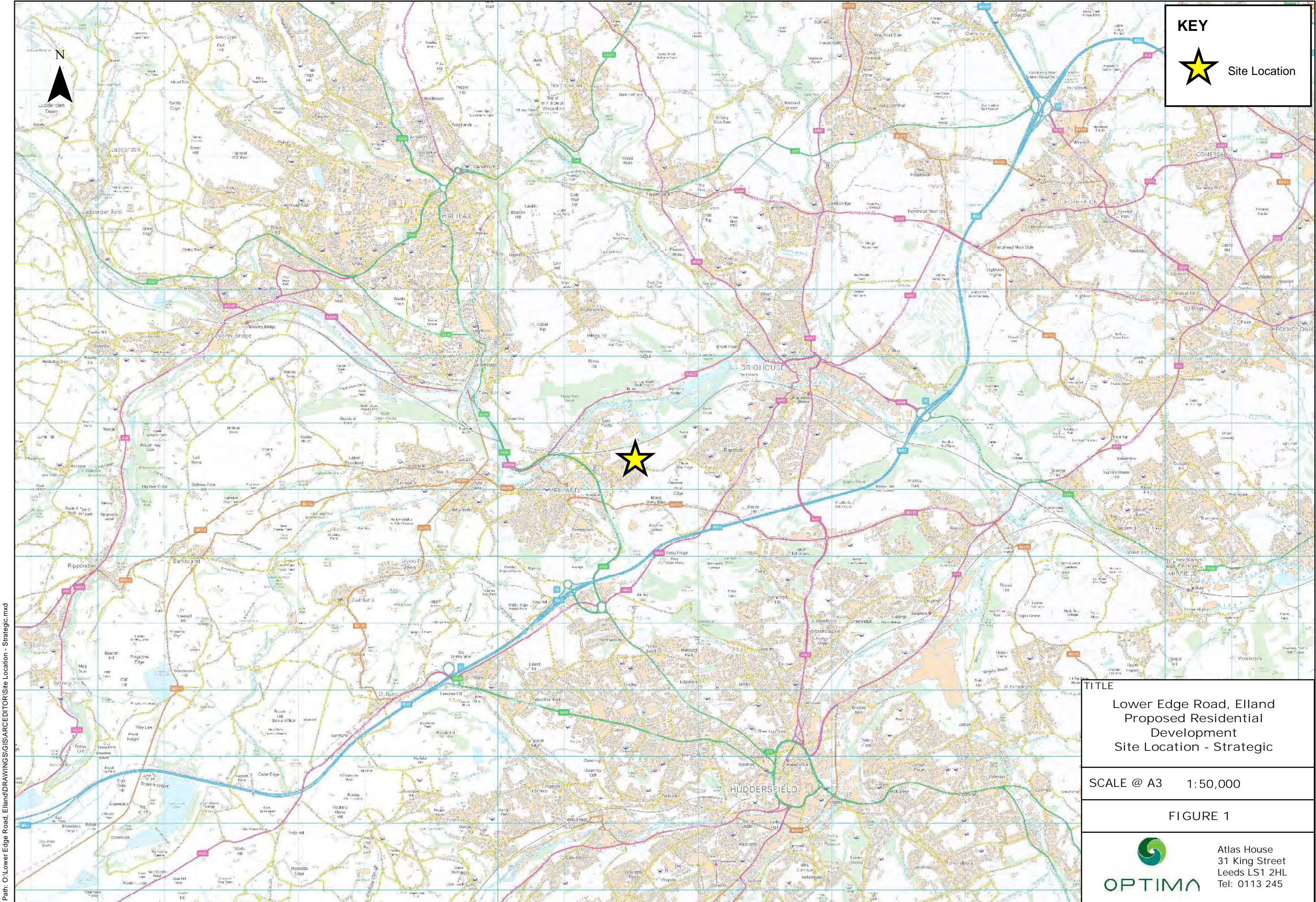


# Figures





**KEY**

 Site Location

Path: O:\Lower Edge Road, Elland\DRAWINGS\GIS\ARCEDITOR\Site Location - Strategic.mxd

**TITLE**

Lower Edge Road, Elland  
Proposed Residential  
Development  
Site Location - Strategic

SCALE @ A3 1:50,000

FIGURE 1

 **OPTIMA**

Atlas House  
31 King Street  
Leeds LS1 2HL  
Tel: 0113 245



**KEY**

— Indicative Site Boundary

Path: C:\Lower Edge Road, Elland\DRAWINGS\GIS\ARCEDITOR\Site Location - Local.mxd

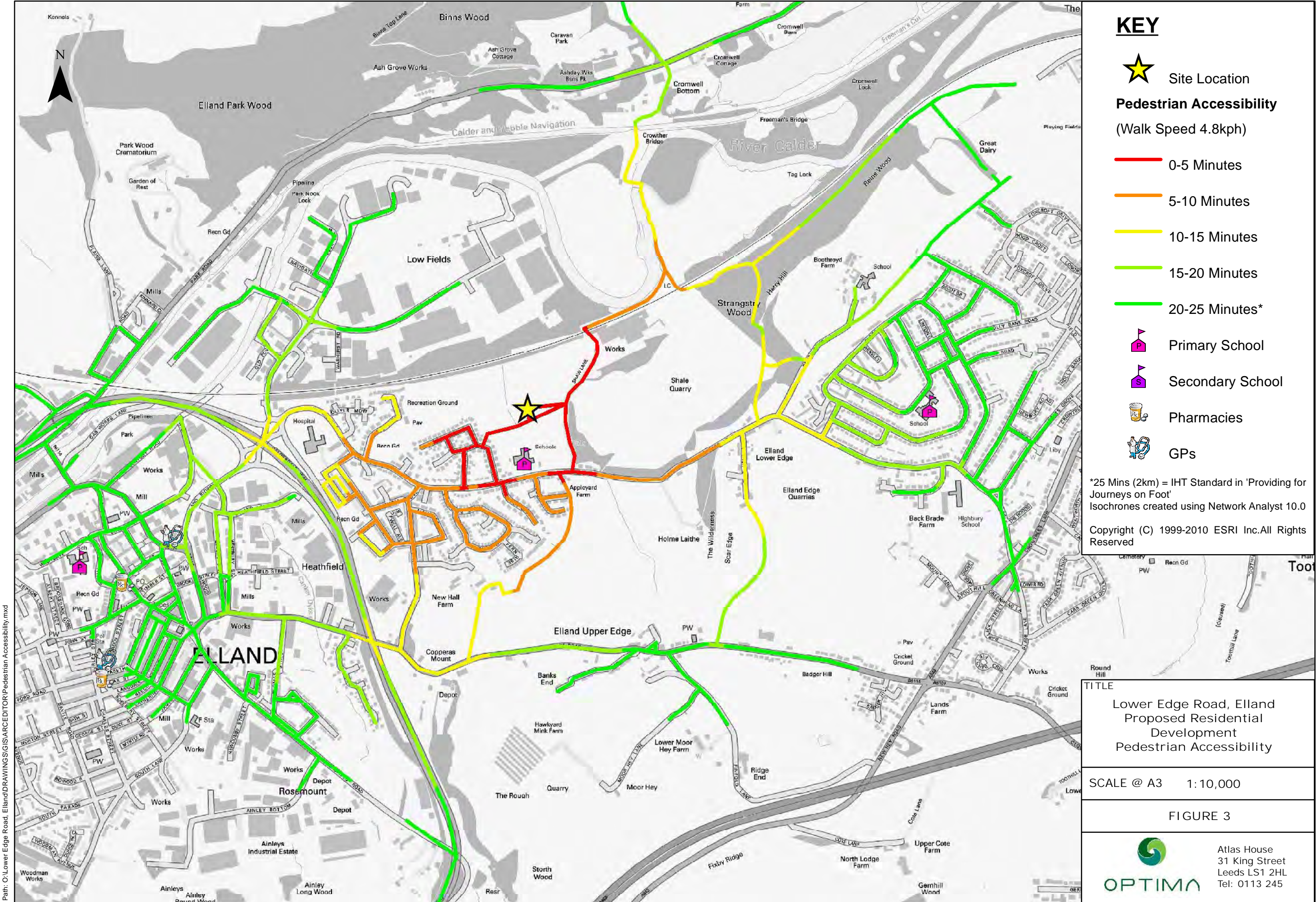
**TITLE**  
 Lower Edge Road, Elland  
 Proposed Residential  
 Development  
 Site Location - Local

SCALE @ A3 1:10,000











FIGURE 2



Atlas House  
 31 King Street  
 Leeds LS1 2HL  
 Tel: 0113 245



**KEY**

-  Site Location
- Pedestrian Accessibility**  
(Walk Speed 4.8kph)
-  0-5 Minutes
-  5-10 Minutes
-  10-15 Minutes
-  15-20 Minutes
-  20-25 Minutes\*
-  Primary School
-  Secondary School
-  Pharmacies
-  GPs

\*25 Mins (2km) = IHT Standard in 'Providing for Journeys on Foot'  
Isochrones created using Network Analyst 10.0

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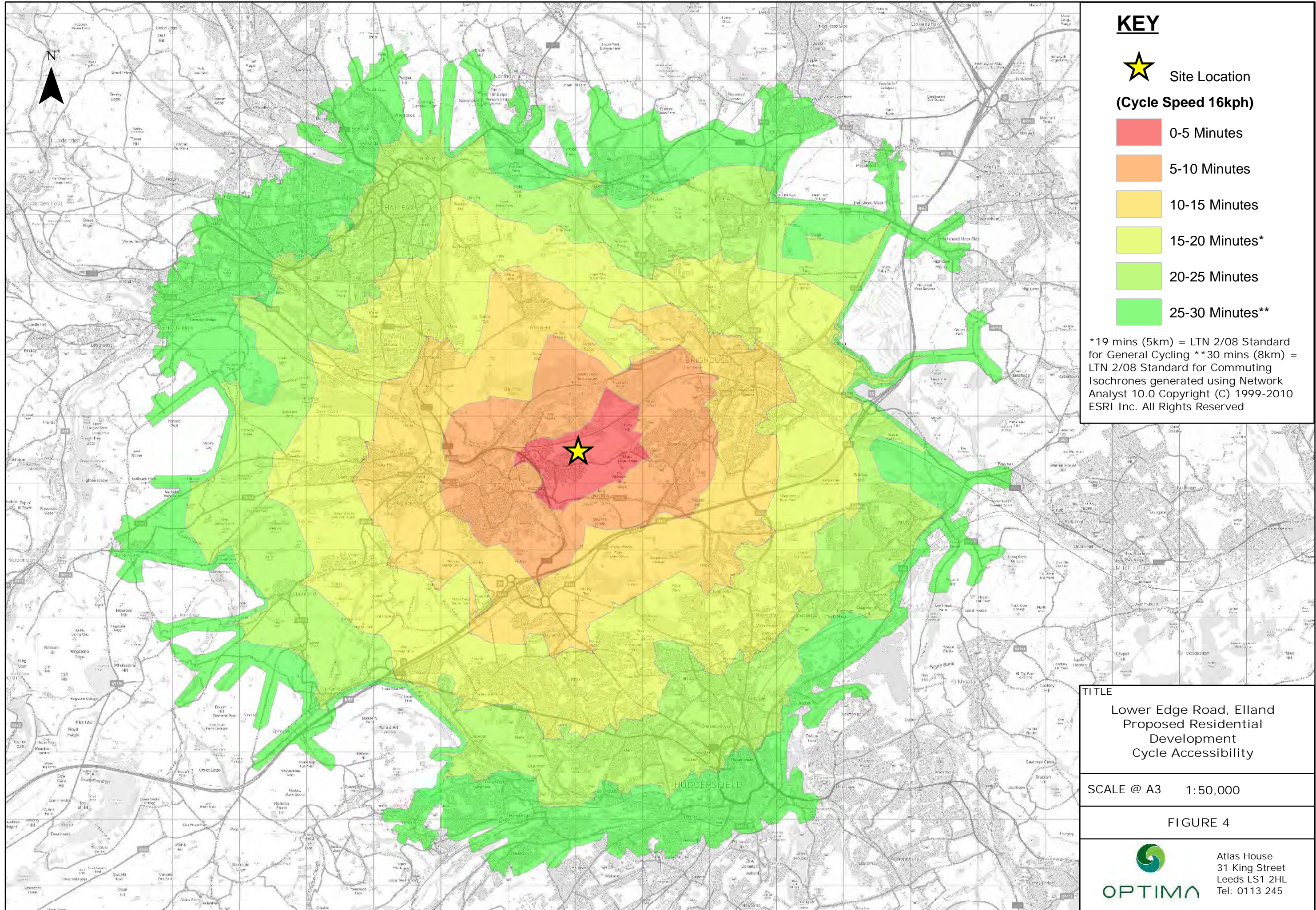
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**TITLE**  
Lower Edge Road, Elland  
Proposed Residential  
Development  
Pedestrian Accessibility

SCALE @ A3 1:10,000

**FIGURE 3**

 Atlas House  
31 King Street  
Leeds LS1 2HL  
Tel: 0113 245



**KEY**

-  Site Location
- (Cycle Speed 16kph)**
-  0-5 Minutes
-  5-10 Minutes
-  10-15 Minutes
-  15-20 Minutes\*
-  20-25 Minutes
-  25-30 Minutes\*\*

\*19 mins (5km) = LTN 2/08 Standard for General Cycling \*\*30 mins (8km) = LTN 2/08 Standard for Commuting  
 Isochrones generated using Network Analyst 10.0 Copyright (C) 1999-2010 ESRI Inc. All Rights Reserved

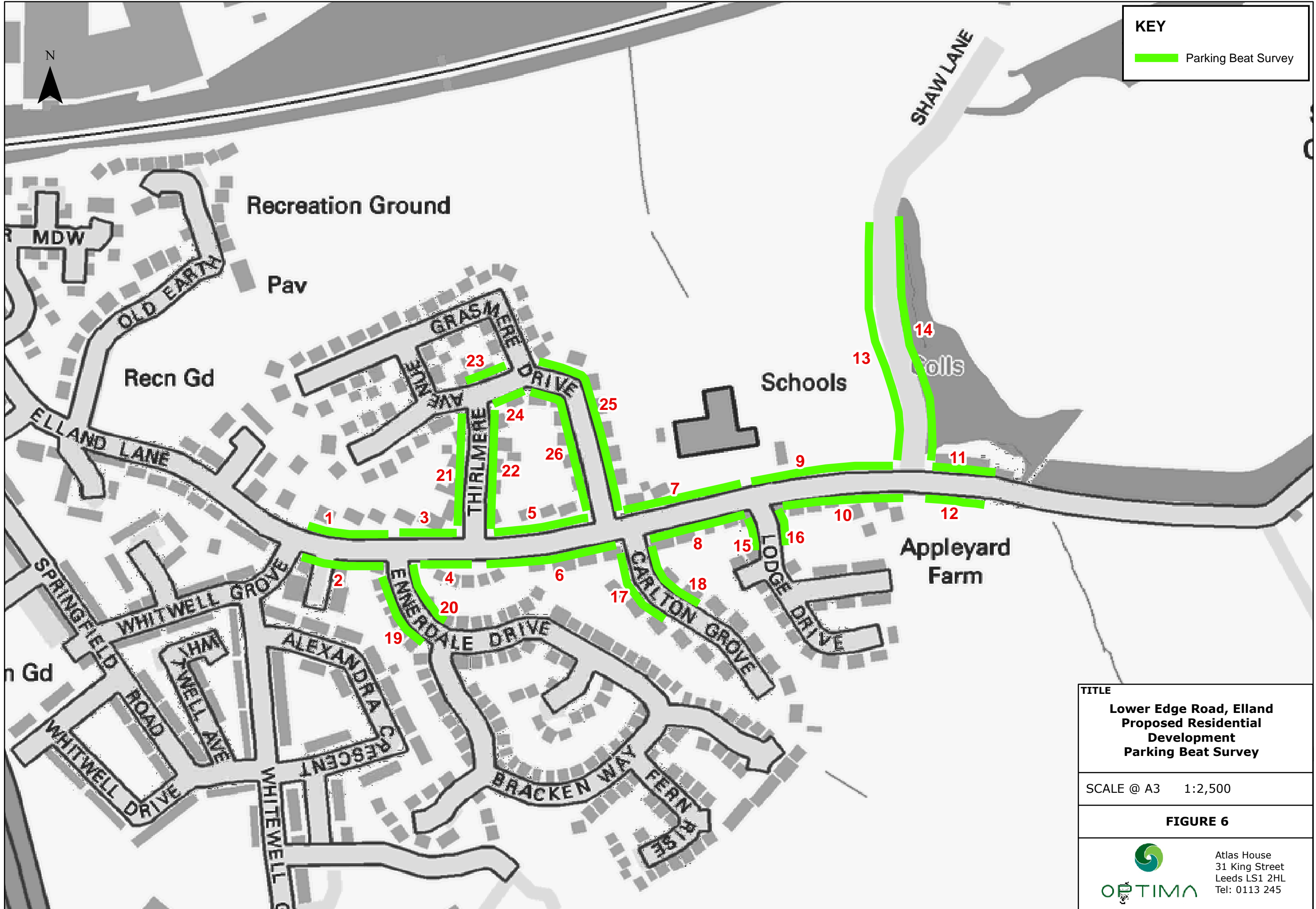
Path: C:\Lower Edge Road, Elland\DRAWING\GIS\ARCEDITOR\Cycle Accessibility.mxd

**TITLE**  
 Lower Edge Road, Elland  
 Proposed Residential  
 Development  
 Cycle Accessibility

SCALE @ A3 1:50,000

FIGURE 4

 **OPTIMA**  
 Atlas House  
 31 King Street  
 Leeds LS1 2HL  
 Tel: 0113 245



**KEY**

█ Parking Beat Survey

**TITLE**  
 Lower Edge Road, Elland  
 Proposed Residential  
 Development  
 Parking Beat Survey

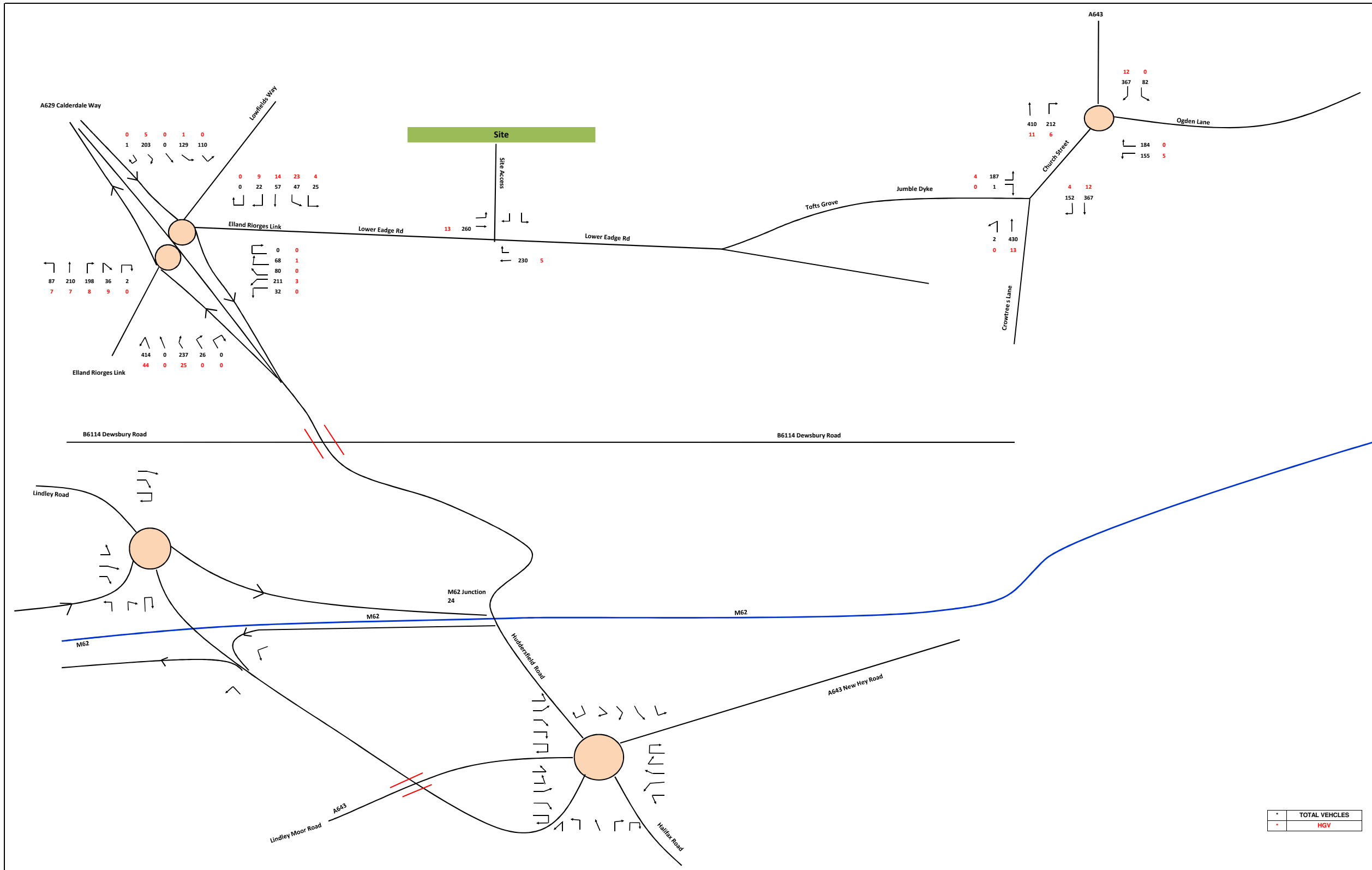
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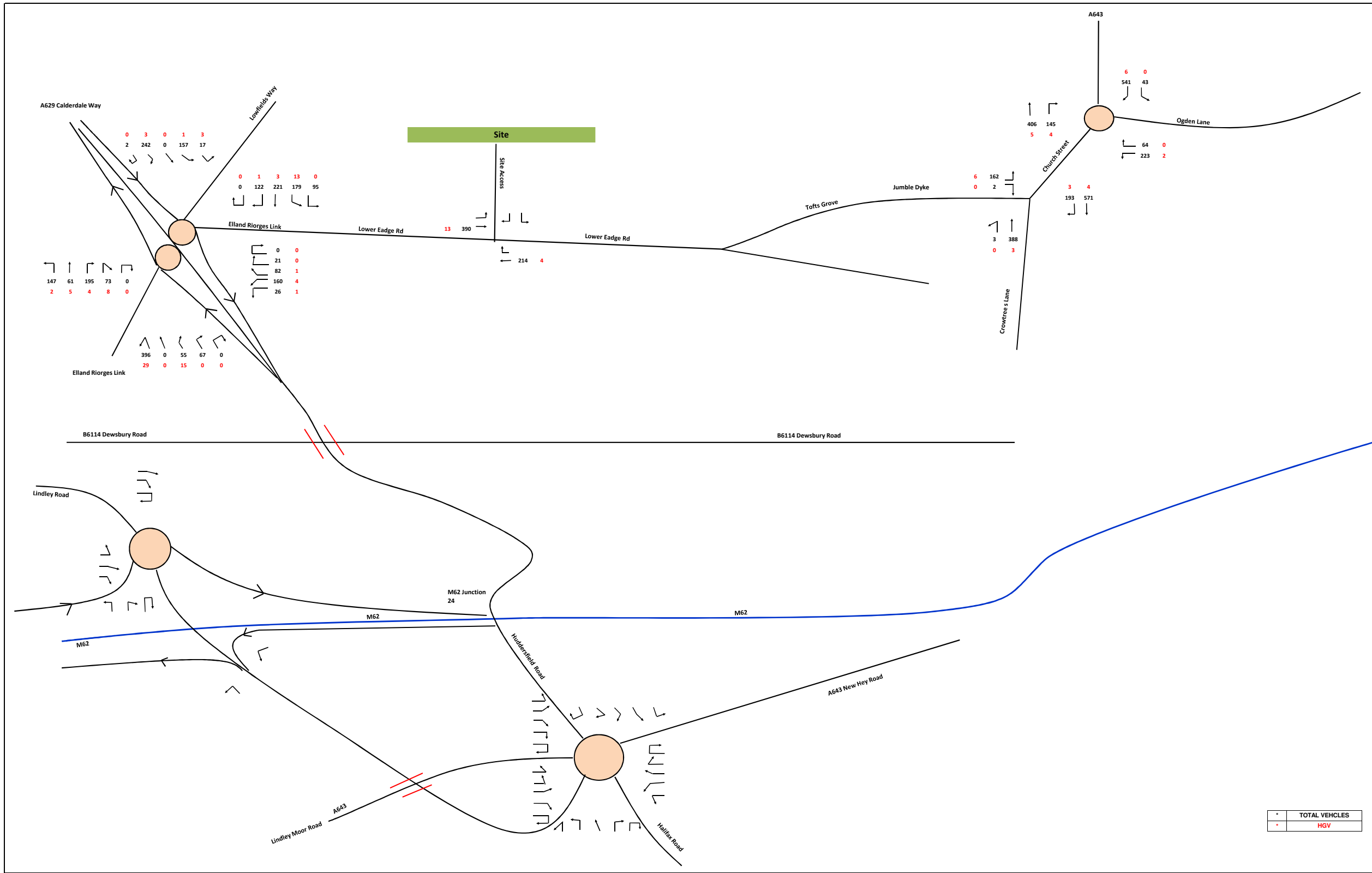
**FIGURE 6**



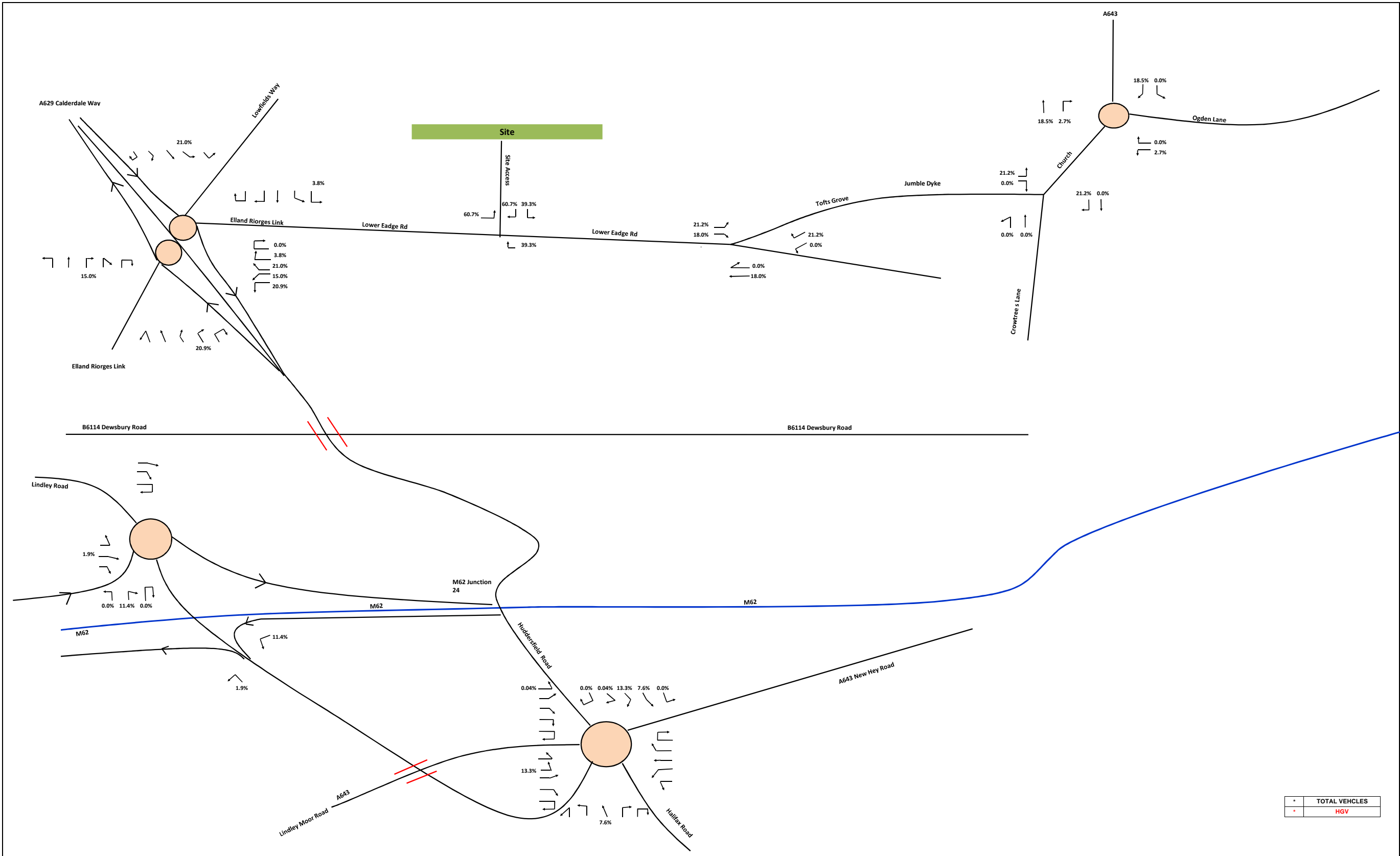
Atlas House  
 31 King Street  
 Leeds LS1 2HL  
 Tel: 0113 245

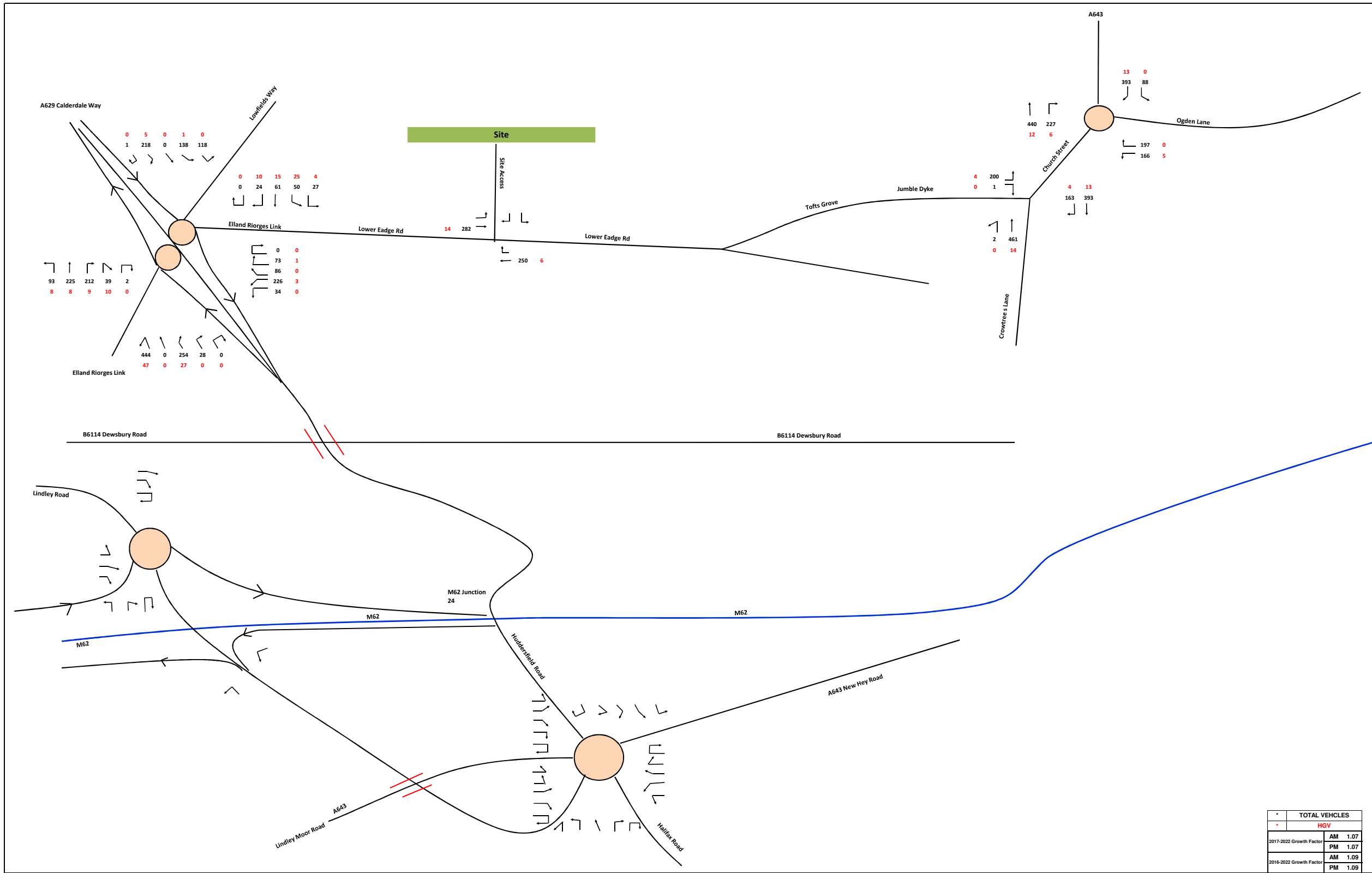
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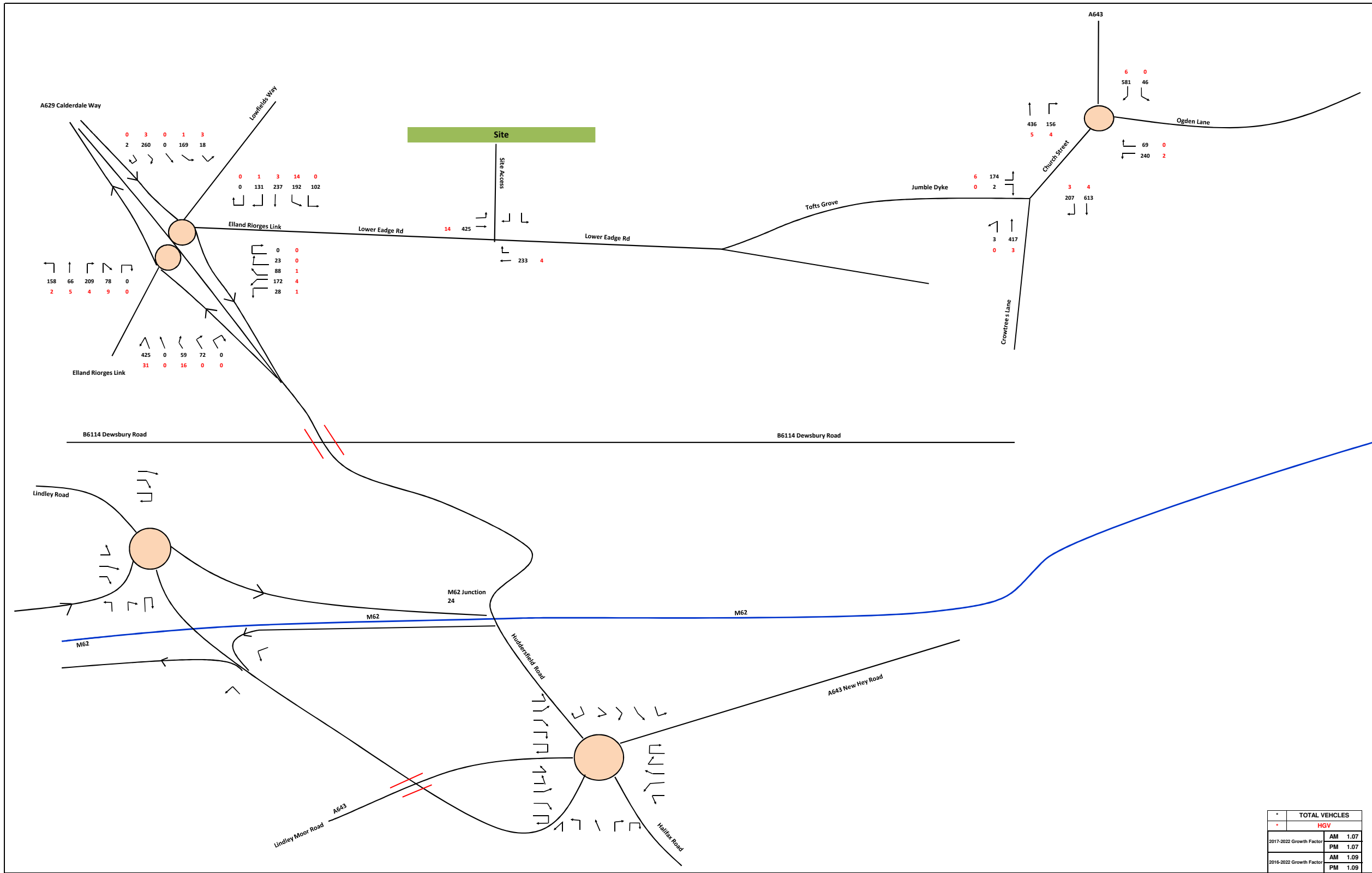










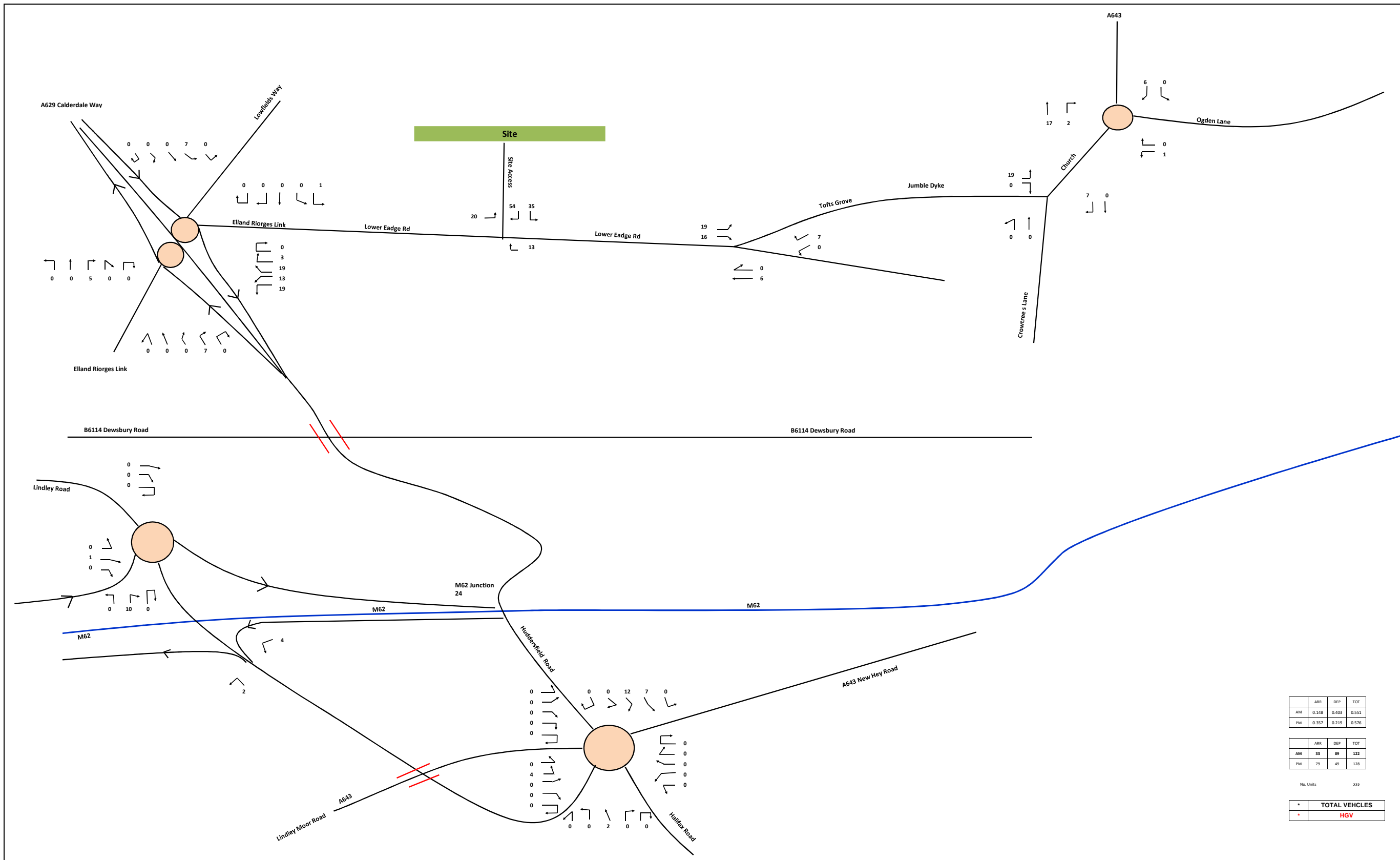


TOTAL VEHICLES	
-	HGV
2017-2022 Growth Factor	AM 1.07
	PM 1.07
2016-2022 Growth Factor	AM 1.09
	PM 1.09



PM PEAK 2022 BASE (16:45 -17:45)

FIGURE: 105



	ARR	DEP	TOT
AM	0.148	0.403	0.551
PM	0.357	0.219	0.576

	ARR	DEP	TOT
AM	33	89	122
PM	79	49	128

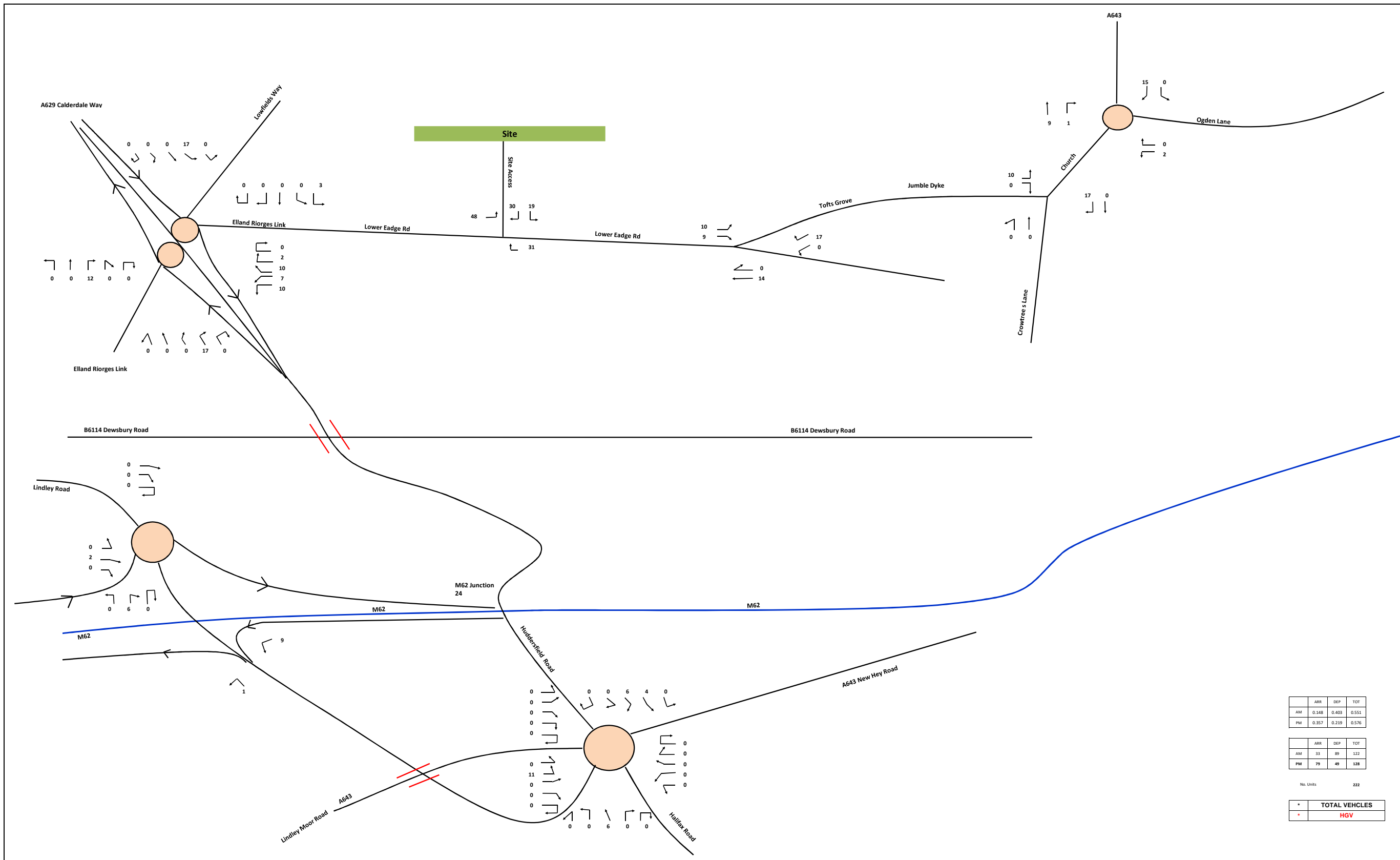
No. Units: 222

*	TOTAL VEHICLES
*	HGV



AM PEAK TRIP GENERATION (08:00-09:00) - RESIDENTIAL

FIGURE: 106



	ARR	DEP	TOT
AM	0.148	0.403	0.551
PM	0.357	0.219	0.576

	ARR	DEP	TOT
AM	33	89	122
PM	79	49	128

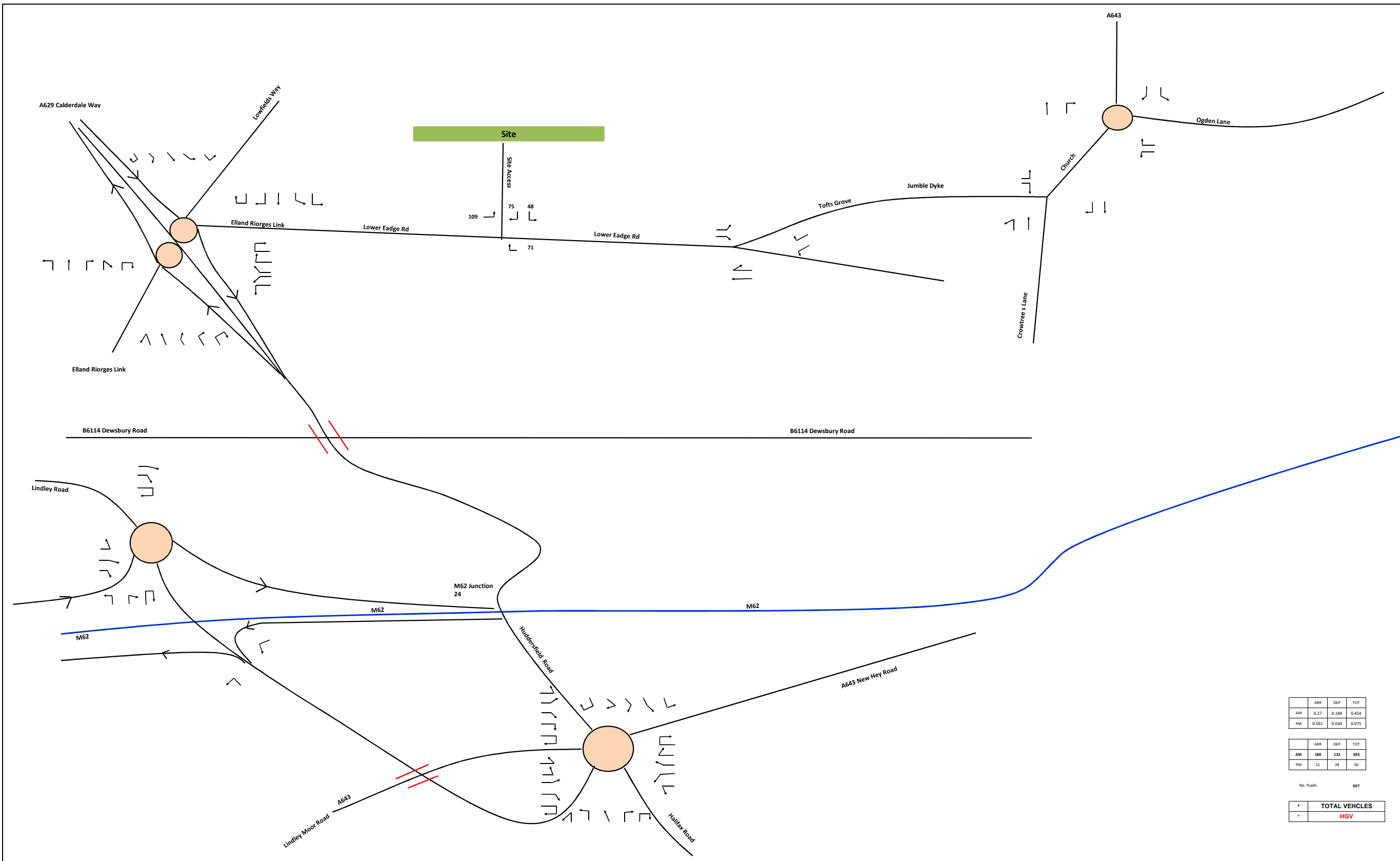
No. Units: 222

*	TOTAL VEHICLES
*	HGV



PM PEAKTRIP GENERATION (16:45 -17:45) - RESIDENTIAL

FIGURE: 107



	ARR	DEP	TOT
AM	0.27	0.184	0.454
PM	0.031	0.044	0.075

	ARR	DEP	TOT
AM	180	123	303
PM	21	29	50

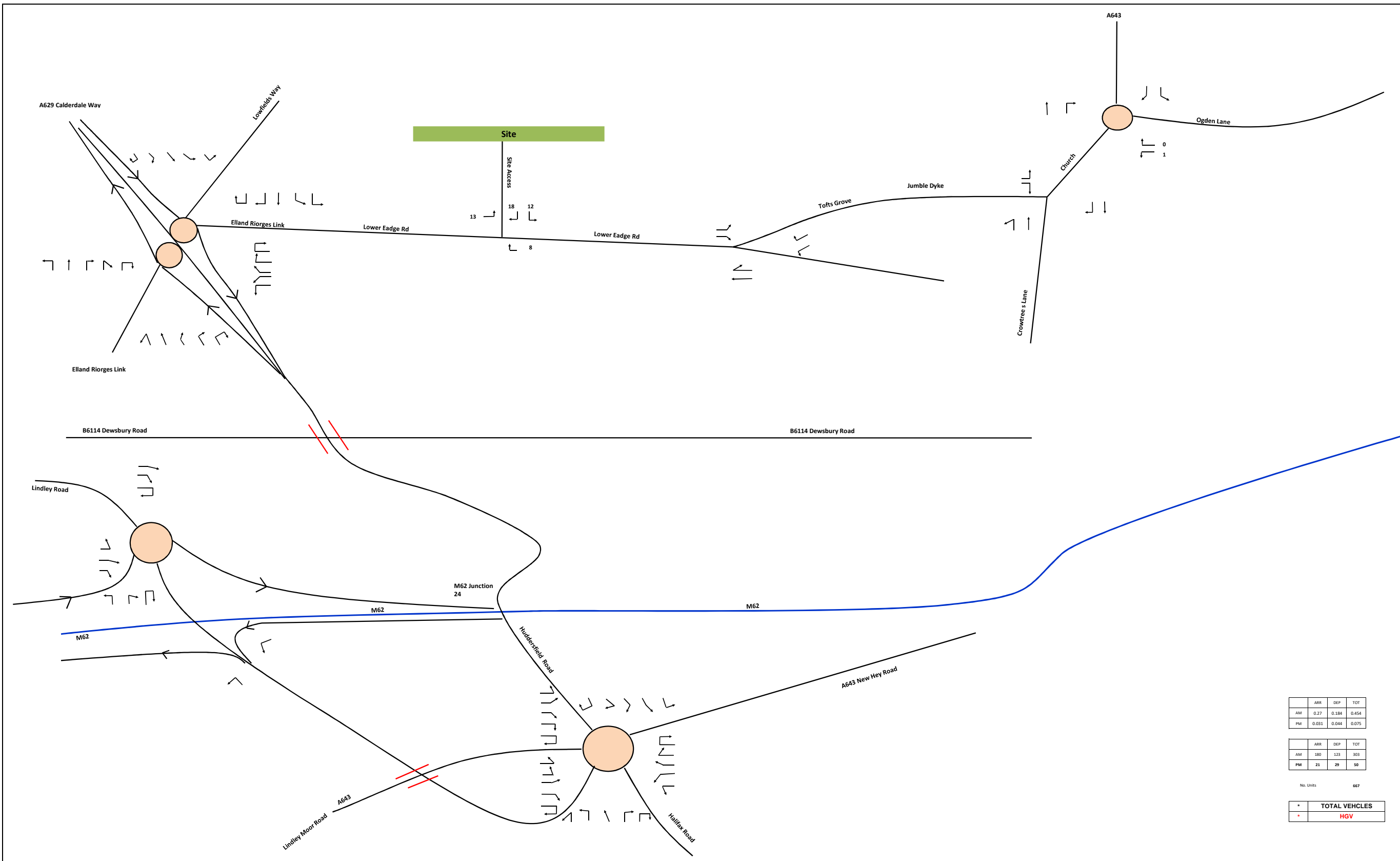
No. Pupils: 667

*	TOTAL VEHICLES
.	HGV



AM PEAK TRIP GENERATION (08:00-09:00) - SCHOOL

FIGURE: 108



	ARR	DEP	TOT
AM	0.27	0.184	0.454
PM	0.031	0.044	0.075

	ARR	DEP	TOT
AM	180	123	303
PM	21	29	50

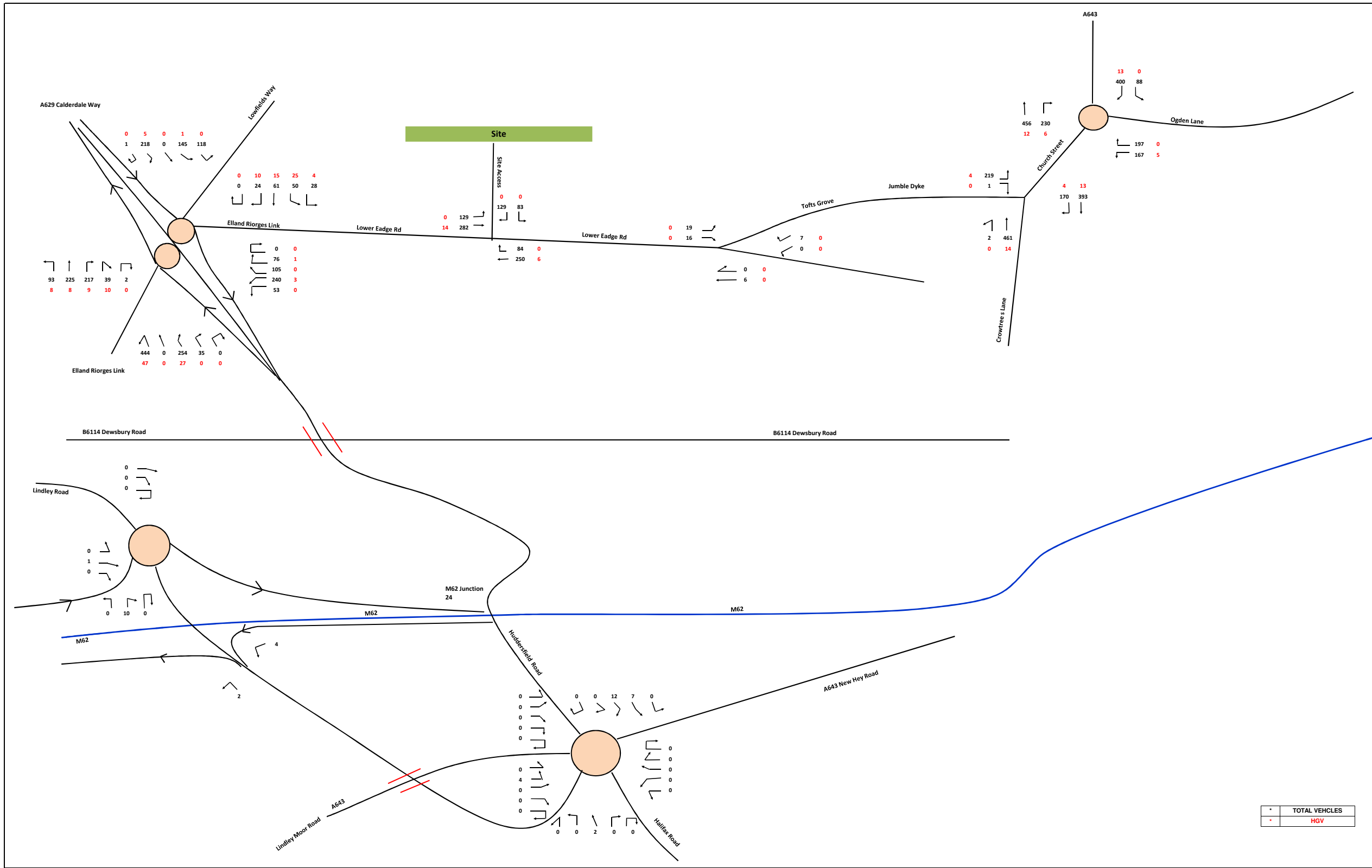
No. Units: 667

*	TOTAL VEHICLES
*	HGV

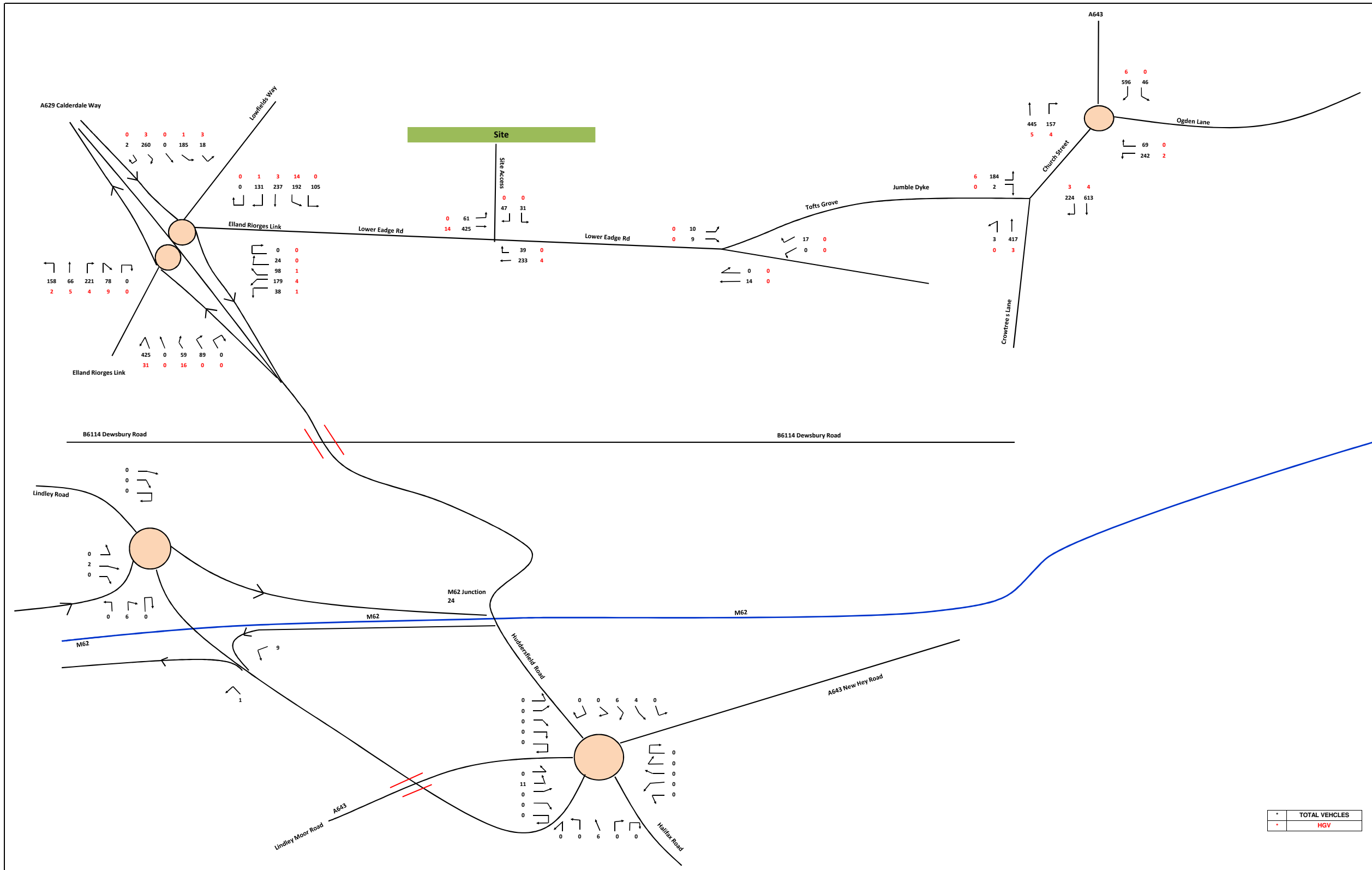


PM PEAK TRIP GENERATION (16:45 -17:45) - SCHOOL

FIGURE: 109





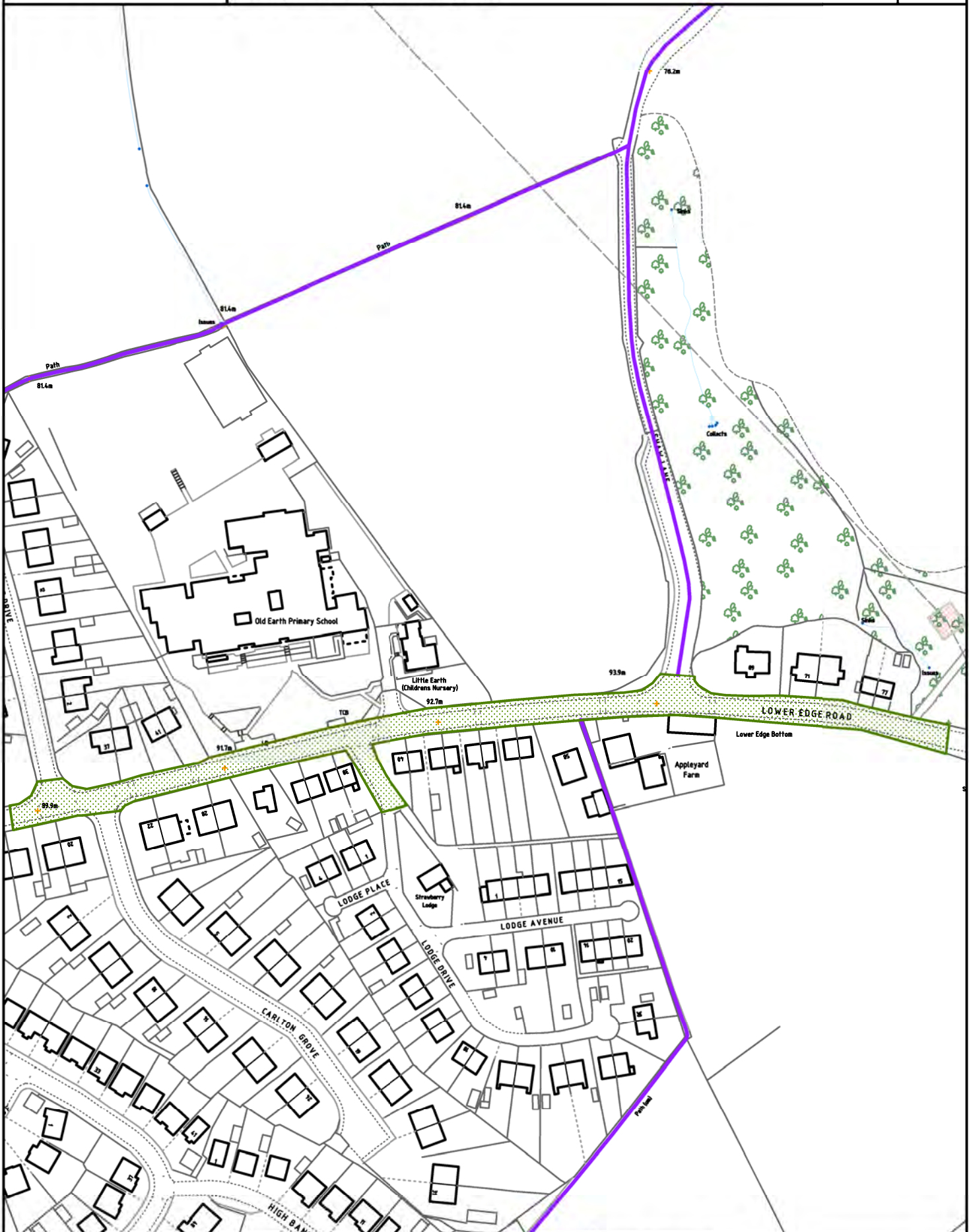


# Appendices



## Appendix A Highway Adoption





# Appendix B PRow Extract





Low Fields

Tag Lock

LC

Strangstry Wood

Harry Hill

Boothroyd Farm

School

Works

Shale Quarry

Recreation Ground

Pav

Recn Gd

Schools

Colls

School

Elland Lower Edge

Elland Edge Quarries

Appleyard Farm

Back Brade Farm

Highbur School

Holme Laithe

The Wilderness

Scar Edge

Back Brade Farm

Highbur School

## Appendix C Vehicle Speed Survey



Lower Edge Road, Elland - Speed Survey (Wednesday 26th July 2017)

Weather Conditions - Rain/Road Surface - Wet

Westbound

19	11	17	13	10	17	16	23	13	17
15	19	12	14	17	12	19	23	19	27
24	15	19	28	15	17	19	15	13	24
13	19	21	15	24	28	12	21	15	19
20	23	13	22	14	19	24	15	18	21
15	27	35	17	14	15	20	18	14	18
13	26	21	31	18	23	31	21	18	28
16	33	22	18	24	21	26	15	17	26
13	17	14	18	19	14	29	15	19	22
16	30	15	20	17	12	15	22	14	21
19	13	18	13	16	23	20	18	27	18
18	19	22	28	12	18	24	20	18	14
20	22	18	15	19	25	18	15	21	18
13	19	24	17	14	23	19	21	15	12
17	25	19	13	28	19	15	20	12	19
14	16	31	18	15	26	10	15	25	20
13	23	26	15	18	28	22	19	17	18
20	16	18	20	23	16	21	17	15	19
19	21	16	23	20	15	26	20	15	12
16	18	23	19	16	18	12	25	21	18

Max - 35

Min - 10

85% - 24

Ave - 19

Sp. Limit - 20

19 - Cars/LGV's

15 - HGV's/PSV's



## Weather Conditions - Rain/Road Surface - Wet

### Eastbound

25	18	26	18	22	20	17	23	21	18
16	17	19	23	17	20	24	15	22	24
19	24	15	19	22	18	20	25	16	23
23	18	21	23	19	32	25	20	28	33
20	23	18	20	16	14	19	23	18	20
16	20	17	19	12	17	31	19	16	21
14	25	18	29	15	20	17	23	20	15
21	16	13	20	25	14	24	19	28	25
25	15	20	17	19	20	16	23	19	16
17	16	21	23	17	24	15	18	23	16
16	21	18	15	28	22	19	23	20	18
19	17	24	18	23	20	21	18	23	14
18	15	18	20	25	19	22	20	30	23
16	23	20	15	21	18	15	16	21	13
21	14	16	21	15	25	17	20	18	15
15	19	17	15	16	21	14	20	16	13
18	15	12	23	12	15	17	12	15	16
13	16	14	19	15	21	14	16	19	20
16	19	17	20	13	16	19	13	18	15
18	15	19	28	16	18	19	14	19	16

**Max - 33**

**Min - 12**

**85% - 23**

**Ave - 19**

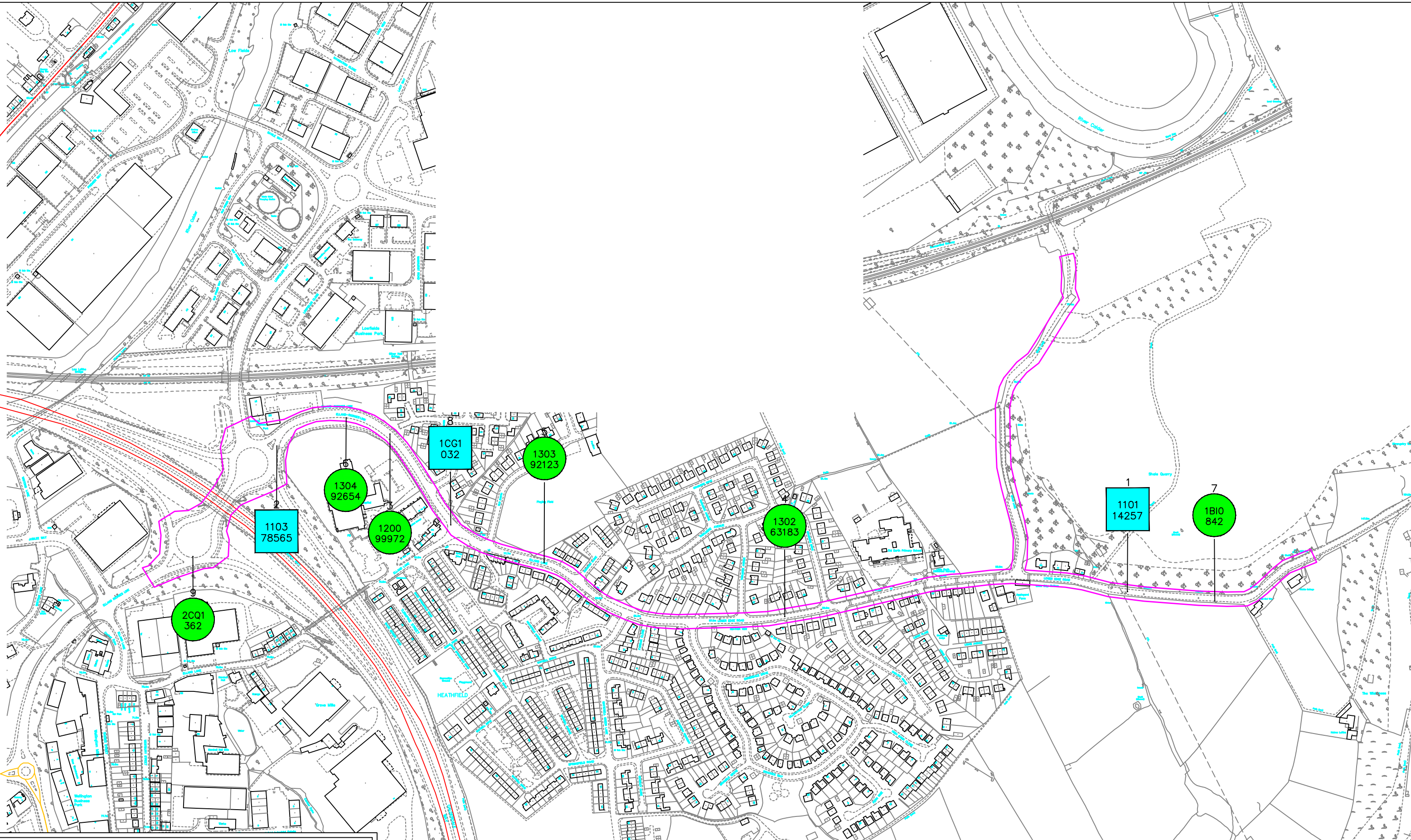
**Sp. Limit - 20**

**25 - Cars/LGV's**


**18 - HGV's/PSV's**

## Appendix D Personal Injury Accident Data





Lower Edge Road, Elland.  
 Injury collisions from 01.01.2011 to date.  
 Run 17.02.2016 N.T.S.

	Key
	▲ Fatal    ■ Serious    ● Slight    P indicates pedestrian
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For reference purposes only. No further copies may be made

Lower Edge Road, Elland 2011 to date. 17/02/2016.

ACCIDENT SEVERITY UPTO 2016

	2011	2012	2013	2014	2015	2016	Total
Fatal	0%	0	0	0	0	0	0
Serious	33%	2	0	0	1	0	3
Slight	67%	0	1	3	1	1	6
<b>TOTAL</b>		<b>2</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>9</b>

WEATHER

	No.	%
Fine	7	78
Rain	1	11
Rain Wind	1	11
<b>TOTAL</b>	<b>9</b>	

ROAD SURFACE

	Number	%
Dry	4	44
Wet	5	56
<b>TOTAL</b>	<b>9</b>	

LIGHT CONDITIONS

	Number	%
Light	6	67
Dark	3	33
<b>TOTAL</b>	<b>9</b>	

PEDESTRIAN ACCIDENTS No. 0 % 0

SKIDDING ACCIDENTS No. 1 % 11

ACCIDENTS BY DAY AND TIME

	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
00:00 - 00:59	0	0	0	0	0	0	0	0
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	0	0	0	0	0
06:00 - 06:59	0	0	0	0	0	0	0	0
07:00 - 07:59	0	0	0	0	0	0	0	0
08:00 - 08:59	0	0	0	0	0	0	0	0
09:00 - 09:59	0	0	0	0	0	0	0	0
10:00 - 10:59	0	0	0	0	0	0	1	1
11:00 - 11:59	0	0	0	1	0	0	0	1
12:00 - 12:59	0	0	0	0	1	0	1	2
13:00 - 13:59	0	0	0	0	0	0	0	0
14:00 - 14:59	0	0	1	0	0	0	0	1
15:00 - 15:59	0	0	0	0	0	0	0	0
16:00 - 16:59	0	0	1	0	0	0	0	1
17:00 - 17:59	0	0	0	0	0	0	0	0
18:00 - 18:59	0	0	0	0	0	0	1	1
19:00 - 19:59	0	0	1	0	0	0	0	1
20:00 - 20:59	0	0	0	0	0	0	0	0
21:00 - 21:59	0	0	0	0	0	0	0	0
22:00 - 22:59	1	0	0	0	0	0	0	1
23:00 - 23:59	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>9</b>
%	11%	0%	33%	11%	11%	0%	33%	100%

ACCIDENTS BY MONTH AND YEAR UPTO 2016

	2011	2012	2013	2014	2015	2016	Total
Jan	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0
Mar	1	1	0	0	0	0	2
Apr	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0
June	0	0	1	0	0	0	1
July	0	0	0	0	0	0	0
Aug	1	0	0	0	0	0	1
Sep	0	0	1	0	0	0	1
Oct	0	0	0	0	0	0	0
Nov	0	0	1	1	0	0	2
Dec	0	0	0	1	1	0	2
<b>TOTAL</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>9</b>
%	22%	11%	33%	22%	11%	0%	100%

**CASUALTY SEVERITY UPTO 2016**

	2011	2012	2013	2014	2015	2016	Total
<b>Fatal</b>	0	0	0	0	0	0	<b>0</b>
<b>Serious</b>	2	0	0	1	0	0	<b>3</b>
<b>Slight</b>	0	2	3	1	1	0	<b>7</b>
<b>TOTAL</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>10</b>

**JUNCTION DETAIL**

	Number	%
Roundabout and mini T or staggered	1	11
Slip road	2	22
Not at junction	1	11
<b>TOTAL</b>	<b>5</b>	<b>56</b>

**JUNCTION CONTROLS**

	Number	%
Give way sign	4	44
Not at junction	5	56
<b>TOTAL</b>	<b>9</b>	

**CASUALTIES BY TYPE AND AGE GROUPING**

	0 to 4	5 to 15	16 to 19	20 to 29	30 to 59	60 Plus	Total	%
Pedal cyclist	0	0	0	0	2	0	2	20
Car driver	0	0	0	1	4	2	7	70
Car passenger	0	0	0	1	0	0	1	10
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>6</b>	<b>2</b>	<b>10</b>	
%	0	0	0	20	60	20		

Number of Casualties with unknown age: 0

**SPEED LIMIT**

	Number	%
20 MPH	1	11
30 MPH	8	89
<b>TOTAL</b>	<b>9</b>	

**ROAD CLASS**

	Number	%
A	1	100
<b>TOTAL</b>	<b>1</b>	

**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	0	0	0	2	0	0	2	14
Car	0	0	1	7	3	1	12	86
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>9</b>	<b>3</b>	<b>1</b>	<b>14</b>	
%	0	0	7	64	21	7		

**VEHICLE MANOEUVRES**

	Number	%
Starting	2	14
Turning right	1	7
Overtaking moving veh on its offside	1	7
Going ahead left hand bend	1	7
Going ahead other	9	64
<b>TOTAL</b>	<b>14</b>	

**BREATH TEST**

	Number	%
Not applicable	2	14
Positive	1	7
Negative	6	43
Not requested	3	21
Driver not contacted	1	7
Medical reasons	1	7
<b>TOTAL</b>	<b>14</b>	

Lower Edge Road, Elland 2011 to date. 17/02/2016.

**110114257** SERIOUS 10/03/2011 12:18 412308/421291 Lower Edge Road, 120 Metres East of Shaw Lane, Greetland, Halifax

Driver of V1 Travelling down Lower Edge Road Approaching Traffic Calming Chicanes. it Appears the Driver Failed to See the Traffic Calming Measures and Drives into an Illuminated Hazard Warning Sign.

Vehicles	From	To	Driver	Breath Test	Casualties	Veh	Sex	Age	Ped direction to
1 Car	E	W	Male	77 Not provided	1 Driver/Rider	SERIOUS	1	Male	77
<b>Contributory Factors</b>									
Failed to look properly	V001 V.likely	Loss of control			V001 V.likely	Stationary or parked vehicle			V001 Possible

**110378565** SERIOUS 16/08/2011 19:10 411315/421461 Elland-Riorges Link Jw Lowfields Way, Elland

Veh 1 Travels down Elland-Riorges Link to the Roundabout Junction Veh 1 Travels Around Sweeping left Hand Bend and Loses Control Striking Raised Area at the Junction and Striking Lamp Post.

Vehicles	From	To	Driver	Breath Test	Casualties	Veh	Sex	Age	Ped direction to
1 Car	NE	W	Female	38 Positive	1 Driver/Rider	SERIOUS	1	Female	38
<b>Contributory Factors</b>									
Too fast for conditions	V001 V.likely	Impaired by alcohol			V001 Possible				

**120099972** SLIGHT 03/03/2012 10:44 411447/421475 Elland Riorges Link, Near Lower Edge Road, Elland

V1 Negotiated the R.About at the Bottom of Elland Riorges Link & Travelled up the Road Towards Lower Edge Road. V1 Driver Believed it to Be a Dual C.Way as she Had Just Come off One. she Travelled in O/S Lane Intending to Turn right Higher up the Road. she Saw a Car Behind her Flashing its Headlights & when she Looked ahead V2 was Approaching Her. she Swerved to Avoid Colling with V2 but was Unable to Avoid the Collision & Collided with V2.

Vehicles	From	To	Driver	Breath Test	Casualties	Veh	Sex	Age	Ped direction to
1 Car	NW	SE	Female	25 Negative	1 Driver/Rider	SLIGHT	1	Female	25
2 Car	SE	NW	Male	62 Negative	2 Driver/Rider	SLIGHT	2	Male	62
<b>Contributory Factors</b>									
Failed to look properly	V001 V.likely	Poor turn or manoeuvre			V001 V.likely				

Lower Edge Road, Elland 2011 to date. 17/02/2016.

**130263183** SLIGHT 26/06/2013 11:48 411908/421262 Lower Edge Road, Halifax

Veh 2 Travels on Lower Edge Road Towards Halifax. Veh 1 Travels Behind Veh 2. Veh 2 Brakes to Negotiate a Bend. Veh 1 Collides into the Rear of Veh 2

Vehicles		From	To	Driver	Breath Test	Casualties		Veh	Sex	Age	Ped direction to
1	Car	W	E	Male	-1 Not requested	1 Driver/Rider	SLIGHT	2	Female	48	
2	Car	W	E	Female	48 Negative						

**Contributory Factors**

Sudden braking V001 V.likely Loss of control V001 Possible Following too close V001 V.likely

**130392123** SLIGHT 22/09/2013 22:05 411627/421325 Elland Lane at House Name Spring Gardens at Junction with Elland Lane, Elland

V1 Driving on Elland Lane, in Direction of Elland. Driver of V1 Has Tried to Take a Corner and Lost Control of V1. V1 Has Collided with Spring Gardens Public House Causing Injury to C1 (Passenger).

Vehicles		From	To	Driver	Breath Test	Casualties		Veh	Sex	Age	Ped direction to
1	Car	SE	NW	Male	30 Not contacted	1 Passenger	SLIGHT	1	Male	21	

**Contributory Factors**

**130492654** SLIGHT 30/11/2013 12:10 411396/421494 Elland - Riorges link, Elland

V1 Travels Along Elland Lane Negotiating a Sweeping L/H Bend Heading Towards Roundabout. V2 Travelling in Same Direction Overtakes V1 when N/S Wing Mirror of V2 Connects with Handlebar on V1 Causing Rider to Fall from Vehicle Receiving Injury.

Vehicles		From	To	Driver	Breath Test	Casualties		Veh	Sex	Age	Ped direction to
1	Pedal Cycle	SE	W	Male	44 Not applicable	1 Driver/Rider	SLIGHT	1	Male	44	
2	Car	SE	W	Male	49 Not requested						

**Contributory Factors**

Following too close V002 V.likely Passing too close V002 V.likely



Lower Edge Road, Elland 2011 to date. 17/02/2016.

**1BI0842** SLIGHT 18/11/2014 14:45 412410/421280 Lower Edge Road

SINGLE VEHICLE RTC (V001). V001 HAS BEEN TRAVELLING DOWN LOCUS WHICH IS A RELATIVELY STEEP GRADIENT AND TIGHT RIGHT HAND BEND. AS DRIVER HAS BEEN NEGOTIATING THE RIGHT HAND BEND FROM HER PERSPECTIVE AN UNIDENTIFIED HGV HAS BEEN TRAVELLING TOWARDS HER AND CROSSED INTO HER LANE WHICH HAS CAUSED HER TO TAKE AVOIDING ACTION BUT DURING THIS ACTION SHE HAS OVERCORRECTED AND LOST CONTROL. THE VEHICLE HAS SKIDDED TO THE NEARSIDE, ROTATED ANTICLOCKWISE 90 DEGREES AND COLLIDED F/O/S AGAINST A DRYSTONE WALL AND METAL GATE TO A FIELD AND CAUSED EXTENSIVE DAMAGE TO BOTH. MINOR INJURIES ONLY.

Vehicles	From	To	Driver	Breath Test	Casualties	Veh	Sex	Age	Ped direction to			
1 Car	Going ahead other	E	W	Female	30	Negative	1	Driver/Rider	SLIGHT	1	Female	30

**Contributory Factors**  
 Loss of control V001 V.likely Slippery road due to weather V001 Possible

**1CG1032** SERIOUS 16/12/2014 16:53 411518/421369 Junction of Elland Lane and Riorges Link

V1 is pedal cycle travelling north west on main carriageway going straight ahead. V2 is private motor car travelling south east on main carriageway waiting to turn right onto side road. V1 collides into V2 causing injury to rider.

Vehicles	From	To	Driver	Breath Test	Casualties	Veh	Sex	Age	Ped direction to			
1 Pedal Cycle	Going ahead other	NW	SW	Male	36	Not applicable	1	Driver/Rider	SERIOUS	1	Male	36
2 Car	Turning right	SE	NW	Male	62	Negative						

**Contributory Factors**  
 Failed to look properly V002 V.likely Careless, reckless or in a hurry V002 Possible

**2CQ1362** SLIGHT 26/12/2015 18:22 411217/421332 Junction of A629 Calderdale Way and Elland Riorges Link

V1 and V2 are both exiting Calderdale way and now approaching the roundabout that leads on to Elland Riorges Link. V1 collides with the rear of V2 causing minor damage, to both vehicles. Driver of V2 alights his vehicle and starts to take photo's of the driver and vehicle involved. Driver of V1 drives off, possibly hitting the driver of V2 and causing him to hit the floor and sustain injuries. Driver of V1 phones the police once at home, log 1387, this is 16 mins after the incident. When breathalysed gives a reading of 0ug.

Vehicles	From	To	Driver	Breath Test	Casualties	Veh	Sex	Age	Ped direction to			
1 Car	Starting	SE	W	Male	47	Negative	1	Driver/Rider	SLIGHT	2	Male	36
2 Car	Starting	SE	W	Male	36	Not requested						

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