Chapelhall Traffic Study

North Lanarkshire Council

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Executive Summary

Sweco was commissioned by North Lanarkshire Council to conduct a detailed study of traffic conditions within the village of Chapelhall and identify any appropriate improvement measures. The study was commissioned in response to a range of road safety concerns that were raised by the local community.

To fully assess these concerns, a series of traffic surveys were undertaken at key junctions within Chapelhall, including vehicle origin and destination survey points at the north and south of the village and on the B799 Lancaster Avenue. This information was used to establish not only the volume and classification of all vehicles travelling within the village, but also the number of through traffic movements i.e. vehicle movements that had no origin or destination within Chapelhall.

The air quality index (1-10) is a forecasting index which shows the likely level of air pollution. Low levels 1-3 are considered good air quality, whilst an index of 7-10 would indicate high pollution and therefore poorer air quality. In Chapelhall the monitoring site is located at the junction of the A73 Main Street / Lauchope Street and all monitoring sites within Chapelhall register as a Low (1) band for the 24 hour mean, with a general decrease over the years 2015-2020.

To establish the number of road injury accidents within Chapelhall, accident records for the 5 year period from October 2015 to October 2020 have been assessed. In total there have been 12 injury accidents, including 10 slight accidents and 2 serious, over the 5 year period. The casualties associated with these accidents included 7 drivers, 2 passengers, 3 pedestrians, and 1 cyclist. Both serious accidents included serious pedestrian casualties.

To assess speeds within the village, 85th percentile speeds have been measured and reviewed across various locations on Woodhall Street and Lauchope Street through Chapelhall and along the B799 Lancaster Avenue. The 85th percentile speed is a standard metric used to measure traffic behaviour and inform speed limits on roads. It is defined as the speed at or below which 85 percent of all vehicles are observed to travel under free-flowing conditions past a monitored point.

The survey confirmed that 85th percentile speeds throughout Chapelhall are in line with the posted speeds limits. The only exception is at one location in the south of the village at Woodhall Street. The 85th percentile speeds in this location, at the traffic calming chicanes, are between 28 and 30mph, where there is a posted speed limit of 20mph in place. The higher speeds in this location indicates that the chicanes have not been as effective as anticipated in controlling speeds. Considering the speed data collected it is recommended that the chicanes are removed, and an alternative traffic calming solution is introduced in the form of four additional speed tables.

To further encourage reduced speeds and to improve access, the introduction of two mini-roundabouts on Woodhall Street at Kennelburn Road and at Gibb Street, and the introduction of a mini roundabout on Lauchope Street at Honeywell Crescent is recommended.

The traffic counts undertaken in September 2020 have shown that total traffic volumes on Woodhall Street and Lauchope Street have decreased by approximately 21% since January 2020. This equates to an average reduction of 123 vehicles an hour between 7am and 7pm. HGV traffic has increased over the same period by approximately 21%. This equates to an average increase of 16 HGVs an hour between 7am and 7pm. The reduction in total traffic volumes since January 2020 is in line with those measured across the rest of the road network during the current COVID-19 restrictions.

An Automatic Number Plate Recognition (ANPR) survey uses vehicle number plates to allow an understanding of vehicle routing and journey times between survey points. For Chapelhall the survey points are located to the north on the A73 Main Street, to the south on the B799 Bo'ness Road and the eastern extents of the B799 Lancaster Avenue.

An average of 6,668 vehicles were observed in Woodhall Street and Lauchope Street between 7am and 7pm, of which 20% (1,328) are through trips with no purpose in the village. The survey results for HGVs have been split into those below and those above 7.5 tonnes, for the twelve hour period. For HGVs below 7.5 tonnes 34% (48) passed through without stopping and 66% (94) had a purpose within the village. For HGVs over 7.5 tonnes 26% (25) passed through without stopping and 74% (71) have a purpose within the village.

The survey results confirm that overall, traffic which enters Woodhall Street and Lauchope Street has a purpose within the village. A maximum of two HGVs over 7.5 tonnes travel through Woodhall Street and Lauchope Street without stopping in a one hour period. Consequently, this confirms that a 7.5 tonne weight restriction would not have a significant impact in reducing HGV movements. Therefore, it is recommended that the alternative route via the B799 Lancaster Avenue is clearly signposted to further encourage greater use of this route.

Potential improvements to the existing traffic calming scheme, including the introduction of four new speed tables and three mini-roundabouts, would further discourage vehicles from travelling through the village centre and to use the alternative B799 Lancaster Avenue route.

In summary, it is recommended that the following road safety improvements are implemented to complement the existing traffic calming scheme:

- Introduction of three mini-roundabouts on Woodhall Street and Lauchope Street to further control traffic speeds and discourage through vehicle movements.
- Removal of the chicanes and the introduction of four new speed tables, noting that the existing speed tables on Lauchope Street have been effective in reducing speeds in this area.
- Introduction of new traffic island on Bo'Ness Road.
- Further signage to encourage more vehicles to use the alternative route via the B799 Lancaster Avenue and the A73 Bellside Road for north/south journeys.

It is also recommended that the findings of this study be presented to key stakeholders, including the local community. This will provide an opportunity to gain feedback on the outputs from this study and recommendations proposed.

Once any improvements taken forward are implemented, post-implementation surveys will be undertaken to understand the impact and effectiveness of the improvements.

1 Introduction

1.1 Purpose of Study

Sweco was commissioned by North Lanarkshire Council (the Council) to conduct a detailed study of traffic conditions within the village of Chapelhall and identify any appropriate improvement measures. The study was commissioned in response to a range of road safety concerns that were raised by the local community.

To fully assess these concerns, a series of traffic surveys were undertaken at key junctions within Chapelhall, including vehicle origin and destination survey points at the north and south of the village and on the B799 Lancaster Avenue. This information was used to establish not only the volume and classification of all vehicles travelling within the village, but also the number of through traffic movements i.e. vehicle movements that had no origin or destination within the village centre.

The study area is shown in **Figure 1.1**.

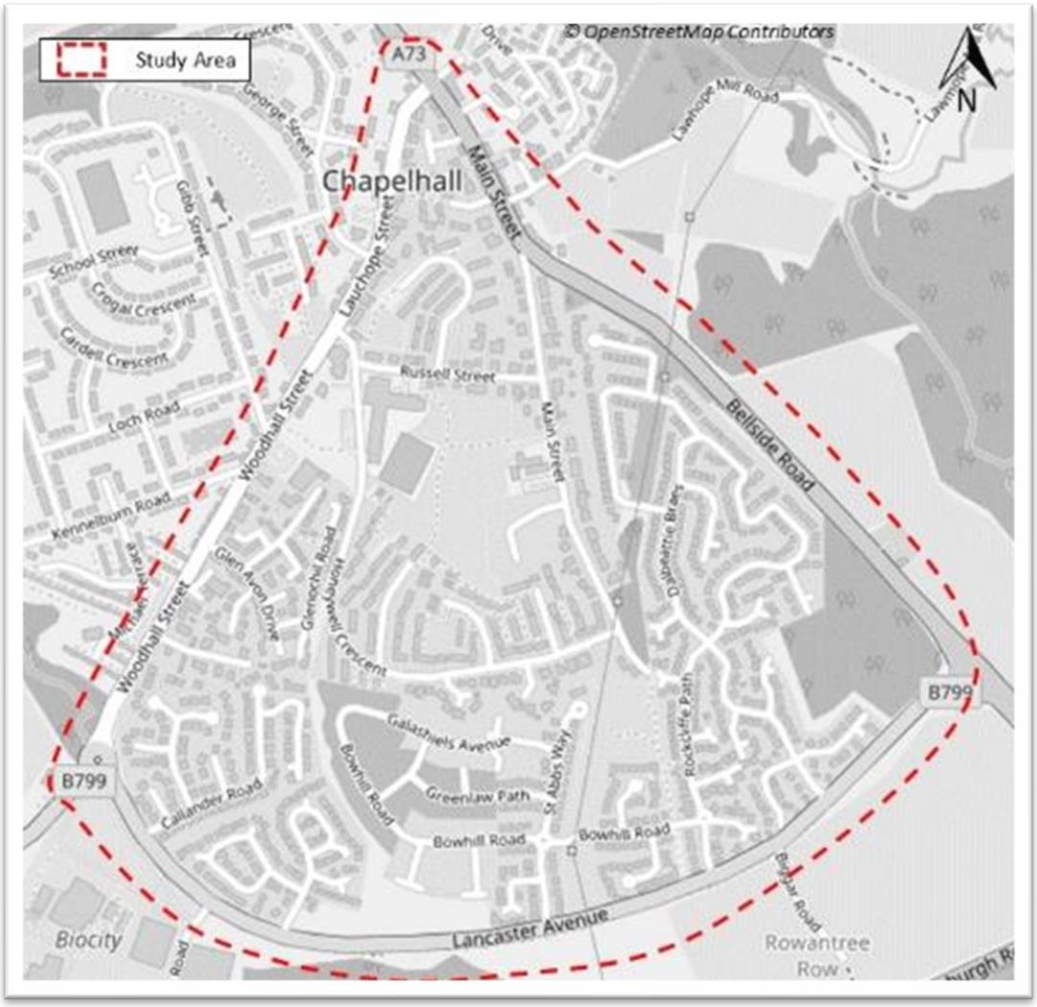


Figure 1.1: Study Area

1.2 Context

1.2.1 Historic Traffic Data Collected

Several traffic surveys have been carried out previously in Chapelhall, as shown on **Figure 1.2**.

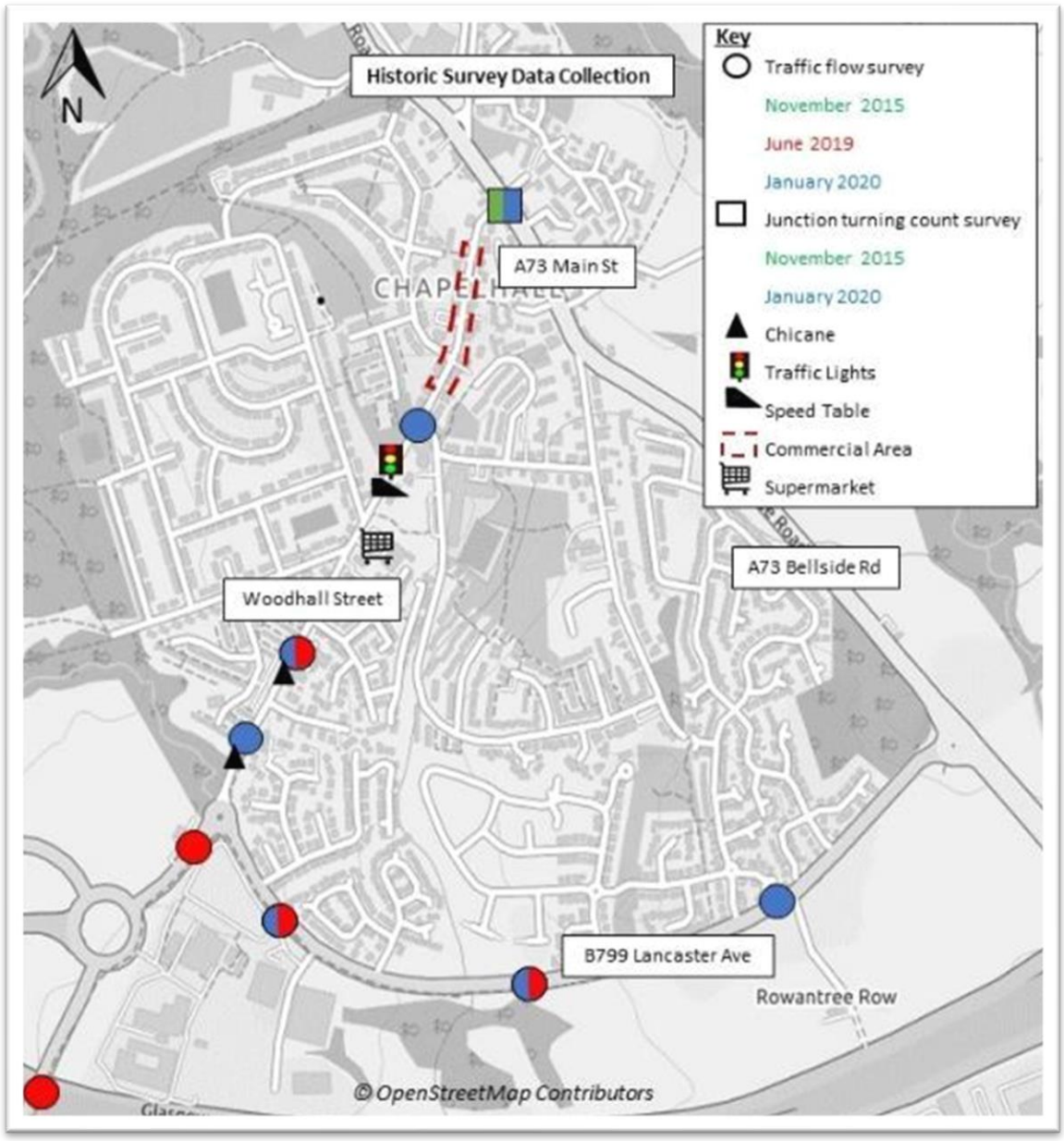


Figure 1.2: Historic Traffic Data

1.2.2 Air Quality

The main source of air pollution within North Lanarkshire is road traffic emissions, with a small element attributable to small-scale quarrying activities, and the Council operate a network of air monitoring sites across the area. These include monitoring of Nitrogen Dioxide (NO_2) and fine Particulate Matter (PM_{10} and $PM_{2.5}$), as well as a large network of passive monitoring of NO_2.

The air quality index (1-10) is a forecasting index which shows the likely level of air pollution in the air. Low levels (1-3) are considered good air quality, whilst a high index of 7-10 would indicate high pollution and therefore poorer air quality.

In Chapelhall the monitoring site is located at the junction of the A73 Main Street / Lauchope Street and complied with statuary objectives in 2019. A review of current available data (http://www.scottishairquality.scot/latest/site-info?site_id=NL3) indicates that the monitoring site in Chapelhall is registering as a Low (1) band for the 24 hour mean, with a general decrease over the years 2015-2020. **Figure 1.3** provides a summary of the data for a Tuesday in September for each year.

	2015	2016	2017	2018	2019	2020
PM10 particulate matter	15ugm^{-3}	*No data*	11ugm^{-3}	6ugm^{-3}	6 ugm^{-3}	8 ugm^{-3}
PM1 particulate matter	*No Data*	*No Data*	4 ugm^{-3}	3ugm^{3}	2ugm^{-3}	7ugm^{-3}
$PM_{2.5}$ particulate matter	*No Data*	*No Data*	5 ugm^{-3}	3ugm-^{3}	3ugm^{-3}	5ugm^{-3}
Nitrogen oxides as nitrogen dioxide ($NOXasNO_2$)	413ugm^{-3}	295ugm^{-3}	327ugm^{-3}	*No Data*	140ugm^{-3}	60ugm^{-3}
Nitric oxide (NO)	218ugm^{-3}	150ugm^{-3}	160ugm^{-3}	*No Data*	59ugm^{-3}	21ugm^{-3}
Nitrogen dioxide (NO_2)	78ugm^{-3}	65ugm^{-3}	82ugm^{-3}	*No Data*	49ugm^{-3}	27ugm^{-3}

Figure 1.3: Chapelhall Air Quality 2015-2020

1.2.3 Accident Records

To establish the number of road injury accidents within Chapelhall, accident records for the 5 year period from October 2015 to October 2020 have been assessed.

In total there have been 12 injury accidents, including 10 slight accidents and 2 serious over the 5 year period. The casualties associated with these accidents included 7 drivers, 2 passengers, 3 pedestrians, and 1 cyclist. Both serious accidents included serious pedestrian casualties.

The locations of the accidents can be seen in **Figure 1.4**.

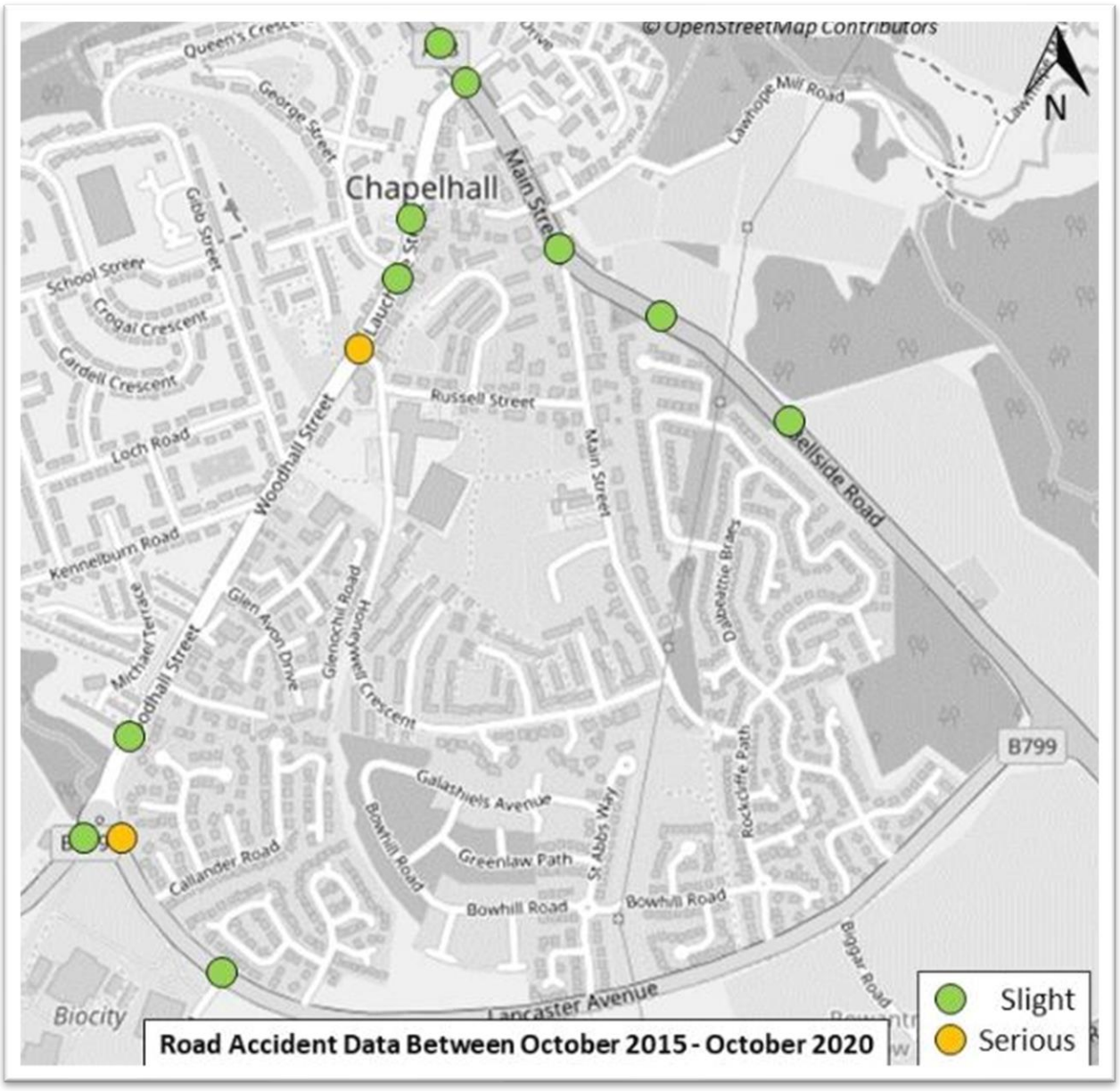


Figure 1.4: Accident Location, October 2015 – October 2020

1.2.4 Existing Traffic Calming

Further to extensive public consultation, schemes within the town centre have been introduced to reduce vehicle speeds and encourage non town centre traffic to use the B799 Lancaster Avenue and the A73 Main Street when travelling north/south, rather than routing through the village.

The schemes included the introduction of traffic calming in the form of double chicanes, with works completed in November 2019. **Figure 1.5** below provides an indication of the location of the chicanes and the priority direction.

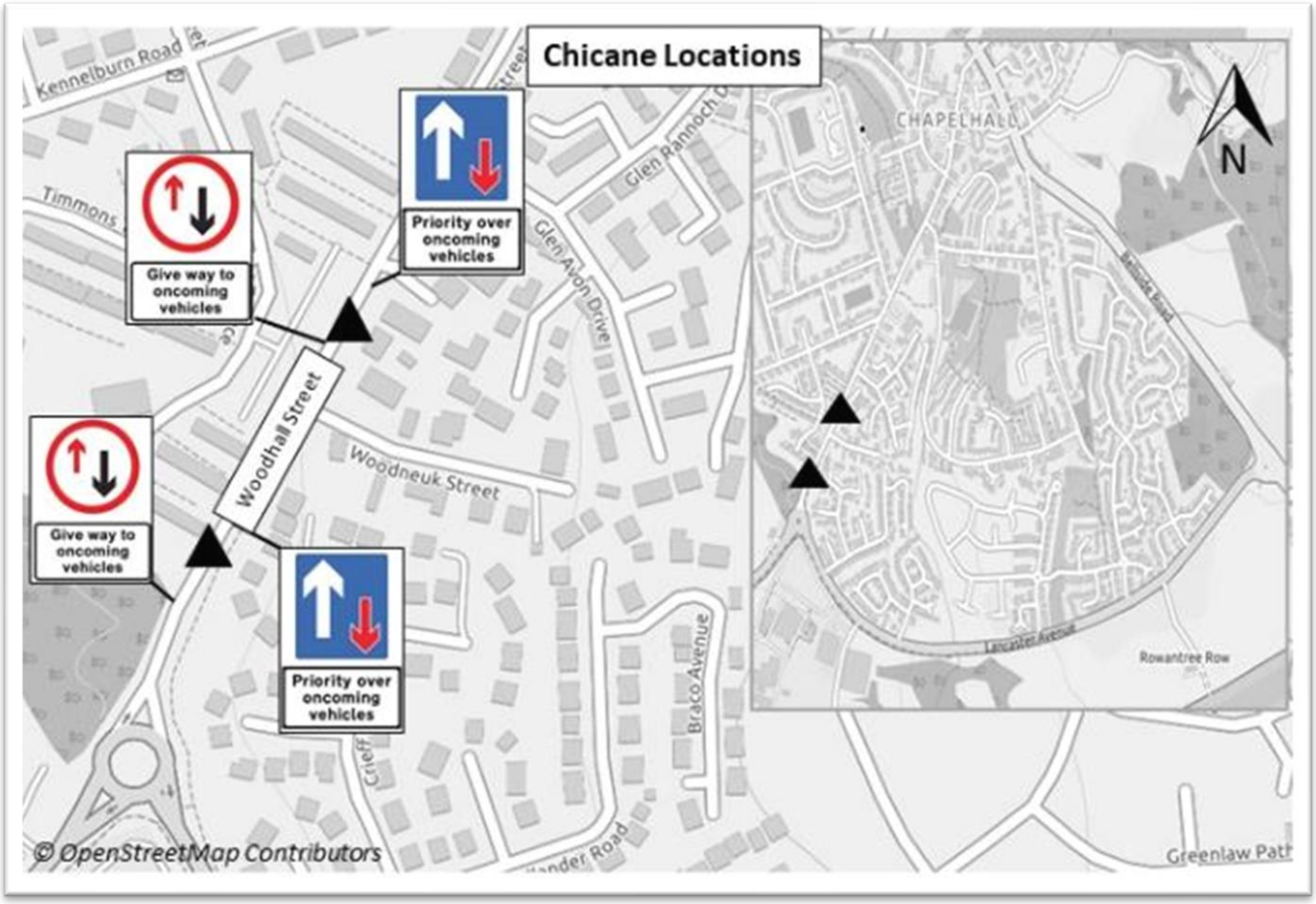


Figure 1.5: Single Lane Chicane Locations

1.2.5 Existing Weight Restriction

A 7.5 tonne environmental weight restriction was introduced on Woodhall Street and Lauchope Street in September 2019. This was put in place to help prevent HGVs from using Woodhall Street and Lauchope Street as an inappropriate shortcut. A weight restriction such as this requires a number of exemptions so that HGVs can legally access local shops, business, and residences.

Having received feedback from the local community on exemption categories, it was decided that the weight restriction signs should be covered over temporarily while a review was undertaken. The intention of the review is to confirm that all necessary exemption categories have been included. The results of this study will form part of this review.

1.2.6 Committed Road Safety Improvement Measures

Committed projects include additional pedestrian refuge islands on the B799 Lancaster Avenue. These are intended to assist pedestrian movements across the B799 Lancaster Avenue and discourage overtaking manoeuvres. The locations of the islands can be seen in **Appendix A**. These works are due to be undertaken in spring 2021.

1.2.7 East Airdrie Link Road

The aim of the East Airdrie Link Road (EALR) is to provide enhanced North/South infrastructure through North Lanarkshire to the north of the M8 by 2026, contributing to a co-ordinated and strategic approach to upgrade transport infrastructure, and promote economic regeneration through the Pan-Lanarkshire Orbital Transport Corridor project.

- ***Traffic*** - Improve journey times, reliability, and resilience between Cumbernauld and M8.
- ***Connectivity*** - Facilitate improved connectivity between residential areas and centres of economic activity, improving access to employment, education and training opportunities.
- ***Public Transport*** - Facilitate improvements to public transport infrastructure and reliability, encouraging modal shift.
- ***Active Travel*** - Provide active travel infrastructure linking to existing networks, encouraging modal shift.
- ***Air Quality*** - Reduce levels of traffic-related air pollution within the Chapelhall AQMA.
- ***Development*** – Support development opportunities for existing businesses and assist in unlocking stalled development sites.

Once complete, it is expected that the EALR will reduce traffic levels within Chapelhall. However, this cannot be quantified at present, as the EALR is in the early stages of development.

2 New Traffic Data

A range of traffic surveys was carried out over the week of Sunday 6th to Saturday 12th September 2020 to provide an up to date understanding of traffic within Chapelhall. It should be noted that the traffic survey at the western end of the B799 Lancaster Avenue had to be repeated over the period 17th to 23rd of September, as the survey equipment at this location was vandalised during the original survey period.

Figure 2.1 shows the locations of all data collected in September 2020.

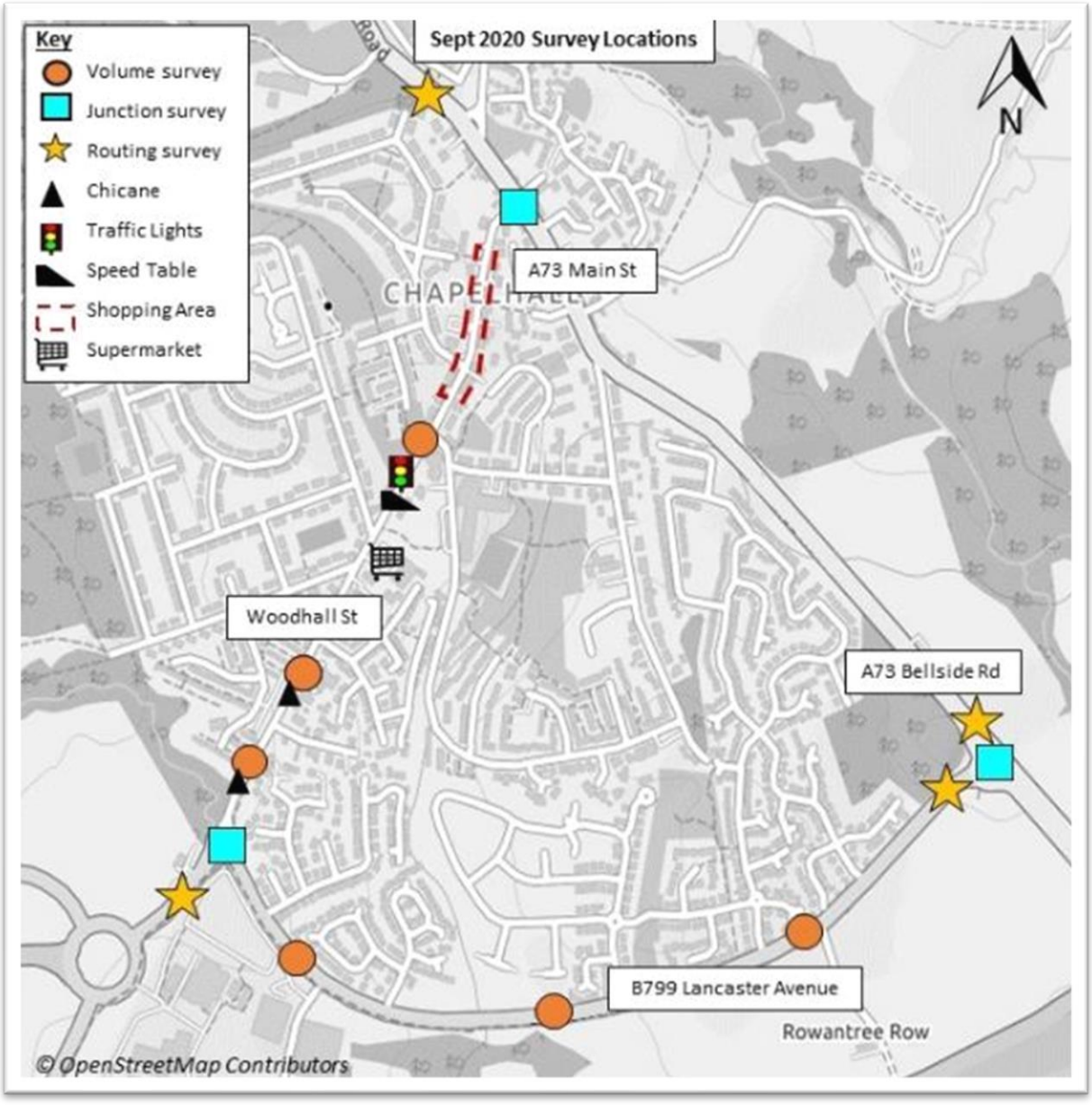


Figure 2.1: September 2020 Traffic Survey Locations

The data collected included:

- Traffic flow surveys at the locations indicated in **Figure 2.1** providing traffic volume, vehicle type, and speed data.
- Junction surveys at the junctions of:
    - Lauchope Street / A73 Main Street;
    - A73 Bellside Road / B799 Lancaster Avenue; and
    - B799 Bo'Ness Road / Bo'Ness Road / B799 Lancaster Avenue.
- An Automatic Number Plate Recognition (ANPR) Routing survey to establish the number of through vehicle in Chapelhall i.e. vehicle movements that had no origin or destination within Chapelhall.

The traffic data collected is presented in the following sections for an average weekday and where historic data is available a comparison is made. Data for each individual day is available within the Chapelhall Traffic Study Technical Appendix: Survey Data Report February 2021.

3 Data Review & Comparison

3.1 Vehicle Types

The traffic data is presented by vehicle type, showing a breakdown of total vehicles, heavy goods vehicle (HGV), and all other vehicles. For the purpose of this study, vehicle types observed during the traffic volume surveys have been aggregated into two classes: 'other' and HGV. It has been assumed that any vehicle over 3.5 tonnes is an HGV. **Figure 3.1** provides a breakdown of vehicles included in each class.

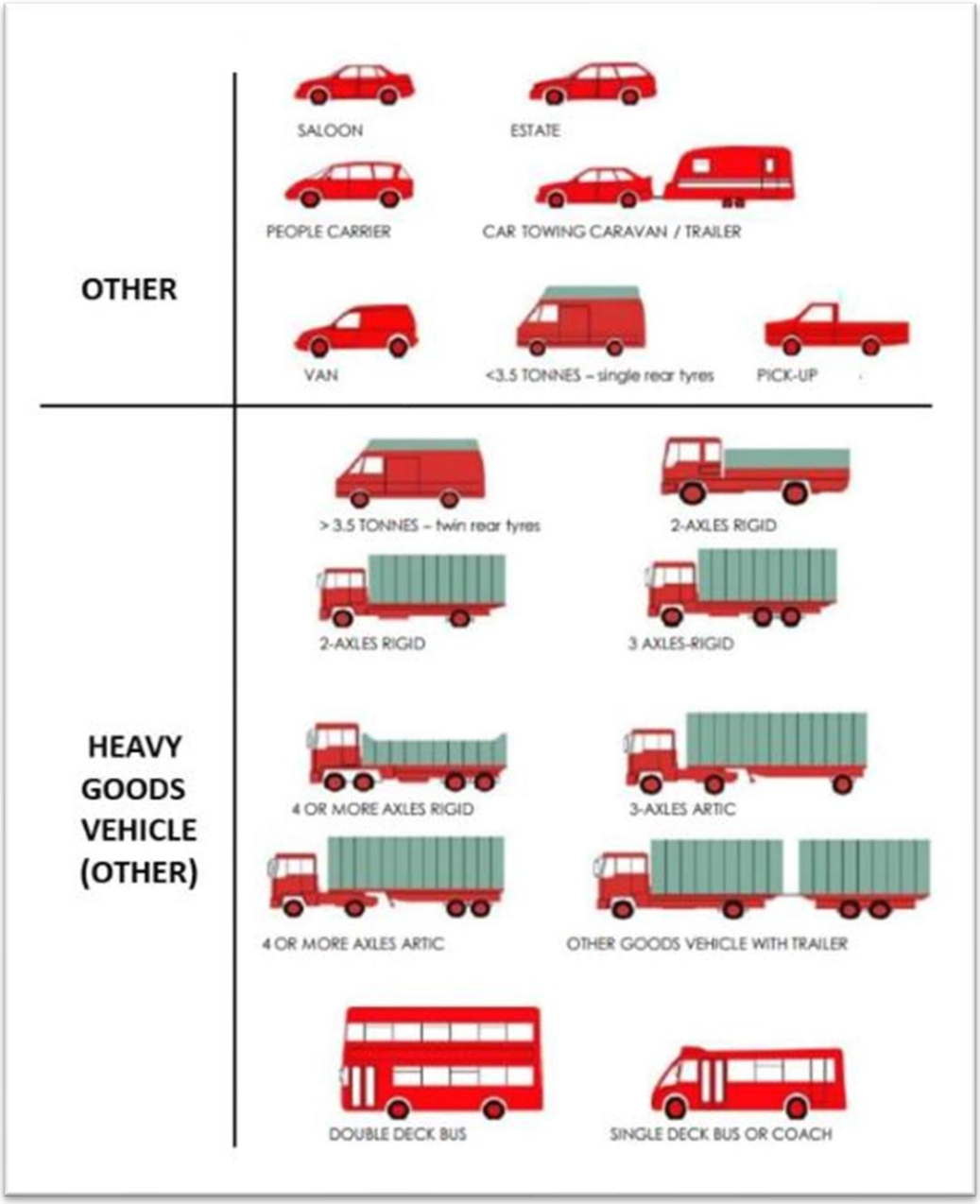


Figure 3.1: Vehicle Types

3.2 Traffic Speeds

The 85th percentile speed is a standard metric used to measure traffic behaviour and inform speed limits on roads. This is defined as the speed at or below which 85 percent of all vehicles are observed to travel under free-flowing conditions past a monitored point. The 85th percentile traffic speeds have been measured and reviewed across various locations on Woodhall Street, Lauchope Street and along the B799 Lancaster Avenue. **Figure 3.2** provides the speed data at the survey locations within Chapelhall.

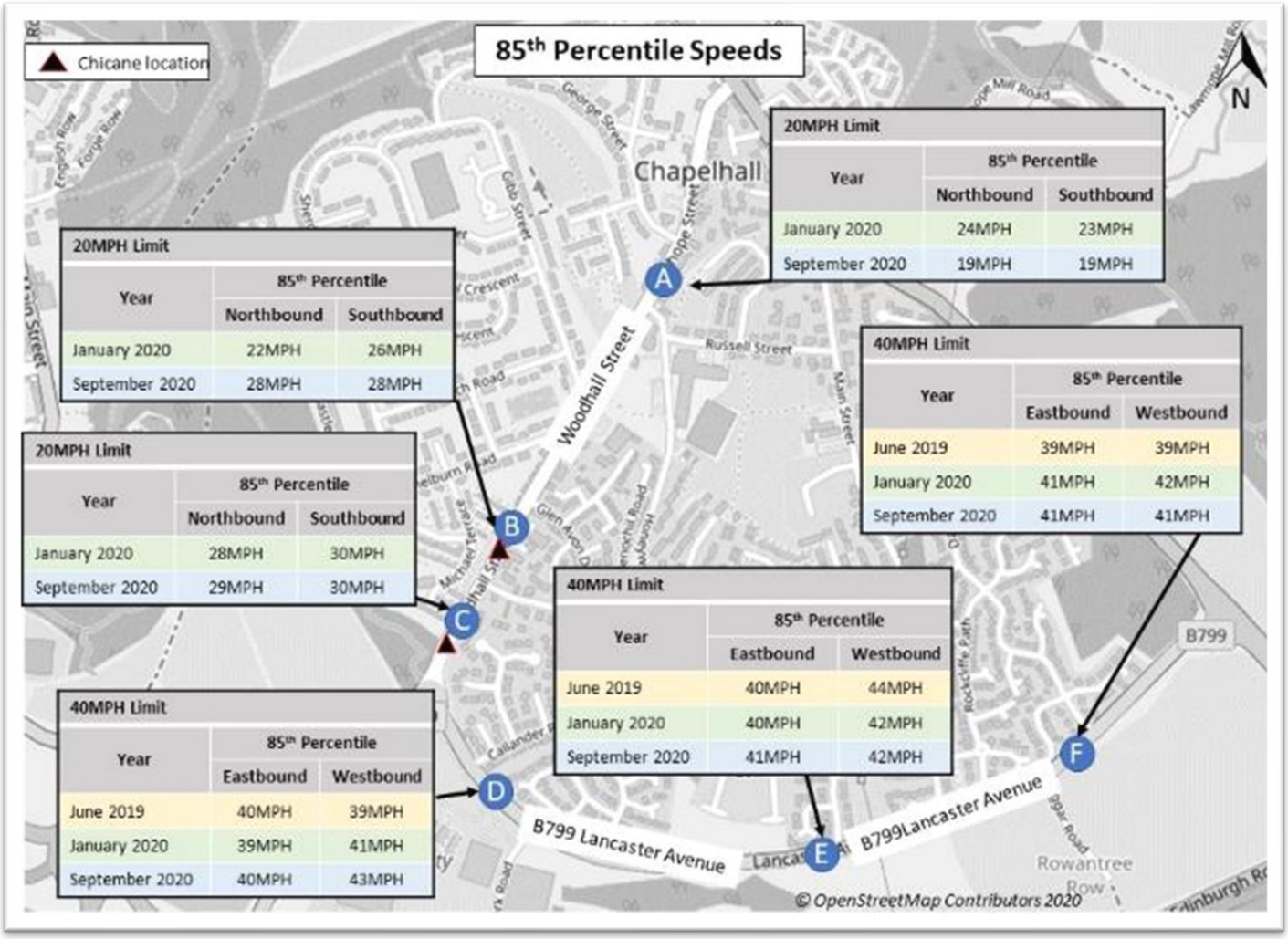


Figure 3.2: Traffic Speed Patterns 2019-2020

Figure 3.2 indicates that vehicle speeds have largely remained the same at approximately 40mph on the B799 Lancaster Avenue since June 2019 which is in line with the posted speed limit of 40mph.

On Woodhall Street and Lauchope Street data is available for January and September 2020. Speeds in the north can be seen to have decreased by approximately 4mph since January 2020, to 19mph, while in the south of the village speeds have risen since January 2020 by up to 6mph.

Reviewing the September 2020 speed data shown in **Figure 3.2** against the posted speed limit of 20mph clearly shows that there is one area where the 85th percentile is significantly higher than the posted speed limit. This is to the south of the village on Woodhall Street (locations B and C). The 85th percentile speeds in this location are between 28 and 30mph.

In November 2019 the Council, in response to public consultation, implemented traffic calming in the form of two chicanes with southbound priority at this location (locations indicated on **Figure 3.2**). Speeds in the area of the chicanes are higher than at other locations within Chapelhall and are significantly in excess of the posted speed limit of 20mph. This indicates that the chicanes have not been as effective in controlling vehicle speeds as anticipated.

A review of Lauchope Street in the north of the village indicates that the presence of an existing signalised crossing, raised tables, and general parking/commercial activity within the north of the village are likely having an impact on the slower speeds observed at location A. In the south the higher speeds could be due to drivers trying to avoid having to stop at the chicanes. In addition, Woodhall Street in the south of the village is a relatively wide single carriageway (c.7.0m) which is predominantly straight.

Considering the speed data collected it is recommended that the chicanes are removed, and an alternative traffic calming solution is introduced in the form of four additional speed tables. To further encourage reduced speeds and to improve access along both Woodhall Street and Lauchope Street, the introduction of three new mini-roundabouts are proposed at:

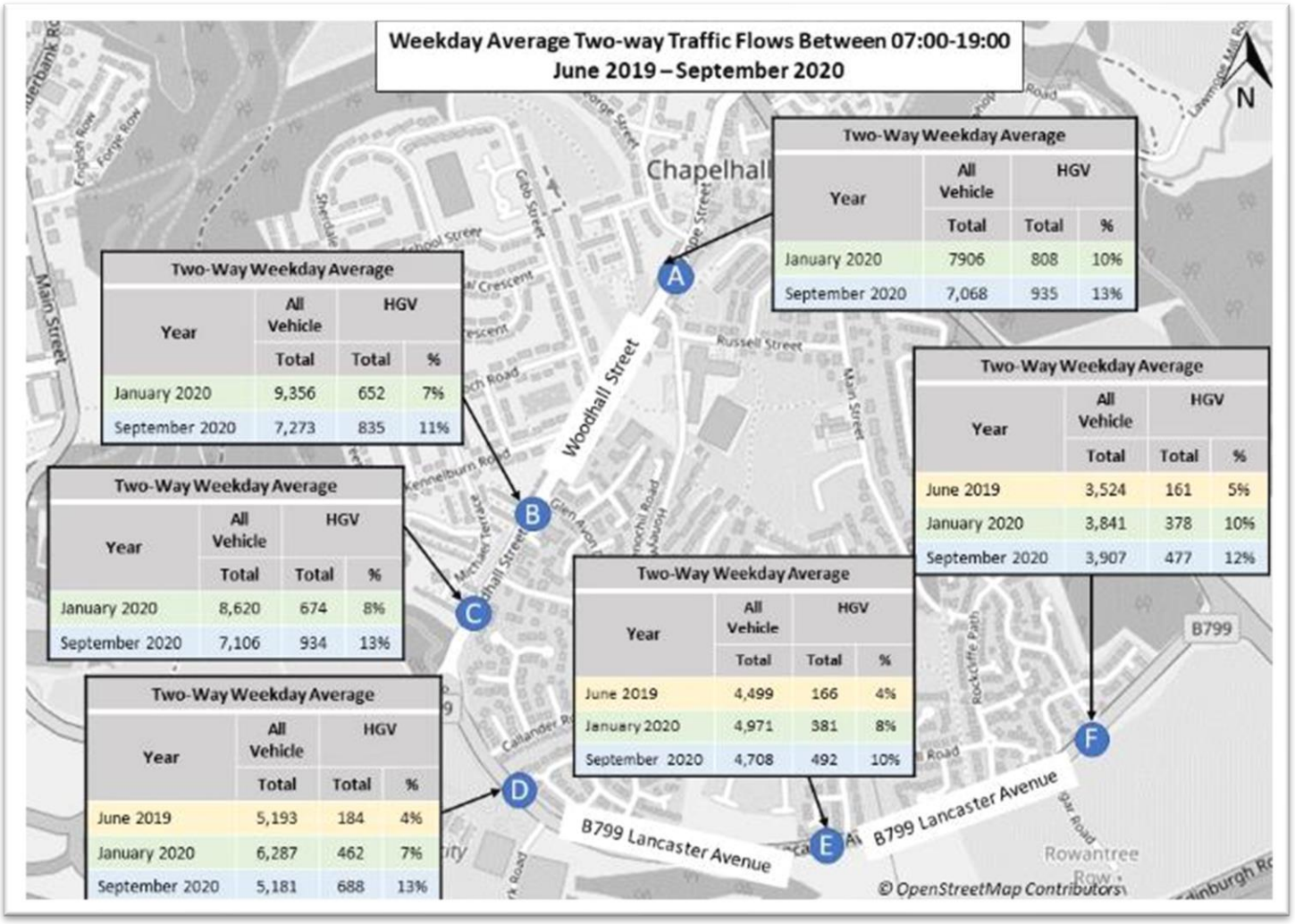
- Woodhall Street at Kennelburn Road;
- Woodhall Street at Gibb Street; and
- Lauchope Street at Honeywell Crescent.

Figure 3.3 shows the locations of the recommended speed tables and mini-roundabouts.

Figure 3.3: Proposed Traffic Calming Locations

3.3 Traffic Volumes

Figure 3.4 shows the traffic flow data within Chapelhall at the survey locations. The traffic volumes are shown for a daily 7am to 7pm flow and show volumes in September and in June 2019 and January 2020 prior to COVID-19 restrictions being in place.



Two-Way Weekday Average

Year	All Vehicle	HGV	
	Total	Total	%
January 2020	7906	808	10%
September 2020	7,068	935	13%

Two-Way Weekday Average

Year	All Vehicle	HGV	
	Total	Total	%
January 2020	9,356	652	7%
September 2020	7,273	835	11%

Two-Way Weekday Average

Year	All Vehicle	HGV	
	Total	Total	%
June 2019	3,524	161	5%
January 2020	3,841	378	10%
September 2020	3,907	477	12%

Two-Way Weekday Average

Year	All Vehicle	HGV	
	Total	Total	%
January 2020	8,620	674	8%
September 2020	7,106	934	13%

Two-Way Weekday Average

Year	All Vehicle	HGV	
	Total	Total	%
June 2019	4,499	166	4%
January 2020	4,971	381	8%
September 2020	4,708	492	10%

Two-Way Weekday Average

Year	All Vehicle	HGV	
	Total	Total	%
June 2019	5,193	184	4%
January 2020	6,287	462	7%
September 2020	5,181	688	13%

Figure 3.4: Traffic Volume Patterns 2019-2020

A review of **Figure 3.4** indicates that traffic volumes to the north of the village (count location A) have seen a decrease in flows of 11% from January to September 2020, and flows in the south of the village, at count locations B and C, have seen a decrease of 22% and 18% respectively. With regards to HGV traffic, there has been an increase at all three count locations in the village, with a maximum increase of 260 vehicles between January to September 2020 over the 12 hour period, a 39% increase.

On the B799 Lancaster Avenue the same pattern can be seen, with a maximum decrease of total traffic of 18% at count location D, and a maximum increase in HGV traffic of 49% (226 vehicles) again at count location D.

It is however worth noting that the proportion of HGVs observed within the village on Woodhall Street and Lauchope Street ranges from 11-13% of total traffic, which can be considered normal for this class of road within a village setting. Transport Scotland statistics show that overall, on Scotland's roads, commercial vehicles do account for 22% of all traffic[1].

The reductions in total traffic volumes since January 2020 are in line with those measured across the rest of the road network during the current COVID restrictions. It is currently not possible to predict if traffic levels will return to 2019 levels. However, there is an assumption that, when all restrictions are lifted and travel patterns return to normal, they may return to 2019 levels.

To provide further detail on traffic movements **Figures 3.5** and **3.6** below show the morning and evening peak hour turning flows at the three junctions where surveys were undertaken.

[1] *Scottish Transport Statistics No.38 2019 Edition*

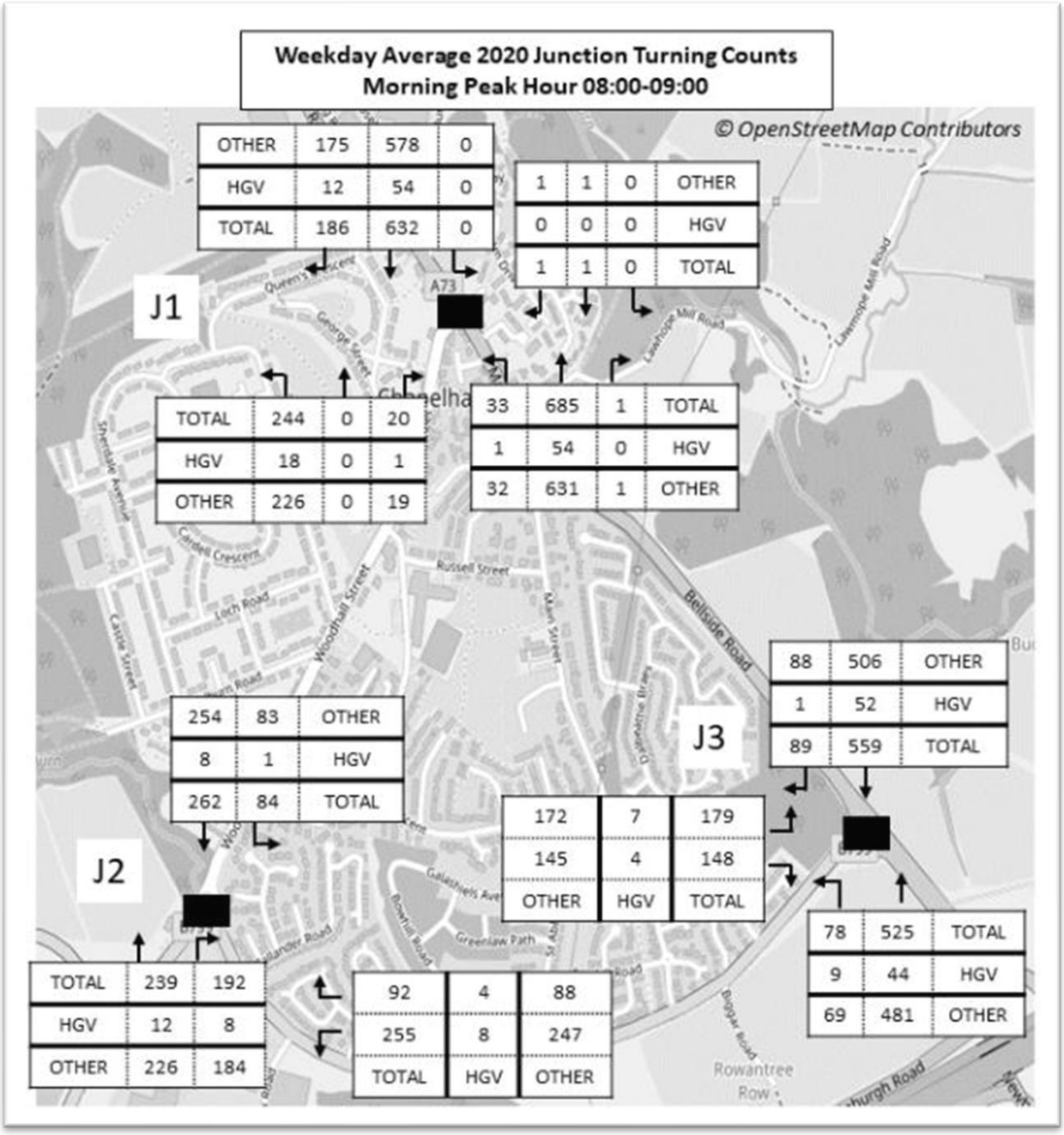


Figure 3.5: Junction Turning Counts by Volume and Classification – Morning Peak Hour

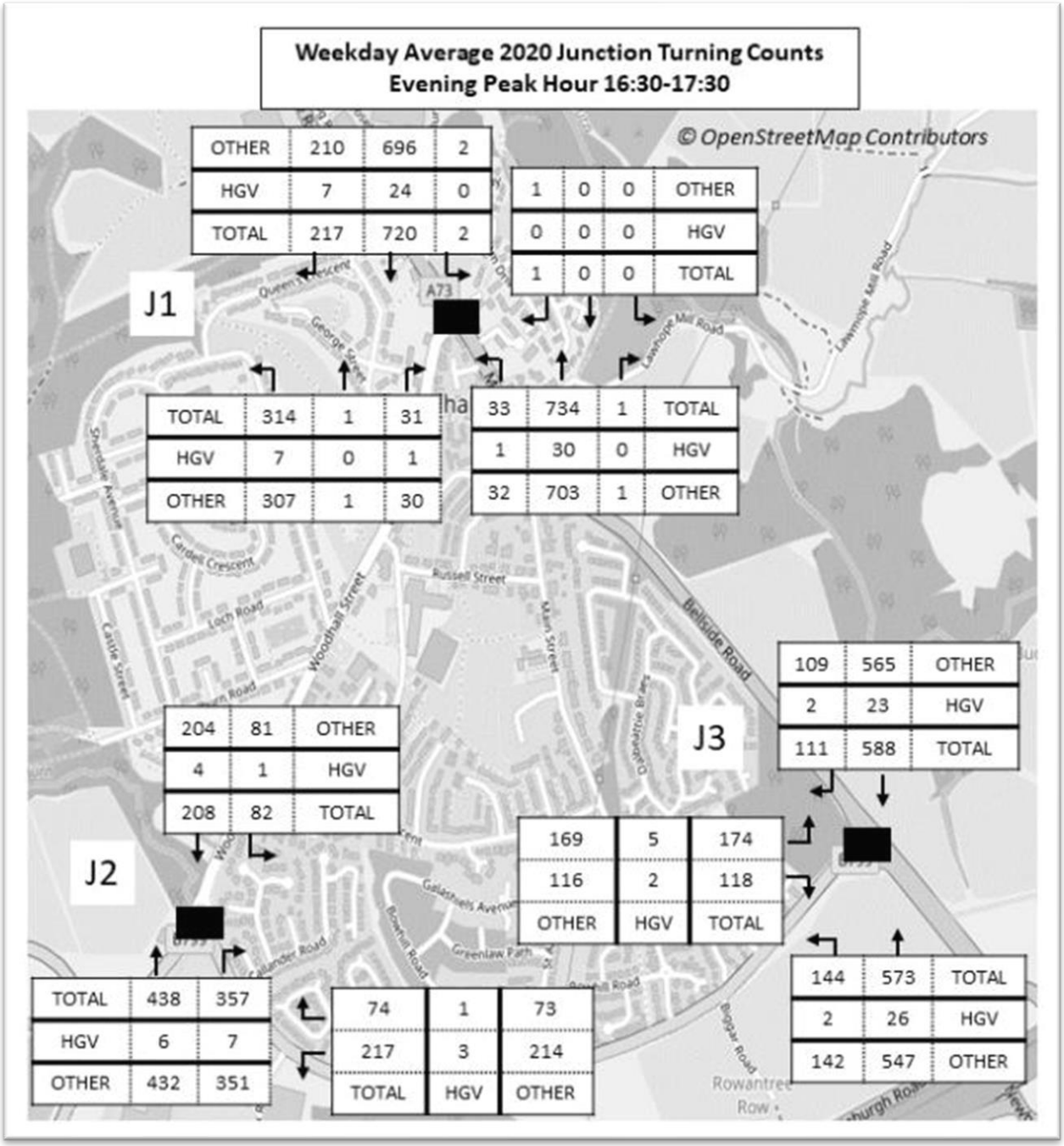


Figure 3.6: Junction Turning Counts by Volume and Classification – Evening Peak Hours

As historic data is available for the junction of Lauchope Street and the A73 Main Street this junction has been reviewed in detail to assess any changing traffic patterns from 2015 to 2020. **Figure 3.7** provides the total traffic volumes at the junction for each survey period for the morning and evening peak hour.

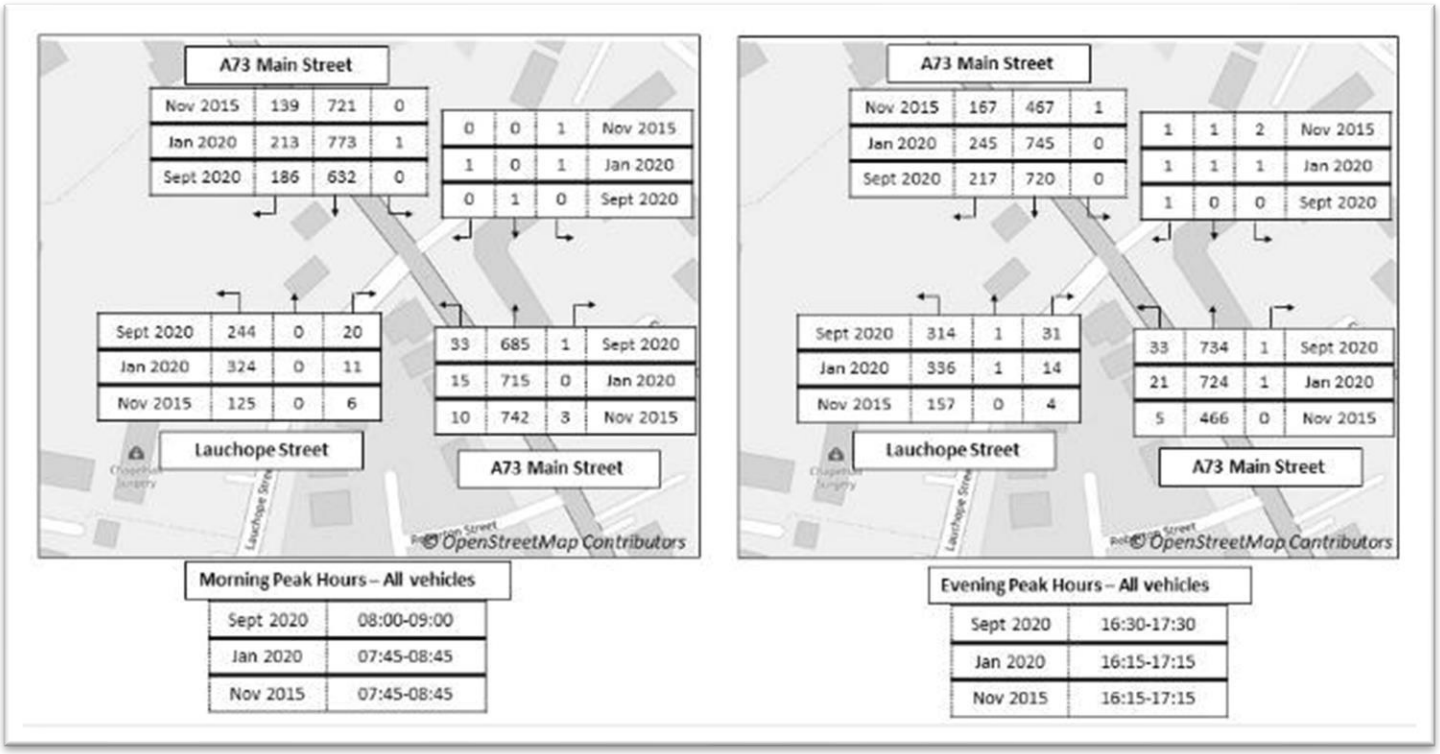


Figure 3.7: Lauchope Street / A73 Main Street Turning Count Review

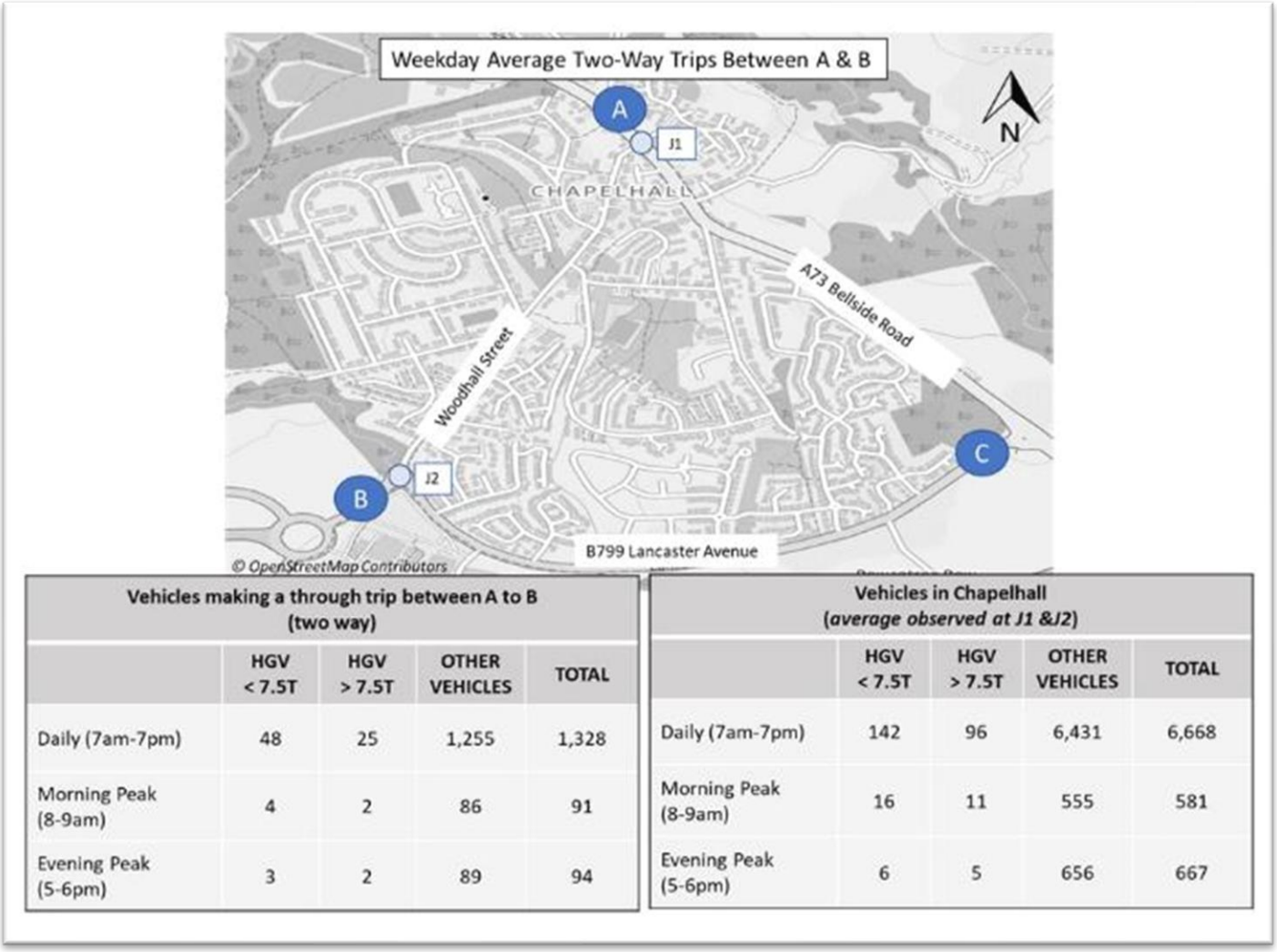
A review of **Figure 3.7** shows that there has been a general increase in traffic from 2015 to 2020. There have been some decreases and increases between the two 2020 surveys however for peak hour turning flows these are considered negligible.

3.4 Traffic Routes

An Automatic Number Plate Recognition (ANPR) survey uses vehicle number plates to allow an understanding of vehicle routing and journey times between survey points. For Chapelhall the survey points are located to the north on the A73 Main Street (Point A) of the village, to the south on the B799 Bo'ness Road (Point C) of the village and the eastern extents of the B799 Lancaster Avenue (Point C) – see **Figure 3.8**.

It is possible to establish the number and proportion of through trips in Chapelhall by using the average journey time between points A and B. Journey time survey data was collected by surveyors driving between points A and B at 15 minute intervals between 8am and 5pm in both directions. This allowed the average length of time needed to drive between these points to be established, and therefore a benchmark against which the number of through trips could be quantified. The outcome of this exercise indicated that the average time to drive between point A on the A73 Main Street through the village to point B on the B799 Bo'ness Road (points A and B in **Figure 3.8**) was 4 minutes. The exception to this was during the school leaving time where journeys of up to 7 minutes were recorded. During school leaving time all journeys below 7 minutes were counted as through trips.

Using the method described above, data from this survey and the junction turning flow surveys has been interpreted to establish the level of through trips in the village. **Figure 3.8** provides the breakdown of average weekday through trips for the survey period of 7am to 7pm, the morning peak hour, and evening peak hour split by vehicle type.



Vehicles making a through trip between A to B (two way)				
	HGV < 7.5T	HGV > 7.5T	OTHER VEHICLES	TOTAL
Daily (7am-7pm)	48	25	1,255	1,328
Morning Peak (8-9am)	4	2	86	91
Evening Peak (5-6pm)	3	2	89	94

Vehicles in Chapelhall (*average observed at J1 &J2*)				
	HGV < 7.5T	HGV > 7.5T	OTHER VEHICLES	TOTAL
Daily (7am-7pm)	142	96	6,431	6,668
Morning Peak (8-9am)	16	11	555	581
Evening Peak (5-6pm)	6	5	656	667

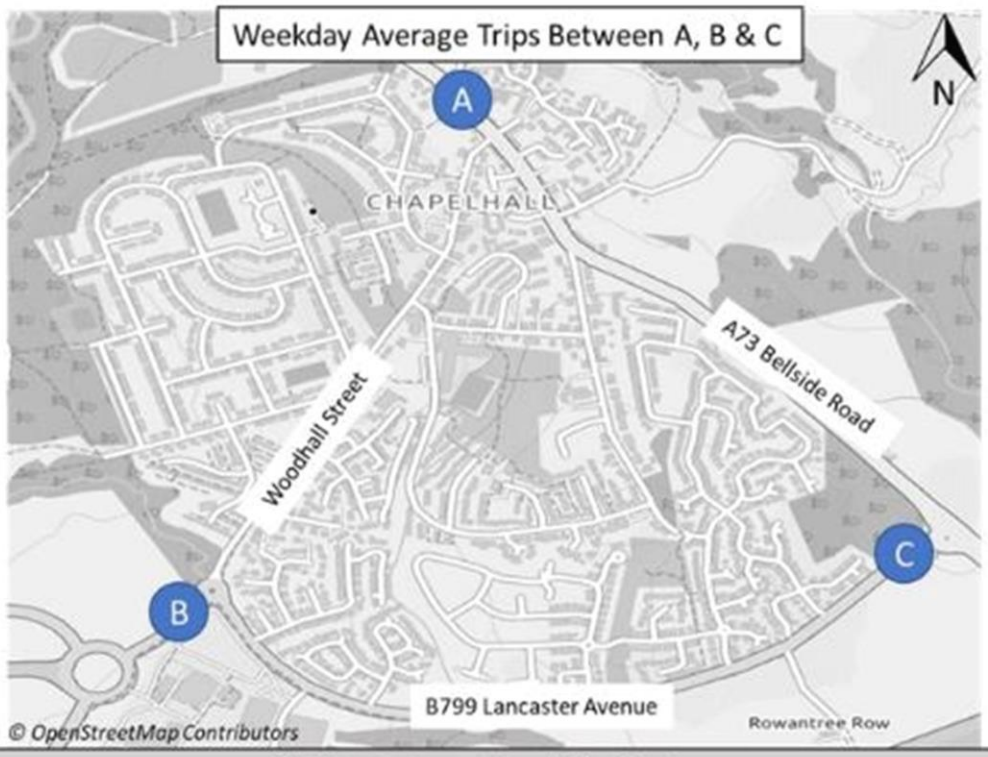
Figure 3.8: Through Trips in Chapelhall

A review of **Figure 3.8** shows that an average of 6,668 vehicles were observed in Woodhall Street and Lauchope Street between 7am and 7pm, of which 20% (1,328) are through trips with no purpose in the village. The survey results for HGVs have been split into those below and those above 7.5 tonnes, for the twelve hour period. For HGVs below 7.5 tonnes 34% (48) passed through without stopping and 66% (94) had a purpose within the village. For HGVs over 7.5 tonnes 26% (25) passed through without stopping and 74% (71) has a purpose within the village.

The survey results confirm that overall, traffic which enters Woodhall Street and Lauchope Street has a purpose within the village. A maximum of two HGVs over 7.5 tonnes travel through Woodhall Street and Lauchope Street without stopping in a one hour period. Consequently, this confirms that a 7.5 tonne weight restriction would not have a significant impact in reducing HGV movements. Therefore, it is recommended that the alternative route via the B799 Lancaster Avenue is clearly signposted to further encourage greater use of this route.

When reviewing the routing map shown in **Figure 3.8** there is an alternative route via the A73 Bellside Road and the B799 Lancaster Avenue. On this basis a review has been undertaken to

understand the total number of trips travelling from point A to B directly, or via point C. This can be seen in **Figure 3.9**.



All Trips Between A and B by Route								
	HGV < 7.5T		HGV > 7.5T		OTHER		TOTAL	
	A-B	A-C-B	A-B	A-C-B	A-B	A-C-B	A-B	A-C-B
Daily (7am-7pm)	48	27	25	29	1,255	473	1,328	530
Morning Peak (8-9am)	4	1	2	1	86	45	91	48
Evening Peak (5-6pm)	3	3	2	1	89	79	94	83

Figure 3.9: Through Trips by Route

A review of **Figure 3.9** indicates that the majority of vehicles travelling between points A and B travel through the village via Woodhall Street and Lauchope Street, with 71% (1,328) of all vehicles making this route choice between 7am and 7pm. When reviewing the survey data for larger vehicle the numbers that use the alternative route rises with only 46% (25) of vehicles traveling via Woodhall Street and Lauchope Street.

It is clear that a proportion of drivers are already using the alternative route via the B799 Lancaster Avenue and the A73 Bellside Road, and it is therefore recommended that this alternative route is

clearly signposted to encourage all vehicles to use this route and bypass the village centre. This will encourage all HGVs to use the alternative route not only those over 7.5 tonnes.

The potential improvements to the existing traffic calming scheme including the introduction of four new speed tables and three mini-roundabouts would further discourage vehicles from travelling through the village centre and encourage use of the alternative B799 Lancaster Avenue route.

4 Conclusions

The study has reviewed several sources of traffic and the main conclusions which can be drawn are:

- The 85th percentile speeds seen within the village and on the B799 Lancaster Avenue are in line with those typically seen in other towns and villages, except for one area to the south of the village where the chicanes are located, highlighting that the chicanes are not as effective at reducing vehicle speeds as was anticipated.
- There has been an overall decrease in total traffic within the village, with an increase in HGV traffic observed. This overall reduction is likely related to COVID-19 restrictions. It is unclear what the increase in HGVs could be attributed to. However, this could be attributed to increased home deliveries.
- For an average weekday, 20% (1,328) of total traffic, 34% (48) of HGVs under 7.5 tonnes and 26% (25) HGVs over 7.5 tonnes between the hours of 7am and 7pm are through trips with no purpose on Woodhall Street and Lauchope Street.
- This equates to a maximum of 2 HGVs per hour over 7.5 tonnes travelling on Woodhall Street and Lauchope Street without stopping. This highlights that a 7.5 tonne weight restriction would not have a significant impact in reducing HGV movements.
- For an average weekday, 29% of total traffic, 36% of HGVs under 7.5 tonnes and 54% of HGVs over 7.5 tonnes already bypass Woodhall Street and Lauchope Street between the hours of 7am and 7pm and use the alternative route via the B799 Lancaster Avenue and the A73 Bellside Road when travelling north/south.

5 Recommendations & Next Steps

It is recommended that the following road safety improvements are put in place:

- Introduction of two mini-roundabouts to assist vehicle access to Woodhall Street at Kennelburn Road and at Gibb Street, and the introduction of a mini-roundabout to assist vehicle access to Lauchope Street from Honeywell Crescent (*see Appendix B – Drawing 65201952-02-2-101-CHA & 65201952-02-2-102-CHA*). These will have the further benefit of assisting in traffic calming, and further discouraging through trips in the village.
- It is recommended that the chicanes are removed, and a series of speed tables are introduced including a new traffic island on Bo'Ness Road (*see Appendix B - Drawing 65201952-02-2-103-CHA*). Speed tables located in the north of the village on Lauchope Street have proved to be effective in reducing speeds to match the posted speed limit of 20mph.
- Further signage to encourage more vehicles to use the alternative route via the B799 Lancaster Avenue and the A73 Bellside Road for north/south journeys. (*see Appendix B – Proposed Signage*).

All initial concept layouts can be seen in **Appendix B.**

It is also recommended that the findings of this study be presented to key stakeholders, including the local community. This will provide an opportunity to gain feedback on the outputs from this study and recommendations proposed.

Once any improvements taken forward are implemented, post-implementation surveys will be undertaken to understand the impact and effectiveness of the improvements.

Appendix A – **Committed Road Safety Improvement Locations**

Notes

LAYOUT NOTES

1. DO NOT SCALE FROM THIS DRAWING.
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2. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
3. VEHICLE SWEPT PATH CARRIED OUT USING DB32 REFUSE VEHICLE - 2.4M WIDTH BY 7.9M LENGTH & RIGID PUBLIC NUS 12M LENGTH.
4. WHERE DEFLECTION IS NOT POSSIBLE GIVEWAY MARKINGS HAVE BEEN PROVIDED IN ACCORDANCE WITH ITEM 6.3.7 OF CHAPTER 5 OF THE TRAFFIC SIGNS MANUAL.
5. MINI-ROUNDABOUTS STUDY FOR INDICATIVE LAYOUT AND FURTHER STUDY & DETAILED DESIGN REQUIRED.
6. FURTHER CONSIDERATION REQUIRED FOR CROSSING POINTS.

KEY

PROPOSED ROUNDABOUT INSCRIBED CIRCLE DIAMETER (ICD) & CENTRAL ISLAND FROM DEPARTMENT FOR TRANSPORT - MINI ROUNDABOUTS GOOD PRACTICE GUIDANCE.

EXISTING ROAD MARKINGS

PROPOSED GIVEWAY MARKING

Rev.	Date	Amendment Details	Orig	Chk'd	App'd

Sweco
2nd Floor, Quay 2
Fountainbridge
Edinburgh
EH3 9QG
Tel: +44 (0)131 550 6300
Web: www.sweco.co.uk

SWECO

Client

NORTH LANARKSHIRE COUNCIL

Drawing Status

CONCEPT

Project Title

CHAPELHALL TRAFFIC STUDY

Drawing Title

PROPOSED MINI-ROUNDABOUT
HONEYWELL CRESCENT

Scale	Originator	Drawn	Checked	Approved
1:250m	GAW	GAW	AB	LM
Original Size	Date	Date	Date	Date
A1	11-20	11-20	11-20	11-20

Drawing Number	Revision
6501952-02-2-0101-CHA	0

0 10 20 30 40 50 60 70 80 90 100

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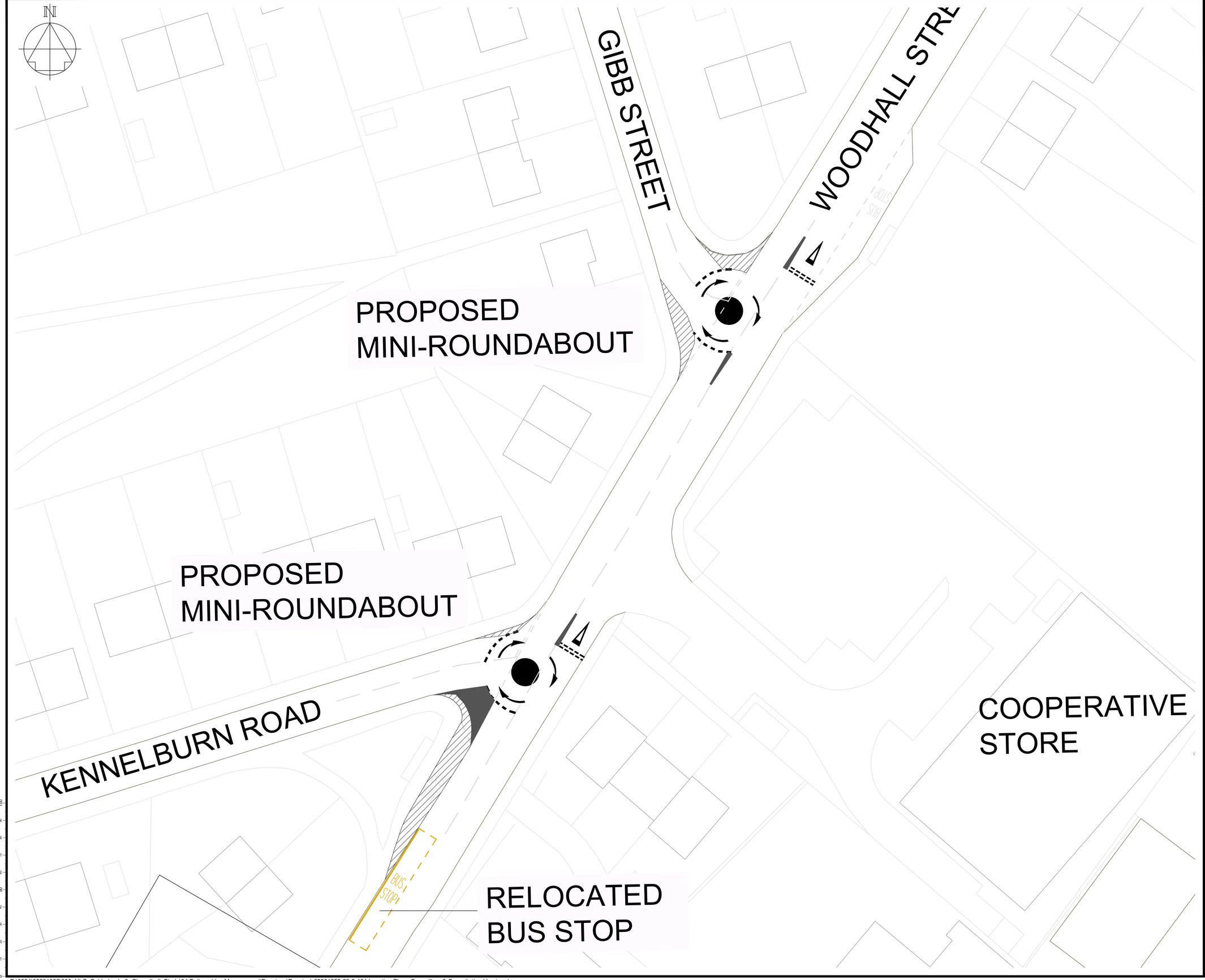

Notes

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4. WHERE DEFLECTION IS NOT POSSIBLE GIVEWAY MARKINGS HAVE BEEN PROVIDED IN ACCORDANCE WITH ITEM 6.3.7 OF CHAPTER 5 OF THE TRAFFIC SIGNS MANUAL.
5. MINI-ROUNDABOUTS STUDY FOR INDICATIVE LAYOUT AND FURTHER STUDY & DETAILED DESIGN REQUIRED.
6. FURTHER CONSIDERATION REQUIRED FOR CROSSING POINTS.

KEY

PROPOSED ROUNDABOUT INSCRIBED CIRCLE DIAMETER (ICD) & CENTRAL ISLAND FROM DEPARTMENT FOR TRANSPORT - MINI ROUNDABOUTS GOOD PRACTICE GUIDANCE.

EXISTING ROAD MARKINGS

PROPOSED GIVEWAY MARKING

Rev.	Date	Amendment Details	Orig	Chk'd	App'd
1	10-12-20	Relocate Bus stop and R'about	GAW	AB	LM

Sweco
2nd Floor, Quay 2
Fountainbridge
Edinburgh
EH3 9QG
Tel: +44 (0)131 550 6300
Web: www.sweco.co.uk

SWECO

Client: NORTH LANARKSHIRE COUNCIL

Drawing Status: CONCEPT

Project Title: CHAPELHALL TRAFFIC STUDY

Drawing Title: PROPOSED MINI-ROUNDABOUT GIBB STREET & KENNELBURN RD

Scale	Originator	Drawn	Checked	Approved
1:250m	GAW	GAW	AB	LM
Original Size	**Date**	**Date**	**Date**	**Date**
A1	11-20	11-20	11-20	11-20

Drawing Number: 6501952-02-2-0102-CHA

Revision: 1

0 10 20 30 40 50 60 70 80 90 100

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WOODHALL STREET

EXISTING CHICANE TO BE REMOVED AND NEW SPEED TABLE PROPOSED

PROPOSED TRAFFIC ISLAND

1

WOODHALL STREET

EXISTING CHICANE TO BE REMOVED AND NEW SPEED TABLE PROPOSED

WOODNEUK STREET

PROPOSED SPEED TABLE

2

EXISTING SPEED TABLE

WOODHALL STREET

GLEN AVON DR

PROPOSED SPEED TABLE

3

0 10 20 30 40 50 60 70 80 90 100

Notes

LAYOUT NOTES

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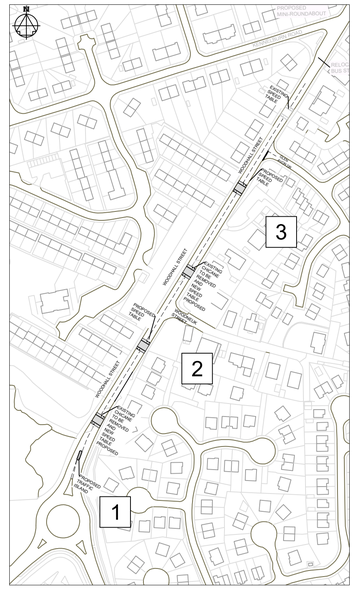
KEY

- EXISTING BUILDOUTS
- PROPOSED SPEED TABLE
- PROPOSED ROAD MARKINGS



Rev.	Date	Amendment Details	Orig	Chk'd	App'd

Sweco
2nd Floor, Quay 2
Fountainbridge
Edinburgh
EH3 9QG
Tel: +44 (0)131 550 6300
Web: www.sweco.co.uk

SWECO

Client

NORTH LANARKSHIRE COUNCIL

Drawing Status

CONCEPT

Project Title

CHAPELHALL TRAFFIC STUDY

Drawing Title

PROPOSED TRAFFIC CALMING ON WOODHALL STREET

Scale	Originator	Drawn	Checked	Approved
1:250m	JS	JS	LM	LM
Original Size	**Date**	**Date**	**Date**	**Date**
A1	12-20	12-20	12-20	12-20

Drawing Number: 6501952-02-2-0103-CHA

Revision: 0

P:\6524\65201952\000_NLC_Calderbank_&_Chapelhall_Study\04 Deliverables Management\Drawings\Drawing\ 65201952-02-2-101 Location Plan -Updates to Speed Tables - CONSULTATION EDITED VERSION.dwg

Proposed Signage for A73 Main Street

Proposed Signage for B799 Bo'Ness Road