

City of Inverness Area Committee

26th August 2021

Spaces for People DATA sheets from observed measurements of the impacts of the schemes to be discussed under Item 6.

Spaces for People: Update and next steps

1. Actual monitored delay periods from continuous CCTV observation 15th to 21st August 2021

DELAYS:

The 3rd week in August has always been the busiest for Network flows in Inverness. Thursday flows are usually the highest on the Network. For this assessment “DELAY” is considered when 2 or more cycles of the signals are required to get through the junction. **On this basis delay is experienced 13% of the time available.**

CASTLE ROAD - INVERNESS

THURSDAY	Period (hrs)	Days	Hours		
One Week			168		
Am 8.30 - 9am	1	5	5		
Lunch 13:15 - 14:15	1	5	5		
School 15:00 - 15:30	0.5	5	2.5		
PM 16:15 - 18:00	1.75	5	8.75		
			21.25	Delay	13%
			146.75	No Delay	87%

1a. Numerous mitigation measures can now be introduced with the removal of Social distancing requirements that would relieve most delay scenarios. This would involve the alteration or removal of targeted lane separation bollards on Castle Street, Bridge Street & View Place. The average measured delay experienced is 5 to 8 minutes

1b. No request has been received from any of the Emergency Services to amend the current layout regarding any delays.

1c. The lane occupation in Castle Street required to construct the new building will remain in place under any scenario however under a 2 Way system this will require temporary traffic management control which will introduce a delay which does not exist under the current arrangement.

1d. Detailed analysis of vehicle flows shows a reduction in overall Motorised Traffic levels of 17% (6103 vehs) has been achieved by the current One-Way system as of 19th August 2021.

year	street	volume	%age of 2018 traffic
2018	Bridge Street/Castle Street	10858	
2020	Bridge Street/Castle Street	5449	
2021	Bridge Street/Castle Street	6160	
change		-4698	56.73%
2018	Castle Road	3544	
2020	Castle Road	4664	
2021	Castle Road	5832	
change		2288	164.56%
2018	Ness Bridge	11530	
2020	Ness Bridge	7885	
2021	Ness Bridge	8590	
change		-2940	74.50%
2018	Bank Street	9110	
2020	Bank Street	7132	
2021	Bank Street	8357	
change		-753	91.73%
	NETT Change	-6103	

2. TRAFFIC MOVEMENT ANALYSIS

PEEK Day Analysis Thursday 19th August 2021

Junction of Ness Bridge/Bridge St/Castle Road/Bank St

Recorded Movements 29,239 7am to 7pm

Car	16187	55%
Pedestrian	8301	28%
Cyclist	1203	4%
Motorbike	251	1%
Bus	376	1%
OGV1	180	1%
OGV2	56	0%
LGV	3015	10%
Total Motorised	20065	68%
Total Non-Motorised	9504	32%

Cycle Traffic Usage

Pre Covid 2018 – 740 Cyclists movements were recorded

19th August 2021 – 1203 Cyclists movements were recorded – **162% Increase**

PEEK Day Analysis Thursday 19th August 2021

Junction of Academy Street/Queensgate/Strothers Lane

Recorded Movements 25,209 7am to 7pm

Car	8574	34%
Pedestrian	13454	53%
Cyclist	505	2%
Motorbike	129	1%
Bus	689	3%
OGV1	175	1%
OGV2	18	0%
LGV	1665	7%
Total Motorised	11250	45%
Total Non-Motorised	13959	55%

Cycle Traffic Usage

Pre Covid 2018 – 236 Cyclists movements were recorded

19th August 2021 – 505 Cyclists movements were recorded – **214% Increase**

PEEK Day Analysis Thursday 19th August 2021

Junction of Millburn Road/Morrisons/Farm & Household

Recorded Movements 11,746 7am to 7pm

Car	8857	75%
Pedestrian	664	6%
Cyclist	503	4%
Motorbike	82	1%
Bus	415	4%
OGV1	75	1%
OGV2	20	0%
LGV	1130	10%
Total Motorised	10579	90%
Total Non-Motorised	1167	10%

Cycle Traffic Usage

Pre Covid 2018 – 43 Cyclists movements were recorded

19th August 2021 – 503 Cyclists movements were recorded – **1170% Increase**

PEEK Day Analysis Thursday 19th August 2021**Riverside Way – NESS WALK**

Recorded Movements 7am to 7pm

Car	404	29.1%
Pedestrian	712	51.3%
Cyclist	172	12.4%
Motorbike	6	0.4%
Bus	9	0.6%
OGV1	13	0.9%
OGV2	3	0.2%
LGV	68	4.9%
Total	1387	
Total Motorised	503	36.3%
Total Non-Motorised	884	63.7%

PEEK Day Analysis Saturday 14th August 2021**Riverside Way – NESS WALK**

Recorded Movements 7am to 7pm

	2021		2018
Car	728	23.8%	1545
Pedestrian	1896	62.0%	
Cyclist	350	11.4%	
Motorbike	1	0.0%	13
Bus	10	0.3%	
OGV1	2	0.1%	15
OGV2	1	0.0%	0
LGV	70	2.3%	75
Total	3058		
Total Motorised	812	26.6%	
Total Non-Motorised	2246	73.4%	

As a point of comparison data from surveys carried out on Saturday 18th August 2018 is shown.

PEEK Week Analysis 15th – 21st Aug 2021**Riverside Way – NESS WALK**

Recorded Movements for 7 days 7am to 7pm

Car	6086	26.1%
Pedestrian	13181	56.6%
Cyclist	2932	12.6%
Motorbike	80	0.3%
Bus	107	0.5%
OGV1	53	0.2%
OGV2	19	0.1%
LGV	820	3.5%
Total	23278	
Total Motorised	7165	30.8%
Total Non-Motorised	16113	69.2%

Castle One Way – CO2 impact

(CO2 rates from UK Society of Motor Manufacturers and Traders)

Average Veh CO2	Grams CO2 per mile	
Small Car	228.91	
Medium Car	281.84	
Large Car	389.24	
Average Car	273	used for calcs

Average Driver Days per year	250			
Castle Area Travel lengths	0.5	miles		
Nett Change Vehs Per day	-6103	less vehs		-
Nett Change per year (250 days)	-1525750	less vehs	208264875	gCO2
				-
			208264.875	KgCO2

Overall Carbon Reduction per year	-208	tonneCO2
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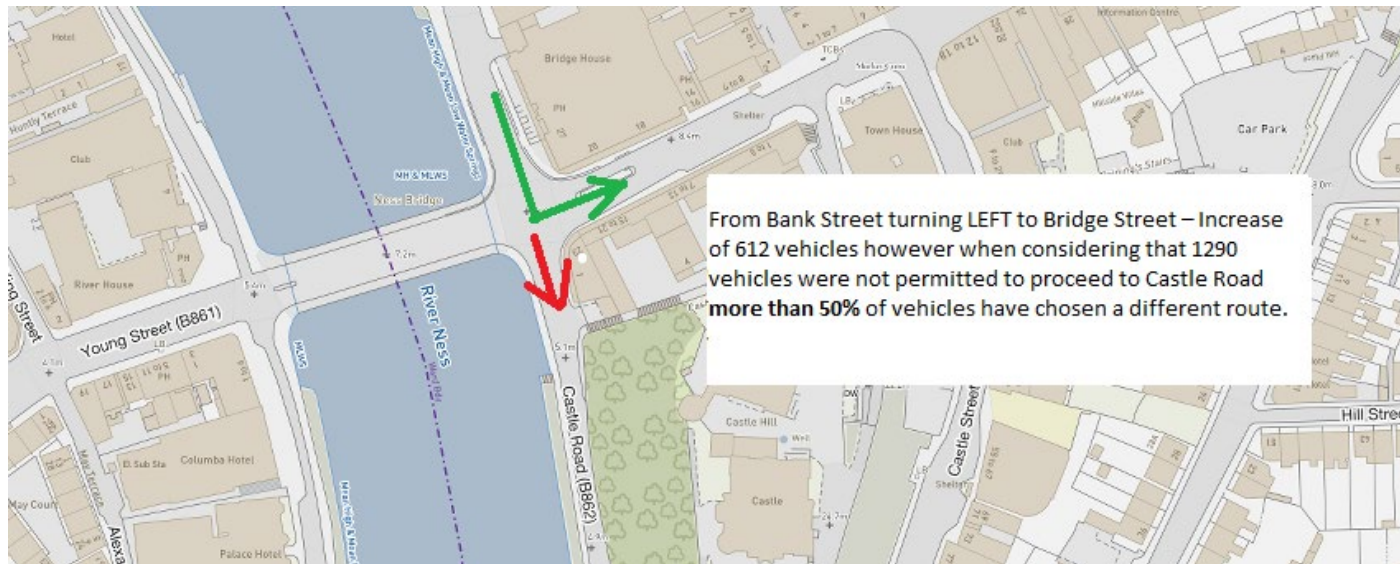
Nett Change by street per year

Bridge St/Castle St	-4698	less Vehs	-160	tonneCO2
Castle Road	2288	more Vehs	78	tonneCO2
Ness Bridge	-2940	less Vehs	-100	tonneCO2
Bank St	-753	less Vehs	-26	tonneCO2

3. Comparative Analysis of Actual Traffic Flows in 2018 pre Covid and 2020 when COVID restrictions were relaxed during August & September. Network flows were 90% of Pre-Covid Levels during the assessment period.

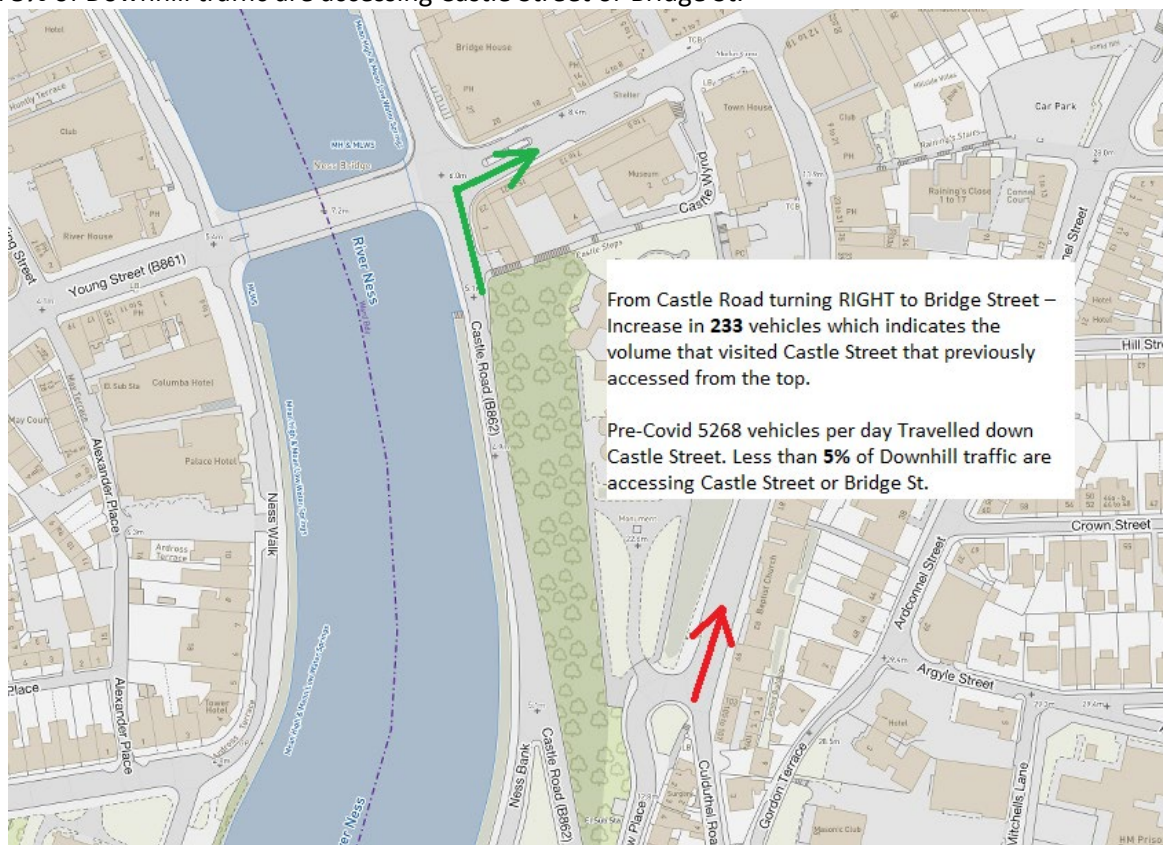
PEEK Day Turning Count Analysis 07:00 to 19:00 3rd week in August 2018/2020

From Bank Street turning LEFT to Bridge Street – Increase of 612 vehicles however when considering that 1290 vehicles were not permitted to proceed to Castle Road **more than 50%** of vehicles have chosen a different route.



PEEK Day Turning Count Analysis 07:00 to 19:00 3rd week in August 2018/2020

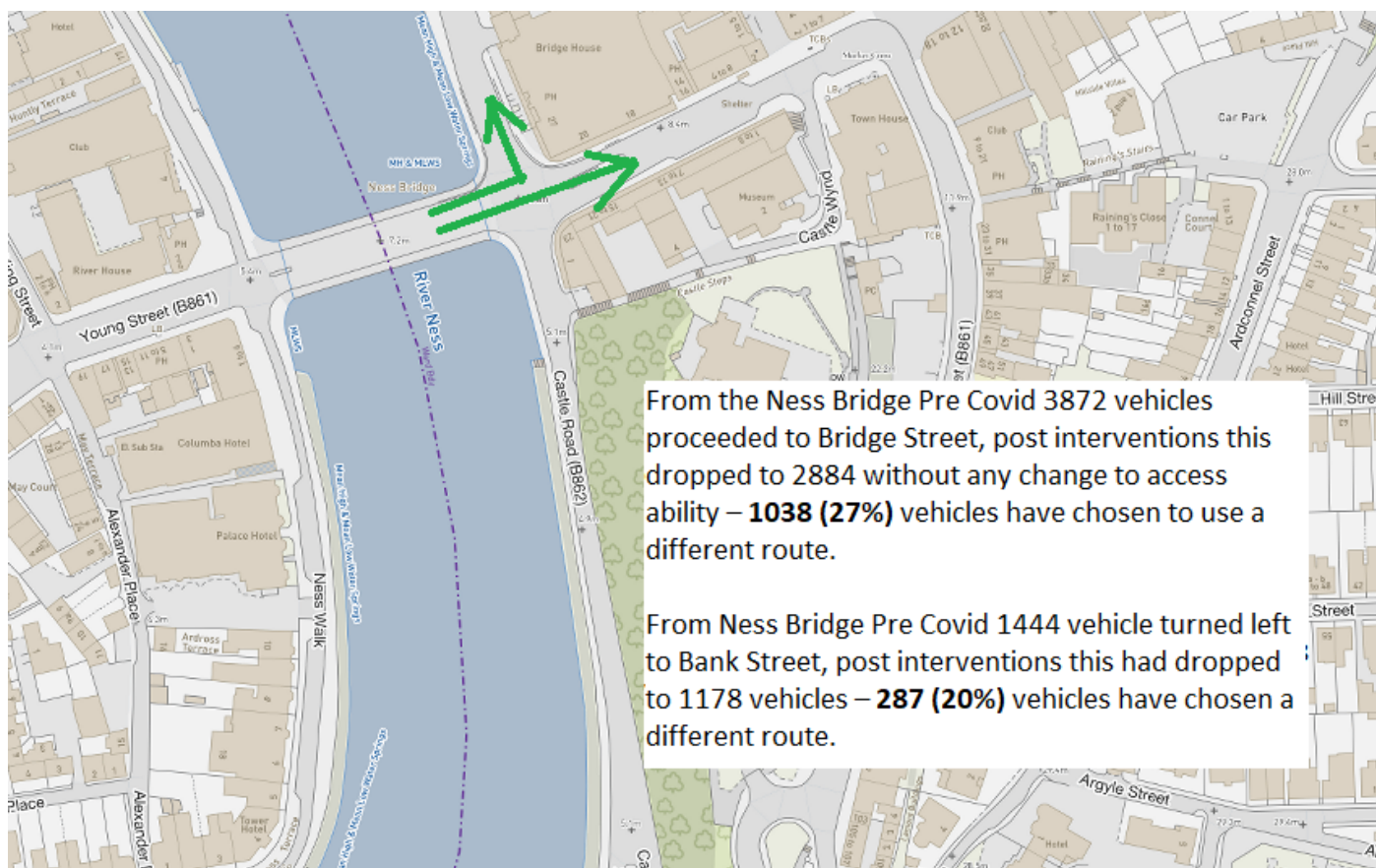
From Castle Road turning RIGHT to Bridge Street – Increase in **233** vehicles which indicates the volume that visited Castle Street that previously accessed from the top. Pre-Covid 5268 vehicles per day Travelled down Castle Street. Less than **5%** of Downhill traffic are accessing Castle Street or Bridge St.



PEEK Day Turning Count Analysis 07:00 to 19:00 3rd week in August 2018/2020

From the Ness Bridge Pre Covid 3872 vehicles proceeded to Bridge Street, post interventions this dropped to 2884 without any change to access ability – **1038 (27%)** vehicles have chosen to use a different route.

From Ness Bridge Pre Covid 1444 vehicle turned left to Bank Street, post interventions this had dropped to 1178 vehicles – **287 (20%)** vehicles have chosen a different route.



4. Traffic Signal works

If the decision of members is to revert to pre Covid status the following implementation works lead ins are required. This is due to international supply issues and existing signal repair/installation commitments across Highland.

Ness Bridge Junction - 8 to 12 weeks lead in.

- Install Several Signal Poles and Heads to allow 2-way operation.
- Cable to new Poles where required.

View Place – 12 to 14 weeks lead in.

Due to the poor state of the columns all signals were removed from the site pending future decisions.

- Construct new ducting network
- Install pole retention sockets
- Create dropped kerbs
- Install Signal Poles and Heads
- Re Cable junction.