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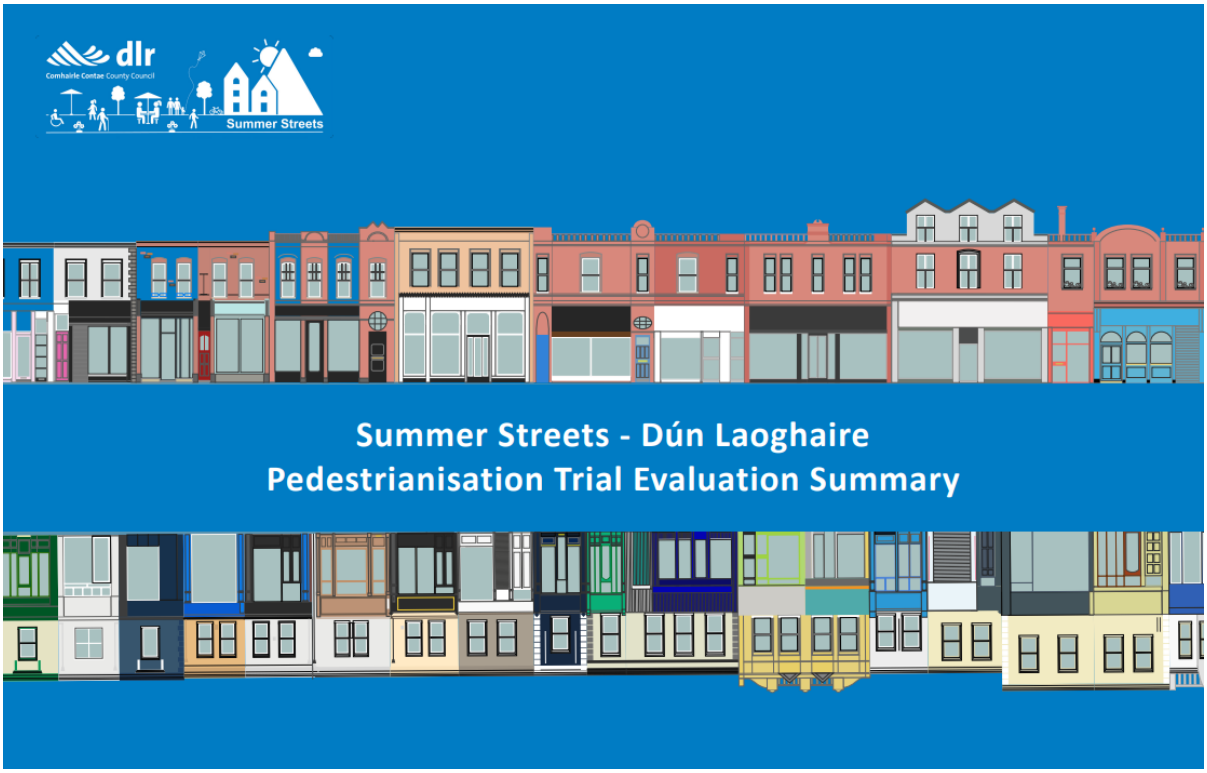
SUMMER STREETS DÚN LAOGHAIRE EVALUATION REPORT



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SUMMER STREETS DÚN LAOGHAIRE:

EVALUATION REPORT

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1. INTRODUCTION

1.1 Purpose of the Report

This report seeks to evaluate the Dún Laoghaire Summer Streets project based on a 'trial to succeed' model. The approach enables users, residents, businesses and visitors to experience the changes implemented as part of the project and to provide feedback on their experiences. To date the project has been developed from a concept, trialled between the 5th July 2021 and 30th September 2021 and it is now in the post-trial evaluation phase. The process was divided into 7 key stages:

1. Consultation of a proposed trial. This was completed in June 2021, with the consultation report illustrating 70% support for the implementation of the summer trial. The detailed report on the consultation process and key recommendations within is available on the Dún Laoghaire Rathdown County Council (DLRCC) website; https://www.dlrcoco.ie/sites/default/files/atoms/files/dun_laoghaire_summer_streets_submissions_report_main_report_final_24-06-21.pdf
2. Following that consultation, a proposed trial design solution was developed. The design was developed in view of the consultation feedback received and wider engagement with local businesses and key stakeholders, e.g., schools, residents and public service providers.
3. Following development of a concept design solution, key metrics to determine success were established. These metrics were in line with local national and government policy objectives and are described in Section 4 of this report. The evaluation approach against each of these metrics is described in Section 6.1 of this report;
4. The proposed design was then implemented, with monitoring equipment tracking the key metrics. This monitoring enabled the team to understand the effects of the pedestrianisation on the objectives as described in Section 4 of this report;
5. Throughout the implementation period the project team continued to engage with communities, users and businesses to understand the benefits and concerns arising from the trial to ensure adjustments to the project could be made;
6. Upon completion, the key metric trial data has been analysed in this report to determine and consider the success of the measures;
7. Lessons learnt have been drafted for consideration and the report has made a number of recommendations on next steps.

The report seeks to deliver upon items 6 and 7 above and to make a clear recommendation on implementation of a future scheme considering the benefits and lessons learnt during the trial phase.

This report is accompanied by a graphical summary report which is published as a partner document on DLRCC's website.

2. THE PROJECT

2.1 Background

Dún Laoghaire-Rathdown County Council (DLRCC) commenced its "Summer Streets- Dún Laoghaire" scheme on the 5th July 2021, with the aim of providing safe, welcoming, and people-friendly public space and bringing life, food, and energy to the area. This initiative involved the pedestrianisation of Lower Georges Street and the provision of attractive, safe spaces for cafés and restaurants, allowing diners to enjoy the offerings of hospitality businesses in comfortable surroundings throughout the summer and beyond. This required the diversion of vehicle traffic and the reallocation of existing car parking spaces.

Figure 2-1 - Image of the Implemented Trial Pedestrianised Zone on Lower George's Street

It is noted that the Dún Laoghaire Summer Streets project was implemented in coordination with a number of local stakeholder groups, of particular note Dún Laoghaire Tidy Towns supported and provided significant assistance in the maintenance and delivery of the pedestrianised zone.

Moreover, Dún Laoghaire-Rathdown County Council funded a number of coordinated projects in the Dún Laoghaire town area. Projects included their Street Art Project which aimed to create a collection of street art pieces in Dún Laoghaire, forming an open-air gallery in the town, the reallocation of public realm which enabled business to utilise existing parking and loading bays as trading space and a range of public entertainment activities including street performers and musicians.

2.2 Public Realm Design

The initiative involved the reallocation of existing public realm spaces through the pedestrianisation of George's St. Lower and the use of additional outdoor space at Myrtle Square. The aim of the design was to provide attractive, safe spaces for cafés, restaurants and other businesses to operate outdoors throughout the summer and beyond. Summer Streets: Destination Dún Laoghaire was the most ambitious of the council's Summer Streets plans and it saw George's Street Lower closed to vehicular traffic and pedestrianised from 11am daily from the junction with Patrick St. as far as Myrtle Square opposite St Michael's Hospital.

The aim of this intervention was to support the reopening of businesses, facilitate outdoor dining and queueing and create a safer, more welcoming environment for residents and visitors alike. It allowed businesses to trade outdoors on the pedestrianised areas of street, including outdoor dining for cafes, restaurants and pubs, but also providing for other retailers in the town to use the additional public space to help them trade. The design aimed to entice people back into the heart of Dún Laoghaire, create a more people-friendly environment with programmed events and activities for families, children and older people in particular and bring additional benefit to all retail businesses as well as hospitality. Additional age-friendly seating was included, along with an area of natural play at Myrtle Square.

The interventions involved the closure of George's Street Lower to one-way vehicle traffic between Marine Road and Myrtle Square and the closure to through traffic on Convent Road and Sussex Street. Taxi, resident access, disability access and deliveries in vehicles were permitted on Convent Lane. Loading for businesses was also facilitated at the entrance to Georges Street and

end of Convent Lane during the day. Loading was also facilitated up to 11am every day on George's Street.

Along with the removal of vehicle traffic, placemaking and landscape features were introduced during the trial to improve the aesthetics and experience of the street. The carriageway material was changed to soften its impact and make street usable for pedestrian. Benches, picnic tables, cycle stands, and planters were added, along with a public WC and play space in Myrtle Square. A programme of events including live music and entertainment. The graphic below summaries some of the changes implemented as part of the project.

Figure 2-2 to Figure 2-6 provide simple graphical summaries of the key interventions implemented as part of the project.

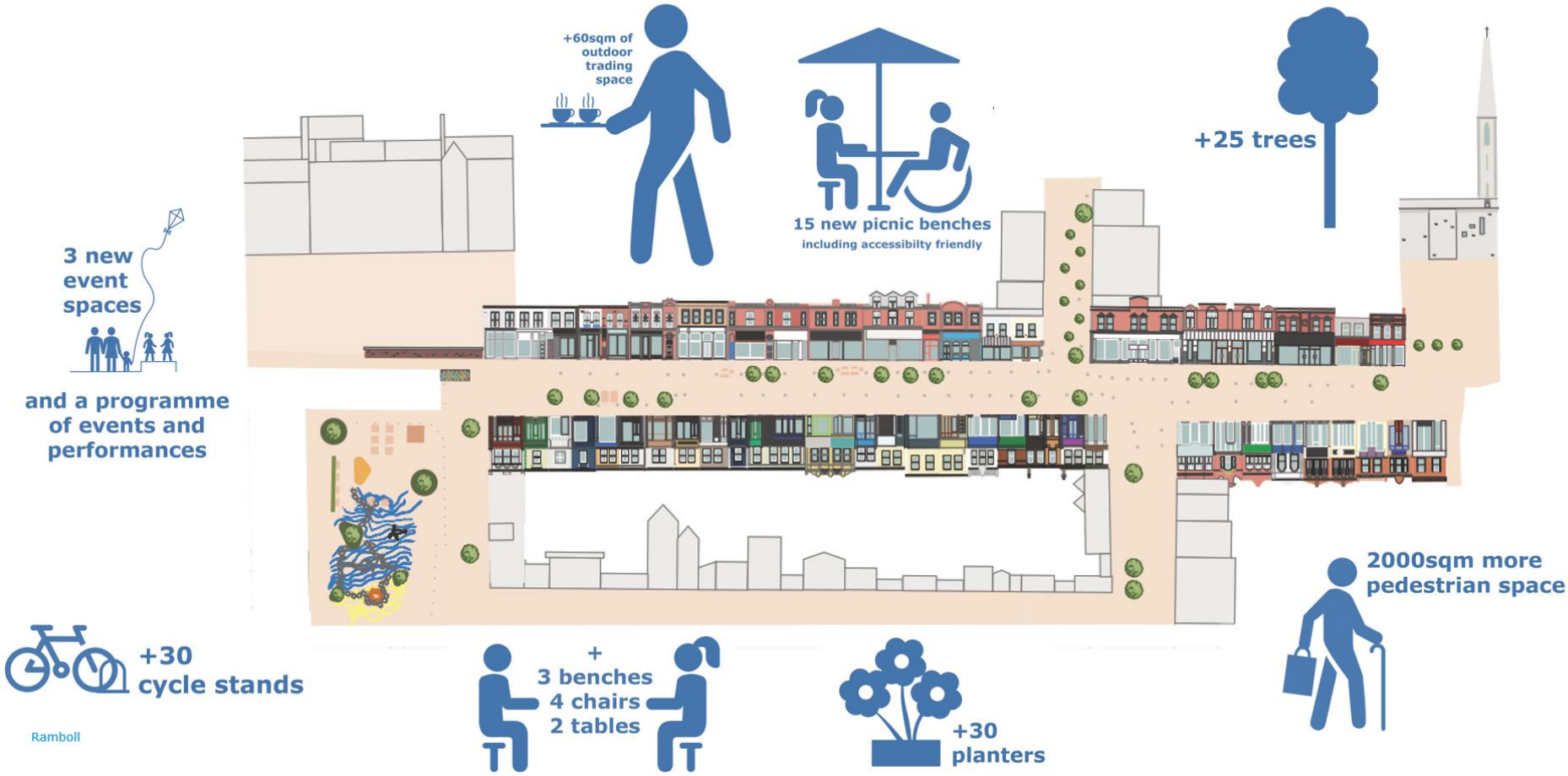


Figure 2-2 - Project Summary Plan for Dún Laoghaire Summer Streets

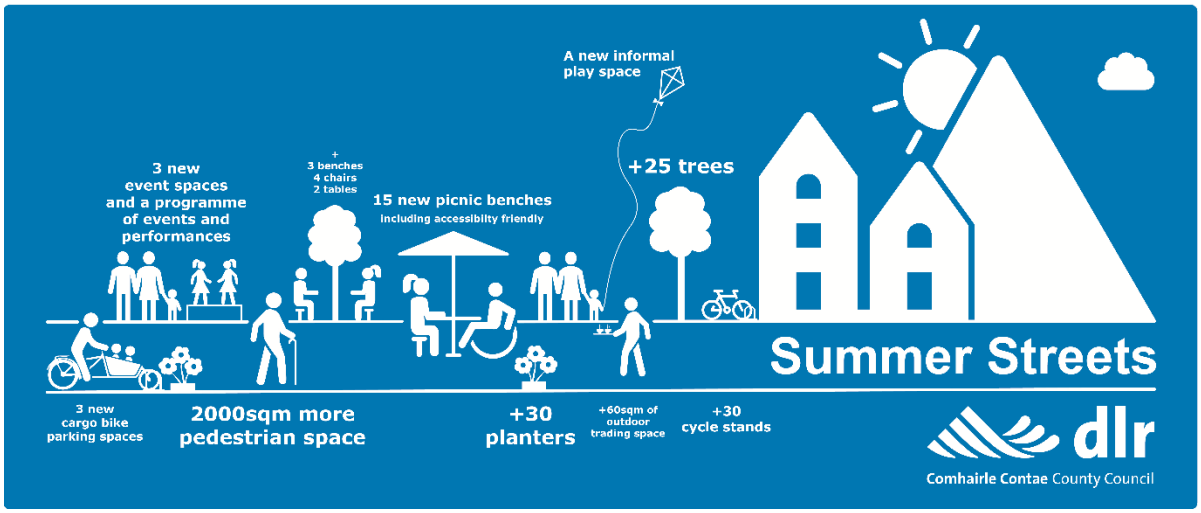


Figure 2-3 - Project Implementation Dashboard for Dún Laoghaire Summer Streets

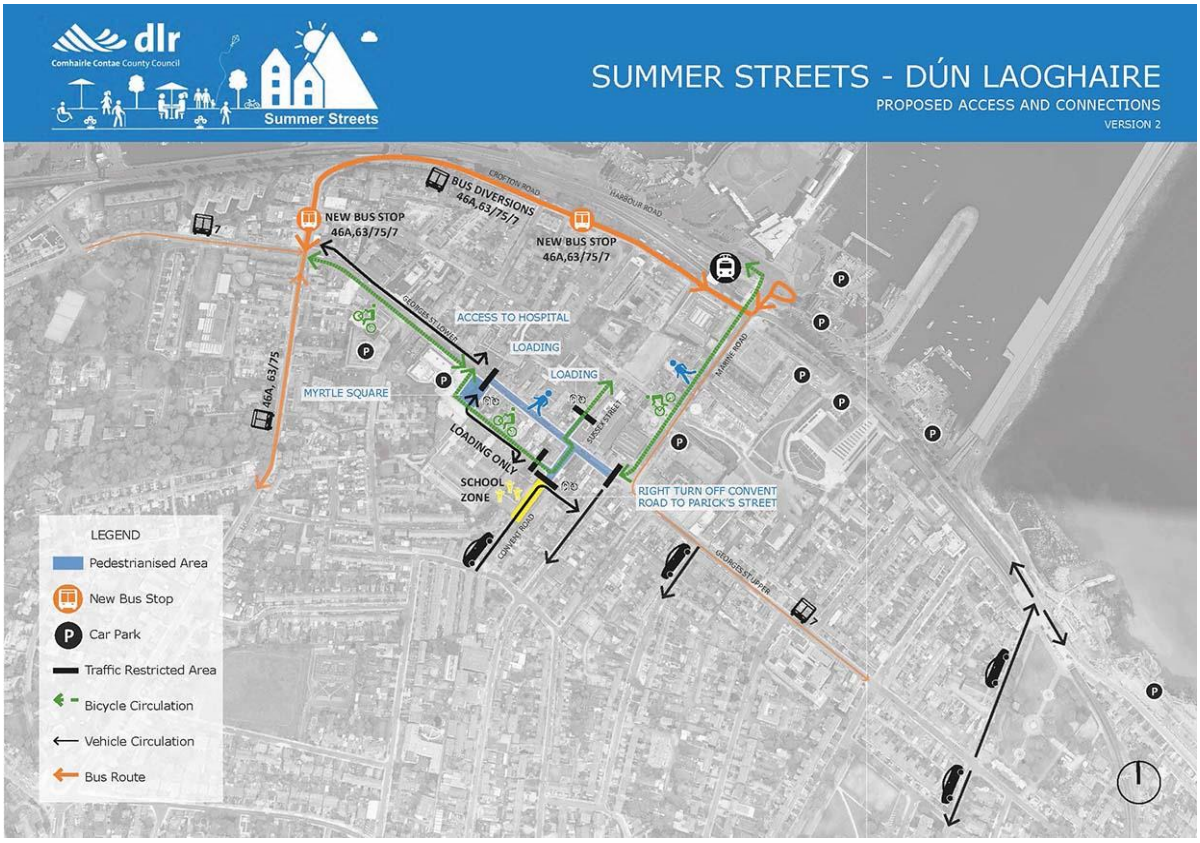


Figure 2-4. Summer Streets- Dún Laoghaire access

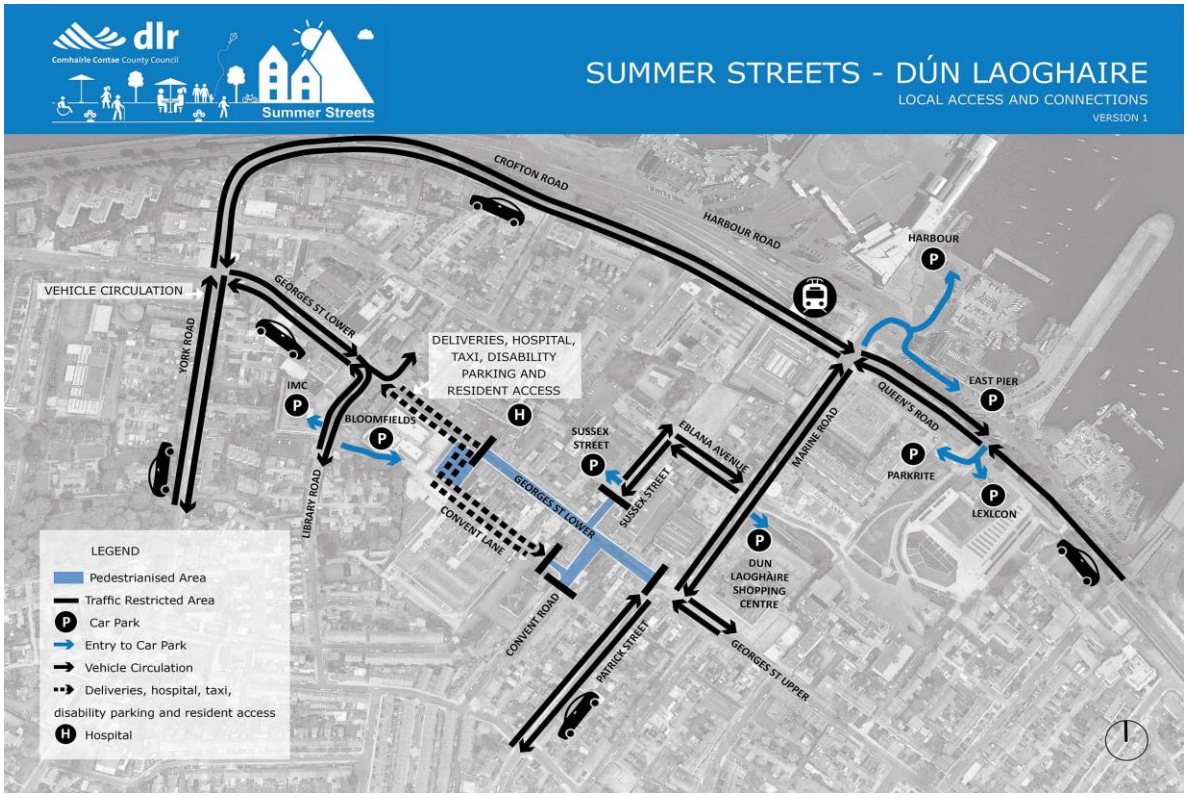


Figure 2-5 Summer Streets- Dún Laoghaire Local Access and Connections for Vehicles

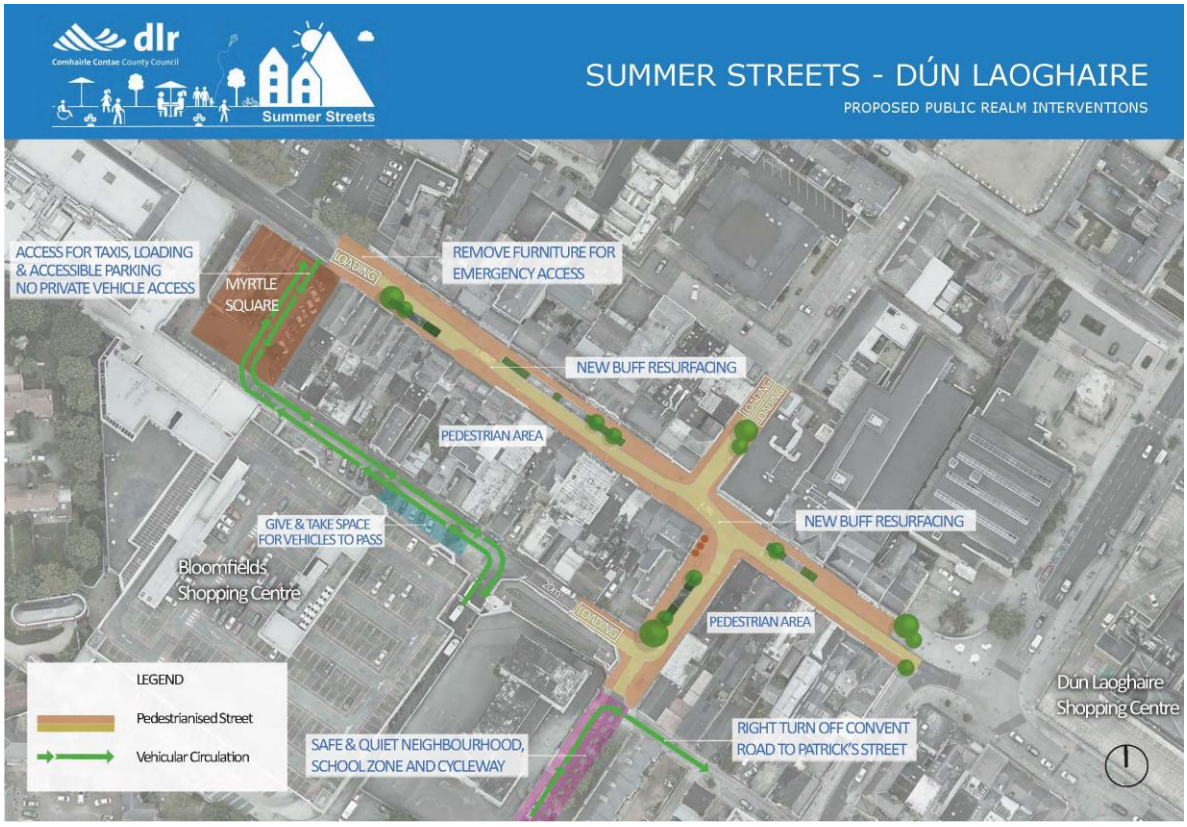


Figure 2-6 Summer Streets- Dún Laoghaire Public Realm Interventions

2.3 Pre-trial Consultation

DLRCC undertook extensive public engagement on proposed measures in Dún Laoghaire as part of its Summer Streets initiative.

The Council undertook a non-statutory public consultation from Friday 21st May to Friday 11th June 2021. A total of 1,103 representations were received via the council's Citizen Space questionnaire, alongside email responses, Covid-secure on-site meetings and online presentations. DLRCC was keen to work in partnership with businesses and communities and invited suggestions to help ensure the success of the proposed scheme before it commenced on 5th July.

During the online consultation period, there was also engagement with residents, businesses and community groups that were likely to be impacted by the proposed changes. It is important to note that the public engagement and Citizen Space process took place concurrently with the virtual public consultation. As a result of the consultations carried out, some concerns raised by respondents, particularly local businesses, were directly addressed during community liaison activities and led to changes in the planned design.

As part of this process DLRCC also looked for input and ideas from the community in Dún Laoghaire on how to best animate the streetscape and add to the vibrancy of the pedestrianised space and Dún Laoghaire town centre.

The objectives of the public engagement process were to:

- Increase awareness of the Summer Streets: Destination Dún Laoghaire for the general public, elected members, various stakeholders and other bodies / agencies etc;
- Seek the views of the public in relation to the proposed public realm interventions;
- Encourage constructive feedback on how proposals could be improved before any potential implementation;
- Provide opportunities for input and suggestions for programming the space with a variety of interested parties, including younger citizens, older citizens, businesses and locally based community and residents' groups; and
- Establish engagement and to facilitate a process to obtain longer term feedback after the initiative.

2.4 Consultation Process

Due to Covid-19 restrictions, DLRCC used a variety of online engagement methods, to consult and engage with the local citizens and a range of other stakeholders and interested parties including the following:

- Where possible and in compliance with Covid-19 restrictions, on-site face to face meetings took place with local residents, business owners etc.;
- A Media Release issued from the Communications Unit on Friday 21st May 2021;
- Public engagement information and drawings were made available and updated regularly on the dedicated Summer Streets project webpage available at:https://www.dlrcoco.ie/en/road-schemes/summer-streets;
- Leaflets including scheme drawing dropped to all businesses and residences on George's St. Lower, Convent Lane and Convent Road;
- The Council launched a social media campaign on Friday 21st May that highlighted key features of the project and the engagement process throughout the three-week period;
- The proposal was covered in an Irish Times article on Saturday, 22nd May;

- The engagement material was also emailed to a range of stakeholders; All Dún Laoghaire-Rathdown Elected Members; Dún Laoghaire Town Team; Dún Laoghaire Business Association; Dún Laoghaire Tidy Towns; Dún Laoghaire Residents Associations; An Garda Síochána; Emergency Services; Disability Consultation Forum; and NTA;
- The Council invited and responded to a range of questions received from the public throughout the public engagement period. Responses were provided by telephone and email throughout the three-week engagement period, with engagement with stakeholders taking place after 11th June, where necessary.
- The Council received emails outside of the online questionnaire, which have been categorised and responded to in this report
- Staff from the project team held meetings with local residents and business groups from the area, a full list is provided below:
- Tuesday 25th May meeting with the principal of Dominican Primary School
- Wednesday 26th May Dún Laoghaire Business Association (DLBA) Briefing
- Thursday 27th May online meeting facilitated by Cllr. Lorraine Hall, with c. 10 residents from Tivoli Road and nearby streets and a follow-up on-site meeting with the group on 9th June
- Friday 28th May Dún Laoghaire Central Residents Association Briefing
- Monday 31st May Dún Laoghaire Tidy Towns briefing
- Thursday 3rd June meeting with representative from Tesco, Convent Lane
- Thursday 3rd June meeting with the proprietor, Hicks Butchers, George's Street Lower;
- Wednesday 9th June 2nd meeting with Dún Laoghaire Business Association (DLBA)
- Wednesday 9th June meeting with MHF Architects and Carpet & Flooring Concepts
- Thursday 10th June multiple visits to businesses on George's Street Lower including the proprietors of Gourmet Pantry, Hicks, Carpet & Flooring Concepts and Book Deals.
- Friday 10th December meeting with DLBA, DLCRA, Tidy Towns and an Garda Síochána to discuss the post-trial review of the interventions and feedback on the implemented measures.

Throughout the three weeks process a wide range of stakeholders were consulted including businesses, residents, NTA, Dublin Bus, Go Ahead, St Michaels Hospital, Gardai, Dublin Fire Brigade, disability user groups and community groups.

3. POLICY CONTEXT

The following documents set out the transport planning policy framework on a national, regional and local level. The overarching emphasis of these documents is to promote and encourage sustainable modes while reducing unnecessary car trips.

3.1 National Policy

3.1.1 National Planning Framework

Policy Objective 27: 'Ensure the integration of safe and convenient alternatives to the car into the design of our communities, by prioritising walking and cycling accessibility to both existing and proposed developments and integrating physical activity facilities for all ages.

3.1.2 Smarter Travel – A Sustainable Transport Future

This document sets out the transport policy for Ireland and was last updated in July 2020. It identifies a target for reducing work-related commuting by cars from its current modal share of 65% to 45% by 2020. The document acknowledges that the targets were ambitious and may need to be adjusted in light of improving knowledge and changing trends.

3.1.3 National Cycle Policy Framework

The National Cycle Policy Framework outlines the national policy for cycling, in order to create a stronger cycling society, and a friendlier environment for cycling.

The policy document sets a target of 10% of all trips by bicycle and equally recognises the need of promoting and integrating cycle networks.

3.1.4 Building for Everyone: A Universal Design Approach – Planning and Policy, 2012

The Building for Everyone: A Universal design approach provides extensive practical guidance in relation to the universal design of buildings, places, and facilities in accordance with the Barcelona Declaration.

3.2 Regional Policy

3.2.1 Transport Strategy for the Greater Dublin Area

The NTA's Transport Strategy for the Greater Dublin Area (GDA) was adopted in April 2016.

The strategic purpose of the document is '*to contribute to the economic, social and cultural progress of the Greater Dublin Area by providing for the efficient, effective and sustainable movement of people and goods.'*

3.3 Local Policy

3.3.1 Dún Laoghaire-Rathdown County Development Plan (2016-2022)

DLRCC has adopted its Development Plan, over the period from 2017 to 2022. This plan sets out a shared vision that will shape the future growth in the County over the 6-year period.

The plan outlines various transport related policies and objectives to be implemented during the period of the Plan. The policies and objectives relevant to this proposal are described below:

Policy SIC1: The Local Economic and Community Plan
It is Council policy to promote and facilitate participation of key stakeholders in the development and delivery of the Local Economic and Community Plan.

Policy SIC4: Safer Living Environment
It is Council policy to facilitate the promotion and delivery of a safe environment for both the residents of, and visitors to, the County.

Policy SIC6: Community Facilities
It is Council policy to support the development, improvement and provision of a wide range of community facilities distributed in an equitable manner throughout the County.

Policy RES15: Urban Villages
In new development growth nodes and in major areas in need of renewal/regeneration it is Council policy to implement a strategy for residential development based on a concept of sustainable urban villages.

Policy UD3: Public Realm Design
It is Council policy that all development proposals, whether in established areas or in new growth nodes, should contribute positively to an enhanced public realm.

Policy UD5: Shared Space Layouts
It is Council policy to promote safer and more attractive streets and public realm for all road users throughout the County by pro-actively engaging with, and adhering to, the 'shared space' concept and guidance set out in the 'Design Manual for Urban Roads and Streets' (2013).

Policy ST5: Walking and Cycling
It is Council policy to secure the development of a high-quality walking and cycling network across the County in accordance with relevant Council and National policy and guidelines.

Policy ST6: Footways and Pedestrian Routes
The Council will continue to maintain and expand the footway and pedestrian route network to provide for accessible pedestrian routes within the County in accordance with best accessibility practice.

The proposed scheme is also in accordance with the objectives of the **'Dún Laoghaire-Rathdown County Council Climate Change Action Pan 2019-2024'**, including Actions T4, T6, T7, T8, T11 and T13.

4. SCHEME OBJECTIVES

4.1 Overview

The framing of scheme specific objectives was undertaken in accordance with the guidance provided in the TII Project Appraisal Guidelines and Department of Transport Common Appraisal Framework (CAF)[1]. The various data sources (described in section 7) have been mapped to the categories defined within the table below. These guidance documents include a recommendation that project objectives are established based on each of the following criteria:

- Economy;
- Safety;
- Environment;
- Accessibility & Social Inclusion;
- Integration; and
- Physical Activity.

On the basis of the characteristics of the existing street and responding to the aspirations of local and strategic policy documentation, a series of defined objectives were developed. The objectives which are presented in Table 1 Scheme Specific Objectives are intended to set a series of measurable metrics upon which success of the trial pedestrianisation implementation can be measured. The analysis presented in this report, reviews the impacts of the scheme relating to the six CAF criteria as per these objectives.

Table 1 Scheme Specific Objectives

CAF Criteria	CAF Description	Scheme Specific Objective

Economy	The impacts of a transport investment on economic growth and competitiveness are assessed under the economic impact and economic efficiency criteria.	• Improve the local economic capacity in the area to support and generate positive local economic benefits to businesses and consumers by:
		  ○ Encouraging an increase of footfall; and
		  ○ To support hospitality businesses re-establish following the impacts of Covid-19.

Safety	Safety is concerned with the impact of the investment on the number of transport related accidents.	• Improve safety for all road users, including vulnerable user groups; • To improve street accessibility and facilitate additional space/capacity for traders on view of Covid-19 safety concerns and requirements for social distancing.
Environment	Environment embraces a range of impacts, such as emissions to air, noise, and ecological and architectural impacts.	• To improve the overall quality of the local environment, in terms of air quality, noise and litter; • To reduce the impact of vehicular traffic on environmental pollution; and • To support the development of the Dún Laoghaire urban village as a space that is

[1] Department of Transport. (2016). COMMON APPRAISAL FRAMEWORK FOR TRANSPORT PROJECTS AND PROGRAMMES. Online: gov.ie - Common Appraisal Framework (www.gov.ie)

		welcoming and inviting for residents, shoppers and businesses.
Accessibility and Social Inclusion	According to the Common Appraisal Framework, accessibility and social inclusion embraces the notion that some priority should be given to benefits that accrue to those suffering from social deprivation, geographic isolation and mobility and sensory deprivation.	• To provide welcoming and people-friendly public spaces that are inclusive and accessible; and • To provide a favourable basis for all social classes, demographics and levels of user ability to access public spaces and amenities.
Integration	Integration considers the extent to which the project being evaluated promotes integration of transport networks and is compatible with Government policies, including national spatial and planning policy.	• To integrate with the existing transport infrastructure network; and • To support active travel modes and where possible transition users from the active mobility infrastructure to the Dún Laoghaire urban village areas
Physical Activity	This relates to the health benefits derived from using different transport modes.	• To encourage active mobility as a mean of improving people's health through physical activity; and • To encourage improvements in the environmental objectives which can facilitate greater number of physically active users.

5. THE NEED FOR THE PROJECT

DLRCC launched its "Summer Streets" initiative on the 17th May 2021 which aimed to provide safe, welcoming and people-friendly public spaces in towns & villages across the county, and bring life, food and energy to streets in the summer of 2021.

The initiative sought to help the Council support local residents, visitors and businesses by providing attractive, safe spaces for cafés, restaurants and pubs, allowing diners to enjoy the food offerings of hospitality businesses in comfortable surroundings throughout the summer and beyond. Working in partnership with businesses and communities in towns and villages, Summer Streets sought to enable people to move around in safety and comfort. The intervention sought to trail the pedestrianisation as a means of understanding and identifying key issues and benefits of the project. This formal implementation enabled DLRCC to assess the project benefits and to consider how it could be most efficiently delivered as a future permanent scheme, seeking to deliver enhanced vibrancy to our streets.

Building on previous interventions in Blackrock, Dundrum, Sandycove, Glasthule, and Dalkey, the proposed works in Dún Laoghaire are part of a series of proposals being put forward under this initiative including Summer Streets: Cabinteely. Further similar works to provide people-friendly public spaces and support outdoor dining have been carried out in Stepaside and Monkstown, amongst other locations.

In addition to the main objective of trialling the basis for a permanent scheme, the project facilitated Covid-19 social distancing measures while allowing diners to enjoy the outdoor dining experience, aiding hospitality businesses in re-establishing. In actively enticing people back into the heart of the town, the Council sought to bring additional benefit to all retail businesses as well as hospitality. Dun Laoghaire: Summer Streets is a cross-departmental initiative of the Council. As a result, a number of initiatives were integrated into the project with a specific Outdoor Dining Group established to engage and collaborate with hospitality businesses and deal with requests and queries related to outdoor dining.

The Department of Transport, Tourism and Sport (since renamed the Department of Transport) announced funding on the 28th May 2020 for technical and financial support through the National Transport Authority (NTA) to deliver walking and cycling infrastructure across the country[2]. The NTA offered all Local Authorities support for initiatives including:

- widening footpaths to enable queuing and social distancing;
- one-way streets and pedestrianisation schemes for social distancing purposes and to support business activities;
- altering traffic signals times to reduce pedestrian waiting times and crowding;
- temporary cycling facilities; and
- external space provision to support business activities.

Following on from this, the Government issued an 'Interim Advice Note – Covid 19'[3] on 23rd June 2020 to provide guidance to Local Authorities in order to assist them in implementing the above-mentioned initiatives. The document advises Local Authorities to 'also consider the longer-term alignment with the principles, approaches and measures contained within the Design Manual for Urban Roads and Streets, which prioritises sustainable modes of transport (walking, cycling and

[2] https://www.gov.ie/en/press-release/062bd-minister-ross-announces-nationwide-supports-for-pedestrians-and-cyclists/
[3] https://www.dmurs.ie/what-s-new

public transport), advocates a multi-disciplinary approach to street design and promotes the principles of universal design. The Advice Note suggests that Local Authorities use existing powers available to them under legislation to address immediate public health concerns regarding space for social distancing in the public realm, and that the Design Manual for Urban Roads and Streets (2019) user hierarchy should be followed, which prioritises the needs of pedestrians first, followed by cyclists, then public transport users and then private car drivers. The Dún Laoghaire Summer Streets project was developed as a means of serving these objectives in addition to understanding how a permanent future project could be most efficiently implemented.

6. A TRIAL TO SUCCEED & METRICS FOR SUCCESS

6.1 Evaluation Approach

The Summer Streets scheme has been evaluated using a framework that covers economic, social, and environmental indicators and considers the interests of residents, businesses, and visitors. This report presents analysis of different data sources pertaining to the Summer Streets scheme.

The project objectives, outlined above, have been established against each of the 6 Common Appraisal Framework Criteria. The measurement of success against these criteria and the data sources that are utilised to objectively assess attainment of our Project Objectives are described below.

6.1.1 Economy

The impacts of infrastructure investment on economic growth and competitiveness of Dún Laoghaire as an economic hub are varied and significant. To assess the economic outcomes the following data sources are analysed:

- Pedestrian and cycle data for the pedestrianised zone and adjacent locations both during and post-trial;
- Vehicular traffic analysis for the pedestrianised zone and at other key points around the town centre both during and post-trial;
- Business survey questions, including impact on turnover and number of customers; and
- Public perception through residential and on-street survey questions.

6.1.2 Safety

The development of safe, open and inviting spaces is critical to enable the wider project objectives. The trial was underpinned by the development of a safe inviting streetscape which served to provide access for all users. To assess the safety related outcomes the following data sources are analysed:

- Observations from An Garda Síochána; and
- Survey questions, perceived impact of the scheme on safety including Covid-19 measures.

6.1.3 Environment

Environmentally positive spaces are critical to enable the wider project objectives. The trial sought to develop an urban environment which served to improve the existing environment, reducing pollutants, improving visual amenity and encouraging users to engage with the spaces. To assess the environment outcomes the following data sources are analysed:

- Air quality and noise data;
- Traffic data, footfall data;
- Environment and public realm improvements including but not limited to seating provision, dwell areas, amenity planting and on-street shopping capacity; and
- Survey questions (perception of litter, visual amenity, noise and traffic levels).

6.1.4 Accessibility and Social Inclusion

Urban development which provides equity in term of social inclusion and accessibility are critical to enable the wider project objectives. The trial sought to provide an urban environment which served users of all ages and abilities, reducing barriers and improving accessibility for more vulnerable users. To assess the Accessibility and Social Inclusion related outcomes the following data sources are analysed:

- Mobility and accessibility infrastructure improvements;

- Rest areas and spaces; and
- Survey questions, sentiment analysis by different demographic groups, analysis of responses specific to disabled access, bus users and hospital access.

6.1.5 Integration

The ability of the proposed project to integrate with existing infrastructure is a key enabler of the wider project objectives. The trial sought to interface with existing road, cycle and pedestrian networks in a way to provide positive benefits for the project. To assess the Integration related outcomes the following data sources are analysed:

- Infrastructure improvements;
- Survey questions; and
- Bus companies' feedback.

6.1.6 Physical Activity

The ability of the proposed project to improve engagement in greater levels of physical activity is a key enabler to a reduction in obesity and promotion of the health benefits is linked to the wider project objectives. To assess the physical activity related outcomes the following data sources are analysed:

- Shift to active travel seen through footfall data; and
- Survey questions.

7. DATA SOURCES & COLLECTION

7.1 Surveys

Three surveys were carried out to support the evaluation of the Summer Streets programme in Dun Laoghaire. These are described below.

7.1.1 Residents Survey

The resident's survey was circulated via residents' associations, and hard copies were made available through DLRCC. The survey reported 827 residents' responses. 191 respondents described themselves as regular bus users (23.1%). 489 females responded compared to 330 males, and 44 (5.3%) respondents reported having a disability. The majority (over half) of respondents were in the age group 35-54.

7.1.2 On-street Survey

The On-street survey was conducted during the period 18th August- 1st September at two key interviewing locations on Lower Georges Street (outside Chocolat De Fred café and near Shaws department store), at varying times of day. The survey generated 320 responses from pedestrians, of which 157 male and 163 females. 26 respondents travelled into Dún Laoghaire by bus and 20 reported having a disability. The majority (35%) of respondents were in the 46-65 age group, with a further 25% in the 31-45 age group. The remaining 40% were split evening between the 16-30 and 66+ age groups.

7.1.3 Business Survey

Businesses on Lower Georges Street and adjacent roads, including Bloomfield's Shopping Centre, were surveyed as far as York Road. The business survey generated 63 responses and can be viewed alongside the footfall analysis to help assess the impact of, and sentiment around, the Summer Streets programme. The responses from the business survey have been mapped to the Common Appraisal Framework and therefore the findings are summarised in different locations of this report. The key themes of the business survey questions are as follows:

- Business opinion and customer opinion of Summer Streets scheme (section 10);
- Customers travel to Dún Laoghaire (section 12);
- Impact of the scheme on business, including turnover and number of customers (Section 09);
- Impact of the scheme on safety, including Covid-19 measures (section 11);
- Impact of the scheme on traffic, litter and noise (section 12).

The area surveyed is indicated by the dotted lines on the map below.

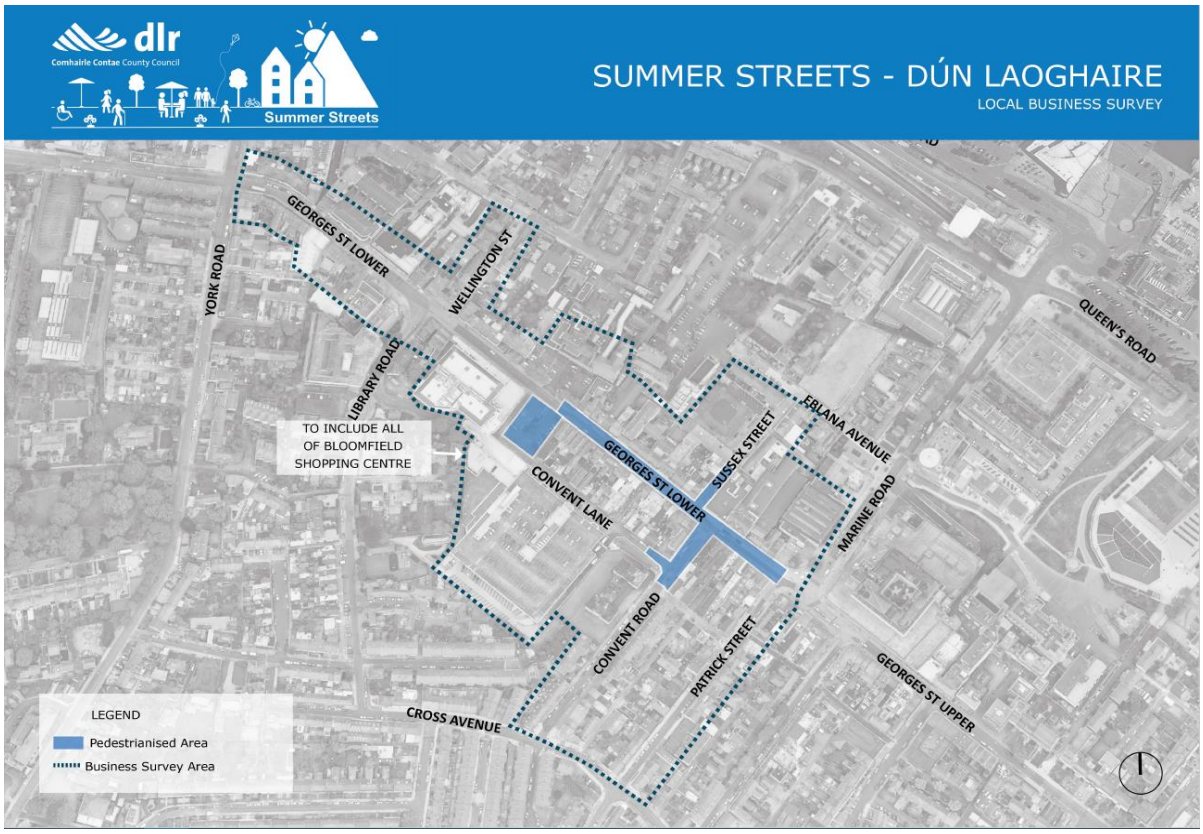


Figure 7-1 Business Survey Area

The business survey generated 63 responses. The businesses surveyed were split across different types with the majority falling into the "Other" category[4], an overview is provided below.

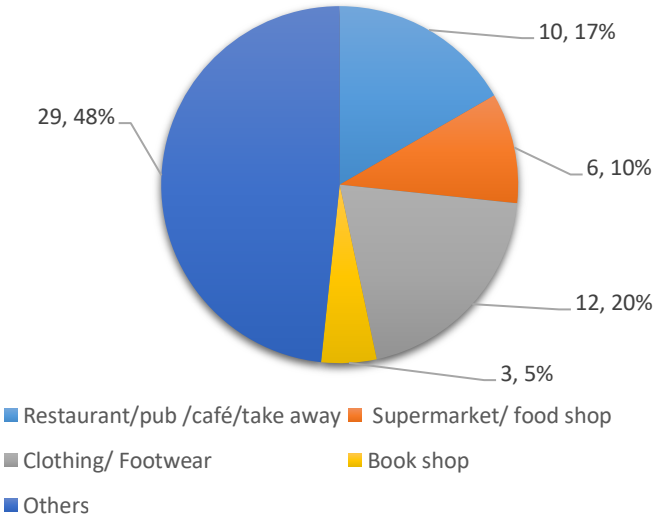


Figure 7-2 Businesses Surveyed by Type of Business

Responses were reasonably balanced in terms of gender, with 35 male responses and 28 female ones. 22 respondents were under the age of 35, 36 were between 35-65 and 5 were 65+. 92% of the respondents surveyed were managers or owners of the respective business. The remaining responses were from assistants or employees.

[4] Businesses in the Other category included jewellery stores, charity shops, hairdressers and other retail including electronics and DIY

There was an additional survey carried out independently by the Dún Laoghaire Business Association (DLBA) which was shared with DLRCC. The survey was completed by the members of that organisation. That survey received 42 responses of which 28 were from core retail businesses. This is referenced in the economic outcomes section (9.4).

7.2 Traffic Analysis

7.2.1 Active Travel Analysis including Footfall Data

Footfall is commonly used by retailers as an indicator of opportunity. It is used to identify peak locations, times of day and even missed sales. A key motivation behind the Summer Streets pedestrianisation was to "actively entice people back into the heart of our cities and towns" and bring additional benefit to retail businesses. Therefore, to assess the impact of the scheme, three sensors were used to monitor footfall around the area. As indicated on the following map sensor 1 (S1) was located in the pedestrianised area of Lower George Street, sensor 2 (S2) near the top of Marine Road and sensor 3 (S3) on Upper George Street. Data was studied at the sensor, count line and directional level distinguishing between pedestrians, cars and cyclists (analysis of the car and cyclist data is presented in sections 12.4.3 and 14.2 of this report).

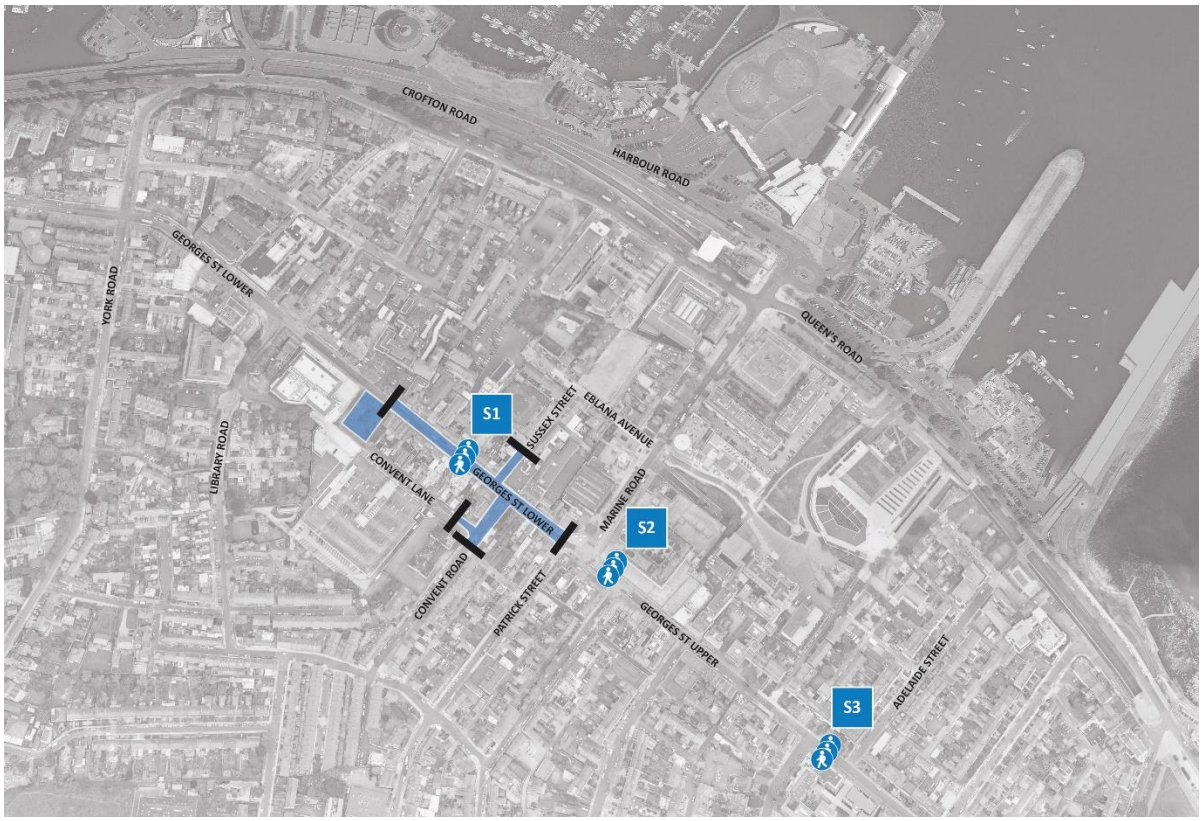


Figure 7-3 Footfall Sensor Locations

The aggregate impact of the scheme on footfall was analysed before, during and after the pedestrianisation, as well as the impact on particular days of the week while the scheme was in place. As shown on the timeline, the before period used was the five weeks from 31/05/2021 to 04/07/2021 inclusive. The dates considered during the pedestrianisation were from the 05/07/2021 to 30/09/2021. The Summer Streets scheme ended on 30/09/2021, and data from 01/10/2021 to 31/10/2021 was used as the "after" period".

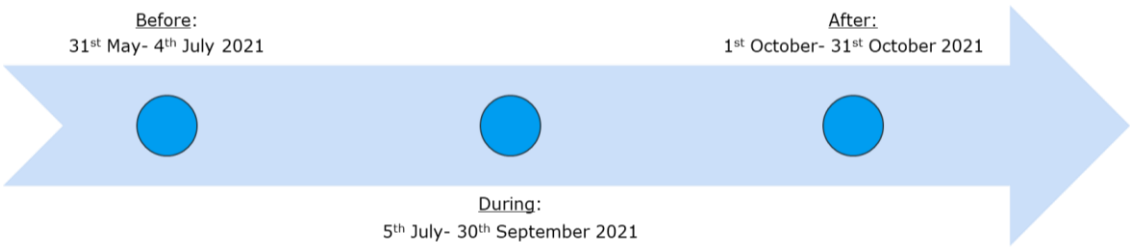


Figure 7-4 Footfall Analysis Timeline

Results of the footfall analysis show a general increase in pedestrian movement around the area, with the exception of sensor 2. Sensor 1 saw an increase of 9% in average daily pedestrians, Sensor 3 an increase of 4% and Sensor 2 a decline of -3%. Further detail is presented in section 9.3.

7.2.2 Motorised Private Vehicular Traffic

7.2.2.1 Introduction

Traffic analysis for private motorised vehicles was completed utilising anonymised GPS data. The data enables review and analysis of how traffic movements, trips and speeds have changed during the trial period. The data set continuously logs vehicular traffic movement, queuing data, trip origin and destination, journey time and vehicular speeds.
The vehicular traffic analysis focused on two time periods for assessment purposes, namely

1. The period while the trial was operational from 5th July 2021 to 30th September 2021 inclusive; and
2. The period following the trial installation from 1st October 2021 to 30th November 2021.

It is noted that every effort has been made to undertake an extensive review and obtain representative data, as with all data collection exercises, there are limitations. The main limitations associated with this project are related to the public health restrictions associated with Covid-19. Data availability, validity and suitability was a limitation, since March 2020 there has been a variety of mobility restrictions, a continuous roll-out of mobility infrastructure measures across Dún Laoghaire-Rathdown and several adjustments to junction layouts and signal timings as adaptive responses to traffic changes during the pandemic.

There is uncertainty as to the medium or long term impacts of the pandemic on mobility patterns, particularly if public transport usage does not rebound quickly and if working from home becomes established for a significant part of the workforce. In view of these limitations, it is however noted that throughout both periods of assessment government restrictions were set at the same level, working from home policies were consistent and in broad terms mobility access and utilisation were comparable.

7.2.2.2 Strategic Catchment Analysis for Vehicular Traffic

As part of the implementation of the Dún Laoghaire Summer Streets project a review of strategic traffic movements was undertaken. The purpose of the review was to establish the proportion of vehicular traffic movements to and from Dún Laoghaire during the two assessment periods. From survey data it was inferred that there was potential for the proposed project to discourage users from coming into Dún Laoghaire town centre by reducing accessibility for vehicular traffic. The objectives of the project were focused on developing and delivering an attractive and inviting

space in which both motorised and non-motorised users would continue to be facilitated and attracted, supporting the integration, accessibility, economic and safety objectives of the project.

For the purposes of the assessment, Dún Laoghaire as a destination was defined as the areas bounded from southeast by York Road, the northwest by the Peoples Park and the north east by Tivoli Road. Figure 7-5 illustrates the extents of the proposed area. The origin of trips was set as the wider DLRCC and South Dublin City Centre.

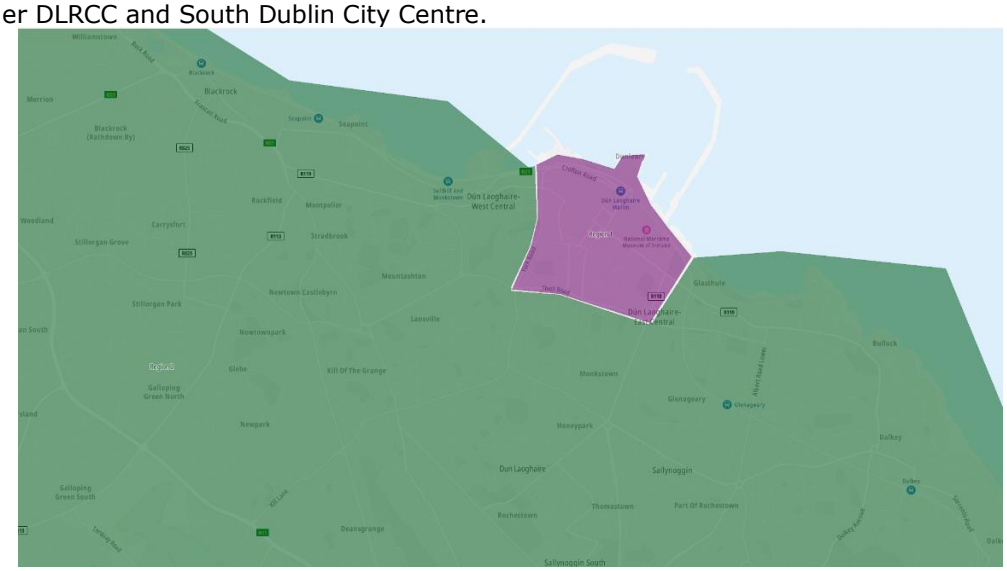


Figure 7-5 - Dún Laoghaire Region and Wider Environs

At a strategic level the study seeks to compare the baseline levels of vehicular traffic accessing Dún Laoghaire town centre during and outside of the trial periods. Figure 7-6 illustrates across an average 24hr period that the volume of trips made to Dún Laoghaire town centre both during and after the trial period is consistent. It is noted that 61% of the movements to the town centre originate within a 15-minute journey time of the town, identifying these as, in the majority, local trips to and from the town centre.

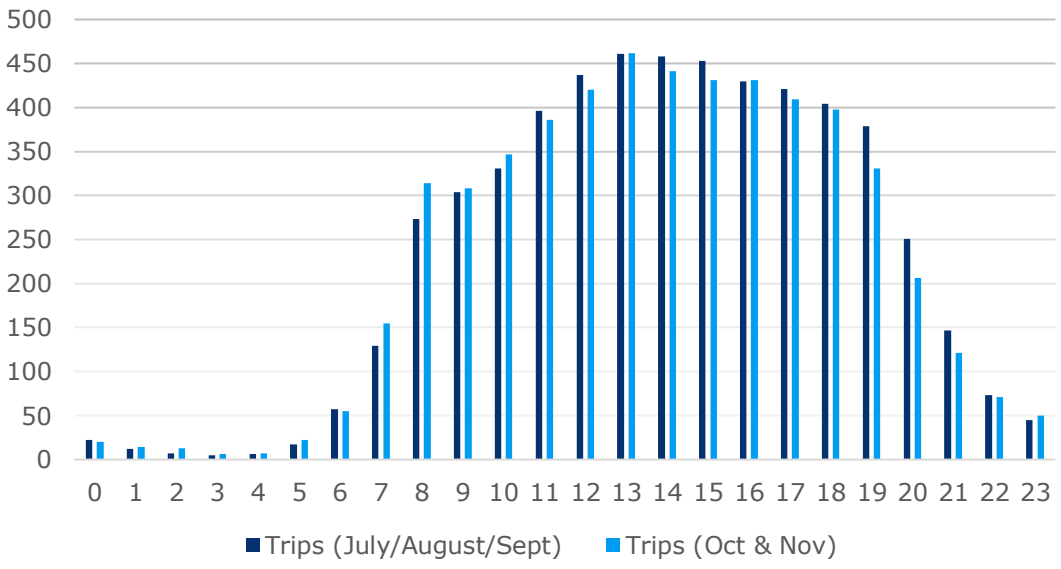


Figure 7-6 Vehicular Trips Per Day to Dún Laoghaire Town Centre During and Post Trial Periods

This analysis should be considered in view of the footfall data presented in section 9.3 of this report. Footfall data increased by 9% at location S1; this increase is coupled with vehicular traffic accessing Dún Laoghaire town centre at a similar level in both during and post-trial period. This infers that the Dún Laoghaire Summer Streets project attracted more pedestrians and cyclists to access the street.

7.2.2.3 Strategic Traffic Movement across Dún Laoghaire

Strategic Traffic Movements across Dún Laoghaire were considered as part of the analysis. The assessment considered the proportion of vehicular movements. The vehicles stopped for 20 minutes within Dún Laoghaire town were considered to have been its destination. The graphic below illustrates the regions established to complete the analysis.

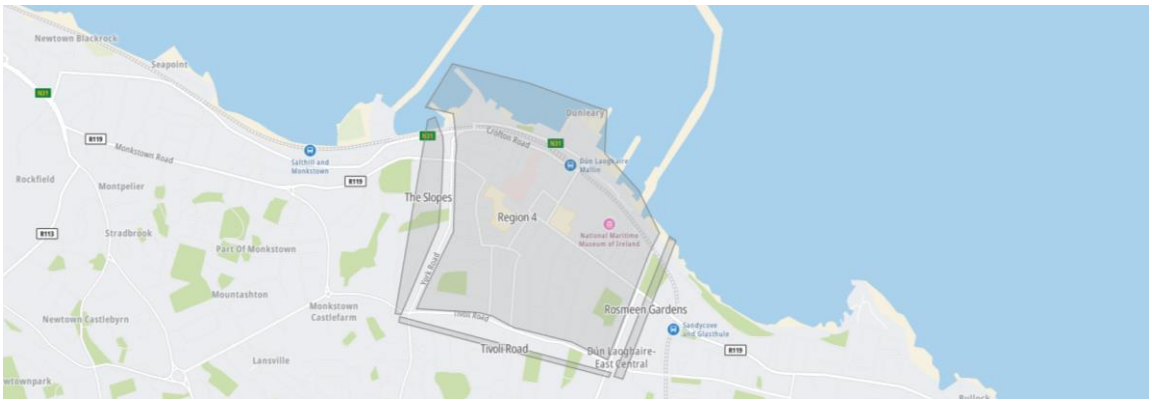


Figure 7-7 Strategic Traffic Movement Regions

The analysis concludes that 59% of traffic during October and November of 2021 moving from Glasthule towards Monkstown does not have a destination within Dún Laoghaire town and 15% of traffic moving from Monkstown towards Glasthule does not have a destination within Dún Laoghaire town. It can be summarised that 15% of traffic from Monkstown and 59% of traffic from Glasthule passing through Dún Laoghaire town, using Georges Street as a shortcut.

7.2.2.4 Vehicular Traffic Changes on Specific Streets

Traffic reductions were expected on Convent Road, with the objective of improving safety in the vicinity of the school and furthermore enabling a residential traffic for this. Figure 7-8 illustrates the average number of trips captured on Convent Road both during and following the trial period within the specified daily time windows. It is noted that the largest increase in traffic from during the trail to post trail is in the 16:00-21:00 time window, this doesn't easily align to school traffic and is more likely to represent the return of through traffic utilising Covent road rather than local traffic when considered in view of Section 7.2.2.6. The data set is limited, and some further analysis would be required to determine a definitive conclusion, particularly given the impact of school holidays, but the data infers that traffic volumes were on average 50% more post-trial than during the trial. At a minimum it can be reasonably concluded that there is potential for reductions in traffic volumes along Convent Road.

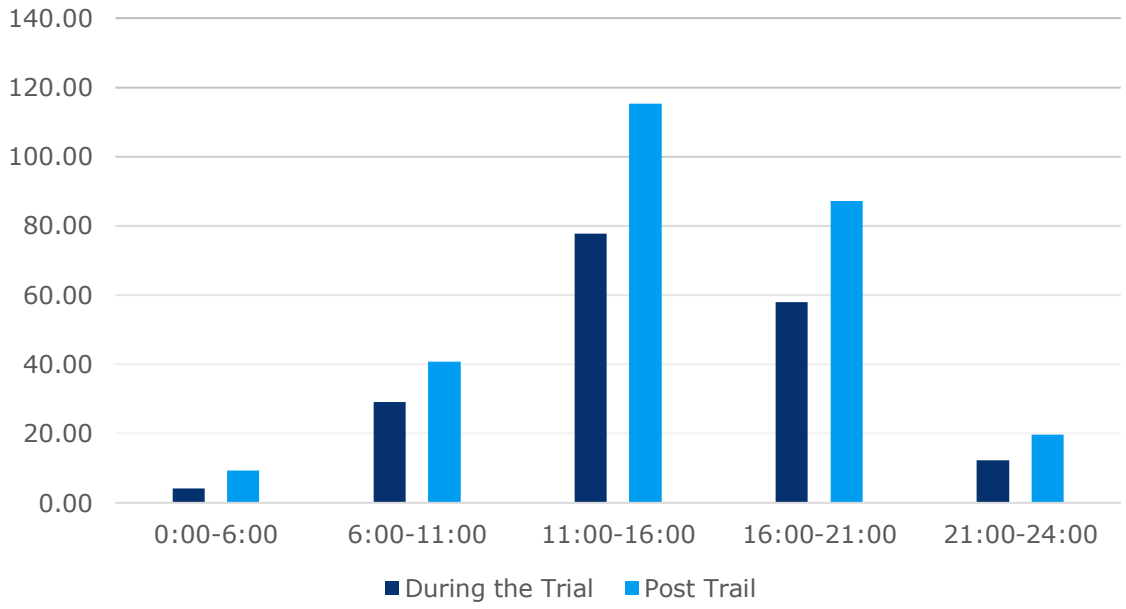


Figure 7-8 - No. of Weekly Vehicular Trips, Convent Road - During and Post Trial Period.

7.2.2.5 Vehicular Traffic Speed Analysis

As part of the Dún Laoghaire Summer Streets interventions, a significant vehicular traffic management strategy was implemented across the Dún Laoghaire town centre area and the wider extents. The traffic management strategy was focused on ensuring that private motorised vehicle and public transport access were maintained while the pedestrianisation of Georges Street could be implemented. An impact of the Dún Laoghaire Summer Streets interventions on traffic speeds along with the traffic management network and travel times were analysed on other streets of wider area.

Figure 7-9 to Figure 7-13 illustrate visualisations of traffic speeds across the Dún Laoghaire town centre between 5th July 2021 and 30th November 2021. The figures compare vehicular traffic speeds during the trial pedestrianisation and the post-trial baseline. The figures utilise a sliding colour scale to compare vehicle traffic speeds. The post-trial speeds are defined as the baseline with speeds recorded during the Dún Laoghaire Summer Streets project measured against that baseline. In general traffic speeds are between 90-110% of the baseline speeds, i.e., broadly the same as the baseline speeds. The largest traffic speeds deviation is observed at the junction of Marine Road and Crofton Road and the western approach to Glenageary Road roundabout. It is noted that the changes in average speeds are typically small. For example, on the western approach to Glenageary Road roundabout average speeds in the afternoon peak ranged 37.23km/hr (post-trial) to 42.8km/hr (during the trial); with marginal increases in orbital route speeds during the trial period.

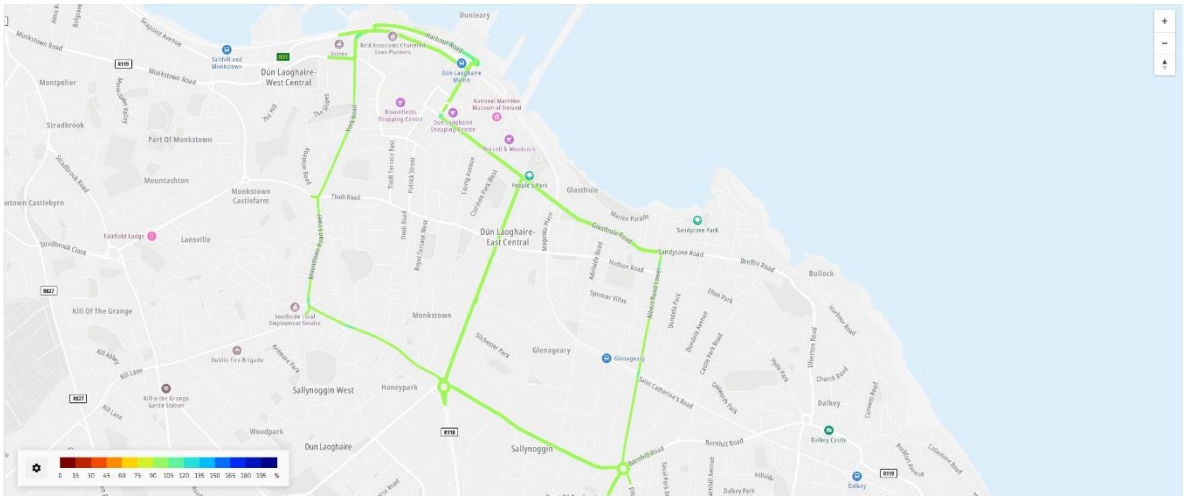


Figure 7-9 Comparative Analysis of Vehicular Traffic Speeds -post and during trial across the hours 00:00hrs and 06:00hrs

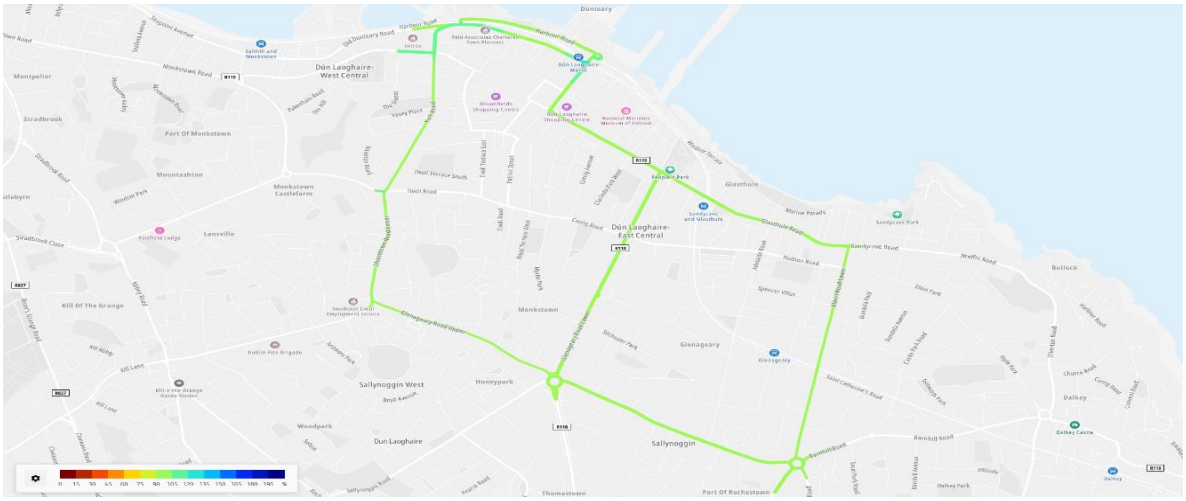


Figure 7-10 - Comparative Analysis of Vehicular Traffic Speeds – post and during trial across the hours 06:00hrs and 11:00hrs

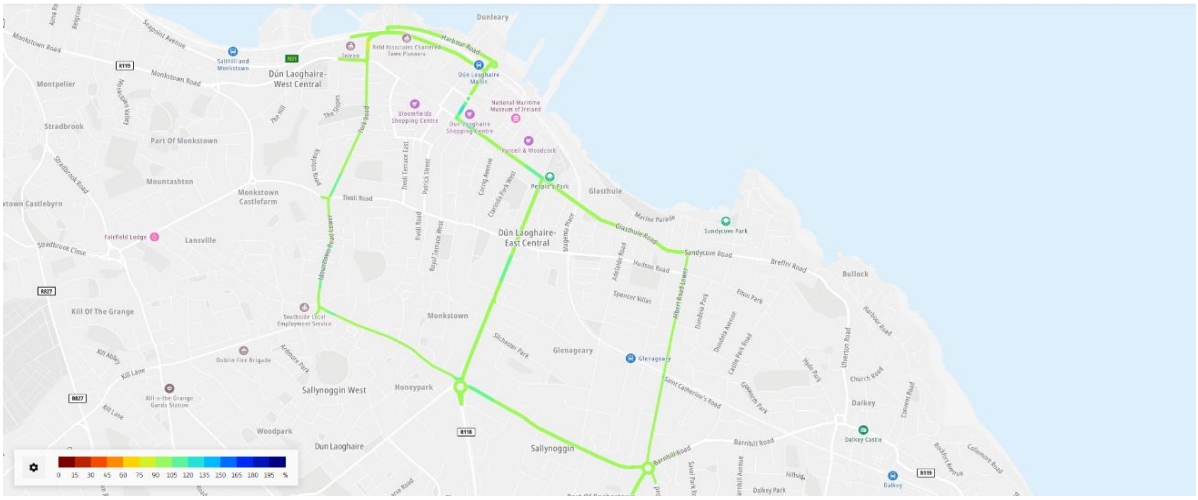


Figure 7-11 Comparative Analysis of Vehicular Traffic Speeds – post and during trial across the hours 11:00hrs and 15:00hrs

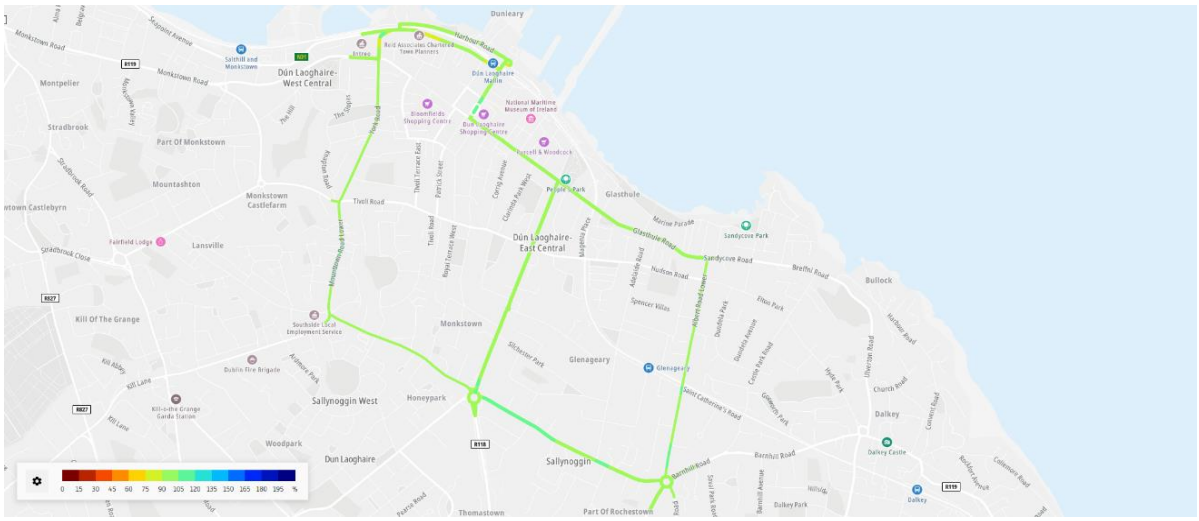


Figure 7-12 Comparative Analysis of Vehicular Traffic Speeds – post and during trial across the hours 15:00hrs and 21:00hrs

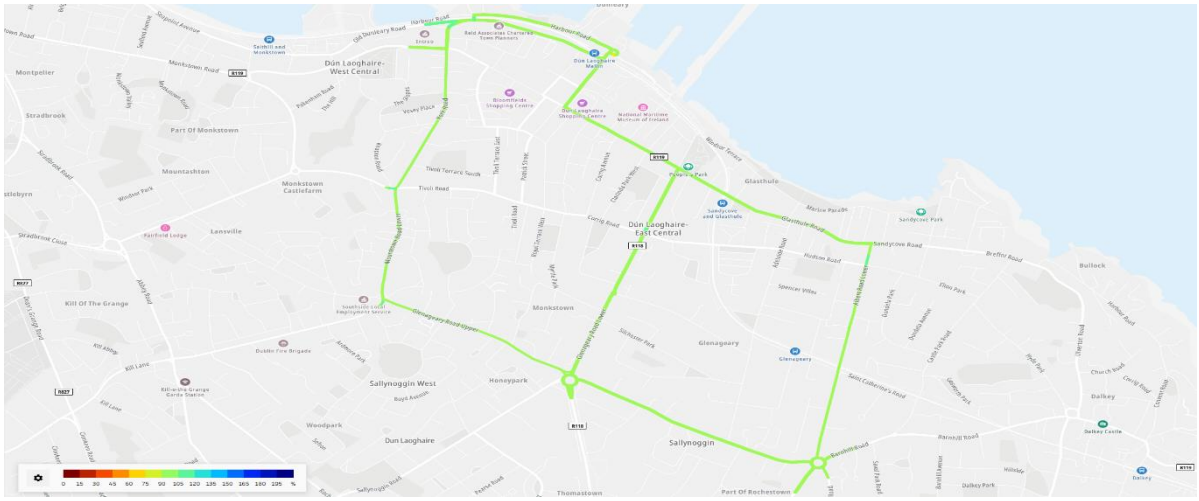


Figure 7-13 - Comparative Analysis of Vehicular Traffic Speeds post and during trial across the hours 21:00hrs and 24:00hrs

In general, the analysis of traffic speeds identified that in and around the Dún Laoghaire town centre average traffic speeds were consistent both during and post the trial pedestrianisation of Georges Street Lower. The 85th Percentile Speeds Southbound at Marine Road Junction with Crofton Avenue, which was utilised as part of the George's Street Lower diversion network, were 19.9km/hr (post-trial) and 16.3km/hr (during the trial), resulting in minimal average journey time differences of 1.6 seconds over the 150m stretch to the traffic signals. The data analysed presents a narrative where vehicular traffic is moving at the same or very marginally lower speeds (typically 1-2km/hr) within Dún Laoghaire town centre.

7.2.2.6 Journey Time Analysis

Further to the consideration of vehicular traffic speeds our analysis has reviewed the effect of the Dún Laoghaire Summer Streets project on Journey Time across the wider Dún Laoghaire area. To help understand how the pedestrianisation of Georges Street Lower has affected vehicular traffic journey times we have identified 7 typical movements and compared those journey times during and post implementation phase of the Dún Laoghaire Summer Streets project.

The seven routes identified were:

1. From Georges Street Upper at the bus stop for Dún Laoghaire Shopping Centre to the Dún Laoghaire Road Cumberland Street Junction (Via Lower Georges Street);
2. From Georges Street Upper at the bus stop for Dún Laoghaire Shopping Centre to the Dún Laoghaire Road Cumberland Street Junction (Via Crofton Road);
3. From Sandycove Road at its junction with Albert Road Lower to Seapoint Avenue at its junction with Newton Avenue (Via Crofton Road);
4. From Barnhill Avenue to Monkstown Church (via Glenageary Road Upper);
5. From Sandycove Tennis Club to Monkstown Village (Via Tivoli Road);
6. From Dún Laoghaire Road Cumberland Street Junction to Georges Street Upper at the bus stop for Dún Laoghaire Shopping Centre (Via Crofton Road); and
7. From Monkstown Village to Barnhill Avenue (via Glenageary Road Upper).

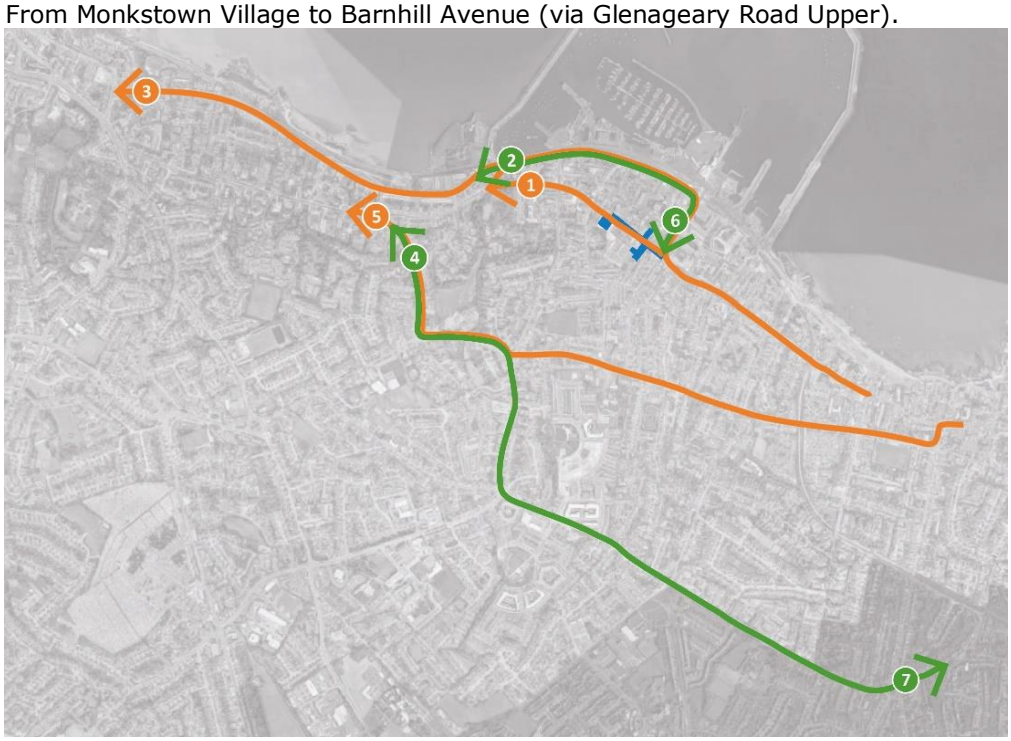
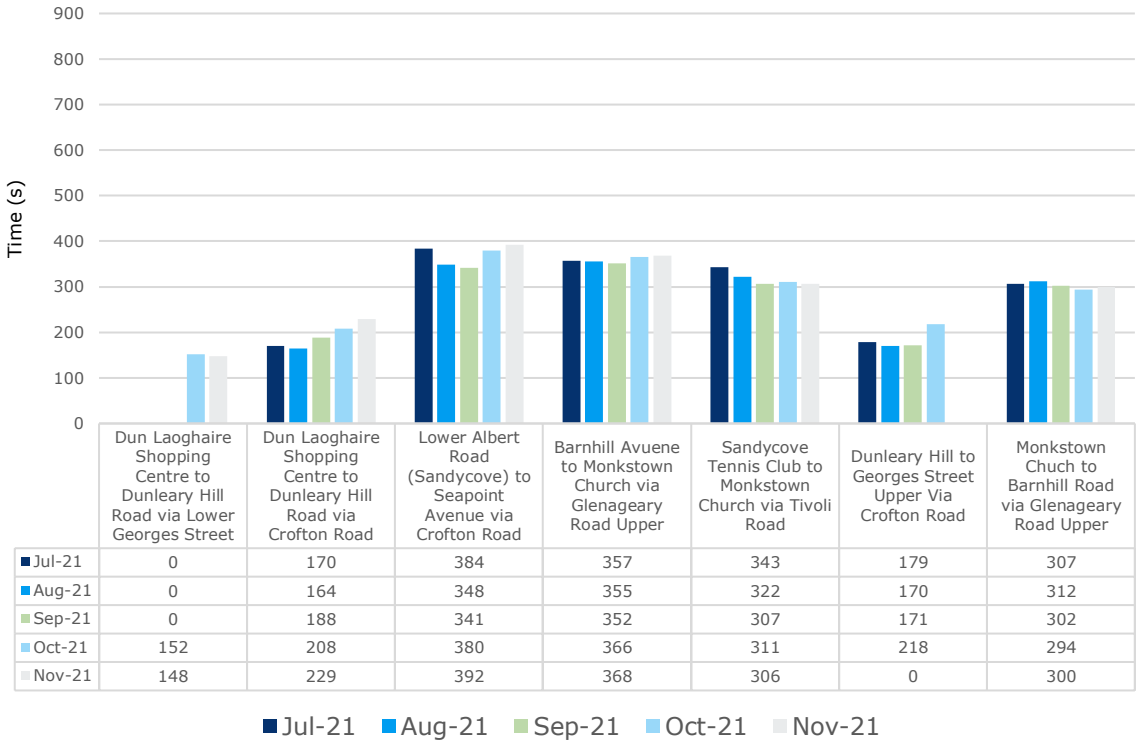


Figure 7-14 - Typical journey analysis map illustrating the 7 routes assessed to consider the impacts of the pedestrianised zone on the wide traffic network.

Figure 7-15 to Figure 7-18 illustrate the average journey time across the 7 routes within the Dún Laoghaire area between 5th July 2021 and 30th November 2021. The figures compare the average time taken in seconds for each given month.

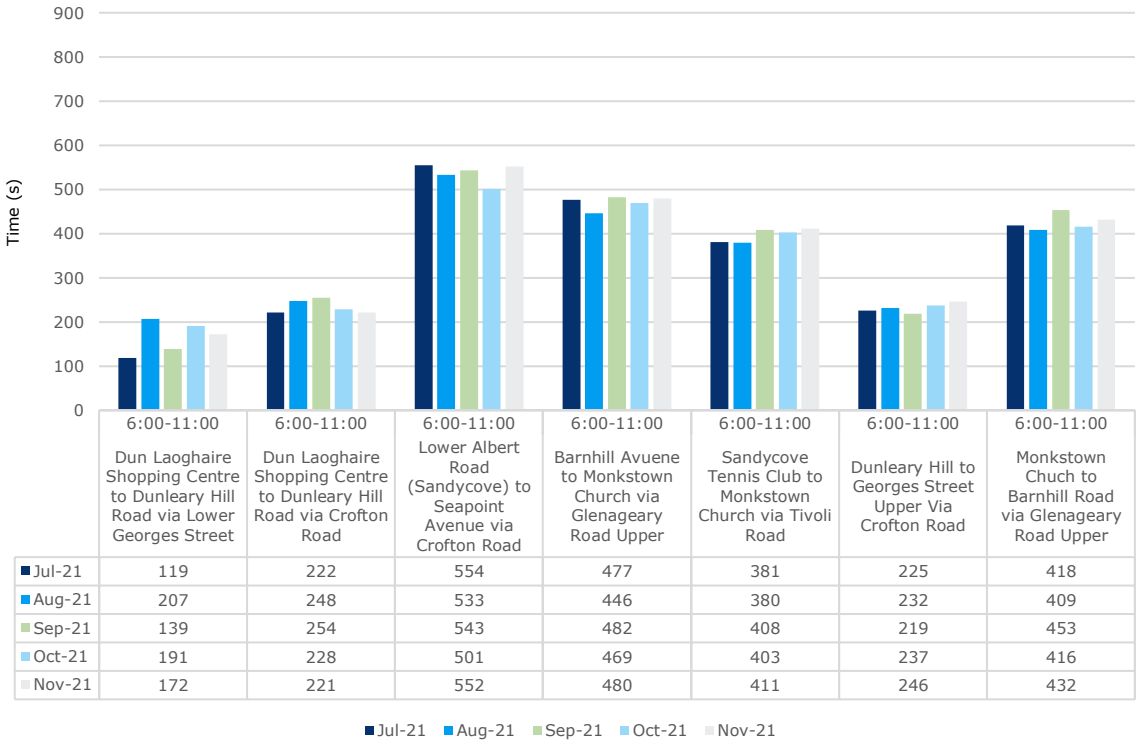
In July, August and September 2021 during the trial period access to Georges Street Lower was restricted, with only deliveries permitted during the 06:00 to 11:00, all other motorised traffic was diverted onto an alternative route. As a result, Figure 7-15 to Figure 7-18 do not have journey time data for routes via Lower Georges Street in July, August and September, with the exception of the 06:00-11:00 period when deliveries were facilitated. The figures illustrate that the journey times are generally consistent across the local area network and not impacted by closure. There is a correlation between journey times across the months of July, August, September, October and November 2021. In some instances, the journey times have reduced during the trial period and in some instances journey times have increased. Variances between the journey times are proportionally small. For example, the journey time between Georges Street Upper at the bus stop for Dún Laoghaire Shopping Centre and the Dún Laoghaire Road Cumberland Street Junction via Crofton Avenue in the AM peak took on varies by a maximum of 30 seconds across the 5-month period; with only a 6 second average journey time difference

between July 2021 (during the trial) and October (post-trial) in the AM Peak (06:00 to 11:00). Therefore, no significant difference in journey times was identified in any of the routes analysed.



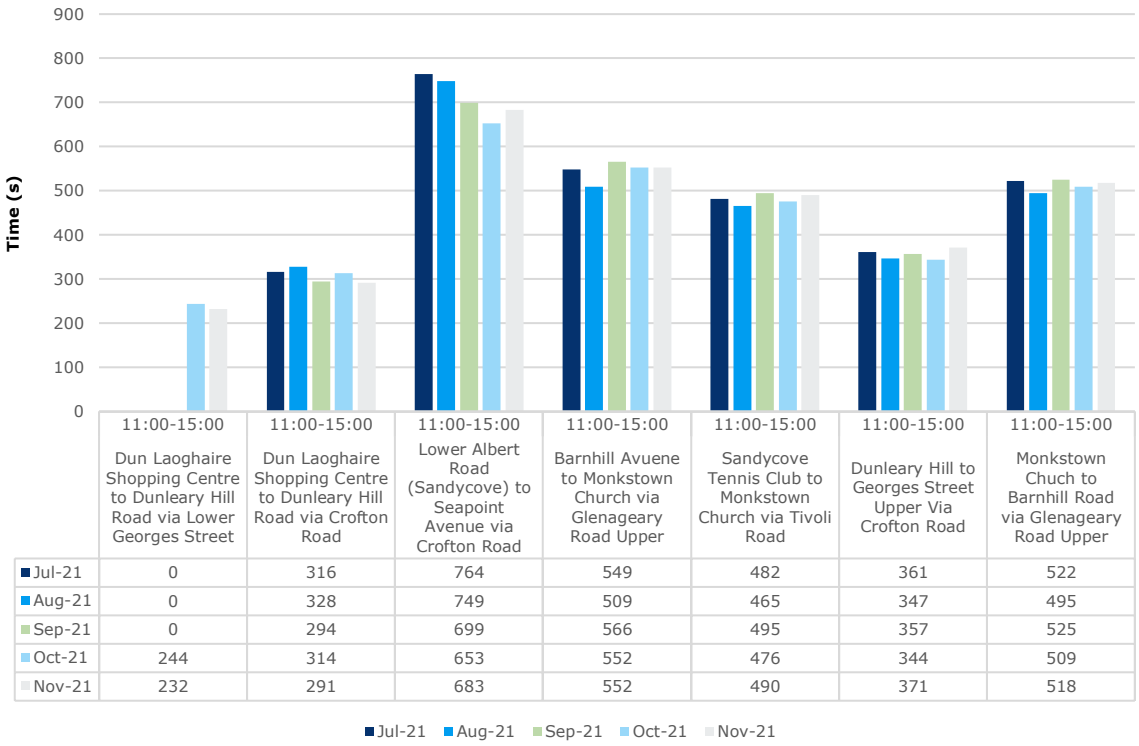
	Dun Laoghaire Shopping Centre to Dunleary Hill Road via Lower Georges Street	Dun Laoghaire Shopping Centre to Dunleary Hill Road via Crofton Road	Lower Albert Road (Sandycove) to Seapoint Avenue via Crofton Road	Barnhill Avuene to Monkstown Church via Glenageary Road Upper	Sandycove Tennis Club to Monkstown Church via Tivoli Road	Dunleary Hill to Georges Street Upper Via Crofton Road	Monkstown Chuch to Barnhill Road via Glenageary Road Upper
Jul-21	0	170	384	357	343	179	307
Aug-21	0	164	348	355	322	170	312
Sep-21	0	188	341	352	307	171	302
Oct-21	152	208	380	366	311	218	294
Nov-21	148	229	392	368	306	0	300

Figure 7-15 Motorised Vehicle Journey Time(s) across typical routes (00:00hrs to 06:00hrs)



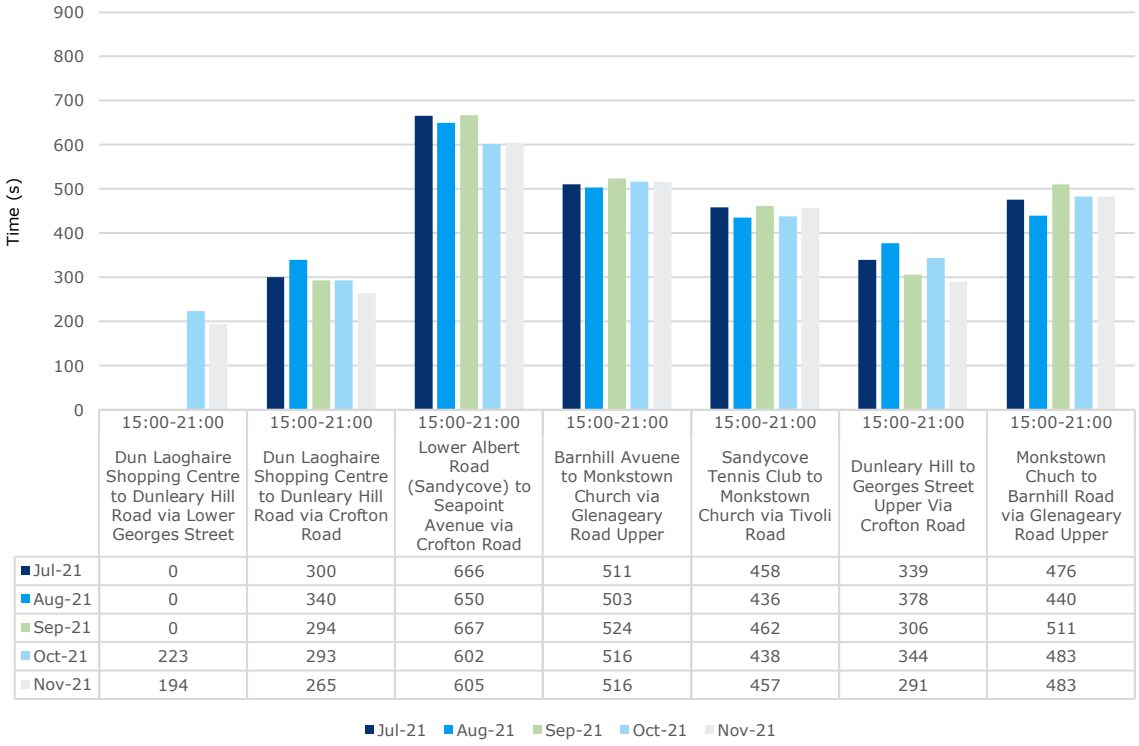
	6:00-11:00 Dun Laoghaire Shopping Centre to Dunleary Hill Road via Lower Georges Street	6:00-11:00 Dun Laoghaire Shopping Centre to Dunleary Hill Road via Crofton Road	6:00-11:00 Lower Albert Road (Sandycove) to Seapoint Avenue via Crofton Road	6:00-11:00 Barnhill Avuene to Monkstown Church via Glenageary Road Upper	6:00-11:00 Sandycove Tennis Club to Monkstown Church via Tivoli Road	6:00-11:00 Dunleary Hill to Georges Street Upper Via Crofton Road	6:00-11:00 Monkstown Chuch to Barnhill Road via Glenageary Road Upper
Jul-21	119	222	554	477	381	225	418
Aug-21	207	248	533	446	380	232	409
Sep-21	139	254	543	482	408	219	453
Oct-21	191	228	501	469	403	237	416
Nov-21	172	221	552	480	411	246	432

Figure 7-16 Motorised Vehicle Journey Time(s) across typical routes (06:00hrs to 11:00hrs)



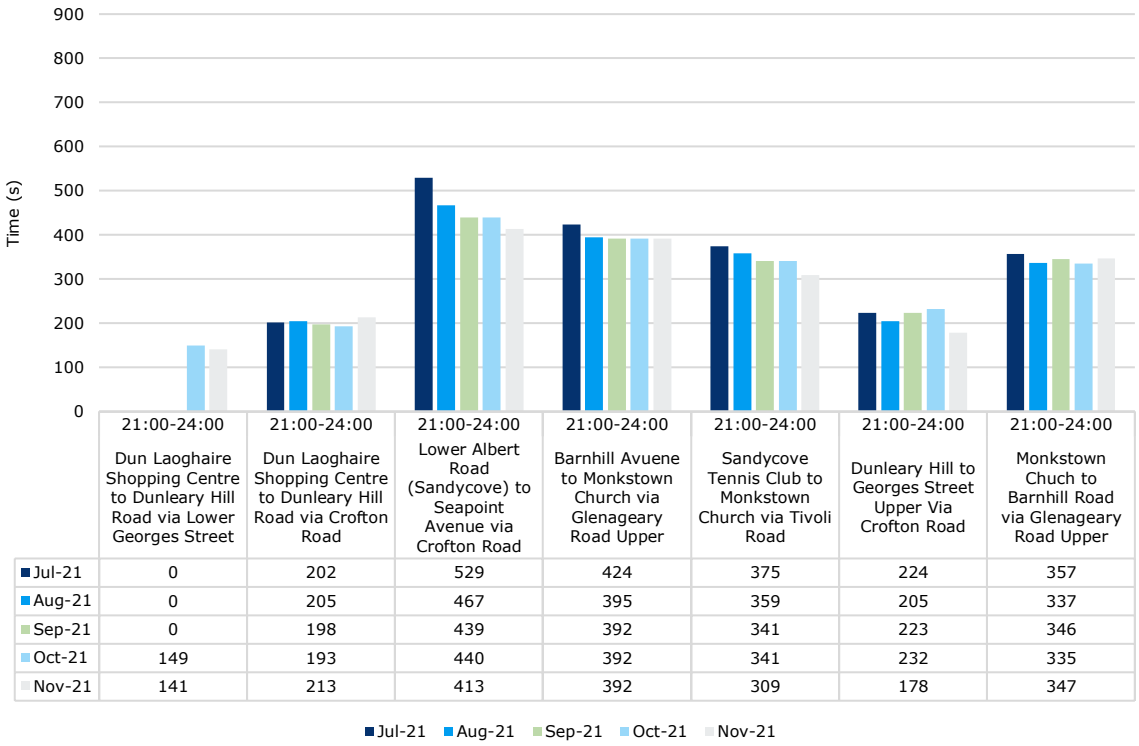
	11:00-15:00 Dun Laoghaire Shopping Centre to Dunleary Hill Road via Lower Georges Street	11:00-15:00 Dun Laoghaire Shopping Centre to Dunleary Hill Road via Crofton Road	11:00-15:00 Lower Albert Road (Sandycove) to Seapoint Avenue via Crofton Road	11:00-15:00 Barnhill Avuene to Monkstown Church via Glenageary Road Upper	11:00-15:00 Sandycove Tennis Club to Monkstown Church via Tivoli Road	11:00-15:00 Dunleary Hill to Georges Street Upper Via Crofton Road	11:00-15:00 Monkstown Chuch to Barnhill Road via Glenageary Road Upper
Jul-21	0	316	764	549	482	361	522
Aug-21	0	328	749	509	465	347	495
Sep-21	0	294	699	566	495	357	525
Oct-21	244	314	653	552	476	344	509
Nov-21	232	291	683	552	490	371	518

Figure 7-17 Motorised Vehicle Journey Time(s) across typical routes (11:00hrs to 15:00hrs)



	15:00-21:00 Dun Laoghaire Shopping Centre to Dunleary Hill Road via Lower Georges Street	15:00-21:00 Dun Laoghaire Shopping Centre to Dunleary Hill Road via Crofton Road	15:00-21:00 Lower Albert Road (Sandycove) to Seapoint Avenue via Crofton Road	15:00-21:00 Barnhill Avuene to Monkstown Church via Glenageary Road Upper	15:00-21:00 Sandycove Tennis Club to Monkstown Church via Tivoli Road	15:00-21:00 Dunleary Hill to Georges Street Upper Via Crofton Road	15:00-21:00 Monkstown Chuch to Barnhill Road via Glenageary Road Upper
Jul-21	0	300	666	511	458	339	476
Aug-21	0	340	650	503	436	378	440
Sep-21	0	294	667	524	462	306	511
Oct-21	223	293	602	516	438	344	483
Nov-21	194	265	605	516	457	291	483

Figure 7-18 Motorised Vehicle Journey Time(s) across typical routes (15:00hrs to 21:00hrs)



	21:00-24:00 Dun Laoghaire Shopping Centre to Dunleary Hill Road via Lower Georges Street	21:00-24:00 Dun Laoghaire Shopping Centre to Dunleary Hill Road via Crofton Road	21:00-24:00 Lower Albert Road (Sandycove) to Seapoint Avenue via Crofton Road	21:00-24:00 Barnhill Avuene to Monkstown Church via Glenageary Road Upper	21:00-24:00 Sandycove Tennis Club to Monkstown Church via Tivoli Road	21:00-24:00 Dunleary Hill to Georges Street Upper Via Crofton Road	21:00-24:00 Monkstown Chuch to Barnhill Road via Glenageary Road Upper
Jul-21	0	202	529	424	375	224	357
Aug-21	0	205	467	395	359	205	337
Sep-21	0	198	439	392	341	223	346
Oct-21	149	193	440	392	341	232	335
Nov-21	141	213	413	392	309	178	347

Figure 7-19 Motorised Vehicle Journey Time(s) across typical routes (21:00hrs to 00:00hrs)

7.2.2.7 Vehicular Traffic Summary

In summary, vehicular traffic at both a strategic and local level performed similarly during the trial and post-trial periods in terms of average speeds and journey times.

Traffic restrictions on Lower Georges Street have increased some journey times for traffic which has been diverted onto alternative routes, although these additional increases have been proportionately small (typically less than 1 minute).

It is noted that the journey time impact appears initially more during July 2021, immediately following implementation. This is consistent with observations on site and via independent parties such as An Garda Síochána, with the initial traffic management plan taking a couple of weeks to settle in.

7.3 Public Transport & Bus Performance

Public Transport movements, specifically Dublin Bus Routes 46, 63, 75 and 7 were diverted as part of the trial. Analysis of the bus movements, journey time reliability and queuing were completed by Dublin Bus. Feedback from Dublin Bus highlighted similar concerns to those raised by users surveyed in regard to accessibility of the temporary relocated stops. This issue is further considered in section 13.1 and identified as a key area for consideration in the development of any permanent proposal.

7.4 Air Quality Data

A short-term nitrogen dioxide (NO_2) diffusion tube monitoring survey was undertaken at twelve locations across the Summer Streets intervention areas and surrounding road network between July 2021 and October 2021 to provide a preliminary assessment of the effect of the project on local air quality (NO_2). Results were bias corrected with two of the diffusion tubes collocated with

the automatic sensor (Station 34 automatic NO_2 analyser in Dún Laoghaire[5]). Monitoring locations are shown in Figure 7-20.

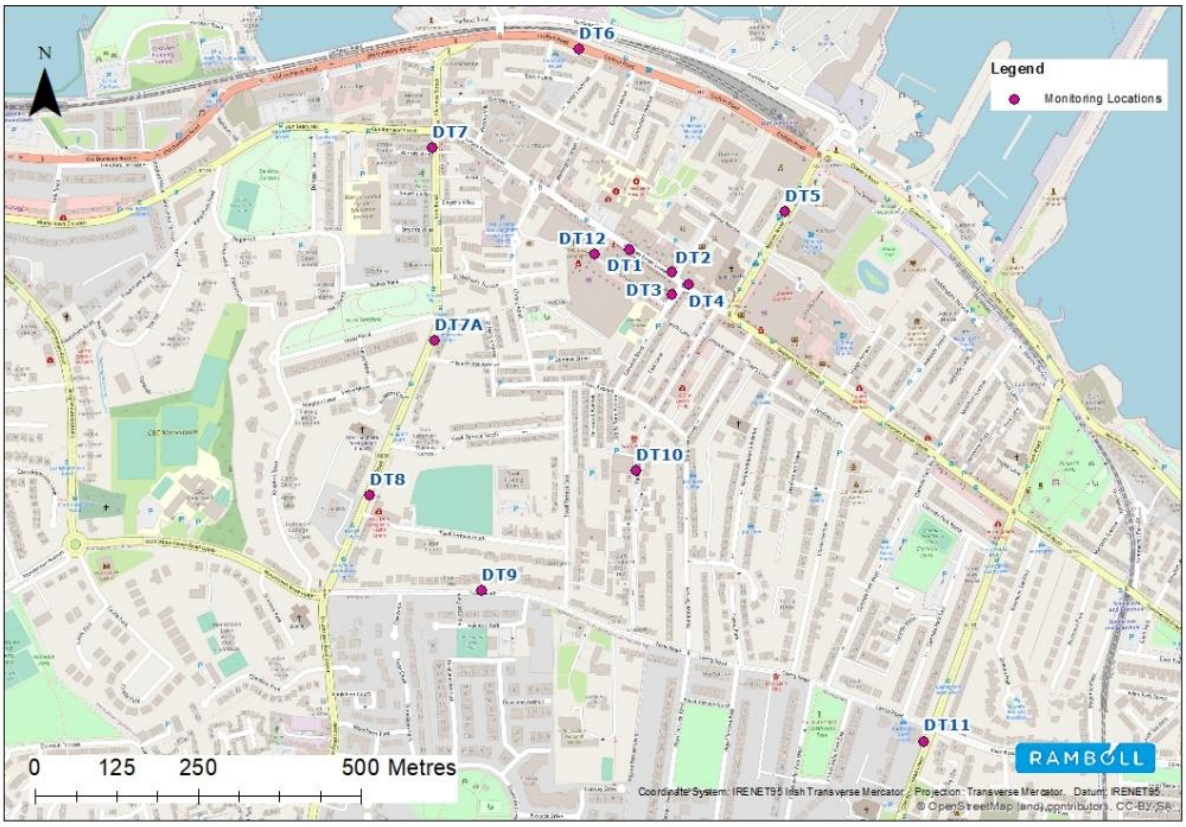


Figure 7-20 NO_2 Monitoring Locations

Monitoring sites DT1, DT2, DT3, DT4 and DT12 were close to the intervention areas and sites DT5, DT6, DT7, DT7a, DT8, DT9 and DT10 were on the surrounding road network. Site DT11 was co-located with the Station 34 automatic analyser. By comparing the data for the monitoring sites close to the intervention areas with the data for sites further away it is possible to discern whether the Summer Streets scheme had a measurable impact upon local air quality. This is discussed in Section 11.2.

[5] Station 34 Dún Laoghaire, Co. Dublin | AirQuality.ie

7.5 Noise Data

Sound level monitoring stations were installed at fixed monitoring locations around the project route. These devices operated as continuous monitoring station recording environmental noise levels. Web based EM2030 Sound Level Monitors were installed in proximity to the closest receptors to the site.

The following tables and associated images summarize the locations where environmental noise monitoring instrumentation were installed on site and also the instrumentation used for the project.

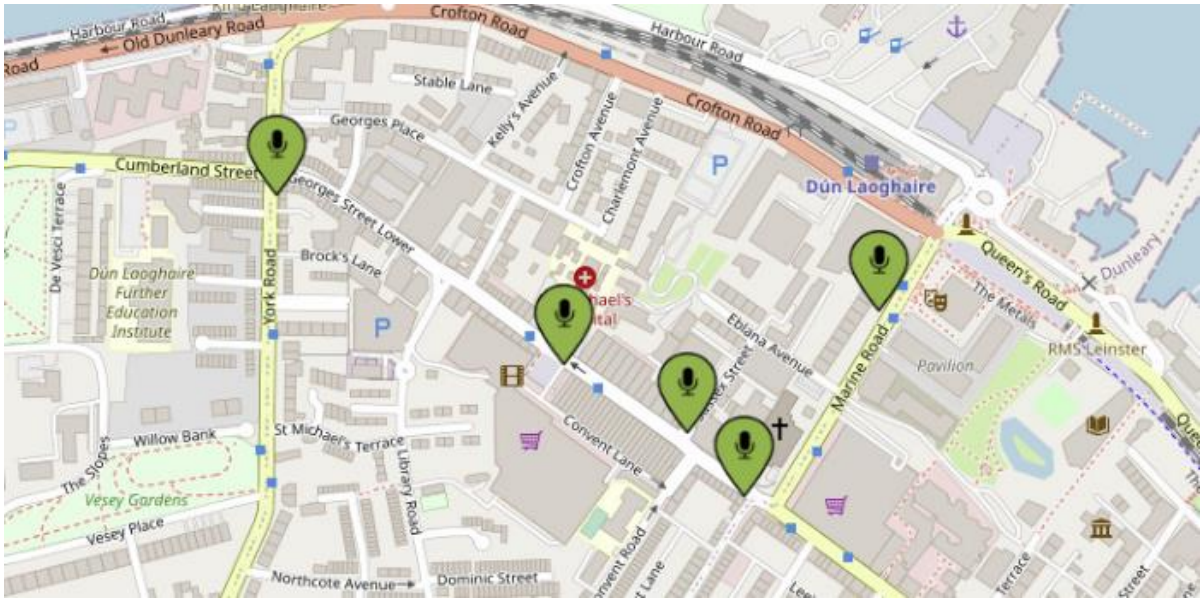


Figure 7-21 Noise Monitoring Locations

N1		*Environmental sound level meter*	Marine Rd S/N 00883	Installed 07/07/2021
N2		*Environmental sound level meter*	Lower Georges St SN 00861	Installed 07/07/2021
N3		*Environmental sound level meter*	Penny's Junction S/N 00934	Installed 07/07/2021
N4		*Environmental sound level meter*	York St. SN 00872	Installed 07/07/2021

Figure 7-22 Noise Monitoring Instrumentation and Locations

The monitoring was undertaken during the summer months of July-August 2021, when the pedestrianisation scheme was in place, and through September-October 2021, when the streets were reopened to road traffic.

The results of the noise monitoring have been analysed to investigate whether any significant differences in overall noise level can be determined, with a comparison made between pedestrianised and non-pedestrianised datasets.

Specifically, the noise levels measured at N2 and N3 receptors have been compared:

- N2 was located at Lower Georges St (SN 00861);
- N3 was located at Pennys Junction (SN 00934).

These datasets have been chosen as they represent the middle of the pedestrianised zone (N3) and locations nearer to road links which did not have any restrictions (N2).

Two sample daytime periods within these datasets were chosen for comparison:

1) 1200-1700hrs on Wednesdays to represent typical weekday noise levels;
2) 1200-1700hrs on Saturdays to represent typical weekend noise levels.

These periods were chosen to coincide with periods outside of rush-hour or localised deliveries to businesses.

8. STAKEHOLDER ENGAGEMENT & FEEDBACK

DLRCC was keen to work in partnership with businesses and communities and invited suggestions to help ensure the success of the Summer Streets scheme. As such it undertook pre-trial consultations, as described in Section 2.3. DLRCC also encouraged feedback throughout the pedestrianisation period, by way of three surveys described in section 7.1. The following sections summarise key findings around sentiment from the consultation period as well as the surveys.

8.1 Pre-trial Consultation Results

Following public consultation process outlined in Section 2, showed a significant level of public support, with 70% of the responses supportive, DLRCC proceeded with the Dún Laoghaire Summer Streets initiative, including the trial pedestrianisation of George's St. Lower. An extensive public awareness plan was implemented, including a detailed traffic management plan and diversion routes.

In view of the feedback and comments provided by the public, a range of mitigation and enhancement measures were integrated into the project, and this includes enhanced street cleansing and maintenance, detailed measures to manage traffic and optimise traffic flow, improved accessibility for all users, ongoing engagement with An Garda Síochána on traffic and community policing and a focus on animating and enlivening the streetscape, whereby street activities were planned, managed and activated in collaboration with stakeholders.

The public engagement on the proposed public realm interventions in Dún Laoghaire showed significant support for the proposals, with a large number of positive suggestions put forward in the consultation to help make the initiative a success. However, it is acknowledged that concerns were raised, and these concerns were addressed to the greatest extent possible by the trial design.

8.2 Stakeholder Surveys

The residents survey showed an overwhelming positive response to the Summer Streets scheme, with over 82% stating a positive response (very or fairly positive). A similar proportion of residents (80%) also stated that the scheme made Dún Laoghaire a "nicer place to live", with 75% stating they will be disappointed when it ends. The results of the on-street survey gave a 74% positive opinion of the new pedestrianised layout of Lower Georges Street. Men showed a slightly more positive response than women, with 77% of men responded "very positive" or "fairly positive" in comparison to 71% of women.

Analysis of the residents and on-street surveys showed an overall positive response to the Summer Streets scheme, where business opinions were more mixed as seen on the following graph.

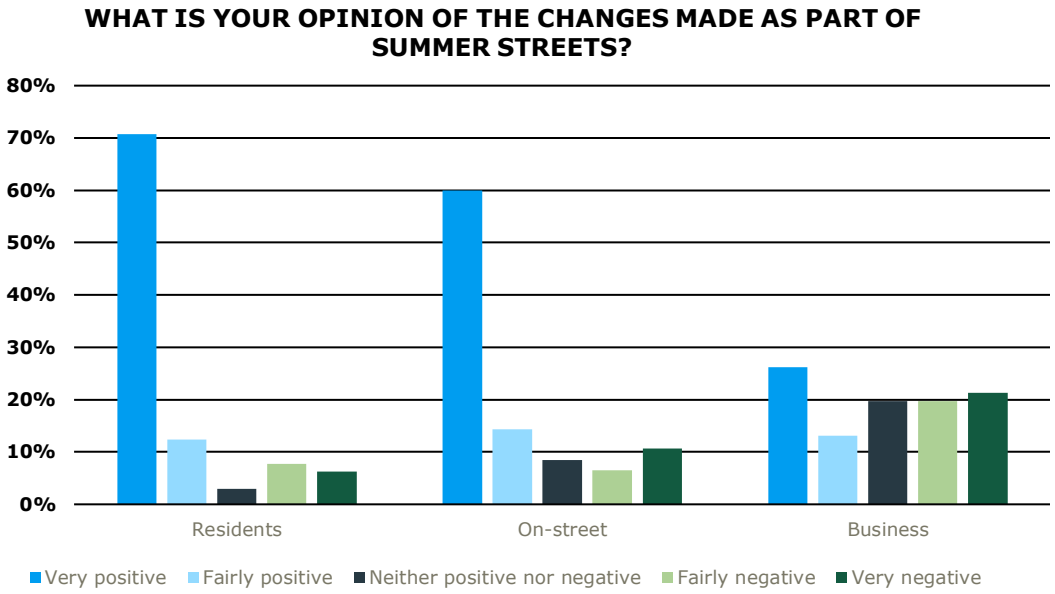


Figure 8-1. General Opinion of the Summer Streets Scheme

The majority of respondents to the residents and on-street surveys showed a preference for the scheme to be maintained, with business opinions more mixed.

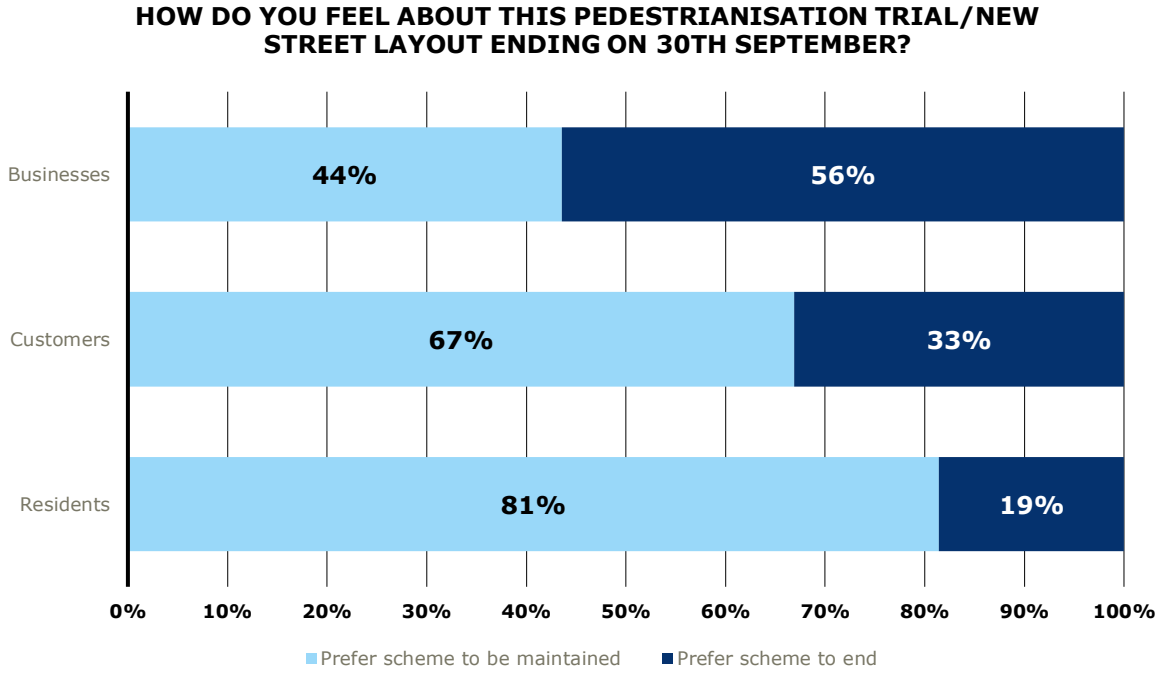


Figure 8-2. Opinion on Summer Streets Scheme Being Maintained

The majority of respondents to the residents and on-street surveys also stated that the changes in Lower Georges Street made the area a "much nicer" place to live/work. This was also the most common response amongst businesses.

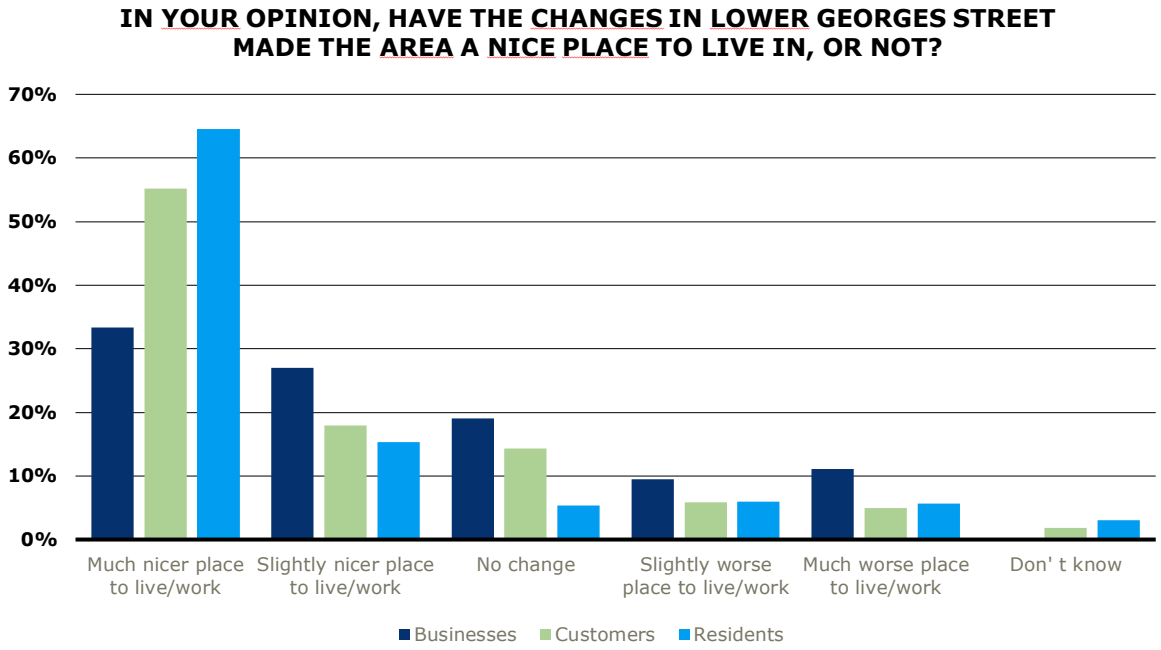


Figure 8-3. Response to Statement "the changes have made the area a nice place to live/work"

Similarly, there were positive observations from residents and on-street surveys around footfall and business activity.

Towns should be people centric, not just a throughway for traffic. There was no parking on the road already, so pedestrianisation lends to more browsing through the stores on that stretch of road. Also more social, as more likely to stop and chat if not blocking the pathways etc. More safe for my children. Everything about it was brilliant.

It has completely transformed Dún Laoghaire- it's nice to be able to sit out without loads of traffic & browse the shops.

Makes main street nicer, benefits business, love the art.

Brings more life to Dún Laoghaire

We would never have gone there very often because it is dangerous with our young kids. Now it's safe and pleasant to go there for a coffee, drinks food, shopping etc. Will probably stop going once it ends.

Better sense of community, nicer dining and shopping experience, safety for our young child to enjoy the town and visually more attractive.

Lovely atmosphere. Reminds me of up market cities. would very much like if it stayed that way. It would be fantastic if you could do something festive there during Christmas!

It's amazing! To walk a street without noise, fumes, dust. To meet and chat with people. To browse the outdoor books etc. I've even taken to walking the dogs down through it on occasions, which I'd have not done previously as too noisy for them. I do 80% of my shopping within 200m of this area, so it's great to support local businesses. I've even cut out amazon in favour of local electrical accessory shops. Please keep it going!

Keep it open, livens up the place, in the last month id have spent 2000 euros here.

Table 2 Comments from Residents and On-Street Survey Respondents

When considering specific demographic groups results vary, though not significantly. The strongest correlation between opinion and specific survey group is that of bus users, whose overall response was somewhat more negative than non-bus users. This theme is explored further in Section 6.1.4 under Accessibility and Social Inclusion.

8.3 Stakeholder Workshop

After the trial ended, DLRCC held a stakeholder workshop to gather feedback and opinions on the Summer Streets scheme, in addition to the surveys discussed previously. A variety of stakeholders took part, including representatives from the residents' association, DLBA, Tidy Towns and the Gardaí. While the feedback from the session was generally positive, there were several additional suggestions and observations provided, which are detailed in section 17 of this report.

9. ECONOMIC OUTCOMES

9.1 Context

Across the wider Dublin area, the effects of the pandemic have been beginning to ease, with Dublin Economic Monitor reporting 20,000 fewer recipients of the Pandemic Unemployment Payment in August 2021. The most recent PMI Survey for Dublin has also showed an acceleration in business activity, reaching a 7 year high in Q3 2021. In terms of retail sales, the latest data for Dublin (Q2 2021) showed a modest recovery of 5.1% Quarter on Quarter and a more substantial Year on year recovery of 17.1%, encouraged by the lifting of restrictions on travel and commercial activity. In terms of the type of spending, household goods and entertainment were key drivers of the increase:

Figure 9-1 Dublin Retail Sales Value Index

This is significant for this analysis as the DLR Local Economic & Community Plan (LECP, 2016)[6] cited the importance of promoting the revitalisation and development of the retail sector in town centre locations, noting that a continued decline in retail trade could pose a threat to town centres as community hubs and sources of employment.

DLR is a county of contrasts with small areas of significant affluence and of significant disadvantage. Most individuals are in the higher socio-economic group ABC1, according to the NRS classification system which is based on occupation[7]. The second highest proportion is in the lowest group DE The contrast across areas in DLR can also be seen with regards to local housing (some small areas see growing housing vacancies) and deprivation. In terms of deprivation, DLR's 9.98 Pobal HP Deprivation Index was markedly higher than the 4.12 average at the Dublin level, suggesting that the county is, overall, an affluent area. However, Pobal HP Deprivation Index results vary unequally across the area, with DLR containing pockets of poverty hidden within larger areas of affluence.

The labour force participation rate in DLR is relatively low, in comparison to the national average and the average in the rest of the Greater Dublin Area (LECP) 2016), and the majority of the employment base is male (explained largely due to the relatively higher number of working-age females looking after families at home compared to men). This trend was also reflected in the Summer Streets survey responses and is discussed further in section 12 of this report (Accessibility and Social Inclusion). In general, policy aimed at improving urban outcomes in DLR needs to recognise and consider these unequal distributions of socio-economic characteristics.

[6] Dún Laoghaire-Rathdown. (2016). LOCAL ECONOMIC AND COMMUNITY PLAN 2016-2021. Online: local_economic_and_community_plan.pdf (dlrcoco.ie)

[7] Socioeconomic groups as per the UK National Readership Survey

According to 2016 census data, over 20% of residents working within DLR work in the "Wholesale, Retail Trade, Transportation and Storage, Accommodations and Food Services Activities" industry sector. Multiple news articles and retail reports have reported that Covid-19 has "sped up the demise of the high street", and it was therefore particularly important to evaluate the impact of the Summer Streets scheme on local businesses. As well as monitoring changes in footfall (Section 10.3), a range of local businesses were surveyed. Dún Laoghaire businesses span multiple sectors, and a sample of 63 of these were surveyed as part of this evaluation (see section 10.4). Those directly impacted by the pedestrianisation are shown on the map below.

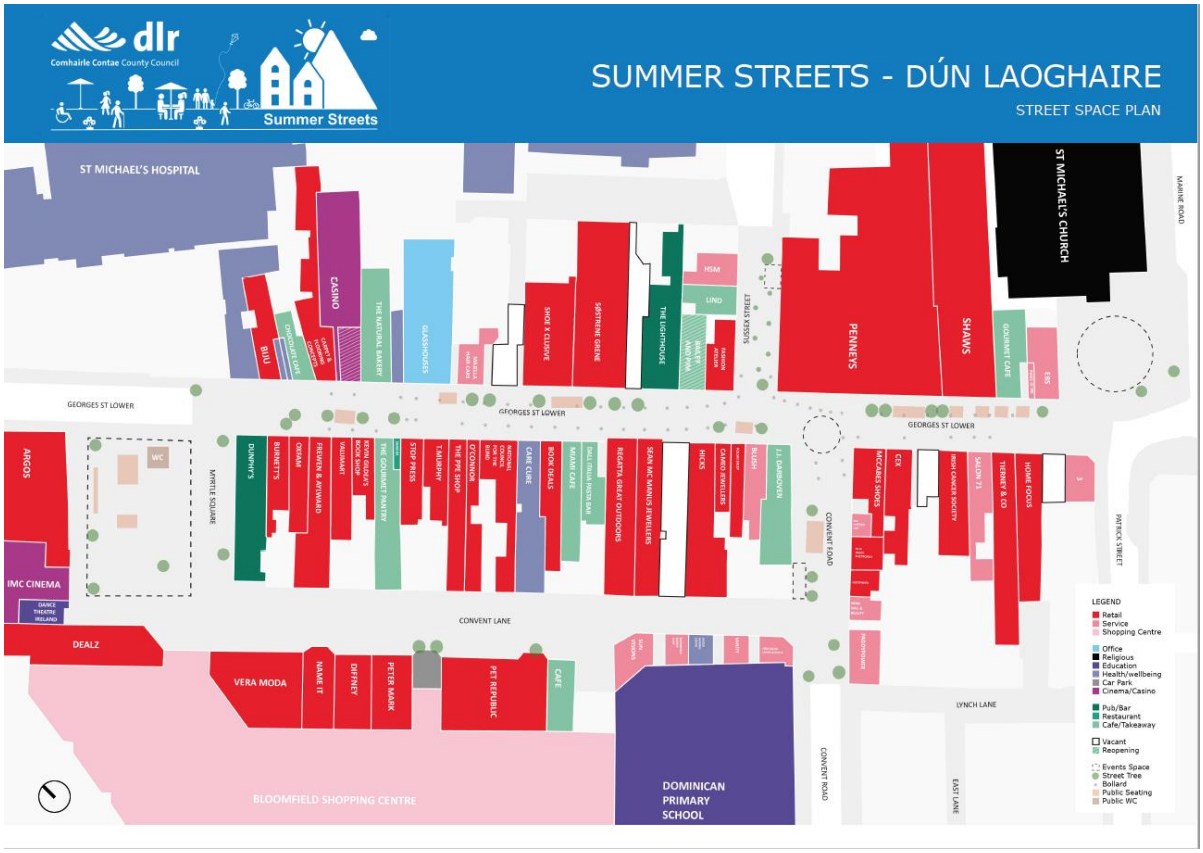


Figure 9-2 Summer Streets- Dún Laoghaire Street Space Plan

9.2 Spending

As part of the on-street survey, respondents were asked how much they were planning to spend, or had spent that day, and responses were grouped into the below options:

- €0
- €1-20
- €21-50
- €51+

This was then analysed and spilt into various demographic groups, to identify potential correlations. In terms of gender, responses were very similar for the two extreme categories (€0 and €51+), though a greater proportion of women (44%) planned to spend between €21-50 than men (32%).

With regards to age, most groups reported similar spending intentions with the exception of the 16-30 group. Where the spending intentions of the other age groups were more balanced

(roughly 36% between €1-20, 37% between €21-50 and 26% over €51), the majority of young people differed with the majority (48%) planning to spend €1-20 and only 12% planning to spend more than €51.

Perhaps unsurprisingly, a greater proportion of those who lived outside of Dún Laoghaire were planning to spend over €51, in comparison to those who lived within 5km and had a shorter distance to travel. It is noted however that a greater proportion of trips to DLR are local journeys as discussed in section 7.2. 18-19% of those who lived within 5km of Dún Laoghaire were likely to spend in this higher category (over €51), compared to 32% of those who lived in Dublin but not DLR, and 39% of those who lived elsewhere in Ireland. In a similar vein, those who travelled to Dún Laoghaire by car were the most likely (51%) to spend €51+, compared to 14% who walked, 19% who arrived by bus, 18% who took the DART and 11% who cycled. Similarly, spending patterns were seen to correlate with frequency of visit; the less frequently respondents visited Dún Laoghaire (for instance, 1-4 times in the last month), the more likely they were to report the highest spend (€51+).

9.3 Footfall Data

9.3.1 Pedestrians

Overall, daily pedestrian footfall in the area increased during the Summer Streets scheme.

The most notable change in pedestrian footfall was seen within the pedestrian area (location S1), which saw an increase in average daily footfall of 9% during the scheme, compared to the daily average before. There was an even more significant increase at weekends, with 16% more footfall than in the previous 5 weeks. A small decline was observed at the counter at the top of Marine Road (location S2) during the scheme as shown in Table 3 Pedestrian Footfall Analysis below, which was more substantial during weekdays. An overall increase of 4% was observed at Upper Georges St (location 3).

Sensor	Daily average before	Daily average during	% Change	Average weekday before	Average weekday during	% Change	Average weekend before	Average weekend during	% Change
S1	2,679	2,917	9%	2,672	2,846	7%	2,696	3,117	16%
S2	4,054	3,932	-3%	4,155	4,001	-4%	3,800	3,765	-1%
S3	1,713	1,783	4%	1,731	1,797	3%	1,669	1,751	4%

Table 3 Pedestrian Footfall Analysis

With regards to the direction of movement, the changes for both sensors 1 and 2 were consistent. In other words, there was an increase in movement both in (towards the hospital) and out (towards Marine Road) from S1, and a decrease in and out for S2. Interestingly for S3, there was a difference in terms of the direction of movement and recorded footfall, with 16% more movement towards the pedestrianised area, and a reduction of 10% in the other direction. These changes are highlighted on the figure below.

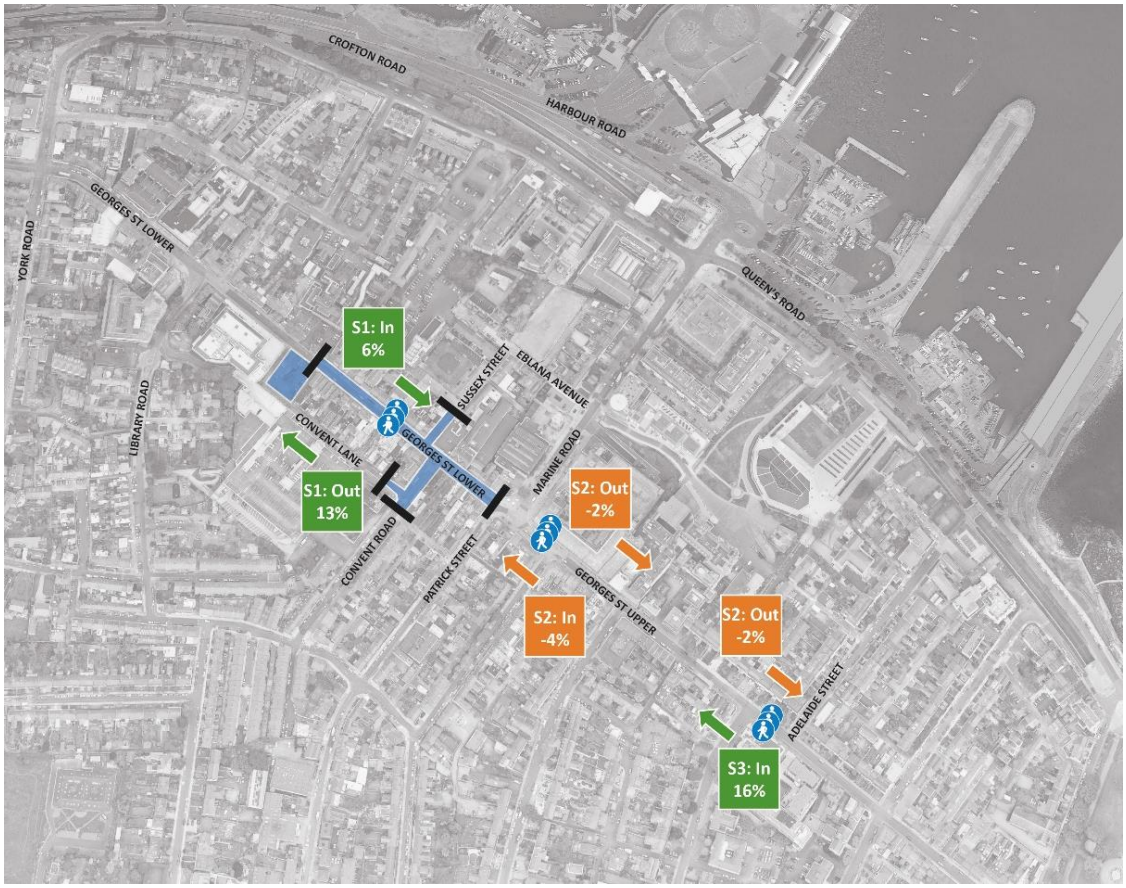


Figure 9-3 Sensor Locations and Footfall Changes

As shown on the following graph, the comparison of sensor data before, during and after pedestrianisation varies by location. At sensor 1, average weekend footfall increased significantly by almost 16% during the scheme and saw another increase of 2% after it ended. Average weekend footfall at sensor 2 remained relatively stable, with a 1% reduction during the scheme followed by a 1% increase after it ended. Sensor 3 saw an increase of 5% in weekend footfall activity, which then declined by 9% to a lower level than before Summer Streets. For all three locations the busiest weekend was the August bank holiday. The weekend after the scheme ended (01/10/2021-03/10/2021), attracted approximately 12% less pedestrian footfall than the equivalent weekend the month before.

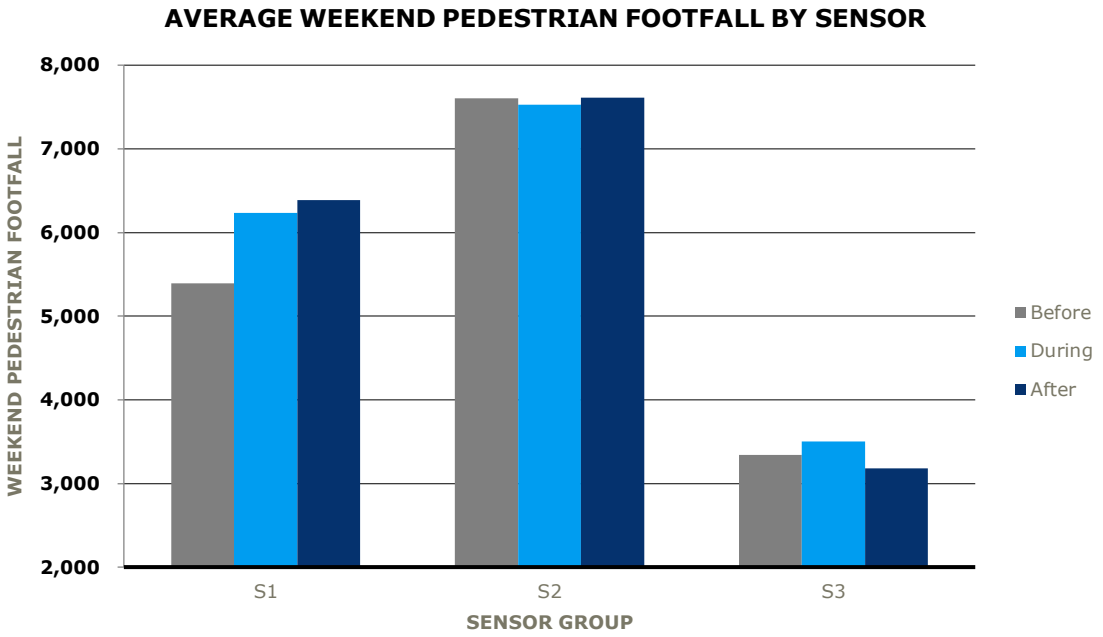


Figure 9-4 Weekend Pedestrian Footfall

The following graph shows the daily footfall for S1 (the Georges Street location in the pedestrianised area), with the three colours relating to the positioning (blue for the road, orange for the left-hand side pavement, grey for the right-hand side pavement). The impact of the pedestrianisation can be clearly seen by the sudden increase in the blue line as the scheme starts on 5th July; an area not previously accessible to pedestrians. While movement on the paths reduced slightly as a result, the total can be seen to have increased. The peaks for each of the lines show how Saturdays were most often the busiest day of the week.

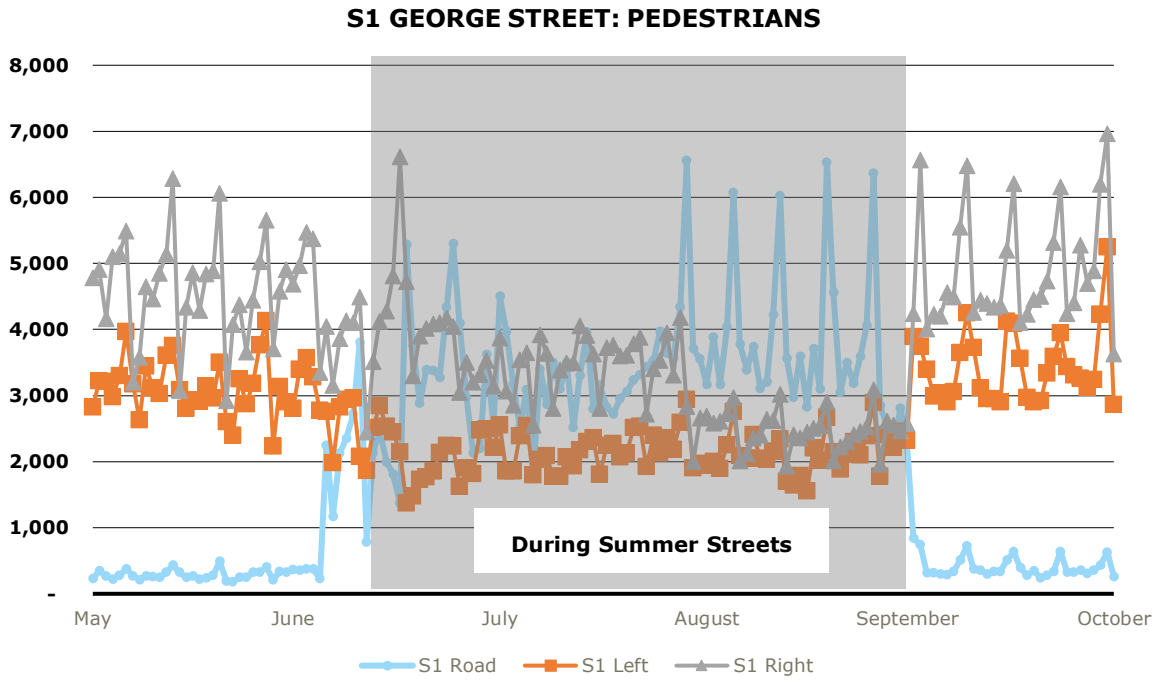


Figure 9-5 Pedestrian Footfall by Sensor Count Line: S1

Sensor 2 remained more consistent throughout the period. This graph does not include the line for the road, as it was not pedestrianised and there was no significant change in movement. Overall, the most notable change was on the right-hand side pavement, during the middle of the scheme in the weeks beginning 29/07/2021 and 02/08/2021, illustrated by the grey line on the graph below. There was a significant increase in movement on the right-hand side pavement at S2 during August bank holiday weekend.

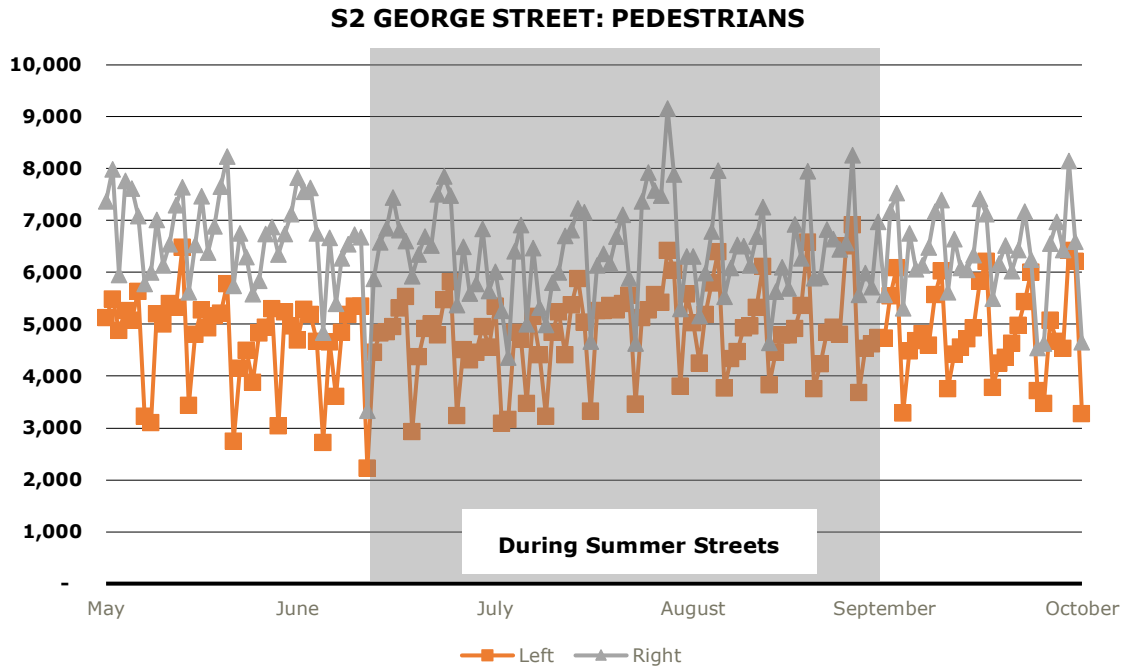


Figure 9-6 Pedestrian Footfall by Sensor Count Line: S2

The data for sensor 3 shows an interesting change in footfall when considering the different sides of the pavement. There is a substantial increase in footfall on S3 Left (shown by the orange line). This is consistent with the analysis on direction of footfall, with the 15% increase in movement towards the pedestrianised area.

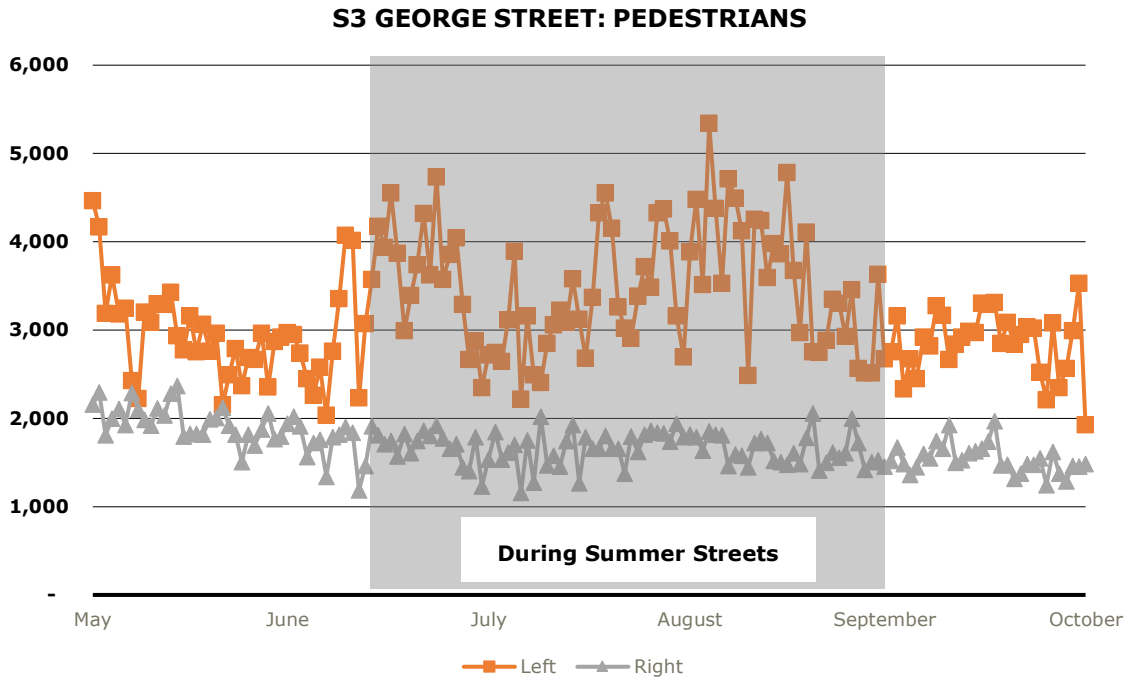


Figure 9-7 Pedestrian Footfall by Sensor Count Line: S3

9.3.2 Comparison to Business Survey Comments

Business survey comments around footfall were mixed, and the analysis in the previous section does not align with some of the observations from the business survey. For instance, at Location S1 in particular there was a substantial increase in footfall in the area at weekends. Further investigation would be required on a business-by-business level to determine why greater street-level footfall did not translate to business footfall in some cases. Details of the varied responses by business type is presented in section 9.4.

As the footfall data above compares the Summer Streets period (July/August/September) to the previous month, June, it is possible that the conflicting perceptions may be the result of businesses comparing to the previous summer, or more likely 2019. The general impact of the Covid-19 pandemic on high street retail is also likely to have played a role on footfall in the area, though estimations of this were outside the scope of this project. The impact of bus routes on accessing commercial properties is also noted and explored in section 13.1. A selection of comments from the business survey related to footfall are presented in the Table 4 Footfall Comments from Business Surveybelow.

Increased footfall
Better footfall, better atmosphere, turnover up
Massive loss in revenue, loss €7000.00 since 05.07.21 massive drop in footfall, lost collections by car =50% of revenue, confusion in access to get to shop, i.e., correct road signage, signage said dunlaoire was closed
Footfall, can't get to store as roads are blocked; no buses or bus stop nearby, people can't get to store, no proper parking
More relaxed atmosphere, more seating out front increased footfall
Lack of traffic, cars not stopping at lights to look in windows, less footfall
Turnover and footfall down

Table 4 Footfall Comments from Business Survey

To further assist with analysis of the scheme, a local business provided their own internal footfall data. This compared weekly store traffic with the same week the previous year (2020) and the same week in 2019. The data showed frequent fluctuations throughout the year, including during the pedestrianisation, and therefore no clear conclusion could be drawn on the impact of the Summer Streets scheme on footfall traffic in store.

9.4 Business Survey: General Opinion

Businesses' opinions of the Summer Streets scheme were mixed, as shown on the graph below. 26% of businesses gave the response "very positive", 13% "very negative", 12% gave the response "neither positive nor negative" and "fairly negative", and 8% described it as "fairly positive".

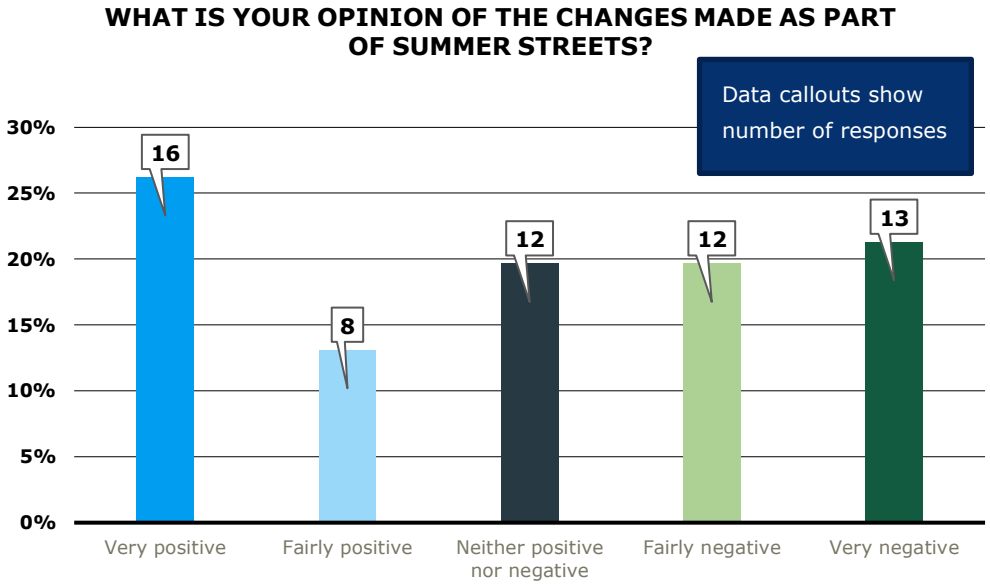


Figure 9-8 Business Opinion of Summer Streets (% of total)

As discussed in section 8, when asked how they felt about the scheme/new street layout ending, 56% of businesses responded that they would not want the scheme to be maintained (either not particularly or not at all). This group of respondents gave reasons such as "Not good for business/stressful". When asked to provide additional comments 30% of businesses also reported issues with parking. 44% responded that they would like to see the layout maintained. A key reason behind disappointment was that the scheme created a "nicer vibe/good atmosphere".

The overall sentiment around the scheme, captured via the DLRCC business survey contrasts somewhat to the separate survey carried out by the DLBA. The result of the latter survey shows 50% of businesses in favour of Summer Streets, 29% against and 21% neutral.

In terms of types of businesses in the DLRCC commissioned survey, those in the restaurants/pubs/cafes category had the highest percentage of positive responses, as shown on Figure 9-9. This graph shows the % positive and negative responses for each category as well as the "neither positive nor negative" responses. The data labels on the chart reflect the number of businesses in that category (for instance 12 clothing stores and 3 bookstores). A crucial point to consider when reviewing business responses is that businesses significantly overestimated the number of customers who travel by car and bus and underestimated the number who walk and

cycle, a topic explored further in section 12.4.4. It is therefore plausible that changes to bus routes and parking disproportionately impacted business' opinions of the scheme.

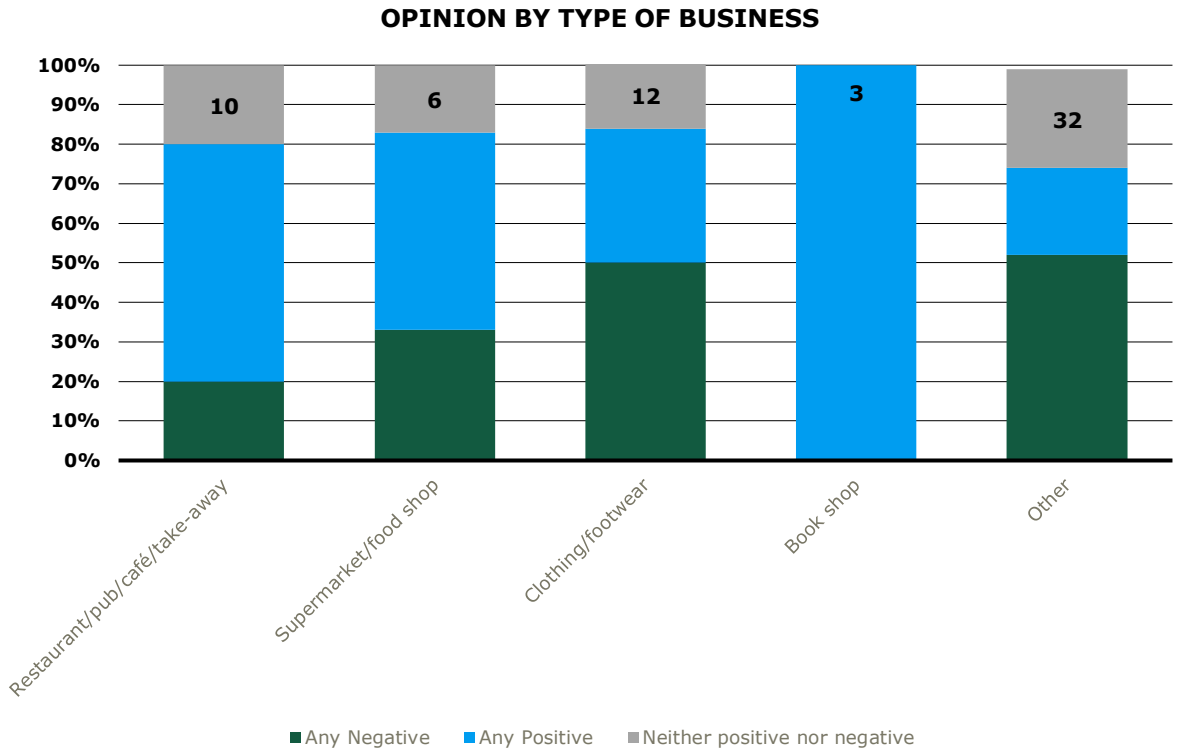


Figure 9-9 Business Opinion of Summer Streets by Type of Business

As part of the survey, businesses were asked how they thought their customers responded to the Summer Streets programme. The graph below shows businesses response compared to the responses of customers elicited via the residential and on-street surveys. It shows that businesses assumed customers perceptions were significantly more negative than the customers stated they were. This could be partly due to business' misconceptions about how customers travel to Dún Laoghaire, a theme explored in Section 12.5.

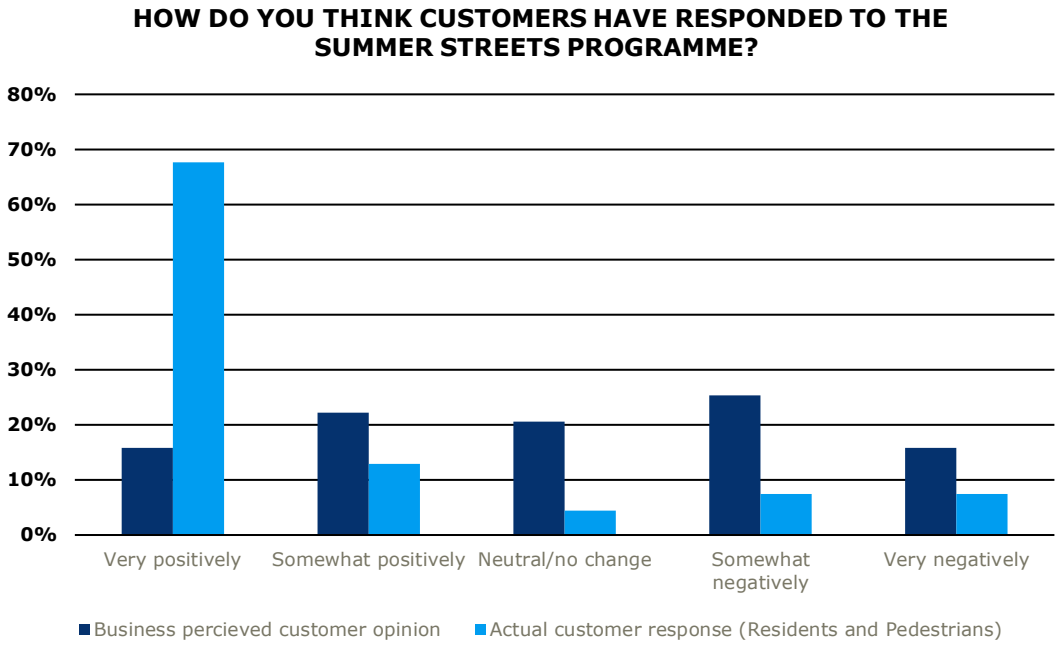


Figure 9-10 Business Perception of How Customers View Summer Streets

9.4.1 Turnover and Number of Customers

In terms of turnover, ~50% of businesses surveyed reported a reduction, 31% stated there had been no change and 20% reported an increase. Again, these results are also likely to have been impacted by the Covid-19 pandemic, and it is unclear whether businesses were comparing to the weeks prior to Summer Streets, or if they were making year on year comparisons, for instance to July and August 2019 and/or 2020. More general challenges faced by high street retail since then could have shaped business perception.

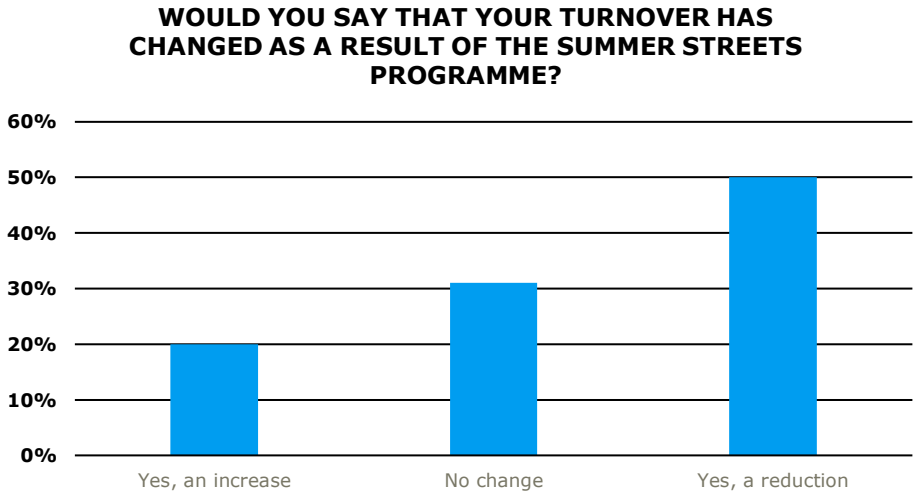


Figure 9-11 Business' Perceived Change in Turnover

The survey carried out by the DLBA showed a slightly different picture. This survey asked if sales had change over 2020 and 2019, to which ~64% reported an increase or no change.

The DLRCC commissioned survey also asked about the impact the scheme had on the number of customers. In response to this question 46% of businesses reported a decrease (large or slight), 26% reported an increase and 28% had not seen a change.

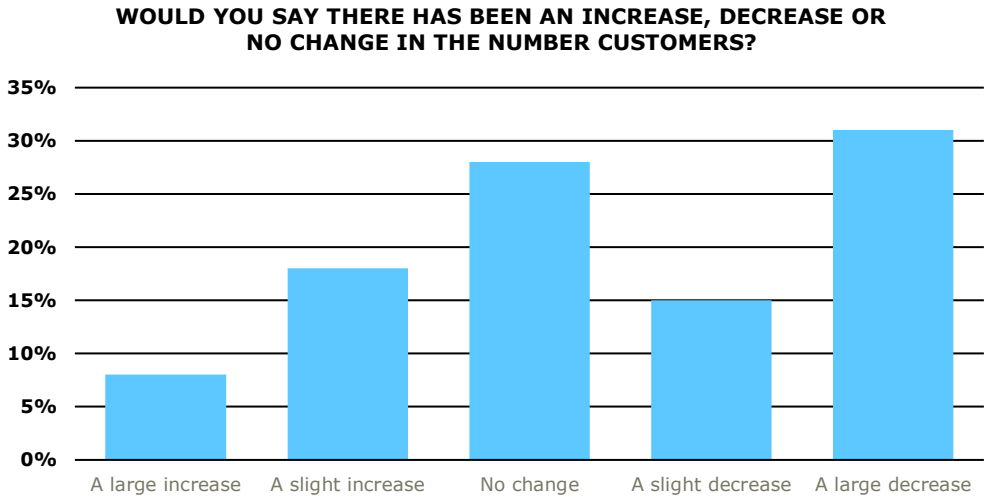


Figure 9-12 Business' Perceived Change in Number of Customers

This result varies from the responses to the DBLA survey. When asked had footfall traffic changed over 2019 and 2020, results were more balanced with just over 30% reporting a decrease, a similar proportion reporting an increase and 36% stating no change.

In the DLRCC survey, business that noted a reduction in turnover varied by industry, though only a small percentage were Restaurants/Cafes. Representative comments from businesses noting a reduction in turnover are presented below.

Sales down on last year, nice to see people walking about outside

Sales dropped significantly, issues with loading bays, no clear outline from start to get deliveries, keep chopping and changing areas

Very quiet since street was pedestrianized

Massive loss in revenue, loss €7000.00 since 05.07.21 massive drop in footfall, lost collections by car =50% of revenue, confusion in access to get to shop.

Can't get to store as roads are blocked, no buses or bus stop nearby, people can't get to store, no proper parking

Bus stop too far, some customers upset, deliveries nightmare, customers are confused about how to get around for parking and they don't now the back lanes, causing stress for customer

Had a number of calls asking how to access the shop i.e., closed or open. is road open or closed, feel the program has had a negative impact

Not convenient for customers as no parking and customer needs to carry goods to store

A lot of customers used to once a week go to Bloomfield for shopping and get a taxi home, but bus is main route and would be browsing as bus goes by and would get off and go back and buy. now bus doesn't pass shop lost lots of customers
Lack of accessibility, nowhere to park

Table 5 Comments Relating to Reduced Turnover

Of the businesses that noted an increase in turnover, comments included the following:

Increased footfall
People taking more time to shop
Better footfall, better atmosphere, turnover up
Great idea bringing people to town
More relaxed atmosphere, more seating out front increased footfall
Lot more customers
Newly opened so positive so far, people enjoying atmosphere
Hope people walking will smell popcorn and come in, nice to have people around
Looks very nice
Reduced noise, added safety for members, adds vibrancy to street to be enjoyed by members

Table 6 Comments Relating to Improved Turnover

Businesses were also asked if they felt customer numbers change across the days of the week, in comparison to before the scheme. Despite the views of businesses that overall customers numbers were down, most respondents felt either weekdays or weekends were now busier. This is shown on the tree map below, with the size of the boxes relating to the proportion of responses.

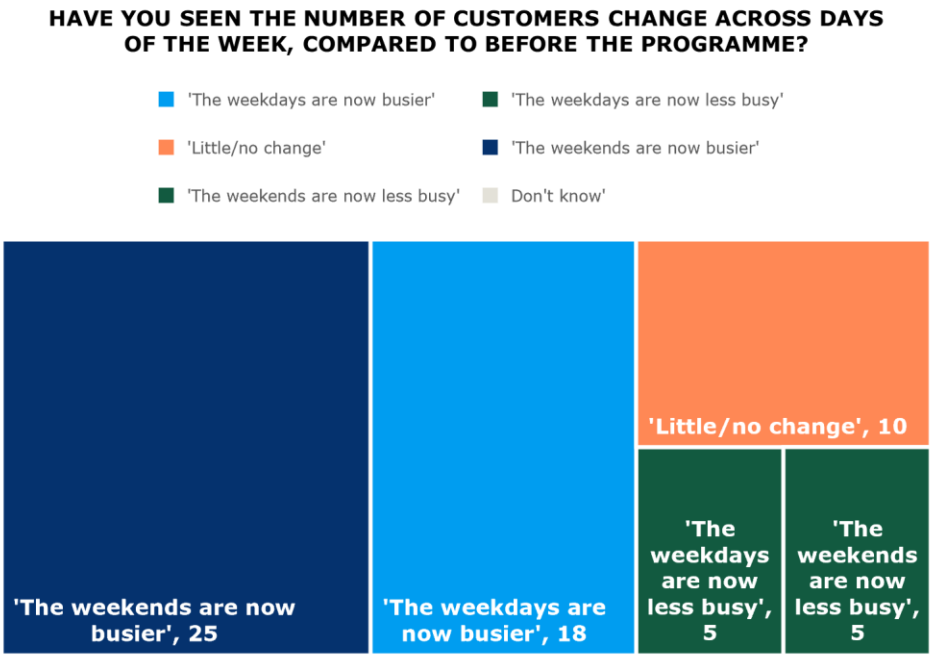


Figure 9-13 Business Opinion: Changing Numbers of Customers Across Days of the Week

Finally, all three survey groups were asked if they would agree with the statement that they (themselves or customers in the business survey) "would tend to spend longer in the area now due to the pedestrianised layout". In each survey most respondents agreed with the statement, as shown below. Over 20% of businesses disagreed strongly with this statement, in contrast to the customer response.

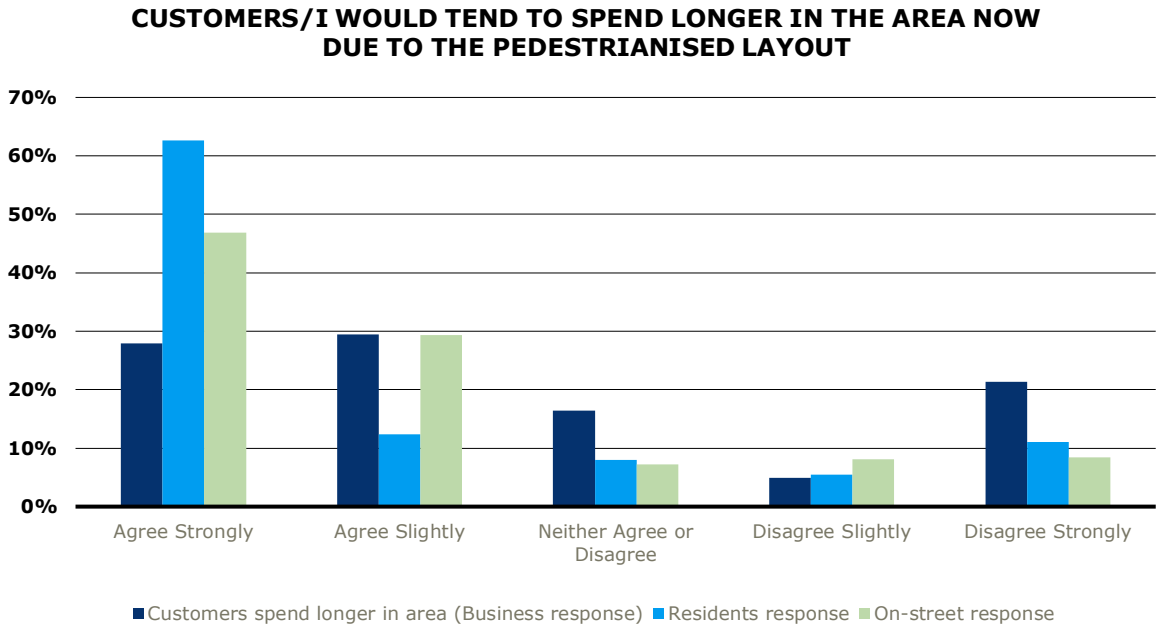


Figure 9-14 Likely to Spend Longer in the Area due to Summer Streets

10. SAFETY OUTCOMES

10.1 Context

The Common Appraisal Framework describes safety criteria as concerned with the impact of the investment (or in this case, the Summer Streets scheme) on the number of transport related accidents. This section evaluates the scheme's impact on safety by including observations from An Garda Síochána, not only in relation to traffic accidents but also anti-social behaviour and other criminal activity. Analysis of relevant survey data is also included in section 10.3.2, which considers the impact of the scheme on general perceptions of safety as well as Covid-19 measures, from the viewpoint of residents, visitors and businesses.

10.2 Policing

The main issue noted by the Gardaí was in relation to the Traffic Management System - changes to bus routes and hospital access. It was recognised that there were issues initially, but that these dissipated after the first three weeks of the project. It was also noted that individuals were congregating around the Boylan centre on Sussex Street, and that anti-social behaviour in that general area was causing unease for local Business owners. Gardaí commented that some of these business owners felt this had an impact on the overall success of the scheme and prevented the public from maximising potential benefits. A local policing plan was implemented, and the Gardaí thought that this, in parallel with the Summer Streets Project, proved to be "quite successful", with "very positive feedback" received from local businesses. They also stated that there were no major crimes reported within the area, no increase in Public Order issues and they reiterated that initial traffic issues were resolved.

10.3 Perceptions of Safety

For each of the three surveys conducted as part of this evaluation, respondents were asked to what extent they agreed or disagreed with a number of statements. Related to safety, these statements were "The pedestrianisation has made the area safer to get around" and "The layout of the street has helped with Covid-19 measures such as social distancing". The residents survey included an additional question, asking specifically if the changes had impacted safety for children. The responses to each of these are explored in the following two subsections. A final consideration with regards to safety is that there were a number of comments regarding cyclists in the pedestrianised area of Lower Georges Street, so further action should be taken to address this and enforce cyclists to dismount.

Some cyclists still zoom along so it's not as relaxing as it should be.
One complaint- The marshals could not stop cyclists cycling through the space!!
3 times in the last week my children had narrow misses with cyclists whilst on the way to school and then 2 times on their way home
Cyclists still on their bikes and E-scooters are lethal for pedestrians
There is a real issue with cyclists not dismounting and nearly hitting older people, this happened to my nearly 80 year old mum.

Table 7 Comments Relating to Perceptions of Safety

10.3.1 Pedestrianisation has Improved Area Safety

Across all three surveys, most respondents agreed that the pedestrianisation scheme had made the area safer, as shown on Figure 10-1 below. While the residents and on-street surveys followed a similar trend, the majority of businesses responded with "Agree Slightly", and 16% responded "Disagree Strongly". It is possible that this links with some of the Gardaí observations of anti-social behaviour, though as there were few comments about safety included in responses, it is difficult to know for sure.

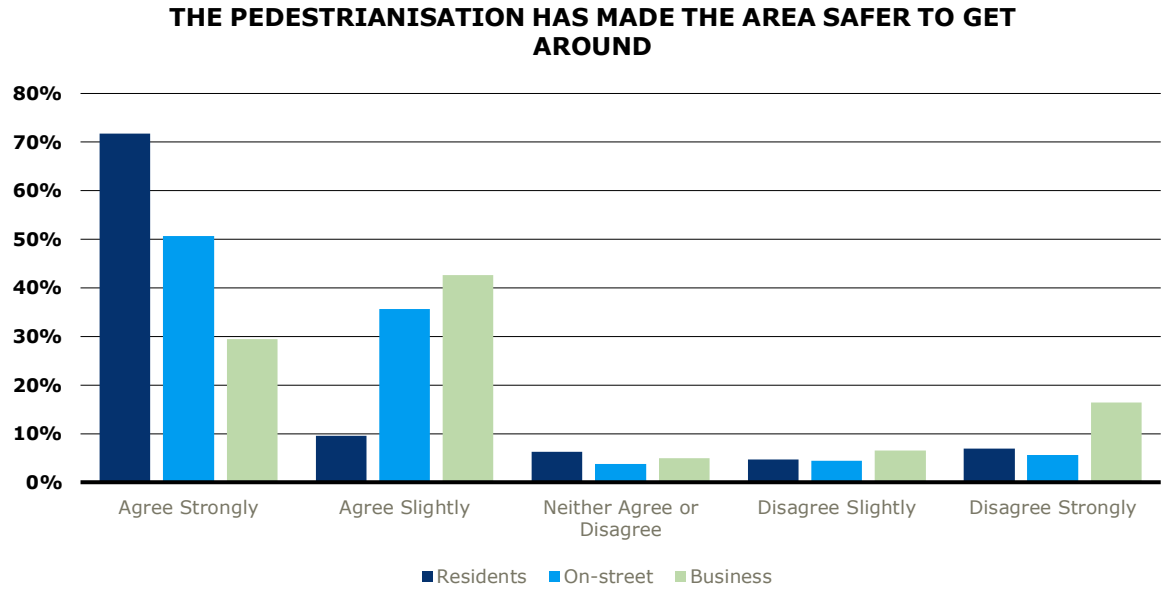


Figure 10-1 All surveys: Perception of Safety

An overwhelming majority (83%) of respondents to the residents' survey were of the opinion that the changes had made the area safer for children (either a lot safer or a little safer), as shown on the graph below.

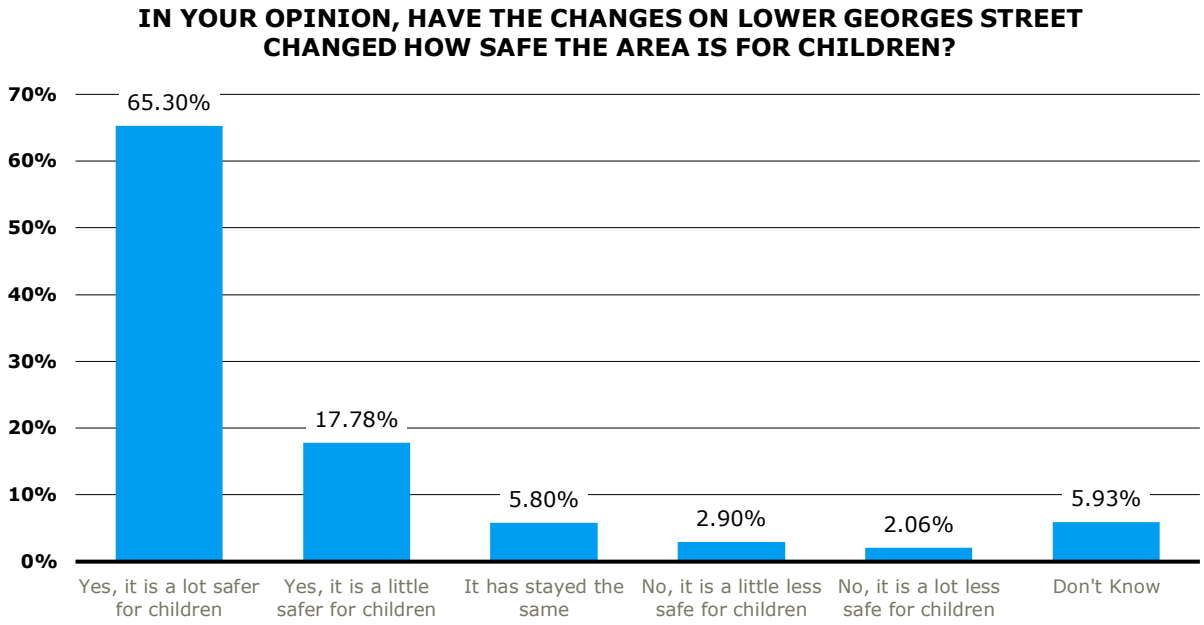


Figure 10-2 Residents Survey: Perception of Safety for Children

10.3.2 Covid-19 Measures

The breakdown of responses around Covid-19 measures are shown in Figure 10-3 below and follows a similar trend to the more general question on safety. Most respondents agreed that the layout of the street helped with Covid-19 measures such as social distancing. Social distancing was a key concern raised during the public engagement process[8], with several responses stressing its importance. As shown on the following graph, the results of the surveys are very positive and suggest that these concerns were addressed. Again, there was some variation between residents'/on-street respondents and those captured via the business survey, with 31% of business responses disagreeing strongly with the statement. There were no specific comments about the scheme's impact on Covid-19 measures, so the key drivers of this view are unclear.

[8] RAMBOLL. (2021). Report On Submissions Received "Summer Streets": Destination Dún Laoghaire.

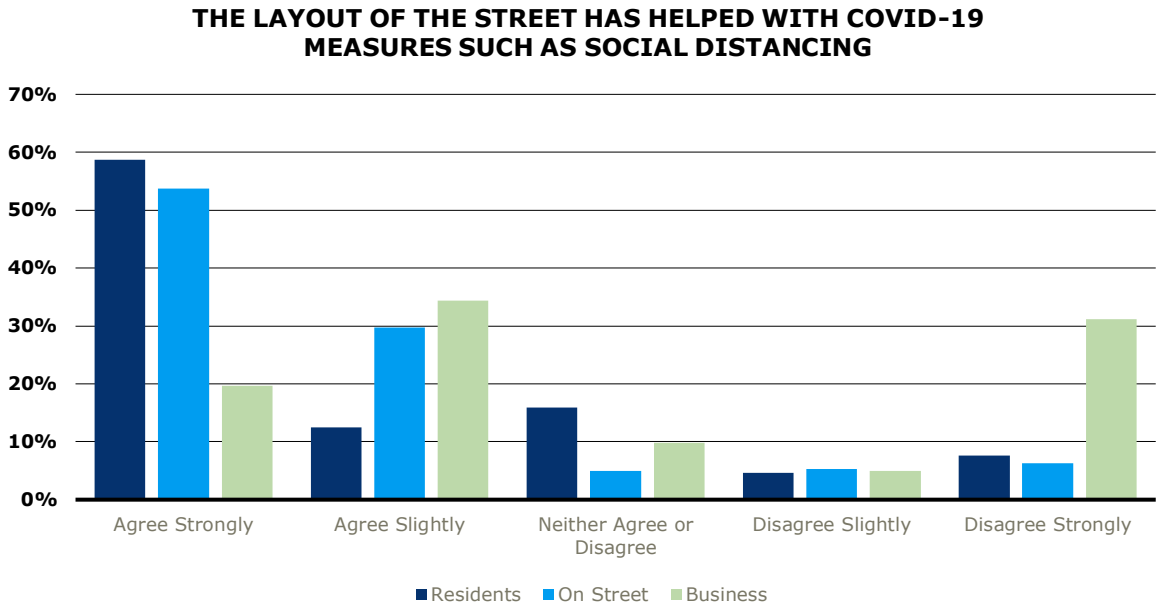


Figure 10-3 All Surveys: Support for Covid-19 Measures

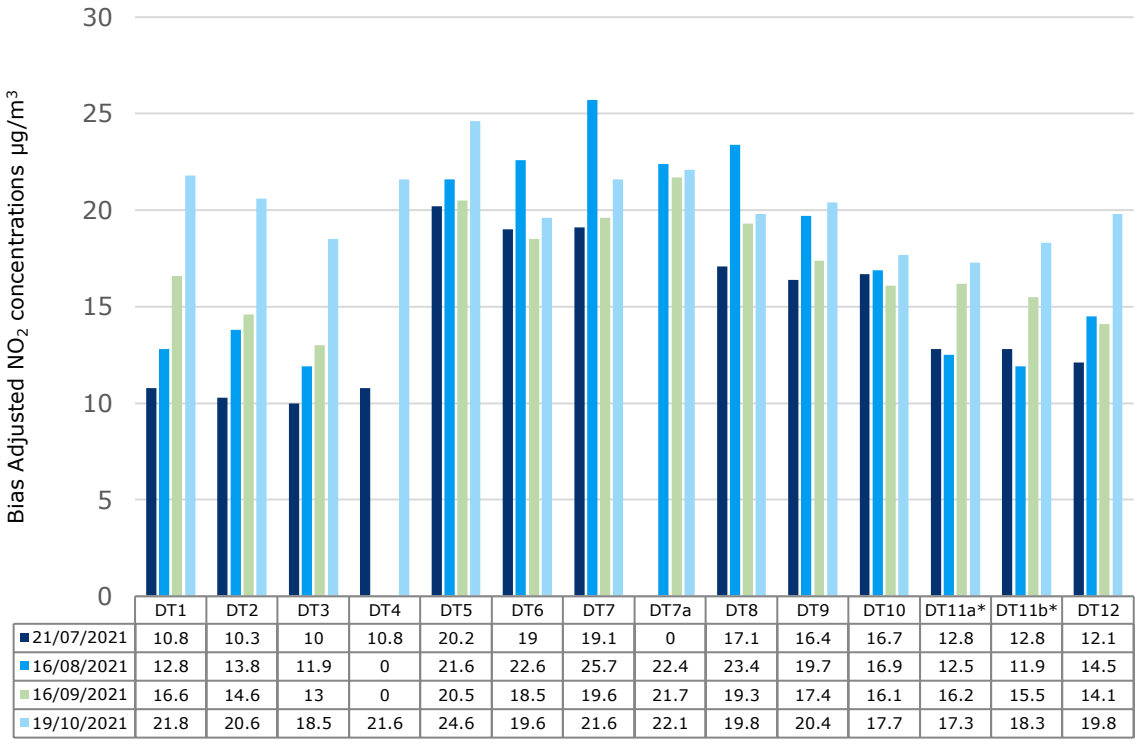
11. ENVIRONMENTAL OUTCOMES

11.1 Context

The project appraisal criteria set out in the Common Appraisal Framework states that analysis of environment should embrace a range of impacts, such as emissions to air, noise, and ecological and architectural impacts. Here we analyse a range of environmental data relating to air quality, noise and traffic, as well as observations from footfall sensors and the three surveys presented in previous sections.

11.2 Air Quality Outcomes

The data in Figure 11-2 shows the monthly average concentration measured between the periods, i.e., the data for 21/07/2021 show the average concentration between 21/07/21 and 15/08/21.



	DT1	DT2	DT3	DT4	DT5	DT6	DT7	DT7a	DT8	DT9	DT10	DT11a*	DT11b*	DT12
21/07/2021	10.8	10.3	10	10.8	20.2	19	19.1	0	17.1	16.4	16.7	12.8	12.8	12.1
16/08/2021	12.8	13.8	11.9	0	21.6	22.6	25.7	22.4	23.4	19.7	16.9	12.5	11.9	14.5
16/09/2021	16.6	14.6	13	0	20.5	18.5	19.6	21.7	19.3	17.4	16.1	16.2	15.5	14.1
19/10/2021	21.8	20.6	18.5	21.6	24.6	19.6	21.6	22.1	19.8	20.4	17.7	17.3	18.3	19.8

Figure 11-1 Summer Streets Monitored NO_2 Concentrations µg/m³

Whilst the monitoring results cannot be used to determine compliance with the annual mean NO_2 objective of 40 µg/m³ as they are not annual mean concentrations, they do indicate that NO_2 concentrations within the study area are likely to be well below the objective.

It is normally difficult to determine the impact of active travel interventions which occur over short time periods[9] especially as the measured concentrations are influenced by meteorological conditions and other factors outside of the parameters of the intervention such as economic conditions.

[9] Public Health England, June 2020, Review of interventions to improve outdoor air quality and public health: Principal interventions for local authorities.

The monitoring data shows that pollutant concentrations increased at all sites in October/ November following the end of the project i.e., post-trial compared to concentrations monitored during the project. This is evident in the monitored data from the automatic analyser Station 34 in Dún Laoghaire where the measured concentrations post the trial period were approximately 35% higher than during the trial period.

For the monitoring locations closest to the intervention area (DT1, DT2, DT3, DT4 and DT12) the increase in concentrations post the scheme was approximately 66%, where-as for the diffusion tubes further away from the intervention area (sites DT5, DT6, DT7, DT7a, DT8, DT9 and DT10) the increase was only 17%. This suggests that during the trial period the concentrations were lowered within the scheme area as they increased after the trial period by more than the concentration measured at the Dún Laoghaire automatic analyser. Conversely, outside of the scheme the concentrations increased by a smaller amount. This is likely to be as a result of a redistribution of traffic away from the intervention area during the trial which reversed when the trial was finished.

The monitoring data therefore suggests that the scheme objectives were met in terms of reducing the impact of vehicular pollution on air quality within the intervention area.

11.3 Noise Outcomes

A summary of the noise levels is provided below.

	Pedestrianised dataset		**Non-pedestrianised dataset**	
Location	**N2**			
Time period	Weekday	Weekend	Weekday	Weekend
Logarithmic Average $L_{Aeq,T}$ dB	68	70	69	72
Arithmetic avg. $L_{A10,T}$ dB	68	68	72	72
Arithmetic avg. $L_{A90,T}$ dB	59	59	59	61

Table 8 Comparison of Measured Noise Levels at Location N2

Explanation on abbreviations and measurement parameters used:

- L_{Aeq} is the equivalent continuous sound level. It is an averaging mechanism used to describe and compare fluctuating noise in terms of a single noise level over the sample period;
- L_{A10} is the sound level that is exceeded for 10% of the sample period. It is typically used for the measurement of the impact of traffic noise; and
- L_{A90} is the sound level that is exceeded for 90% of the sample period. It is typically used as a measurement for background noise.

The greatest difference between pedestrianised and non-pedestrianised scenarios was during weekends, where the average noise level rose by 2 dB once traffic was reintroduced. It is considered likely that this is due to traffic now being able to pass along George St lower, possibly to access Convent Lane or other routes more directly from the south.

Whilst a 2 dB rise in average noise level is not considered significant, the 4 dB rise in the $L_{A10,T}$ level at location N2 indicates the noise climate became dominated by road traffic noise in the non-pedestrianised scenario.

	Pedestrianised dataset		**Non-pedestrianised dataset**	
Location	**N3**			
Time period	Weekday	Weekend	Weekday	Weekend
Logarithmic Average $L_{Aeq,T}$ dB	65	61	67	66
Arithmetic avg. $L_{A10,T}$ dB	63	62	64	63
Arithmetic avg. $L_{A90,T}$ dB	55	55	54	56

Table 9 Comparison of Measured Noise Levels at Location N3

The average noise level at the N3 location rose by 2 dBA on weekdays and 5 dBA on weekends once traffic was reintroduced. The measured $L_{A10,T}$ levels indicate a small rise in traffic noise, but this does not appear to be the dominant noise source at this location. This may be due to the proximity of the traffic lights on Penny's Junction, meaning traffic is held at very low speeds and would be manoeuvring/turning the corners (i.e. not up to speed). It is also possible that most of the traffic turns off at Convent Lane to access parking.

11.3.1 Perceptions of Noise

The three survey groups were asked their opinion on changes in noise levels compared to before the pedestrianisation scheme. The majority of residents and pedestrians (54%) viewed noise levels as lower than before the pedestrianisation. When businesses were asked the same question, this was still the most popular response, though with a lower percentage of 39%. Across all groups approximately 30% (31% residents/pedestrians and 28% businesses) thought noise levels had remained the same. Only 13% of the residents/pedestrians group noted an increase, compared with 30% of businesses surveyed.

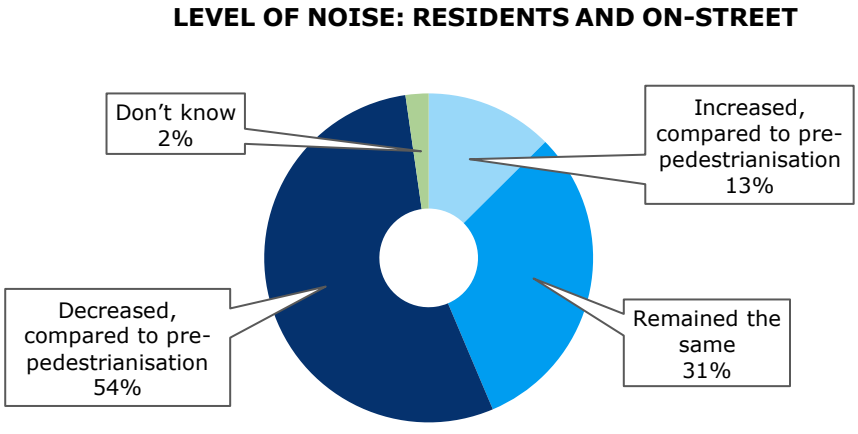


Figure 11-2 Perception of Noise: Residents and On-Street Surveys

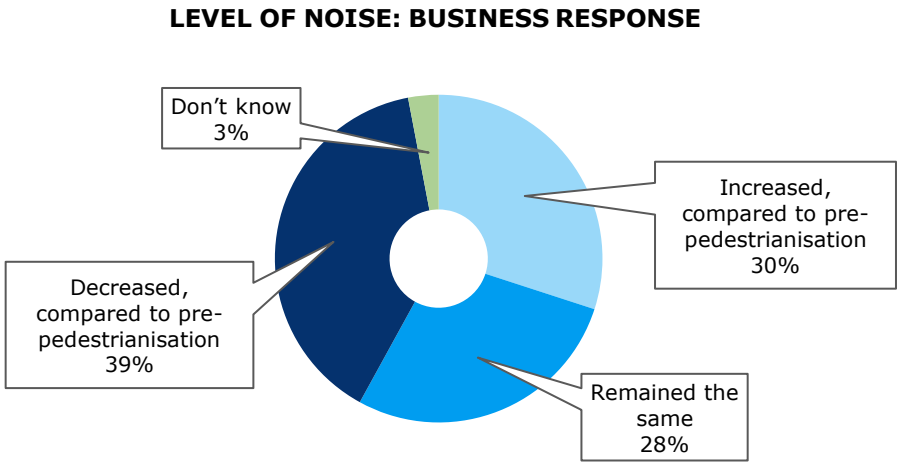


Figure 11-3 Perception of Noise: Business Survey

11.4 Movement and Traffic Outcomes

The analysis presented in this section includes GPS traffic data, public perceptions of change in traffic gathered from the residents and on-street surveys as well as motorist data from the footfall sensors. Section 12.4.2 examines survey questions related to perceptions of traffic during the Summer Streets scheme. Survey data is further considered in section 12.4.4 in relation to residents and visitors change in travel to Dún Laoghaire, including business' perception of these changes.

11.4.1 Vehicular Traffic

The analysis of motorised vehicular data is presented in section 7.2.2 of this report. In summary terms the impact of pedestrianisation of Georges Street Lower significantly reduced the volume of traffic on Georges Street Lower with motorised vehicular traffic for deliveries only accessing the street during the 06:00hrs to 11:00hrs. As described in section 7.2.2 of this report the wider network implications of the closure of Lower Georges Street yielded limited variations in average journey times and speeds. As a result, based on the analysed data, the trial generated significant benefits on Lower Georges Street in terms of reductions in traffic volumes and congestion but yielding limited impacts elsewhere on the network.

11.4.2 Survey Perceptions of Traffic

With regards to traffic, residents were asked how they would rate the change as a result of the Summer Streets programme (a lot better, a little better, stayed the same, a little worse or a lot worse) and this was split into two questions to account for summer holiday and non-summer holiday periods. The outcome was that traffic was perceived as worse during term time. When asked about July and August, 41% rated it as worse (a little worse or a lot worse), 34% reported an improvement (a lot better or a little better) and 25% said no change. Considering the period when pupils had returned to school, the perception was more negative. 48% rated it as worse, 28% stated no change and 24% reported an improvement.

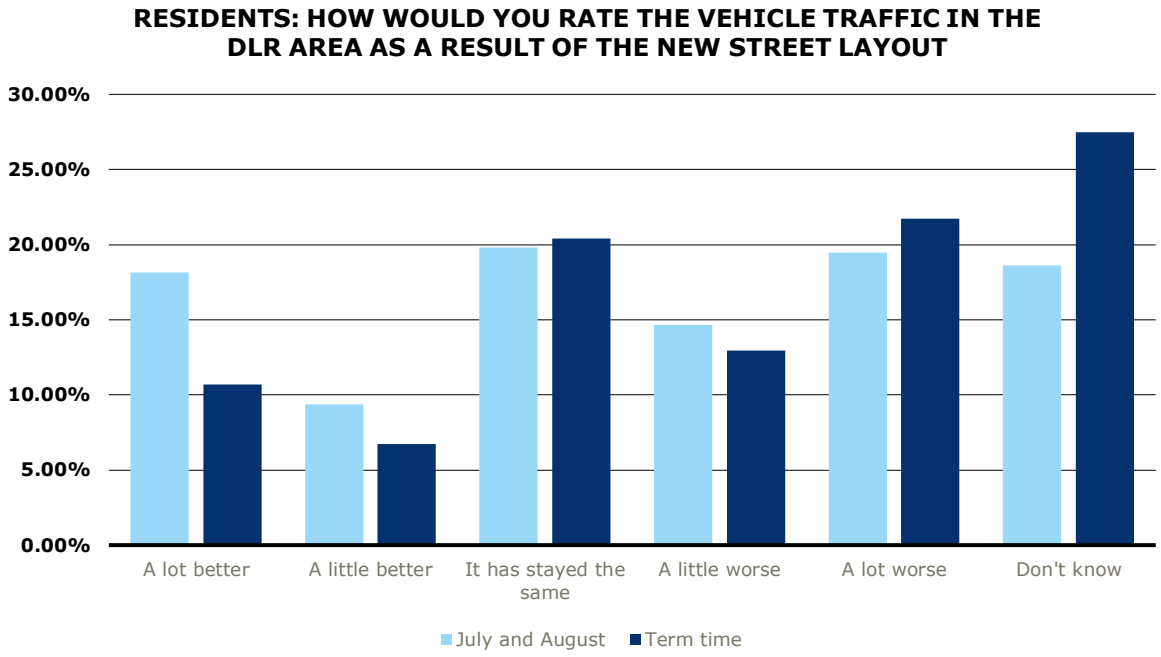


Figure 11-4 Residents Perception of Traffic

Responses to the on-street survey were more positive in terms of changes to the vehicle traffic as a result of the new street layout. 47% of those surveyed thought there had been an improvement (with 32% rating it as "a lot better"). 31% of those surveyed rated it as worse (17% a lot worse) and 21% did not see a difference.

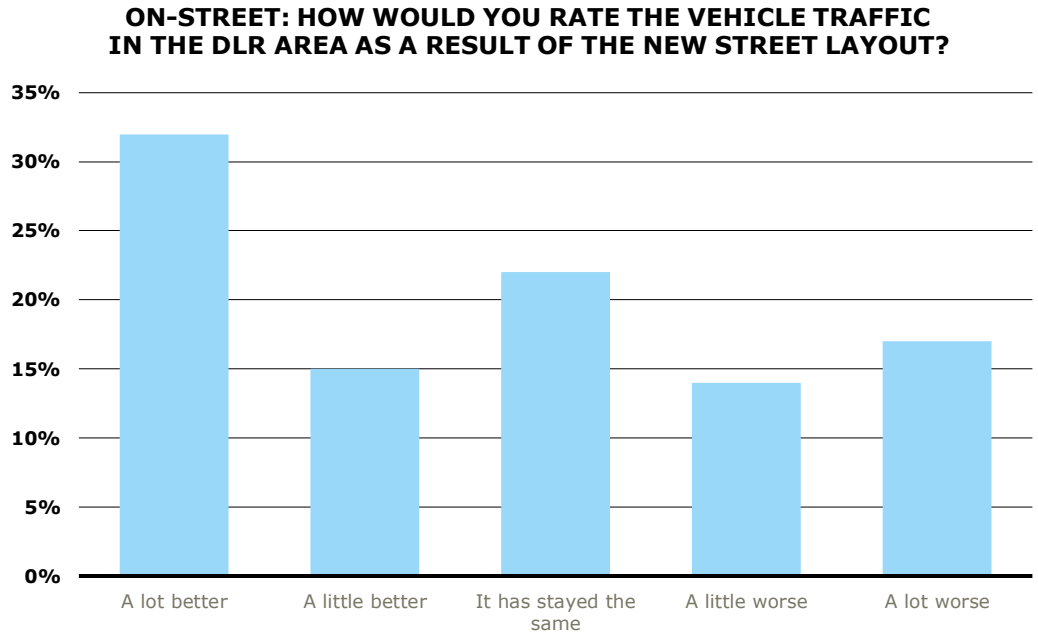


Figure 11-5 On-Street Perception of Traffic

11.4.3 Cars

Furthermore, there were fewer cars detected across each of the three sensors, a change which was sustained throughout the period. The footfall sensors also monitored car activity across the three locations, as seen on the following graph. Notably, the sensor in the pedestrianised area (S1), was not the only location to see a substantial reduction. In fact, all three sensor locations saw a reduction in motorists, with a decline of 24% seen at sensor 2, and a decline of 30% at sensor 3. Interestingly, once the scheme ended traffic at S1 returned to just over 50% of its pre-scheme level. At sensors S2 and S3 the data for October shows that the level of traffic had remained at the level it was at during the scheme. This initial analysis suggests a decline in car traffic around the Georges Street area and should continue to be monitored.

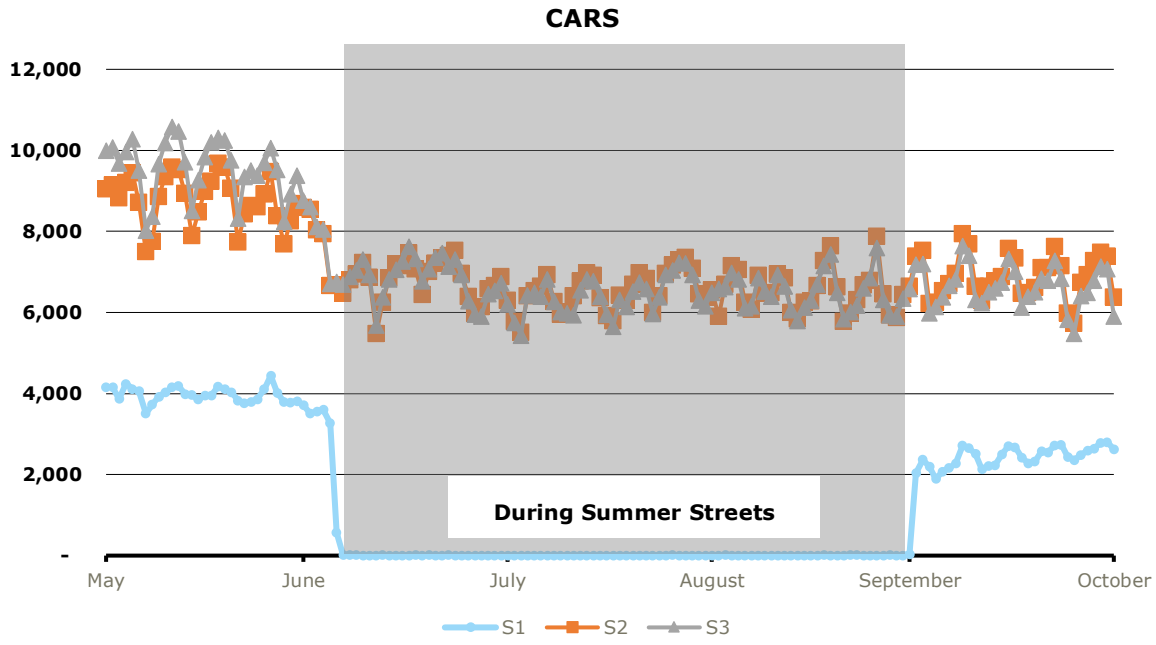


Figure 11-6. Car Movements by Sensor[10]

11.4.4 Travel and Change in Travel

Both residents and visitors (as part of the on-street survey) were asked how they usually travel to Dún Laoghaire, and if this has changed as a result of the pedestrianisation. Businesses were then asked a similar question in terms of how they thought customers travelled, and if this behaviour had changed. The residents' and on-street surveys found that walking is the most popular method of travel in to Dún Laoghaire, with 64% of respondents selecting this as either their primary or secondary option. Travel by car, either as driver or passenger, was the second most common with 20% of responses.

[10] Note, the left and right count lines are not included as they relate to movements on pavement.

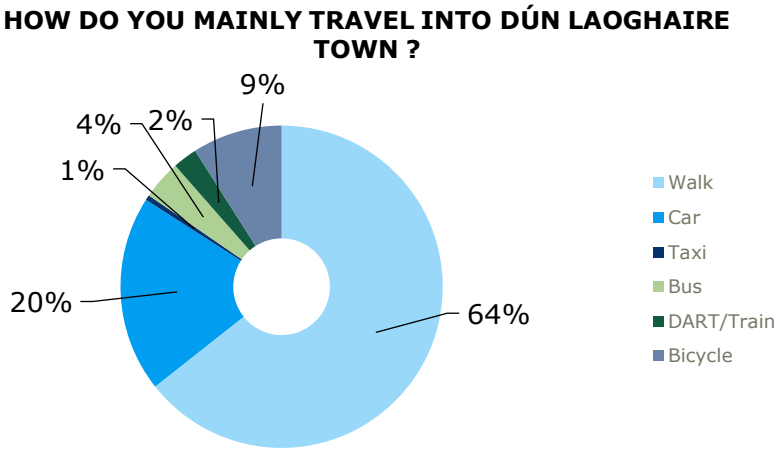


Figure 11-7 Mode of Travel into Dún Laoghaire

When asked their view on how customers get to their business, businesses overestimated the number of customers travelling by car and bus and underestimated the number walking and cycling[11].

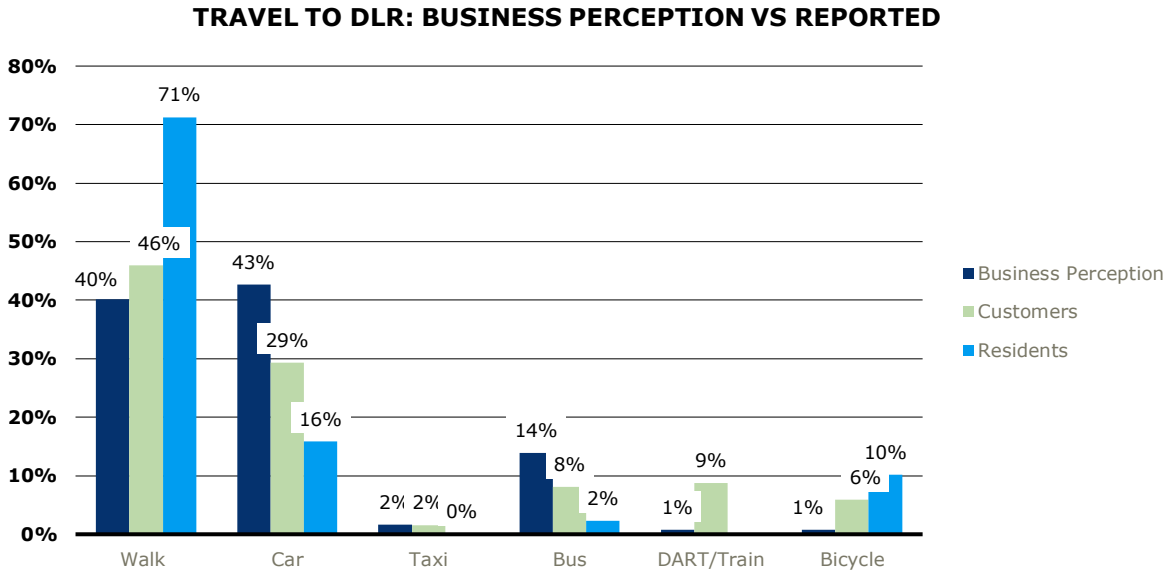


Figure 11-8 Business Perception of Customer Travel Mode vs Reported Mode

Responses also differed when asked about change in travel behaviours, with significant discrepancies between business perception and resident and on-street survey responses, as shown below. When asked if they thought the pedestrianisation had changed the way people travel around the area, businesses did suggest an increase in walking (34%) though this was lower than the change reported by the residents and on-street surveys (38% of the combined responses). Only one business thought that people had cycled more, when in fact this method increased for 12% of respondents. Cycling is discussed in greater detail in section 13 of this report.

[11] Note that motorbike and escooter were removed due to lack of responses

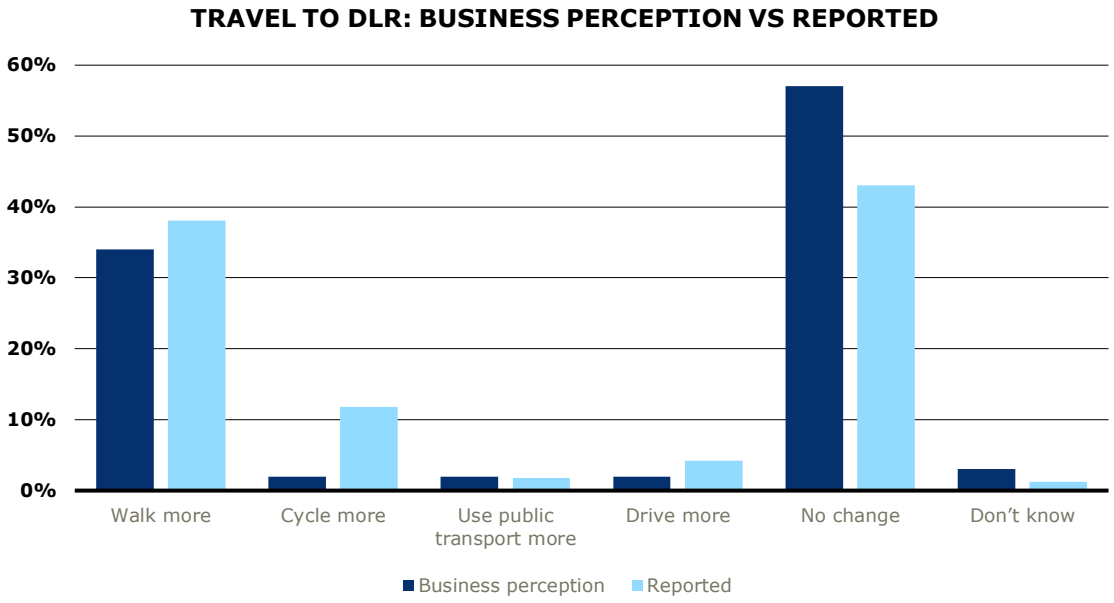


Figure 11-9 Business Perception of Change in Travel Mode vs Reported Mode

These results show a clear change in the travel choices of residents and visitors to Dún Laoghaire, and therefore associated additional environmental benefits. It is also clear from the survey analysis that residents and visitors noticed an impact on noise levels. In addition to this, there are benefits relating to increased physical activity from active travel, which are discussed in section 14.

11.5 Litter

As discussed earlier in this report, the public realm changes made as part of Summer Streets link to the Tidy Towns competition 2021, where Dún Laoghaire was very successful. Categories scored particularly highly included tidiness and litter control, and streetscape and public places. Dún Laoghaire also came 6th in the Irish Business Against Litter (IBAL) survey, a significant improvement from 20th place the previous year.

In order to measure the impact of the Summer Streets scheme on litter, the three groups surveyed were asked if they thought the level of litter had increased, decreased or remained the same, compared to pre-pedestrianisation. Responses of the residents and on-street survey have been combined and compared to business responses below. For both groups, the most common response was "Remained the same". Residents and visitors surveyed had a more positive opinion of the impact of the scheme on litter, with 34% reporting a reduction compared to pre-pedestrianisation, compared to 23% of businesses. Similarly, a smaller proportion (19%) of residents and pedestrians thought litter had increased, in contrast to 33% of businesses.

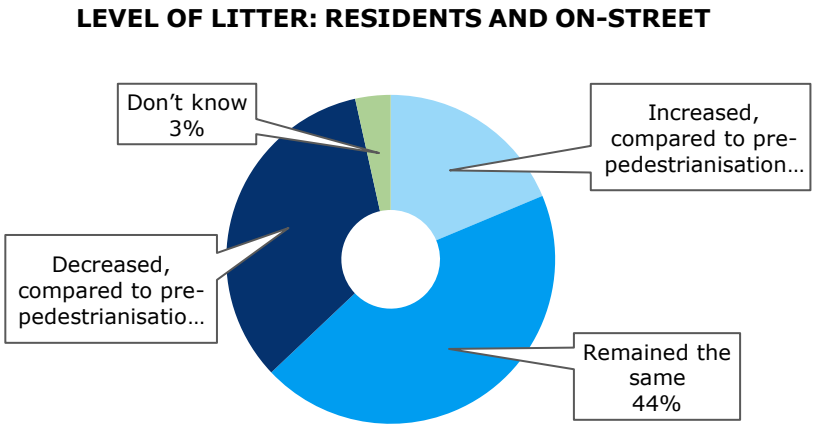


Figure 11-10 Perception of Litter: Residents and On-Street Surveys

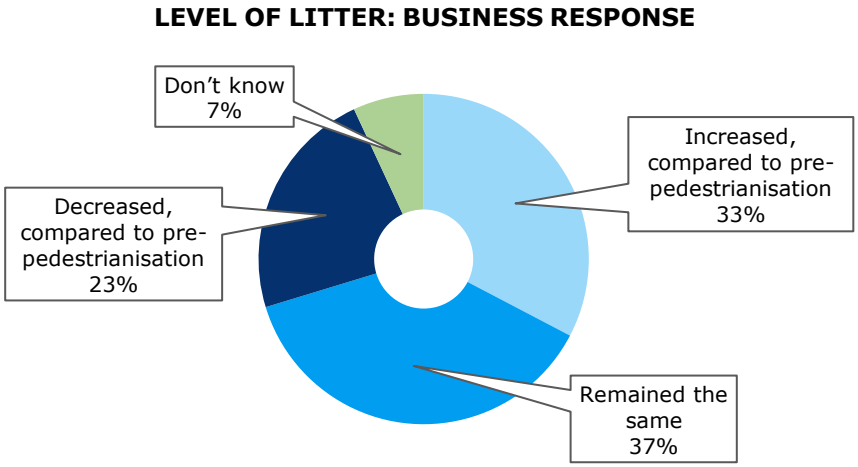


Figure 11-11 Perception of Litter: Business Survey

12. ACCESSIBILTY & SOCIAL INCLUSION OUTCOMES

12.1 Context

According to the Common Appraisal Framework criteria around accessibility and social inclusion indicate that priority should be given to benefits that are inclusive and consider social deprivation, geographic isolation and mobility and sensory deprivation. Given the varying levels of affluence and deprivation across the DLRCC area described in section 4.1, this is a crucial area of analysis. While most individuals in the DLR area are in the higher-class group ABC1, the second highest proportion by socio-economic group is in the lowest group DE. The demographics of survey showed 70% of the respondents were in the ABC1 group, 24% in C2 and 12% in DE.

Approximately 55% of DLR's population are female, and 45% are male[12]. The resident's survey was reasonably representative of this, with 60% female respondents and 40% male. In terms of employment and gender, 73% male of respondents to the resident's survey were employed full time, compared to 44% of female respondents. 18% of female respondents fell into the home carer category compared to just 1% of men, and 14% were employed part time, in contrast to 2% of male respondents. The on-street survey showed a similar trend, with 66% male respondents and 47% female respondents employed full time, 3% and 9% employees part time and 1% and 6% selecting house carer, respectively. As well as collecting demographic survey data and analysing correlations, there were a number of accessibility-related survey questions as explained in the following section.

12.2 Survey Questions

The results of the residents and on-street surveys have been analysed in this section with the aim of assessing potential correlations between demographics and sentiment. To evaluate impacts on accessibility and social inclusion, the responses of bus users, respondents with disabilities and those who regularly require hospital access have been studied in detail. The results of the question 'what is your opinion of the Summer Streets scheme' have been used for this analysis.

From a general social perspective, responses to the statement "The new pedestrianised layout of the street has created more space to socialise" are also presented in this section of the report.

12.2.1 General opinion by demographic group

Across all three surveys, men typically had a more positive opinion of the scheme compared to women, as shown in Figure 12-1 below. 57% of men had a "very positive" opinion of the scheme, compared to 49% of women. At the other extreme, 10% of men responded with "very negative", in comparison to 15% of women.

[12] Behaviour & Attitudes. (2019). Cross tabulations data source. Independent survey conducted for Bike Life Report: Dublin metropolitan Area. Online: https://www.nationaltransport.ie/bike-life-2019-dublin-metropolitan-area/

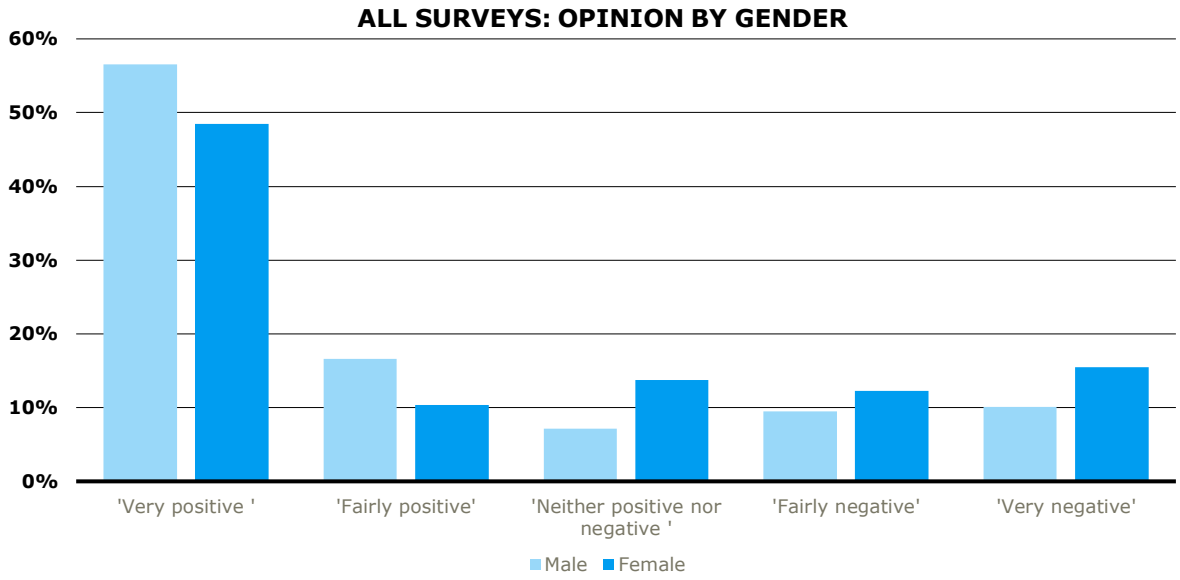


Figure 12-1 Opinion of Summer Streets by Gender

The on-street survey asked respondents how many children were with them that day and those with one or more were slightly more positive (4%) than those without. It was found that 67% of those with children gave a "very positive response", compared to 59% without.

The on-street survey observed respondents social class split into either ABC1 or C2DE to enable analysis of potentially differing opinions by group. The results are presented in Figure 12-2 and show that the higher social group ABC1 had a more positive overall response to the Summer Streets scheme than the lower group (C2DE).

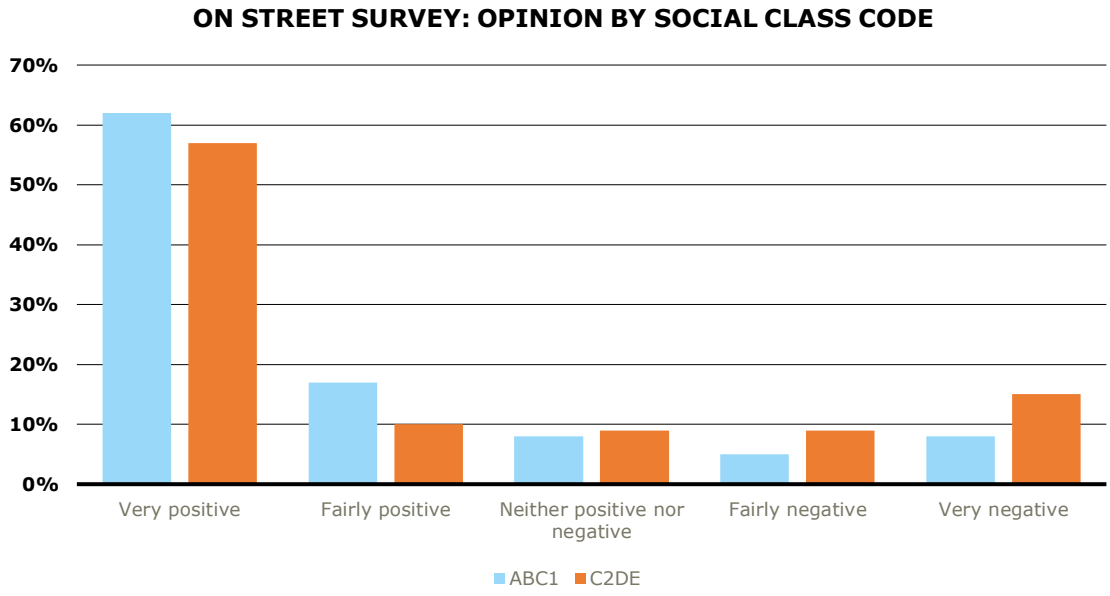


Figure 12-2 Opinion of Summer Streets by Social Class Code

The results were also analysed in terms of the employment status of the respondent, and there were notable differences between the responses to the residents' survey and responses to the on-

street survey. As shown in Figure 12-3, the key difference in response was seen in the retired category (which made up 97 of 833 responses, illustrated by the data call outs at the top of the chart). These responses were notably less positive than the others. As 36% of the retired residents surveyed were also bus users, the analysis was developed further to test for correlation, finding that there were strong negative responses of these bus users influencing the results for the retired category. The theme of bus access and user opinion is explored further in section 12.2.3.

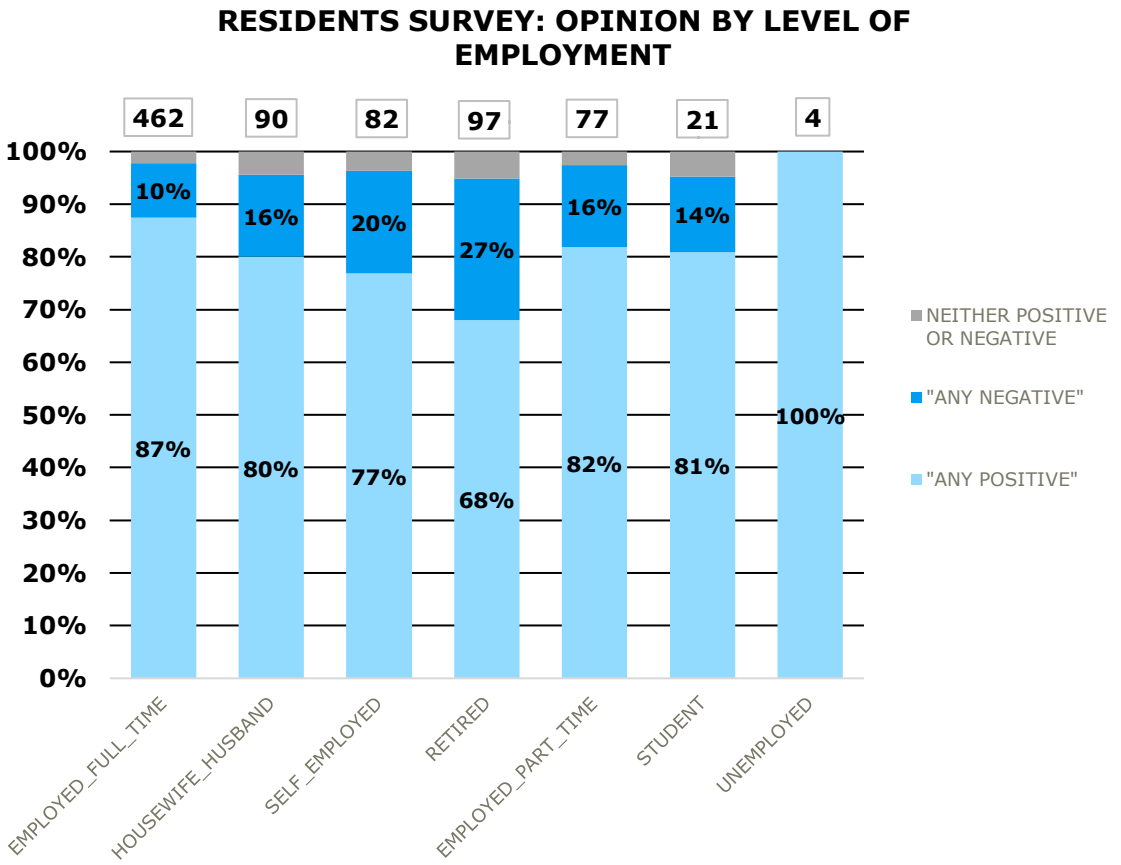


Figure 12-3 Residents Survey: Opinion by Level of Employment

Looking at the on-street survey, results were more varied particularly in the home carer category and the self-employed category. Respondents in these categories however made up less than 5% of the total sample (12 responses, as illustrated by the data callouts) and so it is difficult to confirm representative nature of these results. Discounting these two categories, the trend is similar to the residents' survey, though with generally more responses for "neither positive nor negative".

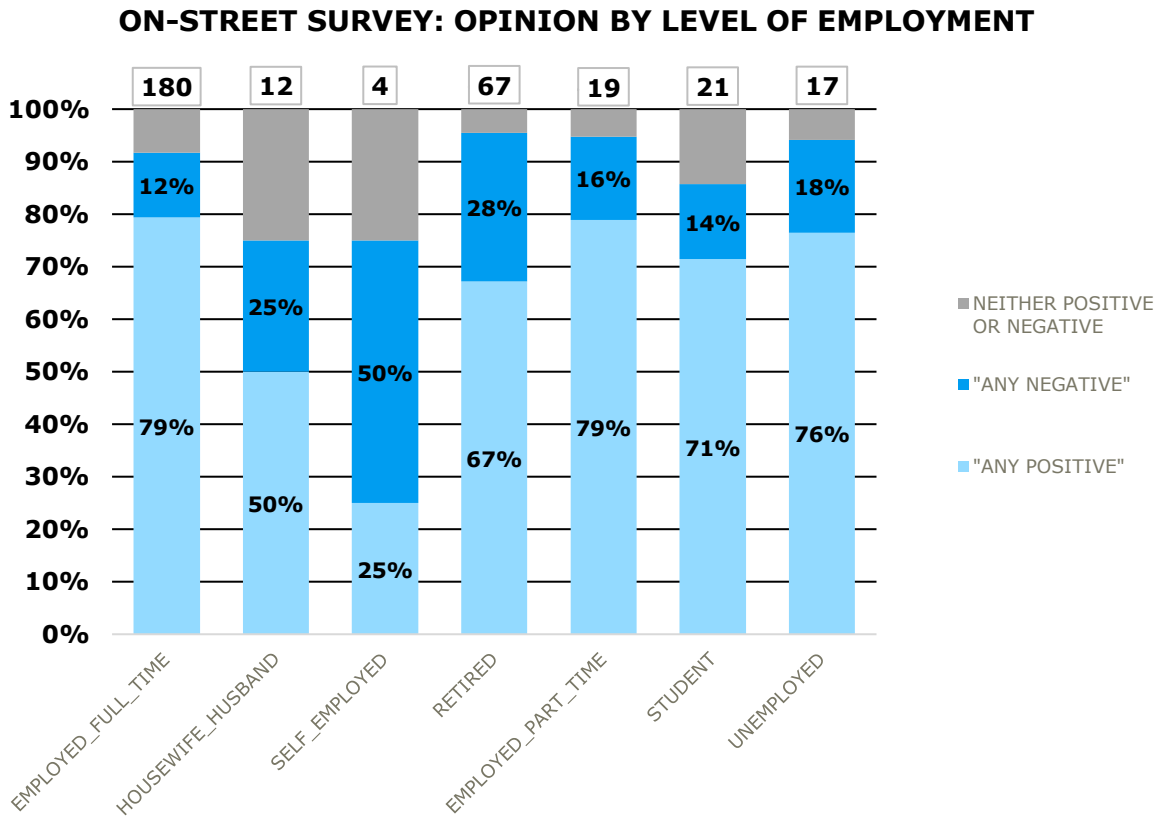
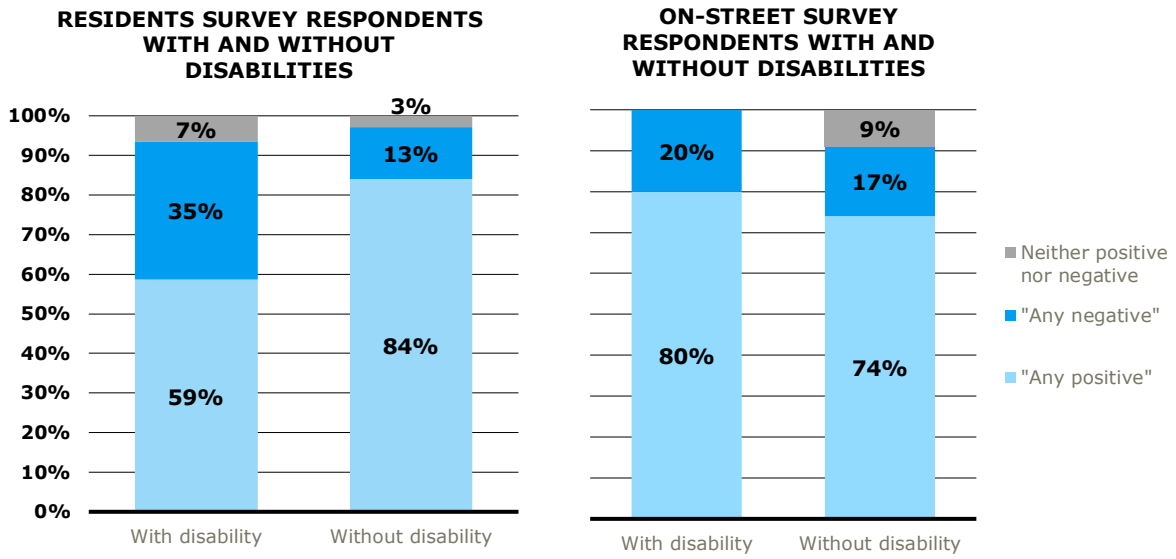


Figure 12-4 On-Street Survey: Opinion by Level of Employment

12.2.2 Disabilities

Survey responses specific to respondents with disabilities are shown in the figures below. Interestingly, the residents and on-street surveys revealed different trends. The residents survey results show that people without disabilities generally had a more positive opinion than those with disabilities (Figure 12-7). For the on-street survey those with disabilities were more positive than those without, though in the latter group there was also more uncertainty (9% of responses "neither positive nor negative").



Figures 12-5 and 12-6. Opinion of Summer Streets: Respondents With and Without Disabilities

As explained in section 12.2 of this report, for each of the three surveys conducted, respondents were asked to what extent they agreed or disagreed with a number of statements. One of these statements was "The new layout of Georges Street seems to take into account the needs of people with disabilities". Though most groups generally agreed with the statement, the responses were mixed across the groups, and business' opinions were most likely to disagree strongly, as seen on Figure 12-7.

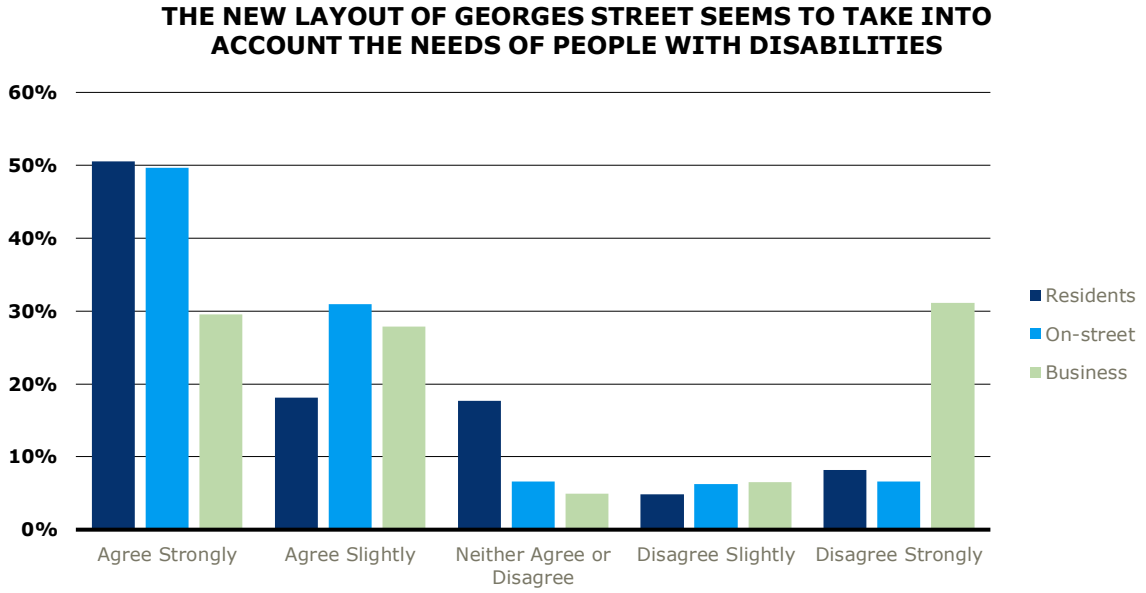


Figure 12-7 All Surveys: Perception of Layout for Users With Disabilities

12.2.3 Bus Users

As part of the trial pedestrianisation of Lower George's St the 46A, 63, 75 and 7 bus routes were diverted, with new stops provided as shown on the map below. While it is acknowledged that rerouting and changes to bus stops may have had wider impacts on non-DLR residents, this evaluation and the surveys carried out focus on impact upon and views of residents and visitors to the town centre (On-street survey), given the objective of the scheme was "to prove safe, welcoming, and people-friendly public space" for the local people (Section 2 of this report).

In order to assess the impact of the Summer Streets scheme on accessibility and social inclusion, the residents survey asked regular bus users how their access to this service changed as a result of the new street layout. Users showed a mixed response: 50% said access had stayed the same, 34% said it had become harder and 16% said it was easier to access (13% a lot, 3% a little).

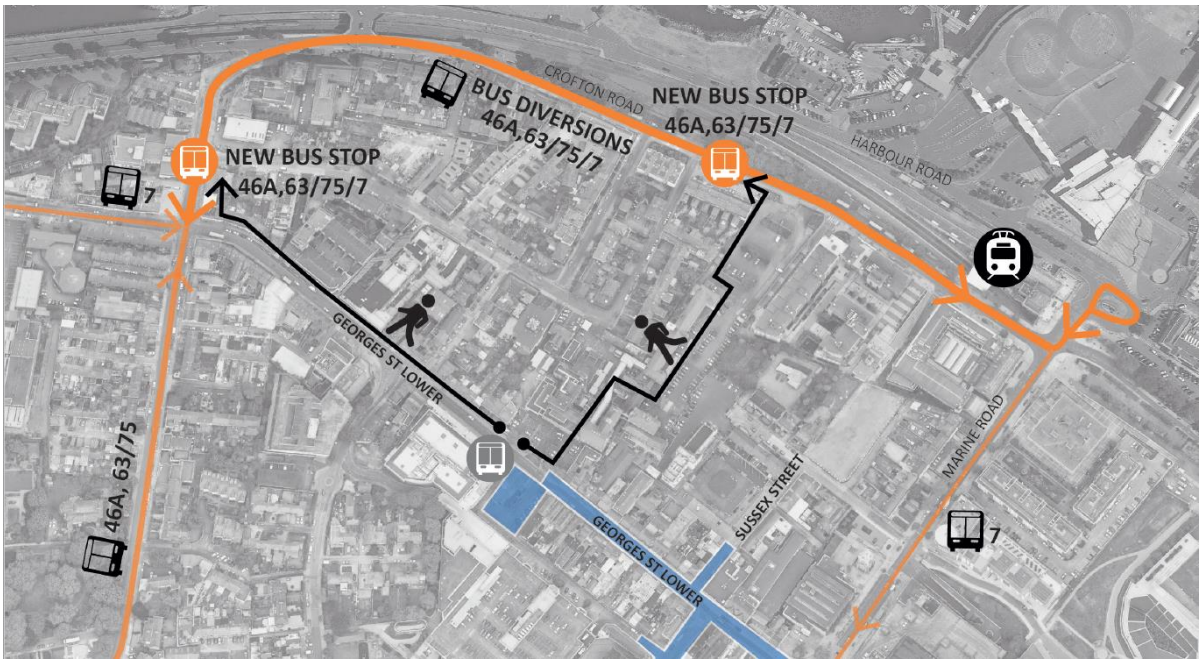


Figure 12-8 Bus Diversion and Alternative Bus Stops

Though the majority of bus users (71%) still responded very positively to the scheme, the challenges around access to the service is reflected in some comments below.

Not having a bus service from Lr George's Street is so difficult. Having to walk home carrying heavy shopping to the top of York Road, especially when it's raining is very hard. My hairdresser runs a small business in Lr George's Street. As many of her clients are elderly, she has noticed a fall-off in her business. People living in Monkstown Farm can no longer get the 63 bus to her. This applies to customers also who use the 46A .
The bus route change and the lack of shelter places to wait for it makes it awful on rainy days and more if carrying shopping bags
I am not very mobile and need to drive for grocery shopping. I also like to visit the other end of the town but cannot walk all the way. The traffic is often jammed on the junction of York Rd/Lr George's St/ Cumberland St and Clarence St. If you get behind a bus at the bus stop on Clarence St, you're stuck till it moves maybe 2 or 3 changes of lights.
Not being able to get a bus to/from lr George's st is very inconvenient

Table 10 Comments Relating to Bus Access

12.2.4 Hospital Access

Only two respondents to the residents' survey, and eight respondents to the on-street survey citied hospital visits as their main reason for visiting Dún Laoghaire. In the residents' survey, both respondents had disabilities and negative opinions of the scheme. The reasons given were:

Have to walk far from the bus
Because it has made it difficult to get around the town to access the hospital and shopping and the pharmacy. Also the fact that all the traffic is sent up small streets to go around George's st and there is no longer an option to drive through along the coast road in both directions it has caused severe congestion. Also the bikes are cycling through that pedestrian section making it unsafe for people with mobility issues

Table 11 Resident Survey Primary Comments Relating to Hospital Access

In contrast, in the on-street survey 6 out of the 8 relevant responses viewed the scheme as "very positive", one as "fairly negative" and one as "very negative". The comments related to access were:

…is bad not allowing cars to drive through and get to the hospital makes it harder
Too far to travel for a bus

Table 12 On Street Survey Comments Relating to Hospital Access

For those who gave hospital access as a second reason, the responses were mixed in the residents' survey and all positive in the on-street survey. In the resident's survey, comments related to hospital access included:

It's lovely to walk on Georges St without traffic, more space to browse the shops. People are eating outside, better when no cars or buses going by… The plaza outside the hospital/ Bloomfields is fantastic. Argos needs to up their game and paint the outside/ sides of their shop. Also the murals are fantastic everywhere. Great job!"
The summer weather has been good, which has been great for outdoor initiatives everywhere . However, for a working town, the loss of bus services to the heart of the town, to the two shopping centres and hospital in particular,
has been a downside, for older and less mobile people who now have to negotiate a hilly route from Crofton Road
It does not take into account the elderly or infirm who need to access the hospital or shops in that area by bus/car.

Table 13 Residents Survey Secondary Comments Relating to Hospital Access

Of the 61 residents citing hospital visits as a reason, or one of several reasons, for visiting the town, 38% had a negative opinion of the Summer Streets scheme. While 59% of opinions were still positive, this is a notable difference to the overall opinion of the residents surveyed (83% positive, 14% negative).

A representative from St Michaels hospital responded to survey question around the Summer Streets scheme. Their opinion was largely negative and attributed this to access issues for staff and patients. Key comments are included below.

The pedestrianisation and resulting traffic for deliveries increased the volume of large delivery trucks using SMH carpark to turn causing increased risk in this area.
The street furniture in the roadway was potentially an obstruction to any emergency vehicle.

Table 14 St Michaels Hospital Survey Comments

12.2.5 Feedback From Primary School

A representative from The Dominican School, located on Convert Road in Dún Laoghaire, also provided some specific feedback on the Summer Streets scheme. He noted that overall, the scheme was fairly positive and that it made the area a nice place to work and live. A number of challenges were identified mainly associated with bin lorry movements in and around the school as a result of the scheme, however overall, the trail demonstrated that initial concerns related to access to and from the school did not materialise during the period when the scheme was in place.

13. INTEGRATION OUTCOMES

The trial pedestrianisation of Lower Georges streets set out to integrate with the existing transport infrastructure network and support active travel modes and where possible, transition users from the active mobility infrastructure like the Coastal Mobility Route to the Dún Laoghaire urban village areas.

13.1 Public Transport Bus

Public Transport movements, specifically Dublin Bus Routes 46, 63, 75 and 7 were adjusted as part of the trial. Analysis of the bus movements, journey time reliability and queuing were completed by Dublin Bus.

Of the four bus routes above, Dublin Bus noted that the travel time for route 7 was increased by 7 -8 minutes and this was further increased at the weekends due to the large volumes of traffic visiting Dun Laoghaire and all using Crofton Road. The travel time for route 46A was largely unaffected except for the weekends with volumes of visiting traffic on Crofton Road.

As is noted in section 12.2.3 the relocation of existing bus stops did generate some transport integration issues which would need to be carefully considered in the development of any future proposal.

An issue noted by the NTA was that due to the rerouting and temporary bus stops in place, the distance of bus stops to commercial and residential properties was greater with the scheme in place. The NTAs analysis identifies that the number of commercial and residential properties within walking distances up to 500m fell, even with the new bus stop locations in place (at Crofton Road and Clarence Street). The number of commercial properties within 500m of a bus stop fell by 46% while the number of residential properties fell by 27%. The impact of this change in access could affect different groups including residents, visitors and businesses. Their views have been captured through the surveys and are documented elsewhere in this report.

In addition, Dublin Bus received a number of complaints from customers who would normally get on/off a bus on George's Street to gain access to St Michael's hospital. They stated that some elderly patrons of the hospital found the longer walk to and from the hospital difficult.

13.2 Active Travel Movement

The integration of active travel movements was fully facilitated during the trial period. As part of the modal filters, pedestrian mobility on Georges Street was enabled. Moreover, cycling movements were safely facilitated via Convent lane, additional cycle parking facilities were installed as part of the trial period.

13.3 Traffic Movements

The integration of the existing vehicular network was positively managed throughout the trial implementation phase. Additional resources were employed to manage traffic entering and exiting the pedestrianised zone in a safe and considerate manner. Traffic management plans were implemented to control and enable alternative routes and facilitate user access.

14. PHYSICAL ACTIVITY OUTCOMES

14.1 Walking

As noted in section 11, the surveys revealed an increase in walking reported by residents and pedestrians (61% of the combined responses). Of the residents surveyed, 71% stated that they mainly walk into the town centre from their home. When asked whether the layout changes had changed the way they travel around the area, 37% of residents now feel they walk more. The on-street survey revealed 46% of respondents had walked into the town centre that day, and 42% now walk more as a result of the scheme. In total, this reflects 474 people now walking more frequently as a direct result of the Summer Streets scheme. These changes are shown on the graph below.

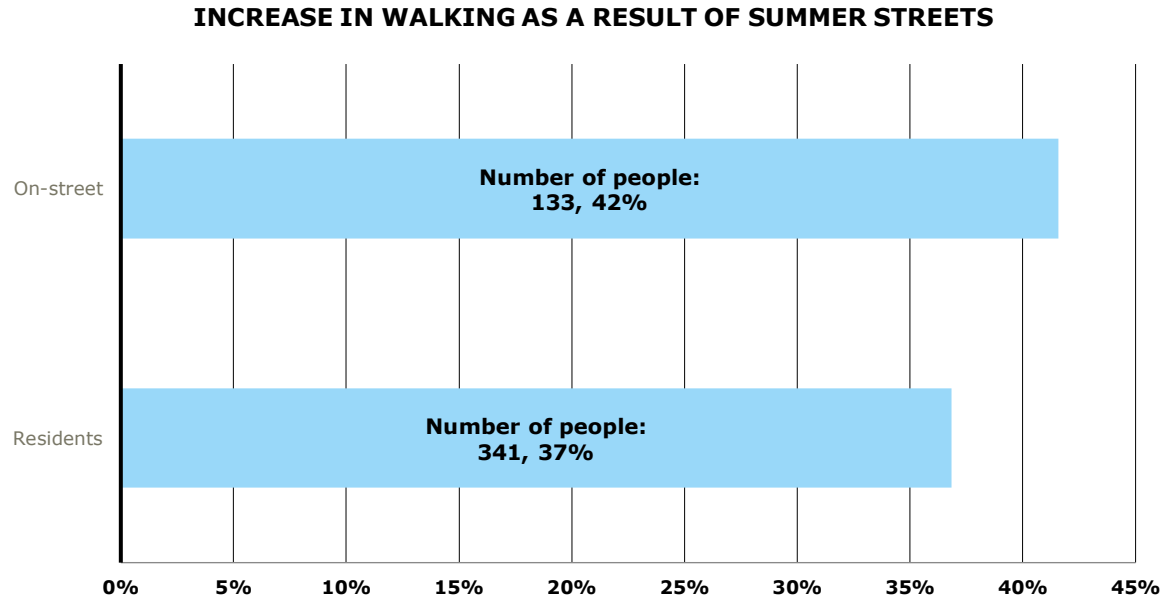


Figure 14-1. Increase in Walking

A higher number of pedestrians were also seen in the results of the footfall analysis discussed in section 9.3.1. At sensors 1 and 3 there was a daily average footfall increase of 9% and 4% respectively.

14.2 Cycling

10% of the residents surveyed mainly cycle into the town centre from their home. In terms of changes to travel, 14% of residents now cycle more. With regards to the on-street survey, cycling was a less popular travel method, with 6% of respondents having cycled to the town centre that day, and 4% saying they now cycle more often. Across both surveys the total number of people now cycling more as a result of the scheme is 147.

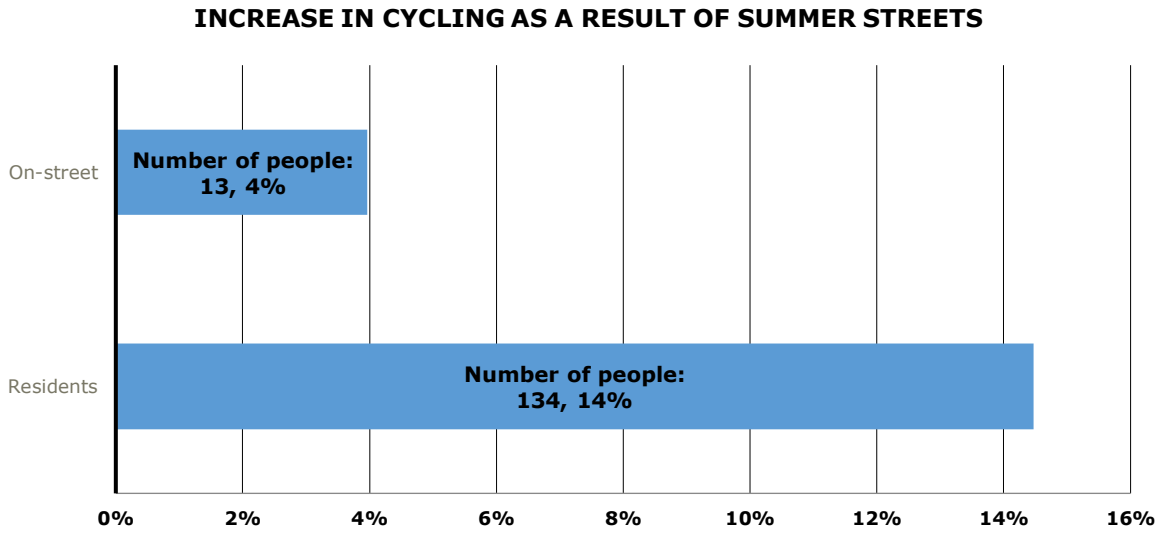


Figure 14-2 Increase in Cycling

Regarding the footfall analysis, the most notable change in cycling was seen at sensor S1, where the pedestrianised section saw a substantial increase of 53%. When considering individual days of the week, this increase was as high as 86% on Wednesdays and 79% on Saturdays. Reading the data gathered it may be the case that cyclists number increased at the beginning of trial as a result of the pedestrianisation of the area and then over time, following adjustment of scheme (such as the requirement to dismount) and the raising number of people/pedestrians using the area, cyclist numbers returned to average levels. The number of cyclists was higher during trial than in the month just after its removal. As explained above, responses to the residents and on-street surveys indicated that there was an increase in cycling.

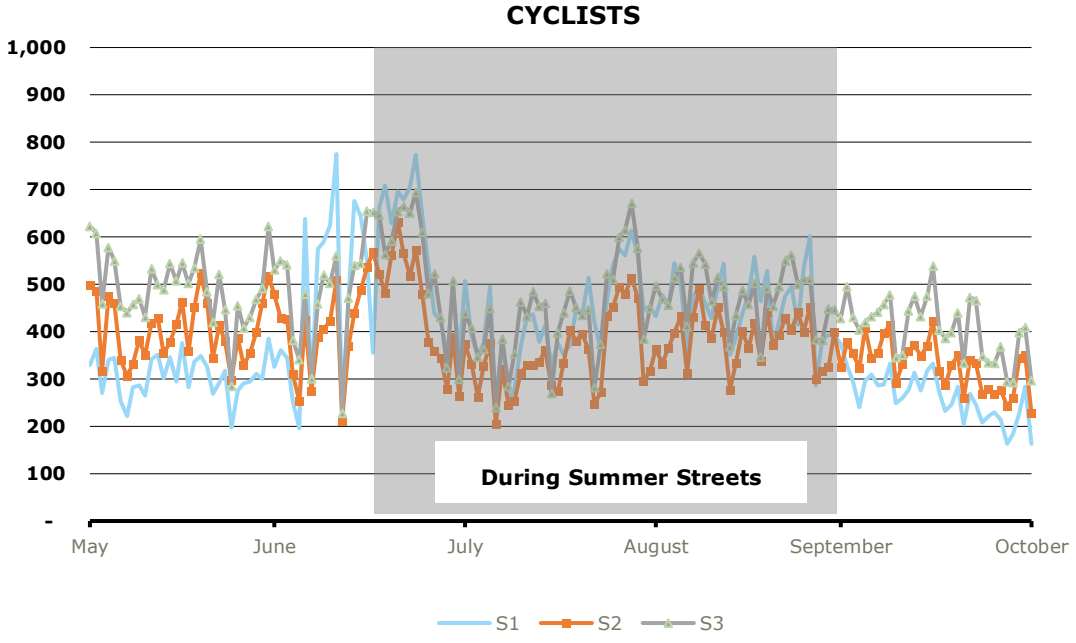


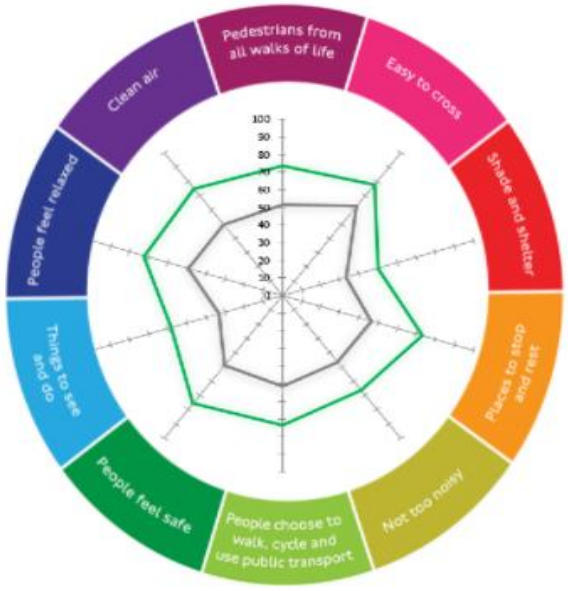
Figure 14-3 Cyclist Movements by Sensor

15. HEALTHY STREETS

The Summer Streets scheme was also assessed using Transport for London's (TfL) 'Healthy Streets Check for Designers'. The Healthy Streets check comprises 10 indicators, as shown on Figure 15-1, which are assessed using 31 metrics relating to accessibility, inclusivity, quality, safety, and the overall 'health' of the street environment. These metrics are also a useful way of evaluating DLRCC's Covid Mobility and Public Realm Works and have been used to assess Lower George's Street before and during the Summer Streets pedestrianisation trial. Given the standardised format of the check and its results, it is easy to compare the "health" of the street (and the success of the scheme) with others, including the changes made to Blackrock Main Street evaluated in December 2020.

Overall, the Summer Streets layout received a Healthy Streets score of 86, a result 36 percentage points higher than the previous street design (see Table 15). By comparison, the changes made in Blackrock saw an increase of 21 percentage points to 74. It is worth noting however that where the original layout of Blackrock Main Street scored zero across four metrics, for Lower Georges Street this was only the case for two and therefore the starting point for the latter was higher.

The results for Summer Streets showed substantial improvements to the indicators 'easy to cross', 'not too noisy' and 'people feeling safe', as a result of the removal of vehicle traffic on Lower Georges Street. Other factors contributing to the significant increase in score included the increased provision of cycle parking, new trees and planters and the additional seating for people to stop and rest.



	Existing layout	Proposed layout	% point change
Overall Healthy Streets Check score	50	73	23

Figure 15-1 Healthy Streets Check Spider Diagram

	Existing layout	Proposed layout
Pedestrians from all walks of life	51	74
Easy to cross	63	78
Shade and shelter	33	50
Places to stop and rest	47	73
Not too noisy	47	67
People choose to walk, cycle and use public transport	51	74
People feel safe	49	75
Things to see and do	33	58
People feel relaxed	49	72
Clean air	50	75
Overall Healthy Streets Check score	50	73
Number of 'zero' scores	2	0

Table 15 Healthy Streets Indicators' Scores, Lower Georges Street

16. CONCLUSION

This section assesses the success of the Summer Streets scheme, in relation to the objectives outlined against the Common Appraisal Framework (CAF). Lessons learnt and recommendations are discussed in section 17. The table below revisits the objectives set out in section 4 and provides a score against them based on the evidence presented in this report. It uses a tick system - with one being a minor improvement or positive change, 2 being moderate and 3 significant. Where an adverse impact was identified, this is visualised with a cross.

In addition to CAF outcomes, the healthy streets assessment presented above identified significant improvements resulting from the scheme.

CAF Criteria	Scheme Specific Objective	Outcome score	Outcome comments
Economy	Improve the local economic capacity in the area to support localisation of the economy and generate positive local economic benefits to businesses and consumers by: Encouraging an increase of footfall; Support hospitality businesses following the impacts of Covid-19.	✓✓	Footfall data from the Lower Georges Street monitor showed an increase in pedestrian activity around the area, while the scheme was in place. Given that the traffic data showed the number of vehicular trips remained stable, this suggests additional visitors (pedestrians, cyclists) were brought to Dún Laoghaire town, presenting increased economic opportunity for businesses. The weekend after the scheme ended (01/10/2021-03/10/2021), attracted approximately 12% less pedestrian footfall than the equivalent weekend the month before. The consultation with businesses also identified new or additional opportunities created by the scheme, which business had the chance to engage with. Further, the most common opinion of the changes made as part of Summer Streets was "very positive", across all three surveys and the majority of each survey group believed people would tend to spend longer in the area as a result of the changes. This again suggests increased economic potential as a direct result of the scheme. While positive opportunities and feedback has been identified with ~51% (DRLCC) or 64% (DLBA) of businesses survey seeing positive or no change in turnover and 54% and 67%, respectively, an increase or no change in customer numbers, it is also noted that a significant proportion of businesses' identified concerns over reductions in turnover and number of customers. Hospitality businesses (restaurants, cafes, bars) were the category with the strongest positive response to the scheme

CAF Criteria	Scheme Specific Objective	Outcome score	Outcome comments
			(60% of responses compared to 24% of the full sample of businesses).
Safety	Improve safety for all road users, including vulnerable user groups; Improve street accessibility and facilitate additional space/capacity for traders in view of Covid-19 safety concerns and requirements for social distancing.	✓✓	There were no significant concerns from the Gardaí in relation to the scheme, and most responses to the survey agreed that the new layout had made the area safer. There were concerns noted around cyclists not dismounting in the pedestrianised zone, which brought the outcome score down and is explored further in the lessons learnt section of this report. All survey groups agreed that the scheme helped with Covid-19 measures such as social distancing.
Environment	Improve the overall quality of the local environment, in terms of air quality, noise and litter; Reduce the impact of vehicular traffic on environmental pollution; and Support the development of the Dún Laoghaire urban village as a space that is welcoming and inviting for residents, shoppers and businesses.	✓✓	The majority of residents and visitors surveyed noted a reduction in the level of noise and litter compared to before the scheme. The air and noise monitoring assessment identified improvements in the local environmental quality. $N0_2$ concentrations post the trial period were approximately 35% higher than during the trial period while noise levels ($L_{A10,T}$) attributable to traffic noise were lower during the scheme. The majority of respondents to the residents and on-street surveys also stated that the changes in Lower Georges Street made the area a "much nicer" place to live/work. This was also the most common response amongst businesses and was also noted by the local primary school respondents. In addition, a significant proportion of survey respondents said they now walk or cycle more as a result of the scheme.
Accessibility and Social Inclusion	To provide welcoming and people-friendly public spaces that are inclusive	✓✓	Analysis of the surveys showed the majority of people had a positive opinion of the Summer Streets scheme when split out by various demographic groups. Women and those in the lower socio-economic class code (C2DE) showed a

CAF Criteria	Scheme Specific Objective	Outcome score	Outcome comments
	and accessible; and To provide a favourable basis for all social classes, demographics and levels of user ability to access public spaces and amenities.		slightly more negative opinion than men and those in the higher socio-economic group ABC1. When asked if the new layout seemed to consider the needs of people with disabilities, the majority of respondents across all surveys agreed. Though the majority of bus users and retired respondents still had positive opinions of the scheme (71% and 68% respectively), there were concerns about access to the area, including the hospital. Residents citing hospital visits as a reason for visiting the town generally had a more negative opinion of the scheme (59% positive, 38% negative).
Integration	Integrate with the existing transport infrastructure network; Support active travel modes and where possible transition users from the active mobility infrastructure to the Dún Laoghaire urban village areas	✓✓	The vast majority of networks interactions were facilitated in the design layout of the project. The interventions facilitated network integration with key active travel infrastructure including the Costal Mobility Route and the wider GDA Cycle Network Plan. Existing personal vehicular traffic was facilitated within the interventions. Existing motorised traffic flows yield limited or no impact on Journey Times and or network speeds. Pedestrian movements were facilitated and encouraged. Footfall data illustrates an increase in pedestrian users and moreover survey data confirmed positive perception in regard to the benefits that modal shift has enabled. Integration with the existing public transport was an issue raised both in feedback during and post the trail. While it is recognised that changes to bus stops reduced the level of accessibility to the bus network in the town centre, the survey data and feedback does not identify this as having resulted in significant adverse effects on the groups considered. This is an issue however which will need further consideration in the development of any future plan or project.
Physical Activity	Encourage active mobility as a mean of improving human health through physical activity; and Encourage improvements in the	✓✓✓	38% of people surveyed said they now walk more as a result of the scheme, and 12% cycle more. These were the most significant changes in travel habits, with only 4% of people saying they drive more.

CAF Criteria	Scheme Specific Objective	Outcome score	Outcome comments
	environmental objectives which can facilitate greater number of physically active users.		

17. LESSONS LEARNT & RECOMMENDATIONS

A stakeholder workshop was held in December 2021 to gather feedback on the Summer Streets scheme which, in combination with the survey findings and additional feedback received during the trail has helped formulate the below lessons learnt. The stakeholder workshop is discussed further in section 8 of this report. The most common concern identified through the surveys and the stakeholder session was around bus stop access, particularly the loss of bus stops outside Argos and the shopping centre. The residents' associations noted that this impact was felt particularly by the older community and those living just outside main town in areas such as Mounttown. Several stakeholders in the workshop suggested DLRCC explore options for nearby shuttle buses or similar if the scheme were to be reintroduced. Another issue raised by the Residents' Association was in relation to bin lorries and delivery vans getting stuck, particularly on Convent Road. These issues were raised during the scheme operation and available measures put in place to address them. However, they remain an outstanding issue to be mitigated in any permanent proposal.

Other key items raised and potential means of mitigation are discussed below:

- Parking: During the stakeholder workshop it was noted that throughout the scheme there were very few cars in Sussex streetcar park. It was suggested that this was an education piece, and that potentially there was no awareness that motorists could access it;
- Residents association feedback mentioned residents concern for individual traders where they were telling customers the scheme was damaging business, leading them to worry about losing smaller retailers and the town changing completely;
- There were concerns around cyclists in the pedestrianised zone. A more permanent scheme could include increased awareness around the cyclist routes and lack of cyclist access in the pedestrianised zone. Statutory signage could be used to support this;
- Several stakeholders acknowledged that there would be a time lag in relation to businesses realising the positive effects of the Summer Streets scheme, and that a longer period than 3 months would be required to see significant uplifts.

In general, the representatives from the residents' associations, DLBA and Tidy Towns that took part in the stakeholder workshop were in favour of a permanent solution. The workshop participants felt that this would best be considered in the context of an overall plan for the whole town.

Some key statistic identify through the evaluation are noted below:

- 81% of residents would like to see the scheme implemented permanently;
- 67% of customers would like to see the scheme implemented permanently;
- 44% of businesses would like to see the scheme implemented permanently;
- Businesses significantly overestimated the number of customers who travel by car and bus and underestimated the number who walk and cycle;
- There was 12% less pedestrian footfall the weekend after the scheme ended than the equivalent weekend the month before; and
- 59% of citybound vehicular traffic in Dún Laoghaire is through traffic, providing no distinguishable economic value to the town.

The challenges identified above notwithstanding, the scheme was not found to require significant design changes or re-routing. Even in consideration of these lessons, it is clear from the evaluation that the Dún Laoghaire Summer Streets programme met the objectives set out at the outset and delivered significant environmental and social benefits which in turn supported some economic improvements locally. It is estimated that a permanent scheme would enable local

businesses to further capitalise on the increased footfall and improved public realm to grow, and that the overall attractiveness and liveability of the area would also be positively impacted in the long term.

APPENDIX: HEALTHY STREETS RESULTS

Healthy Streets Check		Scoring System					Enter score here		Notes
		3	2	1	0	More info on each question	Existing layout	Proposed layout	Please supplement your answers with detailed notes where possible
1	Total volume of two way motorised traffic	There are fewer than 500 vehicles per hour at peak.	There are 500 to 1000 vehicles per hour at peak.	There are more than 1000 vehicles per hour at peak, where people cycling are separated from motorised traffic.	There are more than 1000 vehicles per hour at peak, where people cycling are mixed with motorised traffic.	ⓘ	3	3	Typically 2000-3000 vehicles per day one-way along Lower Georges Street in the existing layout.
2	Interaction between large vehicles and people cycling	No large vehicles are using the street, or cycle traffic is separated from motorised traffic.	The proportion of large vehicles is less than 2% of motorised traffic, 7am to 7pm.	The proportion of large vehicles is 2% to 5% of motorised traffic, 7am to 7pm. or The proportion of large vehicles is greater than 5% of motorised traffic, 7am to 7pm, and people are cycling either: - in a nearside general traffic lane or bus lane at least 4.5m wide, or - in a cycle lane where the combined width of the cycle lane and the next general traffic lane is at least 4.5m.	The proportion of large vehicles is greater than 5% of motorised traffic, 7am to 7pm, and people are cycling either: - in a nearside general traffic lane or bus lane less than 4.5m wide, or - in a cycle lane where the combined width of the cycle lane and the next general traffic lane is less than 4.5m.	ⓘ	1	2	The proposed layout as a pedestrianised space significantly reduces the interaction between large vehicles and people cycling from the existing layout. The proposed layout reroutes cycling along Covent Road and Lane, with access facilitated for HGVs in specified time windows again further reducing the interaction between large vehicles and cyclists.
3	Speed of motorised traffic	85th percentile speed is less than 20mph. or Existing 85th percentile speed is 20 to 25 mph, but there are some proposals to reduce speed further. or Existing 85th percentile speed is over 25 mph but a complete redesign of the street environment should reduce this to below 20mph.	85th percentile speed is 20 to 25mph. or Existing 85th percentile speed is 25 to 30 mph, but there are some proposals to reduce speed further.	85th percentile speed is 25 to 30mph. or Existing 85th percentile speed is greater than 30 mph, but there are some proposals to reduce speed further.	85th percentile speed is greater than 30mph. or Existing 85th percentile speed is greater than 30 mph, and there are no proposals to reduce this speed.	ⓘ	3	3	85th percentile speed on Lower Georges Street during October and November 2021 post trial was 30kph

	Healthy Streets Check	Scoring System					Enter score here		Notes
		3	2	1	0	More info on each question	Existing layout	Proposed layout	Please supplement your answers with detailed notes where possible
4	Traffic noise based on peak hour motorised traffic volumes	There are fewer than 55 vehicles per hour (c. <58 DB).	There are 55 to 450 vehicles per hour (c. 58 70 DB).	There are more than 450 vehicles per hour (c. >70 DB).	_	ⓘ	1	3	The proposed layout retained only delivery traffic between 6-11am daily. A 4 dB fall in the LA10,T level at Lower Georges Street indicates the noise climate is dominated by road traffic noise in the existing scenario.
5	Noise from large vehicles	The proportion of large vehicles is less than 5% (c. +0 to +3DB).	The proportion of large vehicles is 5 to 10% (c. +3 to +5 DB).	The proportion of large vehicles is greater than 10% (c. +5 DB and over).	_	ⓘ	2	3	
6	NO2 concentration (from London Atmospheric Emission Inventory)	**If assessing existing:** The NO2 concentration is less than 32µg/m3. **If assessing proposal:** The existing NO2 concentration is less than 32µg/m3 or the existing concentration is 32 to 40µg/m3 with local traffic volume reduction measures proposed.	**If assessing existing:** The NO2 concentration is 32 to 40µg/m3. **If assessing proposal:** The existing NO2 concentration is 32 to 40µg/m3 with no proposal to reduce local traffic volume or the existing NO2 concentration is greater than 40µg/m3 with local traffic volume reduction measures proposed.	**If assessing existing:** The NO2 concentration is greater than 40µg/m3 (legal limit value). **If assessing proposal:** The existing NO2 concentration is greater than 40µg/m3 with no proposal to reduce local traffic volume.	_	ⓘ	2	3	https://consultation.dublincity.ie/environment/air quality plan to improve levels of nitrogen dio/supporting_documents/Dublin%20Region%20Air%20Quality%20Plan%202021_Draft_20211012.pdf
7	Reducing private car use	There is no through movement for motorised traffic, with access limited to local residents, deliveries and public service vehicles.	There are some time or movement restrictions for motorised traffic.	There are no access restrictions for motorised traffic.	_	ⓘ	1	3	
8	Ease of crossing side roads for people walking	Side roads are closed to motor traffic. or Side roads are one way out for motor vehicles and have features to encourage drivers to turn cautiously.	Side roads are two way or one way in for motor vehicles, and have features to encourage drivers to turn cautiously.	Side roads have dropped kerbs only.	Side roads have no dropped kerbs.	ⓘ	1	3	

Healthy Streets Check	Scoring System					Enter score here		Notes
	3	2	1	0	More info on each question	Existing layout	Proposed layout	Please supplement your answers with detailed notes where possible
9 Controlled crossings to meet pedestrian desire lines	**If assessing existing:** All main pedestrian desire lines are provided for with controlled crossings. **If assessing proposal:** A new controlled crossing(s) is proposed or crossing(s) relocated to meet all main desire lines.	Only some of the main pedestrian desire lines are provided for with controlled pedestrian crossings.	No main pedestrian desire lines are provided for with controlled pedestrian crossings.	_	ⓘ	2	3	In the proposed layout existing controlled crossings were not required to facilitate safe crossing along pedestrian desire lines, instead pedestrian desire lines are facilitated throughout the pedestrianised zone. At Marine Road/Patrick Street the controlled crossing were maintained as a key desire line.
10 Type and suitability of pedestrian crossings away from junctions	Crossing is uncontrolled, with conflicting traffic volume less than 200 vehicles per hour. or A Zebra or parallel crossing is provided. or Crossing is signalised so that people crossing the main carriageway have priority, while traffic on the main carriageway has on-demand green.	Crossing is uncontrolled, with conflicting traffic volume between 200 and 1000 vehicles per hour. or Crossing is signalised and straight across where the distance to cross is less than 15m or greater than 15m in a 20mph speed limit. or Crossing is signalised and staggered where the distance to cross is greater than 15m in a 30mph+ speed limit.	Crossing is uncontrolled, with conflicting traffic volume greater than 1000 vehicles per hour. or Crossing is signalised and straight across where the distance to cross is greater than 15m in a 30mph+ speed limit.	_	ⓘ	2	3	
11 Additional features to support people using controlled crossings	Controlled crossings have many additional features to enhance their quality (please see scoring guidance).	Controlled crossings have some additional features to enhance their quality (please see scoring guidance).	Controlled crossings have no additional features to enhance their quality (please see scoring guidance). or There is no step-free access at the crossing point and/or there is no physical delineation between the footway and carriageway away from crossing points.	_	ⓘ	2	2	

Healthy Streets Check		Scoring System					Enter score here		Notes
		3	2	1	0	More info on each question	Existing layout	Proposed layout	Please supplement your answers with detailed notes where possible
12	Width of clear continuous walking space	walking in quiet locations (flows of <600 pedestrians an hour). or There is 2.5m or more clear width for walking in moderately busy locations (flows of 600-1200 pedestrians an hour). or There is 3m or more in busy locations (flows of >1200 pedestrians an hour).	There is 2m to 2.5m clear width for walking in moderately busy locations (flows of 600-1200 pedestrians an hour). or There is 2.5m to 3m in busy locations (flows of >1200 pedestrians an hour).	There is 1.5m to 2m clear width for walking in quiet and moderate locations (flows of <1200 pedestrians an hour). or There is 2m to 2.5m clear width for walking in busy locations (flows of >1200 pedestrians an hour).	There is less than 1.5m clear width for walking.	ⓘ	2	3	
13	Sharing of footway with people cycling	No part of the footway is designated as shared use for walking and cycling.	Part or all of a footway wider than 3m with fewer than 200 pedestrians per hour is designated as shared use.	Part or all of a footway used by more than 200 pedestrians per hour is designated as shared use. or Part or all of a footway less than 3m wide is designated as shared use.	–	ⓘ	1	3	Perceptions surveys noted concerns in regard to cycling on existing footways.
14	Collision risk between people cycling and turning motor vehicles	Side roads are closed to motorised traffic, or turning movements by motor vehicles are minimised. and At signal-controlled junctions, all conflicting movements between cycle traffic and turning motor traffic are separated.	Some measures are in place to reduce turning movements by motor vehicles at priority junctions. and At signal-controlled junctions, cycle movements are not separated and fewer than 5% of turning vehicle movements are made by larger vehicles but mitigation measures are in place.	There are no restrictions on turning movements by motor vehicles at side roads and other uncontrolled accesses. and At signal-controlled junctions, cycle movements are not separated and more than 5% of turning vehicle movements are made by larger vehicles but mitigation measures are in place.	At signal-controlled junctions, cycle movements are not separated, more than 5% of turning vehicle movements are made by larger vehicles and there are no mitigation measures in place.	ⓘ	1	1	

Healthy Streets Check		Scoring System					Enter score here		Notes
		3	2	1	0	More info on each question	Existing layout	Proposed layout	Please supplement your answers with detailed notes where possible
15	Effective width for cycling	**Where cycles are separated from other traffic,** the width of the lane or track is 2.2m or more (one way) or 3.5m or more (two way). **Otherwise:** Width of the nearside bus lane, general traffic lane (where there is no cycle lane) or width of the cycle lane plus adjacent general traffic lane is 4.5m or more.	**Where cycles are separated from other traffic,** the width of the lane or track is 1.5m to 2.2m (one way) or 2.5m to 3.5m (two way). **Otherwise:** Width of the nearside bus lane, general traffic lane (where there is no cycle lane) or width of the cycle lane plus adjacent general traffic lane is between 4m and 4.5m.	**Where cycles are separated from other traffic,** the width of the lane or track is less than 1.5m (one way) or less than 2.5m (two way). **Otherwise:** Width of the nearside bus lane, general traffic lane (where there is no cycle lane) or width of the cycle lane plus adjacent general traffic lane is 3.2m or less.	Width of the nearside general traffic lane (where there is no cycle lane) or width of the cycle lane plus adjacent general traffic lane is between 3.2m and 3.9m.	ⓘ	0	0	Segregated cycle facilities are not provided in either the proposed or existing layouts.
16	Impact of kerbside activity on cycling	There is no kerbside activity. or People cycling are physically separated from parking or loading facilities.	There is occasional kerbside activity, and people cycling can keep at least 1.0m clearance to vehicles parked or loading.	There is frequent or continuous kerbside activity, and people cycling can keep at least 1.0m clearance to vehicles parked or loading.	People cycling cannot maintain at least 1.0m clearance from vehicles parked or loading, or they are required to change lane to do so.	ⓘ	0	3	
17	Quality of carriageway surface	The carriageway surface is even and smooth, with sufficient skid resistance. or There are defects but resurfacing of the whole carriageway is proposed.	There are a few minor defects in the carriageway surface (please see scoring guidance).	There are many minor defects in the carriageway surface (please see scoring guidance).	There are major defects in the carriageway surface (please see scoring guidance).	ⓘ	2	3	Changed carriageway surface material to soften impact for pedestrians
18	Quality of footway surface	There is an even and level surface for walking on footways. or There are defects but resurfacing of the whole footway is proposed.	There are a few minor defects in the footway surface (please see scoring guidance).	There are many minor defects in the footway surface (please see scoring guidance).	There are major defects in the footway surface (please see scoring guidance).	ⓘ	2	2	

Healthy Streets Check	Scoring System					Enter score here		Notes
	3	2	1	0	More info on each question	Existing layout	Proposed layout	Please supplement your answers with detailed notes where possible
19 Surveillance of public spaces	There is constant surveillance – because mixed use buildings overlook the street or space, or because there are many people using the space or walking through.	There is intermittent surveillance – because surrounding buildings are single use or do not completely overlook the street, or because there are few people using the space or walking through.	There is poor surveillance – because few buildings overlook the street or space, there is little activity.	–	ⓘ	3	3	
20 Provision of cycle parking	Cycle parking exceeds existing demand and is accessible by all.	Cycle parking meets existing demand and is accessible by all.	Cycle parking does not meet existing demand. or Cycle parking meets existing demand but is not accessible by all.	–	ⓘ	1	3	30 new cycle stands installed including a number of accessibility and cargo friendly cycle stands.
21 Street trees	**If assessing existing:** There are multiple trees, with canopies spaced less than 15m apart on average. **If assessing proposal:** All existing trees are to be retained and the street is already tree-lined with less than 15m between tree canopies. or All existing trees are to be retained, with planting of new trees designed to reduce the average canopy spacing to less than 15m.	**If assessing existing:** There are multiple trees, with canopies spaced more than 15m apart on average. **If assessing proposal:** Not all existing trees are to be retained, however new planting will ensure the overall number of trees is maintained or increased. or All existing trees are to be retained, however the canopy spacing will remain more than 15m on average.	**If assessing existing:** There are no trees, or only one tree. **If assessing proposal:** There are no existing or proposed trees. or The number of trees has been reduced.	–	ⓘ	2	3	25 trees new street trees installed, amenity planting added and Myrtle Square public space developed.

Healthy Streets Check	Scoring System					Enter score here		Notes
	3	2	1	0	More info on each question	Existing layout	Proposed layout	Please supplement your answers with detailed notes where possible
	to reduce the average canopy spacing to less than 15m.	spacing will remain more than 15m on average.						
22 Planting at footway-level (excluding trees)	**If assessing existing:** There is substantial planting in good condition designed to create or improve social space and/or act as a connection between other green spaces (eg pocket park, rain garden, community garden area). **If assessing proposal:** Existing greenery is to be enhanced with integrated SuDS features or new planting or new areas of greenery are proposed.	**If assessing existing:** There is some planting, eg shrubs, verges, hedges, ornamental flower beds, or adaptation for some animal species. **If assessing proposal:** Existing standalone greenery is to be retained.	**If assessing existing:** There is no planting, or existing planting is in a poor condition. **If assessing proposal:** No green infrastructure is proposed, or the size of existing greenery is to be reduced.	-	ⓘ	2	3	30 new amenity planter added and Myrtle Square public space developed. Supplementary to well established existing planting.
23 **Walking distance between resting points** (benches and other informal seating)	There is less than 50m between resting points on both sides of the road.	There is between 50m and 150m between resting points on at least one side of the road.	There is more than 150m between resting points on at least one side of the road.	-	ⓘ	2	3	+15 new picnic benches + 3 benches, 4 chairs, 2 tables
24 **Walking distance between sheltered areas protecting from rain.** Including fixed awning or other shelter provided by buildings/infrastructure	There is less than 50m between sheltered areas.	There is between 50m and 150m between sheltered areas.	There is more than 150m between sheltered areas.	-	ⓘ	1	1	No new shelters were added as part of the trail.

Healthy Streets Check	Scoring System					Enter score here		Notes
	3	2	1	0	More info on each question	Existing layout	Proposed layout	Please supplement your answers with detailed notes where possible
	Are there any bus services running on this street? (Y/N) If not, do not complete metrics 25-28					Y	Y	An answer is required here in order to generate results
25 Factors influencing bus passenger journey time	There are positive influences on bus journey time, e.g. bus lanes, and/or exemptions for buses from movement bans for general traffic.	Buses are mixed with traffic but not significantly delayed.	There are negative influences on bus journey time, e.g. unclear markings, narrow lane width, parking/loading issues, short cage length, mixing with congested traffic.	-	ⓘ	2	1	Bus services were diverted as part of the trial, although these diversions could be reviewed and improved. Existing bus service connected to the street at York road and Marine road.
26 Bus stop accessibility	Bus stop is wheelchair accessible, with a shelter, clear space for boarding and alighting and there is a clearway in place at the bus stop.	Bus stop is wheelchair accessible but either there is no shelter or the cage length is insufficient for the bus service frequency.	Bus stop is not wheelchair accessible, i.e. the kerb height is less than 100mm and/or there is a lack of boarding or alighting space for a wheelchair user.	-	ⓘ	2	1	
27 Bus lane operation	Bus lanes operate 24/7.	Bus lane hours of operation are limited and do not cover all hours of the day / week.	There are no bus lanes.	-	ⓘ	1	1	
28 Impact of kerbside activity on bus operations	There is no parking or loading that adversely impacts on bus performance.	There is occasional parking or loading activity, but with minimal impact on bus operations.	There is frequent or continuous kerbside activity, regularly impacting on bus performance.	-	ⓘ	2	2	

Healthy Streets Check	Scoring System					Enter score here		Notes
	3	2	1	0	More info on each question	Existing layout	Proposed layout	Please supplement your answers with detailed notes where possible
			Are there any rail/underground/bus stations accessible from this street? (Y/N) If not, do not complete metrics 29-31			N	N	An answer is required here in order to generate results
29 Bus stop connectivity with other public transport services	The bus stop is within sight of another service – less than 50m away.	The bus stop is between 50m and 150m away from another service.	The bus stop is more than 150m away from another service.	–	ⓘ			
30 Step-free access from the street to the station entrance	All entry points to the station are step-free.	The main entry point to the station is not step-free but step-free alternatives are provided.	There is no step-free access to the station.	–	ⓘ			
31 Support for interchange between cycling and underground/rail	Secure cycle parking is provided close to station access points, and suitably exceeds existing demand.	Cycle parking is available close to station access points that meets existing demand.	There is insufficient cycle parking to meet demand, or cycle parking is poorly located for station access points.	–	ⓘ			