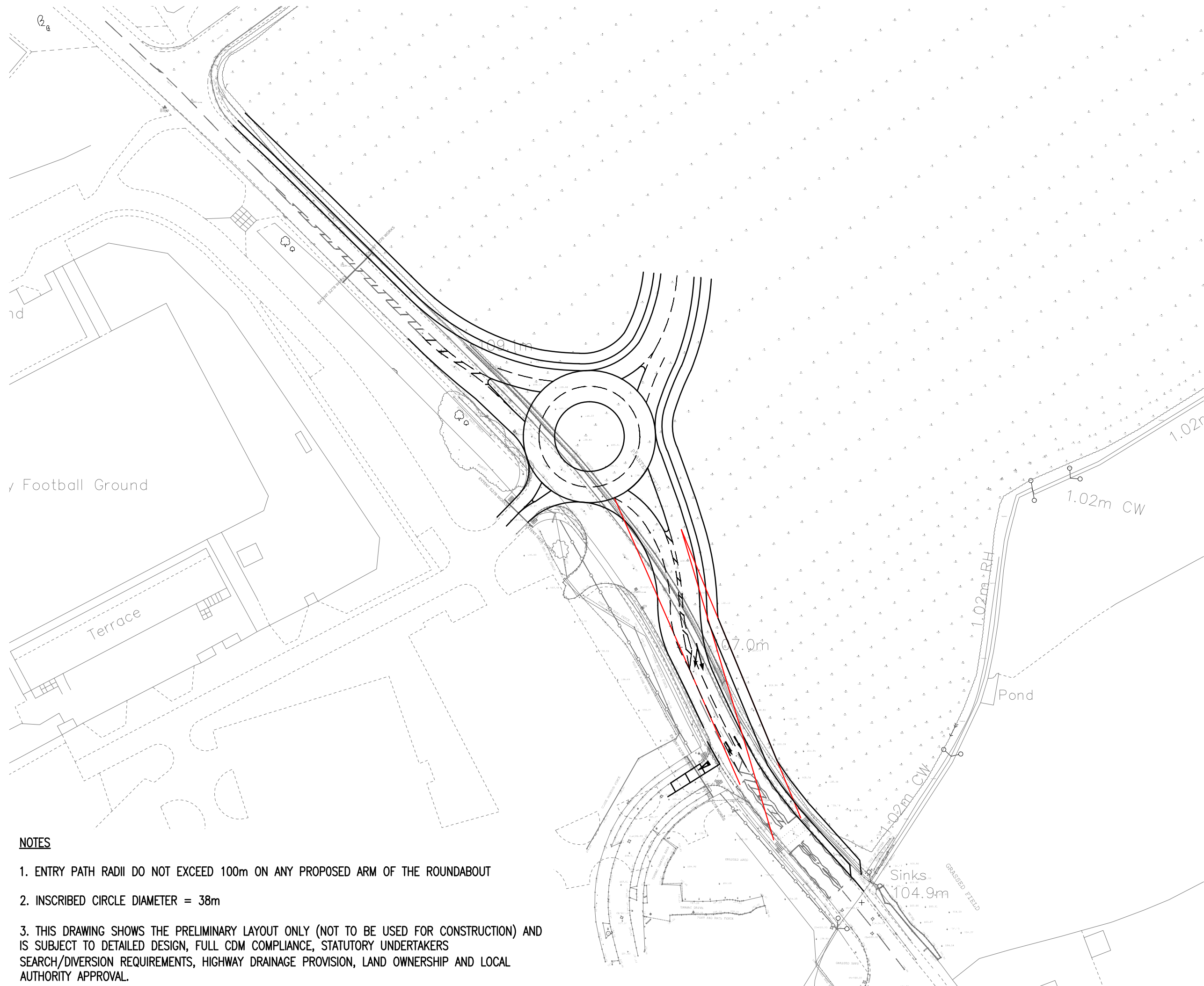
Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Driver or rider	Female	25-34	Unknown or other	Unknown or other
3	2	Slight	Vehicle or pillion passenger	Female	45-54	Unknown or other	Unknown or other

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

APPENDIX C: Proposed Development Layout








VIASOLUTIONS
THE OLD COACH HOUSE
1 CAMPBELL STREET
PUDSEY
LS28 6DP
tel: 0113 3453957
email: highwaymen@viasolutions.com

OWL LANE, CHIDSWELL
PROPOSED RESIDENTIAL DEVELOPMENT
PROPOSED SITE ACCESS

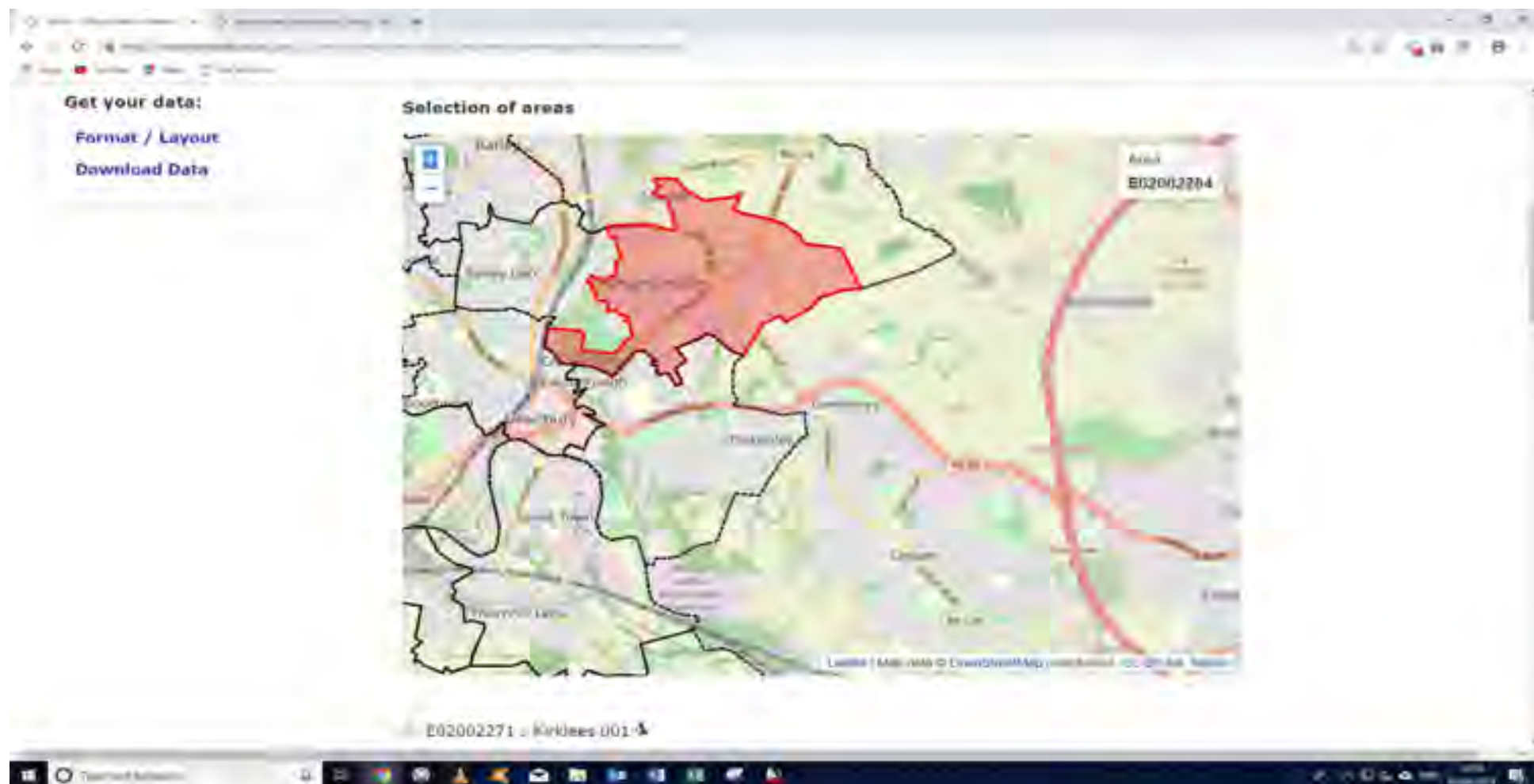
SCALE: 1:1000 @A3
DATE: AUG 2019
DRAWING NO: 1815901B

NOTES

1. ENTRY PATH RADII DO NOT EXCEED 100m ON ANY PROPOSED ARM OF THE ROUNDABOUT
2. INSCRIBED CIRCLE DIAMETER = 38m
3. THIS DRAWING SHOWS THE PRELIMINARY LAYOUT ONLY (NOT TO BE USED FOR CONSTRUCTION) AND IS SUBJECT TO DETAILED DESIGN, FULL CDM COMPLIANCE, STATUTORY UNDERTAKERS SEARCH/DIVERSION REQUIREMENTS, HIGHWAY DRAINAGE PROVISION, LAND OWNERSHIP AND LOCAL AUTHORITY APPROVAL.

APPENDIX D: Census Distribution Calculations





WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

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population All usual residents aged 16 and over in employment the week before the census
units Persons
date 2011
usual residence E02002284 : Kirklees 014 (2011 super output area - middle layer)

place of work : 2011 census merged local authority district	All categories: Method of travel to work (2001 specification)	Work mainly at or from home	Underground, metro, light rail or tram	Train	Bus, minibus or coach	Taxi	Motorcycle, scooter or moped	Driving a car or van	Passenger in a car or van	Bicycle	On foot	Other method of travel to work
Hartlepool	0	0	0	0	0	0	0	0	0	0	0	0
Middlesbrough	0	0	0	0	0	0	0	0	0	0	0	0
Redcar and Cleveland	2	0	0	0	0	0	0	1	0	0	1	0
Stockton-on-Tees	0	0	0	0	0	0	0	0	0	0	0	0
Darlington	0	0	0	0	0	0	0	0	0	0	0	0
County Durham	5	0	0	0	1	0	1	3	0	0	0	0
Northumberland	0	0	0	0	0	0	0	0	0	0	0	0
Gateshead	0	0	0	0	0	0	0	0	0	0	0	0
Newcastle upon Tyne	0	0	0	0	0	0	0	0	0	0	0	0
North Tyneside	0	0	0	0	0	0	0	0	0	0	0	0
South Tyneside	0	0	0	0	0	0	0	0	0	0	0	0
Sunderland	1	0	0	0	0	0	0	0	1	0	0	0
Halton	1	0	0	0	0	0	0	1	0	0	0	0
Warrington	0	0	0	0	0	0	0	0	0	0	0	0
Blackburn with Darwen	1	0	0	0	0	0	0	1	0	0	0	0
Blackpool	0	0	0	0	0	0	0	0	0	0	0	0
Cheshire East	1	0	0	0	0	0	0	1	0	0	0	0
Cheshire West and Che	1	0	0	0	0	0	0	1	0	0	0	0
Allerdale	0	0	0	0	0	0	0	0	0	0	0	0
Barrow-in-Furness	0	0	0	0	0	0	0	0	0	0	0	0
Carlisle	0	0	0	0	0	0	0	0	0	0	0	0
Copeland	0	0	0	0	0	0	0	0	0	0	0	0
Eden	0	0	0	0	0	0	0	0	0	0	0	0
South Lakeland	0	0	0	0	0	0	0	0	0	0	0	0
Burnley	0	0	0	0	0	0	0	0	0	0	0	0
Chorley	0	0	0	0	0	0	0	0	0	0	0	0
Fylde	1	0	0	0	0	0	0	0	1	0	0	0
Hyndburn	0	0	0	0	0	0	0	0	0	0	0	0
Lancaster	0	0	0	0	0	0	0	0	0	0	0	0
Pendle	0	0	0	0	0	0	0	0	0	0	0	0
Preston	1	0	0	0	0	0	0	1	0	0	0	0
Ribble Valley	0	0	0	0	0	0	0	0	0	0	0	0
Rossendale	3	0	0	0	0	0	0	3	0	0	0	0
South Ribble	0	0	0	0	0	0	0	0	0	0	0	0
West Lancashire	0	0	0	0	0	0	0	0	0	0	0	0
Wyre	0	0	0	0	0	0	0	0	0	0	0	0
Bolton	0	0	0	0	0	0	0	0	0	0	0	0
Bury	0	0	0	0	0	0	0	0	0	0	0	0
Manchester	5	0	0	2	0	0	1	2	0	0	0	0
Oldham	1	0	0	0	0	0	0	1	0	0	0	0
Rochdale	3	0	0	0	0	0	0	2	1	0	0	0
Salford	4	0	0	1	0	0	0	3	0	0	0	0
Stockport	0	0	0	0	0	0	0	0	0	0	0	0
Tameside	0	0	0	0	0	0	0	0	0	0	0	0
Trafford	3	0	0	0	0	0	0	1	1	1	0	0
Wigan	1	0	0	0	0	0	0	1	0	0	0	0
Knowsley	0	0	0	0	0	0	0	0	0	0	0	0
Liverpool	0	0	0	0	0	0	0	0	0	0	0	0
St. Helens	1	0	0	0	0	0	0	1	0	0	0	0
Sefton	0	0	0	0	0	0	0	0	0	0	0	0
Wirral	0	0	0	0	0	0	0	0	0	0	0	0
Kingston upon Hull, City	0	0	0	0	0	0	0	0	0	0	0	0
East Riding of Yorkshire	4	0	0	0	0	0	0	4	0	0	0	0
North East Lincolnshire	0	0	0	0	0	0	0	0	0	0	0	0
North Lincolnshire	0	0	0	0	0	0	0	0	0	0	0	0
York	6	0	0	0	0	0	0	5	0	1	0	0
Craven	0	0	0	0	0	0	0	0	0	0	0	0
Hambleton	2	0	0	0	0	0	0	2	0	0	0	0
Harrogate	10	0	0	0	0	0	0	8	1	0	1	0
Richmondshire	0	0	0	0	0	0	0	0	0	0	0	0
Ryedale	0	0	0	0	0	0	0	0	0	0	0	0
Scarborough	0	0	0	0	0	0	0	0	0	0	0	0
Selby	5	0	0	0	0	0	0	5	0	0	0	0
Barnsley	25	0	0	0	0	0	0	25	0	0	0	0
Doncaster	6	0	0	0	0	0	0	6	0	0	0	0
Rotherham	9	0	0	0	0	0	0	9	0	0	0	0
Sheffield	20	0	0	0	0	0	0	18	2	0	0	0
Bradford	87	0	0	2	4	0	2	73	4	2	0	0
Calderdale	57	0	0	2	3	0	2	42	3	2	3	0
Kirklees	1,432	0	0	11	100	19	18	909	122	15	234	4
Leeds	559	0	1	34	82	1	5	389	40	3	3	1
Wakefield	290	0	0	0	11	1	2	256	12	1	6	1
Derby	0	0	0	0	0	0	0	0	0	0	0	0
Leicester	3	0	0	1	0	0	0	0	2	0	0	0
Rutland	0	0	0	0	0	0	0	0	0	0	0	0
Nottingham	0	0	0	0	0	0	0	0	0	0	0	0
Amber Valley	0	0	0	0	0	0	0	0	0	0	0	0
Bolsover	0	0	0	0	0	0	0	0	0	0	0	0
Chesterfield	0	0	0	0	0	0	0	0	0	0	0	0
Derbyshire Dales	0	0	0	0	0	0	0	0	0	0	0	0
Erewash	0	0	0	0	0	0	0	0	0	0	0	0
High Peak	1	0	0	0	0	0	0	0	0	0	1	0
North East Derbyshire	0	0	0	0	0	0	0	0	0	0	0	0
South Derbyshire	0	0	0	0	0	0	0	0	0	0	0	0
Blaby	0	0	0	0	0	0	0	0	0	0	0	0
Charmwood	0	0	0	0	0	0	0	0	0	0	0	0
Harborough	0	0	0	0	0	0	0	0	0	0	0	0
Hinckley and Bosworth	0	0	0	0	0	0	0	0	0	0	0	0
Melton	0	0	0	0	0	0	0	0	0	0	0	0
North West Leicestershi	0	0	0	0	0	0	0	0	0	0	0	0
Oadby and Wigston	0	0	0	0	0	0	0	0	0	0	0	0
Boston	0	0	0	0	0	0	0	0	0	0	0	0
East Lindsey	2	0	0	0	1	0	0	0	0	0	1	0
Lincoln	0	0	0	0	0	0	0	0	0	0	0	0
North Kesteven	1	0	0	0	0	0	0	0	0	0	1	0
South Holland	1	0	0	1	0	0	0	0	0	0	0	0

South Kesteven	0	0	0	0	0	0	0	0	0	0	0
West Lindsey	0	0	0	0	0	0	0	0	0	0	0
Corby	0	0	0	0	0	0	0	0	0	0	0
Daventry	2	0	0	0	1	0	0	1	0	0	0
East Northamptonshire	0	0	0	0	0	0	0	0	0	0	0
Kettering	0	0	0	0	0	0	0	0	0	0	0
Northampton	0	0	0	0	0	0	0	0	0	0	0
South Northamptonshire	0	0	0	0	0	0	0	0	0	0	0
Wellingborough	0	0	0	0	0	0	0	0	0	0	0
Ashfield	1	0	0	0	0	0	0	1	0	0	0
Bassetlaw	0	0	0	0	0	0	0	0	0	0	0
Broxtowe	2	0	0	0	0	0	0	2	0	0	0
Gedling	0	0	0	0	0	0	0	0	0	0	0
Mansfield	0	0	0	0	0	0	0	0	0	0	0
Newark and Sherwood	1	0	0	0	0	0	0	1	0	0	0
Rushcliffe	1	0	0	0	0	0	0	1	0	0	0
Herefordshire, County of	0	0	0	0	0	0	0	0	0	0	0
Telford and Wrekin	0	0	0	0	0	0	0	0	0	0	0
Stoke-on-Trent	0	0	0	0	0	0	0	0	0	0	0
Shropshire	0	0	0	0	0	0	0	0	0	0	0
Cannock Chase	0	0	0	0	0	0	0	0	0	0	0
East Staffordshire	2	0	0	0	0	0	0	2	0	0	0
Lichfield	1	0	0	0	0	1	0	1	0	0	0
Newcastle-under-Lyme	0	0	0	0	0	0	0	0	0	0	0
South Staffordshire	0	0	0	0	0	0	0	0	0	0	0
Stafford	0	0	0	0	0	0	0	0	0	0	0
Staffordshire Moorlands	0	0	0	0	0	0	0	0	0	0	0
Tamworth	0	0	0	0	0	0	0	0	0	0	0
North Warwickshire	0	0	0	0	0	0	0	0	0	0	0
Nuneaton and Bedworth	0	0	0	0	0	0	0	0	0	0	0
Rugby	0	0	0	0	0	0	0	0	0	0	0
Stratford-on-Avon	0	0	0	0	0	0	0	0	0	0	0
Warwick	0	0	0	0	0	0	0	0	0	0	0
Bromsgrove	0	0	0	0	0	0	0	0	0	0	0
Malvern Hills	0	0	0	0	0	0	0	0	0	0	0
Redditch	0	0	0	0	0	0	0	0	0	0	0
Worcester	0	0	0	0	0	0	0	0	0	0	0
Wychavon	0	0	0	0	0	0	0	0	0	0	0
Wyre Forest	0	0	0	0	0	0	0	0	0	0	0
Birmingham	3	0	0	0	0	0	0	3	0	0	0
Coventry	0	0	0	0	0	0	0	0	0	0	0
Dudley	0	0	0	0	0	0	0	0	0	0	0
Sandwell	0	0	0	0	0	0	0	0	0	0	0
Solihull	0	0	0	0	0	0	0	0	0	0	0
Walsall	0	0	0	0	0	0	0	0	0	0	0
Wolverhampton	0	0	0	0	0	0	0	0	0	0	0
Peterborough	1	0	0	1	0	0	0	0	0	0	0
Luton	1	0	0	0	0	0	0	1	0	0	0
Southend-on-Sea	0	0	0	0	0	0	0	0	0	0	0
Thurrock	0	0	0	0	0	0	0	0	0	0	0
Bedford	0	0	0	0	0	0	0	0	0	0	0
Central Bedfordshire	0	0	0	0	0	0	0	0	0	0	0
Cambridge	0	0	0	0	0	0	0	0	0	0	0
East Cambridgeshire	0	0	0	0	0	0	0	0	0	0	0
Fenland	0	0	0	0	0	0	0	0	0	0	0
Huntingdonshire	0	0	0	0	0	0	0	0	0	0	0
South Cambridgeshire	1	0	0	0	0	0	0	1	0	0	0
Basildon	0	0	0	0	0	0	0	0	0	0	0
Braintree	0	0	0	0	0	0	0	0	0	0	0
Brentwood	0	0	0	0	0	0	0	0	0	0	0
Castle Point	0	0	0	0	0	0	0	0	0	0	0
Chelmsford	0	0	0	0	0	0	0	0	0	0	0
Colchester	0	0	0	0	0	0	0	0	0	0	0
Epping Forest	0	0	0	0	0	0	0	0	0	0	0
Harlow	0	0	0	0	0	0	0	0	0	0	0
Maldon	0	0	0	0	0	0	0	0	0	0	0
Rochford	0	0	0	0	0	0	0	0	0	0	0
Tendring	0	0	0	0	0	0	0	0	0	0	0
Uttlesford	0	0	0	0	0	0	0	0	0	0	0
Broxbourne	0	0	0	0	0	0	0	0	0	0	0
Dacorum	0	0	0	0	0	0	0	0	0	0	0
East Hertfordshire	0	0	0	0	0	0	0	0	0	0	0
Hertsmere	0	0	0	0	0	0	0	0	0	0	0
North Hertfordshire	0	0	0	0	0	0	0	0	0	0	0
St Albans	0	0	0	0	0	0	0	0	0	0	0
Stevenage	0	0	0	0	0	0	0	0	0	0	0
Three Rivers	0	0	0	0	0	0	0	0	0	0	0
Watford	0	0	0	0	0	0	0	0	0	0	0
Welwyn Hatfield	1	0	0	0	0	0	0	1	0	0	0
Breckland	0	0	0	0	0	0	0	0	0	0	0
Broadland	0	0	0	0	0	0	0	0	0	0	0
Great Yarmouth	0	0	0	0	0	0	0	0	0	0	0
King's Lynn and West N	0	0	0	0	0	0	0	0	0	0	0
North Norfolk	0	0	0	0	0	0	0	0	0	0	0
Norwich	0	0	0	0	0	0	0	0	0	0	0
South Norfolk	0	0	0	0	0	0	0	0	0	0	0
Babergh	1	0	0	0	0	0	0	0	1	0	0
Forest Heath	0	0	0	0	0	0	0	0	0	0	0
Ipswich	0	0	0	0	0	0	0	0	0	0	0
Mid Suffolk	0	0	0	0	0	0	0	0	0	0	0
St Edmundsbury	0	0	0	0	0	0	0	0	0	0	0
Suffolk Coastal	0	0	0	0	0	0	0	0	0	0	0
Waveney	0	0	0	0	0	0	0	0	0	0	0
Barking and Dagenham	0	0	0	0	0	0	0	0	0	0	0
Barnet	0	0	0	0	0	0	0	0	0	0	0
Bexley	0	0	0	0	0	0	0	0	0	0	0
Brent	0	0	0	0	0	0	0	0	0	0	0
Bromley	0	0	0	0	0	0	0	0	0	0	0
Camden	2	0	0	1	0	0	0	0	1	0	0
Croydon	1	0	0	0	0	0	0	0	0	1	0
Ealing	0	0	0	0	0	0	0	0	0	0	0
Enfield	0	0	0	0	0	0	0	0	0	0	0
Greenwich	0	0	0	0	0	0	0	0	0	0	0
Hackney	0	0	0	0	0	0	0	0	0	0	0
Hammersmith and Fulh	0	0	0	0	0	0	0	0	0	0	0
Haringey	0	0	0	0	0	0	0	0	0	0	0
Harrow	0	0	0	0	0	0	0	0	0	0	0
Havering	0	0	0	0	0	0	0	0	0	0	0
Hillingdon	0	0	0	0	0	0	0	0	0	0	0

Hounslow	2	0	0	1	0	0	0	1	0	0	0	0
Islington	1	0	0	0	1	0	0	0	0	0	0	0
Kensington and Chelsea	0	0	0	0	0	0	0	0	0	0	0	0
Kingston upon Thames	0	0	0	0	0	0	0	0	0	0	0	0
Lambeth	0	0	0	0	0	0	0	0	0	0	0	0
Lewisham	0	0	0	0	0	0	0	0	0	0	0	0
Merton	0	0	0	0	0	0	0	0	0	0	0	0
Newham	0	0	0	0	0	0	0	0	0	0	0	0
Redbridge	0	0	0	0	0	0	0	0	0	0	0	0
Richmond upon Thame:	0	0	0	0	0	0	0	0	0	0	0	0
Southwark	0	0	0	0	0	0	0	0	0	0	0	0
Sutton	0	0	0	0	0	0	0	0	0	0	0	0
Tower Hamlets	0	0	0	0	0	0	0	0	0	0	0	0
Waltham Forest	0	0	0	0	0	0	0	0	0	0	0	0
Wandsworth	0	0	0	0	0	0	0	0	0	0	0	0
Westminster,City of Lor	1	0	0	0	0	0	0	1	0	0	0	0
Medway	0	0	0	0	0	0	0	0	0	0	0	0
Bracknell Forest	0	0	0	0	0	0	0	0	0	0	0	0
West Berkshire	0	0	0	0	0	0	0	0	0	0	0	0
Reading	0	0	0	0	0	0	0	0	0	0	0	0
Slough	0	0	0	0	0	0	0	0	0	0	0	0
Windsor and Maidenhe:	0	0	0	0	0	0	0	0	0	0	0	0
Wokingham	0	0	0	0	0	0	0	0	0	0	0	0
Milton Keynes	0	0	0	0	0	0	0	0	0	0	0	0
Brighton and Hove	0	0	0	0	0	0	0	0	0	0	0	0
Portsmouth	1	0	0	1	0	0	0	0	0	0	0	0
Southampton	0	0	0	0	0	0	0	0	0	0	0	0
Isle of Wight	0	0	0	0	0	0	0	0	0	0	0	0
Aylesbury Vale	0	0	0	0	0	0	0	0	0	0	0	0
Chiltern	0	0	0	0	0	0	0	0	0	0	0	0
South Bucks	0	0	0	0	0	0	0	0	0	0	0	0
Wycombe	0	0	0	0	0	0	0	0	0	0	0	0
Eastbourne	0	0	0	0	0	0	0	0	0	0	0	0
Hastings	0	0	0	0	0	0	0	0	0	0	0	0
Lewes	0	0	0	0	0	0	0	0	0	0	0	0
Rother	0	0	0	0	0	0	0	0	0	0	0	0
Wealden	0	0	0	0	0	0	0	0	0	0	0	0
Basingstoke and Deane	1	0	0	0	0	0	0	1	0	0	0	0
East Hampshire	0	0	0	0	0	0	0	0	0	0	0	0
Eastleigh	0	0	0	0	0	0	0	0	0	0	0	0
Fareham	0	0	0	0	0	0	0	0	0	0	0	0
Gosport	0	0	0	0	0	0	0	0	0	0	0	0
Hart	0	0	0	0	0	0	0	0	0	0	0	0
Havant	0	0	0	0	0	0	0	0	0	0	0	0
New Forest	0	0	0	0	0	0	0	0	0	0	0	0
Rushmoor	0	0	0	0	0	0	0	0	0	0	0	0
Test Valley	0	0	0	0	0	0	0	0	0	0	0	0
Winchester	0	0	0	0	0	0	0	0	0	0	0	0
Ashford	0	0	0	0	0	0	0	0	0	0	0	0
Canterbury	0	0	0	0	0	0	0	0	0	0	0	0
Dartford	0	0	0	0	0	0	0	0	0	0	0	0
Dover	0	0	0	0	0	0	0	0	0	0	0	0
Gravesham	0	0	0	0	0	0	0	0	0	0	0	0
Maidstone	0	0	0	0	0	0	0	0	0	0	0	0
Sevenoaks	0	0	0	0	0	0	0	0	0	0	0	0
Shepway	0	0	0	0	0	0	0	0	0	0	0	0
Swale	0	0	0	0	0	0	0	0	0	0	0	0
Thanet	0	0	0	0	0	0	0	0	0	0	0	0
Tonbridge and Malling	1	0	0	0	0	0	0	1	0	0	0	0
Tunbridge Wells	0	0	0	0	0	0	0	0	0	0	0	0
Cherwell	0	0	0	0	0	0	0	0	0	0	0	0
Oxford	2	0	0	0	2	0	0	0	0	0	0	0
South Oxfordshire	0	0	0	0	0	0	0	0	0	0	0	0
Vale of White Horse	0	0	0	0	0	0	0	0	0	0	0	0
West Oxfordshire	0	0	0	0	0	0	0	0	0	0	0	0
Elmbridge	0	0	0	0	0	0	0	0	0	0	0	0
Epsom and Ewell	0	0	0	0	0	0	0	0	0	0	0	0
Guildford	0	0	0	0	0	0	0	0	0	0	0	0
Mole Valley	0	0	0	0	0	0	0	0	0	0	0	0
Reigate and Banstead	0	0	0	0	0	0	0	0	0	0	0	0
Runnymede	0	0	0	0	0	0	0	0	0	0	0	0
Spelthorne	0	0	0	0	0	0	0	0	0	0	0	0
Surrey Heath	0	0	0	0	0	0	0	0	0	0	0	0
Tandridge	0	0	0	0	0	0	0	0	0	0	0	0
Waverley	0	0	0	0	0	0	0	0	0	0	0	0
Woking	0	0	0	0	0	0	0	0	0	0	0	0
Adur	0	0	0	0	0	0	0	0	0	0	0	0
Arun	0	0	0	0	0	0	0	0	0	0	0	0
Chichester	0	0	0	0	0	0	0	0	0	0	0	0
Crawley	0	0	0	0	0	0	0	0	0	0	0	0
Horsham	0	0	0	0	0	0	0	0	0	0	0	0
Mid Sussex	0	0	0	0	0	0	0	0	0	0	0	0
Worthing	0	0	0	0	0	0	0	0	0	0	0	0
Bath and North East So	0	0	0	0	0	0	0	0	0	0	0	0
Bristol, City of	0	0	0	0	0	0	0	0	0	0	0	0
Cornwall,Isles of Scilly	2	0	0	0	1	0	0	1	0	0	0	0
Wiltshire	1	0	0	0	0	0	0	1	0	0	0	0
North Somerset	0	0	0	0	0	0	0	0	0	0	0	0
South Gloucestershire	0	0	0	0	0	0	0	0	0	0	0	0
Plymouth	0	0	0	0	0	0	0	0	0	0	0	0
Torbay	0	0	0	0	0	0	0	0	0	0	0	0
Bournemouth	0	0	0	0	0	0	0	0	0	0	0	0
Poole	0	0	0	0	0	0	0	0	0	0	0	0
Swindon	0	0	0	0	0	0	0	0	0	0	0	0
East Devon	0	0	0	0	0	0	0	0	0	0	0	0
Exeter	0	0	0	0	0	0	0	0	0	0	0	0
Mid Devon	0	0	0	0	0	0	0	0	0	0	0	0
North Devon	0	0	0	0	0	0	0	0	0	0	0	0
South Hams	0	0	0	0	0	0	0	0	0	0	0	0
Teignbridge	0	0	0	0	0	0	0	0	0	0	0	0
Torridge	0	0	0	0	0	0	0	0	0	0	0	0
West Devon	0	0	0	0	0	0	0	0	0	0	0	0
Christchurch	0	0	0	0	0	0	0	0	0	0	0	0
East Dorset	0	0	0	0	0	0	0	0	0	0	0	0
North Dorset	0	0	0	0	0	0	0	0	0	0	0	0
Purbeck	0	0	0	0	0	0	0	0	0	0	0	0
West Dorset	0	0	0	0	0	0	0	0	0	0	0	0
Weymouth and Portlan:	0	0	0	0	0	0	0	0	0	0	0	0
Cheltenham	1	0	0	0	0	0	0	1	0	0	0	0

Cotswold	0	0	0	0	0	0	0	0	0	0	0	0
Forest of Dean	0	0	0	0	0	0	0	0	0	0	0	0
Gloucester	0	0	0	0	0	0	0	0	0	0	0	0
Stroud	0	0	0	0	0	0	0	0	0	0	0	0
Tewkesbury	0	0	0	0	0	0	0	0	0	0	0	0
Mendip	0	0	0	0	0	0	0	0	0	0	0	0
Sedgemoor	0	0	0	0	0	0	0	0	0	0	0	0
South Somerset	0	0	0	0	0	0	0	0	0	0	0	0
Taunton Deane	0	0	0	0	0	0	0	0	0	0	0	0
West Somerset	0	0	0	0	0	0	0	0	0	0	0	0
Isle of Anglesey	0	0	0	0	0	0	0	0	0	0	0	0
Gwynedd	0	0	0	0	0	0	0	0	0	0	0	0
Conwy	0	0	0	0	0	0	0	0	0	0	0	0
Derbighshire	0	0	0	0	0	0	0	0	0	0	0	0
Flintshire	0	0	0	0	0	0	0	0	0	0	0	0
Wrexham	0	0	0	0	0	0	0	0	0	0	0	0
Ceredigion	0	0	0	0	0	0	0	0	0	0	0	0
Pembrokeshire	0	0	0	0	0	0	0	0	0	0	0	0
Cardiganshire	0	0	0	0	0	0	0	0	0	0	0	0
Swansea	0	0	0	0	0	0	0	0	0	0	0	0
Neath Port Talbot	0	0	0	0	0	0	0	0	0	0	0	0
Bridgend	0	0	0	0	0	0	0	0	0	0	0	0
The Vale of Glamorgan	0	0	0	0	0	0	0	0	0	0	0	0
Cardiff	0	0	0	0	0	0	0	0	0	0	0	0
Rhondda Cynon Taf	0	0	0	0	0	0	0	0	0	0	0	0
Caerphilly	0	0	0	0	0	0	0	0	0	0	0	0
Blaenau Gwent	0	0	0	0	0	0	0	0	0	0	0	0
Torfaen	0	0	0	0	0	0	0	0	0	0	0	0
Monmouthshire	0	0	0	0	0	0	0	0	0	0	0	0
Newport	0	0	0	0	0	0	0	0	0	0	0	0
Powys	0	0	0	0	0	0	0	0	0	0	0	0
Merthyr Tydfil	0	0	0	0	0	0	0	0	0	0	0	0

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

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population
units
date
usual residence

place of work : 2011 census merged local authority district	Driving a car or van	%	
Kirklees	909	53.1%	
Leeds	389	22.7%	
Wakefield	256	15.0%	
Bradford	73	4.3%	
Calderdale	42	2.5%	
Barnsley	25	1.5%	
Sheffield	18	1.1%	
	1,712	100.0%	

Rotherham	9	0.3%
Harrogate	8	0.2%
Doncaster	6	0.2%
York	5	0.1%
Selby	5	0.1%
East Riding of Yorkshire	4	0.1%

place of work : 2011 super output area - middle layer	Driving a car or van	%
E02002287 : Kirklees 017	138	14.4%
E02002294 : Kirklees 024	88	9.2%
E02002280 : Kirklees 010	72	7.5%
E02002284 : Kirklees 014	72	7.5%
E02002286 : Kirklees 016	56	5.8%
E02002283 : Kirklees 013	43	4.5%
E02002272 : Kirklees 002	41	4.3%
	510	53.1%

place of work : 2011 super output area - middle layer	Driving a car or van	%
E02006875 : Leeds 111	52	10.1%
E02002422 : Leeds 093	34	6.6%
E02002435 : Leeds 106	31	6.0%
		22.7%

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

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population
units
date
usual residence

place of work : 2011 super output area - middle layer	Driving a car or van			%
E02002287 : Kirklees 017	138	27.1%	0.143671	
E02002294 : Kirklees 024	88	17.3%	0.091616	
E02002280 : Kirklees 010	72	14.1%	0.074959	
E02002284 : Kirklees 014	72	14.1%	0.074959	
E02002286 : Kirklees 016	56	11.0%	0.058301	
E02002283 : Kirklees 013	43	8.4%	0.044767	
E02002272 : Kirklees 002	41	8.0%	0.042685	
	510			
E02002288 : Kirklees 018	34	2.4%	0.012722	
E02002293 : Kirklees 023	34	2.4%	0.012722	
E02002276 : Kirklees 006	31	2.2%	0.0116	
E02002277 : Kirklees 007	30	2.1%	0.011225	
E02002299 : Kirklees 029	29	2.0%	0.010851	
E02002275 : Kirklees 005	26	1.8%	0.009729	
E02002285 : Kirklees 015	26	1.8%	0.009729	
E02002281 : Kirklees 011	21	1.5%	0.007858	
E02002289 : Kirklees 019	19	1.3%	0.007109	
E02002312 : Kirklees 042	15	1.1%	0.005613	
E02002296 : Kirklees 026	14	1.0%	0.005238	
E02002279 : Kirklees 009	12	0.8%	0.00449	
E02002292 : Kirklees 022	12	0.8%	0.00449	
E02002301 : Kirklees 031	10	0.7%	0.003742	
E02002271 : Kirklees 001	9	0.6%	0.003368	
E02002282 : Kirklees 012	9	0.6%	0.003368	
E02002298 : Kirklees 028	9	0.6%	0.003368	
E02002291 : Kirklees 021	7	0.5%	0.002619	
E02002295 : Kirklees 025	7	0.5%	0.002619	
E02002303 : Kirklees 033	6	0.4%	0.002245	
E02002304 : Kirklees 034	5	0.4%	0.001871	
E02002327 : Kirklees 057	4	0.3%	0.001497	
E02002273 : Kirklees 003	3	0.2%	0.001123	
E02002300 : Kirklees 030	3	0.2%	0.001123	
E02002274 : Kirklees 004	2	0.1%	0.000748	
E02002302 : Kirklees 032	2	0.1%	0.000748	
E02002309 : Kirklees 039	2	0.1%	0.000748	
E02002321 : Kirklees 051	2	0.1%	0.000748	
E02002323 : Kirklees 053	2	0.1%	0.000748	
E02002324 : Kirklees 054	2	0.1%	0.000748	
E02002278 : Kirklees 008	1	0.1%	0.000374	
E02002290 : Kirklees 020	1	0.1%	0.000374	
E02002305 : Kirklees 035	1	0.1%	0.000374	
E02002306 : Kirklees 036	1	0.1%		
E02002311 : Kirklees 041	1	0.1%		
E02002313 : Kirklees 043	1	0.1%		
E02002314 : Kirklees 044	1	0.1%		
E02002317 : Kirklees 047	1	0.1%		
E02002319 : Kirklees 049	1	0.1%		
E02002320 : Kirklees 050	1	0.1%		
E02002325 : Kirklees 055	1	0.1%		
E02002329 : Kirklees 059	1	0.1%		
E02002297 : Kirklees 027	0	0.0%		
E02002307 : Kirklees 037	0	0.0%		
E02002308 : Kirklees 038	0	0.0%		
E02002310 : Kirklees 040	0	0.0%		
E02002315 : Kirklees 045	0	0.0%		
E02002316 : Kirklees 046	0	0.0%		
E02002318 : Kirklees 048	0	0.0%		
E02002322 : Kirklees 052	0	0.0%		
E02002326 : Kirklees 056	0	0.0%		
E02002328 : Kirklees 058	0	0.0%		

1,419

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WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

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population
units
date
usual residence

place of work : 2011 super output area - middle layer	Driving a car or van	%	
E02006875 : Leeds 111	52	44.4%	10.1%
E02002422 : Leeds 093	34	29.1%	4.3%
E02002435 : Leeds 106	31	26.5%	1.1%
	117	100.0%	
E02006876 : Leeds 112	28	5.5%	0.1%
E02002433 : Leeds 104	19	3.8%	0.1%
E02002400 : Leeds 071	15	3.0%	0.0%
E02002419 : Leeds 090	15	3.0%	3.0%
E02002424 : Leeds 095	15	3.0%	0.0%
E02002431 : Leeds 102	12	2.4%	0.0%
E02002411 : Leeds 082	11	2.2%	0.0%
E02002399 : Leeds 070	10	2.0%	0.0%
E02002412 : Leeds 063	10	2.0%	0.0%
E02002420 : Leeds 091	10	2.0%	
E02002392 : Leeds 063	8	1.6%	
E02002393 : Leeds 064	8	1.6%	
E02002410 : Leeds 081	8	1.6%	
E02002416 : Leeds 087	8	1.6%	
E02002404 : Leeds 075	6	1.2%	
E02002336 : Leeds 007	5	1.0%	
E02002384 : Leeds 055	5	1.0%	
E02002391 : Leeds 062	5	1.0%	
E02002402 : Leeds 073	5	1.0%	
E02002425 : Leeds 096	4	0.8%	
E02006852 : Leeds 109	4	0.8%	
E02002356 : Leeds 027	3	0.6%	
E02002358 : Leeds 029	3	0.6%	
E02002367 : Leeds 038	3	0.6%	
E02002387 : Leeds 058	3	0.6%	
E02002394 : Leeds 065	3	0.6%	
E02002427 : Leeds 098	3	0.6%	
E02002434 : Leeds 105	3	0.6%	
E02002352 : Leeds 023	2	0.4%	
E02002357 : Leeds 028	2	0.4%	
E02002371 : Leeds 042	2	0.4%	
E02002386 : Leeds 057	2	0.4%	
E02002390 : Leeds 061	2	0.4%	
E02002395 : Leeds 066	2	0.4%	
E02002397 : Leeds 068	2	0.4%	
E02002437 : Leeds 108	2	0.4%	
E02006861 : Leeds 110	2	0.4%	
E02002331 : Leeds 002	1	0.2%	
E02002333 : Leeds 004	1	0.2%	
E02002335 : Leeds 006	1	0.2%	
E02002338 : Leeds 009	1	0.2%	
E02002341 : Leeds 012	1	0.2%	
E02002343 : Leeds 014	1	0.2%	
E02002351 : Leeds 022	1	0.2%	
E02002354 : Leeds 025	1	0.2%	
E02002359 : Leeds 030	1	0.2%	
E02002364 : Leeds 035	1	0.2%	
E02002368 : Leeds 039	1	0.2%	
E02002396 : Leeds 067	1	0.2%	
E02002408 : Leeds 079	1	0.2%	
E02002409 : Leeds 080	1	0.2%	
E02002414 : Leeds 085	1	0.2%	
E02002417 : Leeds 088	1	0.2%	
E02002418 : Leeds 089	1	0.2%	
E02002428 : Leeds 099	1	0.2%	
E02002429 : Leeds 100	1	0.2%	
E02002430 : Leeds 101	1	0.2%	
E02002432 : Leeds 103	1	0.2%	
E02002436 : Leeds 107	1	0.2%	
E02002330 : Leeds 001	0	0.0%	
E02002332 : Leeds 003	0	0.0%	
E02002334 : Leeds 005	0	0.0%	
E02002337 : Leeds 008	0	0.0%	
E02002339 : Leeds 010	0	0.0%	
E02002340 : Leeds 011	0	0.0%	
E02002342 : Leeds 013	0	0.0%	
E02002344 : Leeds 015	0	0.0%	
E02002345 : Leeds 016	0	0.0%	
E02002346 : Leeds 017	0	0.0%	
E02002347 : Leeds 018	0	0.0%	
E02002348 : Leeds 019	0	0.0%	
E02002349 : Leeds 020	0	0.0%	
E02002350 : Leeds 021	0	0.0%	
E02002353 : Leeds 024	0	0.0%	
E02002360 : Leeds 031	0	0.0%	
E02002361 : Leeds 032	0	0.0%	
E02002362 : Leeds 033	0	0.0%	
E02002363 : Leeds 034	0	0.0%	
E02002366 : Leeds 037	0	0.0%	
E02002369 : Leeds 040	0	0.0%	
E02002370 : Leeds 041	0	0.0%	
E02002373 : Leeds 044	0	0.0%	
E02002374 : Leeds 045	0	0.0%	
E02002375 : Leeds 046	0	0.0%	
E02002376 : Leeds 047	0	0.0%	
E02002377 : Leeds 048	0	0.0%	
E02002379 : Leeds 050	0	0.0%	
E02002380 : Leeds 051	0	0.0%	
E02002381 : Leeds 052	0	0.0%	
E02002382 : Leeds 053	0	0.0%	
E02002383 : Leeds 054	0	0.0%	
E02002385 : Leeds 056	0	0.0%	
E02002388 : Leeds 059	0	0.0%	
E02002389 : Leeds 060	0	0.0%	
E02002398 : Leeds 069	0	0.0%	
E02002401 : Leeds 072	0	0.0%	
E02002403 : Leeds 074	0	0.0%	
E02002405 : Leeds 076	0	0.0%	
E02002406 : Leeds 077	0	0.0%	
E02002407 : Leeds 078	0	0.0%	
E02002415 : Leeds 086	0	0.0%	
E02002421 : Leeds 092	0	0.0%	
E02002423 : Leeds 094	0	0.0%	
E02002426 : Leeds 097	0	0.0%	
	506		

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Wakefield



Assumed population centroid

Barnsley



Calderdale



Bradford



Kirklees: 017



● Assumed Zone Centroid

Kirklees: 024



Kirklees: 010



Kirklees: 014



Kirklees: 016



Kirklees: 013



Kirklees: 002

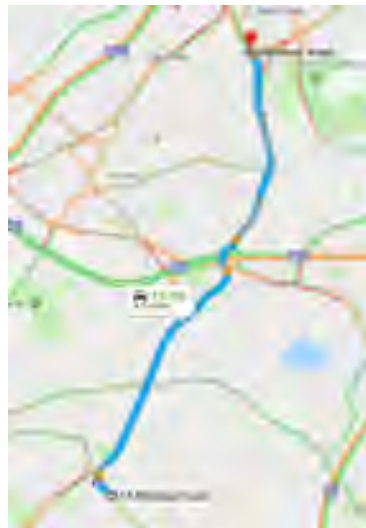


Leeds: 111

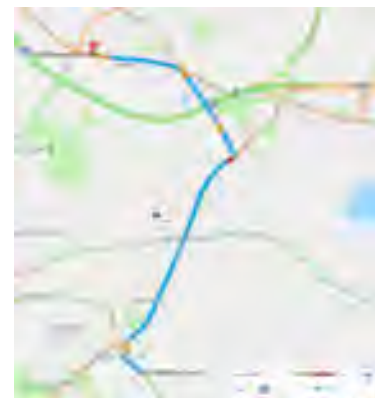


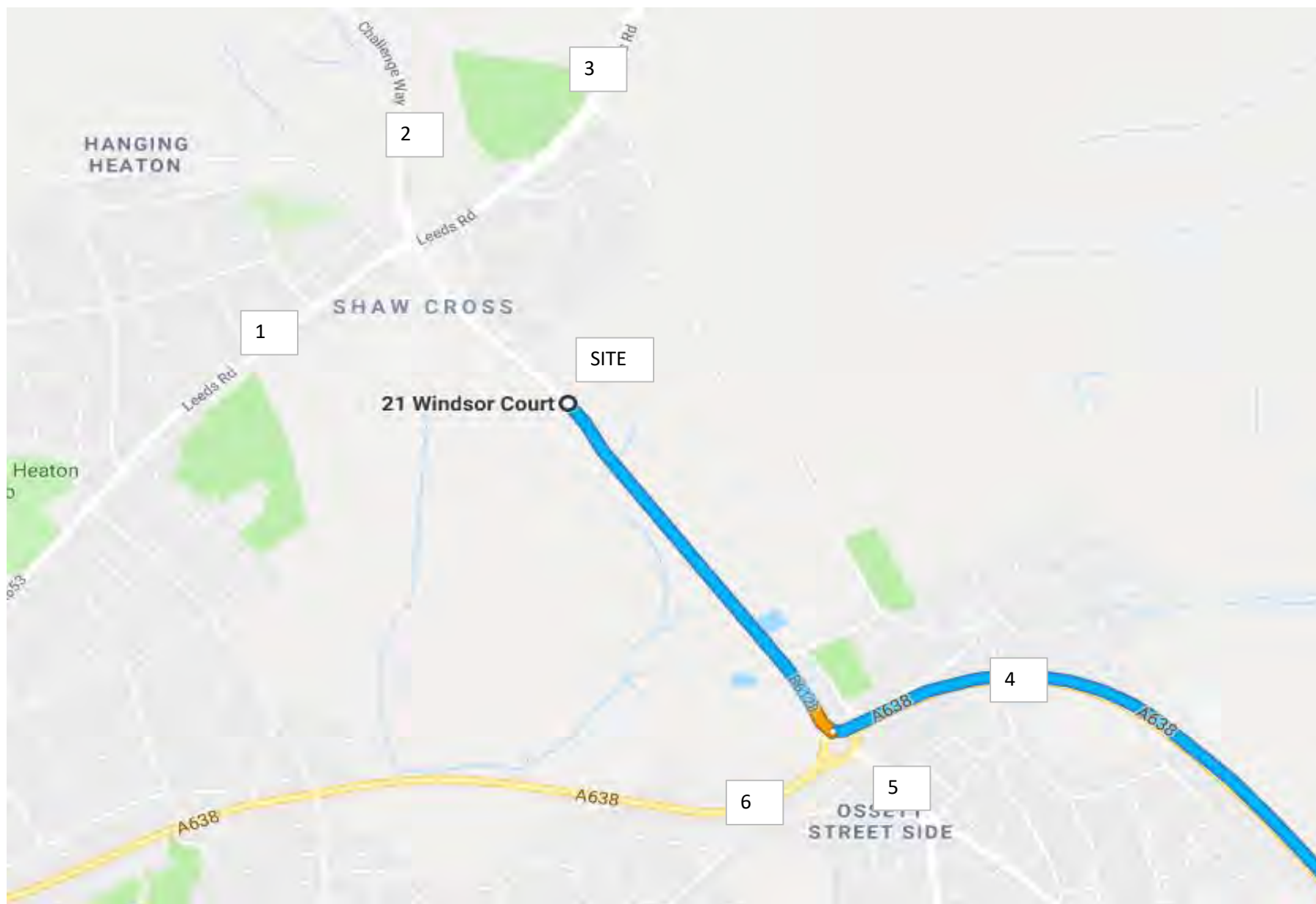
● Assumed Zone Centroid

Leeds: 093



Leeds: 106





WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

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population
units
date
usual residence

place of work : 2011 census merged local authority district	Driving a car or van		
		%	
Kirklees	909	53.1%	
Leeds	389	22.7%	
Wakefield	256	15.0%	
Bradford	73	4.3%	
Calderdale	42	2.5%	
Barnsley	25	1.5%	
Sheffield	18	1.1%	
	1,712	100.0%	

Zone

4

3

3

4

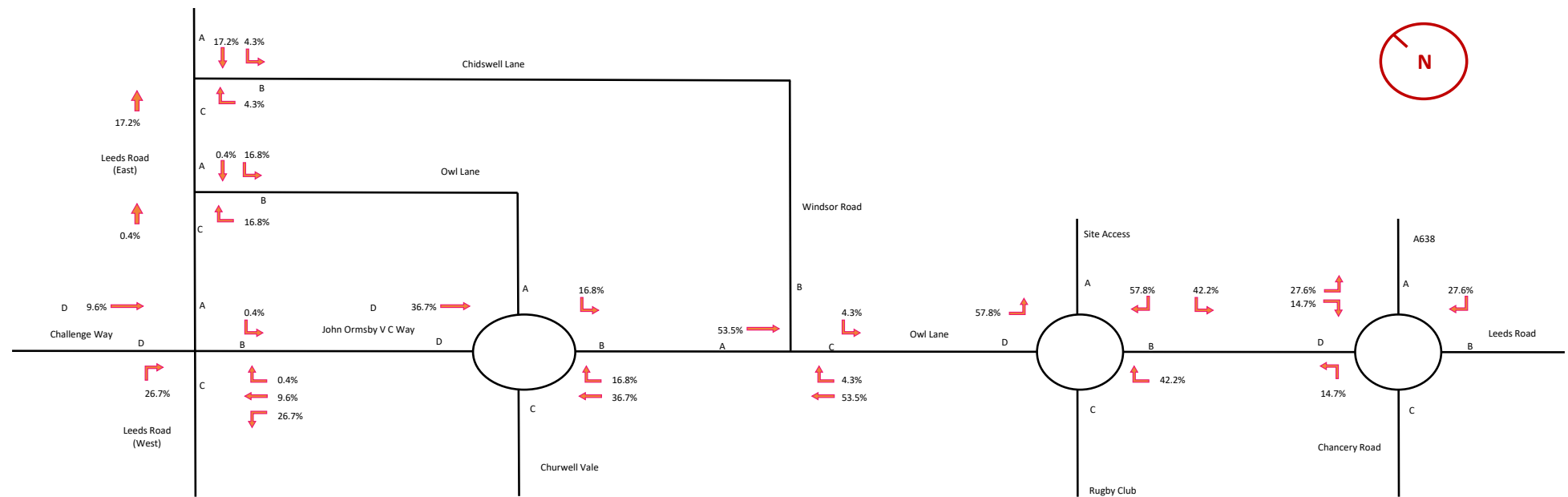
4

place of work : 2011 super output area - middle layer	Driving a car or van	%	Zone
E02002287 : Kirklees 017	138	14.4%	1,6
E02002294 : Kirklees 024	88	9.2%	1,6
E02002280 : Kirklees 010	72	7.5%	2
E02002284 : Kirklees 014	72	7.5%	1
E02002286 : Kirklees 016	56	5.8%	1,6
E02002283 : Kirklees 013	43	4.5%	1
E02002272 : Kirklees 002	41	4.3%	2,3
	510	53.1%	

Zone	total distribution
1	26.7%
2	9.6%
3	21.5%
4	27.6%
5	0.0%
6	14.7%
Total	100.0%

Rotherham	9	0.3%
Harrogate	8	0.2%
Doncaster	6	0.2%
York	5	0.1%
Selby	5	0.1%
East Riding of Yorkshire	4	0.1%
County Durham	3	0.1%
Rossendale	3	0.1%
Salford	3	0.1%

place of work : 2011 super output area - middle layer	Driving a car or van	%	Zone
E02006875 : Leeds 111	52	10.1%	4
E02002422 : Leeds 093	34	6.6%	3
E02002435 : Leeds 106	31	6.0%	3
		22.7%	



OWL LANE, CHIDSWELL

FIGURE 3
PERCENTAGE DISTRIBUTION FLOWS
(FLOWS IN PCUs)

