Agenda Item	9
Report No	CIA/5/20

HIGHLAND COUNCIL

Committee: **City of Inverness Committee**

Date: **20 February 2020**

Report Title: **Riverside Way – Update and Next Steps**

Report By: **Executive Chief Officer Infrastructure and Environment**

1. Purpose/Executive Summary

1.1 The Riverside Way Project was reported to the Committee in November 2018 (CIAC 51/18). The Committee approved the publication of a draft one-way order to introduce a permanent one-way system. In recognition of the concerns that were previously raised research has been undertaken by officers to investigate case studies where use of an Experimental Road Traffic Regulation Order (ERTRO) for cycle contraflow schemes have been used.

1.2 This report presents a proposal to introduce an ERTRO that will allow a low-cost trial and associated comprehensive monitoring before an update report is presented to a future Committee meeting.

2. Recommendations

2.1 Members are asked to:

i. note the contents of this report, including the background, and preliminary engagement feedback;

ii. note that the effects of the Experimental Road Traffic Regulation Order will be carefully monitored and reviewed in compliance with the statutory requirements and in the interests of road safety;

iii. delegate the Executive Chief Officer Infrastructure and Environment to:

a. advertise the Experimental Road Traffic Regulation Order, with cycle contraflow, for part of Ness Walk and part of Bught Road (between Bishops Road and Bught Drive);
b. bring back a report to Committee in the event there are sustained objections to the ERTRO;

c. subject to there being no objections to make and implement the ERTRO;
d. act as the specified officer of the authority in terms of section 10 of the Road Traffic Regulation Act 1984; and
e. subject to the making of the ERTRO, arrange ongoing engagement with the Community Council and those who have raised concerns at any stage of the process, submit a Review Report to a future Committee as soon as possible after the ERTRO has been in operation for a period of 6 months.

3. Implications

3.1 Resource
Subject to approval, a series of 7 plugs (signs, markings and splitter island) will be installed along the route. A thorough series of surveys will be undertaken during the monitoring period. Funding from the Community Links Plus award will be used for the above items.

3.2 Legal
The Council as Local Roads Authority has the powers to introduce Experimental Road Traffic Regulation Orders under sections 9 and 10 of the Road Traffic regulation Act 1984.

3.3 Community (Equality, Poverty and Rural)
A summary of the preliminary (non-statutory) community engagement feedback is presented within this report.

3.4 Climate Change / Carbon Clever
This proposal complies with the sustainable transport hierarchy proposed within the National Transport Strategy and local policies. The proposed ERTRO will support climate change objectives through support for active travel modes (walking and cycling).

3.5 Risk
Without the low-cost trial it is not possible to observe actual traffic flows arising from the introduction of the one-way system. Funding constraints within the award agreement mean a decision is required to avoid any further slippage or loss of funding.

3.6 Gaelic
Future wayfinding will include Gaelic.

4. Policy and Project Background

4.1 The following policy text is taken from the Inner Moray Firth Local Development Plan.

> Central Inverness
> Maximising the economic potential of the Ness riverfront and Inverness waterfront by making it safer (flood alleviation scheme), more attractive (public art and other realm works), more accessible (enhanced foot / cycle way provision) and more of a destination (tourism, leisure and cultural facility allocations).
>
> South Inverness

Enhanced pedestrian and cycle connections to existing sporting and recreational facilities at the Bught and Torvean and better access routes to the countryside.

4.2 The Scottish Government's Climate Change Plan report of 2018 highlights that the Government is committed to building an Active Nation and has doubled its active travel spend in 2018-19. The award of Community Links Plus funding from the Scottish Government includes the Riverside Way (Active Travel Network Route 4 – ATN4) route.

4.3 There are many benefits of active travel and they are set out below.

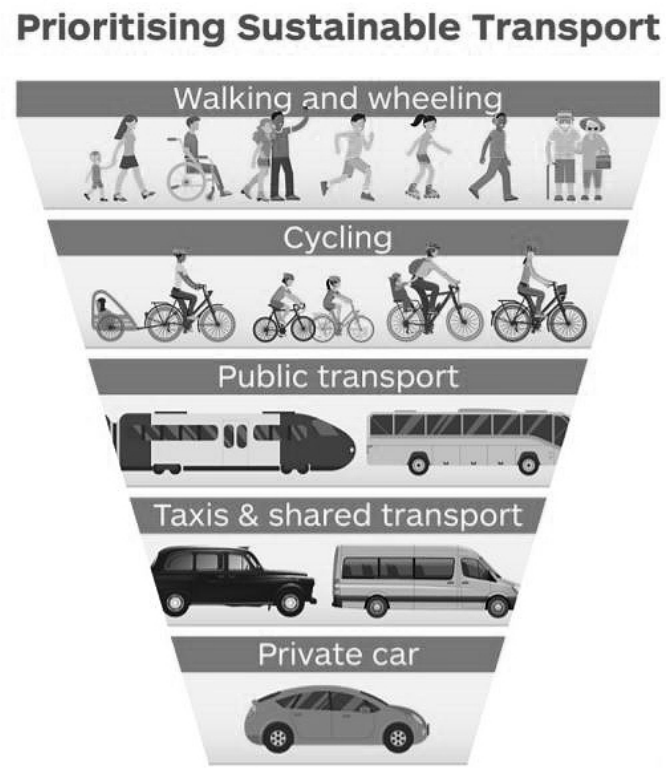
- is good for individual health and can reduce national health spending;
- is a cheap form of transport;
- can help reduce congestion;
- can improve air quality; and
- can increase productivity and footfall in town centres (or other locations).

4.4 The Highland Council declared a Climate and Ecological Emergency on 9 May 2019, as well as setting an ambition for the region to become net zero by 2025. As a result, work is underway across the organisation to embed low carbon actions internally through service delivery, and externally via strengthening planning policy, with an increasingly important focus on travel and transport. One of the largest sectors for emissions in the Highlands, and Scotland more widely, is from transport, and the Council therefore must use all levers available to support and promote the shift away from petrol and diesel vehicles to more sustainable, active travel wherever possible. As a result of the Council's declaration of a climate and ecological emergency, a Member-led Climate Change Working Group has been established which has oversight of all Council work to reduce carbon emissions.

4.5 The draft National Transport Strategy sets out a Sustainable Travel Hierarchy which prioritises walking, cycling and public and shared transport options in preference to single occupancy private car.

The National Transport Strategy makes clear that the transport system will help deliver the ambitious climate change agenda and net-zero 2045 emissions target.

The final strategy is due to be published in the coming weeks.



4.6 Through previous consultations, a series of concerns were identified. The key concerns include: road safety - especially in relation to coaches passing each other along the route; vehicle speeds; and poor pedestrian infrastructure.

4.7 This is one of a series of interventions planned for the Inverness Ward in respect of improving Active Travel and traffic management more generally so should not be viewed in isolation. Other planned interventions include:

- 20 mph Scheme to be implemented;
- Residents Parking Permit Scheme;
- Light controlled crossings on the A82 (being progressed);
- Active Travel improvements as part of the West Link project;
- Overflow parking to be provided at Torvean, following completion of the west link) to reduce the pressure being felt in the Ballifeary area when events are underway and space for coach parking;
- Related to the above, discussion re bus service improvements that might be possible from the new car park into the city centre; and
- Safer Routes to School design works being led by the community and our Safer Routes to School team.

5. Update on Activities

5.1 20mph Speed Limit

5.1.1 The Committee previously approved the publication and implementation of a 20mph scheme across the wider area. Since then traffic speed surveys were carried out and the draft order was published. No objections were received.

5.1.2 Procurement of a contractor to deliver the signs and markings for the 20mph speed limit has been completed. The scheme is expected to be operational by the end of February 2020.

5.1.3 A consultation exercise is underway for proposed speed cushions on Bught Road. Subject to there being no objections the speed cushions will be installed.

5.2 Additional Traffic Surveys (all modes)

5.2.1 Previous traffic surveys were carried out in August 2018. A further series of traffic surveys, at 25 locations across the area, were carried out in March 2019. The results of the 2019 Junction Turning Count (JTC) surveys have been reviewed and compared with the 2018 Automatic Number Plate Recognition (ANPR) data. See the attached report at **Appendix 1.**

5.2.2 While there are variances of recorded vehicles and non-motorised users between the August and March surveys, generally the traffic levels for each location follow similar patterns. The level of two-way motor vehicle traffic on the part of Ness Walk in March 2019 is 1906 vehicles across the surveyed 12-hour period.

5.2.3 Also noted in the report is traffic data received from Transport Scotland for the A82 trunk road (Glenurquhart Road) showing a reduction in traffic levels from a high of 16,286 Annual Average Daily Flow in 2016 to 11,466 AADF in 2018. The substantial lower traffic levels coincide with the opening of the West Link in December 2017.

5.2.4 Cycling levels continue to increase throughout the city. Levels of pedestrian and cycle traffic over the Infirmary Bridge identify seasonal variations reflecting higher

numbers in the summer months. Data gathered at the Infirmary Bridge shows an average of over 10,000 movements during each of the summer months. The Riverside Way is also a popular route for 'Spokes for Folks' who offer free trike rides from all central Inverness care homes, the Hospice and Raigmore Hospital as well as booked rides for passengers who wouldn't otherwise be able to get out and experience the joy of cycling. Understandably the Riverside Way is one of their most popular routes however the traffic issues and poor surfacing are detracting from what has the potential to be a high-quality experience.

5.3 **Community Activity Day**

5.3.1 As part of the commission of a Landscape Architect consultancy a series of public facing events have been organised to engage with local people and key stakeholders to seek their views on high level options for wayfinding, street furniture and landscape design options to assist in the development of a cohesive brand and identity across the various routes.

5.3.2 The Community Activity day held on 19 October 2019 was structured into three events; a pop-up picnic, a walking workshop, and a postcard-making workshop. A tally of participation indicates that about 100 people attended across the 3 activities. The consultant has provided a summary report which is attached at **Appendix 2**.

5.4 **Review of ERTRO Case Studies and Cycle Contraflow Guidance**

5.4.1 Officers have examined a series of case studies where local authorities have used an Experimental Road Traffic Regulation Order (ERTRO) to introduce a trial change to the operation of the road network. The review identified a series of common aspects:

- initial traffic surveys were used to identify the existing conditions;
- proposals addressed policy objectives and prevailing problems;
- the statutory process for introducing Experimental Road Traffic Regulation Orders was rigorously followed;
- comprehensive monitoring was undertaken during the trial; and
- where observations flagged up short-comings arising from the ERTRO modifications were made and in a minority of cases the ERTRO was revoked.

5.4.2 A comprehensive review of contraflow lanes in the UK carried out for Department for Transport [1] found no proof that contraflow lanes are unsafe. The evidence suggests that different users co-ordinate themselves well with no evidence of friction amongst different modal groups.

5.4.3 Guidance from The Department for Transport[2] identifies an option to use a false one-way street with segregation at entry to allow pedal cycles to travel in both directions where motor vehicles would travel one-way. A visualisation of how the segregation '**plug'** would appear is attached at **appendix 3**. The guidance also indicates a series of circumstances where the marking of cycle lanes can be dispensed with: where 85th percentile speed is less than 25mph and traffic flows are below 1,000 vehicles a day, or where the street forms part of a 20mph zone.

6. Details of the Proposed ERTRO

6.1 The proposed ERTRO involves the introduction of a series of 7 'plugs' along the Riverside Way route which will mean that motor vehicles can only travel southwards through these plugs however pedal cycles will be able to travel in both directions

[1] DoT Research

[2] DoT Traffic Advisory Leaflet 6/98

through the plugs and elsewhere. The plugs will involve some physical changes to the road layout involving a splitter island, signs and markings. There is no other infrastructure associated with this trial.

6.2 The draft ERTRO has been developed with input from colleagues across Council Services. The ERTRO would be made under Sections 9 and 10 of the Road Traffic Regulation Act 1984 (RTRA 1984) and can stay in force up to a maximum of 18 months while the effects are monitored and assessed. The statutory process allows ongoing review, including modifications and changes to address unforeseen issues and there is an option to revoke the ERTRO. The authority to modify and revoke is set out in section 10 of the RTRA 1984 and is also set out in the draft ERTRO attached at **appendix 4**.

6.3 As mentioned above a fundamental element to an ERTRO is robust monitoring. During the period of the ERTRO a series of traffic surveys will be undertaken. Officers are proposing to undertake traffic surveys at week 6 and week 12 to assist with the monitoring process.

6.4 After advertising the ERTRO any person wishing to make representations, whether to object or support, must do so within 21 days. In the situation where there are sustained objections a further report will be brought back to Committee for a decision on the making of the ERTRO. In the event there are no objections the ERTRO could be implemented.

6.5 Officers propose that a review of the traffic patterns and views will be gathered for preparation of an update report to the Committee as soon as possible after the trial has been operational for a period of 6 months. The information that will be used for the review will include traffic data (volume and speed) on the route and surrounding streets, feedback from emergency services, interviews with non-motorised users (those who walk, wheel and cycle), feedback from the community and businesses in the area.

7 Preliminary Engagement

7.1 Following dialogue with Ward Members a notification letter was issued to 19 organisations/individuals to seek views on the policy to support walking and cycling and the proposal to bring forward a low-cost trial using an Experimental Road Traffic Regulation Order. At the time of preparing this report 15 responses had been received. Officers will provide a verbal update should further communications be received from the recipients of the notification letter. A summary of the responses and Officer comments is attached at **appendix 5**.

7.2 The views of the emergency services were sought. Both the Police and Scottish Fire & Rescue Services have responded with no objections to the proposed ERTRO.

7.3 Unfortunately, it appears that some recipients of the notification letter believed the latest proposal was a repeat of the previous permanent road traffic regulation order which included significant changes in the road layout. This is not the case.

7.4 Following receipt of the response from Ballifeary Community Council Officers met with their representatives to discuss the ERTRO proposals. The Community Council remains supportive of active travel improvements however they have concerns over the implications of the trial. The perception is that additional traffic flow through the Ballifeary area will be unsustainable and unsafe. Officers reiterated the traffic order

process, including the right of objection, confirmed the monitoring and evaluation milestones and committed to regular engagement with the Community Council. It was agreed to share the traffic survey data with the Community Council contained in Appendix 1 of this report. It was confirmed that the residents permit parking scheme for the Ballifeary area is to be brought forward as early as possible.

7.5 The key points raised in the responses are highlighted below.

Topic	Comment
Vehicle speeds	20mph Speed Limit will be implemented by end of February 2020
Cycle Contraflow	Research and guidance confirm that cycle contraflow on low speed and low flow streets operates with no road safety problems. Providing cycle contraflow means that more direct journeys can be made by the mode of transport that is second top of the Scottish Government Sustainable Transport Hierarchy. The proposed ERTRO will introduce 7 plugs where pedal cycles will be exempt from the one-way system across the 15m length of street.
One Way System	Northbound movement of vehicular traffic will be prohibited through the introduction of a series of 7 plugs along the route. This will lower the vehicular traffic flows along the riverside by 50%. No objections received from emergency services to the proposed trial using the ERTRO. Concerns raised by a few responses from those who take direct access from Ness Walk about the specific implications for them and their visitors. Ongoing dialogue will continue during the next stage of the ERTRO.
Traffic increase on Ballifeary Lane	Existing traffic from the RNI/UHI site will use Ballifeary Lane in the PM period. Traffic surveys indicate that some 75 additional vehicles in the period 1630-1830 are expected to use Ballifeary Lane. The trial period will allow monitoring of the actual traffic change. Traffic surveys are proposed at weeks 6 and 12 should the ERTRO be approved.
Coach traffic and parking	Two-way coach movements along the riverside have been highlighted as a road safety concern. Proposed signs ‘unsuitable for long vehicles’ will be installed at Ballifeary Lane regardless of the Committee decision. The ERTRO will mean coach traffic is one-way (southbound). Coach parking at Bught Road will be unaffected by the ERTRO.
Waste of money - being spent on new infrastructure	The ERTRO will allow a low-cost trial using 7 plugs along the length of the route.

Designation:	Executive Chief Officer Infrastructure and Environment
Date:	06 February 2020
Author:	Richard Gerring Transport Planning Manager Neil Young Transport Planning Officer Fiona McInally ICATN Programme Manager
Background Papers:	
APPENDICES	
Appendix 1	Technical Note - Traffic Data Review
Appendix 2	Community Activity Day – Event Summary Report
Appendix 3	Visualisation of Plug Layout Arrangements
Appendix 4	Draft ERTRO
Appendix 5	Preliminary Engagement Feedback Summary

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Bught Park Traffic Survey Analysis 2019

Technical Note

The Highland Council

Project number: 60578174

November 2019

Quality information

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1	02/12/19	Draft Issue	PM		
2	10/12/19	Final Issue	DM		

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1. Introduction

The Highland Council commissioned AECOM to analyse the results of a series of Junction Turning Count (JTC) surveys undertaken in the Bught Park area in 2019; and conduct a comparison against Automatic Number Plate Recognition (ANPR) data collected in 2018 as part of the Bught Park Event Traffic Management and Riverside Way project.

Full modal data was captured within the Bught Park and Riverside Way area of Inverness using cameras for two days at 23 locations, several of which matched the ANPR data from 2018. The additional sites were added to the 2019 survey after consultation with Sustrans and Ballifeary Community Council.

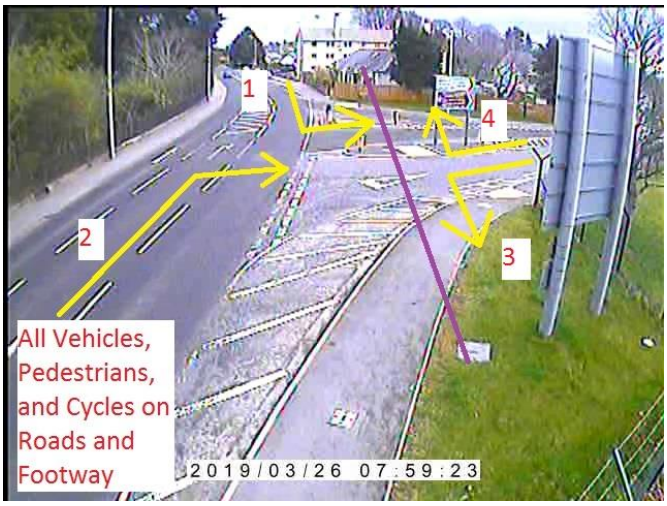


Figure 1 Example of 2019 JTC Survey Recordings

1.1 Background Survey Information

Transport Scotland and The Highland Council undertake traffic monitoring of the A82 Trunk Road through Inverness producing annual traffic count data. One of these monitoring sites is located on the edge of the study area on Tomnahurich Street between Planefield Street and Kenneth Street. Annual Average Daily Traffic Flows (AADF) were taken and compared year on year. It should be noted that much of this information is estimated using the previous year's AADF and not counts. The data should therefore be viewed as a general indication of levels and not absolute figures. Figure 2 below shows the AADF for all motor vehicles on the road for each year between 2000 and 2018. The Figure shows generally continuous rises in AADF between 2001 and 2016 to a peak of over 16,000 movements, then a marked drop off in 2017 and 2018 where AADF returns to levels not seen since 2001.

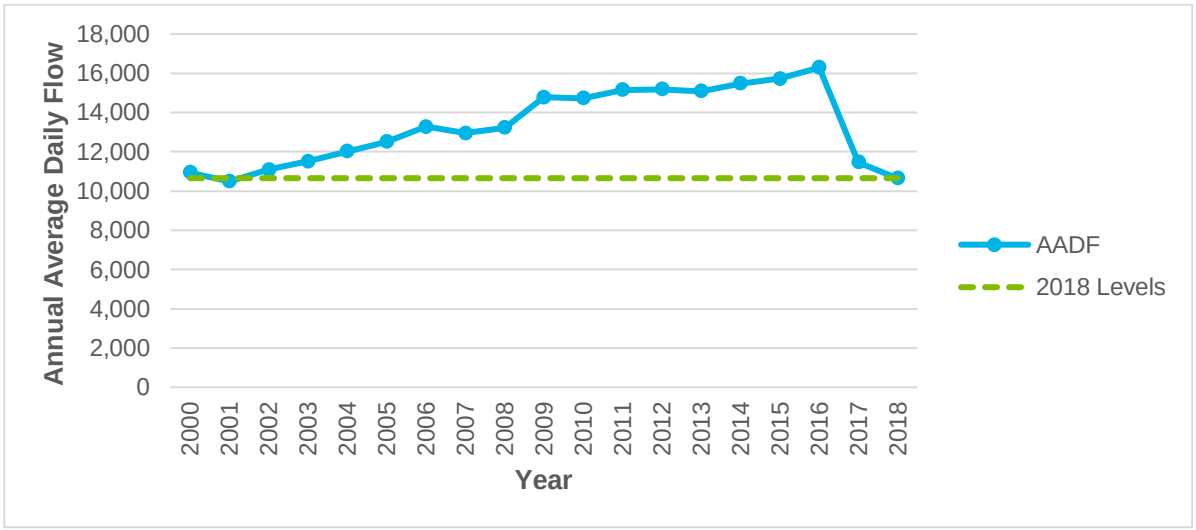


Figure 2 – Annual Average Daily Flows for the A82 Tomnahurich Street[1]

[1] https://roadtraffic.dft.gov.uk/manualcountpoints/80381

2. 2018 ANPR Traffic Survey Summary

ANPR Surveys were carried out in the study area from Friday the 17th of August to Monday the 20th of August 2018 capturing two-way vehicle registration plate information from 07:00-19:00 each day.

25 cameras were installed at 14 locations in order to gain a greater understanding of vehicle movements, identify existing vehicle route choices and assess the likely traffic impact of proposals. This included the capture of non-motorised users at the sites.

The key objectives for undertaking the study were:

1. Lack of any historic or relevant survey data for the study area;
2. Identifying route choices for key recorded origin and destination data; and
3. Assessment of the likely traffic impact of a one-way system.

Figure 3 shows the locations where cameras were installed.

Figure 3 - 2018 ANPR Survey Camera Locations

The surveys assisted with the consideration of a one-way traffic arrangement along Ness Walk and Bught Road between Bishops Road and Bught Avenue along the Ness riverside. The surveys showed that most of the trips to RNI Community Hospital both originated from and departed to the north of the study area.

Origin-Destination data shows the maximum potential traffic impact of a one-way southbound or northbound arrangement along the riverside should all vehicles chose this Ballifeary Lane as their alternative route:

- One-Way Southbound – maximum of 69 additional vehicles expected during 16:00-17:00
- One-Way Northbound – maximum of 94 additional vehicles expected during 08:00-09:00

Figure 4 overleaf shows the vehicle movement numbers and direction at each camera location during all four days of the ANPR surveys (NB = Northbound, EB=Eastbound, SB = Southbound and WB = Westbound). The Figure shows that the most significant numbers were experienced at Bught Drive in both directions and the northern Ness Walk site by the city centre.

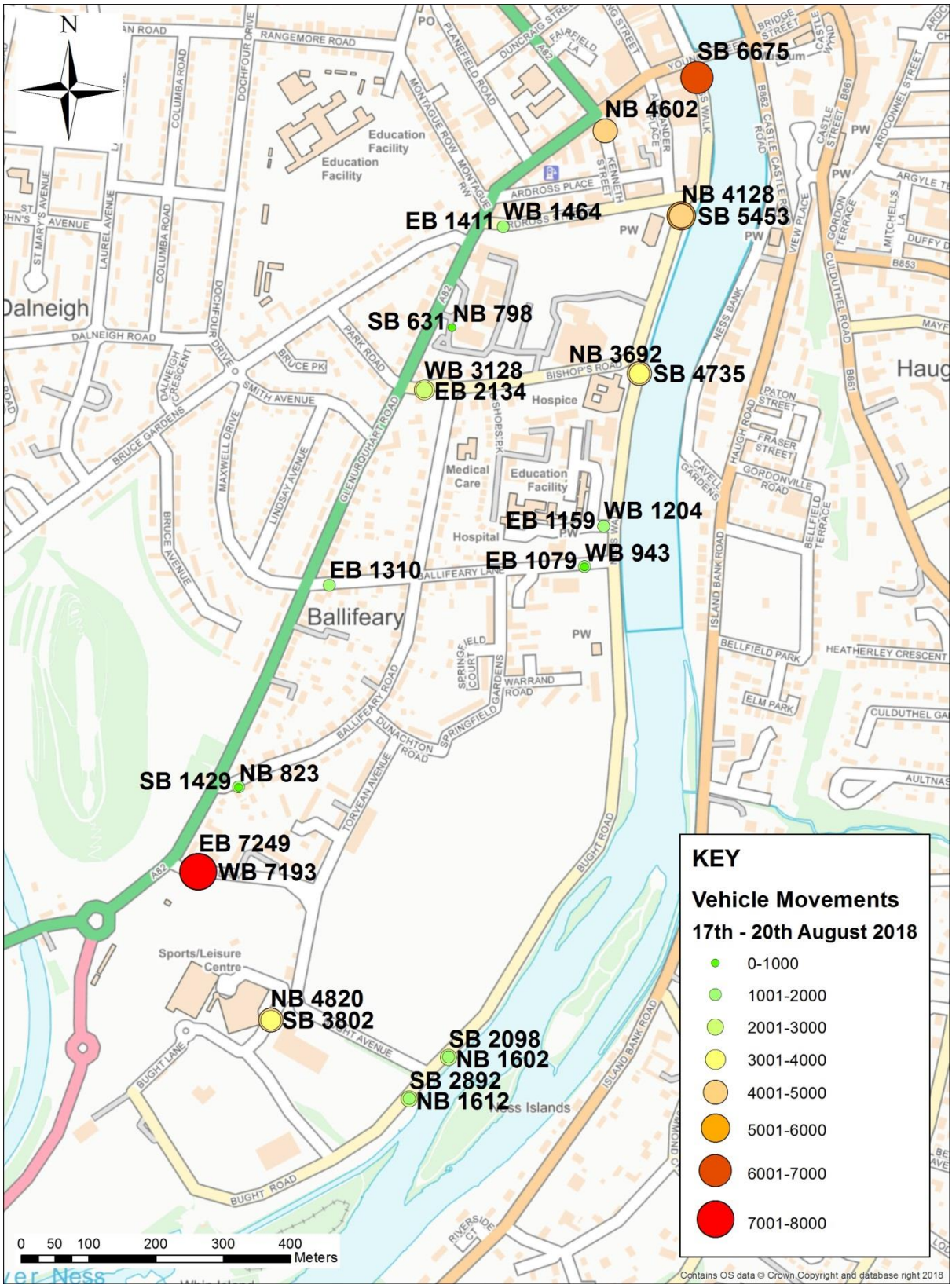


Figure 4 Vehicle Movements Over All 2018 Survey Days

3. 2019 JTC Traffic Survey Data and Comparison

3.1 2019 Traffic Survey

JTC data was gathered at 24 sites to identify all traffic movements at the locations throughout the Bught Park area between the 26th, 27th and 28th of March 2019 . Three of the JTC sites were covered over the Wednesday and Thursday, while the 21 other sites were surveyed over the Tuesday and Wednesday. 13 of the 14 sites surveyed in the 2018 dataset have been resurveyed in the 2019 set of surveys, with the remaining sites aimed to provide additional information in the surrounding area following consultation with Sustrans and Ballifeary Community Council.

3.2 Data Collection Comparison

To summarise:

- ANPR data was gathered at 14 sites,
- JTC data was gathered at 24 sites

An analysis of comparable data between the surveys was undertaken using a normal survey approach. Total vehicles on a carriageway (excluding cyclists) and NMU (Non-motorised Users) have been compared between the two datasets. The average of the Monday and Friday data from the 2018 surveys have been compared against the average weekday flows surveyed in the 2019 dataset.

3.2.1 Explanation of Data Review Between Surveys

In the previous 2018 survey collection there were 14 individual sites in the Bught Park area. 25 sites were surveyed within the 2019 survey collection, aiming to collect relevant information at similar sites also surveyed in 2018, and to provide information at additional sites in the surrounding area. The numbering assigned to the sites of the 2019 surveys generally match the 2018 sites, but there are some differences which are listed below:

- Site 5 in 2019 surveys. Site 5 appeared in 2018 surveys but was considered not requiring update;
- Site 12 in 2018 matches with both Sites 12 and 13 of the 2019 surveys. This is because the 2018 Site 12 gathered information of both Bught Road and the riverside path together. These have been split in the 2019 surveys (Site 12 is the riverside path, and Site 13 is Bught Road); and
- Site 13 in 2018 matches with Site 18 in the 2019 surveys.

3.3 Data Collection Comparison Results

Figure 5 overleaf show the results of the 2019 data and a comparison where possible to the 2019 survey data and the relative location of the data capture. A more detailed version of the same map is provided in Appendix A. It should also be noted that additional data has been added from a survey carried out by Sustrans and added to Site 26 in the southern part of Ness Walk.
Sections in the Figure which are shown blank either indicate either:

- that data was not captured for that time period, for instance; where additional sites were only counted in 2019; or
- that certain movements were not permitted such as one-way roads etc.

Bught Park Traffic Survey Analysis – Annual Average Daily Traffic Flows

Site 6 - Ardross Street		
Eastbound	**2018**	**2019**
Vehicle Movements	432	359
Cycle Movements	28	21
Pedestrian Movements	292	251
All Movements	*752*	*631*
Westbound	**2018**	**2019**
Vehicle Movements	408	362
Cycle Movements	27	19
Pedestrian Movements	329	213
All Movements	*764*	*594*

Site 7 - Kenneth Street		
Northbound	**2018**	**2019**
Vehicle Movements	1,745	1,702
Cycle Movements	23	27
Pedestrian Movements	260	259
All Movements	*2,028*	*1,988*
Southbound	**2018**	**2019**
Vehicle Movements	-	-
Cycle Movements	9	3
Pedestrian Movements	226	249
All Movements	*235*	*252*

Site 8 - Ness Walk		
Northbound	**2018**	**2019**
Vehicle Movements	-	-
Cycle Movements	128	88
Pedestrian Movements	2522	1,480
All Movements	*2,650*	*1,568*
Southbound	**2018**	**2019**
Vehicle Movements	1,975	2,014
Cycle Movements	193	120
Pedestrian Movements	2,501	1,365
All Movements	*4,669*	*3,499*

Site 15 - Ardross Terrace		
Northbound	**2018**	**2019**
Vehicle Movements	-	-
Cycle Movements	-	83
Pedestrian Movements	-	1,160
All Movements	-	*1,243*
Southbound	**2018**	**2019**
Vehicle Movements	-	1,865
Cycle Movements	-	120
Pedestrian Movements	-	1,130
All Movements	-	*3,115*

Site 4 - Bishops Road		
Eastbound	**2018**	**2019**
Vehicle Movements	663	721
Cycle Movements	44	27
Pedestrian Movements	178	164
All Movements	*885*	*912*
Westbound	**2018**	**2019**
Vehicle Movements	947	949
Cycle Movements	34	27
Pedestrian Movements	186	106
All Movements	*1,167*	*1,082*

Site 23 - Ballifeary Road		
Northbound	**2018**	**2019**
Vehicle Movements	-	497
Cycle Movements	-	24
Pedestrian Movements	-	123
All Movements	-	*644*
Southbound	**2018**	**2019**
Vehicle Movements	-	281
Cycle Movements	-	23
Pedestrian Movements	-	116
All Movements	-	*420*

Site 3 - Ballifeary Lane		
Eastbound	**2018**	**2019**
Vehicle Movements	417	382
Cycle Movements	23	15
Pedestrian Movements	106	82
All Movements	*546*	*479*
Westbound	**2018**	**2019**
Vehicle Movements	-	-
Cycle Movements	12	15
Pedestrian Movements	84	74
All Movements	*96*	*89*

Site 24 - Dunachton Road		
Eastbound	**2018**	**2019**
Vehicle Movements	-	87
Cycle Movements	-	8
Pedestrian Movements	-	55
All Movements	-	*150*
Westbound	**2018**	**2019**
Vehicle Movements	-	159
Cycle Movements	-	12
Pedestrian Movements	-	47
All Movements	-	*218*

Site 2 - Ballifeary Road		
Northbound	**2018**	**2019**
Vehicle Movements	263	234
Cycle Movements	19	11
Pedestrian Movements	44	64
All Movements	*326*	*309*
Southbound	**2018**	**2019**
Vehicle Movements	452	394
Cycle Movements	23	16
Pedestrian Movements	42	59
All Movements	*517*	*469*

Site 1 - Bught Drive		
Eastbound	**2018**	**2019**
Vehicle Movements	1,903	2,124
Cycle Movements	40	21
Pedestrian Movements	118	107
All Movements	*2,061*	*2,252*
Westbound	**2018**	**2019**
Vehicle Movements	1,794	1,957
Cycle Movements	38	19
Pedestrian Movements	91	60
All Movements	*1,923*	*2,036*

Site 14 - Leisure Centre Access		
Northbound	**2018**	**2019**
Vehicle Movements	1,237	1,612
Cycle Movements	61	44
Pedestrian Movements	211	157
All Movements	*1,509*	*1,813*
Southbound	**2018**	**2019**
Vehicle Movements	1,074	1,626
Cycle Movements	83	49
Pedestrian Movements	226	172
All Movements	*1,383*	*1,847*

Site 25 - Bught Road		
Eastbound	**2018**	**2019**
Vehicle Movements	-	13
Cycle Movements	-	26
Pedestrian Movements	-	60
All Movements	-	*99*
Westbound	**2018**	**2019**
Vehicle Movements	-	251
Cycle Movements	-	22
Pedestrian Movements	-	43
All Movements	-	*316*

Site 17 - Bishops Road		
Northbound	**2018**	**2019**
Vehicle Movements	-	1,184
Cycle Movements	-	117
Pedestrian Movements	-	783
All Movements	-	*2,084*
Southbound	**2018**	**2019**
Vehicle Movements	-	1,578
Cycle Movements	-	159
Pedestrian Movements	-	903
All Movements	-	*2,640*

Site 22 - Ness Bank		
Northbound	**2018**	**2019**
Vehicle Movements	-	-
Cycle Movements	-	28
Pedestrian Movements	-	699
All Movements	-	*727*
Southbound	**2018**	**2019**
Vehicle Movements	-	649
Cycle Movements	-	49
Pedestrian Movements	-	518
All Movements	-	*1,216*

Site 9 - Bishops Road		
Northbound	**2018**	**2019**
Vehicle Movements	1,273	865
Cycle Movements	139	133
Pedestrian Movements	1,161	595
All Movements	*2,573*	*1,593*
Southbound	**2018**	**2019**
Vehicle Movements	1,631	1,040
Cycle Movements	196	166
Pedestrian Movements	1,289	637
All Movements	*3,116*	*1,843*

Site 20 - Ness Bank		
Northbound	**2018**	**2019**
Vehicle Movements	-	-
Cycle Movements	-	29
Pedestrian Movements	-	527
All Movements	-	*556*
Southbound	**2018**	**2019**
Vehicle Movements	-	624
Cycle Movements	-	46
Pedestrian Movements	-	410
All Movements	-	*1,080*

Site 21 - Cavell Gardens		
Northbound	**2018**	**2019**
Vehicle Movements	-	1
Cycle Movements	-	75
Pedestrian Movements	-	173
All Movements	-	*249*
Southbound	**2018**	**2019**
Vehicle Movements	-	632
Cycle Movements	-	76
Pedestrian Movements	-	176
All Movements	-	*884*

Site 19 - Ness Walk		
Northbound	**2018**	**2019**
Vehicle Movements	-	868
Cycle Movements	-	85
Pedestrian Movements	-	617
All Movements	-	*1,570*
Southbound	**2018**	**2019**
Vehicle Movements	-	1,032
Cycle Movements	-	124
Pedestrian Movements	-	626
All Movements	-	*1,782*

Site 10 - Riverside Gardens		
Eastbound	**2018**	**2019**
Vehicle Movements	425	485
Cycle Movements	10	10
Pedestrian Movements	74	61
All Movements	*509*	*556*
Westbound	**2018**	**2019**
Vehicle Movements	441	509
Cycle Movements	13	7
Pedestrian Movements	70	66
All Movements	*524*	*582*

Site 11 - Ballifeary Lane		
Eastbound	**2018**	**2019**
Vehicle Movements	381	333
Cycle Movements	64	49
Pedestrian Movements	197	246
All Movements	*642*	*628*
Westbound	**2018**	**2019**
Vehicle Movements	326	262
Cycle Movements	60	51
Pedestrian Movements	261	239
All Movements	*647*	*552*

Site 12 - Bught Road (2019 Data Sites 12+13)		
Northbound	**2018**	**2019**
Vehicle Movements	424	272
Cycle Movements	112	30
Pedestrian Movements	383	164
All Movements	*919*	*466*
Southbound	**2018**	**2019**
Vehicle Movements	545	481
Cycle Movements	152	59
Pedestrian Movements	342	253
All Movements	*1,039*	*793*

ANPR Site 12 compares with 2019 Sites 12+13

Site 13 - Bught Road (2019 Data Site 18)		
Northbound	**2018**	**2019**
Vehicle Movements	400	226
Cycle Movements	117	34
Pedestrian Movements	474	285
All Movements	*991*	*545*
Southbound	**2018**	**2019**
Vehicle Movements	682	527
Cycle Movements	126	63
Pedestrian Movements	461	327
All Movements	*1,269*	*917*

ANPR Site 13 compares with 2019 Site 18

Site 16 - Bught Road		
Northbound	**2018**	**2019**
Vehicle Movements	-	272
Cycle Movements	-	28
Pedestrian Movements	-	164
All Movements	-	*464*
Southbound	**2018**	**2019**
Vehicle Movements	-	481
Cycle Movements	-	58
Pedestrian Movements	-	253
All Movements	-	*792*

Site 26 - Bught Road		
Northbound	**2018**	**2019**
Vehicle Movements	-	460
Cycle Movements	-	-
Pedestrian Movements	-	-
All Movements	-	*460*
Southbound	**2018**	**2019**
Vehicle Movements	-	700
Cycle Movements	-	-
Pedestrian Movements	-	-
All Movements	-	*700*

New data taken from Sustrans seven day survey from 21/05/19

Site Selection Note

Sites 1-14 were selected for the 2018 ANPR survey, Sites 15-22 were added for the 2019 JTC survey to provide full modal data, Sites 23 and 24 were added to the 2019 survey following local community engagement and Site 26 was added after Sustrans consultation.

Figure 5 – Average Weekday Survey Data Comparison Map

The analysis showed that whilst there were variations both up and down across the sites, AADF levels remained relatively similar across the study area between 2018 and 2019.

The areas experiencing the highest AADF levels remained around Bught Drive and the area around the Leisure Centre to the south, followed by Ardross Terrace and Kenneth Street in the north.

A number of areas including the two mentioned above and sites along the riverside route experienced the largest drop in AADF levels between the August 2018 and March 2019 surveys, whilst other sites, particularly those to the west of the study area remained more uniform. During the 2018 surveys some parts of the UK were either finishing their school summer holidays or were still off. The riverside and in particular the north close to the city centre is known to be an important area for tourism and leisure. Similarly, the area around the leisure centre and ice centre to the south have a similar leisure and recreation importance.

It is therefore considered that some of the differences in AADF levels seen in parts of the study area could be attributed to greater tourism and recreation movements during the summer months, as seen in August 2018, compared to March 2019. These trends would be consistent with other monitoring data available such as the monitoring data for the trunk road discussed in Section 1.1, or the active travel data for Infirmary Bridge discussed in Section 4.4 of this Technical Note.

Interestingly, there are instances where illegal vehicle movements appear to have been captured such as a vehicle entering Cavell Gardens from the south against the one-way traffic system in place.

3.3.1 AM / PM Split

An analysis of the data was undertaken to determine AM / PM split and the proportion of vehicles experienced during peak periods. The periods were determined as follows:

- AM Period: 07:30-09:30
- PM Period: 16:30-18:30

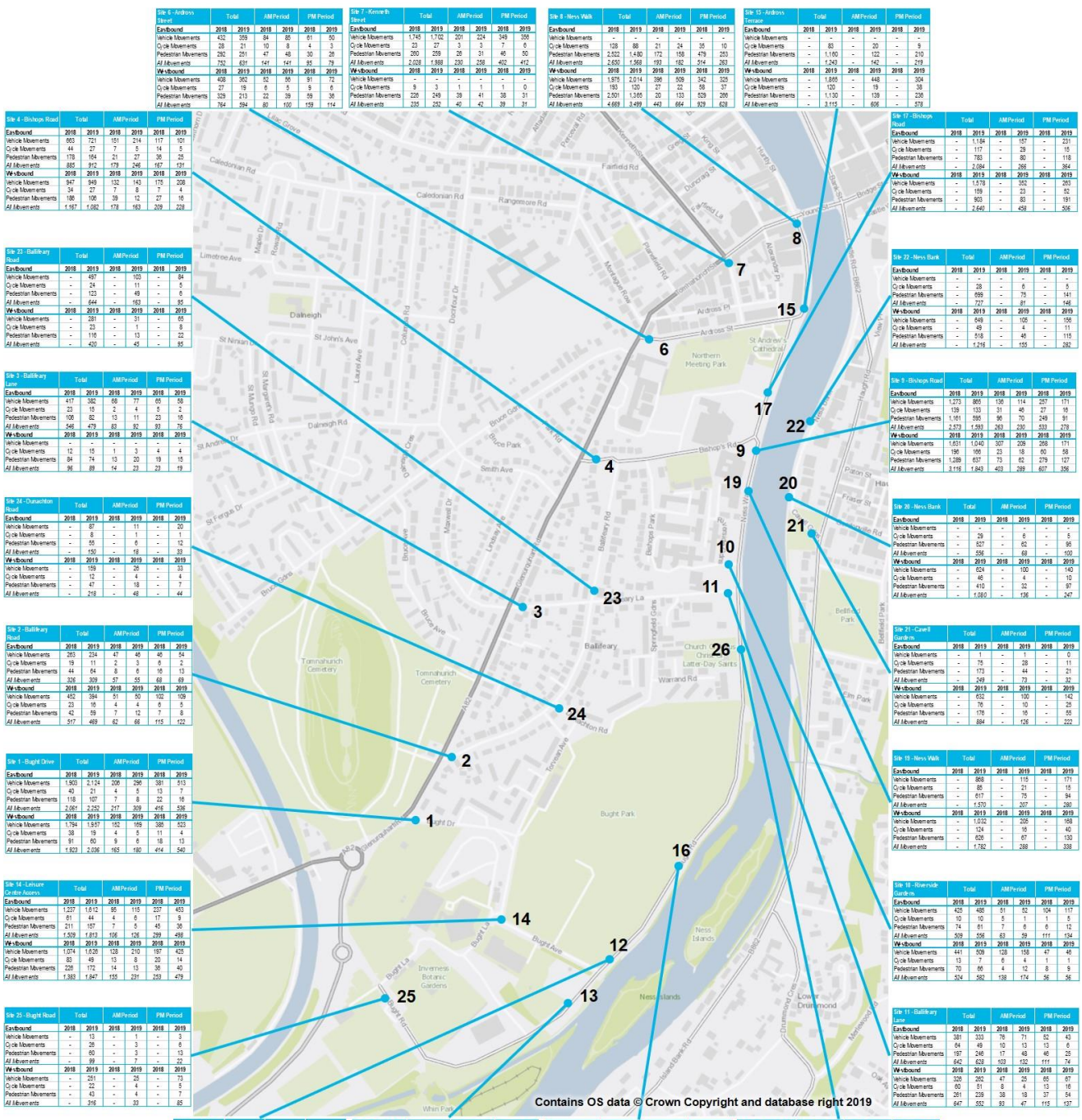
The analysis showed that generally, a higher percentage of bikes seemed to be using the areas during the AM and PM peaks than any other mode; potentially indicating the significance of cycle commuting in and through the area.

Across the two surveys, the PM periods appeared generally busier than the AM periods. The most significant increases were seen to the south around Bught Drive and the leisure centre, indicating the significance of the area for recreation and leisure purposes in the PM periods. Other instances with major differences in AM and PM data were seen in areas with one-way traffic systems such as Kenneth Street.

Overall, the lowest percentages of AM and PM use were seen along the Ness Riverside on both sides of the river in Ardross Terrace, Bught Road, Bishop's Road and Ness Bank. This may indicate these streets are busier during the day with recreational and leisure traffic spread more evenly throughout the entire day when compared against other sites which see more conventional peak time commuter patterns.

Figure 6 overleaf shows the AM / PM data split for the study area where survey data was available. This map is also provided in Appendix B of this Technical Note. A further detailed breakdown of data is provided in Appendix C of this Technical Note which details the total numbers, those in the AM and PM period and the split by user type. The appendix also provides the percentage breakdown of the total experienced within the AM and PM periods for comparison.

Bught Park Traffic Survey Analysis – Annual Average Daily Traffic Flows AM (07:30-09:30) and PM (16:30-18:30) Period Split



ANPR Site 12 compares with 2019 Sites 12+13

ANPR Site 13 compares with 2019 Site 18

New data taken from Sustrans seven day survey from 21/05/19

Site Selection Note

Sites 1-14 were selected for the 2018 ANPR survey, Sites 15-22 were added for the 2019 JTC survey to provide full modal data, Sites 23 and 24 were added to the 2019 survey following local community engagement and Site 26 was added after Sustrans consultation.

Figure 6 – Average Weekday Survey Data Collection Map AM / PM Comparison Map

4. 2019 Data Collection Analysis

Analysis was undertaken at five sites.

4.1 Site 9 – Bishops Road Analysis

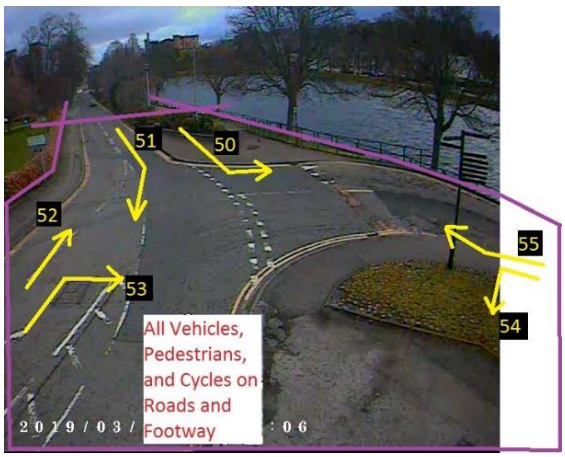


Figure 7 – Site 9 JTC Survey Screenshot

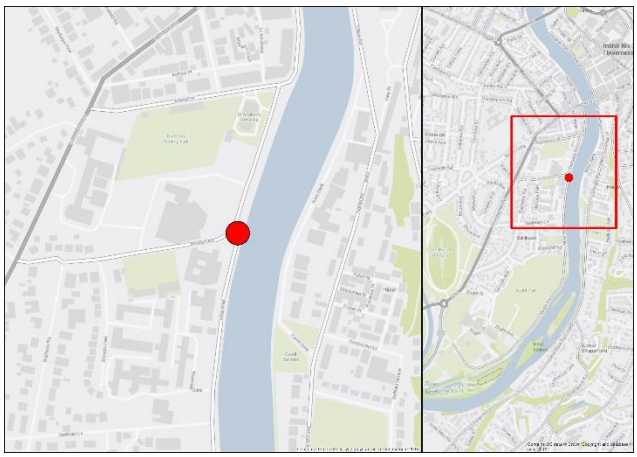


Figure 8 - Site 9 JTC Survey Location

Table 1 – Site 9: Average Daily, AM and PM counts by movement by user type

Site 9		Daily (07:00-19:00)				AM (07:30-09:30)				PM (16:30-18:30)			
Route	***Movement***	Vehicles	Cyclists	Peds	*Total Movements*	Vehicles	Cyclists	Peds	*Total Movements*	Vehicles	Cyclists	Peds	*Total Movements*
Bishops Road North to Ness Walk	***50***	875	120	583	*1577*	173	15	59	*247*	152	42	120	*313*
Bishops Road North to Bishops Road West	***51***	542	21	100	*663*	156	4	9	*168*	85	7	19	*110*
Bishops Road West to Bishops Road North	***52***	352	24	95	*470*	61	6	7	*73*	60	3	13	*76*
Bishops Road West to Ness Walk	***53***	165	46	54	*265*	36	17	7	*59*	19	17	7	*42*
Ness Walk to Bishops Road West	***54***	154	48	85	*287*	21	23	8	*51*	32	6	15	*53*
Ness Walk to Bishops Road North	***55***	712	85	510	*1306*	94	23	62	*179*	139	10	76	*225*
Total		***2798***	***343***	***1426***	***4567***	***540***	***86***	***150***	***775***	***487***	***83***	***249***	***818***

**The highest values are shown dark green, the lowest light green for each user type across all site movements*

The busiest movement for all user types and all times of day appears to be Movement 50 with users turning south from Bishop's Road onto Ness Walk South. Movement 55 is the opposite movement to Movement 50 and the second highest recorded at this site showing the significance of this link.

4.2 Site 10 – Riverside Gardens Analysis

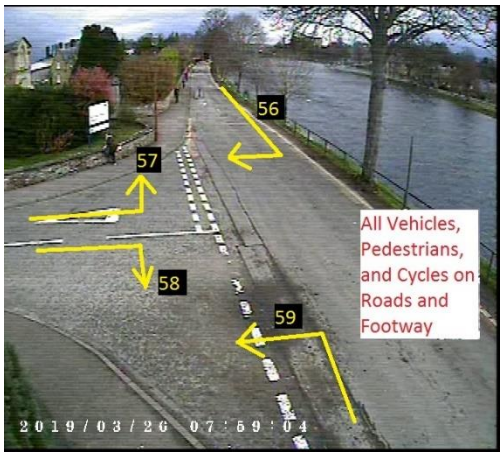


Figure 9 – Site 10 JTC Survey Screenshot

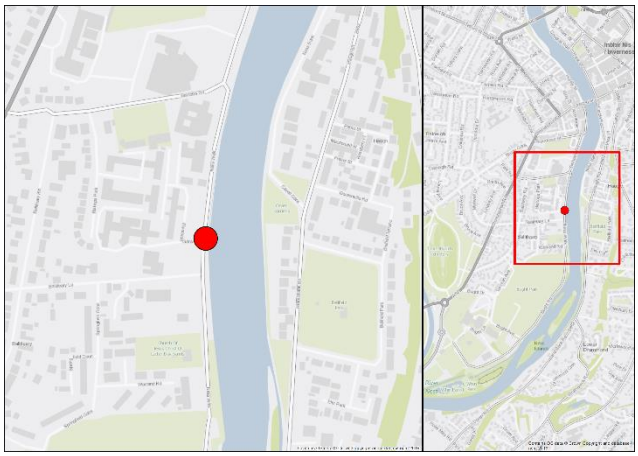


Figure 10 - Site 10 JTC Survey Location

The should be noted that through movements along Ness Walk northbound or southbound not captured at this site but can be estimated using data from other adjacent sites.

Table 2 – Site 10: Average Daily, AM and PM counts by movement by user type

Site 10		Daily (07:00-19:00)				AM (07:30-09:30)				PM (16:30-18:30)			
Route	***Movement***	Vehicles	Cyclists	Peds	*Total Movements*	Vehicles	Cyclists	Peds	*Total Movements*	Vehicles	Cyclists	Peds	*Total Movements*
Ness Walk North to Riverside Gardens	***56***	386	4	27	*417*	124	3	6	*132*	34	0	3	*36*
Riverside Gardens to Ness Walk North	***57***	370	5	26	*401*	46	1	4	*50*	75	2	3	*79*
Riverside Gardens to Ness Walk South	***58***	115	5	35	*155*	6	0	3	*8*	42	3	9	*54*
Ness Walk South to Riverside Gardens	***59***	123	3	39	*165*	35	1	6	*41*	12	1	6	*19*
Total		***994***	***17***	***127***	***1138***	***210***	***4***	***18***	***231***	***162***	***6***	***20***	***188***

**The highest values are shown dark green, the lowest light green for each user type across all site movements*

Movement 56 was the busiest of all movements for the majority of user types and then Movement 57, the opposite ; showing users generally enter and depart Riverside Gardens from the north. There was also a difference in movements with a greater number of vehicles accessing Riverside Gardens in the AM period and departing in the PM peak consistent with staff and visitor use of the area.

4.3 Site 11 Ballifeary Lane Analysis

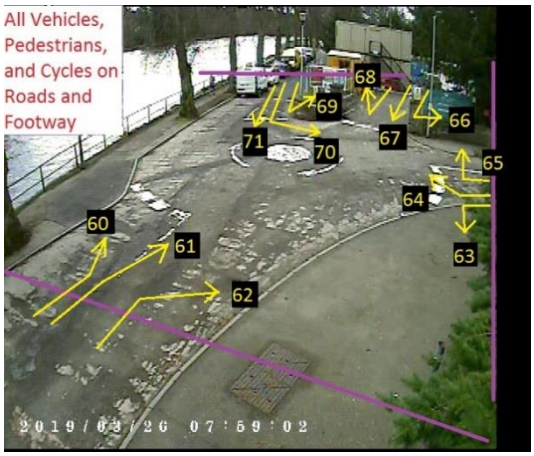


Figure 11 – Site 11 JTC Survey Screenshot

Figure 12 - Site 11 JTC Survey Location

Table 3 – Site 11: Average Daily, AM and PM counts by movement by user type

Site 11		Daily (07:00-19:00)				AM (07:30-09:30)				PM (16:30-18:30)			
Route	***Movement***	Vehicles	Cyclists	Peds	*Total Movements*	Vehicles	Cyclists	Peds	*Total Movements*	Vehicles	Cyclists	Peds	*Total Movements*
Ness Walk North to Ness Walk South	***60***	505	69	325	*899*	56	7	24	*87*	117	26	72	*214*
Ness Walk North to Construction	***61***	22	0	11	*33*	10	0	5	*14*	1	0	1	*2*
Ness Walk North to Ballifeary Lane	***62***	233	51	200	*484*	23	4	17	*43*	59	16	44	*118*
Ballifeary Lane to Ness Walk North	***63***	294	47	202	*542*	63	6	22	*90*	40	6	22	*67*
Ballifeary Lane to Ness Walk South	***64***	34	2	18	*53*	4	0	3	*7*	3	0	4	*6*
Ballifeary Lane to Construction	***65***	6	0	27	*33*	4	0	10	*14*	1	0	0	*1*
Construction to Ballifeary Lane	***66***	6	0	27	*33*	1	0	1	*1*	4	0	9	*12*
Construction to Ness Walk North	***67***	21	0	17	*38*	5	0	0	*5*	9	0	5	*14*
Construction to Ness Walk South	***68***	2	0	70	*71*	1	0	14	*15*	0	0	11	*11*
Ness Walk South to Construction	***69***	2	0	72	*73*	1	0	23	*24*	1	0	1	*1*
Ness Walk South to Ballifeary Lane	***70***	23	1	12	*36*	2	0	1	*2*	5	0	2	*7*
Ness Walk South to Ness Walk North	***71***	302	34	287	*622*	34	7	32	*73*	61	7	47	*114*
Total		***1447***	***203***	***1264***	***2913***	***201***	***23***	***149***	***373***	***298***	***54***	***214***	***565***

**The highest values are shown dark green, the lowest light green for each user type across all site movements*

The most common movements in this area were straight through movements along Ness Walk southbound, then followed by the same northbound. The next most common movement was people turning between Ballifeary Lane and Ness Walk north, particularly in the AM period and consistent with the patterns seen at Site 10. Interestingly there were also relatively high numbers of pedestrian traffic moving from the hotel development site marked “Construction” south along Ness Walk. This may reflect construction works activities being undertaken at the time of the survey and not represent regular movement patterns or that which might be expected once the hotel development is completed.

4.4 Infirmary Bridge Analysis

4.4.1 Infirmary Bridge - Site 19

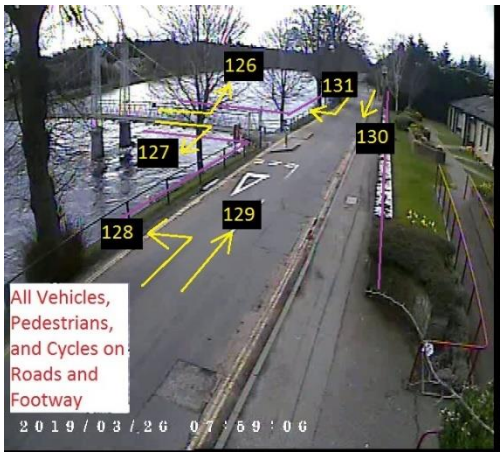


Figure 13 – Site 19 JTC Survey Screenshot

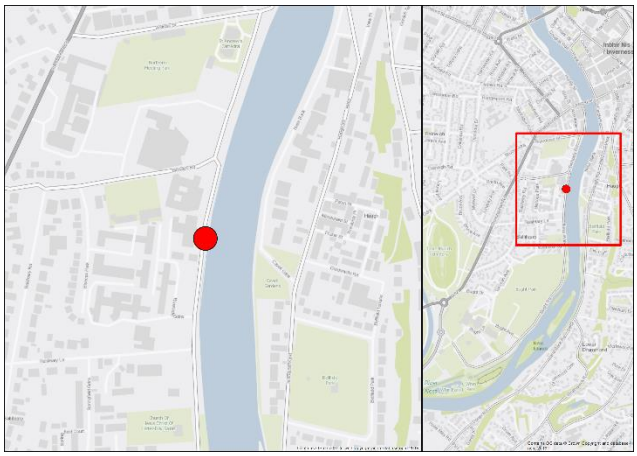


Figure 14 - Site 19 JTC Survey Location

Table 19 – Site 9: Average Daily, AM and PM counts by movement by user type

Site 19		Daily (07:00-19:00)				AM (07:30-09:30)				PM (16:30-18:30)			
Route	***Movement***	Vehicles	Cyclists	Peds	*Total Movements*	Vehicles	Cyclists	Peds	*Total Movements*	Vehicles	Cyclists	Peds	*Total Movements*
Infirmary Bridge to Ness Walk South	***126***	0	37	197	*233*	0	6	30	*36*	0	11	38	*49*
Infirmary Bridge to Ness Walk North	***127***	0	78	326	*404*	0	23	53	*76*	0	10	57	*67*
Ness Walk North to Infirmary Bridge	***128***	0	83	334	*417*	0	11	30	*41*	0	28	74	*102*
Ness Walk North to Ness Walk South	***129***	1032	87	430	*1548*	205	10	37	*252*	168	29	92	*288*
Ness Walk South to Ness Walk North	***130***	868	55	390	*1312*	115	14	45	*174*	171	6	54	*231*
Ness Walk South to Infirmary Bridge	***131***	0	30	227	*257*	0	10	34	*44*	0	9	40	*48*
Total		***1900***	***368***	***1903***	***4170***	***320***	***73***	***229***	***621***	***338***	***93***	***354***	***784***

**The highest values are shown dark green, the lowest light green for each user type across all site movements*

The data shows that the largest number of movements at Site 19 continue straight north or south along Ness Walk, however Infirmary Bridge was still recorded as very busy for pedestrian and cycle movements. Across the entire day there were more pedestrian movements recorded at the site than vehicle movements.

4.4.2 Infirmary Bridge – Site 20

Figure 15 – Site 20 JTC Survey Screenshot

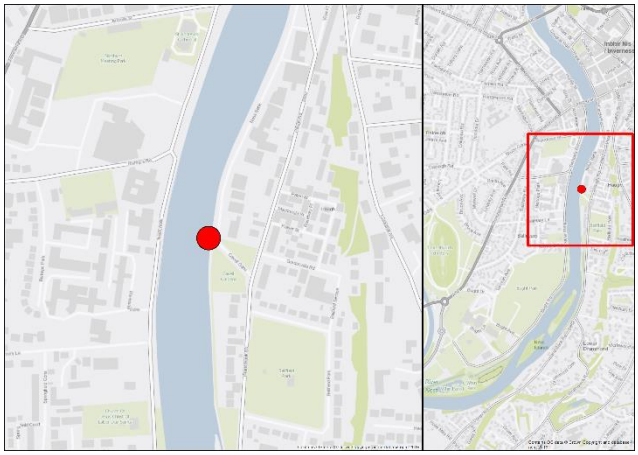


Figure 16 - Site 20 JTC Survey Location

Table 4 – Site 20: Average Daily, AM and PM counts by movement by user type

Site 20		Daily (07:00-19:00)				AM (07:30-09:30)				PM (16:30-18:30)			
Route	***Movement***	Vehicles	Cyclists	Peds	*Total Movements*	Vehicles	Cyclists	Peds	*Total Movements*	Vehicles	Cyclists	Peds	*Total Movements*
Ness Bank to Shared Footpath	***132***	0	0	12	*12*	0	0	12	*12*	0	0	12	*12*
Ness Bank to Cavell Gardens	***133***	624	14	31	*668*	100	0	3	*103*	140	5	6	*150*
Ness Bank to Great Glen Way	***134***	0	23	156	*179*	0	4	9	*12*	0	4	35	*39*
Ness Bank to Infirmary Bridge	***135***	0	9	212	*221*	0	0	19	*19*	0	1	55	*56*
Infirmary Bridge to Ness Bank	***136***	0	10	271	*281*	0	2	32	*34*	0	3	44	*47*
Infirmary Bridge to Shared Footpath	***137***	0	50	99	*149*	0	8	11	*18*	0	17	28	*44*
Infirmary Bridge to Cavell Gardens	***138***	0	30	51	*81*	0	3	2	*5*	0	9	18	*27*
Infirmary Bridge to Great Glen Way	***139***	0	22	131	*153*	0	6	15	*20*	0	8	26	*33*
Great Glen Way to Infirmary Bridge	***140***	0	20	179	*199*	0	6	23	*29*	0	5	28	*33*
Great Glen Way to Ness Bank	***141***	0	15	216	*231*	0	4	20	*24*	0	3	46	*49*
Great Glen Way to Shared Footpath	***142***	0	1	11	*12*	0	0	0	*0*	0	0	1	*1*
Great Glen Way to Cavell Gardens	***143***	0	0	2	*2*	0	0	1	*1*	0	0	0	*0*
Cavell Gardens to Great Glen Way	***144***	0	0	4	*4*	0	0	1	*1*	0	0	2	*2*
Cavell Gardens to Infirmary Bridge	***145***	0	33	42	*75*	0	16	9	*25*	0	3	5	*7*
Cavell Gardens to Ness Bank	***146***	0	4	30	*33*	0	0	10	*10*	0	0	4	*4*
Cavell Gardens to Shared Footpath	***147***	0	0	0	*0*	0	0	0	*0*	0	0	0	*0*
Shared Footpath to Cavell Gardens	***148***	0	0	0	*0*	0	0	0	*0*	0	0	0	*0*
Shared Footpath to Great Glen Way	***149***	0	7	22	*29*	0	2	5	*7*	0	0	4	*4*
Shared Footpath to Infirmary Bridge	***150***	0	51	87	*138*	0	16	31	*47*	0	12	9	*21*
Shared Footpath to Ness Bank	***151***	0	0	11	*11*	0	0	1	*1*	0	0	2	*2*
Total		**624**	**288**	**1561**	***2473***	**100**	**65**	**200**	***364***	**140**	**67**	**319**	***526***

**The highest values are shown dark green, the lowest light green for each user type across all site movements*

The data recorded at Site 20 shows that the most significant movement was Movement 133 for vehicles continuing southbound from Ness Bank to Cavell Gardens on the one-way system. That said, there were also a significant number of pedestrian and cycle movements to and from Infirmary Bridge. Similar patterns could be seen at the bridge indicating commuter patterns to the city centre in the morning and from the city centre in the evening as would be expected. The results show that people walking to and from Infirmary Bridge tend to utilise Ness Bank, whereas those cycling tend to utilise the shared use path linking with Haugh Road.

4.4.3 Infirmary Bridge – Combined East and West Movements

Table 5 – Pedestrian and Cycle Movements from Infirmary Bridge West

West	Site 19	Pedestrians				Cyclists			
Movement	**Direction**	**Day 1**	**Day 2**	***Total***	**%**	**Day 1**	**Day 2**	***Total***	**%**
126	South on Ness Walk	232	185	*417*	***37.9%***	35	41	*76*	***31.4%***
127	North on Ness Walk	332	352	*684*	***62.1%***	76	90	*166*	***68.6%***
All	*All from bridge westbound*	*564*	*537*	*1101*	**-**	*111*	*131*	*242*	**-**

Table 6 - Pedestrian and Cycle Movements from Infirmary Bridge East

East	Site 20	Pedestrians				Cyclists			
Movement	**Direction**	**Day 1**	**Day 2**	***Total***	**%**	**Day 1**	**Day 2**	***Total***	**%**
136	North on Ness Bank	274	295	*569*	***48.8%***	14	9	*23*	***9.6%***
137	East on shared use path	115	98	*213*	***18.3%***	49	56	*105*	***43.8%***
138	South-East on Cavell Gardens	58	50	*108*	***9.3%***	28	37	*65*	***27.1%***
139	South on south riverside path	140	135	*275*	***23.6%***	29	18	*47*	***19.6%***
All	*All from bridge eastbound*	*587*	*578*	*1165*	**-**	*120*	*120*	*240*	**-**

Table 7 - Pedestrian and Cycle Movements to Infirmary Bridge from West

West	Site 19	Pedestrians				Cyclists			
Movement	**Direction**	**Day 1**	**Day 2**	***Total***	**%**	**Day 1**	**Day 2**	***Total***	**%**
128	From Ness Walk north	344	369	*713*	***60.1%***	91	85	*176*	***73.3%***
131	From Ness Walk south	246	228	*474*	***39.9%***	35	29	*64*	***26.7%***
All	*All movements to bridge from west*	*590*	*597*	*1187*	**-**	*126*	*114*	*240*	**-**

Table 8 - Pedestrian and Cycle Movements to Infirmary Bridge from East

East	Site 20	Pedestrians				Cyclists			
Movement	**Direction**	**Day 1**	**Day 2**	***Total***	**%**	**Day 1**	**Day 2**	***Total***	**%**
135	From Ness Bank	250	204	*454*	***41.5%***	7	13	*20*	***8.4%***
150	From shared use path	96	84	*180*	***16.5%***	47	57	*104*	***43.5%***
145	From Cavell Gardens	52	35	*87*	***8.0%***	33	33	*66*	***27.6%***
140	From south riverside path	163	210	*373*	***34.1%***	23	26	*49*	***20.5%***
All	*All movements to bridge from east*	*561*	*533*	*1094*	**-**	*110*	*129*	*239*	**-**

Figure 17 – Infirmary Bridge Map

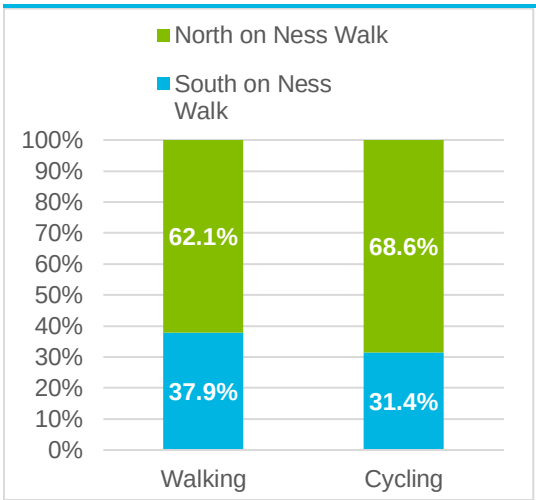


Figure 18 - Infirmary Bridge to West (Site 19)

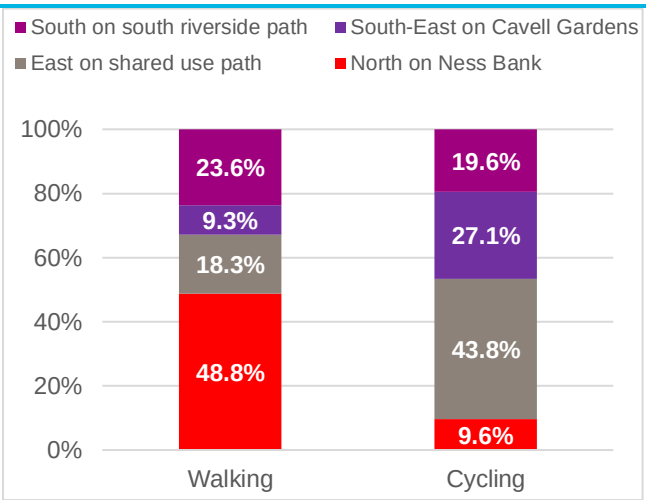


Figure 19 – Infirmary Bridge to East (Site 20)

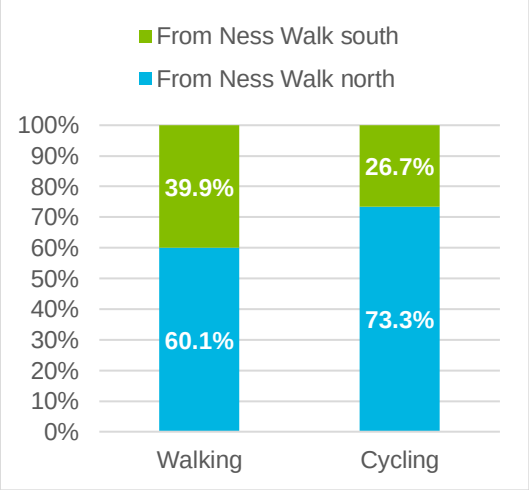


Figure 20 West to Infirmary Bridge (Site 19)

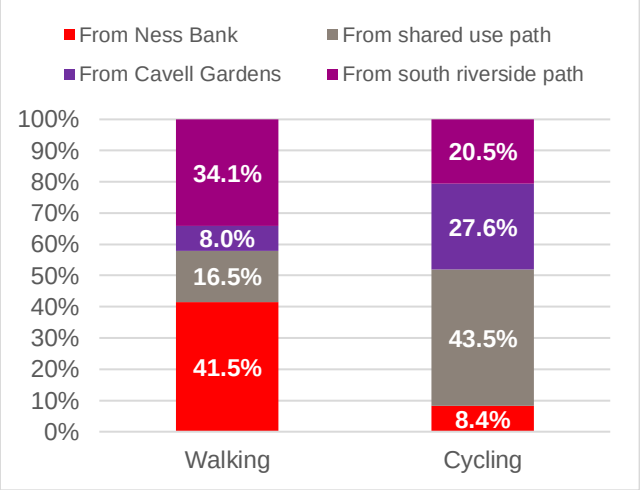


Figure 21 East to Infirmary Bridge (Site 20)

4.4.4 Infirmary Bridge User Survey

The Highland Council have surveyed numbers of people walking and cycling across Infirmary Bridge and have data from June 2016 until September 2019 from a RadioBeam People-Bicycle Counter (RBBP).

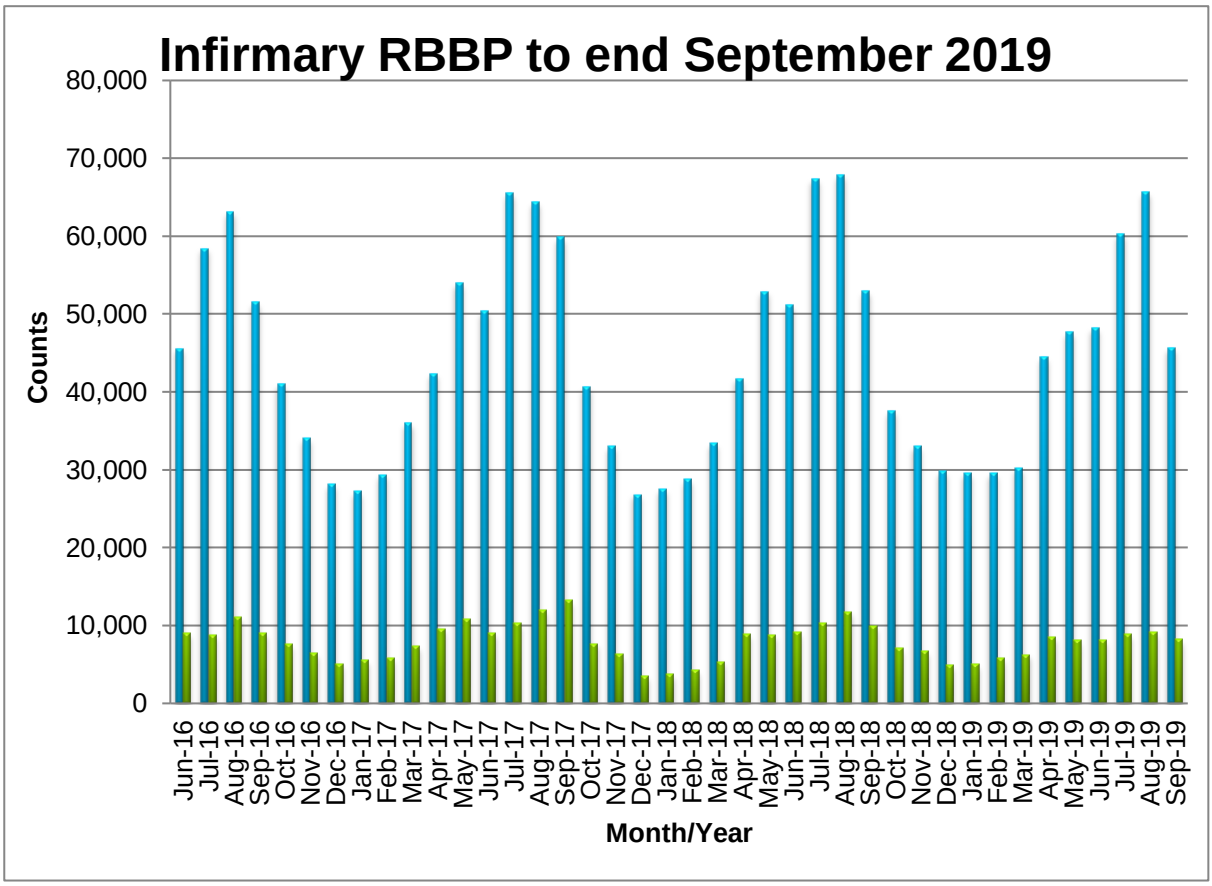


Figure 22 Infirmary Bridge Walking and Cycling Survey Data

As would be expected the surveys show consistent increases in people both walking and cycling throughout the summer months peaking in late summer.

The highest monthly numbers of people walking were experienced in August 2018 at 67,802 trips equivalent to an average of 2,187 walking trips across the bridge every day. The lowest numbers for a month were 26,843 in December 2017; equivalent to an average 895 walking trips each day that month.

The greatest monthly number of cyclists was recorded in August 2018 at 11,755 trips; equivalent to an average of 440 cycling trips across the bridge every day. The lowest cycle usage was experienced in December 2017, the same as the lowest walking usage, with 3,570 in the month; equivalent to an average of 119 cycle trips across the bridge each day.

5. Summary of Key Findings

It was found that while there are variances of recorded vehicles and Non-motorised users between the two different surveys, generally the volume of traffic and other users has remained relatively similar between the two surveys.

Similarly, when a more detailed analysis of the potential traffic impacts of the development of a one-way traffic operation on Ness Walk and Bught Road along the Ness riverside between Bishop's Road and Bught Avenue; the potential traffic impact on the neighbouring streets was similar. The larger majority of traffic through these sites was experienced southbound.

This indicated that according to both surveys, should a one-way traffic system be implemented as described above, a one-way southbound for vehicles would have the smaller impact to current journeys than a one-way northbound for vehicles. The survey undertaken by Sustrans and shown as Site 26 – Ness Walk also confirm these findings and travel patterns.

The analysis of vehicle movements within the study area can be viewed alongside that of the AADF data available for the trunk road at Tomnahurich Street. AADF within the study area are considered similar to other comparable neighbourhoods.

Appendix A Data Collection Comparison Map

Appendix B Data Collection Comparison Map AM /PM Split

Appendix C AM-PM 2018 – 19 Data Comparison Tables

The darker the green indicates a higher percentage of the total movements for that day occurring within the named period. The periods compared were the following:

- AM Period – 07:30-08:30
- PM Period – 16:30-18:30

Site 1 - Bught Drive	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	1,903	2,124	206	296	381	513
Cycle Movements	40	21	4	5	13	7
Pedestrian Movements	118	107	7	8	22	16
All Movements	*2,061*	*2,252*	*217*	*309*	*416*	*536*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	1,794	1,957	152	169	385	523
Cycle Movements	38	19	4	5	11	4
Pedestrian Movements	91	60	9	6	18	13
All Movements	*1,923*	*2,036*	*165*	*180*	*414*	*540*

Site 1 - Bught Drive	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	10.8%	13.9%	20.0%	24.2%
Cycle Movements	10.0%	23.8%	32.5%	33.3%
Pedestrian Movements	5.9%	7.5%	18.6%	15.0%
All Movements	*10.5%*	*13.7%*	*20.2%*	*23.8%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	8.5%	8.6%	21.5%	26.7%
Cycle Movements	10.5%	26.3%	28.9%	21.1%
Pedestrian Movements	9.9%	10.0%	19.8%	21.7%
All Movements	*8.6%*	*8.8%*	*21.5%*	*26.5%*

Site 2 - Ballifeary Road	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	263	234	47	46	46	54
Cycle Movements	19	11	2	3	6	2
Pedestrian Movements	44	64	8	6	16	13
All Movements	*326*	*309*	*57*	*55*	*68*	*69*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	452	394	51	50	102	109
Cycle Movements	23	16	4	4	6	5
Pedestrian Movements	42	59	7	12	7	8
All Movements	*517*	*469*	*62*	*66*	*115*	*122*

Site 2 PM Period - Ballifeary Road	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	17.9%	19.7%	17.5%	23.1%
Cycle Movements	10.5%	27.3%	31.6%	18.2%
Pedestrian Movements	18.2%	9.4%	36.4%	20.3%
All Movements	*17.5%*	*17.8%*	*20.9%*	*22.3%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	11.3%	12.7%	22.6%	27.7%
Cycle Movements	17.4%	25.0%	26.1%	31.3%
Pedestrian Movements	16.7%	20.3%	16.7%	13.6%
All Movements	*12.0%*	*14.1%*	*22.2%*	*26.0%*

Site 3 - Ballifeary Lane	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	417	382	68	77	65	58
Cycle Movements	23	15	2	4	5	2
Pedestrian Movements	106	82	13	11	23	16
All Movements	*546*	*479*	*83*	*92*	*93*	*76*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	-	-	-	-	-
Cycle Movements	12	15	1	3	4	4
Pedestrian Movements	84	74	13	20	19	15
All Movements	*96*	*89*	*14*	*23*	*23*	*19*

Site 3 PM Period - Ballifeary Lane	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	16.3%	20.2%	15.6%	15.2%
Cycle Movements	8.7%	26.7%	21.7%	13.3%
Pedestrian Movements	12.3%	13.4%	21.7%	19.5%
All Movements	*15.2%*	*19.2%*	*17.0%*	*15.9%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	-	-	-
Cycle Movements	8.3%	20.0%	33.3%	26.7%
Pedestrian Movements	15.5%	27.0%	22.6%	20.3%
All Movements	*14.6%*	*25.8%*	*24.0%*	*21.3%*

Site 4 - Bishops Road	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	663	721	151	214	117	101
Cycle Movements	44	27	7	5	14	5
Pedestrian Movements	178	164	21	27	36	25
All Movements	*885*	*912*	*179*	*246*	*167*	*131*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	947	949	132	143	175	208
Cycle Movements	34	27	7	8	7	4
Pedestrian Movements	186	106	39	12	27	16
All Movements	*1,167*	*1,082*	*178*	*163*	*209*	*228*

Site 4 PM Period - Bishops Road	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	22.8%	29.7%	17.6%	14.0%
Cycle Movements	15.9%	18.5%	31.8%	18.5%
Pedestrian Movements	11.8%	16.5%	20.2%	15.2%
All Movements	*20.2%*	*27.0%*	*18.9%*	*14.4%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	13.9%	15.1%	18.5%	21.9%
Cycle Movements	20.6%	29.6%	20.6%	14.8%
Pedestrian Movements	21.0%	11.3%	14.5%	15.1%
All Movements	*15.3%*	*15.1%*	*17.9%*	*21.1%*

Site 6 - Ardross Street	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	432	359	84	85	61	50
Cycle Movements	28	21	10	8	4	3
Pedestrian Movements	292	251	47	48	30	26
All Movements	*752*	*631*	*141*	*141*	*95*	*79*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	408	362	52	56	91	72
Cycle Movements	27	19	6	5	9	6
Pedestrian Movements	329	213	22	39	59	36
All Movements	*764*	*594*	*80*	*100*	*159*	*114*

Site 6 PM Period - Ardross Street	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	19.4%	23.7%	14.1%	13.9%
Cycle Movements	35.7%	38.1%	14.3%	14.3%
Pedestrian Movements	16.1%	19.1%	10.3%	10.4%
All Movements	*18.8%*	*22.3%*	*12.6%*	*12.5%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	12.7%	15.5%	22.3%	19.9%
Cycle Movements	22.2%	26.3%	33.3%	31.6%
Pedestrian Movements	6.7%	18.3%	17.9%	16.9%
All Movements	*10.5%*	*16.8%*	*20.8%*	*19.2%*

Site 7 - Kenneth Street	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	1,745	1,702	201	224	349	356
Cycle Movements	23	27	3	3	7	6
Pedestrian Movements	260	259	26	31	46	50
All Movements	*2,028*	*1,988*	*230*	*258*	*402*	*412*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	-	-	-	-	-
Cycle Movements	9	3	1	1	1	0
Pedestrian Movements	226	249	39	41	38	31
All Movements	*235*	*252*	*40*	*42*	*39*	*31*

Site 7 PM Period - Kenneth Street	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	11.5%	13.2%	20.0%	20.9%
Cycle Movements	13.0%	11.1%	30.4%	22.2%
Pedestrian Movements	10.0%	12.0%	17.7%	19.3%
All Movements	*11.3%*	*13.0%*	*19.8%*	*20.7%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	-	-	-
Cycle Movements	11.1%	33.3%	11.1%	0.0%
Pedestrian Movements	17.3%	16.5%	16.8%	12.4%
All Movements	*17.0%*	*16.7%*	*16.6%*	*12.3%*

Site 8 - Ness Walk	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	-	-	-	-	-
Cycle Movements	128	88	21	24	35	10
Pedestrian Movements	2,522	1,480	172	158	479	253
All Movements	*2,650*	*1,568*	*193*	*182*	*514*	*263*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	1,975	2,014	396	509	342	325
Cycle Movements	193	120	27	22	58	37
Pedestrian Movements	2,501	1,365	20	133	529	266
All Movements	*4,669*	*3,499*	*443*	*664*	*929*	*628*

Site 8 PM Period - Ness Walk	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	-	-	-
Cycle Movements	16.4%	27.3%	27.3%	11.4%
Pedestrian Movements	6.8%	10.7%	19.0%	17.1%
All Movements	*7.3%*	*11.6%*	*19.4%*	*16.8%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	20.1%	25.3%	17.3%	16.1%
Cycle Movements	14.0%	18.3%	30.1%	30.8%
Pedestrian Movements	0.8%	9.7%	21.2%	19.5%
All Movements	*9.5%*	*19.0%*	*19.9%*	*17.9%*

Site 9 - Bishops Road	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	1,273	865	136	114	257	171
Cycle Movements	139	133	31	46	27	16
Pedestrian Movements	1,161	595	96	70	249	91
All Movements	*2,573*	*1,593*	*263*	*230*	*533*	*278*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	1,631	1,040	307	209	268	171
Cycle Movements	196	166	23	18	60	58
Pedestrian Movements	1,289	637	73	62	279	127
All Movements	*3,116*	*1,843*	*403*	*289*	*607*	*356*

Site 9 PM Period - Bishops Road	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	10.7%	13.2%	20.2%	19.8%
Cycle Movements	22.3%	34.6%	19.4%	12.0%
Pedestrian Movements	8.3%	11.8%	21.4%	15.3%
All Movements	*10.2%*	*14.4%*	*20.7%*	*17.5%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	18.8%	20.1%	16.4%	16.4%
Cycle Movements	11.7%	10.8%	30.6%	34.9%
Pedestrian Movements	5.7%	9.7%	21.6%	19.9%
All Movements	*12.9%*	*15.7%*	*19.5%*	*19.3%*

Site 10 - Riverside Gardens	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	425	485	51	52	104	117
Cycle Movements	10	10	5	1	1	5
Pedestrian Movements	74	61	7	6	6	12
All Movements	*509*	*556*	*63*	*59*	*111*	*134*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	441	509	128	158	47	46
Cycle Movements	13	7	6	4	1	1
Pedestrian Movements	70	66	4	12	8	9
All Movements	*524*	*582*	*138*	*174*	*56*	*56*

Site 10 PM Period - Riverside Gardens	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	12.0%	10.7%	24.5%	24.1%
Cycle Movements	50.0%	10.0%	10.0%	50.0%
Pedestrian Movements	9.5%	9.8%	8.1%	19.7%
All Movements	*12.4%*	*10.6%*	*21.8%*	*24.1%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	29.0%	31.0%	10.7%	9.0%
Cycle Movements	46.2%	57.1%	7.7%	14.3%
Pedestrian Movements	5.7%	18.2%	11.4%	13.6%
All Movements	*26.3%*	*29.9%*	*10.7%*	*9.6%*

Site 11 - Ballifeary Lane	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	381	333	76	71	52	43
Cycle Movements	64	49	10	13	13	6
Pedestrian Movements	197	246	17	48	46	25
All Movements	*642*	*628*	*103*	*132*	*111*	*74*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	326	262	47	25	65	67
Cycle Movements	60	51	8	4	13	16
Pedestrian Movements	261	239	38	18	37	54
All Movements	*647*	*552*	*93*	*47*	*115*	*137*

Site 11 PM Period - Ballifeary Lane	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	19.9%	21.3%	13.6%	12.9%
Cycle Movements	15.6%	26.5%	20.3%	12.2%
Pedestrian Movements	8.6%	19.5%	23.4%	10.2%
All Movements	*16.0%*	*21.0%*	*17.3%*	*11.8%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	14.4%	9.5%	19.9%	25.6%
Cycle Movements	13.3%	7.8%	21.7%	31.4%
Pedestrian Movements	14.6%	7.5%	14.2%	22.6%
All Movements	*14.4%*	*8.5%*	*17.8%*	*24.8%*

Site 12 - Bught Road (2019 Data Sites 12+13)	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	424	272	37	36	76	48
Cycle Movements	112	30	8	6	22	8
Pedestrian Movements	383	164	23	11	83	33
All Movements	*919*	*466*	*68*	*53*	*181*	*89*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	545	481	47	38	110	126
Cycle Movements	152	59	13	5	34	21
Pedestrian Movements	342	253	15	21	76	46
All Movements	*1,039*	*793*	*75*	*64*	*220*	*193*

Site 12 PM Period - Bught Road (2019 Data Sites 12+13)	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	8.7%	13.2%	17.9%	17.6%
Cycle Movements	7.1%	20.0%	19.6%	26.7%
Pedestrian Movements	6.0%	6.7%	21.7%	20.1%
All Movements	*7.4%*	*11.4%*	*19.7%*	*19.1%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	8.6%	7.9%	20.2%	26.2%
Cycle Movements	8.6%	8.5%	22.4%	35.6%
Pedestrian Movements	4.4%	8.3%	22.2%	18.2%
All Movements	*7.2%*	*8.1%*	*21.2%*	*24.3%*

Site 13 - Bught Road (2019 Data Site 18)	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	400	226	17	16	74	47
Cycle Movements	117	34	7	6	25	8
Pedestrian Movements	474	285	15	23	95	42
All Movements	*991*	*545*	*39*	*45*	*194*	*97*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	682	527	54	53	97	123
Cycle Movements	126	63	8	10	25	15
Pedestrian Movements	461	327	23	24	106	53
All Movements	*1,269*	*917*	*85*	*87*	*228*	*191*

Site 13 PM Period - Bught Road (2019 Data Site 18)	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	4.3%	7.1%	18.5%	20.8%
Cycle Movements	6.0%	17.6%	21.4%	23.5%
Pedestrian Movements	3.2%	8.1%	20.0%	14.7%
All Movements	*3.9%*	*8.3%*	*19.6%*	*17.8%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	7.9%	10.1%	14.2%	23.3%
Cycle Movements	6.3%	15.9%	19.8%	23.8%
Pedestrian Movements	5.0%	7.3%	23.0%	16.2%
All Movements	*6.7%*	*9.5%*	*18.0%*	*20.8%*

Site 14 - Leisure Centre Access	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	1,237	1,612	95	115	237	453
Cycle Movements	61	44	4	6	17	9
Pedestrian Movements	211	157	7	5	45	36
All Movements	*1,509*	*1,813*	*106*	*126*	*299*	*498*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	1,074	1,626	128	210	197	425
Cycle Movements	83	49	13	8	20	14
Pedestrian Movements	226	172	14	13	36	40
All Movements	*1,383*	*1,847*	*155*	*231*	*253*	*479*

Site 14 PM Period - Leisure Centre Access	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	7.7%	7.1%	19.2%	28.1%
Cycle Movements	6.6%	13.6%	27.9%	20.5%
Pedestrian Movements	3.3%	3.2%	21.3%	22.9%
All Movements	*7.0%*	*6.9%*	*19.8%*	*27.5%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	11.9%	12.9%	18.3%	26.1%
Cycle Movements	15.7%	16.3%	24.1%	28.6%
Pedestrian Movements	6.2%	7.6%	15.9%	23.3%
All Movements	*11.2%*	*12.5%*	*18.3%*	*25.9%*

Site 15 - Ardross Terrace	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	-	-	-	-	-
Cycle Movements	-	83	-	20	-	9
Pedestrian Movements	-	1,160	-	122	-	210
All Movements	-	*1,243*	-	*142*	-	*219*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	1,865	-	448	-	304
Cycle Movements	-	120	-	19	-	38
Pedestrian Movements	-	1,130	-	139	-	236
All Movements	-	*3,115*	-	*606*	-	*578*

Site 15 PM Period - Ardross Terrace	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	-	-	-
Cycle Movements	-	24.1%	-	10.8%
Pedestrian Movements	-	10.5%	-	18.1%
All Movements	-	*11.4%*	-	*17.6%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	24.0%	-	16.3%
Cycle Movements	-	15.8%	-	31.7%
Pedestrian Movements	-	12.3%	-	20.9%
All Movements	-	*19.5%*	-	*18.6%*

Site 16 - Bught Road	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	272	-	36	-	48
Cycle Movements	-	28	-	5	-	6
Pedestrian Movements	-	164	-	11	-	25
All Movements	-	*464*	-	*52*	-	*79*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	481	-	38	-	126
Cycle Movements	-	58	-	5	-	20
Pedestrian Movements	-	253	-	21	-	46
All Movements	-	*792*	-	*64*	-	*192*

Site 16 PM Period - Bught Road	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	13.2%	-	17.6%
Cycle Movements	-	17.9%	-	21.4%
Pedestrian Movements	-	6.7%	-	15.2%
All Movements	-	*11.2%*	-	*17.0%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	7.9%	-	26.2%
Cycle Movements	-	8.6%	-	34.5%
Pedestrian Movements	-	8.3%	-	18.2%
All Movements	-	*8.1%*	-	*24.2%*

Site 17 - Bishops Road	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	1,184	-	157	-	231
Cycle Movements	-	117	-	29	-	15
Pedestrian Movements	-	783	-	80	-	118
All Movements	-	*2,084*	-	*266*	-	*364*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	1,578	-	352	-	263
Cycle Movements	-	159	-	23	-	52
Pedestrian Movements	-	903	-	83	-	191
All Movements	-	*2,640*	-	*458*	-	*506*

Site 17 PM Period - Bishops Road	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	13.3%	-	19.5%
Cycle Movements	-	24.8%	-	12.8%
Pedestrian Movements	-	10.2%	-	15.1%
All Movements	-	*12.8%*	-	*17.5%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	22.3%	-	16.7%
Cycle Movements	-	14.5%	-	32.7%
Pedestrian Movements	-	9.2%	-	21.2%
All Movements	-	*17.3%*	-	*19.2%*

Site 19 - Ness Walk	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	868	-	115	-	171
Cycle Movements	-	85	-	21	-	15
Pedestrian Movements	-	617	-	75	-	94
All Movements	-	*1,570*	-	*207*	-	*280*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	1,032	-	205	-	168
Cycle Movements	-	124	-	16	-	40
Pedestrian Movements	-	626	-	67	-	130
All Movements	-	*1,782*	-	*288*	-	*338*

Site 19 PM Period - Ness Walk	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	13.2%	-	19.7%
Cycle Movements	-	24.7%	-	17.6%
Pedestrian Movements	-	12.2%	-	15.2%
All Movements	-	*13.2%*	-	*17.8%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	19.9%	-	16.3%
Cycle Movements	-	12.9%	-	32.3%
Pedestrian Movements	-	10.7%	-	20.8%
All Movements	-	*16.2%*	-	*19.0%*

Site 20 - Ness Bank	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	-	-	-	-	-
Cycle Movements	-	29	-	6	-	5
Pedestrian Movements	-	527	-	62	-	95
All Movements	-	*556*	-	*68*	-	*100*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	624	-	100	-	140
Cycle Movements	-	46	-	4	-	10
Pedestrian Movements	-	410	-	32	-	97
All Movements	-	*1,080*	-	*136*	-	*247*

Site 20 PM Period - Ness Bank	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	-	-	-
Cycle Movements	-	20.7%	-	17.2%
Pedestrian Movements	-	11.8%	-	18.0%
All Movements	-	*12.2%*	-	*18.0%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	16.0%	-	22.4%
Cycle Movements	-	8.7%	-	21.7%
Pedestrian Movements	-	7.8%	-	23.7%
All Movements	-	*12.6%*	-	*22.9%*

Site 21 - Cavell Gardens	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	1	-	1	-	0
Cycle Movements	-	75	-	28	-	11
Pedestrian Movements	-	173	-	44	-	21
All Movements	-	*249*	-	*73*	-	*32*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	632	-	100	-	142
Cycle Movements	-	76	-	10	-	25
Pedestrian Movements	-	176	-	16	-	55
All Movements	-	*884*	-	*126*	-	*222*

Site 21 PM Period - Cavell Gardens	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-		-	0.0%
Cycle Movements	-	37.3%	-	14.7%
Pedestrian Movements	-	25.4%	-	12.1%
All Movements	-	*29.3%*	-	*12.9%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	15.8%	-	22.5%
Cycle Movements	-	13.2%	-	32.9%
Pedestrian Movements	-	9.1%	-	31.3%
All Movements	-	*14.3%*	-	*25.1%*

Site 22 - Ness Bank	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	-	-	-	-	-
Cycle Movements	-	28	-	6	-	5
Pedestrian Movements	-	699	-	75	-	141
All Movements	-	*727*	-	*81*	-	*146*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	649	-	105	-	156
Cycle Movements	-	49	-	4	-	11
Pedestrian Movements	-	518	-	46	-	115
All Movements	-	*1,216*	-	*155*	-	*282*

Site 22 PM Period - Ness Bank	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	-	-	-
Cycle Movements	-	21.4%	-	17.9%
Pedestrian Movements	-	10.7%	-	20.2%
All Movements	-	*11.1%*	-	*20.1%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	16.2%	-	24.0%
Cycle Movements	-	8.2%	-	22.4%
Pedestrian Movements	-	8.9%	-	22.2%
All Movements	-	*12.7%*	-	*23.2%*

Site 23 - Ballifeary Road	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	497	-	103	-	84
Cycle Movements	-	24	-	11	-	5
Pedestrian Movements	-	123	-	49	-	6
All Movements	-	*644*	-	*163*	-	*95*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	281	-	31	-	65
Cycle Movements	-	23	-	1	-	8
Pedestrian Movements	-	116	-	13	-	22
All Movements	-	*420*	-	*45*	-	*95*

Site 23 PM Period - Ballifeary Road	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	20.7%	-	16.9%
Cycle Movements	-	45.8%	-	20.8%
Pedestrian Movements	-	39.8%	-	4.9%
All Movements	-	*25.3%*	-	*14.8%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	11.0%	-	23.1%
Cycle Movements	-	4.3%	-	34.8%
Pedestrian Movements	-	11.2%	-	19.0%
All Movements	-	*10.7%*	-	*22.6%*

Site 24 - Dunachton Road	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	87	-	11	-	20
Cycle Movements	-	8	-	1	-	1
Pedestrian Movements	-	55	-	6	-	12
All Movements	-	*150*	-	*18*	-	*33*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	159	-	26	-	33
Cycle Movements	-	12	-	4	-	4
Pedestrian Movements	-	47	-	18	-	7
All Movements	-	*218*	-	*48*	-	*44*

Site 24 PM Period - Dunachton Road	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	12.6%	-	23.0%
Cycle Movements	-	12.5%	-	12.5%
Pedestrian Movements	-	10.9%	-	21.8%
All Movements	-	*12.0%*	-	*22.0%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	16.4%	-	20.8%
Cycle Movements	-	33.3%	-	33.3%
Pedestrian Movements	-	38.3%	-	14.9%
All Movements	-	*22.0%*	-	*20.2%*

Site 25 - Bught Road	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	13	-	1	-	3
Cycle Movements	-	26	-	3	-	6
Pedestrian Movements	-	60	-	3	-	13
All Movements	-	*99*	-	*7*	-	*22*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	251	-	25	-	73
Cycle Movements	-	22	-	4	-	5
Pedestrian Movements	-	43	-	4	-	7
All Movements	-	*316*	-	*33*	-	*85*

Site 25 PM Period - Bught Road	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	7.7%	-	23.1%
Cycle Movements	-	11.5%	-	23.1%
Pedestrian Movements	-	5.0%	-	21.7%
All Movements	-	*7.1%*	-	*22.2%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	10.0%	-	29.1%
Cycle Movements	-	18.2%	-	22.7%
Pedestrian Movements	-	9.3%	-	16.3%
All Movements	-	*10.4%*	-	*26.9%*

Site 26 - Bught Road	Total		AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	460	-	46	-	96
Cycle Movements	-	-	-	-	-	-
Pedestrian Movements	-	-	-	-	-	-
All Movements	-	*460*	-	*46*	-	*96*
Westbound	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	700	-	75	-	150
Cycle Movements	-	-	-	-	-	-
Pedestrian Movements	-	-	-	-	-	-
All Movements	-	*700*	-	*75*	-	*150*

Site 26 PM Period - Bught Road	AM Period		PM Period	
Eastbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	10.0%	-	20.9%
Cycle Movements	-	-	-	-
Pedestrian Movements	-	-	-	-
All Movements	-	*10.0%*	-	*20.9%*
Westbound	**2018**	**2019**	**2018**	**2019**
Vehicle Movements	-	10.7%	-	21.4%
Cycle Movements	-	-	-	-
Pedestrian Movements	-	-	-	-
All Movements	-	*10.7%*	-	*21.4%*

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RIVERSIDE **COMMUNITY ACTIVITY DAY**

Report

DRAFT

sustrans JOIN THE MOVEMENT

The Highland Council
Comhairle na Gàidhealtachd

erz

Report produced by erz as part of the Inverness Active Travel Network Design Guide Project, commissioned by the Highland Council and Sustrans

December 2019

CONTENTS

Riverside Community Activity Day

RIVERSIDE COMMUNITY ACTIVITY DAY

Overview

The community activity day took place on Saturday the 19th of October along the west bank of the River Ness in Inverness, with a goal of raising awareness and aspirations for the city-wide active travel network proposals.

The day was structured into three events; a pop-up picnic, a walking workshop, and a postcard-making workshop. Overall, **the event was attended by approximately 100 people across all three activities** - perhaps hindered slightly due to heavy rain showers in the afternoon.

The engagement consisted of recording comments through drawings, annotated maps, postcards and notes, creating artwork and guided conversations with individuals. This was appropriate for the activity day as a method for gaining local insight, and resulted in the emergence of personal stories related to the riverside.

POP-UP PICNIC

The pop-up picnic was held on the lawn outside Eden Court between 10am and 3pm on Saturday the 19th of October. Led by the Highland Council, Sustrans and erz Landscape Architects, the aim was to raise aspirations about the ICATN project through talking with the people who know and use this area the most. Presentation boards highlighting the wider active travel network and ideas for network identity components were displayed in the marquee, with refreshments offered to create a relaxed, casual atmosphere to discuss the proposals.

Approximately 70 people of different ages and professions attended across the day, offering a key insight into the relationship between the riverside, the wider city, and the local people. Feedback was also gained on the wayfinding and signage proposals for the design guide.

Large maps where placed on the picnic tables asking people to note down their favourite spot along the river, how they travel along or around it, and how the network could promote sustainable travel and community wellbeing.

Selection of key quotes from the workshop:
(words in bold highlight themes that were repeated across the day)

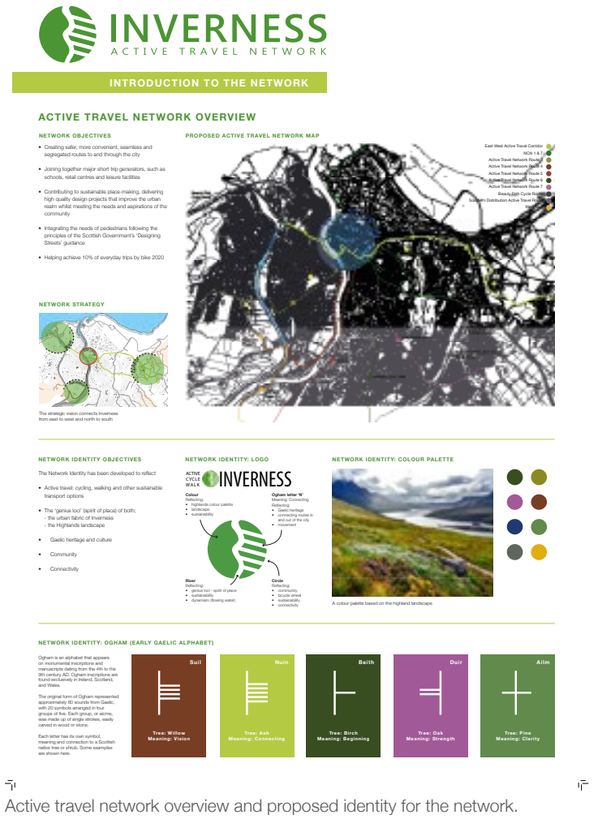
"I often cycle with my **children** up and down the canal but not confident to go on the roads. More **cycle friendly paths** would be great so we can get out and about more."

"Really like the wayfinding symbols – **celebration of natural environment** whilst making it easy for anyone to use it with confidence."

"Make [the riverside] a **destination for leisure seekers**. The river is beautiful and should be prioritised for people to enjoy it – not for traffic to pass through. Public artwork, seating, herb gardens!"

Images of the picnic, with a surprise visit from Spokes for Folks - a charity with electric-powered trikes that aims to reconnect elderly locals with their outdoor environment.

POP-UP PICNIC - ENGAGEMENT MATERIALS

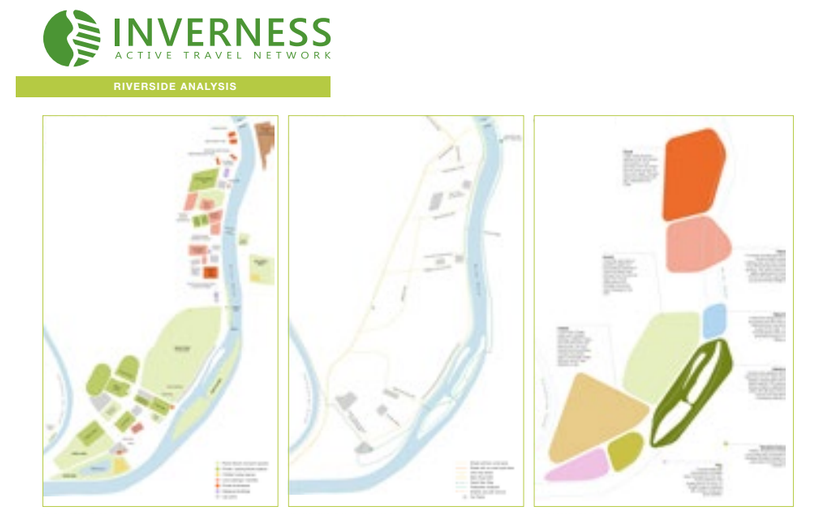


Active travel network overview and proposed identity for the network.

City scale network and landscape analysis.

Proposals for application of network identity and wayfinding strategy.

A number of presentation boards were developed to provide a route into the discussion and get feedback on the proposals. This included the active travel network at a city scale, the analysis of the Riverside phase and the proposals for the network identity, way finding, signage and furniture proposals.



Riverside landscape analysis.

POP-UP PICNIC - RECORDED FEEDBACK

The following list is a mixture of written comment from the attendees on the day and recorded conversations led by activity day staff. Where a similar comment was received multiple times across the activity day it has been highlighted green.

WAYFINDING

- Elderly people in the area enjoy walking in short circuits or 'loops' around Ballifeary to the riverside to remain active and get fresh air.

- Ogham symbols are interesting and would work well.

- Bike toolkits are a strong idea; one situated beside skate park would be particularly beneficial.

- Clear signage will be very important for developing the riverside for active travel.

- Several information and interpretation points would be useful along the route, particularly along Ness Walk, which celebrate the history and character of the local area - this would be supported by the community council.

- Wayfinding symbols are a great celebration of the natural environment while being very user-friendly.

- Important to make the riverside active travel route link in with others, especially to the Kessock Bridge where active travel provision is currently very poor.

- Wayfinding at the bottom of Bught Road should be improved as the likes of Whin Park is very difficult to find.

- A tourist loop or general loop walk could be created around the river between Ness Bridge and Infirmary Bridge.

- Ness Islands are being proposed as a local nature reserve due to being a great place to watch birds; this is an opportunity.

SURFACES + MATERIALS

- A boardwalk could be an option along Ness Walk opposite the hospital where there is no pavement on the riverside.

- Road surface along Ness Walk can be very rough for bikes

- Flat kerbs required so the route is accessible for wheelchair users and those with mobility issues.

FUNCTIONALITY

- Segregation of cyclists and pedestrians is safer than shared use paths.

- Active travel along the riverside should be prioritised over vehicles – potentially make it a car-free route – discussions of the climate emergency.

- Better provision for children and families to enjoy walking and cycling along the river.

- One-way system along the riverside will vastly increase traffic in Ballifeary.

- Existing one-way car routes but with two-way cycle allowance, such as Ardross Terrace, are not understood clearly and hence are often more dangerous than cycling on a busy road.

- Lack of lights along certain parts of riverside path.

- Safest route to the Botanics for visually impaired or those with guide dogs is along Bught Drive, not Bught Road.

- Pedestrianise riverside, with access for emergency and local vehicles only.

- Junction on Bught Lane that turns off towards the leisure centre has no drop kerbs, and crossing is generally awkward.

- Footpath opposite Bught Park is separated from the road hence feels very safe for pedestrians and cyclists.

- Everyone walks on the road at the top of Ness Walk alongside the hospital.

- Junction corner at Eden Court is difficult to cross, needs a crossing to make it safer.

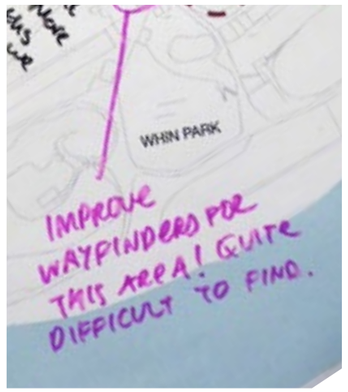
- Infirmary Bridge has poor access for cyclists to turn onto bridge from the road, with road islands meaning cyclists have to pull out into traffic to turn.

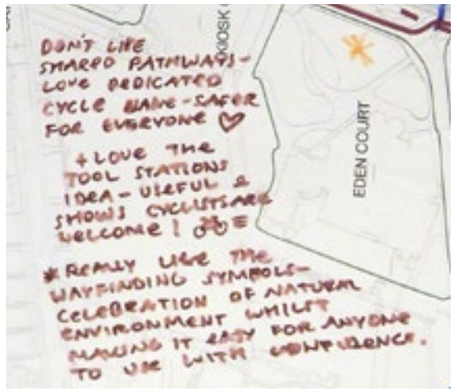
- Concern about one-way section along the riverside, particularly between Bishop Road and Ballifeary Lane due to limitation of street space along this stretch.

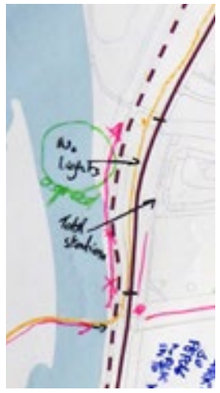
- 20mph will reduce traffic hence make the riverside more cycle-friendly.

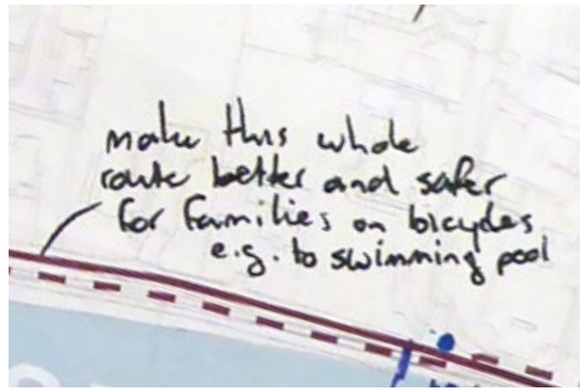
- Cars reversing at fisherman's car park are a risk to pedestrians and cyclists

Large printed table maps on the picnic benches offered a space for people to draw and record further thoughts and comments about the riverside.









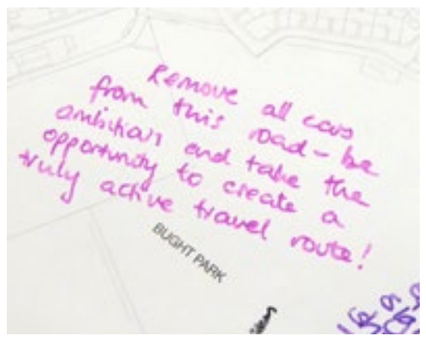


Table map outputs; thoughts, ideas and comments left by attendees at the pop-up picnic

WALKING WORKSHOP

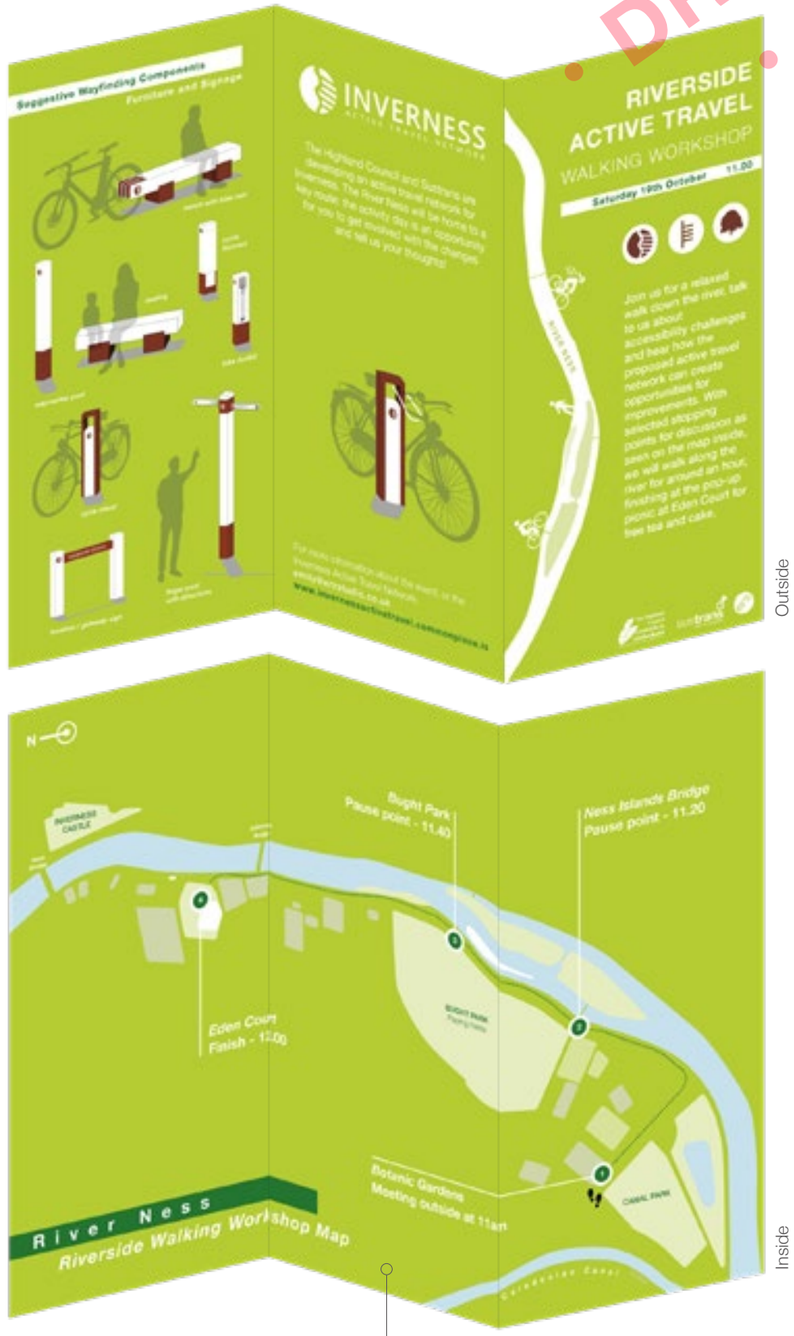
The walking workshop was led by erz, and set off from the Botanics at 11am with an engaged group of 9 participants and Innis the guide dog, with key community partners ‘Living Streets’ and ‘Paths for All’ in attendance.

Focusing on discussing the theme of accessibility along the riverside, the group walked along the footpath from the Botanics to join the pop-up picnic at Eden Court, stopping at intervals to discuss specific components of the riverside way route. Each member was given a leaflet highlighting the network identity design components, with a map of the river on the opposite side to follow and take notes on throughout the walk.

The walk took much longer than the anticipated 1 hour due to the engaged nature of the attendees and the amount of things to discuss!

‘Leader’ flag for the group to follow

Information leaflet cover



Outside

Inside

Leaflet

DRAFT

WALKING WORKSHOP - RECORDED FEEDBACK

The following list is a record of the conversations held along the walk by activity day staff. Where a similar comment was received multiple times across the activity day it has been highlighted green.

WAYFINDING

- Riverside is a convoluted route - unclear signage and legibility of route

- This area is cut off from the city's public transport network

- Design colours suggested for the routes are too similar to be able to differentiate on paths – it's clear they're different when viewed on a map beside each other, but once working in isolations it may be confusing.

- Slight lack of understanding regarding the underpinning of the logic of the Ogham alphabet with the tree species.

- Accessible surfacing desired adjacent to benches for easy access, and space beside furniture for a wheelchair to sit.

- Riverside path surface needs repaired and is not wide enough between Infirmary Bridge and the bridge to Ness Islands.

- More places for elderly people to stop and rest along the route.

SURFACES + MATERIALS

- Missing link in the path connecting from in front of the archive centre across to the skatepark path - forcing people onto the road

- Random furniture elements in the street cause issues with people who are visually impaired.

- Dirt track to the Botanics is the only pedestrian space for walking along this route, meaning you otherwise have to walk on the road. This is an issue for some walking groups with dementia participants, in addition to generally being unsafe for elderly individuals. This results in groups having to walk on the road. Ultimately, there is no proper route from Whin Park car park to the Botanics.

- Trees along the river are important to the character but are primarily of a single species towards Ness Walk - this should be supplemented with new diverse tree planting.

FUNCTIONALITY

- Shared surfaces are not good for accessibility groups; segregation of cyclists and pedestrians much preferred, with cyclists on the road as it is noted they often speed along here.

- Better provision for children due to popularity of route connecting to the islands and Whin Park.

- The Botanics is a key part of a daily routine for some pensioners.

- People want to walk in the sun, but the riverside is safer.

- Issues with drainage and poor surfaces force people to walk on the road.

- Cars edge onto the path in front of the skatepark making the path narrower.

- Crossing between the end of the pedestrianised section of the Great Glen Way beside Whin Park and the botanics on Bught Lane is problematic for wheelchairs in particular due to lack of proper path and drop kerb.

Photographs of the walking workshop, immediately identifying some of the discussed 'points for improvement' along the riverside route in terms of surfaces and safety.

POSTCARD-MAKING WORKSHOP

DRAFT

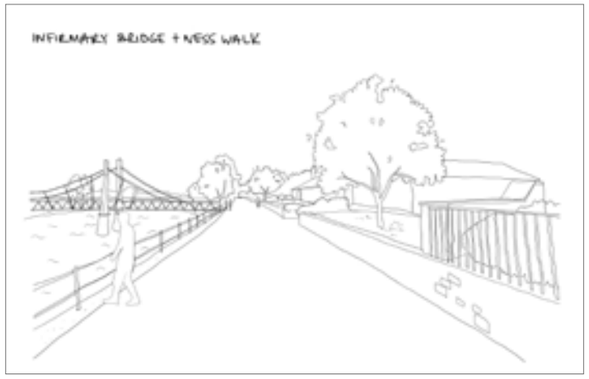
Ran by erz in collaboration with Sadie Stoddart from Circus ArtSpace, the postcard-making workshop was an afternoon family-friendly activity that ran between 1-3pm outside the crazy golf, with a focus on the spatial elements of the riverside. **Across the afternoon the event was attended by approximately 20 children and their families.** Unfortunately the workshop timing coincided with heavy rain showers, making it difficult to encourage people to stop and spend time in the marquee. However, those who did attend had lots of fun and produced great results.

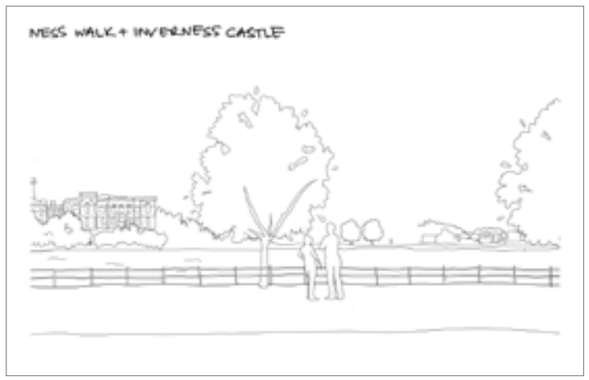
The workshop was set up with a selection of riverside postcard backgrounds, with cut-out street furniture and social elements to populate the scene with in hope of getting people of all ages thinking about the character of the riverside, what makes it special, and how it could be improved through the active travel network. Additionally, Sadie coordinated a print-making activity within the workshop, where children collected leaves from surrounding trees and printed them onto their postcards and larger sheets of paper, to ultimately create a large collaged tree postcard together.

STEP 1
Instruction cards

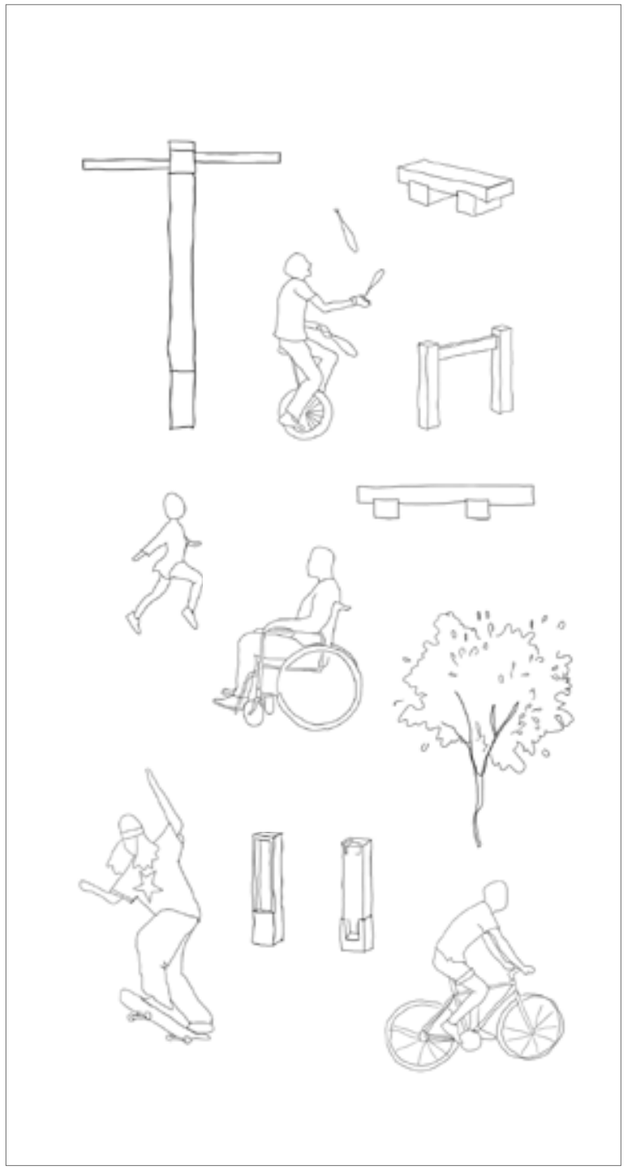
Back of postcard, offering a space for people to write their thoughts for the ICATN

STEP 2
Choose a postcard background





STEP 3
Select components to populate the scene

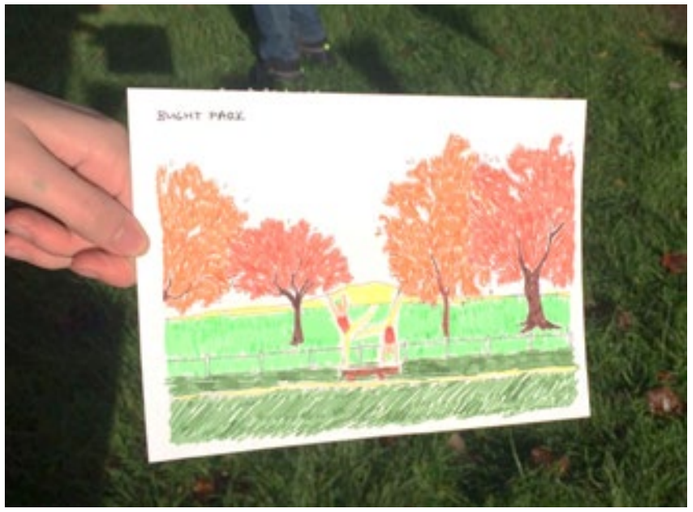


POSTCARD-MAKING WORKSHOP

DRAFT

STEP 4
Colour and collage!

STEP 5
Do some printmaking with Sadie and add to your riverside scene.



A selection of colourful postcards completed by children and their parents at the activity day. Network identity elements such as signposts, trees and benches can be seen scattered throughout, amongst an array of fun people.

POSTCARD-MAKING WORKSHOP - RECORDED FEEDBACK

The following list is a record of the conversations held with parents and families by activity day staff. Where a similar comment was received multiple times across the activity day it has been highlighted green.

WAYFINDING

- Lack of clear signage at a pedestrian scale for Botanics and leisure facilities along the riverside; signage suggests you should go via Bught Drive instead, potentially because of no continuous official path on Bught Road.

- Ness Islands is a hugely popular through route for connecting people from the city centre to the leisure hub.

- Despite the cold damp weather, many people still enjoyed getting out along the river for a walk and some fresh air.

SURFACES + MATERIALS

- The parking at the crazy golf is very disorganised and unstructured spatially, with people occasionally parking on the grass in front of the entrance gates.

Sadie leading the printmaking

Presentation boards displayed in the marquee

Children busy creating their postcard scenes

Collage of leaves printed by children throughout the afternoon, as coordinated by Sadie Stoddart

RIVERSIDE ACTIVITY DAY FEEDBACK CONCLUSIONS

DRAFT

The community activity day was viewed as a success by the stakeholders and those that attended on the day. The feedback can be summarised as follows;

WAYFINDING

- Network identity components such as colour, trees and furniture were generally very well received.
There was a minor concern about the route colours being too similar and difficult to differentiate on the ground, but overall very positive feedback. The bike toolkits were very popular in discussions, and strategically placing such elements, for example beside the skate park, would be beneficial for all.

- Contextualisation of network identity required.
Context will be required on the ground to allow people to fully engage with the network and understand the underpinning narrative. For example, interpretation points that explain what the ogham symbols are, what their historical origin is and how this relates to the wayfinding would strengthen the network for both local people and tourists.

- Elderly people frequently use the riverside to keep active and healthy.
Many local pensioners described how they walk in circuits from their homes in the Ballifeary area on a daily basis (the riverside street patterns facilitate this well). Path surfaces along the riverside should be suitable for all, and more seating could be strategically placed to support not only the older generation, but everyone. It became clear that elderly people shared more personal stories associated with the riverside, with one woman stating she learnt to swim in the River Ness at the beach when she was young, and another has a bench dedicated to her late husband - a fisherman - there. This additional layer of narrative should be embraced during the design process to nurture strong placemaking.

- Improve signage and wayfinding to existing elements such as Whin Park.
Signage and wayfinding at the southern half of Bught Road is poor, with tourists unclear as to how to access the likes of Whin Park or The Botanics. This could be resolved by furniture elements such as finger posts, but relates to the development of the wider network and developing a central place in which network context can be provided, e.g. ‘following the maroon route will lead you towards Eden Court, Bught Park, Ness Islands, Whin Park etc...’.

- Legibility of the route needs strengthened.
The riverside path currently swaps sides at intervals, and once it leaves the river it becomes less clear - in particular there is no pedestrian link along Bught Road to the Botanics. A consistent strategy for signage and materials would resolve this.

SURFACES + MATERIALS

- Accessibility needs must be incorporated.
The riverside path needs widened at places, and the surface repaired. Accessible surfacing is desirable adjacent to benches to allow easy access, and provide a space beside furniture for wheelchairs to sit.

- The dirt path from archive centre to the botanics is inappropriate, exclusive, and problematic.
The route is used by many local groups such as the Blind Tandem Club, Spokes for Folks, and Paths for All, and brings safety issues when groups have to walk on the road due to the path being muddy and frequented by puddles. The path needs upgraded to allow people to confidently access the botanics, leisure hub and canal via a continuous riverside route, instead of walking on the road or leaving the riverside via Bught Lane or Bught Drive.

- Opportunity for a boardwalk on Ness Walk adjacent to Infirmary Bridge
The section from Bishops Road to Ballifeary Lane is the most constrained and problematic. To gain the extra space required a boardwalk could be built out over the river bank to help deliver the proposal and balance the needs of everyone.

FUNCTIONALITY

- Segregated cycle paths and footpaths preferred over shared use.
Both pedestrians and cyclists stated that having their own space on a route was much better and safer for everyone than shared surfaces paths. Some people noted that cyclists like to speed along the riverside.

- Better provision for children and families to cycle along the riverside.
Several parents discussed how they walk or drive down to the leisure centre with their children often but don’t feel it’s safe enough to cycle; if there was a network of traffic-free cycle paths then they would be much more likely to use this method.

- Priority should be given to active travel on Ness Walk / riverside in general.
Some suggested to take the bold move and make the riverside completely vehicle-free, (with the exception of local access and emergency vehicles).This view was not shared by everyone, however the general feel on the day was there should be a shift in user priority that places the car lower down the hierarchy, and makes active travellers the priority.

- Riverside path is not well lit or not lit at all in some parts.
As the route is particularly popular with commuters, and the islands is a key link for many people, lack of lighting along the path is problematic (in winter in particular).

- Junctions could be improved with the addition of crossings, including at access points for bridges.
People of all ages and accessibility needs struggle to cross confidently and safely at the junctions along the riverside; strategic placement of crossings could promote a safer environment, and assist in reorganising user hierarchy.

- Ardross Terrace is problematic for cyclists.
The road is one-way for vehicles but two-way for cyclists, however there isn’t clear signage or enough space on the road to suggest this is the case. (note this is not part of the study area)

intentionally blank

DRAFT

Communication and Engagement Strategy

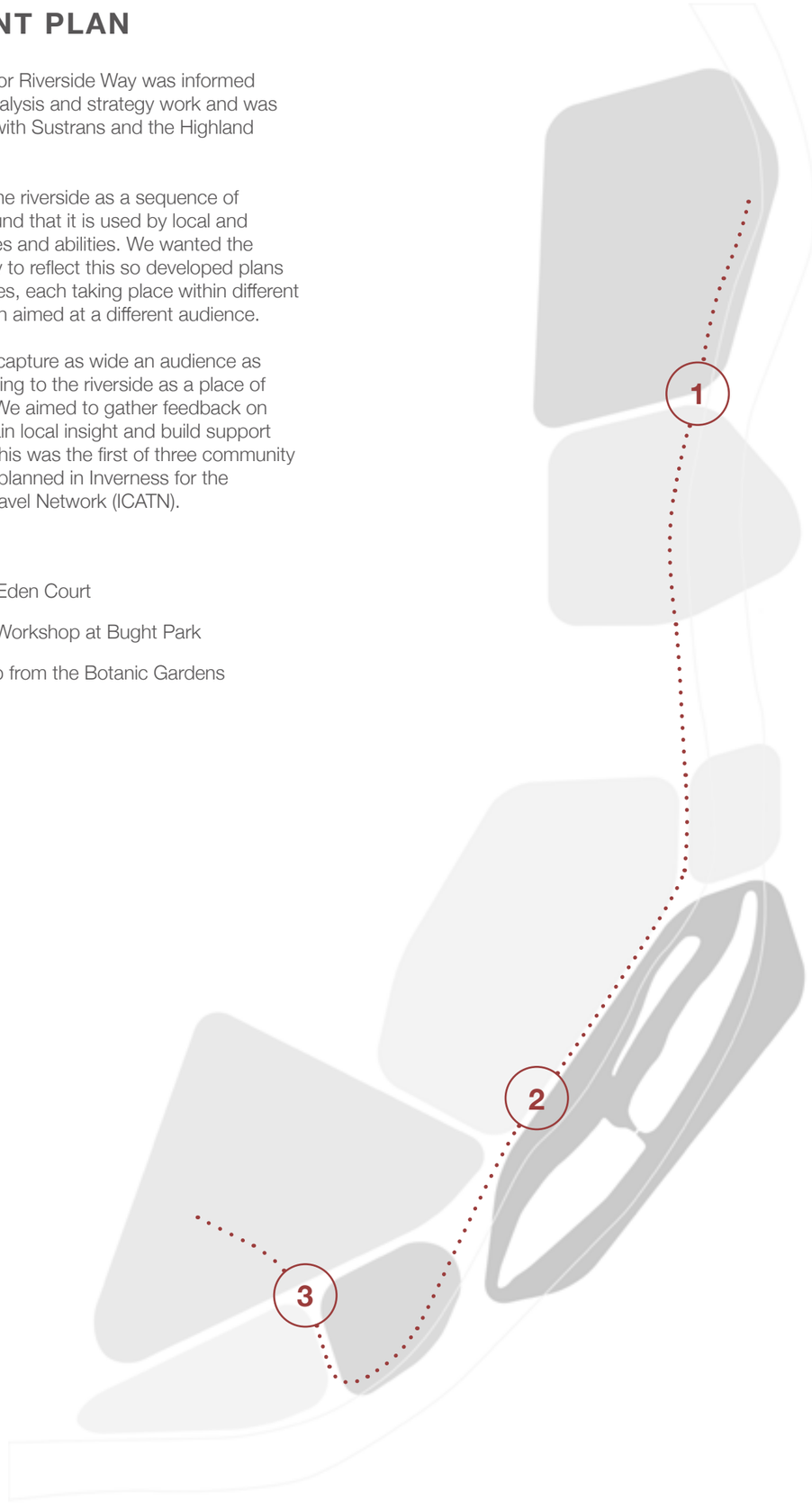
ENGAGEMENT PLAN

The engagement plan for Riverside Way was informed by our site research, analysis and strategy work and was developed in dialogue with Sustrans and the Highland Council.

Our analysis explored the riverside as a sequence of character areas and found that it is used by local and visiting people of all ages and abilities. We wanted the Community Activity Day to reflect this so developed plans for three distinct activities, each taking place within different character area and each aimed at a different audience.

The activities aimed to capture as wide an audience as possible whilst responding to the riverside as a place of leisure and recreation. We aimed to gather feedback on our proposals so far, gain local insight and build support for the wider project. This was the first of three community engagement exercises planned in Inverness for the Inverness City Active Travel Network (ICATN).

1. Pop-Up Picnic at Eden Court
2. Postcard Making Workshop at Bught Park
3. Walking Workshop from the Botanic Gardens



Riverside Way Engagement Plan

Event Overview A workshop trail, inviting people take part in three activities, each relating to a key site along the river. The activities would be run simultaneously through the day, giving people the opportunity to either drop in to one or walk between several.		**Key Information** Various locations (see below) Saturday 19th October 10am - 3pm
Activities		
1 Pop-Up Picnic A pop-up picnic inviting people to drop in and share a coffee and cake at the river's social hub. A proposals 'menu' will aim to spark conversation around the project and the changes people would like to see.	**2 Postcard Making Workshop** An activity inviting children and adults to make a collage postcard of one of the most scenic parts of the river, exploring what makes this spot so special.	**3 Walking Workshop** A walking workshop focussing on accessibility challenges and opportunities along the river, finishing at the pop-up picnic.
Location Eden Court garden	**Location** Corner of Bught Park / Ness Islands Bridge junction	**Location** Meeting point outside Botanical Gardens
Delivery Partners Eden Court Cafe	**Delivery Partners** Circus Artspace (Sadie Stoddart)	**Delivery Partners** n/a
Community Partners Park Run Bught Park User's Group St Andrews Cathedral Catholic Ordinate Highland Mass	**Community Partners** Bught Park Friends Group	**Community Partners** Partnerships for Wellbeing Paths for All Highland Hospice Living Streets Cycling UK Wheelness
Resources created by erz Printed exhibition posters Proposals 'menu' / flyer	**Resources created by erz** Printed exhibition posters Activity instruction posters	**Resources created by erz** Folded flyer / walking map
Resources to source Cafe 'set-up' Catering Marquee Activity assistant	**Resources to source** Marquee Tables and chairs Art materials and supplies Activity assistant	**Resources to source** Activity assistant
Activity Outputs • Feedback on wayfinding strategy and design guidance through collected comments and idea polls • Support for the wider project through positive interactions	**Activity Outputs** • Local insight and tacit knowledge • Visual materials that could be used at a later stage for exhibition and publicity purposes • Support for the wider project through positive interactions	**Activity Outputs** • Locally specific user insight • Issue specific feedback on wayfinding strategy and design guidance collected through written record • Support for the wider project through positive interactions

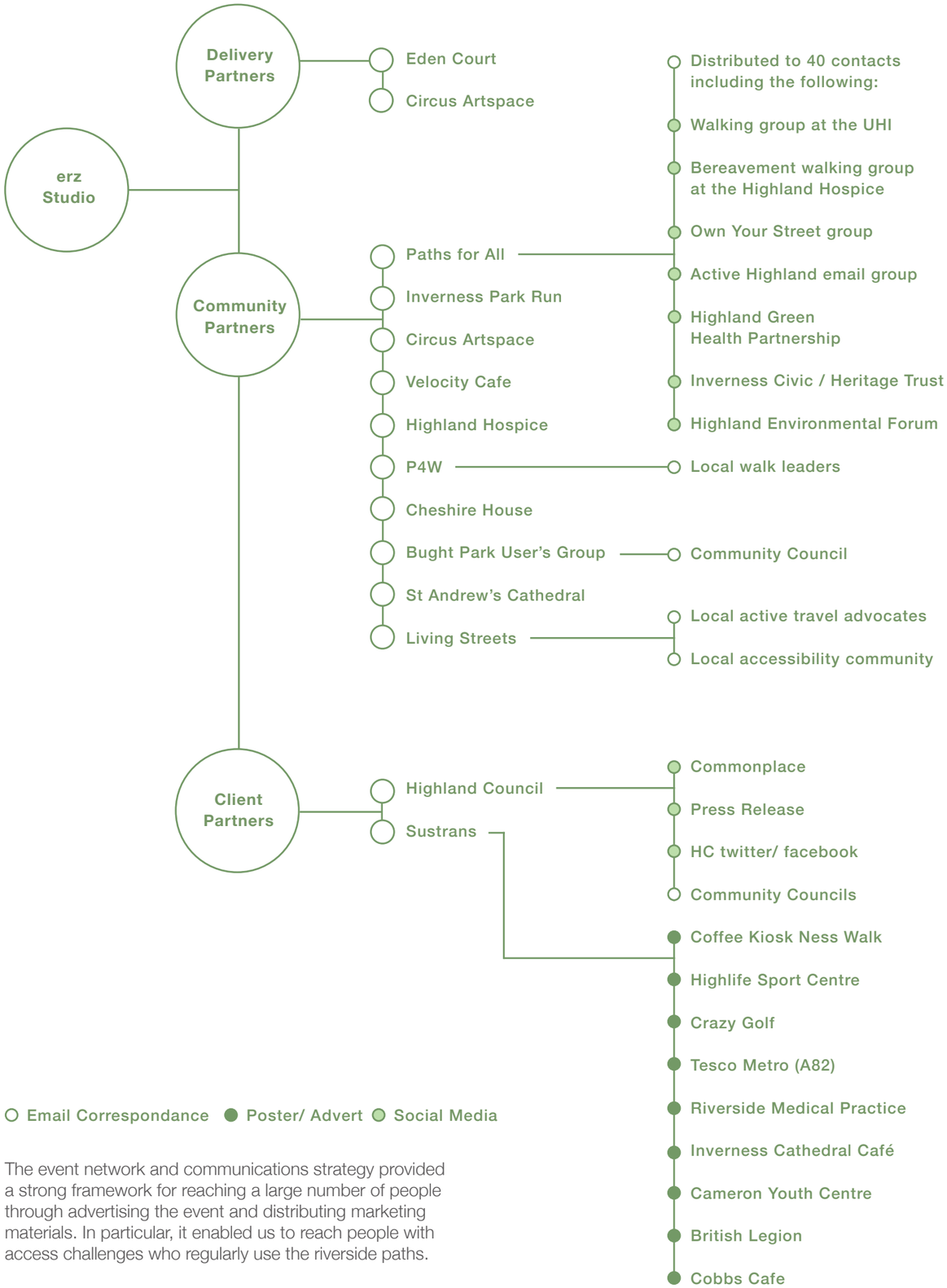
EVENT NETWORK

To embed the event within the community and enable us to deliver the activities within a short time-frame we approached a wide range of local organisations and people already engaged with the riverside location or active travel theme in Inverness.

All of those contacted responded positively to the project and the idea of the Community Activity Day. They offered to share the project with their organisations and through their existing channels, however only a small number of the organisations were able to actively participate on the day.

Activity	Role	Organisation	Forename	Surname	Position
Pop-Up Cafe	Delivery Partner	Velocity Cafe	Ferga	Perry	Projects Coordinator
Pop-Up Cafe	Delivery Partner	Ness Walk Kiosk	Robert	Macbean	Owner
Pop-Up Cafe	Delivery Partner	Eden Court	Rachel	Armitage	Conferences & Events Coordinator
Walking Workshop	Delivery Partner	Partnerships for Wellbeing (P4W)	Lynne	Bannister	Walk Coordinator
Walking Workshop	Delivery Partner	Paths for All	Helen	Wilson	Development Officer
Postcard Workshop	Delivery Partner	Inverness Gallery & Museum	Kirsten	Body	Curator: Contemporary Art & Engagement
Postcard Workshop	Delivery Partner	Circus Artspace	Sadie	Stoddart	Intern
Postcard Workshop	Delivery Partner	Lonely Arts Club			
Pop-Up cafe	Community Partner	Inverness Park Run	Bruce	Wares	Volunteer
Walking Workshop	Community Partner	Highland Hospice	Linda	Lawton	Head of People
Walking Workshop	Community Partner	Cycling UK Wheelness	Fiona	Johnston	Project Officer
Walking Workshop	Community Partner	Cheshire House	Freda	Murray	Services Manager
Walking Workshop	Community Partner	Living Streets	Chris	Thompson	Schools & Projects Coordinator
All activities	Community Partner	Bught Park User's Group	Graham	Ross	Councillor

COMMUNICATIONS STRATEGY



The event network and communications strategy provided a strong framework for reaching a large number of people through advertising the event and distributing marketing materials. In particular, it enabled us to reach people with access challenges who regularly use the riverside paths.

PRESS RELEASE

The Highland Council and Sustrans are developing an active travel network for Inverness. The project will create a network of high quality walking and cycling routes through and across the city, encouraging sustainable travel, promoting community wellbeing, creating safer places for people and stimulating economic growth.

erz Landscape Architects are working with the Highland Council and Sustrans to create a Design Guide for the network. The Design Guide will shape the look and feel of the routes, including the design of wayfinding elements and the identity and branding for the network. Over the next few months they will be running a series of Community Activity Days, each focussing on a different route in the network. The Activity Days are an opportunity for you to get involved with the changes, don't miss your chance to take part and have your say!

"We are really excited to be contributing to such an ambitious and visionary project which tackles key issues for the future of cities; sustainable travel and community wellbeing. The Activity Days will be a fantastic opportunity for people to come and tell us their thoughts and explore in different ways how the proposals will have a positive impact in Inverness.
We look forward to meeting you soon."

erz Director Felicity Steers

The River Ness will be home to a key route in the network and is the focus of the first Community Activity Day on Saturday 19th October. Three free events will be running through the day at key locations along the river, we hope to see you there!

Pop-up picnic
Outside at Eden Court, 10am – 3pm

Drop-in for free tea and cake at our pop-up picnic. Take a look at proposals for the riverside active travel route, talk to us about how the proposals can create a safer, healthier and more sustainable Inverness and let us know your thoughts!

Postcard Making Workshop
Bught Park, opposite the Crazy Golf, 1pm-3pm

Drop-in for a family friendly postcard making workshop at Bught Park. Choose your riverside scene, have fun cutting and collaging our design proposals and talk to us about what makes the river such a special part of Inverness.

Walking Workshop
Starting from the Botanic Gardens at 11am

Join us for a relaxed morning walk down the river, tell us about accessibility challenges in the area and hear how the proposed active travel network can provide opportunities for accessibility improvements. Starting from the Botanic Gardens we will walk up the river for around an hour, finishing at the pop-up picnic at Eden Court for free tea and cake.

For more information about the Inverness Active Travel network and to comment on the proposals, visit: www.invernessactivetravel.commonplace.is

For more information about the event on Saturday 19th October, email: emily@erzstudio.co.uk

Released Monday 7th October

Press coverage of the day in the Inverness Curier

Opportunities to comment through the Commonplace website

Posted on the Highland Council Facebook place

MARKETING MATERIALS

ON-THE-DAY MARKETING MATERIALS

ERZ (Deutsch): ORE (English)

erz Limited
21 James Morrison Street
Glasgow
G1 5PE

T/F: 0141 552 0888
info@erzstudio.co.uk

www.erzstudio.co.uk
www.twitter.com/erzstudio

Registered in Scotland Number: 315673
Landscape Institute Number: 1049

Riverside Way One Way and Cycle Contraflow Trial

0 100 200 300 m

0 100 200 300 yds

Scale
0 2.5 5 10 20m

Original Size (A1) 1:250 @ A1 1:500 @ A3

AECOM

PROJECT

NESS WALK ACTIVE TRAVEL FEASIBILITY STUDY

CLIENT

The Highland Council
Comhairle na Gàidhealtachd

CONSULTANT

AECOM
Aurora
120 Bothwell St
GLASGOW, G2 7JS
+44 (0) 141 248 0300 tel
www.aecom.com

NOTES

1. ALL WORKS TO BE EXECUTED IN ACCORDANCE WITH THE SPECIFICATION FOR HIGHWAY WORKS - THE MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS, DESIGN MANUAL FOR ROADS AND BRIDGES, TRAFFIC SIGNS MANUAL AND LOCAL COUNCIL GUIDELINES.
2. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE. ALL LEVELS ARE IN METRES AND RELATE TO ORDNANCE DATUM.
3. DO NOT SCALE FROM ANY DRAWING. WORK TO FIGURED DIMENSIONS ONLY. ANY DISCREPANCIES IN DIMENSION ARE TO BE REFERRED TO THE DESIGNER BEFORE WORK IS PUT TO HAND.
4. ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE BY THE CONTRACTOR PRIOR TO PREPARING ANY WORKING DRAWINGS OR COMMENCING ON SITE.
5. ALL WORKS BY THE CONTRACTOR MUST BE CARRIED OUT IN SUCH A WAY THAT ALL REQUIREMENTS UNDER THE HEALTH AND SAFETY AT WORK ACT ARE SATISFIED.
6. ALL WORK IS TO BE CARRIED OUT IN COMPLIANCE WITH THE REQUIREMENTS OF THE STATUTORY AUTHORITIES AND CONSTRUCTION DESIGN AND MANAGEMENT REGULATIONS.
7. DRAWING BASE RECEIVED FROM OTHERS, SURVEY CARRIED OUT BY OTHERS. AECOM CANNOT GUARANTEE THEIR ACCURACY. CONTRACTOR TO SATISFY THEMSELVES AS TO THE ACCURACY OF SUCH INFORMATION.
8. SERVICE INFORMATION IS INTERPOLATED FROM INFORMATION RECEIVED FROM THE UTILITY PROVIDERS, AND AS SUCH NO GUARANTEE OF THEIR ACCURACY CAN BE GIVEN. CONTRACTOR TO SATISFY THEMSELVES AS TO THE ACCURACY OF SUCH INFORMATION.

ISSUE/REVISION

DRAFT

I/R	DATE	DESCRIPTION

KEY PLAN

PROJECT NUMBER

60578174

SHEET TITLE

NESS WALK - PROPOSED

RIVERSIDE GARDENS/ NESS WALK

SHEET NUMBER

60578174-SHT-NW-OPTION-RA

Project Management Initials: Designer: RM Checked: GB Approved: PL ISO A1 594mm x 841mm

Filename: \\EU.AECOMNET.COM\EUPROJECTVOL\UKGLG3-TP\PROJECTS\TRAFFIC - THC - BUGHT PARK\2019_NESS_WALK\03_EXECUTION\CAD\20-SHEETS\60578174-SHT-NW-OPTION-RA.DWG
Last saved by: RICHARD.AIRE Last Plotted: 2020-02-04


UK PLATE

HIGHLAND COUNCIL

ROAD TRAFFIC REGULATION ACT 1984

HIGHLAND COUNCIL (RIVERSIDE WAY ONE WAY AND CYCLE CONTRAFLOW)

EXPERIMENTAL ORDER 20XX

Highland Council in exercise of their powers under Sections 9, 10, of the Road Traffic Regulation Act 1984, as amended, (which Act as so amended is hereinafter referred to as "the 1984 Act"), and of all other enabling powers and after consultation with the Chief Constable in accordance with Part III of Schedule 9 to the 1984 Act, hereby make the following Order:

1. This Order may be cited as "The Highland Council (Riverside Way and Cycle Contraflow) (One Way) Experimental Order 2020" and shall come into operation on the XX day of XXX Two thousand and Twenty for a period of eighteen months up to the XX day of XXX Two thousand and Twenty XX.

2. The Interpretation Act 1978 shall apply for the interpretation of this Order as it applies for the interpretation of an Act of Parliament.

3. No person shall drive or cause or permit any vehicle to be driven on the road specified in Column 1 of the schedule annexed hereto otherwise than in the direction specified in Column 2 of the said schedule.

4. Pedal cycles are exempt from the restrictions detailed in article 3 of this order.

5. The Executive Chief Officer Infrastructure and Environment of The Highland Council may, if it appears to him essential (a) in the interests of the expeditious, convenient and safe movement of traffic, or (b) in the interests of providing suitable and adequate on-street parking facilities, or (c) for preserving or improving the amenities of the area through which any road affected by the order runs and after such consultation and notice as are required by law, modify or suspend the operation of this Order in accordance with Section 10(2) of the 1984 Act.

SIGNED and the COMMON SEAL of the COUNCIL hereto AFFIXED at INVERNESS on the ……. day of …….. TWO THOUSAND AND ……..

…….

Head of Legal & Governance Services

HIGHLAND COUNCIL (RIVERSIDE WAY ONE WAY AND CYCLE CONTRAFLOW) EXPERIMENTAL ORDER 20XX

SCHEDULE

Length of Road (Column 1)	**Direction of Travel** Column 2)
Ness Walk from its junction with Bishops Road southwards for a distance of 15 metres or thereby	Southwards
Ness Walk from its junction with Riverside Gardens northwards for a distance of 15 metres or thereby	Southwards
Ness Walk from its junction with Ballifeary Lane northwards for a distance of 15 metres or thereby	Southwards
Ness Walk from its junction with Ballifeary Lane southwards for a distance of 15 metres or thereby	Southwards
Ness Walk from a point 50 metres south of its junction with Ballifeary Lane southwards for a distance of 15 metres or thereby	Southwards
Ness Walk from its junction with Bught Road northwards for a distance of 15 metres of thereby	Southwards
Bught Road from a point 355 metres north of its junction with Bught Drive southwards for a distance of 15 metres or thereby	Southwards
Bught Road from its junction with Bught Drive northwards for a distance of 15 metres or thereby	Southwards

Riverside Way One Way and Cycle Contraflow Trial

COUNCIL STATEMENT

The Highland Council wish to undertake a trial through the making of this Experimental Road Traffic Regulation Order which will allow for an assessment of the changes before a decision is taken whether to make it permanent.

This proposal is a low-cost trial, making use of current infrastructure, and involves the introduction of a series of temporary ‘plugs’ (signs and splitter island) along the Riverside Way route which will mean that motor vehicles can only travel southwards through these plugs however pedal cycles will be able to travel in both directions through the plugs and elsewhere.

To effect this change it is necessary to make a road traffic regulation order.

Any person wishing to make representations whether to object or support the Experimental Road Traffic Regulation Order before it is made permanent must do so in writing quoting the reference (HIGHLAND COUNCIL (RIVERSIDE WAY ONE WAY AND CYCLE CONTRAFLOW) EXPERIMENTAL ORDER 20XX) specifying the grounds on which they are made within 21 days (noon on xx xxx 20XX) of the Experimental Road Traffic Regulation Order being published.

Summary of Stakeholder responses for ERTRO, Riverside Way.

Q1: Do you support The Highland Council's policy to enhance walking and cycling along the riverside?

Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree

Q2: Do you have any concerns regarding the latest proposal, outlined in the covering letter, for a trial of the one -way street, with cycle contraflow, starting spring 2020, for an initial 6 month period? (please provide comments below)

Statutory consultee Responses:
This consultation was sent to the Emergency Services.

Ref	Q1 response	Q2 Yes/No	Q2: Summary of comments	THC Officer comments
Road Policing Scotland	Agree	No	Police Scotland emphasises their support for the implementation of 20mph speed limits for purposes of casualty reduction. They should be self- enforcing and sustainable by using both traditional and interactive signage to influence driver behaviour as well as use of physical engineering works.	The 20mph scheme has been assessed through a series of speed surveys. Use of interactive signage will be reviewed.
Scottish Fire and Rescue Service	Agree	No	SFRS have no comment or objections.	

Local stakeholder Responses:
19 Consultation letters were issued. This table summarises the responses and Officer comments.

Ref	Q1 response	Q2 Yes/No	Q2: Summary of comments	THC Officer comments
2	Strongly Agree	Yes	Speed of vehicles using the road (especially at night). Better signing for pedestrian route way on the riverside.	20mph Speed Limit will be implemented by end of February. This will be monitored.
3	Agree	No	Clarification requested of key section between RNI and Hospice.	Contacted respondee. Explained the implications of the proposed one -way southbound, and 'plugs' to allow contraflow northbound.
5	Strongly Agree	Yes	Support principle of active travel along Riverside, however would like more information on lighting improvements. Concerns about impact of one -way would have on those entering/egressing property, including coaches who currently struggle to exit location. Concern that use of Ballifeary Lane would require directional signage to reach A82 and City Centre.	The 20mph will reduce traffic speed, and the one- way will reduce traffic volumes along the riverside. The route avoiding Ballifeary Lane is via the Riverside via Bught Park. The need/benefit of additional signage will be reviewed. Street Lighting enhancement is currently limited to those locations where there is no existing street lighting.
8	Strongly Agree	No	Support the proposal.	Respondee requested to be updated.
9	Agree	Yes	Problems with existing one-way contraflow on Ardross Terrace, as it is not clear on the road where the cyclist is meant to be. Feels this is currently unsafe, those issues need addressed	The concerns relate to a location outside of the proposal area. A separate study is investigating Options for Ardross Terrace.

Ref	Q1 response	Q2 Yes/No	Q2: Summary of comments	THC Officer comments
			in this trial and on Ardross Terrance to make it safe.	The Trial would ensure effective operation of the contraflow. Accident data and speed survey data do not identify a problem.
10	Strongly Agree	No	Supportive of all efforts to improve travel, to support the local environment and promote good health.	n/a
11	Strongly disagree	Yes	Object to the policy and proposal. Requested further explanation.	Respondee contacted. Concerns include: 1) Visibility at access 2) Current volume of traffic and especially coaches trying to pass each other 3) Width of road and poor condition of paths 4) Longer route exiting property, arising from the proposal
12	Agree	No	n/a	n/a
13	Agree	No	Support proposal.	n/a
14	Disagree	Yes	Lack of circular route. Waste of money. Concern about increased traffic on Ballifeary Lane.	ATN 4 identified in the Active Travel Masterplan. ERTRO will allow a low-cost trial. Some additional traffic is forecast to use Ballifeary Lane.
17	Strongly Agree	no	n/a	n/a

Ref	Q1 response	Q2 Yes/No	Q2: Summary of comments	THC Officer comments
18	Agree	Yes	Disagree with pedal cycles travelling in both directions.	Contacted respondee. Concerns based on perception of danger of cycle contraflow. The concerns relate to a location outside of the proposal area. A separate feasibility has developed looking at Options for Ardross Terrace. The Trial would ensure effective operation of the contraflow. Accident data and speed survey data do not identify a problem.
19	Agree with council policy. Disagree with strategy for riverside.	Yes	Strongly object to ERTRO: 1) safety concerns regarding vehicles exiting driveways, 2) concern one way would increase significant traffic on Ballifeary Lane, and capacity of this road, and neighbouring congestion traffic/queuing on Ballifeary Road, 3) coach parking concerns on Ardross and riverside and their circuitous route, 4) potential of increase in speed and traffic volumes of one-way route. Additional points raised on design phase	Meeting held with respondee. 1) No physical works proposed other than ‘plugs’ involving signs and splitter island 2) Existing traffic from the RNI/UHI site will use Ballifeary Lane in the PM period 3) Coach parking will be unaffected 4) Existing one-way streets in Inverness do not show problems with speeding

Ref	Q1 response	Q2 Yes/No	Q2: Summary of comments	THC Officer comments
			(outwith scope of ERTRO) a) What are proposals for pavement outside RNI/UHI, will there be controlled crossings, b) how will conflict between cyclists and vehicles be mitigated (potential for collisions), c) query on other proposals for riverside lights, fencing, ped improvements at fishermen's hut, d) potential for congestion between Ballifeary Road and Glenurquhart, query on regards of public money being spent. e) Comment on air quality, reference to a design workshop with sustrans and THC f) timescale for permit parking, g) query regarding 'unsuitable for coach signs' request for proper traffic management system for area and wider area of Inverness West	ERTRO will allow a low-cost trial. Length of contraflow will generally be over 15m sections (Plugs). Design aspects to be developed through further engagement.