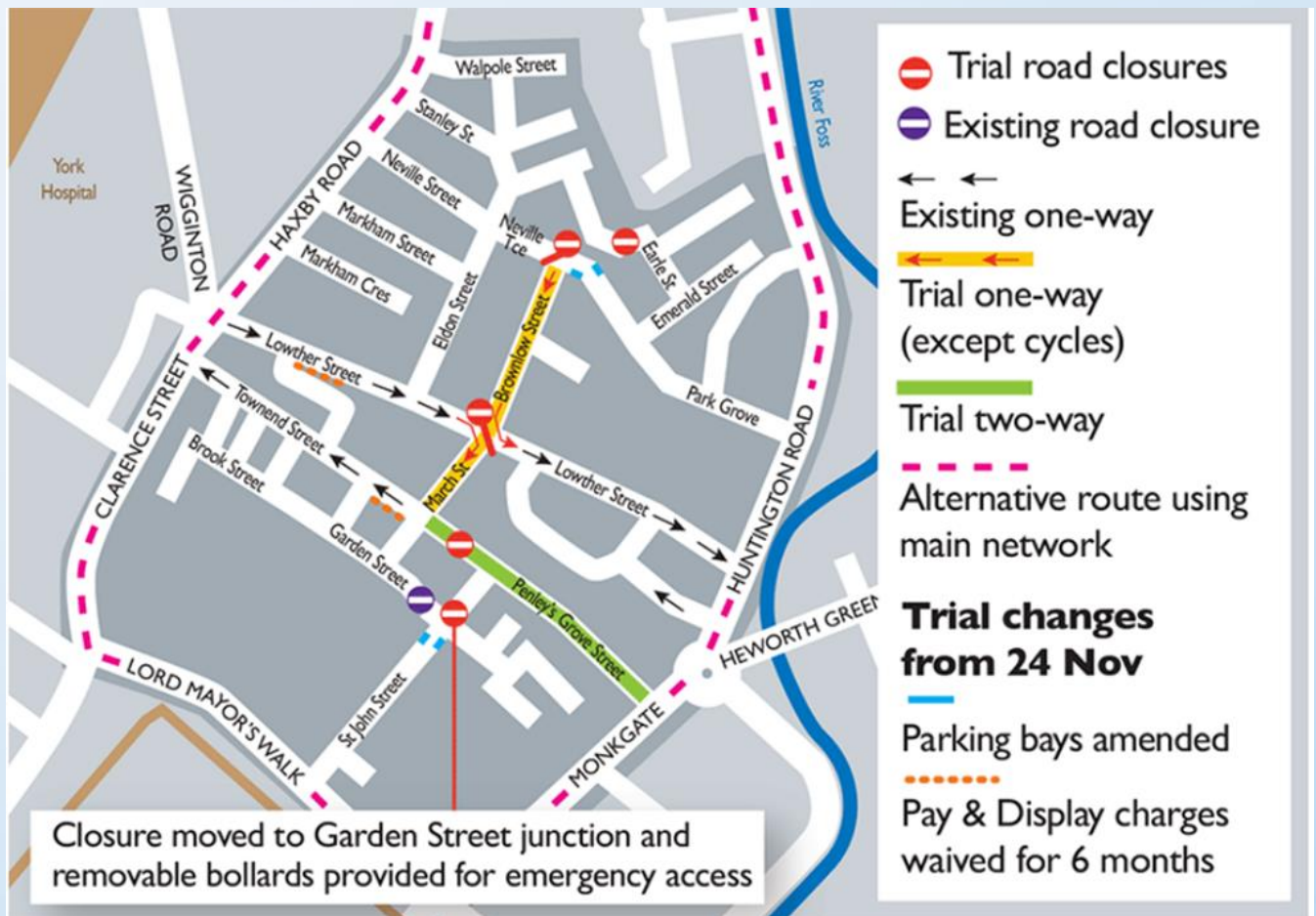




City of York Council

THE GROVES, YORK

Low Traffic Neighbourhood Trial - Monitoring Report





City of York Council

THE GROVES, YORK

Low Traffic Neighbourhood Trial - Monitoring Report

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CONTENTS

1	INTRODUCTION	1
1.1	OVERVIEW	1
1.2	BACKGROUND INFORMATION	1
1.3	MONITORING SCOPE	1
1.4	REPORT STRUCTURE	2
2	TRAFFIC SURVEY DATA ANALYSIS	3
2.1	INTRODUCTION	3
2.2	TRAFFIC SURVEY DATA ANALYSIS	4
2.3	TRAFFIC SURVEY DATA SUMMARY	20
3	BUS JOURNEY TIME DATA ANALYSIS	21
3.1	INTRODUCTION	21
3.2	SERVICE 5 (STRENSALL - CITY – ACOMB)	23
3.3	SERVICE 6 (CLIFTON MOOR - CITY – UNIVERSITY (CAMPUS EAST))	24
3.4	SERVICE 12 (FOXWOOD – MONKS CROSS)	25
3.5	BUS JOURNEY TIME SUMMARY	25
4	AIR QUALITY DISPERSION MODELLING	26
4.1	SEE SEPARATE WSP TECHNICAL REPORT – AVAILABLE 10.12.21	26
5	RESULTS OF THE GROVES TELEPHONE SURVEYS	27
5.1	INTRODUCTION	27
5.2	SUMMARY RESULTS	28
6	SURVEY – INTRODUCTION AND METHODOLOGY	29
6.1	INTRODUCTION	29

6.2	PUBLIC CONSULTATION	30
6.3	METHODOLOGY	30
7	SURVEY – ANALYSIS / RESULTS	33
<hr/>		
7.1	SURVEY	33
7.2	DEMOGRAPHICS	55
8	SUMMARY & CONCLUSION	59
<hr/>		
8.1	SUMMARY	59
8.2	CONCLUSION	59

TABLES

Table 2-1 - Survey dates used in assessment	4
Table 2-2 - Validation of October 2019 traffic data at J2	10
Table 2-3 - J2 - 12 Hour Traffic flow changes (2019 to 2021)	10
Table 2-4 - J2 AM Peak Traffic flow changes (2019 to 2021)	11
Table 2-5 - J2 PM Peak Traffic flow changes (2019 to 2021)	11
Table 2-6 - J2 Traffic flow changes (2019 to 2021) between 1600-1700	12
Table 3-1 - Service 5 - Changes in Average Journey Times (in Time Format) - Weekday	23
Table 3-2 - Service 5 - Changes in Average Journey Times (in Time Format) - Weekend	23
Table 3-3 - Service 6 - Changes in Average Journey Times (in Time Format) - Weekday	24
Table 3-4 - Service 6 - Changes in Average Journey Times (in Time Format) - Weekend	24
Table 3-5 - Service 12 - Changes in Average Journey Times (in Time Format) - Weekday	25
Table 3-6 - Service 12 - Changes in Average Journey Times (in Time Format) – Saturdays	25
Table 7-1 – Main Reason for Interest in the LTN: reasons provided in open comments	34
Table 7-2 – Influence on walking in The Groves: reasons provided in open comments	38
Table 7-3 – Influence on cycling in The Groves: reasons provided in open comments	40
Table 7-4 – Reasons for driving in The Groves: reasons provided in open comments	42
Table 7-5 - Influence on driving in The Groves: reasons provided in open comments.	44

Table 7-6 – Actions taken in terms of driving in The Groves: reasons provided in open comments	45
Table 7-7 – Support / Opposition towards the trial: reasons provided in open comments	46
Table 7-8 - Support / Opposition towards the trial (surrounding network): reasons provided in open comments	47
Table 7-9 – Q18 – Compared by residents of The Groves, and those living elsewhere	52
Table 7-10 – Impact of the trial: impacts provided in open comments	53
Table 7-11 - Impact of the trial (surrounding network): impacts provided in open comments	54
Table 7-12 – Additional thoughts or comments: feedback provided in open comments	54

FIGURES

Figure 2-1 - Junctions to be counted	3
Figure 2-2 - % Change over 12 hours (PCUs)	5
Figure 2-3 - % Change over Peak Hours (0800-0900 & 1700-1800) (PCUs)	6
Figure 2-4 - Absolute increase in cycle trips over 12 hours	7
Figure 2-5 - % Change over 12 hours (PCUs)	8
Figure 2-6 - % Change over Peak Hours (0800-0900 & 1700-1800) (PCUs)	8
Figure 2-7 - % Change over 12 hours (PCUs)	13
Figure 2-8 - % Change over Peak Hours (0800-0900 & 1700-1800) (PCUs)	13
Figure 2-9 - % Change over 12 hours (PCUs)	15
Figure 2-10 - % Change over Peak Hours (0800-0900 & 1700-1800) (PCUs)	15
Figure 2-11 - % Change over 12 hours (PCUs)	17
Figure 2-12 - % Change over Peak Hours (0800-0900 & 1700-1800) (PCUs)	17
Figure 2-13 - % and absolute Change over 12 hours (PCUs)	19
Figure 2-14 - Absolute Change in cycle movements over 12 hours	20
Figure 3-1 - No. 5 Route	21
Figure 3-2 - No. 6 Route	22
Figure 3-3 - No. 12 Route	22
Figure 6-1 - Example code frame	32

Figure 6-2 - Example of coding data entry form	32
Figure 7-1 - Please tell us the main reason why you are interested in the scheme and/or want to share your views?	33
Figure 7-2 - Do you or any members of your household at present own, or have continuous use of, any of the following motor vehicles?	34
Figure 7-3 - Do you personally own, or have access to a bicycle or electric powered bicycle?	35
Figure 7-4 - Do you have any long-term physical impairment or illness that impacts on your day-to-day activities?	35
Figure 7-5 - How often do you typically walk in The Groves area?	36
Figure 7-6 - How satisfied were you with your experience of walking in The Groves, before the trial?	36
Figure 7-7 - How satisfied are you with your experience of walking in The Groves with the trial in place?	37
Figure 7-8 - Has the Low Traffic Neighbourhood trial influenced how often you walk in The Groves?	37
Figure 7-9 - How often do you typically cycle in The Groves area?	38
Figure 7-10 - How satisfied were you with your experience of cycling in The Groves, before the trial?	39
Figure 7-11 - How satisfied are you with your experience of cycling in The Groves with the trial in place?	39
Figure 7-12 - Has the Low Traffic Neighbourhood trial influenced how often you cycle in The Groves?	40
Figure 7-13 - Do you currently drive to, or through, The Groves by car or other motorised vehicle (taxi, motorcycle, etc)?	41
Figure 7-14 - Did you previously drive to, or through, The Groves by car or other motorised vehicle (taxi, motorcycle, etc) before the trial?	41
Figure 7-15 - When driving through The Groves what would you say was, or is, your main purpose for these journeys?	42
Figure 7-16 - Has the Low Traffic Neighbourhood trial influenced how often you drive in The Groves?	43
Figure 7-17 - Which of the following have you done as a direct result of the Low Traffic Neighbourhood Trial?	44
Figure 7-18 - On a scale of 1-10, to what extent do you support the Low Traffic Neighbourhood trial in The Groves?	46



Figure 7-19 - Postcode Plot - Positive Responses to Q18 by postcode (6 to 10 selected)	48
Figure 7-20 - Postcode Plot - Positive Responses to Q18 by postcode (6 to 10 selected)	49
Figure 7-21 - Postcode Plot - Negative Responses to Q18 by postcode (1 to 5 selected)	50
Figure 7-22 - Postcode Plot - Negative Responses to Q18 by postcode (1 to 5 selected)	51
Figure 7-23 - What do you feel about the current impact of the Low Traffic Neighbourhood Trial on the following areas?	53
Figure 7-24 - Are you...?	55
Figure 7-25 - Which age group do you belong to?	56
Figure 7-26 - Postcode Plot - York	57
Figure 7-27 - Postcode Plot - The Groves	58

APPENDICES

APPENDIX A

TRAFFIC SURVEY ANALYSIS

APPENDIX B

BUS JOURNEY TIME DATA

APPENDIX C

THE GROVES TELEPHONE SURVEY RESULTS

APPENDIX D

THE GROVES BOUNDARY

APPENDIX E

CYC ONLINE SURVEY

APPENDIX F

OPEN-ENDED SURVEY RESULTS

1 INTRODUCTION

1.1 OVERVIEW

- 1.1.1. WSP has been commissioned by City of York Council (CYC) report on the monitoring of impacts of an Experimental Traffic Regulation Order (ETRO) to introduce a Low Traffic Neighbourhood (LTN) in The Groves area of York. The scheme was implemented in September 2020 and has been in place for more than a year. In accordance with the terms of the ETRO, the Council as highway authority need to review the effects of the scheme to inform the decision on whether or not to make the measures permanent.
- 1.1.2. The main aspect of the scheme to close an existing through-route south-east along Lowther Street which has been historically used by north-south traffic - particularly from Wigginton Road - to avoid a section of the inner ring road.
- 1.1.3. It is understood that use of this route by large numbers of vehicles was a matter of concern for residents and has been previously raised by the Groves Residents Association with Council officers in the past.
- 1.1.4. The main through-routes within The Groves are eastbound on Lowther Street, westbound on Penley's Grove Street, and to a much lesser extent the movements between Stanley Street and Park Grove via Eldon Street/Terrace, Amber Street, Earle Street and Emerald Street.

1.2 BACKGROUND INFORMATION

- 1.2.1. Concerns over the route were raised again during consultations with the Groves Residents Association and individual residents during discussions on the master planning of the area (part of the Council's Housing Environment Improvement Programme (HEIP)). A key issue of concern was the impact of the rat-run and a desire by some to close it off to improve residential amenity, safety and air quality.
- 1.2.2. In 2019 at the request of the Council, WSP undertook modelling of a number of potential schemes using the Council's existing SATURN traffic model to determine the potential traffic impacts of preventing through traffic using the Groves area and the potential redistribution of trips and changes to traffic flows on nearby roads including the York Inner Ring Road. This modelling work was followed by Low Traffic Neighbourhood (LTN) scheme design including signing and lining and CYC opened the scheme on 4th September 2020 after a period of public consultation and council decision session.
- 1.2.3. The Council has a stated aim to be carbon neutral by 2030 and has also committed to improving air quality through the city centre, in particular (York's AQMA Area 1 takes in part of the Groves). Consultation with residents about the wider Groves Regeneration Project has identified through-traffic as one of the major concerns for residents.

1.3 MONITORING SCOPE

- 1.3.1. The monitoring of the effects of the scheme have included quantitative and qualitative work summarised below:

Quantitative

- Traffic counts (including cyclists) at several surrounding junctions before the scheme and 1 week, 2 weeks and approx. 1 year after implementation
- Analysis of resulting traffic data and comparison of results 'before and after'
- Analysis of bus journey time data (provided by CYC) for before and after the scheme for services passing through the area;
- Air Quality 'dispersion modelling' to assess the likely change in air quality due to the scheme, particularly through the Groves.

Qualitative

- Analysis of results of Online survey (designed by WSP for CYC) which was managed through the Council's web site
- Results of brief telephone interviews / correspondence with local businesses/organisations to determine their views about the scheme and whether they felt it should be made permanent
- Analysis of results of the questionnaire survey (including locations of survey postcodes/ISPs).

1.3.2. The purpose of this report is to provide a summary of the results of key impacts of the scheme on traffic and transport and to also analyse the responses to the Council's survey to enable officers and Members to take an informed decision on the way forward for the management of traffic in this area. This report is in line with the scope agreed with Council officers.

1.3.3. This report provides the key/summary findings and results; full traffic results and analysis are attached at **Appendix A**.

1.4 REPORT STRUCTURE

1.4.1. The structure of this report is outlined below:

- Chapter 2: Traffic Survey Data Analysis (before and after assessments)
- Chapter 3: Bus Journey Time Analysis
- Chapter 4: Air Quality Assessment – *see separate technical report*
- Chapter 5: Telephone surveys – local businesses and organisations
- Chapter 6: Design of Survey Questionnaire
- Chapter 7: Summary results/responses from Survey Questionnaire
- Chapter 8: Summary & Conclusion

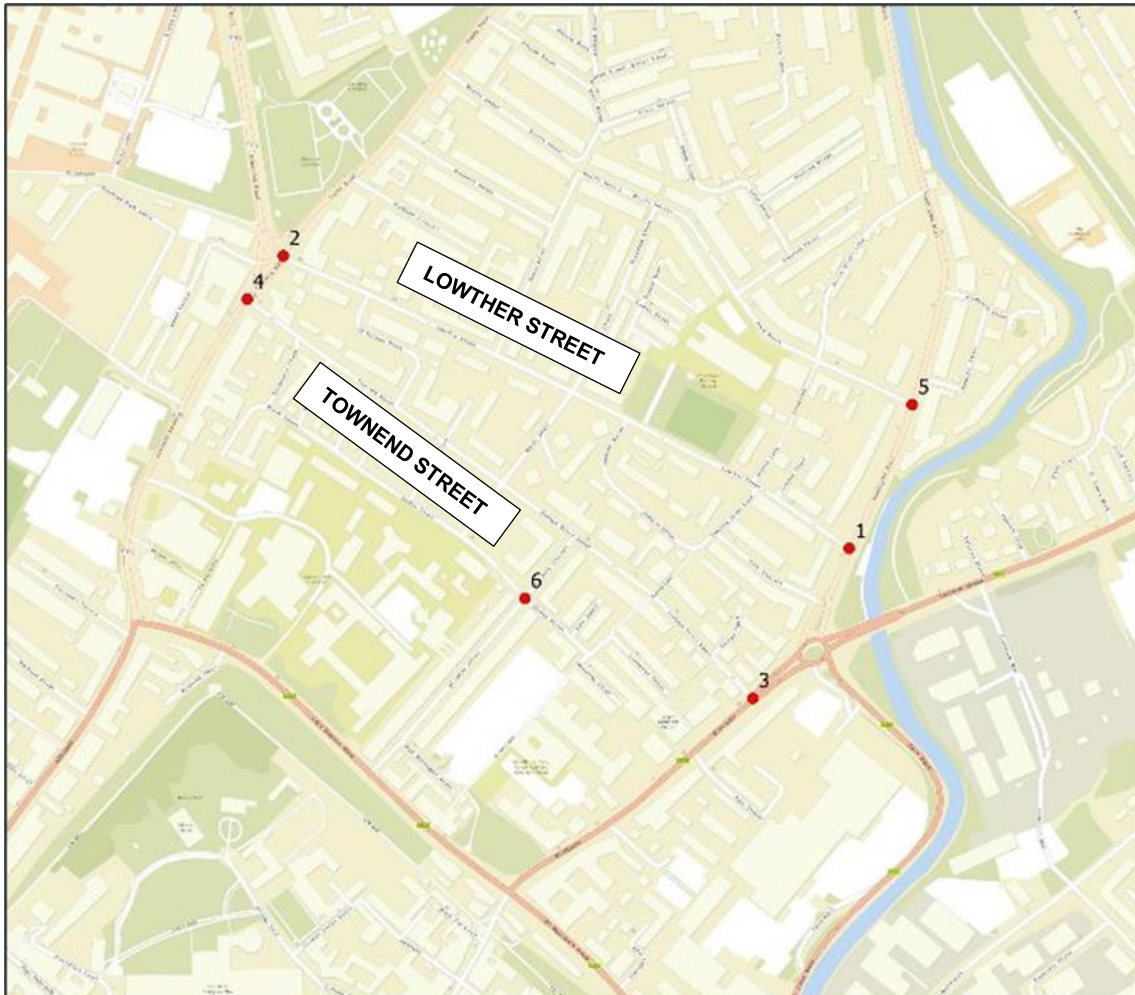
2 TRAFFIC SURVEY DATA ANALYSIS

2.1 INTRODUCTION

2.1.1. Six junctions were identified to have traffic counts undertaken and all surveys were scoped out and commissioned by CYC. These are listed below and shown in Figure 2-1.

- Junction 1: Huntington Road / Lowther Street Junction
- Junction 2: Lowther Street / Haxby Road Junction
- Junction 3: Penley's Grove Street / Monkgate Junction
- Junction 4: Haxby Road / Townsend Street
- Junction 5: Huntington Road / Park Grove
- Junction 6: St John Crescent / Garden Street / St John Street

Figure 2-1 - Junctions to be counted



2.1.2. Surveys were undertaken shortly before the implementation of the LTN, 1 week and 2 weeks immediately after it was opened and then repeated again in September 2021 after approximately a year of operation. The key dates are below.

Table 2-1 - Survey dates used in assessment

Week Number	Description	Survey Dates	
		Weekday	Weekend
1	Pre-scheme Implementation	26th and 27th August 2020	29th and 30th August 2020
SCHEME OPENED – 2 ND SEPTEMBER			
2	1 week post scheme Implementation	2nd and 3rd September 2020	5th and 6th September 2020
3	2 weeks post scheme Implementation	9th and 10th September 2020	12th and 13th September 2020
4	1 year post scheme Implementation	15th and 16th September 2021	11th and 12th September 2021

2.1.3. It should be noted that the before-scheme traffic data for junction 2 (Haxby Road / Lowther Street) did not survey the movements to and from Wiggington Road. CYC were not made aware of this until the survey data was provided which was after the LTN scheme had been implemented.

2.1.4. Therefore, in the absence of this data we have used an October 2019 weekday survey (used by the Council for its other projects) which provides the movements to/from Wiggington Road before the LTN was put in place. This is a reasonable approach, and this survey is comparable with the 2020 surveys.

2.2 TRAFFIC SURVEY DATA ANALYSIS

2.2.1. Whilst the first week of surveys were very close to the opening of the scheme but for the purposes of comparison, weeks 2, 3 and 4 from Table 2.1 have been compared to week 1 (full data appended).

2.2.2. Clearly, due to when the scheme was implemented, traffic patterns will have been affected by some changes in behaviour due to the pandemic such as working from home and some commuter trips switching from bus to car. Therefore, these results need considering with a degree of caution.

2.2.3. The data is for the most part presented in Passenger Car Units (PCUs) which is a metric used in transportation engineering, to assess traffic-flow rate on a highway and ascribes different values to each vehicle type depending on its size / length etc. In this case, the following values have been used:

- Car – 1
- LGV – 1.5
- Small HGV – 1.5
- Large HGV – 2.4

- Bus – 2
- Motorcycle – 0.4
- Pedal Cycle – 0.2

2.2.4. Therefore, a flow of 100 cars, 20 LGVs, 1 bus and 3 cycles would have PCU value of 132.6 whereas the actual number of vehicles is 124. A flow of 100 cycles and 2 buses would only have a PCU value of 24 because of the overall smaller size / impact of the vehicles.

2.2.5. The key junctions affected are discussed below for the changes recorded from the weekday data. Data and comparisons for all surveyed junctions and periods including weekends are appended.

J1 – HUNTINGDON ROAD / LOWTHER STREET

2.2.6. Figures below show the % change (from Aug 2020 flows) for AM, PM, and 12 Hour vehicle flow in passenger car units (PCUs) which take into account different vehicle types.

WK 2	Sept 2020 - 1 week post scheme
WK 3	Sept 2020 - 2 week post scheme
WK 4	Sept 2021 - 1 year post scheme

Figure 2-2 - % Change over 12 hours (PCUs)

Percentage Difference
12 Hour Total

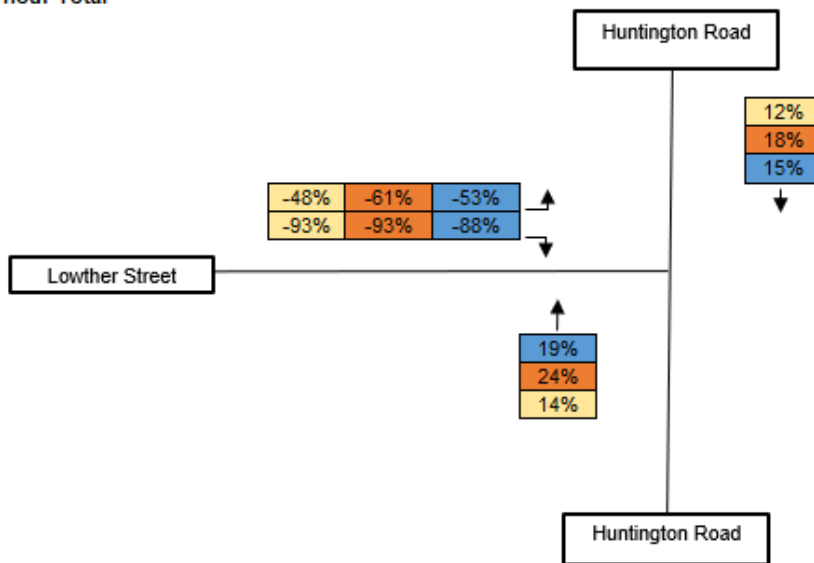
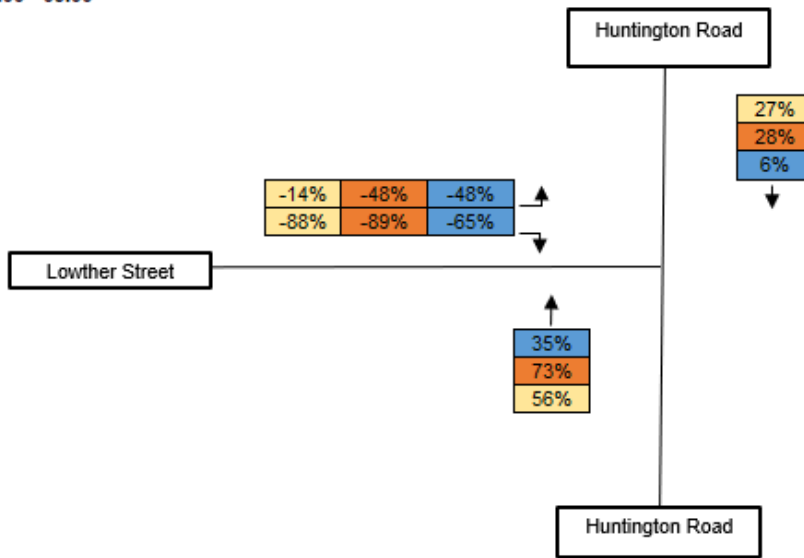
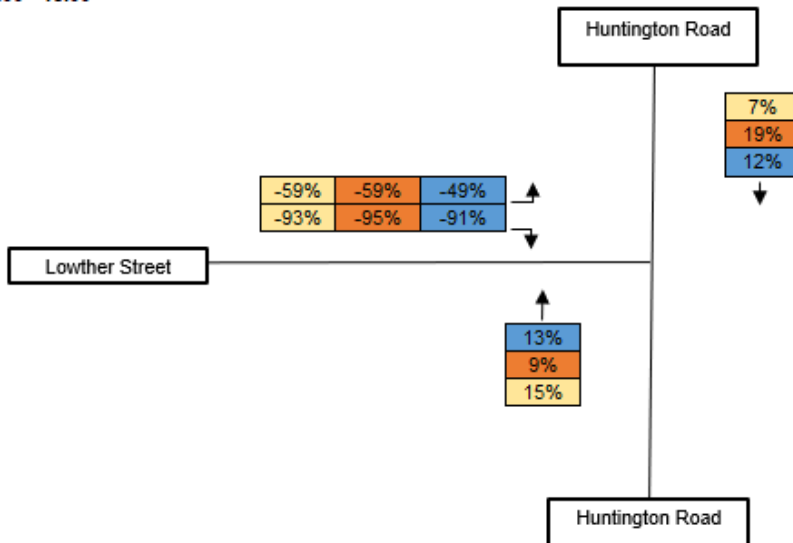


Figure 2-3 - % Change over Peak Hours (0800-0900 & 1700-1800) (PCUs)

Percentage Difference
08:00 - 09:00



Percentage Difference
17:00 - 18:00



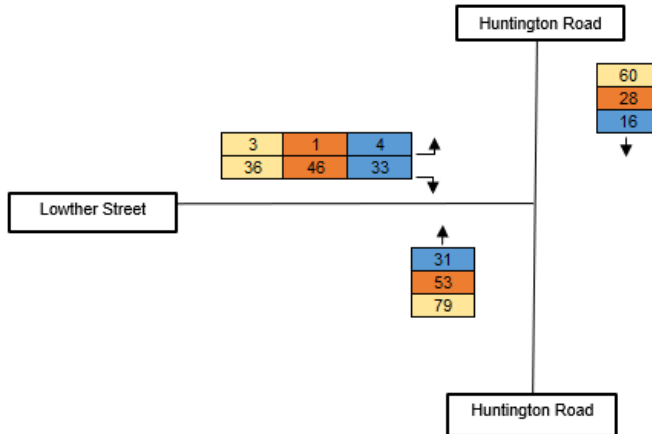
- 2.2.7. Clearly, as would be expected post-closure there has been a substantial decrease in vehicle movements down Lowther Street over the 12 hours surveyed. The left turn onto Huntington Road reduced by 48% after a year and the right turn reduced by 93%. This is a reduction of 4,440 PCUs. The right turn was by far the dominant movement accounting for more than 90% of the movements from Lowther Street before the scheme was introduced which is in line with the modelling and observations.
- 2.2.8. The consequent impact on Huntington Road is 12% southbound and 14% northbound (across 12 hours).

2.2.9. In terms of the impact on cycle movements has been positive with the absolute increase across 12 hours shown in Figure 2.4 below.

Figure 2-4 - Absolute increase in cycle trips over 12 hours

WK 2	Sept 2020 - 1 week post scheme
WK 3	Sept 2020 - 2 week post scheme
WK 4	Sept 2021 - 1 year post scheme

Net Difference
12 Hour Total



J2 – LOWTHER STREET / HAXBY ROAD

2.2.10. As explained in Section 2.1 above, when the ‘before’ surveys were done, traffic data for junction 2 (Haxby Road / Lowther Street) did not include the movements to and from Wiggington Road. The analysis below is therefore in two parts; the first examines the Haxby Road North and South arms and Lowther Street and the second part (Tables 2.1 to 2.5) provides some assessment of the changes including Wigginton Road.

Figures below show the % change (from Aug 2020 flows) for AM, PM, and 12 Hour vehicle flow in passenger car units (PCUs) which take into account different vehicle types.

WK 2	Sept 2020 - 1 week post scheme
WK 3	Sept 2020 - 2 week post scheme
WK 4	Sept 2021 - 1 year post scheme

Figure 2-5 - % Change over 12 hours (PCUs)

Percentage Difference
12 Hour Total

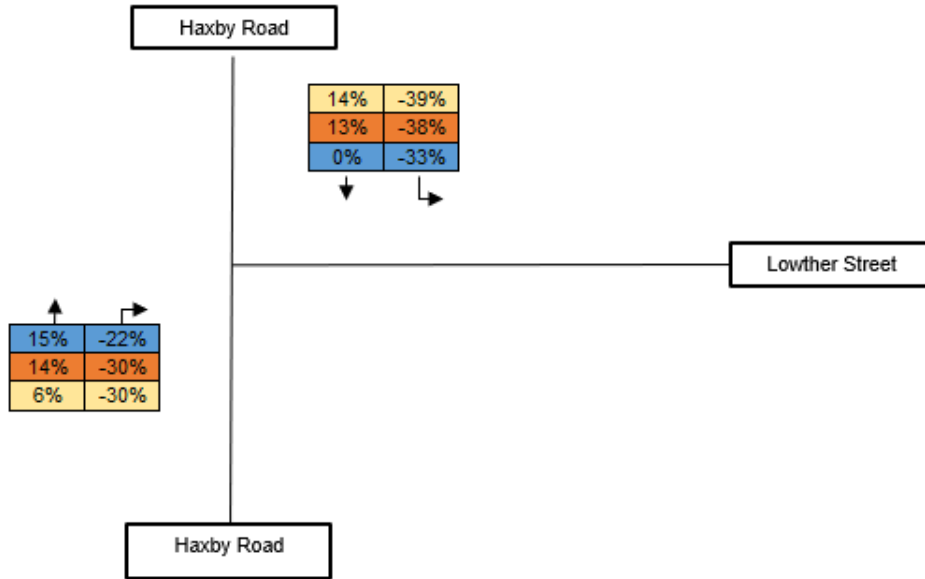
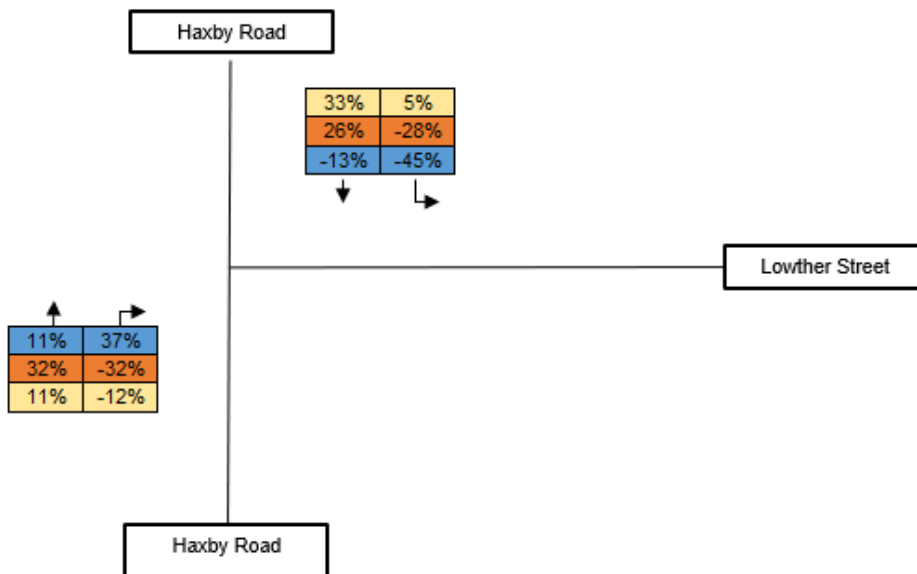
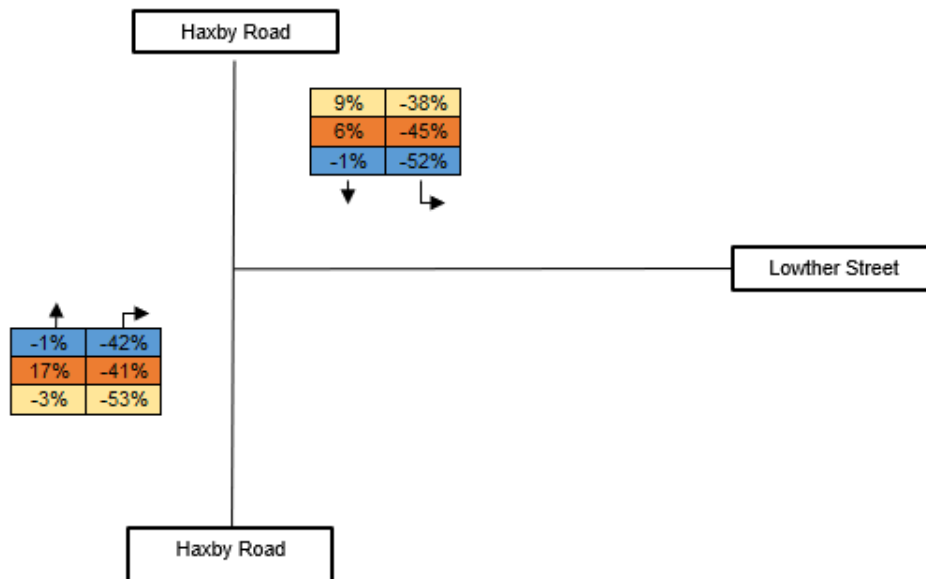


Figure 2-6 - % Change over Peak Hours (0800-0900 & 1700-1800) (PCUs)

Percentage Difference
08:00 - 09:00



Percentage Difference
17:00 - 18:00



- 2.2.11. Clearly, as would be expected post-closure there has been a substantial decrease in vehicle movements turning right and left down Lowther Street. (particularly the right turn onto Huntingdon Rd – 93% reduction after a year). The associated increases on Haxby Road are comparatively low.
- 2.2.12. Overall, the change in absolute counted 12 Hour flow between week 1 (before scheme) to week 4 (Sept 2021) on Haxby Road is an increase of 93 vehicles or 2%.
- 2.2.13. The Wigginton Road arm wasn't counted in 2020 (before the scheme was implemented) but clearly movements which had previously travelled from Wigginton Rd to Lowther Street would need to use Clarence Street and the Inner Ring Road. The resulting increases are discussed below.

J2 – LOWTHER STREET / HAXBY ROAD – PART 2

- 2.2.14. In order to determine the change in traffic flows on Wigginton Road before and after the scheme, an October 2019 weekday survey held by the Council has been compared to the September 2021 data.
- 2.2.15. To check this data, Table 2.1 shows the 12 hr PCU movements from the 2019 count and the 2020 data (Week 1 – pre scheme). Whilst the flows differ slightly the proportions on each turning movement are very similar as the table shows.

Table 2-2 - Validation of October 2019 traffic data at J2

Movement	Oct 2019 12 Hr (PCUs)	Aug 2020 12 Hr (PCUs)	Approximate % Turning movement
Haxby Road South to Haxby Road North	2157	1790	44
Haxby Road North to Haxby Road South	1918	1610	40
Haxby Road North to Lowther Street	336	335	8
Haxby Road South to Lowther Street	392	328	8
			100%

2.2.16. Tables 2.2 to 2.5 below compare the weekday October 2019 survey with Week 4 to show the changes after scheme implementation. The periods shown are 12 hour surveyed period (0700-1900), AM Peak (0800-1900), PM Peak (1700-1800) and other peak period (1600-1700)

Table 2-3 - J2 - 12 Hour Traffic flow changes (2019 to 2021)

From	To			2019	Wk4	% Change
Haxby Road North	Lowther Street	A	E	336	208	-38.10%
Haxby Road North	Haxby Road South	A	D	1918	1904	-0.73%
Haxby Road North	Wigginton Road	A	B	2968	2984	0.54%
Haxby Road South	Haxby Road North	D	A	2157	2020	-6.35%
Haxby Road South	Lowther Street	D	E	392	237	-39.54%
Haxby Road South	Wigginton Road	D	B	5150	4190	-18.64%
Wigginton Road	Haxby Road North	B	A	2817	4024	42.85%
Wigginton Road	Lowther Street	B	E	3564	290	-91.86%
Wigginton Road	Haxby Road South	B	D	1699	3491	105.47%
				21001	19348	-7.87%

Table 2-4 - J2 AM Peak Traffic flow changes (2019 to 2021)

From	To			2019	Wk4	% Change
Haxby Road North	Lowther Street	A	E	32	21	-34.38%
Haxby Road North	Haxby Road South	A	D	245	233	-4.90%
Haxby Road North	Wigginton Road	A	B	298	298	0.00%
Haxby Road South	Haxby Road North	D	A	182	140	-23.08%
Haxby Road South	Lowther Street	D	E	28	14	-50.00%
Haxby Road South	Wigginton Road	D	B	443	374	-15.58%
Wigginton Road	Haxby Road North	B	A	208	306	47.12%
Wigginton Road	Lowther Street	B	E	301	26	-91.36%
Wigginton Road	Haxby Road South	B	D	162	370	128.40%
				1899	1782	-6.16%

Table 2-5 - J2 PM Peak Traffic flow changes (2019 to 2021)

From	To			2019	Wk4	% Change
Haxby Road North	Lowther Street	A	E	22	14	-36.36%
Haxby Road North	Haxby Road South	A	D	151	176	16.56%
Haxby Road North	Wigginton Road	A	B	307	278	-9.45%
Haxby Road South	Haxby Road North	D	A	218	210	-3.67%
Haxby Road South	Lowther Street	D	E	34	20	-41.18%
Haxby Road South	Wigginton Road	D	B	427	391	-8.43%
Wigginton Road	Haxby Road North	B	A	359	473	31.75%
Wigginton Road	Lowther Street	B	E	249	36	-85.54%
Wigginton Road	Haxby Road South	B	D	158	292	84.81%
				1925	1890	-1.82%

Table 2-6 - J2 Traffic flow changes (2019 to 2021) between 1600-1700

From	To			2019	Wk4	% Change
Haxby Road North	Lowther Street	A	B	22	21	-4.55%
Haxby Road North	Haxby Road South	A	C	158	182	15.19%
Haxby Road North	Wigginton Road	A	D	302	298	-1.32%
Haxby Road South	Haxby Road North	C	A	217	238	9.68%
Haxby Road South	Lowther Street	C	B	26	25	-3.85%
Haxby Road South	Wigginton Road	C	D	426	372	-12.68%
Wigginton Road	Haxby Road North	D	A	323	439	35.91%
Wigginton Road	Lowther Street	D	B	283	34	-87.99%
Wigginton Road	Haxby Road South	D	C	130	309	137.69%
				1887	1918	1.64%

- 2.2.17. The total traffic movements through the junction is slightly reduced between pre and post scheme (between 2 and 8%).
- 2.2.18. Whilst the Haxby Road North to Lowther Street reduced by 128 across 12 Hours, the Haxby Road North to Haxby Road South movement also decreased (likely to be due to traffic using Huntington Rd from the north).
- 2.2.19. The Wigginton Road to Lowther Street movement across 12 hours reduced by 3274 across 12 hours (92%), the turns from Wigginton Road onto Haxby Rd North and Haxby Road South increased by only 2999 in total resulting in a net reduction of traffic from Wigginton Rd over the 12 hours.
- 2.2.20. Traffic on the Haxby Road North and Haxby Road South approaches also reduced across the 12 hour periods between pre and post scheme.
- 2.2.21. The Wigginton Road to Haxby Road south movement increased by between 84% and 138% across the periods analysed above. Across 12 hours the increase was 1,792 PCUs or 105 percent.

J3 – MONKGATE / PENLEY’S GROVE STREET

- 2.2.22. Figures below show the % change (from Aug 2020 flows) for AM, PM, and 12 Hour vehicle flow in passenger car units (PCUs) which take into account different vehicle types.

WK 2	Sept 2020 - 1 week post scheme
WK 3	Sept 2020 - 2 week post scheme
WK 4	Sept 2021 - 1 year post scheme

Figure 2-7 - % Change over 12 hours (PCUs)

Percentage Difference
12 Hour Total

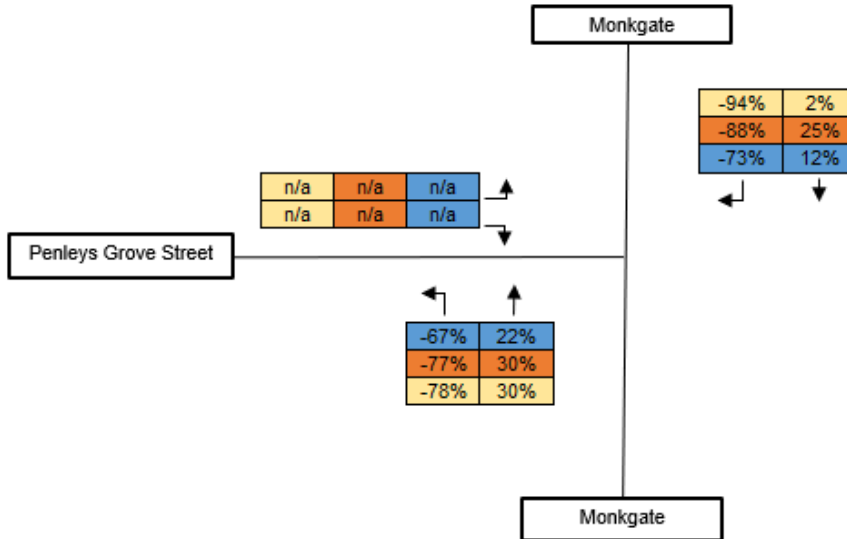
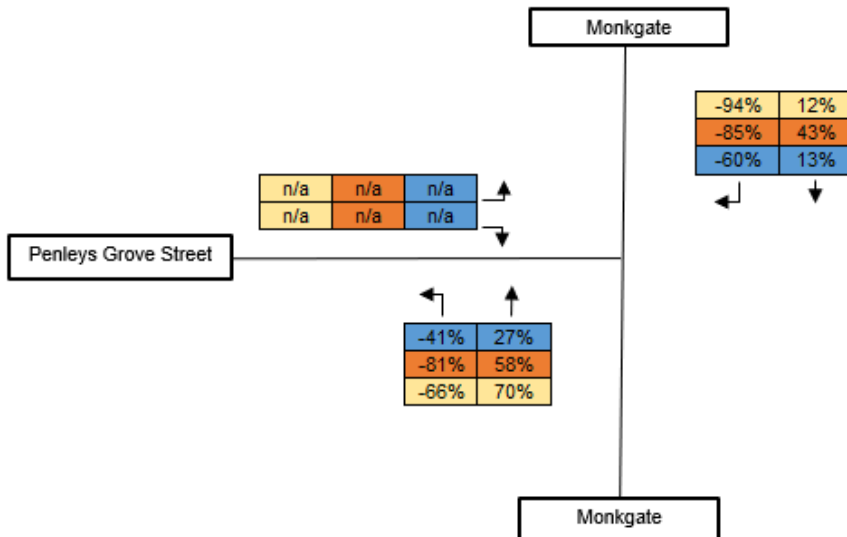
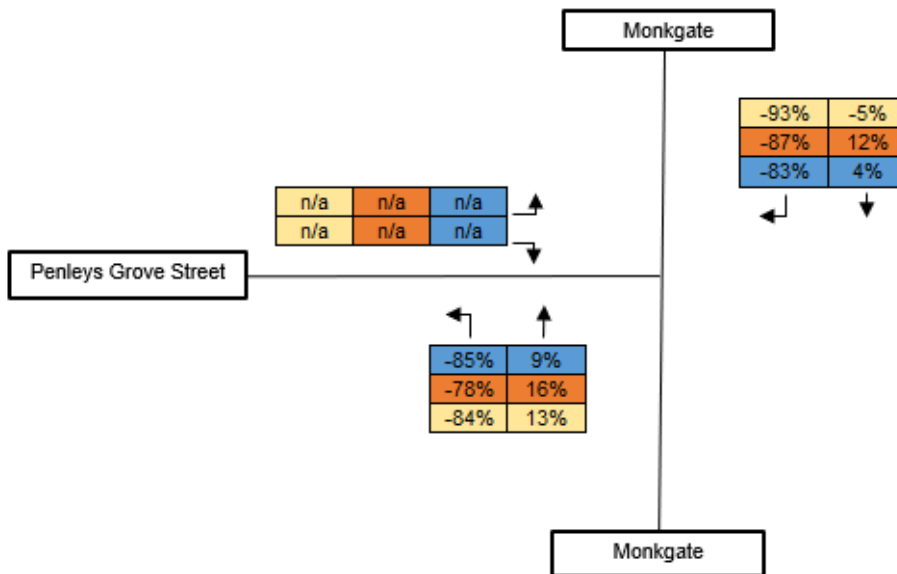


Figure 2-8 - % Change over Peak Hours (0800-0900 & 1700-1800) (PCUs)

Percentage Difference
08:00 - 09:00



Percentage Difference
17:00 - 18:00



2.2.23. Clearly, as would be expected post-closure there has been a substantial decrease in vehicle movements up Penley’s Grove Street (from Monkgate). Whilst the highest increase recorded northbound along Monkgate in the **morning peak** is 70%, this equates to an absolute increase of 281 PCUs which is less than 5 vehicles per minute.

2.2.24. The absolute increase southbound along Penley’s Grove Street is 220 vehicles across 12 hours (20 in the evening peak).

J4 – HAXBY ROAD / TOWNEND STREET

2.2.25. Figures below show the % change (from Aug 2020 flows) for AM, PM, and 12 Hour vehicle flow in passenger car units (PCUs) which take into account different vehicle types

WK 2	Sept 2020 - 1 week post scheme
WK 3	Sept 2020 - 2 week post scheme
WK 4	Sept 2021 - 1 year post scheme

Figure 2-9 - % Change over 12 hours (PCUs)

Percentage Difference
12 Hour Total

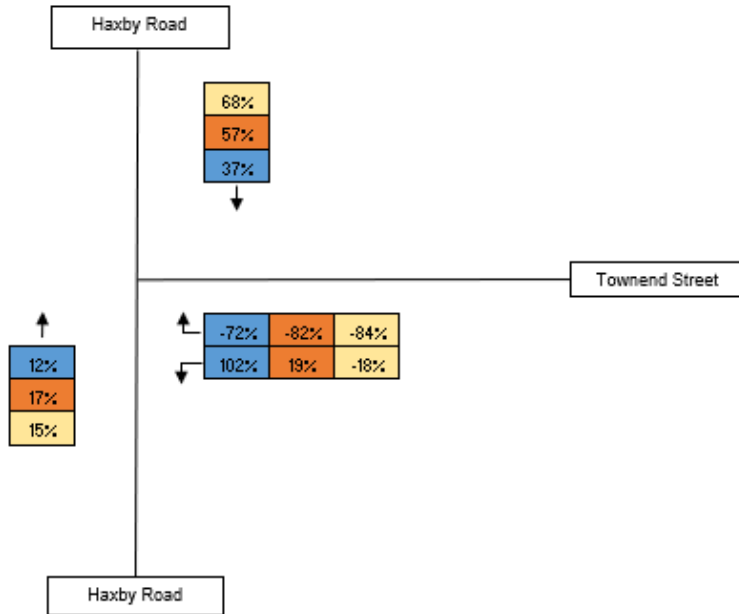
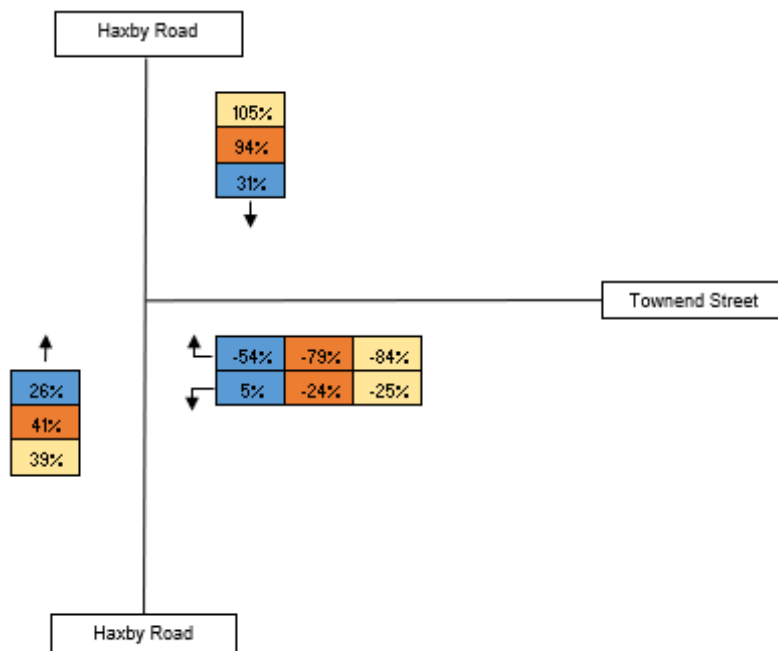
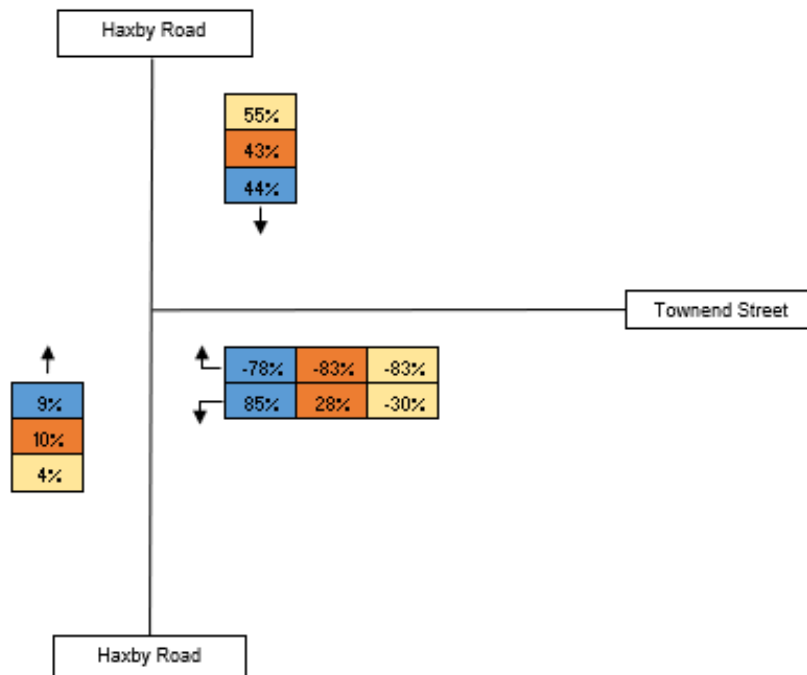


Figure 2-10 - % Change over Peak Hours (0800-0900 & 1700-1800) (PCUs)

Percentage Difference
08:00 - 09:00



Percentage Difference
17:00 - 18:00



- 2.2.26. Clearly, as would be expected post-closure there has been a substantial decrease in vehicle movements from Townend Street (comprising a reduction in 1,961 vehicle movements across the 12 hours counted). The increase both ways along Haxby Road was 3,062 movements.
- 2.2.27. In terms of the impact on cycle movements has been positive with a percentage increase across 12 hours turning into Penley's Grove Street of 30% after 1 year of operation (30 additional cycle movements).

J5 – HUNTINGTON ROAD / PARK GROVE

- 2.2.28. Figures below show the % change (from Aug 2020 flows) for AM, PM, and 12 Hour vehicle flow in passenger car units (PCUs) which take into account different vehicle types

WK 2	Sept 2020 - 1 week post scheme
WK 3	Sept 2020 - 2 week post scheme
WK 4	Sept 2021 - 1 year post scheme

Figure 2-11 - % Change over 12 hours (PCUs)

Percentage Difference
12 Hour Total

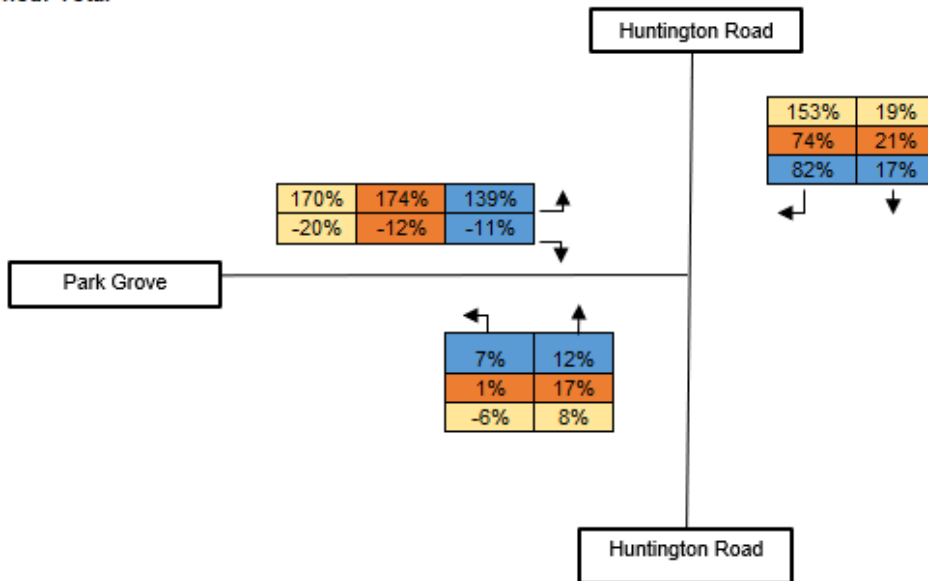
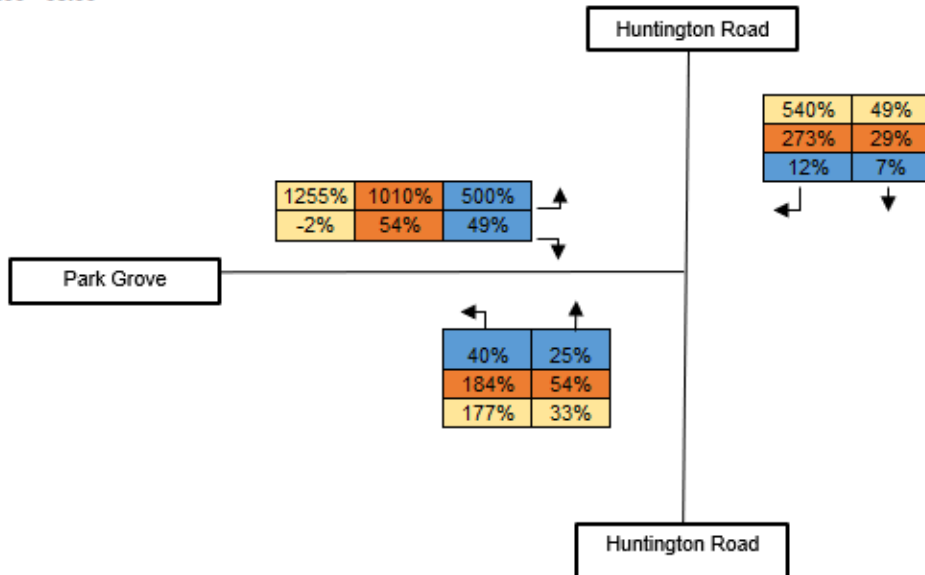
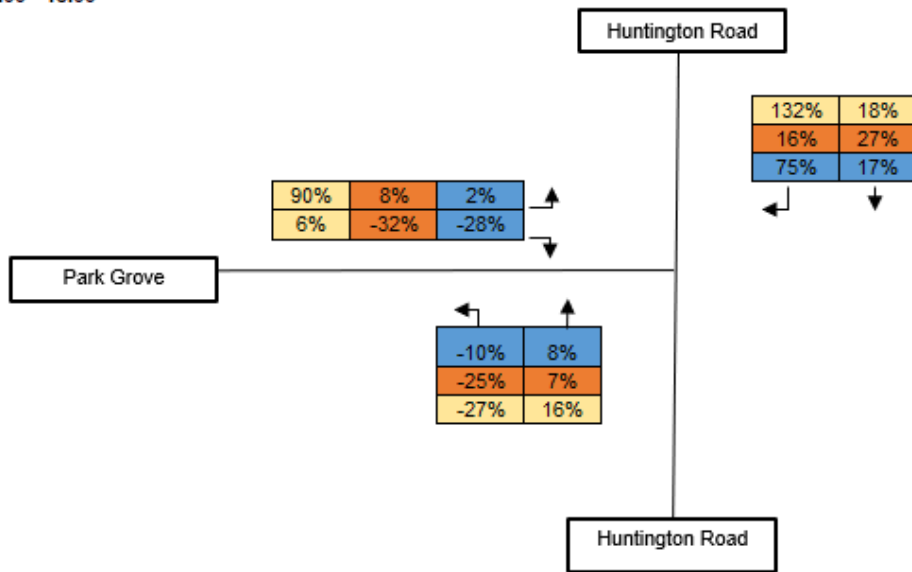


Figure 2-12 - % Change over Peak Hours (0800-0900 & 1700-1800) (PCUs)

Percentage Difference
08:00 - 09:00



Percentage Difference
17:00 - 18:00



- 2.2.29. Whilst the right turn in and left turn out of Park Grove show a large increase, the *absolute* change from week 1 (before scheme) to week 4 (Sept 2021) for the weekday 12 hour period is 103 to 267 movements which equates to 164 PCUs or an average of 14 movements per hour.
- 2.2.30. The change in the morning peak hour of 1255% (Fig. 2.11) should be set in the context of a change in absolute flow of 1 PCU to 14 PCUs.
- 2.2.31. The change in absolute counted 12 Hour flow between week 1 (before scheme) to week 4 (Sept 2021) on Huntington Road is 6747 to 7693 which is 14%. By contrast, the change in cycle trips for the same period was an increase of 20% (338 to 404 movements).

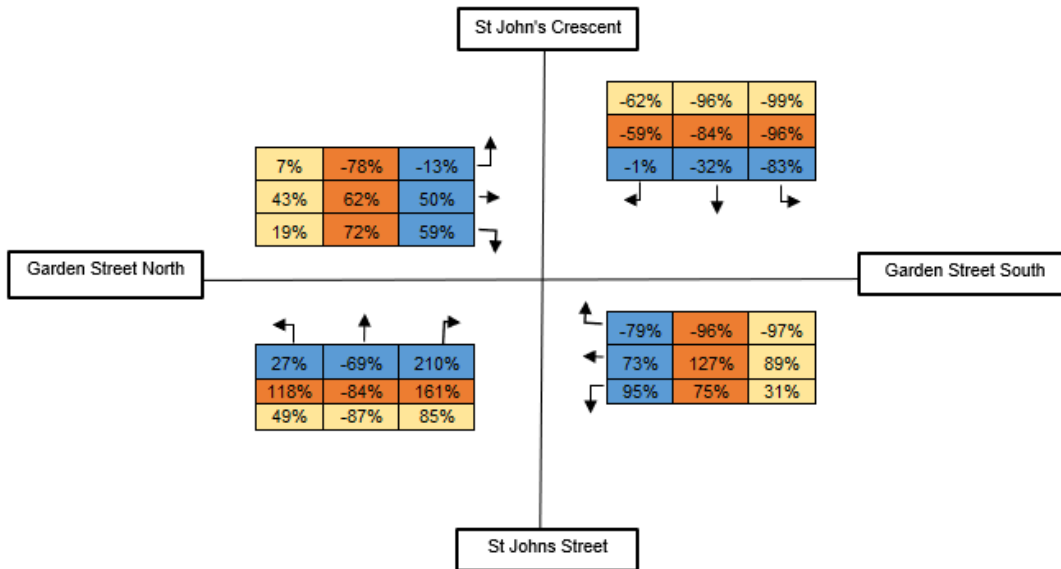
J6 – ST JOHN’S STREET / GARDEN STREET NORTH

- 2.2.32. Figures below show the % and absolute change (from Aug 2020 flows) for 12 Hour vehicle flow in passenger car units (PCUs) which take into account different vehicle types.
- 2.2.33. As the flows are relatively low the absolute numbers are also shown to set the percentages in context. Peak hours are not shown as the before and after counted movements were very low.

WK 2	Sept 2020 - 1 week post scheme
WK 3	Sept 2020 - 2 week post scheme
WK 4	Sept 2021 - 1 year post scheme

Figure 2-13 - % and absolute Change over 12 hours (PCUs)

Percentage Difference
12 Hour Total



Net Difference
12 Hour Total

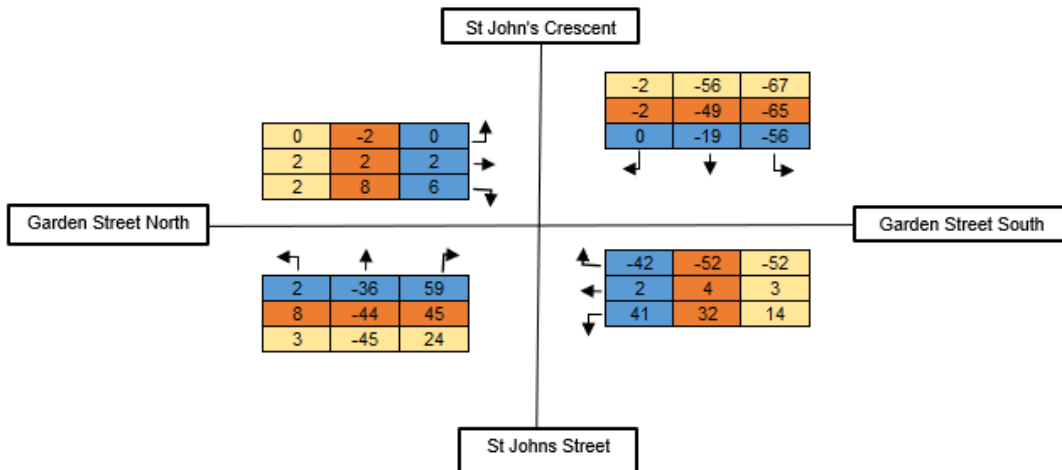
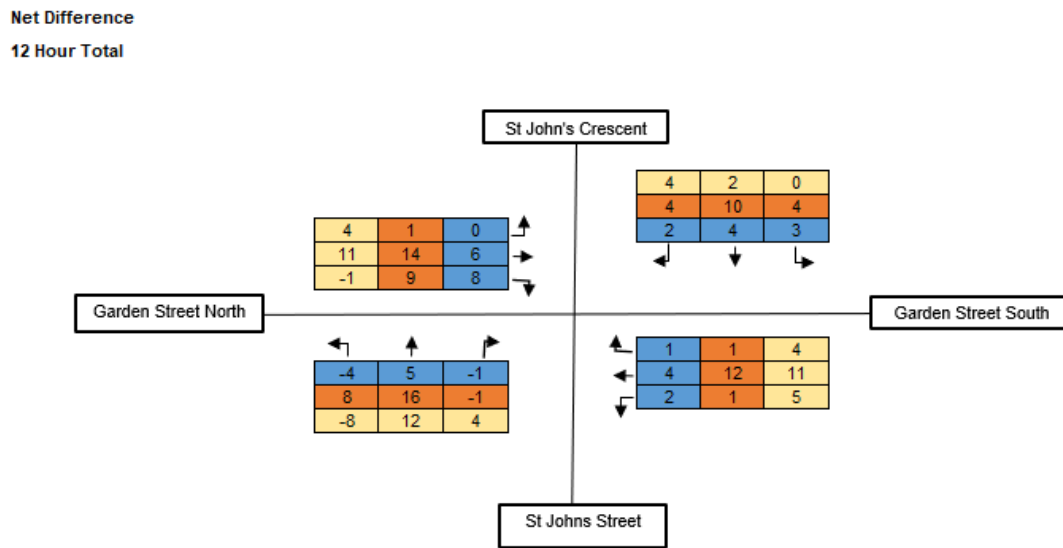


Figure 2-14 - Absolute Change in cycle movements over 12 hours



- 2.2.34. Whilst there was a relatively low number of cycle movements through this junction the change from week 1 (before scheme) to week 4 (Sept 2021) equates to 127 to 173 movements (36% increase).
- 2.2.35. The overall change in vehicle trips across 12 hours comparing weeks 1 and 4 is a reduction of 53%.

2.3 TRAFFIC SURVEY DATA SUMMARY

- 2.3.1. Clearly, as would be expected, the LTN scheme resulted in a significant reduction in vehicle traffic through the Groves area and particularly Lowther Street whilst still maintaining access to the area for residents and deliveries etc. The
- 2.3.2. There has been an increase in traffic on Clarence Street, Monkgate and Huntington Road as a consequence of the measures but some vehicles appear to have taken alternative routes (for example, vehicles which previously came down Haxby Road and turned left into Lowther Street have relocated onto Huntington Road).
- 2.3.3. At the Haxby Road / Wigginton Road junction the movement from Wigginton Road to Haxby Road South increased from 208 to 306 PCUs in the AM peak and 158 to 292 in the PM Peak (Tables 2.3 and 2.4).
- 2.3.4. The movements down Lowther Street reduced by a total of 3557 PCUs over 12 hours (4% from Haxby Road North, 4% from Haxby Road South and 92% from Wigginton Road) between 2019 and September 2021 (Table 2.2).
- 2.3.5. The right turn from Townend Street onto Haxby Road reduced by 1880 PCUs across the 12 hours. The northbound and southbound ahead movements on Haxby Road increase by a total of 3062 PCUs (across 12 hours) which equates to a 35% increase.

3 BUS JOURNEY TIME DATA ANALYSIS

3.1 INTRODUCTION

3.1.1. City of York Council provided bus journey time / punctuality data for routes 5, 6 and 12 (those operating closest to the Groves area) for the following periods.

- Week 1 (26th - 30th August 2020)
- Week 2 (2nd - 6th September 2020)
- Week 3 (9th - 13th September 2020)
- Week 4 (11th - 16th September 2021)

3.1.2. The routes covered and operators were as follows and the routes in the vicinity of the Groves are shown in Figures 3.1, 3.2 and 3.3.

- 5 - Strensall - City - Acomb (Operator - First)
- 6 - Clifton Moor - City – University (Campus East) (Operator - First)
- 12 - Foxwood - City - Monks Cross (single direction) (Operator - First)

Figure 3-1 - No. 5 Route

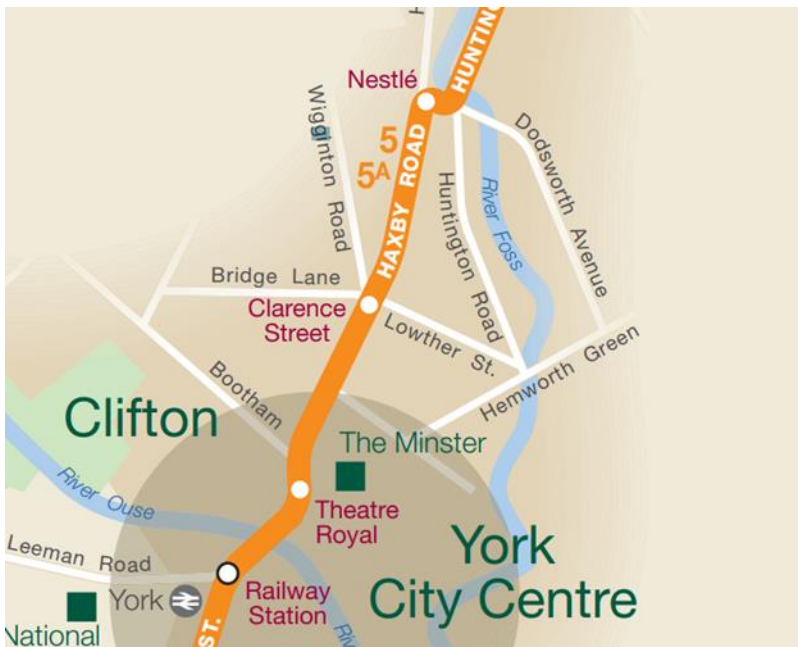
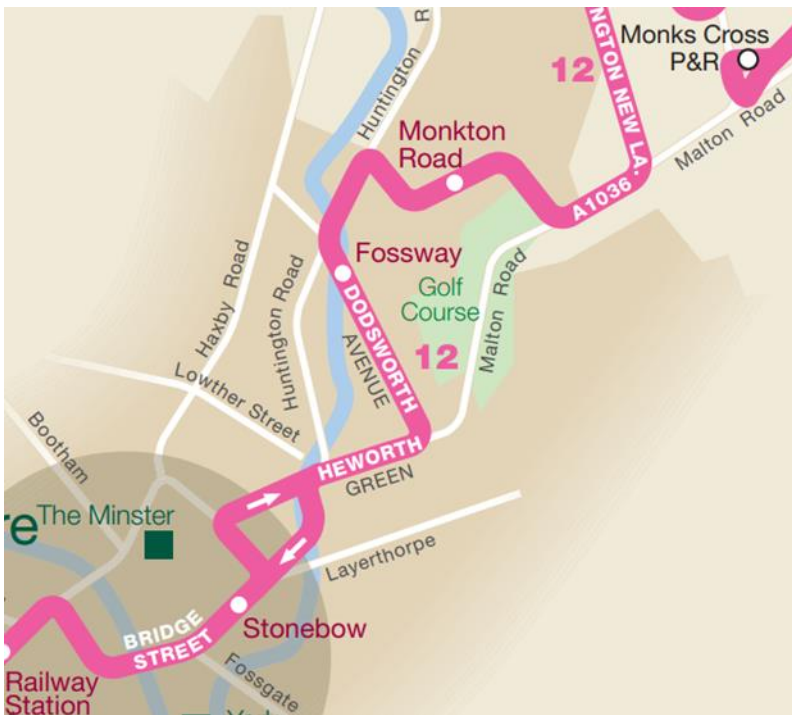


Figure 3-2 - No. 6 Route



Figure 3-3 - No. 12 Route



- 3.1.3. In analysing the journey time data (timed between particular stops), WSP has removed the 5th and 95th percentile values and also removed the rows where punctuality data was incomplete (as this was skewing the average journey times).
- 3.1.4. It should be noted that although the spreadsheet analysis provides a reasonable indication of any changes in bus journey time across the study area, from the data it is not clear whether some services are ordinarily more variable than others and this comparison would have been useful to determine to what extent the Groves scheme is actually having an impact upon bus punctuality.

3.1.5. The tables below show – in time format (Hours:Mins:Secs) – the changes to bus journey times in minutes and seconds from week 1 (before scheme implementation) to weeks 2, 3 and 4. Weekday and weekend data is provided where services operated on these days. Full data is attached at **Appendix B**.

3.2 SERVICE 5 (STRENSALL - CITY – ACOMB)

3.2.1. Timings were provided from York Theatre Royal (SLP) and Yearsley Bridge (YB) and vice versa

	Positive change (longer journey)
	Negative change (shorter journey)

Table 3-1 - Service 5 - Changes in Average Journey Times (in Time Format) - Weekday

		2020	2020	2021	2020	2020	2021
Service Number	Direction	Wednesday			Thursday		
		Week 2	Week 3	Week 4	Week 2	Week 3	Week 4
5	SLP - YB	00:00:56	00:00:23	00:00:27	00:00:28	00:01:03	00:00:42
5	YB - SLP	00:00:20	00:00:07	00:00:15	00:00:12	00:01:33	00:00:21

Table 3-2 - Service 5 - Changes in Average Journey Times (in Time Format) - Weekend

		2020	2020	2021	2020	2020	2021
Service Number	Direction	Saturday			Sunday		
		Week 2	Week 3	Week 4	Week 2	Week 3	Week 4
5	SLP - YB	00:00:25	00:00:01	00:00:23	00:00:06	00:00:40	00:01:35
5	YB - SLP	00:00:17	00:01:19	00:00:10	00:00:15	00:01:17	00:00:33

3.2.2. Overall, journey times have increased slightly since the measures were implemented although the increase is not consistent and may have been due to other factors than simply as a result of the LTN.

3.3 SERVICE 6 (CLIFTON MOOR - CITY – UNIVERSITY (CAMPUS EAST))

3.3.1. Timings were provided from York Theatre Royal (SLP) and Burton Stone Lane (BSL) and vice versa.

Table 3-3 - Service 6 - Changes in Average Journey Times (in Time Format) - Weekday

		2020	2020	2021	2020	2020	2021
Service Number	Direction	Wednesday			Thursday		
		Week 2	Week 3	Week 4	Week 2	Week 3	Week 4
6	BSL - SLP	00:00:07	00:00:36	00:00:20	00:01:18	00:00:17	00:00:56
6	SLP - BSL	00:01:17	00:00:01	00:01:00	00:00:05	00:00:59	00:00:50

	Positive change (longer journey)
	Negative change (shorter journey)

Table 3-4 - Service 6 - Changes in Average Journey Times (in Time Format) - Weekend

		2020	2020	2021	2020	2020	2021
Service Number	Direction	Saturday			Sunday		
		Week 2	Week 3	Week 4	Week 2	Week 3	Week 4
6	BSL - SLP	00:00:52	00:00:51	00:00:50	00:00:15	00:00:58	00:00:23
6	SLP - BSL	00:00:42	00:00:00	00:00:07	00:00:17	00:00:10	00:01:29

3.3.2. The above shows that Service 6 experienced some journey time variation but there are no definitive trends and almost all of the changes in average journey times are less than a minute which could have been a consequence of daily variations in traffic flows / queues so unlikely to be a direct consequence of the LTN.

3.4 SERVICE 12 (FOXWOOD – MONKS CROSS)

3.4.1. Timings were provided from Peasholme Green to Yearsley Bridge – one direction only recorded. Note service doesn't run on Sundays.

Table 3-5 - Service 12 - Changes in Average Journey Times (in Time Format) - Weekday

		2020	2020	2021	2020	2020	2021
Service Number	Direction	Wednesday			Thursday		
		Week 2	Week 3	Week 4	Week 2	Week 3	Week 4
12	PG-YB	00:00:16	00:00:28	00:00:30	00:00:06	00:00:27	00:00:43

	Positive change (longer journey)
	Negative change (shorter journey)

Table 3-6 - Service 12 - Changes in Average Journey Times (in Time Format) – Saturdays

		2020	2020	2021
Service Number	Direction	Saturday		
		Week 2	Week 3	Week 4
12	PG-YB	00:00:19	00:00:26	00:00:02

3.4.2. Service 12 experienced slight increases in average journey time but again all increases were less than 1 minute and could have been as a consequence of daily variations in traffic rather than specifically related to the LTN.

3.5 BUS JOURNEY TIME SUMMARY

3.5.1. Overall, the results do not provide any conclusive evidence that the scheme resulted in consistent or large changes in average bus journey times through this area.

3.5.2. There is an implication that journey times have lengthened in the northbound direction between 2020 and 2021. However, in comparing data from August 2020 to mid-September 2021, it's not possible to conclude with any certainty that this increase is due to the Groves trial and not just a result of an increase in traffic levels due to the onset of autumn.



4 AIR QUALITY DISPERSION MODELLING

4.1 SEE SEPARATE WSP TECHNICAL REPORT – AVAILABLE 10.12.21

5 RESULTS OF THE GROVES TELEPHONE SURVEYS

5.1 INTRODUCTION

- 5.1.1. As part of WSP's scope and in addition to the production of the questionnaire survey to be accessed online, WSP were asked to contact local organisation and businesses directly to try and ensure that the views of local stakeholders were taken into account. This exercise was separate to the online survey which all members of the public were able to complete, whether they are resident in the Groves area or further afield.
- 5.1.2. The list of organisations agreed with Council officers was as follows
- Park Grove Primary Academy
 - Groves Residents Association
 - York St John University
 - National Probation Service
 - Door 84 Youth Centre
 - Spar Lowther Street
 - Londis
 - York Tandoori on Lowther Street
 - J Rymer Funeral directors
 - Best Cut Hairdressers
- 5.1.3. These organisations were contacted direct my telephone and where this wasn't possible they were contacted by email with at least one follow up email some weeks later.
- 5.1.4. Organisations / businesses were asked the following
- *How has the trial affected your business / organisation? (negatively/positively)*
 - *Has the Low Traffic Neighbourhood trial influenced how often you/your visitors walk/cycle/drive in The Groves?*
 - *Do you feel that air quality around your premises has improved during the trial?*
 - *On a scale of 1-10, to what extent do you support the continuation of the Low Traffic Neighbourhood in The Groves?*
 - *Where they have a choice, has the trial made users of your business / organisation more/less likely to visit/shop etc?*
- 5.1.5. Unfortunately, no response was provided by three organisations despite calls and follow up emails but the rest responded and provided written or verbal comments.
- 5.1.6. The results of the focus discussions are attached at **Appendix C**. Results are summarised in Section 5.2.

5.2 SUMMARY RESULTS

- 5.2.1. Businesses which stated they relied on passing trade such as the Londis Store, Best Cut Hairdresser and Spar Store said they were significantly disadvantaged by the closure due to the impact on through-traffic and the resulting passing-trade.
- 5.2.2. Responses on support for continuation of the trial ranged from a high level of support to none at all.
- 5.2.3. A number of staff at Park Grove Primary commented on the trial and perceived effect on air quality as well as challenges for parents and teaches driving to the site. One staff member commented that the air quality around the school had improved and the LTN had not really affected how staff / parents travel to the school. He also commented that since the implementation he had noticed children living in the Groves playing more around the streets which was not something seen for a long time.
- 5.2.4. York St John University (Estates) provided the following comments

"I think we're fairly positive about [the scheme] overall. It does involve a significantly longer route to some of our sites, which in itself isn't a problem if there are wider benefits, however the main issue for us is the additional congestion (which may or may not be related to the Trial.) The worst of these is at the Townend St / Clarence St junction, where previously box junctions allowed reasonably quick exit onto Clarence St. The traffic lights are now regularly congested due to changes made here over the past couple of years. The 'keep clear' space marked out is ignored in a way that box junctions aren't, and frequently this results in long delay at Townend St, which exacerbates problems at the traffic lights when people can get out, and generally leads to a lot of blocking and aggressive driving there. The sight lines are also quite dangerous for cyclists with the current layout.

There will undoubtedly be some improvements in air quality in the middle of the day, but the congestion referenced above will result in significantly worse air quality for residents on Townend St than was previously the case, and generally air quality on Clarence St is still poor.

Cycling is probably easier through the Groves and it's right to prioritise this.

We would generally support the scheme continuation, but with the caveat that the Townend / Clarence St junction and traffic lights really do need to be looked at in some detail to improve the situation there, whether this was part of the trial scheme or not.."

- 5.2.5. The chair of the Groves Association provided comments from discussions with businesses and residents in the Groves and expressed concern that many of the objectors to the scheme are not people living in the Groves but people who were using it as a cut through to the detriment of local residents.
- 5.2.6. The discussions with local organisations brought together a range of views and these are summarised in **Appendix C**.

6 SURVEY – INTRODUCTION AND METHODOLOGY

6.1 INTRODUCTION

OVERVIEW

6.1.1. Following two years working with residents of the Groves as part of the Groves Regeneration Project, City of York Council (CYC) have identified the following as key priorities for local residents:

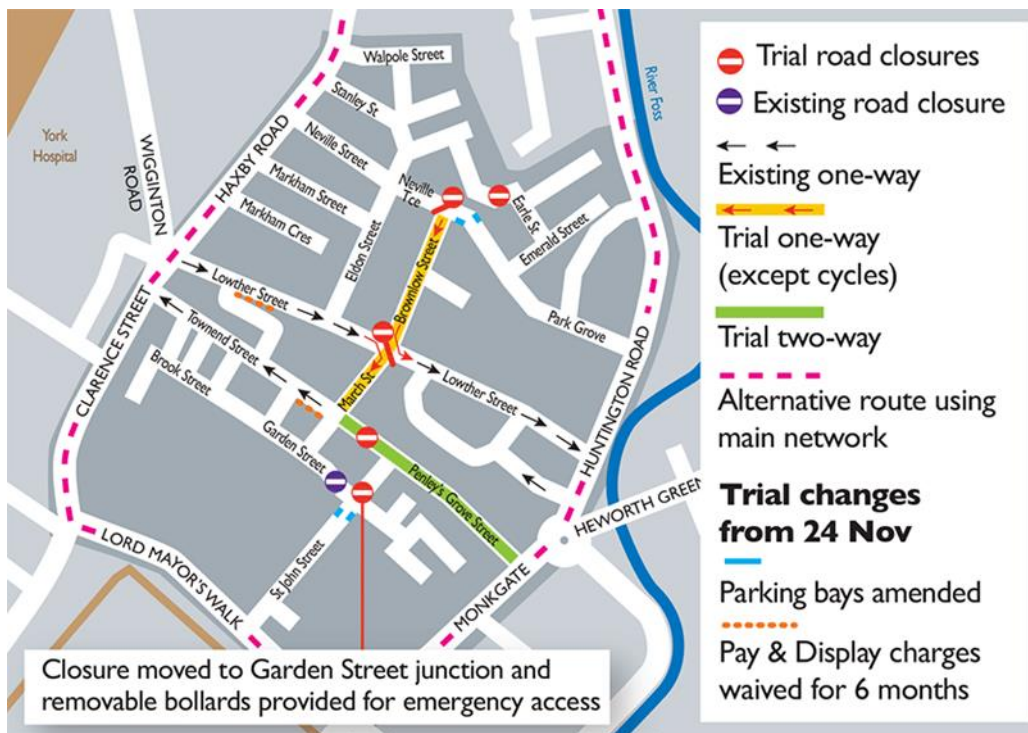
- Better air quality
- Less and slower traffic
- The chance to build on the existing sense of community

6.1.2. With these priorities in mind, it was noted that reducing levels of congestion and car dominance on streets can help lead to such outcomes. Beyond this, there are also benefits in terms of improved road safety, better air quality, improved health and wellbeing, as well as encouragement of more cycling and walking (active travel). Additionally, there are also community benefits in terms of more social interaction and less isolation, as people feel more confident and safer about their area.

6.1.3. To date, the activities undertaken by CYC towards the development of The Groves Low Traffic Neighbourhood (LTN) have been as follows:

- October 2019: Considered and agreed an outline plan to reduce through traffic in The Groves.
- February 2020: Consulted with residents and local businesses about trialling a scheme to introduce road closure points and changes to traffic routes. These will prevent unnecessary through traffic while maintaining essential access to and from homes and businesses.
- June 2020: Approved detailed plans for The Groves LTN scheme.

6.1.4. The plan below shows the extent of The Groves LTN with the temporary trial road closures, changes to traffic management arrangements, and alternative routes around the LTN area.



- 6.1.5. The introduction of The Groves LTN aims to support City of York Council's priorities of promoting sustainable travel choices and reducing traffic in residential areas. The trial of closures and traffic changes therefore started on 2 September 2020.
- 6.1.6. The road closures introduced as part of the LTN trial apply to motor vehicles, while cyclists and pedestrians are able to pass through barriers introduced to prevent traffic from entering certain streets.

6.2 PUBLIC CONSULTATION

- 6.2.1. The City of York Council were keen to ascertain what members of the public, local residents and businesses thought about the LTN trial, in terms of any benefits it had brought, any negative impacts and any suggested changes to the LTN. Therefore, a public consultation exercise was undertaken from 18th October to 14th November 2021.
- 6.2.2. The consultation questionnaire was administered online via the CYC website, with information being made available on request, in an alternative format.
- 6.2.3. This document provides an overview of the responses received to feed into the assessment of The Groves LTN trial, potential future applications and further design development.
- 6.2.4. A total of 1,514 responses were received to The Groves LTN consultation questionnaire. This represented an excellent response rate and demonstrates the level of community interest garnered towards the trial of the LTN.

 **1,514 responses received to The Groves LTN questionnaire**

6.3 METHODOLOGY

Our approach towards the analysis of the responses to The Groves LTN questionnaire can be divided into two key stages as follows, and this section outlines each in more detail:

- Analysis of the closed question data; and
- Coding of responses to the 'open' questions submitted.

ANALYSIS OF CLOSED QUESTION DATA

- 6.3.1. Data provided have been analysed using Microsoft Excel and IBM SPSS Statistics, to provide a frequency count of the responses to each closed question. This has then been converted into a chart for ease of interpretation and is followed by a narrative explaining the data.
- 6.3.2. Cross-tabulations are also used to allow responses to be compared by segmenting them into groups. For example, attitudes towards the LTN, such as supportive responses, split by age group. This allows identification as to whether there are any patterns present in the data – such as whether older and younger age groups have significantly differing attitudes towards the LTN.
- 6.3.3. Mapping is also being used to provide an easy to interpret display of geographic data, with postcode points obtained via the questionnaire being used to plot responses.

CODING

- 6.3.4. Several questions in the LTN questionnaire have open-ended elements, in which respondents could leave a comment explaining their stance on various aspects of the trial. In order to manage a large number of 'verbatim' comments, it was necessary to summarise the content of these comments to permit quantitative analysis. In order to do so, responses were reviewed and pertinent issues occurring within these comments were used to develop code frames relevant to the questions.
- 6.3.5. The code frames provided a summary of the main thematic issues raised in the comments made by respondents. For example, if a comment raised issues related to Access to The Groves for emergency services, then a 'code' was introduced to reflect this issue, and this code is to be used in any subsequent further comments that also mentioned emergency service access to the LTN. A numeric reference number was used to 'code' the same issue where it occurs in other responses.
- 6.3.6. These code frames then acted as a database from which codes were assigned to responses to each question, based on the comments expressed by the respondent in the respective question. For maximum accuracy, all coding was undertaken manually rather than using software-driven 'auto-coding' methods which often do not accurately capture elements such as figures of speech and vernacular.
- 6.3.7. The coding team carefully read, assimilated, analysed, and extrapolated the themes, insights, and meanings before coding the responses. Each response then had relevant codes allocated to it in order to identify the key themes within the comment. The codes could not be repeated in a single response, to allow a frequency count to be undertaken to identify how many respondents had raised the issue reflected by the code.
- 6.3.8. New codes were added to the code frame as new issues or topics emerged that could not be covered by the existing codes, a process that continued throughout the data processing.
- 6.3.9. Following completion of the coding, random spot checks were undertaken to ensure the quality of the coding activity, by checking for consistency and to ensure that the codes assigned to each comment were an accurate reflection of the issues raised within that comment.
- 6.3.10. Figure 6-1 shows an example of the code frame. Broadly, the code frames followed a similar structure for each question, with positive response codes appearing first – that is those codes that reflected comments which were supportive of the LTN, its ambitions, or its potential future application. Next, the codes that reflected negative sentiments appeared, with those being based on comments where problems or issues with the LTN had been present. A further section then covered suggestions – these being comments where the respondent was not overtly in opposition or support of the LTN, but where alternative suggested arrangements were proposed as a way to improve the LTN. Finally, there were some other comment items which covered elements such as criticism of the LTN plans, the questionnaire, or CYC.
- 6.3.11. For one question, a geographic element was introduced in which respondents' comments would be coded as to whether they had experienced a negative or positive outcome on a particular street within The Groves or its periphery, as a result of the implementation of the LTN.
- 6.3.12. Within the code frame, a number is assigned to each issue raised – as a more efficient method of summarising the issues. For example, the number '710' refers to a particular issue raised in the code frame – in this case 710 represents a comment which suggests that the LTN has reduced

traffic levels in the area, while code 713 is assigned where comments made indicated that parking had been made much easier as a result of the LTN changes.

Figure 6-1 - Example code frame

	Impact on local road network / car users
710	It has reduced traffic levels
711	It has reduced traffic speed / less speeding vehicles
712	It has reduced rat running (short cutting through residential areas)
713	It has made parking much easier
714	It hasn't had a negative effect on traffic / no detriment
715	Has made my journey easier (less congestion)

- 6.3.13. As the coding team read through the comments received to the open-ended questions, they then assigned the codes from the code frame to an Excel dataset which included the comments received (see example in Figure 6-2).

Figure 6-2 - Example of coding data entry form

Serial no.	Q20 - Please let us know any additional thoughts or comments on The Groves Low Traffic Neighbourhood trial. Responses (open-ended): 756 in total	Code 1	Code 2	Code 3	Code 4	Code 5
86	Was poorly thought through. An access route is needed for, at least, emergency vehicles, local deliveries and intra neighbourhood car journeys. Use rising bollards if necessary or even ANPR. And get rid of the contra flow cycle lanes. Parking on both sides of roads like Markham Street make these a death trap.	845	861	894	898	
88	Open the road back up to allow the flow of traffic to ease.	840				
89	Street needs to be open, at least for taxi and ambulance	894				
90	Ambulance access needs factoring in. I had to carry my son to the other side of barriers one night	894				

- 6.3.14. Finally, once coding was completed and spot checks undertaken, frequency tables were produced to identify the most commonly occurring issues in the open-ended comments. This allowed qualitative data to be presented in a quantitative format, thus making it easier to draw conclusions from the responses received.

CAVEATS AND CONSIDERATIONS

- 6.3.15. It should be noted that the questionnaire did not have restrictions in terms of the number of responses that came from an IP address (e.g. such that members of the same household were able to respond individually). As such, it is possible for respondents to submit multiple questionnaires – However, we are aware of no evidence of this taking place with The Groves LTN questionnaire.

7 SURVEY – ANALYSIS / RESULTS

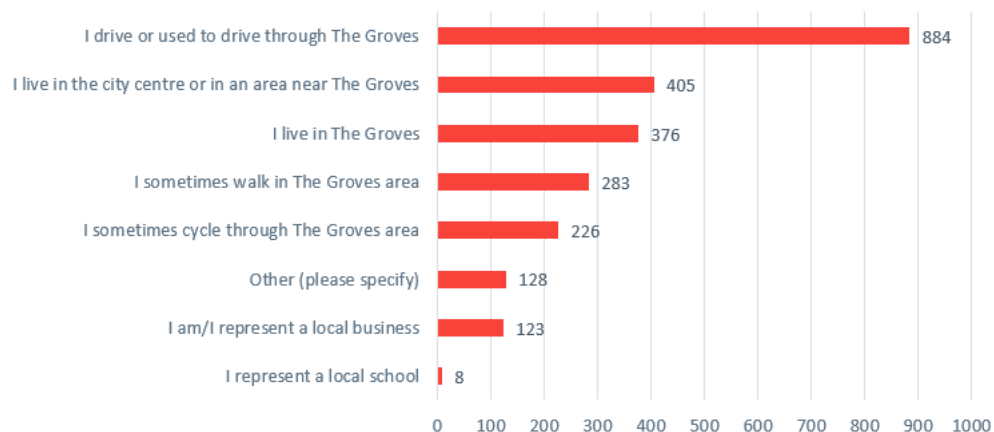
7.1 SURVEY

ABOUT YOU

Question 1 - Please tell us the main reason why you are interested in the scheme and/or want to share your views? (tick all that apply)

- 7.1.1. Respondents were asked for their main reason for sharing their view of the Groves LTN scheme. The results in Figure 7-1 highlight that almost 60% of respondents either drive, or used to drive through The Groves. This represented the most significant proportion of respondents, whilst 27% indicated that they live in the city centre or an area near The Groves, with a further 25% of respondents living in The Groves. A total of 283 respondents (19%) and 226 respondents (15%) indicated that they sometimes walk and cycle through The Groves area respectively.
- 7.1.2. The survey was completed by 1,514 respondents.

Figure 7-1 - Please tell us the main reason why you are interested in the scheme and/or want to share your views?



- 7.1.3. Question 1 was used as a 'gateway' for the following sections via 'skip logic'.
- Walking in The Groves – only respondents of who selected 'I sometimes walk in The Groves' were able to complete this section of the survey.
 - Cycling in The Groves – only respondents of who selected 'I sometimes cycle through The Groves' were able to complete this section of the survey.
 - Driving in The Groves – only respondents of who selected 'I drive or used to drive through The Groves' were able to complete this section of the survey.
- 7.1.4. Other reasons were provided by 128 respondents. These open-ended comments were coded (as described in the Methodology Section, and the most frequently occurring (top 12) of these are presented below.

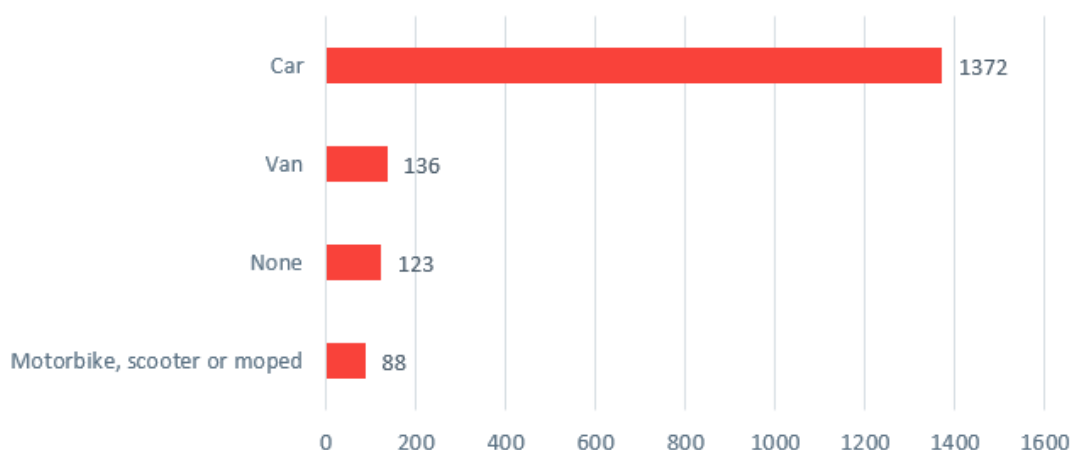
Table 7-1 – Main Reason for Interest in the LTN: reasons provided in open comments

Reason	Count
Work in the Groves area	20
Commute / travel to work through area	11
Visiting family / relatives living in the Groves	10
Drive for work - Taxi driver	10
Drive for work - Nursing / Care worker	9
Resident / I live in the Groves	8
Visiting friends living in the Groves	7
Previous resident of the Groves	6
Live elsewhere in York	6
Visiting York Hospital	6
Parent with child / children attending school in the Groves area	6
Attend church / religious services in the area	5

Question 2 - Do you or any members of your household at present own, or have continuous use of, any of the following motor vehicles? (tick all that apply)

7.1.5. Respondents were asked whether they own or have continuous use of any of a selection of motor vehicles. As shown within Figure 7-2, a significant majority (91%) of respondents said that they have continuous access to a car, whilst 9% said that they have continuous access to a van. A total of 123 respondents (8%) indicated that they have do not own or have continuous use of a vehicle, and 6% of respondents said that they have continuous access to a motorcycle, scooter or moped.

Figure 7-2 - Do you or any members of your household at present own, or have continuous use of, any of the following motor vehicles?

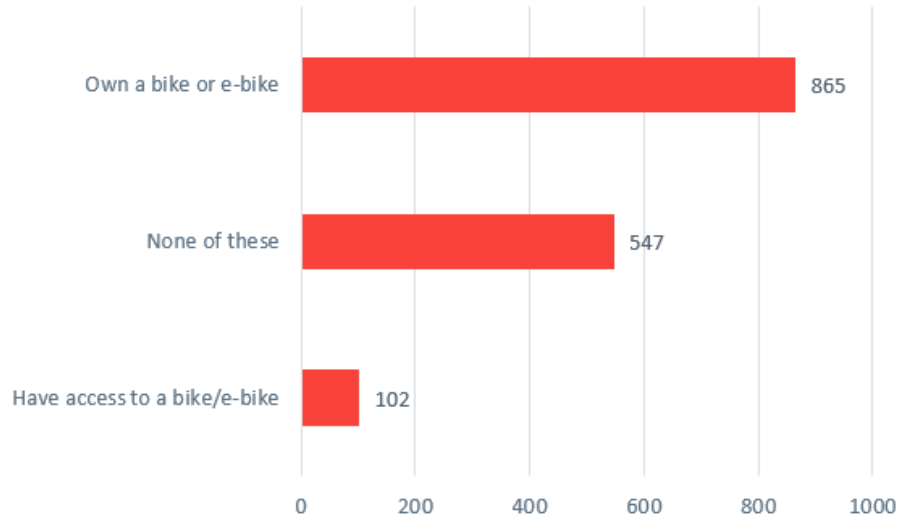


Question 3 - Do you personally own, or have access to a bicycle or electric powered bicycle? (tick all that apply)

7.1.6. Respondents were asked whether they own or have access to a bicycle or electric powered bicycle. Almost 60% of respondents indicated that they own a cycle, with 7% having access to an electric

powered bicycle. However, a total of 547 respondents (37%) highlighted that they do not have access to a bicycle (regular or electric).

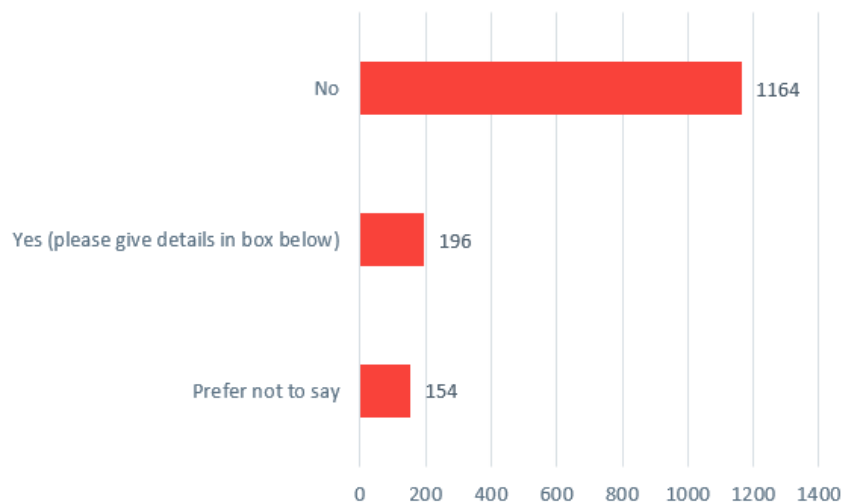
Figure 7-3 - Do you personally own, or have access to a bicycle or electric powered bicycle?



Question 4 - Do you have any long-term physical impairment or illness that impacts on your day to day activities?

- 7.1.7. City of York Council will use this information to look at views based on mobility issues, or other impairments. This information will be used to help us improve existing schemes and develop new schemes in future.
- 7.1.8. As shown within Figure 7-4, the majority of respondents stated that their day-to-day activities are not limited by a long term health problem or disability (77%), while 10% preferred not to say. A total of 196 respondents (13%) said that they are limited by a long-term health problem or disability.

Figure 7-4 - Do you have any long-term physical impairment or illness that impacts on your day-to-day activities?



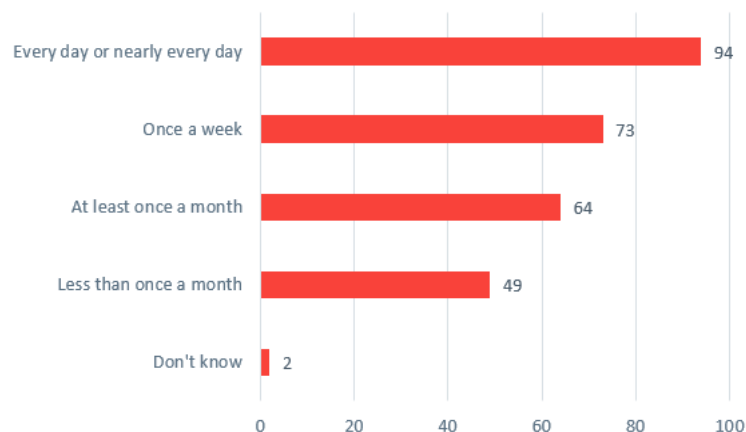
WALKING IN THE GROVES

7.1.9. A total of 282 respondents indicated that they sometimes walk in The Groves area. As such, they were met with the following questions.

Question 5 - How often do you typically walk in The Groves area?

7.1.10. Respondents were asked to indicate how often they typically walk in The Groves area. This highlighted that a total of 231 respondents (15%) typically walk in The Groves at least once a month, with 167 respondents (11%) walking at a frequency of at least once per week, and 94 respondents (6%) walking every / almost every day.

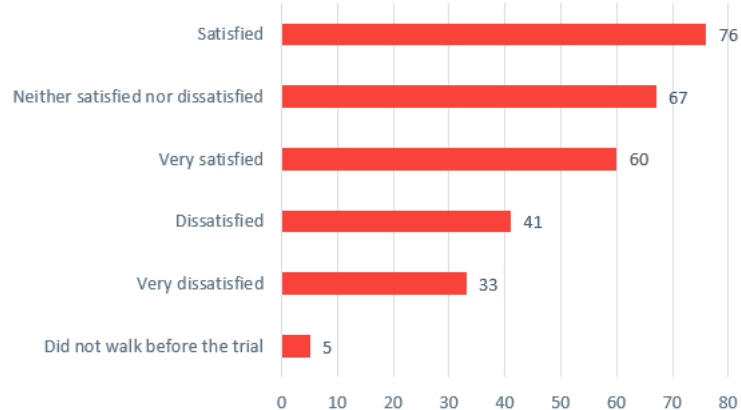
Figure 7-5 - How often do you typically walk in The Groves area?



Question 6 - How satisfied were you with your experience of walking in The Groves, before the trial?

7.1.11. Respondents were asked whether they were satisfied with walking in The Groves, before the trial. The results in Figure 7-6 show that a total of 136 respondents (9%) were already satisfied with their walking experience before the trail, whilst 74 respondents (5%) were previously dissatisfied with their experience.

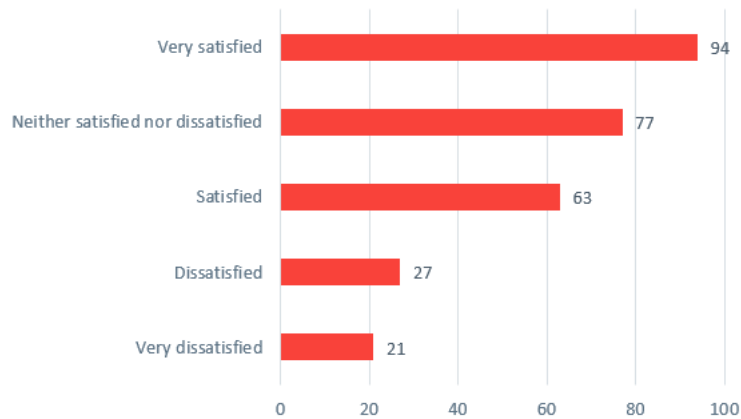
Figure 7-6 - How satisfied were you with your experience of walking in The Groves, before the trial?



Question 7 - How satisfied are you with your experience of walking in The Groves with the trial in place?

7.1.12. Respondents were then asked whether they are satisfied with walking in The Groves, with the trial in place. A total of 157 respondents (10%) indicated that they are satisfied with their walking experience with the trail in place, whilst 48 respondents (3%) are dissatisfied. The number of respondents satisfied with walking in the Groves increased by 21, whilst the number of respondents dissatisfied decreased by 26.

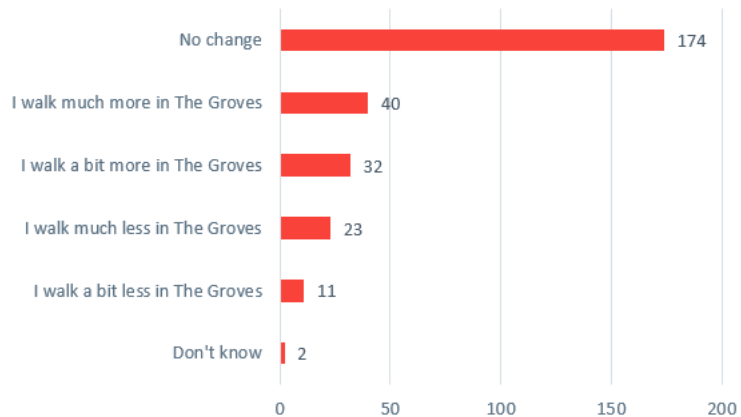
Figure 7-7 - How satisfied are you with your experience of walking in The Groves with the trial in place?



Question 8 - Has the Low Traffic Neighbourhood trial influenced how often you walk in The Groves?

7.1.13. A total of 174 respondents (11%) indicated that there has been no change to the frequency in which they walk in The Groves, resulting from the trial. However, 72 respondents (5%) stated that they walk more frequently as a result of the trail, and 34 respondents (2%) stated that they now walk in The Groves less often due to the trial.

Figure 7-8 - Has the Low Traffic Neighbourhood trial influenced how often you walk in The Groves?



7.1.14. This question included an open-ended element, whereby respondents could comment on how the introduction of the LTN has impacted on how often they walk within the area. The table below shows the most frequently occurring reasons provided in the feedback.

Table 7-2 – Influence on walking in The Groves: reasons provided in open comments

Reason	Count	Sentiment
More pleasant environment	28	Positive
Less air pollution (exhaust fumes)	25	Positive
I walk about the same as before (No change)	24	Neutral
Less noise pollution	21	Positive
Feels safer than before	20	Positive
Feels less safe (less passing traffic)	13	Negative
It has made no difference / same as before	12	Neutral
Roads around the Groves have more traffic than before	9	Negative
Community benefit (e.g. less severance)	7	Positive
A more relaxed environment / less stress	6	Positive
Less traffic	6	Positive
I walk less often than before	5	Negative
I can't walk due to health reasons	5	Neutral

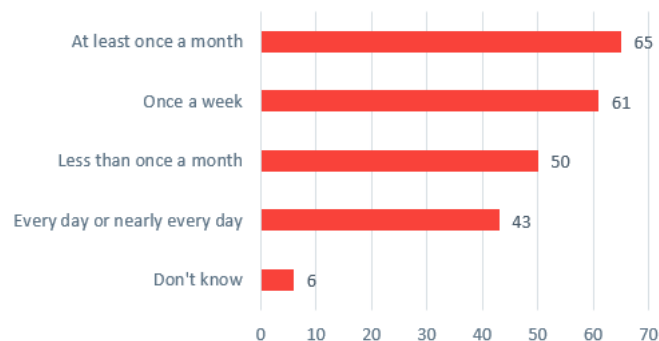
CYCLING IN THE GROVES

7.1.15. A total of 226 respondents indicated that they sometimes cycle in The Groves area. As such, they were met with the following questions.

Question 9 - How often do you typically cycle in The Groves area?

7.1.16. Respondents were asked to indicate how often they typically cycle in The Groves area. This highlighted that a total of 169 respondents (11%) typically cycle in The Groves at least once a month, with 104 respondents (7%) cycling at a frequency of at least once per week, and 43 respondents (3%) cycling every day or almost every day.

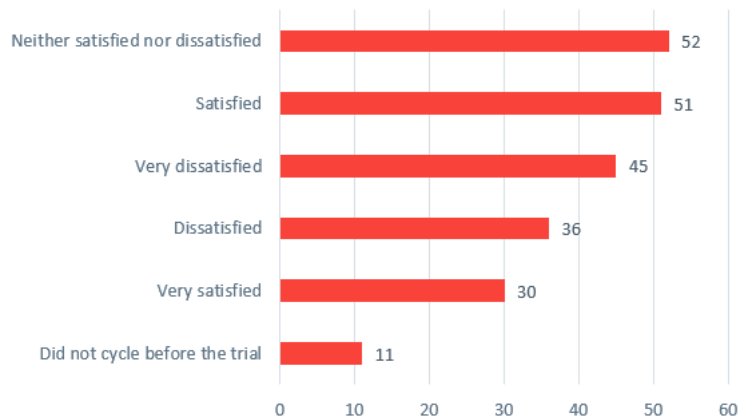
Figure 7-9 - How often do you typically cycle in The Groves area?



Question 10 - How satisfied were you with your experience of cycling in The Groves, before the trial?

7.1.17. Respondents were asked whether they were satisfied with cycling in The Groves, before the trial. The results in Figure 7-9 show that a total of 81 respondents (5%) were already satisfied with their cycling experience before the trail, whilst 81 respondents (5%) were previously dissatisfied with their experience.

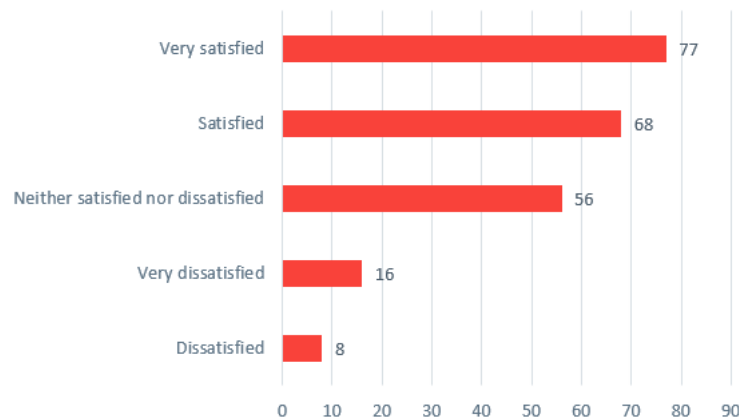
Figure 7-10 - How satisfied were you with your experience of cycling in The Groves, before the trial?



Question 11 - How satisfied are you with your experience of cycling in The Groves with the trial in place?

7.1.18. Respondents were then asked whether they are satisfied with cycling in The Groves, with the trial in place. A total of 145 respondents (10%) indicated that they are satisfied with their cycling experience with the trail in place, whilst 24 respondents (2%) are dissatisfied. The number of respondents satisfied with cycling in the Groves increased by 64, whilst the number of respondents dissatisfied decreased by 57.

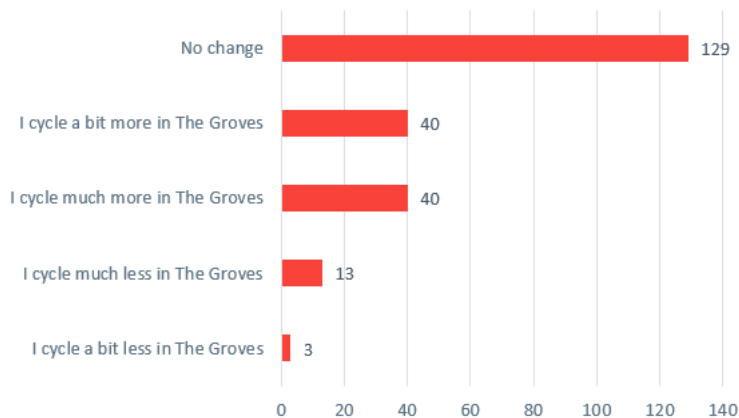
Figure 7-11 - How satisfied are you with your experience of cycling in The Groves with the trial in place?



Question 12 - Has the Low Traffic Neighbourhood trial influenced how often you cycle in The Groves?

7.1.19. A total of 129 respondents (9%) indicated that there has been no change to the frequency in which they cycle in The Groves, resulting from the trial. However, 80 respondents (5%) stated that they cycle more frequently as a result of the trail, and 16 respondents (1%) stated that they now cycle in The Groves less often due to the trial.

Figure 7-12 - Has the Low Traffic Neighbourhood trial influenced how often you cycle in The Groves?



7.1.20. This question included an open-ended element, whereby respondents could comment on how the introduction of the LTN had impacted on how often they cycled within the area. The table below shows the most frequently occurring issues raised in the feedback.

Table 7-3 – Influence on cycling in The Groves: reasons provided in open comments

Reason	Count	Sentiment
Feels safer than before / road safety	33	Positive
More pleasant environment	24	Positive
I cycle about the same as before (No change)	19	Neutral
Less traffic	19	Positive
It has made no difference	10	Neutral
Less air pollution (exhaust fumes)	9	Positive
Less noise pollution	7	Positive
Safer for children	7	Positive
Has provided a new route option	7	Positive
Journey times by cycle have been reduced	4	Positive
Limited vehicles that can use the groves now drive faster / speed	4	Negative
Nothing wrong with how it was before	4	Neutral

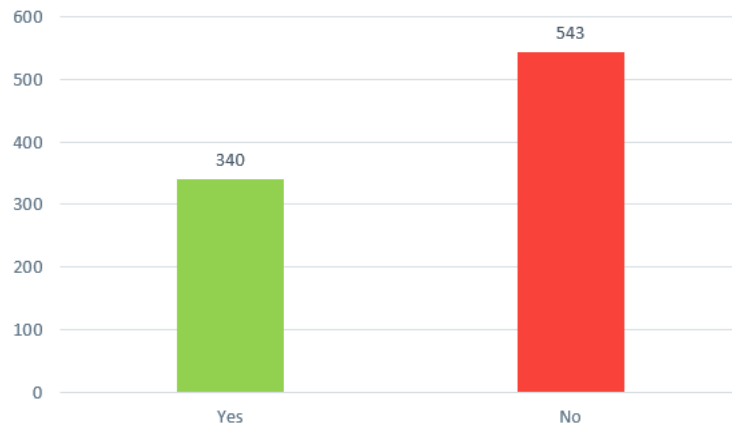
DRIVING IN THE GROVES

7.1.21. A total of 884 respondents indicated that they drive, or used to drive through The Groves area. As such, they were met with the following questions.

Question 13 - Do you currently drive to, or through, The Groves by car or other motorised vehicle (taxi, motorcycle, etc)?

7.1.22. A total of 340 (22%) respondents indicated that they currently drive to, or through The Groves.

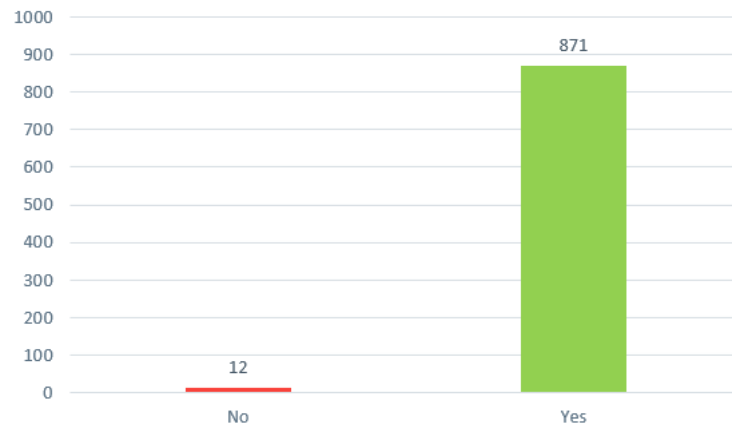
Figure 7-13 - Do you currently drive to, or through, The Groves by car or other motorised vehicle (taxi, motorcycle, etc)?



Question 14 - Did you previously drive to, or through, The Groves by car or other motorised vehicle (taxi, motorcycle, etc) before the trial?

7.1.23. Respondents were then asked if they previously drove to, or through The Groves. A majority of 871 respondents (58%) indicated that they previously drove to / through The Groves.

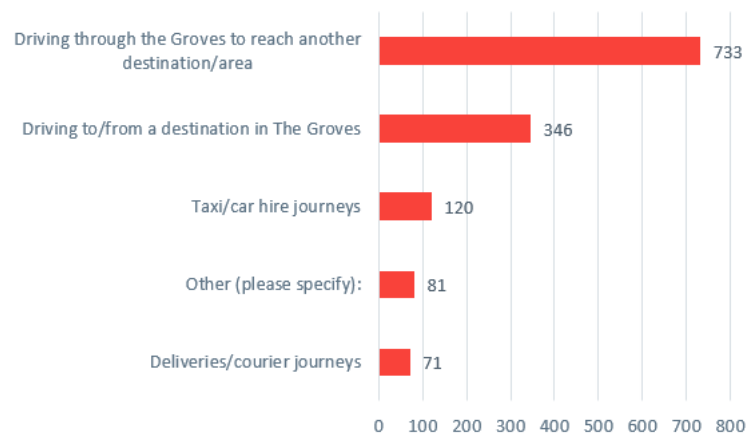
Figure 7-14 - Did you previously drive to, or through, The Groves by car or other motorised vehicle (taxi, motorcycle, etc) before the trial?



Question 15 - When driving through The Groves what would you say was, or is, your main purpose for these journeys? (tick all that apply)

7.1.24. Respondents were asked to indicate the purpose of their journeys that involve driving through The Groves. Almost half (48%) of respondents stated that they drive through The Groves to reach another destination/area. The next most frequent reason is driving to / from a destination in The Groves, with a total of 346 respondents (23%) selecting this. A total of 120 respondents (8%) indicated that their vehicular journeys through The Groves are taxi / car hire journeys, with 81 respondents providing other reasons, and 71 respondents making deliveries / courier journeys.

Figure 7-15 - When driving through The Groves what would you say was, or is, your main purpose for these journeys?



7.1.25. This question included an open-ended element, whereby respondents were asked to detail any 'other' purposes for their journeys through The Groves. The table below shows the reasons given within the 'other box' for driving through The Groves, in the feedback received.

Table 7-4 – Reasons for driving in The Groves: reasons provided in open comments

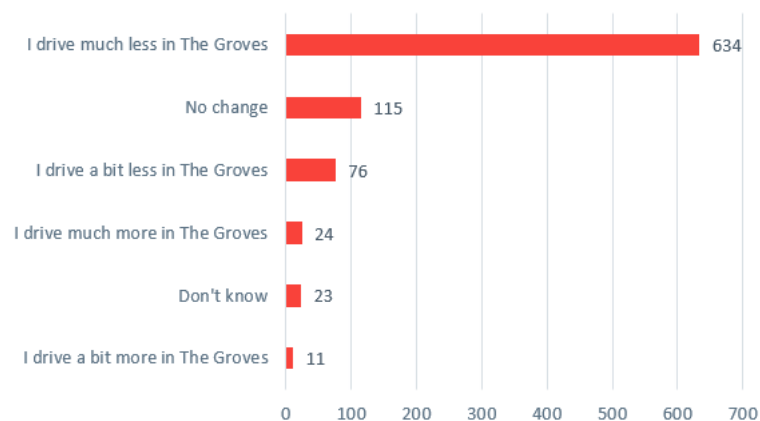
Reason	Count
Visiting the Hospital	16
Travelling for work	12
Visiting the shops	12
Nurse visiting patients / carer (including giving prescriptions)	11
Travelling to school / education	6
Visiting family / relatives	4
Non-relevant comment (e.g. waste collection)	4
Driving Instructor	3
Collecting / getting to clients	3
Tradesperson working in The Groves	1
Own a business in The Groves	1

Dog walker	1
Security / Alarm response	1
Emergency services driver (police / fire / ambulance)	1
Visiting services (e.g. GP, dentist, etc)	1
Visiting friends	1
Collecting a takeaway	1
Landlord / property management	1
Criticism of consultation / survey	1

Question 16 - Has the Low Traffic Neighbourhood trial influenced how often you drive in The Groves?

7.1.26. Next, respondents were asked whether the trial has influenced how often they drive in The Groves. The results shown in Figure 7-16 highlight that just a significant proportion of respondents drive much less in The Groves as a result of the trial, with 634 respondents (42%) indicating this. A further 76 respondents (5%) stated that they drive a bit less in The Groves – this shows that almost half of respondents are driving less in The Groves as a result of the trial. On the other hand, 115 respondents (8%) selected that it hasn't had an impact on how often they drive in The Groves, and 35 respondents (2%) travel more in The Groves as a result of the trial.

Figure 7-16 - Has the Low Traffic Neighbourhood trial influenced how often you drive in The Groves?



7.1.27. Respondents were asked whether the introduction of the LTN in The Groves had any influence on how they drove through the area. The table below shows the most frequently occurring responses within the comments received.

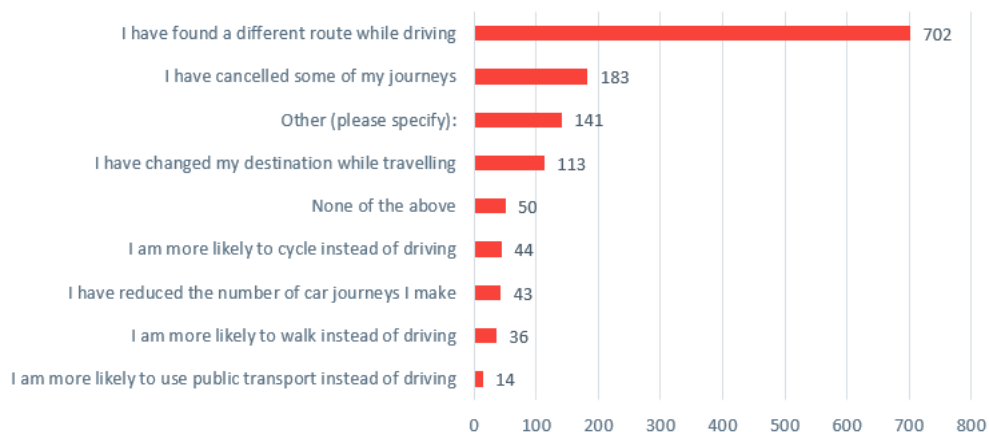
Table 7-5 - Influence on driving in The Groves: reasons provided in open comments.

Reason	Count	Sentiment
I don't drive through the Groves anymore (you can't)	289	Neutral
Journeys now take much more time	84	Negative
Has made traffic surrounding the Groves worse (more congestion)	73	Negative
Have to drive further / take indirect route	69	Negative
No choice / alternative - need to drive as much as I did before	45	Neutral
Sitting in traffic for longer means more pollution	31	Negative
Need to access The Groves for work - no longer possible / more difficult	28	Negative
More difficult to reach York Hospital	28	Negative
Criticism of Council / Authority	28	Other
Groves area is more difficult to navigate / confusing to use	22	Negative
I drive through the Groves less often now	20	Neutral
New arrangements (LTN) are irritating / annoying	20	Negative
Driving further means using more fuel and more pollution	20	Negative

Question 17 - Which of the following have you done as a direct result of the Low Traffic Neighbourhood Trial? (Tick all that apply)

7.1.28. Respondents were asked to identify what actions they had taken as a result of the implementation of The Groves LTN. As highlighted within Figure 7-17, a total of 702 respondents (46%) have found an alternative route as a direct result of the trial. The next most frequent response to the trial is the 183 respondents (12%) stating that they have cancelled some of their journeys. A total of 141 respondents (9%) selected 'other'.

Figure 7-17 - Which of the following have you done as a direct result of the Low Traffic Neighbourhood Trial?



7.1.29. Respondents were provided with an ‘other box’ for any reasons not covered by the available options. The most frequently occurring actions or other relevant feedback obtained in the comments received, are shown below.

Table 7-6 – Actions taken in terms of driving in The Groves: reasons provided in open comments

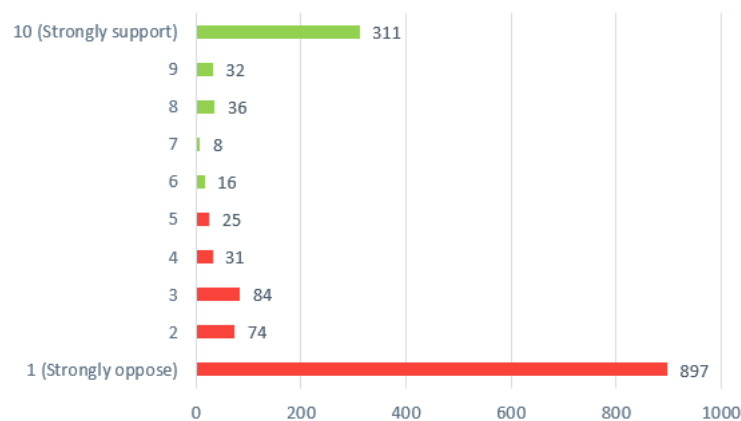
Reason	Count	Sentiment
Need to take a longer route	46	Negative
Totally unnecessary / criticism of The Groves LTN / impact on surrounding areas	37	Negative
Need to queue to get into The Groves	33	Negative
Use more petrol / fuel on journeys	23	Negative
Have needed to change route	21	Negative
Detour around / avoid the area	9	Neutral
Don't use businesses in The Groves as much anymore	8	Negative
No choice - Have to make the same journeys	8	Neutral
Criticism of Council / Authority	7	Other
Have had to cancel hospital appointments / has impacted journeys to hospital appointments	6	Negative
Lost job / lost work opportunities and earnings	6	Negative
Non-relevant comment (e.g. waste collection)	6	Other

ABOUT YOUR VIEWS ON THE TRIAL

Question 18 - On a scale of 1-10, to what extent do you support the Low Traffic Neighbourhood trial in The Groves?

- 7.1.30. Respondents were asked to rate the extent in which they support the trial, ranking between 1 (strongly oppose) and 10 (strongly support). As shown within Figure 7-18, a total of 1,111 respondents (73%) indicated that they oppose the trial (ratings between 1 to 5), with the remaining 403 respondents (27%) supporting the trial (ratings between 6 and 10).
- 7.1.31. The number of respondents supporting the trial are illustrated by postcode within Figure 7-19 and Figure 7-20, whilst the number of respondents opposing the trial are shown within Figure 7-21 and Figure 7-22.

Figure 7-18 - On a scale of 1-10, to what extent do you support the Low Traffic Neighbourhood trial in The Groves?



7.1.32. Following the closed-response question, respondents were asked whether they could give any further details as to their view. Specifically, respondents were asked about what components of the trial they supported or did not support, or any aspects they would change. The most commonly occurring responses are shown in the table below. This includes impacts of the LTN scheme, both those with positive effects and those with negative effects.

Table 7-7 – Support / Opposition towards the trial: reasons provided in open comments

Reason	Count	Sentiment
Causes congestion / slow traffic	297	Negative
Doesn't reduce traffic / forces it elsewhere	239	Negative
Causes more air pollution due to congestion	228	Negative
Longer journey times now	165	Negative
Do not support the LTN / Disagree with LTN introduction	148	Negative
Negative effect on surrounding roads	140	Negative
Need to drive further now / direct routes cut off	138	Negative
Delays emergency services / longer journeys for police, ambulance, fire etc.	91	Negative
Reduced pollution / Improved air quality - positive impact on health	86	Positive
Quality of life has improved as a result of the LTN	74	Positive
Disagree with motive / politically motivated	68	Negative
Reduced noise levels	65	Positive
Unacceptable impact on York Hospital	60	Negative
Support the LTN / Agree with LTN introduction	58	Positive
Reduced traffic levels	50	Positive
Negative impact on local economy / local businesses	50	Negative

7.1.33. As a separate part of the coding exercise, those responses which referred to particular impacts on certain stretches of the road and street network in and around The Groves were coded separately. This allowed for a locational element to be considered in the analysis – recording positive or negative impacts on the street in question. The number of times an impact on a road in the vicinity of the Groves was mentioned in terms of a positive or negative impact, was recorded. The table below shows the most frequently mentioned streets.

Table 7-8 - Support / Opposition towards the trial (surrounding network): reasons provided in open comments

Reason	Count	Sentiment
Lord Mayors Walk - Negative effect / traffic worse than before	147	Negative
Haxby Road - Negative effect / traffic worse than before	78	Negative
Clarence Street - Negative effect / traffic worse than before	55	Negative
Gillygate - Negative effect / traffic worse than before	30	Negative
Huntington Road - Negative effect / traffic worse than before	28	Negative
Monkgate - Negative effect / traffic worse than before	28	Negative
Wigginton Road - Negative effect / traffic worse than before	20	Negative
Lowther Street - Benefit / positive effect on traffic	12	Positive
St John Street - Negative effect / traffic worse than before	11	Negative
Penley's Grove Street - Negative effect / traffic worse than before	10	Negative

7.1.34. The postcode plots contained within this report include a total 1,320 respondents, as only valid and complete postcodes could be analysed.

Figure 7-19 - Postcode Plot - Positive Responses to Q18 by postcode (6 to 10 selected)

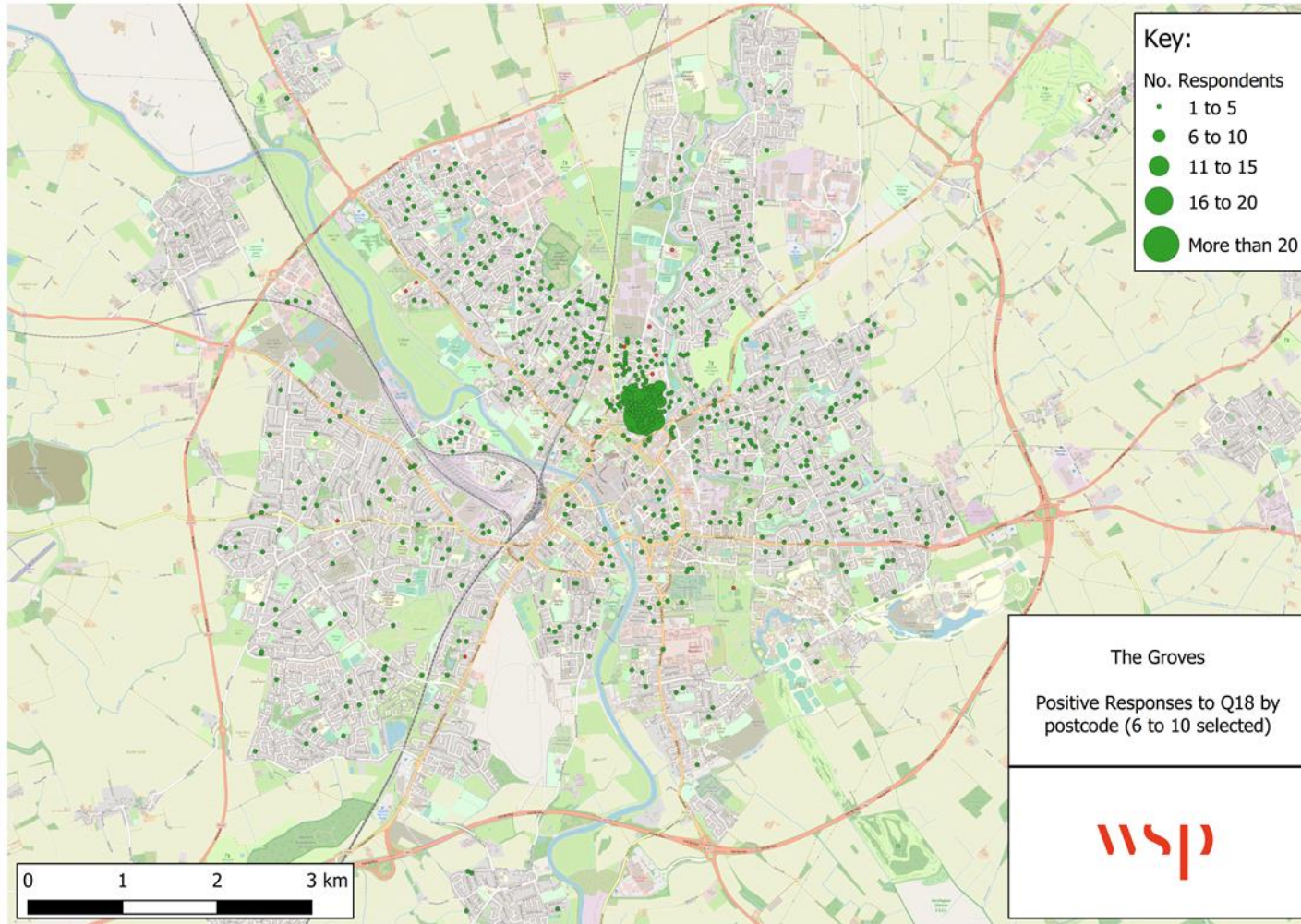


Figure 7-20 - Postcode Plot - Positive Responses to Q18 by postcode (6 to 10 selected)

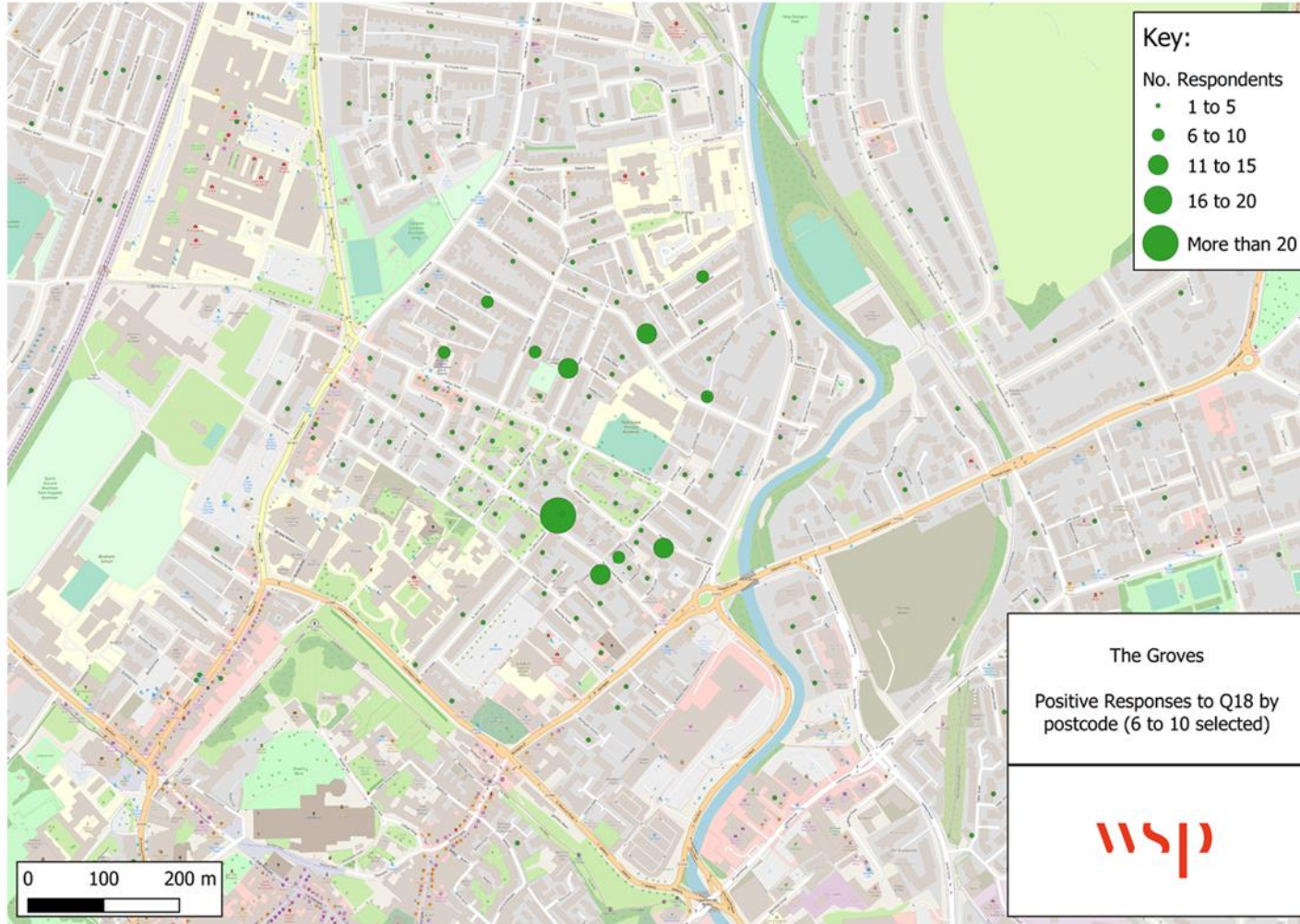


Figure 7-21 - Postcode Plot - Negative Responses to Q18 by postcode (1 to 5 selected)

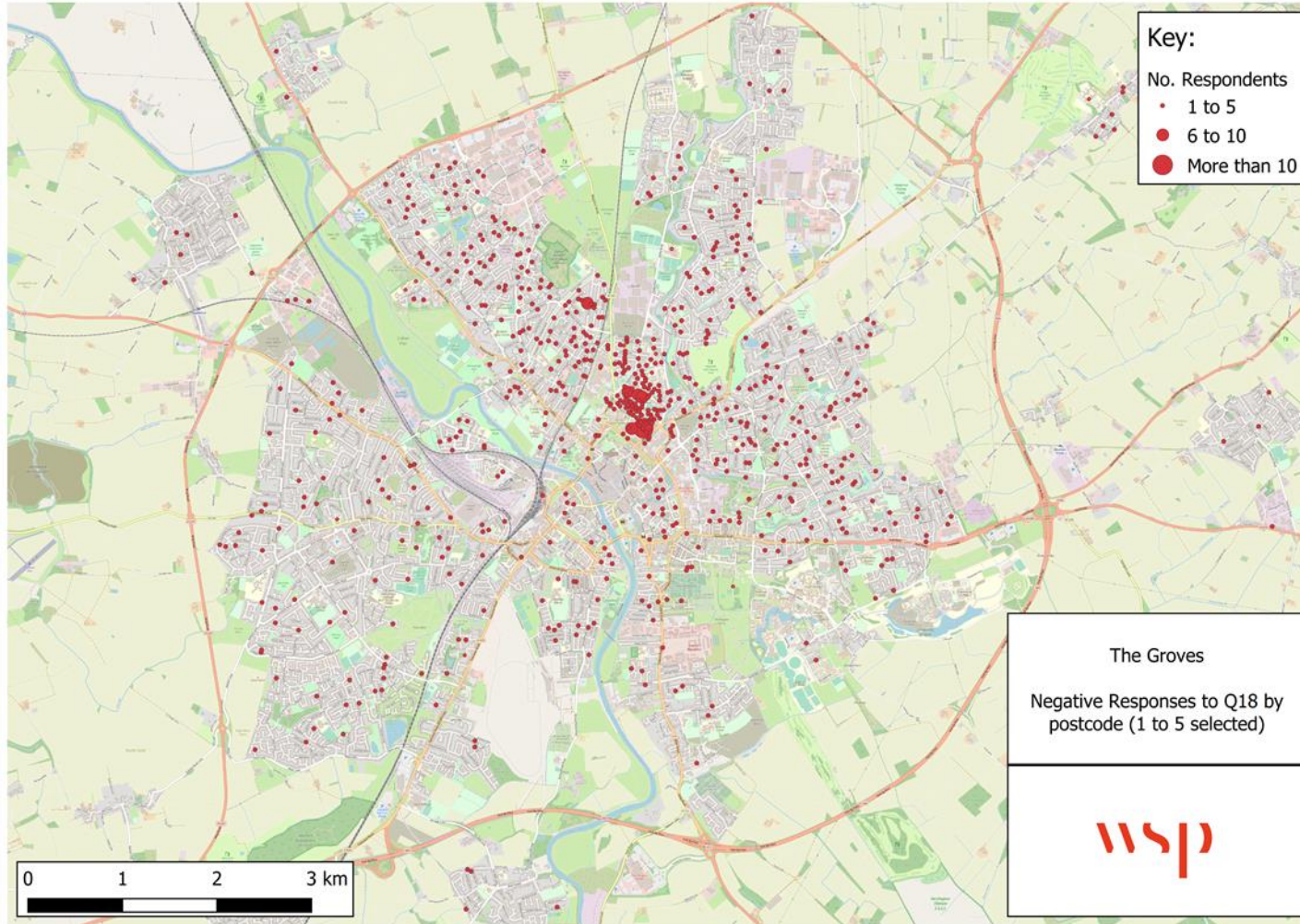
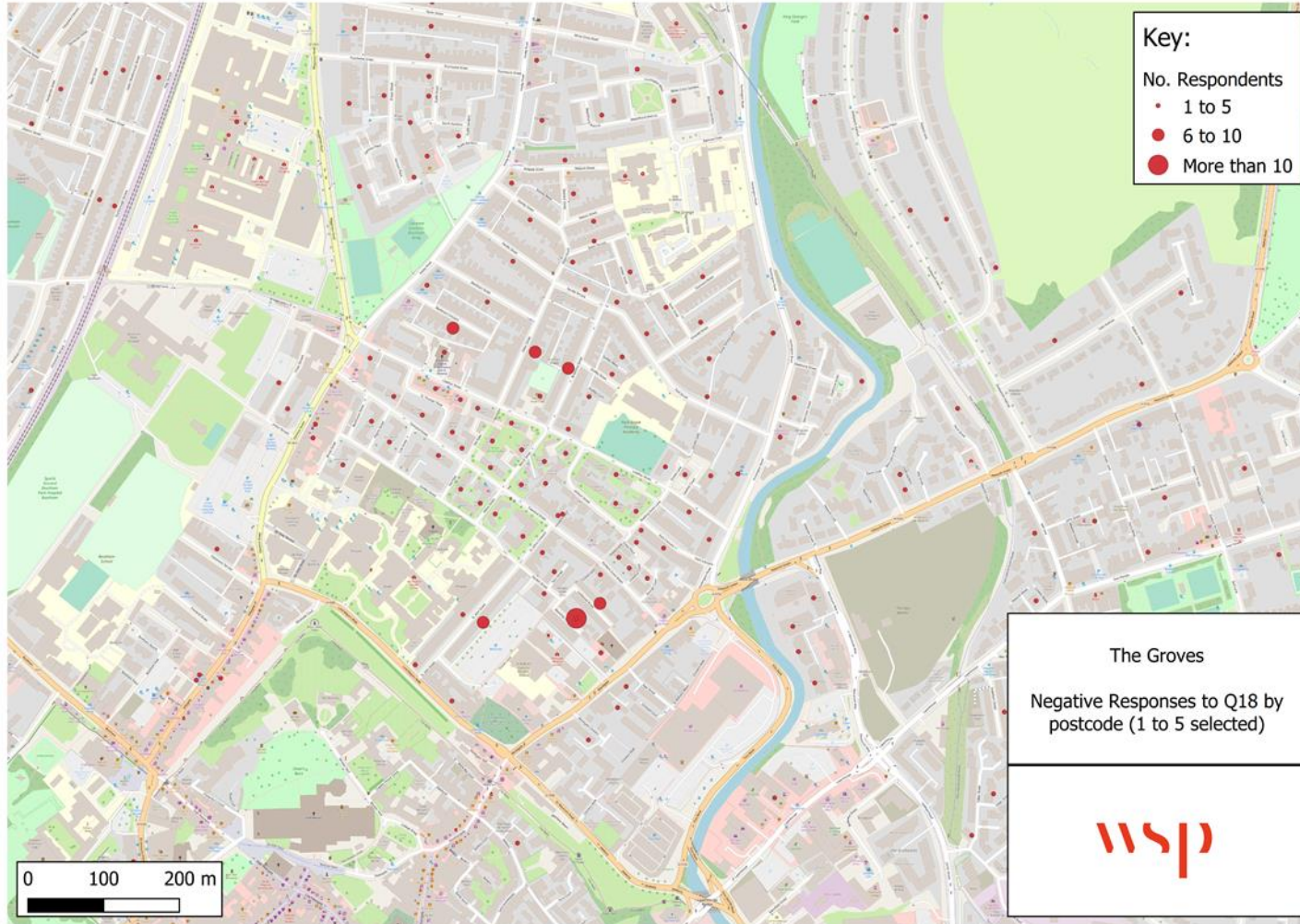


Figure 7-22 - Postcode Plot - Negative Responses to Q18 by postcode (1 to 5 selected)



Comparison between residents of The Groves, and respondents from elsewhere

7.1.35. Question 18 was used to compare the broad sentiment of the scheme between those living in The Groves¹, and those living elsewhere. The Table below compares the proportion of respondents broadly in favour of the scheme with the number and proportion of those who broadly oppose the scheme. The summary table below shows that of the respondents of who live in The Groves, approximately 55% support the trial (ratings between 6 and 10), with 182 (45%) opposing the trial (ratings between 1 to 5). However, respondents who do not live inside the Groves, were far more critical of the scheme, with the majority (83%) opposing the trial (ratings between 1 to 5), and only 17% supporting the trial.

Table 7-9 – Q18 – Compared by residents of The Groves, and those living elsewhere

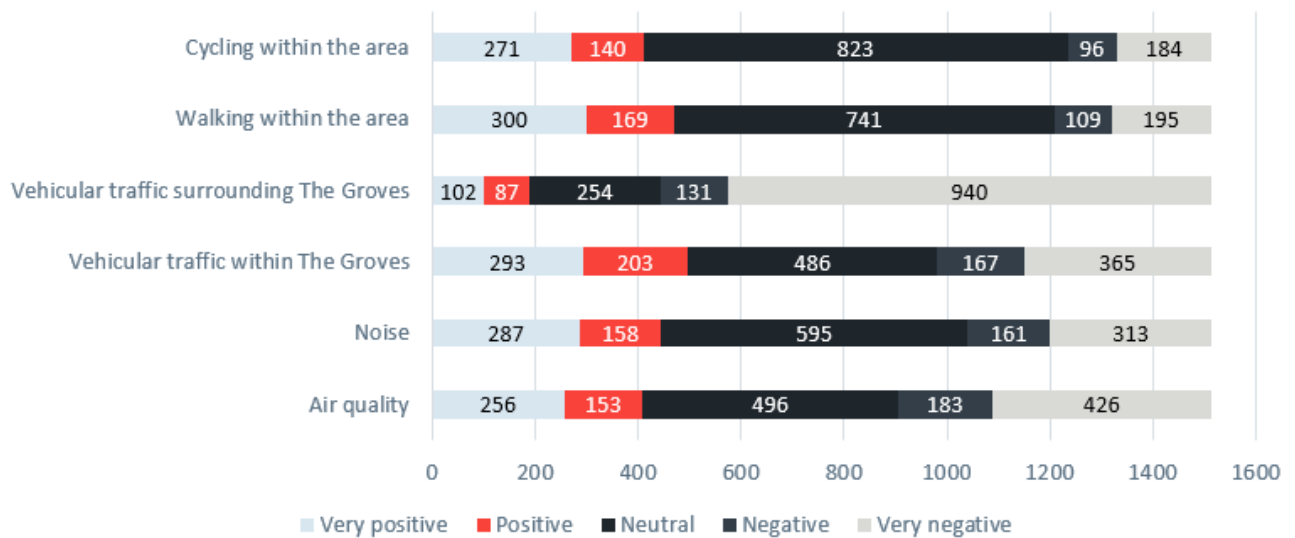
	Broadly Negative (1 to 5)	Broadly Positive (6 to 10)
Respondents living within The Groves	182 respondents (45% of residents)	221 respondents (55% of residents)
Respondents living elsewhere	758 respondents (83% of people of who live elsewhere)	159 respondents (17% of people of who live elsewhere)

Question 19 - What do you feel about the current impact of the Low Traffic Neighbourhood Trial on the following areas?

7.1.36. Figure 7-23 highlights that respondents have relatively consistent views on the trials impact on walking and cycling in the area, vehicular traffic within The Groves, and air quality and noise. However, respondents views towards the impact on vehicular traffic surrounding The Groves differs from the other factors, with a significant majority of 940 respondents (62%) feeling that vehicular traffic surrounding The Groves has been impacted very negatively.

¹ The plan shown within Appendix D indicatively illustrates the area used for this comparison.

Figure 7-23 - What do you feel about the current impact of the Low Traffic Neighbourhood Trial on the following areas?



7.1.37. Respondents were then asked to provide any further comments relating to these areas. Comments were split into themes which captured positive impacts from the LTN, negative impacts from the LTN, and those comments that did not suggest a view one way or the other. The table below provides the most frequently occurring issues raised in comments regarding the current impact of the LTN on the area.

Table 7-10 – Impact of the trial: impacts provided in open comments

Reason	Count	Sentiment
Negative effect on surrounding roads	106	Negative
Air pollution	97	Negative
Doesn't reduce traffic / forces it elsewhere	80	Negative
Causes congestion / slow traffic	75	Negative
Do not support the LTN / Disagree with LTN introduction	31	Negative
No comment	25	Other
Feels safer for pedestrians (encourages walking)	24	Positive
Quality of life has improved / made area a nicer place to live	23	Positive
Longer journey times now	23	Negative
Makes no difference / won't improve The Groves	23	Other
Non-relevant comment (e.g. waste collection)	23	Other
Support the LTN / Agree with LTN introduction	22	Positive
Disagree with motive / politically motivated	22	Negative
Criticism of Council / Authority	20	Other

Reason	Count	Sentiment
Feels safer for cyclists (encourages cycling)	18	Positive
Feels less safe at night (fewer cars meaning less people)	18	Negative

7.1.38. A separate part of the coding exercise was undertaken for those responses which referred to particular impacts on certain stretches of the road and street network in and around The Groves. This allowed for a locational element to be considered in the analysis in terms of positive or negative impacts on the street, resulting from the LTN implementation. The most frequently occurring issues raised in comments are shown in the table below.

Table 7-11 - Impact of the trial (surrounding network): impacts provided in open comments

Reason	Count	Sentiment
Lord Mayors Walk - Negative effect / traffic worse than before	38	Negative
Haxby Road - Negative effect / traffic worse than before	23	Negative
Clarence Street - Negative effect / traffic worse than before	19	Negative
St John Street - Negative effect / traffic worse than before	9	Negative
Wigginton Road - Negative effect / traffic worse than before	9	Negative
Gillygate - Negative effect / traffic worse than before	9	Negative
Lowther Street - Benefit / positive effect on traffic	8	Positive
Huntington Road - Negative effect / traffic worse than before	6	Negative
Haxby Road - Benefit / positive effect on traffic	3	Positive
Huntington Road - Benefit / positive effect on traffic	3	Positive
Lord Mayors Walk - Benefit / positive effect on traffic	3	Positive
Penley's Grove Street - Benefit / positive effect on traffic	3	Positive

Question 20 - Please let us know any additional thoughts or comments on The Groves Low Traffic Neighbourhood trial.

7.1.39. Respondents were given a final opportunity to raise any issues regarding the LTN which they felt were important. The table below shows the most frequently occurring issues which were raised in the comments received.

Table 7-12 – Additional thoughts or comments: feedback provided in open comments

Reason	Count	Sentiment
Do not support the LTN / Disagree with LTN introduction	189	Negative
Causes congestion / slow traffic	119	Negative
Criticism of Council / Authority	114	Other
Air pollution	107	Negative
Doesn't reduce traffic / forces it elsewhere	104	Negative

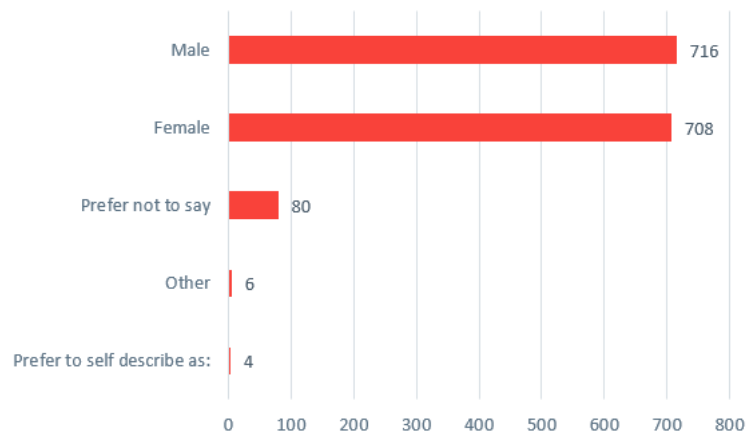
Reason	Count	Sentiment
Negative effect on surrounding roads	84	Negative
Longer journey times now	63	Negative
Support the LTN / Agree with LTN introduction	58	Positive
Keep the LTN / Make it permanent	58	Positive
Things were better before the LTN / it has made things worse	56	Negative
Do something else / not a priority	50	Negative
Delays emergency services / longer journeys for police, ambulance, fire etc.	44	Negative
Quality of life has improved / made area a nicer place to live	39	Positive
Negative impact on local economy / local businesses (generally)	30	Negative
Disagree with motive / politically motivated	29	Negative
Waste of money / poor value / paid road tax	28	Negative
Non-relevant comment (e.g. waste collection)	26	Other
Need LTN to go further / elsewhere in York	24	Positive
Feels safer for pedestrians (encourages walking)	23	Positive
Alteration suggested / agreement in part	23	Neutral

7.2 DEMOGRAPHICS

Question 21 - Are you...?

7.2.1. The split of genders of genders in the responses received, is shown in Figure 7-24. with a near even split of respondents identifying as Male (47%) and Female (47%), with 5% preferring not to say, and the remaining 1% of respondents either providing an alternative gender identity to the identities listed, or selecting 'other'.

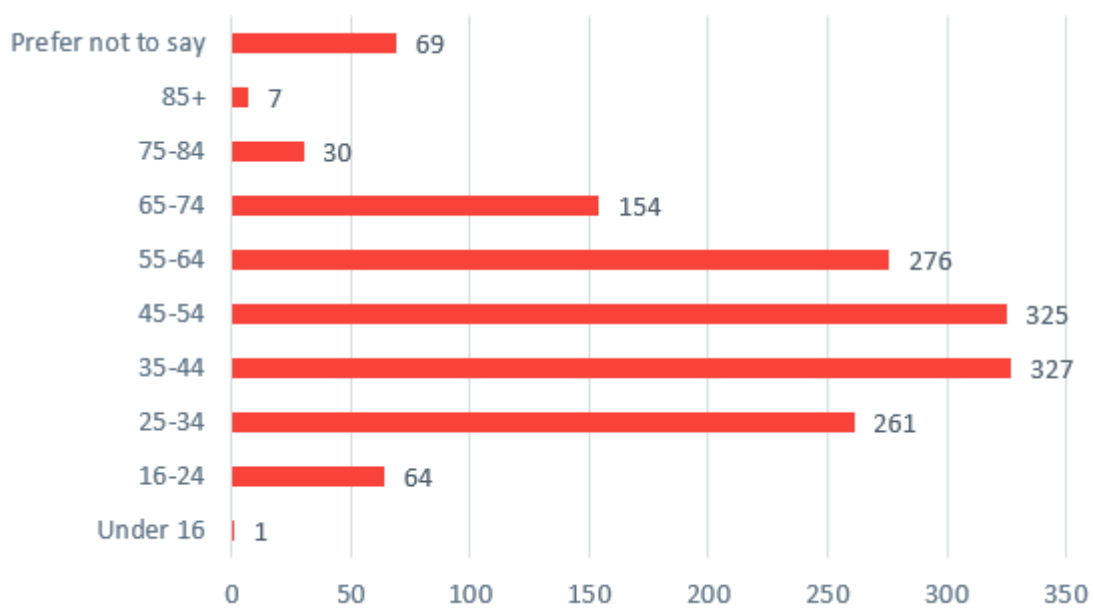
Figure 7-24 - Are you...?



Question 22 - Which age group do you belong to?

7.2.2. The age profile of respondents suggests that there was a spread of respondents from all age groups. However, it is clear from Figure 7-25 that the largest proportion of the 327 respondents were in the 35-44 years age group (22%), followed by those in the 45-54 years age group (21%). The 25-64 years age groups comprise 79% of all responses, with the 65-74 years group (10%), 16-24 years group (4%), under 16 (less than 1%), and 85 years and over (less than 1%) comprising the remaining responses (with 5% of respondents preferring not to say). As such, there is a greater representation of middle age categories, and a low representation among younger respondents (aged under 25 years) and older respondents (75 years and over).

Figure 7-25 - Which age group do you belong to?



Question 23 - Please provide us with your postcode.

7.2.3. Figure 7-26 and Figure 7-27 show the number of respondents by postcode. Analysis of the postcodes provided demonstrates that approximately 26% of respondents live within The Groves.

Figure 7-26 - Postcode Plot - York

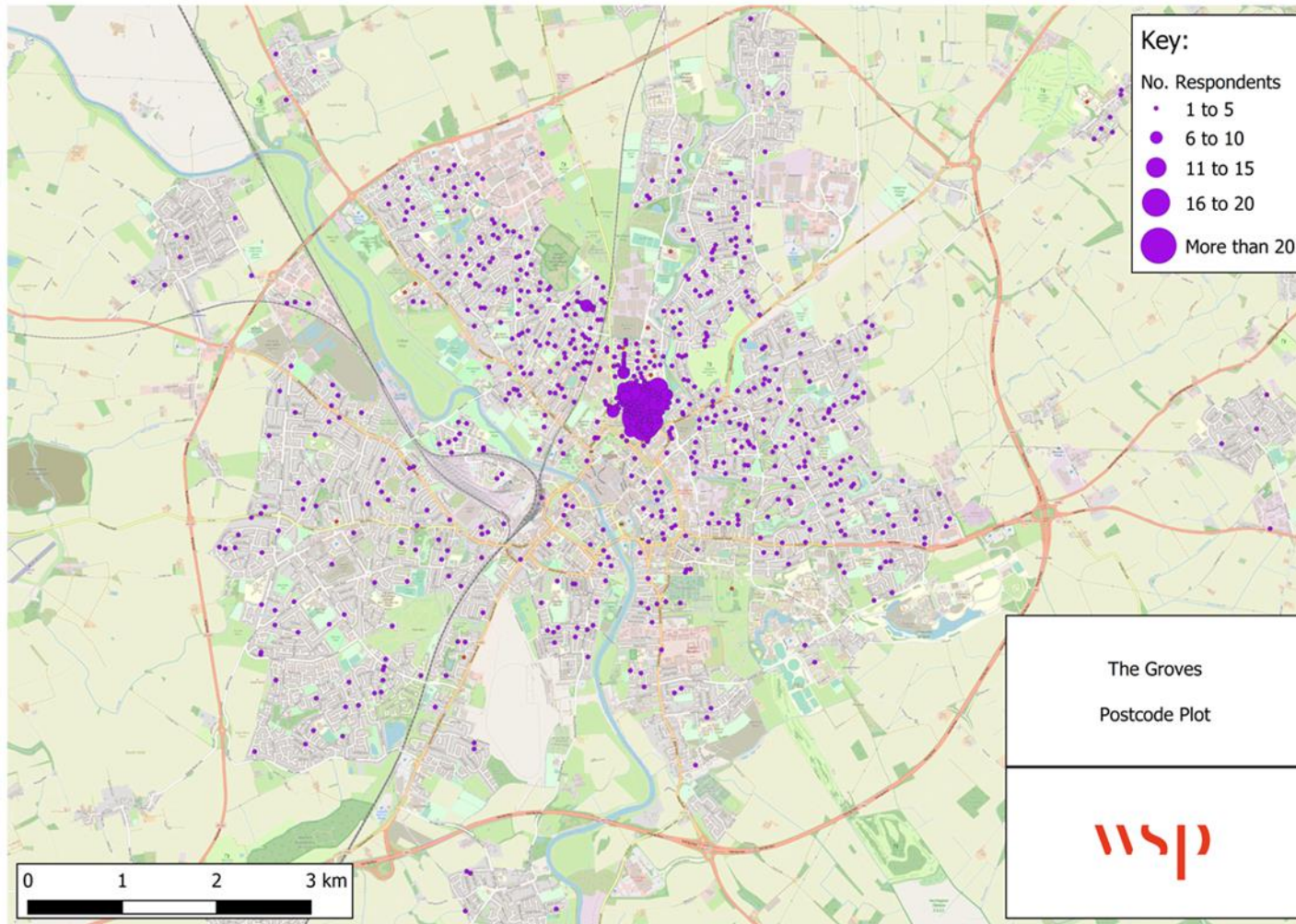
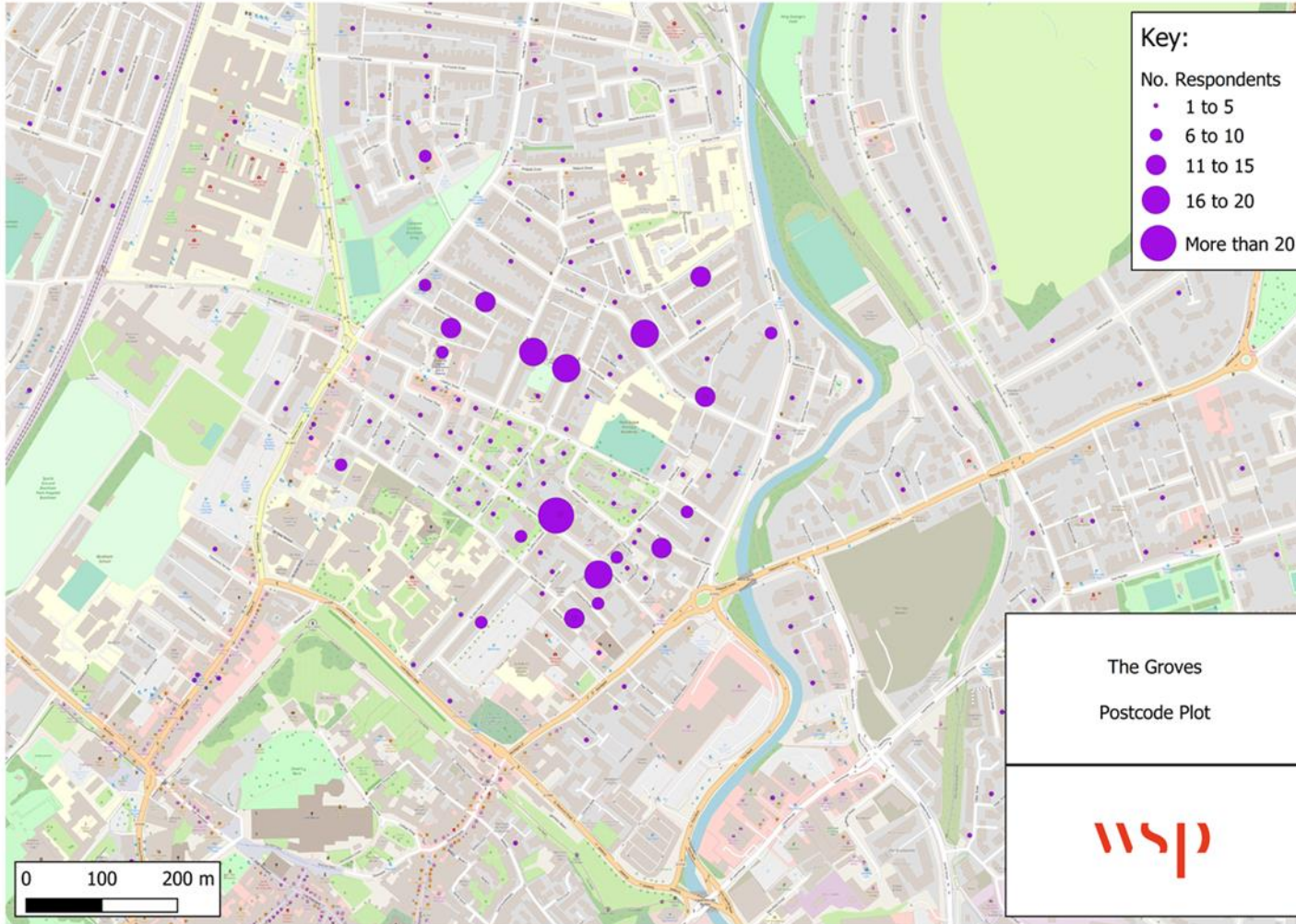


Figure 7-27 - Postcode Plot - The Groves



8 SUMMARY & CONCLUSION

8.1 SUMMARY

- 8.1.1. WSP was commissioned by City of York Council (CYC) report on the monitoring of impacts of an Experimental Traffic Regulation Order (ETRO) to introduce a Low Traffic Neighbourhood (LTN) in The Groves area of York. The scheme was implemented in September 2020 and has been in place for more than a year. In accordance with the terms of the ETRO, the Council as highway authority need to review the effects of the scheme to inform the decision on whether or not to make the measures permanent.
- 8.1.2. The following analysis was undertaken by WSP based on data from before and after the implementation of the LTN:
- Analysis of traffic surveys undertaken on behalf of CYC
 - Analysis of bus journey time data of local routes, provided by CYC
 - Production of Air Quality Dispersion modelling to estimate the likely changes in air quality in the Groves as a consequence of the LTN
- 8.1.3. In addition, qualitative work was undertaken comprising:
- Interview surveys of local organisations and businesses
 - Creation of an online survey (using SmartSurvey) and analysis of the responses

8.2 CONCLUSION

- 8.2.1. As would be expected the scheme had the result of significantly reducing traffic through the Groves particularly along Lowther Street and Penley's Grove but in other locations changes were mixed and in some cases traffic increased but it should be noted that the absolute increases were relatively low.
- 8.2.2. The most significant movement affected was the Wigginton Road to Lowther Street which reduced across 12 hours by 3274 PCUs or 92% with these movement redistributed onto Haxby Road North and Haxby Road South.
- 8.2.3. The impact on bus journey times was not significant and it is not possible within the data to conclude the changes were due to the LTN rather than seasonal changes in traffic flow.
- 8.2.4. Views amongst local businesses / organisations were mixed with some supporting and some opposing the scheme.

Survey Findings

- Majority (almost 58%) of survey respondents expressed an interest in sharing their views, as they drive or used to drive through The Groves, with only 25% living in The Groves.
- A significant proportion (60%) of respondents have access to a bicycle or electric powered bicycle.
- The number of respondents of who are satisfied with their experience of walking in The Groves has increased from 136 (9%) to 157 (10%), as a result of the trial. The following are the top 5

comments provided by respondents: more pleasant environment, I walk about the same amount as before, less air pollution (exhaust fumes), less noise pollution, and feels safer than before.

- The number of respondents of who are satisfied with their experience of cycling in The Groves has increased from 81 (5%) to 145 (10%), as a result of the trial. The following are the top 5 comments provided by respondents: feels safer than before / road safety, more pleasant environment, I cycle about the same as before, less traffic, and it has made no difference.
- A majority of 871 respondents (58%) indicated that they previously drove to / through The Groves, and 733 respondents (48%) drive or used to drive through the Groves to reach another destination / area.
- A significant proportion (42%) of respondents drive much less in The Groves as a result of the trial, with the main feedback provided on this being: I don't drive through the Groves anymore (you can't), journeys now take much more time, has made traffic surrounding the Groves worse (more congestion), have to drive further / take indirect route, and no choice / alternative - need to drive as much as I did before.
- A total of 702 respondents (46%) have found an alternative route as a direct result of the trial.
- 1,111 respondents (73%) indicated that they oppose the trial (ratings between 1 to 5), with the remaining 403 respondents (27%) supporting the trial (ratings between 6 and 10). The following comments were each provided by between 300 and 100 respondents (in descending order): causes congestion / slow traffic, doesn't reduce traffic / forces it elsewhere, causes more air pollution due to congestion, longer journey times now, do not support the LTN / Disagree with LTN introduction, negative effect on surrounding roads, and need to drive further now / direct routes cut off.
- The following streets were mentioned by respondents as being particularly negatively impacted by the trial: Lord Mayors Walk, Haxby Road, and Clarence Street.
- Analysis highlighted that of the respondents of who live in The Groves, approximately 55% support the trial (ratings between 6 and 10), with 182 (45%) opposing the trial (ratings between 1 to 5). However, respondents who do not live inside the Groves, were far more critical of the scheme, with the majority (83%) opposing the trial (ratings between 1 to 5), and only 17% supporting the trial.
- A significant majority of 940 respondents (62%) feel that that vehicular traffic surrounding The Groves has been impacted very negatively. The following top 5 comments were provided by respondents: negative effect on surrounding roads, air pollution, doesn't reduce traffic / forces it elsewhere, causes congestion / slow traffic, and do not support the LTN / Disagree with LTN introduction.
- Respondents were given a final opportunity to raise any issues regarding the LTN which they felt were important. The following top 5 comments were provided by respondents, with each stated by over 100 respondents: do not support the LTN / Disagree with LTN introduction, causes congestion / slow traffic, criticism of Council / Authority, air pollution, and doesn't reduce traffic / forces it elsewhere.

8.2.5. The following are included within this report to supplement the analysis undertaken in this consultation report:

- Appendix E: CYC Online Survey.
- Appendix F: Open-ended Results.

Appendix A

TRAFFIC SURVEY ANALYSIS



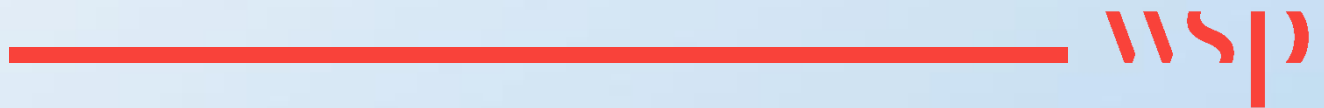
Appendix B

BUS JOURNEY TIME DATA



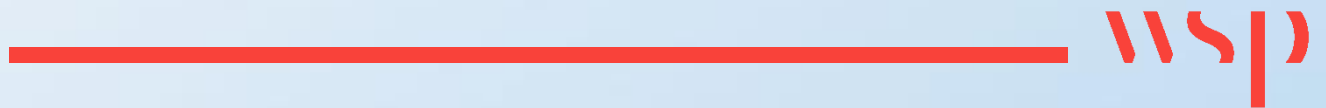
Appendix C

THE GROVES TELEPHONE SURVEY RESULTS



Appendix D

THE GROVES BOUNDARY



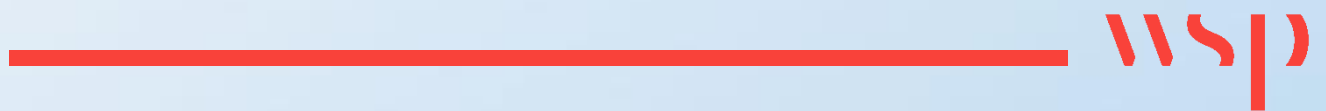
Appendix E

CYC ONLINE SURVEY



Appendix F

OPEN-ENDED SURVEY RESULTS





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