

# A660 Otley Road

06/09/2018



## HEADINGLEY DEVELOPMENT TRUST HGV COUNT – AUGUST 2018



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## DOCUMENT IDENTIFICATION TABLE

Headingley Development Trust
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### Executive Summary

*On 15<sup>th</sup> August 2018 volunteers spent the day counting Heavy Goods Vehicles (HGVs) on the A660 in Headingley. The survey was arranged by Headingley Development Trust in response to concerns at the increase in the number of HGVs, particularly large aggregate and roadstone trucks from the quarries in North Yorkshire using the Otley Road as a short cut to the motorway network.*

*Over a 14 hour period from 6am to 8pm we observed just short of 680 HGVs, 365 traveling towards the city centre and a further 312 in the Lawnswood direction. There are over 5 hours in the day when an HGV passes through Headingley at a rate equivalent to a lorry every single minute in the hour.*

*Headingley residents are well aware of the heavy lorries rumbling past just a few feet from the pavements and shop fronts of Headingley, but these are not the only impacts. The Otley Road is also the busiest, (and most dangerous), road for cycling in Leeds, while air quality monitoring at the roadside in the centre of Headingley shows that particulate levels regularly exceed World Health Organisation guidelines.*

*Headingley Development Trust therefore welcomes the proposed Clean Air Zone and its potential impact on air quality on the A660 but is concerned that this alone will not be sufficient to fully address the adverse impacts of HGVs travelling through the centre of Headingley.*

***We ask Leeds City Council to acknowledge that the A660 through Headingley is not an appropriate through route for longer distance HGV traffic and to instigate a restriction on all HGV traffic except for local deliveries and vehicles whose journey starts or ends on the A660 between the ORR and the IRR.***

*We are also interested in exploring whether there is scope to work with some of the bigger retailers in Headingley to consider alternative, greener distribution measures, possibly as part of a Zero Carbon Headingley initiative or as part of any wider Leeds CC initiatives to look at more sustainable distribution options, such as Freight Consolidation Centres, which could provide a city-wide distribution network.*

*We would welcome Leeds CC response and views on this report.*

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# 1. INTRODUCTION

## 1.1 Background

Following a count of Heavy Goods Vehicles (HGVs) by Headingley residents in January 2018 which highlighted the extent of HGV traffic on the A660 Headingley Development Trust (HDT) arranged for a further count to be undertaken in August 2018.

The initial count was prompted by concerns that there appeared to be an increase in HGV traffic through Headingley with many of the trucks carrying roadstone or aggregate. While it was recognised that some HGV traffic is largely unavoidable, for example deliveries to the businesses operating out of the Arndale Centre, it appeared that many lorries may be using Headingley as the shortest route to and from the M1 and M621.

The purpose of the second count was to attempt to get a better understanding of how many HGVs use the A660 through Headingley by extending the previous nine hour count period (09.00-18.00) to fourteen hours, from 06.00 to 20.00, in order to capture any early morning and early evening HGV traffic.

**Figure 1. Aggregate Lorry Opposite Arndale Centre**



The findings of the count will be made available to the Council and will enable HDT and others to comment on the possible effect on noise and air quality, danger to other road users, especially pedestrians and cyclists, and on the general nuisance to those who live or work along their route.

## 1.2 The Count

The count was conducted in central Headingley on Wednesday 15<sup>th</sup> August 2018 by volunteers on behalf of HDT. While recognising that August is not a 'neutral' month in terms of overall traffic volumes because of the reduction in car traffic from school and university holidays there is no particular reason to believe that HGV traffic volumes are materially different at this time of year, although they are likely to form a slightly higher proportion of overall traffic as a consequence.

The count volunteers were provided with a briefing pack, including vehicle identification charts to ensure a consistent approach to the counting.

Appendix A contains the briefing pack, count forms and identification chart. Vehicles that fall into the categories of Other Goods Vehicles (OGV) 1 and OGV 2 were included in the count. All other vehicle types including Light Goods Vehicles (LGVs) were excluded.

Counts were grouped into 15 minute time periods and then summed for the hour. The majority of the counters were situated in central Headingley, between North Lane and Shaw Lane Junction and adjacent to the Arndale Centre<sup>1</sup>.

Appendix contains the full set of counts in 15 minute segments, split by direction.

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<sup>1</sup> HDT would like to thank the following volunteers who provided their time to conduct the HGV count: D& T Frost, R Harkess, J Williams, H Pickering, R Drewett, J Matthews, R Norton, B Walton, H Seymour, A Beswick. B Walton also kindly provided all of the photographs for this report with the exception of Figures 6 and 7.

## 2. RESULTS

### 2.1 Overview

Almost 680 HGV moments were counted over the 14 hour period, with slightly more vehicles travelling towards the city centre in the direction of the Inner Ring Road (IRR) than were travelling away from the city centre and towards the Outer Ring Road (ORR) at Lawnswood.

Prior to 9am this situation was reversed with more HGVs travelling outbound. As a number of them at this time of the day were empty aggregate lorries this is perhaps indicative of operators taking advantage of the relatively uncongested conditions on the A660 in that direction to route their journey back along the A660, compared to later in the day when congestion in Headingley makes other less-direct routes relatively more attractive.

Table 1 summarises the hourly counts in both directions, totalling 365 HGVs inbound and 312 outbound across the 14 hours of the count.

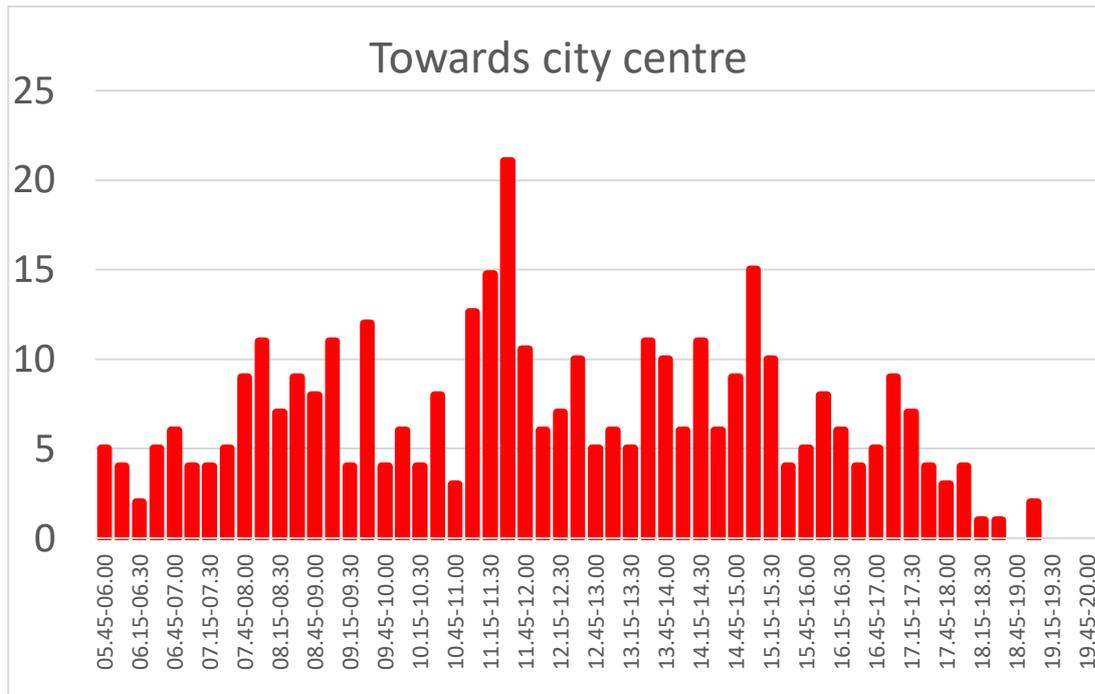
**Table 1. Summary Hourly Counts**

<b>A660 HGV Count</b>	<b>15/08/2018</b>	
	<b>To city centre</b>	<b>To Lawnswood</b>
6.00-7.00	17	19
7.00-8.00	22	35
8.00-9.00	35	43
9.00-10.00	31	26
10.00-11.00	21	23
11.00-12.00	59	41
12.00-13.00	28	32
13.00-14.00	32	29
14.00-15.00	32	30
15.00-16.00	34	17
16.00-17.00	23	8
17.00-18.00	23	7
18.00-19.00	6	0
19.00-20.00	2	2
<b>Total</b>	<b>365</b>	<b>312</b>

### 2.2 Detailed Analysis

Figures 2 to 4 break down the hourly totals to illustrate the 15 minute interval counts in each direction (Figures 2 and 3) and the combined two-way flow (Figure 4).

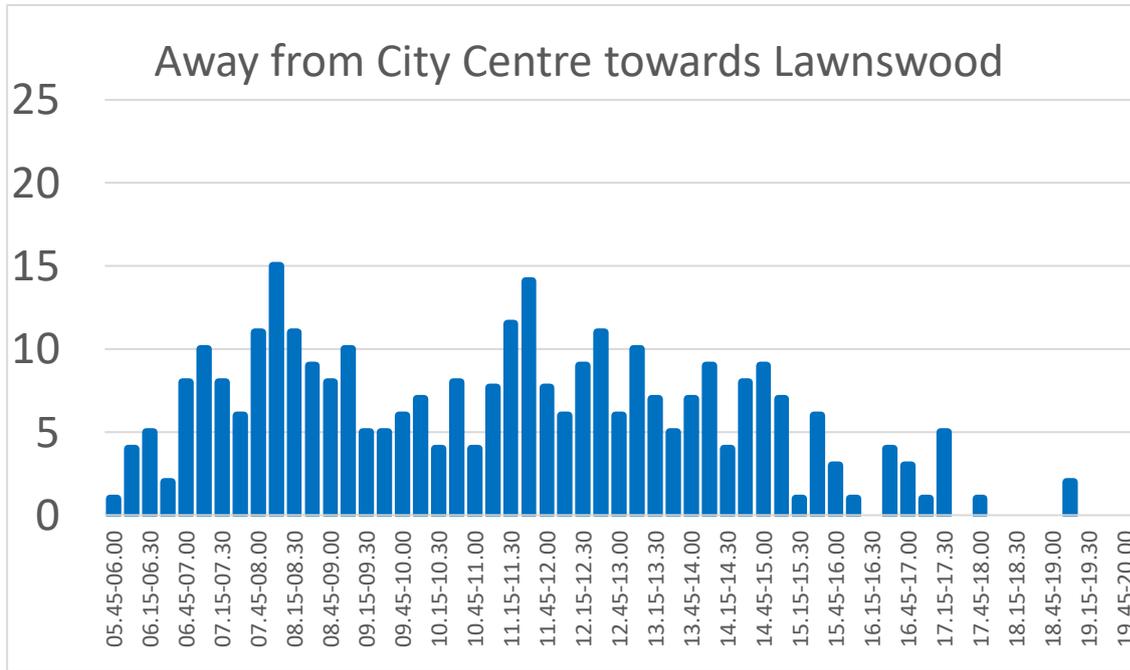
Figure 2. 15 Minute HGV Volumes – Towards City Centre



In bound towards the city centre (Figure 2) it is noticeable that the distribution of HGV traffic across the day doesn't conform to the pattern for general traffic with little sign of distinct morning and evening peaks but with a noticeable spike in the late morning. Traffic begins early, with five HGVs recorded between 05.45 and 06.00 prior to the start of the official count, and builds up to 09.45, but then peaks in the middle of the day. Volumes finally begin to tail off sharply after 18.15 in the evening. During the rest of the day there are few 15 minute periods where there aren't at least five HGVs travelling towards the city centre - equivalent to one every 3 minutes and there are three 15 minute periods when HGVs are heading down the A660 toward the city centre at the rate of one every minute.

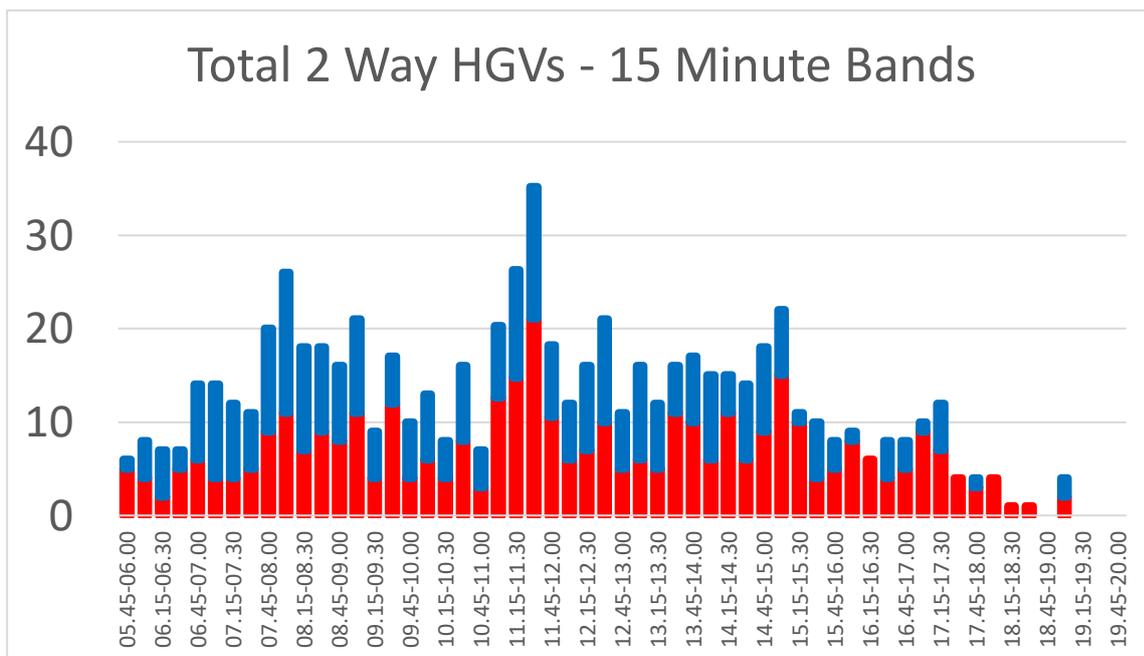
Outbound, shown in Figure 3 below, there is a noticeably different pattern, with early morning HGV traffic exceeding the inbound direction with the flow quickly building up to a peak of a vehicle every minute between 08.00 and 08.15. Through the middle of the day outbound HGV traffic averages around a vehicle every two minutes, before beginning to tail off after 15.00, earlier than the inbound HGV flows.

Figure 3. 15 Minute HGV Volumes – Away from City Centre



When the flows in each direction are combined in Figure 4, it is apparent that for much of the day there is an HGV vehicle passing through Headingley every minute.

Figure 4. 15 Minute HGV Volumes – Two Way



These conditions apply for the equivalent of five hours during the day on a weekday on the A660 and although the count was undertaken during the school holidays it is notable that this would be occurring during what would be the peak times for children and their carers travelling to school in the morning and then back from school in the afternoon.

**2.3 Aggregate Lorries**

Surveyors were not specifically tasked with identifying the proportion of HGV traffic that appeared to consist of aggregate or roadstone lorries however a number of surveyors did take a note of them, thus providing us with a snapshot of the volumes arising from this particular type of traffic.

Between 12.00 and 13.00 some 18 of the 60 lorries counted in that hour (30%) were vehicles carrying roadstone or aggregate (loaded or empty). Very early in the morning – between 05.45 and 06.00 - all 5 of the HGVs counted heading towards the city centre were loaded aggregate trucks (and were also noted as traveling quickly, almost certainly in excess of the speed limit down Headingley Hill).

Several surveyors noted that these lorries often appeared in small convoys of 2 or 3 vehicles, apparently travelling to and from the quarries together.

### 3. IMPACTS

#### 3.1 Street Environment

The A660 is one of the busier roads in Leeds, carrying around 18,100 vehicles per day in 2017. Traffic has been rising steadily, up from 16,600 in 2008<sup>2</sup>. It is no surprise then that the environment for pedestrians and shoppers in the retail centre of Headingley is dominated by its passing traffic. As Figure 5 illustrates the impact of HGVs passing a few metres away from the shop fronts is overwhelming.

Figure 5. Degraded Street Environment



#### 3.2 Air Quality and Health Impacts

These traffic volumes have a direct impact on the air quality of central Headingley. Particulate matter, known as PM2.5 and PM10, suspended in the air results from (amongst other things) emissions from diesel and petrol engines, friction from brakes and tyres, and dust from road surfaces. Central Headingley has a particulate matter monitoring station and figures presented by Alex Sobel MP show that it has recorded that particulate levels have exceeded World Health Organisation (WHO) guideline limits for PM2.5 every year since records began while PM10 levels exceeded the guidelines from 2012-2014 and remain at, or very close to the limits<sup>3</sup>.

Diesel engines tend to produce much higher levels of particulate matter than equivalent petrol engines. HGVs are diesel powered and while they constitute a relatively small proportion of the traffic and the level of emissions will vary significantly from vehicle to vehicle, as is the case for other vehicles, many of these vehicles have no need to be in central Headingley and are adding to what is already a significant health risk to local residents.

<sup>2</sup> Department for Transport count data

<sup>3</sup> <https://alexsobel.co.uk/wp-content/uploads/2018/02/Submission-for-CAZ.pdf>

### 3.3 Cyclists

By far the most effective way to reduce pollution caused by vehicles is to encourage alternative modes of transport, such as cycling. The A660 is the busiest road for cycling in Leeds. Official Department for Transport figures<sup>4</sup> show that the number of cyclists almost doubled from 634 per day in 2008 to over 1,200 in 2012, (although in the most recent count in 2017 this appeared to have dropped back to 922).

**Figure 6. Challenging Cycling Conditions – A660/Victoria Road**



Even with this apparent recent drop and the opening of the City Connect cycle superhighway between Leeds and Bradford it retains its position as being the most heavily cycled road in Leeds, despite the fact that provision for them is extremely limited. There is no physical separation from the general traffic provided for cyclists and even where advisory cycle lanes are provided they disappear at some of the places where they are most needed, in front of the Arndale Centre between Shaw Lane and North Lane and on the approach to Hyde Park Corner from Headingley Hill for example (Figure 6).

This makes cycling on the A660 particularly challenging and off-putting to those who might be considering cycling. The presence of large, often fast moving, HGVs is especially intimidating for cyclists.

**Figure 7. Cyclist and HGV – A660 at Headingley Hill**



It is no surprise therefore that as well as being the busiest road for cyclists in Leeds it is also the most dangerous road for cyclists.

Figures obtained by the Yorkshire Evening Post from a Freedom of Information request in 2017 showed that there were 182 accidents involving a cyclist on the A660 in a five year period between 2012 and 2017, 28 of them classified as Serious.

Although it is not clear from the figures how many, if any, of these accidents involved HGVs there is well documented evidence from London and elsewhere that HGVs and cycles do not mix well and that when there are collisions between them these rarely end well for the cyclist.

<sup>4</sup> Earlier reference

## 4. POTENTIAL ACTIONS

### 4.1 Clean Air Zone

Consultation on Leeds City Council's proposed Clean Air Zone (CAZ) has recently closed. As currently envisaged the Outer Ring Road (ORR) and the M621 will form the boundaries of the scheme, inside of which HGVs, buses, coaches, taxis and private hire vehicles which don't meet minimum engine emission standards will be charged for travelling through the area. The A660 inside of the ORR, from the Lawnswood roundabout will be within the CAZ.

Whether or not the CAZ is tackling the chief source of air quality pollution is a moot point, with diesel cars being the largest single source from road traffic, but the CAZ, which has to be in place by 1<sup>st</sup> January 2020 should have a positive impact on HGVs in Headingley. Modelling<sup>5</sup> by Leeds City Council has indicated that it should reduce the number of HGVs travelling on the A660, with some vehicles being diverted to the ORR.

Nevertheless it is important to note that the CAZ has some limitations. It does not ban vehicles, but charges them if they choose to travel within it. It only affects the most polluting vehicles and the proposed charges for the non-compliant HGVs have been reduced from £100/day to £50/day following the initial consultation on the CAZ<sup>6</sup>. HGVs with the cleanest engines or operators of non-compliant vehicles who choose to pay the charge will still be able to use the A660. Between 74% and 90% of the local fleet are assumed to be compliant by 2022 in LCC modelling for example (previous ref).

**Headingley Development Trust welcomes the proposed Clean Air Zone and its potential impact on air quality on the A660 but is concerned that this alone will not be sufficient to fully address the adverse impacts of HGVs travelling through the centre of Headingley**

### 4.2 Other Forms of Restriction

Thus, while the CAZ should have a welcome impact on the air quality in Headingley from HGVs and other non-compliant vehicles it may not necessarily have as much impact on the volumes of HGV traffic, particularly if operators react to the new charge by upgrading their fleet over time to ensure that they are compliant with emissions standards. The other benefits (of safety, noise, vibration etc to pedestrians, cyclists, shoppers and residents) of any reduction in HGV traffic could therefore be short term with volumes returning to current levels within a few years.

<sup>5</sup> <https://www.leeds.gov.uk/docs/Appendix%20SC8%20-%20Transport%20Modelling%20incl%20Apps%20a%20to%20j.pdf>

<sup>6</sup> <https://www.leeds.gov.uk/docs/Clean%20Air%20Charging%20Zone%20FAQs.pdf>

**Headingley Development Trust ask Leeds City Council to acknowledge that the A660 through Headingley is not an appropriate through route for longer distance HGV traffic<sup>7</sup> and instigate a restriction on all HGV traffic except for local deliveries and vehicles whose journey starts or ends on the A660 between the ORR and the IRR.**

### **4.3 'Greener' Local Distribution?**

Some HGVs arguably 'need' to be in central Headingley – distributors to local supermarkets for example. However, the size of vehicle making these deliveries has to a large extent been determined by the logistics and distribution industries which have increasingly focused on the savings to be gained from using larger vehicles.

**Headingley Development Trust is interested in exploring whether there is scope to work with some of the bigger retailers in Headingley to consider alternative, greener distribution measures, possibly as part of a Zero Carbon Headingley initiative or as part of any wider Leeds CC initiatives to look at more sustainable distribution options, such as Freight Consolidation Centres, which could provide a city-wide distribution network.**

**We would welcome Leeds CC views on this.**

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<sup>7</sup> That the A660 is not a strategic route is shown by Leeds City Council surveys which show that only 10% of all traffic on the route originates from outside of the city boundaries

## Appendix A

### Briefing Note, Count Sheet and HGV Vehicle Classification Charts

#### Headingley Development Trust

#### Otley Road A660 HGV Traffic Count

Wednesday 15<sup>th</sup> August 2018

#### Purpose

Thank you very much for volunteering to help HDT with this count today. The purpose of the count is to see how many HGVs use Headingley and from that be able to comment on the possible effect on pollution, noise and air quality, damage to the road, danger to other road users, especially cyclists and general nuisance to us all, especially pedestrians and those who live along their route.

#### What to count

We are only counting HGVs. A chart to help identify what is categorised as an HGV by the Department of Transport (DfT) is attached. Confusingly, HGVs are known in DfT-speak as OGVs (Other Good Vehicles) and we are interested in the categories OGV1 and 2 (see chart). *Please note: There is no need to identify and count the two categories separately.*

We are **counting in both directions** – in-bound towards the city centre and out-bound towards the Lawnswood Ring Road roundabout.

#### Where and how to count

The count should be undertaken on the A660 somewhere between North Lane junction and Shaw Lane. For those people who live directly on the A660 they are welcome to count from their front garden or similar. **Please make a note of where you were located in the appropriate box on the count form.**

Most importantly make sure that is somewhere safe. Do not stand near the carriageway. You are more likely to be able to count accurately if you are comfortable and relaxed, so sat down at a café table outdoor, (or indoor if the weather is poor), is a good option. Just remember that we need to count both directions so don't sit somewhere where your view of the opposite direction might be obscured by a bus picking up passengers or a delivery van loading or unloading.

We are asking people to count for 1 hour, split into 15 minute segments. We will have some clickers available to help, but you may prefer to make a manual tally, in which case then the most accurate way to do this is to count in groups of 5, noting the first four HGVs with vertical marks on the count form then crossing them for the 5<sup>th</sup>

Then repeat for the next 5. And so on

The count form will ask you to **note your start time** and also to sum the 15 minute counts for both directions at the end of the hour.

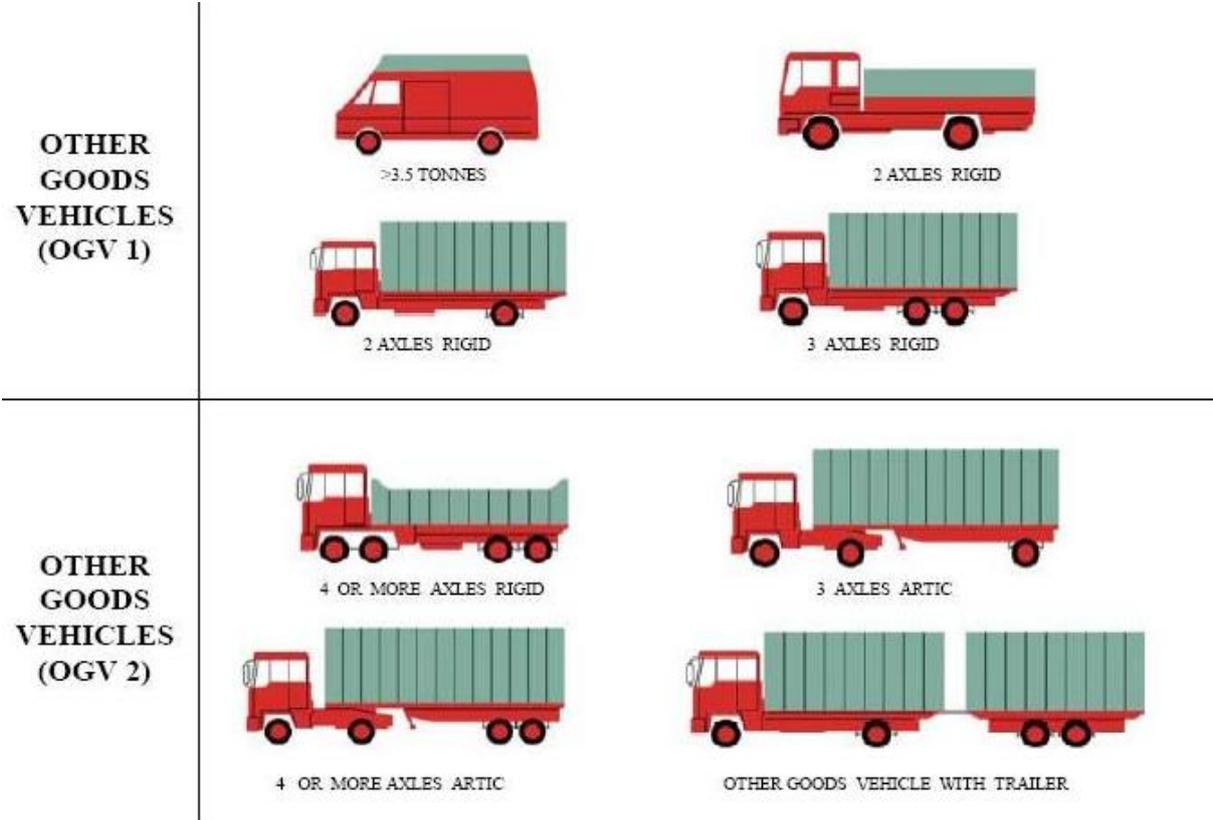
### A660 HGV Count Form

Date: 15/08/2018

Location:	Start Time: hr
Surveyor (initials):	

	Direction	
	Towards City Centre	Towards Lawnswood
xx.00		
xx.15		
xx.30		
xx.45		
1 Hr total		

# Vehicle Classification Guide for HDT HGV Survey



Note: as you will see from the diagram above some large vans are counted as HGV's (OGV1) if they are over 3.5 tonnes and have twin tyres at the back. As we are not really interested in vans just ignore them and don't include them in your count.



## **Appendix B**

**15 Minute Counts: 05.45 to 20.00 15th August 2018**

A660 HGV Count	15/08/2018		
	To city centre	To Lawnswood	Total 2-Way
05.45-06.00	5	1	6
06.00-06.15	4	4	8
06.15-06.30	2	5	7
06.30-06.45	5	2	7
06.45-07.00	6	8	14
07.00-07.15	4	10	14
07.15-07.30	4	8	12
07.30-07.45	5	6	11
07.45-08.00	9	11	20
08.00-08.15	11	15	26
08.15-08.30	7	11	18
08.30-08.45	9	9	18
08.45-09.00	8	8	16
09.00-09.15	11	10	21
09.15-09.30	4	5	9
09.30-09.45	12	5	17
09.45-10.00	4	6	10
10.00-10.15	6	7	13
10.15-10.30	4	4	8
10.30-10.45	8	8	16
10.45-11.00	3	4	7
11.00-11.15	13	8	21
11.15-11.30	15	12	27
11.30-11.45	21	14	35
11.45-12.00	11	8	19
12.00-12.15	6	6	12
12.15-12.30	7	9	16
12.30-12.45	10	11	21
12.45-13.00	5	6	11
13.00-13.15	6	10	16
13.15-13.30	5	7	12
13.30-13.45	11	5	16
13.45-14.00	10	7	17
14.00-14.15	6	9	15
14.15-14.30	11	4	15
14.30-14.45	6	8	14
14.45-15.00	9	9	18
15.00-15.15	15	7	22
15.15-15.30	10	1	11
15.30-15.45	4	6	10
15.45-16.00	5	3	8
16.00-16.15	8	1	9
16.15-16.30	6	0	6
16.30-16.45	4	4	8
16.45-17.00	5	3	8
17.00-17.15	9	1	10
17.15-17.30	7	5	12
17.30-17.45	4	0	4
17.45-18.00	3	1	4
18.00-18.15	4	0	4
18.15-18.30	1	0	1
18.30-18.45	1	0	1
18.45-19.00	0	0	0
19.00-19.15	2	2	4
19.15-19.30	0	0	0
19.30-19.45	0	0	0
19.45-20.00	0	0	0
	<b>371</b>	<b>314</b>	<b>685</b>

Note: Count between 11.00 and 12.00 was only recorded as an hourly total. 15 minute interval figures have been inferred by adopting the profile between 12.00 and 13.00.