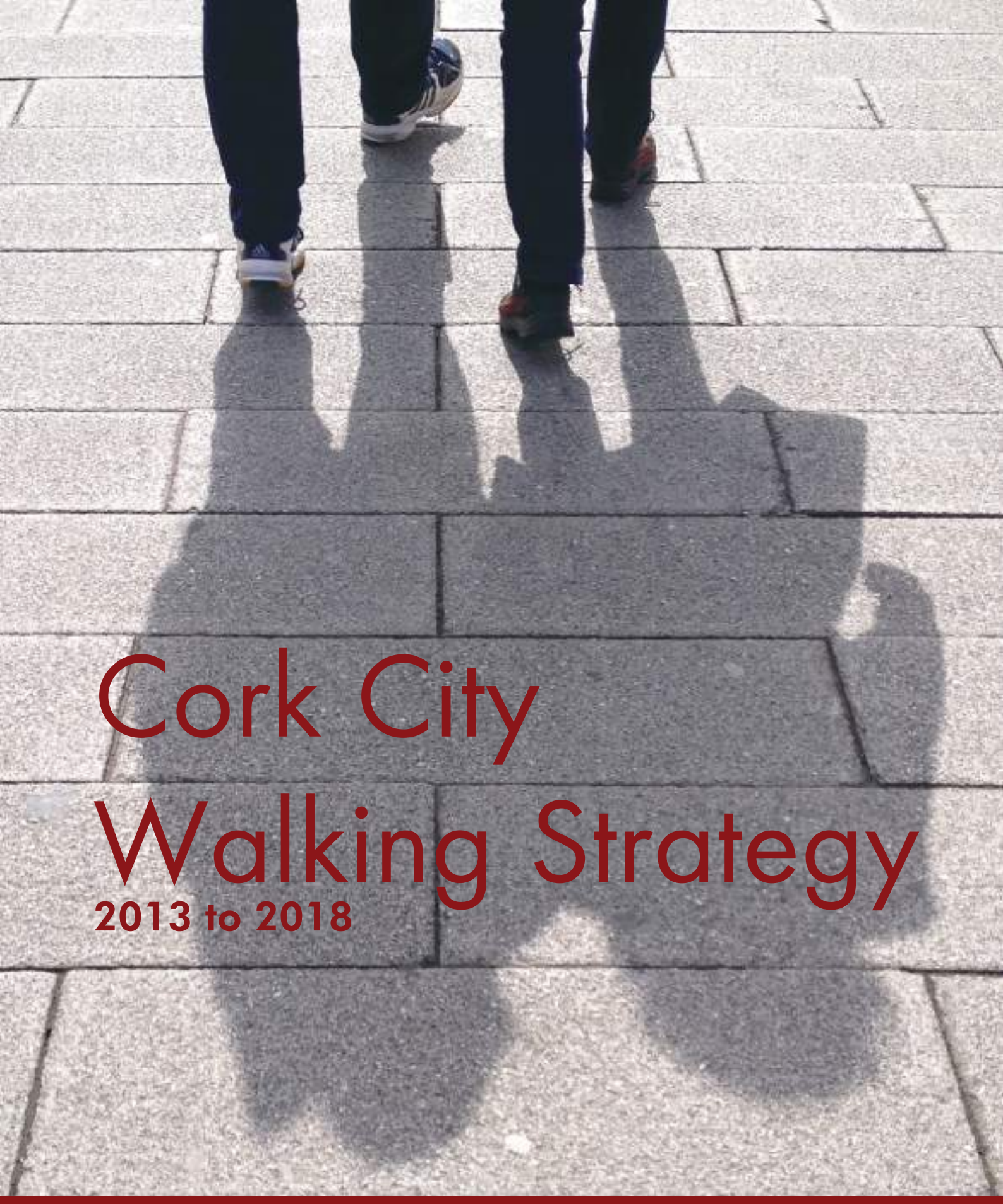

Cork City Walking Strategy

2013 to 2018

BRADY SHIPMAN MARTIN

Údarás Náisiúnta Iompair
National Transport Authority

Cork City Walking Strategy 2013 - 2018

Prepared by:
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Executive Summary

Almost everyone is a pedestrian at some stage during the day - whether for recreation, commuting, shopping or other purposes. Even when we travel by car, bike, bus or train, our journey starts and ends on foot. Proper provision for walking will benefit everyone, increasing personal health, reducing car dependency and improving air quality, as well as creating safer and more attractive places thereby boosting local economy.

Experiencing the city on foot can start at an early age and is an important part of the development of a walking culture. The compactness of Cork City Centre, the network of streets and the attractive quaysides are highly conducive to walking. Beyond the city centre there are a number of distinctive neighbourhood centres that enjoy high levels of walking by virtue of their compactness and range of facilities. There is also an extensive range of amenity routes and outdoor spaces that are heavily used for recreational walking and other sports.

The *Cork Walking Strategy 2013 - 2018* seeks to enhance a culture of walking beyond the City Centre by providing better pedestrian connectivity between settlements, district centres, employment hubs, educational facilities and public transport services. It examines the quality of the existing network of street and neighbourhoods, and analyses Central Statistics Office data of modal choice for journeys to workplaces and to places of education. Analysis shows a clear pattern of areas, routes and demographic profiles within the city where there is a high uptake of walking, as well as those where either the infrastructure or other factors appear to present barriers to walking.

To address the barriers to walking, **Four Focus Areas** are identified and considered throughout the Walking Strategy.

The first two include the physical aspects of the walking **Network** that connects origins and destinations throughout the city, as well as the quality and safety of the **Neighbourhood Infrastructure** for walking at a local level.

The third and fourth Focus Areas include the **Behavioural** characteristics of residents at a city and neighbourhood level, and the importance of **Collaboration** between communities, Local Authority Departments and other Statutory Bodies in working together to deliver walking infrastructure and to promote walking.

A walkable city is not just about walking. A walkable city enjoys greater **economy** in infrastructure and health care costs, as well as increased footfall that will benefit local businesses. **Personal health** and fitness levels are greatly increased, reducing cardiovascular and type 2 diabetes. The **environmental** benefits are seen through reduced emissions and more compact urban forms, and **communities** benefit from more vibrant, safer and friendlier streets with stronger social connections.

The *Cork Walking Strategy 2013 - 2018* identifies a comprehensive range of projects and initiatives that can be implemented in a phased and coordinated manner to achieve the targets. Projects under each of the Four Focus Areas are strategically prioritised.

The first phase includes city-wide promotion and awareness initiatives to *Get Cork Walking*, together with flagship physical projects at locations that are highly visible and have high pedestrian numbers - these will demonstrate how a re-balanced street space can create a better and safer pedestrian environment.

Subsequent phases increasingly focus on delivering physical projects throughout the city as well as behavioural and collaboration initiatives that are targeted on specific groups - these will unlock the barriers to walking and deliver a walkable city.


CORK
BONDED

Contents


EAGLAIS N. ANNA
TITHE DÉIRCE AN SCÍDIGH
MÚSAEM IME CHORCAÍ

1.0 Introduction

The Cork Walking Strategy provides a clear vision and plan for increasing the **modal share of walking** for commuting within Cork City's suburbs, and sets out targets to be achieved by 2018.

By developing a walking network that **connects neighbourhoods, origins and destinations**, increases the permeability of the built environment, and creates attractive, safe and sustainable alternatives to private transport, more **people will choose to walk**, resulting in a healthier population, a more attractive and sustainable city, and stronger communities.

There are four focus areas of the Walking Strategy, including:

- **Network Development** of the primary pedestrian network throughout the city;
- **Neighbourhood Infrastructure** to enhance neighbourhoods and walking safety;
- **Behavioural Change** initiatives that promote walking;
- **Collaboration** between stakeholders.

The Cork Walking Strategy considers the **strategic corridors** that lead to and from the City Centre. Extensive use is made of mobility pattern data available from Census 2011, as well as statistics available from previous Census Reports to identify trends in modal share. As a walking strategy, it **principally considers journeys less than 2.0km in length**, however, longer journeys that can be undertaken by walking in conjunction with pubic transport or cycling are also considered.

A separate Movement Strategy has already been prepared for the City Centre, and a Walking and Cycling Strategy is being prepared by Cork County Council. This Walking Strategy will connect to the routes emerging from these studies.

Cork will be the most walkable city in Ireland, where people choose to walk as the safe, healthy and attractive alternative to private transport.

VISION

A walking network of high quality streets and amenity routes will provide direct connections between places and spaces, encourage people to walk more, and create a healthy living city with strong communities in a good urban environment.

1.2 Targets

The ultimate goal of the Walking Strategy is to ensure that people change the manner in which they travel. To achieve this, it is important to set out numeric targets, but also to identify the high level objectives that will lead to modal change, including physical interventions, behavioural changes and responsibilities.

The bullet points below highlight some of the main objectives in this regard. The table provides numeric targets for modal change from private car for journeys of differing lengths.

The strategy can deliver a **30% reduction in the use of private cars** for short journeys, but the input, support and collaboration from all stakeholders is critical to ensure its success.

- Stop the decline in walking.
- Reduce private car use, especially for short trips.
- Make walking, health and environment a daily topic of conversation.
- Every neighbourhood to be actively engaged in promoting walking.
- Increase public transport use in conjunction with walking.
- Traffic calming and parking exclusion zones at schools.
- All major employers to adopt mobility plans.
- Cork agencies and authorities to be role models for collaboration.

Figure 1: 2018 Targets, and relative uptake of alternative modes.

** See Section 6.4.1, page 20, for basis of 51,000 commuters*


FITZGERALD PARK
& MUSEUM
CORK WALKS

2.0 How Cork People Commute

The following figures provide a snapshot of the current modal share in Cork. They are derived primarily from Census 2011 data for residents of Cork City who commute to places of work or education.

A detailed definition of the basis of analysis is provided in *Section 6.4.1 on page 20* below.

2.1 Overall Modal Share of Cork City Commuters

Figure 2: 2011 Overall modal share for residents of Cork City commuting to places of work or education.

2.2 Modal Share of Different Groups

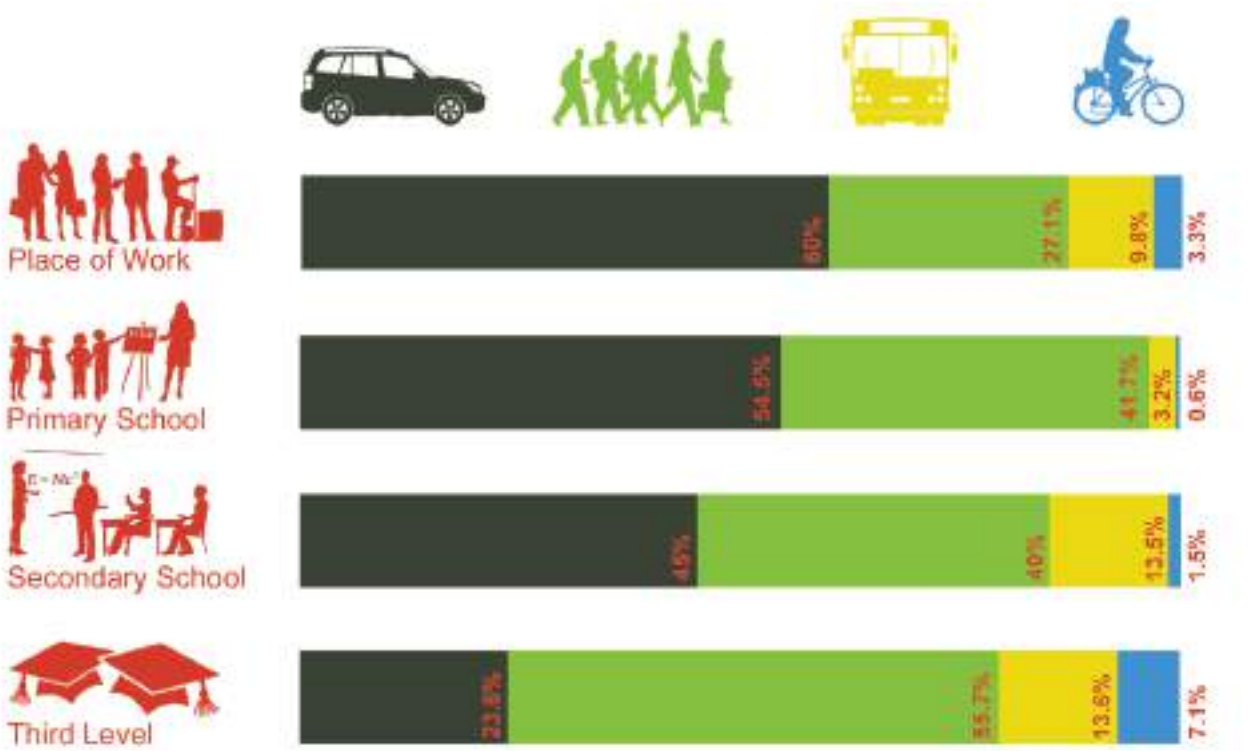


Figure 3: 2011 modal share for residents of Cork City commuting to specific destination types.

2.3 How Far People Travel by Different Modes

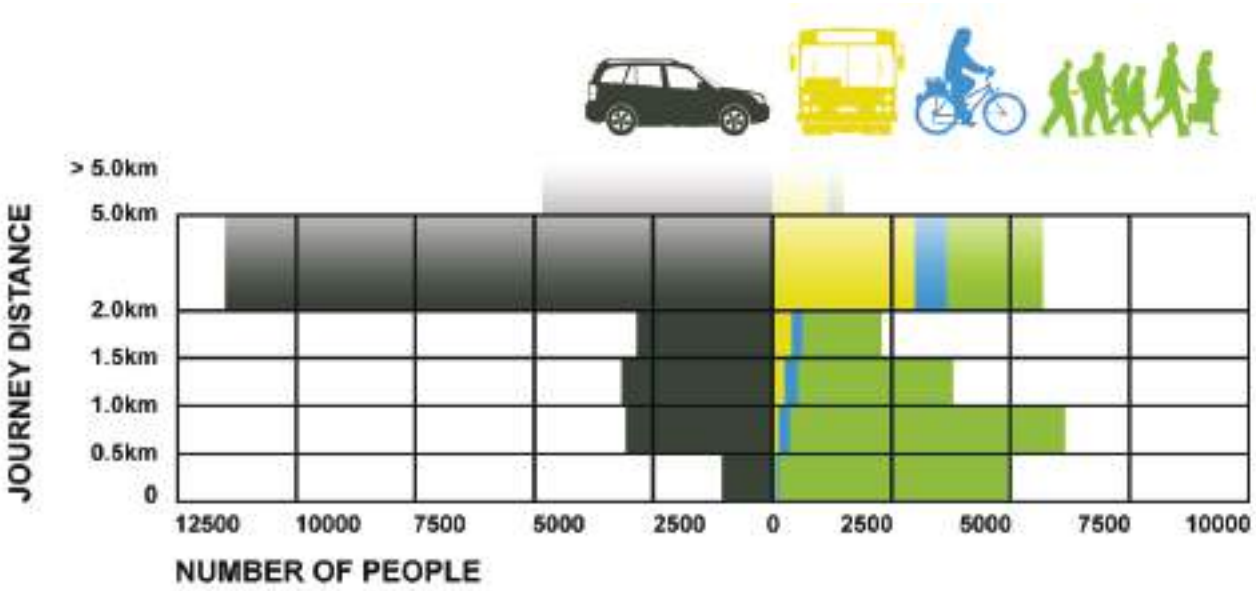


Figure 4: Actual and relative number of people travelling different distances by different modes.

2.4 Modal Share for Different Groups

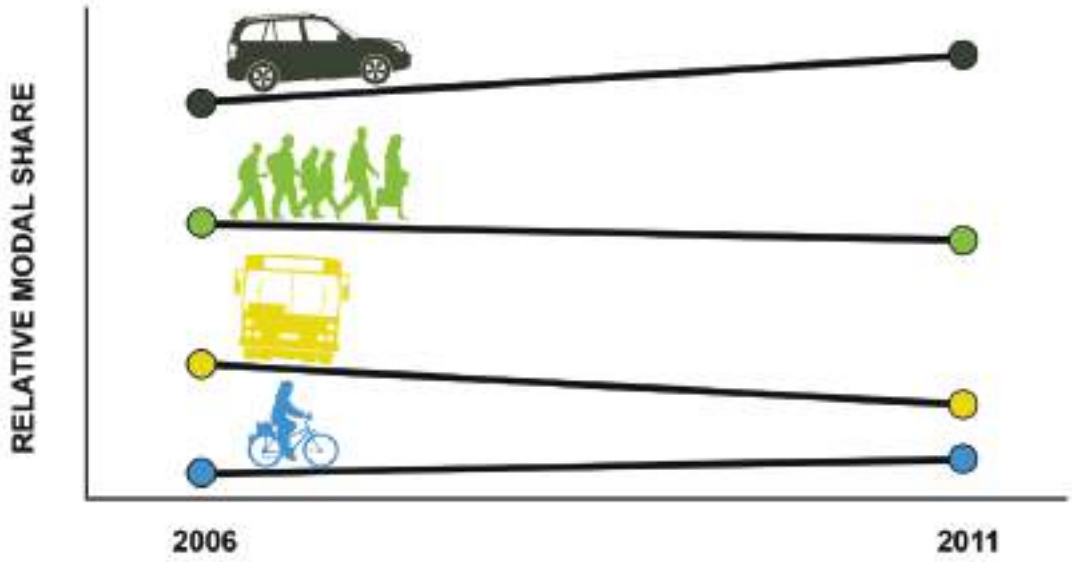


Figure 5: General Overall Modal Share Trends in Cork City from 2006 to 2011.

POSITIVES

More Walking and **Less Driving** to Primary Schools

Increase in Cycling to Work

NEGATIVES

Less Walking and **More Driving** to Secondary Schools

Less use of Public Transport to Primary and Secondary Schools

More Driving to Work

3.0 Walking in Urban Environments

Almost everyone walks at some stage during the day, whether commuting, for leisure, to shop or for other purposes. Pedestrians include people across all age groups and with varying degrees of mobility. Even when travelling by car, bike, bus or train, journeys start and end on foot.

Proper provision for walking will benefit everyone, increasing personal health, reducing car dependency and improving air quality. It will also create safer and more attractive places, embrace public transport and boost local economy.

This Walking Strategy aims to enhance the primary pedestrian network outside the core City Centre area so as to provide better pedestrian connectivity between settlements, district centres, employment hubs, educational facilities and public transport services. The primary pedestrian network includes the strategic corridors to and from the City Centre as well as the existing and proposed amenity routes.

The culture of private car use, especially for shorter journeys, must change so that the city can become more vibrant, attractive and sustainable. A programme of physical improvements to the overall walking network and neighbourhood infrastructure, combined with active promotion of a walking culture and focussed collaboration between all stakeholders, will result in more people walking in the city.

3.1 Benefits of Walking

Economy

- Walking is affordable;
- Cost effective infrastructure;
- More footfall benefits local economies;
- Enhanced tourism experience;
- Reduced public health care costs;
- Enhanced vibrancy and competitiveness.

Personal Health

- Improved personal health and fitness;
- Reduced risk of cardiovascular disease, type 2 diabetes and certain cancers;
- Physical and mental benefits, and enjoyment.

Environmental

- Zero emissions;
- Reduced car dependency;
- Supports public transport;
- Promotes more compact urban forms.

Communities

- Busier streets feel safer and friendlier;
- Promotes social connections;
- More active communities;
- Improved safety for pedestrians.

3.2 The Twenty Minute Walk

Historically, **the most connected places** were towns and villages that had developed at the confluence of transport routes, including railways and waterways. Each place had its own local economy, providing services, facilities and amenities for its own population. The physical extent of settlements tended to be of the order of one mile, such that everything was within a 20 minute walking distance.

Cork City, in the early 20th century, was broadly encompassed within a one mile diameter, or 20 minute walk. Medieval Paris, a much larger city, had a number of distinct quarters, each of which extended to a 20 minutes walk. See *Figure 6* below for comparison. Similar patterns can be drawn from older maps of other cities and settlements.

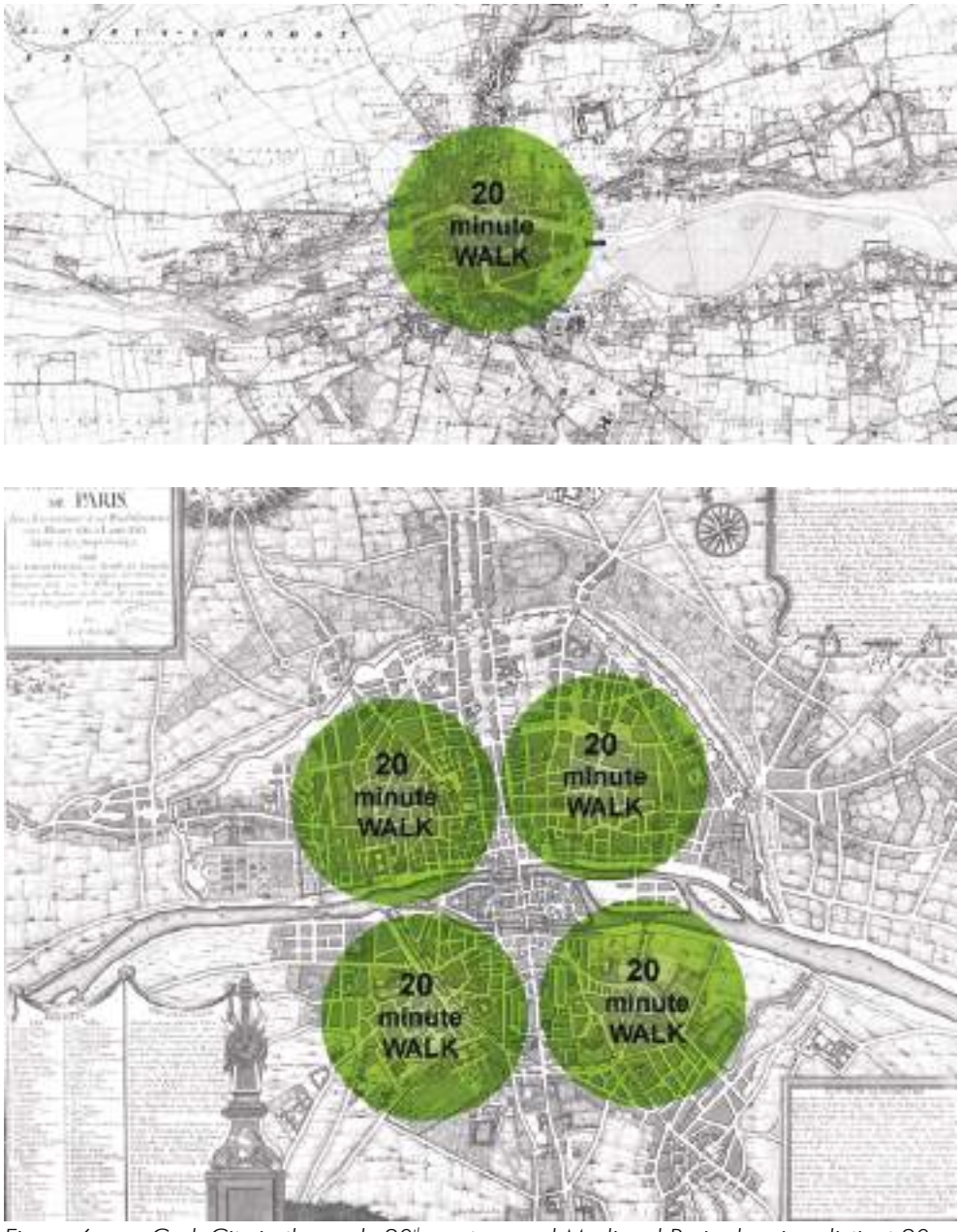


Figure 6: Cork City in the early 20th century and Medieval Paris showing distinct 20 minute walking catchments.

3.3 Cities and the Private Car

With the advent of the car, land use and transport planning cultures changed to deliver the road networks required to accommodate private cars and vehicular transport. Much of the focus was on facilitating vehicular movement, capacity and speed. Settlements that traditionally included workplaces, schools and retail centres became more dispersed as much greater distances could be conveniently covered by car in 20 minutes, or more. Mobility over longer distances gained precedence over local access, and the strategic importance of walking was undermined.

Today the **places that are perceived to be the most connected are those that are accessible by car**. They are not actually connected in real, or human, terms. The car has resulted in a legacy of an unsustainable transport infrastructure, culture and expectation.

The challenge now is to re-think land use and transportation planning with the benefit of hindsight and in the context of contemporary urban planning. By re-structuring urban areas as walkable districts and neighbourhoods, we can revitalise the social, economic and environmental sustainability of cities.

Walkable neighbourhoods are characterised by:

- higher building densities;
- mixed land use, including homes, shops, schools, leisure and employment;
- high permeability, providing direct travel routes throughout the neighbourhood;
- planned pedestrian and cycling facilities, and low traffic speeds;
- accessibility to local services and facilities, open space, parks, public transport and other destinations.

4.0 International Best Practice

Many cities in the western world are taking steps to counter the culture of car dependency that flourished during the second part of the 20th century.

In preparing this Walking Strategy, a desktop review was undertaken of walking networks that have been successfully developed in a number of cities, including Copenhagen, Paris, Vancouver, Bristol, Melbourne/Victoria and Canterbury (NZ).

In general, walking strategies inform the delivery of a range of **physical interventions** in combination with **promotional and awareness campaigns**. Additionally, the cities that are enjoying the greatest modal shift are those where national and local development policies are both supported and informed by sustainable land use and transport strategies, including walking.

The **hard measures** adopted in different cities have a degree of similarity. This reflects the similarity in the physical nature of streetscapes, footpaths, signalisation, lighting, maintenance and pedestrian needs. Typically, these will include reducing the volume and speed of vehicular traffic, reallocation of street space for pedestrian use, upgrading the quality of footpaths and lighting, making junctions more pedestrian friendly, improvements to the public realm, creation of courtesy street spaces, and the introduction of new pedestrian links to provide more direct walking routes. Some cities go further by incorporating other facilities such as public toilets, drinking water fonts, play and exercise areas, as well as detailed landscape and signage proposals. The extent to which similar hard measures are adopted elsewhere is visible in the illustration to the left.

The **soft measures** are somewhat more location specific and respond to the local social, economic, and cultural characteristics. The capacity and appetite of communities, schools and large employment centres to champion different initiatives is also location specific. Soft measures typically include "walk to work" or "walk to school" campaigns, health initiatives, and behavioural change campaigns, but can also include targeted walking events, social media marketing, quality of life surveys and other initiatives. The illustration to the left shows less similarity and more individuality in the soft measures adopted in different cities.

Properly coordinated planning, nationally and locally, will deliver mixed land uses with local services, consolidation of developed areas, increased densities, better pedestrian connections between places and public transport services, and the creation of local employment and facilities.

In reviewing international best practice, we have identified five principles that are commonly applied in the development of urban walking networks and infrastructure.

4.1 Principles of Walking Networks and Infrastructure

There are five key principles required in the development of walking infrastructure and networks.

Safety

Physical safety requires separation from vehicular traffic, adequate space, good quality surfaces (including drainage and maintenance) and particular attention to pedestrian needs at junctions and crossings. Personal safety and sense of security requires passive supervision from adjoining buildings and from other pedestrians, good lighting, reduced traffic speeds, as well as legibility of the environment.

Coherence

Walking networks should link the main origins and destinations. Routes should be continuous from start to end, with legible continuity through junctions and at crossings. Signage, whether for safety, direction or way-finding, should be consistent, coordinated and clear, and walk time metrics should be provided as well as journey distances.

Directness

Pedestrian infrastructure should be as direct as possible, with minimal detours, maximising accessibility to destinations and facilities within a distance that is walkable. Pedestrian desire lines will normally reflect the shortest possible route, and should be considered and provided for in planning and developing physical infrastructure.

Attractiveness

The walking environment along a route should be pleasant and interesting. Monotonous routes, lacking interest, poorly presented or run down, and perhaps over exposed to the elements, are not appealing to pedestrians.

Comfort

Pedestrian routes will be more appealing if they are smooth and well maintained, and designed for full universal access with acceptable gradients, seating and provision of shelter. They should be clutter free, with particular attention paid to street furniture, location of parking spaces, private bin storage and property boundaries.

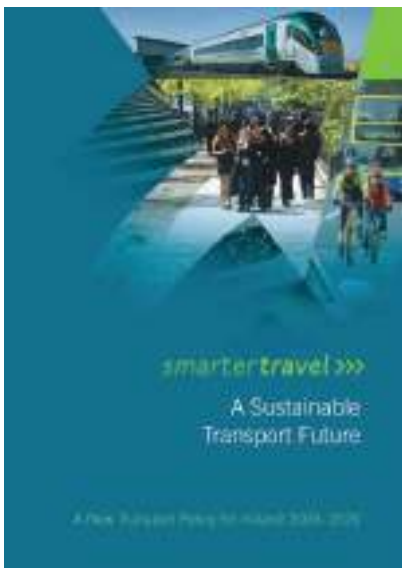
5.0 Policy and Guidelines

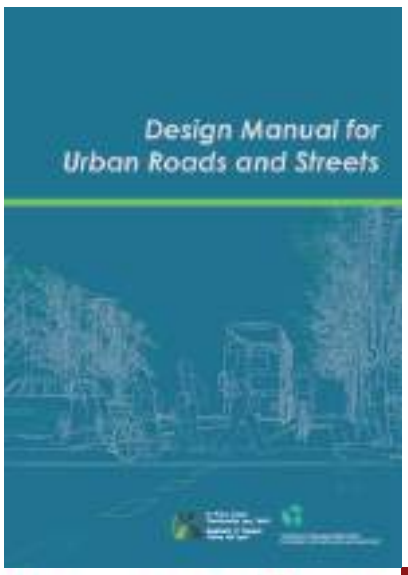
Consideration of policy and guidelines in relation to the Walking Strategy ranges from the National Spatial Strategy to City Development and Local Area Plans, as well as local studies and initiatives. The relationship of the Walking Strategy to the full range of Policy and Guidelines is summarised in *Figure 7* below and illustrated fully in *Appendix A*.

The Cork City Walking Strategy must be informed by the plans and policies above it, and in turn must ensure compatibility with other guiding documents, studies and initiatives. Two documents of particular relevance are:

- *Smarter Travel – A Sustainable Future for Ireland 2009 - 2020;*
- *Design Manual for Urban Roads and Streets*.

Figure 7: *The relationship of the Cork City Walking Strategy to other Policy and Guidelines.*





5.1 Smarter Travel
A Sustainable Future for Ireland 2009 - 2020

The Government's policy *Smarter Travel – A Sustainable Future for Ireland 2009 – 2020* sets out sets out clear and ambitious targets to achieve a sustainable transport system throughout Ireland by 2020. The objectives include:

- increased accessibility and efficiency in movement;
- reduced congestion and emissions;
- improved individual and collective health and quality of life;
- ensuring Ireland's economic competitiveness.

Significant **modal shift to walking, cycling and public transport,** particularly in urban areas, is critical to delivering on the targets set out in *Smarter Travel*.

5.2 Design Manual for Urban Roads and Streets

The *Design Manual for Urban Roads and Streets* (*DMURS*) was published on 25th March 2013 and changes the prioritisation of street space for different modes of transport. *DMURS* is now mandatory for all streets with a design speed of 60 Kph or less, and replaces its predecessor, the *Design Manual for Roads and Bridges*. It recognises the importance of place, neighbourhoods and quality streets in supporting sustainable urban neighbourhoods. **Walking and cycling are given first priority** in order to create safe streetscapes and networks that serve all members of the community. The social, economic, environmental and health benefits of active, vibrant and attractive street networks are fully endorsed.

Together, *Smarter Travel* and the *DMURS* provide robust support for the implementation of the Walking Strategy and re-balancing the road network to become streets for people.

5.3 Travel Policy, Environment and Health

Smarter Travel and ***DMURS*** both recognise the cost benefits of a healthier population. Proper urban planning ensures proximity of homes, schools, workplaces and services, negating vehicular use for shorter day to day trips. The commensurate increase in walking, cycling and use of public transport ensures that people receive regular physical exercise, and underpins the development of vibrant neighbourhoods, and stronger social networks and communities.

There is a clear association between the quality of the built environment, health and well-being, and levels of physical activity. Properly planned walkable neighbourhoods, with pedestrian and cycling infrastructure, will deliver significant savings when compared to the long term recurring costs of health care provision.

6.0 Cork City

This chapter examines the physical, cultural, land use and mobility patterns of Cork City under the following headings:

- Topography and Physical Characteristics;
- Walking Culture;
- Pedestrian Safety;
- Commuting, Travel and Land Use;
- Commuting Destinations and Routes;
- Identifiable Districts and Neighbourhoods;
- Mobility and Modal Share.

6.1 Topography and Physical Characteristics

The City Centre is located on the island between the River Lee channels. Cork City Centre is very walkable as it has a compact urban form and is relatively flat. It comprises an attractive mix of historic and contemporary buildings and spaces, with characteristic architectural and cultural heritage. The ever present river channels make the city distinctive and appealing, and contirbute to a strong sense of orientation.

Outside of the City Centre, off the island, the city is characterised by considerable variations in topography, built form and land uses, a wealth of wildlife and bio-diversity, open space and recreational facilities, trees and vegetation and expansive water bodies.

The landscape of the South City is relatively flat, rising to a minor ridge that runs from the Cork Institute of Technology (CIT) to Mahon. Gradients are typically between 1:20 and 1:50, with a number of steeper hills in localised areas such as South Gate/Barrack Street.

The North City has more pronounced topography, rising steeply to the ridgelines of Shanakiel, Knocknaheeny and Farranree, Dublin Hill, The Glen, and Mayfield. Gradients in these areas can be 1:10 and 1:20, with occasional steeper slopes of as much as 1:3 and 1:4. In many instances, roadways and access routes run along the contours, reducing the impact of the slope. In some places, where routes run across the contours, stepped pavements are to be found, as the gradients are too great. Once on the plateaus of these hills, gradient becomes more manageable.

Topography is a significant factor in determining walkability.

6.2 Walking Culture

Cork City Centre is an historic, attractive and compact network of streets, spaces and buildings contained within the river channels and their quaysides. The wider city incorporates many distinctive neighbourhoods together with extensive public space, parks, sporting grounds and amenity routes, as shown in *Figure 8* below. All of these characteristics underpin the walkability of Cork City for both recreation and commuting. This walkability contributes greatly to the vibrancy and strong sense of community in many parts of the city.

The walking culture and neighbourhood network is a solid foundation on which to further develop the walkability of the city and its neighbourhoods.

Strategic routes can be re-balanced in favour of better pedestrian movement. Secondary networks through neighbourhoods, together with amenity and heritage routes, can be extended and connected to the strategic routes and public transport facilities, and to each other. In doing do, the walking network will better **facilitate people in their day to day travel needs,** and encourage people to choose to walk as the sustainable, economical and healthy alternative for local journeys.

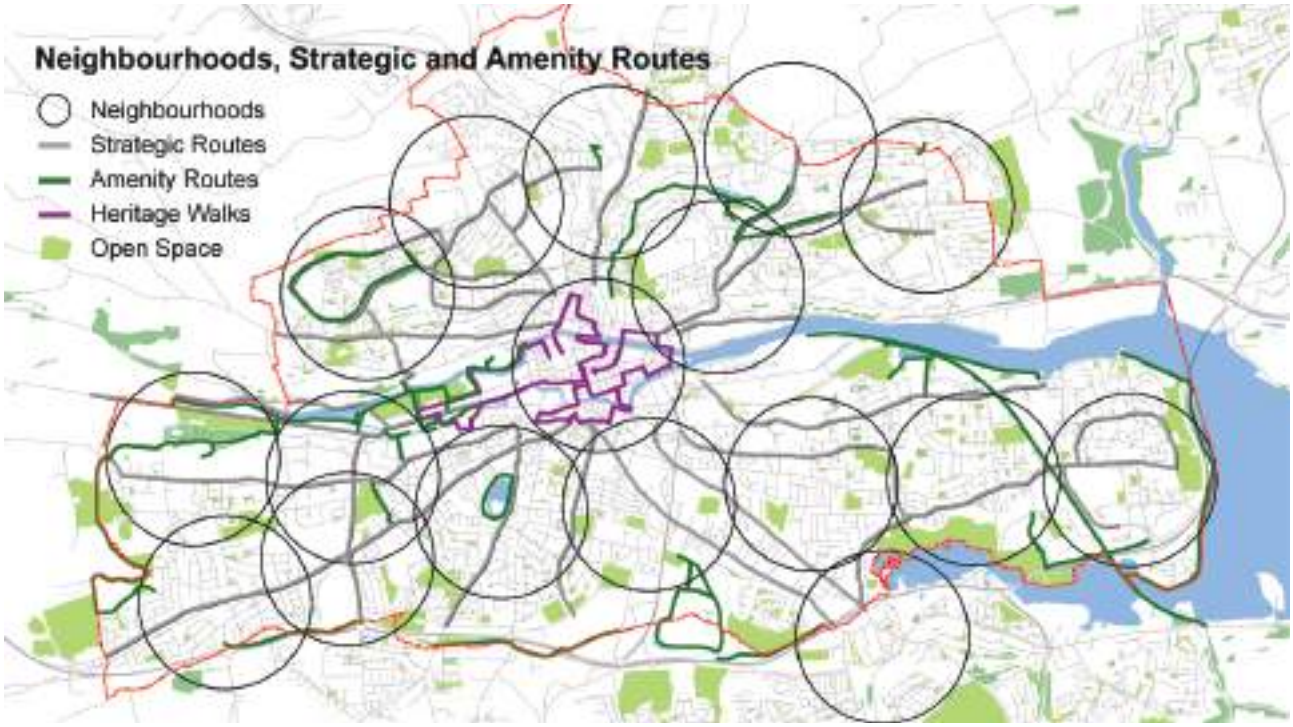


Figure 8: Existing Neighbourhoods, Strategic and Amenity Routes, including Heritage Walks and Open Space

6.3 Pedestrian Safety

Pedestrians are the most vulnerable of all road users, with children and the elderly being most at risk.

The *Road Safety Authority (RSA)* publishes a series of annual statistics on various road traffic collisions on public roads in the Republic of Ireland based on traffic collisions that have been reported to An Garda Síochána. The statistics cover fatalities, personal injury (serious and minor) as well as material damage.

Whilst many collisions are the result of human behaviour, it is accepted that **excessive vehicle speeds** are a primary contributor to the number of, as well as the severity of, collisions involving pedestrians. Tackling inappropriate speeds, including the introduction of low speed zones, will have a positive effect in reducing the severity of the outcome of collision involving pedestrians.

6.4 Commuting, Travel and Land Use

The Cork City Walking Strategy is about making Cork the most walkable city in Ireland, where people choose to walk as the safe, healthy and attractive alternative to private transport. To achieve this, the strategy must counteract the legacies of designing for private vehicular transport, and re-structure the mobility network so that **roads become streets again - streets for people.**

By re-thinking land use and transportation planning in the context of contemporary urban planning and sustainable transport objectives, the Cork City Walking Strategy will re-create the walkable neighbourhoods and districts of the city. Cork will be re-positioned as a modern and sustainable city.

It is only by planning for and implementing more connected and walkable neighbourhoods, with increased permeability to public transport services, and with local employment, retail and other services, that people will experience the benefits, and that their expectations will begin to change.

6.4.1 Basis of Analysis

Census 2011 data records 66,000 workers and students who live within the Cork City administrative boundary. These are subdivided as follows:

- 39,000 commute to places of work or education within Cork City;
- 12,000 commute to places of work or education in Cork County;
- 4,000 do not commute (or did not specify);
- 11,000 commute longer distances to other places in Ireland.

In addition, there are a further 55,000 who commute into Cork City from Cork County, and another 6,000 who commute into Cork City from other counties. By virtue of distance travelled, it is assumed that the majority of these, as well as the 11,000 noted above, travel primarily by car or by public transport and have a negligible bearing on the figures for walking. As such, the main analysis is on the mobility patterns and modal share of the 51,000 people who live within Cork City and commute to places of work or education within the city or to the County, as shown in *Figure 9* below.

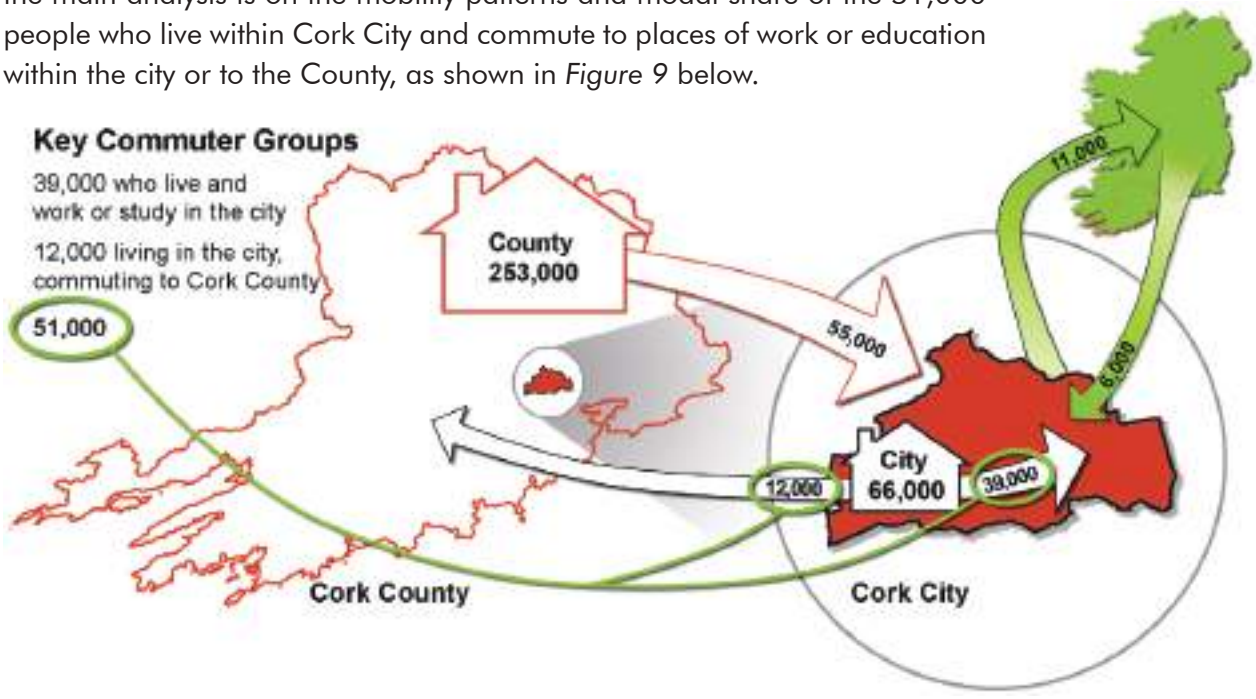


Figure 9: Basis of Analysis identifying Key Commuter Groups as targets for modal shift.

6.5 Commuting Destinations and Routes

Detailed analysis has been undertaken using Geographical Information Systems to identify and map the key **employment and education destinations** within Cork City.

Figures 10 - 14 below identify the location and relative size of the individual employment centres and education centres throughout the city. Zones that encompass the main destinations clearly identify the areas that experience the greatest commuting demand.

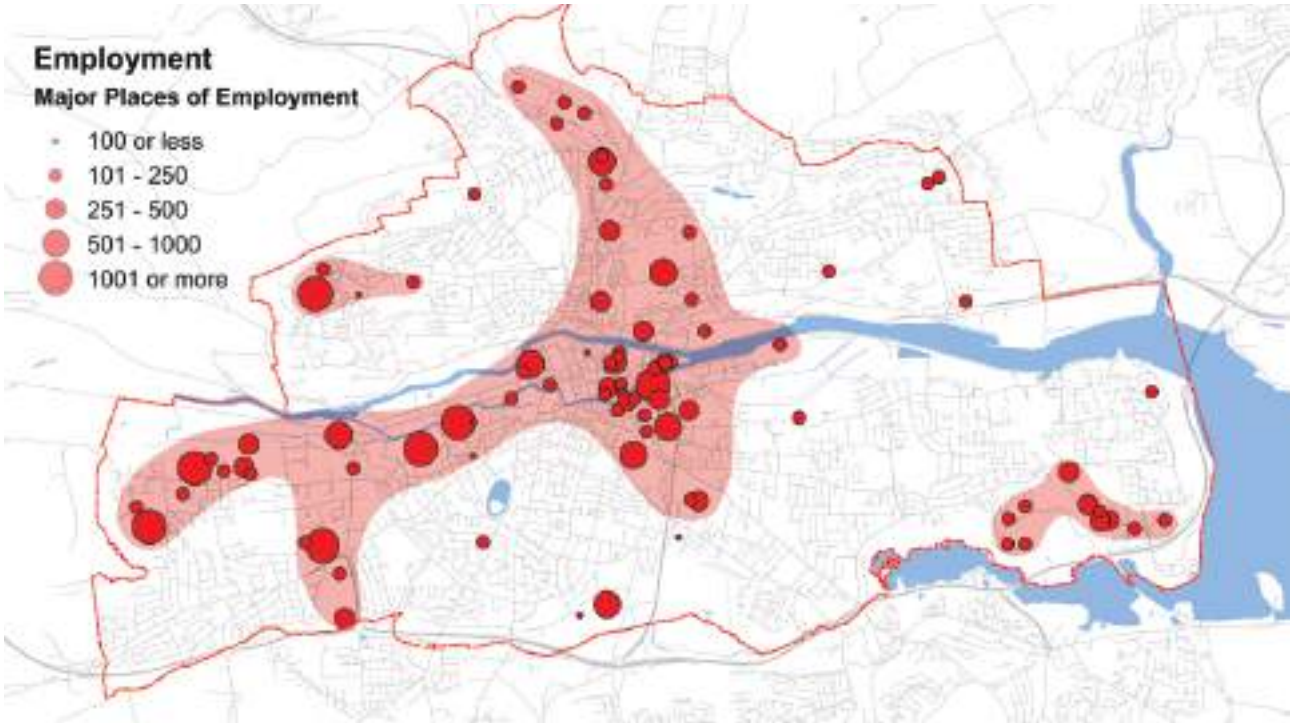


Figure 10: Zones of employment centres in Cork City

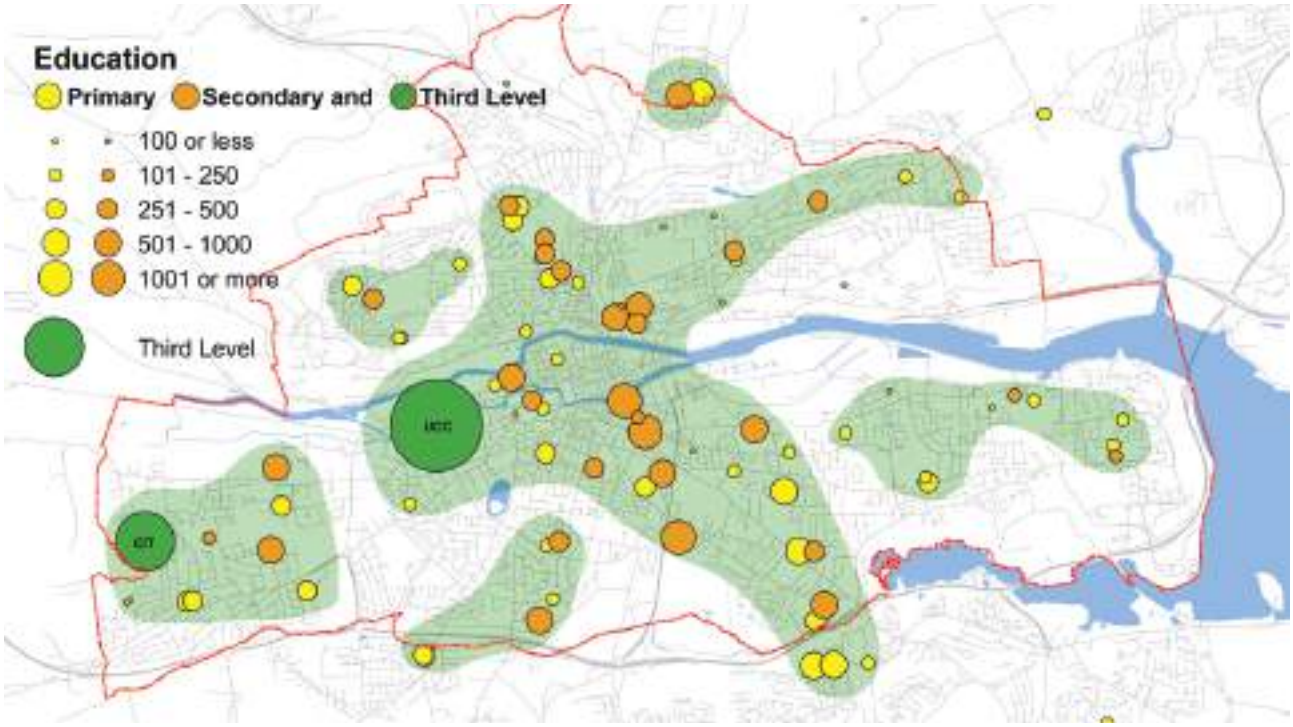


Figure 11: Zones of Education centres in Cork City

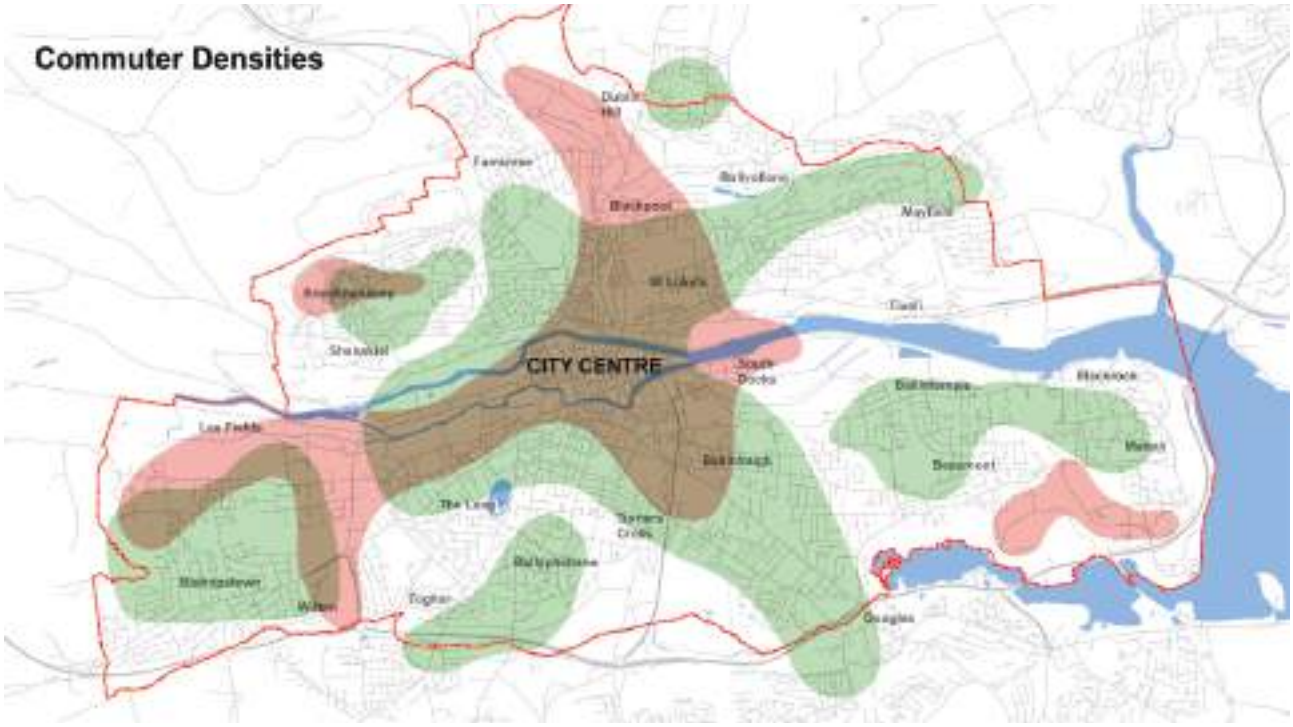


Figure 12: Overlapping zones of employment (red) and education centres (green)

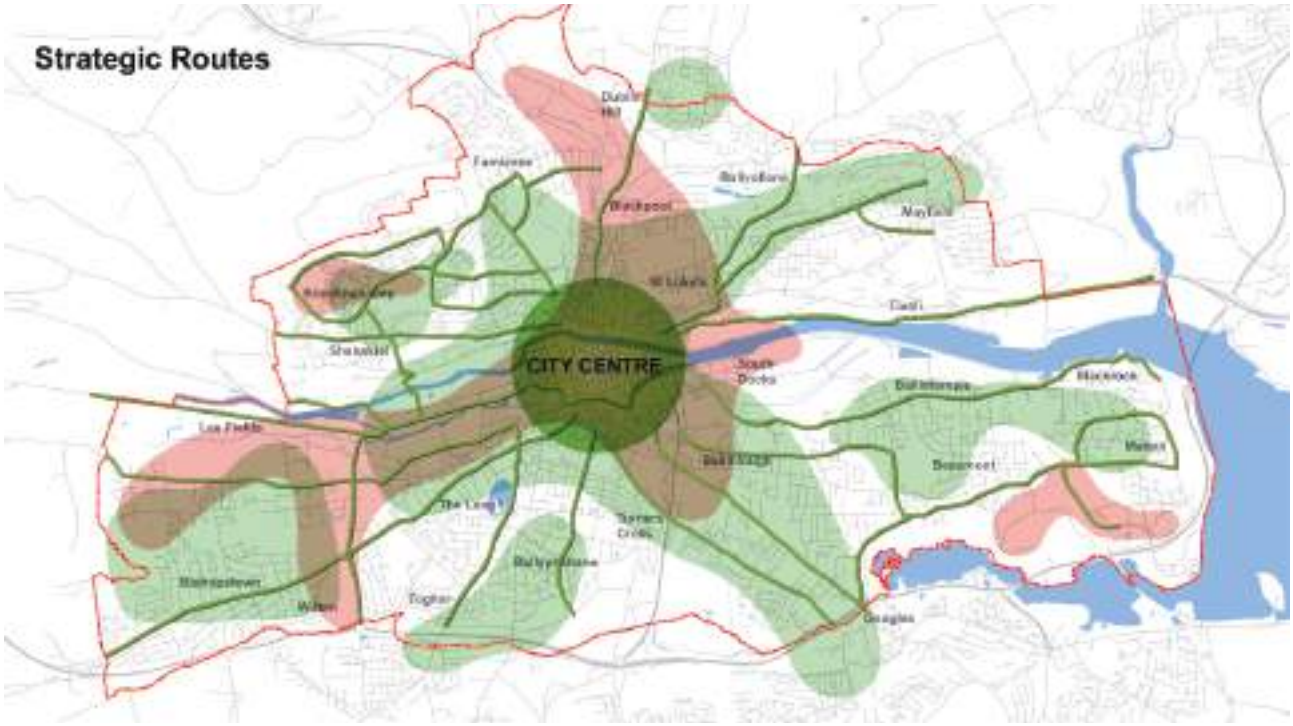


Figure 13: Strategic Routes overlaid on zones of workplaces (red) and education centres (green)

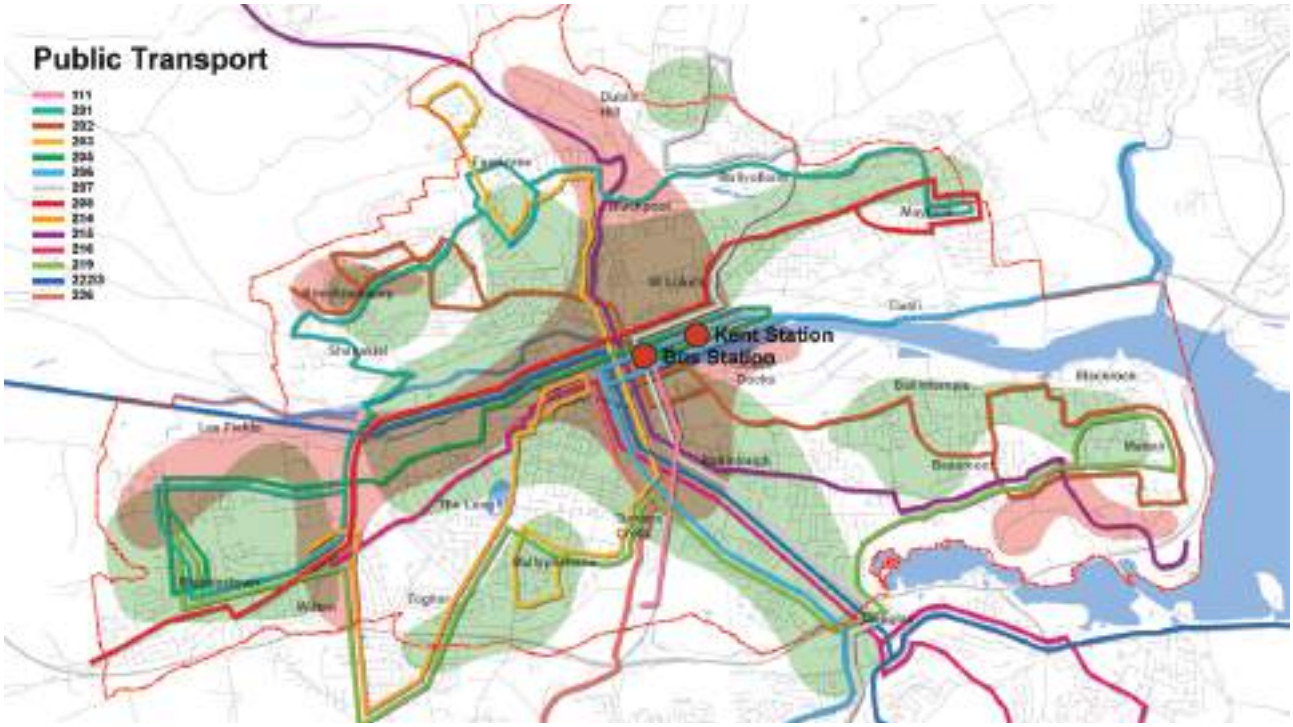


Figure 14: Public Transport Routes overlaid on with zones of workplaces and education centres

Commuter densities and numbers are greatest where the employment and education areas overlap, as shown in *Figure 12*, indicating the parts of the city experiencing the highest number of commuter movements.

Overlaying the Strategic Routes and Public Transport services onto the areas of highest commuter densities **begins to identify where investment in pedestrian infrastructure** will deliver most return in terms of modal shift.

This high level assessment is refined further in the following sections by considering the locations of neighbourhood and district centres, and the existing mobility patterns and modal share throughout the city.

6.6 Identifiable Districts and Neighbourhoods

The districts and neighbourhoods of Cork City that incorporate a reasonable provision of shops, schools and other community facilities are identified in *Figure 15* below; the circles being a mile in diameter or a 20 minute walk.

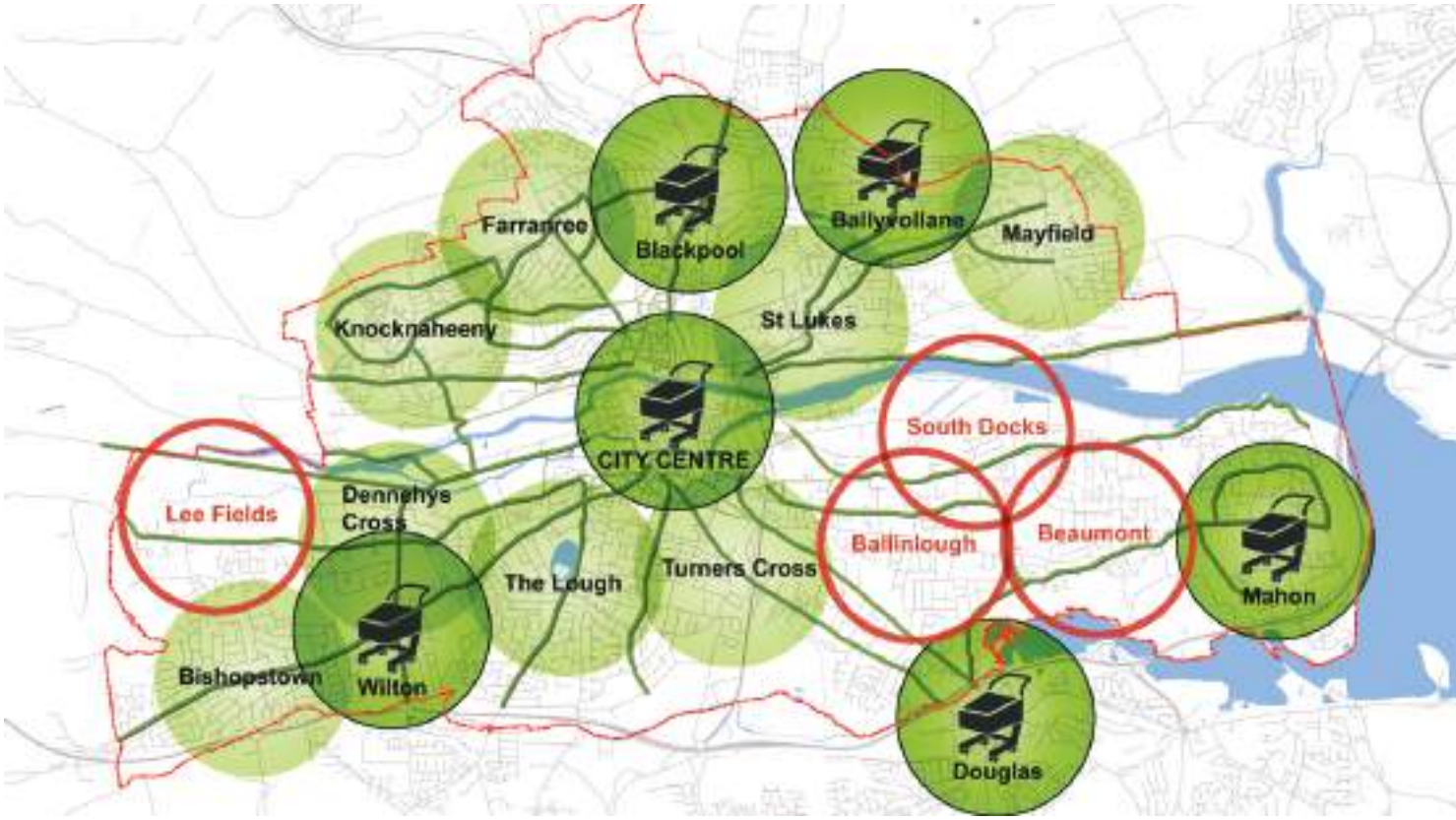


Figure 15: Districts and Neighbourhoods of Cork City

By re-visiting the earlier comparison of the layouts of Cork and Paris Cities on page 11 using modern maps, it is interesting to note that Paris City is now subdivided into twenty administrative districts - *arrondissements* - each of which has an approximate scale that corresponds to the 20 minute walking distance as shown in *Figure 16*.

The distribution of the districts and neighbourhoods of Cork City follows a broadly similar pattern to that of Paris. There are however a number of possible gaps apparent as represented by the red circles at Lee Fields, South Docks, Ballinlough and Beaumont. These areas are obviously identifiable places, but do not have the critical mass or full compliment of neighbourhood services that are adequate to serve the immediate locality.

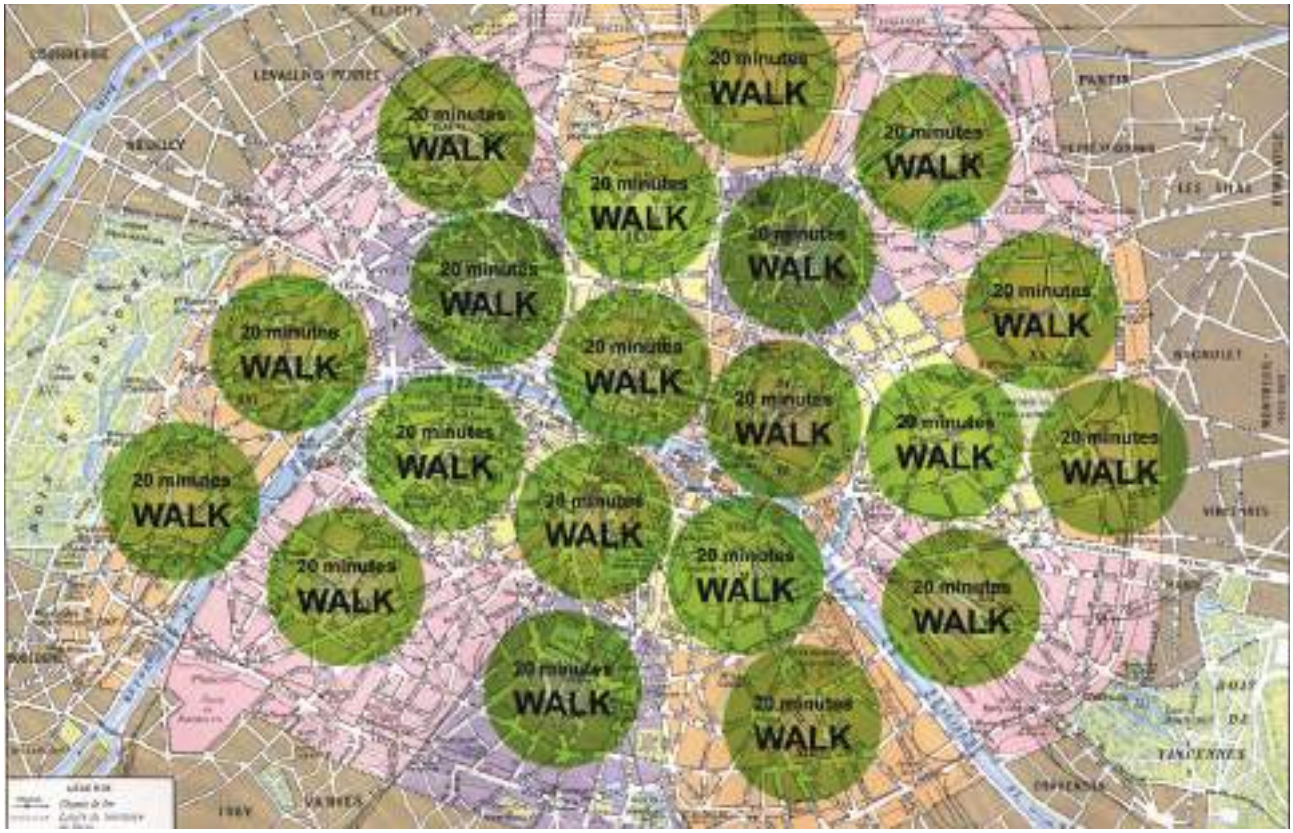


Figure 16: Arrondissements of modern Paris City Centre

6.7 Mobility and Modal Share

The Cork City data from Census 2011 was analysed to establish movement patterns and modal share of commuters within the city for trips to work and education, and to identify factors influencing the uptake of sustainable options.

The following detailed analysis was undertaken and mapped to identify:

1. **Modal Share for Commuters in different Wards**, identifying the modal share for trips originating within each of the six Wards to destinations within and external to the same Ward;
2. **Sustainable Destinations across the City**, identifying the commuting destinations throughout the city and the balance of sustainable and non-sustainable modes of travel they attract;
3. **Sustainable Destinations from each Ward**, examining the modal split pattern for trips originating with specific Wards to destinations across the city.
4. **Modal Split for Journeys up to 2km in Length**, identifying by Ward the modal split for journeys of less than 2km to primary and secondary schools, third level education and to places of employment.

6.7.1 Modal Share for Commuters in different Wards

For administrative purposes, the Cork City is subdivided into six distinct 'Wards'. The six Wards are North West, North Central, North East, South west, South Central and South East. *Figure 17* below indicates the actual and relative numbers of people commuting from within each Ward, and also the modal split for walking, cycling, public transport and use of private cars.

The upper bar of each chart represents trips starting and finishing within the same Ward, while the lower bar represents trips starting within a Ward but going to a destination outside of that Ward – either to another Ward or beyond the city administrative area.

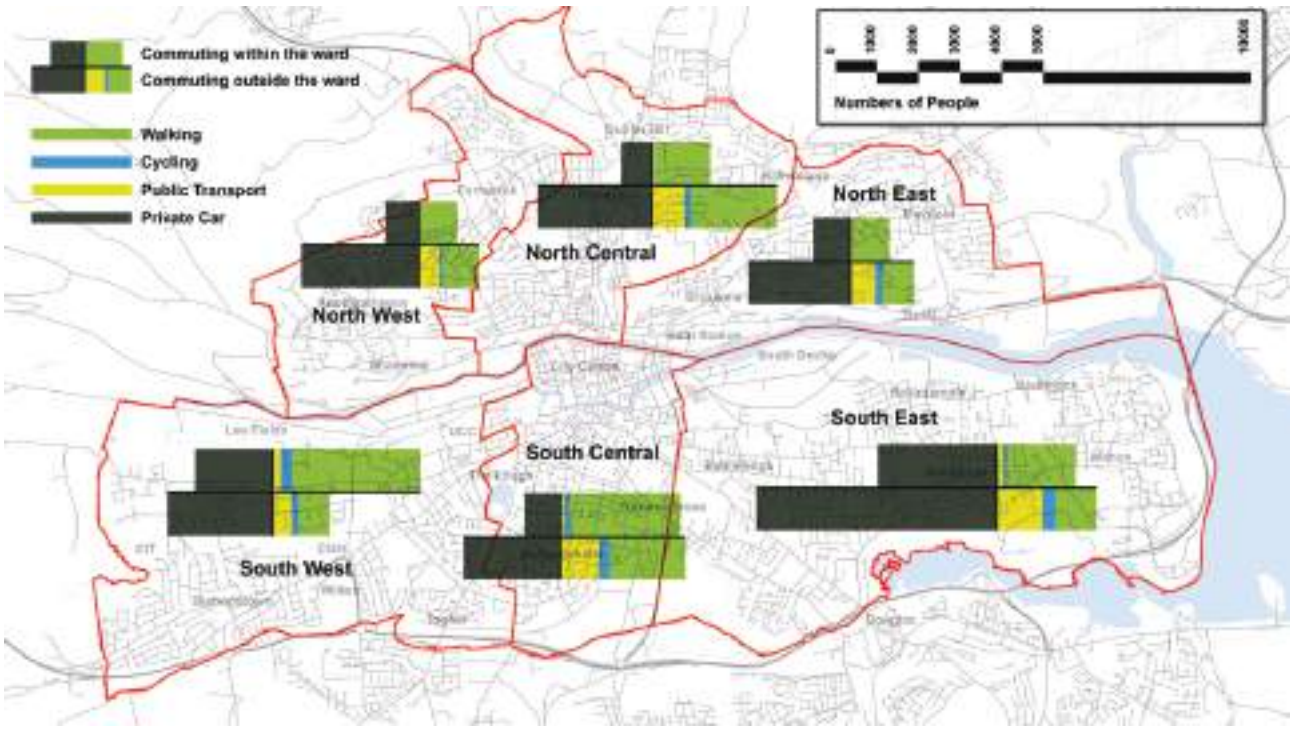


Figure 17: Modal Share of commuters within and external to the six City Wards.

For trips within Wards (upper bars), the South Central Ward has the highest percentage of walking at 70% of all trips, although the South West Ward has the highest actual number of people walking. The percentage is lowest in the South East at 34% where private vehicular transport accounts for 60% of all trips.

For trips to destinations outside a particular Ward (lower bars), the South Central and North Central have the highest percentage of walking at 35%. The figure is lowest in the South East at 12%, where private vehicular transport accounts for 70% of all trips.

Cycling uptake is very low at just over 3.0% on average, and public transport accounts for less than 10% of all trips.

6.7.2 Sustainable Destinations across the City

This analysis presented in *Figure 18* below indicates destinations arrived at from origins throughout the city by sustainable means and by private vehicular transport. Green dots identify destinations arrived at by walking, cycling, public transport, or a combination of these. Darker dots identify destinations arrived at by private vehicular transport.

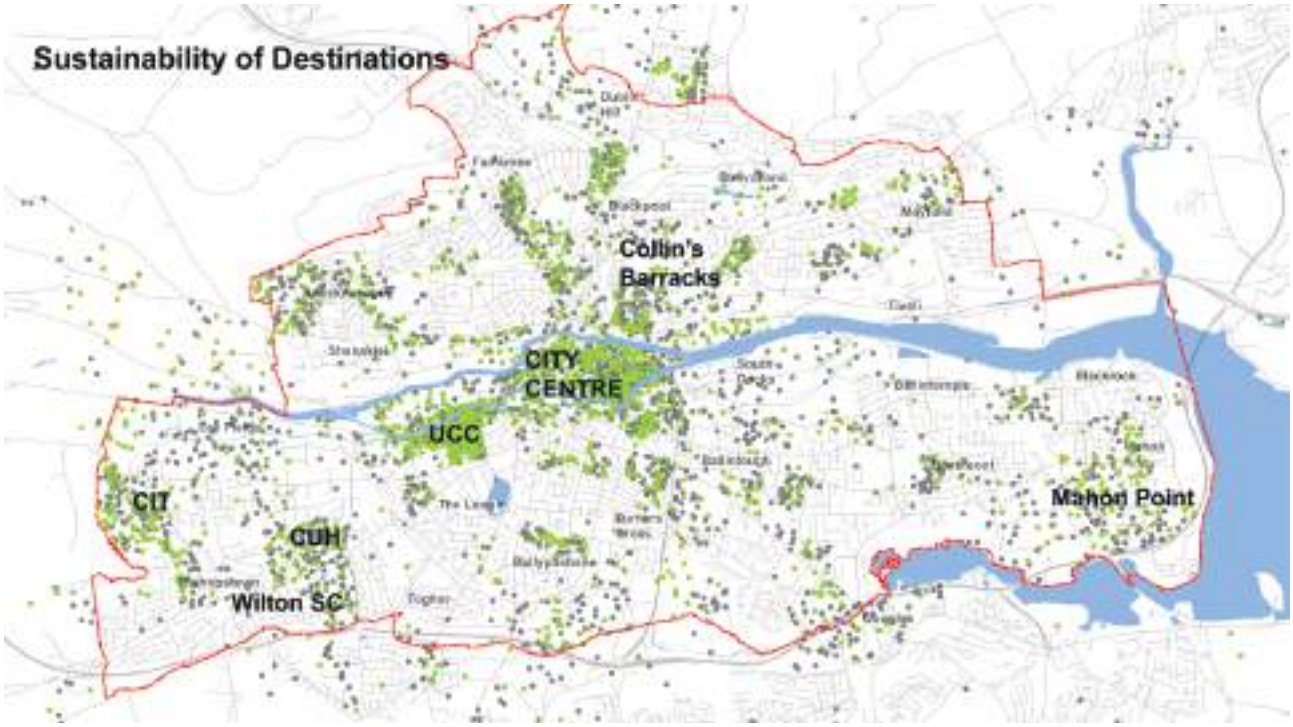


Figure 18: Destinations arrived at by sustainable transport (green) and private vehicle (dark). For the sake of clarity, trips are aggregated into groups of ten.

The destinations that attract the greatest levels of sustainable and non-sustainable modes of travel are clear. The City Centre and UCC attract a higher portion of sustainable travel. Other destinations such as CUH, Wilton Shopping Centre, CIT, Mahon Point, and Collins Barracks indicate greater dependence on private vehicles. Schools across the city exhibit significant variation between the use of sustainable and private vehicular transport.

6.7.3 Sustainable Destinations from each Ward

A similar but finer grained analysis was also carried out on a Ward by Ward basis, identifying the use of sustainable transport and private vehicular transport for trips from each Ward to commuting destinations throughout the city. For each Ward, there are two maps identifying:

- journeys to places of work;
- journeys to places of education.

Figure 19: The full series of these Ward Analysis Maps is included in Appendix C.

These maps underpin the analysis presented in *Section 6.7.1* above and identify the balance of sustainable and private vehicular transport that are likely to be used by people travelling from each Ward, and also where they are travelling to.

6.7.4 Modal split for journeys up to 2km in length

Detailed analysis has been undertaken of modal share patterns for journeys of different distances within the city to places of education and employment. Journeys are considered in 500m increments up to 2km, as well as those that exceed 2km. People travelling less than 2km by car are clearly targets for modal shift to walking and cycling. People travelling more than 2km by car are targets for modal shift to cycling and to public transport in conjunction with walking.

Figure 20: Target transport modes for people choosing to leave the car behind.

Trips to Places of Education

Figure 21 below presents the modal share for journeys originating from within the city to primary, secondary and third level schools.

It is clear that a very high number and proportion of primary school pupils are being driven to school (grey) for all distances above 500m. There is a similar but not as pronounced pattern for secondary school pupils. In contrast, for third level students, walking is by far the predominant mode of transport where journey disctance is below 2.0km.

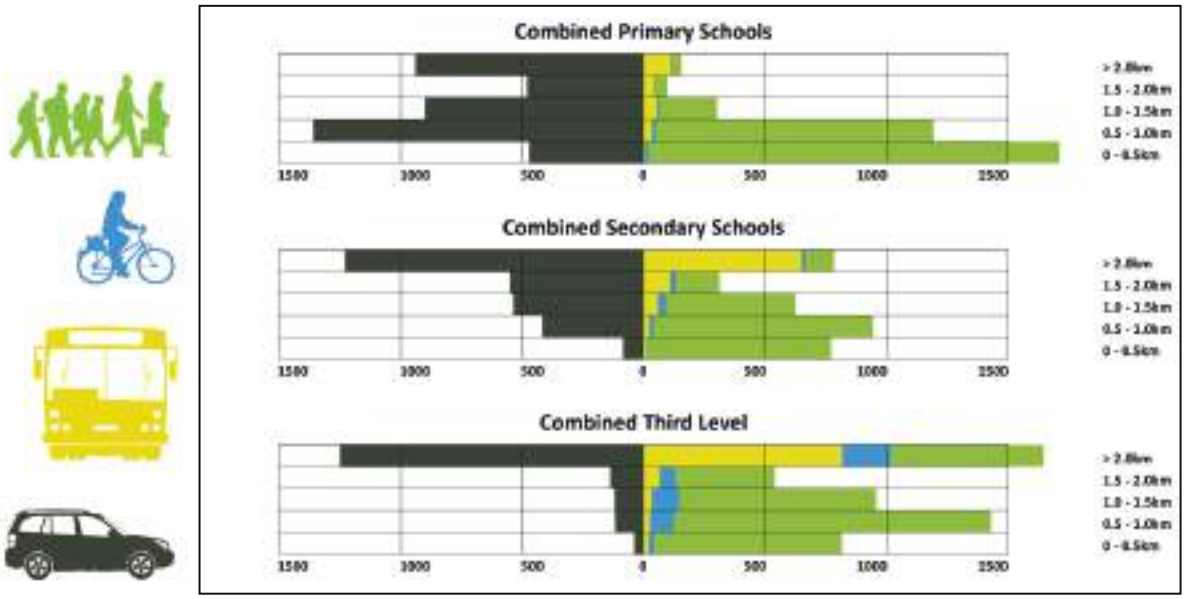


Figure 21: Modal share for journeys from within the City to schools and colleges.

Similar analysis has been prepared on a Ward by Ward basis, for journeys staring within each of the Wards, and is presented in *Figure 22* below.

The threshold of 500m is again very clear, particularly for primary schools, but also for secondary schools. This Ward by Ward analysis also gives a clear indication of the locations in which there is the best uptake of sustainable travel.

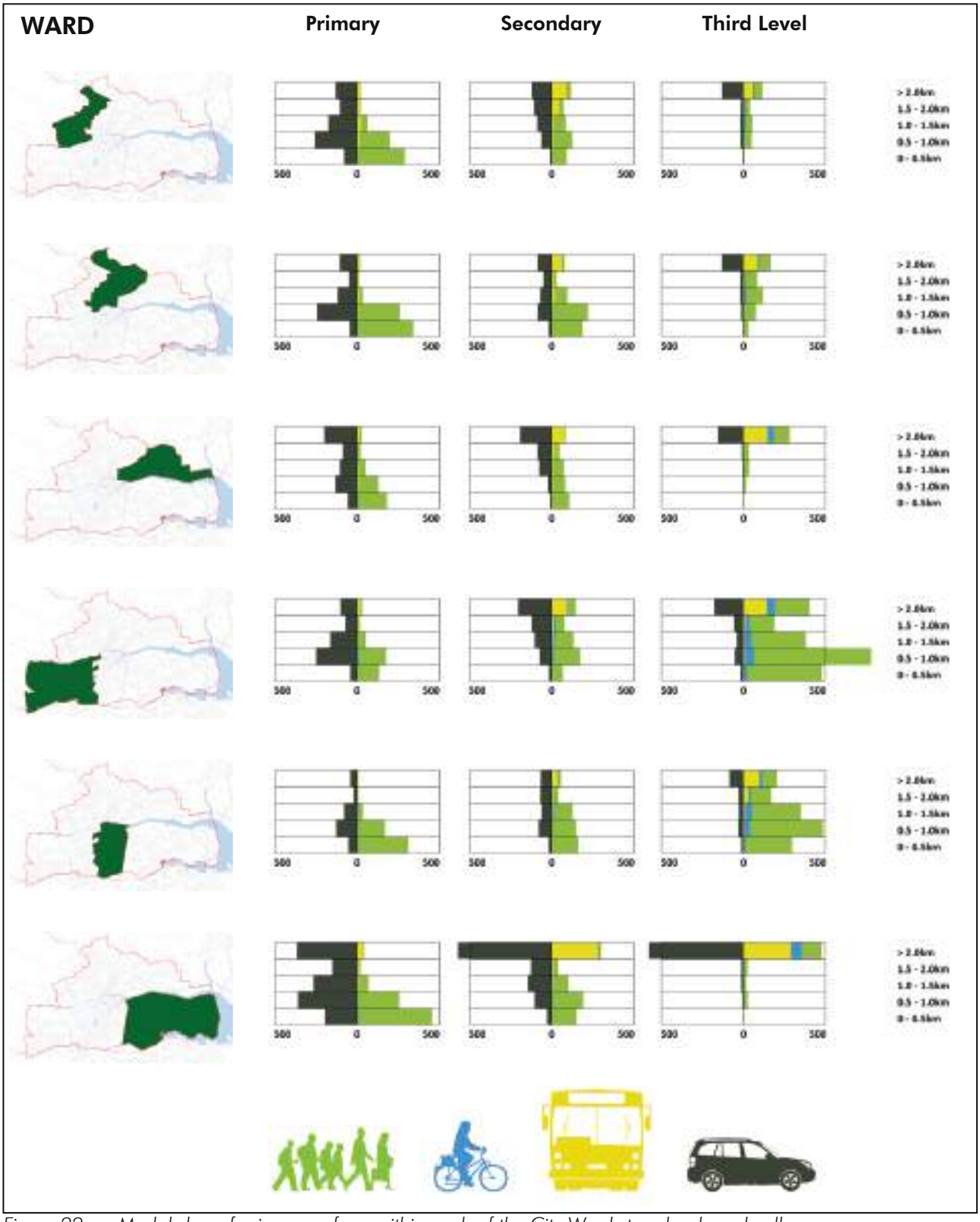


Figure 22: Modal share for journeys from within each of the City Wards to schools and colleges.

Trips to Places of Employment

Figure 23 below presents the modal split for journeys to places of employment, using the same 0.5km increments up to 2km, as well as journeys in excess of 2km. The use of private transport for journey above 2.0km is very clear in all Wards, however, the number and proportion of people using cars for shorter journeys varies considerably across the Wards.

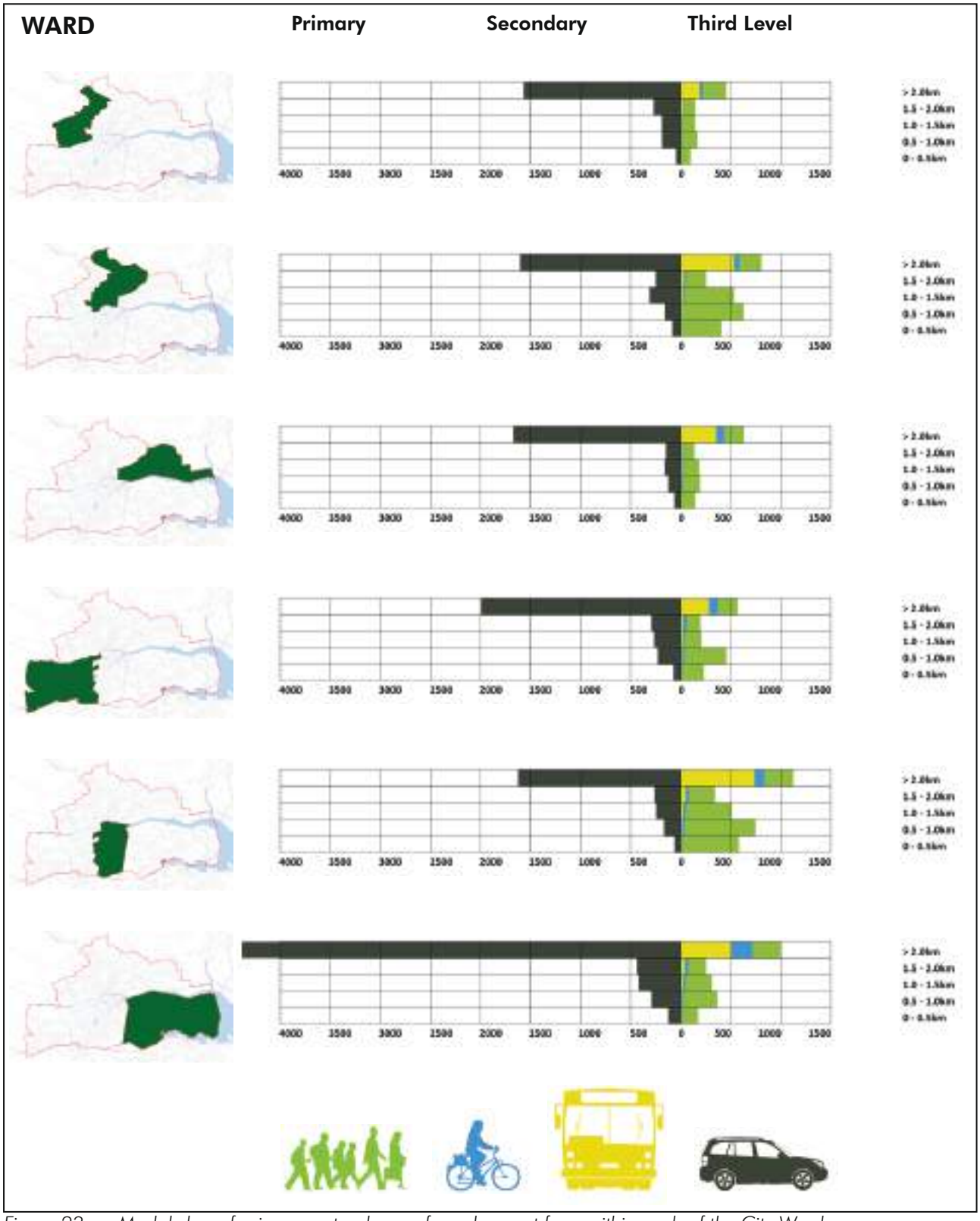


Figure 23: Modal share for journeys to places of employment from within each of the City Wards


CENTRE

7.0 Cork's Walking Network

The roads and streets within the study area vary considerably in terms of their overall characteristics and in the quality or lack of pedestrian facility. They include wide high speed multi-lane roadways with occasional junctions and crossings; busy single carriageway roads with frequent junctions or gateways; smaller residential roads and lane ways; and, pedestrian routes.

The presence and quality of pedestrian facilities also varies depends on the prevailing design standards at the time of construction of the road or street. Older streets closer to the City Centre typically have relatively narrow footpaths, unbroken by crossovers to driveways, but their age might mean that their surface quality has deteriorated. Streets that are more sub-urban almost always have dished pavements at driveways, and pavement quality can vary considerably. Where regeneration has taken place in more recent times, the pedestrian provision can be very good and in line with more contemporary policy and thinking.

7.1 Quality of Service

Quality of Service is based on the five principles of Safety, Coherence, Directness, Attractiveness and Comfort, see *Section 4.1, p. 14,* and there are many different parameters that relate to each of these.

There are no absolute specifications for pedestrian facilities, as the level of service required and expected will be dependent on some or all of the parameters, and will also be informed by location specific attributes. A high Quality of Service in a suburban residential area might be below standard in a more urban context, where there will be larger numbers of people and different volumes of vehicular traffic.

Quality of Service is expressed as one of five categories as follows.

A+	**Excellent pedestrian provision; traffic, if any is secondary**
A	**Good pedestrians provision; traffic conflicts well considered**
B	**Pedestrians frequently feel secondary to vehicular traffic**
C	**Pedestrians are at risk and secondary to vehicular traffic**
D	**No meaningful pedestrian provision**

A wide range of factors influence the determination of the Quality of Service for any road section, and a table is provided overleaf explaining these.

In addition, examples of different Qualities of Service that exist around Cork City are provided in the following pages, with a short rationale as to why they are considered to meet a certain standard.

Figure 24 below identifies the parameters that will typically be considered in assessing a pedestrian facility, and indicates where each relates to the five principles. The application of Quality of Service ratings is not absolute and requires careful consideration of all characteristics. For example, a very wide segregated facility with good lighting and minimal junctions or entrances might only warrant a low rating if the area is poorly presented, isolated and there is a high speed vehicular regime. Equally, a below average width footpath that is well maintained and lit, serving an attractive neighbourhood, and where vehicular speed is low by virtue of narrow carriageways, might warrant a higher quality of service rating.

	Safety	Coherence	Directness	Attractiveness	Comfort
Effective Width	✓				✓
Clutter	✓		✓	✓	✓
Parking	✓	✓	✓	✓	✓
Kerbs	✓	✓			✓
Surface Quality	✓	✓		✓	✓
Lighting	✓	✓		✓	✓
Signage and Maps		✓		✓	✓
Ponding / Flooding		✓	✓	✓	✓
Speed of vehicular traffic	✓				✓
Continuity		✓	✓		
Adjacent Traffic Flow	✓	✓			✓
Entrances	✓	✓		✓	✓
Integration		✓	✓		
Connectivity		✓	✓		
Topography			✓	✓	✓
Amenity				✓	✓
Perception	✓			✓	✓
Vandalism	✓		✓	✓	✓
Maintenance	✓	✓	✓	✓	✓
Noise					✓
Numbers of people	✓			✓	✓
Cross Fall	✓	✓			✓
Steps and Stumbling Hazards	✓	✓	✓		
Facilities					✓
Deviation at Junctions		✓	✓		
Junctions	✓		✓		
Tactile Facilities	✓	✓			
Passive Surveillance	✓				✓
Quality of Public Realm				✓	✓

Figure 24: Factors relevant to each of the Five Principles of Walking Networks and Infrastructure

A+ Excellent pedestrian provision; traffic, if any is secondary

Carrigrohane Road
High quality continuous footpath of good width, as well as a choice of an amenity path within the Lee Fields. On road cycle lane and footpath kerb offers some segregation from vehicular traffic. Amenity nature of area generally results in ample people in the Lee Fields for personal security.

Skehard Road *(between Church Road and Avenue de Rennes)*
High quality continuous footpath of good width, segregated from vehicular traffic by cycle track, verge and kerb. Vehicular traffic passively slowed by carriageway narrowing. Residential area provides passive surveillance.

Ferry Walk, Mardyke
Visibly pedestrianised lane alongside sports grounds with little or no vehicular traffic save for access, and no parking.

Harbour View Road
Generous footpath, continuous across entrances, with good segregation from carriageway by raised verges. This is a retro-fit of a previously wide roadway, reallocating space to pedestrian facilities, tightening the carriageway to reduce speeds, and enhancing the quality of the overall area.

A Good pedestrians provision; traffic conflicts well considered

Blarney Street *(adjacent to school premises)*
Good quality footpath of adequate width at school premises, segregated from vehicular traffic by parallel kerb side parking.

College Road
Narrow street at University College Cork retro-fitted to increase pedestrian space and reduce vehicular space and speed. Wide footpath caters for high volumes of pedestrians, and slow vehicular movement reduces risk. Junctions generally have raised tables to allow continuous flush access.

South Terrace
Established city streetscape with wide footpath and carriageways. Trees provide segregation from vehicular traffic and enhance the overall presentation of the streetscape.

Lough Road
Continuous footpath along roadside with alternative route alongside the lake, and no entrances or junctions to contend with. Narrow carriageway promotes passive traffic calming. Mature trees and lake setting provides an attractive walking environment.

B Pedestrians frequently feel secondary to vehicular traffic

Glasheen Road
Below average footpath width, significant vehicular encroachment and obstruction of street furniture.

Togher Road
Reasonable footpath on one side but with no real segregation from potentially fast moving vehicular traffic. Street furniture inconsistent in its placement giving poor continuity of service. Road crossing is problematic.

Douglas Road *(south of Ballinlough Road)*
Average footpath width but no segregation from fast moving vehicular traffic. Street furniture causes obstruction and frequent entrances to residences and commercial properties give rise to vehicles crossing the footpath with restricted visibility of pedestrians.

Boreenmanagh Road
Narrow footpath along excessively wide carriageways with higher speed traffic. Frequent entrances on one side with limited visibility for emerging traffic.




C Pedestrians are at risk and secondary to vehicular traffic

Glasheen Road
Average footpath on one side only with frequent entrances. No footpath on other side with risk of entrapment against high wall. Although the carriageway is narrow, it is continuous and unrestricted by parked cars thereby inviting higher speed vehicular movement.

Castle Road, Blackrock
Attractive environment but with narrow carriageway and narrow footpath. Surfaces of both are poor, and the old stone kerb provides little of no segregation from passing traffic.

Ballyhooley Road
Narrow footpaths with no segregation from vehicular traffic. Illegal parking, street furniture and bins create obstructions and force pedestrians to walk on the carriageway. Narrow carriageway is unrestricted and invites higher speeds.

Douglas Road *(south of Ballincurrig Park)*
Narrow footpath on one side and shared gateway on the other provides poor pedestrian facility and no segregation from vehicles. Entrances have limited visibility of pedestrians. Carriageway, although narrow, is continuous and invites higher speeds.




D No meaningful pedestrian provision

Sunday's Well Link to Daly's Bridge
Although attractive in its own right, the stepped access lane with no outward visibility, poor quality surfaces and poorly maintained environment provides a poor pedestrian facility, especially for more vulnerable pedestrians.

Well Road
Narrow footpath on one side only with no segregation from vehicular traffic, frequent blind entrances and poor forward visibility for drivers.

South Douglas Road *(at Rathmore Lawn)*
No predestrian facility, or almost no pedestrian facility, walls and railings that present entrapment risk, and poor sightlines for drivers using entrances.

Dublin Hill *(at laneway to Glenthorn Drive)*
Token footpath on one side only along a steep roadway with frequently fast moving traffic, and with no segregation and poor lighting.




7.2 Common Issues

Throughout the city, a range of issues appear regularly that impact on pedestrian movement. Some of these have already been identified in describing Quality of Service above, however, it is worth understanding the specific issues.

Entrances

Entrance crossovers have traditionally been designed for the car, resulting in undulating footpaths and excessive cross falls. In retro-fitting footpaths and re-allocating road space, it is usually easy to provide for everyone.




Figure 25: Uneven pavements on the left can, with a similar amount of space, be detailed to provide for pedestrians and cars - as seen on the right.

Excessive Carriageway Space

Many of the suburban roads constructed during the late 20th century had excessive road space relative to the footpaths. Reducing road space improves the pedestrian environment by providing more width for footpaths, allowing better pavement detailing and narrower crossings, and also passively reduces vehicular speed.

Figure 26: The original and modified versions of similar roads. Segregation improves pedestrian safety and makes the road more attractive and street-like.

Crossroads and Large Radii

Equally, just as carriageways were built wide, junctions featured large radii to make vehicular turning easier, and faster. Reducing radii shortens the pedestrian crossing distance and slows down turning vehicles. In many cases, the additional pavement space could create an opportunity to enhance the streetscape or public realm.

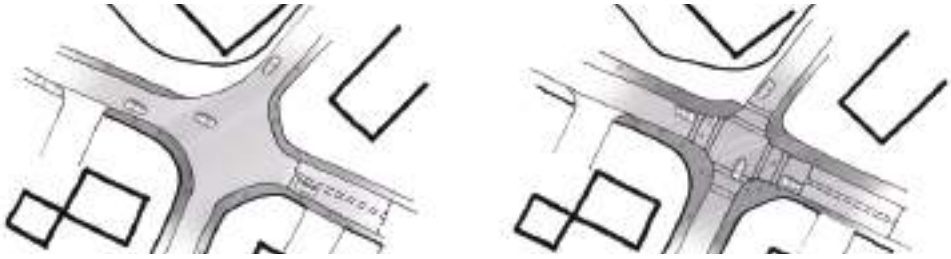


Figure 27: Tightening corner radii creates safer pedestrian spaces at junctions.

Dedicated Turning Lanes

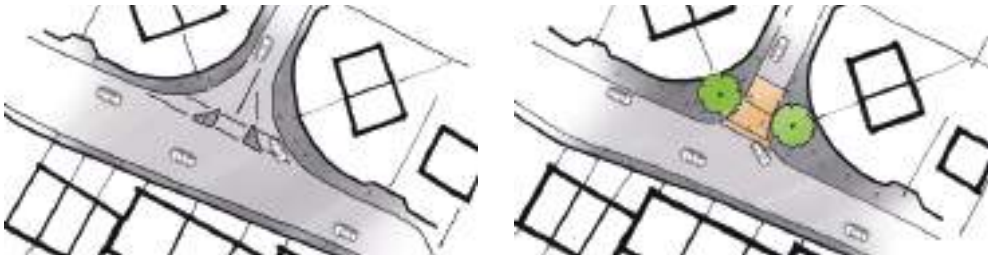


Figure 28: Removal of dedicated turning lanes greatly enhances pedestrian safety.

Dedicated turning lanes, typically installed to increase vehicular flow, make pedestrian crossings more complex and less safe. Removal of these lanes and reducing radii makes for a slower speed vehicular environment and a safer pedestrian offer. In many cases, the additional space can be used to enhance the streetscape.

7.3 Stakeholder Consultation

In preparing this Walking Strategy, extensive consultations with relevant stakeholders were undertaken in order to understand the objectives, concerns, suggestions and opportunities from different agencies and user groups.

A summary of the findings is detailed below.

Footpaths	Provide footpaths of adequate quality and width that are direct, free of obstruction, and offer continuity across entrances, side streets and junctions. Give particular attention to Universal Design, car parking and cyclist needs, maintenance and dog foul.
Junctions	Provide adequate footpath and refuge spaces, minimise wait times at signalised crossings and reduce traffic speed.
Physical Safety	Requires adequate pavement widths, appropriate segregation, reduced speeds and clear priority regimes, as well as appropriate enforcement.
Personal Safety	Requires passive surveillance, lighting and management of anti-social behaviour.
Signage	Adequate and consistent signage, perhaps showing walking times as well as distance, and combined with good pedestrian network maps that can be augmented by online solutions.
Lighting	Adequate lighting, properly maintained, is essential to encourage walking.
Car Parking	Consider the location and security of parking facilities so as to encourage Park & Stride and Park & Ride.
Connectivity	Maximise potential to link existing walking routes, create looped walks and connect neighbourhoods, schools, places of work and recreation.
Public Transport	Walking networks must connect directly and safely with bus, train and taxi services.
Education	Promote the economic, health, social and environmental benefits of walking, and also communicate the needs of different road users.
Health	Highlight the physical and mental health benefits of walking and exercise.
Planning	Create Village Centres within the City incorporating retail and community facilities within easy walking distance of residents.
Visual	Enhance the attractiveness of walking environments.
Tourism	An integrated walking network, connected to public transport and cultural and amenity destinations, will deliver direct tourism benefits.

A comprehensive schedule of consultation findings, including details of organisations and individuals consulted is included in *Appendix B*.


BUS

7.4 Cork's Network Audit

The primary pedestrian network routes are mostly radial leading to the City Centre, following the strategic transport corridors and the public transport routes. The routes comprise sections of primary pedestrian network and junctions, and the size or length, and Quality of Service of both varies considerably. The roads have been audited to establish their existing quality of service and their **physical potential** for improvement, and the junctions have been audited to identify their Quality of Service and scale.

The **physical potential** of the roads is an indication of how easy or difficult it might be to undertake upgrade works. In some cases, there is sufficient space to facilitate re-allocation of space, whereas in others, space is extremely limited.

Physical potential has been rated as either high, medium or low, defined as follows:

High There is adequate room for enhancing the pedestrian facility, either by re-allocation of excessive road carriageway or by the presence of adjacent open space.

Medium Where it appears that there is excessive road carriageway for reallocation, but that the impact on traffic flows would have to be considered.

Low Where space is already restricted, perhaps both for pedestrians and vehicles, and more radical interventions may be required to improve the situation.

Audit Maps

The Quality of Service and Physical Potential of routes is illustrated on *Figure 29, Strategic Route Audit*, with simple colour coding to indicate the Quality of Service, and wide, medium, and narrow lines weights to indicate high, medium and low physical potential.

Equally, the Quality of Service and Physical Potential of junctions is illustrated on *Figure 30, Strategic Junction Audit*, again with colour coding to indicate the Quality of Service, and large, medium, and small circles to indicate high, medium and low physical potential.

The Audit Maps were prepared in Spring 2013 by Brady Shipman Martin and are a snap shot of the infrastructure at that time, informed by on-site route evaluation and reference to the *Principles of Walking* as set out in Section 4.1, and *Quality of Service* in *Section 7.1*. They do not reflect improvement works that have been undertaken since that time, and may need to be updated periodically as works are completed.

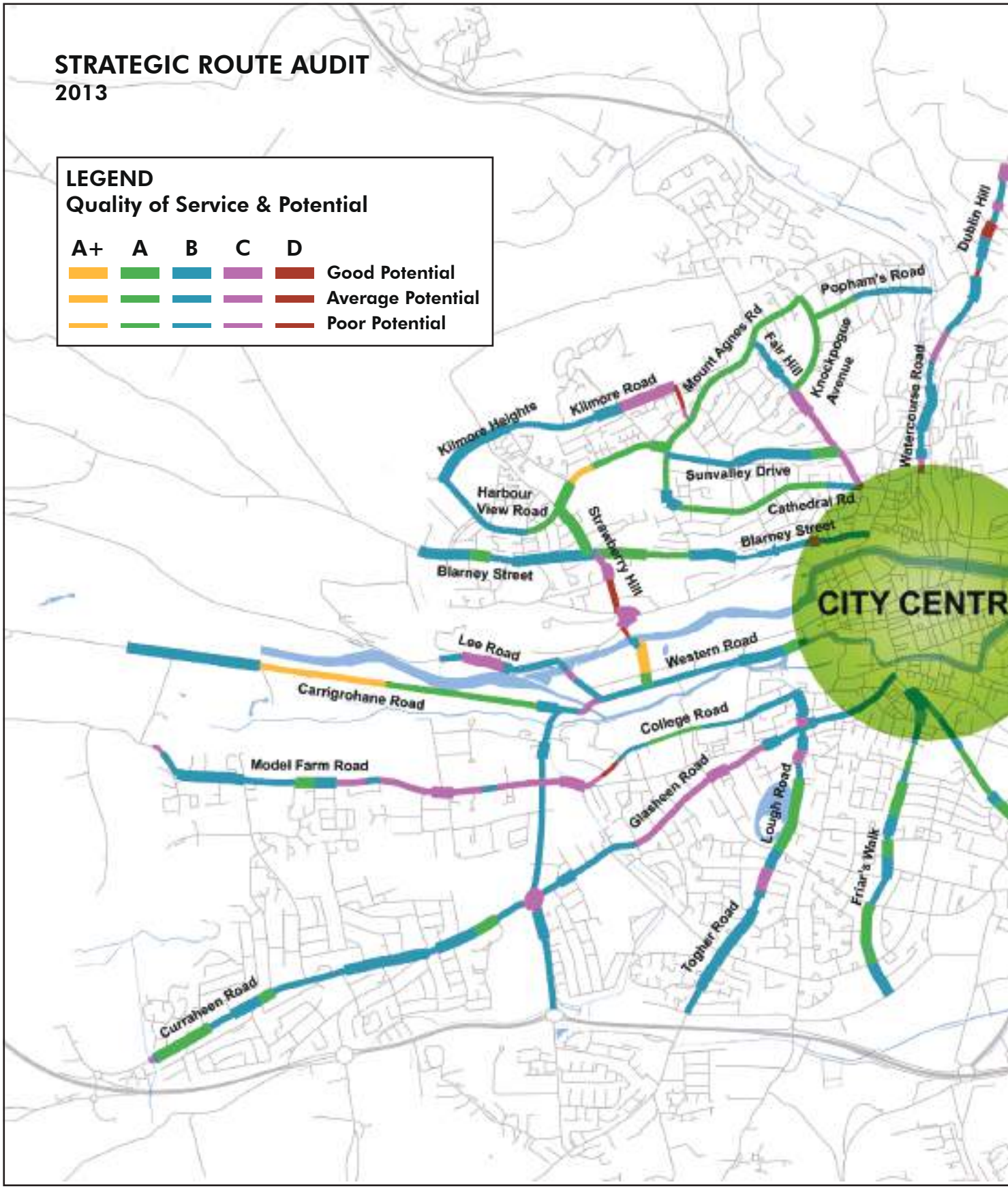
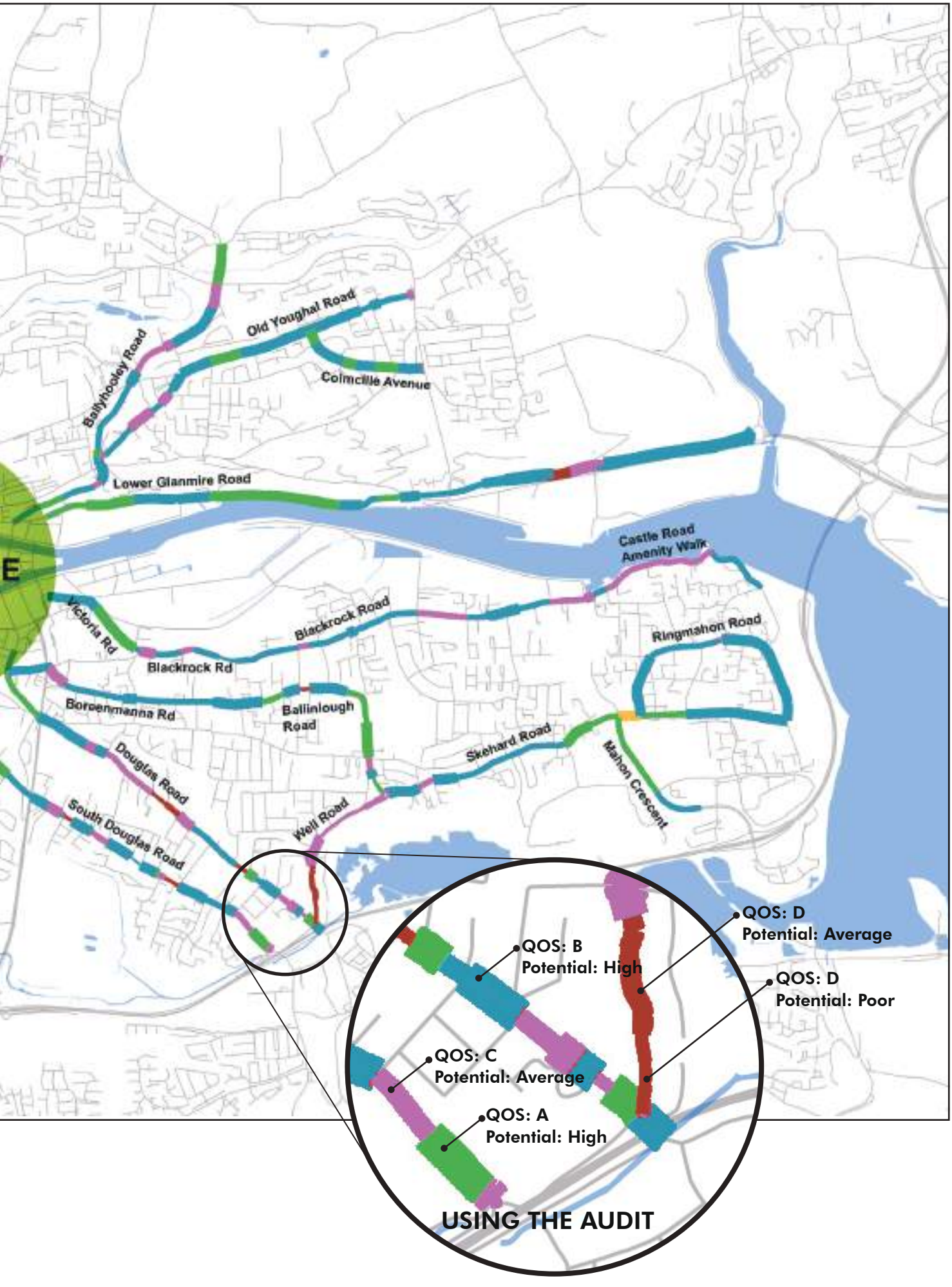


Figure 29: Strategic Route Audit


Old Youghal Road
Ballyhooley Road
Colmcille Avenue
Lower Glanmire Road
Castle Road
Amenity Walk
Victoria Rd
Blackrock Road
Blackrock Rd
Ringmahon Road
Boreenmanna Rd
Ballinlough
Road
Douglas Road
Skehard Road
Mahon Crescent
South Douglas Road
Well Road
QOS: B
Potential: High
QOS: D
Potential: Average
QOS: D
Potential: Poor
QOS: C
Potential: Average
QOS: A
Potential: High
USING THE AUDIT

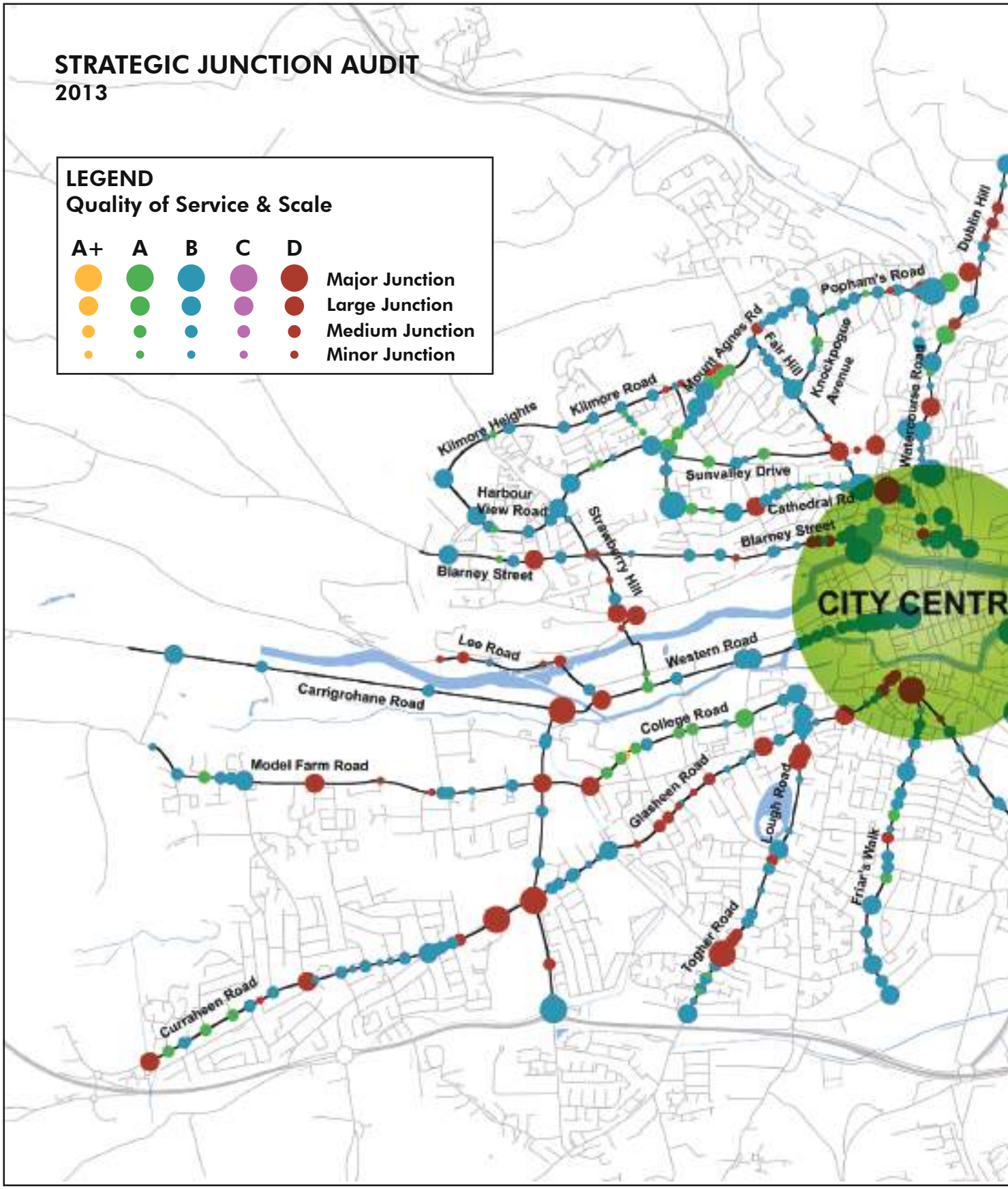


Figure 30: Strategic Junction Audit


Old Youghal Road
Ballyhooley Road
Colmcille Avenue
Lower Glanmire Road
Castle Road
Amenity Walk
Victoria Rd
Blackrock Road
Blackrock Rd
Ringmahon Road
Boreenmanna Rd
Ballinlough
Road
Douglas Road
Skehard Road
Mahon Crescent
South Douglas Road
Well Road
QOS: B
Size: Medium
QOS: B
Size: Minor
QOS: D
Size: Major
QOS: B
Size: Medium
QOS: D
Size: Major


HOURS

8.0 Opportunities to Improve the Walkability of Cork City

The analysis, consultation and mapping provide a clear understanding of the opportunities for improving the walking network and infrastructure of Cork. They also help to identify the behavioural change initiatives and improvements in collaboration that can ultimately lead to more sustainable modal share patterns amongst different commuter groups across the Wards of the city.

8.1 Summary Opportunities

Summary opportunities are identified below under each of the four focus areas introduced in *Section 1*. These inform *Implementation and Prioritisation* in the following section, *Section 9*.

8.1.1 Network Development Opportunities

a. Optimise links between neighbourhoods, strategic routes, public transport and key destinations;
b. Extend amenity routes to connect to the streetscape network;
c. Re-balance road space, increasing appeal and visibility of walking;
d. Reduce vehicular speeds and volumes along routes;
e. Consistent Quality of Service in design, build and maintenance;
f. Enhance the provision of signage, mapping and way finding;
g. Reinforce economic and tourism activity in the city;
h. Apply the *Principles of Walking Networks and Infrastructure*, *see Section 4.1*;
i. Adopt Universal Design standards.

Typical Actions Required

a. Provide high quality pedestrian routes along strategic corridors;
b. Connect strategic routes to greenways and amenity routes;
c. Create strong connections and provide good facilities at public transport;
d. Re-allocate street space to cater for all road users, prioritising pedestrian movement and making walking more visible;
e. Consider pedestrian desire lines and needs at junctions and crossings so as to enhance the pedestrian offer and safety;
f. Ensure all footpaths are of adequate width and good surface quality, incorporating level access and lighting, and are free of obstructions including parked cars and bins;
g. Introduce 30kph zones and drop off exclusion zones around neighbourhood centres and schools;
h. Make connections to commercial, retail and tourism destinations;
i. Establish clear maintenance standards and management regimes for tackling physical damage, drainage, litter, dog foul, lighting etc.

8.1.2 Neighbourhood Infrastructure Opportunities

a. Increase pedestrian safety along routes and at junctions and crossings;
b. Enhancing the social and community function of places within an urban environment;
c. Enhance public realm and improve resident and visitor experience of the city;
d. Create neighbourhood focal points, increasing community interaction;
e. Apply the *Principles of Walking Networks and Infrastructure*, *see Section 4.1;*
f. Adopt Universal Design standards.

Typical Actions Required

a. Improve pedestrian safety by:
    i. Re-balancing carriageway to ensure adequate width of footpaths;
    ii. Ensuring adequate capacity of crossing refuges;
    iii. Reducing vehicular speeds at junctions and crossing;
    iv. Improving directness and flush surfaces at junctions, roundabouts and crossings;
    v. Creating pedestrian priority zones at schools and other local centres;
    vi. Ensuring appropriate segregation of pedestrians from cyclists and other traffic;
    vii. Reducing waiting times at signalised junctions;
    viii. Adequate lighting and maintenance;
    ix. Ensure effective maintenance of pedestrian facilities.

b. Improve pedestrian security by:
    i. Creating passive surveillance environments, and other measures as appropriate;
    ii. Provision of adequate lighting;
    iii. Ensuring unobstructed sightlines;
    iv. Removal of blind areas, including those created by vegetation;
    v. Ensuring route alternatives are available;
    vi. Strengthen enforcement as required.

c. Improve the public realm and place function by:
    i. Identifying suitable locations for seating, meeting places and other facilities that will enhance the pedestrian offer and the street environment;
    ii. Enhancing the attractiveness of streets through hard and soft landscaping;
    iii. Providing coherent signage, way-finding and mapping, to include public transport information;

8.1.3 Behavioural Change Opportunities

a. Create awareness of the personal, community and environmental benefits of walking;
b. Provide education on the needs of different road users;
c. Reinforce civic pride in localities across the city;
d. Embrace the "Green" appetite in the younger generation;
e. Tackle negative street culture – littering, parking, anti-social behaviour;
f. Establish walking initiatives.

Actions Anticipated

a. Establish a "Cork Walks" Steering Group to promote the Walkable City, including:
   i. Establishing a Communications Strategy for the project;
   ii. Coordinate, support and develop walking initiatives and events.

b. Launch coordinated city wide promotion and educational campaigns, focussed on:
   i. Modal shift – making walking the first choice for short trips;
   ii. Personal, community and environmental benefits;
   iii. Positive image of walking, and natural reduction in car dependency;
   iv. The social, community and economic value of public spaces;
   v. Public awareness of the needs of all different road users.

c. Prepare a Walking Toolkit as a resource for employers, schools and neighbourhoods;

d. Target school children and their parents by:
   i. building on the success of the SMILES project by rolling out to all schools;
   ii. establishing drop off exclusion zones at schools;
   iii. establishing 30kph zones at school entrances.

e. Provide support and guidance to workplace leaders in promoting and monitoring Smarter Travel.

8.1.4 Collaboration Opportunities

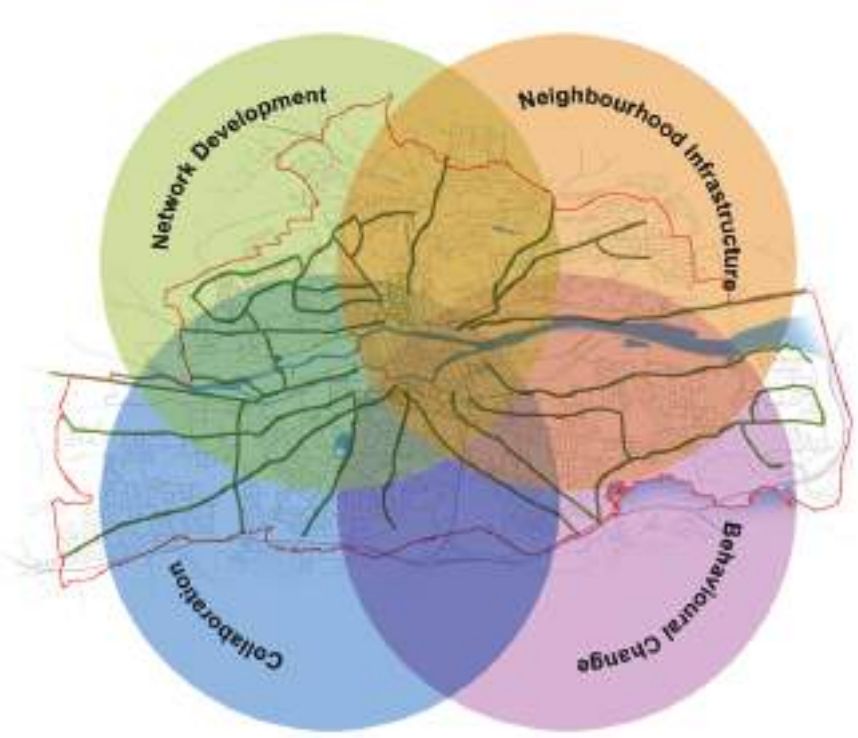
a. Embrace walkability in all Council Plans & Policies;
b. Maximise beneficial opportunities arising from other development projects;
c. Ensure all Statutory, Non-Statutory, Institutional, Commercial and Community stakeholders are consulted and kept informed of plans and progress;
d. Embrace a multi-disciplinary culture of network design and management that:
    i. Has the vision of a walkable city at its core;
    ii. Understands the social function of places and streets,
    iii. Understands the needs of all road users;
    iv. Encourage focussed and beneficial enforcement regimes.

Actions Anticipated

a. Embed the principles of a "Walkable City" in future revisions of the Cork City Development Plan;
b. Coordinate overall City Council capital and maintenance budgets, together with other potential funding streams, so as to optimise benefits to walking infrastructure through the planning and delivery of other infrastructure and maintenance programmes;
c. Plan for intensification of land use along public transport corridors;
d. Plan for the development and consolidation of neighbourhood and local centres that are of a "walkable" scale and high quality;
e. Support the development of positive environments in urban centres by having clear objectives in relation to the function of public spaces and how they are designed and used;
f. Encourage local community participation in the plan making process;
h. Communicate with stakeholders on a regular basis to maximise collaboration, review progress and targets, and to respond to demands;
h. Ensure that the objectives of the Walking Strategy are fully considered in determining planning applications;
i. Allocate appropriate budgets annually for the delivery of walking

9.0 Implementation and Prioritisation

This Chapter deals with the Implementation and Prioritisation of works and programmes that will upgrade the walkability of Cork City during the lifetime of this strategy. Six phases of the strategy are detailed below in *Sections 9.1 to 9.6*. Phases are informed by a balance of each of the four specific focus areas of Network Development, Neighbourhood Infrastructure, Behavioural Change, and Collaboration.



Critical Path

In order to ensure the best solutions and maximise value for expenditure, there should be collaboration between different professions when planning and designing urban streets.

Collaboration is likely to identify opportunities that might otherwise be missed, and will also bring benefits to individual professionals in understanding the wider design objectives.

Approach

At the outset of the strategy, Phase 1 will have significant emphasis on **promotion and public awareness**, with a relatively small number of higher profile infrastructural projects.

As the strategy evolves through Phases 2 to 6, the balance of promotion and public awareness initiatives to infrastructural development will change, delivering increasing amounts of actual development commensurate with the level of public uptake of walking as the preferred mode of transport.

Prioritisation

The six phases described below set out an overall prioritisation informed by the approach outlined above and the evidence gathered in the analysis. While the overall phasing strategy is robust, it is acknowledged that works may be subject to particular constraints, such as availability of funding or the programming of other works. It is not anticipated therefore that the details set out in the phases be adhered to rigidly.

Equally, opportunities may arise that are out of sequence, and these should be given due consideration in the context of the overall plan, with early implementation as appropriate.

Implementation and Prioritisation should be **reviewed continually** throughout the programme.

Figure 31: Existing junctions at Evergreen Street, and at Old Youghal Road and Gardiner's Hill.

Neighbourhood Infrastructure and Re-Balancing Street Space

In order to illustrate the type of interventions that could be adopted during the implementation stage, two indicative examples are provided showing before and after situations. The existing junctions at Evergreen Street in the South City and Old Youghal Road and Gardiner's Hill in the North City are shown in *Figure 31*. Both indicate a mixture of excessive road space, narrow footpaths, as well as complex geometry and pedestrian desire lines.

Figure 32 illustrates how these exisitng strretscapes might be re-balanced to improve the pedestrian space without limiting vehicular access. The improved pavement creates safer and more attractive spaces, and the potential for enhancing the public realm is self-evident, with opportunities to create strong urban focal points that will benefit communities. All actual proposals would be subject to detailed design.

Multi-disciplinary collaboration, and community consultation, will help inform and deliver the best solutions.

Figure 32: Potential pedestrian priority design approach to Evergreen Street, and Old Youghal Road and Gardiner's Hill.

9.1 Phase 1: Flagship Kickstart Projects

The first Phase is about setting the scene and starting the process of encouraging people to walk more. It includes delivery of a small number of **high quality and highly visible** pedestrian facilities in areas that enjoy large numbers of pedestrians, but where the pedestrian offer could be improved. It is also the starting point for initiating behavioural change campaigns and identifying beneficial collaboration between stakeholders.

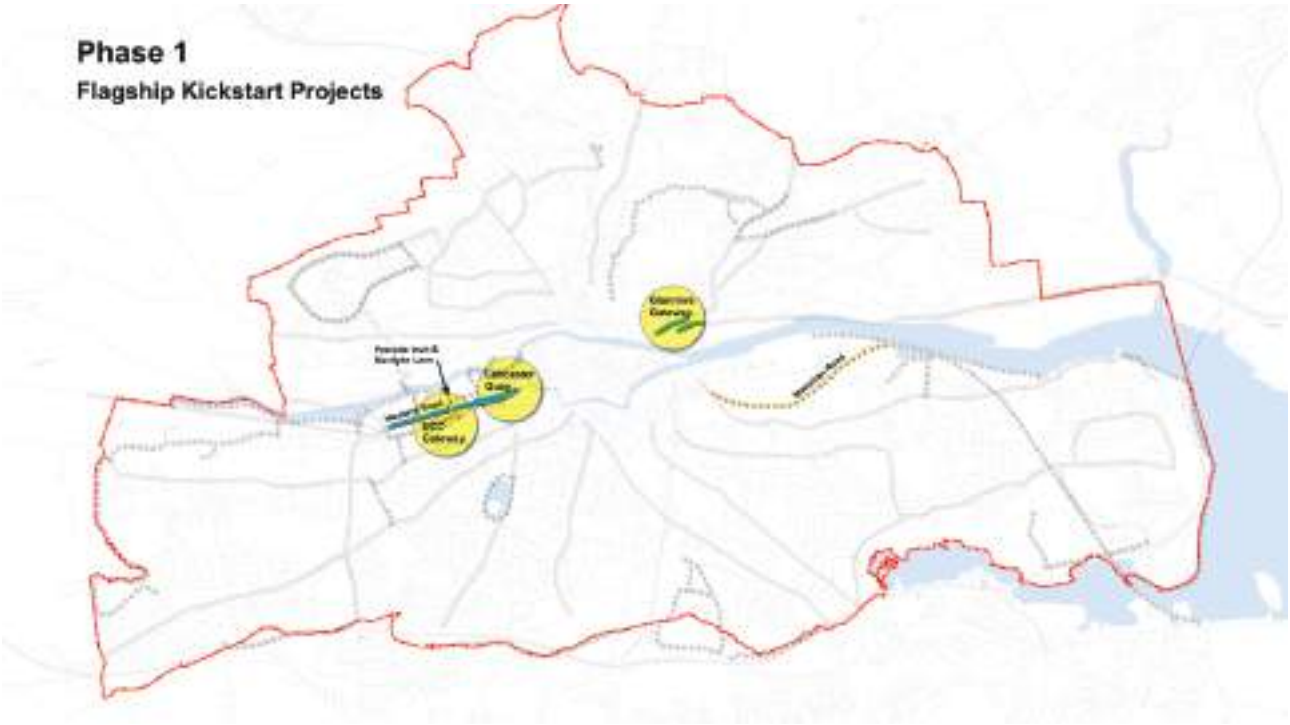


Figure 33: Phase 1: Flagship Kickstart Projects

9.1.1 Network Development

Strategic Route Objectives

Western Road

The Western Road is an important strategic corridor that gives access to the city from the west, but also serves UCC. In general, the footpaths are a reasonable width, however, the surface quality varies considerably and street furniture and stepped kerbs reduce their effectiveness. The one-way nature of the road also results in faster vehicular speeds that are incompatible with high volume pedestrian safety.

Objective: Upgrade the pedestrian facilities and public realm along Western Road along both sides of the UCC gateway, re-allocating road space where possible to tighten vehicular space, reduce speed, and improve the legibility of the environment. Rationalise street furniture to minimise obstruction and clutter, and ensure a continuous high quality footpath surface, including at junctions and crossings.

Monahan Road

The South East Ward has the lowest levels of sustainable transport use for a variety of reasons. It does have a strong amenity loop around Mahon. The South Docks and Marina Park have yet to be developed, but the extension of the amenity route along Monahan Road at this early stage to connect to the city will reinforce the culture of walking within this area from the outset of any regeneration.

Objective: Upgrade the pedestrian facilities and public realm along Monahan Road to provide a high quality walking and amenity environment that sets a benchmark for future regeneration.

Amenity Route Objectives

Perrotts Inch and Mardyke Lane

UCC has significant presence on the north side of Western Road, as well as connections to student accommodation on the north of the River Lee. Mardyke Lane is a good connection between the Mardyke and Western Road, but is poorly maintained, and does not connect across the Western Road.

Objective: Upgrade the public realm of Mardyke Lane, and create a strong pedestrian connection across Western Road, leading into Perrotts Inch at the UCC Lower Grounds and along the river bank, and connecting via a new pedestrian bridge into the main UCC campus.

9.1.2 Neighbourhood Infrastructure

Eastern Gateway via Kent Station

This area for many visitors to Cork, adjacent to Kent Station, is their first contact with the city. Pedestrian capacity at present is reasonable; however the area is heavily influenced by vehicular traffic, public realm is poorly presented, and many of the junctions are not pedestrian friendly.

Objective: Upgrade the pedestrian facilities leading to and from Kent Station to high quality footpaths, incorporating generous width, good quality surfaces, direct and smooth transitions at junctions, and high quality public realm

Lancaster Quay

This is the gateway between the City Centre and UCC and caters for high volumes of pedestrian traffic. Footpaths vary significantly in quality and provision, and the one-way nature of the road gives rise to higher vehicular speeds.

Objective: Upgrade the width and quality of the footpaths, taking opportunities to re-allocate road space for pedestrian use, tightening road space at junctions and crossings to provide better and more direct pedestrian routes, and creating a slower speed vehicular environment. Consider potential for improving pedestrian space outside commercial premises so as to support commercial outlets and create a more vibrant streetscape.

UCC Gateway

The main gateway to UCC is probably one of the busiest pedestrian facilities outside of the City Centre. The pedestrian environment inside the college spills out onto a busy traffic junction of the Western Road and Donovan Road

Objective: Reconfigure the Western Road / Donovan Road junction to visibly re-balance the street space and crossing facilities at the college gateway in favour of pedestrian movement, and upgrade the pedestrian facility along the Western Road to join with the interventions proposed under the Cork City Centre Movement Strategy.

9.1.3 Behavioural Change

Develop a comprehensive Communications Strategy for the project that embraces all appropriate media alternatives. Kickstart the project with a high profile city wide public launch event.

The objective of communications it to **'sell' the vision for the city,** creating awareness of the personal health, environmental, community and economic benefits of a walkable city, and generating community support.

9.1.4 Collaboration

Prepare a Cycling Strategy for Cork City that builds on and complements the Walking Strategy, and maximises the potential for modal shift from private vehicular transport.

Review interfaces between the Cork City Walking Strategy and all overlapping or adjoining strategies or projects to identify potential synergies that could accelerate infrastructure delivery and save on overall costs.

Prepare a comprehensive list of Statutory, Non-Statutory, Institutional, Commercial and Community stakeholder groups who may have be able to support, or whose support may be critical, to the planning and implementation of location specific projects, and ensure that the Communications Strategy is structured to keep these stakeholders fully informed.

9.2 Phase 2: City Gateway Infrastructure Projects

Building on Phase 1, the second phase is to enhance the pedestrian offer at the busiest pedestrian channels or collection points, and also to reinforce the connectivity of the amenity network. This will provide increased pedestrian facilities where they are most in demand, and further promote walking both for commuting and amenity.

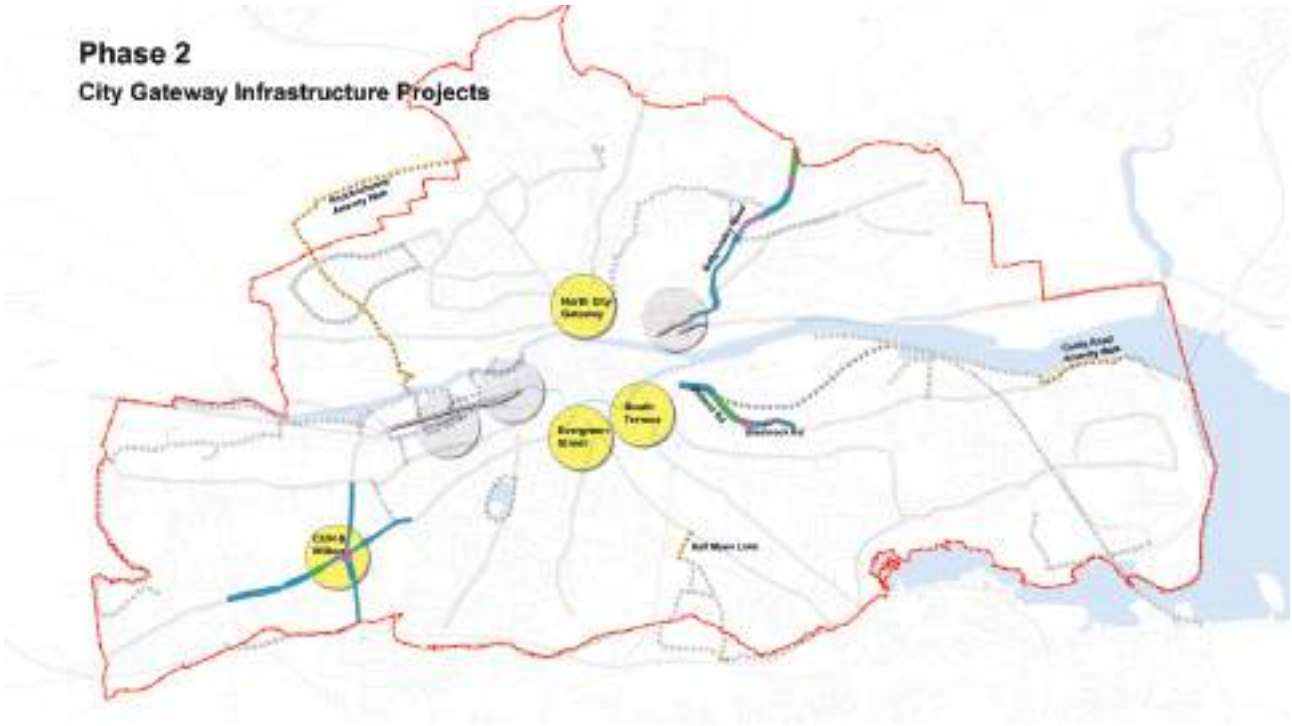


Figure 34: Phase 2: City Gateway infrastructure Projects. Phase 1 projects greyed out.

9.2.1 Network Development

Strategic Route Objectives

Wilton Roundabout and Approach Roads

The Wilton roundabout connects the Bishopstown and Sarsfield Roads to the Wilton and Glasheen Roads, and is one of the busiest junctions within the suburban parts of Cork City. It also serves the Wilton Shopping Centre and Cork University Hospital. It is a hostile pedestrian environment with no real provision at the roundabout itself, and crossings on the connecting roads that are up to 7 lanes wide with minimal central refuges.

Objective: Provide a safe pedestrian environment that facilitates movement between destinations on all four quadrants of the existing junction, while retaining appropriate levels of vehicular capacity. This will require a carefully considered multi-disciplinary design solution that replaces the roundabout with a signalised junction, re-balances road space to manage vehicular speeds and reduce crossing widths, as well as providing pedestrian crossings at the natural desire lines.

Ballyhooly Road

The Ballyhooly Road connects substantial neighbourhood areas to the north east of the city with the City Centre via Dillon's Cross and St. Luke's. Work has already been undertaken along parts of the route and funding has already been approved for further work. While the pedestrian offer varies considerably, most of the route has capacity for reallocation of road space, tightening of junctions and improving the pedestrian environment.

Objective: Build on the works already undertaken to develop the route as an exemplar pedestrian route, with wider footpaths, better junctions and crossing, and which reinforces neighbourhoods and enhances public space along the route.

Victoria Road/Blackrock Road

Enhance connectivity and improve pedestrian facilities between the City Centre and the south east along Victoria Road and Blackrock Road.

Objective: Build on opportunities arising out of the current South Eastern Travel Corridor assessment to develop the route as an exemplar high quality pedestrian route that encourgaes walking from the south east.

Amenity Route Objectives

Knocknaheeny Amenity Walk

The planned amenity walk will provide an attractive facility connecting from the Mardyke across the Lee, through Shanakiel and Knocknaheeny to Fair Hill via Nash's Boreen, and onwards to Blackpool or the North City Centre, or back into Knocknaheeny itself.

This will enhance the amenity value of the area, and provide an attractive alternative walking route between Knocknaheeny, UCC and the City Centre.

Castle Road Amenity Walk

Castle Road is a narrow country road giving access to private houses that overlook the River Lee towards Tivoli Docks. Despite having minimal footpaths, it is frequently used by pedestrians between Blackrock Village and Blackrock Castle. A pedestrian facility along Castle Road would enhance the amenity value of both the immediate and wider area by providing the missing link on the Blackrock / Mahon amenity loop.

The restricted nature of road is such that the only realistic solution is a self-enforcing low vehicular speed environment offering a shared space pedestrian priority facility, in consultation with local residents, which will be of benefit to local residents as well as the wider community. It may also be appropriate to promote alternative vehicular routes via Ringmahon Road and Convent Road to reduce vehicular demand on Castle Road.

Half Moon Lane and Tramore River Link

Tramore Valley Park will provide an excellent amenity facility at the southern outskirts of the city. Connecting the network within the park to South Douglas Road via Half Moon Lane and to the Tramore River in the south east will increase accessibility and connectivity to the park and adjoining areas.

9.2.2 Neighbourhood Infrastructure

CUH / Wilton

Pedestrian connectivity in and around the shopping centre, the hospital and the surrounding commercial and residential areas is poor relative to vehicular facilities.

Objective: Establish clear natural desire lines for pedestrians to and from all of the destinations within the CUH / Wilton area, and ensure that in conjunction with Wilton Roundabout and Approach Roads above, a high quality and visible pedestrian network delivers a safe and direct walking alternative throughout the area. Re-configuration of the roundabout to a signalised junction should provide additional space for pedestrian facilities as well as opportunities for improving the public realm and identity of Wilton.

North City Gateway

This area is the convergence of a large number of strategic routes into the city from the North West and North Central Wards. At present, the quality of the pedestrian offer varies considerably through wide road ways and expansive junctions, as well as through tighter lane ways.

Objective: Upgrade the pedestrian facilities along Cathedral Street, Shandon Street, Dominic Street, Roman Street, Upper John Street and Mulgrave Road so as to ensure that there is a network of clutter free and continuous footpaths, reduced vehicular speeds and visible pedestrian crossings, and that the excess road space at junctions is reallocated where appropriate for the benefit of local businesses and community use.

Evergreen Street Gateway

This is an attractive and historic area at the confluence of a number of strategic routes, primarily residential in use, but connecting to the southern side of the city at South Main Street and Grand Parade, and also westwards to UCC.

Objective: Upgrade the pedestrian facilities along Evergreen Street, Friar Street, Abbey Street, Tower Street and Barrack Street, as well as the lanes leading from Abbey Street and Everygreen Street to Sullivan's Quay, so as to provide a network of clutter free and continuous footpaths with visible pedestrian crossings at desire lines. Ensure that a self-evident pedestrian priority regime is established, with reduced vehicular speeds, and that excess road space at junctions is reallocated where possible for the benefit of pedestrians, community and local businesses.

South Terrace Gateway

The South East Ward has the lowest levels of sustainable transport use for a variety of reasons, including its severance from the city by the South Link Road. By providing high quality pedestrian facilities immediately west of the South Link Road, people will be encourage to cross the South Link Road using Douglas Road and the Old Blackrock Road.

Objective: Upgrade pedestrian facilities along Southern Road, Infirmary Road, Anglesea Street, Old Blackrock Road, Langford Row, High Street, Douglas Street, South Terrace and Copley Street. Create a high quality pedestrian network connecting directly to the quays and the City Centre. Establish a pedestrian priority regime, with direct pedestrian crossings at junctions, reduced vehicular speeds, and reallocation of road space for the benefit of pedestrians, community and local businesses.

9.2.3 Behavioural Change

Continue the Communications Strategy on a city wide basis, highlighting progress, programmes, and benefits, and providing users with a forum for reporting feedback.

Extend the Communications Strategy to provide education for all road users on the needs and expectation of other road users.

Prepare a Walking Toolkit that builds on the experience of project delivery in earlier phases, and that can be distributed to community groups, schools, business and workplaces to provide information on:

- The overall project objectives and benefits;
- Survey methods and templates for understanding local mobility cultures, needs and expectations;
- Typical solutions that could be considered to address common problems, including upgrading footpaths, improving crossings, providing set down areas at schools and neighbourhood centres;
- The range of initiatives that could be promoted at a local level to encourage increased walking.

Launch a focussed campaign, using the Walking Toolkit, through the schools and workplaces of Cork to survey barriers and perceived barriers to walking, and to develop solutions as to how these could be addressed. This information will be used in the roll-out of Phase 4.

9.2.4 Collaboration

Review progress to date with stakeholders, including City Council departments, employers and education groups.

Identify up coming opportunities for delivering walking infrastructure in conjunction with planned infrastructure or development projects.

Consider the potential for coordinating road user education campaigns with the National Roads Authority on a National basis.

Explore opportunities with the Department of Education for the roll out of electronic text books so as to mitigate the excessive weight of school bags that in itself deters walking.

Consult with the Office of Public Works to communicate the objectives of the Cork City Walking Strategy specifically as they might overlap with the Cork City Flood Defence project.

9.3 Phase 3: Reinforcing High Volume Pedestrian Routes

Following implementation of Phases 1 and 2, there should be visible differences emerging across the city in its street infrastructure, and increasing levels of public participation in walking initiatives. The next step is to ensure the momentum continues and to reinforce the pedestrian provision in areas that experience high volumes of movement and have potential to deliver substantial modal shift to walking.

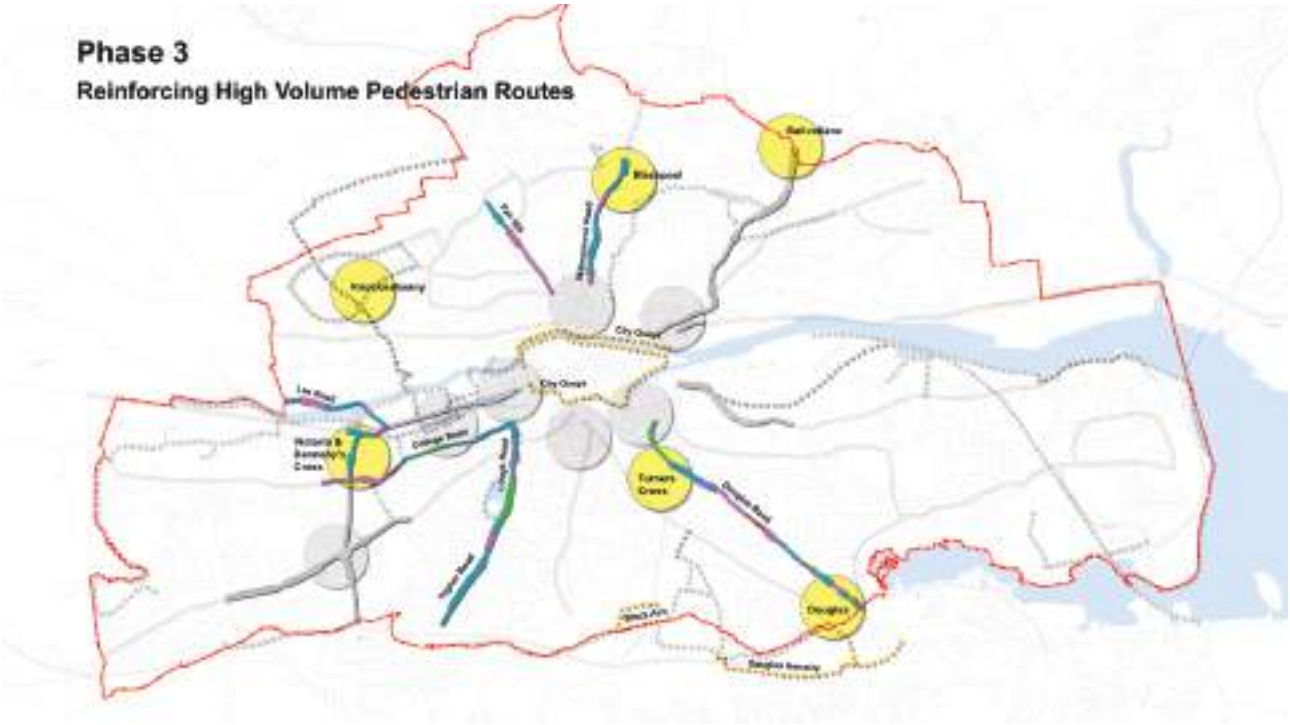


Figure 35: Phase 3: Reinforcing High Volume Pedestrian Routes. Previous phases greyed out.

9.3.1 Network Development

The strategic route components of Phase 3 include, clockwise from the north, Watercourse Road, Ballyhooly Road, Douglas Road, Togher Road, College Road, Victoria Cross, Lee Road and Fair Hill.

These all cater for high volumes of pedestrian movement, and will the upgrading of local infrastructure in Phases 1 to 3, will have potential to attract greater numbers.

Strategic Route Objectives

Watercourse Road	Enhance the connectivity between Blackpool and the North City Gateway.
Douglas Road	Provide an improved pedestrian connection between Douglas and the City Centre, creating potential to attract people from the catchments either side of Douglas Road.
Togher Road	Support the existing walking culture amongst the communities along the Togher Road in providing a high quality pedestrian spine that links to the City Centre.

College Road	Further reinforce the existing walking culture that serves UCC and the City Centre.
Victoria Cross	Extend the connection from the CUH / Wilton area to the Carrigrohane Road and Western Road
Lee Road	Provide high quality pedestrian connectivity between the apartments on the Lee Road, the Environmental Research Unit, and the UCC and Sunday's Well areas.
Fair Hill	Upgrade pedestrian facilities for the communities around Farranferris.

Amenity Route Objectives

City Quays	Provide high quality pedestrian facilities along the City Quays to facilitate riverside walking and other activities, and enhance the public realm and presentation of the city quaysides.
Black Ash	Provide an amenity route the links the Tramore Valley Park to the Black Ash park and ride facility.
Douglas Amenity	Support Cork County Council proposals to provide a new pedestrian bridge and amenity network that will connect Douglas Village and its environs to Tramore Valley Park.

9.3.2 Neighbourhood Infrastructure

Victoria Cross

A complex and busy vehicular and pedestrian environment at the intersection of strategic and amenity routes, and serving a mixture of employment, educational, residential and amenity needs. Victoria Cross is vehicle centric, with poor pedestrian provision.

Objective: Reconsider the junction arrangement to rebalance road space for pedestrian and vehicular traffic, increasing footpath widths, introducing build outs to slow traffic and provide pedestrian refuges at crossings, and ensuring that crossings are provided at natural desire lines. Consider all opportunities for enhancing the urban fabric and public realm and creating a stronger sense of place that is not vehicle centric.

Blackpool

Blackpool is largely characterised by the N20 road, the shopping centre and associated car parking. Access to Blackpool is principally vehicular, despite the proximity of residential settlements all around it.

Objective: Upgrade the pedestrian provision at Commons Road, Watercourse Road, Dublin Street, Glen Avenue, Thomas Davis Street and North Ring Road, so as to provide a pedestrian loop that can be easily accessed by the surrounding residential areas. Provide high quality pedestrian connections into the shopping centre, commercial and retail park, and the amenity park.

Ballyvolane

Ballyvolane Shopping Centre lies north of the North Ring Road but serves residential areas to the north and south. The North Ring and Ballyhooly Roads sare wide vehicular roadways, and are hostile to pedestrian activity.

Objective: Identify the pedestrian desire lines from residential settlements south of the North Ring Road in consultation with the local communities, and establish an agreed local pedestrian network that incorporates high quality footpaths, connections to and from housing estates and improvements to the public realm. Reconfiguration of some of the major junctions and the provision of new pedestrian priority crossings that reduce also traffic speed will be critical in creating a safe pedestrian environment at Ballyvolane.

Knocknaheeny

Knocknaheeny is an established residential settlement incorporating excessive roadways that were typical of their time. Parts of Knocknaheeny have been redeveloped and in recent years and some of this work has included re-balancing of the road space in favour of pedestrians.

Objective: In consultation with the local community, extend the Harbour View Road upgrade works to the east and west and also northwards along Courtown Avenue, to provide better and safer pedestrian facilities connecting the residential areas to the retail, education and community facilities. Opportunities for establishing pedestrian links between adjacent housing estates should be explored where there are obvious desire lines.

Turners Cross

Turners Cross is a strong local community but caters for relatively high volume vehicular movements, particularly along Evergreen Road and Curragh Road.

Objective: Reinforce the sense of community at Turners Cross through the upgrading of the pedestrian facilities along Evergreen Road and Curragh Road, reducing vehicular speeds through passive interventions at junctions, and extending along O'Connell Avenue and Capwell Road. Increase footpath space outside commercial premises where possible to create focal points, and in this regard, explore potential for a collaborative approach with Christ the King Church. In consultation with the local community, establish a programme for upgrading pedestrian connectivity throughout the area, including linking through the grounds of the Church, and also the possible link from Maiville Terrace around the rear of the Bus Eireann depot to Windmill Road.

Douglas

The Douglas and South Douglas Roads connect the City area beyond the South Ring Road in Douglas Village. Primarily, the area has low density residential use and schools. Both roads experience heavy traffic volumes and there is a very mixed provision for pedestrians.

Objective: Upgrade the pedestrian provision along both roads to provide a consistent and safe quality of service, reducing passing vehicular speeds, and encouraging greater walking locally, including to the schools, community facilities and Douglas Village.

9.3.3 Behavioural Change

Continue the Communications Strategy throughout the City, highlighting progress, programmes, and benefits, and providing users with a forum for reporting feedback.

Extend the campaign *Education for All Road Users* to include local examples of recent infrastructure improvements that have been successful in meeting user needs.

Support the implementation of initiatives in schools and workplaces that encourage walking.

9.3.4 Collaboration

Consult with Cork County Council in identifying synergies between the Cork City Walking Strategy and implementation of the Douglas Village LUTS.

Consult with Cork County Council to establish projects, programmes and mechanisms for connecting to the Cork County Walking and Cycling Strategy projects.

Consult with Cork County Council to establish mechanisms for integrating the proposed amenity routes at Douglas Village and Tramore Valley Park with the Cork City Walking Strategy.

9.4 Phase 4: Large Population Schools and Workplaces

By this Phase, significant network and infrastructure improvements will have taken place, surveys will have been undertaken at schools and workplaces to identify the specific infrastructure requirements in support of those destinations, and the public awareness campaigns will be well established.

Phase 4 is focussed primarily on meeting the needs of the larger schools and workplaces that have not already been provided for in earlier phases, as well as continuing to reinforce the connections between the amenity routes.

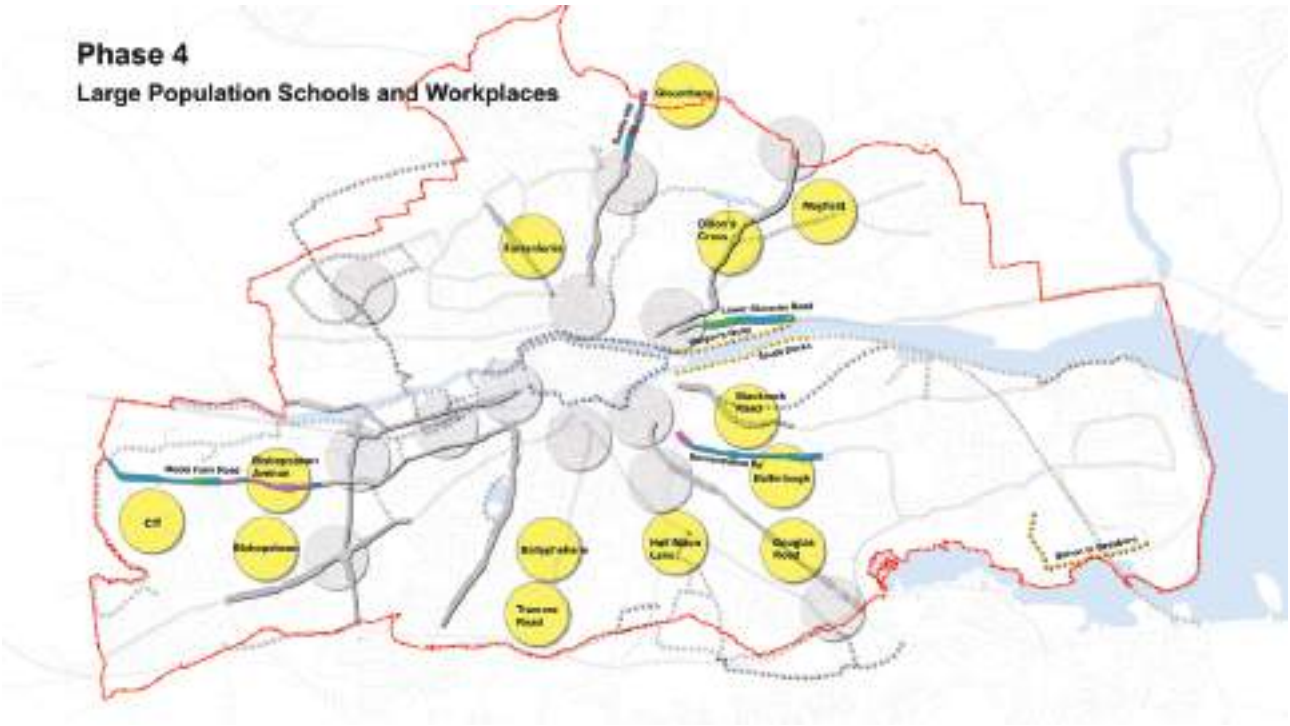


Figure 36: Phase 4: Large Population Schools and Workplaces. Previous phases greyed out.

9.4.1 Network Development

The strategic route components of Phase 4 include, clockwise from the north, Dublin Hill, Lower Glanmire Road, Victoria Road (west), Boreenmanagh Road, and Model Farm Road. These all serve larger school and workplace destinations, and with quality pedestrian facilities, have potential to encourage modal shift for journeys to these destinations.

Strategic Route Objectives

Dublin Hill	Provide a quality connection between the schools and communities at Glenthorn and Kinvara to Blackpool and beyond.
Lr. Glanmire Road	Upgrade the western part of the Lower Glanmire Road to improve pedestrian access to the City and connect with the proposed amenity route along Horgan's Quay.
Boreenmanagh Rd.	Enhance connectivity to the school and community facilities along Boreenmanagh Road, and improve pedestrian facilities into the City Centre.

Model Farm Road	Provide a high quality pedestrian facility that serves the schools, businesses and CIT, as well as extending the network into the City Centre.

Amenity Route Objectives

Horgans Quay	Provide a high quality quayside amenity route that connects the Lower Glanmire Road to the City Quays and embraces the River Lee frontage.
South Docks	Provide a high quality quayside amenity route that connects Marina Park to the City Quays and embraces the River Lee frontage.
Mahon to Bessboro	Improve the pedestrian facility from Mahon to Bessboro road, linking with the Old Railway Line walk, and provide signage to highlight and promote the route locally.

9.4.2 Neighbourhood Infrastructure

All of the neighbourhood infrastructure proposals in this phase are to deal with pedestrian accessibility to schools and workplaces and the surrounding community areas and facilities, and the details will be determined on foot of the individual survey results from each destination, in consultation with the relevant establishments and community groups.

Starting from the north and continuing clockwise, these areas are as follows:

Glenheights	St. Aidans and St. Olivers
Dillon's Cross	St. Patrick's College and schools
Mayfield	Mayfield Community School
Blackrock Road	Ashton School
Ballinlough	St. Anthony's Boy's School, and Ballintemple National School
Douglas Road	Scoil Bhríd Eglantine and Regina Mundi College
South Douglas Rd.	Christ King Girl's School
Tramore Road	Scoil Stiofáin Naofa, and Scoil Réalt Na Maidine
Ballyphehane	Maria Assumpta Primary and Secondary Schools
Bishopstown	Collaiste and Spioraid Naoimh
Bishopstown Ave.	Mount Mercy College, St. Catherine's School and Bishopstown Community School
CIT	CIT campus
Farranferris	St. Finbarr's College, Farranferris

9.4.3 Behavioural Change

Continue the Communications Strategy throughout the City, highlighting progress, programmes, and benefits, and providing users with a forum for reporting feedback.

Support community and business led plans for walking events, including perhaps the establishment of walking awards for the 'Best School' or 'Best Workplace'.

Monitor and feed back to schools on the success of projects and initiatives, and review earlier surveys as required to inform the next phases of school and workplace walking infrastructure.

9.4.4 Collaboration

Review the ongoing collaboration opportunities between Statutory, Non-Statutory, Institutional, Commercial and Community stakeholder groups on the continued implementation of projects.

Engage school and workplace leaders to work together to continuously support, promote and encourage walking.

9.5 Phase 5: Remaining Schools and Workplaces

Phase 5 builds on Phase 4 and earlier phases by extending to the remaining school and education centres, and continuing to reinforce the connections between the amenity routes.

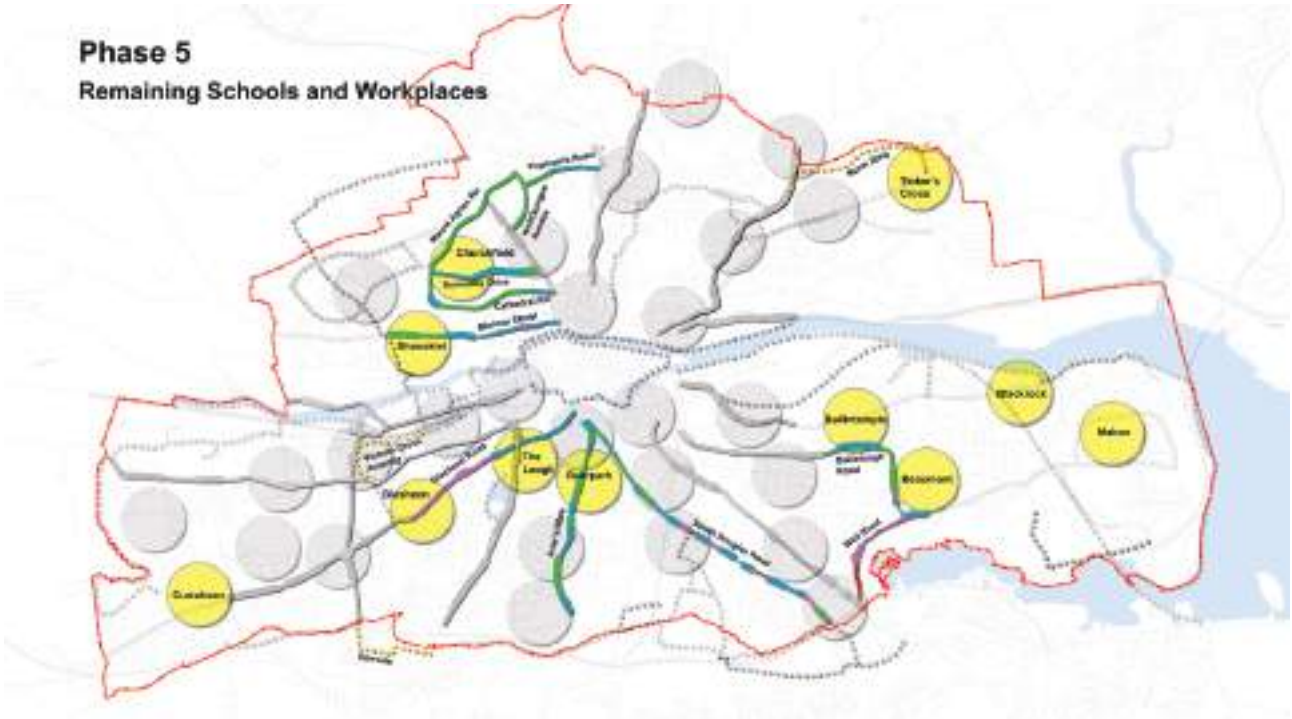


Figure 37: Phase 5: Remaining Schools and Workplaces. Previous phases greyed out.

9.5.1 Network Development

The strategic route components of Phase 5 include, clockwise from the east, Ballinlough Road, South Douglas Road, Friars Walk, Glasheen Road, Blarney Street, Cathedral Road, Sunvalley Drive, Mount Agnes Road, Knockpogue Avenue and Popham's Road.

These serve the majority of the remaining schools and workplaces across the City, and additional pedestrian infrastructure will continue to encourage modal shift for journeys to these destinations.

Strategic Route Objectives

Ballinlough Road	Extend the pedestrian facility of the Boreenmanagh Road further east to serve the South East Ward.
Well Road	Provide safe pedestrian connectivity from Ballinlough Road and Skehard Road to Douglas Village.
South Douglas Rd.	Reinforce the walkability between Douglas and the City Centre, including liking into the residential catchments on both sides.
Friars Walk	Provide a strong connection from Tramore Road through Balyphehane into Energreen Street and the city.
Glasheen Road	Provide a high quality pedestrian route serving the Glasheen community and providing connections to the City Centre and CUH / Wilton.
Blarney Street	Improve connections between Shanakiel and the city.
Cathedral Road, Sunvalley Drive, Mt. Agnes Road & Knockpogue Ave.	Upgrade the pedestrian offer and public realm of the street network to facilitate safer pedestrian movements throughout the area and to all community facilities, and to strengthen the sense of place and community identity.
Popham's Road	In consultation with local community, consider design solutions to provide better pedestrian facilities along Popham's Road linking the community to Blackpool.

Amenity Route Objectives

North Ring	Extend the amenity route of the Glen into the green space alongside the North Ring to provide a connection to Banduff and to Tinker's Cross.
Victoria Cross	Extend westwards along the river channel from UCC towards Victoria Cross to connect across Magazine Road to the walkway along the Presentation Brothers Sports Grounds to the Glasheen Road.
Elmvale	Develop the missing link of the amenity route south of the South Ring Road between the Sarsfield Road and the Togher Road.

9.5.2 Neighbourhood Infrastructure

Like Phase 4, the neighbourhood infrastructure proposals in this phase are to deal with pedestrian accessibility to schools and workplaces and the surrounding community areas and facilities, and the details will be determined on foot of the individual survey results from each destination, in consultation with the relevant establishments and community groups.

Starting from the north and continuing clockwise, these areas are as follows:

Tinker's Cross	St. John the Apostle and Scoile Mhuire Banrion
Mahon	Nagle Community College, Gaelscoil Mhachan, Scoil Na Croise Naofa and Gaelscoil Mhanach.
Blackrock	Ursuline Girl's Secondary School, Scoil Ursula, and Scoil Naomh Michael.
Beaumont	Scoil Barra Buachaillí and Scoil Barra Cailíní.
Ballintemple	Ballintemple National School
Deerpark	Deerpark Christian Brothers School
The Lough	Scoil Náisiúnta Mhuire na nGrás
Glasheen	Glasheen Boy's National School
Curraheen	Scoil an Spioraid Naoimh, Buachaillí agus Cailíní.
Shanakiel	Sunday's Well National School
Knocknaheeny	Scoil Padre Pio

9.5.3 Behavioural Change

Continue the Communications Strategy throughout the City, highlighting progress, programmes, and benefits, and providing users with a forum for reporting feedback.

Seek community and business led innovation in promoting walking at a local level.

Celebrate the success of earlier physical or behavioural projects that have clearly delivered benefits to local communities.

9.5.4 Collaboration

Continue to review collaboration opportunities between Statutory, Non-Statutory, Institutional, Commercial and Community stakeholder groups on the future implementation of projects.

Review the successes and challenges of earlier projects and ensure that emerging planning policy and guidelines make future projects easier to deliver.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9.6 Phase 6: Remaining Strategic Corridors

Phase 6 completes the network of strategic corridors. For the most part, they are already providing a good quality of service, overlapping with amenity provisions, or may have been partially upgraded as part of neighbourhood infrastructure works in earlier phases. Phase 6 also includes the balance of amenity links.

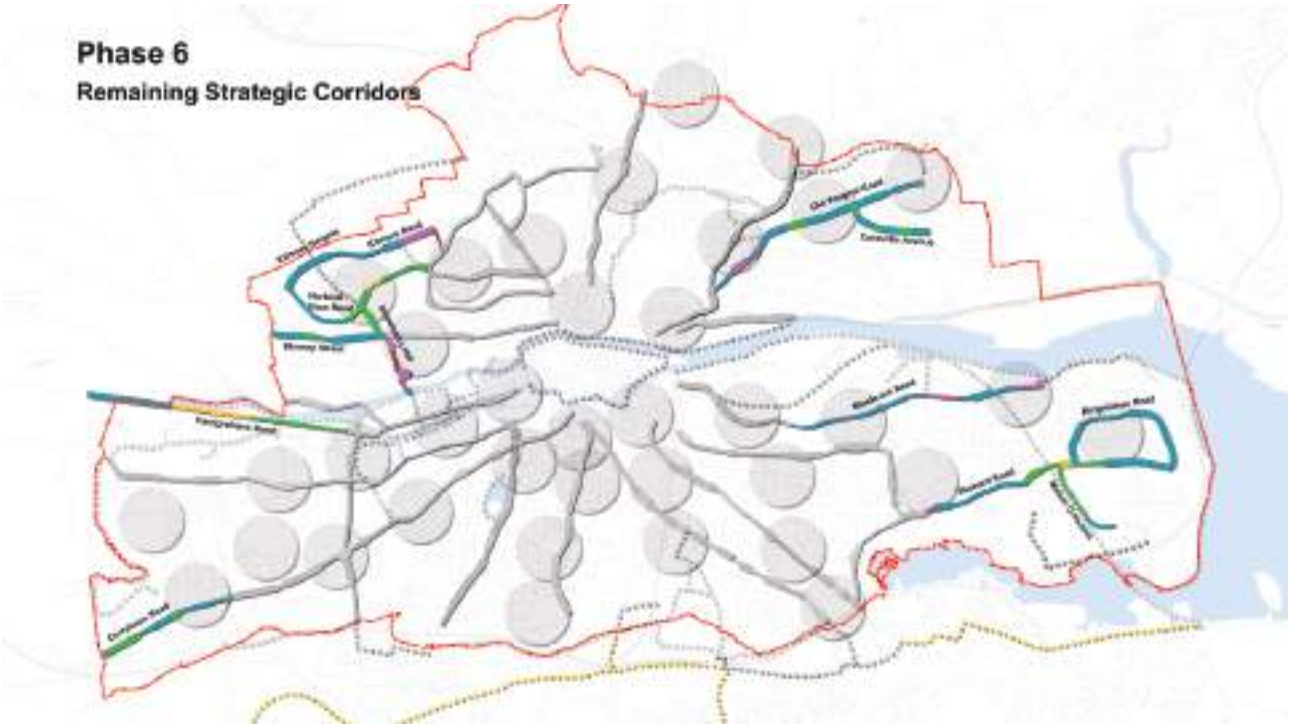


Figure 38: Phase 6: Remaining Strategic Corridors. Previous phases greyed out.

9.6.1 Network Development

The strategic routes include, clockwise from the north, Old Youghal Road, Colmcille Avenue, Blackrock Road, Ringmahon Road, Skehard Road, Curraheen Road, Carrigrohane Road, Blarney Street, Strawberry Hill, Harbour View Road, Kilmore Heights and Kilmore Road

Strategic Route Objectives

Old Youghal Road	Upgrade the pedestrian route through Mayfield and connecting into St. Lukes, Dillon's Cross and to the City.
Colmcille Avenue	Reinforce the pedestrian network from the residential areas south of Mayfield into Mayfield.
Blackrock Road	Upgrade the pedestrian route along the Blackrock Road to serve the communities on either side, as a local facility and as an alternative and more direct route to the city.
Ringmahon Road	Upgrade the pedestrian loop at Mahon that serves the local community, links to the amenity routes and also to the Skehard Road towards Douglas.

Skehard Road	Upgrade the Skehard Road to provide a strong east west link from Mahon to both the City Centre and Douglas via the Boreenmanagh and Well Roads respectively.
Curraheen Road	Complete the western part of the Curraheen Road to facilitate the residents that towards the western outskirts of the city.
Carrigrohane Road	Upgrade pedestrian facilities as an alternative to the Lee Fields amenity route, to include vehicular speed reduction, possible modal segregation and crossing points.
Blarney Street	Upgrade the pedestrian infrastructure to provide safe walking facilities, in conjunction with vehicular speed reduction measures, for the residences and workers located at the western city boundary.
Strawberry Hill	Upgrade the pedestrian facility of Strawberry Hill, including opportunities to improve accesibility and safety so as to strengthen the apeal of this link to Sunday's Well and the Mardyke.
Harbour View Road Kilmore Heights Kilmore Road.	Continue to build up the pedestrian facilities within the Knocknaheeny area to better serve walkers in and around the area and to external destinations.

9.6.2 Neighbourhood Infrastructure

While no specific projects are proposed as part of this last phase, it is fully anticipated that neighbourhood infrastructure, including new works and upgrades, will continue to be required long after the lifetime of this Walking Strategy. The benefit of neighbourhood infrastructure will be apparent from the previous phases, and additional investment will be targeted to meet new needs.

9.6.3 Behavioural Change

Once a culture of sustainable mobility has been established, it must continue to be nurtured, so that people will continue to choose to walk. Local communities should be encouraged to continually seek ways to improve the walkability of their neighbourhoods and to make them more attractive and more vibrant.

The Communications Strategy must take on the role of continued support for walking in the city, and to identify and celebrate success stories.

9.6.4 Collaboration

The benefit of collaboration between all stakeholders will be evident in the projects delivered during the lifetime of this strategy. Ongoing collaboration will continue to deliver better neighbourhoods, communities and places throughout the city.

APPENDICES

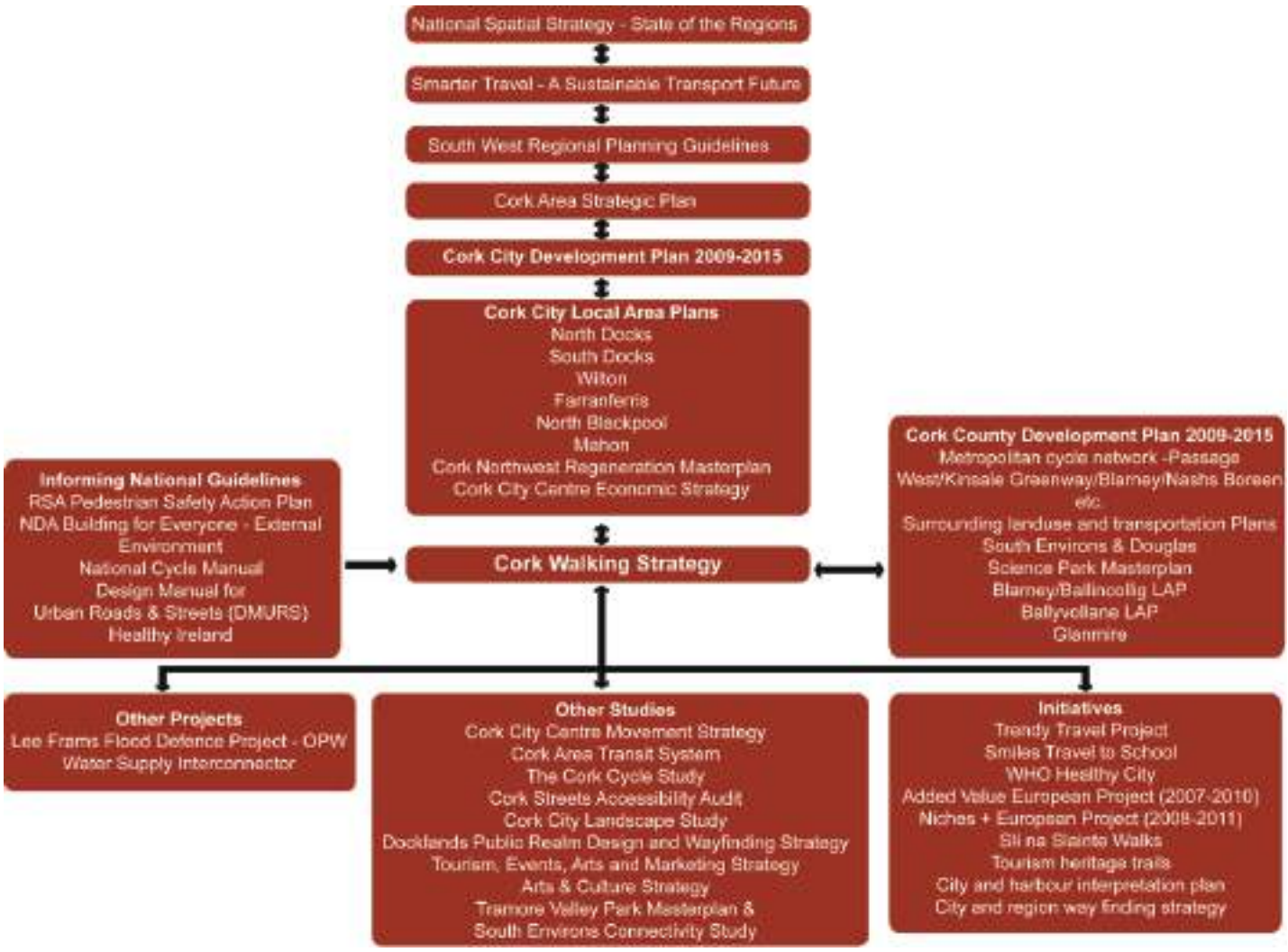
A: Policy and Guidelines

B: Stakeholder Consultations

C: Ward by Ward Analysis Sheets

Appendix A:
Policy and Guidelines

The diagram below illustrates the context of Cork City Walking Strategy within Land Use Plans, Other Projects, Initiatives and Studies.



Appendix B: Stakeholder Consultations

Key stakeholder agencies and groups with an interest in the development of walking in the City were consulted as part of the process, including:

Cork City Council Steering Group	Noel Tummon Niamh O'Brien Niall O'Donnabhain
- Roads and transportation	Anita Lenihan
- Parks and recreation	Liam Casey
- Parks and recreation	Aoife Mahony
- Planning	Evelyn Mitchell
- Information Systems	Eileen Doyle
- Community and Development RAPID Coordinators	Nuala Stewart
	Joanne McNamara – HAZ Worker
	Stephen Murphy – HAZ Worker
	Derry O'Farrell – Local Resident
Cork County Council	Peter O'Donoghue
- Planning	Patricia Griffin
- Planning	Pio Condon
An Garda Síochana	Sgt John O' Sullivan
HSE- Health Promotion	Denise Cahill
An Taisce	Ellen Murphy
Bus Eireann	Martin Walsh
National Roads Authority	Fiona Bohane
University College Cork	Stefan Koch
Cork Environment Forum	Bernadette Connolly Clair McSweeney
Cork Sports Partnership	Eithne Hammond Michael Crowley
Cork Access Group	Donnie O' Leary, Disability Officer
Fáilte Ireland	Hilary Creedon

The issues raised have been summarised into themes as follows:

Footpaths

1 Inadequate width of path - consider one way streets.

2 Apply universal design principles throughout as set out by the National Disability Authority. Universal design places human diversity at the heart of the design process so that buildings and environments can be designed to meet the needs of all users. It therefore covers all persons regardless of their age or size and those who have any particular physical, sensory, mental health or intellectual ability or disability. It is about achieving good design so that people can access, use, and understand the environment to the greatest extent and in the most independent and natural manner possible, without the need for adaptations or specialised solutions.

3 Lack of capacity on wider footpaths, e.g. Western Road/ College Road.
4 Cycling on footpaths.
5 Prioritisation of pedestrians over cars.
6 Lowering of kerbs at entrances creates a pedestrian hazard.
7 Car parking on footpaths.
8 Footpath surface and maintenance - tree roots, condition after installation of services, untreated footpath in winter, leaf litter.
9 Many footpaths stop and are not joined up.
10 More pedestrian friendly facilities for those visiting/ attending Hospital.
11 Pedestrian prioritisation at school entrances.
12 Narrow streets with parking e.g Blarney Street.
13 Some routes long and narrow with no 'escape routes'.
14 Improvements of paths on Monahan Road could help with accessibility and walking/ cycling environment connecting south east area to City.
15 Road from Blackrock Castle to Blackrock Village is unsafe due to narrow, winding route for 2 way traffic which causes traffic to ride the footpath.
16 Dog fouling - personal responsibility and designated bins.

Signage

1 Signs that proved time rather than distance are better at encouraging walkers are unaware of how long it takes to walk certain distances.
2 Good information signage and maps required for people who do not know the city well and to help people explore of the city.
3 Identification and promotion of trails (walking and cycling) providing access to, and linking, sites and features throughout the City, lower harbour coastal path network and other surrounding amenities.
4 Information on walks in the City should be communicated via a coordinated way finding system with physical structures (i.e. signage, interpretation panels, etc) but also through the use of online technology (apps, downloads, etc). It is important that users, both locals and visitors, are aware of the distance involved, the gradient and approximate time it would take to complete any trails and/or distances from key attractions to key locations in the City. This information could also be of benefit to our business visitor who may use amenity trails for fitness.

Lighting

1 Insufficient lighting deters people from using pathways.

Car parking

1 Lack of secure car parking, and high cost, within city bounds is a deterrent to Park & Stride initiatives.
2 Car pooling and priority parking could encourage Park & Stride.

Lack of Connectivity

1 Provision of linked walkways is poor - Would like to see an uninterrupted walkway from the Marina to Passage as valuable connection as a walking amenity that will offer safer and enhanced pedestrian access to the landmark visitor centre and define a new walking trail for the city.
2 Existing walking routes such as Knocknaheeny Slí na Sláinte and linkages into city centre and Blackpool have potential for improvement.

3 Significant need to improve pedestrian accessibility in north east using Glen River Valley linking Mayfield, Ballyvollane and Blackpool - greater connectivity to Ballyvollane Shopping Centre and surrounding residential area.

4 Potential for looped walks in northwest of City connecting neighbourhoods, schools, places of work, recreation.

5 Connecting north/ south routes from the Blackrock Road would enhance permeability, accessibility and use of this route.

6 Potential to link Marina, Blackrock Village to Blackrock Castle and Lough Mahon Walk.

7 Uninterrupted walkway from the Marina to Passage as valuable connection as a walking amenity that will offer safer and enhanced pedestrian access to the landmark visitor centre and define a new walking trail for the city.

8 Existing walks should be linked such as Lee Fields walk to Murphy's Farm walk, Marina walk to the Mahon point walk. The Ballincollig walkways should be joined up with the city walkways.

9 The Ballincollig walkways should be joined up with the city walkways.

10 Tramore Valley Park has potential to provide a southern orbital route for cyclists and walkers linking Douglas, Togher, Bishopstown and to other amenities such as potential Kinsale Greenway, links to schools, neighbourhoods and employment.

11 Potential link along Glasheen River connecting Glasheen Road, College and Orchard Road.

12 Lee FRAMS flood defence project along South Docks may assist in delivering connectivity to the Marina, Blackrock etc. This should be reviewed at in terms of providing pedestrian /cycling routes along banks of River Lee towards Ballincollig north and south of the river.

13 Link Blackrock Village to Blackrock Castle to connect with the existing riverside path to Passage west. Blackrock Harbour, Park and Boardwalk Project should be part of the Walking Strategy.

Integration with other Forms of Transport

1 Should consider visitors and dwellers from outside the city centre – integrate buses into the scheme.

2 Need to develop Park and Ride facilities further – not enough car parking facilities at entry points to city.

3 Walking strategy should be integrated with other forms of transport.

4 Bus Eireann strategy could work in tandem with the Bus Eireann Services that operate in Cork City, as generally Public Transport journeys entail an element of walking at the beginning / end of each journey so any measures that encourage walking would enhance the environment for Public Transport users and encourage people in that direction. Bus Eireann has an extensive network of services in Cork City which has grown by 53% from 2000 to 2009 –these services have undergone further changes since then with the implementation of cost recovery measures and also the recent NTA review of Cork City And Suburban Bus Services, which is ongoing.

Drainage

1 Rainwater ponding e.g. College Road, Wilton Road, Western Road at O'Donovan's Road.

Traffic Lights/ Junctions

1 Long waiting time at crossing points and high speed of motorists.
2 Major road crossings need improvement – e.g. Western Road / Donovan's Road (at UCC Main Gates) Western Road / Gaol Cross, Western Road / Ferry Walk (at former "Western Star"), Wilton Road / Dennehy's Cross, Bishopstown Road / CUH main entrance (here esp. danger from cars leaving CUH), Wilton roundabout at CUH.
3 Insufficient space on footpaths at junctions / traffic lights for pedestrians waiting e.g. Western Rd / Donovan's Road (SE corner), Highfield Avenue / Magazine Rd and Dorgan's Rd / Glasheen Rd.
4 Traffic Laws should be amended to facilitate walkers.
5 Traffic lights - pedestrian unfriendly sequencing of traffic signals – unacceptable wait time for pedestrians particularly where left hand turns at junctions prevent pedestrians moving forward at the same time as parallel traffic.
6 Pedestrians walking out in front of traffic.

Education & Health

1 Some unaware of quick walking routes within their area so maps prepared by schools for parents and students are helpful.
2 Difficulty in convincing parents that walking is quicker, safe and good for you.
3 Public need to believe there is some benefit in it for them – health benefits, reduced costs of travel.
4 Change in public attitude/ mind set, awareness and 'self policing' in regard to safety of road users.

Topography

1 Challenging topography within the city e.g. Popham's Road

Pedestrian Safety

1 Enhanced pedestrian safety at railway line from Blackrock to Rochestown – egress points added to allow people walk exit into more public areas if required. Add CCTV to Skehard Road underpass which has had some anti-social behaviour.
2 Some junctions/ streets would benefit from greater clarification for pedestrians, cyclists, drivers e.g. Junction of Evergreen Street, Crossing at CUH and Wilton Shopping Centre, Victoria Cross, Shanakiel/Sunday's Well Road, Western Road/UCC entrance, South Terrace/O'Sullivan's Quay.
3 Enforcement is an important issue for road safety division, to prevent parking in bus lanes and cycle lanes.
4 Castle Road is narrow and unsafe for pedestrians.
5 Paths should be widened from 3m to 5m with demarcation of routes for pedestrians, cyclists.

Social/ Community

1 The City Development Plan should aim to create a network of Village Centres within city. There is still a need to provide small retail outlets to provide a local sense of place and community. Such centers can also be linked into small open plazas, playgrounds, crèche, and communal recycling facilities and within easy walking distance of the residents.

2 Need for 2-3 larger Village centres with libraries, charity shops, community centres, cinemas, art galleries, small supermarkets and open air/covered local markets etc.

3 Potential for enhanced cultural walking routes with destinations such as St Anne's Shandon, Cathedral etc.

4 Partnerships with local community & employers important as is evident with the continual enhancement of the Nash's Boreen walkway which traverses the City and County.

5 5. Walking routes and loops which contour the terrain and link schools and open space are important e.g St. Colmkille's Road looping around Seminary Road and Fair Hill, for school walking and recreation.

6 Potential to provide more Park n' Stride initiatives.

Visual

1 Significant lack of trees in the urban landscape of Cork – tree planting programme would be helpful.

Lack of Permeability in the City Fabric

1 Cul de sacs with no pedestrian/Cycle links forces pedestrians onto busy roads.

Tourism

1 Based on research findings by Fáilte Ireland, visitors rated the ability of strolling around the City as one of the main highlights of their City break to Cork. They cited the ability to walk easily between venues as an influencer in their enjoyment of festivals, which is a key feature of the City's tourism offering. Cork's 'pedestrian friendly' and compact aspects are used extensively in its marketing. These attributes are also having a positive impact on our visitors experience once here. This should be retained and enhanced and the public realm developments and streetscape improvements in Patrick St, Emmet Place, Oliver Plunkett St and Grand Parade were welcomed. A target market which Cork will try to further attract is the valuable short break market, which oftentimes does not rent or bring a car. This pedestrian friendly attribute of the city will therefore be very important in the future development of the City as a tourism destination. Enhancing the tourism function of the City ensures it grows as a significant economic driver in the City's economy.

2 Visitors often remark on the disorientating aspect of the City, due to its many bridges and channels. Cork's Cultural offering is strong yet it rates low for tourist audience numbers. It may be that the inability to find venues may be a contributory factor.

3 Negative comments on Cork from our visitors, although on a very low scale, relate to the City's crime/antisocial behaviour, roads and traffic.

4 General enhancement of the public spaces and streets of the City

5 Planning and funding for general enhancements along these trails including provision of interpretive signage providing information on specific sites, on the network of sites along a trail, maps, etc;

6 Promotion of street-level tourism information throughout the City;

7 Overall application of development standards guiding development in the City and ensuring that all development is in-line with the principles of proper planning and sustainable development.

8 A new walkway from Marina to Monkstown could form part of a broader land and maritime tourism product.

9 Walking strategy fits well with national and regional tourism plans as Fáilte Ireland has set out Cork harbour as one of its sites of focus.

10 The location of Cork City along the coast creates significant opportunity for both the promotion of new maritime activities and the celebration of the area's rich maritime and port-related industrial heritage. Improvement of access to the waterway corridors of the City (from the Lee Fields to Mahon) and assessment of market demand and visitor requirements along that corridor;

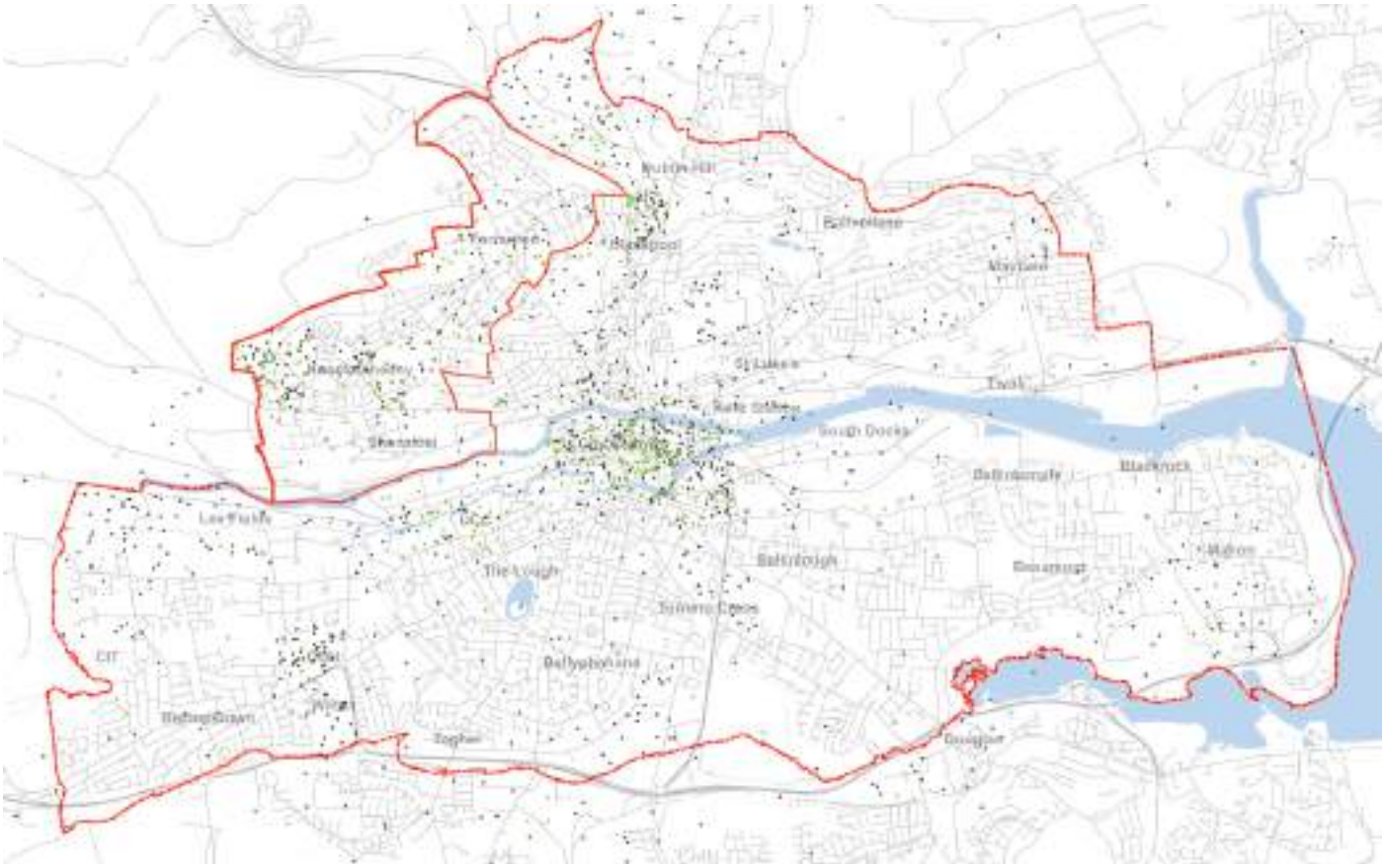
Appendix C:
Ward by Ward Analysis

The maps on the following pages are the full maps referred to in *Section 6.7.3, Sustainable Destinations from each Ward*. These identify the use of sustainable transport and private vehicular transport for trips from each Ward to commuting destinations throughout the City.

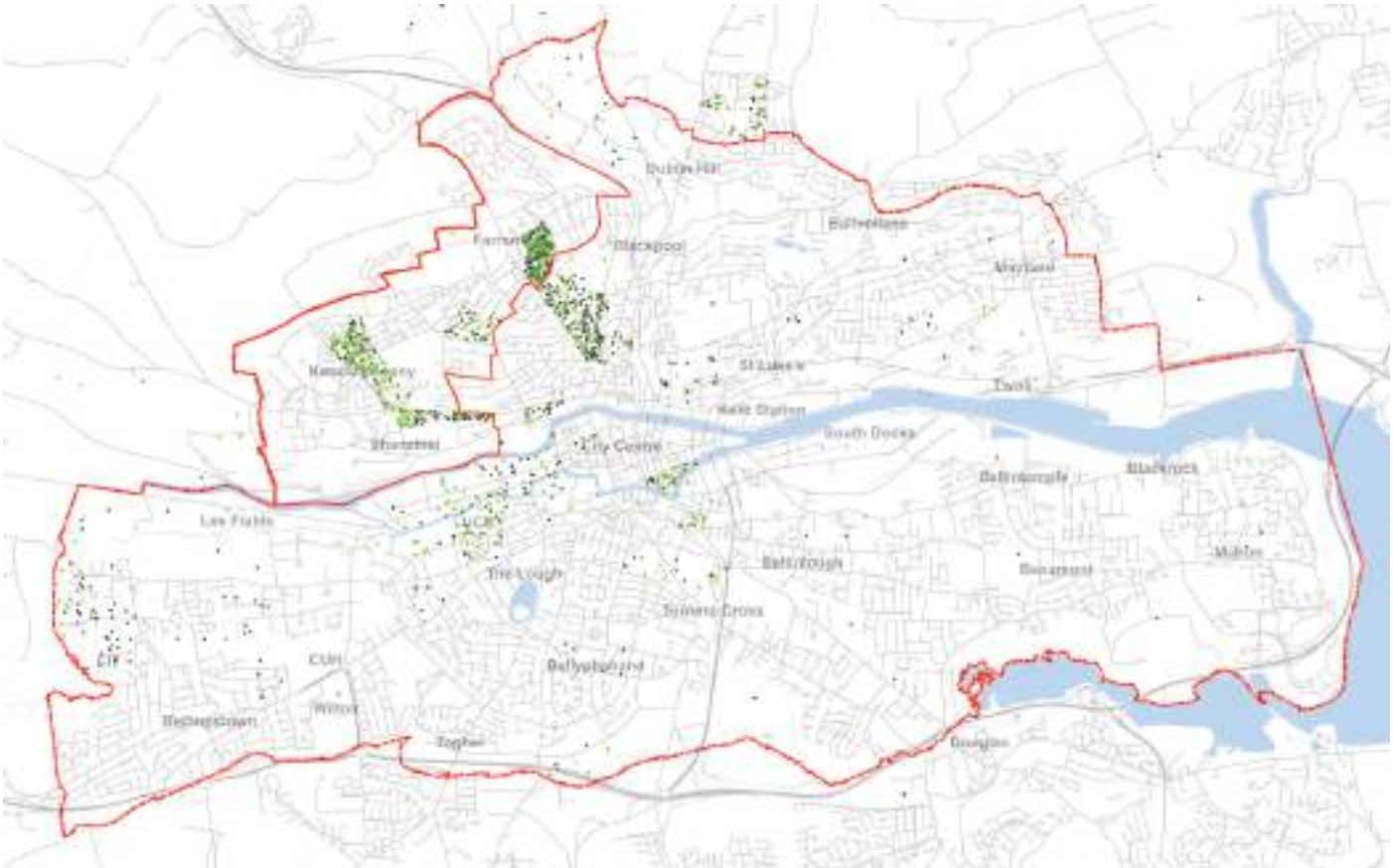
For each Ward, journeys to places of work are shown on the first map, and journeys to places of education on the second.

North West Ward

Destinations by Sustainable and Private Transport



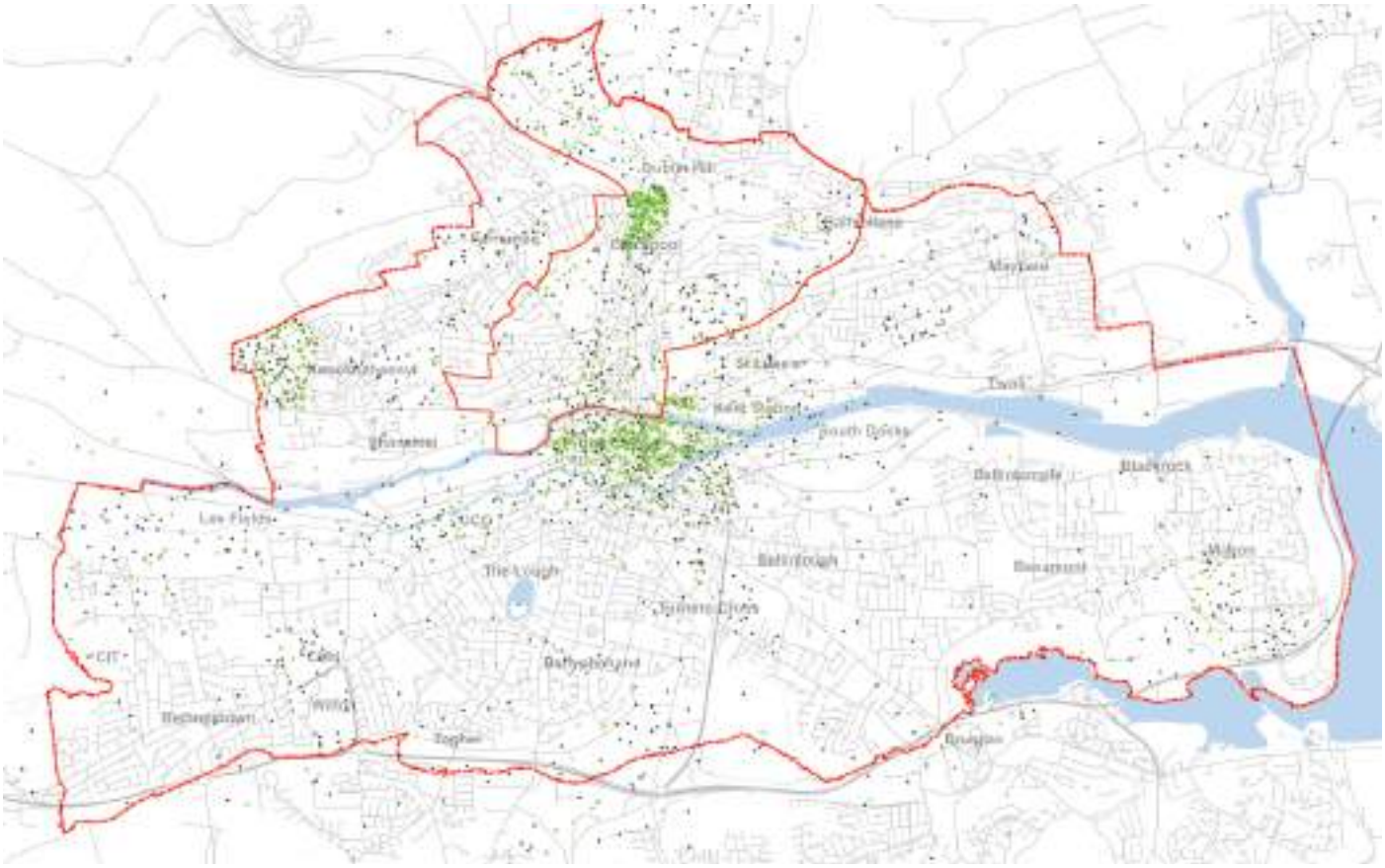
Trips to Places of Work: Green and Black dots represent places of work arrived at by Sustainable and Private transport



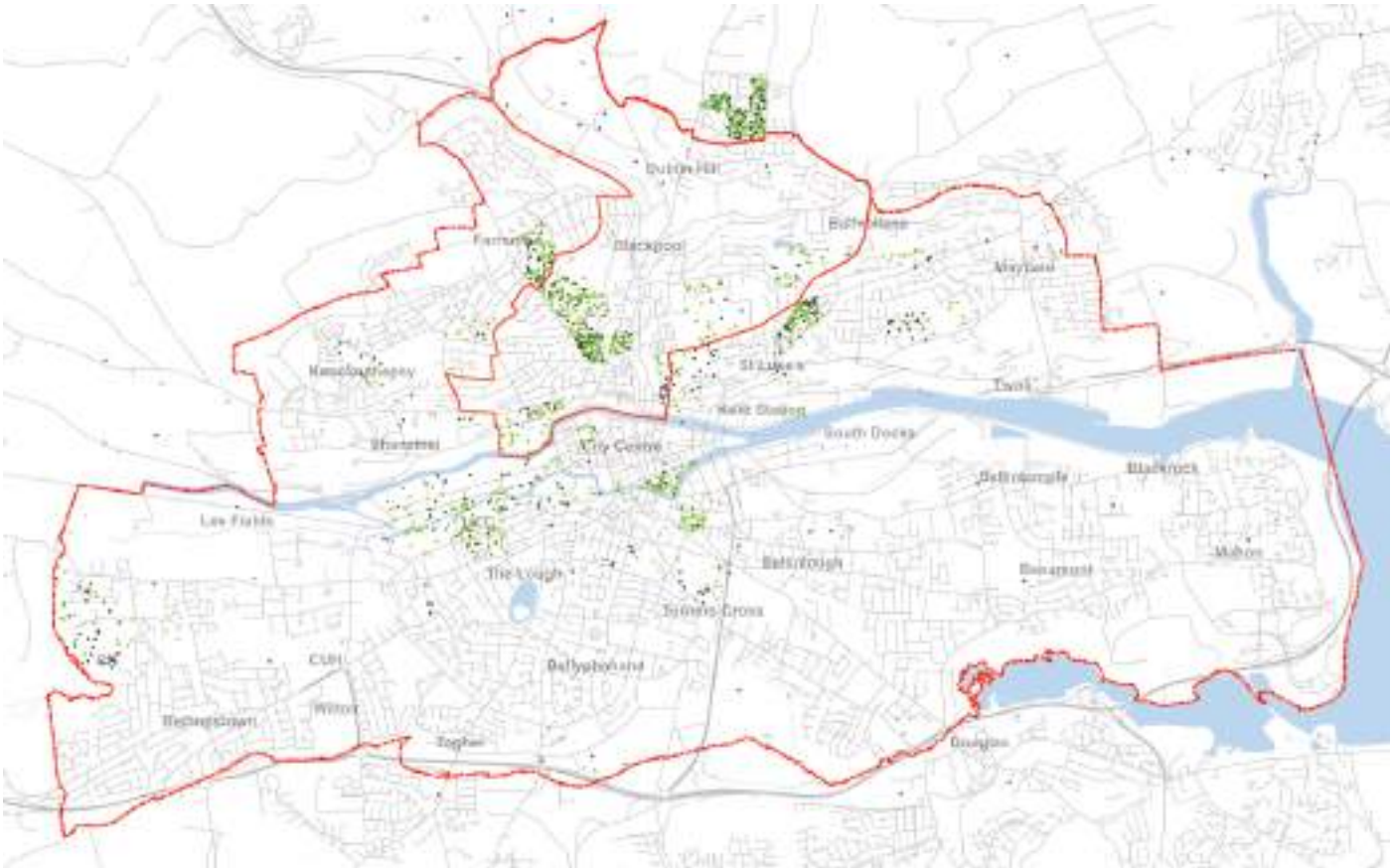
Trips to Places of Education: Green and Black dots represent places of education arrived at by Sustainable and Private transport

North Central Ward

Destinations by Sustainable and Private Transport



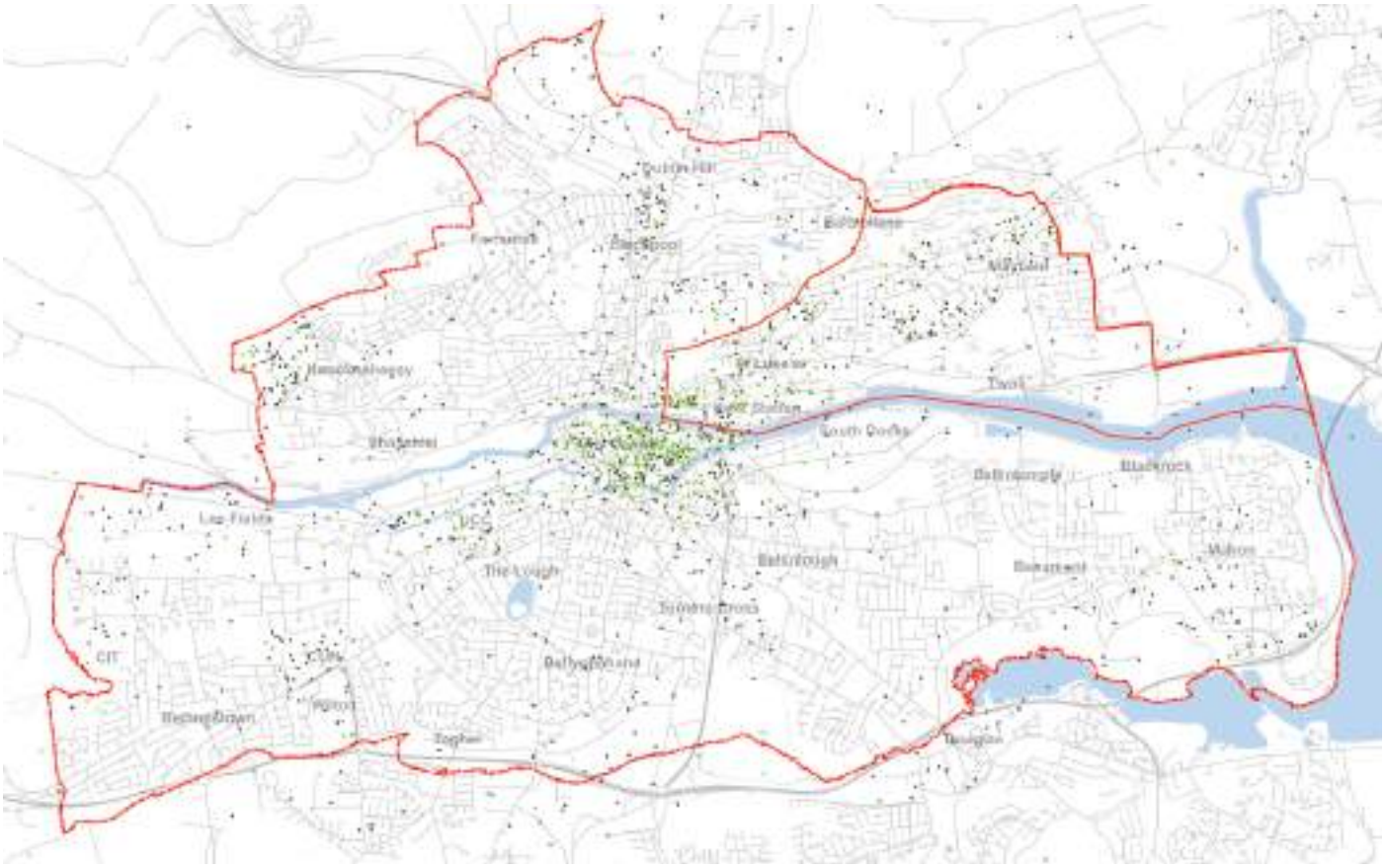
Trips to Places of Work: Green and Black dots represent places of work arrived at by Sustainable and Private transport



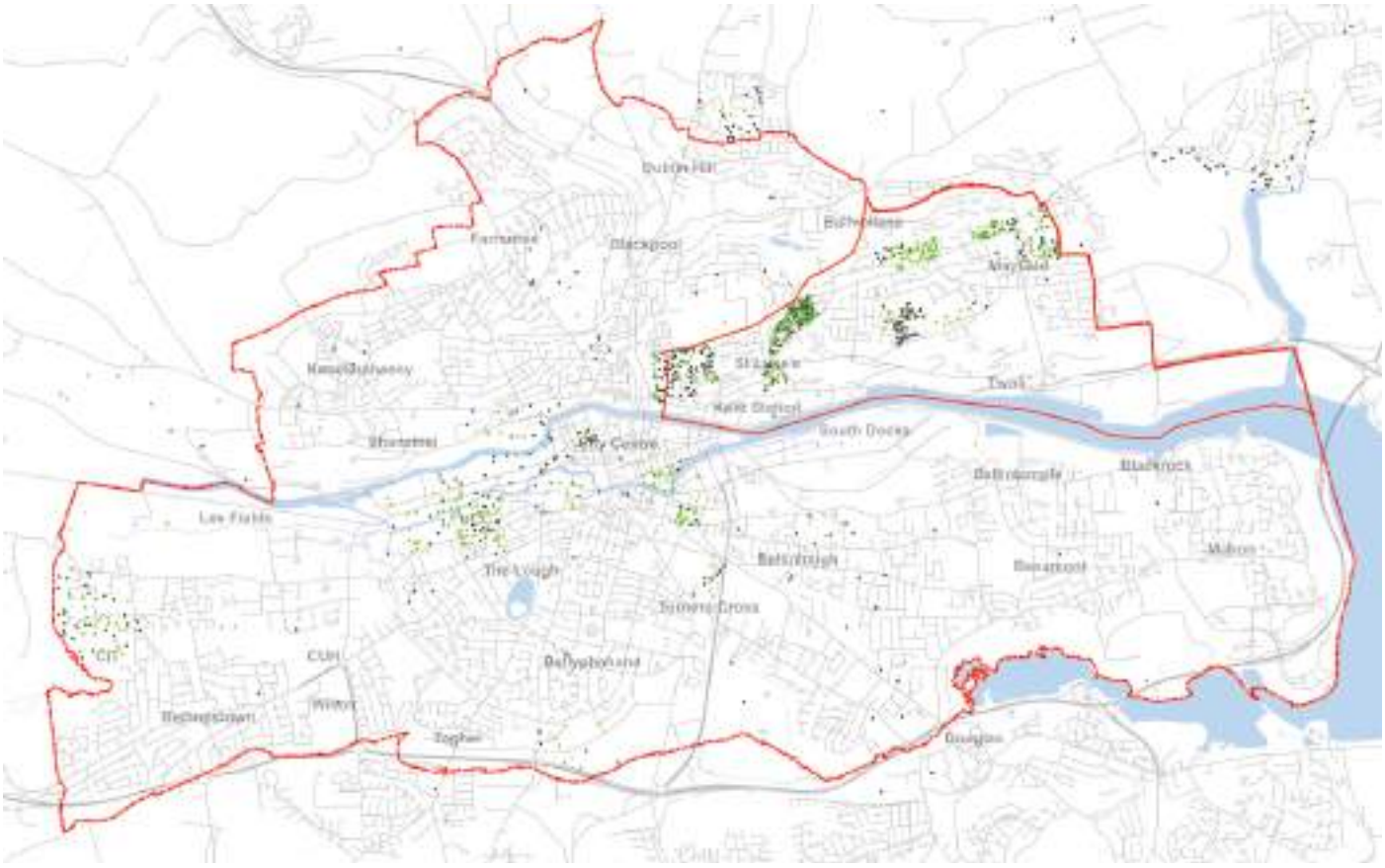
Trips to Places of Education: Green and Black dots represent places of education arrived at by Sustainable and Private transport

North East Ward

Destinations by Sustainable and Private Transport



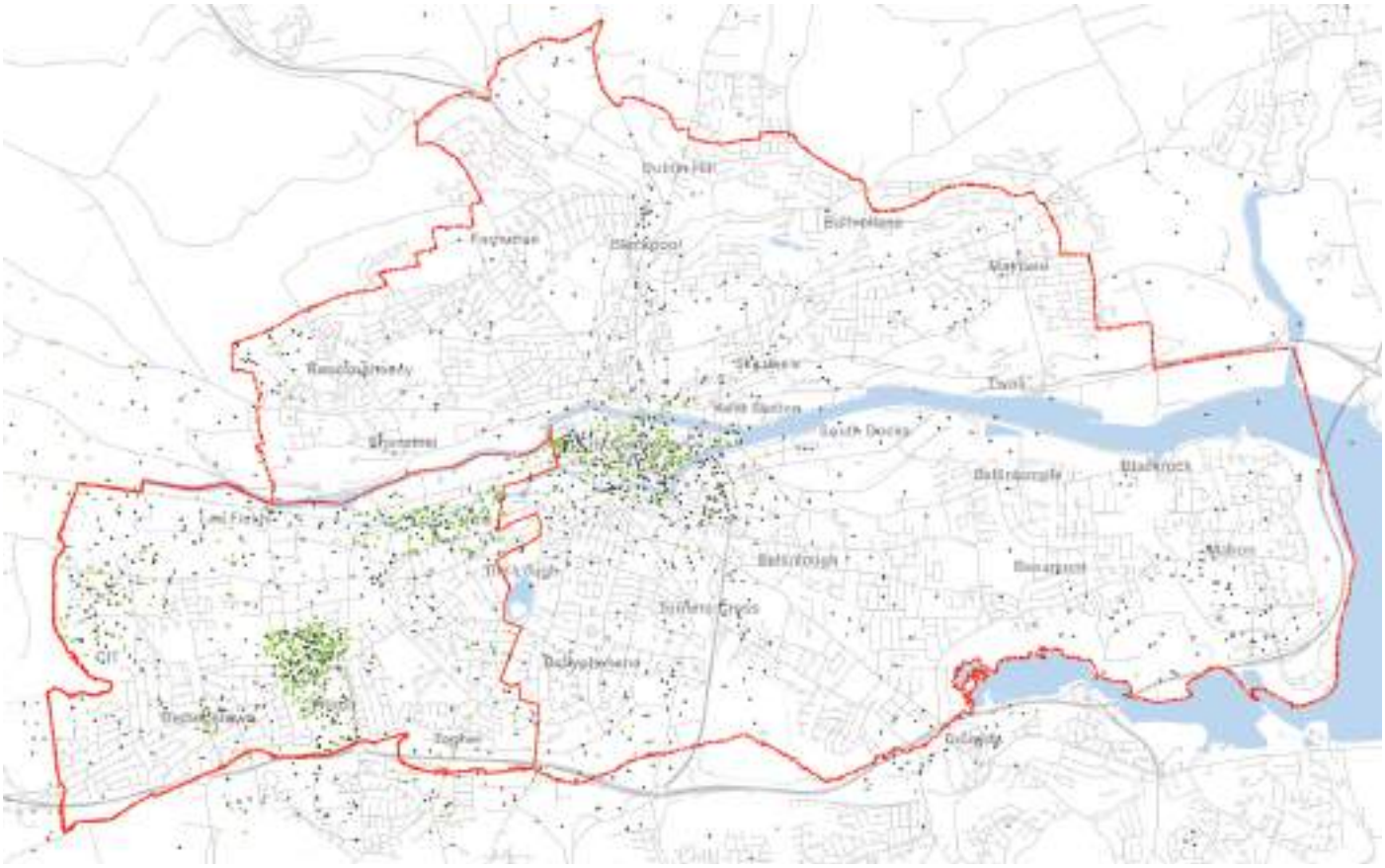
Trips to Places of Work: Green and Black dots represent places of work arrived at by Sustainable and Private transport



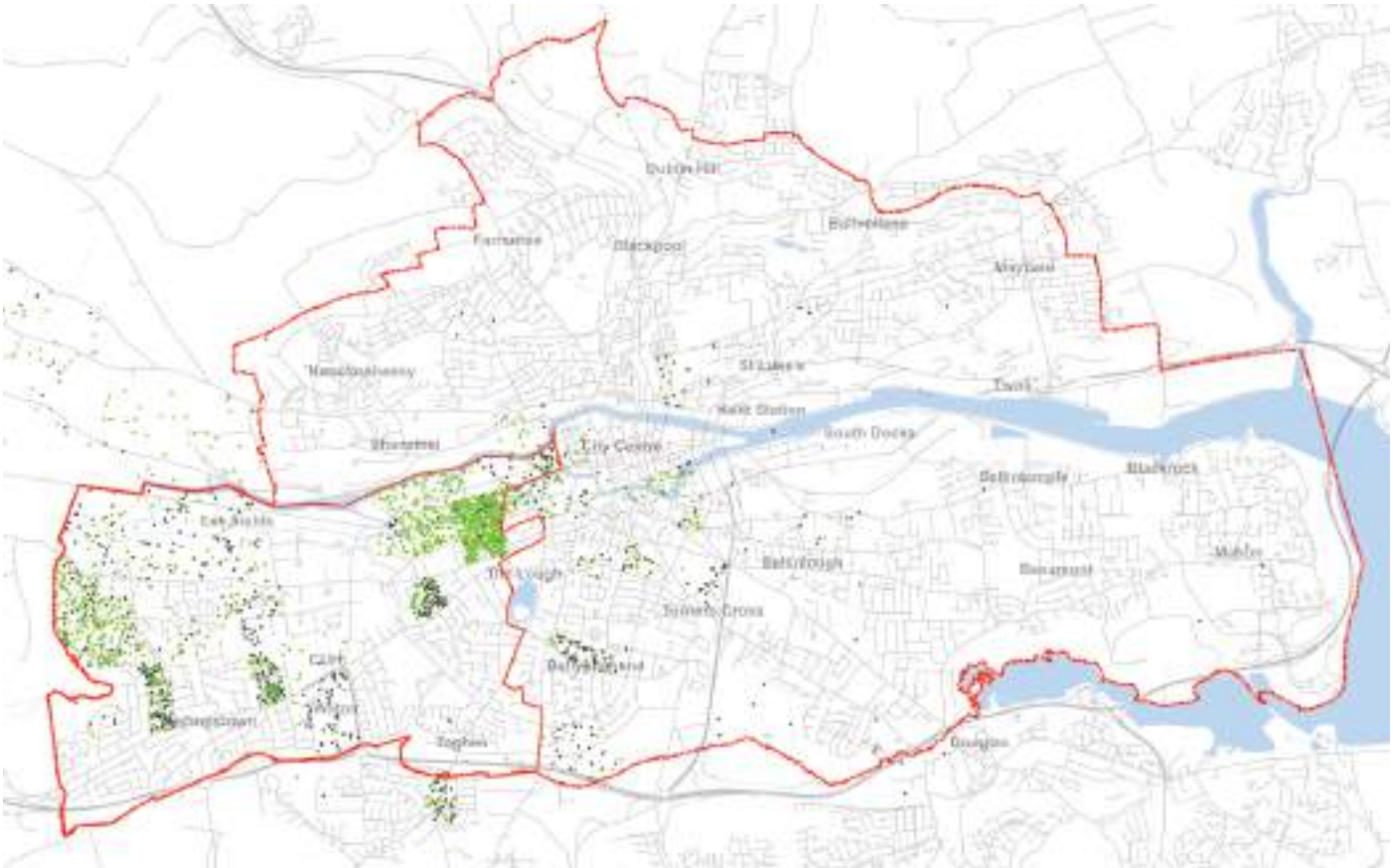
Trips to Places of Education: Green and Black dots represent places of education arrived at by Sustainable and Private transport

South West Ward

Destinations by Sustainable and Private Transport



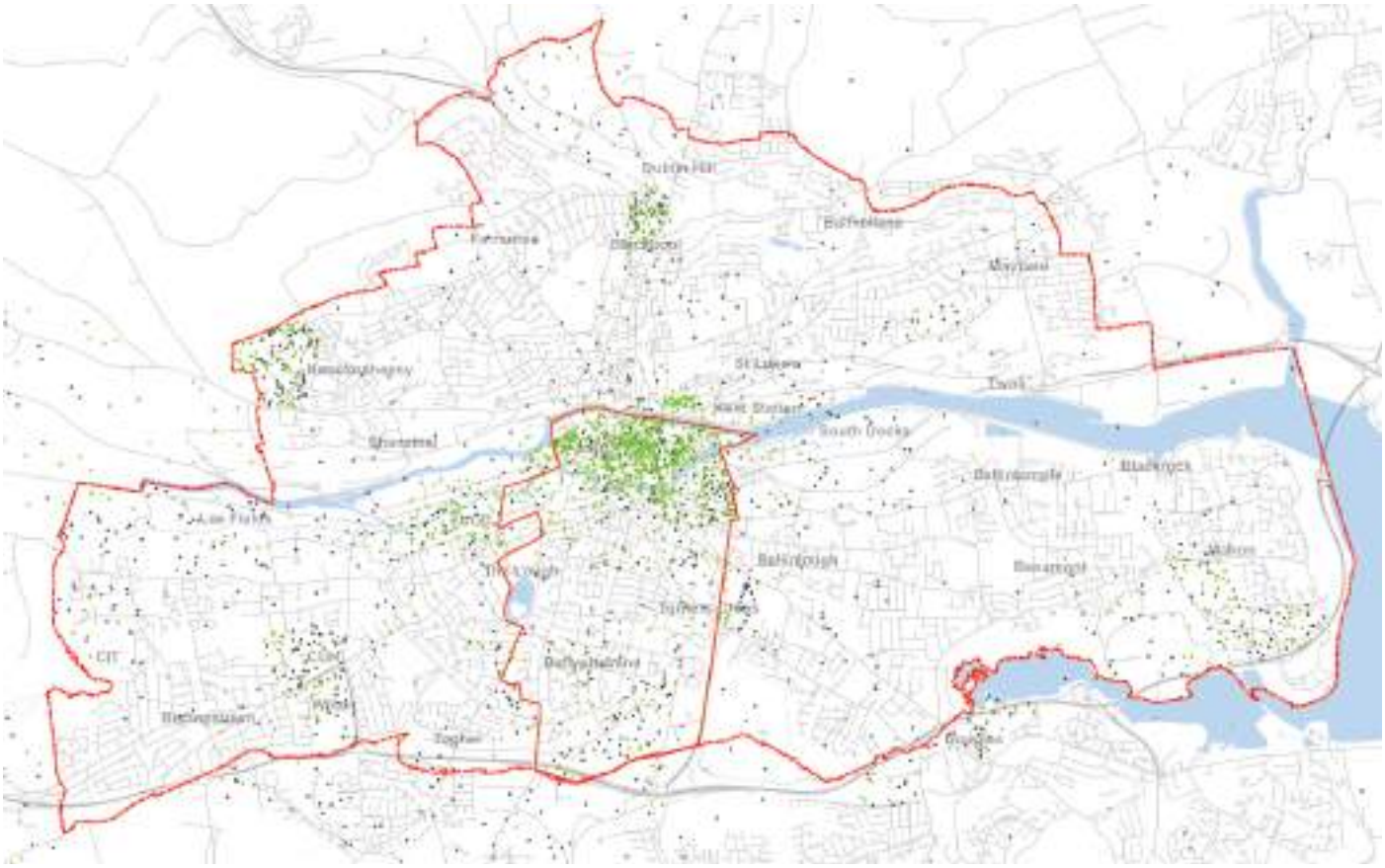
Trips to Places of Work: Green and Black dots represent places of work arrived at by Sustainable and Private transport



Trips to Places of Education: Green and Black dots represent places of education arrived at by Sustainable and Private transport

South Central Ward

Destinations by Sustainable and Private Transport



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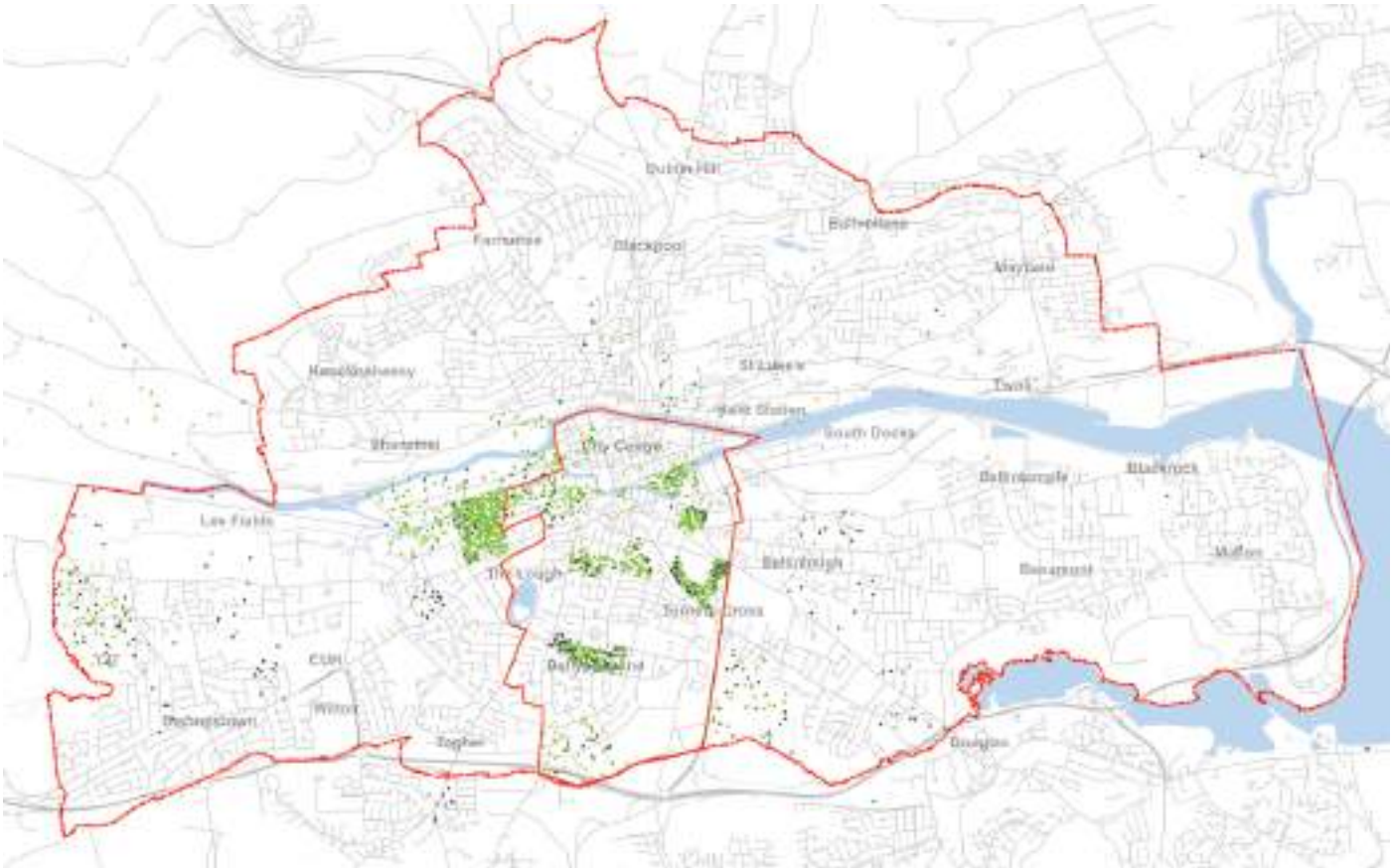
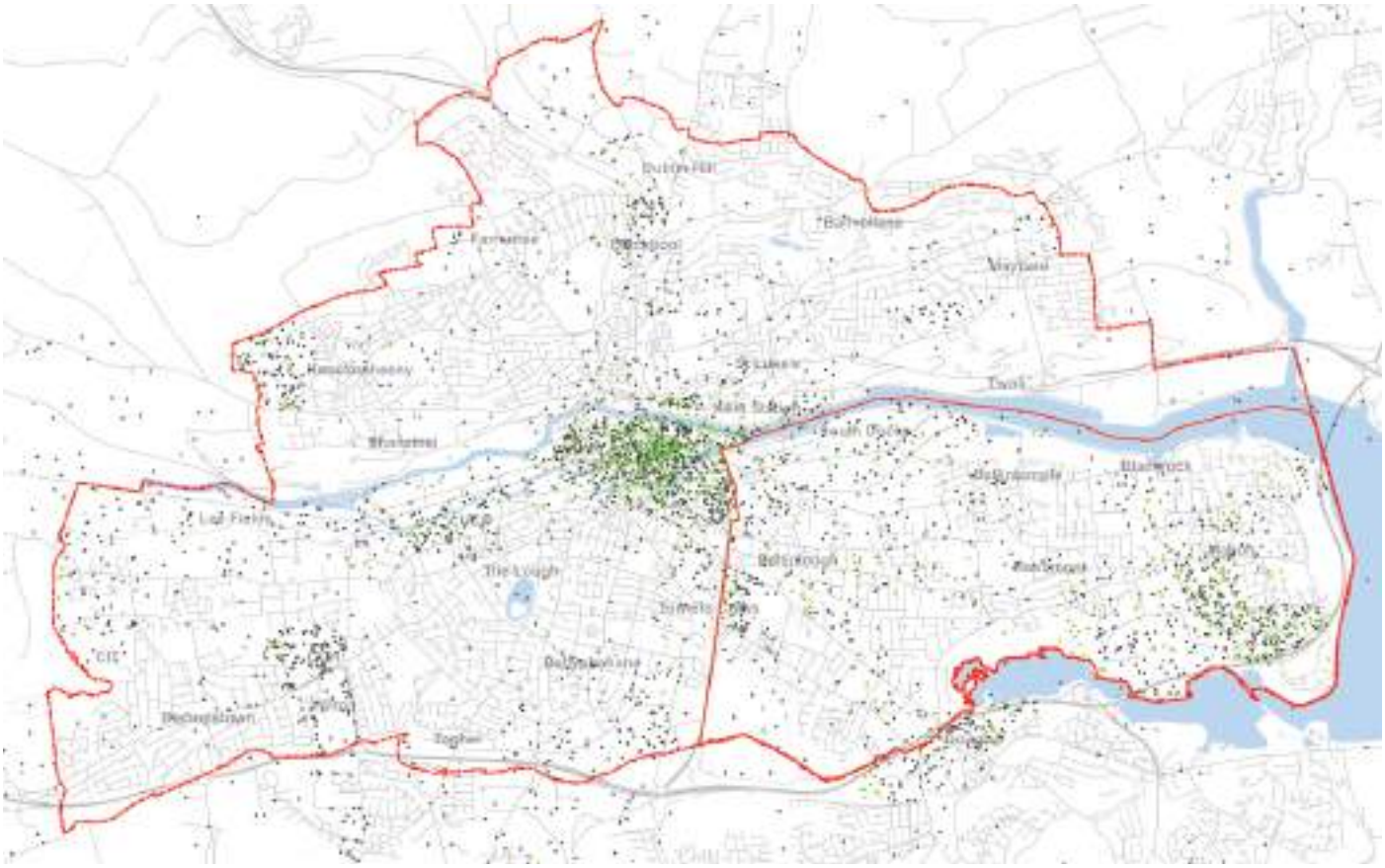


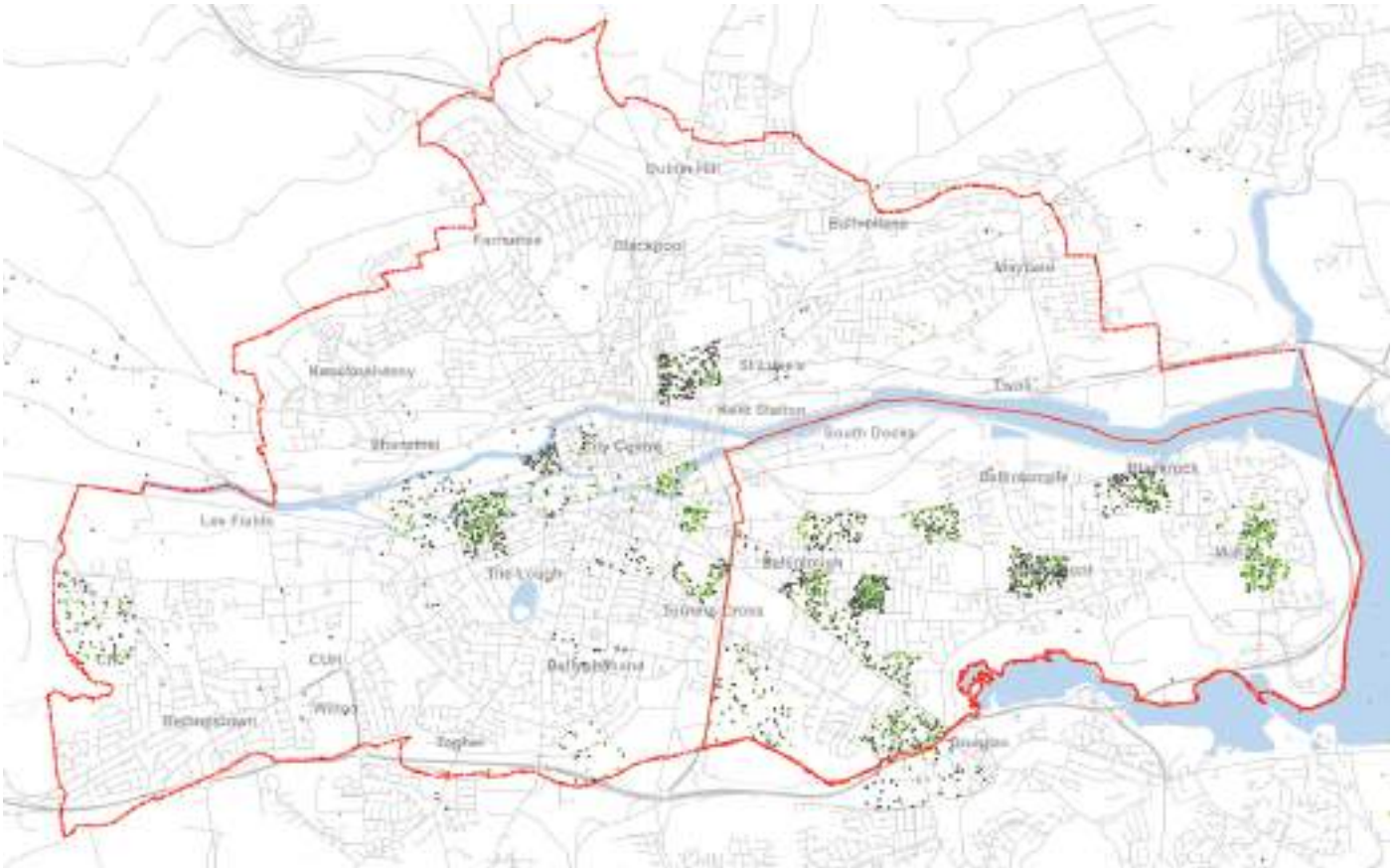
Trips to Places of Education: Green and Black dots represent places of education arrived at by Sustainable and Private transport

South East Ward

Destinations by Sustainable and Private Transport



Trips to Places of Work: Green and Black dots represent places of work arrived at by Sustainable and Private transport



Trips to Places of Education: Green and Black dots represent places of education arrived at by Sustainable and Private transport