# Stirling – Walk, Cycle, Live Stirling

# Places for Everyone

# **Baseline Monitoring Report**



# 08 January 2025

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# **Executive summary**

This baseline monitoring was carried out for the Walk, Cycle, Live Stirling project at various project stages between 2018 and 2022. This report presents the analysis of data collected using various tools and discusses the findings. The monitoring showed that a high level of walking exists across all count and survey locations in Stirling. Walking was considered as the most popular mode of travel among respondents and the levels of car usage were lower than walking. Infrastructural and safety issues were the major barriers to active travel in the project area.

Overall, the baseline results show that an encouraging level of walking exists in the project area but that the level of cycling has a large potential to increase. The results also show car usage is high. We would expect to see a reduction in car usage and an increase in active modes after the scheme is finished. The project aims to achieve this through building a series of high standard radial routes enabling active travel choices in Stirling.

People living in different parts of Stirling occasionally undertake purposeful trips by walking or cycling. Postal survey results suggest that infrastructure improvements that facilitate shopping and commuting may have the greatest potential for increasing purposeful trips by walking and cycling in the Stirling area. The residents of Stirling find their area attractive and in an accessible location to the things they need. However, they have concerns over the safety of their children, specifically that it is not safe for children to play and children under 12 to walk, cycle or wheel alone. Although respondents reported good health levels there is still room for improvement through infrastructural interventions that encourage people to increase physical activity. Finally, the baseline results on accessibility show that the area is easily accessible for vehicles and pedestrians. However, focus should be placed on improving the accessibility for women, the elderly, people with disabilities, people from more deprived areas and people with a range of abilities.

### Levels of active travel

- More than 50% of users counted at each manual count site were found to be pedestrians and 85% of the postal survey respondents walk while travelling through their area.
- 40% of the postal survey respondents cycled around their areas.
- Majority of count locations recorded more cyclists on pavements than on roads.

## Purposeful trips made by walking and cycling

 Shopping and recreation were the most common purposes for those travelling by walking (each with 83%).



• For those cycling, recreation was the main purpose (88%).

## Quality of public realm

- Results show that residents find the area they are living in attractive and in an accessible location to the things they need.
- Over 70% of the respondents in a shoppers' survey agreed that the appearance of the place is good and attractive, well maintained and is an area they like to spend time in. However, the postal survey findings show that the proportion of respondents saying their areas are well maintained is below 50% for four out of five locations.
- A very low proportion (<16%) of the postal survey respondents agree that their places offer safe areas for children to play.
- Less than 25% of the postal survey respondents across different areas in Stirling agreed that their areas are safe for a 12-year old child to walk, cycle or wheel alone

## **Economic vitality**

- 56% of shoppers were residents from Stirling. Mean spend on the day interviewed was £17 and usual mean spend was £20.
- **Closeness to home** and visiting a specific retailer were major factors for choosing the shopping area over other places, indicating that shoppers are choosing the shopping area accessible by active travel modes.
- Retailers overestimated the proportion of shoppers travelling by car and underestimated those using active travel modes.

## Improved health and wellbeing

- Most respondents rated their general health positively, with 23% considering it to be excellent a further 30% saying very good, 27% saying good and 15% saying fair.
- Nearly 70% of respondents reported spending 30 minutes or more exercising on at least four days.

### Improved accessibility

- 81% of the postal survey respondents agreed that the area is easy to access by foot and 50% agreed that the area is easy to access by cycle.
- Only **12%** agreed that the area is easily accessible by **wheelchair**.



# Introduction

# **Community Links Plus**

Community Links Plus (CLP) was launched in 2016 as a collaborative design competition for local authorities and other statutory bodies to support the design and delivery of exemplar, high profile and inspirational active travel projects in Scotland. CLP was the forerunner to Places for Everyone (PfE) which was launched in 2019.

# Walk, Cycle, Live Stirling

### Table 1 – Scheme description

Key feature	
Category	4
New route (currently not passable on foot)	Ν
Upgrade of existing route	Υ
Length (if linear / known)	
Estimated date of works starting (first spade / cone)	March 2022
Estimated date of works completion (last cone)	December 2024
Estimated project cost	£5 million

Stirling has a strategic vision to establish a world class active travel culture, supported through the development of a high-quality active travel network.

Walk, Cycle, Live Stirling was awarded funding in the 2017-18 financial year as part of the CLP programme. With the launch of PfE in 2019, it is now referred to as a PfE category 4 project. The project will build on the existing network of routes in Stirling and install new routes to create a comprehensive strategic network of high-quality cycle routes leading to the city centre. The routes will also provide better walking facilities and improved access for vulnerable users. The estimated cost of the programme is over £5 million, of which £2.7 million was requested from



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CLP. Figure 1 below shows the existing and proposed routes of the Walk, Cycle, Live Stirling project.



Figure 1 – Routes of the Walk, Cycle, Live Stirling project

Photos of some of the newly constructed cycle routes are presented in the Figure 2 below.





Figure 2 – Photos of newly constructed cycle routes in different location of Stirling



i. Stirling train station

ii. Causewayhead road



iii. Airthrey road



# Monitoring

The Sustrans Research & Monitoring Unit (RMU) aims to provide evidence on sustainable and active travel that is transparent and authoritative, and which influences and shapes policy, practice, and behaviour in Scotland and across the UK. To this end, the RMU works with Sustrans colleagues and partner organisations to monitor and evaluate the impact of specific projects.

The RMU are delivering a programme of monitoring before (i.e. baseline) and after (i.e. followup) creation of the Walk, Cycle, Live Stirling infrastructure project, to measure its impact on active travel. This report presents a summary of the findings at the baseline monitoring stage.

# **Community Links Plus programme objectives**

The CLP objectives of this project were:

- Increasing modal shift, helping to achieve the shared CAPS vision of 10% of everyday trips by bike by 2020
- Creating safer, convenient, seamless and segregated active travel routes to and through towns and cities in both rural and urban areas
- Connecting to and through major short trip generators
- Improving the quality of the urban realm, delivering high-quality designs and integrating green infrastructure, whilst meeting the needs and aspirations of communities
- Improving accessibility for all, including making substantial improvements to the environment for people on foot. This should follow, as a minimum, the principles of Designing Streets and consider the needs of groups with protected characteristics as defined in The Equality Act 2010.

# Community Links Plus project monitoring outcomes and indicators

The findings presented in this report are aligned to the following CLP monitoring outcomes which were set for the Walk, Cycle, Live Stirling project:



- 1. Increase in levels of active travel / increase in modal shift
- 2. Increase in levels of purposeful trips made by walking and cycling
- 3. Improved air quality
- 4. Improved quality of public realm
- 5. Increased economic vitality
- 6. Improved health and wellbeing
- 7. Increased biodiversity
- 8. Improved accessibility for all

The project monitoring outcomes are accompanied by clearly defined indicators which aid the monitoring process and presentation of results. The indicators aligned to each outcome are presented in the appendix 1. Please note, the report addresses all the outcomes with the exception of *Improved air quality* and *Improved biodiversity*.

In addition to CLP outcomes and indicators, Stirling Council has established a set of specific outputs and outcomes for the Walk, Cycle, Live Stirling project (see appendix 2).

# **Methodology**

Table 2 provides an overview of the monitoring tools used for data collection and the number of respondents or total users counted for each method. Details on how Sustrans Research and Monitoring Unit (RMU) collected data which forms the evidence for this report, alongside the techniques and tools used for analysis are presented in appendix 3.

Monitoring tool	Monitoring Dates	Targeted Groups	No. of respondents/users counted	No of surveys/locations
Route User Intercept Survey (RUIS)	May/June 2019	Pedestrians and cyclists	Survey pedestrians: 199, Survey cyclists: 66	4
Manual Counts	September 2018, May 2019, October 2021	Pedestrians, cyclists and other non- motorised users	Pedestrians: 25,668, Pavement cyclists: 4,310, On-road cyclists: 2,412	9
Video Manual Counts	May 2019, October 2021	Pedestrians and cyclists	Pedestrians: 18,971, Cyclists: 1,420	4

Table 2 – Monitoring tools used in the baseline evaluation of Walk, Cycle, Live Stirling



Monitoring tool	Monitoring Dates	Targeted Groups	No. of respondents/users counted	No of surveys/locations
Traffic Speed and Volume Surveys	October 2018/2019, March 2020, October 2021	Motor vehicles travelling along the roads of the project area	-	11
Parked Bike Counts	October 2021	Transport interchanges, local amenities and workplaces	48 unique cycles counted	9
Postal Survey	July/August 2021	Residents living within, or in the vicinity of, the project area	393 responses	5
Retail Vitality Surveys	July 2021	Local retail business owners and customers	Retailers: 36, Shoppers: 104	3
Pedestrian Crossing and Cyclist Safety Analysis	June 2021	Pedestrians and cyclists	_	1

Figure 3 illustrates the data collection locations where different monitoring tools were used.



Figure 3 – Map showing project area and the location of monitoring



## Representativeness of postal survey sample

This report highlights numerous results from a postal survey of 393 local residents. The survey demographic data was compared with the Stirling wide census results to assess its representativeness. The census results showed that gender was over-represented for males and under-represented for females in postal surveys (Table 3). All three age groups except 16-44 year olds in postal survey were over-represented compared to census results. In terms of ethnicity, white respondents account for the majority in both the survey and census results with a slightly under-represented sample in the postal survey.

Table 3 –	Demographic	proportions o	f the respondents	within the posta	I survey sample
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		Gender			Age			Eth	nicity	
Survey	Male	Female	Non- binary	16-44	45-64	65+	White	Mixed	Asian	Chinese
Postal Survey	52%	46%	1%	21%	34%	44%	93%	1%	1%	-
Census data <sup>1</sup>	48%	52%	0%	36%	28%	20%	97%	0%	2%	1%

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<sup>&</sup>lt;sup>1</sup> Census data 2022 for Stirling was used.

# Findings

# Levels of active travel

This section of the report discusses the existing levels of active travel before the project construction begins.

Overall, there was a high level of walking across all the survey locations. More than 50% of users counted at each manual count site were pedestrians. Walking was the most popular mode of travel among the respondents participating in all of the surveys. In comparison, levels of cycling were low. This is also supported by the Stirling Walking and Cycling Index 2023 report which showed that more than half of Stirling residents walk or wheel five or more days a week and five percent of them travel by cycling<sup>2</sup>. Some notable barriers to cycling were lack of dedicated cycling infrastructure and road safety.

Although the levels of car usage were lower than walking, the majority of the respondents cited car as a preferred mode of travel. The retail vitality survey (RVS) results showed retailers often overestimate the number of shoppers driving to shopping areas. However, the majority of the surveyed city centre cycle parking stands had low levels of occupancy, indicating that not many people ride cycles to the shops.

# Levels of walking and cycling

Various counts and surveys were carried out at multiple locations around the project area to monitor the modes people used. The eight manual count locations were Raploch Road, Dunster Road, Causewayhead Road, Wellgreen Road Underpass, Old Stirling Bridge, Lower Bridge Street, Causewayhead Road Railway Bridge and Millennium Way. Additionally, video manual counts were commissioned in Wellgreen Road in 2019 and 2021, Raploch Road in 2019 and Airthrey Road in 2019.

"I have a car myself but support anything that discourages driving and encourages walking, cycling and greenspace in Stirling."

Postal survey respondent

<sup>&</sup>lt;sup>2</sup> https://www.sustrans.org.uk/media/13319/walking-and-cycling-index-2023-stirling.pdf.





Three iterations of manual counts were carried out in Raploch Road (2018, 2019 and 2021), Dunster Road, Millennium Way and Causewayhead Road (2019 and 2021), and Old Stirling Bridge, Lower Bridge Street, Wellgreen Road Underpass and Causewayhead Road Railway Bridge (2019). Manual counts were carried out for four days for 12 hours each day from 7am till 7pm.

The results from manual counts showed many pedestrians and cyclists travelling through the project area:

- Pedestrians were the most common form of active travel in the count locations, for instance, in 2021 ranging from 55% at Dunster Road to 86% at Raploch Road.
- In contrast, cycling levels in 2021 ranged from 14% at Raploch Road to 45% at Dunster Road. Of note, several locations recorded significant levels of pavement cycling (in addition to on road cycling). For instance, the 14% of cyclists recorded at Raploch Road included 12% pavement cyclists and 2% on road cyclists.
- Annual usage estimates derived from the manual counts highlight that in 2021, total active travel at Raploch Road was 166,566, of which 146,637 (88%) were pedestrians and 15,175 (9%) cyclists.

Full results from the manual counts (including annual usage estimates) can be found in appendix 4.

In addition to the manual count data presented above, video manual counts (VMC) were commissioned at Wellgreen Road, Raploch Road and Airthrey Road. At each site, the counts were carried out for four days from 7am to 7pm. Figure 4 shows the number of pedestrians and cyclists counted on each of these roads. The VMC recorded crossings made in eight different directions on sections of Wellgreen Road in 2019 and 2021. Two directions of Raploch Road and six directions of Airthrey Road were included in the VMC. The data highlights that:

- Wellgreen Road proved to be the busiest of all the locations in terms of pedestrian counts. From 8,054 pedestrians in 2019 there was a drop to 7,230 in 2021. In the same period there was an increase in number of cyclists (increasing from 93 to 120)
- The balance of pedestrians (535) and cyclists (439) was much more even at Raploch Road
- A total of 3,152 pedestrians and 768 cyclists were counted on Airthrey Road





Figure 4 – Number of pedestrians and cyclists counted using video manual count

In the postal survey, the 393 respondents were asked about their mode of transport to travel through Stirling. Among the active travel modes, walking was the most popular mode, with 85% of respondents saying they travel around their area by walking, followed by 40% cycling and around 2% wheeling (using a wheelchair).

The RVSs were conducted with 104 shoppers and 36 retail owners on Port Street, Upper Craigs and Cowane Street. The survey results enable us to compare retail owner perceptions of how their customers travel to shops with how shoppers actually travel. Figure 5 below shows that:

- Retailers significantly underestimated the proportion of customers cycling to the shopping area at all three locations
- Retailers also significantly underestimated customers walking to Cowane Street, but in general retailers tended to slightly overestimate the proportion of customers walking to shopping areas







Respondents: Port Street, retailers n=17, and shoppers n=37; Upper Craigs, retailers n=17, and shoppers n=51; Cowane Street, retailers n=2 and shoppers n=16

Likewise, parked cycle counts were conducted in nine different locations in October 2021, one at Causewayhead roundabout and eight in the city centre (Table 4). Counts were completed at four intervals throughout the day (09:00, 12:00, 15:00 and 18:00) for two days. The train station was the busiest of all sites with the highest number of parked cycles recorded (15) resulting in an average occupancy of 72%. Locations such as Causewayhead, Corn Exchange Road lower and Back Walk showed very low usage levels.

Site	Parking type	Capacity	No. of cycles parked <sup>3</sup>	Ave. occupancy <sup>4</sup>
Train station	Cycle stands	8	15	72%
Murray Place	Cycle stands	10	13	50%
Bus station	Cycle stands	10	8	34%
Corn Exchange Road upper	Cycle stands	12	6	16%
Port street	Cycle stands	14	5	11%
Back Walk	Cycle stands	8	1	2%
Causewayhead	Cycle stands	10	0	0%
Corn Exchange Road lower	Cycle stands	8	0	0%

#### Table 4 – Parked bike site counts and occupancy ratios

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<sup>&</sup>lt;sup>3</sup> Sum of total distinct cycles parked during each count interval.

<sup>&</sup>lt;sup>4</sup> Average ratio of all occupancy rates (cycle counts ÷ capacity) calculated each count interval.

## Perception of risk as a barrier to active travel

The Walk, Cycle, Live Stirling project aims to reduce residents' perception that active travel is higher risk than other travel modes. Surveys asked respondents how safe they felt travelling by active modes and what would encourage or discourage them to walk or cycle.

Respondents to the postal survey were asked directly about the barriers that prevent them from walking, cycling and wheeling in the project area. Figure 6 presents the results of this question. The responses on the barriers are listed as follows:

 The most common barrier preventing people from walking, cycling and wheeling was the condition of pavements (59%). "Road surfaces for cycling and footpaths for cycling are generally in very poor condition."

#### Postal survey respondent

- Nearly half of respondents said lack of cycling infrastructure (49%) and vehicles being too fast (43%) were barriers, whilst 40% of respondents cited the condition of the road surface and feeling vulnerable to motorised traffic as barriers to their active travel.
- For around a fifth of respondents, pollution from traffic (22%) and a lack of pavements (21%) were barriers.
- Of note, 16% of respondents felt driving was a part of who they are.
- Several safety barriers prevented people from active travel, including fear of crime (14%), bike theft (13%) and being too dark (9%).





# Figure 6 - Which of the following do you feel are barriers to walking, cycling and wheeling in the project area?<sup>5</sup>

Respondents, n=393

## Car usage

Encouraging mode-shift in Stirling is one of the objectives of the Walk, Cycle, Live Stirling project. The project aims to attain this by improving the active travel infrastructure in Stirling so that people use more active travel modes than motor vehicles. Levels of car usage were monitored using traffic speed and volume (TSV) surveys at different locations in the project area and also by asking postal survey respondents to estimate their car usage.

# "Cars going too fast on roads makes me nervous to cycle in these areas."

#### Postal survey respondent

The TSV monitoring was carried out in five different locations with multiple iterations between 2018 and 2021. The sites included Raploch Road North and South, Dunster Road, Causewayhead Road and Albert Place. In Raploch Road South the data was collected in two iterations during 2018 and 2021. The rest of the sites except Raploch Road North were



<sup>&</sup>lt;sup>5</sup> Respondents were able to select more than one option so percentages will not add up to 100%.

monitored twice between 2018 and 2021. The locations are a mixture of roads with 30 and 20 mph speed limits.

Figure 7 below shows the mean daily vehicle flow and mean vehicle speed in Raploch Road South (2018 and 2021) and Raploch Road North (2018). The 7-day mean vehicle flow decreased slightly for Raploch Road South from 2,408 to 2,117 between 2018 and 2021. The mean speeds at both the iterations were below the speed limit of 30 mph, with 27 mph in 2018 and 25 mph in 2021. Although the mean speeds remained below the speed limit nearly a quarter (24%) of the vehicles exceeded the limit in 2018 and 14% in 2021.

Similarly, the average vehicle flow in Raploch Road North was nearly 3,000 per day. The mean vehicular speed (30mph) was within the speed limit of 30mph. However, a large proportion (43%) of vehicles exceeded the speed limit.



Figure 7 – Mean daily vehicle flow and speed Raploch Road South

Figure 8 shows the average vehicle flow and speed in three different locations – Dunster Road, Causewayhead Road and Albert Place. The data is presented for the 2019 and 2021 iterations at each TSV monitoring site. The results highlight that:

- Of all the sites and iterations Causewayhead Road recorded the highest average vehicle flow in 2021 with a mean daily vehicle flow of 12,532. This could be due to the increased wait times at a new level crossing on the B823 that diverted traffic towards the A9.
- The 2019 average speed for Dunster Road and Causewayhead Road were over the speed limits of 20mph and 30mph respectively. Vehicle speeding was particularly marked in Dunster Road, with an average speed 10 mph above the speed limit. We observed an improvement in 2021 where the mean speed went down to 18 mph.



Similar improvement was seen in Causewayhead Road where the average speed dropped from 32mph in 2019 to 23mph in 2021. As part of Spaces for People measures during lockdown, Stirling Council reduced the speed restriction on Causewayhead Road from 30 mph to 20 mph, which is expected to have caused the speed reduction in this road. In 2019, 97% vehicles in Dunster Road, 49% in Causewayhead and 1% in Albert Place exceeded the speed limit. Similarly, 18% of vehciles in Dunster Road, 5% in Causewayhead and 23% in Albert Place exceeded the limit in 2021.



Figure 8 – Mean daily vehicle flow and speed in Dunster Road, Causewayhead Road and Albert Place

Respondents to the postal survey were asked which modes of transport they use whilst travelling through the project area. While most of the respondents walk (85%), a considerable proportion use car/van (75%) for travelling through the different project locations around Stirling. Other modes of transport that people used included cycling (40%) followed by public transport (28%) and wheeling (2%). Figure 9 illustrates these figures showing the distribution of modes of transport used by respondents.







Postal survey respondents (N=388)

As highlighted in Figure 5, retailers in the RVSs overestimated the number of shoppers walking and underestimated the shoppers cycling to shopping areas. Figure 10 below highlights that retailers overestimated the number of shoppers driving to Upper Craigs and Cowane Street, but underestimated driving levels to Port Street. These figures suggest there is a disparity between how retailers think their customers travel and how they actually travel.





Respondents: Port Street, retailers n=17, and shoppers n=37; Upper Craigs, retailers n= 17, and shoppers n=51; Cowane Street, retailers n=2 and shoppers n=16

<sup>6</sup> Respondents were able to select more than one option so percentages will not add up to 100%.



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# Purposeful trips made by walking and cycling

Walk, Cycle, Live Stirling aims to increase the levels of purposeful trips, such as commuting and shopping, made using active travel modes and reduce the number made by cars. As discussed in the previous section, there are high levels of walking in the Stirling area which suggests that people make a high number of purposeful trips by walking. The data from the postal survey is used to evidence this outcome.

## Levels of purposeful trips

Figure 11 below illustrates a high level of postal survey respondents who at least occasionally undertake purposeful trips by walking or cycling. Shopping and recreation were the most common purposes for those travelling by walking (each with 83%). For those cycling, recreation was the main purpose (88%), followed by shopping (78%). 58% of those who walked and 56% of those that cycled did so for personal business. Commuting was higher for those cycling (41%) than for walking (36%).

"I do walk and cycle regularly but still have to use car several times a day for shopping/school run.

Postal survey respondent

The largest difference was in travelling for education where 7 percentage points more respondents cycled than walked. Other notable differences were in recreation, commuting and visiting friends and family, where each had a 5 percentage point difference. Overall, these results suggest that infrastructure improvements that facilitate shopping and commuting may have the greatest potential for increasing purposeful trips by walking and cycling in the Stirling area.





Figure 11 – What is the purpose of your current journey?<sup>7</sup>

Postal survey respondents: Cycling, n=1578 and Walking, n: 3289

<sup>&</sup>lt;sup>9</sup> Total respondents figures include all respondents who provided an answer 'walking to the question *Which mode(s)* of transport do you use whilst travelling through the project area?.



<sup>&</sup>lt;sup>7</sup> Totals may not add up to 100% as respondents could select multiple responses.

<sup>&</sup>lt;sup>8</sup> Total respondents figures include all respondents who provided an answer 'cycling' to the question *Which mode(s)* of transport do you use whilst travelling through the project area?.

# **Quality of public realm**

Walk, Cycle, Live Stirling aims to improve the quality of the public realm in Stirling by increasing the attractiveness of the area and working on the environment and liveability of the area. This section of the report discusses the findings from the postal survey where respondents were asked questions about nature, environment, space, attractiveness of the area and safety.

Results show that residents find the area they are living in attractive and in an accessible location to the things they need. However, they raised concerns over the safety of children, specifically that it is not safe for children to play and children under 12 to walk, cycle or wheel alone.

## Liveability and Environment

Table 5 shows the proportion of respondents agreeing with statements associated with five postal survey locations. More than half of the respondents who answered for Airthrey Road (69%), Dumbarton to Upper Craigs (55%), and Causewayhead Road (55%) felt that the appearance of their areas is good and attractive. However, the proportion of respondents who thought these areas were well maintained was below 50% for four out of five locations with agreement for Stirling Station to Old Station Bridge being the lowest (23%).

More than 70% responding for Airthrey Road said that they can easily access nature and greenspace followed by Dumbarton to U

pper Craigs (63%), Drip Road West and Raploch Road (54%). The rest of the locations were below 50%. Very low proportions (<16%) of the respondents agreed that their places offer safe areas for children to play. Similarly, there were concerns over the safety for a 12-year child to walk, cycle or wheel alone.

	Drip Rd West and Raploch Road	Dumbarton Rd to Upper Craigs	Stirling Stn to Old Stn Bridge	Causeway head Rd	Airthrey Rd
The appearance is good/ attractive	41%	55%	26%	55%	69%
It is well maintained	44%	48%	23%	43%	53%
It is accessible for people with a range of abilities	42%	44%	29%	37%	41%
Everything I need to use is within a reasonable distance	45%	70%	63%	53%	44%

### Table 5 – Proportion of respondents agreeing with statements about their area



	Drip Rd West and Raploch Road	Dumbarton Rd to Upper Craigs	Stirling Stn to Old Stn Bridge	Causeway head Rd	Airthrey Rd
I can easily access nature and greenspace	54%	63%	38%	46%	72%
It is safe for children to play	13%	15%	9%	12%	16%
It is safe for a 12 year old child to walk, cycle or wheel alone	20%	21%	16%	20%	25%
It feels safe in terms of personal safety and security	31%	58%	37%	59%	56%
There is space for people to socialise	39%	52%	29%	26%	39%
I enjoy spending time in this area	19%	56%	19%	40%	49%

Maximum number of respondents for all statements: n= 355; minimum respondents: n=254.

In addition to the postal survey, respondents to the shoppers' survey were asked to rate the shopping area in terms attractiveness of the area, accessibility, maintenance, safety and security. Over 70% of the respondents agreed that the appearance of the place is good and attractive, is well maintained and is an area they like to spend time in. This contrasts with postal survey findings where the proportion of respondents saying their areas are well maintained is below 50% for four out of five locations.

Nearly 85% of the respondents agreed that their local area is safe in terms of personal safety and security. However, only 55% and 49% agreed that the area is accessible for people with a range of abilities and is easy to access by cycling respectively.

## Community cohesion

Questions related to community cohesion were asked in the postal survey. Nearly 70% of the respondents agreed that people get on well together in their neighbourhood and 62% agreed that they talk to their neighbours about local issues. Only 38% of respondents agreed that they are informed of local events and activities, and only about a half of the respondents agreed that they feel part of their local community. Figure 12 shows the distribution of respondents agreeing, disagreeing, and remaining neutral on community cohesion related statements.





### Figure 12 – How strongly do you agree or disagree with the following statements?

Maximum number of respondents for all statements: n = 377, minimum respondents: n = 342



# **Economic vitality**

The RVS was carried out with 36 retailers and 104 shoppers in Stirling. The retailers survey collected perceptions of customer footfall, and spending and travel behaviour within the local area. Similarly, the shopper surveys captured evidence on the travel and shopping behaviour of the shoppers themselves.

In summary, being close to home and visiting a specific retailer were major factors for choosing the shopping area over other places. This indicates that shoppers are choosing the shopping area accessible by active travel modes. Also, the shoppers were more local than the retailers thought.

## Retailer and shopper perceptions

For more than half of the shoppers (56%), distance was the main reason that they could not have shopped elsewhere. One-fifth (20%) of them were visiting a specific retailer and the rest (24%) had another commitment that meant they needed to visit this area. This highlights a significant proportion of local residents who want to access local retailers.

Around a quarter (26%) of shoppers visit these shops weekly, followed by 2-5 times a week (21%) (Figure 13). A third of the shoppers expected to spend less than 45 minutes in the shopping area. Among the shoppers, most (56%) were Stirling residents, followed by visitors (24%) and residents of Stirlingshire and Clackmannanshire (20%). 41% of respondents reported that they could have shopped elsewhere.





Respondents: shoppers n=104



Figure 14 below shows the retailers' estimation of distance customers travel and the actual distance that the shoppers travelled. This shows that the retailers underestimated the proportion of customers travelling shorter distance journeys and overestimated longer distance journeys with the exception of journeys over 10 miles. Also, this links to the finding that retailers overestimated the proportion of shoppers travelling by car and underestimated cycling.



Figure 14 – Retailer estimated vs shopper's reported travel distance

Respondents: retailers n=35, and shoppers n=104

People visited the surveyed areas for a variety of purposes. Figure 15 below shows the distribution of the shoppers across these purposes. Results show that nearly 80% of the people visited the area for shopping and the rest for other purposes including recreation/leisure (38%), visiting friends/family (26%), personal business (21%), meal out (14%) and commuting (9%).



Figure 15 – Purpose of the visit to the area



Respondents: shoppers n=104

Table 6 below presents some key characteristics of the shoppers included in the RVS in Stirling.

Table 6 – Characteristics and responses of shoppers





# Improved Health and wellbeing

Walk, Cycle, Live Stirling aims to improve the health and wellbeing of residents. The project expects to attain this through health benefits that occur as a result of increased levels of physical activities from active travel. The physical activity levels and health and wellbeing status of the postal survey respondents throughout Stirling is presented in this section. "I support all measures that encourage and promote health and wellbeing to promote sustainable travel and discourage motorised travel locally"

Postal survey respondent

## Perceptions of health and physical activity levels

Figure 16 shows how residents rate their general health over four weeks before the survey period. Most respondents rated their general health positively, with 23% considering it to be excellent, 30% very good, 27% good, and 15% saying fair. A small proportion (5%) of respondents rated their health to be poor or very poor.



Figure 16 – Overall how would you rate your general health over the last four weeks?

Number of respondents n=382

For levels of physical activity over a week, we found that nearly 70% of respondents reported spending 30 minutes or more exercising on at least four days. There were 29% respondents completing such activity on all days of the week the survey was conducted. The results reveal that few people are not spending any time on physical activity, with only 6% of respondents reporting not doing any physical activity on any of the days over the week (Figure 17). These



figures are comparable with the Scottish Health Survey 2022. The survey reported that 65% of adults completed at least 150 minutes of moderate physical activity or 75 minutes of vigorous physical activity, or an equivalent combination of the two per week<sup>10</sup>.



Figure 17 – In the past week, on how many days have you completed 30 minutes or more of physical activity that was enough to raise your breathing rate?



Number of respondents n=381

 $<sup>\</sup>frac{10}{10} https://www.gov.scot/publications/scottish-health-survey-2022-volume-1-main-report/pages/13/2002-volume-1-main-report/pages/12/2002-volume-1-main-report/pages/12/2002-volume-1-main-report/pages/12/2002-volume-1-main-report/pages/12/2002-volume-1-main-report/pages/12/2002-volume-1-main-report/pages/12/2002-volume-1-main-report/pages/12/2002-volume-1-main-report/pages/12/2002-volume-1-main-report/pages/12/2002-volume-1-main-report/pages/12/2002-volume-1-main-report/pages/12/2002-volume-1-main-report/pages/12/2002-volume-1-main-report/pages/12/2002-volume-1-main-1-main-1-main-1-main-1-main-1-main-1-main-1-main-1-main-1-main-1-main-1-main-1-main-1-main-10/2002-volume-1-main-1-main-1-main-1-main-1-main-1-main-1-main-1-main-1-main-1-main-1-main-1-main-1-main-1-main-1-ma$ 

# **Improved Accessibility**

One of the most important outcomes of Walk, Cycle, Live Stirling is to improve accessibility in Stirling. It aims to increase accessibility for women, the elderly, people with disabilities and those from areas of high deprivation. Additionally, it intends to increase diversity in the demographics of route users.

## Perceptions of accessibility

The majority of respondents agreed that the area is easy to access by foot (81%) and car/van (79%), whilst 50% agree the area is easy to access by cycle (Figure 18). The proportion of respondents agreeing that the area is easily accessible by public transport is below 50% and only 12% agreed that the area is easily accessible by wheelchair. The low number of wheelchair users counted in MC and VMC further supports this finding. The proportion of wheelchair users in each of these counts was below 1%. This suggests that the area has infrastructure favourable for walking and driving but less so for cycling, public transport and wheeling. Note that the Walking and Cycling Index for Stirling reported that 1% of the people use a wheelchair.



### Figure 18 – How much do you agree that the project area is easy to access by ...?

 $Respondents: \ car, \ n=345; \ public \ transport, \ n=333; \ wheeling, \ n=297; \ bicycle, \ n=340; \ foot, \ n=376.$ 

Breaking down the responses by different postal survey areas shows that the proportion of respondents from each of the survey sites who agreed that their area is accessible for people with a range of abilities was below 50%. Figure 19 demonstrates that 44% of respondents in



Dumbarton Road to Upper Craigs agree that their area is accessible for people with different abilities. At Drip Road West and Raploch Road 42% agreed, followed by 41% at Airthrey Road, 37% at Causewayhead Road and 29% at Stirling Station to Old Station Road.

# Figure 19 – Percentage of respondents from each area that agreed that the area is accessible for people with a range of abilities



Respondents: Airthrey Road n = 317, Causewayhead Road n = 334, Stirling Station to Upper Craigs n = 305, Dumbarton Road and Upper Craigs n = 298 and Drip Rd West and RR n = 273



# **Future Monitoring**

The data presented in this report forms an important baseline for future monitoring. We have gathered pre-project delivery data on levels of active travel, travel purpose, perceptions of the project area, economic potential, and levels of health, wellbeing and accessibility.

After completion of the construction activities in Stirling, a bedding in period of at least 6 months will be allowed before carrying out the follow-up monitoring. At the time of writing, construction is estimated to be completed by November 2024. The follow-up monitoring is planned for summer of 2025. This will focus on measuring the impact of the Walk, Cycle, Live Stirling scheme by comparison with the baseline data. The follow-up monitoring data will be collected using largely the same monitoring tools employed in the baseline data collection. Some changes to the tools used may be made based on lessons learned from the baseline monitoring and development of more suitable tools.

Based on the experience from baseline monitoring, the tools like postal survey and retail vitality survey will be updated to address the issues identified while analysing the responses. For example, the questions/options/instructions will be made clearer and easier for the respondents to understand. Timing of the survey will also be considered so that representative responses are collected. RVS data collection was done during school holidays in the baseline. It is likely that the results might have been affected by this (e.g., higher proportion of tourists among shoppers).

# **Key contacts**

#### Table 7 – Key contacts

Role	Name	Email address
RMU Project Manager	Diwakar Basnet	diwakar.basnet@sustrans.org.uk
RMU Project Director	Callum Martin	Callum.martin@sustrans.org.uk
PfE Grant advisor	Katherine Henebry	katherine.henebry@sustrans.org.uk
Partner contact	Michaela Jackson	jacksonmi@stirling.gov.uk
Lead Organisation	Stirling Council	



# Appendices

# Appendix 1: CLP project monitoring outcomes and indicators

#### Table A. CLP project monitoring outcomes and indicators

Out	come	Indicators
1	Increase in levels of active travel / increase in modal shift	Percentage change in cycling and walking trips made utilising the intervention
		Increased levels of walking and cycling
		Altered route choice for cycling to use intervention
		Reduction in car usage
		Reduction in perception of risk as a barrier to active travel
2	Increase in levels of purposeful trips	Increased levels of purposeful trips made by walking and cycling
	made by walking and cycling	Reduction in car usage for purposeful trips
		Reduction in occupancy of non-disabled car parking spaces on the route
3	Improved air quality	Reduction of NO2 emissions
4	Improved quality of public realm	Beneficiaries perceive an improvement in the quality of the public realm (local community, including businesses)
		Beneficiaries perceive an improvement in community cohesion
		Change in the use of public space
5	Increased economic vitality	Economic benefits as a result of route improvements
		Changes to shopping behaviour
		Increased occupancy of shops
6	Improved health and wellbeing	Self-reported changes to residents' health and wellbeing
		Increased levels of attainment of recommended physical activity levels through walking and cycling Health benefits that occur as a result of increases in walking and cycling
7	Increased biodiversity	Increase in the diversity and quality of habitat alongside the route
0	Improved accessibility for all	Increased accessibility of the route for:
0		• Women
		Older people
		Disabled people
		Those from areas of high deprivation
		Increased diversity in the demographic of route users
		Increased accessibility for users with limited mobility



# Appendix 2: Stirling Council project outputs and outcomes

The outputs of the Walk, Cycle, Live Stirling project are:

- A segregated cycle route with junction improvements connecting Stirling City centre and the Forth Valley College;
- A segregated cycle route with junction improvements connecting Stirling Rail Station and the University;
- The creation of an active travel gateway at Stirling Railway Station, creating an attractive entry to the city;
- Targeted placemaking; and
- The creation of safe, convenient and seamless access for people of all ages and abilities to travel independently by non-motorised modes, including for an unaccompanied 12-year-old child and for those with disabilities.

The following outcomes have been set for the Walk, Cycle, Live Stirling project:

- Local residents will increasingly use sustainable, healthy and clean travel choices;
- Reduced cyclist / pedestrian accident rate;
- The population of Stirling will be heathier, including those from deprived communities;
- Reduced energy use and associated carbon (greenhouse gas) emissions through less private (vehicle) travel;
- Ecological diversity through supporting a greater diversity of species and a greener built environment;
- Enhanced social inclusion through better access to higher/further education and employment for marginalised and socio-economically disadvantaged groups;
- Increased attractiveness of higher/further education offer; and
- Increase in footfall, supporting local businesses through pass-by custom.



## Appendix 3: Monitoring tools

### Route User Intercept Survey (RUIS)

Surveys of users of cycling or pedestrian routes, known as Route User Intercept Surveys (RUIS), were conducted over four 12-hour (0700-1900) periods at four locations – Wellgreen Road Underpass, Old Stirling Bridge, Causewayhead Road Railway Bridge and Lower Bridge Street. Surveys were carried out for four days, including three weekdays and one weekend day in May-June 2019. In a RUIS, the surveyors intercept route users and ask questions about journey purpose, travel behaviour, perceptions of safety and physical activity. A manual count is conducted alongside the survey, recording all movements for each user category (age category, mode and gender).

### Traffic Speed and Volume Surveys

Traffic, Speed and Volume (TSV) data was collected at five locations in the project area. TSV data collection in Raploch Road North and South involved two and three iterations respectively between 2018 and 2021. In Dunster Road, Causewayhead Road and Albert Place, the information on the flow of traffic was collected from 19<sup>th</sup>-25<sup>th</sup> October 2021. At all locations the data was collected continuously over seven consecutive days. The data includes a breakdown of vehicle classification and speeds in 15-minute increments. The approximate locations of the TSV surveys used in this report are marked on Figure 20 below.



Figure 20 – Map showing project area and the location of monitoring



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#### Manual Counts and Video Manual Counts

Manual counts of pedestrian and cyclist movements were undertaken in September 2018, May 2019 and October 2021 to evaluate the current usage of active travel routes in the Stirling area. These counts were undertaken at four different locations on three term-time weekdays and a weekend day between 07:00 and 19:00 hours. In the count, the gender, age and travel-mode of all users is recorded. The four count locations consisted of Raploch Road and Huntley Crescent, Dunster Road, Causewayhead Road and Millennium Way. They have been marked on Figure 20 above. Each site location is a pavement next to a road, and as such each count separates out users counted on the road and users counted on the pavement. Only cyclists were counted on the road.

There were further counts conducted at Raploch and Airthrey Road in May 2019 and Wellgreen Road in May 2019 and October 2021 where it was not suitable for installation of automatic counters and a video manual count (VMC) was done. For a VMC, a video camera is set up at the location which records the necessary footage, and the count is produced from the video footage. As the data is collected from video footage rather than in person, the gender and age of users cannot be obtained accurately and is therefore not recorded. Surveying was done over the same day types as the manual counts and again the counts produced an on- and offroad count.

#### Parked Bike Counts

Parked cycle counts were conducted on 21<sup>st</sup> and 23<sup>rd</sup> of October in 2021<sup>11</sup> to record the number of people using their bicycles to access transport interchanges, local amenities and workplaces in the project area. This provides a snapshot of how much bike storage is being used. Counts include a breakdown of cycle type (cargo bike, child seat, adapted cycle). Counts were completed at four intervals throughout the day (09:00, 12:00, 15:00 and 18:00) at nine different count locations, one at Causewayhead roundabout and eight in the city centre. City centre locations include the train station, bus station, Murray Place, Port Street, Corn Exchange Road lower, Back Walk and Corn Exchange Road upper. The areas covered are shown on Figure 3 above.

#### **Postal Survey**

A postal survey was carried out in the following locations in Stirling: Drip Road West and Raploch Road, Dumbarton Road to Upper Craigs, Airthrey Road, Causewayhead Road, and Stirling Train station to Old Station Bridge during July/August 2021 (see Figure 20 for map of locations). Postal surveys are targeted to the wider beneficiaries of the project to understand the awareness, attitudes and perceptions of the local community to the project. The survey captured information about community cohesion, resident's involvement in the planning process, perceptions of safety towards active travel in the intervention location and residents'



<sup>&</sup>lt;sup>11</sup> Re-count was done at train station fence and Murray Place on 28<sup>th</sup> and 30<sup>th</sup> October 2021 due to wrong sites counted on the original survey dates 37

travel behaviour. The survey was delivered by post and respondents were provided with a freepost envelope to return the survey form.

### Retail vitality survey (RVS)

RVSs were conducted with local retail business owners and shoppers along Port Street, Upper Craigs and Cowane Street in July 2021. In an RVS, the surveyors attempt to stop and interview shoppers passing them by and go into shops to interview the owner or duty manager. The retailer surveys were designed by RMU to capture information from business owners on their perceptions of customer footfall, spending and travel behaviour within the local area. Similarly, the shopper surveys were specifically designed to capture evidence on the travel and shopping behaviour of the shoppers themselves. This information will be compared to post data to provide evidence on the impact of the intervention on shoppers travel habits and shopping behaviour. The areas covered by the RVSs are marked on Figure 20 above.



#### **Postal Survey**







#### Walk, Cycle, Live Stirling - Resident Survey

Please complete the survey and post it back in the envelope provided by 1st August					
Introduction	Q4 How much do you agree that the project area (see enclosed map) is easy to access by?				
Sustrans are working with Stirling Council to help improve walking, cycling and wheeling conditions for local residents. The answers you provide in this short survey will be used to monitor the impact of the Walk, Cycle, Live project and inform the delivery of active travel projects in Stirling. All questions in this survey are optional.	Strongly agree     Agree     Neutral     Disagree     disagree     N/A       Foot				
Q1 Do you currently use any part of the project area (see	Car/van				
enclosed map)? Tick all that apply.	(please specify)				
Dumbarton Road to Upper Craigs	Q5 Which of the following do you feel are barriers to walking, cycling and wheeling in the project area (see enclosed map?) Tick all that apply.				
Causewayhead Road	Lack of pavements				
I do not use any part of this area (Move to Q4)	Lack of cycling intrastructure				
Q2 Which mode(s) of transport do you use whilst travelling through the project area (see enclosed map)? Tick all that apply.	The condition of the road surface				
Walking	Vehicles travelling too fast				
Cycling	I am worried about pollution from traffic				
Wheeling (using a wheelchair)	Street fences prevent crossing				
Public Transport	Fear of crime/ anti social bahaviour				
Carlvan	I am worried about bike theft				
Other (please specify e.g. pushchair)	Infrastructure is unsuitable for my accesibility needs				
Q3 What is the purpose of these trips? Tick all that apply.	Poor nearth and/ or disability				
Commuting (getting to/ from work)	Religious/ cultural reasons				
Recreation (including visiting the doctor)	I wouldn't fit in with my peers or neighbours if I walked/				
Trips taken during the family	Driving a car is a part of who I am				
meetings)	Please				
Education	exprant.				
Other (please specify)					
	Physical Activity				
	Q6 In the past week, on how many days have you completed 30 minutes or more of physical activity that was enough to raise your breathing rate? (This may include sport, exercise and brisk walking or cycling) 0 1 2 3 4 5 6 7 0 1 2 3 4 5 0 7				



Community	y &	Place	Sha	ping
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The following questions will ask you to rate each part of the project area in terms of a variety of statements. You may provide answers for as many or as few areas as you like, and then move onto the next page.

Q7	How would you rate Drip Road West and Raploch	
	Road in terms of the following statements?	

		Strongly				Strongly
		agree	Agree	Neutral	Disagree	disagree
	The appearance is good/ attractive					
	It is well maintained					
	It is accessible for people with a range of abilities					
	Everything I need to use is within a reasonable distance					
	l can easily access nature and greenspace					
	It is safe for children to play					
	It is safe for a 12 year old child to walk, cycle or wheel alone					
	It feels safe in terms of personal safety and security					
	There is space for people to socialise					
	l enjoy spending time in this area					
08	How would you r	ate Dur	mbartor	Road t	o Unne	r .
-	Craigs in terms of	of the fo	llowing	statem	ents?	
	Craigs in terms of	of the fo	llowing	statem	ents?	Strongly
	Craigs in terms of	Strongly agree	Agree	Neutral	ents?	Strongly disagree
~-	Craigs in terms of The appearance is good/ attractive It is well maintained	Strongly agree	Agree	Neutral	ents?	Strongly disagree
	Craigs in terms of The appearance is good/ attractive It is well maintained It is accessible for people with a rance of abilities	strongly agree	Agree	Neutral	Disagree	Strongly disagree
	Craigs in terms of The appearance is good/ attractive It is well maintained It is accessible for people with a range of abilities Everything I need to use is within a reasonable distance	of the fo	Agree	statem Neutral	ents?	Strongly disagree
	Craigs in terms of The appearance is good/ attractive It is well maintained It is accessible for people with a range of abilities Everything I need to use is within a reasonable distance I can easily access nature and greenspace	agree	Agree	statem Neutral	Disagree	Strongly disagree
	Craigs in terms of The appearance is good/ attractive It is well maintained It is accessible for people with a range of abilities Everything I need to use is within a reasonable distance I can easily access nature and greenspace It is safe for children to play	are for the for strongly agree		statem Neutral	Disagree	
	Craigs in terms of The appearance is good/ attractive It is well maintained It is accessible for people with a range of abilities Everything I need to use is within a reasonable distance I can easily access nature and greenspace It is safe for children to play It is safe for a 12 year old child to walk, cycle, or wheel alone	of the for Strongly agree		Veutral	Disagree	
	Craigs in terms of The appearance is good/ attractive It is well maintained It is accessible for people with a range of abilities Everything I need to use is within a reasonable distance I can easily access nature and greenspace It is safe for a 12 year old child to walk, cycle, or wheel alone It feels safe in terms of personal safety and security			statem Neutral		
	Craigs in terms of Craigs in terms of good/attractive It is well maintained It is accessible for people with a range of abilities Everything I need to use is within a reasonable distance I can easily access nature and greenspace It is safe for children to play It is safe for a 12 year old child to wake alone It feels safe in terms of personal safety and security There is space for people to socialise					

	How would you rate Stirling Station to Old Station Bridge in terms of the following statements?					
		Strongly	Anroa	Martral	Disampa	Strongly
	The appearance is good/ attractive					
	It is well maintained					
	It is accessible for people with a range of abilities					
	Everything I need to use is within a reasonable distance					
	I can easily access nature and greenspace					
	It is safe for children to play					
	It is safe for a 12 year old child to walk, cycle or wheel alone					
	It feels safe in terms of personal safety and security					
	There is space for people to socialise					
	l enjoy spending time in this area					
Q10	How would you	rate Cau	iseway	head Ro	ad in te	rms of
	the following sta	tement	=2			
	the following sta	strongly	5?			Strongly
	the following sta The appearance is good/ attractive	strongly agree	Agree	Neutral	Disagree	Strongly disagree
	the following sta The appearance is good/ attractive It is well maintained	strongly agree	Agree	Neutral	Disagree	Strongly disagree
	the following sta The appearance is good/ attractive It is well maintained It is accessible for people with a range of abilities	strongly agree	Agree	Neutral		Strongly disagree
	the following sta The appearance is good/ attractive It is well maintained It is accessible for people with a range of abilities Everything I need to use is within a reasonable distance	strongly agree	s? Agree			Strongly disagree
	the following sta The appearance is good/ attractive It is well maintained It is accessible for people with a range of abilities Everything I need to use is within a reasonable distance I can easily access nature and greenspace		5? Agree	Neutral		Strongly disagree
	the following sta The appearance is good/ attractive It is well maintained It is accessible for people with a range of abilities Everything I need to use is within a reasonable distance I can easily access nature and greenspace It is safe for children to play		5? Agree	Neutral		Strongly disagree
	the following sta The appearance is good/ attractive It is well maintained It is accessible for people with a range of abilities Everything I need to use is within a reasonable distance I can easily access nature and greenspace It is safe for a 12 year old child to walk, cycle or wheel alone		5?	Neutral		
	the following sta The appearance is good/ attractive It is well maintained It is accessible for people with a range of abilities Everything I need to use is within a reasonable distance I can easily access nature and greenspace It is safe for a 12 year old child to walk, cycle or wheel alone It feels safe in terms of personal safety and security		5? Agree	Neutral		
	the following sta The appearance is good/ attractive It is well maintained It is accessible for people with a range of abilities Everything I need to use is within a reasonable distance I can easily access nature and greenspace It is safe for children to play It is safe for a 12 year old child to walk, cycle or wheel alone It feels safe in terms of personal safety and security There is space for people to socialise		5? Agree			



Q11 How would you rate Airthrey Road in terms of the following statements?					
iono inng staten	Strongly				Strongly
The appearance is	agree	Agree	Neutral	Disagree	disagree
It is well maintained					
It is accessible for people with a range of abilities					
Everything I need to use is within a reasonable distance					
I can easily access nature and greenspace					
It is safe for children to play					
It is safe for a 12 year old child to walk, cycle or wheel alone					
It feels safe in terms of personal safety and security					
There is space for people to socialise					
I enjoy spending time in this area					
Q12 How strongly do	you ad	ree or	disagree	with th	e
following statem	ents?		ansagree		-
	agree	Agree	Neutral	Disagree	disagree
I am informed of local events/ activities					
I talk to my neighbours about local issues					
I feel part of my local community					
People get on well together in this neighbourhood					
S	cheme	awarer	iess		
Q13 Before receiving	this su	rvey, h	now muc	h (if any	(thing)
A great deal A	fair amou	projec	a pians? Iusta little	Noth	ng at all
				[	
Q14 To what extent d community were	o you f	eel the lered in	views of the dev	f the elopme	nt of
the project plans	?				
A great deal A	fair amou	nt.	lust a little	No	t at all
O15 To what extent d		aree o	r disaare	L a with t	the
proposals to imp wheeling infrast	prove th ructure	e walk in this	ing, cycl project	ling and area?	
Strongly agree Agr	ee	Neutral	Diseo	ree d	strongly Isaaree
Ŭ Č	]			]	
Q16 Do you have any	further	comn	ents abo	out the \	Walk.
Cycle, Live Stirli piece of paper to ex	ng proje pand)	ect? (fe	el free to	use a sep	arate

#### About You

project's impact on different groups not be used to identify you. All	Il help us to understand the of people in Stirling, and will questions are optional.
Q17 What are the first four digits	of your postcode?
Q18 Are your day-to-day activitie health problem or disability expected to last at least 12 r Yes, limited a lot Yes, limited a little	es limited because of a which has lasted, or is months? No Prefer not to say
Q19 Overall, how would you rate	vour general health over
the last four weeks?	Fair Poor Very poor
Q20 Which of the following best	describes your gender?
Male	
Female	
Non binary	
Prefer not to say	
l prefer to self describe (self description)	
Q21 Which age group do you fit	into?
16-24	55-64
25-34	65-74
35-44	75+
45-54	Prefer not to say
Q22 Which of the following best status?	describes your working
Employed or self	Refired
employed full time (30+ hours per week)	Looking after home/ family
employed or set employed part time	Unemployed/ sick leave
(less than 30 hours per week)	Studying
,	
	Voluntary worker
Other (please specify)	Voluntary worker
Other (please specify) Q23 What is your ethnicity?	Voluntary worker
Other (please	Caribbean
Other (please specify) Q23 What is your ethnicity? White	Voluntary worker
Other (please specify) Q23 What is your ethnicity? White	Voluntary worker
Other (please specify) Q23 What is your ethnicity? White	Voluntary worker
Other (please specify) Q23 What is your ethnicity? White	Caribbean
Other (please specify) Q23 What is your ethnicity? White	Voluntary worker
Other (please specify) Q23 What is your ethnicity? White	Voluntary worker
Other (please specify) Q23 What is your ethnicity? White	Voluntary worker
Other (please specify) Q23 What is your ethnicity? White	Voluntary worker
Other (please specify) Q23 What is your ethnicity? White	Voluntary worker

I would like to be entered into the prize draw... I would like to be informed about future consultations in this area.....

#### **Retail vitality survey**



## Walk, Cycle, Live Stirling Retailer Survey

Sustrans are working with Stirling Council to help improve walking, cycling and wheeling conditions in Stirling. To evaluate the impact of the proposed changes, we would be grateful if you could complete this survey about your staff and customers travel behaviour, and your opinions of the local area.

Sustrans is committed to protecting your privacy and we work in full compliance with Data Protection legislation. We will only share your personal data when you provide us with your explicit consent to do so, or when legally required. We may share your details with carefully selected third party suppliers working on our behalf.

To be completed by the surveyor	Q2 Before receiving this survey, how much did you know about the Walk, Cycle, Live project plans?
Survey site number:	Nothing at all A great deal A fair amount Just a little (Go to Q4)
Location: Date (DD/MM/YY): Time interview started: Interviewer intials: Day type? ( <i>Tick one</i> )	Q3 To what extent do you agree or disagree with the proposals to enhance the walking, cycling and wheeling infrastructure in this project area?           Strongly         Strongly           agree         Agree         Neutral         Disagree         disagree
Weekday Weekend Bank Holiday	Q4 How would you rate the area where your business is located in terms of the following statements? Strongly Strongly
School holiday or term time? ( <i>Tick one</i> ) School holidays Term time           School holidays         Term time           Your Business	Agree Agree Neutral Disagree disagree The appearance is good/ attractive
Q1 What type of service does your business provide?	It is well and the second seco
Clothing/ footwear Electrical goods Food/ groceries	It is accessible for people with a
Home improvements/ DIY Luxury goods Pharmaceuticals/ toiletries Pub/ bar	It feels safe in terms of personal
Restaraunt/ cafe/ diner Services (e.g. bank, post office)	It is an area that people like to spend time in
Stationery/ books/ CDs/ DVDs Takeaway food/ bakery/ deli Other (please specify)	The public space supports the



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Υοι	ur Travel and Staff Tr	avel	<u>C</u>			
Q5	How do you normally tra one)	vel to/ from work? (Please tick	Q			
	Car/ van/ motorcycle					
	Walk					
	Cycle					
	Bus					
	Train					
	Taxi					
	Other (please specify)					
Q6	Q6 In your opinion, what proportion of your employees are currently travelling to/ from this shopping area using the following modes? ( <i>Please make sure your answers</i> total 100%)					
	Car/ van/ motorcycle					
	Walk					
	Cycle					
	Bus					
	Train					
	Taxi					

#### Customer Travel

Q7 In your opinion, what proportion of your customers are currently travelling to/ from this shopping area using the following modes? (*Please make sure your answers* total 100%)

Car/ van/ motorcycle	
Walk	
Cycle	
Bus	
Train	
Тахі	

Q8 How far do you estimate that most of your customers travel to/ from this shopping area? (Please tick one)

Less	than	а	mile

- 1-2 miles
- 3-5 miles 6-10 miles
- 6-10 miles

# Appendix 4: Results from manual counts

Location / Mode	Sept. 2018	May 2019	October 2021
Raploch Road			
Pedestrians	1756 (89%)	3112 (88%)	1089 (86%)
Cyclists	224 (11%)	420 (12%)	173 (14%)
Pavement cyclists	124 (6%)	220 (6%)	145 (12%)
On road cyclists	100 (5%)	200 (6%)	28 (2%)
Dunster Road			
Pedestrians	-	529 (60%)	788 (55%)
Cyclists	-	356 (40%)	643 (45%)
Pavement cyclists	-	12 (1%)	173 (12%)
On road cyclists	-	344 (39%)	470 (33%)
Millennium Way			
Pedestrians	-	186 (49%)	122 (58%)
Cyclists		191 (41%)	89 (42%)
Pavement cyclists	-	66 (8%)	11 (5%)
On road cyclists	-	125 (33%)	78 (37%)
Causewayhead Road			
Pedestrians	-	1403 (65%)	1086 (78%)
Cyclists	-	746 (35%)	303 (22%)
Pavement cyclists	-	63 (3%)	138 (10%)
On road cyclists	-	683 (32%)	165 (12%)
Old Stirling Bridge			
Pedestrians	-	4359 (70%)	-
Cyclists		1846 (30%)	
Pavement cyclists	-	1846 (30%)	-
Lower Bridge Street			
Pedestrians	-	784 (85%)	-
Cyclists		142 (15%)	
Pavement cyclists	-	142 (15%)	-
Wellgreen Underpass			
Pedestrians	-	8234 (99%)	-
Cyclists		114 (1%)	
Pavement cyclists	-	114 (1%)	-
Causewayhead Road Rai	lway Bridge		
Pedestrians	-	2220 (60%)	-
Cyclists	-	1475 (40%)	
Pavement cyclists	-	1256 (34%)	-
On road cyclists	-	219 (6%)	-

## Table B. Manual count locations and travel mode counts by date





Figure 21 – Numbers of pedestrians and cyclists counted at Raploch Road (2018 - 2021)







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Ped Pavement cyclists On road cyclists

Figure 23 – Numbers of pedestrians and cyclists counted at Millennium Way (2019 - 2021)



Figure 24 – Numbers of pedestrians and cyclists counted at Causewayhead Rd (2019 - 2021)







Site	Pedestrians	Cyclists	Other users	Total	On -road cyclists
Raploch Road (2018)	197309	11359	1658	210353	8608
Raploch Road (2019)	297682	19482	5501	322665	18012
Raploch Road (2021)	146637	15175	4754	166566	2867
Dunster Road (2019)	50650	1071	4020	55742	30008
Dunster Road (2021)	84885	18214	4534	107633	44387
Causewayhead Road (2019)	135070	5498	10222	150789	59839
Causewayhead Road (2021)	142668	16214	13125	172006	16710
Millennium Way (2019)	17611	5803	2427	25841	11143
Millennium Way (2021)	15244	969	4973	21186	8814
Wellgreen Road Underpass (2019)	899418	10855	7294	917568	-
Causewayhead Rd Railway Br. (2019)	212735	109280	11165	333180	19097

Table C – Annual Usage Estimate for each user type at the manual count locations

