

Proposed Limerick Public Realm Strategy

Volume 2: Design Manual



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Limerick City
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ATLANTIC EDGE
LIMERICK
EUROPEAN EMBRACE
Limerick 2019



DRAFT

Project

Limerick City Centre Public Realm Strategy

This strategy document was developed by Limerick City and County Council's Forward Planning and Public Realm Department.

Input on various design proposals contained within was provided by LUC Landscape Architects.

Date

July 17th 2026

Note

This document and its contents have been prepared by Limerick City and County Council and is intended solely for use in relation to the Public Realm Strategy for Limerick City Centre project.

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Chapter One

Introduction

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- How to Use this Design Manual
- Limitations to Design

Introduction

Volume 2: Public Realm Design Manual

Volume Contents

Volume 1 has set the scene for the overall Public Realm Strategy by outlining the policy context, historical development, public engagement and overall vision and principles. This volume contains the Public Design Manual divided into eight chapters.

1. Introduction to the Design Manual
2. Public Realm Spaces
3. Defining City Centre Character Areas
4. Public Realm Streets
5. Hard Landscape Components
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7. Maintenance Strategy
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How to Use the Design Manual

Volume 1 of the Public Realm Strategy describes a series of city centre character areas and identifies the Public Realm Vision and Public Realm Principles relevant to each area. Plans for the individual character areas identify a range of public realm priorities, including improvements to streets and spaces. Both parts assist further interpretation of the design concepts and provide design guidance to assist at detailed design and implementation stages. These further emphasise how each intervention will accord with Strategic Objectives and Public Realm Principles, with icons keyed into each page identifying the underpinning principles.

When project planning, the below process should be followed:

1. Identify which character area the proposal sits within, and review the Public Realm Principles for this Character area, pg. 21.
2. Identify whether the project is a street or space:
 - For spaces: first review whether any outline design guidance has been prepared for the specific area; for spaces where no outline design guidance has been developed, further discussion will be required with the Planning team to identify aspirations for the area and relevant pipeline projects;
 - For streets, review the street hierarchy diagram and identify whether a primary or secondary street, pedestrian/cycle priority street or laneway;
3. Based on the character area location and street hierarchy, review the surfacing section to identify correct project materials.
4. Undertake additional surveys to establish the specific site constraints, review relevant technical standards, and adapt designs to suit.
5. Undertake engagement with the relevant LCCC departments to ensure design proposals sufficiently consider operational and maintenance requirements.

Outline design concepts have been developed with cognisance to existing and emerging strategies within the public domain, although it has not been possible to align fully with all known strategies due to their individual timescales. The most significant unknown is the Limerick City and Environs Flood Relief Scheme, which is being developed.

Detailed topographical surveys, site investigations, tree or habitat surveys did not fall within the scope of services and all proposals are based on available OSI mapping.



Chapter Two

Public Spaces

- Introduction
- General Requirements
- Overview to Public Realm Spaces

Public Spaces

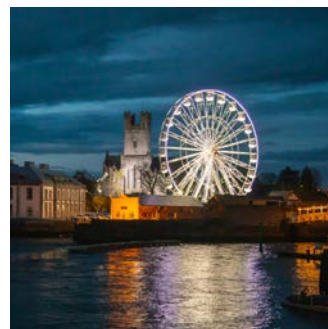
Introduction

Limerick's forthcoming City Centre Transport Strategy seeks to redistribute space in streets in favour of all forms of movement. This Public Realm Strategy seeks to capitalise on the change afoot by creating a high quality public realm, made possible by reducing vehicular dominance and speed, and upgrading the quality of the physical fabric, hard and soft.

It is a key objective of this Public Realm Strategy to clearly set out the design context for these new and improved public spaces, and to define the network of spaces and routes in which these new spaces will interconnect with.

While Chapter 3 of Volume 1 identifies a palpable demand from Limerick's community for the revitalisation of existing urban spaces within the City Centre, it outlines that there is also a shortage of public realm spaces. A recap of some of the pressures currently placed on the public realm include:

- Demand at a strategic level; supporting the delivery of Limerick's Green and Blue Infrastructure Strategy, Events Strategy and Cultural Strategy.
- Demand for spaces that address the open space requirements of the increasing residential and student population within the City Centre.
- Increased demand for open spaces post Covid-19, and in the event of future pandemics.
- Increased demand for open spaces due to rising temperatures and climate change.



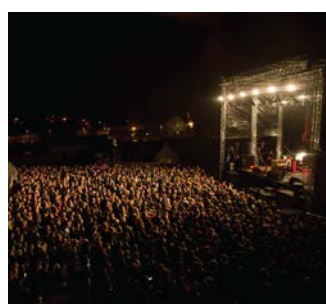
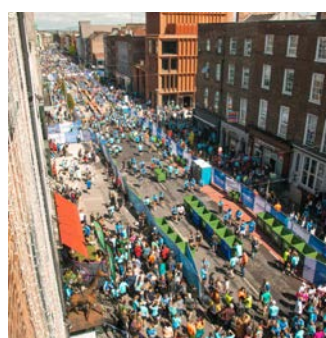
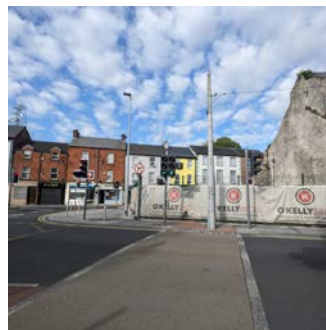
As described in Volume 1, there are a number of major development initiatives within the heart of the city centre, including Opera Square, Cleaves Riverside Quarter and the Arthurs Quay area that present invaluable opportunities to deliver new public spaces which will add significantly to the city's public realm when developed fully.

This chapter identifies opportunities to improve both small spaces in the city - where a tree might be planted, or a seat provided, space for play created, and larger moves for establishing more formal public space.

General Requirements

The following provides a snapshot of the overall requirements of public spaces stemming from the analysis stage of the Strategy:

- Need for multi-functional spaces which allow flexibility for city events and sporadic activities.
- Need for robust spaces which are easy to operate, use and maintain.
- Desire for accessible spaces designed to Universal Design standards which are age-friendly, child safe and welcoming.
- Requirement for sustainable spaces that enhance, not hinder, biodiversity.
- Provision of appropriate and authentic design which is sensitive to context and reflects local vernacular and materials.



Public Spaces

Overview of Existing Public Spaces

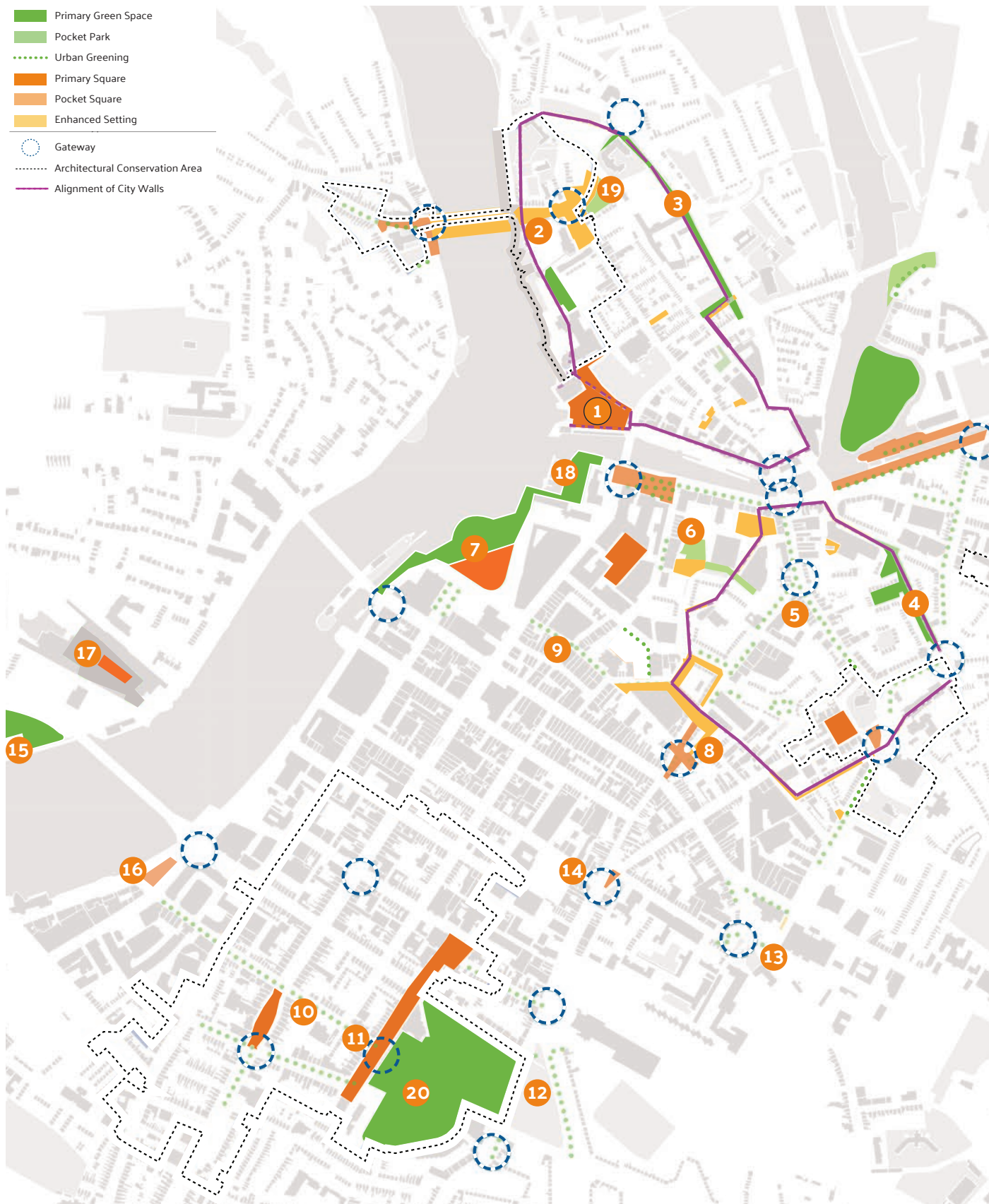


Fig. 1: Public Realm Spaces

Examples of each type of space are provided in the following pages. Locations are identified on the map adjacent:

1. Potato Market
2. Castle Street Gateway
3. City Walls Park - Englishtown
4. City Walls Park - Irishtown
5. Broad Street Square
6. St Michael's Graveyard
7. Arthur's Quay Park
8. High Street/Milk Market
9. Cruises Street
10. The Crescent
11. Pery Square
12. Hyde Road Park
13. Sexton Street/Roxboro Road Gateway
14. Wickham Street/Parnell Street Gateway
15. Westfields
16. Steamboat Quay Pocket Square
17. Cleeves
18. Hunt Museum
19. Parade Park
20. Peoples Park



Primary Square precedent: Barbican outdoor cinema, London

Primary Square

- An extensive pedestrianised area, given over to hard landscape, which is pro-actively planned and incorporated within new developments (e.g. Opera Square) or revitalisation of brownfield sites.
- Of city and regional importance for events; designs must consider how appropriate management of the space can be achieved with minimal impact on the design.
- Squares may also function as a venue for seasonal markets, showcasing local, independent producers and retailers.
- Robust, flexible design must be achieved, using high-quality materials; natural stone, and high-quality street furniture which may be bespoke where within Architectural Conservation Areas.
- Surfaces should be capable of trafficking by heavy vehicles.
- Inclusion of required infrastructure; three-phase power and water supply as a minimum.
- Additional infrastructure should be considered such as public toilets, water fountains and associated electrical kit.
- Inclusion of limited palette of high-quality soft landscape; in-ground tree planting should be provided as appropriate with reference to Limerick's Tree Policy.
- Inclusion of public art, water features and amenity lighting should be used to animate the space with reference to Limerick's Art Policy 2024 - 2030.
- Delivery and management will require collaboration between public realm, placemaking, arts, events, roads and maintenance departments.

Public Spaces

Pocket Square

- A smaller area of pedestrianised hard space.
- Of city significance for seasonal pop up events, and can be used for impromptu performances.
- Functions as a 'pause point' on key pedestrian and cycle routes into/within the city.
- Inclusion of high-quality seating and cycle parking to encourage longer dwell times and animation.
- Inclusion of high-quality soft landscape to provide respite from the busy city streets surrounding the space. Water fountains may also be appropriate in some settings.
- Provides an opportunity to showcase the city's heritage.
- Delivery and management will require collaboration between public realm, placemaking and maintenance departments.

Enhanced Setting

- A discrete area of hard space.
- Typically used to highlight valued heritage features such as the extent of City Walls or buildings/artefacts listed on the Record of Protected Structures.
- Will provide temporary uplift to City sites identified for urban regeneration, development, or sites which have long stood derelict.
- De-cluttering of fencing, interpretation, signage and street furniture in the vicinity a minimum requirement.
- Includes localised improvements to surfacing and sensitive lighting to aid interpretation of features and regard to biodiversity.
- Urban greening may be appropriate dependent on the underlying character of the setting, heritage, or other constraints.
- Delivery and management will require collaboration between public realm, placemaking, heritage and maintenance departments.



Pocket square precedent: Countess Plaza, Saltcoats



Enhanced setting precedent: Talbot Tower, Kilkenny



Gateway

- Typically located at points of intersection along primary streets, at historic gateways or strategic arrival points into the city by car or public transport.
- De-cluttering of roadways and other signage, barriers and street furniture in the vicinity shall be prioritised.
- Interventions may include localised improvements to surfacing (slow traffic, enhance setting, improve legibility), incorporation of urban greening (frame views, enhance setting), wayfinding (feature signage as per Wayfinding Strategy), public art and improved lighting.
- Delivery and management will require collaboration between public realm, placemaking, roadways, heritage and maintenance departments.



Gateway precedent: Aachen, Germany

Primary Green Space

- Extensive green space which is of City/Regional significance for green infrastructure; focus on amenity or biodiversity.
- Have the capacity to be of City and Regional importance for events e.g. sports events, performances.
- Design must consider how appropriate management of the space can be achieved with minimal impact.
- Robust, flexible design using high-quality hard landscape materials and biodiverse planting as per Chapters 5&6.
- Inclusion of suitable infrastructure; three-phase power and water supply as a minimum.
- Additional infrastructure may be required; public toilets, water fountains, CCTV.
- Inclusion of plentiful, high-quality, diverse soft landscape that is responsive to climate change and supports local biodiversity.
- Inclusion of play equipment and incidental play features to animate the space.
- Delivery and management will require partnership working between public realm, placemaking, parks/recreation, and maintenance departments.



Primary Green Space precedent: Castlegate Grey to Green Park, Dublin

Public Spaces

Pocket Park

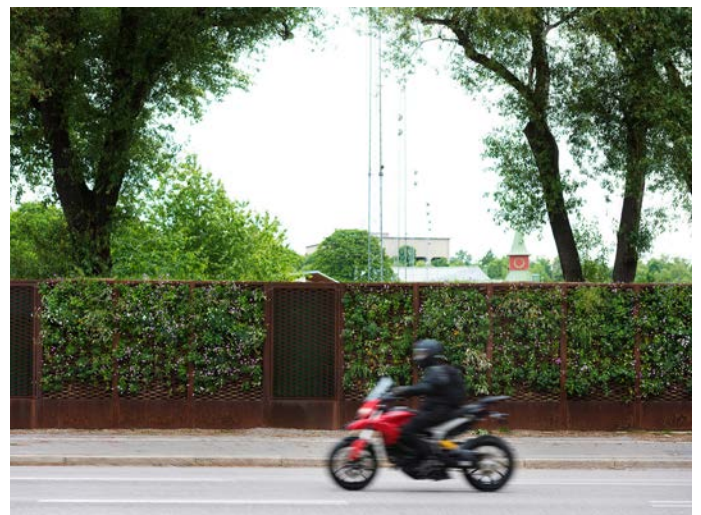
- Smaller area of green space which is of City Importance for the delivery of biodiversity and SuDS delivery targets.
- Will form an important link within wider Green and Blue Infrastructure network.
- May deliver other amenity benefits: pocket play space, small-scale food production (urban orchards, raised planters), and heritage interpretation.
- Can form part of a series of city spaces for seasonal 'pop up' events or be used for spontaneous performance.
- Functions as a 'pause point' on key pedestrian and cycle routes into/within the city.
- Inclusion of high-quality seating and cycle parking to encourage longer dwell times and animation.
- Inclusion of high-quality, diverse soft landscape that is responsive to climate change and supports local biodiversity.
- Delivery and management will require partnership working between placemaking, parks/recreation and maintenance departments.



Pocket park precedent: Velbert, Germany

Urban Greening

- Discrete interventions focused on incorporating greening to the streetscape.
- Interventions may enhance townscape character and visual amenity, or provide tangible/ measurable benefits such as reduction in air or noise pollution, increase in biodiversity, form part of the SuDS management train.
- Measures may include street tree planting (in ground or raised planters), green walls / structures, rain gardens, habitat areas.
- Delivery and management will require partnership working between placemaking, active travel, roadways and maintenance departments.



Urban greening precedent: Grön Bullerskärm, Stockholm

Chapter Three

Defining City Centre Character Areas

- Urban Characterisation
- Waterfront Spaces
- Englishtown Spaces
- Irishtown Spaces
- Central Core Spaces
- Georgian Neighbourhood Spaces
- Eastern Gateway Spaces

Character Areas

Urban Characterisation

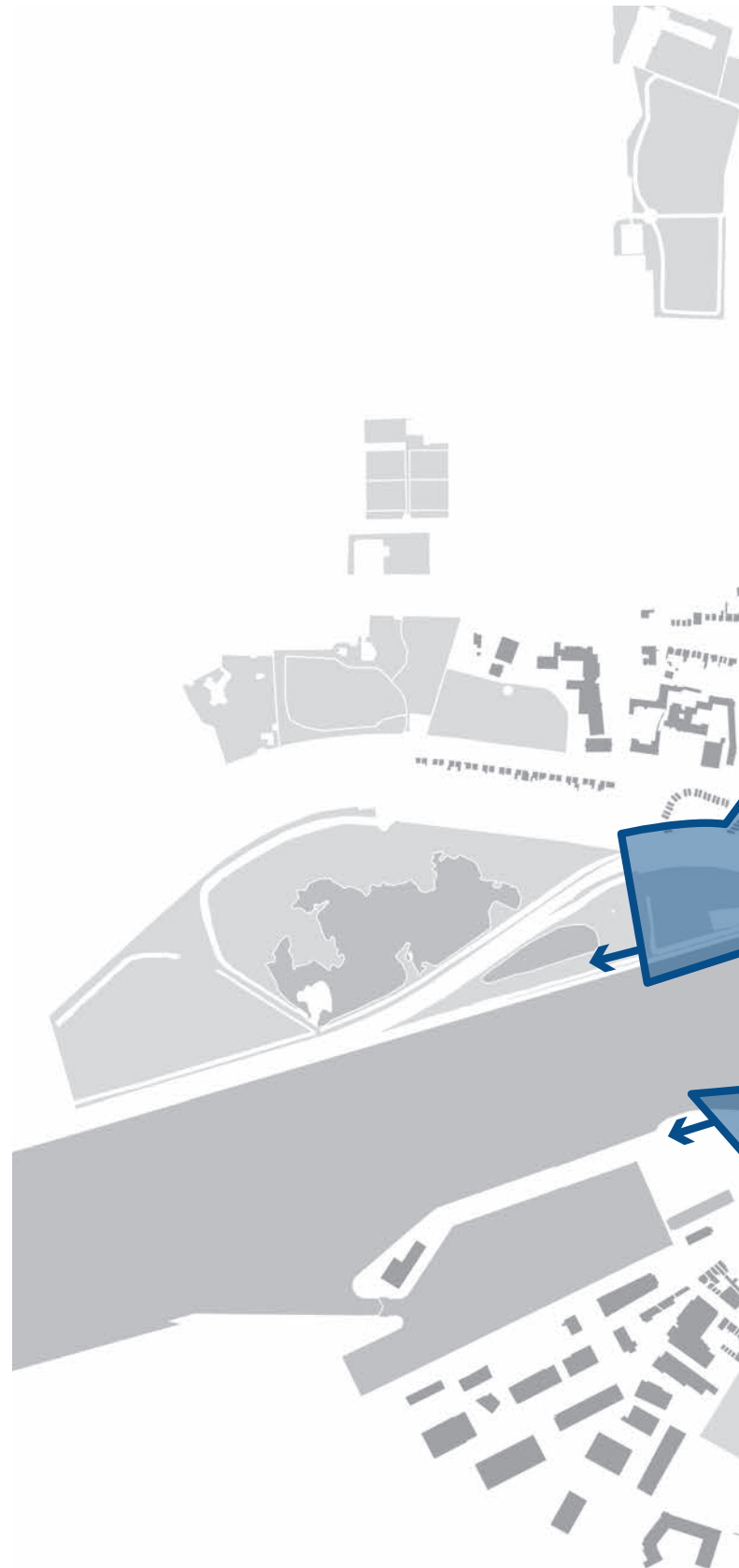
The City Centre areas defined in this Public Realm Strategy are identified on the adjacent plan. They have been informed by the layers of survey and analysis undertaken during the baseline stage, which is set out in Volume 1 and include the following:

1. Historic development pattern
2. Integrity of remaining buildings and structures
3. Integrity of urban grain
4. Land Form
5. Land Use
6. Distribution of hard and soft space
7. Views and visual amenity
8. Designations
9. Physical connections, inter-relationships

The following pages provide profiles of the six character areas identified:

1. Waterfront
2. Englishtown
3. Irishtown
4. Central Core
5. Georgian Neighbourhood
6. Eastern Gateway

As shown on the plan adjacent, there is some overlap of the character area boundaries. This reflects development patterns, land uses and physical features as they are perceived by users.



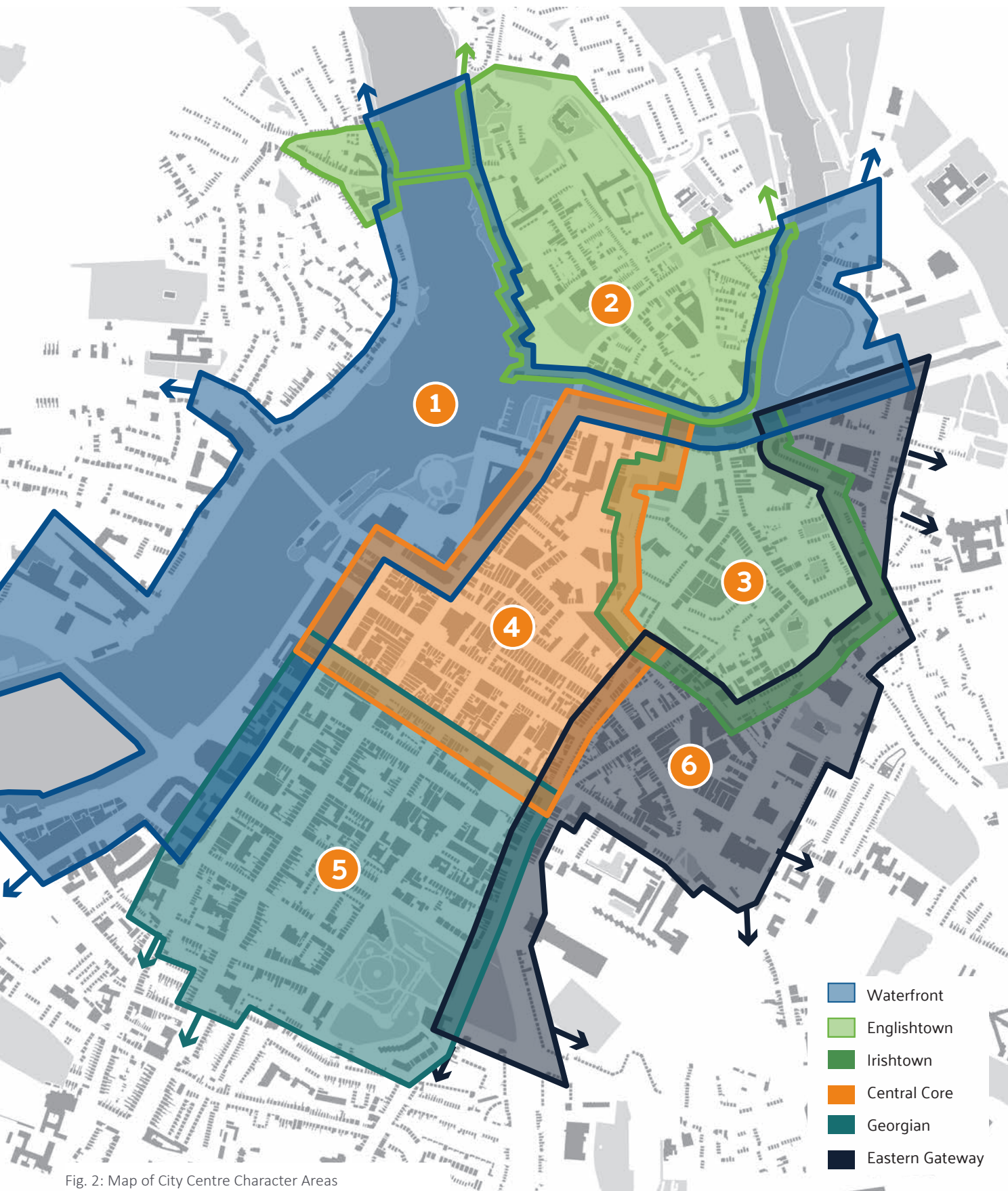


Fig. 2: Map of City Centre Character Areas

Character Areas

Waterfront: Introduction

Baseline Analysis

- **Designations:** Lower River Shannon SAC, River Shannon SPA and proposed NHA.
- **Experiential qualities:** Fluctuating river levels, fast-moving water, dramatic views, SW winds.
- **Contribution to Active Travel:** Commuting, school cycle bus routes, Park Canal trails, connections to the University and King's Island footpaths.
- **Access to nature:** Tidal vegetation, Grove Island, canal-side vegetation, Westfield Wetlands.
- **Linkages between Key Assets:** King John's Castle, Hunt Museum, Arthur's Quay Park, Westfield Wetlands .
- **Access to Amenity:** Provides a focus for events, activities and recreation.
- **Missing connections:** Hampered by bridge links over the River, pedestrian barriers along key bridges, access to Westfield Wetlands, barriers to historic riverside stone steps and slipways, mixed quality of interpretive material.
- **Land Ownership:** Changing ownership resulting in physical barriers (St Michaels Rowing Club, Curraghgour Boat Club, Sarsfield House, Hunt Museum).
- **Flood risk:** Potential impact of new infrastructure on views, interpretation and access to water
- **Sense of Place:** Bar activity on George's Quay contrasts with Charlotte's Quay (dominated by vehicles) and Park Canal (tranquil but underutilised).
- **Restoration:** Park Canal restored 1995/6 by Limerick Civic Trust and more recent works undertaken by Limerick City & County Council to Canal Harbour buildings.

General Requirements

The Waterfront is a character area that contains both streets and spaces, which are highly influenced by adjacent watercourses. Public realm elements of importance include:

- The treatment of the water's edge
- The interface with bridges
- Access to the water for water-borne recreation
- Access to the water to allow contact with nature
- Maintenance of important riverside views
- Lighting, other elements that enhance feeling of safety
- Opportunities for animation and events

This area encompasses the River Shannon, Abbey River and Park Canal corridors and the adjacent fringes of land including the Strands and the Quays. It stretches from Thomond Bridge in the north to Shannon Bridge in the south.

Treatment of the water's edge

Over the next ten years, the city centre perimeter of the Shannon and Abbey river corridors will undergo a comprehensive programme of flood defence works, responding to the increased likelihood of a rise in sea levels and increased rainfall.

These works have the potential to alter the character of the waterfront, impact important city views and limit interpretation of the historic significance of the river to the city's development. Conversely, sensitively designed defences can greatly enhance the public realm, riverside access, creating space for events and activities and introducing new green and blue infrastructure. Where possible, flood defence proposals for the water's edge should consider safe ways to increase proximity to the water.

Within the study area, opportunities to get close to the water are limited to the slipways for watercraft (O'Callaghan Strand, Robert Byrne Park and Curraghbour Boat Club). Elsewhere, there is some access to pontoons and historic stone steps. The boardwalk at Clancy's Strand offers the sole designed opportunity to get close to the water. Where possible, flood defence proposals for the water's edge should consider safe ways to increase proximity to the water.

Interface with Bridges

The World Class Waterfront (WCW) proposes two new bridges:

1. A pedestrian bridge linking O'Callaghan Strand to Howley's Quay.
2. A bridge over the Abbey River and replacement of the Sylvester O'Halloran Bridge with an accessible structure.

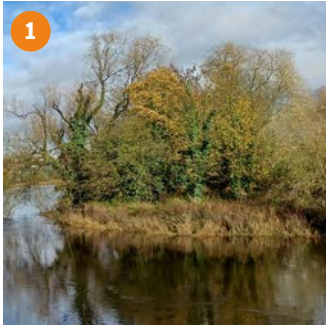
The impact of raised flood defences on existing bridges should be considered holistically to ensure that accessible routes between the waterfront and the bridges can be created and that public realms spaces associated with the bridges are suitably maintained.

Maintenance of views

The character area map overleaf identifies the location of key viewpoints along the waterfront. Public realm proposals should be cognisant of these views and consider ways in which new waterfront views can be created.

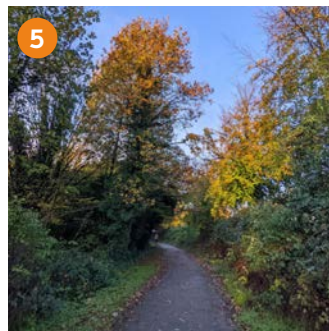
Character Areas

Waterfront: Project Principles



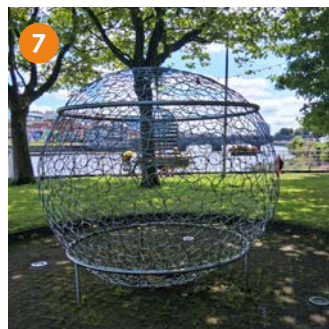
Key Spaces

1. Grove Island
2. Rear of Hunt Museum
3. Arthur's Quay Park
4. Steamboat Quay
5. Westfield Wetlands
6. Robert Byrne Park
7. Curraghur Park
8. Treaty Stone



Key Streets

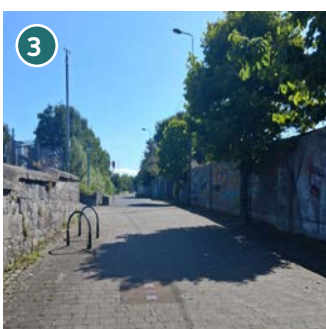
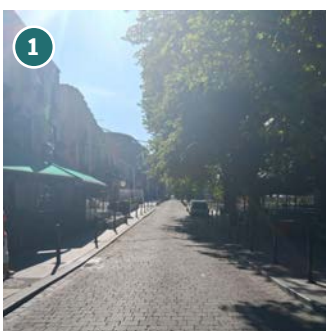
1. George's Quay
2. Charlotte's Quay
3. Lock Quay
4. Bishop's Quay
5. O'Callaghan Strand
6. Clancy's Strand



Public Engagement Feedback

"Anywhere along the river the views are fantastic: hills, estuary, castle, exciting city skyline, social spaces with people gathered. What a great place to live"

"Limerick has one the best river fronts in the world. The river Shannon dominates Limerick and is not put into hiding, I would like to see more facilities and services put along the riverside to enjoy its view".



"Three bridges walk - the scenery is amazing; the walk is easy. The lighting is excellent and it would be wonderful if we could extend it to the full walk."

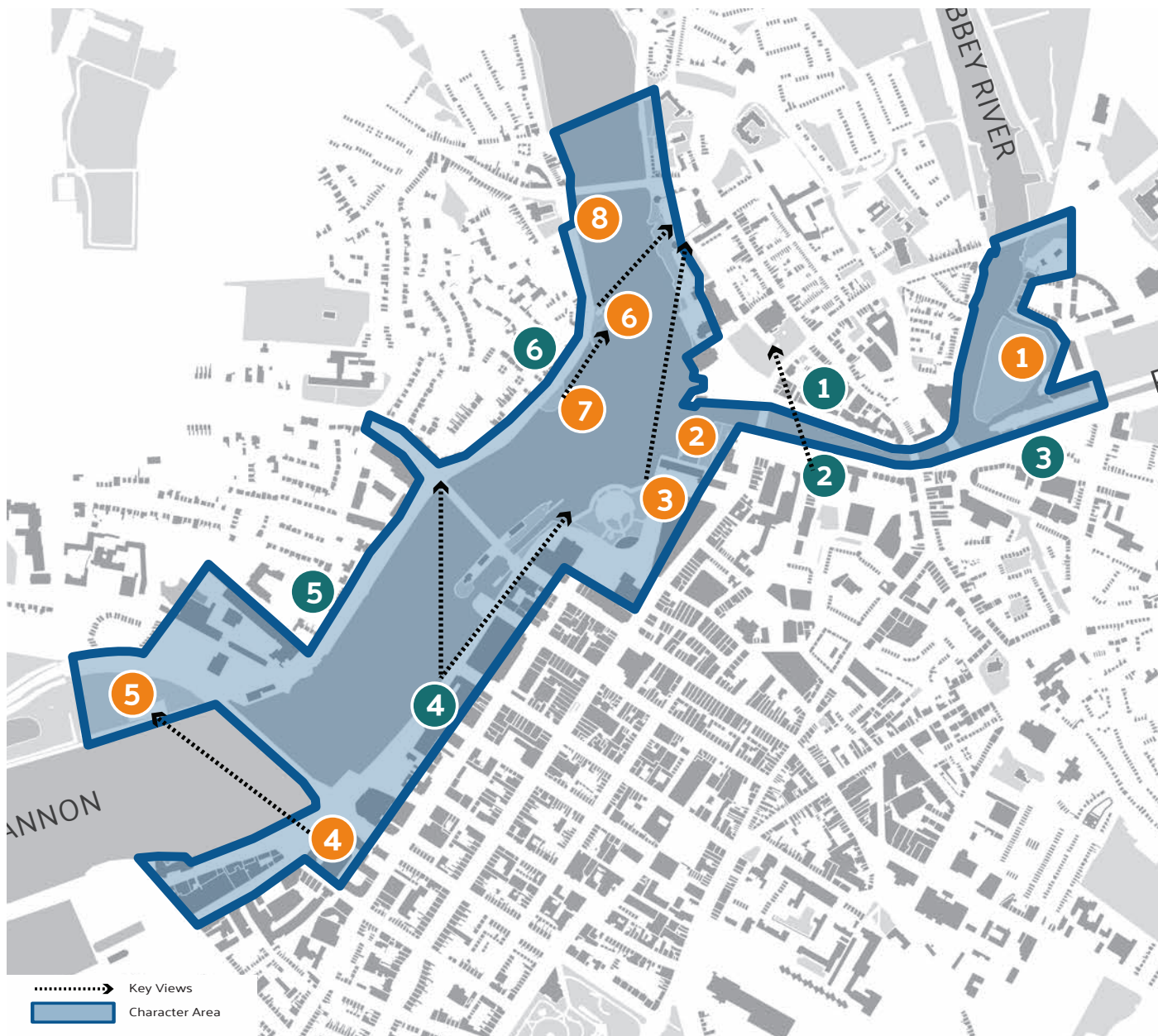


Fig. 3: Waterfront Character Area

Character Areas

Waterfront: Project Principles

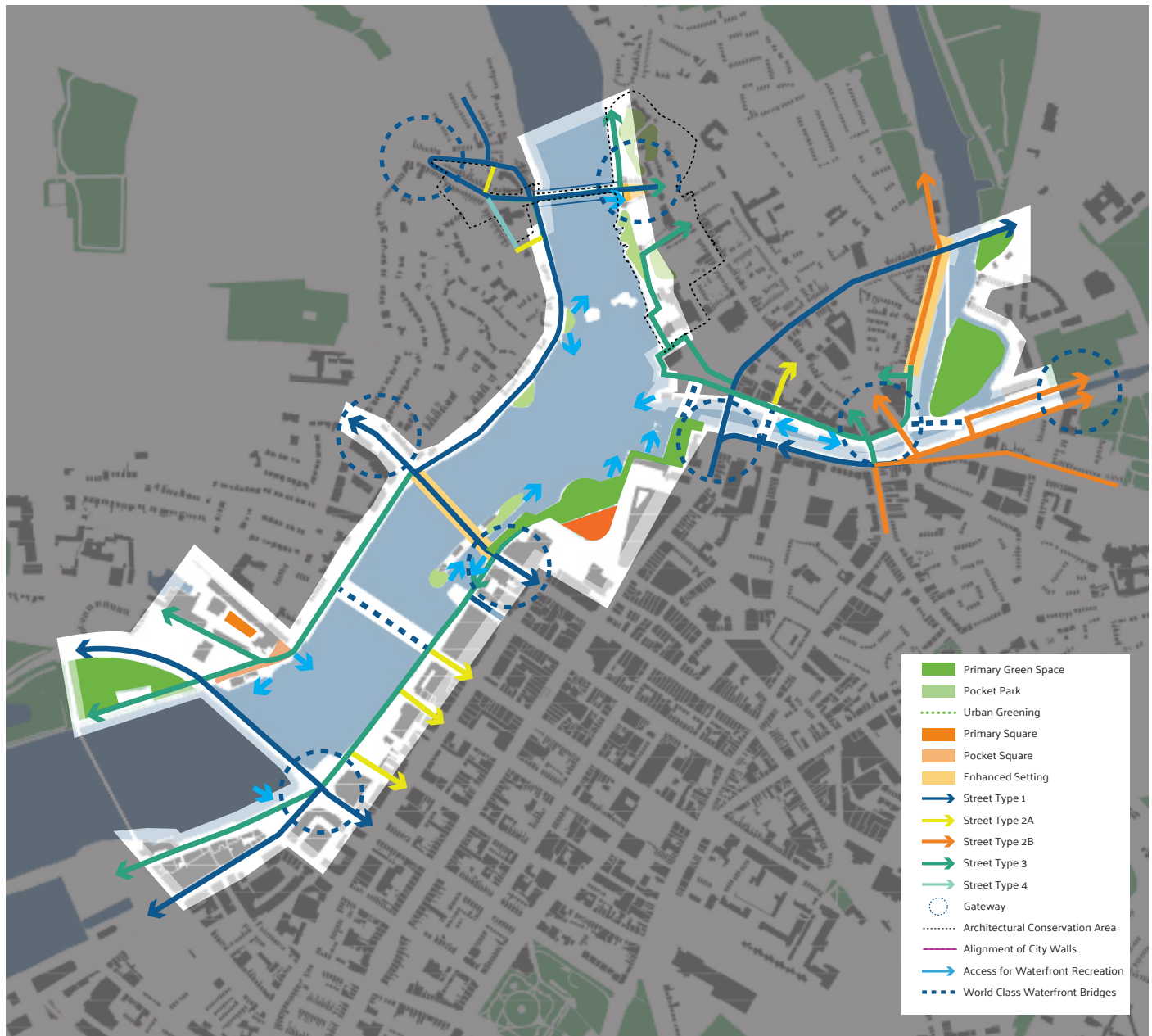
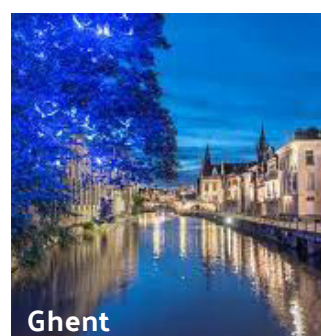
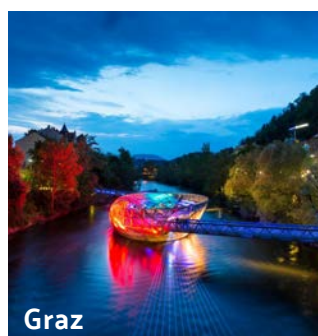
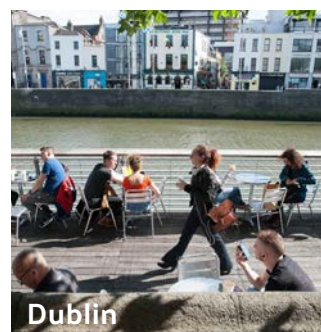
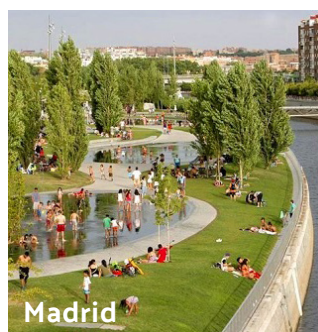
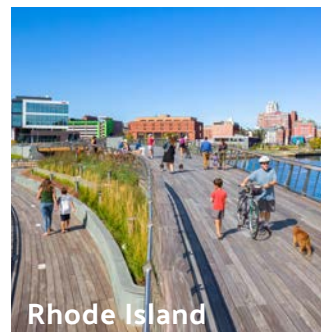


Fig. 4: Waterfront projects

Refer to Fig. 58: Public Realm Street Hierarchy. pg 120

1. Creation of a World Class Waterfront to include the delivery of new public and civic spaces, new pedestrian/cycle bridges, landing points and links which will enhance enjoyment of our river setting and its natural environment.
2. Redevelop Cleaves and Arthur's Quay Park (WCW, Opportunity Site) as a high-profile, sustainable green and hard landscaped space at the heart of Green City region (GBI - Green Blue Infrastructure - Priority Actions #2, 3, 5).
3. Extend Three Bridges Walk to destinations on the waterfront, enhance connections to active travel links (GBI Priority Actions #6, 7).
4. Design-in opportunities for food, rest, play and events along the Quayside, and support waterfront recreation (GBI Priority Actions #5, 7).
5. Strengthen and connect existing green infrastructure, using naturalistic typologies (GBI Priority Actions #2, 3, 5).
6. Enhance setting of Park Canal and Lock Quay gateway and improve connections to active travel initiatives (GBI Priority Actions #5, 6, 7). Complete the rehabilitation and re-use of the Lock Quay Harbour Building as water/walking/cycling hub.
7. Create 'green fingers' along connections to the waterfront from the city (GBI Priority Actions #6).
8. Suggest how future Flood Prevention measures could be sensitively integrated within their setting (GBI Priority Action #5).
9. Protection and enhancement of archaeology and heritage assets.
10. Protection and enhancement of designated habitats.
11. Control of invasive species.

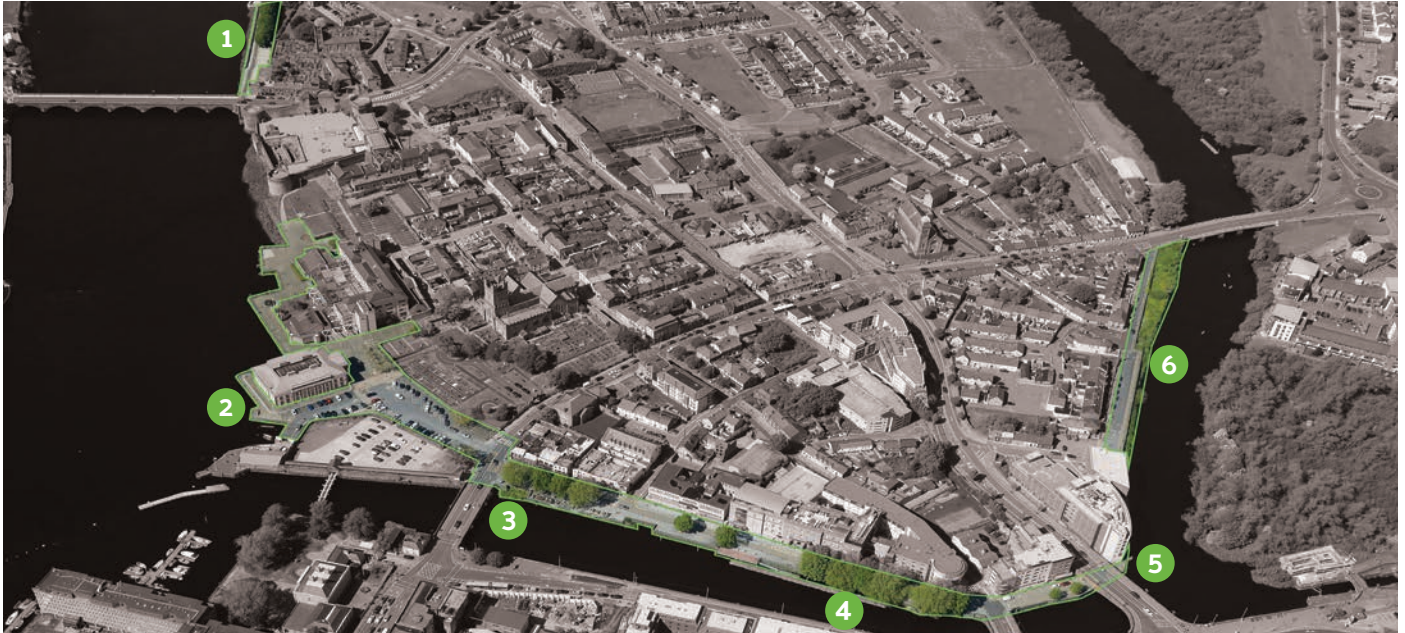


Character Areas

Waterfront: Treatments



King's Island Flood Relief Scheme



Flood Defence Proposals

A planning application was submitted in 2019, with works started in late 2024. The following areas will be affected within the city;

1. Thomond Bridge and Verdant Place

- Cosmetic changes to flood relief measures implemented in 2017, such as copings and railings

2. Potato Market and Civic Buildings

- Localised raising of levels at the Curraghgour Boat Club
- New flood walls (perimeter of Potato Market and Curraghgour Boat Club)
- An automatic flood barrier to the entrance of Curraghgour Boat Club and Potato Market
- Glazed flood walls to the Courthouse perimeter
- New flood walls and glazed barriers to the north

3. George's Quay

- Replacement of the existing quay wall with new coping to include suitable guarding
- Where new concrete walls are required, they will be clad in matching stone. The wall will be interspersed with stretches of glazed flood defence panels (see Waterfront Treatments section before for example)

4. Abbey Bridge to Baal's Bridge

- A new reinforced concrete wall will be constructed and faced with stonework and section of glazed panel

5. Absolute Hotel Boardwalk to Abbey Bridge

- A new concrete flood defence wall of between 1.2m and 1.4m high will be introduced

6. Sir Harry's Mall

- The existing flood defence wall will be raised
- The footpath will be raised to maintain views, with steps/ramps to create an accessible waterfront

Character Areas

Limerick City & Environs Flood Relief Scheme

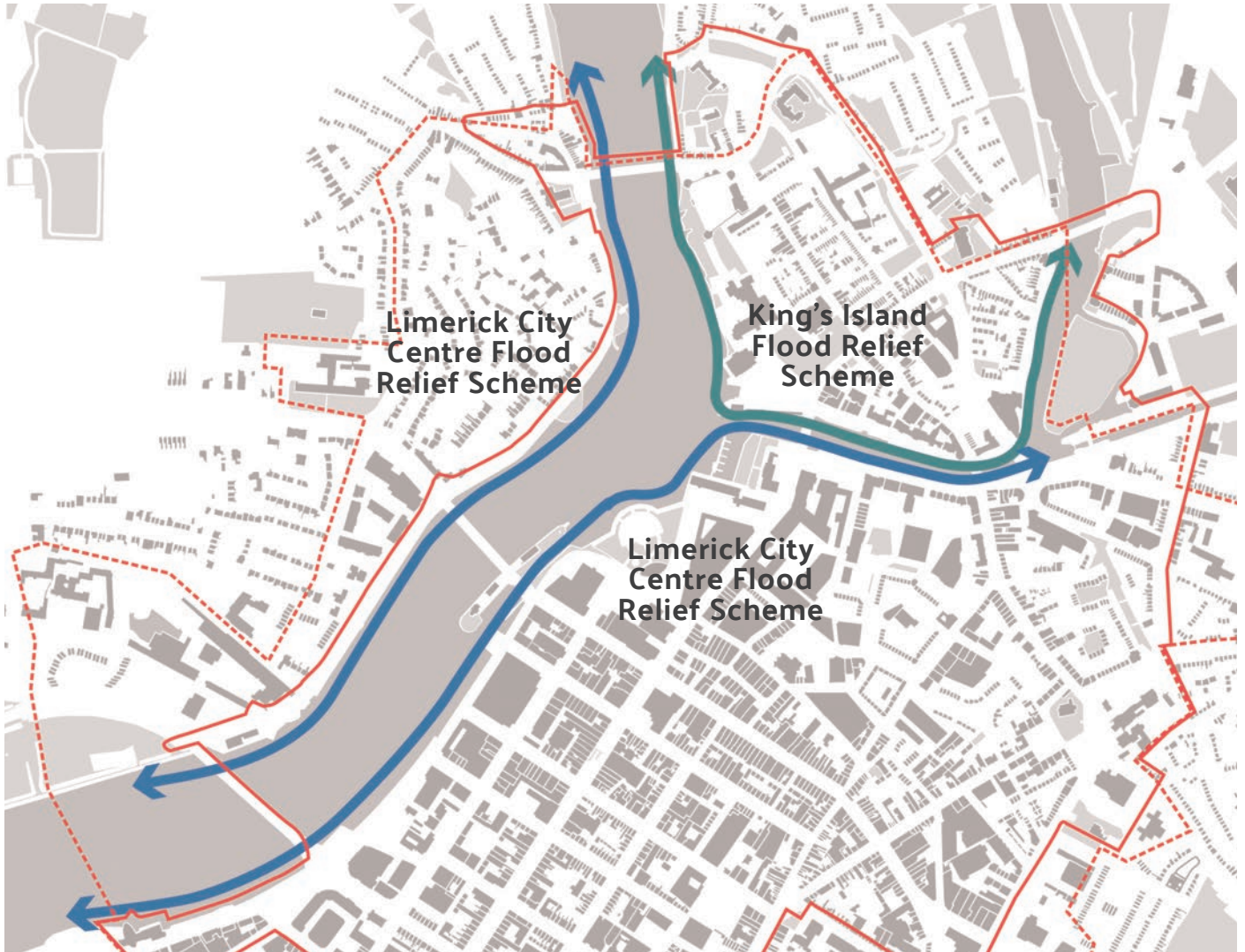


Fig. 5: Flood Relief Schemes within the study area.

Public Realm Vision and Strategy

Limerick City and County Council in partnership with the Office of Public Works, is developing the flood relief scheme for the wider city centre. Predicted design flood levels for the Scheme was agreed in Q1 2025 for the city centre and optioneering of potentially technically viable flood defence options has progressed.

Flood Defence Options

In general, passive flood defence solutions (i.e. those that do not require ongoing human intervention to deploy during times of flooding) are preferable, where possible. Other key considerations in identifying viable flood defence options include the cost of construction, maintenance and operation requirements, land take required, environmental considerations, buildability and climate change adaptability.

Public Realm Principles

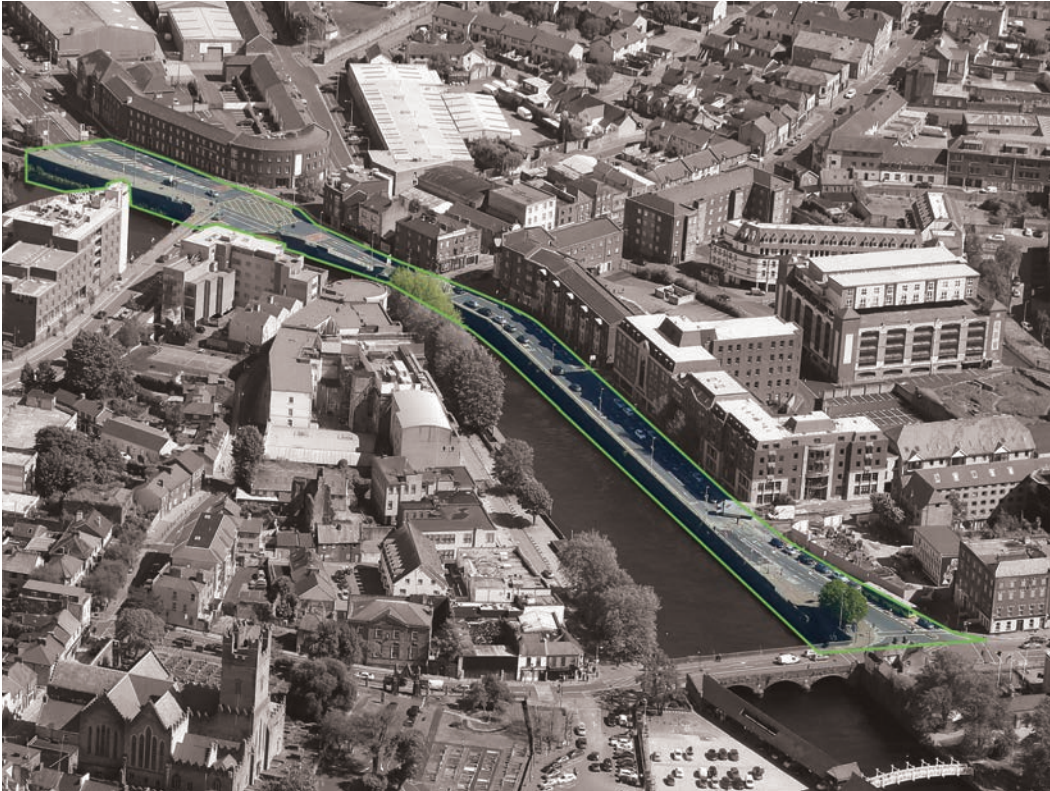
In this Volume it is considered how different forms of flood defences can contribute to the public realm principles set out within Volume 1 of the strategy; in particular how access to and usage of the waterfront can be improved, how habitats and greenspaces can be connected and enhanced, creating meaningful green/blue infrastructure and how they can celebrate the heritage of the city, maintaining riverside views and the setting of ACAs and Protected Structures.

	Flood Gate	Wall	Glazed Panels	Balcony	Board-walk	Terrace	Flood-able Space	Raised Levels	Land-form
Charlotte's / Lock Quay	✓	✓	✓	✓	✓		✓	✓	
Hunt Museum / Arthur's Quay Park	✓	✓	✓	✓	✓	✓	✓	✓	✓
Honan's Quay	✓	✓	✓	✓	✓	✓		✓	
Harvey's Quay	✓	✓	✓	✓	✓	✓	✓	✓	✓
Howley's Quay	✓	✓	✓	✓	✓	✓	✓		
The Bishop's Quay	✓	✓	✓	✓	✓	✓	✓	✓	✓
O'Callaghan Strand	✓	✓	✓	✓	✓	✓	✓	✓	
Clancy's Strand	✓	✓	✓	✓	✓		✓	✓	

Table 2: Appropriateness of various flood prevention techniques to specific stretches of the Waterfront

Character Areas

Charlotte's Quay and Lock Quay



Existing Context

The character of Charlotte's Quay contrasts with that of the opposite vibrant, tree-lined George's Quay opposite. Charlotte's Quay prioritises vehicular movement, with limited pedestrian space, greenery and investment in the greater public realm. King's Island (Flood Relief Scheme) FRS works are located on George's Quay. The Abbey River corridor is defined by a low stone wall and steel guard rail immediately to the rear. To the north, the low stone wall adjacent the river will be raised and re-clad as part of the King's Island Flood Relief Strategy, with occasional glass windows allowing glimpsed views to the river. Optioneering ongoing for Charlotte's Quay as Limerick City and environs FRS.

Opportunities and Constraints

Charlotte's Quay will continue to play a key role within the City's roadway network, as a BusConnects corridor and primary cycle route. With the spatial and heritage constraints, an approach similar to George's Quay, would provide a practical and straightforward solution. Raising existing walls and cladding in stone is in keeping with the existing character, and the creation of glazed panelling, provided a regular cleansing regime is ensured, will allow visual contact with the Abbey River waterfront to be maintained. Proposals that are more ambitious however, such as the creation of balconies or boardwalks, would directly address the lack of pedestrian space and create a more dynamic interface with the waterfront, subject to optioneering Limerick FRS.

Appropriate Treatments



Hunt Museum and Arthur's Quay Park



Existing Context

The largest stretch of formalised green space along the waterfront; it has some of the best views of the city, with King John's Castle and St Mary's Cathedral appearing against a backdrop of the Clare hills.

The Hunt Museum originally functioned as the Customs House, a hive of trading activity adjacent to the riverside. Now a tranquil, semi-private space, it is severed from Arthur's Quay Park by Sarsfield House. However, the narrowed paths provide important access for water-borne recreation.

Arthur's Quay Park was reclaimed from the Shannon in the 1970s. It can feel quiet and underused at certain times of the day, while at other times of the year it faces intensive use, for example Riverfest.

Opportunities and Constraints

The redevelopment of Arthur's Quay Park through the Arthur's Quay Urban Framework and redevelopment of the UL City Campus will see an increase in activity within the park. Draft proposals suggest the creation of a formalised space for events and activity, with an enhanced setting and access for water-borne recreation.

Flood defense optioneering is ongoing, the redevelopment also offers opportunity to redevelop the space as a significant piece of Green Blue Infrastructure (SuDS or temporarily floodable landscape) that reconnects city inhabitants with the river.

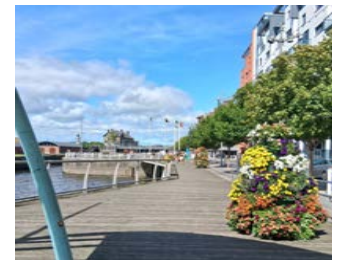
Appropriate Treatments



Sarsfield House perimeter only

Character Areas

Harvey's and Howley's Quay



Existing Context

These west-facing Quays provide seamless spill-out for adjacent hotels, bars and restaurants. Additional amenity space has been created through the construction of decked balcony areas over the river, which provide additional dining and seating areas, shelters, public art and access to waterfront pontoons. Trees create a formal, green character to the waterfront, with limited areas of grass by the Terry Wogan Memorial.

A one-way traffic route runs south to north, with restricted access under Sarsfield Bridge. Access is required to the multi-storey car park. The public realm treatment of the carriageway

includes stretches of 'shared space' block paving at Howley's Quay, eventually stepping down to a tarmac finish at Harvey's Quay. Demountable barriers are currently deployed during times of flood risk.

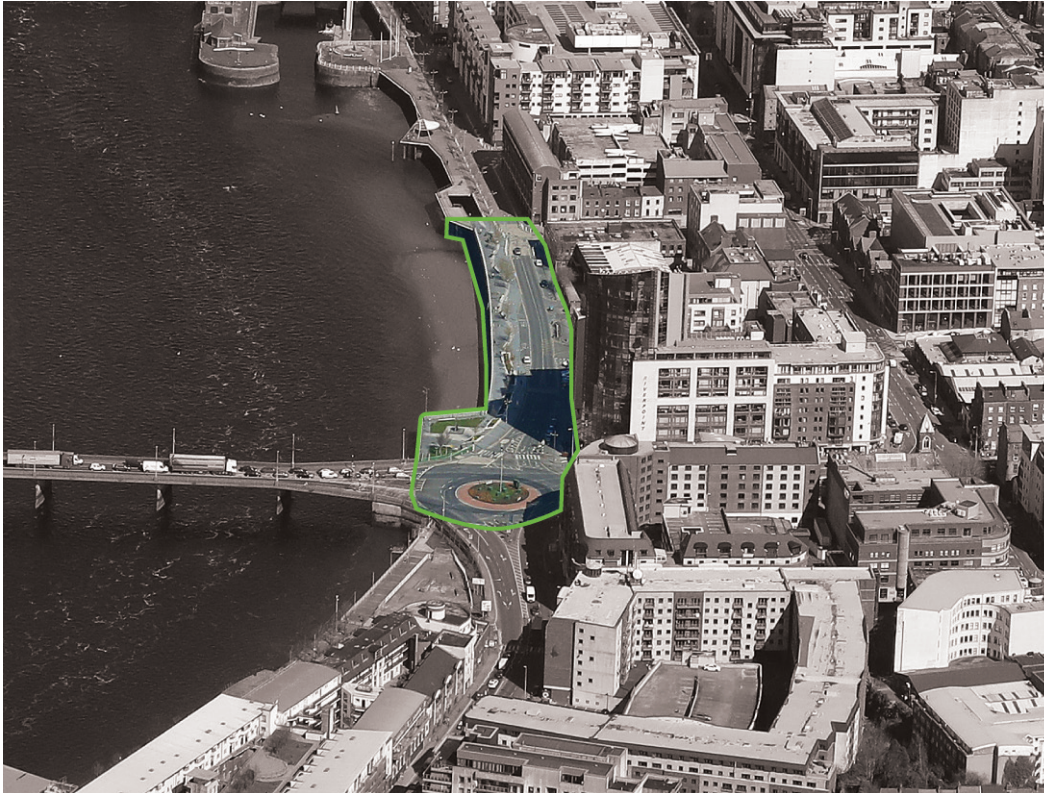
Opportunities and Constraints

- Road Network 2040, Bus Priority Corridors and Limerick Cycle Network will reduce vehicular traffic on Honan's quay, allowing redistribution of space in favour of active travel.
- Flood defense optioneering is ongoing. Alignments not defined at present.

Appropriate Treatments



The Bishop's Quay



Existing Context

The waterfront corridor widens to the south. Low-rise development to the east creates a more open aspect to the public realm. Tiering of levels along the waterfront has created attractive seating niches, sheltered by planting. The space includes memorials to Merchant Seamen lost at Sea and one commemorating Pope John Paul II's visit in 1979. Regularly spaced benches sit within an undulating paving band, interspersed by street trees with festoon lighting creating an attractive night-time environment. The impact of roadways infrastructure is heavily felt in this area, with a two/three lane tarmac carriageway and on street Garda parking occupying much of the upper Quay zone.

Opportunities and Constraints

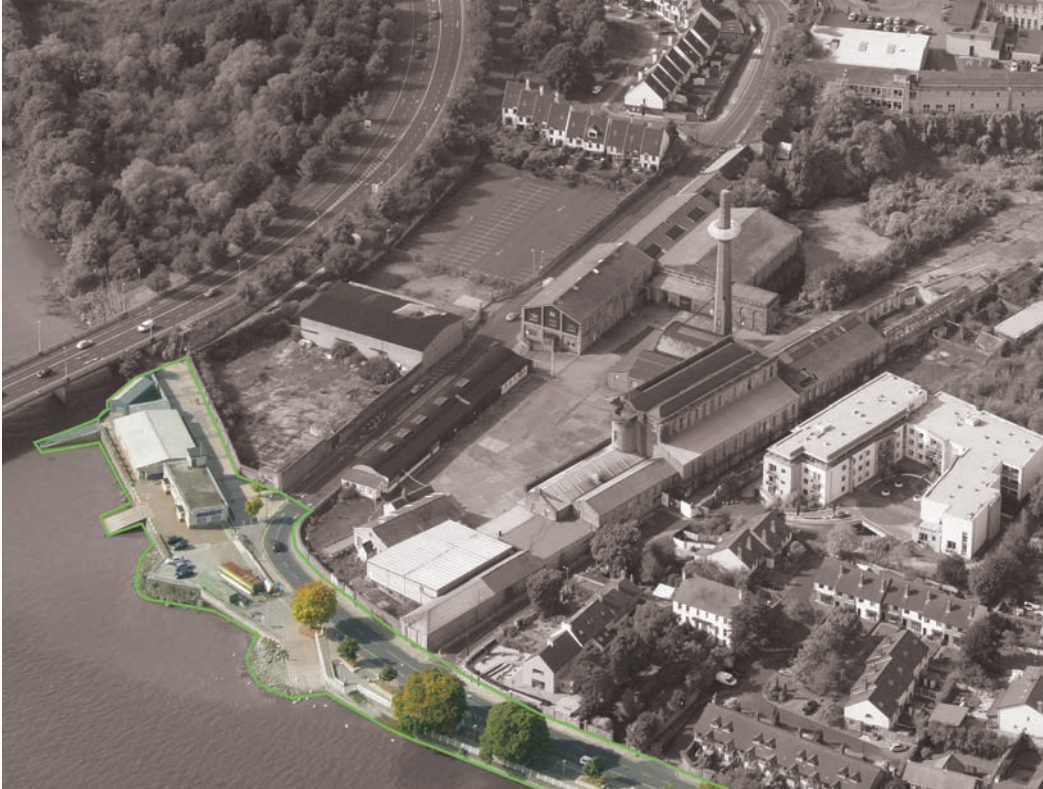
- Road Network 2040, Bus Priority Corridors and Limerick Cycle Network will see the space transformed as an active travel corridor, extending the 'shared space' treatment to the north.
- Remaining space can provide creative responses to flood defence, designing-in opportunities for food, rest and play.
- Additional greening would strengthen and connect Green Blue Infrastructure assets.
- The continuation of boardwalk treatments in order to establish a cohesive approach with adjacent Honan's, Harvey's and Howley's Quay would be considered preferable.

Appropriate Treatments



Character Areas

O'Callaghan's Strand



Existing Context

The northern section is bounded by residential properties, which are set back from the waterfront by a road and on-street parking. The waterfront public realm is split into two tiers, with pockets of tree and shrub planting in raised planters and occasional benches. Festoon lighting creates an attractive night-time environment. The Strand Hotel and ground level retail units provide some night-time animation near Sarsfield Bridge. To the south, direct waterfront access is restricted near to the two rowing clubs. A slipway allows entry to the water, with pockets of sporadic vegetation and exposed tidal stretches providing a more naturalistic character to the waterfront.

Opportunities and Constraints

- Use of localised flood gates will maintain waterfront access and minimise impacts on vegetation within the Special Area of Conservation.
- Development of the Cleeves site is an opportunity to strengthen the interface with the waterfront, using shared space and green infrastructure. Housing boundaries already screen riverside views from within, therefore use of a vertical barrier may be appropriate, in limited stretches.
- Flood defense optioneering is ongoing. Alignments not defined at present.

Appropriate Treatments



Slipway access only

Clancy's Strand



Existing Context

This stretch is bounded by residential properties. Two pocket parks jut out into the river channel, providing breathing space from the tightly contained road corridor. A timber boardwalk allows close contact with the River and exposure to dramatic views of the Castle. On the boardwalk, the green and wild character of the river can be fully experienced. The entrances to Robert Byrne and Curragower Park incorporate flood gates to control localised flooding.

Opportunities and Constraints

- The variety of riverside conditions will require a tailored approach to flood defences. To the

north and south, raising of the existing stone walls should be considered; incorporating glazed panels where spatial restrictions are presented to ensure that views to King's Island can be maintained.

- Implementation of Bus Connects will limit the space available for enhanced public realm dwell space, however extending the boardwalk to the south of Curragower Park will ensure that close contact with the River can be maintained.
- The reduction of on-street parking should also be considered to redistribute space for active and passive recreation, along with the improvement of more continuous in-ground tree planting.

Appropriate Treatments



Slipway access only

Character Areas

Englishtown: Introduction

This area encompasses the historic extents of Englishtown on King's Island and is defined by the extent of the Limerick City Walls and the River Shannon.

Baseline Analysis

- **High Heritage Value:** High proportion of Recorded Monuments and Protected Structures, with a strong sense of history around King John's Castle and St. Mary's Cathedral.
- **Visitor Arrival Experience:** Arrival spaces and settings to Castle and other assets - opportunity to create welcoming, spacious, and well-organised entry points that properly reflect the significance of one of the city's main heritage assets.
- **Legibility of Historic Environment:** Private ownership within curtilage of Recorded monuments inhibits interpretation, lack of expression within public realm, poor lighting.
- **Dominance of Roads:** Road geometry, barriers, clutter of infrastructure.
- **Changing Urban Form:** Potential visual and physical impact of proposed flood defences.
- **Access to Nature:** Function of some large greenspaces remains un-programmed but this was addressed as part of the non-statutory King's Island Walled Town Framework Plan.
- **Access to Riverside:** Access deterred due to private ownership and surface level car parking, reducing legibility of environment.
- **Part 8 application for Nicholas St.:** Public Realm Strategy prepared July 2025.

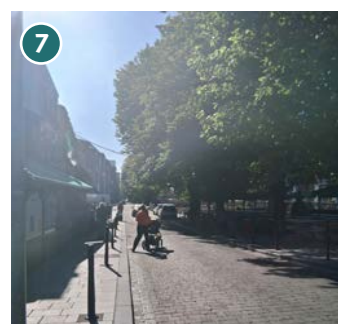
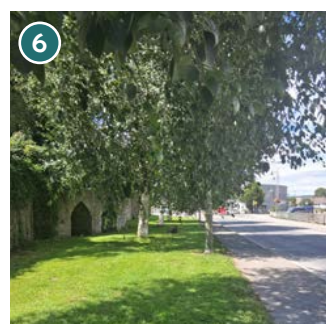
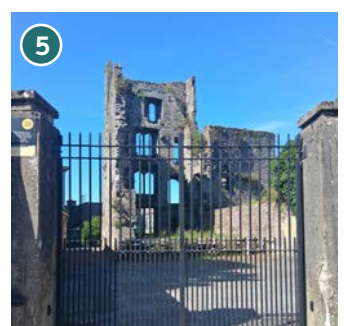
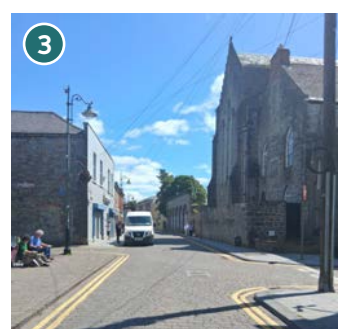
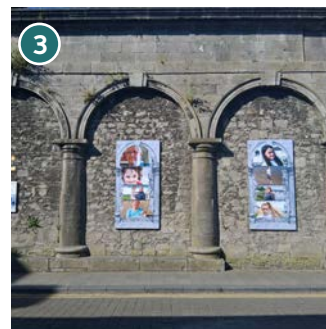




Fig. 6: Englishtown Character Area

Key Spaces

1. The Parade
2. Potato Market

Key Streets

1. High Road
2. Castle Street
3. Nicholas Street
4. Bridge Street/Athlunkard Street
5. Mary Street
6. Island Road
7. George's Quay

Public Engagement Feedback

"Nicholas Street on a sunny day with people walking along, some having drinks at Katy Daly's or Treaty City, pretty medieval buildings, the castle and waterfront area just off it. It's so genuinely Limerick, but has a little buzz when busy."

"St Mary's Cathedral Garden - Trees and they manage for wildlife - accessible in breaks from work and even though you can hear the traffic - its not something I concentrate on when there."

"King John's Castle - just the history of that area interests me. I don't think we have preserved that area of the city well".

Character Areas

Englishtown: Project Principles

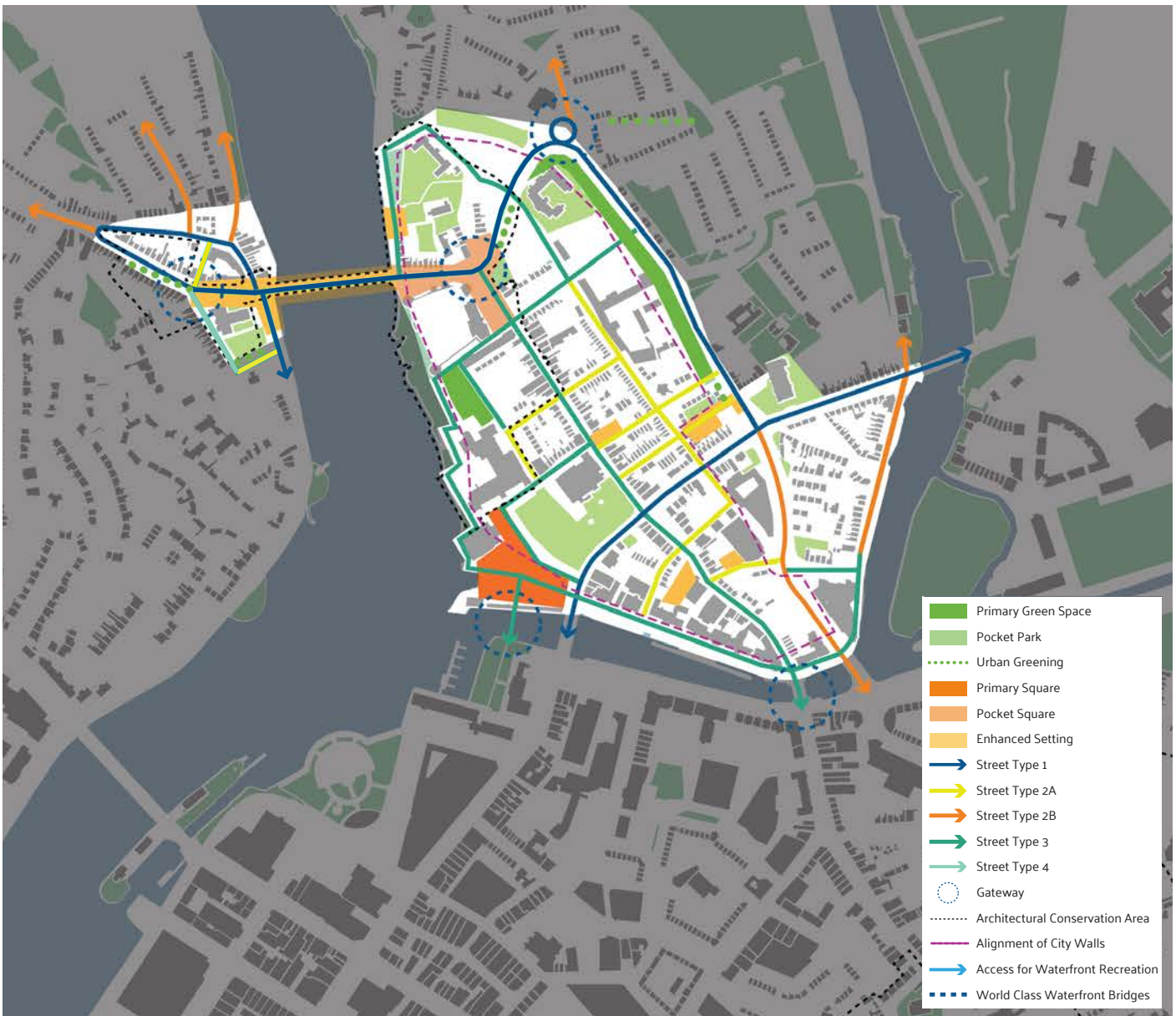
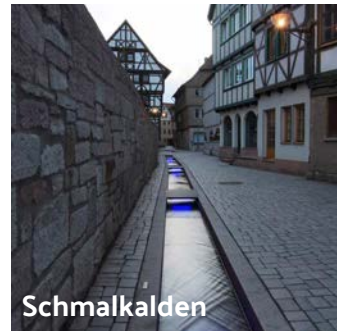
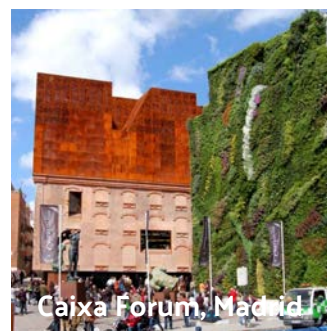
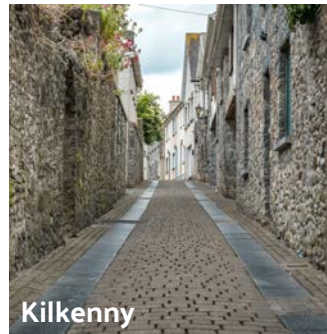


Fig. 7: Englishtown projects

Refer to Fig. 58: Public Realm Street Hierarchy. pg 120

1. celebrate the birthplace of the city and its historic narrative by enhancing the character and setting of Architectural Conservation Area 7 and all other heritage assets.
2. Support regeneration initiatives within the *Urban Opportunity Area - King's Island Walled Town* area.
3. Improve pedestrian comfort on key streets including Nicholas Street, Bridge Street and Castle Street to support tourist/retail economy and strengthen links to heritage assets.
4. Identify pocket park locations to improve open space provision, support tourism and the city's events programme (GBI Priority Actions #2, 3).
5. Improve visitor arrival experience by emphasising historic city gateways and arrival points to the historic city, such as Thomond Bridge, Castle Street, King John's Castle and links over the Abbey River to Irishtown (GBI Priority Action #7).
6. Highlight subsurface sections of City Walls (Limerick City Walls CMP, LDP Objective EH042: Town Defences and Layout), and create linear park along Island Road stretch, incorporating opportunities for play and growing opportunities (GBI Priority Actions #2, 3, LDP Objective EH042: Town Defences and Layout).
7. Extend Three Bridges Walk to key destinations on the waterfront, and enhance connections to active travel links (GBI Priority Actions #6, 7).
8. Identify public realm improvements and opportunities at the Potato Market and positively respond to new pedestrian/cycle bridges, landing points and links (WCW, GBI Priority Action #5).
9. Identify existing cellars and vaults and their potential future use, i.e. rainwater harvesting or community batteries.





Character Areas

Englishtown: Potato Market

This is the site of the Medieval Harbour, constructed on the reputed landing place of the Vikings, the Long Dock. A market existed on the site from the 1840s until the 1980s. Since then, it has been used as a surface level car park. The space has enormous potential to serve as a key civic space, aided by its proximity to the Council offices and the Courts and the iconic St. Mary's Cathedral. Design drivers include celebrating the harbour of the Medieval City by providing a stepping stone between the historic and commercial centres and a vibrant pause point on the Three Bridges Walk.

Designations

- Adjoins Architectural Conservation Area 7.
- Within the Recorded Monument classified as "The Historic Town", the Record of Protected Structures include the Potato Market (RPS 3320), St Mary's Cathedral (RPS 3009), and County Courthouse (RPS 3012).
- The City Walls formerly ran through the area, tightly framing the historic port.
- Adjoins Lower River Shannon SAC and Proposed Natural Heritage Area.

Constraints

- King's Island Flood Relief Scheme proposals should be incorporated within any design.
- Within the walled market, a reconfigured car parking layout should be accommodated on a short-medium term basis.
- Beyond the walled market, parking spaces will be removed. Designs should retain 2 age friendly/disability parking spaces, 2 electric vehicle charging points, 1 parking space for

Garda, 6 parking spaces for coaches and a delivery bay for the Court House and Merchants Quay.

- Access to be maintained to the Curraghour Boat Club and slipway for watercraft and trailers.
- Anticipate limitations to excavation due to potential archaeological remains.

Opportunities

- Opportunity to create a vibrant events space of circa 2500sqm linked to tourist economy and independent retail.
- Develop stronger, more permanently open pedestrian connections to the Three Bridges Walk, from Sarsfield Bridge right through St Mary's Cathedral, St Augustine's Place and George's Quay.
- Align with World Class Waterfront objectives for a new accessible bridge to the south.

Key Moves

- Create flexible robust multifunctional space (Event Space, markets, surface parking).
- Remove parking external to walls (Except coach parking).
- Potential to extend natural stone paving to full external area.
- Delineate line of city walls and create tree lined avenue.
- Addition of bridge landing point and reconfiguration of surface car park allocation.
- Existing piers relocated to provide entrance to event spaces.

Character Areas

Key

-  Potential pedestrian Link
-  Pedestrian route
-  Vehicle Route
-  Recorded Monument or Protected Structure
-  Proposed Development
-  Pedestrian Surface (Maintenance Access/Deliveries)
-  Shared Surface (Pedestrians/cycle priority)
-  Roadway
-  Green Space
-  Tree Planting
-  Feature Tree Planting
-  Seating
-  City Wall
-  Extent of Public Realm



Fig. 8: Illustrative Plan View

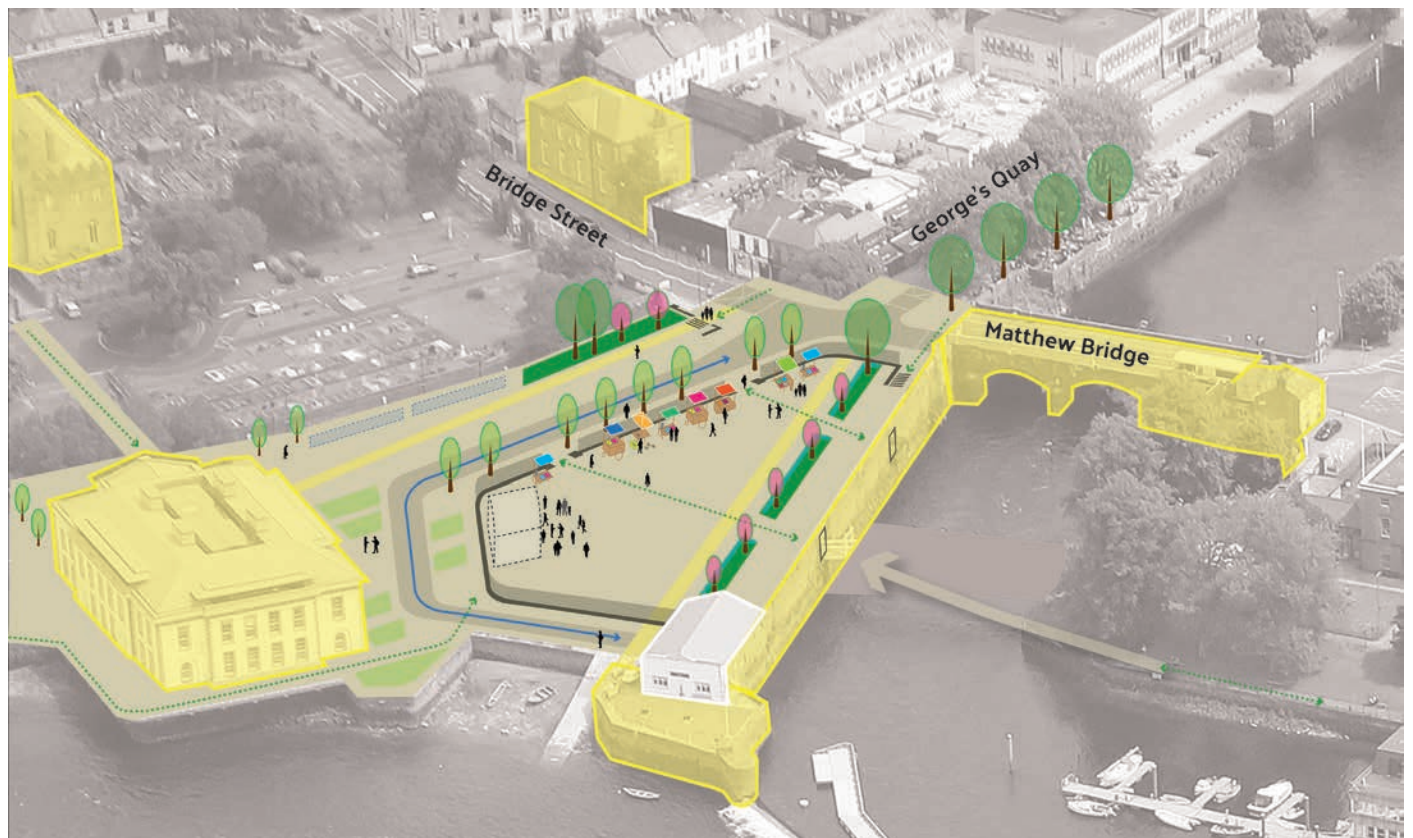


Fig. 9: Illustrative Axonometric View



Potato Market



Fig. 10: Illustrative Visualisation



Character Areas

Englishtown: Castle Street Gateway

Castle Street Gateway was the historic western gateway to Englishtown and retains a strong sense of place. The sense of arrival starts at Thomondgate, prior to the crossing of Thomond Bridge. The space is located adjacent to King John's Castle, the primary tourist destination in Limerick. It is a key arrival space for tourists, allowing for coach laydown and collection. The existing space is dominated by roadway requirements: a wide carriageway and the corridor geometry caters to high vehicle speeds. The change in level and guard rails at the footpath edge hinder pedestrian movement over the street. Design drivers for the improvement of this space include enhancing the visitor arrival experience, and alleviating barriers to movement through the restoration of lost connections.

Designations

- Within Architectural Conservation Area 7.
- Recorded monuments: Historic Town, King John's Castle, Thomond Bridge and the City Wall.
- Protected Structures include King John's Castle, Thomond Bridge Toll House, The Bishop's Palace, 2, 3, 4 Church Street, Verdant Place City Wall, and Thomond Bridge.
- Adjoins Lower River Shannon SAC, Proposed Natural Heritage Area.
- The City Walls extended between King John's Castle and Verdant Place to the north, with gateways located at both ends of Thomond Bridge.

Constraints

- Infrastructure to be retained includes on-street parking for six cars outside No's 1-7 Castle Street, a coach parking layover area and cycle station.

- The potential for subsurface archaeological layers provides a significant constraint to excavation for tree planting and landscape structures.
- Level change of >500mm between The Parade and Castle Street .

Opportunities

- The centre 30km/h zone provides an opportunity to redistribute space from the roadway to the pedestrian environment, although Castle Street remains a heavily trafficked route.
- The space provides an interchange between a secondary cycle route via Thomond Bridge, Castle Street and Nicholas Street and a green cycle route via Verdant Place.
- There is an opportunity to extend the Three Bridges Walk beyond King John's Castle, joining up the full extents of Englishtown which is currently severed by the vehicular-dominant Castle Street.

Key Moves

- Repaving plaza area. Provide generous raised table controlled crossing point to provide greater cohesion between Parade Plaza and Bishops Palace, and negotiate level difference between Plaza and roadway.
- Remove existing pedestrian barriers.
- Add trees & seating.
- Create pocket park alongside Dolores art mural.
- Provide new seating/lighting and bicycle racks.
- Allow for 3-phase power & water point in close proximity to castle.

Character Areas

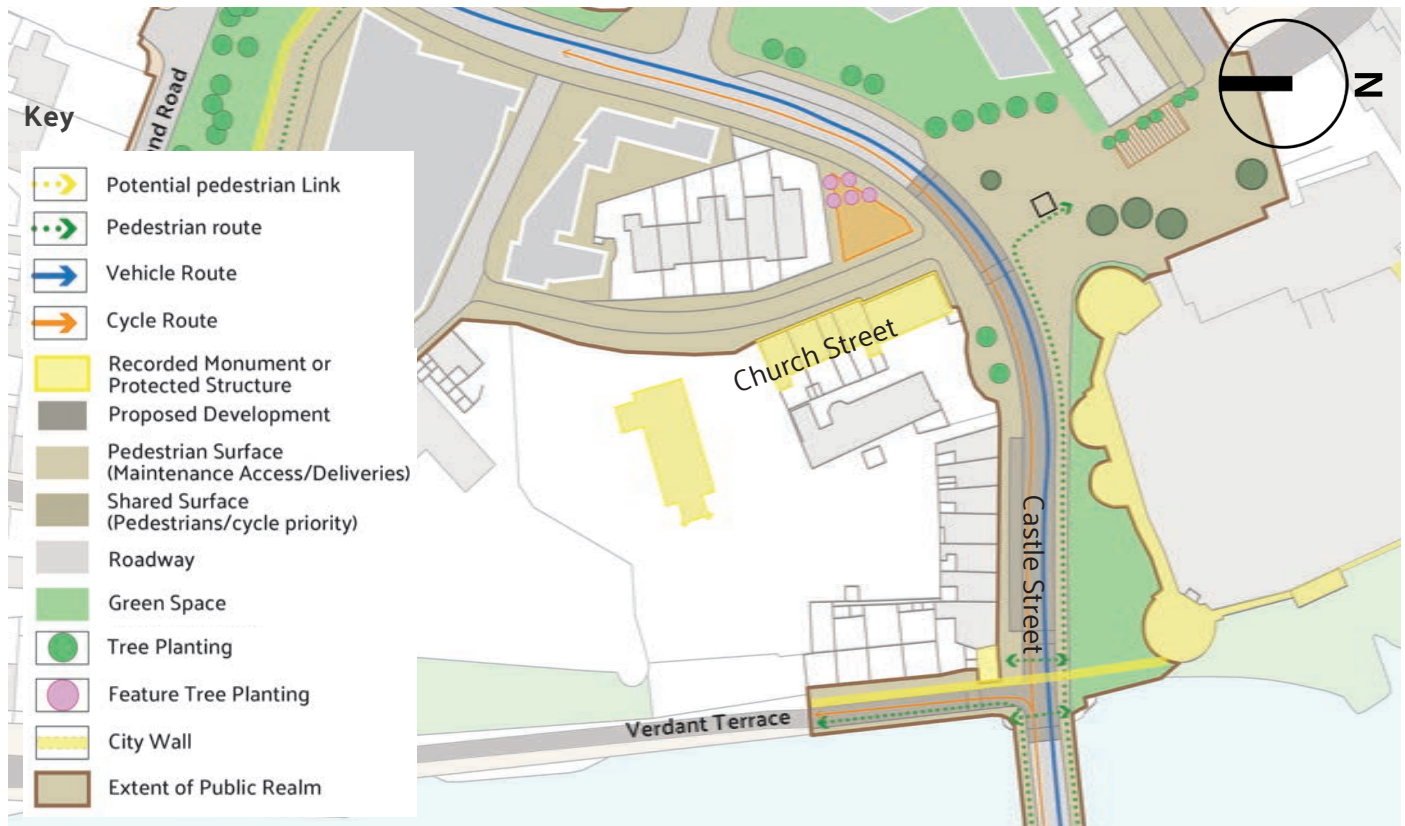


Fig. 11: Illustrative Plan View

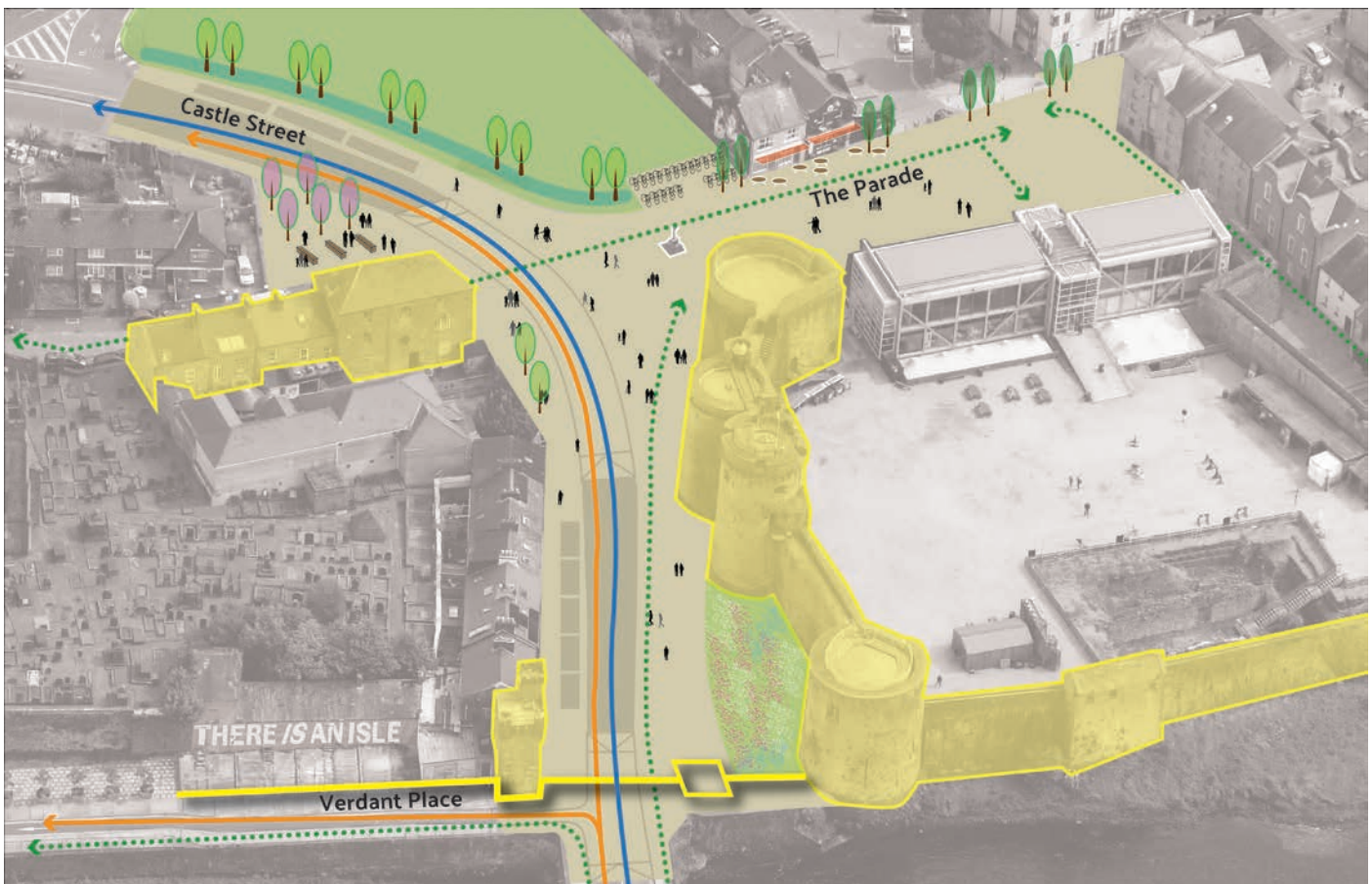


Fig. 12: Illustrative Axonometric View



Arrival at King John's Castle



Fig. 13: Illustrative Visualisation



Character Areas

Englishtown: The Fosse

Remains of the medieval City Walls together with its towers, gates, defences, and other features including the 'Fosse' as described here collectively have become known as the "Limerick City Walls". The Fosse is the existing moat around the City Walls that once formed part of the medieval defences, and consists of wet meadows and riparian woodland. Development of this Green Blue ring as an environmental SuDS feature also provides opportunities for public amenity and pedestrians. Design drivers for this public space include enhancing the visible remains of the city defences, and elsewhere revealing the invisible sections.

Designations

- Englishtown & St. Francis Abbey are within a zone of archaeological notification.
- Adjacent to Architectural Conservation Area 7.
- The Recorded Monuments include City Walls of Englishtown: Saint Saviours stretch, Peter's Cell stretch, and Exchange Lane stretch (extant).
- Close to existing strong communities on King's Island.
- Zone of Archaeological Potential (ZAP).

Constraints

- Island Road is a wide, traffic-dominated street.
- Potential subsurface archaeological layers is a constraint to excavation (tree planting and structures).
- Line of city defences is interrupted at one point by recent buildings.

Opportunities

- The commencement of the 30km/h zone provides an opportunity to redistribute space from the Island Road roadway to pedestrians,

and allow space for SuDS and planting.

- The concept of The Fosse and principle of maintaining a wide corridor along its alignment is already ingrained in forthcoming housing schemes, from the Orchard Street site in the north to Sonny's Corner in the south.
- Opportunity to reference the historic ditch or 'Fosse' through the creation of a multi-functional piece of green and blue infrastructure: incorporating urban greening, habitat creation, SuDS and "Play on the Way" features (between home and school commute).
- Opportunity to enhance links to and from residential areas, community facilities and schools across and along the corridor.
- Enhancing the visible remains of the city defences (wall and fosse), and revealing the invisible sections in part.
- Acknowledging the lost city gateways.
- Celebrating the Park and 'Fosse' as a key piece of green infrastructure and focus for community.
- Knitting new development into a historic setting.
- Creating a quiet nature route through the city, which will offer an alternative to busy thoroughfares.

Key Moves

- Delineate below-ground sections of the City Wall.
- 15-20m parkland corridor width to be maintained.
- Incorporate suitable greening solutions adjacent to busy Island Road to provide noise buffer.
- Use public art, signage and lighting for creative interpretation of walls.
- Provide public access to city wall & former gateways.

Character Areas

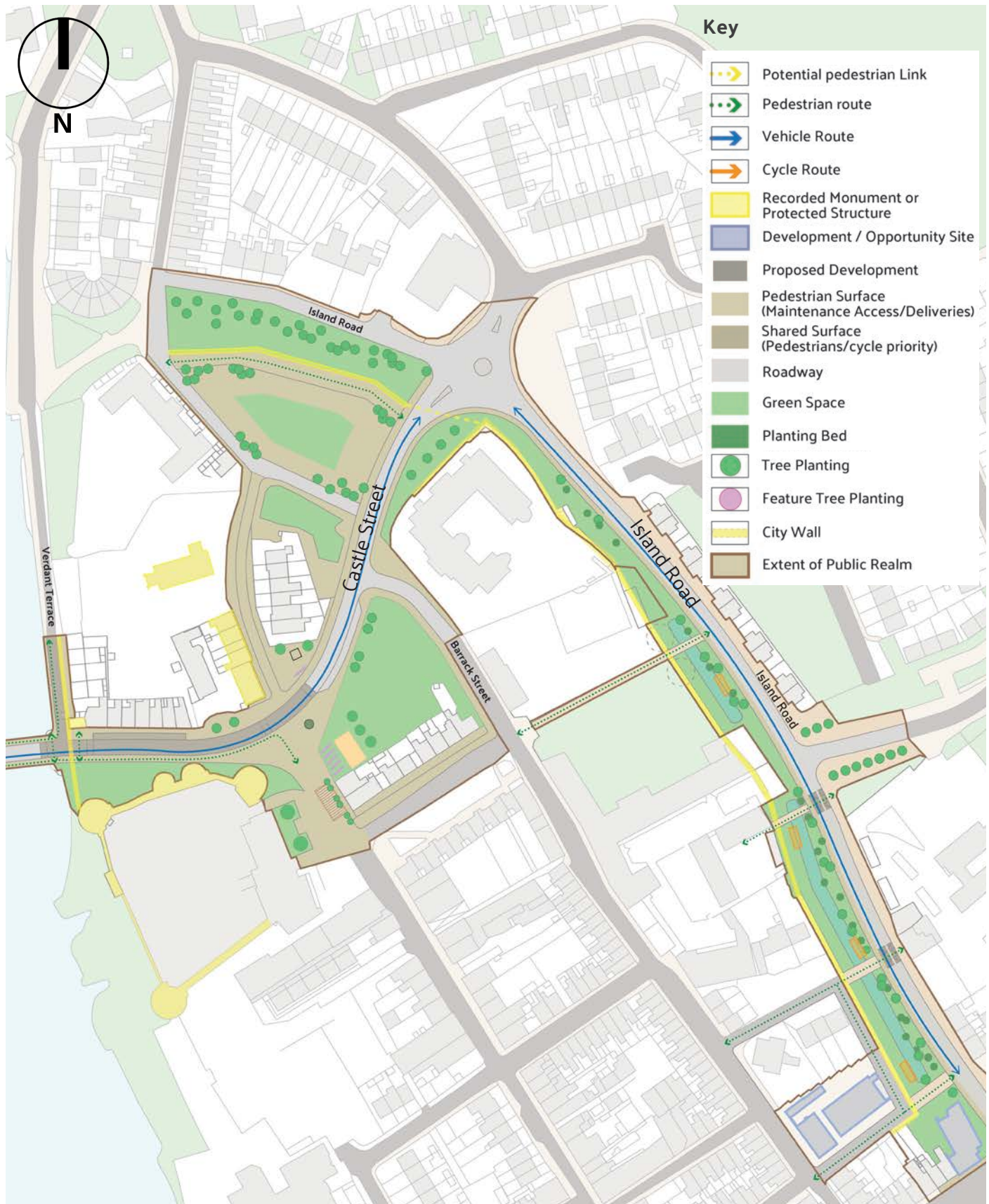
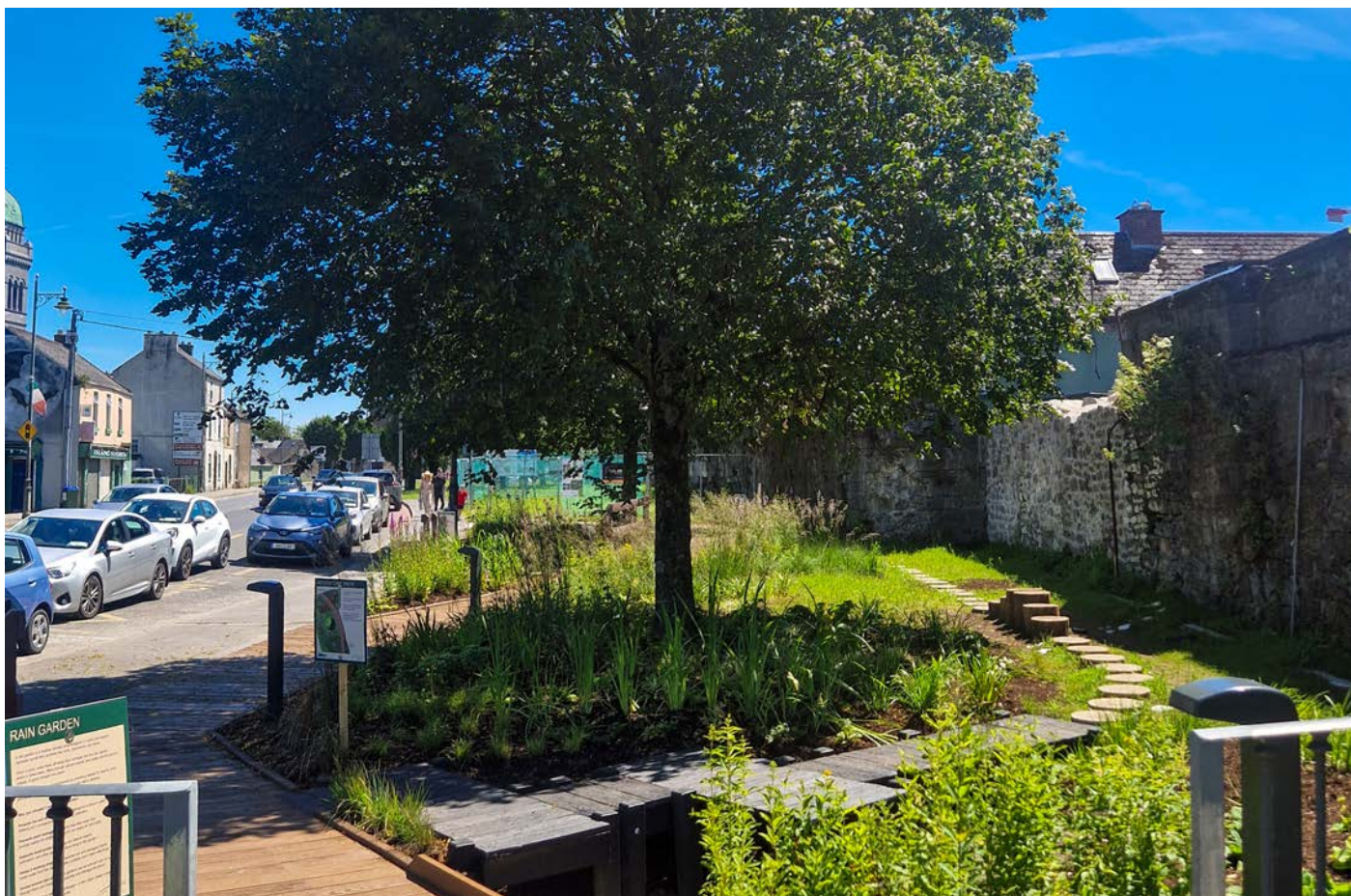


Fig. 14: Illustrative Plan View



The remains of the city walls on Island Road



City Walls Park

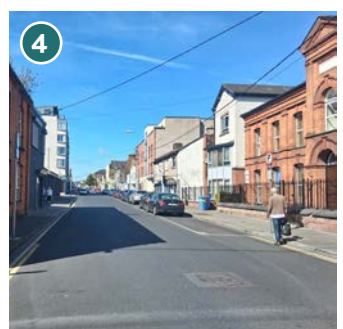
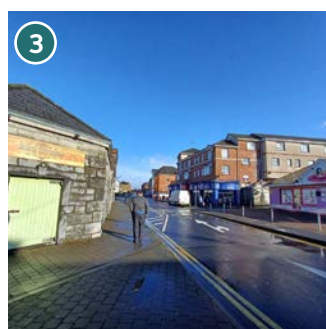
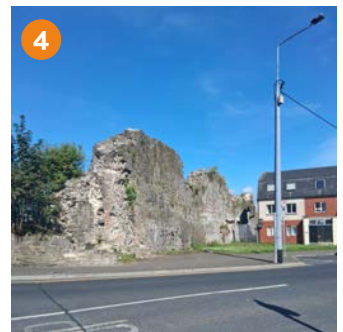
Character Areas

Irishtown: Introduction

This area encompasses the historic extents of Irishtown, as defined by Limerick City Walls. It centres on the inverted Y shaped street pattern, defined by Broad Street, John's Street and Mungret Street. The Milk Market to the far west boundary is a fulcrum point between Irishtown and the Central Core character area, and is therefore central to both.

Baseline Analysis

- **Quality of Public Realm:** Pockets of high quality public realm exist, such as at St John's Square, however signs of dereliction are also prevalent.
- **Visual Amenity:** Assets such as the Milk Market suffer due to visual detractors within immediate setting.
- **Legibility of historic environment:** Interpretation of historic significance and assets such as the City Walls constrained by more recent developments.
- **Connectivity:** Dominance of the Canal creates severance from King's Island, barrier to ease pedestrian movement between the two areas.
- **Key Views:** linear views to St John's Cathedral and St John's Church assist legibility.
- **Topography:** changes to land form create sense of place; highpoint at junction of High Street, Wickham Street, Williams Street, Lower Gerald Griffin Street.
- **Access to Nature:** Lack of formal planted greenery, no designated parks within character area.
- **Retail Environment:** Independent shops on Broad Street create interest within the streetscape, which could be enhanced through public realm - tree planting and introduction of resting places.



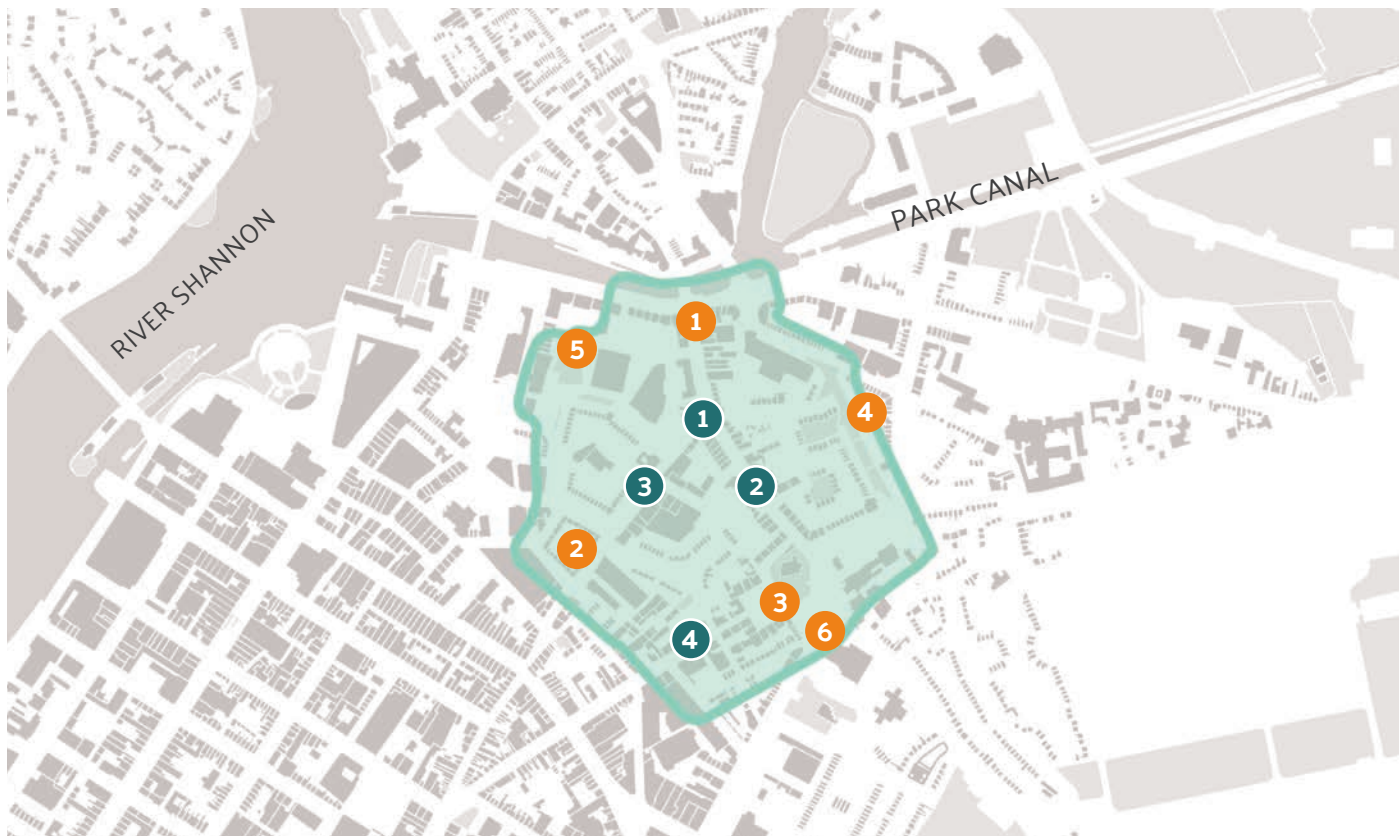


Fig. 16: Irishtown Character Area

Key Spaces

1. Baal's Bridge over Abbey River to Irishtown
2. Milk Market
3. John's Square
4. City Walls Park
5. St Michael's Graveyard
6. St John's Cathedral

Key Streets

1. Y shaped street pattern (Broad Street, John's Street, Mungret Street)
2. John's Street
3. Mungret Street
4. Lower Gerald Griffin Street

Public Engagement Feedback

"Milk Market and Wickham Way - it is the essence of Limerick. I'm only living in Limerick for three years but it's one of the things that made me fall in love with the place. If you go early you meet the real locals and see that Limerick people love a tradition and to buy local. I also love how many sole trader shops there are and not many franchises in the city so you can do all your shopping for example at places like butchers and fishmongers etc. Limerick's food scene isn't known that well but could be something that could be used more for events and so on".

"My favourite place is the Milk Market, it's the only place that is busy and has an atmosphere and doesn't attract anti-social behaviour. However this is on only mainly on Saturdays when the market is running".

Character Areas

Irishtown: Project Principles

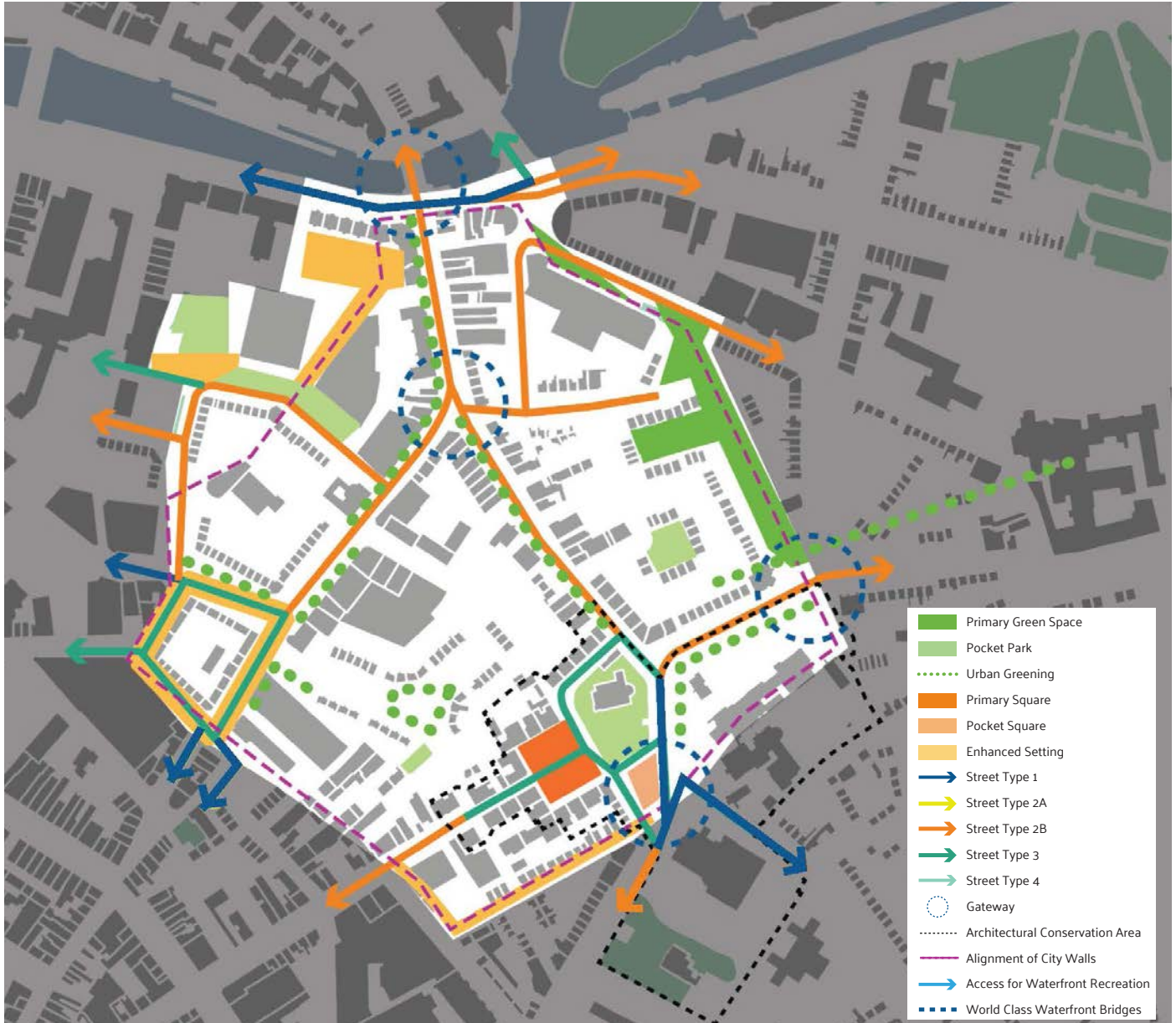
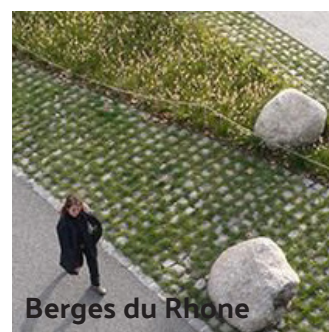


Fig. 17: Irishtown projects
Refer to Fig. 58: Public Realm Street Hierarchy. pg 120

1. Enhance the overall setting of Irishtown to raise awareness of its significance in the origins and development of the city.
2. Enhance the setting of Milk Market and wider surrounds (Denmark Street High Street) to support the weekend and night-time economy.
3. Conserve and enhance the setting of ACA 4, and all visible and hidden heritage assets.
4. Emphasise historic city gateways and structure of Broad Street, Mungret Street, John's Street and Laneways.
5. Enhance key vistas to local landmarks such as St. John's Cathedral, and improve legibility of connections through the area to Englishtown, the Milk Market and Colbert Station.
6. Provide visual uplift to the streetscape to support independent businesses on Broad Street and John Street.
7. Embed urban greening within the streetscape to enhance amenity and biodiversity (GBI Priority Action #6).
8. City Walls: highlight subsurface sections through material representation (LPD Objective EH042: Town Defences and Layout, Limerick City Walls CMP); create linear park along their length, incorporating vacant plots as opportunities for play/growing gardens (GBI Priority Actions #6, 7) and recover elements of the City Defences, where feasible, which are located within private space and act as barriers to permeability.
9. Identify existing cellars and vaults and their potential future use, i.e. rainwater harvesting or community batteries.





Character Areas

Irishtown: City Walls Park

This area already exists as a linear corridor of green open space as it was developed in parts as a linear park in the 1990s. This area is subject of URBACT 4 Green Place project, whose theme centres on the urban regeneration of forgotten places, creating linkages between green spaces, and the environments role within a city context. The focus area for the wider project is the vicinity of the Irishtown City Wall and the green spaces that are in close proximity such as St Michael's Graveyard, described later in this chapter.

This public realm strategy provides high-level guidance to the project, and design drivers for this reinvigorated public space would include the following:

- Enhancing the visible remains of the historic City Walls, acknowledging the lost city towers, and elsewhere revealing the invisible sections.
- Improving access to the walls by clearing and reopening adjacent routes.
- Knitting existing development into the historic setting of the wall and extending the green corridor into external spaces.

- Improving pedestrian links to Broad Street; emphasising the historic significance of the laneways.
- Creating 'quiet routes' through to the city centre from residential areas, offering an alternative to busy thoroughfares and providing opportunities for contact with nature.

Designations

- The city walls of Irishtown are a national monument.
- Curry Lane plays host to Recorded Monuments and several buildings located on Broad Street are Protected Structures.

Constraints

- Residential units developed in close proximity to the defences restrict long views.
- City wall line is fragmented at Old Clare Street and within the hospital grounds; Improvement to setting within these areas relies on agreement with private land owners.
- Ownership of entrance site from New Street/ Leila Street to be examined.



The remains of the city walls on St Leila Street

Character Areas

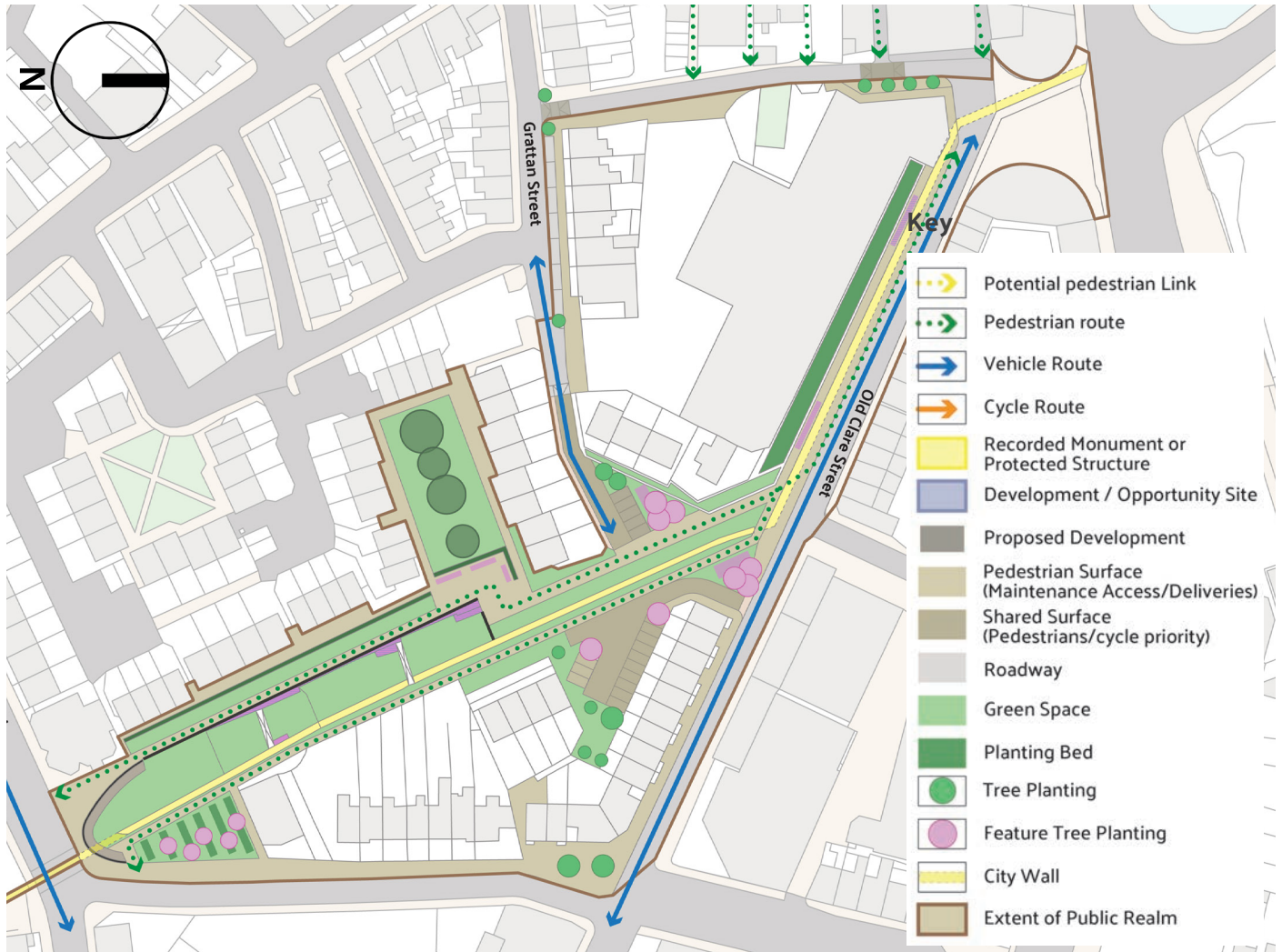


Fig. 18: Illustrative Plan View



Fig. 19: Illustrative Axonometric View



Fig. 20: Illustrative Visualisation, New Street/Leila Street.

Opportunities

- The longest, best-preserved and straightest stretch of the City Walls, it incorporates an earth rampart along half of its length in Irishtown.
- Forms part of a wider piece of linear city green infrastructure, in combination with The Fosse of Englishtown.
- There is potential to further extend the green infrastructure corridor through improvements to St Michaels Graveyard and associated open spaces.
- Improvements to the linear park will provide significant enhancement within Irishtown and have good synergy with the proposals for Broad Street gateway.
- Project could shed light on historic links to various noteworthy moments, including the 1690-91 siege with Patrick Sarsfield connection and potential repatriation of his body (The

Sarsfield Homecoming Project).

- Links with Irish Walled Towns Network key action of supporting the creation of a high-quality public realm that is sensitive to the upstanding and below-ground remains of town defences and associated structures (Irish Walled Towns Network Strategy 2024-2028).

Key Moves

- Resolve ownership issues at Focus Ireland complex to re-establish public access.
- Provide access ramp to earth rampart.
- Create pocket square adjacent to Griffin's Funeral Home.
- Add raised table uncontrolled crossing and adjust corner radii to St. Lelia Street.
- Delineate line of City Wall across New Street.



Character Areas

Irishtown: Broad Street Square

The creation of a new public node at Broad Street Square brings with it the potential to reinforce the historic identity of the Y-Shaped street pattern present. Key design drivers include providing a visual uplift to the junction, creating public realm improvements that will increase footfall within the area, and improve the pedestrian links to the square from key destinations such as the Market Quarter, Colbert Station, the City Walls heritage route and the School of Art and Design.

Designations

- Historic street pattern in existence.
- The junction of Broad Street, John's Street and Mungret Street is the former site of a Recorded Monument; 'Thom Cor Castle', a late 14th century tower house.
- Six buildings listed on the Register of Protected Structures are located on Broad Street, John's Street and Mungret Street.

Constraints

- Survey and trial pits are required to establish whether underground vaults are present and could constrain tree planting.

Opportunities

- Located within the Irishtown Urban Opportunity Area.
- Active travel options for the Wickham Street to Clare Street cycleway include a route via Mungret and Broad Street.
- Activate new square in proximity to Limerick School of Art & Design.
- Link to City Walls Park proposal, strengthening connection with Limerick School of Art & Design.

Key Moves

- Reinforce historic "Y" shaped street pattern by resurfacing and adding value to spaces
- Addition of a series of raised table uncontrolled crossing points.
- Create new nodal point activated by means of proximity to Limerick School of Art and Design.
- Undergrounding of overhead services to enhance views to John's Cathedral as part of paving upgrade works.
- Planning developments to take into account need for new more direct pedestrian route through to St. Michaels Cemetery from Mungret Street.



Remains of historic 'Y' shaped street network, junction of Broad Street, John's Street and Mungret Street

Character Areas

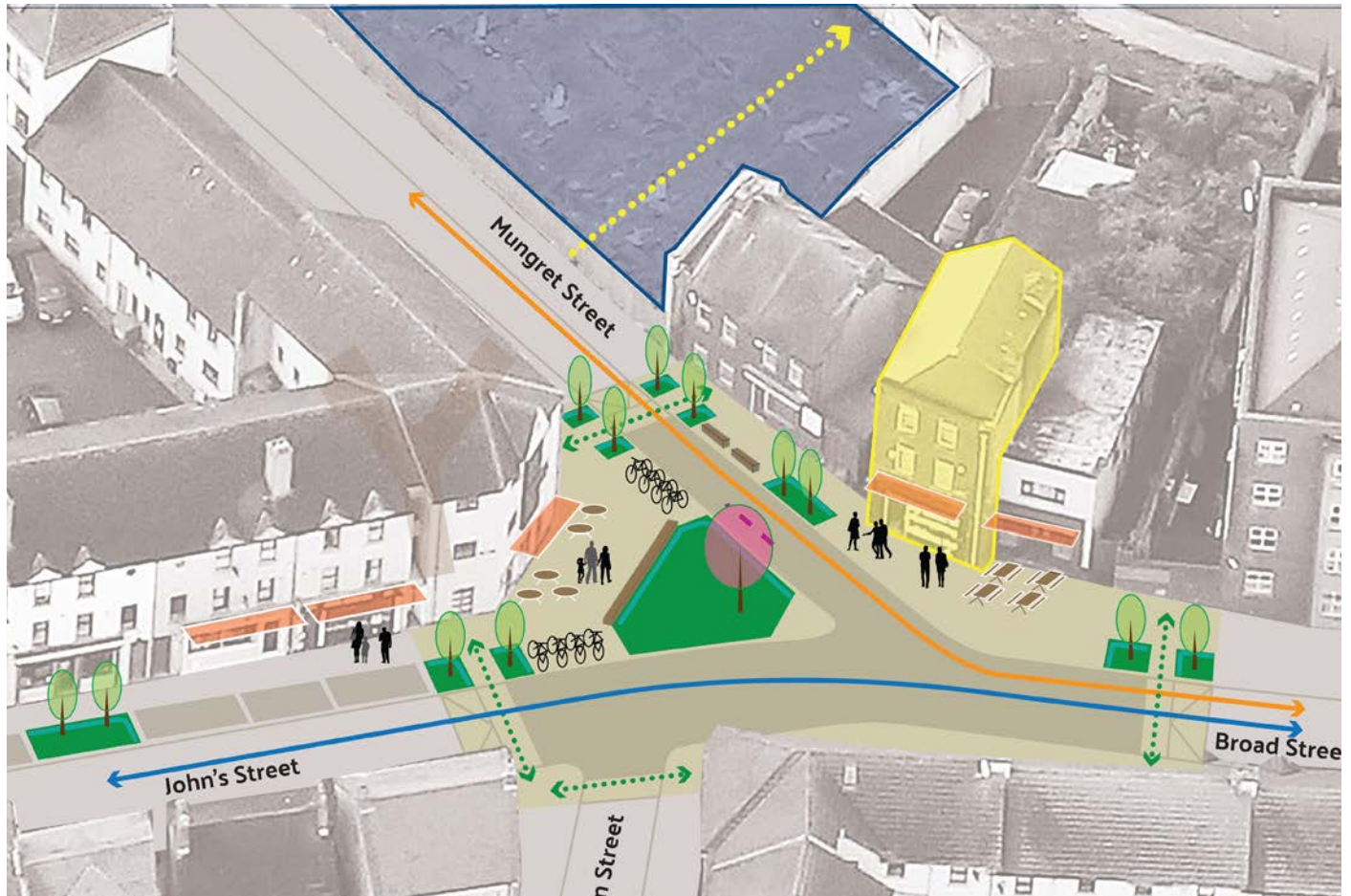


Fig. 21: Illustrative Axonometric View

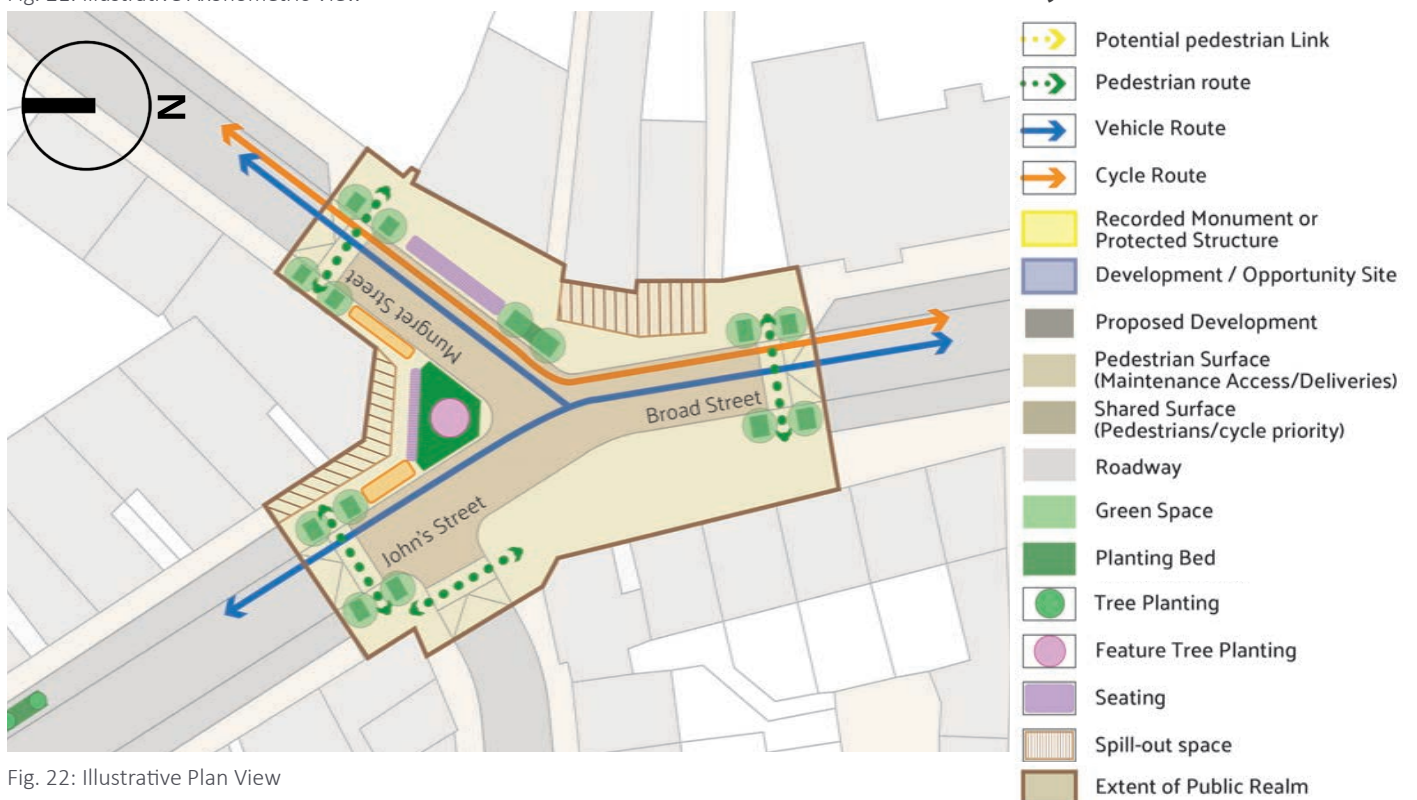


Fig. 22: Illustrative Plan View



Fig. 23: Illustrative Visualisation



Character Areas

Irishtown: St. Michael's Graveyard

This area is being explored as part of the wider URBACT 4 Green Place project, whose focus area for the wider project is the vicinity of the Irishtown City Wall and the green spaces that are in close proximity such as the City Walls Park. An increase in adjacent private developments has led to the fracturing of the cemetery as both a heritage asset and safe local amenity space. Key drivers include revealing the history and relevance of the site to a wider audience, stitching and creating a wider green infrastructure corridor, leading from Opera Square to City Walls Park. The amenity offer for adjacent residential communities is improved.

Designations

- The site of a Recorded Monument, St Michael's Church, destroyed in the times of Cromwell. The graveyard continued to be in use until the 19th century.
- The line of the city wall runs through the existing open space to the east of the site. There are extant sections to the rear of Broadleaf Apartments and at the entrance to Taka Court.

Constraints

- The site is hidden from passing footfall, enclosed by subsequent development.
- The immediate environment is unwelcoming to pedestrians and the graveyard has suffered from anti-social behaviour in the past.
- The graveyard is maintained by the Limerick Civic Trust who undertake regular clean-ups. Its long-term future relies on multiple user groups who will foster a strong sense of ownership of the space.
- Private ownership boundaries.

Opportunities

- Falls within the Irishtown Urban Opportunity Area.
- Opportunity to re-appraise the site and incorporate it within a wider green corridor, linking Irishtown to the Opera development.
- Creation of a 'quiet route' for residential communities in the east and retail areas within the Central Core.
- The future development site to the west provides an opportunity for improved surveillance and use.



St Michael's Graveyard

Character Areas

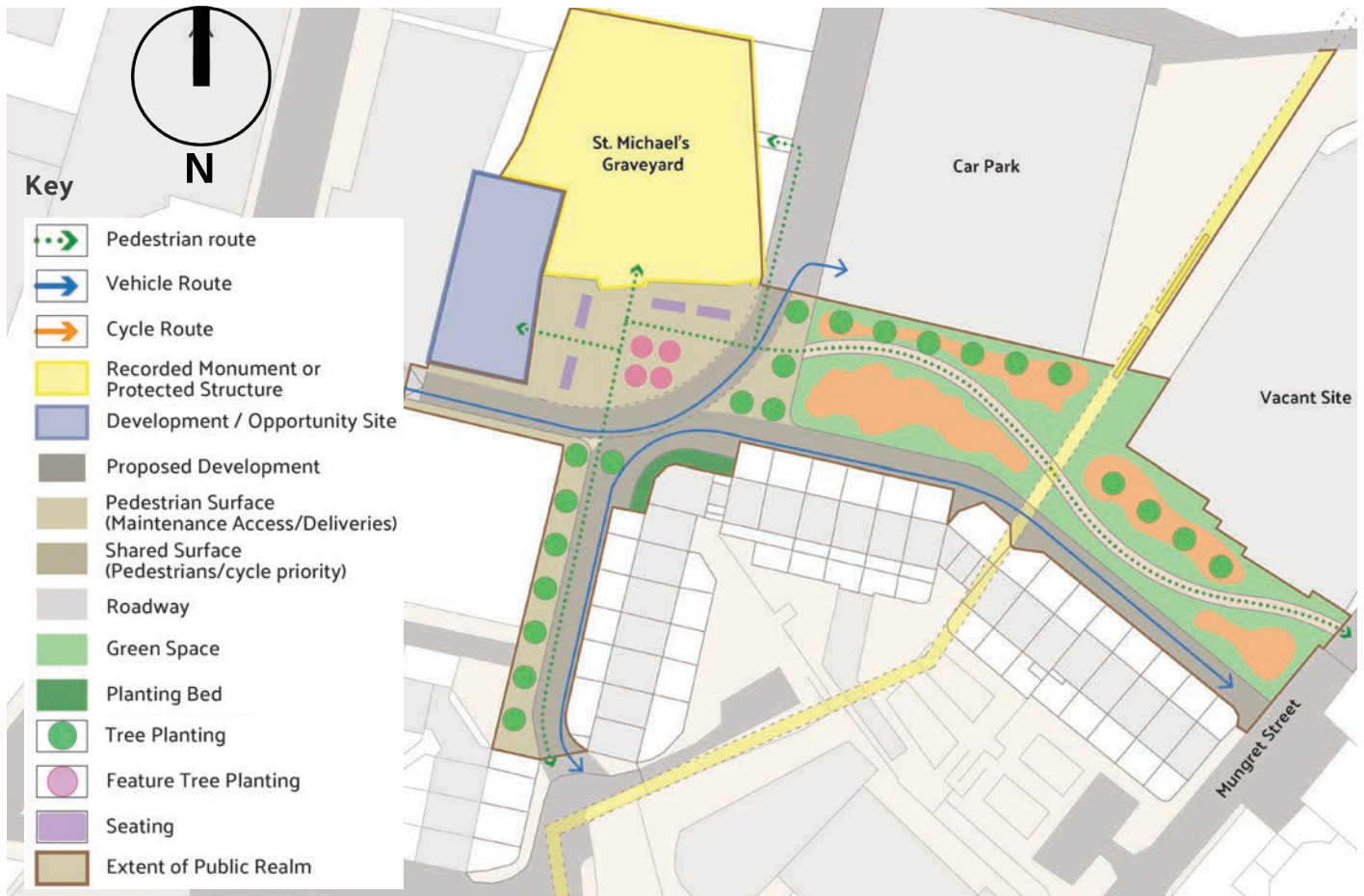


Fig. 24: Illustrative Plan View

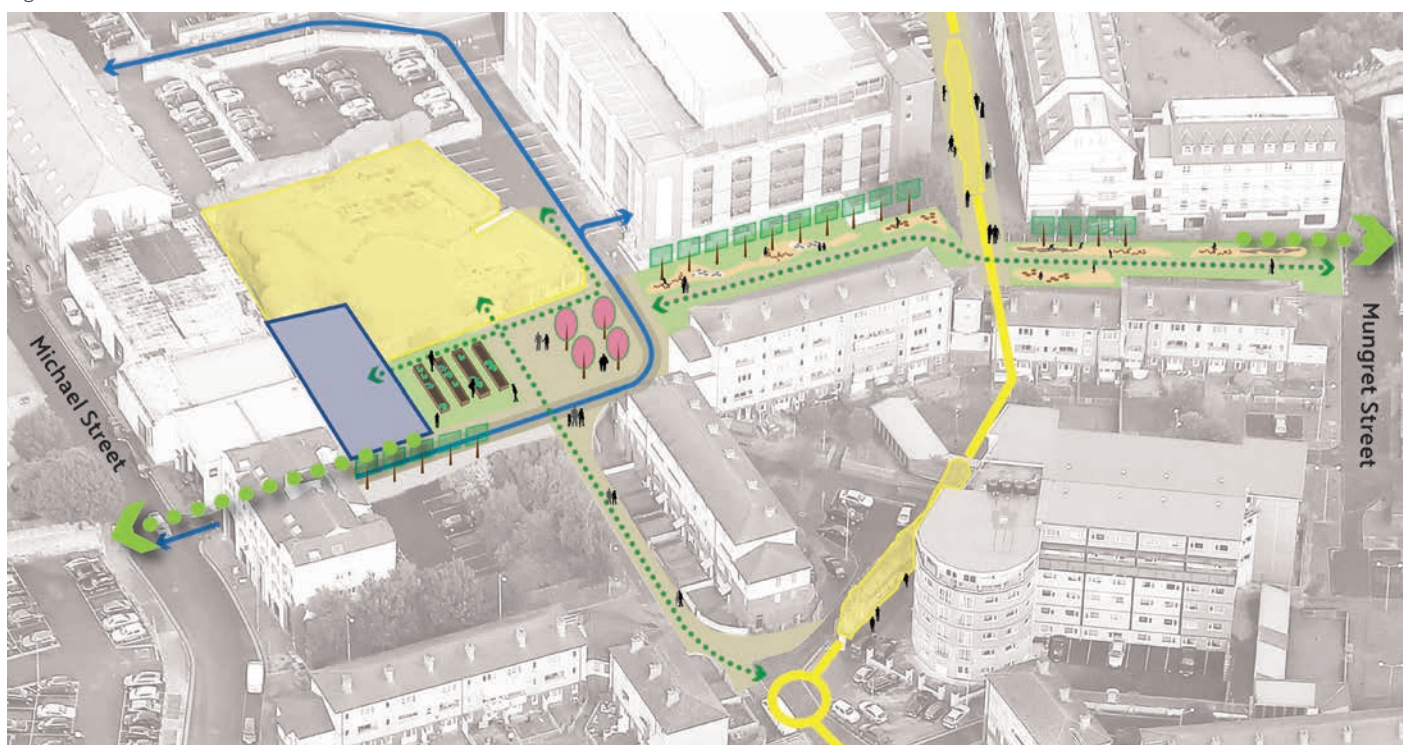


Fig. 25: Illustrative Axonometric View



Fig. 26: Illustrative Visualisation

- Diversifying the soft landscaping within the area could provide optimum habitat for pollinators, bee sanctuary etc.

Key Moves

- Improve legibility & connectivity by removing fencing, separating Watergate flats from multi-storey car park.
- Overhaul of community infrastructure – community gardening and improved open play space.
- Provide route through from Mungret St (via private development site) to Opera Site Development.
- An overhaul of open space, play and recreational facilities within the linear corridor to the east of the graveyard to create a multi-functional green infrastructure network. This should include new soft landscape, nature-based ‘Play on the Way’ features, seating and improved lighting.
- The line of the city wall should be defined within the open space to the agreed paving detail.
- Opportunities to remove boundaries to the north to provide physical access to the city wall corridor should be explored with landowners.
- Footpath routes should provide wider connectivity through the proposed development site at 70-72 Mungret Street and beyond to Gratton Street and the City Walls Park, where possible.
- Footpath routes to the west should provide wider connectivity across Michael Street and link into open spaces within the Opera development.

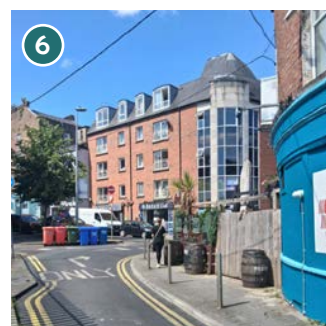
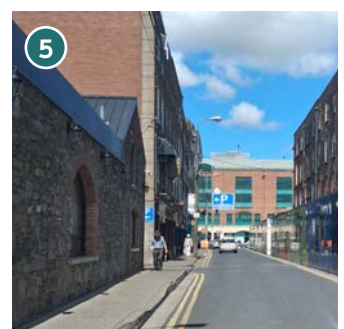
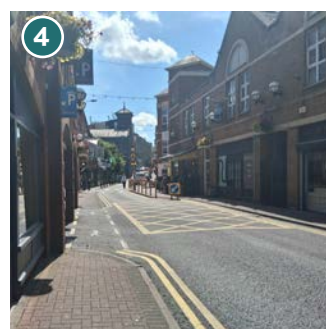
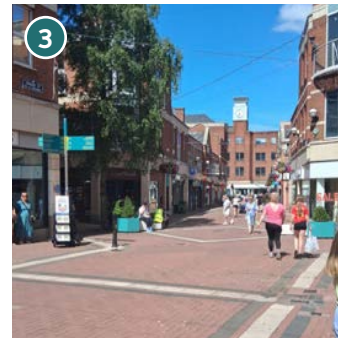
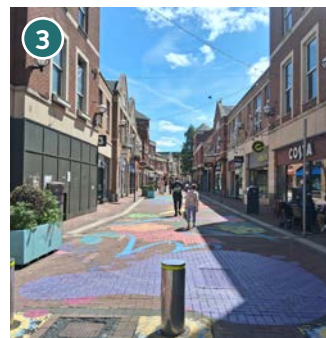
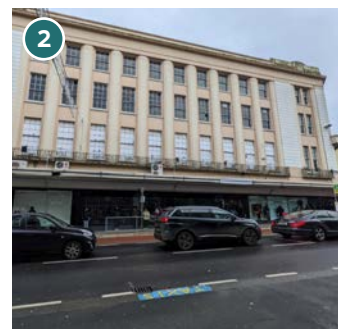
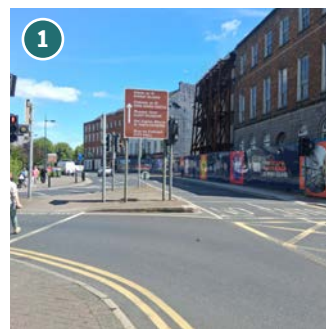
Character Areas

Central Core: Introduction

This area encompasses the land between Irishtown and the Georgian Neighbourhood, bounded by the Abbey River to the north and Arthurs Quay to west. People experience this prime central core area as the Core City Centre. The redevelopment of the significant Opera Square site falls within this area, and there is significant overlap in the vicinity of the Milk Market.

Baseline Analysis

- **Legibility of Riverside:** Constrained inward facing Arthur's Quay Park, presence of Sarsfield House, partially obscured Hunt Museum, contrast in quality of waterfront environment at Charlotte's Quay, in comparison to George's Quay.
- **Legibility of Historic Environment:** Interpretation of historic significance concealed by more recent developments.
- **Vehicular Movement:** Dominance of three lanes of traffic to the rear of Arthur's Quay Shopping Centre and Sarsfield Street; Recent O'Connell Street enhancements have redressed balance between street users.
- **Retail Environment:** The retail environment plays a strong influence on the public realm; varying standards of shop signage and mix of lighting; vacant stores detract from environment.
- **Access to Nature:** Arthurs Quay Park and Hunt Museum provide large tree canopies and green space; Urban Mobile Forest augments greenery.
- **Quality of Public Realm:** Mix of public realm treatments.
- **Changing Urban Form:** Large Opera site in period of transition due to construction, future public realm upgrades tabled for Cruises Street and Market Quarter.



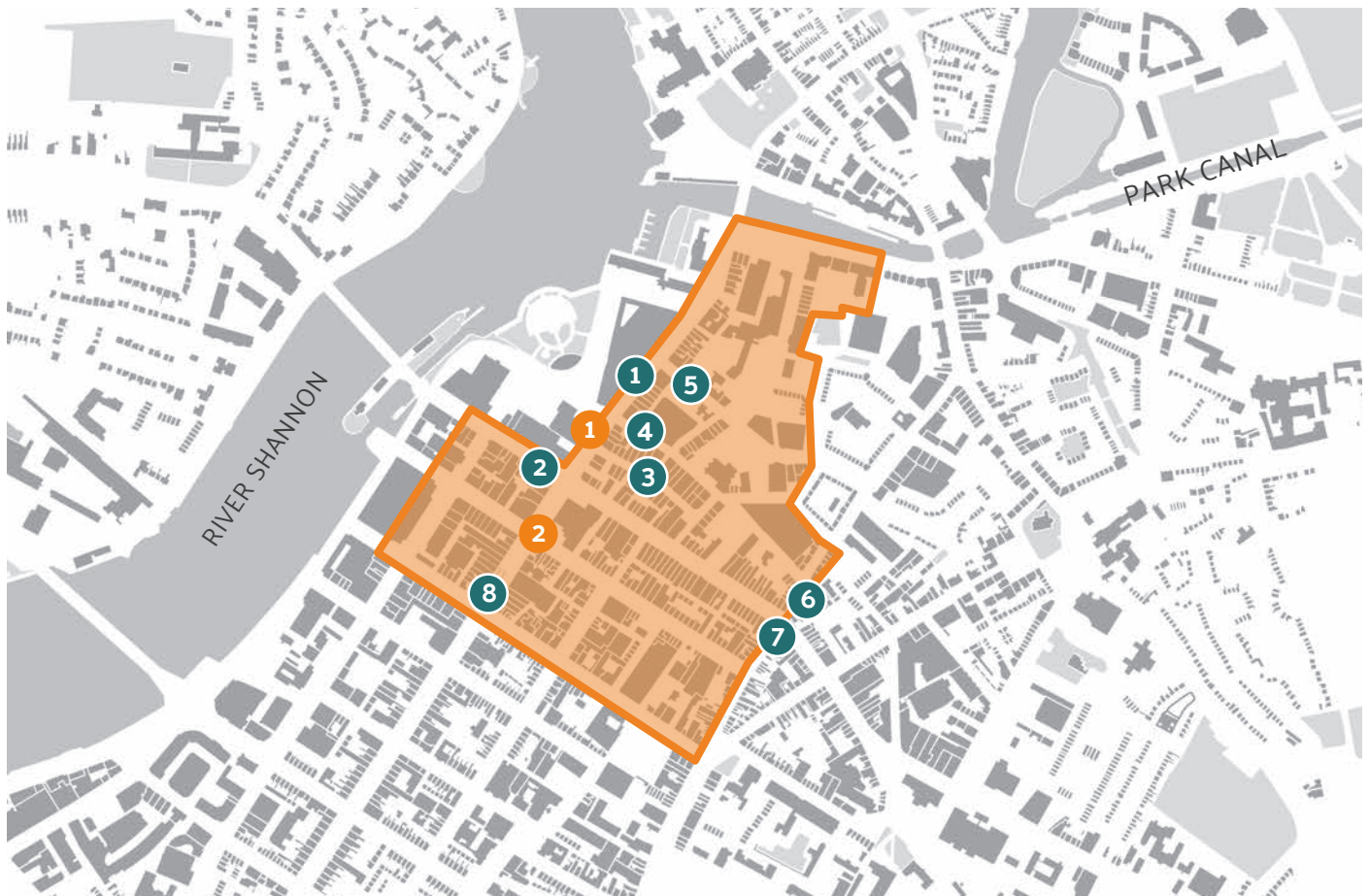


Fig. 27: Central Core projects

Key Spaces

- 1. Space in front of Penneys
- 2. Thomas Street

Key Streets

- 1. Patrick Street /Rutland Street
- 2. Sarsfield Street
- 3. Cruises Street
- 4. Denmark Street
- 5. Ellen Street
- 6. High Street
- 7. Wickham Street
- 8. O'Connell Street

Public Engagement Feedback

"The back of the Hunt Museum is a hidden gem in the City Centre. Sarsfield house unfortunately takes a lot of the beauty away from that area - could do with an uplift or be demolished!!"

"With the Wickham market, the Wickham bar and Crew bar this area of town is often buzzing at the weekends and I think it's great to see Limerick bring out its arty side".

"Mother Macs - I can sit and watch the world go by. In addition it's a hub for diversity and tourism".

"Not anymore, (but) used to be Cruises Street in the 00's when it was a vibrant shopping area. Loved meeting up with friends for coffee and hitting the shops".

Central Core: Project Principles

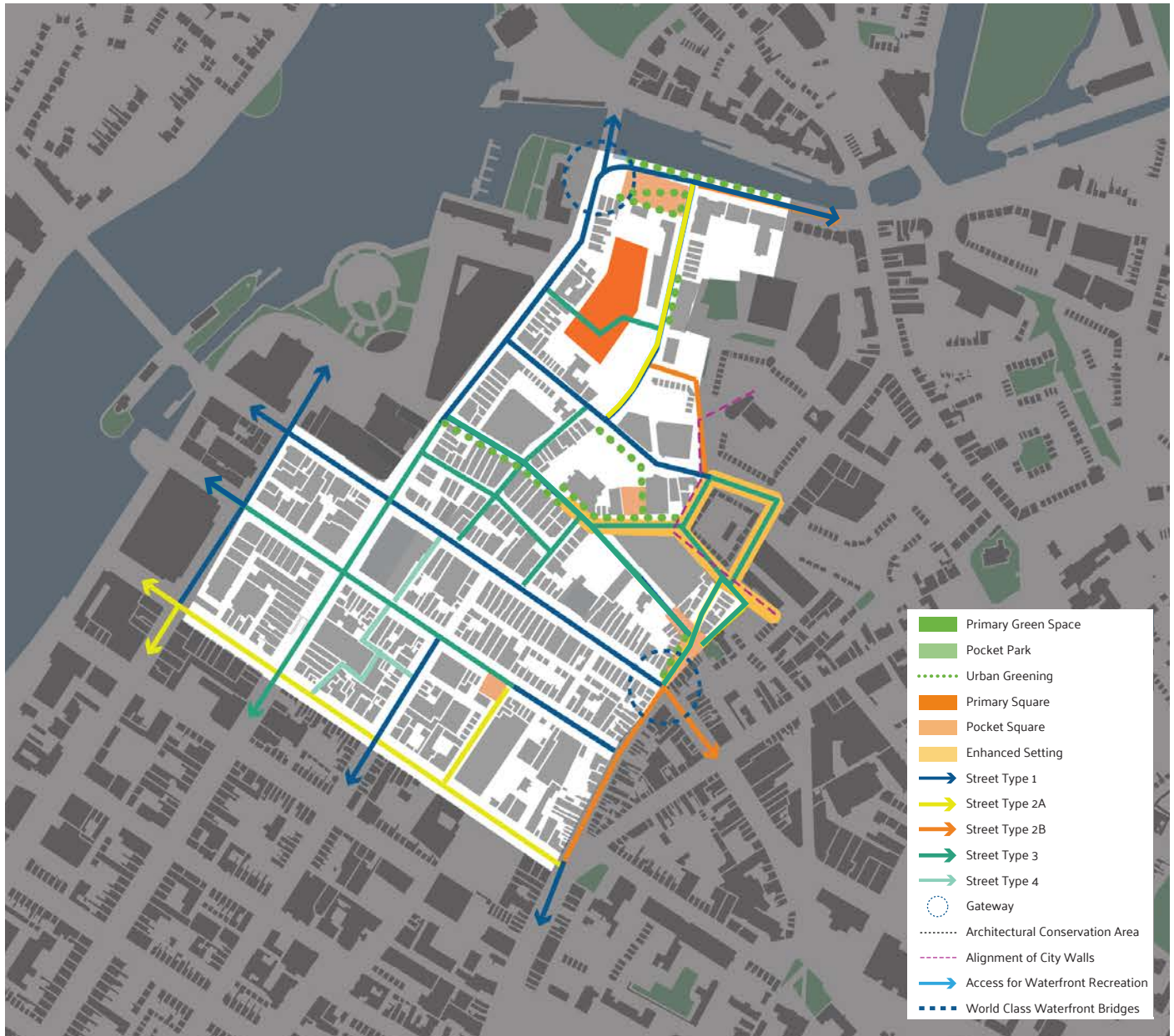


Fig. 28: Central Core Character Area
Refer to Fig. 58: Public Realm Street Hierarchy. pg 120

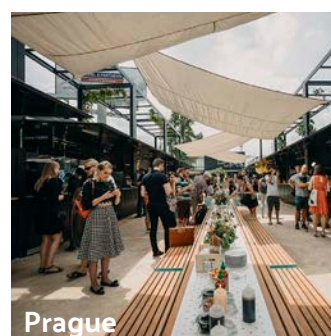
1. Prioritise redevelopment and high-quality public realm uplift of the Cruises Street crossing points between the Market Quarter, the World Class Waterfront, Opera Square, and William Street.
2. Establish a coherent public realm transition between Central Core and Arthur's Quay Framework area. Support other regeneration initiatives within the adjacent Irishtown area.
3. Enhance connections to active travel links north and south, and in particular link with Park Canal from Opera Square (GBI Priority Actions #6, 7).
4. Provide streetscape improvements to enhance the pedestrian experience, increase footfall and enhance the retail environment, markets and night-time economy.
5. Explore potential for a new South-facing pocket square within Ellen Street Opportunity Site (LDP Objective ES01).
6. Extend the high-quality O'Connell Street public realm treatment along Patrick Street and Rutland Street footways, with a complementary response to the Opera development.
7. Continue the urban greening of Bank Place adjacent to the Opera development along the Abbey River at Charlotte's Quay uplift, creating 'green fingers' alongside connections and routes leading to the Waterfront character area (GBI Priority Actions #5,6).
8. Identify existing cellars and vaults and their potential future use, i.e. rainwater harvesting or community batteries.



Deptford, London



Bath



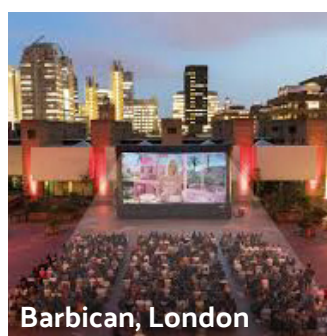
Prague



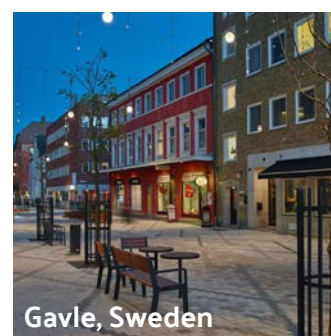
Langley, Canada



Verdun, Montreal



Barbican, London



Gavle, Sweden



Character Areas

Central Core: High Street & Milk Market

A popular destination for both locals and tourists alike, this is a priority area for both URDF 'Great Streets' investment and an NTA active travel route. Key design drivers to this historic focal point are the minimisation of vehicular impact within a key pedestrian-friendly zone, improvement of connective routes to and from the Milk Market, and supporting independent retailers, city events, and the night-time economy.

Designations

- Several buildings on Upper William Street, High Street and Little Gerald Griffin Street listed on the Record of Protected Structures most notably 'The Roundhouse' (Mother Mac's) RPS 2676.

Constraints

- Survey and trial pits are required to establish whether underground vaults are present and could constrain tree planting and pavement upgrades.

Opportunities

- Falls within the Irishtown Urban Opportunity Area.
- The Milk Market, High Street and Wickham Way are popular areas for independent retailers and support the weekend and night-time economy.
- Active travel options for the Wickham Street to Clare Street cycleway include a route via High Street and Mungret Street.

Key Moves

- Improve pedestrian connectivity between Opera Square & Cruises Street through the implementation of a homogenised surface treatment and access control bollards to support the spill-out Market activity.
- Futureproof for potential Active Travel route via Mother Macs.
- Part 8 application has recently been granted to implement public realm upgrades overleaf.
- Improve High Street public realm outdoor dining and implement extensive decluttering (rails etc.)
- Delineate line of City Walls.
- Enhance public lighting throughout & create soft, inviting spaces.



High Street

Character Areas

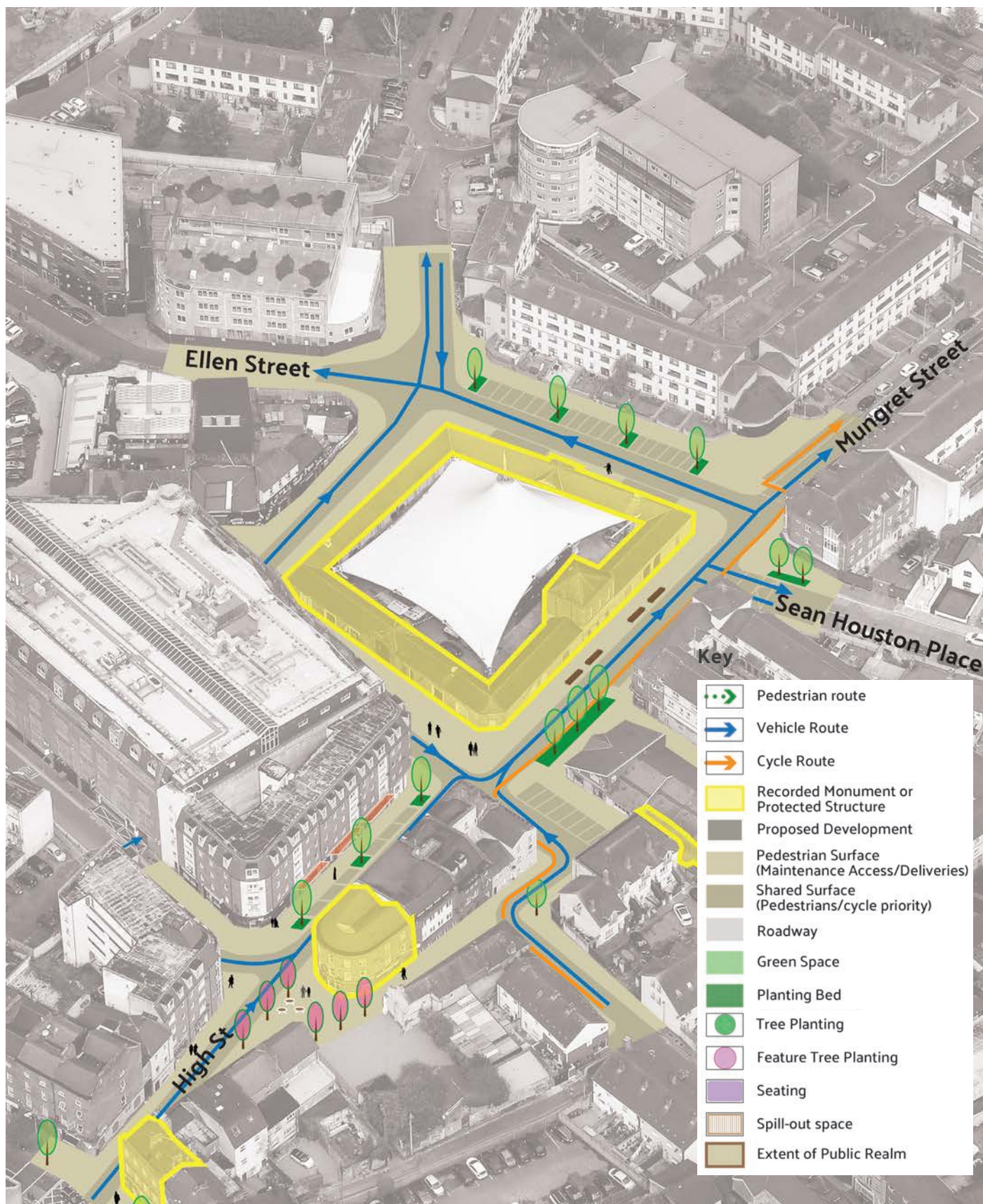


Fig. 29: Illustrative Axonometric view

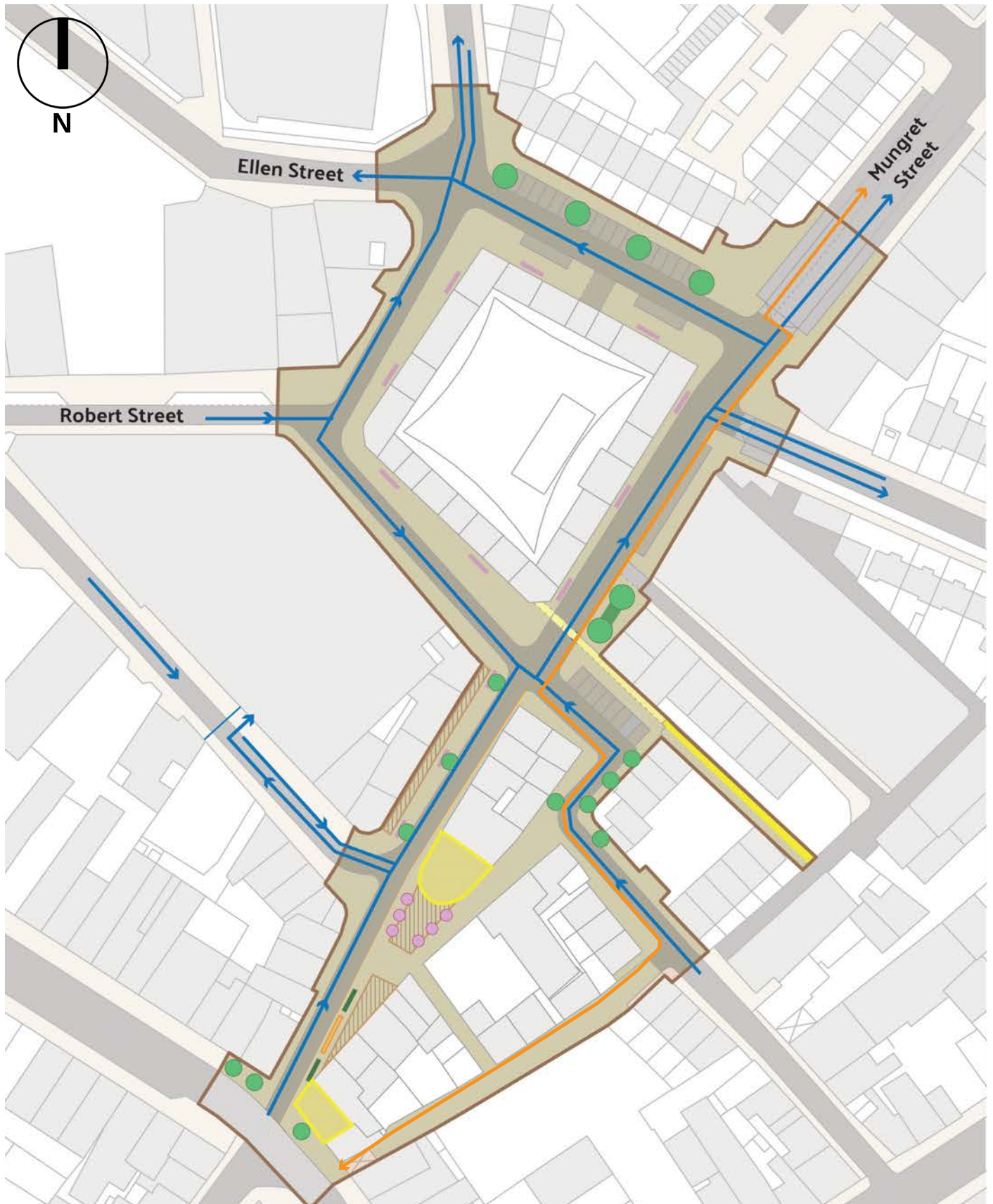


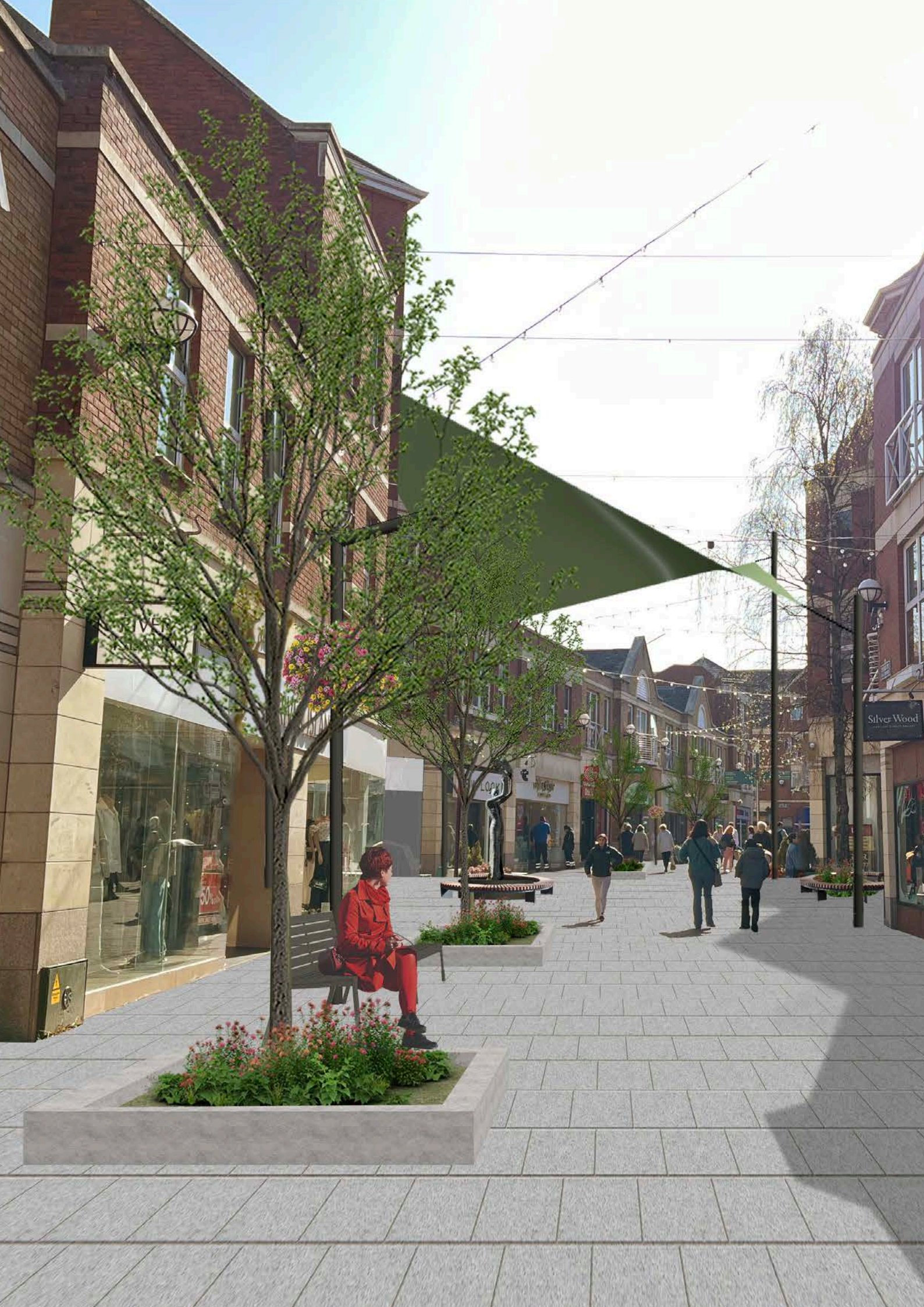
Fig. 30: Illustrative Plan view

Character Areas



Fig. 31: Illustrative Visualisation





Character Areas

Central Core: Cruises Street

Cruises Street is located in the heart of the City Centre, between O'Connell Street, the Milk Market and the Opera Site Development. The great permeability of the area has a potential to attract high footfall and support the economy within the city.

This key shopping area and pedestrian zone is a priority area for URDF 'Great Streets' investment which is linked to street enhancement schemes around the adjacent Market Quarter. Key design drivers are the revitalisation of the public realm to support a diverse mix of uses. This mix will support the night-time economy, encourage longer dwell times, and creation of a welcoming and attractive environment through use of a consistent palette of materials. The recent installation of seating has also helped to improve the Public Realm.

Constraints

- Decline of traditional retail due to changing retail practices and existing retail sizes not viable for current market requirements leading to vacancy.
- Small units are often in individual ownerships which inhibits consolidation and conversion to other land uses e.g. food and drink.

Opportunities

- The recent improvements to O'Connell Street and development of Opera Square and Arthur's Quay could draw additional footfall through the area; this may enhance viability of vacant units.
- Highlighted as a public realm opportunity area in the Public Engagement Survey; the Limerick community are keen to see the area regenerated and become a hub of activity once again.

Key Moves

- Create greater reference to Quimper/Limerick twin connection with paving surface and public art centred around sculpture "The Singer from Quimper".
- Improve Quimper Square, Limerick's twin city namesake, with seating, lighting, 3-phase power for performances/busking.
- Add in-ground tree planting where appropriate, taking into account sun orientation and underground utilities.
- Part 8 application has recently been granted to implement public realm upgrades overleaf.
- Creation of dedicated spill-out spaces for food & drink on Chapel Lane.
- Implement robust natural stone palette with character area specific natural stone banding which transitions to Market Street area (via Chapel Lane).

Character Areas



Fig. 32: Illustrative Plan View



Quimper Square

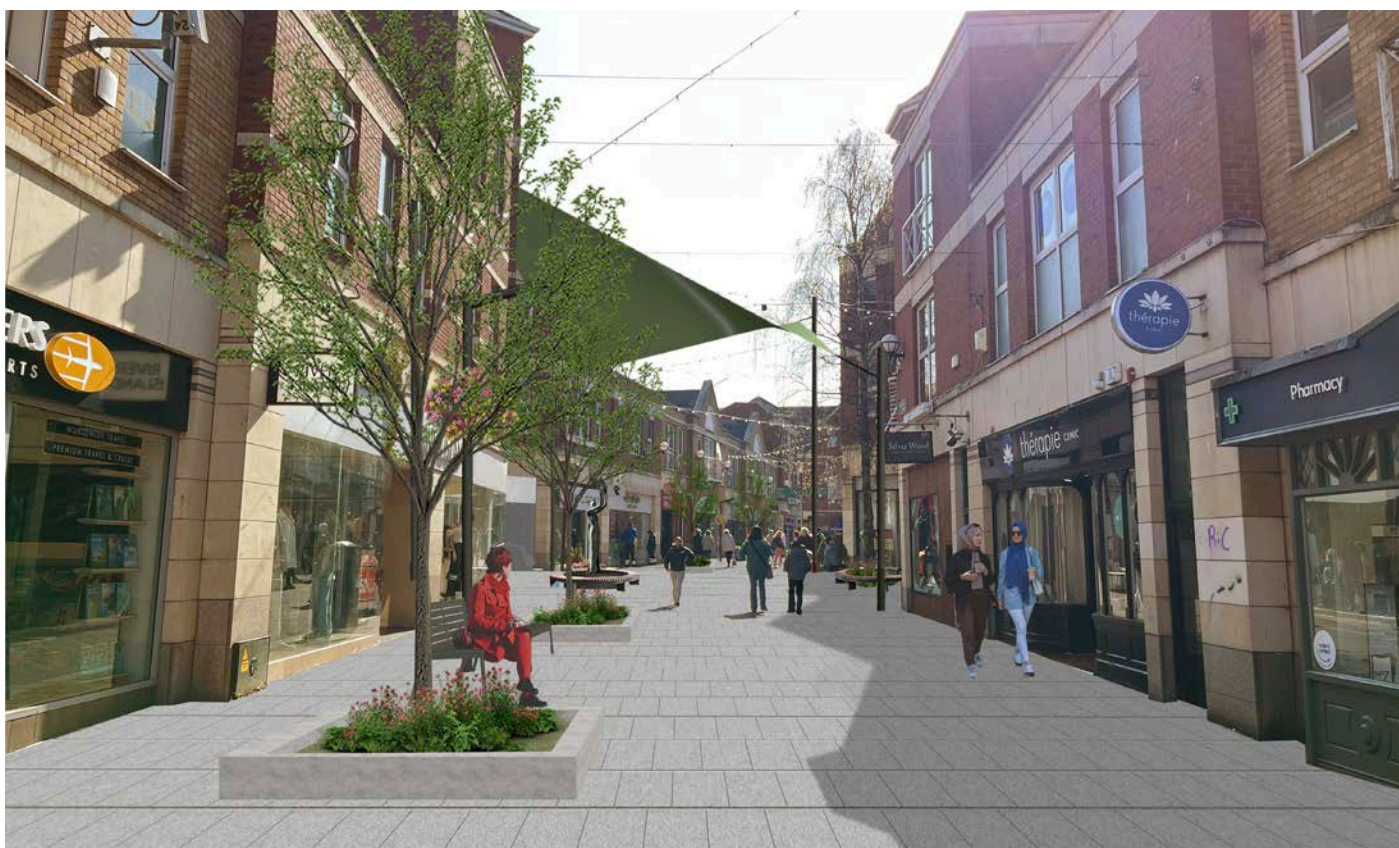


Fig. 33: Illustrative Visualisation

Character Areas

Central Core: Arthur's Quay Park



Existing Plan- Extent of site for Arthur's Quay Framework

The Arthurs Quay Framework Plan in its preparation is underpinned by the statutory planning framework for the area as set out the Limerick Development Plan 2022- 2028, the Limerick 2030 Plan and associated strategies and policy documents.

The Framework Plan is also subject to the requirements of the Strategic Environment Assessment Directive and the Habitats Directive and incorporates an iterative process of environmental and ecological assessments which are being undertaken in parallel.

Framework Plan is currently in progress and that upon the plans completion the Public Realm Strategy will be updated to reflect the proposed layout.



Existing aerial view

Character Areas

Georgian Neighbourhood: Introduction

This area encompasses the latter development of Newtown Pery from the late 18th to the early 19th century (see map detailing Historic Development of the City in Chapter 2). It extends as far west as the River Shannon, to Parnell Street in the east and St Joseph's Street in the south, where the urban form transitions from three to two storey buildings.

Baseline Analysis

- **Urban Form:** Coherent grid pattern, built form, O'Connell Street, Baker Place, People's Park and laneways contribute to strong sense of place.
- **Views:** Prominent landmarks feature within views such as the Daniel O'Connell monument, the Baker Place Clock Tower, and the Rice Monument; Tightly-framed linear views exist down to the Shannon River.
- **Sense of Place:** detractors include on-street parking, infrastructure, pockets of dereliction, poor signage and prominent electricity masts form arrival point at east end of Roche's Street.
- **Quality of Public Realm:** Mixed but undergoing continual improvements including O'Connell Street Phases 2 & 3.
- **Access to Nature:** People's Park provides prime green asset, elsewhere there is a reduction in access to greenery.
- **Tourist Offer:** Multitude of visitor destinations including Limerick City Art Gallery, People's Museum of Limerick and the Belltable Theatre.
- **Retail Environment:** Area is large contributor to night-time and weekend economy - Wickham Way, O'Connell Street, Catherine Street.

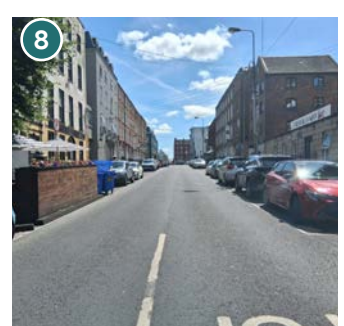
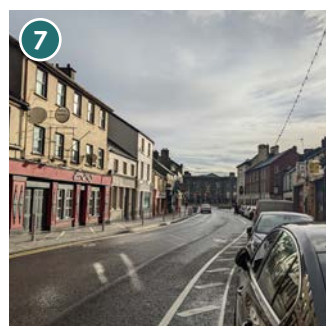
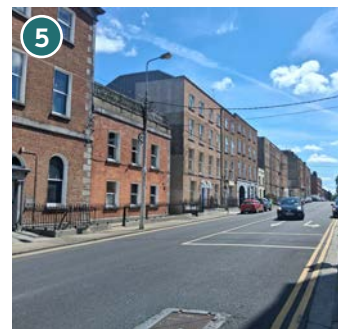
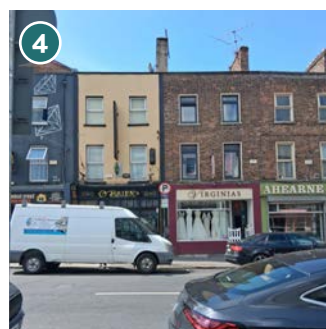
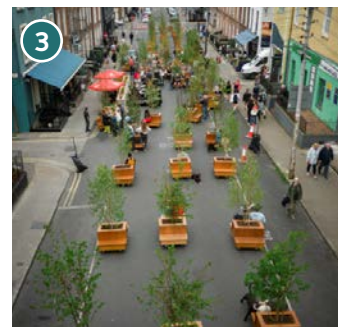
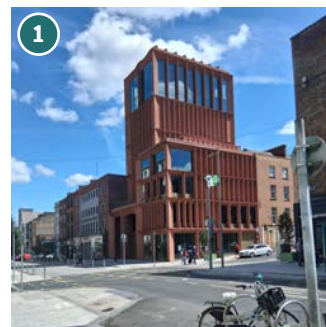
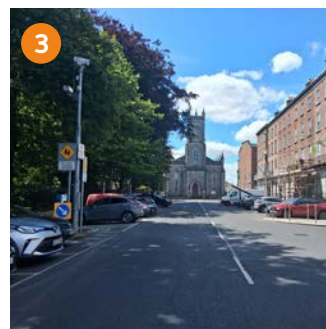
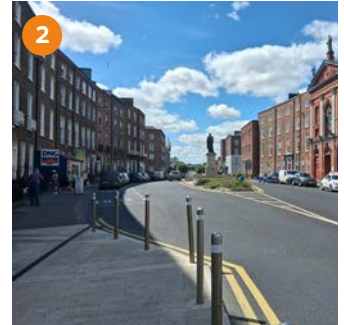




Fig. 38: Georgian Neighbourhood Character Areas

Key Spaces

- 1. People's Park
- 2. The Crescent
- 3. Pery Square
- 4. Baker Place

Key Streets

- 1. O' Connell Street
- 2. Henry Street
- 3. Catherine Street
- 4. Roches Street
- 5. Mallow Street
- 6. Pery Square / Street
- 7. Davis Street
- 8. Glentworth Street

Public Engagement Feedback

"The People's Park... those of us that live in the city use it all the time. It's a beautiful park, a social hub for a diverse community of city dwellers. A treasure to be celebrated. Other parts of the city should have similar green spaces to enjoy. More evening events in the park might be welcomed by residents and visitors also".

"My favourite streets are Thomas Street and Catherine Street. I think low traffic and less noise is why...I like narrow streets. Limerick should work on opening up the lanes to businesses. Some lanes ... have been blocked and turned into cul de sacs. They should knock these walls and fences to reopen both sides of all the laneways for pedestrians to walk through. This encourages businesses to set up in these areas".

Character Areas

Georgian Neighbourhood : Project Principles

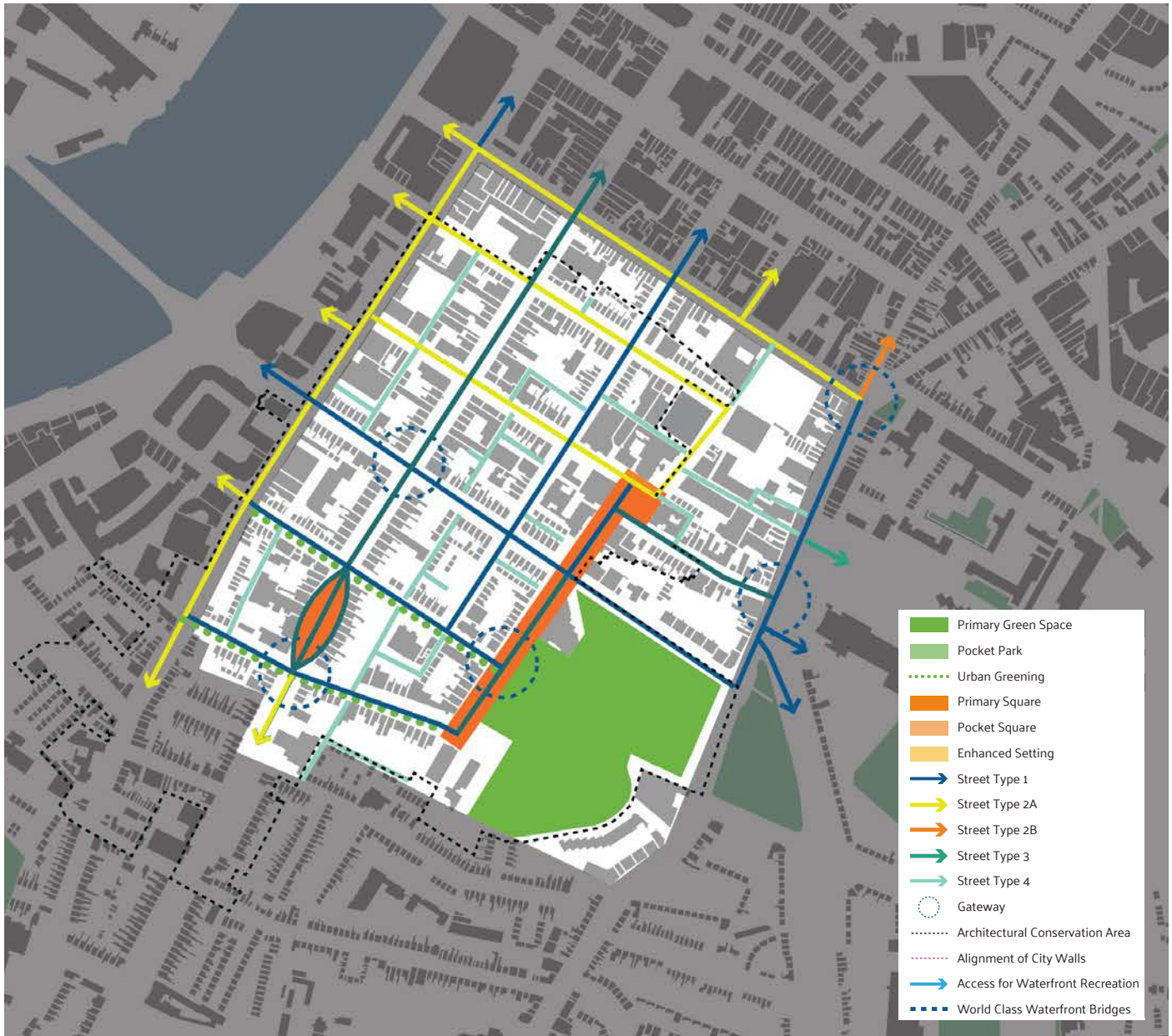
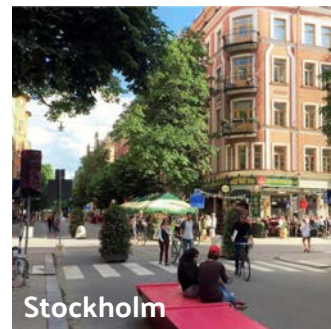


Fig. 39: Georgian Neighbourhood Character Area
Refer to fig. 58: Public Realm Street Hierarchy Pg.120

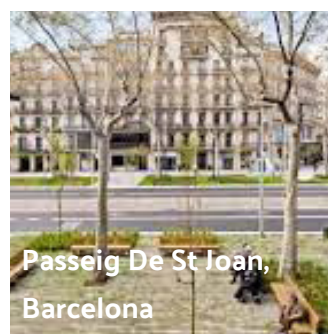
1. Provide greening and appropriate treatment to the historic Crescent.
2. Enhance Catherine Street environment and key Laneway links to support the weekend and night-time economy.
3. Explore options to minimise impact of on-street & surface car parking on historic environment (requires implementation of BusConnects and Park & Ride) and development of progressive parking strategy via Limerick Transport Plan.
4. Enhance the Georgian residential environment through sensitive incorporation of residential infrastructure, cycle/car parking, urban greening, and play features (GBI Priority Action #6).
5. Create green fingers between People's Park and the Waterfront, aligning the route to Active Travel pathfinder projects (GBI Priority Actions #6, 7).
6. Develop high quality public realm space at Pery Square and enhance public realm links to the north, west and east.
7. Improve legibility between Colbert Station and key tourist destinations via Davis Street, Glentworth Street, Parnell Street and key Laneway links.
8. Explore creative opportunities for incorporating urban greening within a highly constrained streetscape (GBI Priority Action #6).
9. Consider opportunities to enhance footfall by pedestrianisation.
10. Explore opportunities for decarbonisation, of the Decarbonisation Zone.
11. Promote Living City Initiative to address dereliction and vacancy in the Georgian Neighbourhood.
12. Identify existing cellars and vaults and their potential future use, i.e. rainwater harvesting or community batteries.



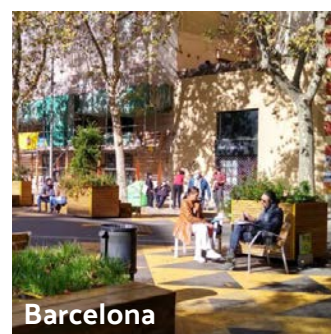
Bath



Stockholm



Passeig De St Joan,
Barcelona



Barcelona



Leuven



Lyon



Montreal



Amsterdam



Character Areas

Georgian Neighbourhood: The Crescent

The Crescent takes its name from the form created by the terraced Georgian buildings, which curve gently on either side of the distinctive crescent shaped plaza. Overlooking the 100m length block is a monument to 19th Century Irish political leader Daniel O'Connell.

Key drivers for this public space include the recognition of its importance as a uniquely enclosed space and as a threshold between city centre and city suburbs. Changing movement patterns and infrastructure will need to be incorporated in a manner that respects the significance of this space within the Architectural Conservation Area No. 1. Redressing the balance between the impact of moving and parked vehicles, and moving and stopped pedestrians will be key to providing new life to the space, as will the emphasising of strong north to south views and preservation of architectural elevations through decluttering the surrounds.

Designations

- Within Architectural Conservation Area 1: Newtown Pery.
- The buildings on either side of the crescent and the O'Connell Monument are listed on the Record of Protected Structures.

Constraints

- Underground vaults place a significant constraint on in-ground tree planting and SuDS; survey and trial pits are required prior to scheme design.

Opportunities

- Extend the recent high-quality public realm improvements from O'Connell Street to The Crescent.
- Create a paved pedestrian-friendly plaza experience which reflects the squares importance, highlights the O'Connell Monument and complements the Georgian architecture.
- Provide a safe, pleasant and age-friendly spill-out zone for adjacent institutions and residents.

Key Moves

- Create at-grade raised-table pedestrian crossings and reduce kerb radii.
- Landscape the crescent plaza by giving priority to pedestrian movement and soft landscaping.
- Provide amenities for a pleasant dwelling experience such as seating and planting.
- Declutter excess signage in alignment with the Limerick Wayfinding and Signage Project.
- Bookend street with feature trees planted in raised planters as per O'Connell Street (due to vault constraints).

Character Areas



Fig. 40: Illustrative Plan View



Character Areas

Georgian Neighbourhood: Pery Square

Pery Square is comprised of a Georgian Terrace opposite People's Park, and bookended by two architecturally prominent churches, namely St. Michael's Church and St. Saviours Dominican Church. Other numerous attractions within the area include: Limerick City Gallery of Art, People's Park, People's Museum. Design drivers for the preservation of the high-quality public realm that presides here are aimed at maintaining views to landmarks and listed buildings, protecting the setting of the built heritage, minimising the impact of vehicles and parking, and extending green fingers from the People's Park right down to the Shannon.

Designations

- Within Architectural Conservation Area 1 – Newtown Pery
- Adjacent buildings are on the Record of Protected Structures

Constraints

- Underground vaults place a significant constraint on in-ground tree planting and SuDS; survey and trial pits are required prior to scheme design
- High demand for on-street parking due to area attractions, hotels and residential uses

Opportunities

- Northern half falls within the Georgian Urban Priority Area
- Pery Square identified within the Great Streets Pilot Initiative

Key Moves

- Create pedestrian-friendly event space
- Improve streets and key laneway links leading to Pery Square and enhance views to Rice monument
- Raised table crossing points connecting memorial through to Art Gallery
- Undergrounding of utilities
- Repaving in line with material palette
- Provide additional greenery



Pery Square

Character Areas

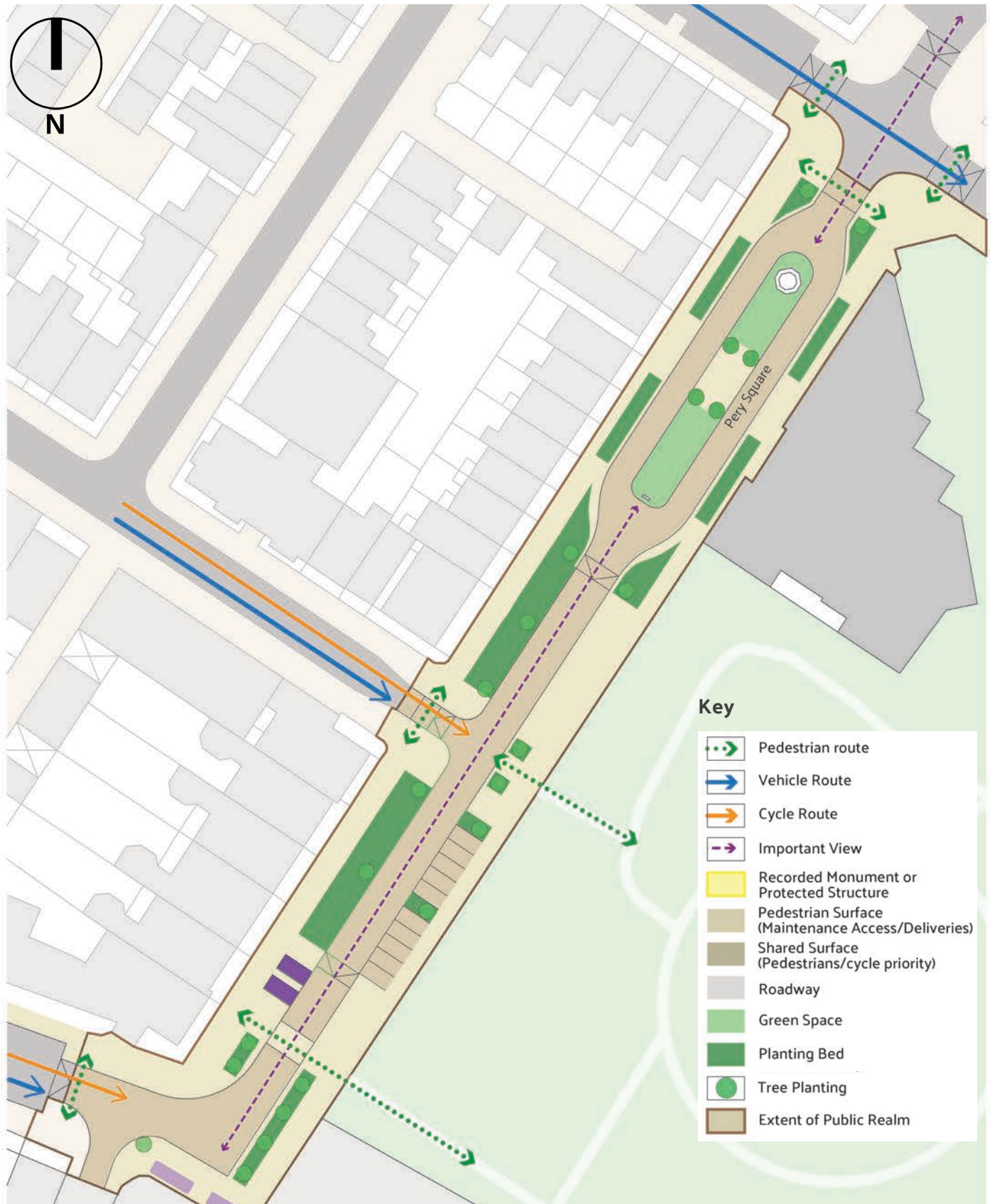


Fig. 42: Illustrative Plan View

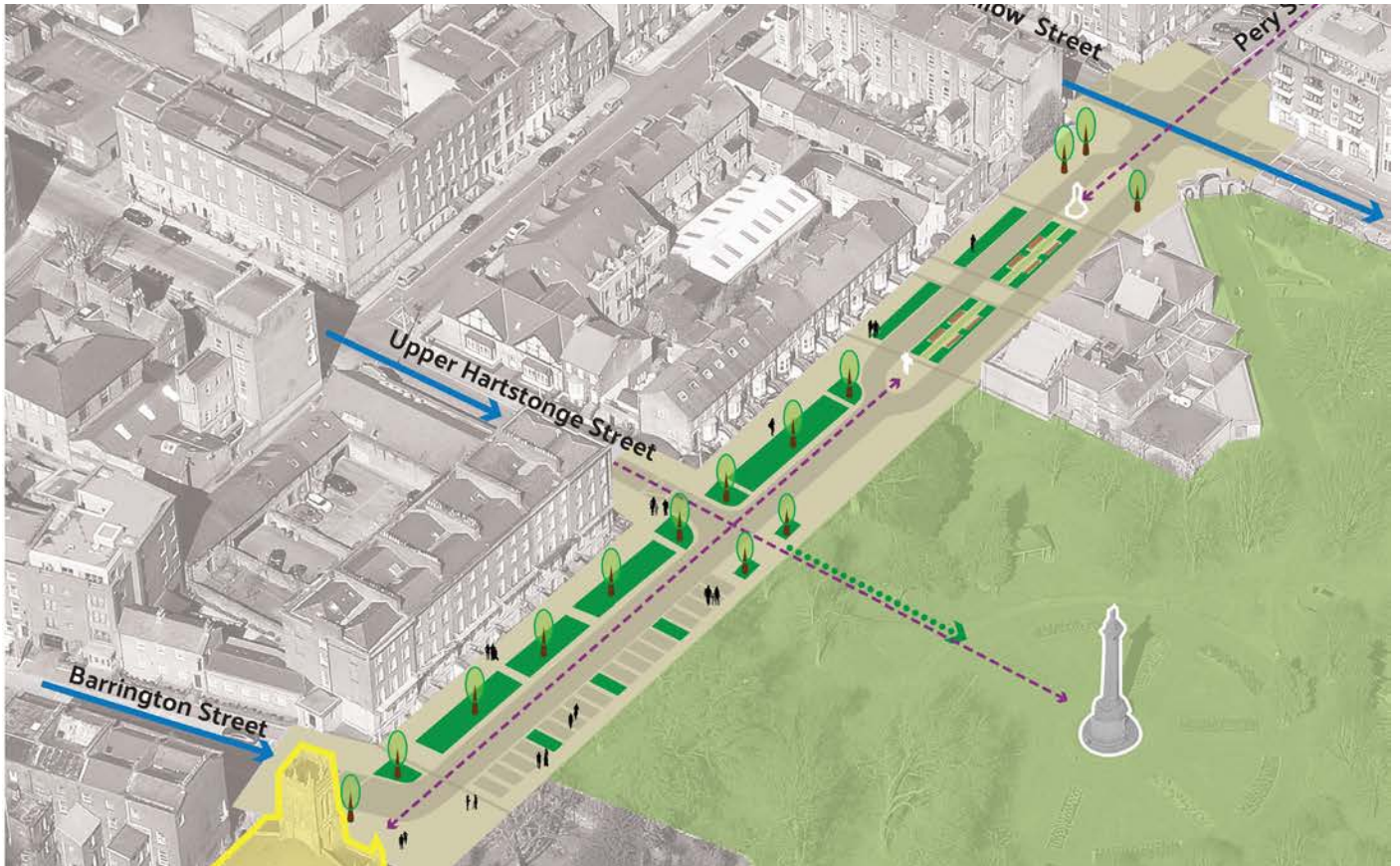


Fig. 43: Illustrative Axonometric View



Fig. 44: Illustrative Visualisation

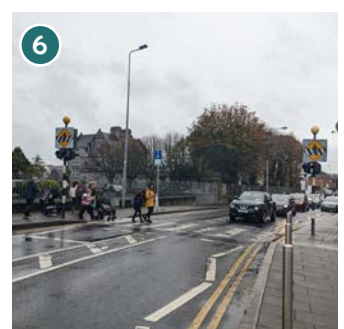
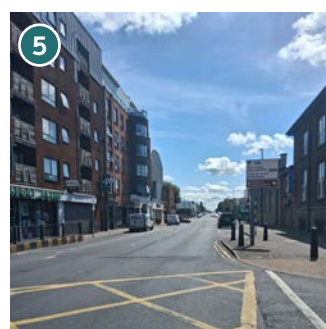
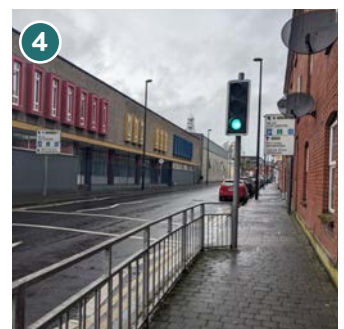
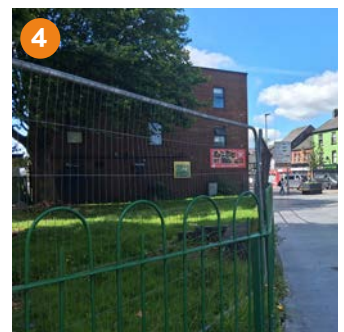
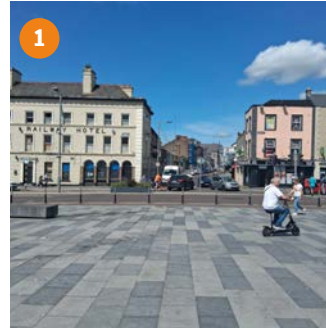
Character Areas

Eastern Gateway: Introduction

This character area encompasses fringe lands to the east of the City Centre, which historically functioned as the institutional and transport quarter.

Baseline Analysis

- **Arrival Experience & Legibility:** Pedestrian movement in a westerly direction towards the City Centre. Poor legibility to City Centre from Colbert Train Station; opportunity site at the end of Upper Gerald Griffin Street has the opportunity to influence the Wickham/Parnell Street gateway setting.
- **Quality of Public Realm:** There have been recent improvements to the public realm at Colbert Plaza and to Parnell Street. However further improvements will be required to better provide cohesion with the City Centre.
- **Urban Form:** Fractured urban grain is evident at the Sexton Street/Roxboro Street junction, to the south of Colbert Station and close to the hospital.
- **Access to Nature:** There is a small greenspace at the corner of Sexton Street/Parnell Street; larger underutilised greenspace at Hyde Road Park, with parking encroaching on the greenspace.



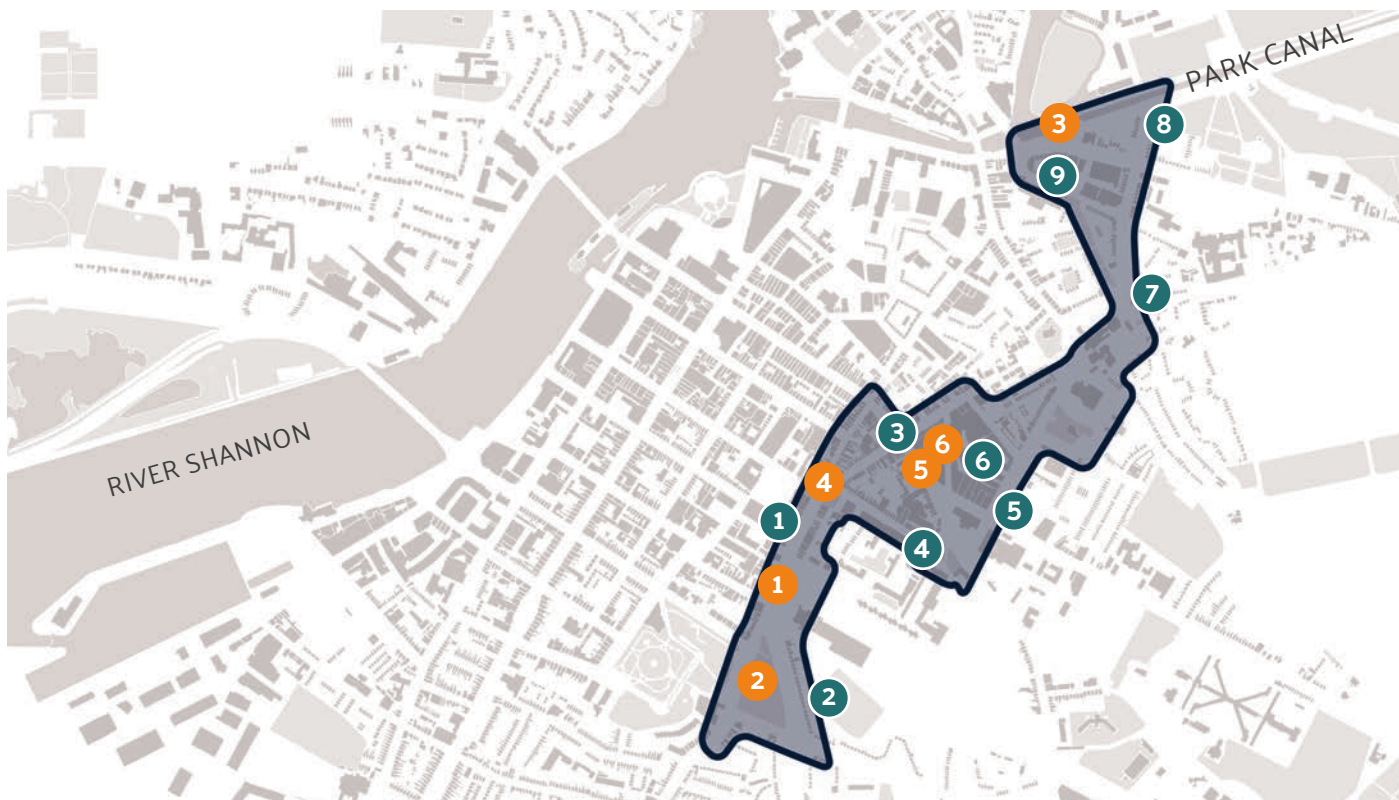


Fig. 45: Eastern Gateway Character Area

Key Spaces

- 1. Colbert Station
- 2. Hyde Road Park
- 3. Park Canal
- 4. Parnell Street greenspace
- 5. Upper William Street
- 6. Sexton Street / Roxboro Road junction

Key Streets

- 1. Parnell Street
- 2. Hyde Road
- 3. Upper / Lower Gerald Griffin Street
- 4. Sexton Street
- 5. Upper William Street / Newtown Mahon
- 6. Cathedral Place
- 7. New Road
- 8. St. Leila Street
- 9. Clare Street

Public Engagement Feedback

"Less cars, being able to walk from Colbert station to both Thomond Park, Limetree Theatre and the Gaelic grounds for example, without being hindered at every opportunity for the sake of cars (traffic lights etc)".

"more trees, and keep the lovely tall trees that are, for instance, near Carey's Road. They're a treasure".

"Parnell St and Davis St should be attractive, vibrant spaces for people arriving into Colbert by bus/train. A face-lift for the station itself is of little use when you arrive out onto a drab street. Also, affordable/free, publicly owned meeting spaces for groups and artists".

Character Areas

Eastern Gateway: Project Principles

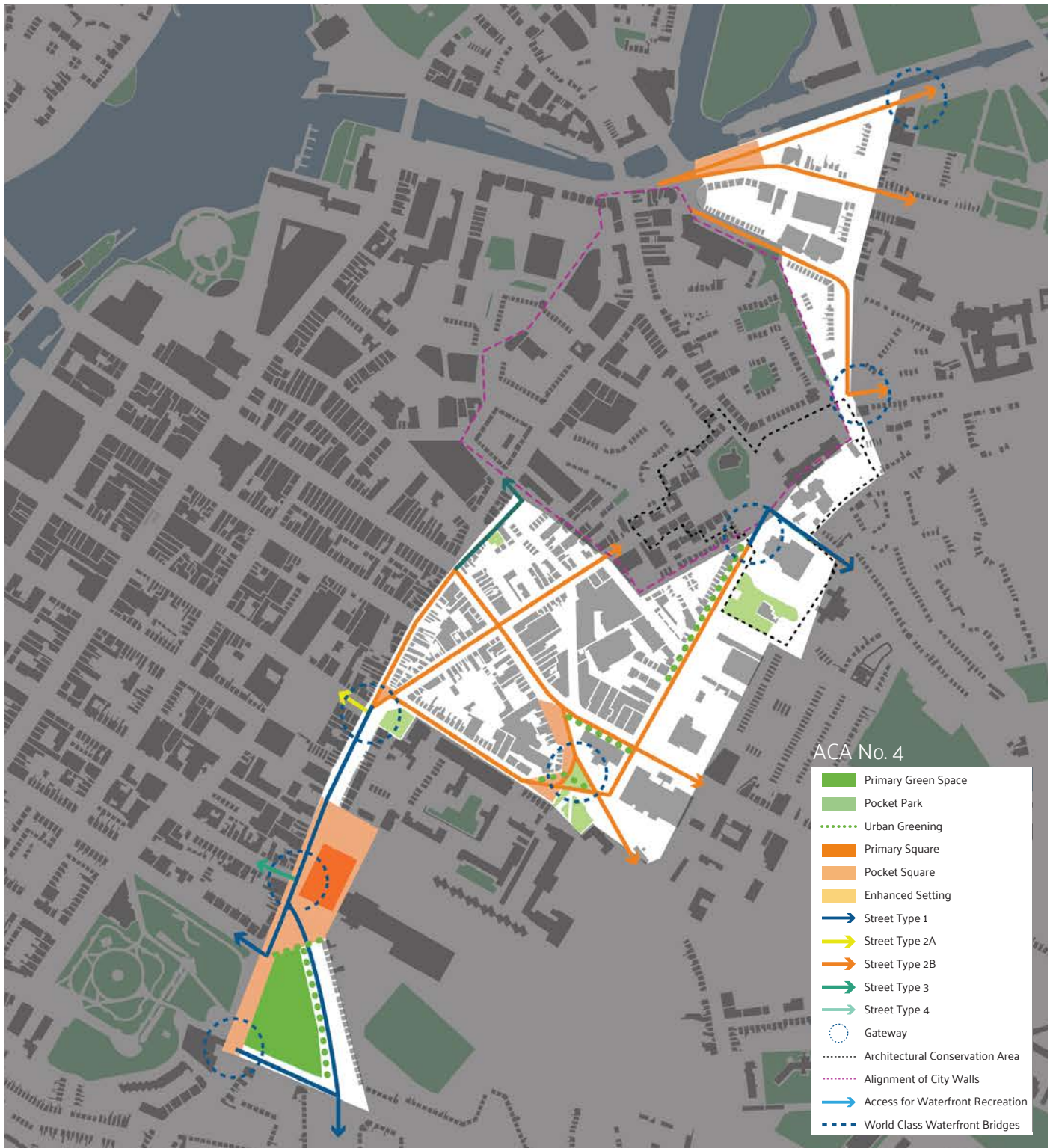
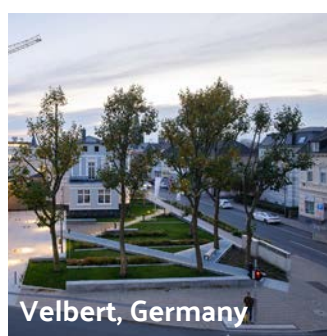
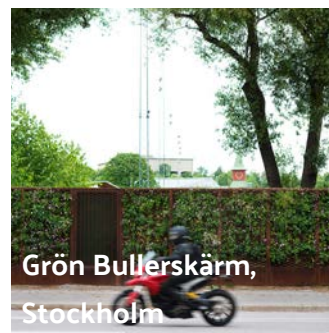


Fig. 46: Eastern Gateway projects
Refer to fig. 58: Public Realm Street Hierarchy Pg.120

1. Improve legibility of connections through the Eastern Gateway area to Englishtown, the Milk Market from Colbert Station. Enhance key vistas to local landmarks.
2. Provide streetscape improvements to enhance the pedestrian experience, and enhance the retail environment, markets and night-time economy.
3. Provide visual uplift to northern Active Travel links via Parnell St, Wickham St, High St.
4. Increase greening of streets and transport corridors (GBI Priority Action #6).
5. Identify areas where pocket parks can be created, both permanent and temporary (GBI Priority Action #2, 3).
6. Improve gateways into the City Centre generally; enhance legibility of historic gateways, repair fractured urban grain.
7. Develop improved greenspace at Hyde Road Park & People's Park Gateway as celebration of Green City Region with sustainable focus (Items 17 and 2: Colbert Green Space and Public Realm Strategy, GBI Priority Action #2,3).
8. Develop improved setting to City Walls at St Leila Street / St John's Hospital Gateway, emphasising the entrance into historic city (LPD Objective EH042; Town Defences and Layout)
9. Develop improved setting to Sexton Street/ William Street Gateway, including setting of St John's Pavilion and Courthouse.
10. Develop 'Limerick Link', a raised cycle and pedestrian route leading to the HSE lands and to the southern districts (Item 4 as listed in Colbert Green Space and Public Realm Strategy, GBI Priority Action #6).
11. Identify existing cellars and vaults and their potential future use, i.e. rainwater harvesting or community batteries.





Character Areas

Eastern Gateway: Hyde Road Park

Hyde Road Park sits adjacent to the prominent People's Park. It has consisted of a largely unprogrammed green space for many years, but lies within the Colbert Quarter Framework boundary and as such is due to undergo development. Key design drivers for this triangular wedge should include unifying the People's Park and Hyde Road Park to create a dynamic green gateway into the city of Limerick, and establishment of a defined public arrival space that will create a fresh visual identity for Limerick as part of the Colbert Quarter development.

Designations

- Adjacent Architectural Conservation Area 1: Newtown Pery.
- Colbert Station and the Railway Hotel are listed on the Record of Protected Structures.

Constraints

- Requires re-routing of existing traffic lanes.

Opportunities

- The Colbert Quarter Spatial Framework Site Strategy identifies an opportunity site adjacent Hyde Road Park as “an improved spill out space from the Limerick Living Room (a new civic building), Wi-Fi hotspots and play space.”
- An opportunity to create a park character, with a landmark civic building, that will be distinctly different to the People's Park and cater to the needs of a 21st century community.

Key Moves

- Create extension to Colbert Plaza & improve connectivity through addition of 2no. raised table crossing points.
- Rationalise surface car parking.
- Protect mature tree stands.
- Close road between Hyde Park and Peoples Park to traffic.
- Existing mature trees on site to be retained.

Character Areas

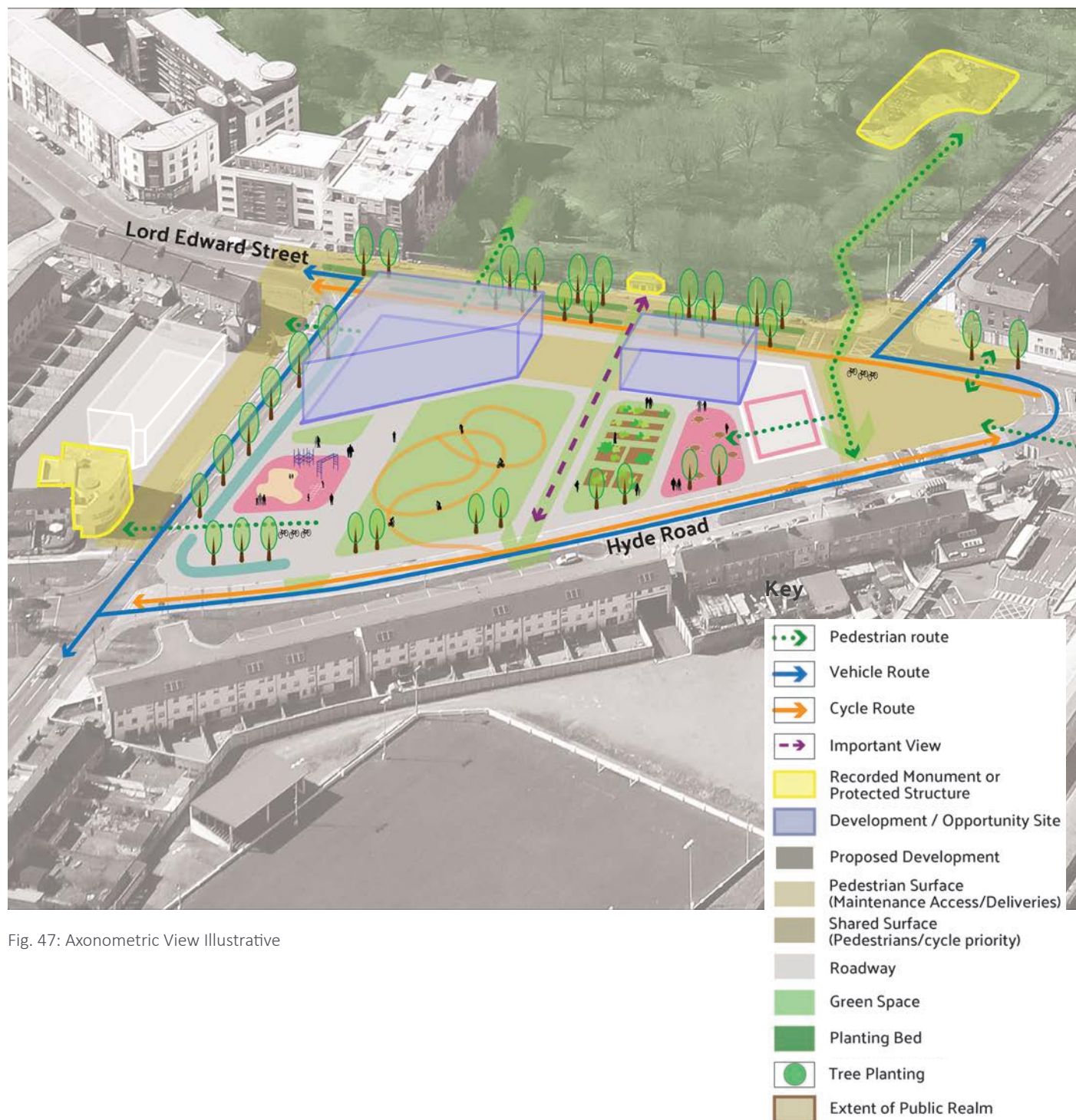


Fig. 47: Axonometric View Illustrative



Hyde Road Park

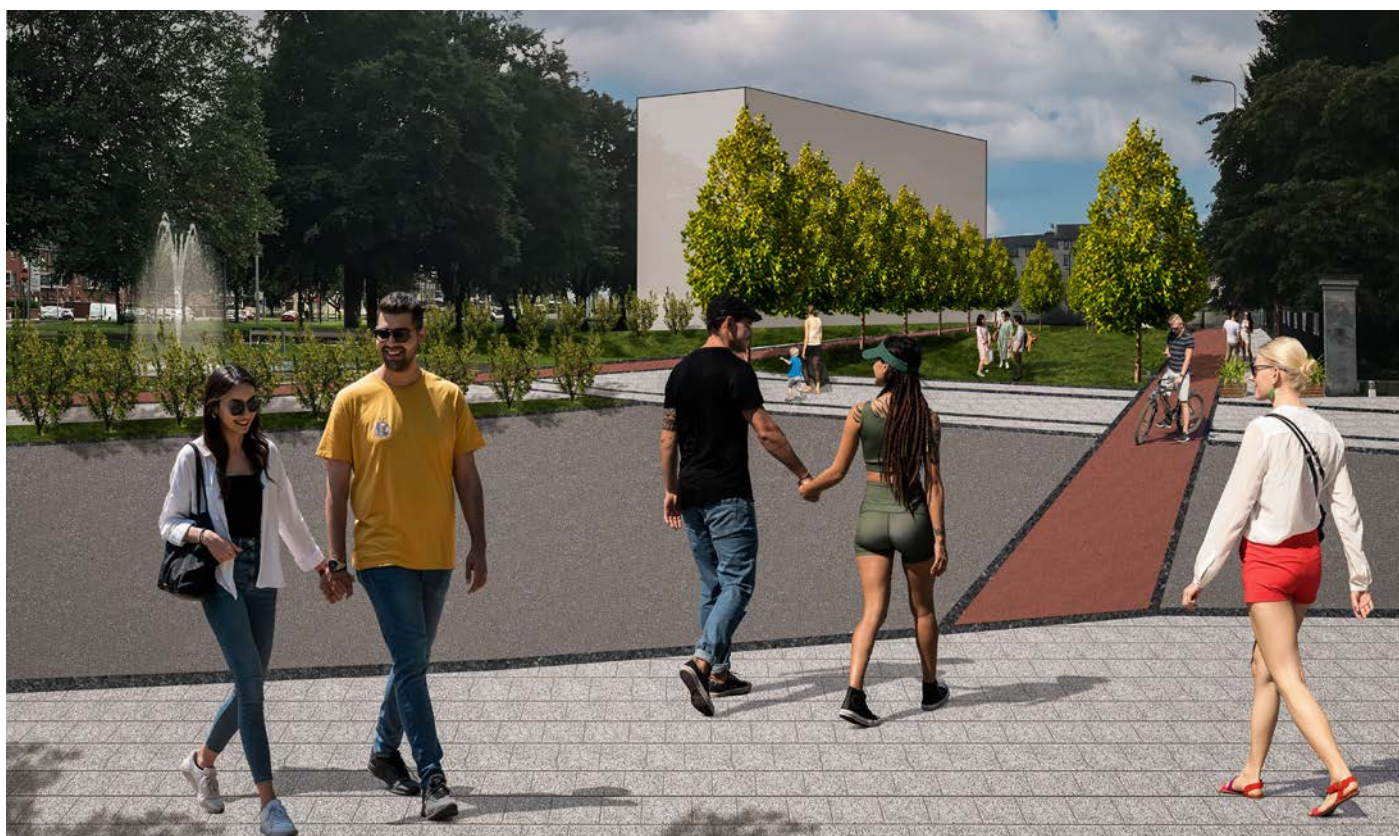


Fig. 48: Illustrative Visualisation



Character Areas

Eastern Gateway: Sexton Street Gateway

A busy gateway dominated by vehicular traffic despite being overlooked by heritage assets, this intersection brings with it ample opportunities for public realm improvements through the high-level Limerick Transport Plan study and at a more granular level with the connectivity of various Active Travel pathfinder projects. Key design drivers include repairing the fractured urban grain by enhancing the poor-quality gateway into the city, addressing the absence of greenery, and creating a safer pedestrian environment and route to school along with reducing the impact of noise and air pollution on residential communities, schools etc.

Opportunities

- The introduction of the cycle path allows a re-evaluation of roadway requirements at the roundabout. Secondary cycle path proposed along Sexton Street and Roxboro Road.
- Proximity to recent public realm improvements on Upper William Street.
- Proximity to civic buildings; schools and courthouse.

Design Fundamentals

- Introduction of 30 km/h city centre speed limit enhances pedestrian safety and grants more priority to the improvement of active travel movement instead of car traffic.
- De-cluttering exercise should be undertaken to remove all extraneous signage, guardrails, roadway markings, with a focus on improving pedestrian movement across the space.
- Active Travel proposals designed to provide safe routes to school for students. If segregated cycle paths are required, they should allow for incorporation of a verge with tree planting.
- Opportunities for urban greening within school grounds should be explored to enhance visual amenity, contribute to green infrastructure and mitigate air and noise pollution.
- Opportunities for greening of other significant boundaries to the space should be explored, e.g. in-ground street tree planting, planting of larger tree species to create a focal point, create seasonal interest at key nodes.
- Formalisation of car parking to create a pocket square.

Character Areas



Fig. 49: Illustrative Axonometric View

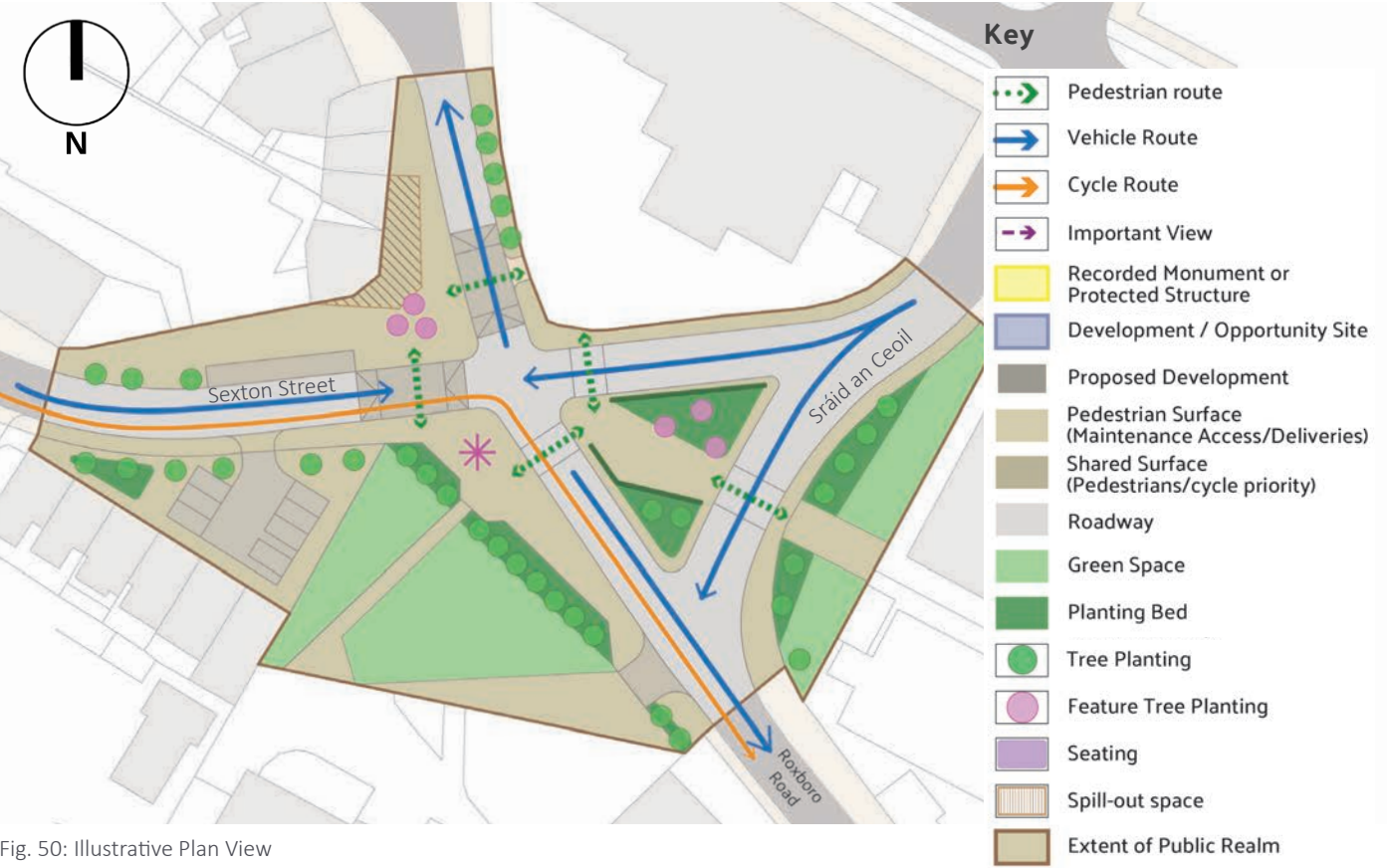


Fig. 50: Illustrative Plan View



Sexton Street



Fig. 51: Illustrative Visualisation



Character Areas

Eastern Gateway: Wickham Parnell Pocket Park

Design Drivers

- Unifying two disparate areas of open space, across a major roadway junction.
- Repairing areas of the city where the urban grain has been fractured by movement corridors, resulting in very poor connectivity and legibility for pedestrians.
- Enhancing a poor quality gateway into the city.
- Addressing the absence of greenery at a key city gateway.
- Unifying remnant buildings and contemporary architecture.
- Reducing the impact of noise and air pollution on residential communities, schools etc.

Design Fundamentals

- Kerb radii, road widths, junctions and visibility splays reduced following introduction of the 30 km/h city centre speed limit.
- De-cluttering exercise should be undertaken to remove all extraneous signage, guardrails, roadway markings etc. with a focus on improving pedestrian movement across the space.
- Wickham Street to be prioritised for pedestrians and cyclists, in line with Active Travel aspirations.

Designations

- Buildings on Roche's Street and Sexton Street listed on the Record of Protected Structures.
- Recent public realm works to Parnell Street and Colbert Station provide an attractive environment to south of the site.

Opportunities

- Opportunity for creating pocket park.
- The historic wall to the listed Presentation Convent on Sexton Street provides an attractive backdrop to the southern half of the space.
- Opportunity for urban greening, set back from facade.

Character Areas



Fig. 52: Illustrative Plan View

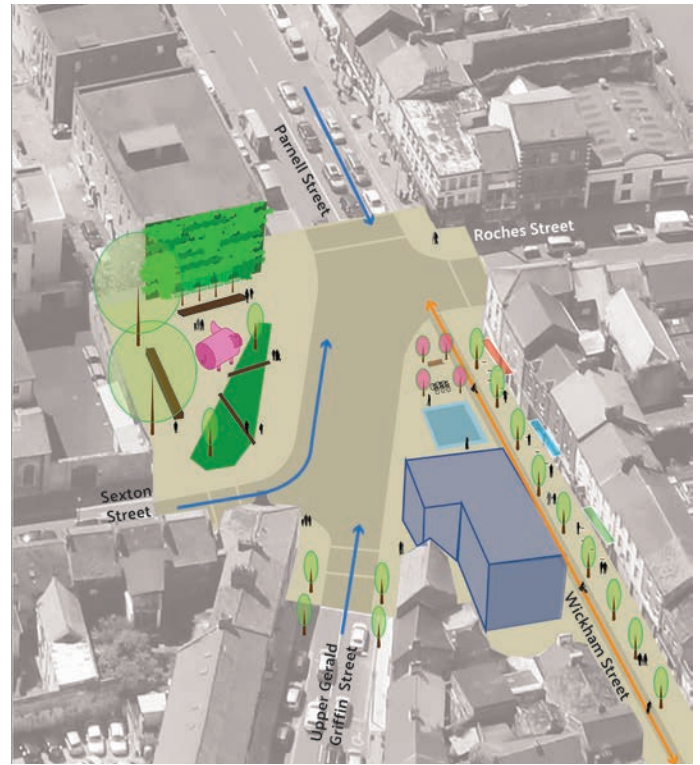


Fig. 53: Illustrative Axonometric View

Key

-  Pedestrian route
-  Vehicle Route
-  Cycle Route
-  Important View
-  Development / Opportunity Site
-  Proposed Development
-  Pedestrian Surface (Maintenance Access/Deliveries)
-  Shared Surface (Pedestrians/cycle priority)
-  Roadway
-  Green Space
-  Planting Bed
-  Tree Planting
-  Feature Tree Planting
-  Seating
-  Spill-out space
-  Water Feature
-  Extent of Public Realm



Parnell Street



Fig. 54: Illustrative Visualisation



Chapter Four

Streets

- Introduction
- Determining the Street Hierarchy
- Public Realm Street Hierarchy
- Englishtown Streets
- Irishtown Streets
- Central Core Streets
- Georgian Neighbourhood Streets
- Eastern Gateway Streets

Streets

Introduction

A liveable city street comprises of streets and footpaths that invite people to linger, and socialize, where people can support locally owned businesses, where people know the shopkeeper by name. In the past streets were simply movement corridors, performing the daily functions of providing access to commerce, and generally getting from A to B. This is now seen as the minimum requirement for a street in an urban setting. Better streets make those journeys comfortable, safe, pleasing, dignified and even sometimes experiential.

Public Survey

A highly-ranked theme which emerged from the public survey which forms this strategy was the challenge of traffic congestion and difficulty moving around the city in general. People raised concerns about safety and ‘access for all’. There was a strong emphasis on the need for an expanded public transport service which included commentary on the location of bus stops, seating/shelter at bus stops, lighting, and safety considerations.

The difficulties encountered by cyclists in terms of the continuity, coherence, connectivity and safety of biking infrastructure was also raised. There were numerous requests to enable people to walk unhindered by cars parked on footpaths and to have more responsive lights at pedestrian crossings and to be able to bike in a safer environment. There were also calls to expand pedestrianisation and close more city centre streets to local traffic.

Another theme that emerged from the public survey was the need to enhance streets as spaces for public life, and to design streets so that people could meet outdoors unencumbered by traffic and parked cars.

The potential to develop linear routes by linking existing public spaces was also identified, along with suggestions for the revitalisation of streets which have seen better days.

The Covid-19 pandemic brought to light how an unprecedented virus could impact the physical health of communities, but also highlighted the mental health implications of social isolation.

When we think of streets as places for people, rather than conduits for cars, we can diversify the ways people can get around, increase walking and cycling, and generally enrich street life overall. This Chapter looks at solutions to the civic desire for better streets, and how Limerick’s streets can become places to go to, rather than just spaces to move through.

General Requirements for Streets

- Robust streetscape; easy for all users to navigate and easy to maintain.
- Accessible environment; age-friendly, universal design.
- A safe environment that feels welcoming to all users.
- Adaptability to respond to changing patterns of movement, climate change and infrastructure requirements.
- Sustainable.
- Appropriate design which reflect local vernacular materials.

Challenges to Street Design

Streetscape design must carefully balance the needs of all users, acknowledging the following challenges to spatial design:

- Limited space within the street geometry to balance public transport, active travel and on street parking with pedestrian movement.
- Desire for events and animation of the public realm, leading to increased pedestrian volumes and longer dwell times.
- Pressures on land availability generally within the city centre.
- Privatisation of space.
- Managing spill-out from bars and restaurants including Parklets and outdoor dining.
- Managing safety through intuitive street design minimising the needs for signage, markings and barriers.
- Managing the needs of a working city centre: bin storage, refuse collection, deliveries.
- Competing spatial demands of above and below-ground infrastructure.
- Caution to be shown in proximity to heritage features and curtilage of Protected Structures, limiting new development opportunity.
- Limited space for urban greening, which can assist with combating noise and air pollution and mitigating effects of climate change.
- Limited space below ground and in the street width for Sustainable Urban Drainage Systems (SuDS), which can capture excess surface water run-off and mitigate effects of climate change.

Future-proofing the Streetscape

Streetscape designs should be adaptable and anticipate future changes to street priorities, allowing for ease of adaption. These changes may include:

- Increased student population, through development of the UL City Campus, leading to increased demands for cycle corridors and secure cycle parking.
- An ageing population, increased demand for seating and resting places, public toilets, space for mobility aids, age-friendly parking for cars and scooters.
- A move to electric vehicles, conversion of on-street parking bays to EV charging points, allowance for ducting routes and zoning of parking infrastructure.
- Diversification in cycle types, such as uptake of cargo bikes for community and business, requirement for wider cycle lanes and residential cycle storage.
- Changes in behaviour post-Covid; increase in outdoor socialising.

Streets

Determining the Street Finishes

The following street hierarchy has been informed by analysis of the following criteria:

1. Historic street pattern
2. Identification of areas of high pedestrian footfall within the city centre and the key links between them, along with important destinations or city arrival points.
3. Future patterns of movement resulting from the implementation of the Limerick Transport Plan

1. Historic Significance

Mapping of city streets was undertaken to identify the historic street pattern, the extent and impact of Architectural Conservation Areas and the location of significant heritage features.

The historic importance of streets within Englishtown (Nicholas Street, Bishop Street and Thomondgate) and Central Core (O'Connell Street) is widely known. The analysis also highlights the significance of routes through Irishtown, in particular the inverted Y shape of Broad Street, John's Street and Mungret Street, leading into Irishtown from the crossing of the Abbey River at Baal's Bridge. The mapping reveals the preserved integrity of the network of laneways that lead from Broad Street towards the eastern city walls. The significance of these routes is not readily apparent when walking through Irishtown, due to the historic lack of investment in the public realm and the poor quality and condition of the built form. The significance of streets within the Eastern Gateway, such as Wickham Street, High Street, Gerald Griffin Street and Old Windmill Road is also revealed by this analysis.

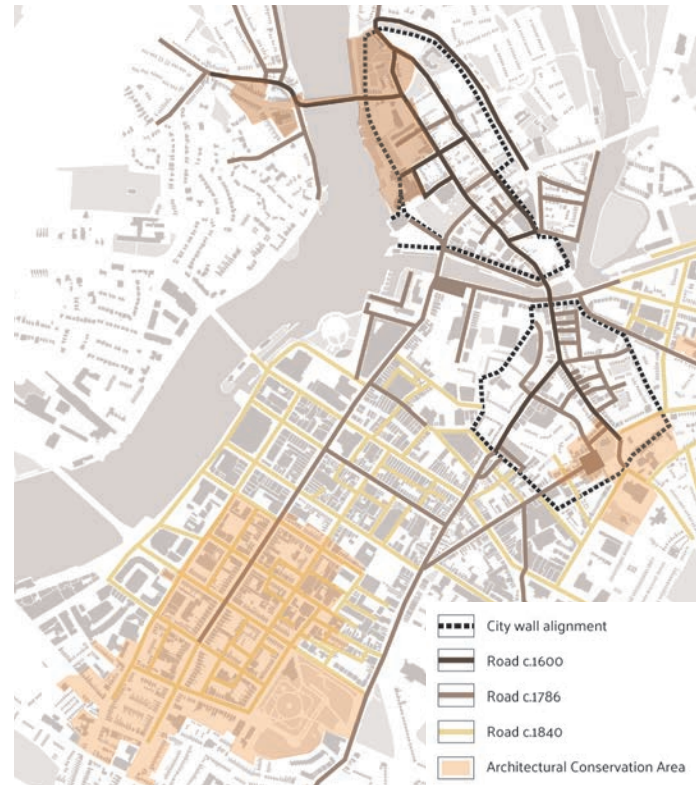


Fig. 55: Historic Significance

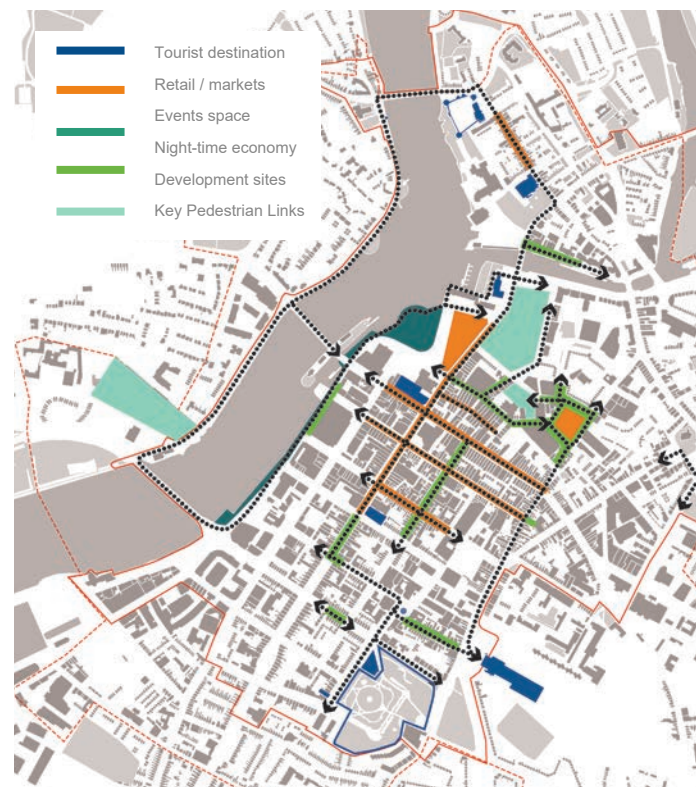


Fig. 56: City Context and Destinations

2. City Context and Destinations

City streets were mapped to understand locations where high pedestrian activity typically occurs. This highlights areas of high footfall and reveals important connections between destinations.

Gauging the pedestrian footfall was based on the location of key retail areas, tourist destinations, city arrival points (transport hubs), existing pedestrianised areas and the linkages between them.

3. Future Movement Corridors

Mapping of city streets informed priorities for movement, changes proposed as part of LSMATS, Limerick Cycle Network corridors have also been defined with reference to DMURS.



Fig. 57: Future Movement Corridors

	Primary Movement
	Secondary Movement
	Pedestrian / Cycle Priority
	Laneway

Key Laneway Link

The plan overleaf identifies the laneway links that support the street hierarchy and delivery of the overall public realm vision. Outline proposals for the Laneways form part of a separate strategy.

Characteristics of Street Type 4

- May be identified for public realm improvements as part of the Limerick Laneways project
- Traditional access point to service areas

Street Examples

Examples of each type of street are provided in the following pages. Locations are identified on the map overleaf.

Streets

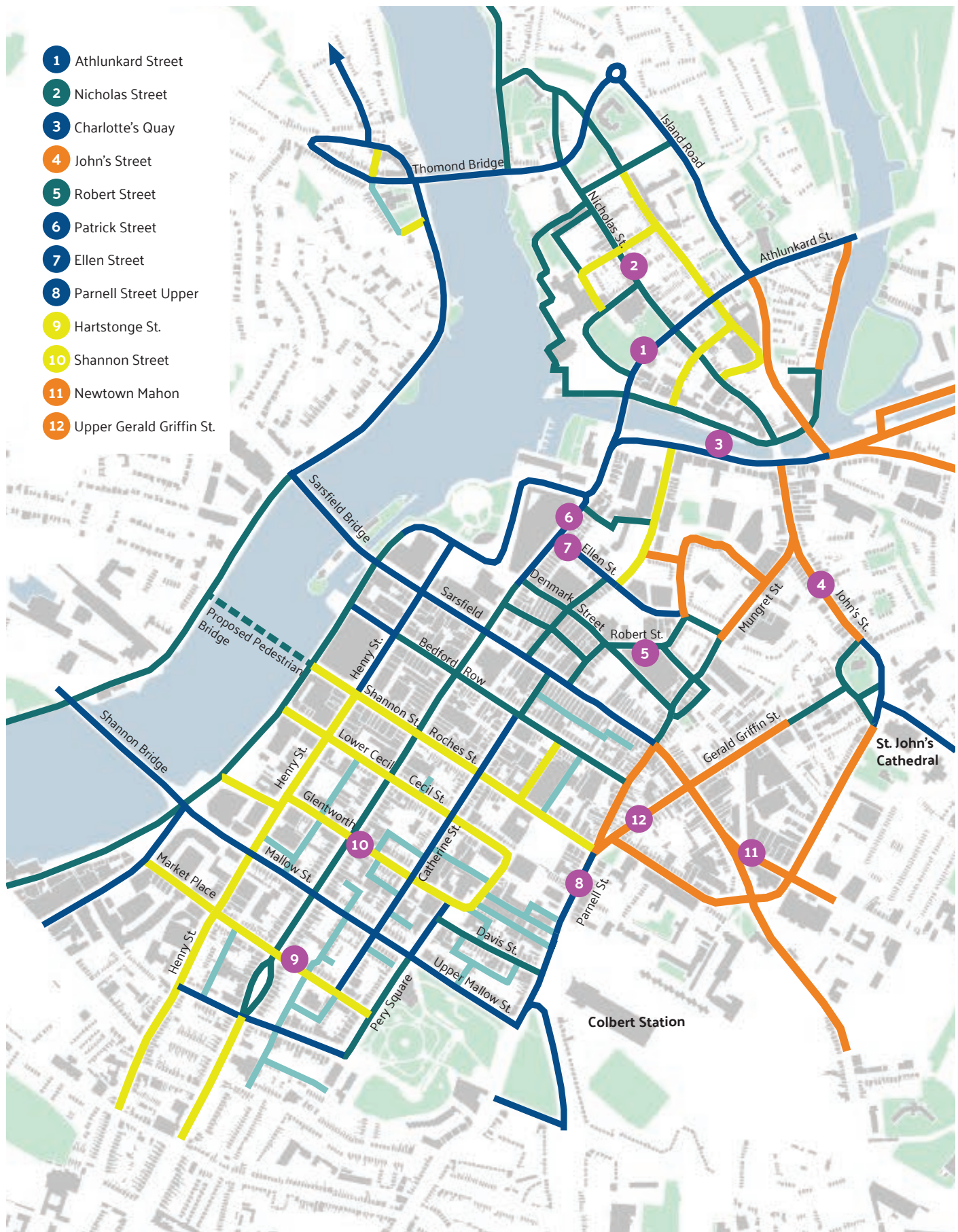


Fig. 58: Public Realm Street Hierarchy

Street Type 1

- Athlunkard Street
- Charlotte's Quay
- Patrick's Street
- Ellen Street
- Parnell Street

Finishes:

1. Footpath: Grey Granite
2. Horizontal banding: Granite *
3. Upstand Kerb: Irish Limestone
4. Road Surface: Bitumen

Street Type 2A

- Glentworth Street
- Upper Hartstonge Street

Finishes:

1. Footpath: Reconstituted Stone
2. Horizontal banding: Granite *
3. Upstand Kerb: Irish Limestone
4. Road Surface: Bitumen

Street Type 2B

- John's Street
- Newton Mahon
- Upper Gerald Griffin Street

Finishes:

1. Footpath: Pre-Cast Concrete Pavers
2. Horizontal banding: Granite *
3. Upstand Kerb: Irish Limestone
4. Road Surface: Bitumen

Street Type 3

- Nicholas Street
- Robert Street

Finishes:

1. Footpath: Mixed Grey Granite
2. Horizontal banding: Granite *
3. Upstand Kerb: Irish Limestone
4. Road Surface: Granite

Street Type 4 - Laneway Streets

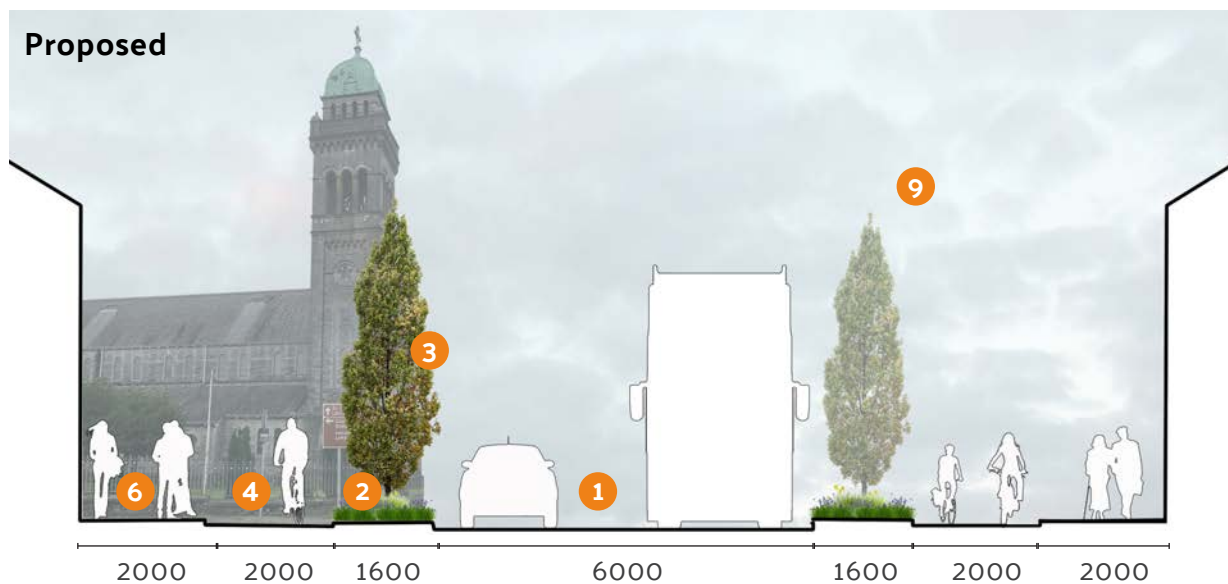
Finishes:

1. Footpath:
2. Horizontal banding: Reconstituted or salvaged Stone
3. Upstand Kerb: Irish Limestone
4. Road Surface: Bitumen

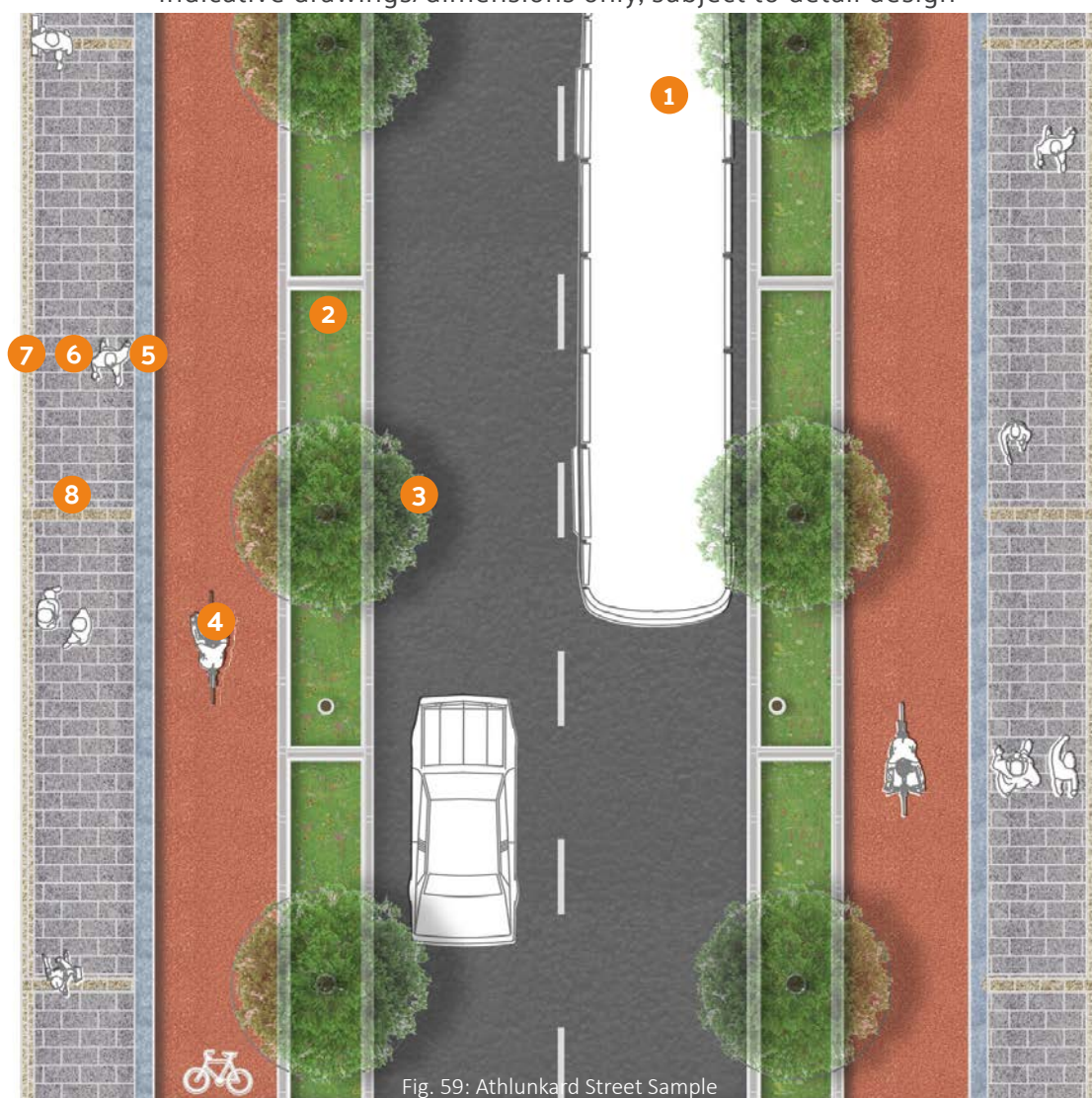
* Banding colour corresponds to character area

Englishtown Streets

Street Type 1: Athlunkard Street



Indicative drawings/dimensions only, subject to detail design





Legend

1. BusConnects corridor: width dependent on trafficking and future route design.
2. SuDs rain garden planter: minimum 1200mm width (varies). Inlet kerb edge, check dams and outlet included as standard. Appropriate plant species selection, see Chapter 6 for details.
3. Tree planting: narrow-crowned trees c. 3m canopy spread maintains clear route for buses and minimise long-term pruning requirements. See Chapter 6 for details.
4. Segregated, single cycleway: minimum 2000mm wide, refer to Cycle Design Manual for further guidance. At road level. Finish as per NTA standards (Red).
5. Natural stone upstand kerb: 300mm width.
6. Footpath: minimum 2000mm width. Natural stone paving.
7. Natural stone banding to building line.
8. Natural stone banding aligned with tree planting positions.
9. Undergrounding of overhead power and replacement of street lighting to be considered.

Design Considerations

- BusConnects Route (LSMATS)
- Primary Cycle Route (LSMATS)
- Corridor views dominated by St Mary's Church
- On street parking provision
- Overhead utilities
- Underground utilities within footpath
- Mitigation of air pollution through tree planting
- Incorporation of Sustainable Urban Drainage Systems

Improvements

The proposed redesign will transform the existing three-lane road into a two-way street, unlocking space for dedicated cycle lanes, enhanced footpaths, and substantial new planting. Together, these improvements will create a greener, safer, and more welcoming streetscape, improving connectivity while delivering a higher-quality public realm for all users.

Englishtown Streets

Street Type 3 - Tertiary Priority: Nicholas Street

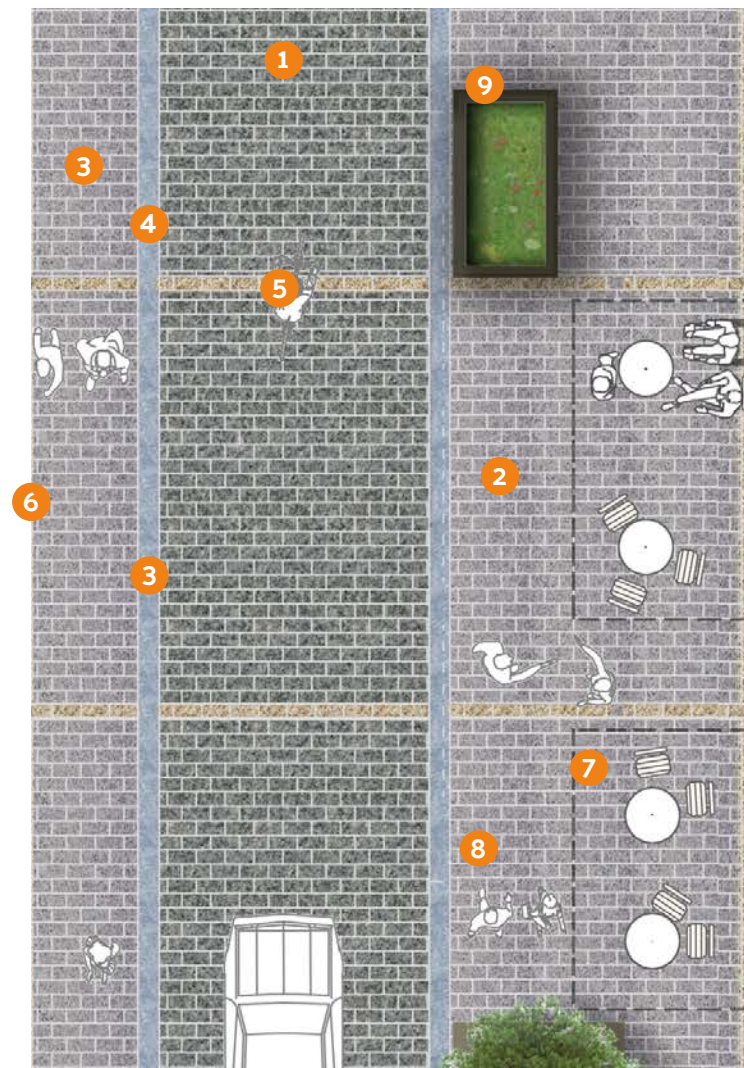
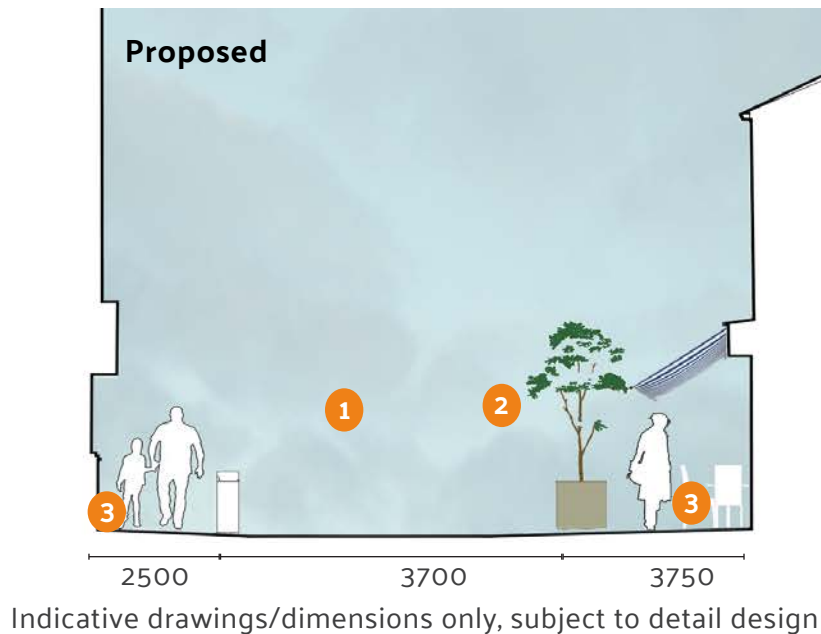


Fig. 60: Nicholas Street Samp



Legend

1. Shared surface route: 3700mm clear width, cobble.
2. Footpath: minimum 2500mm zone (varies) to be kept clear of obstacles. Natural stone paving.
3. Natural stone flush kerb: 300mm width. Must provide distinct colour contrast between pathway and serviceable vehicular routes in wet and dry conditions.
4. Loading bay removed.
5. Natural stone banding aligned with street furniture.
6. Bench: Natural stone/timber bench installed 600mm back from 2000mm pedestrian movement zone.
7. 900 x 900mm space maintained adjacent seating for wheelchair use.
8. Footpath areas outside 2000mm pedestrian movement zone can be used for movable planters, additional market area or cafe spill-out.
9. Raised Planter.

Design Considerations

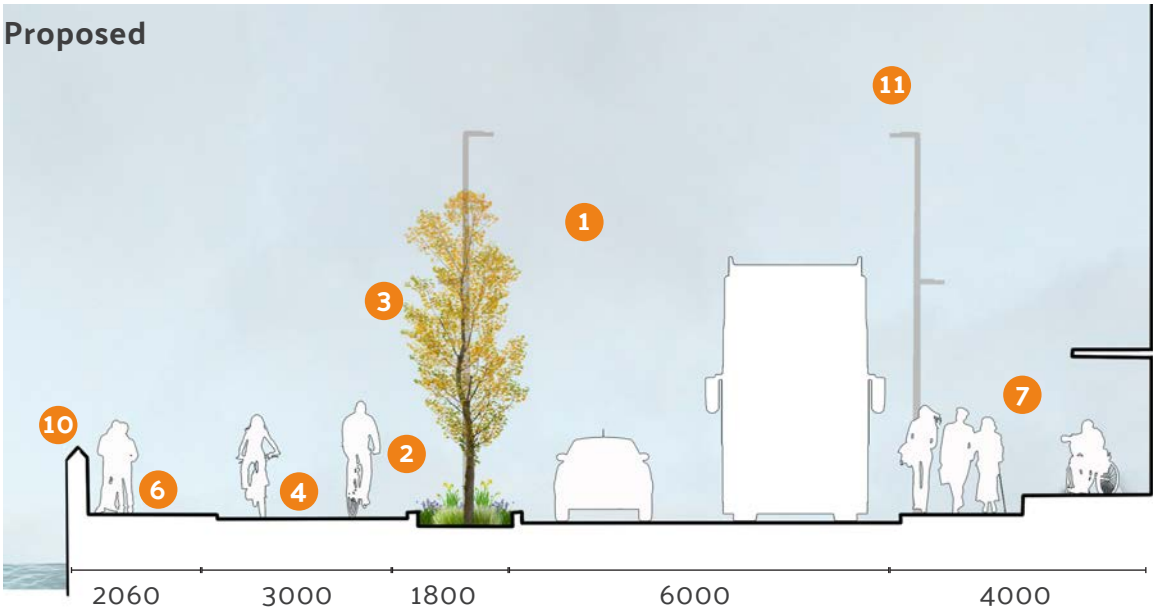
- Narrow road corridor
- Within Architectural Conservation Area
- Seasonal events space
- Important tourist destination and link
- Residential street
- On street loading bays
- Underground utilities

Improvements

The proposed redesign will transform Nicholas Street into a pedestrian and cycle priority street, with an attractive shared surface, enhanced public realm, improved pedestrian space, and additional planting. These improvements will create a greener, more vibrant, and welcoming environment for people to walk, cycle, and spend time in.

Irishtown Streets

Street Type 1: Charlotte's Quay



Indicative drawings/dimensions only, subject to detail design

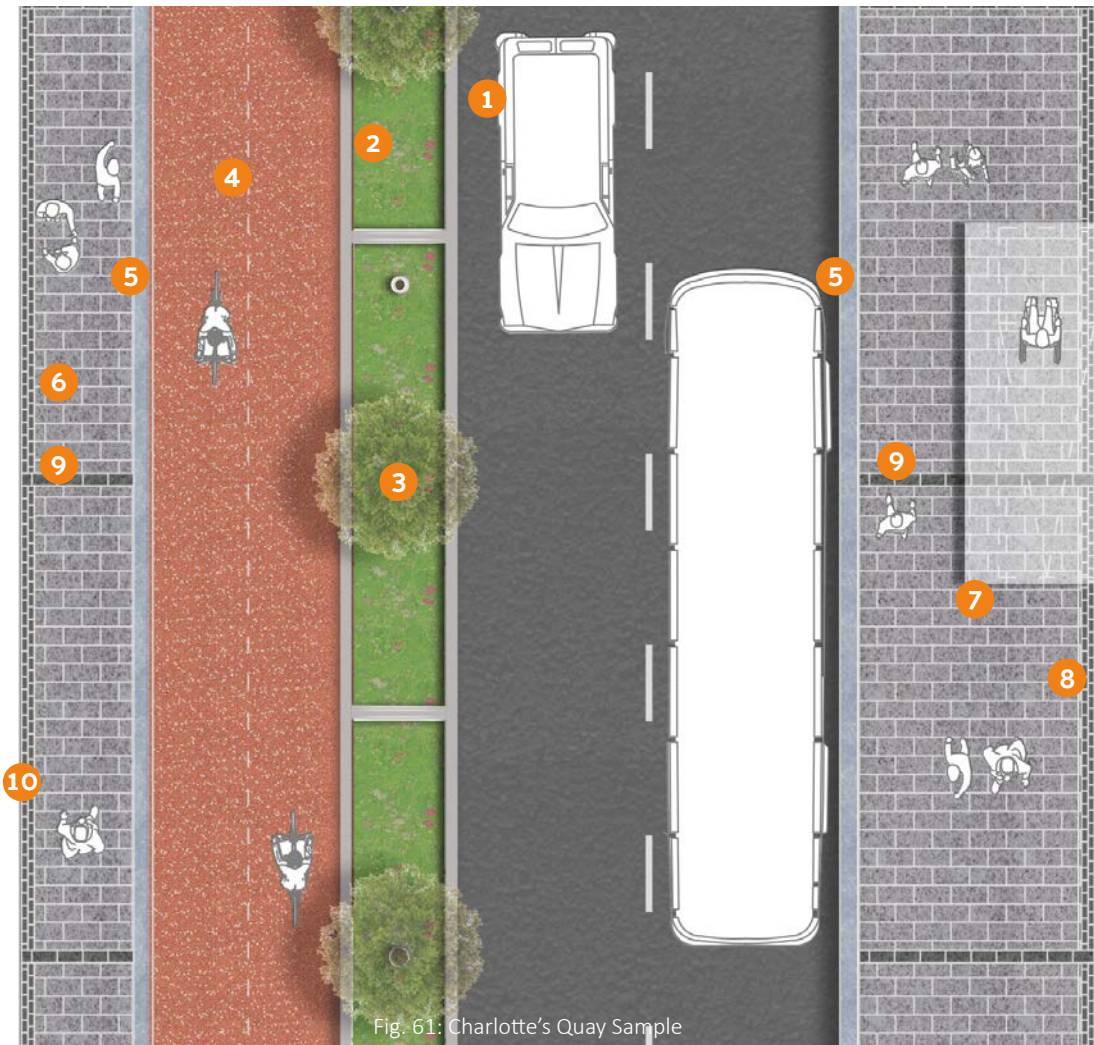


Fig. 61: Charlotte's Quay Sample

Existing



Legend

1. BusConnects corridor: width dependent on trafficking and future route design.
2. SuDS planter: minimum 1800mm (varies). Inlet kerb edge, check dams and outlet included as standard. Appropriate plant species selection.
3. Tree planting: narrow-crowned trees c. 3m canopy spread maintains clear route for buses and minimise long-term pruning requirements.
4. Segregated, dual cycleway: minimum 3000mm wide, road level. Finish as NTA standards (Red).
5. Natural stone upstand kerb: 300mm width.
6. Footpath: min. 2000mm width. Natural stone paving.
7. Footpath: minimum 4000mm width, allows for accessible routes into buildings and canopies.
8. Natural stone banding to building line.
9. Natural stone banding aligned with tree position.
10. Location for new flood defences (see Chapter 2 regarding Waterfront Character Area).
11. Undergrounding of overhead power and replacement of street lighting to be considered as part of potential road upgrades.

Design Considerations

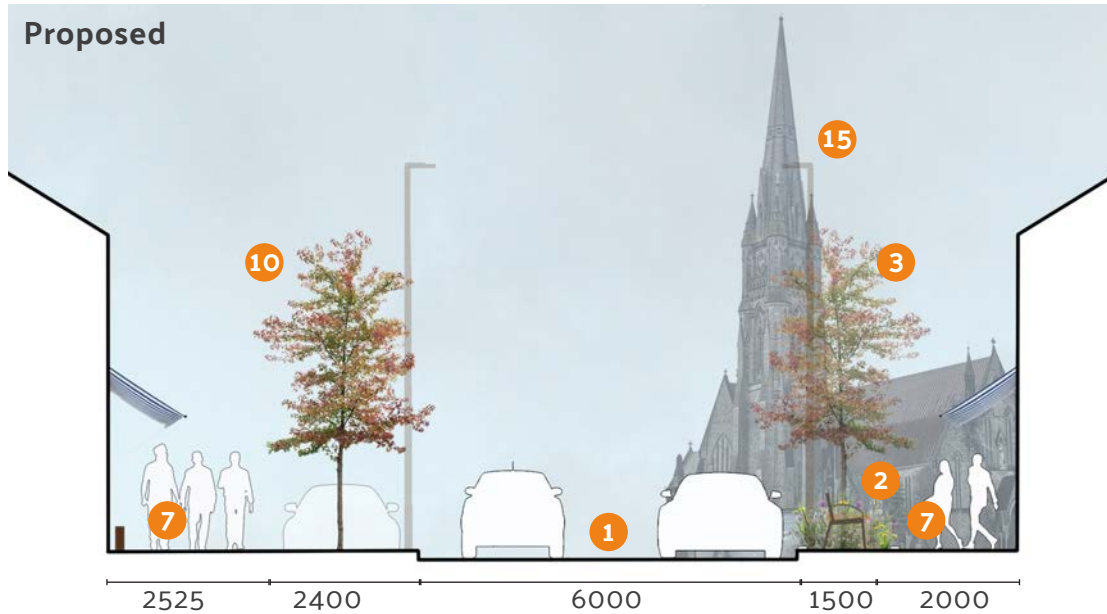
- BusConnects Route (LSMATS)
- Primary Cycle Route (LSMATS)
- Widen riverside footpath (Quayside access and amenity)
- Adjacent Opera development
- Maintain accessible routes into adjacent buildings
- Impact of flood defences on the public realm

Improvements

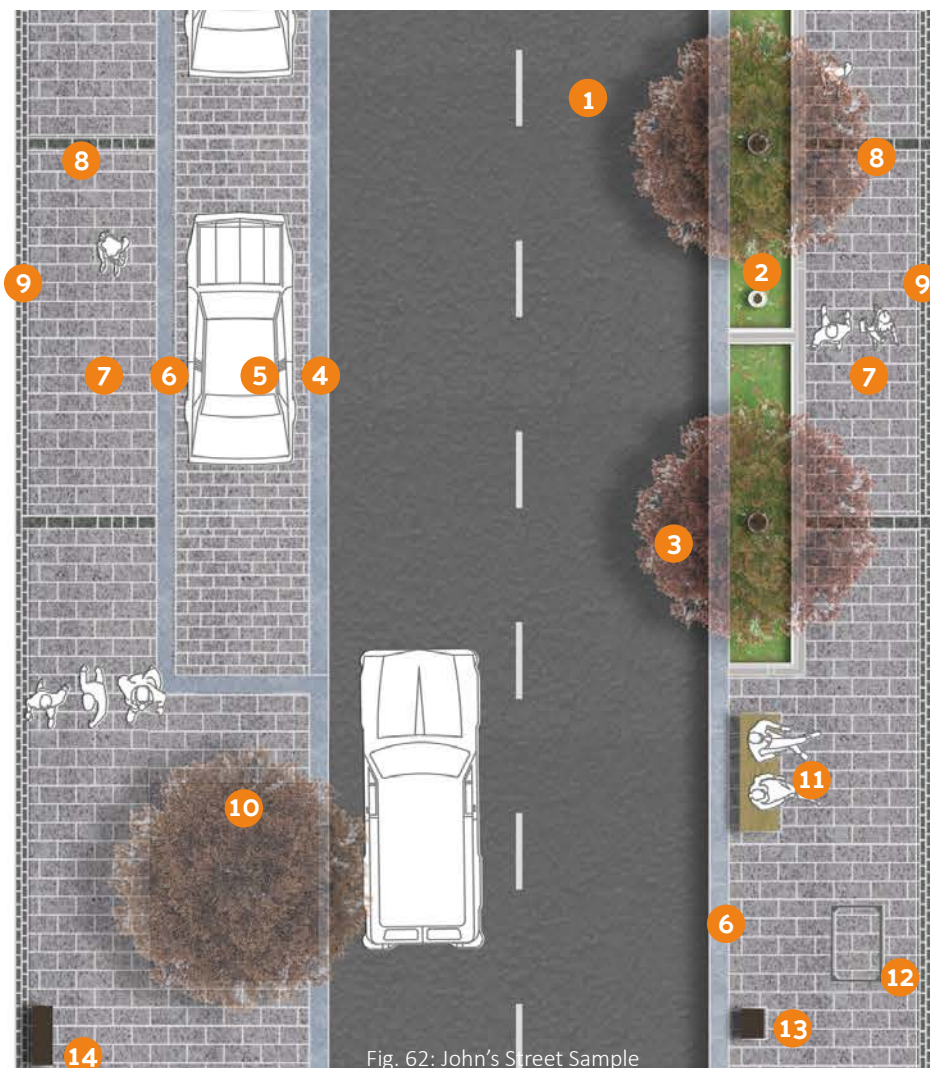
The proposed improvements will revitalise Charlotte's Quay through the expansion of the riverside footpath, the introduction of a new two-way cycle lane, and enhanced planting throughout the corridor. Together, these upgrades will create a more attractive waterfront setting, improve connectivity, and encourage greater use and enjoyment of the riverfront.

Irishtown Streets

Street Type 2B: John's Street



Indicative drawings/dimensions only, subject to detail design





Legend

1. Road corridor.
2. SuDS rain garden/planter: min. 1200mm (varies). Inlet edge, check dams and outlet included as standard.
3. Tree planting: medium-crown tree c. 4m width.
4. Natural stone flush kerb; 300mm width.
5. Parking bays: 2400mm width, length of parking defined by natural stone bands. Concrete paving.
6. Natural stone upstand kerb: 300mm width.
7. Footpath: min. 2000mm width. Concrete paving.
8. Natural stone banding aligned with tree position.
9. Natural stone banding to building line.
10. Tree planting within tree pit.
11. Bench: installed 600mm from pedestrian zone.
12. Recessed utilities cover allowing incorporation of paving. Laying pattern to match adjacent areas.
13. Litter Bin: installed 600mm from pedestrian zone. Bin to be located at least 10m from seating.
14. Utilities box installed to back of footpath, a maximum of 275mm from the building line.
15. Undergrounding of overhead power and replacement of street lighting to be considered.

Design Considerations

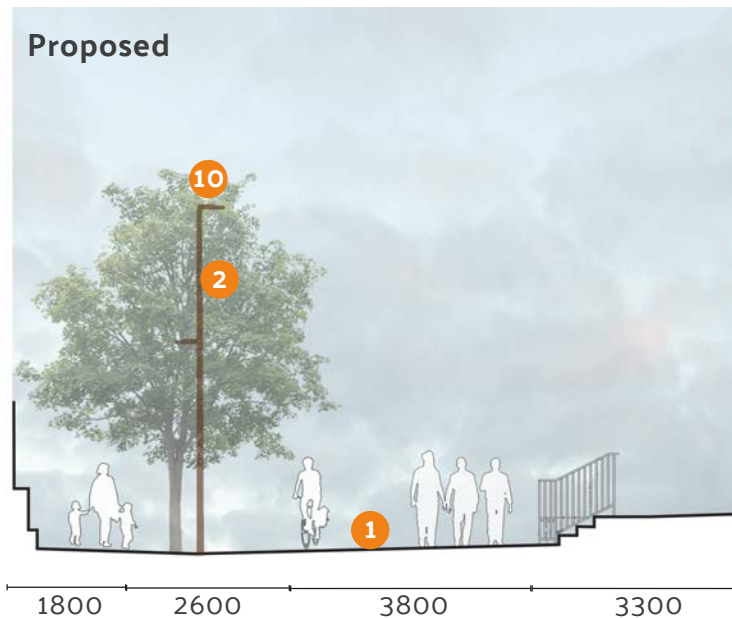
- Maintain and enhance views towards the Architectural Conservation Area
- Emphasise the significance of the historic street pattern
- Strengthen pedestrian linkages to Baal's Bridge and the Milk Market
- Enhance the setting of independent shops
- Enhance cultural vitality
- Increase urban greening

Improvements

John's Street has an opportunity to become a more attractive and welcoming destination through upgraded paving, new seating, planting, and enhanced public realm features. These changes will strengthen the setting of local businesses, improve the pedestrian experience, and reinforce the street's unique character and vitality.

Irishtown Streets

Street Type 3 - Tertiary Priority: Robert Street



Indicative drawings/dimensions only, subject to detail design

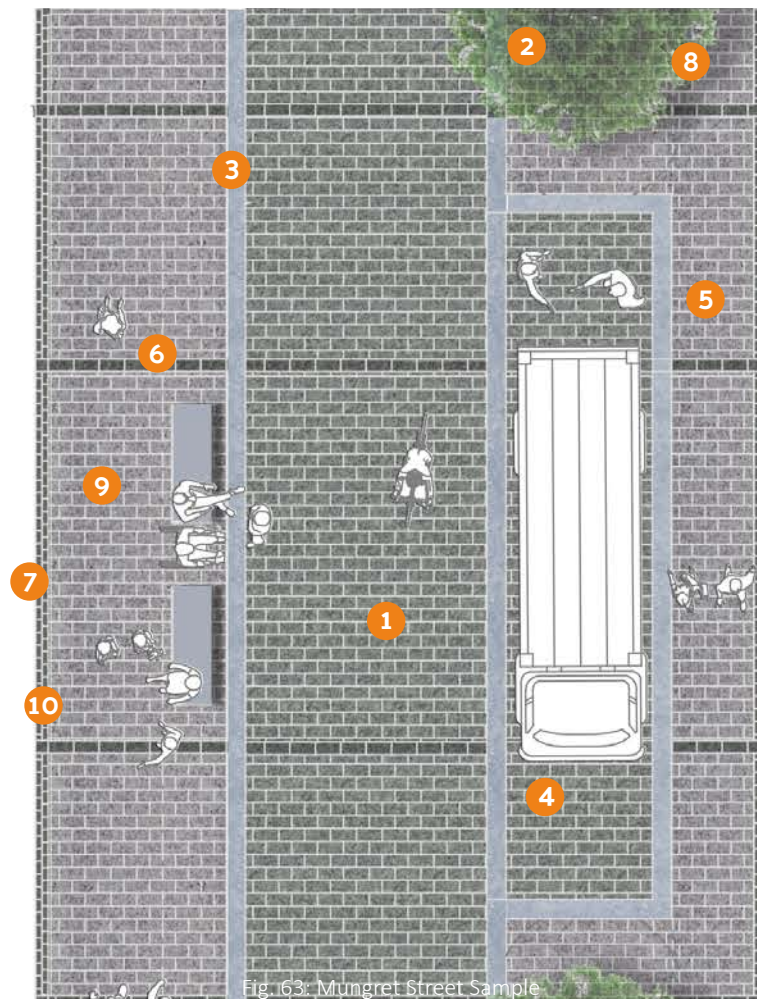


Fig. 63: Mungret Street Sample



Legend

1. Road corridor.
2. Tree planting within tree pit.
3. Natural stone flush kerb: 300mm width.
4. Loading bays: 2600mm width, length of parking area defined by natural stone banding.
5. Footpath: minimum 2000mm width. Natural stone paving.
6. Natural stone banding aligned with loading bay.
7. Natural stone banding to building line and back of footpath.
8. Footpath: minimum 3000mm width. Natural stone paving.
9. Footpath areas outside 2000mm pedestrian movement zone can be used for movable planters, additional market area or street furniture.
10. Undergrounding of overhead power and replacement of street lighting to be considered.

Design Considerations

- Enhance the setting of the Milk Market
- Provide additional space for spill-out of market activities within its perimeter zone
- Support extended opening of the market and the weekend and night-time economy
- Facilitate deliveries outside core hours of use
- Enhance the surrounding streetscape

Improvements

As a key approach to the Milk Market, Robert Street will be reshaped as a pedestrian and cycle priority space, creating a more comfortable and welcoming environment for everyday movement and activity. The introduction of a shared surface and enhanced footpaths will support market activity, encourage social interaction, and strengthen the character of the area.

Central Core Streets

Street Type 1: Patrick Street

Proposed



Indicative drawings/dimensions only, subject to detail design

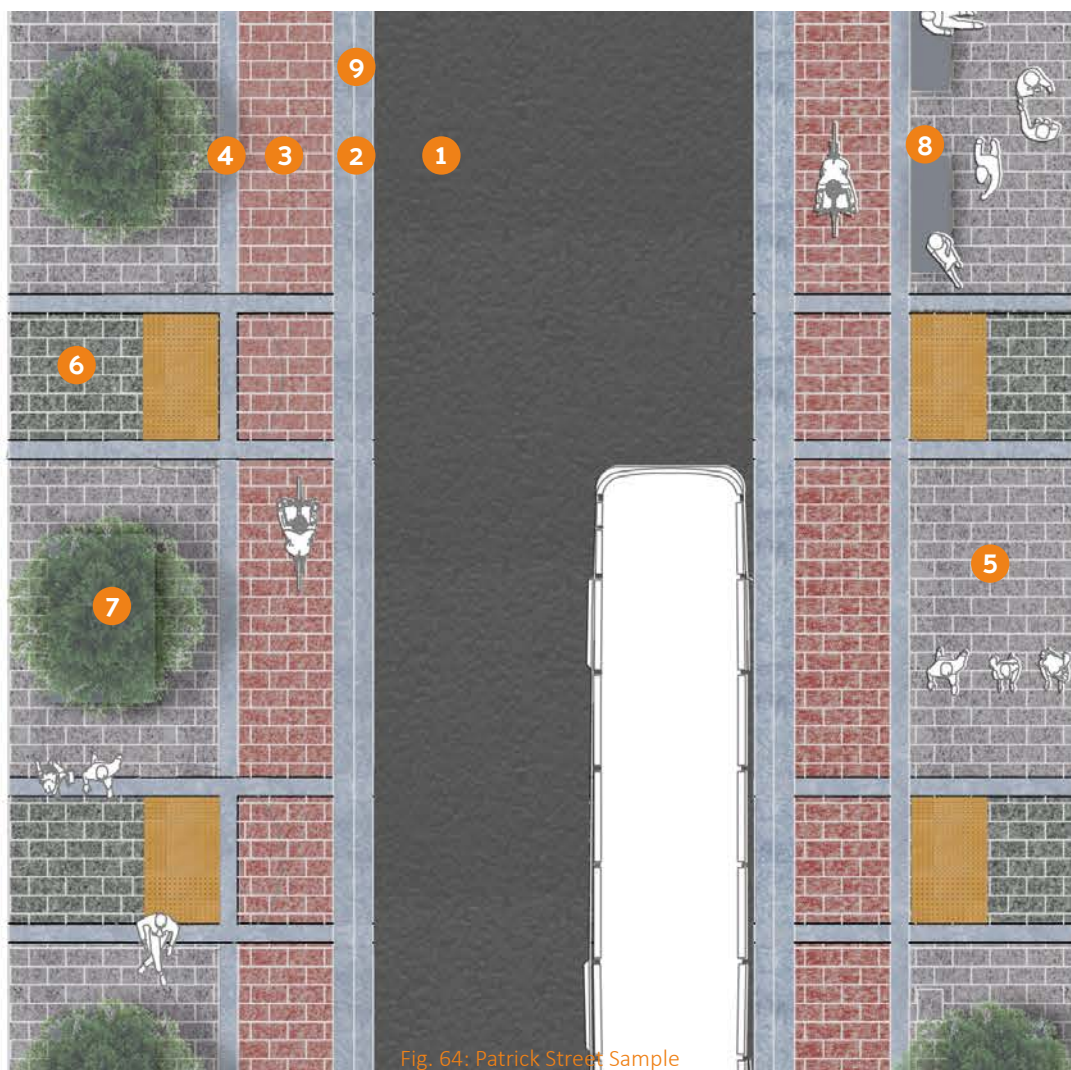


Fig. 64: Patrick Street Sample



Legend

1. Road corridor.
2. Tactile tramline modules in profiled Irish Limestone to match O'Connell St. specification.
3. Cycle path, 2130mm: mid/medium grey granite mix paving.
4. 125mm upstand kerb: Limestone/Granite (to be agreed).
5. Footpath: mid/medium grey granite mix paving.
6. Natural stone banding: to building line and back of footpath.
7. Tree planting in raised planters due to underground vaults: to match O'Connell Street specification.
8. Seating: to match O'Connell Street specification.
9. Bollards: see Chapter 5 for details.
10. Undergrounding of services.

Design Considerations

- Extend the similar recent public realm treatment of O'Connell Street, allowing for stone banding on road carriageway coupled with tarmac, reinforcing the significance of the route as the primary pedestrian movement corridor within the city centre
- Complement the regeneration taking place at Opera Square
- Create public realm links into Cruises Street, Denmark Street and Ellen Street, and onwards to the Milk Market

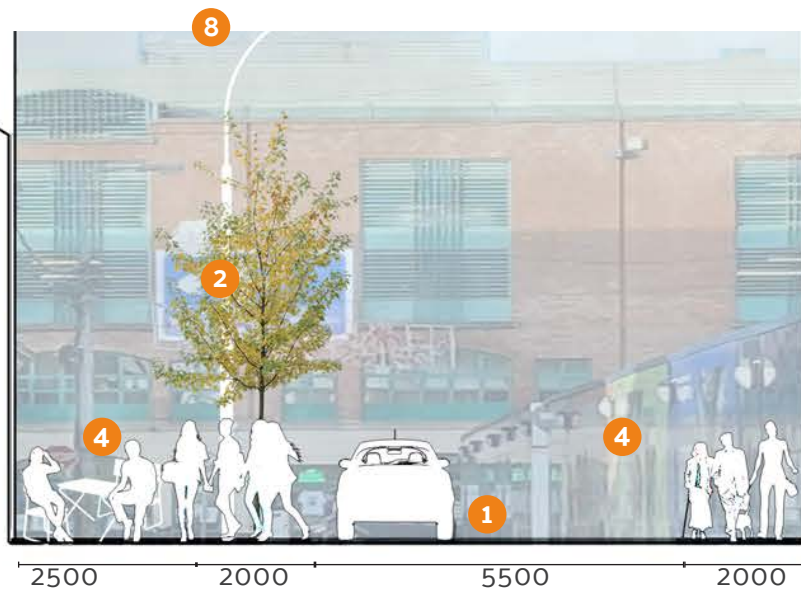
Improvements

As one of the city centre's principal streets, Patrick Street will benefit from upgraded paving, new seating, enhanced crossing opportunities, and dedicated cycle lanes. These changes will create a more comfortable and attractive environment for pedestrians and cyclists while strengthening connections between the city centre, surrounding streets, and key destinations.

Central Core Streets

Street Type 1: Ellen Street

Proposed



Indicative drawings/dimensions only, subject to detail design





Legend

1. Road corridor.
2. Tree planting within tree pit.
3. Natural stone upstand kerb: 300mm width.
4. Footpath: minimum 2000mm width. Natural stone.
5. Natural stone banding aligned with tree planting positions.
6. Natural stone banding to building line and back of footpath.
7. Footpath areas outside 2000mm pedestrian movement zone can be used for restaurant spill-out. See Chapter 5 for guidance on outdoor dining.
8. Undergrounding of overhead power and replacement of street lighting to be considered.

Design Considerations

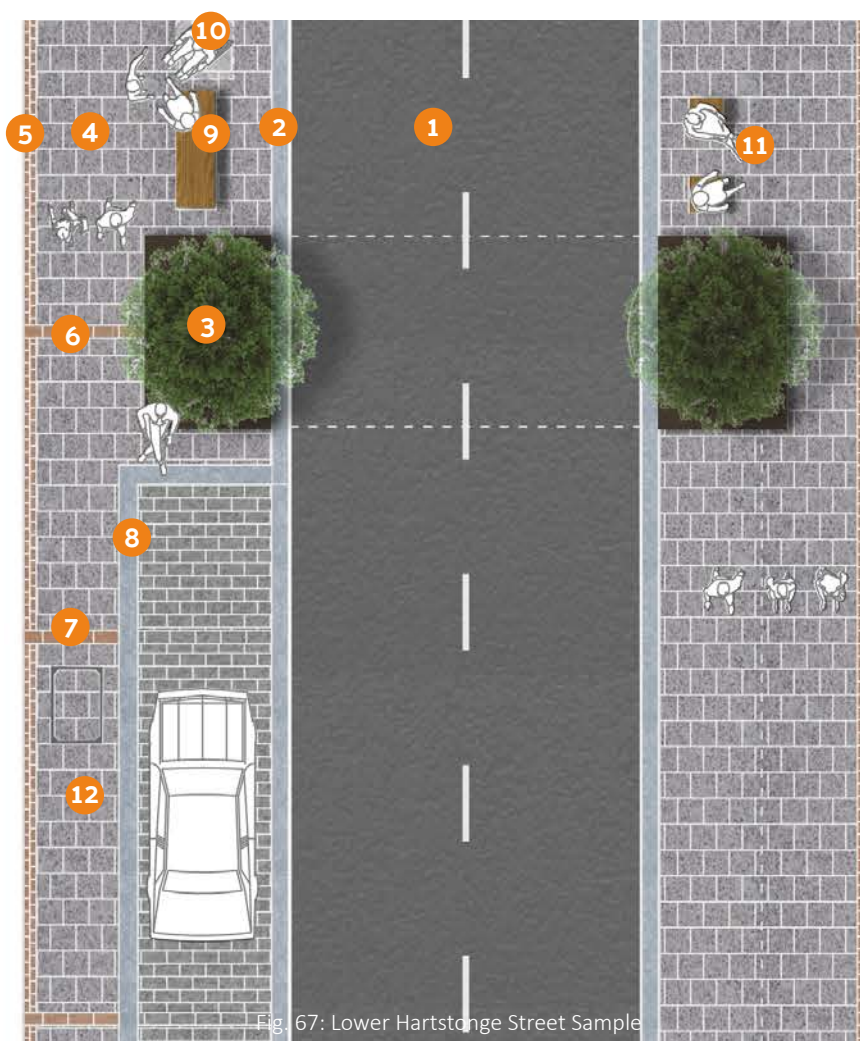
- Enhance views to key landmarks, such as St. Michael's Church
- Complement the regeneration taking place at the adjacent Opera Site
- Enhance public realm links through to Denmark Street, Milk Market and Cruises Street
- Support the evening and weekend economy by providing additional space for spill-out activities

Georgian Neighbourhood Street

Street Type 2A: Hartstonge Street



Indicative drawings/dimensions only, subject to detail design





Legend

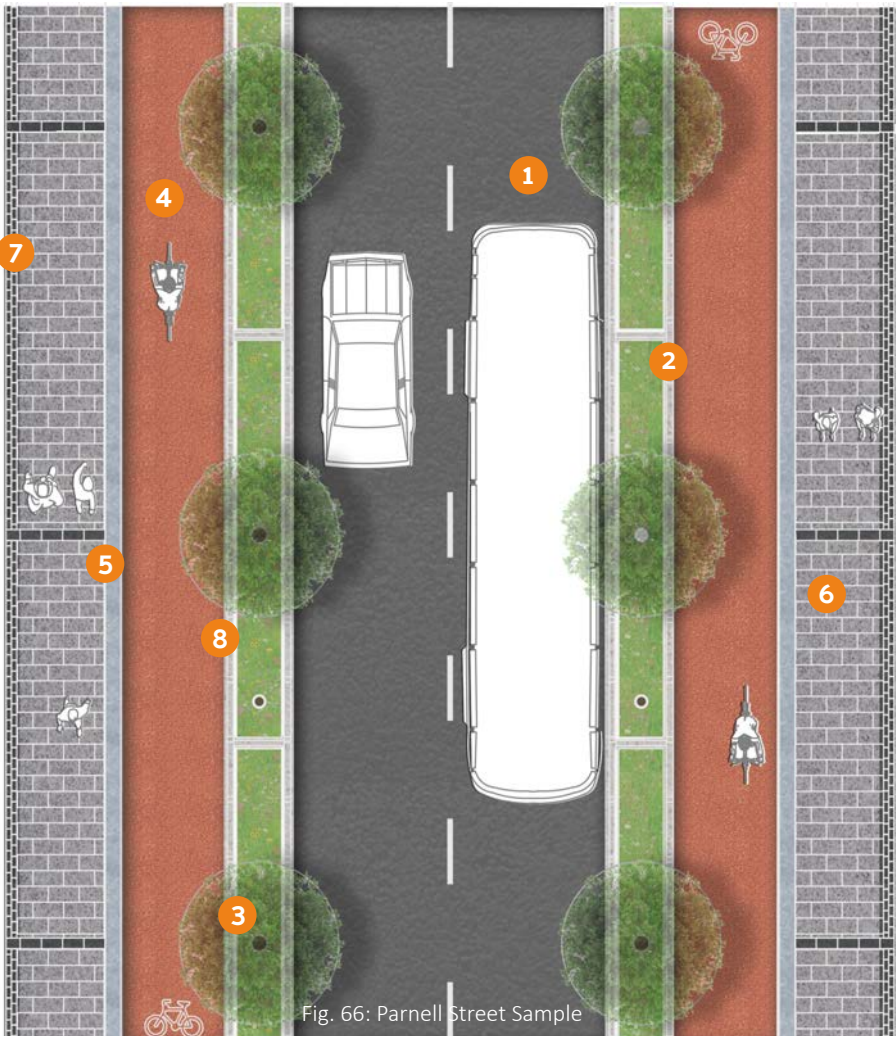
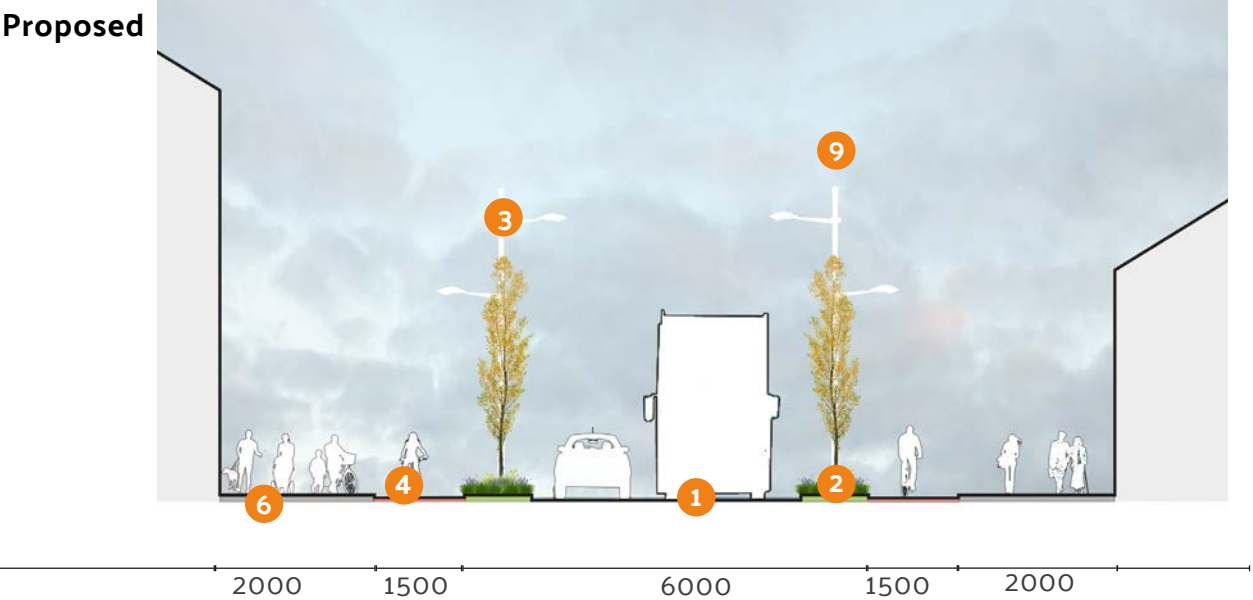
1. Road corridor.
2. Natural stone upstand kerb: 300mm width.
3. Tree planting: medium-crown c. 5-6m canopy
Planted in raised planters due to presence of vaults. Planter to provide adequate root volume.
4. Footpath: min. clear width 2000mm for pedestrian movement zone. Reconstituted stone paving.
5. Natural stone banding to building line.
6. Natural stone banding aligned with trees.
7. Natural stone banding.
8. Natural stone flush kerb: 300mm width.
9. Timber bench.
10. Space for wheelchair.
11. Timber chairs.
12. Recessed utilities cover allowing incorporation of paving. Laying pattern to match adjacent areas.
13. Undergrounding of overhead power and replacement of street lighting to be prioritised within Architectural Conservation Areas.

Design Considerations

- Maintaining and enhancing views within the Architectural Conservation Area
- Maintaining and enhancing views to the River Shannon
- Enhance the historic street pattern
- Increase urban greening within residential areas

Eastern Gateway Streets

Street Type 1: Parnell Street





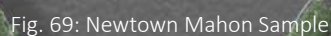
Legend

1. BusConnects corridor: width dependent on trafficking and future route design.
2. SuDS raingarden/planter: minimum 1200mm (varies). Inlet kerb edge, check dams and outlet as standard.
3. Tree planting: narrow-crown trees c. 3m canopy maintains clear bus corridor and minimises damage.
4. Segregated, single cycleway: min. 2000mm wide, road level. Finish as per NTA standards (Red).
5. Natural stone upstand kerb: 300mm width.
6. Footpath: min. 2000mm width. Natural stone paving.
7. Natural stone banding to building line.
8. Natural stone banding aligned with trees.
9. Undergrounding of overhead power and replacement of street lighting to be prioritised within ACA's.

Design Considerations

- Enhance the southern gateway into the city centre
- Maintaining and enhancing views to the Architectural Conservation Area 1: Newton Perry
- Enhance new development within the Colbert Quarter
- Increase urban greening

Street Type 2B: Newtown Mahon





Existing

Legend

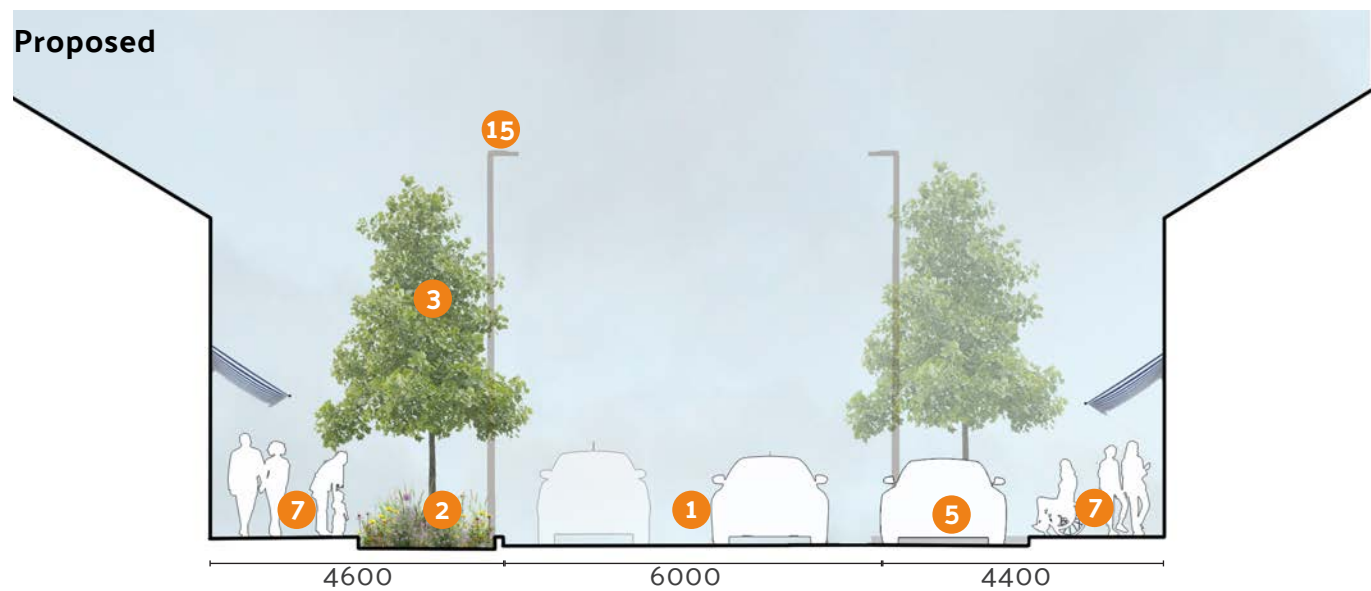
1. BusConnects corridor; width dependent on trafficking and future route design.
2. SuDS raingarden/planter; minimum 1500mm (varies). Inlet kerb edge, check dams and outlet included as standard. Appropriate plant species selection as per Chapter 6.
3. Tree planting; narrow-crowned trees c. 3m canopy spread maintains clear route for buses and minimise long-term pruning requirements.
4. Segregated, single cycleway; minimum 2000mm wide route, road level. Finish as per NTA standards (Red).
5. Natural stone upstand kerb; 300mm width.
6. Footpath; minimum 2000mm width. Concrete paving.
7. Natural stone banding to building line and back of footpath.
8. Natural stone banding aligned with tree planting positions.
9. Undergrounding of overhead power and replacement of street lighting to be considered.

Design Considerations

- Provide a legible and attractive gateway into the city centre at a peripheral location
- Provide an attractive cycle route to encourage and promote Active Travel
- Increase urban greening within an area of shortage

Eastern Gateway Streets

Street Type 2B: Upper Gerald Griffin Street



Indicative drawings/dimensions only, subject to detail design

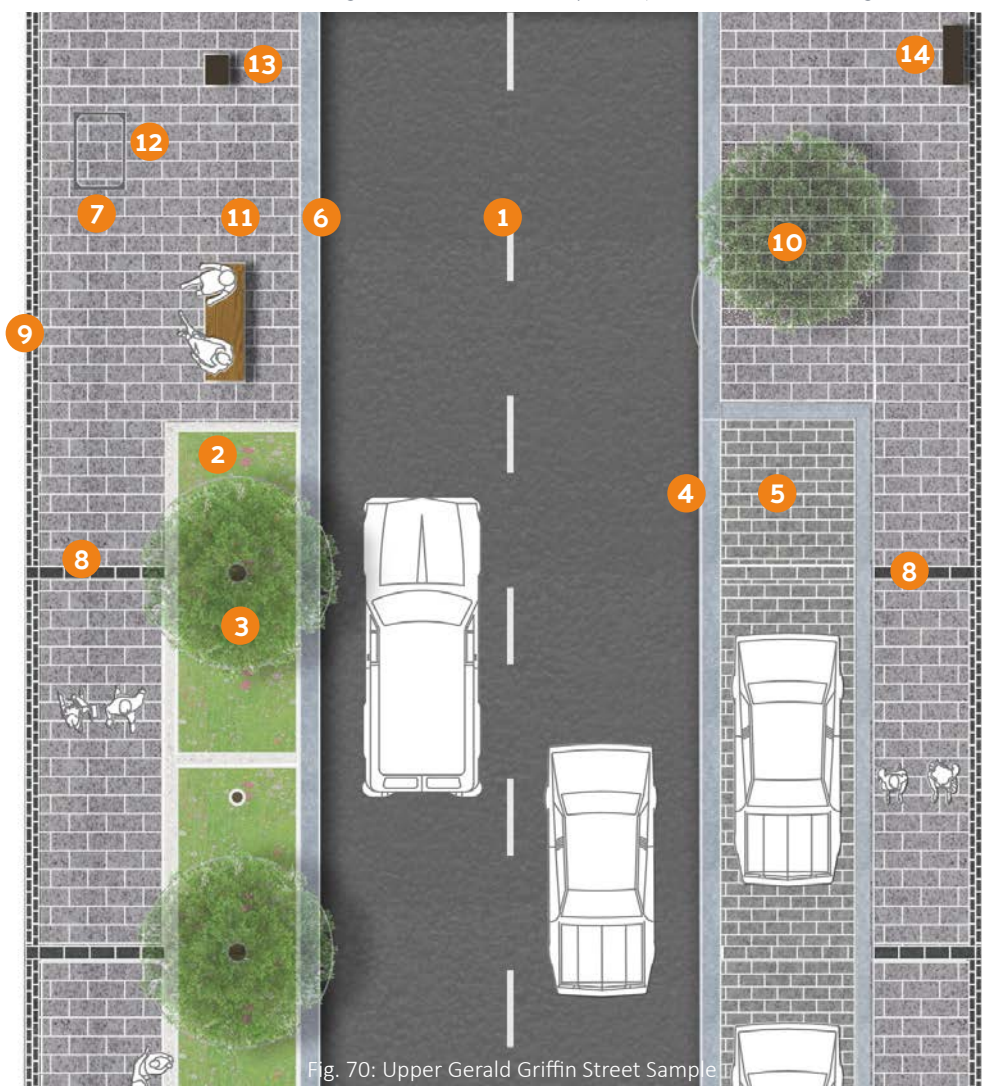


Fig. 70: Upper Gerald Griffin Street Sample

Existing



Legend

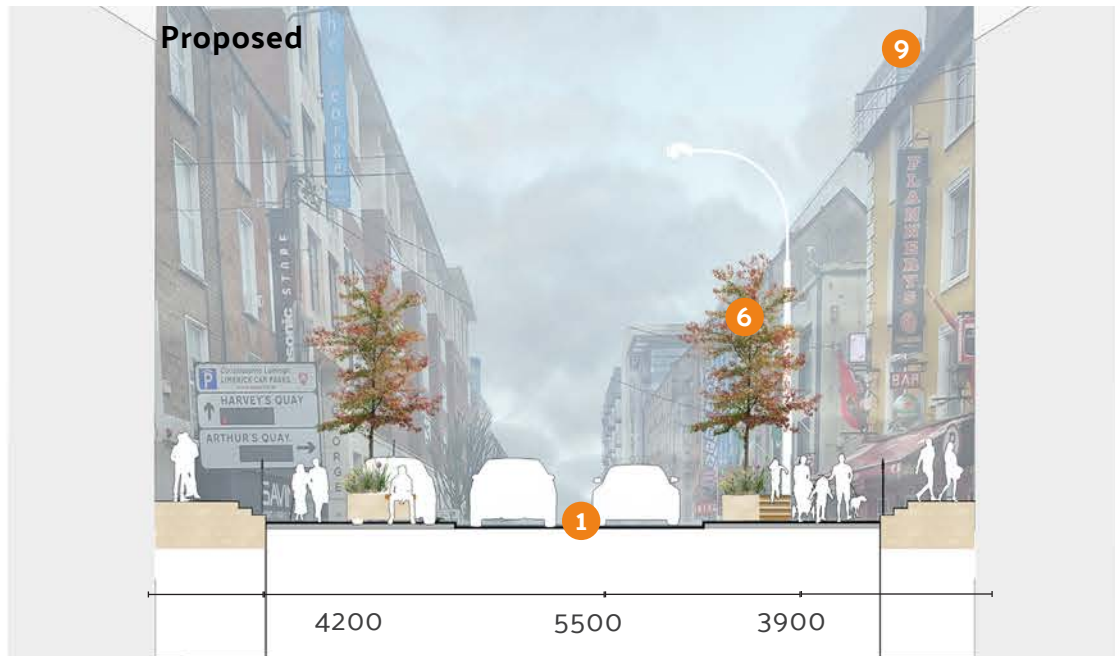
1. Road corridor.
2. SuDS raingarden/planter; min. 1200mm (varies). Inlet kerb edge, check dams and outlet as standard. Appropriate planting as per Chapter 6.
3. Tree planting; medium crown c. 4m canopy.
4. Natural stone flush kerb; 300mm width.
5. Parking bays; 2400mm width, defined by natural stone banding. Concrete paving.
6. Natural stone upstand kerb; 300mm width.
7. Footpath; min. 2000mm width. Concrete paving.
8. Natural stone banding.
9. Natural stone banding to building line.
10. Tree planting within tree pit.
11. Bench; 600mm back from pedestrian zone.
12. Recessed utilities cover allowing incorporation of paving. Laying pattern to match adjacent areas.
13. Litter Bin; installed 600mm back from 2000mm pedestrian zone. Located 10m from seating.
14. Utilities box installed to back of footpath, maximum 275mm from the building line.
15. Undergrounding of overhead power and replacement of street lighting to be considered.

Design Considerations

- Provide a legible and attractive pedestrian route to the historic heart of the city for those arriving at Colbert Station
- Strengthen pedestrian linkages to the retail core and the Milk Market
- Enhance the setting of independent shops
- Increase urban greening in an area of shortage

Georgian Neighbourhood Street

Street Type 2A: Shannon Street



Indicative drawings/dimensions only, subject to detail design

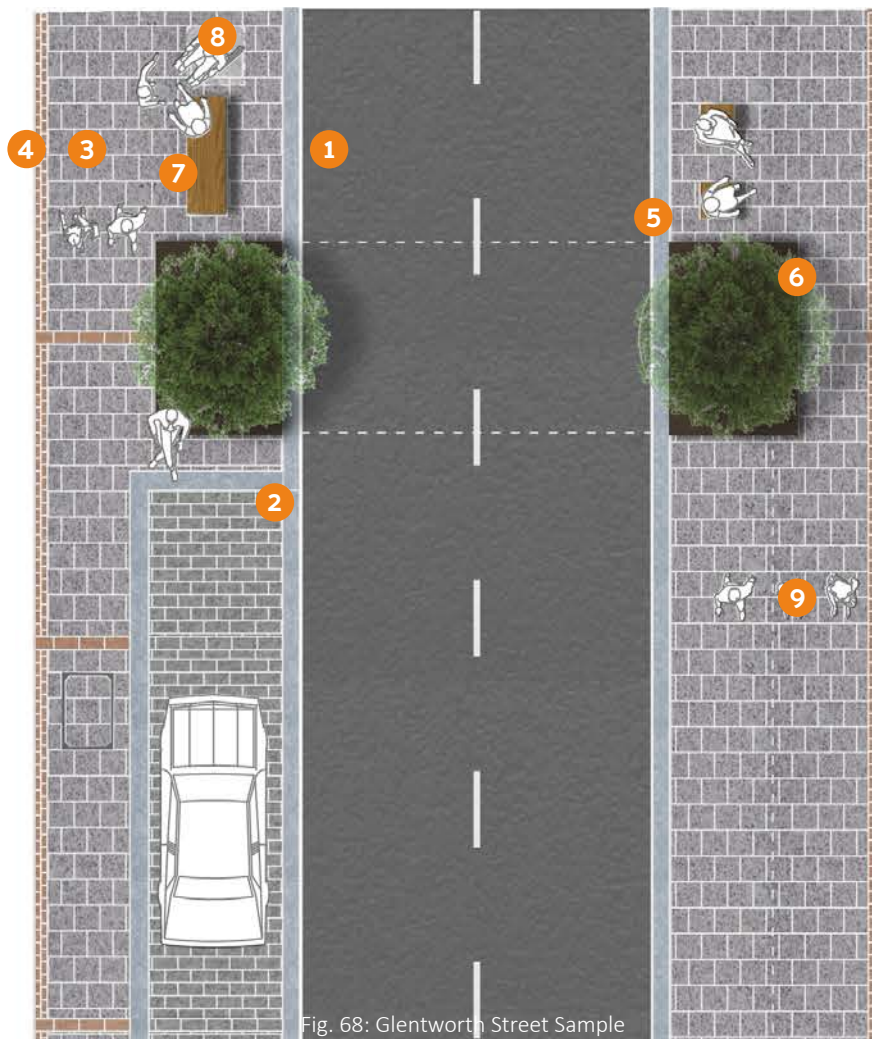


Fig. 68: Glentworth Street Sample

Existing



Legend

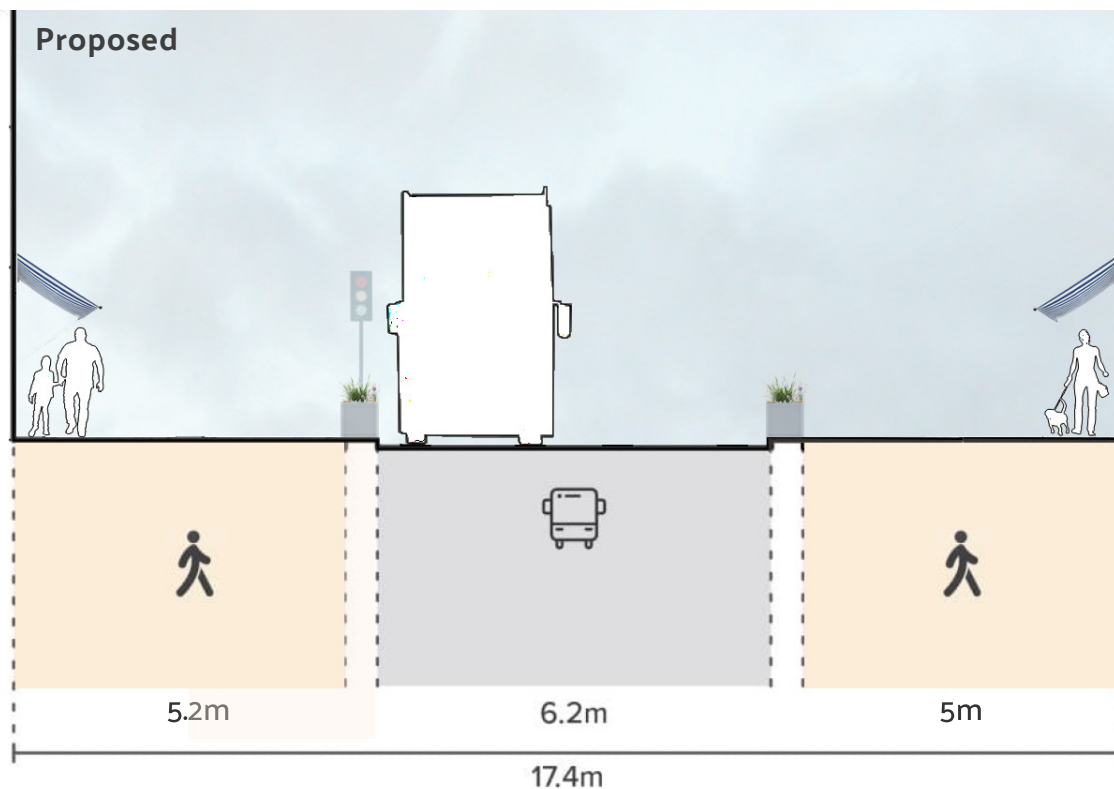
1. Road corridor.
2. Natural stone upstand kerb; 300mm width.
3. Footpath; minimum 2000mm width.
Reconstituted stone paving.
4. Natural stone banding to building line.
5. Natural stone banding aligned with trees.
6. Tree planting; medium-crown c. 5-6m canopy.
Planted in raised planters due to presence of vaults. Planter to provide adequate root volume.
7. Timber bench.
8. Space for wheelchair.
9. Undergrounding of overhead power and replacement of street lighting to be prioritised within Architectural Conservation Areas.

Design Considerations

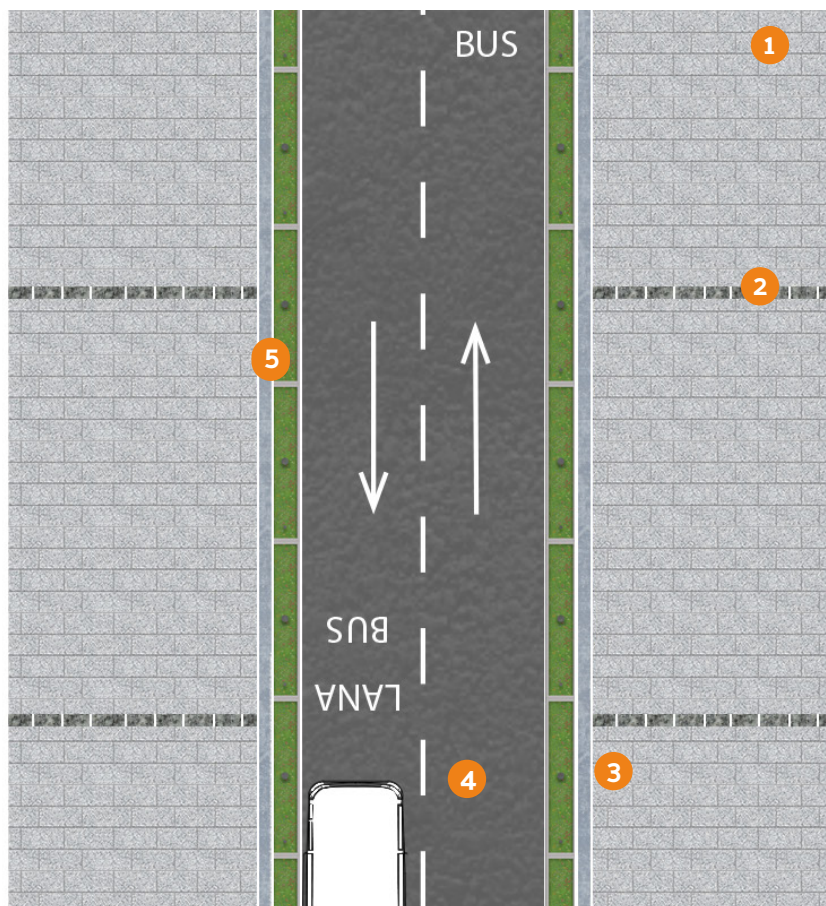
- Provide a legible and attractive pedestrian route to the city centre for those arriving at Colbert Station
- Provide an attractive cycle route to encourage and promote Active Travel
- Enhance visual connections with the River Shannon
- Enhance the setting of historic buildings at the edge of the Architectural Conservation Area 1: Newton Perry
- Increase urban greening within an area of shortage

Additional Streets

Roches Street



Indicative drawings/dimensions only, subject to detail design



Legend

1. Footpath: Granite, 600x400, Grey, bush hammered.
2. Horizontal banding: Irish Blue Limestone, 400l x 200w, bush hammered.
3. Upstand Kerb: Irish Limestone (Grey Blue), 300w.
4. Road: Bitumen.
5. SuDS raingarden/planter; min. 1200mm (varies). Inlet kerb edge, check dams and outlet as standard.

All drawings and dimensions indicative and subject to detail design.

Proposed

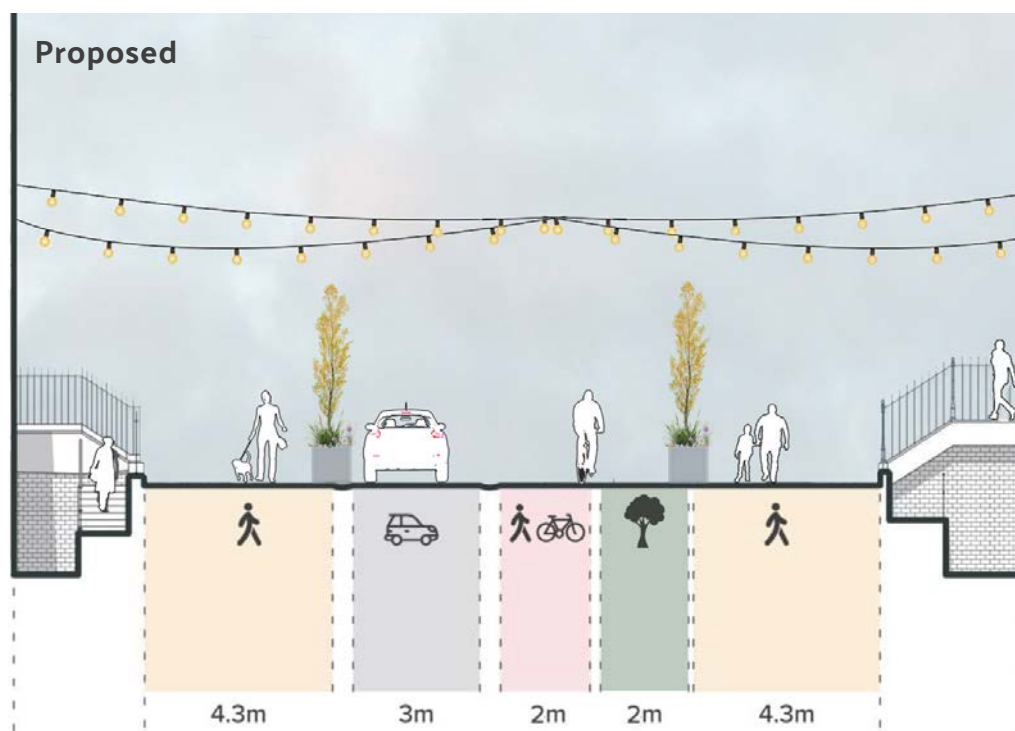


Existing

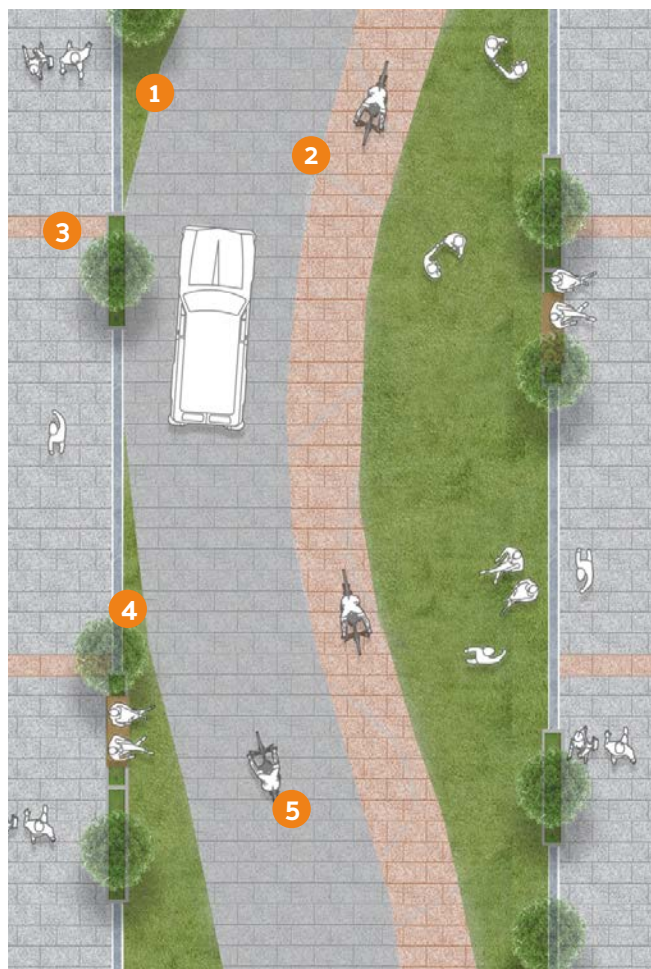


Additional Streets

O'Connell Street



Indicative drawings/dimensions only, subject to detail design



Legend

1. Footpath and Road Surface: Granite, 600x400, Grey, bush hammered.
2. Horizontal banding: Irish Blue Limestone, 400l x 200w, bush hammered.
3. Horizontal banding: Portuguese Red Granite, 400l x 200w, bush hammered.
4. Flush Kerb: Irish Limestone (Grey Blue), 300w.
5. SuDS raingarden/planter; min. 1200mm (varies). Inlet kerb edge, check dams and outlet as standard.

All drawings and dimensions indicative and subject to detail design.

Proposed

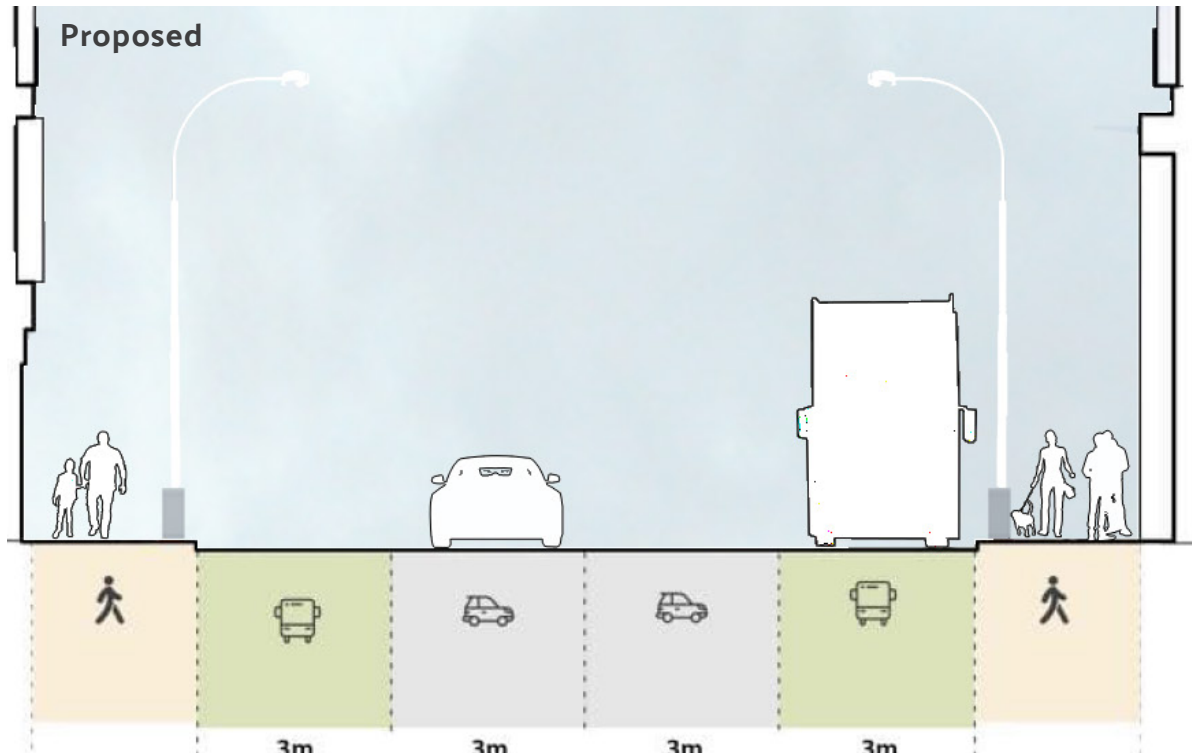


Existing



Additional Streets

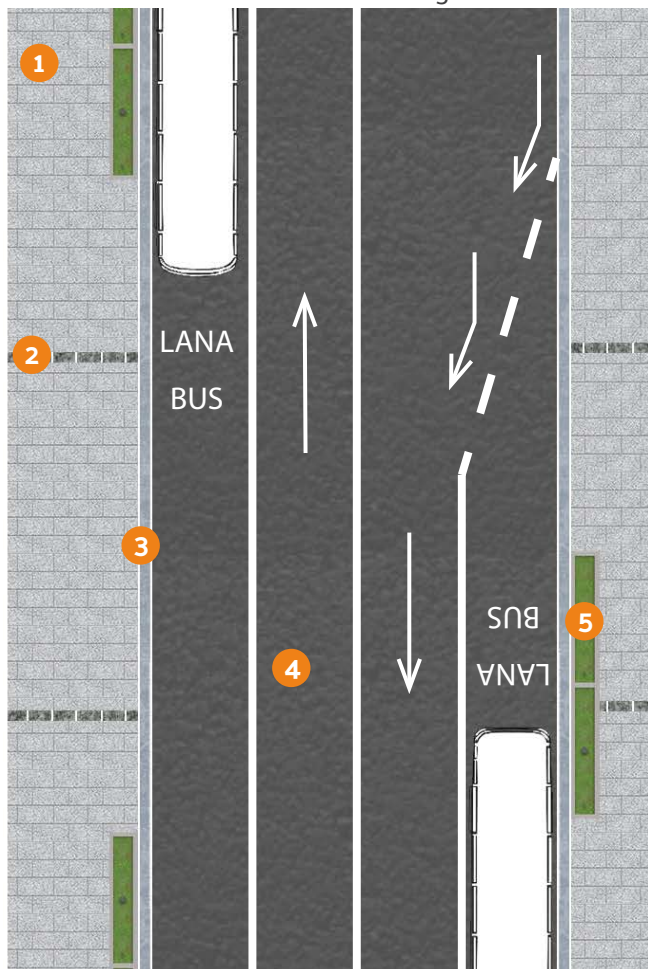
Henry Street



Indicative drawings/dimensions only, subject to detail design

Legend

1. Footpath: Granite, 600x400, Grey, bush hammered.
2. Horizontal banding: Irish Blue Limestone, 400l x 200w, bush hammered.
3. Upstand Kerb: Irish Limestone (Grey Blue), 300w.
4. Road: Bitumen.
5. SuDS raingarden/planter; min. 1200mm (varies). Inlet kerb edge, check dams and outlet as standard.



All drawings and dimensions indicative and subject to detail design.

Proposed



Existing





Chapter Five

Hard Components

- Introduction
- Design & Technical Standards
- Existing Materials
- Surfacing: Existing Materials
- Proposed Surfacing Materials
- Street Furniture

Design Components

Introduction

This chapter provides design guidance on the small-scale hard components that make up the public realm: surfacing & street furniture.

Surfacing materials and finishes are one of the most important elements of a street, as this defines levels of segregation and integration within a streetscape. Well-thought out material palettes have the ability to define space, calm traffic and improve legibility. The materials laid can also reduce the need for more imposing physical barriers, such as signage and line marking in favour of texture and colour changes. Materials can be used to enhance the value of place and produce more attractive and cost-effective streets.

Street furniture serves many purposes that relate to both place and function, and includes a variety of commonly found items within a street such as public art, lighting, bollards, guardrails, seating and cycle parking. The provision of street furniture should be considered as part of the overall design of streets and spaces, and not installed on an ad-hoc basis.

General Observations

- To inform the strategy, a Streetscape Focus Group came together, with the aim to identify problematic existing conditions within the public realm, caused largely by inconsistent design, implementation, maintenance or improper use. These observations have informed the components selection process incorporated into this Design Manual.
- Design principles are based on best-practice design and technical standards adopted by the industry, along with the experience of Council staff responsible for the planning, design and

maintenance of the public realm.

- Typical details and outline specifications for the hard and soft landscape are provided to assist project planning, costing and initial design.
- Relevant Design and Technical Standards are listed on page 156 for further reference.

General principles for public realm components

- A cross-departmental advisory committee (Streetscape Focus Group) should be formed post-Strategy, to ensure that there is a co-ordinated approach to the design, delivery and maintenance of all components of the public realm, whether delivered by LCCC, other organisations (NTA, OPW) or private developers. The committee should provide consultation on utilities, street furniture, materials to be utilised within the public domain etc.
- Footpaths have become cluttered over time with poles and guardrails that obstruct and constrain pedestrian movement and create visual clutter. Ongoing audits of the existing street furniture, public realm signage and structures should be undertaken in order to identify opportunities for de-cluttering. These audits should focus on improving accessibility for all, enhancing the setting of ACAs, sensitive townscape views and rationalising components to form a common, readily identifiable streetscape palette.
- Wider surveys and removal exercises are to be performed on a rolling basis for targeting excess street clutter including unnecessary repetitive and redundant street furniture.
- Condition surveys of the existing public realm should be carried out to accompany Part 8 Application and Section 28 Application.

- The development of a common component palette is essential to ensure that future designs are co-ordinated and that cost benefits can be achieved for procurement and maintenance.
- Existing public realm materials that are in good condition should be retained in-situ pending a wider public realm enhancement project, unless they are considered inappropriate for their setting, in which case they should be stored, donated or sold. All projects should make consideration for the re-use, re-sale and recycling of public realm materials.
- A simple palette of hard landscape materials is preferred, and multi-functionality is welcomed for bespoke components to minimise clutter.
- Robust, durable and high quality materials should be used, which endure the wear and tear expected from city life and provide long term value for money.
- Local natural materials and suppliers should be favoured to minimise carbon emissions.
- The layout and installation of components should facilitate easy and regular maintenance. All materials selected should be readily replaceable.
- Sub-bases and foundations must be similarly robust in their design and specification, assuming a high risk of vehicle overrun.



Design Components

Design & Technical Standards

Public Realm Design

- Places for People. National Policy on Architecture, Department of Housing, Local Government & Heritage 2022
- The Centre for Excellence in Universal Design Ireland
- Design Manual for Urban Roads and Streets 2019
- Cycle Design Manual, NTA and Department for Transport, September 2023

Accessibility

- Technical Guidance Document M - Access
- Building for Everyone: A Universal Design Approach. External Environment and Approach
- National Age Friendly Parking Guide
- Being Age Friendly in the Public Realm: Guidelines and Good Practice
- Age Friendly Seating

Heritage

- Architectural Heritage Protection - Guidelines for Planning Authorities, Stationary Office Dublin, 2011
- Access. Improving the Accessibility of Historic Buildings and Places, Department of the Arts, Heritage and Gaeltacht and National Disability Authority, 2011
- Paving. The conservation of historic ground surfaces. Department of the Arts, Heritage and Gaeltacht and Dublin City Council, 2015

Lighting

- Limerick City and County Council Public Lighting and Product Specification, 2022
- CEN code of practice EN 13201-1: 2015
- CEN code of practice EN 13201-5:2015

- BS5489: 2013 Code of practice for the design of road lighting.
- ET101: 2008 and ET211:2003.
- ESB National Code of Practice for Customer Interface 4th Edition 2008

Drainage

- Limerick City and County Council Surface Water Specification
- Greening and Nature-based SuDS for Active Travel Schemes, NTA, September 2023

Soft Landscape

- All Ireland Pollinator Plan, September 2015
- Limerick City and County Council Tree Policy, 2024-2027
- Limerick City Council Biodiversity Plan
- Limerick City and County Council Surface Water/ SuDS Specification, 2022
- BS 5837:2012. Trees in relation to design, demolition and construction
- BS 8545:2014 Trees: from nursery to independence in the landscape – Recommendations
- Tree Species Selection for Green Infrastructure: A Guide for Specifiers, Trees and Design Action Group (TDAG)
- Tree Species Soil Volume Guide, Green Blue Urban
- Tree Species selection for Air Pollution Tolerance, - Limerick City and Environs Green and Blue Infrastructure Strategy

Surfacing

- CEN/TC 178 Paving units and kerbs NSAI/TC 3/SC4
- CEN/TC 227 Road materials NSAI/TC 17
- CEN/TC 229 Pre-cast concrete products NSAI/TC 3/SC4
- CEN/TC 246 Natural stone
- ISO/TC Natural stone
- EN 1341 Slabs of Natural Stone for external paving
- EN 1342 Setts of Natural Stone for external paving
- EN 1343 Kerbs of Natural Stone for external use
- BS 7533 Pavements constructed with clay, natural stone or concrete pavers.



Design Components

Surfacing: Existing Materials

Englishtown: Existing Materials

During the early 2000's, paving works focused on the Waterfront, the Architectural Conservation Area, and key streets for pedestrian movement within it: Bridge Street, Mary Street, Nicholas Street. The use of natural stone is typically limited to pedestrian footpaths along these streets, with pre-cast concrete blocks used for the vehicle carriageway.

On Nicholas Street and Mary Street the use of natural stone to footpaths is inconsistent, in some instances installed only to one side of the street, with pre-cast concrete setts to the other side. The carriageway treatment of pre-cast concrete setts is continued onto the adjoining streets, such as Bishop Street, and those linking east-west, with pre-cast concrete blocks and flags used to footpaths.

Beyond Island Road and Castle Street, brushed, in-situ concrete is used to footpaths as standard.

Existing paving specification for George's Quay, Bridge Street, Nicholas Street, The Parade

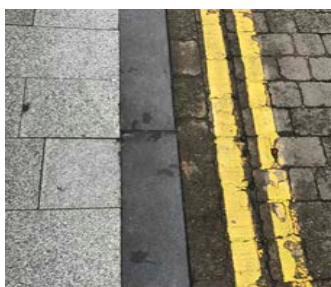
- Footpath: Granite slabs, 400x200x60mm thick, flamed finish.
- Kerb: Irish Limestone (Dark Grey Blue), 300mm wide, 900mm lengths, 16mm bull-nose to exposed top edge.
- Road Surface (shared): Pre-cast concrete setts, 160 gauge x 80mm thick, 160x120, 160x160, 160x240mm, Natural colour.

Within the footpaths there are numerous cast iron utility covers. These are set within large areas of concrete.

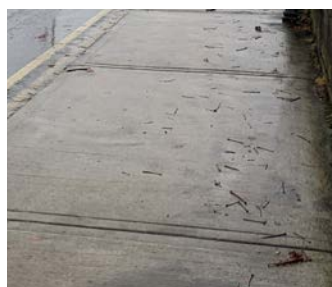
Irishtown: Existing Materials

Paving enhancements undertaken to the Quays during the 2000's did not extend to Charlotte's Quay and generally there has been less recent investment in the Irishtown streetscape.

Charlotte's Quay along with Broad Street, the west of John's Street, Mungret Street and the surrounds of the Milk Market were refurbished with concrete



Nicholas Street



Thomond Bridge



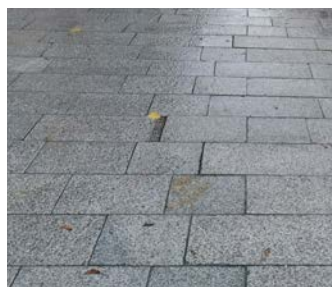
Charlotte's Quay



Line of City Walls (Milk Market)



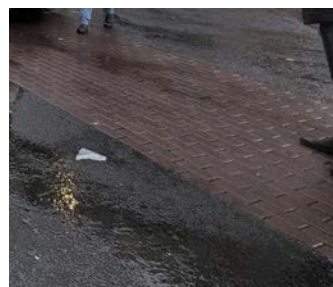
Bridge Street



George's Quay



Broad Street



Line of City Walls (Euro Car Parks)

block paving in the late twentieth century. Elsewhere, surfaces are formed from in-situ concrete, sometimes with an imprinted surface.

As part of public realm improvements undertaken in 2008-10, the setting of John's Square was improved through comprehensive public realm proposals including natural stone setts and slab paving. The line of the city walls has been demarcated by strips of paving in two locations; along Cornmarket Row (immediately adjoining the Milk Market) where it is delineated by traditional stone cobbles and within the grounds of the Charlotte's Quay Euro Car Park where it is delineated by concrete pavers.

Central Core: Existing Materials

The Central Core character area has seen the most significant investment in the public realm within recent times and will be subject to further improvement with the completion of Project Opera over the next few years. The focus for surfacing improvements was on the main retail streets: O'Connell Street, Bedford Row, Thomas Street, William Street and Little Catherine Street.

Paving works to Cruises Street, Denmark Street and their associated laneways, comprising pre-cast concrete paviors, is contemporary to the development of the shopping centre and surrounding late twentieth century development. This surfacing suffers from areas of concrete patchwork which surrounds utilities covers, signage or bollards. The recent O'Connell Street Phase 1 public realm works terminate at Patrick Street.

Outline Specification for Project Opera

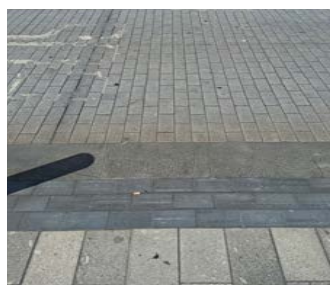
- Central Plaza 1: Silver Grey and Buff granite, 300 x 150.
- Central Plaza 2: Dark Grey granite, 300 x 150.
- Footpath: Aggregate concrete paviors 600/450l x 400w.

Existing paving specification for O'Connell Street

- Footpath: Granite, 600x400mm, 400x400mm, 200x400x80mm thick. Silver Grey or mixed Grey, flamed finish.
- Shared surface: Granite, 100x200x150mm thick. Mixed Grey, bush hammered finish.
- Edgings: Irish Limestone, 300mm wide



O'Connell Street



O'Connell Street



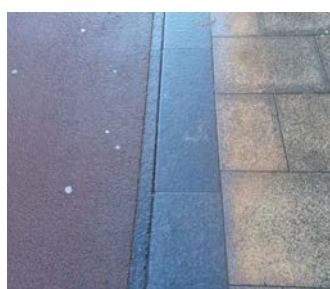
Bedford Row



Bedford Row



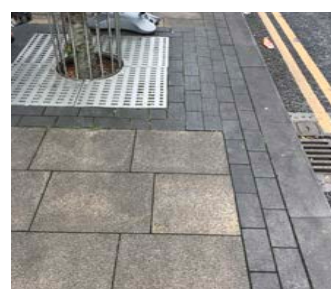
Chapel Street



William Street



Augustinian Lane



Thomas Street

Design Components

Surfacing: Existing Materials

Existing paving specification for Bedford Row, Little Catherine Street, Thomas Street

- Footpath: “Chomerac” French Limestone (Yellow), Flags 200/400/600mm wide x random length x 80mm thick, Setts 345x125x80mm thick.

Existing paving specification for Upper William Street

- Footpath: Pre-cast concrete flags (fibre reinforced), 450x450/600x63mm thick, Natural colour.
- Trim: Irish Limestone (Dark Grey Blue), 245x125x80mm thick, flamed finish.
- Kerb: Irish Limestone (Dark Grey Blue), 250mm wide, 900mm lengths, 16mm bull-nose to exposed top edge.

Georgian Neighbourhood: Existing Materials

Recent investment in the public realm bordering and within the Georgian Neighbourhood has targeted links from Colbert Station and Parnell Street to the city centre. Davis Street, the south side of Upper Mallow Street, the northern end of Pery Street and eastern end of Roches Street have benefited from paving improvements.

The surrounds of Tait’s Clock at Baker Square and the lower half of Dominic Street has also been upgraded as part of the public realm improvements undertaken in 2008-10.

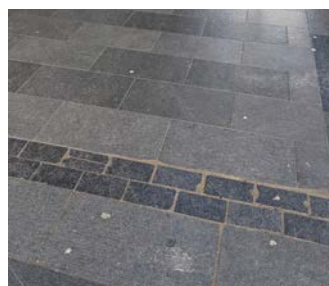
Elsewhere within the public realm there are some areas of pre-cast concrete setts with unsympathetic installation of underground services on Upper Mallow Street, Glentworth Street and Upper Hartstonge Street. However, in-situ poured concrete remains the predominant surfacing within the character area.



Pery Square



Mallow Street



Parnell Street



Upper William Street



Baker Place



Davis Street



Colbert Plaza



Old Clare Street

Existing paving specification for Baker Place

- Footpath: Pre-cast concrete flags (fibre reinforced), 450x450/600x63mm thick, Natural colour and “Chomerac” French limestone (within square).
- Trim: Irish Limestone (Dark Grey Blue), 245x125x80mm thick, flamed finish.
- Kerb: Irish Limestone (Dark Grey Blue), 250mm wide, 900mm lengths, 16mm bull-nose to exposed top edge.

Existing paving specification for Davis Street

- Footpath: Limestone pavers, 600 x 300mm.
- Banding: Two rows black limestone setts, 200 x 100mm, set approximately 20 flags apart.
- Kerb: Limestone kerb, 300mm wide.
- Raised table: Pre-cast ‘bracken’ concrete blocks, herringbone bond, 300 x 150.

Eastern Gateway: Existing Materials

Paving works at Colbert Station and Parnell Street were completed in 2017 as part of a package of works to enhance pedestrian and cycle links between Colbert Station and the city centre.

In the late twentieth century, pre-cast concrete blocks were laid to Sexton Street, Newtown Mahon, Mulgrave Street, Sráid an Ceoil, Roxboro Road, Old Windmill Road, New Road, St Leila Street, Old Clare Street, Clare Street and St Leila Place.

Existing paving specification for Parnell Street / Colbert Station

- Footpath: Limestone pavers, 600 x 300mm.
- Banding: Two rows black limestone setts, 200 x 100mm, set approximately 20 flags apart.
- Kerb: Limestone kerb, 300mm wide.

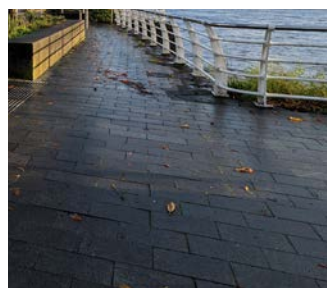
- Raised table: Pre-cast ‘bracken’ concrete blocks, herringbone bond, 300 x 150.

Existing paving specification for Colbert Station

- Plaza: Limestone paving in mix of flame textured, bush hammered and honed finishes.
- Bus bays and taxi rank: Acheson & Glover ‘Terrapave’, Como, Genoa, Rimini textured, 600 x 400 x 50mm.
- Benches: Hartecast HC2032s Seat, Stainless Steel.
- Litter Bins: Hartecast HC2055, height: 1060mm.

Existing paving specification for Upper William Street

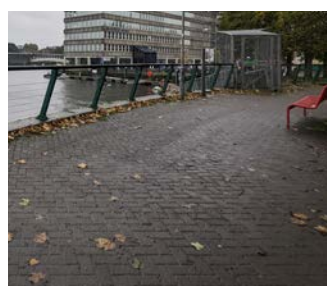
- Footpath: Pre-cast concrete flags (fibre reinforced), 450x450/600x63mm thick, Natural colour.
- Trim: Irish Limestone (Dark Grey Blue), 245x125x80mm thick, flamed finish.
- Kerb: Irish Limestone (Dark Grey Blue), 250mm wide, 900mm lengths, 16mm bull-nose to exposed top edge.



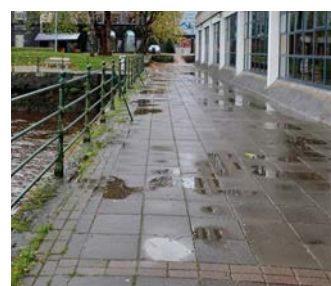
O'Callaghan Strand



Clancy's Strand



Arthur's Quay Park



Sarsfield House

Design Components

Proposed Surfacing Principles

Historic Surfaces

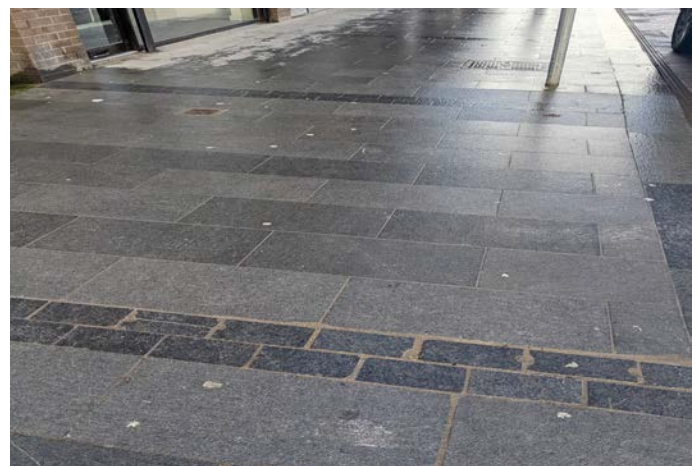
- For effective management and maintenance of historic paving, a recommendation of this Strategy is for the creation of an up-to-date data set of all significant surviving street surfaces and elements associated with them in Limerick. This should include areas where it is known that historic paving survives beneath the current surface. It is important that the location of these areas be recorded to avoid inadvertent damage by road works, public utilities and other potential sources of damage. Intact areas of historic paving should be singled out for special attention as significant heritage assets, and should be protected accordingly.
- Where historic paving and/or kerb stones exist, a sensitive scheme for their retention and incorporation within new public realm works should be drawn up, in agreement with the LCCC architectural conservation officer and the Public Realm Team. Particular reference should be paid to the following document; 'Paving. The conservation of historic ground surfaces. Department of the Arts, Heritage and Gaeltacht and Dublin City Council, 2015'
- selected as the core paving material within footpaths to Street Types 1 and 3, which are primarily pedestrian and cycle priority streets and primary streets. This will provide continuity with existing public realm areas and is a suitably robust and noble material to provide longevity to the public realm.
- Where the cost of natural stone paving is prohibitive on secondary streets, Street Type 2 proposes a high-quality concrete product with exposed natural stone aggregate to maintain visual harmony with the palette of granite used elsewhere.
- Both the natural stone and concrete products selected must provide a strong visual match in terms of unit sizes, colour, laying pattern and jointing.
- To minimise carbon emissions, all paving materials must be sourced from within the EU.

Shared Surface Areas

- Shared surfaces are proposed to Street Type 1, pedestrian and cycle priority streets.

Pedestrian Areas

- Limestone is the traditional paving material within Limerick, however recent investment in the public realm has seen the use of both granite and limestone paving; with granite being the predominant material within the west of the city and Limestone more prevalent to the east.
- The use of limestone paving within the public realm has produced a lesser performance in comparison with its granite counterpart within the recent past, therefore granite has been



Contrast banding to Parnell Street

- Natural stone is proposed as the core material to both footpaths and roadways to maintain visual continuity across the street and for robustness.
- Smaller unit sizes and a robust road base will be required to withstand regular trafficking by vehicles.

Banding

- Differentiation of each character area will be provided through the inclusion of natural stone banding in subtle shades (black, grey/blue, red and cream/yellow granite). Banding patterns have been used recently within O'Connell Street and Parnell Street projects as a device to highlight features within the streetscape e.g. tree planting, proximity to road junctions etc. The inclusion of banding within the overall paving design will maintain visual continuity with those most recently completed public realm schemes.
- Natural stone banding is required in all new public realm areas as a minimum, to maintain continuity throughout the public realm.

Kerbs

- Limestone is the traditional material for kerbing and has been used successfully as a material within recent schemes. Limestone kerbs must be used across the whole street hierarchy, as this will maintain continuity throughout the public realm. Should funds become available to upgrade paving to secondary streets with natural stone paving it is more straightforward to replace if kerbs are already in place.

Surfacing Design and Specification

- Typical plan sizes of paving units are specified within this Chapter. The depth of paving unit must take account these plan sizes, the flexural strength of the stone, bedding conditions and anticipated trafficking, as per the design and technical standards.
- Sub-base construction and method of laying should consider the anticipated trafficking and likelihood of vehicle overrun onto the pedestrian areas.
- All paving finishes must achieve minimum slip resistance ratings, with a flamed finish considered most appropriate.

Cycle Paths

- Segregated cycle paths to Primary Streets should have a red surface course, in line with NTA requirements.
- Within Architectural Conservation Areas, the use of a red-coloured surface is considered less appropriate to their setting and a departure from the specification should be sought. A buff-coloured natural aggregate finish is proposed, in keeping with the characteristics of the ACA's and wider character areas within which they sit.

Roadways

- Asphalt for road surfaces is highly resilient at junctions in areas of high-turning movements.
- Darker coloured asphalt on road carriageways should be preferenced to buff colour, as it is more economical, shows up less tire marking, is easier to source for when repairs are needed, and easier to match up to existing asphalt conditions.

Design Components

Proposed Surfacing Materials

Proposed Materials - Natural Stone

The use of granite as the core paving material within footpaths to Street Types 1 and 3 will provide continuity and longevity to the public realm.

Natural stone banding in a range of colours will provide differentiation of each character area, using subtle shades of natural stone paving (black, grey/blue, red and cream/yellow). Banding has been used recently to great effect within O'Connell Street and Parnell Street projects to provide delineation of street features, building lines, trees, and approach to road junctions, therefore it is considered appropriate to continue this treatment. Vertical banding will delineate the building line, allowing flexible tie in to any specific features.

Specification

- Paving to footpaths: Grey Granite. Sizes: 600 x 400mm. Finish: Bush Hammered (to achieve slip resistance).
- Paving to shared surface areas: Mixed Grey Granite. Sizes: 400 x 200mm. Finish: Bush

Hammered (to achieve slip resistance).

- Horizontal Banding: Black, Blue Grey, Red, Cream/Yellow Granite, depending on Character Area. Sizes: 400 x 200mm. Finish: Bush Hammered (to achieve slip resistance).
- Vertical Banding: Black, Blue Grey, Red, Cream/Yellow Granite, depending on Character Area. Sizes: 200 x 100mm. Finish: Bush Hammered (to achieve slip resistance).
- Kerbs: Irish Blue Grey Limestone. Sizes: 300mm wide x various depths. Flush, transition, radius and full height kerbs required. Finish: Fine picked. Kerbs must provide distinct colour contrast to pedestrian paths and serviceable vehicular routes in wet and dry conditions.
- Tactile paving: Buff Granite (uncontrolled crossings, hazard warning), Red Granite (controlled crossings). Sizes: 400 x 400. Finish: Blister (crossing) and corduroy (hazard warning).



Red Granite tactiles



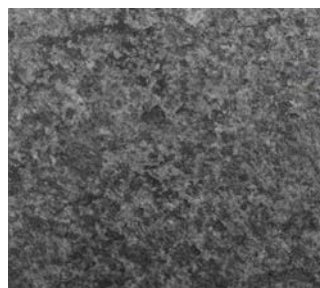
Black Granite tactiles



Med Grey Granite



Mid Grey Granite



Black Granite



Purple Granite



Blue Grey Granite



Red Granite



Yellow Granite



Irish Blue Grey Limestone

Proposed Materials - Pre-Cast Concrete

It is important that the product selected provides a strong visual match to natural stone equivalent in terms of unit sizes, colour, laying pattern and jointing. Concrete blocks with the inclusion of dyes will not be suitable due to their ability to fade over time.

Natural stone banding and natural stone kerbs are required as a minimum.

Minimum Outline Specification

Concrete block and flag paving with water-etched, exposed granite and quartzite aggregate surface. Also available in permeable and large format sizes.

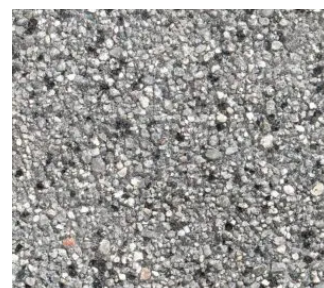
- **Slip resistance:** (USRV) >75 low potential for slip
- **Green Guide Rating:** A
- **Colours**
 - Med Grey
 - Mid Grey
- **Sizes**
 - 600 x 400 x 80mm
 - 400 x 200 x 80mm

Proposed Materials - Reconstituted Stone

Where the cost of natural stone paving is prohibitive, a high-quality concrete product with exposed natural stone aggregate, to maintain visual harmony with the palette of granite used elsewhere, will be considered.



Example of pre-cast paving with natural stone aggregate surface (Credit: Acheson and Glover)



Specification for Pedestrian, Parking and Loading Bays
Med Grey Granite, Mid Grey Granite
400 x 200 x 80mm

Design Components

Surfacing: Englishtown

Street Type 1

1. Footpath: Granite, 600x400mm, Grey, bush hammered.
2. Horizontal banding: Portuguese Cream/Yellow Granite, 400l x 200w, bush hammered.
3. Trim to building line: Portuguese Cream/Yellow Granite, 200l x 100w, bush hammered.
4. Upstand Kerb: Irish Limestone (Grey Blue), 300w.
5. Road: Bitumen.

Street Type 2

6. Footpath 2B: Pre-cast concrete paving with exposed granite aggregate surface, Grey (to match granite), 600l x 400w. 2A: Reconstituted Stone - precast concrete paving with exposed granite dust layer. Colour to match adjacent natural stone grey paving.
7. Horizontal banding: Portuguese Cream/Yellow Granite, 400l x 200w, bush hammered.
8. Trim to building line: Portuguese Cream/Yellow Granite, 200l x 100w, bush hammered.
9. Upstand Kerb: Irish Limestone (Grey Blue), 300w.
10. Road: Bitumen.

Street Type 3

11. Footpath: Grey granite, 400l x 200w, bush hammered.
12. Horizontal banding (see street details for usage): Portuguese Cream/Yellow Granite, 400l x 200w, bush hammered.
13. Trim to building line: Portuguese Cream/Yellow Granite, 200l x 100w, bush hammered.
14. Flush Kerb: Irish Limestone (Dark Grey Blue), 300w. Must provide distinct colour contrast to pathway in wet and dry conditions.
15. Road: 60% Granite, 400lx200w, Med Grey, 40% Granite, 400lx200w, Mid Grey, all bush hammered.

Design Considerations

- Cream/Yellow granite banding will introduce warmth and reflect tonal changes in natural stone found within historic buildings.
- Contrast small unit paving will be used to detail the setting to historic pavement features.

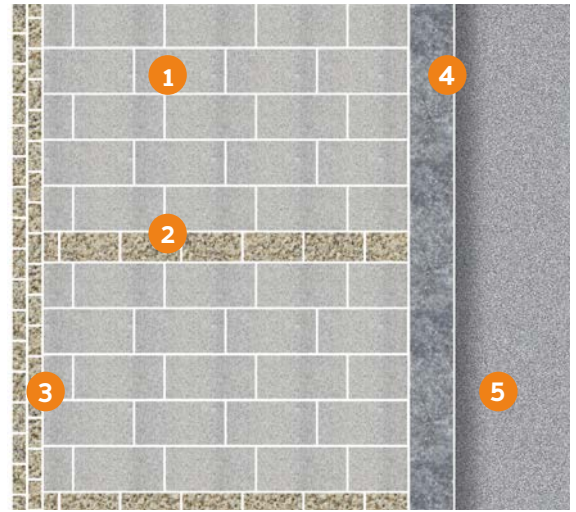


Fig. 72: Street Type 1: Primary Street swatch

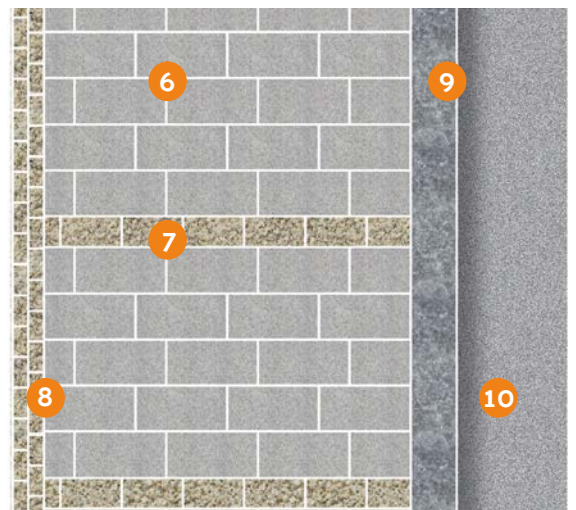


Fig. 73: Street Type 2: Secondary Street swatch

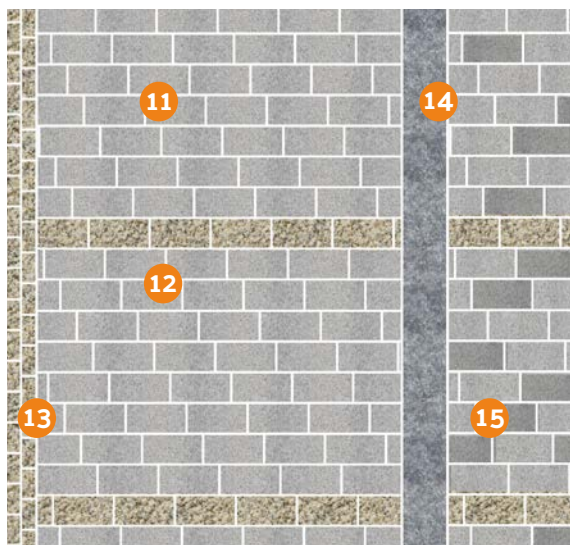


Fig. 74: Street Type 3: Pedestrian and Cycle Priority Street swatch

Surfacing: Irishtown

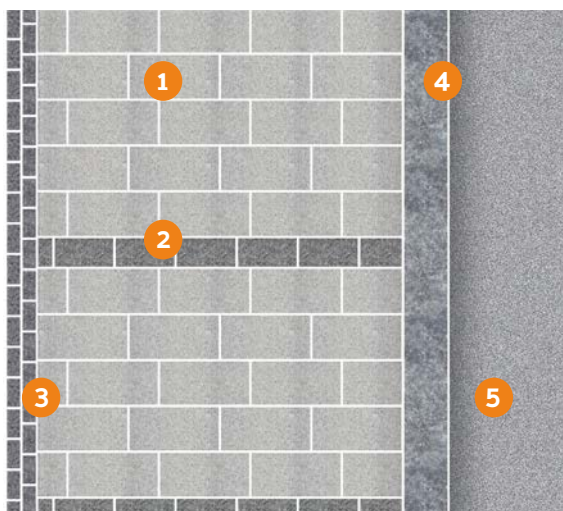


Fig. 75: Street Type 1: Primary Street swatch

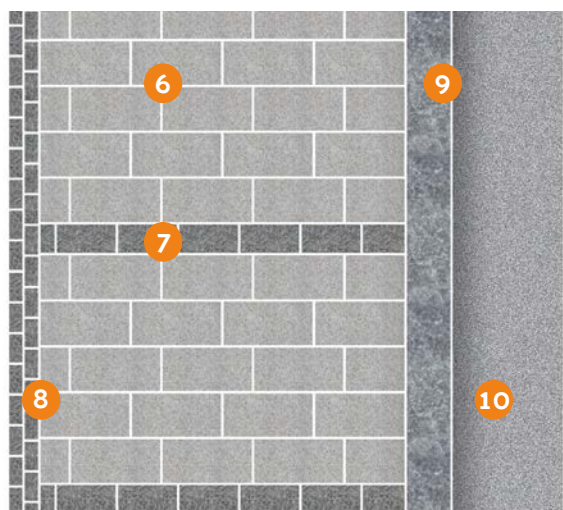


Fig. 76: Street Type 2: Secondary Street swatch

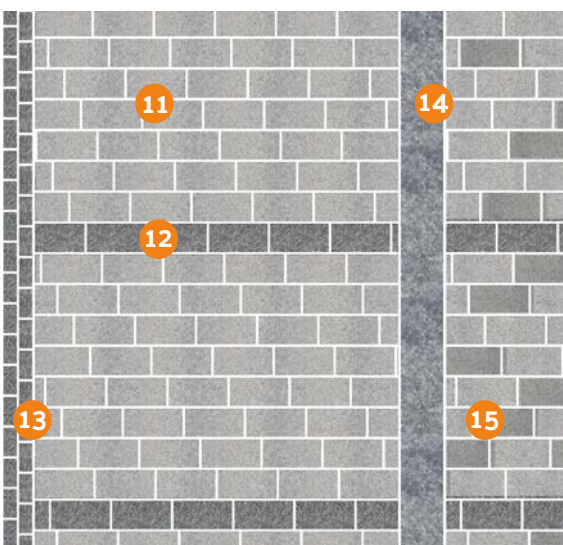


Fig. 77: Street Type 3: Pedestrian and Cycle Priority Street swatch

Street Type 1

1. Footpath: Granite, 600x400mm, Grey, bush hammered finish.
2. Horizontal banding (see street details for usage): Mid Grey Granite, 400l x 200w, bush hammered finish
3. Trim to building line: Mid Grey Granite, 200l x 100w, bush hammered finish.
4. Upstand Kerb: Irish Limestone (Grey Blue), 300w.
5. Road: Bitumen.

Street Type 2

6. Footpath 2B: Pre-cast concrete paving with exposed granite aggregate surface, Grey (to match granite), 600l x 400w. 2A: Reconstituted Stone - precast concrete paving with exposed granite dust layer. Colour to match adjacent natural stone grey paving.
7. Horizontal banding (see street details for usage): Grey Granite, 400l x 200w, bush hammered finish.
8. Trim to building line: Grey Granite, 200l x 100w, bush hammered finish.
9. Upstand Kerb: Irish Limestone (Grey Blue), 300w.
10. Road: Bitumen.

Street Type 3

11. Footpath: Granite, 400lx200w, Grey, bush hammered.
12. Horizontal banding (see street details for usage): Mid Grey Granite, 400l x 200w, bush hammered Banding extends into shared surface.
13. Trim to building line: Grey Granite, 200l x 100w, bush hammered.
14. Flush Kerb: Irish Limestone (Grey Blue), 300w to provide distinct colour contrast to pathway in wet and dry conditions.
15. Road: 60% Granite, 400lx200w, Med Grey, , 40% Granite, 400lx200w, Mid Grey, all bush hammered.

Design Considerations

- Mid Grey granite for banding will provide a contrast to the main paving material.
- Contrast small unit paving will be used to detail the setting to historic pavement features.

Design Components

Surfacing: Central Core

Street Type 1

1. Footpath: Granite, 600x400mm, Grey, bush hammered.
2. Horizontal banding (see street details for usage): Irish Blue Limestone, 400l x 200w, bush hammered.
3. Trim to building line: Mid Grey Granite, 200l x 100w, bush hammered finish.
4. Upstand kerb: Irish Limestone (Grey Blue)/Granite (to be agreed), 300w.
5. Road: Bitumen.

Street Type 2

6. Footpath 2B: Pre-cast concrete paving with exposed granite aggregate surface, Grey (to match granite), 600l x 400w. 2A: Reconstituted Stone - precast concrete paving with exposed granite dust layer. Colour to match adjacent natural stone grey paving.
7. Horizontal banding): Irish Blue Limestone, 400l x 200w, bush hammered.
8. Trim to building line: Irish Blue Limestone, 200l x 100w, bush hammered.
9. Upstand Kerb: Irish Limestone (Grey Blue), 300w.
10. Road: Bitumen.

Street Type 3

11. Footpath: Granite, 400lx200w, Med Grey, bush hammered.
12. Horizontal banding :Irish Blue Limestone, 400l x 200w, flamed. Banding extends into shared surface.
13. Trim to building line: Irish Blue Limestone, 200l x 100w, bush hammered.
14. Flush Kerb: Irish Limestone (Grey Blue), 300w to provide distinct colour contrast to pathway in wet and dry conditions.
15. Road Surface: 60% Granite, 400lx200w, Med Grey, 40% Granite, 400lx200w, Mid Grey, all bush hammered.

Design Considerations

- Irish Blue Limestone for banding will reflect natural stone found within the area.
- Contrast small unit paving can also be used to detail the setting to historic pavement features.

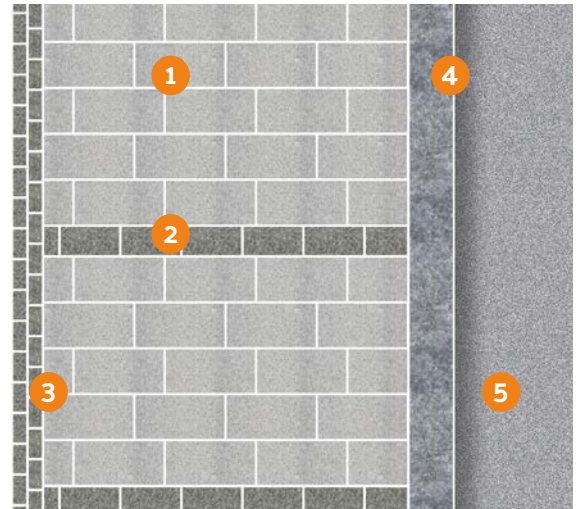


Fig. 78: Street Type 1: Primary Street swatch

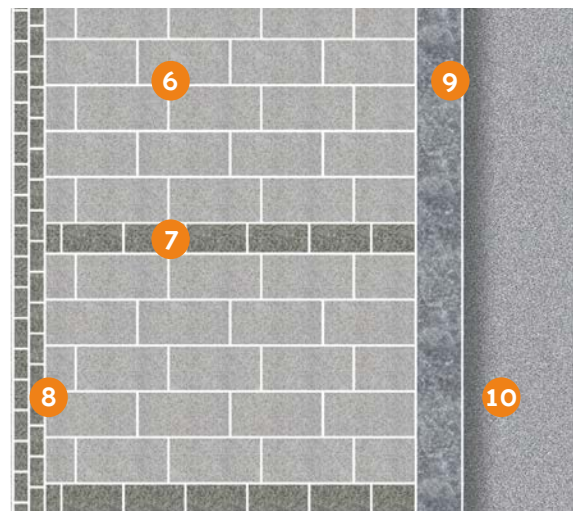


Fig. 79: Street Type 2: Secondary Street swatch

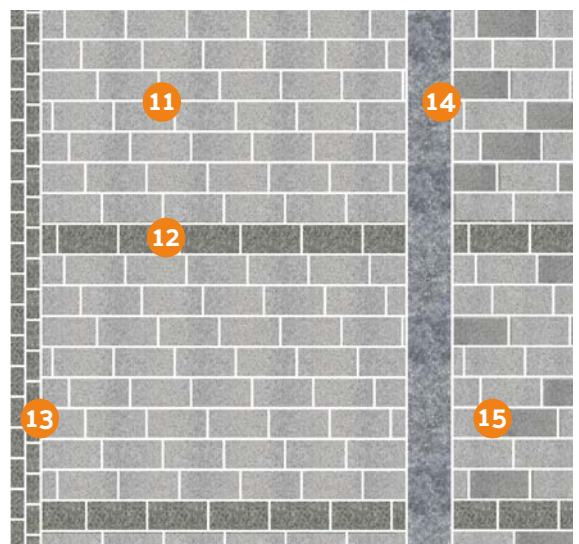


Fig. 80: Street Type 3: Pedestrian and Cycle Priority Street swatch

Surfacing: Georgian Neighbourhood

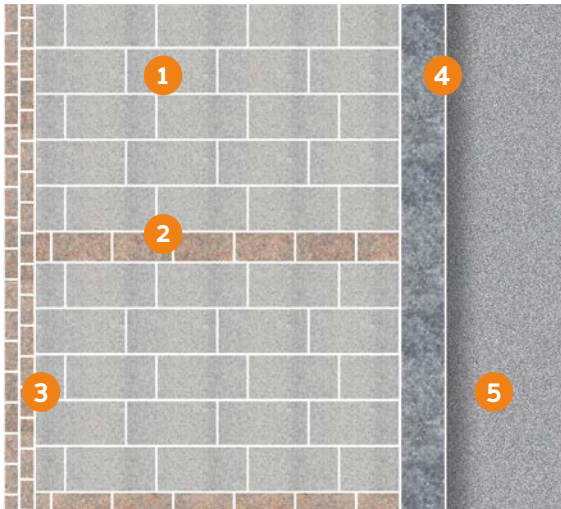


Fig. 81: Street Type 1: Primary Street swatch

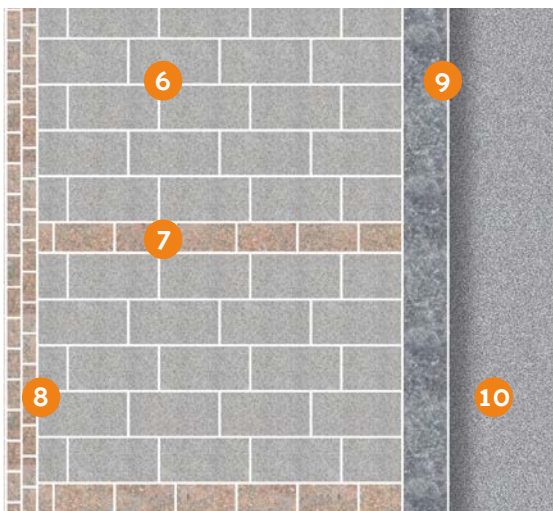


Fig. 82: Street Type 2: Secondary Street swatch

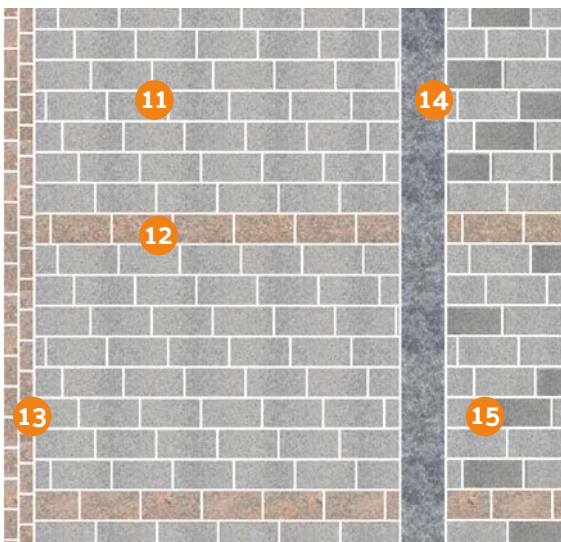


Fig. 83: Street Type 3: Pedestrian and Cycle Priority Street swatch

Street Type 1

1. Footpath: Granite, 600x400mm, Grey, bush hammered.
2. Horizontal banding: Portuguese Red Granite, 400l x 200w, bush hammered.
3. Trim to building line: Portuguese Red Granite, 200l x 100w, bush hammered.
4. Upstand Kerb: Irish Limestone (Grey Blue), 300w.
5. Road: Bitumen.

Street Type 2

6. Footpath 2B: Pre-cast concrete paving with exposed granite aggregate surface, Grey (to match granite), 600l x 400w. 2A: Reconstituted Stone - precast concrete paving with exposed granite dust layer. Colour to match adjacent natural stone grey paving. 600l x 400w.
7. Banding: Portuguese Red Granite, 400l x 200w, bush hammered.
8. Horizontal Trim to building line: Portuguese Red Granite, 200l x 100w, bush hammered.
9. Upstand Kerb: Irish Limestone (Grey Blue), 300w.
10. Road: Bitumen.

Street Type 3

11. Footpath: Granite, 400lx200w, Grey, bush hammered.
12. Horizontal banding: Portuguese Red Granite, 400l x 200w, bush hammered. Banding extends into shared surface.
13. Trim to building line: Portuguese Red Granite, 200l x 100w, bush hammered.
14. Flush Kerb: Irish Limestone (Grey Blue), 300w to provide distinct colour contrast to pathway in wet and dry conditions.
15. Road Surface: 60% Granite, 400lx200w, Med Grey, 40%.
16. Selected heritage area streets in 200mm x 100mm granite cobbles sawn and cropped.

Design Considerations

- The use of red granite will introduce warmth to and reflect tonal changes in building stone.
- Contrast small unit paving can also be used to detail the setting to historic pavement features.

Design Components

Surfacing: Eastern Gateway

Street Type 1

1. Footpath: Granite, 600x400mm, Grey, bush hammered.
2. Horizontal banding: Black Granite, 400l x 200w, bush hammered.
3. Trim to building line: Black Granite, 200l x 100w, bush hammered.
4. Upstand Kerb: Irish Limestone (Grey Blue), 300w.
5. Road: Bitumen.

Street Type 2B

6. Footpath: Pre-cast concrete paving with exposed granite aggregate surface, Grey (to match granite), 600l x 400w.
7. Horizontal banding: Black Granite, 400l x 200w, bush hammered.
8. Trim to building line: Black Granite, 200l x 100w, bush hammered.
9. Upstand Kerb: Irish Limestone (Grey Blue), 300w.
10. Road: Bitumen.

Street Type 3

11. Footpath: Granite, 400lx200w, Grey, bush hammered.
12. Horizontal banding: Black Granite, 400l x 200w, bush hammered . Banding extends into shared surface.
13. Trim to building line: Black Granite, 200l x 100w, bush hammered.
14. Flush Kerb: Irish Limestone (Grey Blue), 300w.
15. Road Surface: 60% Granite, 400lx200w, Med Grey, bush hammered finish, 40% Granite, 400lx200w, Mid Grey, bush hammered finish.

Design Considerations

- Black Granite for banding will reflect the use of dark limestone as banding in adjacent schemes at Parnell and Davis Street.
- Contrast small unit paving can also be used to detail the setting to historic pavement features.

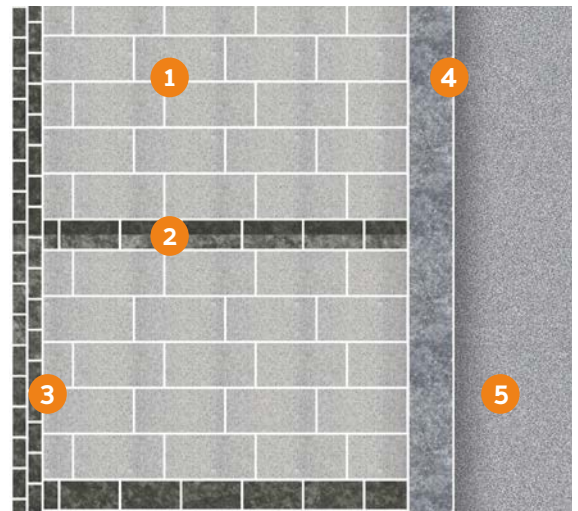


Fig. 84: Street Type 1: Primary Street swatch

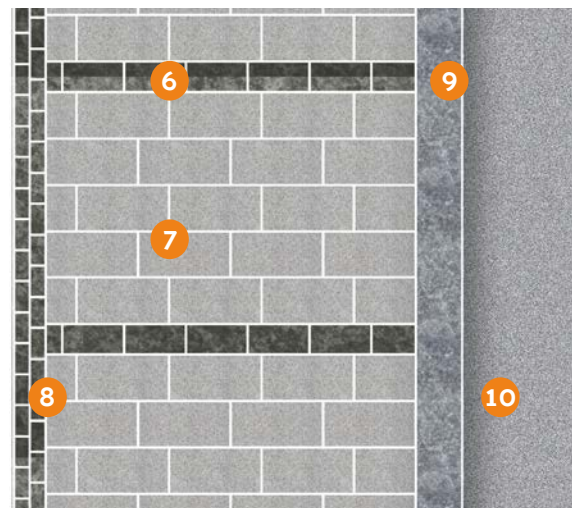


Fig. 85: Street Type 2: Secondary Street swatch

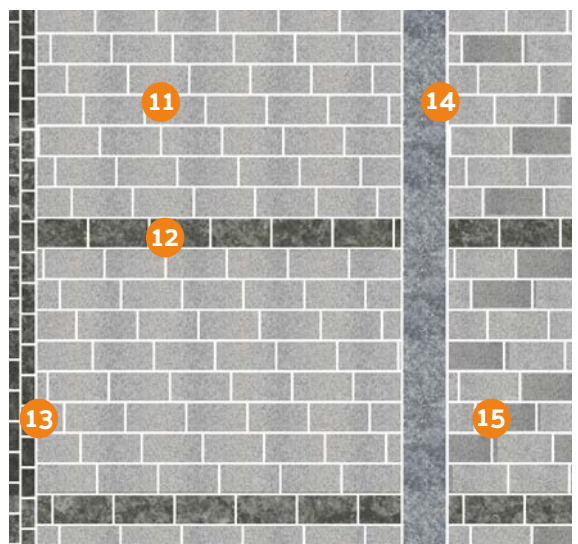


Fig. 86: Street Type 3: Pedestrian and Cycle Priority Street swatch

Surfacing: Waterfront

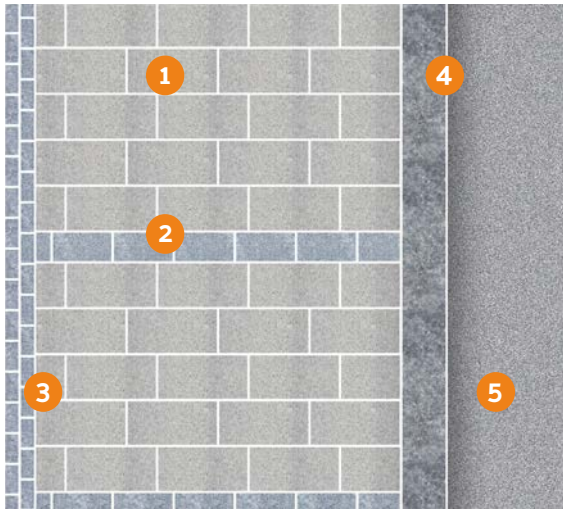


Fig. 87: Street Type 1: Primary Street swatch

Street Type 1

1. Footpath: Granite, 600x400mm, Grey, bush hammered.
2. Horizontal banding: Blue Grey Granite, 400l x 200w, bush hammered.
3. Trim to building line: Blue Grey Granite, 200l x 100w, bush hammered.
4. Upstand Kerb: Irish Limestone (Grey Blue), 300w.
5. Road: Bitumen.

Street Type 2

6. Footpath: Pre-cast concrete paving with exposed granite aggregate surface, Med Grey (to match granite), 600l x 400w.
7. Horizontal banding: Blue Grey Granite, 400l x 200w, Blue Grey Granite, 200l x 100w, bush hammered.
8. Trim to building line: Blue Grey Granite, 200l x 100w, bush hammered.
9. Upstand Kerb: Irish Limestone (Grey Blue), 300w.
10. Road: Bitumen.

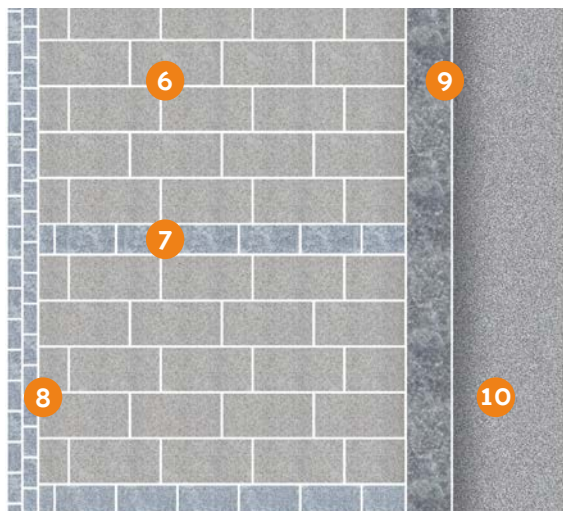


Fig. 88: Street Type 2: Secondary Street swatch

Street Type 3

11. Footpath: Granite, 400lx200w, Grey, bush hammered.
12. Horizontal banding: Blue Grey Granite, 400l x 200w, flamed. Banding extends into shared surface.
13. Trim to building line: Blue Grey Granite, 200l x 100w, bush hammered.
14. Flush Kerb: Irish Limestone (Grey Blue), 300w to provide distinct colour contrast to pathway in wet and dry conditions.
15. Road Surface: 60% Granite, 400lx200w, Med Grey, bush hammered finish, 40% Granite, 100lx200w, Mid Grey, bush hammered finish.

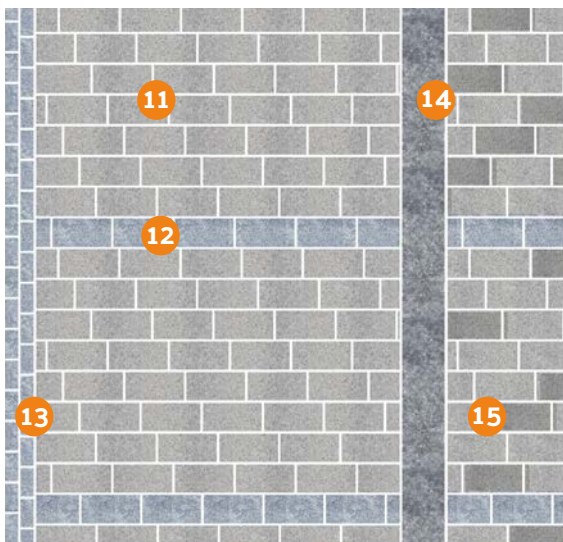


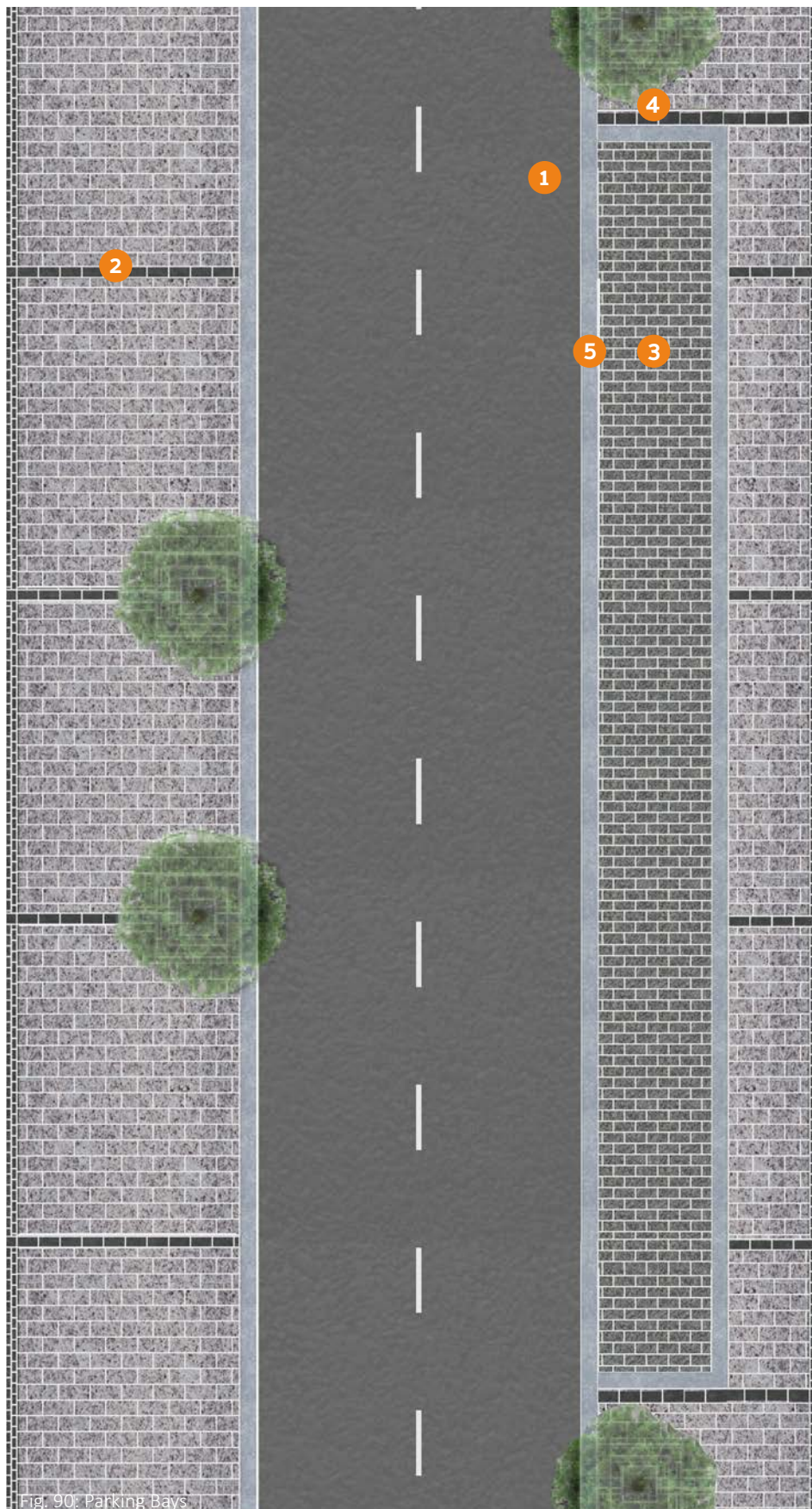
Fig. 89: Street Type 3: Pedestrian and Cycle Priority Street swatch

Design Considerations

- Blue Grey granite for banding will reflect the natural stone found within the area.
- Contrast small unit paving can also be used to detail the setting to historic pavement features.

Design Components

Surfacing Details: Parking Bays



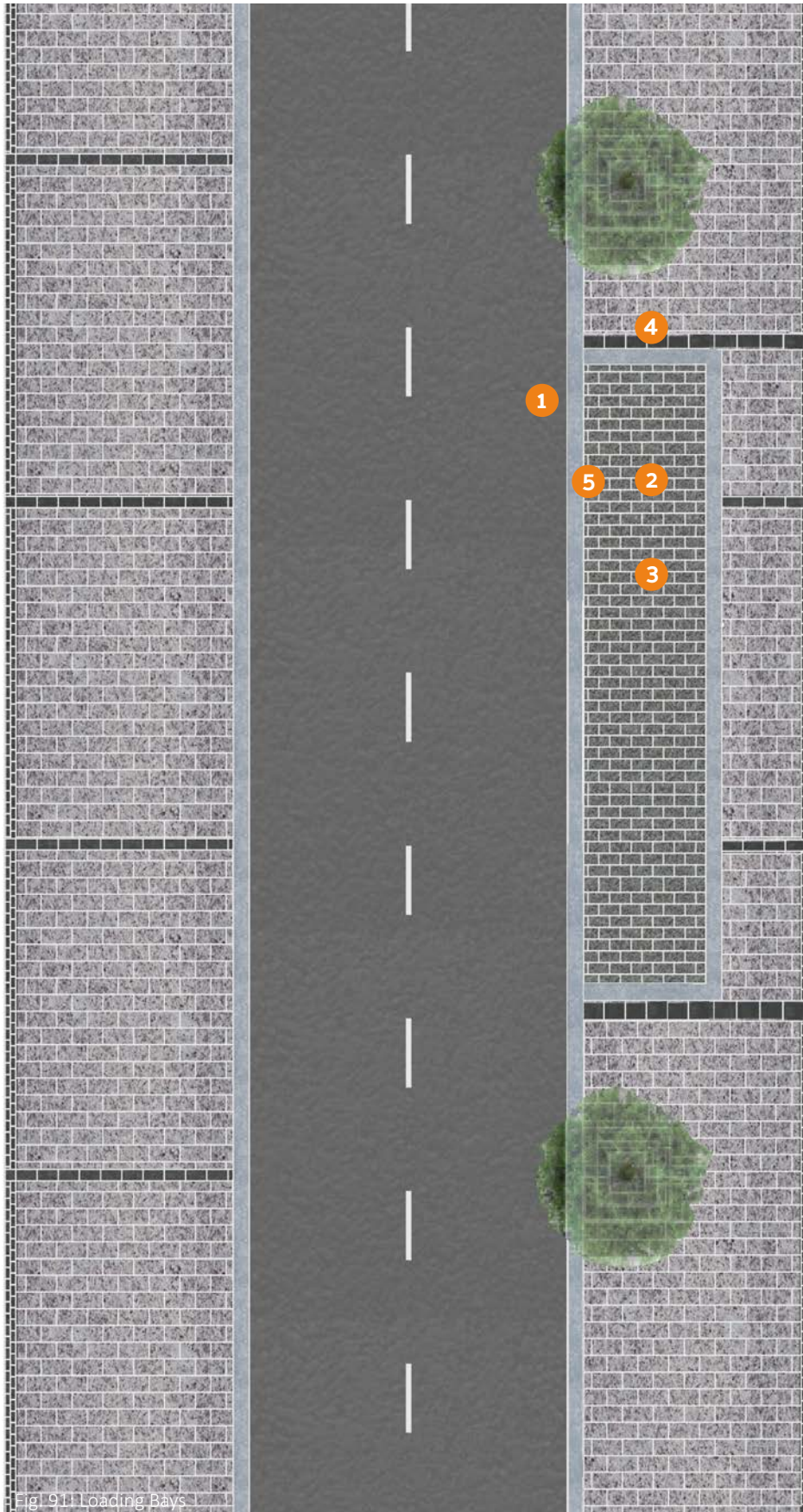
Legend

1. Road Carriageway: a maximum of three spaces per bay (DMURS). Spaces to be 2400mm wide x 6000mm long. End zone to be 2400mm x 2400mm.
2. Horizontal banding to be continued through adjacent paving.
3. 200mm x 400mm x 80mm paviors to be used within parking bays (to match shared surface specification).
4. 45 degree, full height kerb return.
5. Flush kerb to provide distinct colour contrast to pathway in wet and dry conditions. Parking bays should be finished so that they are clearly distinguishable from the main carriageway.



Fig. 90: Parking Bays

Surfacing Details: Loading Bays



Legend

1. Road Carriageway.
2. Loading bay to be 2600mm wide x 6000mm long. End zone to be 2600mm x 2600mm.
3. Horizontal banding to be used to delineate the extent of each bay. Banding to be continued through adjacent paving.
4. 200mm x 400mm x 80mm paviors to be used within parking bays (to match shared surface specification).
5. Flush kerb to provide distinct colour contrast to pathway in wet and dry conditions. Loading bays should be finished so that they are clearly distinguishable from the main carriageway.



Fig. 911 Loading Bays

Design Components

Surfacing Details: Typical Uncontrolled Crossing

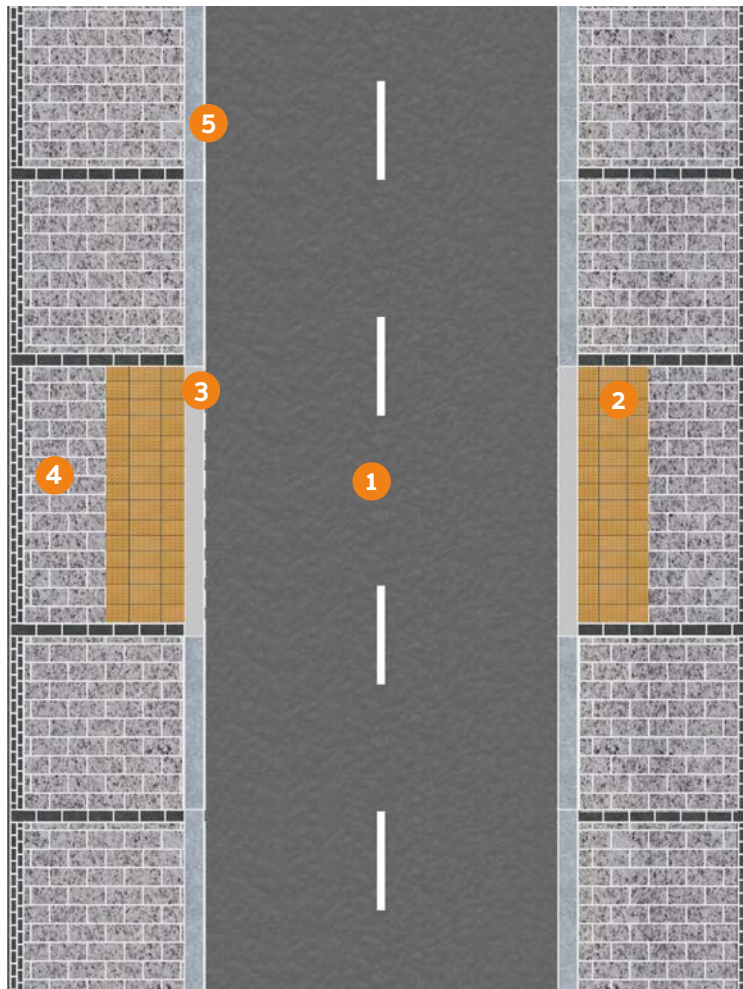
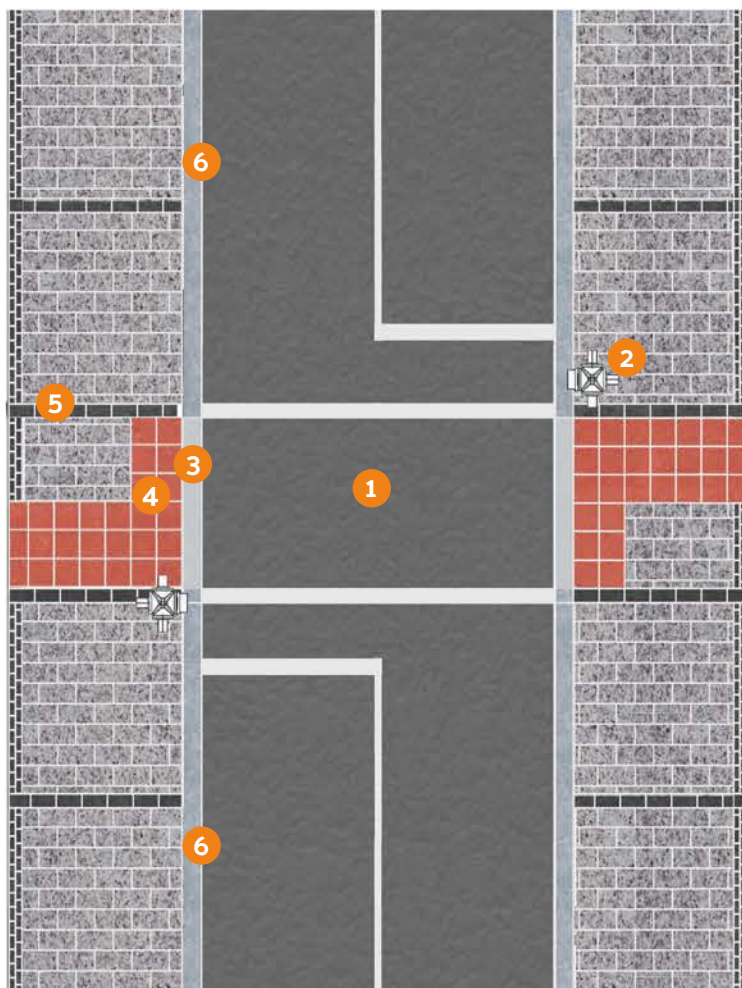


Fig. 92: Uncontrolled Crossing (indicative diagram)

Legend

1. Uncontrolled crossing to be 4000mm wide, as uncontrolled crossings do not have priority over vehicular traffic, no visual lines or signage is displayed on the road surface and pedestrians must decide whether it is safe to cross on their own accord.
2. At an uncontrolled crossing the blister tactile paving colour must be Buff or grey in colour (not red). The tactile paving should be 1200mm deep when in line with the direction of desire line, when not in line with desire line the tactile should be 800mm deep.
3. Dished Kerb: to be painted white/yellow for the benefit of people with impaired vision.
4. Paving material.
5. Full height kerb.

Surfacing Details: Typical Controlled Crossing



Legend

1. Controlled Puffin/Tucan crossing to be minimum of 6000mm in width on bus routes and 3700mm wide elsewhere with level crossing point.
2. Position of pole to be located max. 500mm from tactile paving edge to centre line of pole, and 500mm from kerb edge to centre line of pole.
3. Flush kerb.
4. Two rows (800mm total depth) 400mm x 400mm x 80mm natural stone blister tactile paving. Red coloured. Continuation to building line as 1200mm wide band of paving.
5. Horizontal banding to be used to delineate the extent of the crossing.
6. Full height kerb.

Fig. 93: Controlled Crossing (indicative diagram)

Design Components

Street Furniture: Introduction

Existing Street Furniture

- There is an inconsistency in design and material used in existing street furniture, due to the differing timescales of implementation and parties responsible for commission.
- The placement of street furniture often obstructs pedestrian movement, minimum pedestrian pathway widths should be rigorously maintained.
- The setting of street furniture often restricts use and more consideration is required for usability e.g. cycle stands.
- Ideally, street furniture should be continuous to ground level to provide a tapping edge.
- Pedestal-mounted objects should be avoided.
- Street furniture should visually contrast with the background against which it is seen.
- Universal and Age-Friendly designs should be adopted to ensure Limerick's streets are accessible to all.
- Street furniture should be root-fixed to minimise opportunities for vandalism or theft.

General Recommendations

- Consider whether the need for street furniture can be designed out or whether elements can be combined, i.e. installing usable seating and planters to street edges instead of bollards, incorporating seating and amenity lighting to the edges of planters.

Where possible, street furniture should be clustered into a coherent 'zone' that can be readily distinguished within the streetscape, and can assist with ease of maintenance and installation of hoarding for temporary events.



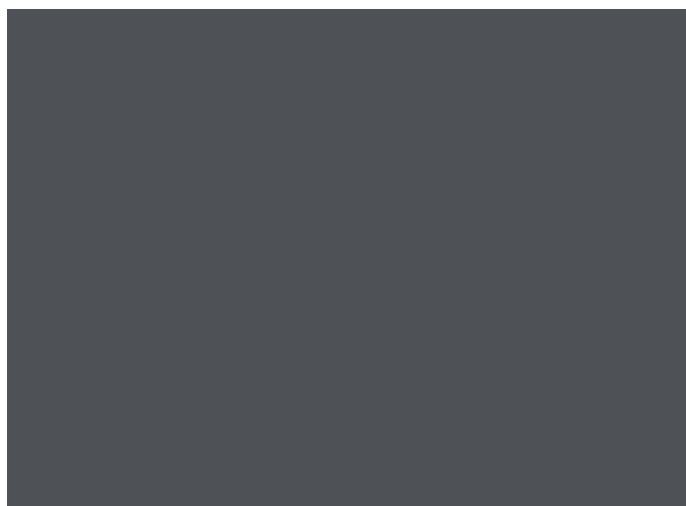
O'Connell Street: Poor setting for cycle parking, which does not encourage active travel



O'Connell Street: Granite planter fulfils multiple functions.

Proposed Materiality and Colour Palette

- The selected material for the majority of street furniture is steel, due to its robustness.
- Composite Timber will be used for seating elements, due to its tactile qualities.
- Stone will also be used for seating within Architectural Conservation Areas.
- A limited palette of colour for steelwork will be used throughout the city, based on Character Area. Colours selected are suitable for contemporary settings, new developments and historic settings.
- A muted, neutral colour with a touch of warmth should be used in Englishtown, Irishtown and the Georgian Neighbourhood: RAL 7016 (Anthracite Grey).
- A white consistent with steelwork currently utilised along the Shannon River should be used in Waterfront.
- Stainless steel finish should be used in the Central Core and in the Eastern Gateway.



RAL 7016 (Anthracite Grey)

Design Components

Street Furniture: Typical Seating

General Observations

- A wide mix of existing seating types within the public realm creates an incoherent palette.
- Timber picnic benches are present in parks and green spaces. Stainless steel benches are located within the Strands/Quays adjacent to the River, with powder-coated coloured steel present in Arthur's Quay Park.
- Public realm works during the early 2000's introduced natural stone seating to the retail core (Bedford Row, Thomas Street) and Colbert station plaza. Granite has also been used for the bespoke seating planters on O'Connell Street.
- Concrete seating is used within Colbert Plaza.
- Limited seating with backs and armrests exists.

General Principles

- Seating should suit the surrounding context: off the shelf and bespoke seating to be used as appropriate. Bespoke seating to be considered within Primary Squares and Greenspaces or along pedestrian routes within main retail core.
- Seating must be safe and comfortable to sit on for extended periods of time. The use of timber seating is recommended for comfort

and warmth. This should be moisture-resistant, sustainably grown European FSC hardwood or similar.

- Seating should be located in sheltered places and where people can enjoy a good view.
- Seating shall be provided at regular intervals along access routes (max. 50m distance) as resting points. It should also be provided in conjunction with changes in level.
- A meter square of paving beside a seat enables a wheelchair user or parent with stroller user to sit alongside a friend.
- Seats should be placed 600mm back from line of movement so they do not obstruct access routes.
- Seats should be at least 450mm high and 500mm wide. Perching seats with a height of 500 to 750mm are easier for some people to use.
- A heel space at least 100mm deep makes it easier for people to stand up off the seat.
- Seats with backrests are useful for additional support, and armrests, 200mm above seat level, are useful to lean against, as well as assisting in transferring in and out of the seat.



Clancy's Strand: Stainless steel



Bedford Row: Black limestone



Colbert Station: Granite



Colbert Station: Concrete (Escofet)



Arthur's Quay Park: Red steel



People's Park: Timber picnic set



O'Connell Street: Granite seating edge

Proposed Seating

Waterfront

- Steel and composite timber seat, four-leg seat for ground fixing or free standing in painted mild steel with treated hardwood laths.
- Typical dimensions: length 1860mm, depth 629mm, height 819mm.
- Weather resistant composite timber.
- Steel Finish: White.



Steel and timber seat (Credit: Omos)



Steel and timber chair (Credit: Omos)

Central Core and Eastern Gateway

- Steel and composite timber seat, four-leg seat for ground fixing or free standing in painted mild steel with treated hardwood laths.
- Typical dimensions: length 1860mm, depth 629mm, height 819mm .
- Weather resistant composite timber.
- Steel Finish: Brushed Stainless Steel.

Englishtown, Irishtown and Georgian Neighbourhood

- Natural stone bench, Cut stone ends and seat surface with stainless steel sub-frame.
- Typical dimensions: length 3000mm, width 600mm, height 460mm.
- Material: Limestone.
- Finish: Bush hammered.



Natural stone bench (Credit: Omos)

High profile locations

High profile locations, such as Primary Squares, Primary Greenspaces or along pedestrian routes in the retail core, a bespoke approach to seating should be considered, similar to recent interventions on O'Connell Street.



Bespoke bench in Dun Laoghaire (Credit: Omos)

Design Components

Street Furniture: Typical Litter Bins

General Observations

- Smart Compactor bins are used within areas of high footfall, for general refuse and recycling. They are connected to solar power, linked to an online portal providing real-time information to city centre managers. This allows waste to be collected efficiently.
- Elsewhere within the public realm, square stainless steel bins are most prevalent. Plastic bins are also used in parks and peripheral areas.
- There are few dedicated compounds for wheeled refuse bins for commercial and residential areas. Bins are typically stored on the street edge, creating additional clutter within the streetscape.
- Recycling receptacles are also simply grouped on the edge of the roadway or the footpath.
- Litter bins should not obstruct movement or building entrances. They should face in the direction of pedestrian travel to encourage usage.
- Litter bins should have a covered top to prevent rainwater and bird ingress.
- The specification and placement of litter bin types should be sensitive to heritage features of Limerick City. Compactor bins will generally be unsuitable within Architectural Conservation Areas and along narrow, pedestrian priority streets with high footfall. In these scenarios, more frequent bin are recommended to maintain streets to a good standard of cleanliness.
- Litter bins should have a simple, rectilinear form.
- Litter bins should be fabricated from steel.
- Use of council logos and promotional stickers should be avoided.
- A capital project should be developed in order to replace all existing bins within the city centre boundary in order to ensure a consistent and coherent approach.

General Principles

- Litter bins should be installed at a ratio of one bin for every 100 metres to minimise clutter.
- Bins should be located at least 10 metres from seating and resting areas to minimise nuisance from smells and insects.



Recycling Bins



Compactor Bin



Recycling Bins



Refuse Bins



Compactor bin



100 litre litter bin



Black plastic bin



Grey plastic bin

- Beyond this strategy, a separate study should be commissioned to develop shared solutions for refuse and recycling bins with businesses and landowners.

Proposed Litter Bins

Parks, Architectural Conservation Areas and Residential Areas

- 2mm pre-galvanized steel body with 2-pack polyurethane coating (RAL to customer's choice).
- 10mm heavy-duty solid steel base for unmatched stability.
- Anti-corrosion primer, fire- and vandal-resistant.
- Stainless steel hinges and slam lock for security and ease of access.
- Front-door opening for practical liner removal.
- 120L – Height: 1150mm, Width: 600mm, Depth: 600mm.
- Choose from 2 or 4 openings.
- Styles include: Small, Oval, Large (suitable for items like pizza boxes).
- Available in both Flat and Apex configurations.
- Standard galvanised liner.
- Pre-galvanized steel with RAL-matched polyurethane coating.
- Ashtray units (Internal or External).



Stainless steel square bin

Design Components

Street Furniture: Cycle Parking

General Observations

- There is a fear of utilizing existing cycle parking due to perceived risk of vandalism/theft.
- Lack of cycle lanes/infrastructure might be a contributing factor to the lack of uptake.
- There is a mix of cycle stands within the public realm including Sheffield stands, circular hoops and TII cycle hire stands.
- Cycle compounds take up a large amount of space, therefore should only be placed in areas that can accommodate them without reducing DMURS specifications.
- The setting/positioning of stands is compromised, with some obstacles to entry/exit, compromised manoeuvrability and inability to achieve a secure lockable point.
- There is limited bike parking that caters specifically for e-bikes or non-standard bikes (cargo bikes, long tailed bikes, adapted bikes, delivery bikes etc).

General Principles

- Sheffield stands offer the most flexibility in parking and provide a secure lockable point.
- Tapping rail to be set 150mm above ground level.
- Stands to be installed in line with the Cycle Design Manual.
- 5% of spaces to be provided for larger, non-standard cycles (adapted, cargo bikes, long tailed bikes, delivery bikes etc.). Centres should be increased to 2.0m for non-standard cycles.
- Shared bicycle compounds may become prevalent once appropriate cycle infrastructure has been built. The development of the UL city campus may also increase demand for cycle components.



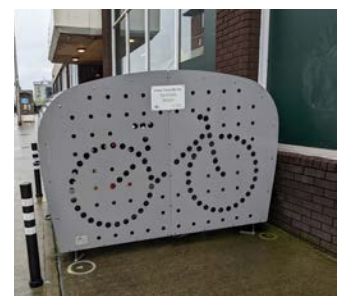
Stainless steel 'Sheffield' stands



Galvanised steel with tapping rail



Stainless steel hoop



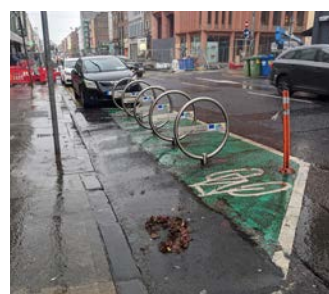
Cycle locker



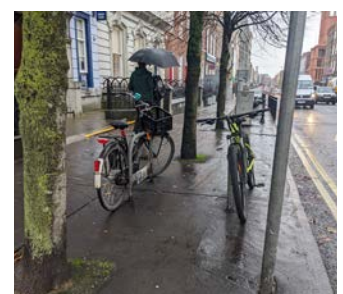
Painted steel hoops



Cycle hire stands



Stands within roadway



Stands between trees

Proposed Cycle Stands

- 'Sheffield' stand; dimensions 750h x 700-1000l
50mm minimum diameter CHS.
- 200mm maximum radius to junction between horizontals and uprights.
- Retro-reflective material and colour contrast to be incorporated to frame to enable blind and partially sighted users to detect stands in pedestrian areas.
- Below ground fixing preferable to bolted fixing due to risk of vandalism for cycle theft.
- Materials, colour and finish: Stainless Steel to be used in Central Core and Eastern Gateway. For Englishtown, Irishtown and Georgian Neighbourhood., a galvanised steel frame should be used in finish of RAL 7016 (Anthracite Grey). By Waterfront, allow for a white finish.



Green roof cycle shelter (Credit: Green Roof Shelters)



Green roof cycle shelter (Credit: Langley Design)

Proposed Communal Cycle Hangars

- Compound designs to carefully consider the site location and context e.g. proximity to Architectural Conservation Area, National Monument, impact to views.
- Cycle compounds with green roofs should be considered to enhance biodiversity and minimise drainage requirements. Ongoing management contracts with suppliers should be sought to ensure that the roof is adequately maintained.
- A cycle hangar that can accommodate 6-10 cycles will have an approximate footprint of 2.5m x 5.0m similar to a single car parking space.
- Users will need safe access either from the footway (or carriageway on very quiet streets).
- Where located within the carriageway, it is important to assess risks to users from vehicles and potential damage to the cycle hangar from vehicle strikes.

Design Components

Street Furniture: Bollards

General Observations

- There are many different bollard types within the public realm: standard, retractable, traffic related.
- Bollards without reflective strips in certain trafficked areas are non-compliant with roadway requirements. Bollards without colour contrast in certain areas are not compliant with access requirements.
- Within 'shared surface' situations e.g. Nicholas Street and O'Connell Street, there is a multitude of bollards delineating cycle and vehicle space and preventing kerb mounting by cars and delivery vehicles.

General Principles

- Rationalise bollard type/design/colour to type, with the exception of historic bollards which should be retained and restored.
- The use of carefully positioned street furniture (e.g. planters on Nicholas St.) could provide an alternative barrier that is preferable to a line of bollards.
- Height, reinforcement, footing and/or specification will vary according to function, roadway and security requirements and will require input from an Engineer.
- Bollards should be identifiable by using contrasting colours.
- Bollards should be a recommended 1000mm high and ideally, 114mm in diameter.
- 1200mm-wide passage should be maintained between the kerb edge and any bollard, in both directions.



Chamfer steel CHS



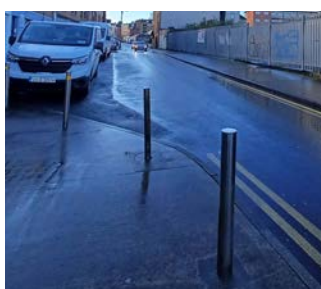
Steel oval profile



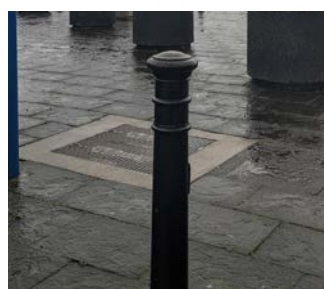
White steel CHS



Timber square



Stainless steel CHS



Black steel CHS



Stainless steel with visibility strip

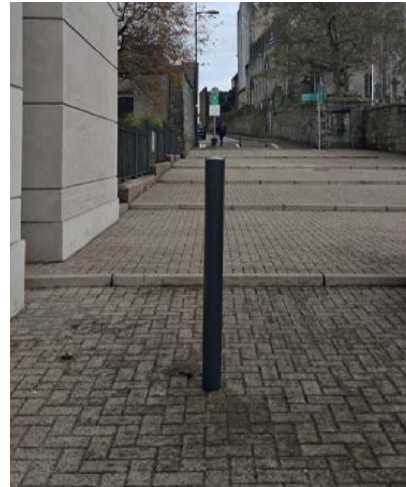


Heritage

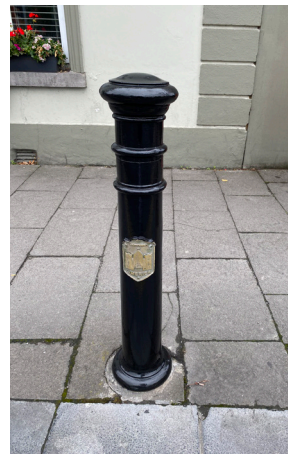
Proposed Bollards

Public Realm

- Heavy duty cast ductile iron bollard.
- Dimensions: 100x100mm square, tapering down to 101mm at the base. 12mm wall thickness.
- Galvanised and powdercoated.
- Height: 1000mm above ground.
- Where retractable bollards are required, use aluminium bollard. (HC2105 or equal approved).
- Colour: Englishtown, Irishtown and Georgian Neighbourhood, RAL 7016 (Anthracite Grey). Central Core & Eastern Gateway; Stainless Steel. Waterfront: White.
- Fixing: Socket retained with universal IPL socket box to facilitate replacement and street closures.
- Spacing: 1850mm gap should be maintained between bollard spacings.
- Retain heritage cast iron bollards where existing and appropriate.



Steel bollard



Retain existing heritage cast iron bollards adjacent to heritage buildings

Adjacent Roadway

- Recessed grooves with reflective vinyl band in white or yellow dimensions.
- Diameter 100mm.
- Height: 1000mm above ground.
- Finish: Englishtown, Irishtown and Georgian Neighbourhood, Central Core & Eastern Gateway: RAL 7016 (Anthracite Grey). Waterfront: White.
- Fixing: Socket retained with universal IPL socket box to facilitate easy replacement.
- Spacing: 1850mm gap should be maintained between bollard spacings.

Automated Urban Traffic Control Bollards

- An unmetered power supply for each set of Bollards, each site (2 Bollards per site as a rule).
- Sim card for comms, factor in maintenance and operations costs for comms.

Design Components

Street Furniture: Barriers and Railings

General Observations

- There are numerous barriers within the public realm, comprising pedestrian guardrails, railings to property curtilage, handrails to change in levels and security fencing.
- The scope of recent 'de-cluttering' exercises did not include removal of barriers within the public realm.
- Minimising barriers is essential to encouraging pedestrian flow through the city and creating a safe, accessible environment, legible for all.
- Palisade fencing is generally used to prevent unauthorised access to derelict heritage sites or future development sites. This type of fencing detracts significantly from the public realm.

Handrails

- Handrails are required wherever a change in level occurs within the public realm, taken up by a ramped or stepped approach. Level changes should be designed out or accommodated within the landscape to avoid additional structures within the public realm.

- Items such as bicycle racks, seating and/or bollards are less intrusive elements that can be used to guide pedestrians toward crossing points and reduce illegal kerb mounting.

General Principles

- Handrail design to be tailored to specific location and change in level. Engineering input required to ensure specific loading requirements are met.
- Handrails with surfaces of a low thermal conductivity, such as timber, are the most comfortable to touch in extremes of temperature.
- Metal handrails with a low thermal conductivity, such as stainless steel, are suitable in locations where resistance to vandalism, exposure and/or low maintenance are key factors.
- Within Englishtown, Irishtown, and the Georgian Neighbourhood, handrails should be fabricated from galvanised steel and powder coated to the agreed colour reference for the public realm.



Stainless steel with flat supports



Stainless steel with CHS supports



Painted steel with SHS supports



Stainless steel ornamental



Steel guardrail



Georgian railings



Green PPC palisade fence



Vehicle restraint

Guardrails

Pedestrian guardrails are installed for two purposes:

1. To restrict pedestrian access at roadways junctions where high speeds or traffic volumes prevail, often in response to Road Safety Audits.
2. To provide guarding to falls at a change in level within the pedestrian environment (associated with a building) in accordance with Part K.

Guardrails should not be used as a tool for directing pedestrians. Guardrails should only be installed where there is a proven or demonstrable safety benefit via road safety audits.

The move to a 30 km/h speed limit within the city centre and changes in street geometry is reducing the space provided to roadway requirements. Future de-cluttering work should consider the removal of guardrails where they impinge on key public spaces, supported by a road safety audit.

Key locations where roadway guardrails detract from the public realm and constrain pedestrian movement include:

- Castle Street Gateway
- Sexton Roxborough Gateway
- Lock Quay and Island Road junction
- Charlotte's Quay
- Honan's Quay, Arthur's Quay and Liddy Street
- Shannon Roundabout
- High Street/Milk Market area

Where guardrails are required for other purposes,



Guardrail with high degree of visibility (Credit: Store Fittings Direct)



Guardrail to a change in level, using flat vertical bars (Credit: Alpharail)

such as providing guarding to falls beside a change in level, careful consideration should be given to the design of the railings and their colour, whilst ensuring they achieve the required loading criteria. This is essential when located within an Architectural Conservation Area or associated with a Protected Structure.

General Principles

- Design is specific to the individual situation and will require input from an engineer to ensure a solution meets the specific loading requirements.
- Preference for minimal designs that maintain a high degree of permeability and visibility.
- Where a handrail is not required, consideration should be given to the use of flat steel vertical frame and infill, such as that shown to the right.
- Decorative features should be avoided, as per best practice conservation principles.
- Guard rails should be fabricated from galvanised steel and powder coated to RAL 7019 (Grey).

Design Components

Street Furniture: Signage

General Observations

The principal source for guidance on street signage is the Department of Transport Traffic Signs Manual (TSM), which categorises signage into four main categories:

1. Information Signs
2. Regulatory Signs
3. Warning Signs
4. Road Markings

The implementation of a more self-regulating street environment in Limerick would have a positive effect on compliance with road safety as noted in DMURS. A less-is-more approach to signage can help to reinforce lower design speeds.

The TSM warns against over providing signage and line marking, and states that signs should only be erected where there is a demonstrable need. Unnecessary, incorrect or inconsistent signs minimise effectiveness, leading to disregard for all signs. The visual impact of signage should also be considered by designers in order to reduce visual clutter on streets, and protect the integrity of Limerick's built heritage.

General Principles

- New signage should be easily maintained and updated.
- The minimum amount of signage should be used to reduce clutter within the public realm.
- Additional signage should be mounted on buildings or walls wherever possible to reduce interruption at path or pavement level.
- Overhead signs should provide vertical clearance of at least 2300mm to the footway surface.
- Free-standing posts and columns should be highlighted by means of a 150mm-high feature, positioned 1500mm above ground level, which visually contrasts with the furniture itself.
- Alternatively, they should be placed as close to the back of pavement, subject to a maximum 275mm from the outer face of the post or column to the property line. Consistent fonts should be applied at the required height for legibility.
- Historical monument information signage should be audited.
- City centre Wayfinding Signage should implement the same sign type as the Wayfinding and Orientation signage project such that the family of signage remains the same design. Refer to the Limerick Wayfinding Guidelines for design details.



Fingerpost



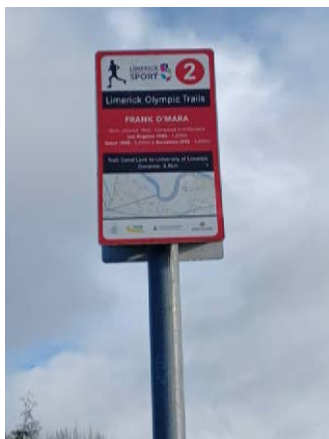
Fingerpost



Road signage



Leisure route signage



Leisure route signage



Tourist attraction



Totem signage



Building-mounted

Design Components

Street Furniture: Wayfinding

General Observations

- The Limerick Wayfinding Strategy carried out in depth analysis of wayfinding and signage provision within Limerick city centre and its surroundings:
 - In some areas of the city, the grid-like pattern makes pedestrian orientation easier.
 - Where the urban grain is more organic or has gaps, finding your way around is more difficult.
 - The completed Wayfinding project replaced the varied and inconsistent existing signage in the city centre with a unified signage family including fingerposts, map totems and route markers of a consistent design language.
 - Maps are far more legible for pedestrians when rotated in the correct direction to where the sign is positioned.
 - Interpretation and tourist information signage provide additional information to engage visitors.
1. Designing for a human scale
 2. Use of gateways
 3. Use of focal points and landmarks
- The Wayfinding signage shall be the only sign type permitted in the city centre.
 - Refer to the Limerick Wayfinding Guidelines for design guidelines and details for new wayfinding signs.

General Principles

- Improvements to connectivity with wayfinding acting as a series of branding touchpoints.
- Opportunity to provide engaging, effective and consistent signage that reflects the vision of a place for Limerick.
- Implement best practice design principles to help people find their way and enhance the pedestrian friendly experience, such as:



Wayfinding Project Signage

1. Map Monolith; dimensions: 2400h x 630w x 150d

- 2x back to back 3mm aluminium (1050 grade) trays and shot-peened 316 grade stainless steel base cover with 'T' Spine formed around galvanised internal steel frame. Trays to be powder coated in high quality architectural grade durable powder coating.
- 316 grade stainless steel base cover with 'T' Spine - spine lettering engraved.
- Engraved and backfilled lettering to both sides 40mm Cap Height.

2. Fingerpost; dimensions: 3600h x 90 dia post x 900l finger slats

- Supporting post to be 316 grade stainless steel.
- Fingers attached to aluminium collar with non-exposed fixings.
- Fingers to be extruded aluminium, high quality architectural grade durable powder coating.
- Post top finished with a 500mm Tall, high quality architectural grade durable powder coating to aluminium collar finial with shadow gap finish.

Design Components

Street Furniture: Lighting

General Observations

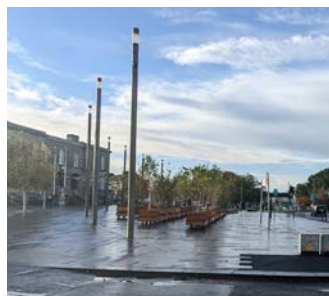
- There is a wide range of existing lighting types in the city. Most prevalent are pole-mounted luminaires, which also carry the overhead power network. This 'functional' lighting does little to enhance the public realm for pedestrians and detracts significantly visually.
- In the early 2000's replacement lighting was provided along the Strands and Quays and within the core retail area, a mix of direct and indirect lighting columns. Feature columns were installed along William Street.
- Recent lighting within Architectural Conservation Areas, Limerick City Gallery and Nicholas Street utilised pastiche heritage columns and luminaires.
- Contemporary minimalistic lighting includes the totem forms used within Colbert Station Plaza.
- The use of 'amenity' lighting, such as up-lighting to trees and in-ground luminaires, has been avoided.

General Principles

- In ACAs, the undergrounding of overhead wires is a priority. This offers an opportunity to introduce a new street lighting standard that enhances the street setting.
- Perceptions of safety should be enhanced, through even illumination and lighting colour.
- Reduction in vehicle speed limits and increase in pedestrian and cycle movement may lead to reduction in the height of lighting columns.
- Increased informal surveillance of an area to be considered in tandem with the removal of invasive shrubs or street clutter.
- Where possible, wall-mounted lighting with a vertical clearance of 2300mm should be considered to reduce clutter at pavement level.
- Lighting column positions should define a street furniture zone.
- Lighting designs should focus on achieving lux levels with minimum number of slim line columns to minimise their visual impact. Pastiche or 'feature' fittings, should be avoided.



O'Connell Street



Colbert Plaza



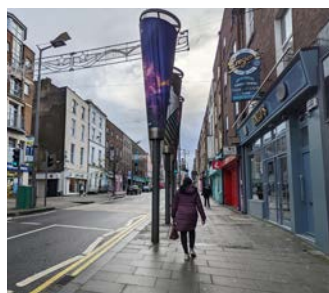
O'Callaghan Strand



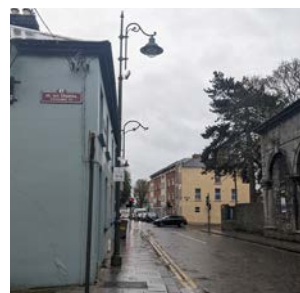
Pery Square



O'Callaghan Strand



William Street



Nicholas Street



Pery Street

Columns should be painted RAL 7016 (Anthracite Grey).

- Where the opportunity arises, replacement of traffic signals and lighting can be combined into one column. The incorporation of CCTV to lighting columns can also reduce streetscape clutter.
- New lighting must accord with sustainability targets, wildlife patterns and biodiversity and consider potential nuisance for residential users. Measures include use of efficient optics to minimize light pollution, scheme layout, energy efficient LED lamps, and electronic control gear capable of dimming.
- New lighting must accord with the LCCC Public Lighting and Product Specification 2022. LED lighting is to meet the public lighting teams current specification, this specification is reviewed regularly to ensure the most energy efficient lighting is installed on LCCC's network.
- On primary streets, use of dual-mounted luminaires at different heights should be designed with both the pedestrian and the vehicle in mind.
- Use of 'amenity' lighting (not applicable to roadway illumination and safety) will be utilised at new primary squares, pocket squares and pedestrian and cycle priority streets. 'Amenity' lighting can also sensitively highlight significant heritage or cultural features and enhance wayfinding and legibility.
- The capital, maintenance and running costs of amenity lighting schemes must be fully costed and approved by the Public Realm and Public Lighting Team prior to planning submission. This submission should be accompanied by lux diagrams and visualisations showing the intended approach and impact within the specific setting.
- Salvage 30 year old pastiche heritage style lamps for refurbishment and reuse.



Dual headed columns, Glasgow University (LUC)



Salvage heads of pastiche heritage style lamps for refurbishment



Pedestrian-scale lighting (Credit: We-ef)



Minimalistic column and luminaire (Credit: Iguzzini)



Festoon Amenity lighting



Amenity lighting (Credit: Iguzzini)

Design Components

Street Furniture: Infrastructure/Utilities

General Observations

- There are numerous in-ground service boxes found within the public realm. Most of these are located at the back of footpath.
- Service boxes may have a galvanised or painted finish to steelwork. Others may incorporate artwork.
- Service boxes have a detrimental appearance that impacts on the streetscape; particularly the setting of Architectural Conservation Areas, recorded structures etc.

General Principles

- New in-ground service boxes to be located to back of footpath, 275mm maximum from building line.
- Engagement with utility providers is required to ascertain feasibility of changes to existing service boxes. The priority will be locating

multiple service boxes within a shared facility, as an alternative the relocation of existing boxes to a clustered location should be explored.

- As a minimum, all in-ground service boxes should be repainted a common colour; RAL 7016 (Anthracite Grey or approved art work).
- Historic wrought iron access covers to be retained.
- Recessed covers to be used for all access covers, where possible. These should be of a suitable depth to allow incorporation of surface paving finishes. These should reflect the bonding and laying pattern of the adjacent paving. Care should be taken to replace access covers in the same orientation after inspection.



EV charging within Newtown Pery Architectural Conservation Areas



Branded water fountains

Design Components

Street Furniture: Parklets and Outdoor Dining

General Observations

- Parklets were installed in summer 2020 as a way to provide outdoor space for socialising, associated with bars and restaurants during the Covid pandemic.
- The original parklets were planned to last for a two year period and are now in need of rejuvenation.
- The success of the use of parklets has encouraged bar and restaurant owners to extend these areas, on occasion into footpaths, causing disruption to pedestrian.
- The review identifies opportunities or conflicts with the proposed street hierarchy. In some instances, space required for BusConnects or active travel schemes may require space to be returned to the movement corridor.
- On other streets, opportunities to limit the visual and physical impact of on-street parking may already have been considered, with tree planting and seating used to create permanent ways of breaking-up long lengths of parking bays.
- The reduction in on-street parking provision as a result of BusConnects may put pressure on remaining parking spaces. Conversely, a move away from private motorised vehicles towards public transport and active travel may lead to redundant spaces.
- In other instances, there may be the opportunity to provide outdoor dining as part of proposals to create pedestrian and cycle priority streets. Competing interests could be addressed with various proposals of climate adaptivity: Rain gardens, other green infrastructure, incidental play features, active travel stations, electric charging points/e-parking.

General Principles- Outdoor Dining

- The Fáilte Ireland best practice guidelines for outdoor dining and animation (2021) includes guidance on former parklets.
- Outdoor dining is created within the space of a typical parking bay, 2 x 5.5m. Where possible, outdoor dining should take up more than one bay so that shops and business can make more efficient use of the adapted streetscape.
- A comprehensive review of existing parklets was completed; provision of outdoor dining is an opportunity to create pockets of public space that, at a small scale, contribute to the public realm principles set out in this strategy.



Outdoor dining impacting view to St Michael's Church.



Parklet in front of protected building, High Street

General Principles- Outdoor Dining

- Fáilte Ireland have produced best practice guidelines for outdoor dining and animation (2021). This should be followed when designing new facilities or upgrading them.
- The guidance notes that for any proposed outdoor intervention, the street layout and surrounding character and context will need to be carefully considered early on in the design process.
- Section 2.0 provides guidance on the use of 'forecourts', space on street for outdoor dining. This stipulates that a minimum of 4m width is required from building line to kerb. This allows 3.3m for pedestrian movement.
- In special circumstances, where there is a low flow through of pedestrians or vehicular traffic the width of the outdoor dining may be reduced.
- Limerick City and County Council exercises control over the location and quality of outdoor dining street furniture in the interest of creating a high-quality public domain. Therefore, all outdoor furniture provided by private operators should be located to prevent any obstruction or clutter of the footpaths and paved areas and should reflect highest quality, preferably of good contemporary design and respect the overall character of the area.
- Street furniture requires either a licence under Section 254 of the Planning and Development Act 2000 (as amended) or planning permission (including street furniture erected on private lands). In both instances, applicants are required to submit details of the location, design, specification and quality of the proposed elements of street furniture.

- The Planning Authority considers these applications based on the following criteria:
 1. Size and location of the seating area and the facility it will service
 2. Concentration of existing street furniture in the area
 3. Allow pedestrian circulation of minimum 2m on road side of footpath.
 4. Impact on the character of the streetscape
 5. The potential impacts of adjoining residential amenity in relation to hours of operation, noise and general disturbance
 6. Impact on access and visibility
 7. Locate outdoor dining adjacent to premises
 8. Avoid pedestrian circulation through outdoor dining zone

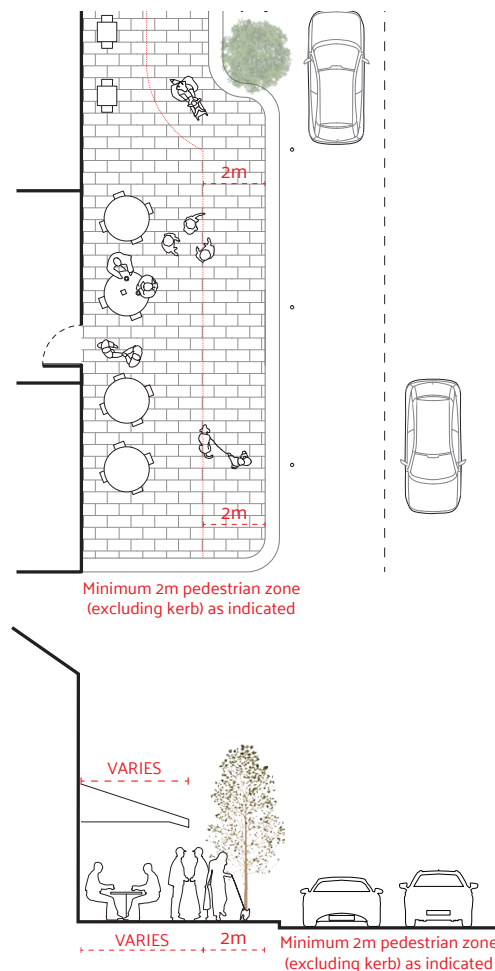


Fig. 96: Outdoor Dining Distances



Chapter Six

Soft Components

- Existing Soft Landscaping
- Proposed Soft Landscaping
- Public Art
- Urban Animation and Meanwhile Use

Design Components

Soft Landscape: Existing

Trees

- The city has 37-38% green cover; mostly to the north and west, outside the civic core.
- Within the city, tree planting is concentrated within existing parks and along the waterfront.
- Veteran trees have a place within the city and often enhance character areas (George's Quay).
- Recent tree planting has been limited to public realm works within the main retail areas.
- Underground vaults and structures at a very shallow depth, restricted in ground tree planting on O'Connell Street. All trees were planted within permanent raised planters.
- Elsewhere, trees are planted in free-standing planters due to below ground constraints.
- Meanwhile projects have introduced temporary greening to city spaces such as Honan's Quay.
- Recent planters along O'Connell Street have incorporated flowering herbaceous perennial species, introducing colour to the streetscape and attracting pollinating insects.
- Annual bedding displays are located within Pery Square and the People's Park.
- Free-standing planters have been introduced to Nicholas Street and Parnell Street. These require intensive watering to prevent drying out and maintenance to planting.

Vertical Greenery

- Formal green walls, hedges or other vertical forms of greening are not a common sight.
- Spontaneous vertical greenery is commonplace within the study area, climbing building facades and walls. This creates a pleasant, green character to quiet laneways and building elevations.
- Sections of the city wall have become inundated with invasive plants (sycamore, ivy and buddleia), and should be cleared, as part of a regular

Planting Beds and Planters

- There is no overriding planting style or character.
- Raised planters are a feature of recent waterfront public realm works, featuring 'robust' planting offering little biodiversity or seasonal variety.



Mown verges, Island Road



Temporary planting, Thomas Street (2021)



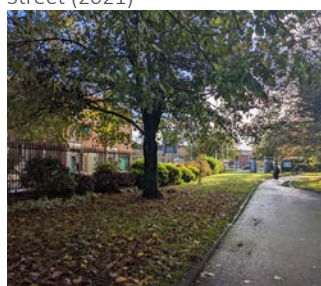
Annual bedding, Pery Square



Planting scheme, O'Callaghan Strand



Community Orchard, Castle Street



People's Park



Bee Sanctuary



Sporadic vertical greening, Laneway

maintenance plan/budget, with approval by LCCC archaeologist. Non-damaging flora should be retained for biodiversity.

Grassed Areas

- Amenity grass is found within parks, road verges, housing, graveyards and adjacent to historic structures.
- There is little variation in mowing regime that would encourage flowering to attract pollinators.

Other Planting Types

- Verges at Honan's Quay have been diversified using flowering herbaceous perennials.
- There is a small bee sanctuary on King's Island.
- Limerick Civic Trust have developed a community orchard on land adjacent to Castle Street.

General Principles and Planting Locations



Granite planters, O'Connell Street



Steel with timber bench, Parnell Street



'Meanwhile' timber planter



Square timber planter

- Trees and soft landscape improve the quality of urban life, fostering community cohesion by creating a sense of place, a local identity and a system of landmarks.
- Suitable areas should be identified where trees can grow to their natural size. This may include Primary Greenspaces and Pocket Parks.
- Before developing planting schemes, a feasibility assessment must be carried out to identify any constraints to planting, above and below ground. All planting schemes are to be reviewed by Executive Parks and Landscape Officer to ensure suitability.
- Planting schemes will be designed to maximise gains e.g. sustainable drainage, air pollution, enhancing biodiversity and attracting pollinators in line with the All-Ireland Pollinators Plan. Opportunities for small-scale food production and community interaction should also be considered valid approaches.
- Planting schemes must consider the key principles of "right plant, right place". They should positively respond to and enhance the characteristics of the character areas and provide year-round amenity:
 - Planting schemes must anticipate future climate change; such as the need to minimise irrigation requirements in times of drought and allow for high rainfall at other times. Species should be selected for their tolerance to drought/high rainfall conditions.
 - Tree planting will need to support multiple functions. The table overleaf identifies tree species that fulfil key important criteria. Refer to Limerick City and County Tree Policy 2024-2030.

Design Components

Proposed Soft Landscape: Tree Planting

General Observations

- Lifting of paving and tree grilles by trees has created potential trip hazards. This is due to unsuitable species, undersized rooting volumes, poor detailing and specification.
- Elsewhere, tree guards and inner sections of tree grilles have not been removed due to a lack of planned maintenance, causing damage to stems.
- Leaf-fall has exacerbated issues with the slip resistance of paving in certain pedestrian areas: the leaves themselves are not the primary cause.

Existing tree stock

- An inventory of tree stock should be undertaken, in line with the recommendations of the draft Limerick City and County Council Tree Policy.
- A management strategy should be produced, identifying trees of value, Veteran trees and threats to the tree stock.
- A tree planting strategy should be developed to identify how losses can be mitigated, and tree stock significantly increased to meet ecosystem requirements. Capital and maintenance costs will need to be identified to fund this programme.



Charlotte's Quay



Clancy Strand



Thomas Street



O'Connell Street



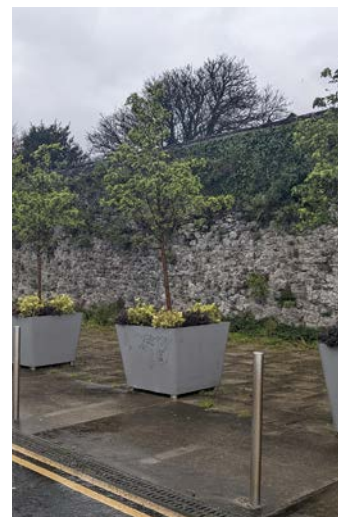
George's Quay



Arthur's Quay Park



Bedford Row



Verdant Place

Tree Species Selection

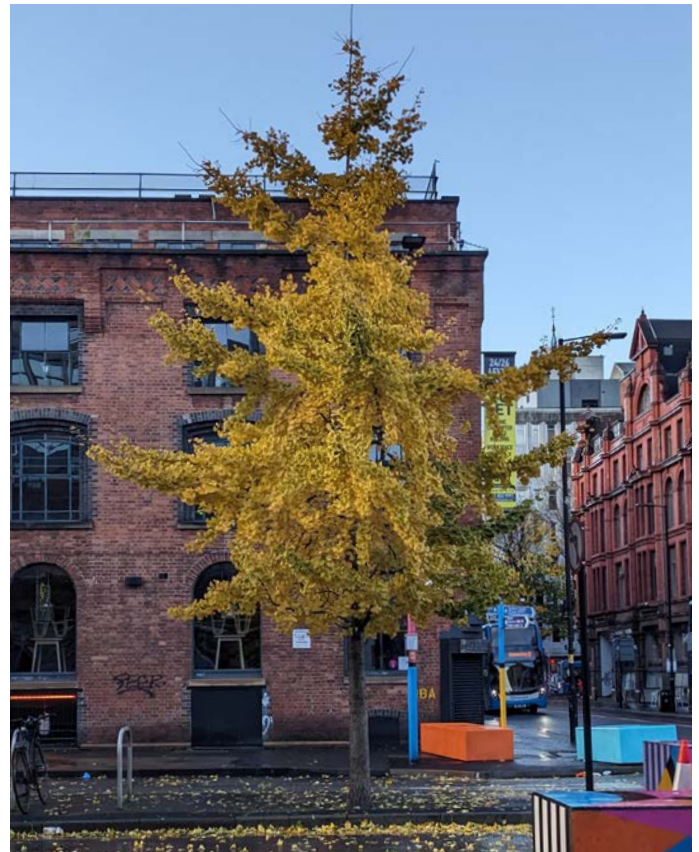
Species	Common Name	Street	Park	Attracts Pollina-tors	SuDS	Air Pollu-tion	Size	Can-opy Spread	Soil Vol-ume
Amelanchier grandiflora	Juneberry	☐	☐	☐	☐	☐	Small	5m	10m ³
Acer campestre	Field Ma-ple	☐	☐	☐	☐	☐	Medium	8m	21m ³
Betula pendula	Silver Birch	☐	☐	☐	☐	☐	Medium	9m	17m ³
Pyrus calleryana ‘Chanticleer’	Ornamen-tal Pear	☐	☐	☐	☐	☐	Medium	4m	21m ³
Sorbus aucuparia	Rowan	☐	☐	☐	☐	☐	Large	7m	17m ³
Tilia cordata	Small-leaved Lime	☐	☐	☐	☐	☐	Large	7m	21m ³
Acer platanoides	Norway Maple	☐	☐	☐	☐	☐	Large	9m	21m ³
Carpinus betulus	Hornbeam	☐	☐	☐	☐	☐	Large	10m	17m ³
Corylus colurna	Turkish Hazel	☐	☐	☐	☐	☐	Large	8m	14m ³
Liquidambar styraciflua	Sweet Gum	☐	☐	☐	☐	☐	Large	12m	14m ³
Sorbus aria	White-beam	☐	☐	☐	☐	☐	Large	6m	11m ³
Ginkgo biloba	Maiden-hair	☐	☐	☐	☐	☐	Large	8m	14m ³
Platanus x hispanica	London Plane	☐	☐	☐	☐	☐	Massive	12m	21m ³
Malus	Crabapple	☐	☐	☐	☐	☐	Medium	4m	9m ³
Prunus avium	Wild Cherry	☐	☐	☐	☐	☐	Medium	6m	21m ³
Prunus padus	Bird Cher-ry	☐	☐	☐	☐	☐	Medium	6m	21m ³
Pinus sylvestris	Scots pine	☐	☐	☐	☐	☐	Medium	6m	21m ³
Fagus sylvatica	European Beech	☐	☐	☐	☐	☐	Medium	6m	21m ³

Design Components

Soft Landscape: Tree Planting

Street Tree Planting

- Final species selection must consider the existing context, proposed planting conditions, performance requirements and consider the anticipated canopy and root spread at maturity.
- Avoid the creation of a mono-culture through use of the same species repeatedly within planting schemes. This increases risk of loss due to disease or environmental factors.
- Where possible, large canopy trees should be planted to achieve maximum ecosystem benefits and longevity of tree cover.
- Avoid obstruction of lighting columns by ensuring that the fully mature new tree canopy will be further than 5m from the lighting column.
- Ensure that future tree growth does not compromise a minimum footpath width of 1.2m.



Ginkgo biloba provide a stunning Autumn display (Credit: LUC)

Tree Planting Conditions

- The following tree planting conditions are ranked in order of priority:
 1. In-ground, soft landscape
 2. In-ground, hard landscape
 3. Permanent, above ground planter
- Temporary planters provide sub-optimum conditions for growth due to limited soil volumes, and reliance on intensive maintenance. They are unsustainable in the long-term. Where vertical greening is required, alternative options with a lower demand for soil should be considered e.g. green walls or screens.
- Ensure the full costs of planting are considered when developing planting proposals. (planting pit, structural requirements, guying, irrigation, other accessories, topsoil, ameliorants etc).
- Provision of adequate soil volume is a priority to sustain tree health and longevity.



Visualisation of pavement support system to tree pit (Credit: Green Blue Urban)



Above ground planters should be sized to provide suitable rooting volumes (Credit: Christopher Swann)



Tree planting in combination with street furniture to define roadway (Credit: LUC)

- Indicative soil volumes are provided within the tree species selection table, based on industry guidance that suggests 1 to 3 cubic feet of soil per square foot of mature tree canopy.
- Where in-ground planting is intended and adequate soil volumes cannot be achieved within the tree pit, pavement support systems should be used to extend root volumes below hard surfaces and minimise compaction. Compaction of soil jeopardises the adequate supply of oxygen, water and nutrients to roots. Advice of manufacturers should be sought in the design and specification of these systems.
- Pavement support systems can be costly to implement but significantly improve tree establishment and longevity of planting. In this instance, it is more sustainable to plant fewer, larger-growing trees within an area.
- Surveys of underground utilities and trial pits should be undertaken to assess service routes and obstructions in proximity to proposed planting areas. Tree planting must respect statutory easements, unless there is an agreement in writing that cable crossing details or root protection barriers are acceptable.
- Above ground planters should be designed in the same manner as in-ground tree pits, first considering the soil volumes required. Where space is restricted, the use of multi-stem shrubs may be an appropriate alternative to trees.
- Planter design should reflect the materiality of the surrounding area, with granite the preferred choice. The inclusion of seating and combination of other furniture elements is welcomed.
- Temporary planters should only be considered as a short-term solution to greening.

Design Components

Soft Landscape: Tree Planting

Guying

- All tree planting will require suitable support during the initial establishment period.
- The form of support will depend on the size and maturity of the tree at planting and the tree planting conditions.
- Timber staking is suitable for juvenile trees planted within the soft landscape in parks and green spaces.
- Within the hard landscape where larger specimens and semi-mature stock will be used, below-ground guying should be used, where possible, to minimise visual clutter within the streetscape.
- Below-ground guying systems include drive-in anchors, deadman anchors and anchor points. The system specification must reflect planting conditions. Deadman anchors should be used where underground utilities pose a risk, whilst anchor points are suited to raised planter fixing.

Irrigation and Aeration

- All tree planting will require suitable irrigation and aeration systems to ensure an adequate supply of water and oxygen reaches their roots.
- The type will depend on the size and maturity of the tree at planting and the tree planting conditions. Typically a perforated pipe is coiled around the rootball, with pipe lengths varying according to the maturity at time of planting.
- When planting in soft landscape, a simple metal or plastic cap can be used to provide access to the pipe for irrigation.
- When planting large stock within hard landscape settings heavy duty inlets should be incorporated within the tree pit surround.

Tree Guards

- The installation of mesh tree guards around street trees or trees on public open spaces is prohibited as they can attract vandalism and become traps for unsightly accumulations of litter. The tree guard structure itself can provide leverage against which the trunks of young trees can be broken.
- Ornamental guards are also problematic where insufficient consideration has been given at specification to the tree species and likely growth rates and they become entwined within the tree stem, leading to plant failures.
- In order to minimise vandalism to newly planted and establishing trees they should be planted with a robust stem girth, minimum of 14-16cm.

Tree Pit Surfacing

The design of tree pits within pedestrian areas should consider the volume of trafficking and space available for movement elsewhere on the footpath. Details are provided adjacent:

- On all primary streets and pedestrian/cycle priority streets, a recessed tray system should be used to enable the natural stone paving to continue close to the tree stem and maintain visual continuity. Heavy duty irrigation/aeration inlets should be incorporated within the surrounding paving.
- On secondary streets with high volumes of pedestrian traffic (e.g. retail areas) and/or narrower footpaths, a permeable flexipave finish should be installed to tree pit surfaces to provide a robust yet neat surface. This surface can also be installed to existing tree pits.

- On secondary streets with lower volumes of pedestrian traffic and/or wider footpaths a bound gravel surface should be installed to tree pit surfaces to provide a cost effective finish.

Recessed tray - Primary Street

- Heavy-duty recessed tray system allows paving to continue over the tree pit whilst providing structural support.
- Loose gravel installed around stem to allow future growth of the tree.
- Inner trays must be unbolted and removed as tree grows.



Recessed Tray (Credit: Green Blue Urban)

Flexipave – Secondary Street – High Volume Pedestrian Area

- Flexipave
- The open texture achieved provides a highly porous surface allowing tree roots access to both air and water penetration.



Flexipave

Bound gravel surface – Secondary Street

- Compacted layer of natural aggregate, 6mm to dust.



Bound Gravel Surface (Credit: LUC)

Design Components

Soft Landscape: Rain Gardens

General Principles

Rain gardens can assist in the delivery of green and blue infrastructure within urban settings. They are a form of bio-retention system, used as part of a Sustainable Urban Drainage System (SuDS). Constructed as a shallow depression in the ground, they slow surface water runoff into the city's below-ground drainage system. Planting and engineered soils are a fundamental part of the rain garden. Plants provide visual amenity and use of pollinator species can also enhance urban biodiversity.

Technical Considerations

- At feasibility stage, site investigation should identify the presence of any underground structures or utilities that may limit excavation.
- Infiltration testing should establish whether full infiltration (i.e. discharge of rainwater straight into the ground) is possible or whether the runoff should be conveyed to another SuDS component.
- Establish who will be responsible for maintaining the SuDS and identify likely maintenance tasks.

Rain Garden Components

1. Surrounding paving surface

- This should be designed with adequate falls towards the rain garden inlets.
- Falls should be shallow to not inundate the rain garden, risk overtopping or surface erosion.

2. Inlet; this allows water into the rain garden

- Size and spacing to be determined after calculating runoff volumes.
- A simple solution is to lower alternate sections of the edging, flush with the paving surface.



Rain Garden, University of Glasgow Campus (LUC)



Rain Garden, University of Glasgow Campus (LUC)

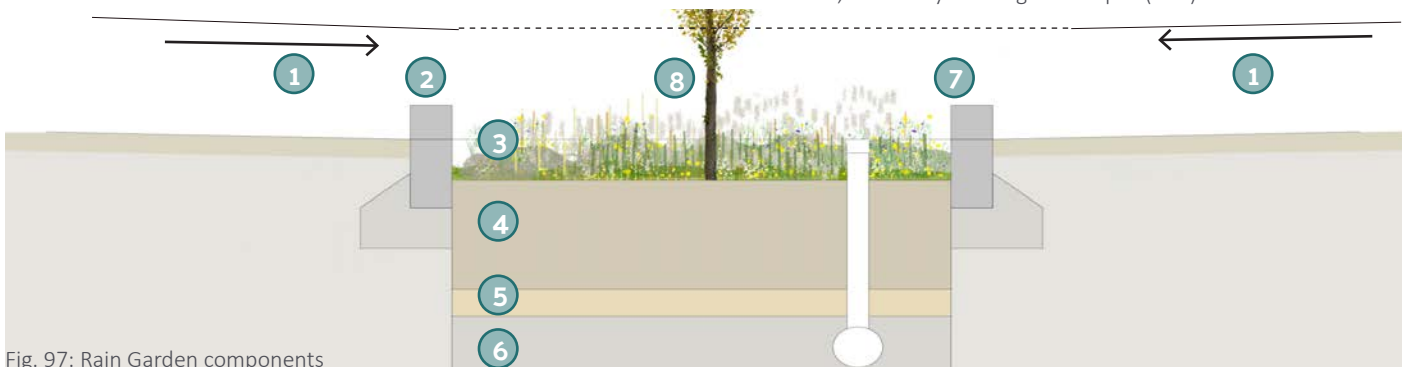


Fig. 97: Rain Garden components

3. Detention Depth

- Depth below the edging determines the volume available for temporary water storage.
- This will normally require 150–300 mm.
- The edging detail should prevent trip hazards.

4. Filter medium

- This filters pollutants and controls the rate at which water enters the drainage system.
- Typically sand-based to allow free drainage with organic matter and slow release nutrients to maintain healthy plant growth.
- A minimum depth of 400mm is required.

5. Transition layer

- Prevents washing of fines into drainage layer.
- A minimum depth of 100 mm is required.

6. Drainage Layer

- To civil engineer's specification.

7. Overflow

- Required should extreme heavy rainfall occur and the full detention depth is utilised.

8. Check Dams

- In larger rain gardens, check dams may hold water in sections, reducing scour.

9. Vegetation

- Vegetation will influence the performance of the system through uptake of pollutants etc..
- It prevents erosion of the surface and can enhance amenity and biodiversity value.

Plant Species Selection

- Species must be tolerant of both periods of drought and regular inundation.
- Species should have potential to attract pollinators and seasonal interest.
- Wet-tolerant plants should be concentrated near the inlet pipe and towards the base.
- Grasses provide good coverage for insects in winter, when other species have died. This prevents scour of bare surfaces.
- Species should be planted in drifts e.g. 7m2 to achieve a naturalistic effect.
- Moisture-loving species to be concentrated close to the base and inlet:
 - 10. *Iris pseudacorus*
 - 11. *Juncus effusus*
 - 12. *Carex pendula*
 - 13. *Lobelia cardinalis*
- Plants tolerant of drought and inundation:
 - 14. *Hydrangea* 'Annabelle'
 - 15. *Ajuga reptans*
 - 16. *Geranium* 'Rozanne'
 - 17. *Hemerocallis*
 - 18. *Iris sibirica*
 - 19. *Bergenia* cultivars
 - 20. *Rudbeckia* cultivars
 - 21. *Aster* cultivars
- Grasses that provide good coverage in Winter:
 - 22. *Calamagrostis* cultivars
 - 23. *Carex* cultivars
 - 24. *Deschampsia cespitosa*
 - 25. *Miscanthus sinensis* cultivars

Design Components

Soft Landscape: Vertical Planting

General Principles

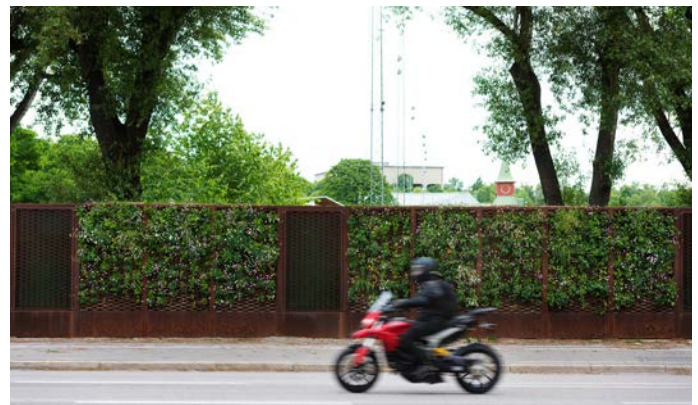
- Within the city there are significant constraints to in-ground planting. Vertical greening is appropriate where space is restricted.
- The following types of vertical urban greening are considered appropriate within the city centre public realm;
 1. Green walls
 2. Use of tensile wire or trellis systems
 3. Green screens
 4. Green fences
- Green walls can enhance biodiversity, assist carbon sequestration, air pollution and reduction in localised temperatures. Due to their high capital and ongoing costs, they should be prioritised for high profile or gateway sites e.g. Colbert Quarter or Cleaves.
- Green wall success depends on careful species selection to suit aspect and microclimate. Automated irrigation systems will ensure adequate supply of water and nutrients. This varies between 7 and 16 litres/m²/week.
- Annual maintenance contracts are c.10-12% initial capital costs.
- A cheaper alternative is the use of tensile wire systems or trellis panels. Care is required in the selection of suitable climbing species. Use of an irrigation system is recommended to ensure regular growth and even cover is maintained.
- Green screens can assist with reduction of noise and air pollution along busy routes.
- Living willow fences may be appropriate for the medium-long term screening of development in conjunction with a suitable metal fence.



Paddington, London (Credit: LUC)



Fenchurch Avenue, London (Credit: LUC)



Grön Bullerskär, Stockholm (Credit: Ulf Lundin)



Greenwich Peninsular, London (Credit: LUC)

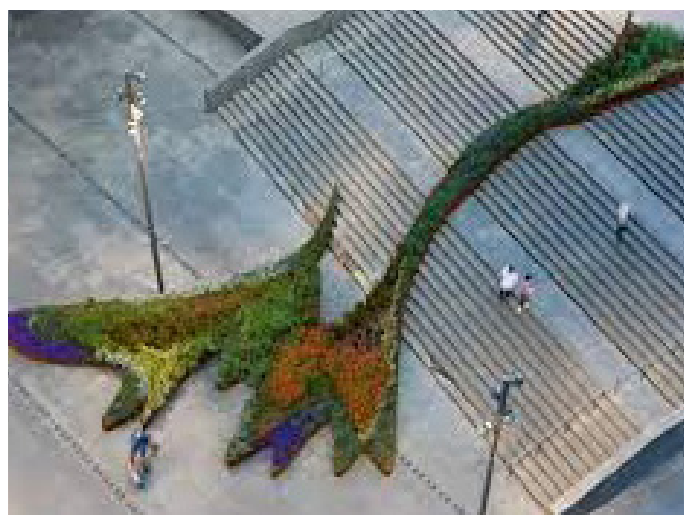
Soft Landscape: Planting Schemes

General Principles

- Prior to the development of detailed proposals, an assessment should be carried out of the likely planting conditions to ensure suitability for growth. Topsoil analysis may be required where extensive planting is proposed.
- Monoculture planting schemes should be avoided as failures of plants will create large gaps in planting requiring replacement.
- Planting schemes should include a mix of species in order to provide seasonal interest, colour and variety, including throughout the winter months. The use of sensory planting (different textures, smells, movement, colour etc.) should be considered so that the benefits of planting can be experienced by all.
- The planting colour palette should be tailored to the receiving environment. For example brighter, vibrant colours could be used in busier spaces and recessive colours used as a backdrop in more tranquil areas, such as the waterfront.
- The planting mix should include species which are tolerant of drought and those capable of withstanding high rainfall.
- Planting schemes shall be designed to increase biodiversity, with species providing nectar sources in line with the All-Ireland Pollinators Plan. Opportunities to promote this style of planting to the local community should be considered, using low key interpretive material.
- Opportunities for small-scale food production and community interaction should also be considered valid approaches.
- Full details of the planting scheme and its characteristics should be provided.



Pleached fruit trees within an urban environment, Southgate, Bath
(Credit: Macgregor Smith)



The garden that climbs the stairs, Bilbao (Credit: Balmori Associates)

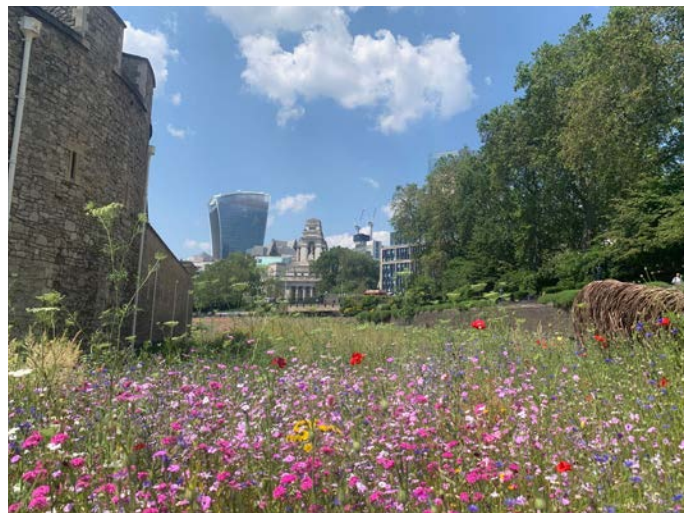


Community Garden, The Level, Brighton (Credit: LUC)

Soft Landscape: Grassed Areas

General Principles

- Locations with amenity grass, where a change in mowing regime could be introduced, shall be consulted in line with the All-Ireland Pollinators Plan.
- Changing the frequency of mowing allows wildflowers to flower among the longer grass. This is the most cost-effective way to provide food for pollinators.
- A 1m close-mown zone should be maintained to the edge of footpaths to signify that the longer grass is intentional. The use of low-key interpretative signage, similar to the example adjacent should also be considered.
- Use of short floral lawn including grasses and up to 40 species is beneficial in terms of biodiversity, natural pollinators and reduction of maintenance requirements. Short floral lawn should be considered for less intense use areas including most road verges.



'Superbloom', Temporary, non-native meadow seeding, Tower of London (Credit: LUC)



Native wildflower meadow, Rochester Riverside, Kent (Credit: LUC)



Short Floral Lawn



Low-key signage within Pollinator Friendly Area, Port St Mary, Isle of Man (Credit: LUC)

Design Components

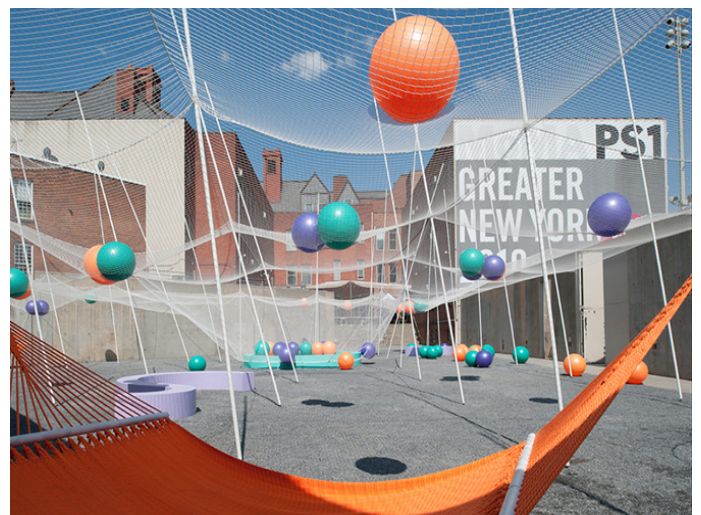
Public Art

The sense of place in a city can be renewed through the installation of temporary art installations. By bringing art into outdoor public spaces, the sense of exclusivity associated with the art world can be removed. Parents don't need to worry about their children being too loud in a hushed gallery, and busy professionals can enjoy artworks on their commute. It also encourages us to see our cities not only as functional spaces, but also as fun, inspirational spaces. Once a space is transformed with art, people experience the city in a different way.

The definition of what is deemed to be public art has become broader and more inclusive in recent years, allowing for a more open brief. Many mediums are considered (event related art, theatrical performances, musical/poetry recital, temporary exhibitions of work etc.) reaching far beyond the realms of 3D sculpture & 2D murals. Live music, light shows cast upon famous monuments, and playful public art furniture installations can also come under the umbrella of what constitutes public art in Ireland today. Art works are more interpretive and bring with them potentially less spatial constraints.



Cork Opera House



MoMA PS1, Pompidou Centre

General Principles

- Public Art potential within the City Centre will be identified. Public art projects will contribute to the enhancement of the city public realm, taking into consideration the context of the Public Art Policy and 5 year plan which it is anticipated will be drafted and developed in 2025.
- Public Art Policy 2024-2029 provides guidance on larger themes such as sustainability, maintenance, and community engagement.



Honan's Quay Milestone Collective Play Space

- Cross cutting aims and objectives in relation to the linkages with festivals and events, and the Public Realm Strategy consultation findings will be considered.
- Celebrate and safeguard Limerick's heritage and cultural identity by stimulating, nurturing and empowering our artists and creative workers.
- Include the Percent for Art scheme, and integrate public art as part of all major infrastructural projects and developments.
- Create the provision of suitable spaces that are fit for purpose and flexible for performance and visual arts performances in accessible locations.
- Strengthen existing art and cultural infrastructure and consider the protection of spaces and facilities for the arts.
- Consultation with the Local Authority is required for art murals.
- Maintenance, security, decommissioning, and disposal should all be considered at the onset of Public Art projects. Physical works should be securely fixed down and safely designed. Ensure that surroundings are suitable in design and context for art projects.
- Public art could be used to promote a sense of pride of place in Limerick.
- To engage in the delivery of ambitious, innovative and quality public art that capture the public's imagination and address contemporary life.
- Allow for and encourage temporary art installations that are meaningful.
- The installation of murals and public art to Protected Structures, within Architectural Conservation Areas, and within the setting of buildings of architectural heritage value, requires careful consideration. Any proposals for public art within ACAs or within the setting of Protected Structures or NIAH structures should be submitted to the Architectural Conservation Officer. Artists and project promoters should have regard to the draft 'Art and Street Art Murals-Architectural Heritage Consideration and Design Principles' guidance.



Dublin Winter Lights

Design Components

Urban Animation & Meanwhile Use

A Meanwhile Use is the temporary use of a space awaiting redevelopment, taking advantage of a window of opportunity on a site, before or after another use. Meanwhile use interventions are tactical and slot into wider strategies of planned change. They can help in shaping positive urban transformation.

Vacant or under-utilised land and buildings are scattered across the city, due to multiple and complex reasons. Vacant sites are costly and unattractive temporary activation of the space, through a range of meanwhile uses maximise social value and facilitates a positive legacy. Changing perceptions of cultural, political and economic issues and growing technological trends call for creative solutions to complex urban environments.

General Principles

- The spaces should be encouraged to develop and change over time.
- All spaces should be considered including Regeneration areas.
- Meanwhile uses can contribute to shifting negative perceptions of areas.
- Spaces can be used to host public events as a positive 'Meanwhile Use'.



Community Garden at Les Grands Voisins



Urban Forest, Limerick



Honan's Quay, Limerick

Play

Play space can simply be child-safe spaces with very little intervention.

This Public Realm Play Plan will be in line with Limerick City Council's 'Child-friendly City' policy, by incorporating variety and diversity in play. Limerick City and County Council have an adopted Play Policy. Play is not just about the provision of facilities. It is in creating the conditions to facilitate play in playgrounds and the wider environment. Ensuring the retention of the natural environment, green spaces and woodlands, features, trees and mounds, equally play an important role in the provision of play.

Neighbourhood spaces, estates, parks, streets, community centres, libraries, museums, galleries, gardens and cultural venues, events and artefacts are as important as dedicated playgrounds and allow for the social interaction between different generations. Arthurs Quay park central plaza functions as a safe hard space where children can play freely.

Play is essential to make Limerick feel welcoming to everyone, especially children and young people.



Honan's Quay, Limerick

General Principles

- Locate play and recreation in places that are safe, welcoming for children, away from dangerous roads and overlooked by other activities that are safe areas where children can be protected.
- Ensure a good distribution of play across the city centre to meet the needs of communities.
- Provide opportunities for informal play wherever possible: designers should provide opportunities for informal play, with designs that are bespoke.
- Make play accessible and welcoming for everyone.
- Provide varied types of play, universally accessible, suitable for all children of different ages and children with varying conditions.
- Encourage the use of nature-based play by the provision of play opportunities.
- Where possible, create connections to promote exploring, walking, running and cycling.
- Greater provision of play as an integral part of leisure and quality of life in Limerick.
- Extend play beyond the playground by creating opportunities to introduce informal play features as part of smaller spaces in the centre.
- Regeneration initiatives in the city centre also present an opportunity to integrate further play provision into new mixed use neighbourhoods.
- Ensure parks and green spaces welcome children and maximise accessibility.
- Ensure play planning into new residential, commercial and other large infrastructure or large developers.



Chapter Seven

Maintenance Strategy

- Introduction
- Material Selection
- Key Aspects of Streetscape Maintenance
- Whole Life Cycle Costing/Life Cycle Cost
- Maintenance and Management Manual

Maintenance Strategy

Introduction

This Chapter outlines the mechanisms for the future management and maintenance of the proposed material surfacing to Limerick City's Public Realm. A key ambition of this design guide is the continuation of recent high-quality paving upgrades and introduction of high-quality paving materials into Limerick's public spaces, which complements the building stock and unique Georgian heritage, on which Limerick City is founded.

It is generally recognised that high quality public realm enhancement schemes bring positive values in the form of increased economic activity, reduce shop closures, increasing tourism, providing aesthetically pleasing environments will improve citizens sense of pride in their city, improve a city's profile and image, and create a 'feel good' factor by providing an aesthetically pleasing environment. Stone streetscape schemes need regular maintenance and aftercare to maintain the integrity of the jointing system, and to retain aesthetic standards that meet public expectation.

It is recommended therefore that a co-ordinated approach be developed to City Centre maintenance, cleansing and enforcement within the public realm. A detailed management and maintenance plan is required.

This Strategy recognises that maintenance, cleansing and enforcement will require an ongoing dedicated budget and resources to match the elevated quality of surfacing and street furniture materials.

Life cycle costs should be inbuilt into early stage funding applications and/or contracts at procurement stage.



O' Connell Street, Limerick



Honan's Quay, Limerick



O' Connell Street, Limerick

General Approach to Public Realm Materials

As mentioned previously, this Design Manual sets out key principles for future public realm works to:

- Enhance the historic identity and setting of Architectural Conservation Areas, buildings, and heritage assets.
- Improve access for all to public space by removing barriers to pedestrian and cycle movement.
- Consolidate on the good work through the ongoing maintenance of the city's spaces and streets and allow for high-quality streets.
- Support the transition to a net zero carbon economy through sourcing appropriately robust materials and looking at whole life costs.

Additionally, the Limerick Transport Plan will set out a number of key objectives for Limerick, some of which overlap with the Principles as set out in this Strategy, including but not limited to:

- Managing the street network in such a way as to discourage heavy through traffic in built-up areas, and reducing car dominance and private parking.
- Prioritising the placemaking functions of the urban street, and allowing for reallocation of space to accommodate walking, cycling and public transport provision.
- Implement public realm improvements in the City Centre which are sensitive to their historic setting.

Function of Limerick's Streetscapes

Streets are multi-functional, serving numerous activities, including pedestrian and vehicular traffic. Street planning also has an aesthetic value and is dynamic and changes over time. For example an open area that is normally pedestrian only, might be used infrequently as an event space, when large vehicles are used to deliver portable facilities and apparatus. If the surface has only been designed to take light traffic loading then these heavier vehicles will damage the surface and reduce its life span. The uses and functions of the street should be assessed in detail as part of developing the brief for the design and construction teams. The design brief must include consideration of maintenance requirements and their long-term maintenance. Care must also be taken when assessing the loadings, which might occur over the lifetime of the street, to determine the worst case traffic loading during the early stages of design.



Honan's Quay, Limerick

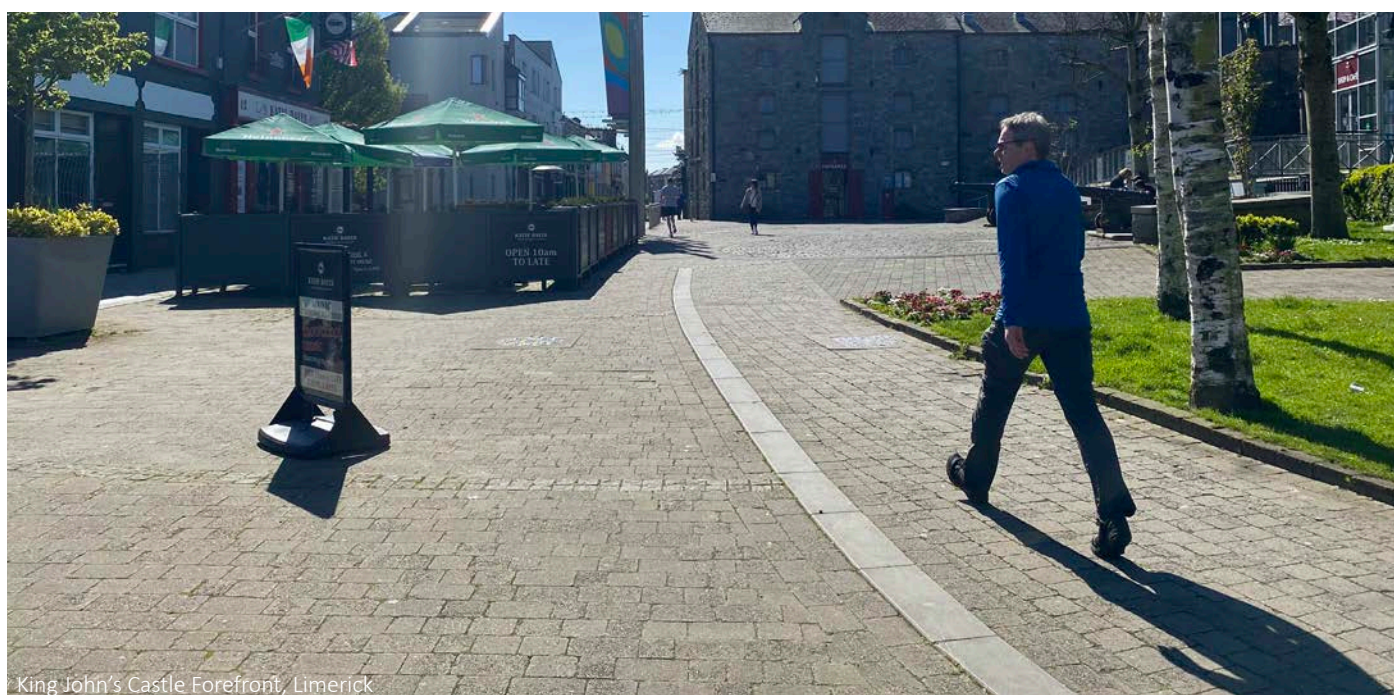
Maintenance Strategy

Material Selection

The choice of materials and street furniture for Limerick City as set out in this design manual compliments the principles as set out in DMURS. Material selection requires careful consideration from an early stage of the design process to provide a consistent design approach, by referring to the Street Surfacing Design Principles in this Volume 2. Cross-departmental collaboration is a fundamental component for the fulfilment of streetscapes that are both beautiful and fit-for-future-purpose. Future public realm projects of all scale should embrace the core values of the New European Bauhaus initiative – sustainability, aesthetics, and inclusion. This can be executed cross-departmentally by employing a design-led first-principles approach. A balance must also be reached which allows the heritage of Limerick to coexist alongside its functional demands.

The selection of materials should be made according to the following:

- Ensuring robust surfaces to highlight the significance of place and calm traffic. The use of robust surfaces and/or changes in texture/colour at key locations (such as Nodes) to alert drivers of changing driving conditions, to alert vulnerable road users to change in purpose, and to enhance the pedestrian experience.
- Street furniture should be rationalised and coordinated so as not to impede pedestrian movement.
- Material selection should promote a positive and contemporary image for Limerick.
- Material selection should respond to the street hierarchy included in this document.
- Higher quality materials are required in high-trafficked areas to promote material longevity in the core of the city, within Architectural Conservation Areas, and along the waterfront.
- Surface materials and furniture should always be suited to purpose, and capable of being maintained efficiently.



King John's Castle Forefront, Limerick

Natural Stone

Natural stone materials have typically been used as surfacing in conservation areas and prestigious streetscape projects in Limerick City. Stone is also recognised as a sustainable construction material for use in the public realm as it is durable, low carbon, VOC free, reusable and recyclable, and has great energy and maintenance performance.

Slabs, setts and kerbs are the principle natural stone paving elements in the following scenarios as outlined within this Design Manual:

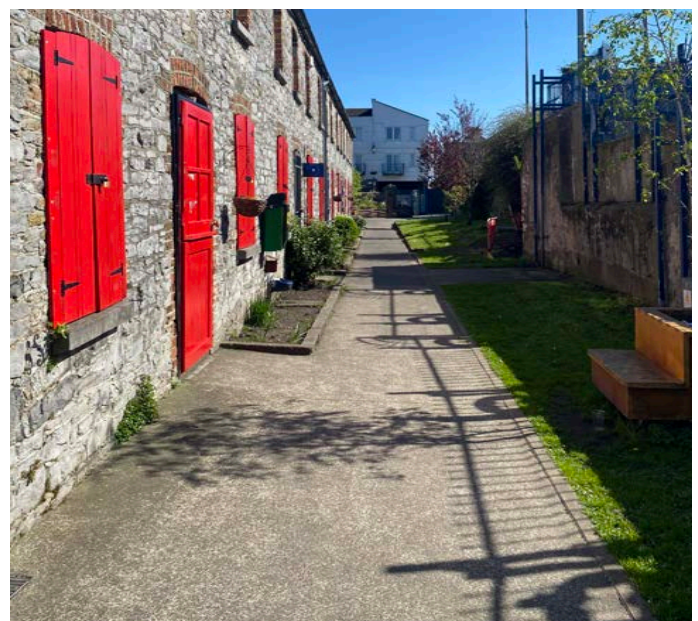
- Footpaths on Type 1 Streets to kerb line (Blue line, street hierarchy map page 120).
- Building line to building line on Type 3 & Cycle Priority Streets allowing for a homogenous surface of Natural Stone, ie no use of tarmacadam (Green line, street hierarchy map page 120).

Granite is seen as a suitable principle natural stone material for use in these instances due to its durability with regards to its geological and engineering properties. Limestone has historic precedent in Limerick and is proposed for kerbs. It is acknowledged that the use of granite stone in pavements has not had issues in the past. The understanding of the performance of natural stone, together with the availability of high strength mortars, has rapidly increased over the past 10 years or so. The correct sourcing of materials, pavement design, workmanship and maintenance are all essential features for ensuring that the public realm projects highlighted in this Strategy are successful. Proposed large unit slabs are to be used within footway areas, medium unit setts for pedestrian crossings and cycle tracks where

these fall within Architectural Conservation Areas, and small unit setts for roadways. The use of structural panels to facilitate ease of maintenance of paved roadways should also be considered.

Key issues & Remedies

1. Stone in highly trafficked situations where speeds are above 50km/hr can pose issues with settling. The new Limerick City speed restriction of 30km/h which is being enforced through regulation and design, e.g. shared priority, raised tables and narrow roadway will slow speeds down within the City Centre.
2. The surface of stone may smooth overtime, due to wear & cleansing regimes,. Therefore the use of a small unit granite setts with slip/skid resistance properties and a textured sawn and cropped finish must be assumed to future-proof against the impact of traffic and regular cleansing. The more porous limestone should only be considered at kerbside.



Widow's Alms Houses, Nicholas Street

Maintenance Strategy

Material Selection

3. Traffic within paved roadways may lead to fatigue, rutted tracks, and general deformation of the roadway. This can be prevented as follows:

- Correct specification at design stage.
- Skill and quality control at installation.
- Use of a smaller paving unit that offers higher loading capacity.
- Rigid paving construction with appropriate bedding materials.
- Sawn and cropped cobbles may be specified but tumbled cobbles cannot be used.

4. Setts in high strength mortar are more difficult to reinstate if lifted for below ground maintenance/utilities. One way of countering this issue is as follows:

- Use of structural panels to facilitate ease of maintenance of paved roadways.
- Fully ascertain utility company requirements at design (Part 8) stage, and implement up-grading moratorium as per Guidelines for Managing Openings in Public Roads (5-10 years).
- Future-proof service provision through spare ducting where necessary.
- Relocate services where feasible on footways.



Great Limerick Run

Key Aspects of Streetscape Maintenance

High quality stone paving represents significant investment and every effort is needed to ensure that new surfaces are maintained to the standard to which they were originally constructed. Materials and replacement elements will always be required.

Delivery periods for many materials may be 2 to 3 months, or longer, if they have to be imported. In order to achieve early reinstatement, a stock of replacement materials should be provided with the initial project budget.

A 10% allowance should be made within a works contract for the procurement and storage of additional paving and other predominant elements. Where specials or small quantities are involved a judgement is required, depending upon the degree of difficulty and time involved in procuring suitable replacements. Actual quantities will vary depending on the size and nature of the site.

Replacement materials need to be carefully and securely stored, preferably so that they are able to weather at the same rate as the completed pavement. This will allow quick replacement and time to replenish the store. Storage needs for public realm materials include:

- A long-term lease or LCCC-owned city centre secured storage facility is required.
- Sealed and marked storage of materials with a robust space-saving racking & pallet system.
- Accessible by means of fork-lift and other necessary equipment.
- Tracked stock take with a dedicated superintendent on-site in charge of inventory.

Materials are to be procured in this way, in order to replicate colours, textures and sizes. This is particularly important if stone has been imported. It

is essential that at the initial stage of purchase the full petrographical details of each stone along with accurate trade descriptions and quarry details should be recorded and kept in the maintenance manual for future reference.

Types of common defects and options for rectifying:

- Punching
- Progressive cracking
- Movement
- Movement in Flexible Construction
- Loss of jointing material
- Rocking of large elements
- Broken or damaged elements

Cleaning street surfaces

It is imperative to maintain paving and surfaces within the city centre.

In high profile streetscape areas it may be necessary to hot wash stone surfacing. This is commonly done by adapted small suction sweepers, using hot water with added detergent. In addition to cleaning there can be an improvement in slip resistance.

There are a number of proprietary systems available on the market for the cleaning of stone surfacing. These include low and high pressure jetting, hot wash, scrubbing, steam and freezing systems. Manufacturer's claims on their effectiveness on certain substances, in particular chewing gum, should be site tested before any considerable financial outlay is made.

In many European centres, stone surfaces are washed daily with low-pressure water to remove general staining and to improve the appearance of the stone.

Maintenance Strategy

This currently is not common practice in Ireland, perhaps due to the amount of rainfall. However, during long dry spells, daily low pressure water washing should be employed as the surface appearance of stone surfaces can quickly deteriorate without some form of washing. The Maintenance and Management Manual (MMM) for upgraded public realm streets should specify the frequency of intermittent deep cleaning required.

Experience of cleaning with motorised vacuum cleaning and of high-pressure water has shown that this can have a serious effect on a paved surface of flexible construction. Similarly, removal of unbound jointing material with scrubbing methods will quickly lead to the surface becoming unstable, allowing water to enter. Unless regular maintenance budgets can stretch to very regular re-pointing of sand joints, the continued use of vacuum cleaning and high-pressure water should be discouraged, where unbound joint materials are specified. Consideration as to the maximum permissible temperatures and pressures should be specified within the MMM.

It is commonly accepted that sand joints if left undisturbed for two years will become compacted and impervious. This suggests that the integrity of the jointing may be preserved if maintenance activities can be deferred for this period of time. This has not been verified through research for natural stone but comes from established concrete block paving knowledge.

To ensure the chosen cleaning treatment is cost effective, consideration should be given to the maintenance history of the paved surfacing, its future use and the likely failure mechanism.

In order to benefit from the application of sealants to new paved surfaces, regular cleaning with specialist equipment is necessary. If this is considered cost-prohibitive at the design stage when the MMM is being prepared, the following alternative regime is suggested:

- Ensure regular litter removal from the surface.
- Employ targeted stain removal for spillages.
- Utilise a mechanical hot wash method for day-to-day cleaning.
- Avoid deep cleans with high pressure water jets.
- Provide regular inspections post-handover for stability/defects.

Following these inspections, where paving materials are deemed defective, consideration should be given to hold stock at a local central depot for reinstatement and replacement. These could then be used directly by the Council, or supplied to the relevant third party/utility company as part of the reinstatement agreement.

In line with the considerations for modular size of the proposed granite paving, allowances may be made at design stage for the specification of a prescribed bandwidth incorporating random lengths as opposed to those described in Chapter 4. This is to allow for ease of reinstatement based on depot stock rather than if a single size was to be used.

The details supplied in this document should be supplied to any third party/utility company undertaking work in the city centre. A like for like reinstatement and build-up is imperative to avoid future defects and appropriate key-ins using dowels or bars is necessary to avoid any differential settlement.

Whole Life Cycle Costing/Life Cycle Cost

Life Cycle Costs are the costs arising from owning, operating and maintaining a building system or component throughout the components life cycle.

Whole Life Cycle Costings are the accumulated sum of all the individual Life Cycle Cost calculations throughout the buildings life cycle, and therefore generally speaking have a broader scope than Life Cycle Costing. For the purpose of this section we will be focusing on this broader concept of Whole Life Cycle Costing.

In a broad sense, Whole Life Costing (WLC) can be seen as a means of transferring the value of future years costs or payments into the present. The Whole Life Cost of a scheme is the total value of all transactions over the whole life of the scheme. For reference, typically public realm streetscape enhancement schemes have an intended lifespan of 20-40 years.

The quality of both the design and construction of the public realm project has a significant bearing on the costs of the scheme, and decisions made early in the design process can have a considerable positive influence on Whole Life Cycle Costs. Projects where the design team solely focus on reducing capital costs can lead to a streetscape which is expensive to maintain, operate, occupy and eventually dispose of. Although natural stone has a higher initial cost than most other surface materials, including maintenance commitments and operational costs, the overall financial value also needs to take account of the potential benefits which can include but are not limited to:

- Improved retail environment.
- Enhanced appeal as a business location.
- Enhanced amenity value and uplift of historical assets.
- Improved city profile and image.

In many cases, the above benefits can be seen to offset the initial high investment. A fuller Whole Life Cost model is considered in order to fully understand the benefits of utilising natural stone products beyond financial terms.

For this reason, this Strategy recommends that cross-disciplinary design teams consider an evaluation matrix allowing for both financial and non-financial issues.

A sample list of the issues that should be considered in this evaluation matrix can be viewed below in order to aid design team discussions. A second exercise should be carried out in the form of a Whole Life Costing analysis as early as the business justification stage, but no later than pre-planning/Part 8 stage.

The analysis should be re-evaluated at the tender stage, in order to quantify the various benefits associated with the aforementioned streetscape enhancement schemes, including positive impact to immediate retail, business, tourism and perception. A Whole Life Costing model allows the designer to include positive contributions for all factors.

Maintenance Strategy

Whole Life Cycle Costing /Life Cycle Cost

Costs		Benefits	
1	Initial Capital Cost	1	Improved retail environment ¹
2	Financing cost	2	Improved business environment ¹
3	Additional operational costs	3	Improved business appeal ²
4	Maintenance costs	4	Improved amenity value
		5	Improvements to historical character ³
		6	Improved City profile and image
		7	Sustainability ⁴

1. Retail outlets or business premises on or immediately adjacent to proposed natural stone streetscape.
2. Business more likely to locate to town or city centre as a result of streetscape development.
3. Weighting will depend on the historical importance of the site and relevance of natural stone to site.
4. All natural stone surfacing is likely to be more sustainable than asphalt, concrete or block pavior alternatives. If designed and maintained correctly the stone surface should offer longevity in comparison to other surfaces. The stone units can be reclaimed for reuse, particularly units from unbound surfacing, which have potential benefit. Units can also be reused for crushing to aggregate.

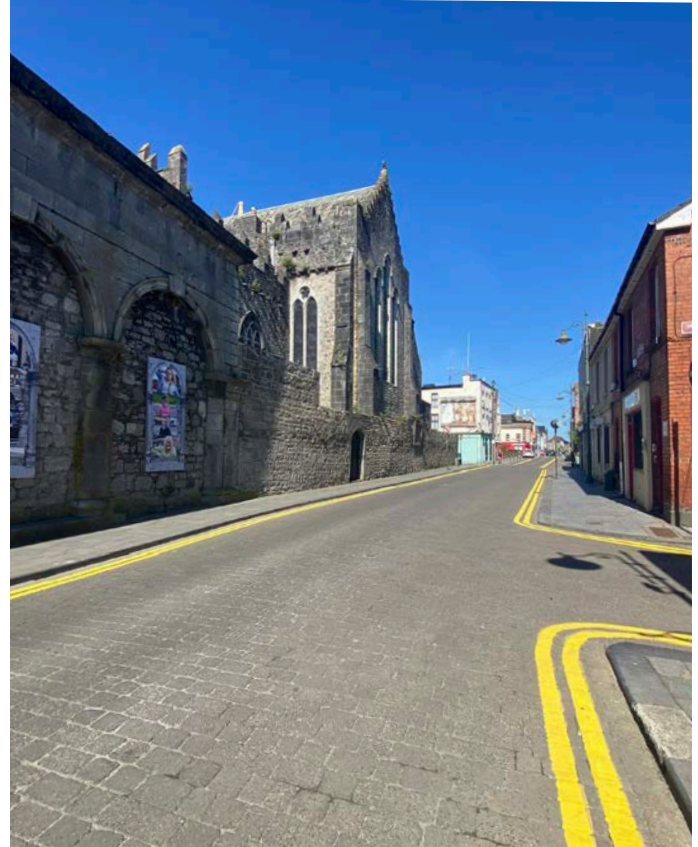
For guidance of the Whole Life Cost Analysis, the following sources can be utilised:

- Refer to the Capital *Works Management Framework*, specifically Pillar 3, which includes templates for cost planning, cost control and suitability assessments relevant to construction projects.
- See Guidance Notes 2.2 (page 9) for a detailed list of the forms and templates applicable to WLCA.
- The various purposes and stages of WCLA are outlined in the BSI/BCIS document "*Standardised Method of Life Cycle Costing for Construction*", which complements ISO 15686 Part 5.
- Further assessment models can be found in the "*SCSI Life Cycle Costing Guidance*" and other international standards or methodologies.

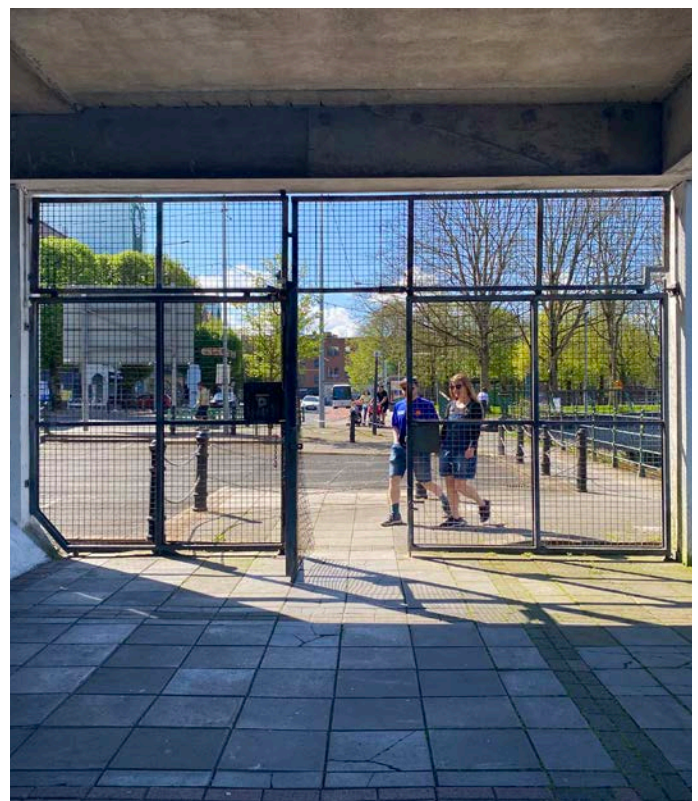
Maintenance and Management Manual

Recommendations

- A Maintenance and Management Manual should be developed during the design phase for each public realm enhancement. This manual must involve collaboration between LCCC project teams, operations staff and design consultants.
- A clear protocol for maintenance-related excavations and reinstatement (e.g., utilities access) should be established during the pre-Part 8 design stage to minimise disruption and ensure consistency.
- Provision should be made for storage of at least 10% surplus materials, allowing for timely repairs and future proofing maintenance needs.
- The strategy should cover routine maintenance operations, including the lifting and relaying of paving, repairing joints, surface retexturing, and general cleaning.
- Requirements for testing and retexturing of surfaces should be clearly set out in the Maintenance Manual.
- A realistic maintenance budget must be identified and secured prior to any site works beginning.



Nicholas Street



Sarsfield House Underpass



Chapter Eight

Delivery Plan

- Introduction
- Action Items
- Checklist for New Projects

Delivery Plan

Introduction

- This section outlines a range of specific public realm projects and presents a checklist of actions for new projects.
- It aims to alert the local community, stakeholders, developers and public agencies to upcoming developments in city quarters.
- The plan supports collaboration and coordination of adjacent private and public works, helping to reduce disruption and ensure cohesive design integration.
- It connects relevant pipeline projects to current proposals, aiding forward planning within council departments.
- A checklist for new projects is provided at the end of the manual to guide public and private sector initiatives that interface with the public realm.
- Broader policy recommendations and priorities are also outlined, along with a Maintenance Strategy (Chapter 7) that sets out long-term material selection, cleaning routines, life-cycle costs and green procurement principles.

Action Items

Surfacing

1. Establish a Streetscape Focus Group to guide early-stage coordination on matters such as utility layouts, choice of materials and agreement on street furniture design.
2. Develop and maintain an inventory of significant historical street surfaces and associated elements to protect them from inadvertent damage during infrastructure works.
3. Engage with utility providers through the Focus Group to schedule underground ducting and service upgrades in line with street enhancement projects.
4. Undertake the undergrounding of overhead cables, especially within designated Architectural Conservation Areas, to enhance visual quality.
5. Coordinate with the Waste Management/ Recycling Group to manage the recovery and reuse of quality surfacing materials during upgrades.

Street Furniture

1. Commission a decluttering audit to identify and assess redundant or inappropriate items that may obstruct or conflict with proposed public realm enhancements.
2. Work with Waste Management and the Focus Group to assess the reuse potential of removed items, exploring options for resale, donation, or re-purposing of components.
3. Launch a capital investment programme to replace outdated or inconsistent street bins across the city centre, ensuring a unified design language.
4. Identify and retain items of historic or cultural significance that contribute to the local identity, following the guidelines in DMURS Section 4.2.8.
5. Implement a structured process for the removal of pedestrian guardrails, backed by assessments and post-removal monitoring in accordance with any relevant guidance.
6. Explore the installation of automated bollards at key locations (e.g. Nicholas Street, Pery Square, Honan's Quay, Market Quarter) to allow flexible street closures for events.

Delivery Plan

Checklist for New Projects

General

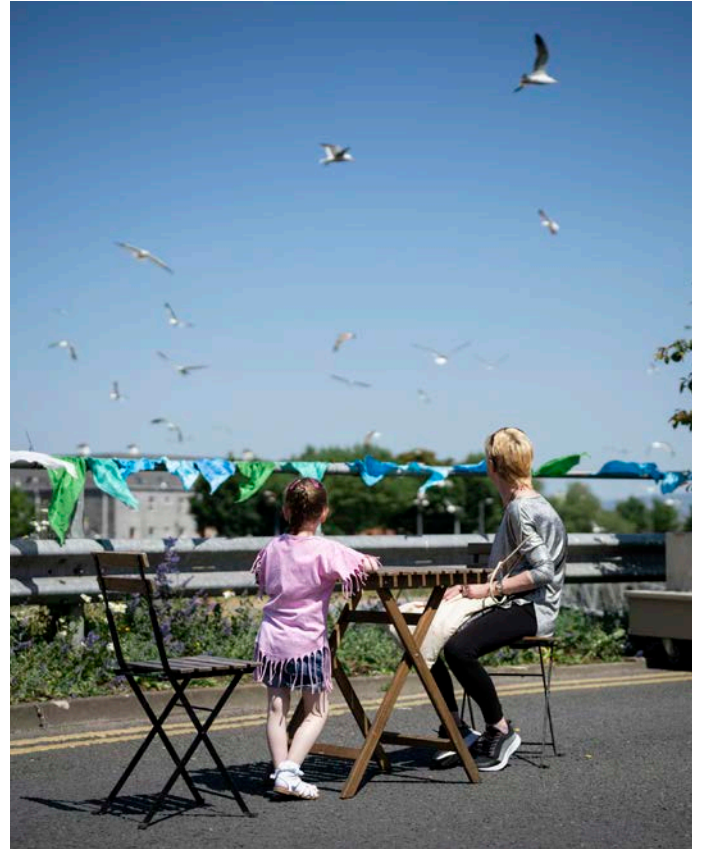
- Nature-Based Solutions (NBS): Integrate rainwater management plans using green infrastructure like tree planting, SuDS systems, and permeable surfaces.
- Sustainable Materials and Circular Economy: Ensure public realm schemes consider reuse, resale or recycling of existing materials wherever feasible.
- Public Sector Duties: Address human rights, equality and climate action in project design and delivery.
- Life cycle Considerations: Ensure cost assessments, maintenance plans and long-term oversight processes are embedded early.

Detail Design/Tender Stage

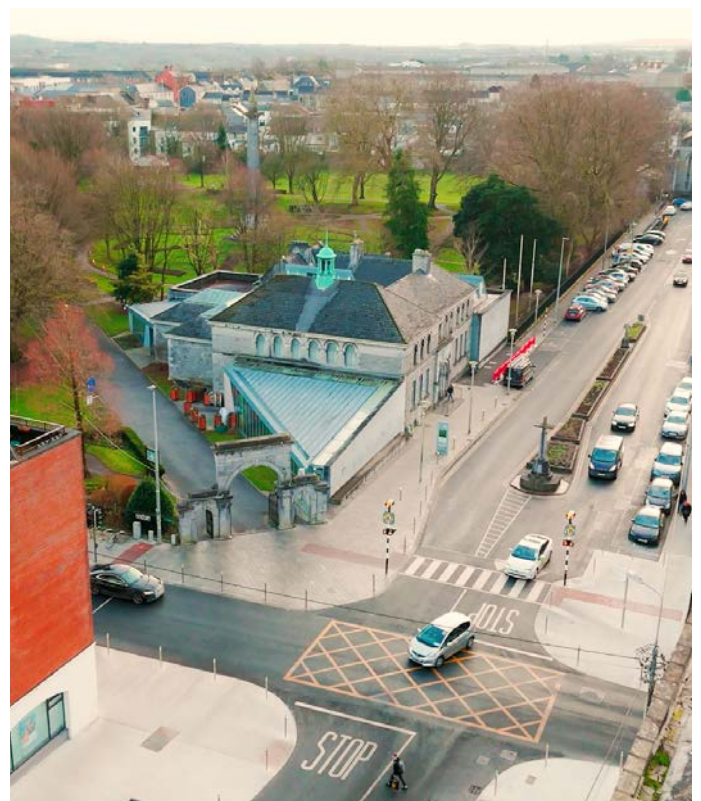
1. Gather all relevant aftercare and operational data to inform long-term maintenance planning and management.
2. Prepare a live Maintenance and Management Manual, co-produced with stakeholders, that includes procedures, responsibilities and resources for ongoing care.
3. The manual must specify cleaning frequency and intervention intervals, such as intermittent deep cleans, to ensure consistent public realm quality.

Part 8/Planning Stage

1. Identify utility requirements from all providers at design stage to ensure early coordination and avoid future conflicts.
2. Establish a maintenance excavation/reinstatement protocol with input from departments, stakeholders and authorities to ensure continuity and accountability.



Honan's Quay, Limerick



Limerick City Loop Walk, Pery Square

Delivery Plan

Character Area	Current Project	Timescale
Waterfront	• Limerick City & Environs Flood Relief Scheme • World Class Waterfront Active Travel Bridges • Arthur's Quay Park	• Options / Preliminary Design • Preliminary Design • Preliminary Design
English Town	• King's Island Flood Relief Scheme (George's Quay, Merchant's Quay, Verdant Place, St Mary's Park, Sir Harry's Mall), Court House Plaza, Merchant's Quay • Nicholas Street Public Realm Part 8 • The Fosse Park • Sonny's Corner • Island Road City Walls 2025	• Under Costruction • Part 8 Application approved • Under Construction • Part 10 to be lodged 2026 • In Progress
Irish Town	• Market Quarter, & Cruises Street Park • St. Michael's Cemetery • City Walls Park	• Part 8 Approved • Outline Design Proposal • Outline Design Proposal
Central Core	• Arthur's Quay Park • Market Quarter & Cruise's St Part 8 • Opera Square • Bank Place	• Preliminary Draft Proposals • Part 8 Approved • Under Construction • Under Construction
Georgian Neighbourhood	• O'Connell St Phase 2 • City Centre Laneways • 58 O'Connell Street • 33/34 Thomas Street	• Outline Design Proposals • Preliminary Design • Complete • Design Tender Assessment

Delivery Plan: Public Realm Spaces

	Department	Funding	Pipeline Projects Within Area	LCCC Department Lead
	- Placemaking - Active Travel - Placemaking	- OPW - NTA & URDF - URDF		
	- CFRAMS - Urban Design & Heritage - Housing - Housing - Public Realm & Heritage	- OPW/URDF/NTA - URDF - Mayoral Fund - DHLGH AHF Fund - Irish Walled Towns Network	- King John's Castle Master plan - Englishtown Urban Priority Area URBACT	Placemaking
	- Placemaking - Parks Department & Archaeology - Parks Department & Archaeology	- NTA (funding being sought) & URDF - National Transport Authority & URDF - National Transport Authority & URDF		
	- Placemaking - Placemaking - Limerick 2030 - Limerick 2030			
	- Placemaking - Placemaking - Placemaking	- URDF - Mayoral Fund & URDF - URDF		

