Masterplan

St. Canice’s Campus/Lacken

Kilkenny City

September 2026

Contents

Part One: Context

Image

1. Introduction

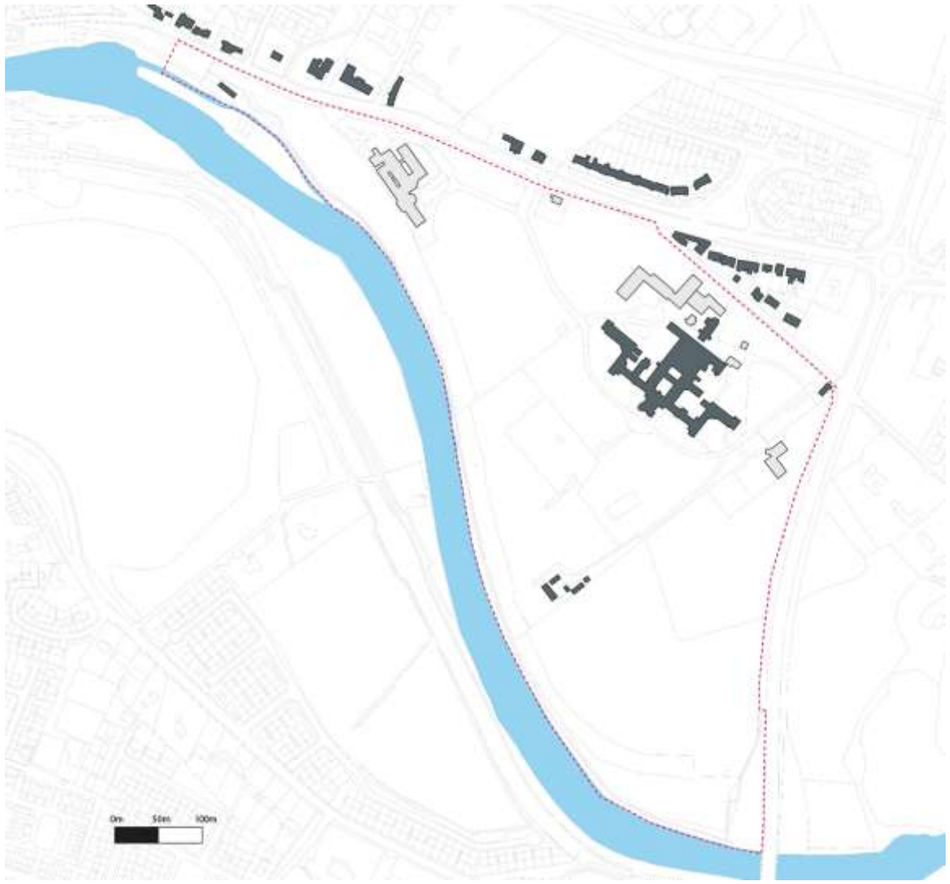
This Masterplan provides a comprehensive spatial framework for the strategic development of the St. Canice's / Lacken lands in Kilkenny City. The subject lands comprise approximately 25.9 hectares (64 acres) situated on the eastern approach to Kilkenny City, bounded by the River Nore to the south and west, the Dublin Road to the north, and the N10 ring road to the east. The site enjoys excellent strategic connectivity, located within a 10-minute walk of Kilkenny City Centre and MacDonagh railway station.

The purpose of this Masterplan is to provide an integrated and sustainable development strategy that balances multiple land use objectives, while safeguarding the unique landscape, heritage and ecological assets of the site. The Masterplan builds directly on the statutory requirements of the Kilkenny City & County Development Plan 2021-2027, relevant national guidelines, and extensive consultation with the Health Services Executive (HSE), and the wider community.

This plan provides the framework for detailed development proposals on the lands. It should be read in conjunction with the supporting Masterplan Planning Statement (Kilkenny County Council). It comprises the essential Masterplanning context and the urban design code, which provides the spatial structure, detailed design parameters and development controls to implement the Masterplan vision.

The Masterplan has been subject to Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) screening and was informed by ecological and heritage assessments (See Planning Statement).

Figure 1.1 The lands (opposite)



2. Context and Site Analysis

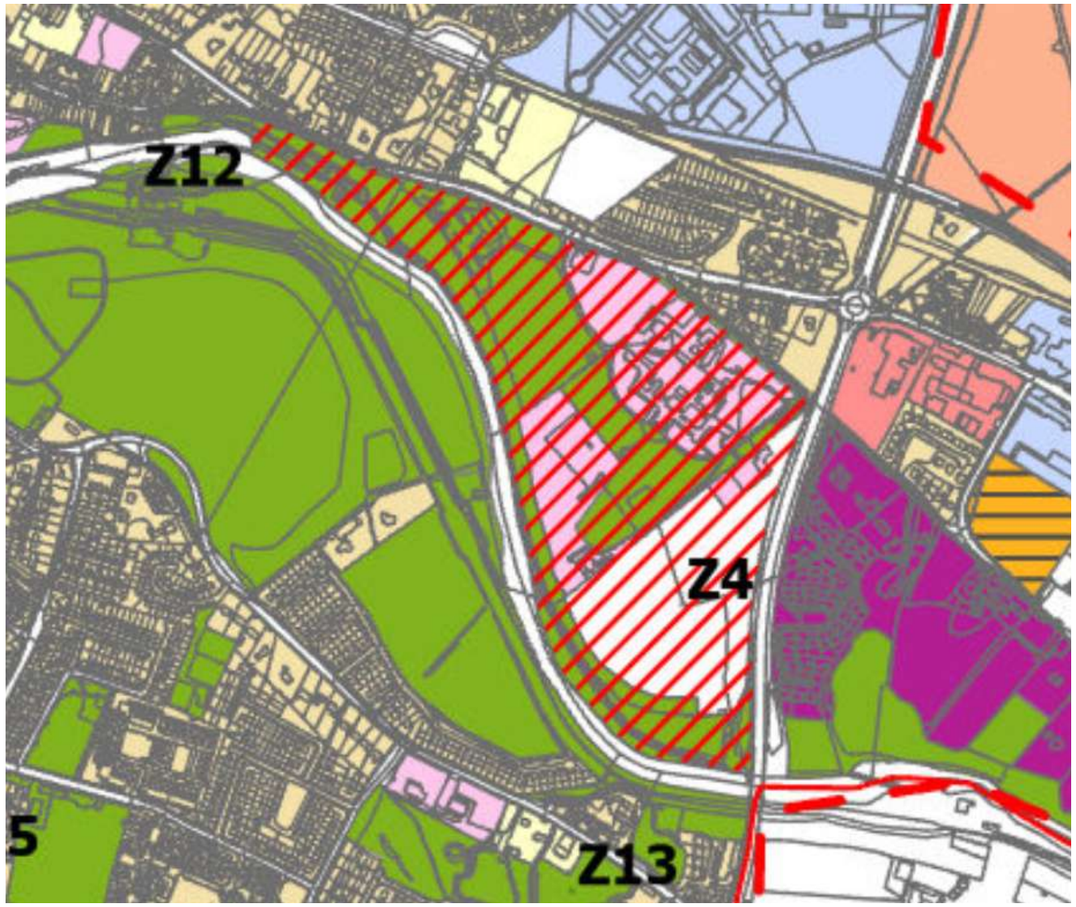
2.1 Policy and Strategic Context

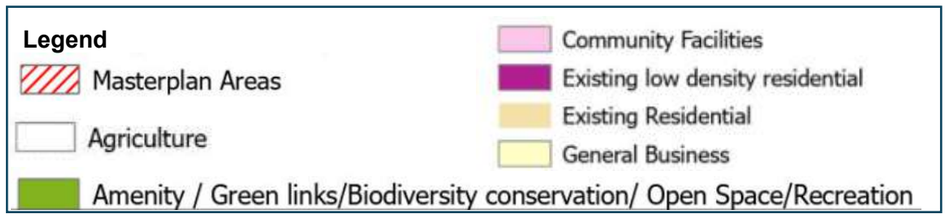
The St. Canice's lands are identified for Masterplanning under multiple levels of national, regional and local policy guidance:

- **National Planning Framework (NPF) 2040:** Kilkenny City is identified as a Key Town in the national settlement hierarchy, with specific targets for compact growth, climate action, placemaking, and sustainable mobility.
- **Regional Spatial and Economic Strategy (RSES) for the Southern Region:** Kilkenny is recognised as the largest settlement in the South-East Planning Area, with an identified role as a self-sustaining regional driver requiring compact urban expansion.
- **Kilkenny City and County Development Plan 2021-2027:** The Development Plan provides the statutory framework for the Masterplan area. The site is zoned for Amenity, Community Facilities, and Agriculture (Volume 2). Three specific objectives apply to the Masterplan lands:
    - **Objective C2C:** To complete the Masterplanning process for St. Canice's Campus during the lifetime of the Plan.
    - **Objective 6N:** To prepare the Masterplan in partnership with the HSE.
    - **Zoning Objective Z4:** To establish a Masterplan which addresses future healthcare needs, appropriate residential development, community facilities, recreation and open space, while protecting employment uses on site.

The Development Plan also designates the site within the Lacken Architectural Conservation Area (ACA), with development management standards to protect built heritage, key views (Views 7, 9, 10, 17), landscape character, and the river setting. The plan strongly emphasises compact growth, active travel, public transport integration, biodiversity protection, climate resilience, and high-quality urban design.

Figure 2.1 – City and County Development Plan zoning (opposite)





2.2 Key Masterplanning Guidance Documents

The Masterplan is also directly informed by a suite of national urban development and design guidance documents, which shape its design, structure and implementation approach. The guidelines with the greatest relevance to the Masterplanning process are:

Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (DHLGH, 2024)

These guidelines set out national policy for compact, sustainable and liveable communities. Key elements reflected in the Masterplan include:

- Density range of 40-100 dwellings per hectare for urban neighbourhoods in Key Towns such as Kilkenny.
- A strong focus on mixed-use development, brownfield and infill regeneration, sustainable mobility, and diverse housing typologies.
- Placemaking as a core principle, with active public spaces, high-quality design, and climate resilience embedded in all stages of planning and delivery.

Design Manual for Urban Roads and Streets (DMURS, 2019)

DMURS provides the core framework for the design of the movement network, streets and public realm throughout the Masterplan area. Its key principles, fully adopted in this Masterplan, include:

- Connected and permeable street networks.
- Multi-functional streets balancing all modes, prioritising pedestrians and cyclists.
- Self-regulating streets with slower vehicle speeds.
- High-quality street enclosure, landscaping and public realm design.

Implementation of Urban Nature-Based Solutions: Guidance Document for Planners, Developers and Developer Agents (LAWPRO, 2024)

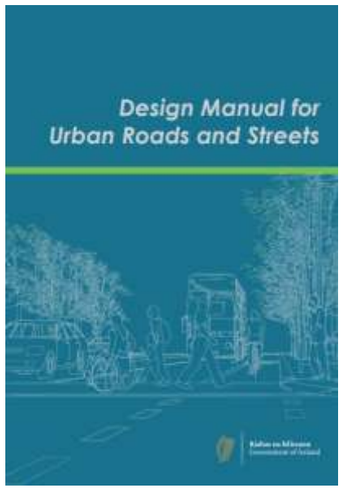
This nature-based solutions (NbS) guidance has strongly influenced the Masterplan's approach to surface water management, green-blue infrastructure and climate adaptation. Key features include:

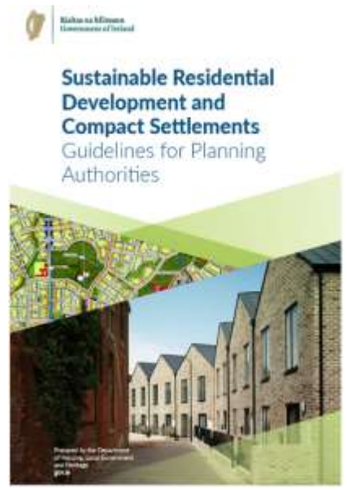
- Integration of SuDS features such as rain gardens, swales, tree pits, bioretention areas, wetlands and green roofs.
- Delivery of multi-functional open spaces that combine biodiversity, amenity, water management and placemaking functions.
- Nature-based surface water management replacing conventional piped drainage systems, reducing flood risk, improving water quality and enhancing the ecological network.
- Long-term management strategies to secure the performance of NbS assets over the life of the development.

Design Manual for Quality Housing (DHLGH, 2022)

The *Design Manual for Quality Housing (DHLGH, 2022)* sets out an approach and processes to ensure high standards of residential quality, amenity, and long-term sustainability. Housing layouts that are based on strong urban design principles that prioritise public realm quality, permeability, tenure mix, and efficient land use are presented and promoted. The guidelines aim to support compact, walkable, and attractive neighbourhoods that respond to diverse household needs.

Figure 2.2 Key urban design guidance (opposite)





2.3 Land Use, Ownership and Existing Functions

The St. Canice's/Lacken lands comprise a mix of existing uses reflecting the site's institutional, recreational, agricultural and open space character. These existing functions provide both constraints and opportunities for the future Masterplan structure.

Current land uses include:

- St. Canice's Hospital complex and associated healthcare services.
- HSE regional offices at Lacken House (approx. 150 employees).
- Lacken Pitch and Putt Course.
- Agricultural land primarily used for grazing to the south of the healthcare core.

The lands are entirely in the ownership of the HSE, and are adjacent to the River Nore linear park. The HSE and Kilkenny County Council have cooperated in the past for development of the boardwalk in this area which has created a strong foundation for coordinated public-led development.

The Masterplan proposes:

- Consolidation and expansion of healthcare facilities.
- New residential development and supporting local community services.
- Extensive new and improved public open space network.
- Integration of sustainable drainage and nature-based infrastructure.

2.4 HSE Strategic Requirements

The HSE is a primary landowner and partner in the Masterplan process. The long-term provision and flexibility for healthcare services forms a core requirement of the development strategy.

Stakeholder engagement has established that key HSE objectives include:

- Consolidation and future expansion of healthcare, outpatient and specialist services.
- Maintenance of low-to-medium rise built form (generally 1-3 storeys) for patient accessibility.
- Consolidation and expansion of administrative and office functions.
- Expansion opportunities for future inpatient, vaccination, day care, and older person/psychiatric care facilities.
- Integration of healthcare uses into a mixed-use, connected campus with strong community accessibility and flexible long-term land use options.

The most recent study prepared by the HSE for this Masterplan indicates a potential, longer-term demand for c.15,500sqm of floorspace for healthcare and administrative uses.

Figure 2.3 Current land uses (opposite)

2.5 Built Heritage and Landscape Character

The lands contain significant built heritage and landscape assets which strongly influence the Masterplan structure. The site lies within the Lacken Architectural Conservation Area (ACA), and many features are protected or rated of high local importance (See *National Inventory of Architectural Heritage, Buildings of Ireland Survey*).

Key heritage elements include:

- St. Canice's Hospital complex, including 6 protected structures (main hospital, chapels, outbuildings, chimney).
- Lacken Corn Mill (Recorded Monument and Protected Structure).
- Historic stone walls, gates, pathways, and field boundaries.
- Protected views and prospects (Views 7, 9, 10 and 17 of the Development Plan).

The landscape character is defined by:

- Mature parkland around the hospital.
- Riparian woodland and riverbanks along the River Nore.
- Woodlands, hedgerows and treelines.
- Agricultural grasslands providing open landscape to the south.

2.6 Natural Heritage and Environmental Considerations

The lands have substantial natural heritage value, forming part of the ecological corridor of the River Nore and contributing to regional biodiversity networks. Environmental assessments have shaped both the extent and form of development proposed.

Key environmental features include:

- The River Barrow and River Nore SAC (Site Code 002162).
- The River Nore SPA (Site Code 004233).
- Mixed woodlands, riparian habitats, grasslands and treelines.
- Bat roosts located within St. Canice's Hospital buildings.
- High-value aquatic and riverbank habitats supporting protected species (e.g. otter, salmon, kingfisher).

Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) screening concluded that, with appropriate measures and adherence to policy, significant impacts on European sites will be avoided.

2.7 Movement and Connectivity

The masterplan lands are strategically positioned within Kilkenny's active travel network, offering strong potential to prioritise sustainable movement patterns for residents, workers, healthcare users and visitors.

Key movement characteristics include:

- Walking access within 10-15 minutes to Kilkenny City Centre and MacDonagh rail station.
- Existing and planned city bus routes within walking distance, with potential service extensions.
- Existing cycle infrastructure on Dublin Road, linking to the wider Kilkenny cycle network.
- Proposed new pedestrian and cycle bridge over the River Nore (Objective C5Q).

Part Two: Urban Design Code

3. Concepts and Masterplan

The Masterplan is underpinned by important spatial and functional concepts which support the Masterplanning themes and objectives.

3.1 Spatial organisation and functional areas

The overall spatial organisation of the lands is based on the larger purpose of the lands and their division into discrete functional areas. The concepts for the masterplan were informed by the existing uses on the site, the physical nature of the land (topography), the necessity to maximise on public lands in a strategic location, securing the delivery and expansion of HSE uses on the land, and integration into the wider River Nore linear park.

The key element of the spatial concepts are:

1. Five discrete, new or consolidated functional areas;
2. A finer grain of land uses within functional areas to respond to local and service needs, such as local level services, community, cultural and childcare; and
3. A phased approach to development.

The five functional areas are as follows (see Figures 3.1 and 3.2):

1. Current Lacken HSE Offices, with an option to replace and relocate this function to allow for expansion of housing or another non-residential use;
2. An area fronting the Dublin Road, lying between the Lacken HSE Offices and the Hospital complex with potential for residential and supporting local services;
3. St. Canice's Hospital - core area of the healthcare and related services;
4. Heathcare expansion area – an area including underused health and community buildings and agricultural land.
5. Parkland - the remaining land currently in passive amenity and recreation and agriculture use with potential for multipurpose strategic and local amenity, mobility and biodiversity as part of a new element of the City's Green and Blue Infrastructure (GBI).

Phase 1 allows for the development of housing in functional area 2 with the existing offices in functional area 1 retained. Phase 1 can operate independently of anything in phase 2.

Phase 2: The existing offices in functional area 1 would be relocated to, and expanded within, the Healthcare expansion area (functional area 4). The figures opposite show the spatial extent of these options. (Phase 2, relocation of Lacken offices, will be subject to agreement with HSE.)

Figure 3.1 The overall function concept (Phase 1 Housing)

Figure 3.2 The overall function concept (Phase 2)

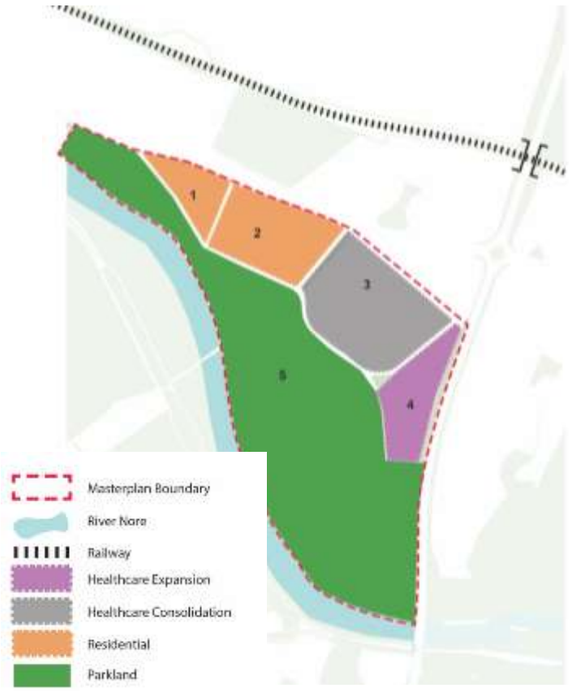


Figure 3.3 Indicative function frontage concept (Phase 1 Housing)

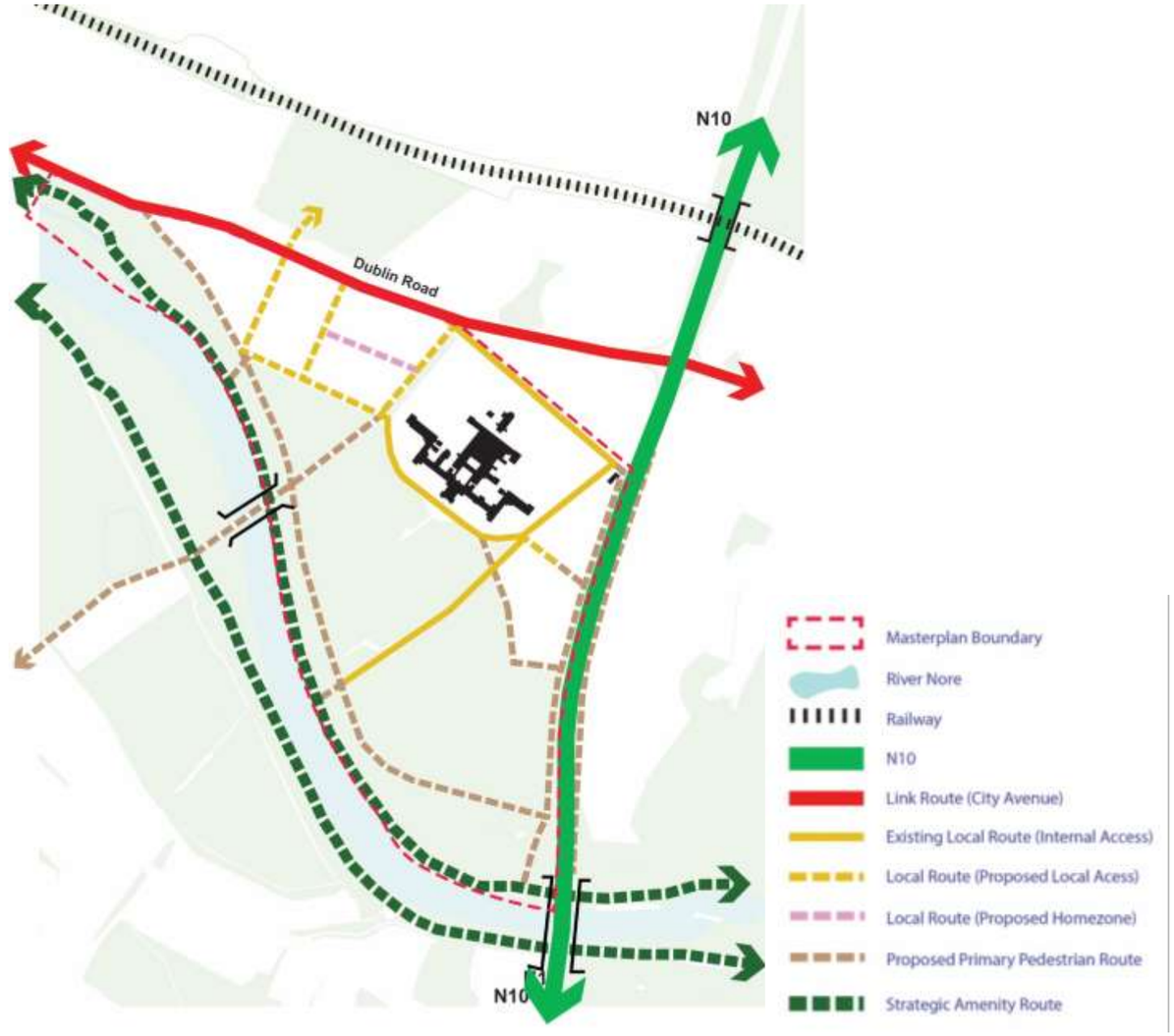
Figure 3.4 Indicative function frontage concept (Phase 2)

3.2 Routes and Movement

The active travel and mobility concepts respond to the theme and objectives of sustainable and efficient movement. The concepts are based on:

- Priority for active travel modes, including walking, cycling and access to public transport.
- Careful management of existing and future vehicular traffic movement and car parking with the overall aim of reducing both in the short to medium term and replacing with active travel options. Bespoke active travel management study for healthcare consolidation and expansion areas.
- Reorganisation of the basic route structure of the lands to provide for more permeable, rational and less funneled structure.
- A high level of local connectivity for walking and cycling from the perimeters of the lands with quality connections to surrounding areas and beyond.
- The design of local and link streets in line with the principles and detail of DMURS.
- Integration of all local and amenity access for walking and cycling.
- Integration with the strategic bicycle network in the city including the proposed new pedestrian and cycle 'green' bridge linking to the River Nore Linear Park (Project).
- Identification of a potential district heating network within the local route network, connecting excess or waste heat sources (e.g. Hospital and complex) and new housing and other uses.

Figure 3.5 Route concept



3.3 GBI, Landscape and Urban Space

The landscape and GBI concepts respond to the theme and objectives of Green and Blue infrastructure, open space and landscape. The concepts are based on:

- Clearly identifying and protecting natural heritage and landscape assets and character.
- Integrating the landscape and GBI of the lands into the larger surrounding GBI of the City and beyond.
- Integrating the different elements of the existing landscape into one unified and multipurpose parkland.
- To provide a connected network of accessible routes through the parkland, connecting its various areas and elements.
- Enhancing the areas of different landscape character areas and elements within the larger parkland through protection, enhancement and where necessary, intervention.
- Ensuring ecological protection and enhancement (net biodiversity gain).
- To integrate nature-based solutions to urban surface water management.
- To provide a range of active and passive recreation, with supporting facilities and pavilions.
- To link the parkland to surrounding areas and routes through new walking, cycling and local access, including a new active travel, ecologically sensitive, bridge between the lands and Dukesmeadows.

The main landscape character areas within the parkland could be described as:

- Hospital and immediate grounds (lawns and mature trees and paths);
- River and riverbanks (tree groups, shrubs and paths);
- The interstitial woodland (trees, tree groups and lines, hedgerow, walls, paths and other features), used for both active and passive recreation, natural heritage enhancement and local mobility.

In line with the SFRA as carried out for this Masterplan, uses within the Masterplan area shall be limited to water-compatible uses in Flood Zone A, and less vulnerable or water compatible uses in Flood Zone B (as per the Flood Risk Management Guidelines), and a detailed site-specific Flood Risk Assessment will be required in these areas.

Figure 3.6 Landscape and GBI concept

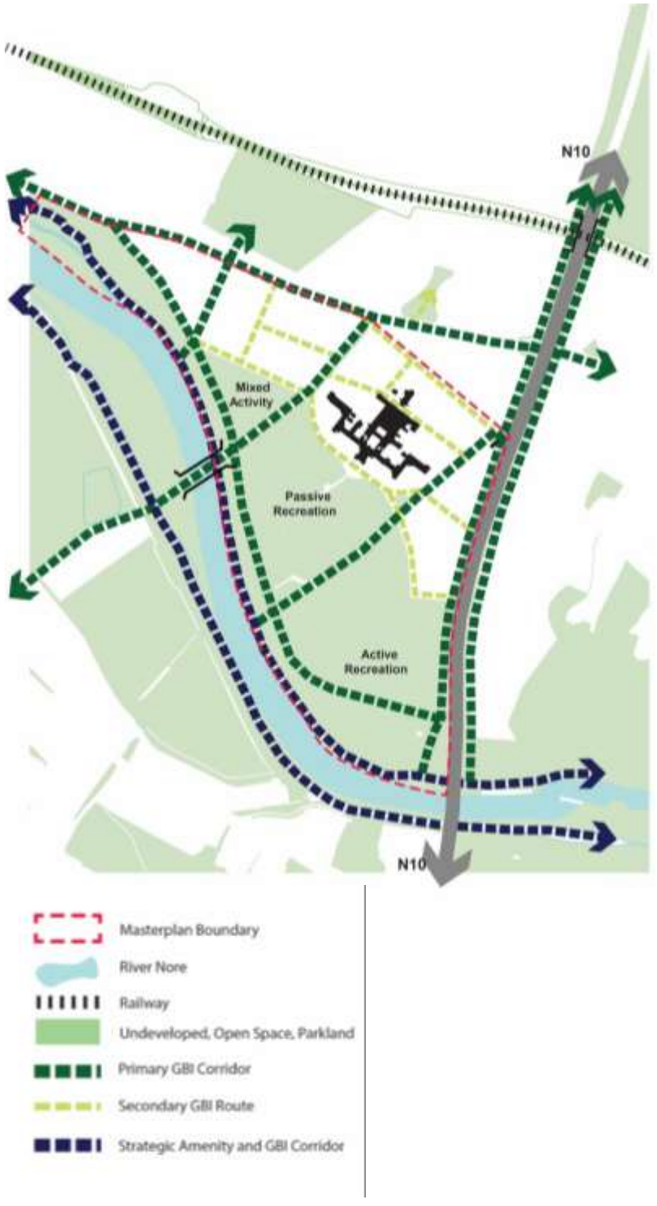
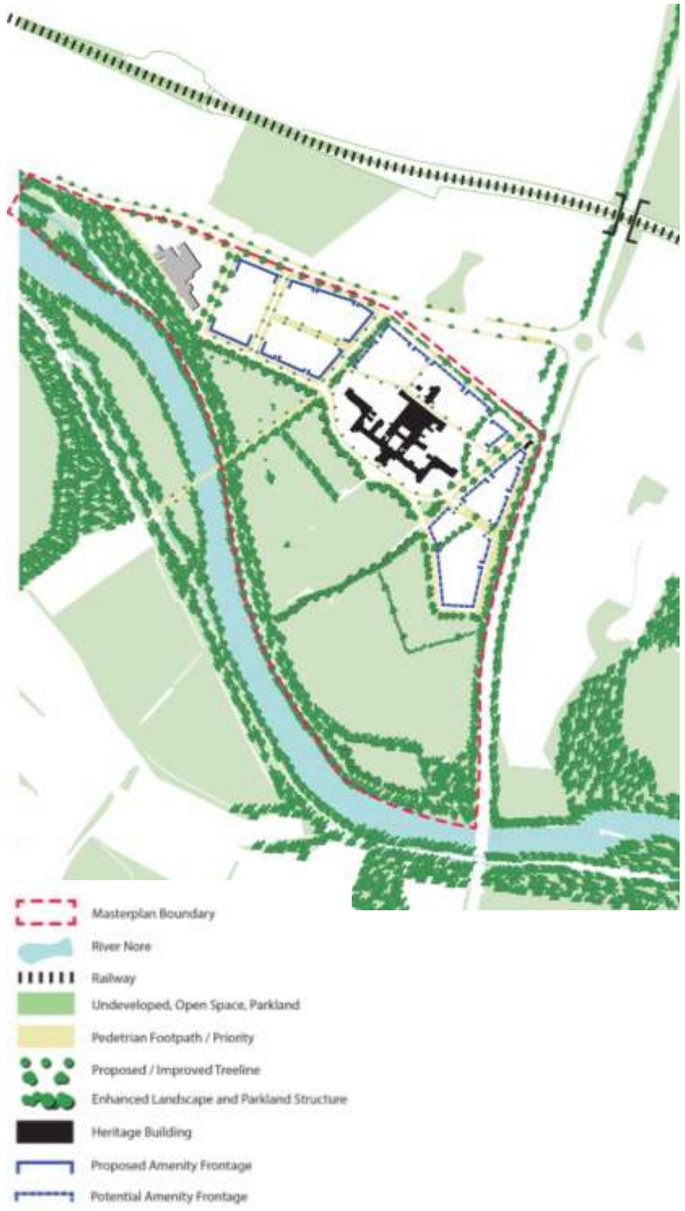


Figure 3.7 Street as part of the landscape



3.4 Built Heritage and Form

The built heritage and urban form concepts acknowledge the need to protect and enhance the unique heritage assets and character of the lands. The concepts also respond to the theme and objectives of responsive built form, by showing how compact and sensitive urban development can be combined with heritage enhancement. The key element of the spatial concepts are:

- Clearly identifying and protecting built heritage, including protected structures.
- Providing a new and permeable local route structure which integrates and rationalises existing internal and peripheral and proposed structures.
- Providing a robust urban block structure based on the perimeter block model, to deliver adaptability, continuity and enclosure and visual coherence.
- Consolidation of existing healthcare and associated uses within a more structured urban campus based on the essential form and curtilage of the hospital and providing an adaptable framework for its compact and coherent expansion.
- Carefully considering building massing, scale, relationships to the built and natural heritage, and the landscape.
- Providing continuous and coherent frontages to new development, such as the Dublin Road, the Lacken and St Canice's parkland and to the Hospital complex.
- Achieving compact urban form with sustainable densities to meet key objectives such as new homes, health and community infrastructure.

Figure 3.8 Block Structure

Figure 3.9 Built heritage and figure ground (Phase 1)

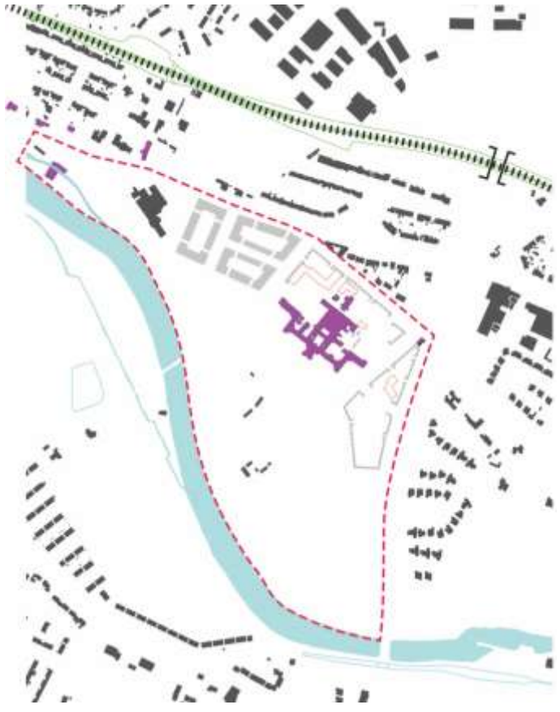


Figure 3.10 Built heritage and figure ground (Phase 2)

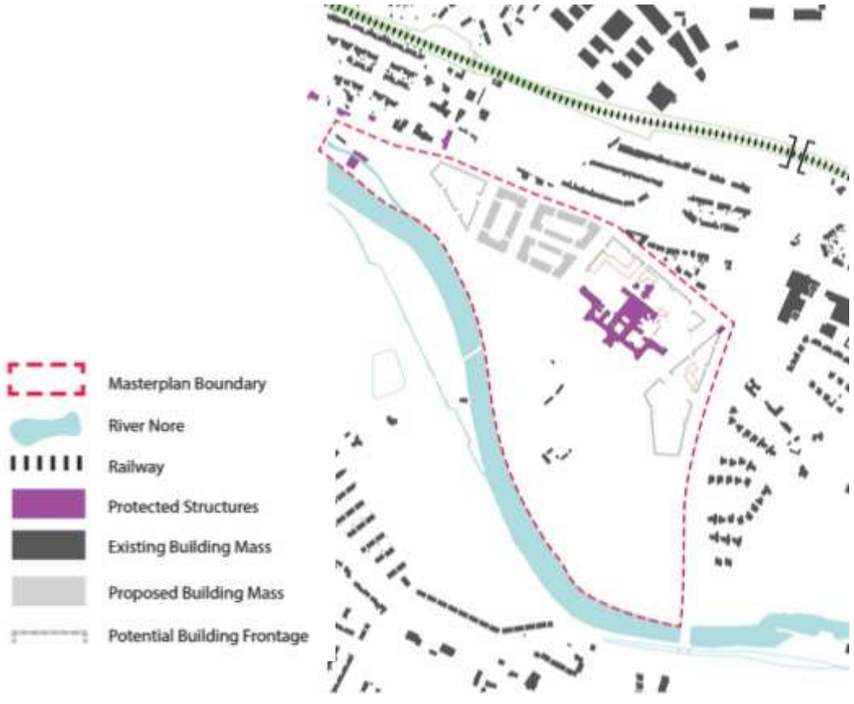


Figure 3.11 Key frontage (Phase 1)

Figure 3.12 Key frontage (Phase 2)

Figure 3.13 Height concept (Phase 1)

Figure 3.14 Height concept (Phase 2)

3.5 Masterplan

The Masterplan shows the indicative, integrated urban and landscape structure for the lands and an overall approach to the layout and design of development of the plan area. It is also informed by current policy and objectives, urban design and related guidance and best practice, and the social, economic and environmental considerations set out in the supporting planning statement.

The Masterplan is prescriptive around key parameters where consistency and quality of approach is essential. The Masterplan shows an indicative two-dimensional framework of building placement and massing across the planned area, based on key parameters for determining location, extent and scale of development (See Section 4: Code for more detail on parameters).

The Masterplan shows the importance of coherence and continuity of urban and landscape form in creating legible streets and spaces as a basis for a unique sense of place and image.

The alignment of streets, blocks and building frontages is a critical element in successful and coherent Masterplanning. Fixed and flexible street and space centre lines are used to establish appropriate street dimensions (further detailed in the Code) and coherent fixed and flexible building frontages (building lines).

The Urban Design Code provides greater detail in the form of controls and guidance for the superblocks (larger landscape and development units) and key streets and spaces.

At this stage in the Masterplan preparation process, two phases are presented: Phase 1 allows for the current HSE offices at Lacken to be retained in their current form (including any rationalisation or improvement). Phase 2 assumes that these offices are relocated to the main Hospital complex or the adjoining Healthcare expansion area. The parcel containing the office would then be decommissioned and cleared for redevelopment for housing.

It is important to note at this juncture that Phase 2 is dependent on agreement being reached with the HSE on the potential relocation of the existing offices at Lacken. No relocation would happen until such an agreement is reached.

Figure 3.15 Masterplan (LHS, Phase 1; RHS, Phase 2)

4. Code

Urban design codes support the delivery of the principles of sustainable settlements and good urban design and placemaking (as set out in statutory plans, policy and guidance).

Codes are tailored to reflect local conditions and context, and the underpinning spatial and urban design concepts. They provide maximum clarity about design expectations, while providing a suitable amount of flexibility, where justified.

The code is a simple, concise and illustrated set of urban design requirements. It is visual and numerical and, where possible, provides specific and detailed parameters for the spatial and physical development of the planned area. Table 4.1 explains the parameters and their purpose in the code.

Parameter	Purpose
Plot ratio	Provides a range (min to max) for gross permissible floorspace in each superblock (i.e. Gross floorspace divided by gross superblock area)
Parcels	Breakdown of superblock into smaller to developable portions.
Indicative frontage land use	An indication on how land use might be distributed to building/street frontages at different levels.
Routes	The network and hierarchy of routes in the superblock.
Movement	Indicative movement and access for all modes.
Urban blocks	The configuration and distribution of urban blocks.
Landscape and urban space	The network of landscape and open space elements.
Indicative urban grain	An approach to delivering mixed urban grain along frontages.
Building height	Overall building height range by floor.
Indicative massing	An indication of how massing might be approached to meet the parameters.
Indicative sections	The relationship between street and enclosing buildings and indication of the allocation of street space.

Table 4.1 The parameters of the code.

4.1. Superblocks

There are 5 superblocks in the planned area. The superblocks are larger units of parkland or development land. They are coded C1, C2, C3, C4 and C5. The superblocks are based on the five discrete, new or consolidated functional areas shown in the concepts, and are as follows:

C1: Existing office area with potential for housing

C2: New Residential

C3: St. Canice's Hospital;

C4: Healthcare and office expansion area; and

C5: Parkland.

The superblocks are divided into smaller, individual parcels, which can be developed on a phased basis. The parcels also allow intensity of development and development capacity to be described and controlled. Parcels typically contain individual urban blocks (the net developable area within a parcel) and an appropriate portion of surrounding streets and spaces (typically to the centre line of adjoining streets and spaces).

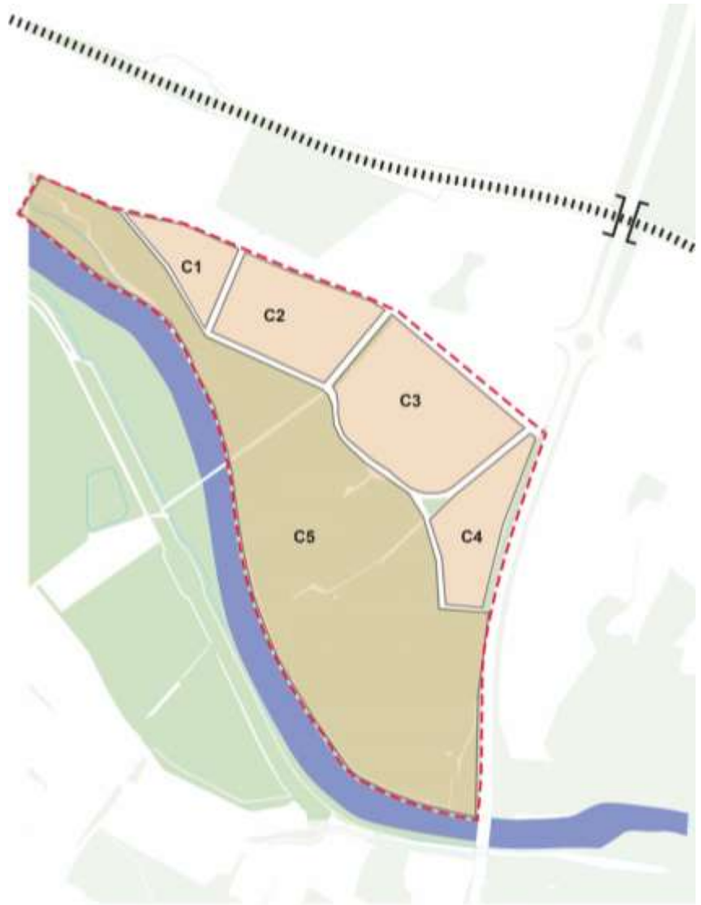
Parameters and guidance for development are provided at superblock level, rather than for the individual urban block. This allows flexibility in delivering quality development and design solutions. Importantly, the code sets out specific parameters and guidance on the nature, extent and distribution of development within the superblock.

The superblock code describes the superblock location within the planned area, its critical areas, dimensions and attributes. It includes the following essential parameters in graphic and/or numerical terms:

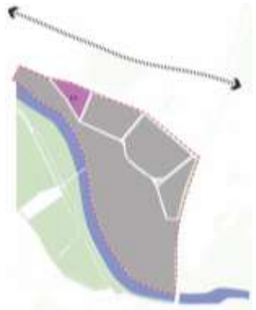
- Land use mix and overall use distribution and indicative block frontage use;
- Routes and space structure and hierarchy including fixed and flexible street and space centre lines, street and space enclosure ratios;
- Access and mobility for all modes including vehicular access and car parking, loading, servicing and maintenance, emergency access;
- Urban form including urban block structure, key frontages, indicative massing, continuity and enclosure, and urban grain (plot and building);
- Urban scale including general massing and volumes, building height parameters, and taller, landmark buildings.
- Development capacity in the form of plot ratio range for the superblock.

It is important to note that phasing will only apply to the delivery of housing with Phase 1 to be delivered in the first instance. Continuation of phasing will occur (Phase 2) if and when agreement is reached with the HSE on relocation of existing HSE offices in functional area 1 (C1 superblock).

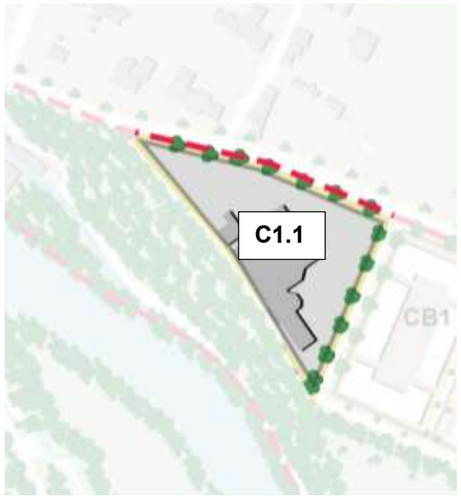
Figure 4.1 Superblocks



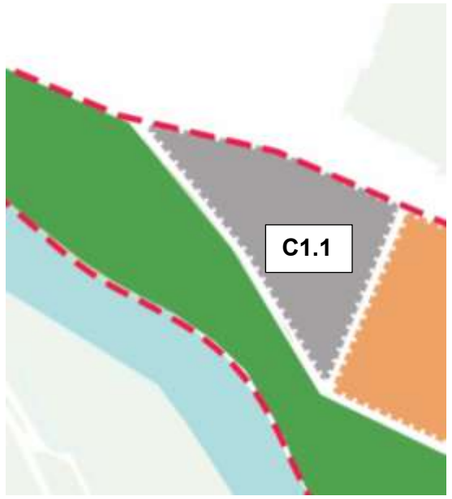
St Canice's: C1 (Phase 1)	
Superblock	**C1**
Area (Ha.)	0.78
Parcels	1 (C1.1)
Land use	Healthcare office and administration consolidation
Plot ratio range	0.5-1.0:1 (existing c.0.5:1)
Urban scale	2-4 storeys.



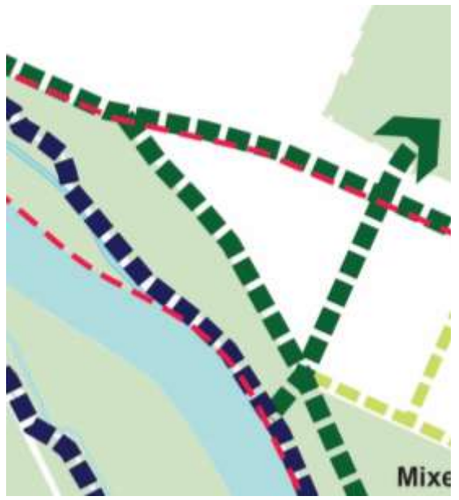
Parcels

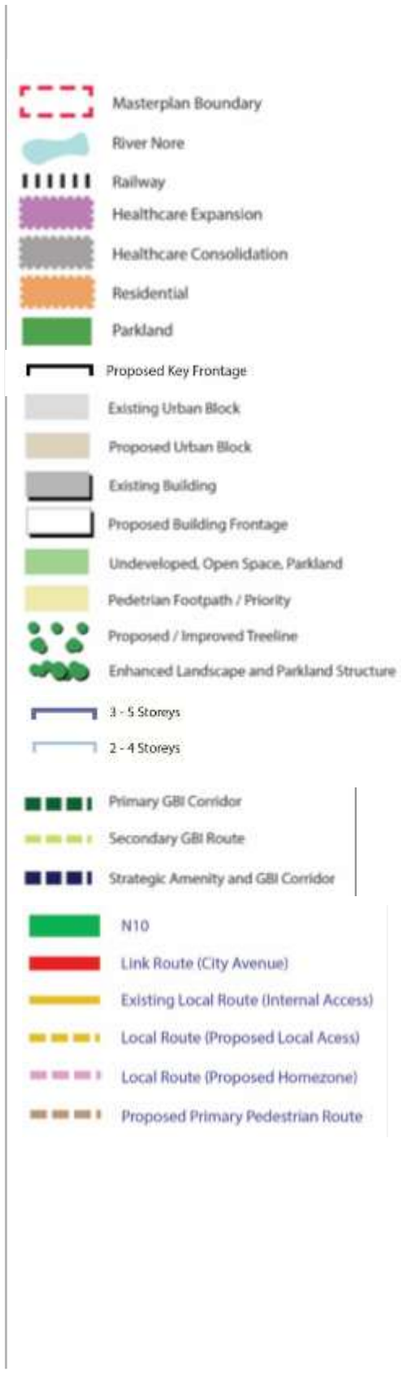


Land use



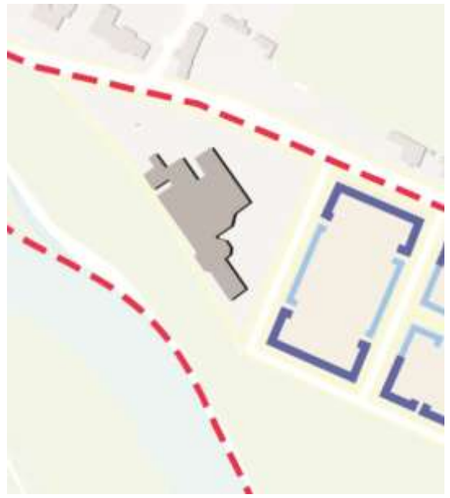
Landscape and open space





Routes

Urban Form

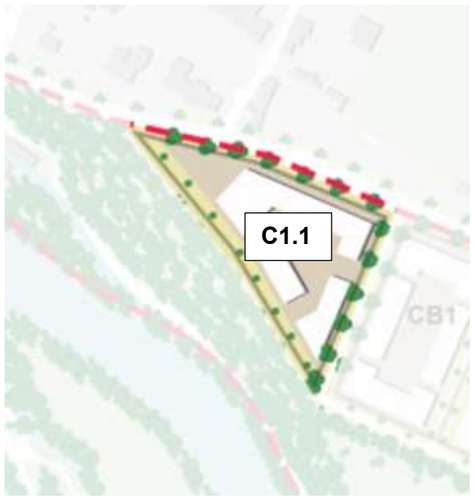


Height Concept

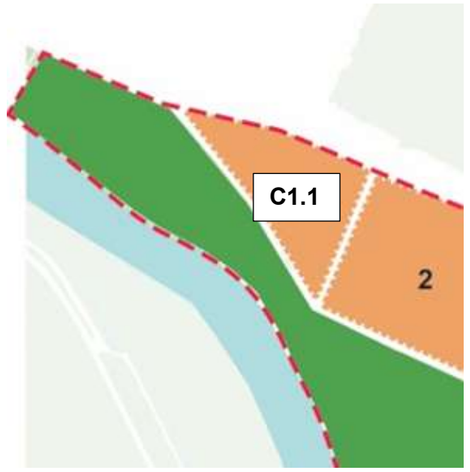
Key frontage

St Canice's – C1 (Phase 2)	
Superblock	**C1**
Area (Ha.)	0.78
Parcels	1 (C1.1)
Land use	Residential
Plot ratio range	1 – 1.25:1
Urban scale	General Range: 3-5 storeys.

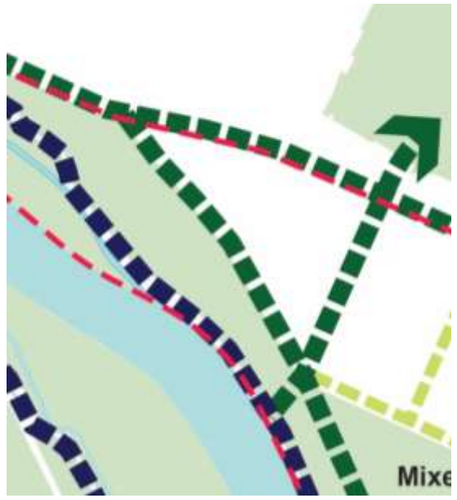
Parcels



Landuse



Landscape and open space



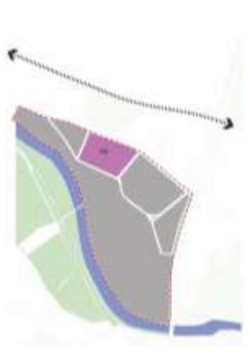
Routes

Urban Form

Height Concept

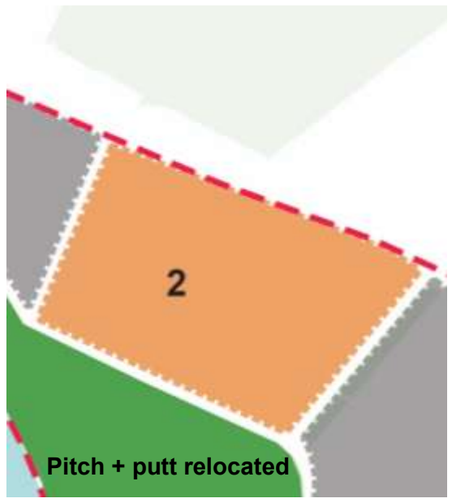
Key frontage

St Canice's – C2	
Superblock	**C2**
Area (Ha.)	2.37
Parcels	3 (C2.1, C2.2, C2.3)
Land use	Residential, with ancillary local and community services
Plot ratio range	0.8 – 1.0:1
Urban scale	General range 2-5 storeys – linked to street and space hierarchy.

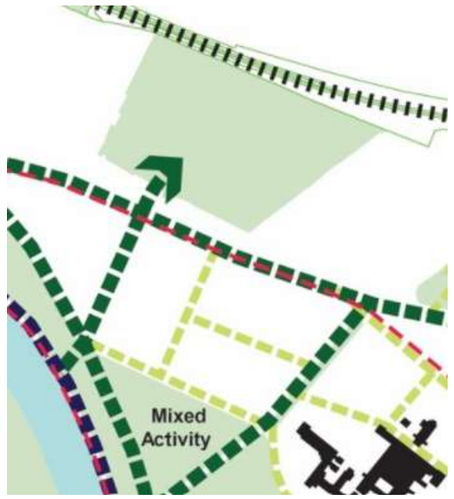


Parcels

Landuse



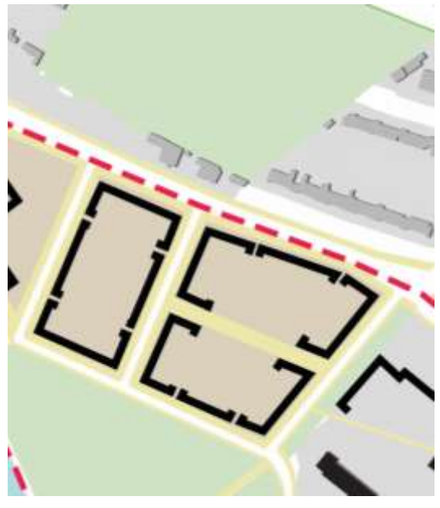
Landscape and open space



Routes

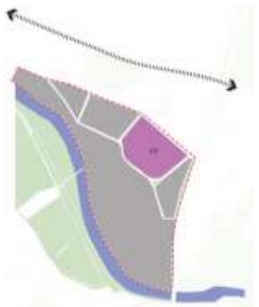
Urban Form

Height Concept



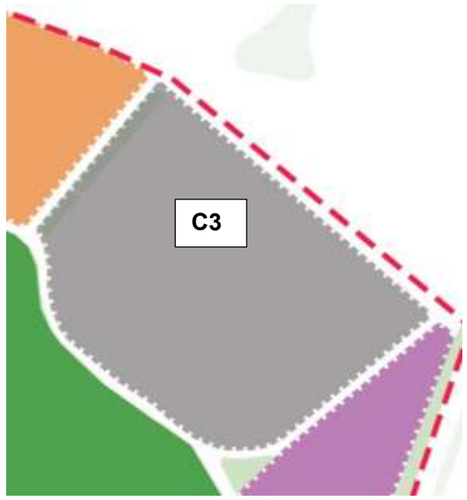
Key frontage

St Canice's – C3	
Superblock	**C3**
Area (Ha.)	3.5
Parcels	3 (C3.1, C3.2, C3.3)
Land use	Healthcare consolidation – services, daycare, administration etc.
Plot ratio range	(Existing estimated c.1:1.0 - survey required). Consolidation to 1.5:1.
Urban scale	Reflecting and respecting established hospital scale, and within range of 2 and 4 storeys.

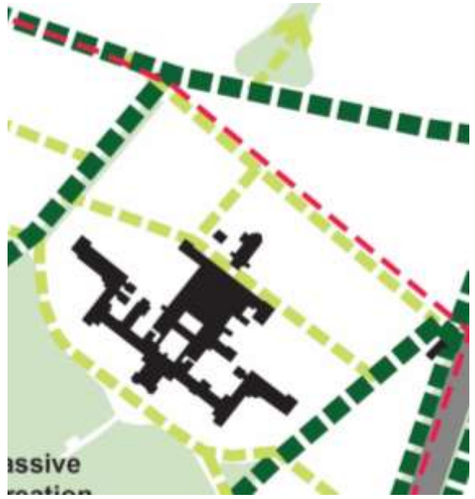


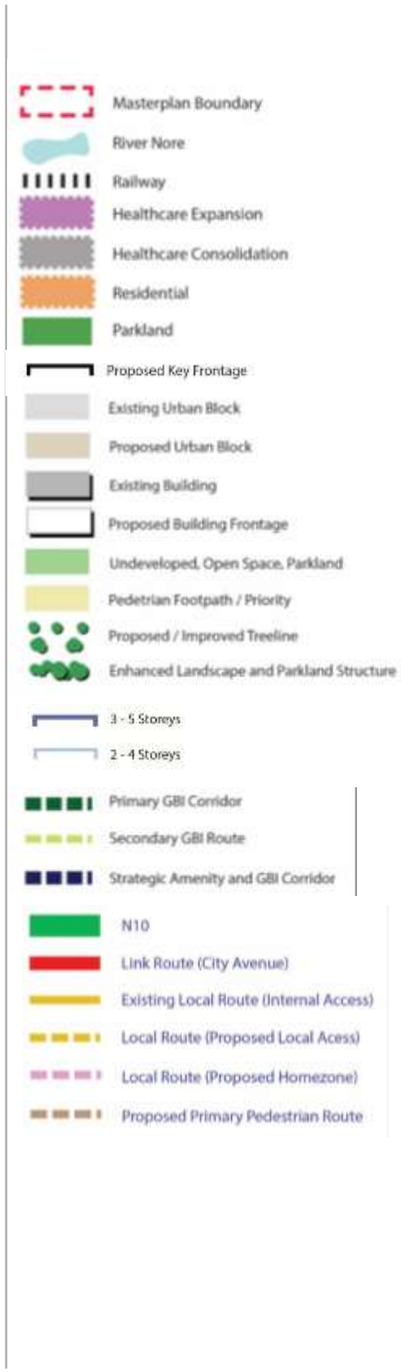
Parcels

Landuse

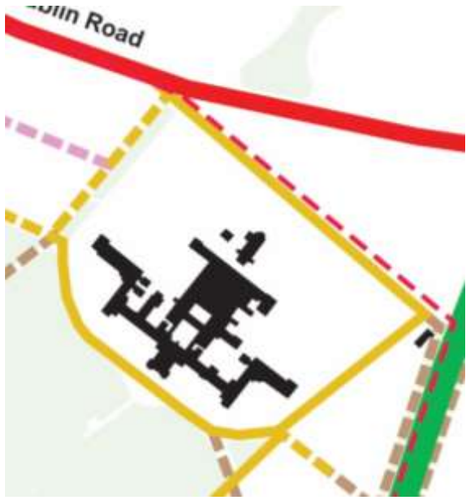


Landscape and open space



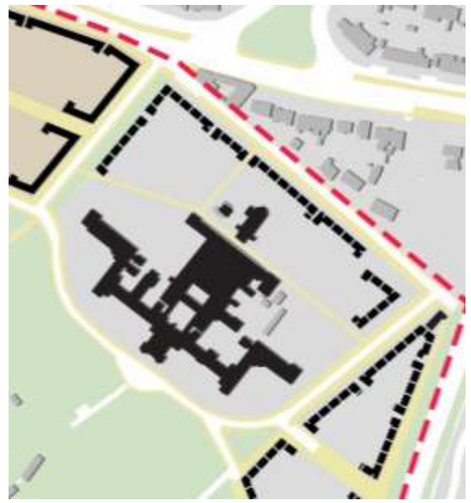


Routes



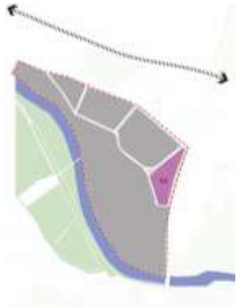
Urban Form

Height Concept

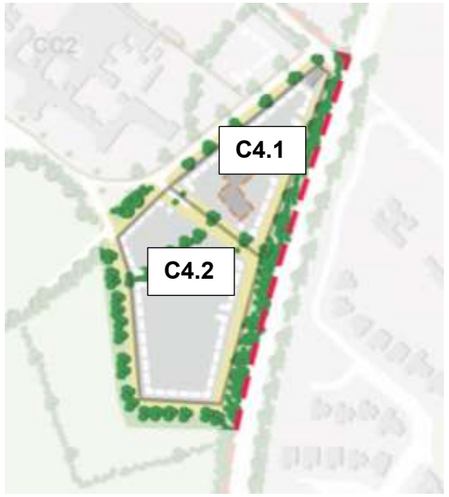


Key frontage

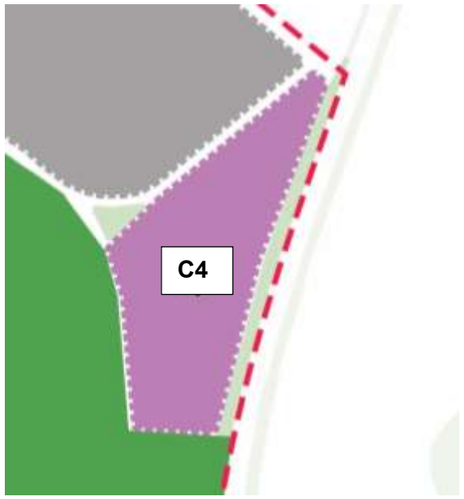
St Canice's – C4	
Superblock	**C4**
Area (Ha.)	1.55
Parcels	2 (C4.1, C4.2)
Land use	Healthcare Expansion
Plot ratio range	1.0-1.25:1
Urban scale	General range 2-4 storeys.



Parcels

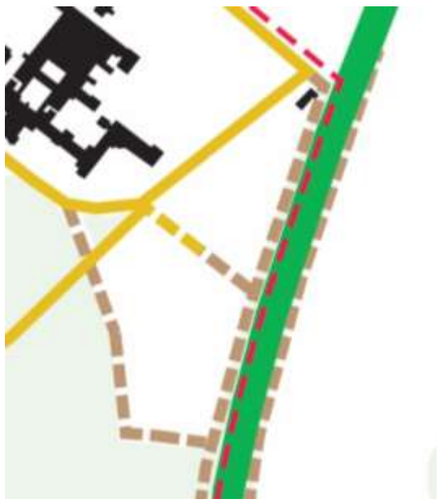


Landuse



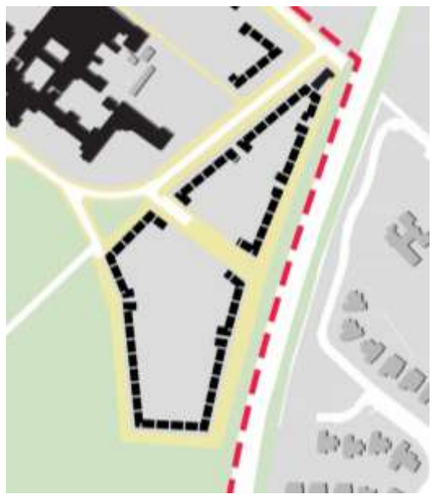
Landscape and open space

Routes



Urban Form

Height Concept



Key frontage

5. Guidelines

The guidelines provide detail on selected aspects of the Masterplan. Other aspects of development detail may be included in later planning and design stages. All aspects of detail will be required to comply with Development Plan standards and current national Planning Guidelines as necessary.

5.1 Streets and Spaces

Network and junctions

The street network will comprise streets of different function and characteristics. The network will be permeable and well connected to surrounding areas. Provision is made for filtered permeability – if two junctions are provided directly to Dublin Road then one of these junctions could be reserved for pedestrians and cyclists only. Vehicular traffic will be contained within the local street network of the Masterplan area, whereas pedestrian and cycle routes will provide connections to surrounding routes and areas.

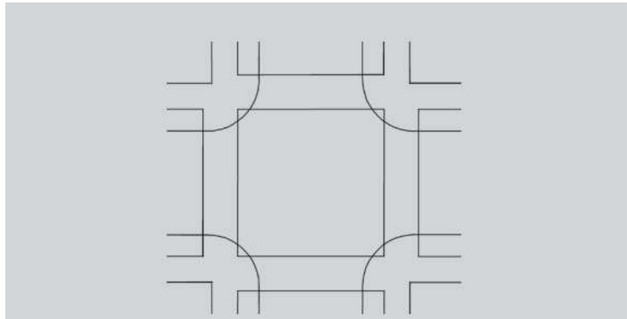
The entire Masterplan area should be subject to a vehicular speed limit of 10-20kph, given the nature of the street users.

As Dublin Road is a link street (DMURS), the junctions will most likely be signalised. A rationalisation of the existing traffic management regime (including all existing junctions) between the Dublin Road/Ring road junction (roundabout) and Maudlin Street/Dublin Road (priority junction) will be necessary.

All routes within the area will be designated as Local (DMURS), and designed for local access, for residents, workers and visitors. The priority in design terms will be for pedestrians, cyclists and public transport (including mini-bus and coach access to healthcare services). Design for all, including those with disabilities, older and younger people will be adopted as the detailed street and space design standard.

It is recommended that an active travel mobility plan is prepared jointly by the HSE with the Council to ensure that the needs of existing healthcare workers and users are not compromised by the development of the lands, and that active travel modes and accessibility is optimised.

Figure 5.1 Images of active travel junctions. Illustration of signalled junction (DMURS) and extract from the National Cycle Manual.



Standard Signalised Junctions. Areas of moderate pedestrian/high-moderate vehicular activity.

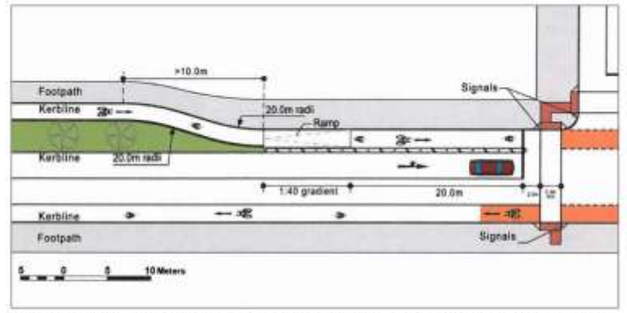


Figure 4.54: Extract from page 86 of the National Cycle Manual illustrating how to re-establish from an Off Road Cycle Track to Cycle Lane on approach to a junction. This design can be adapted to cater for on-street parking by placing spaces within the green area or verge between the vehicular carriageway and Cycle Track.

City Avenue (Dublin Road)

Dublin Road provides the principal access and frontage. Dublin Road, and the buildings and uses along it, will play an essential role in providing legibility and sense of unity to the development.

The road will be restructured in the character and format of a city avenue providing for all modes with priority given to comfort and safety for pedestrians and cyclists, public transport (bus services), public transport users, and connections to railway station.

Junctions with Dublin Road (two junctions recommended, one new junction and one reconfigured junction) will need careful design, to ensure a quality of service for pedestrians and cyclists. This is of particular importance given the strategic role of Dublin Road in the cycle and pedestrian network of the City and the direct links into this parkland and amenity area. In addition, design for all including people with disability and those requiring access to the healthcare will be a special consideration in detailed design.

An integrated urban design approach, including surface, landscape and building design will be required to achieve a sense of enclosure at these junctions. Other measures such as raised tables may be used to moderate traffic speeds. This will be subject to detailed landscape and technical design.

The key components of the Dublin Road are:

- Single carriageways, designed to accommodate all vehicular modes.
- Coherent landscape design, including tree-lining.
- SuDS (nature based solutions) measures in avenue strips or margins, if feasible.
- Limited on-avenue parking (design for all only).
- Segregated cycle track along the full length of the Dublin Road frontage (In line with Cycle Manual, 2009).
- Generous footpath (3m minimum width preferred).
- Coherent, energy-efficient avenue lighting.
- Good building continuity and interface with appropriately sized set-backs/privacy strips.
- A variety of building frontage, principally comprising apartments and townhouses, with small local and community services at ground floor/block corners.

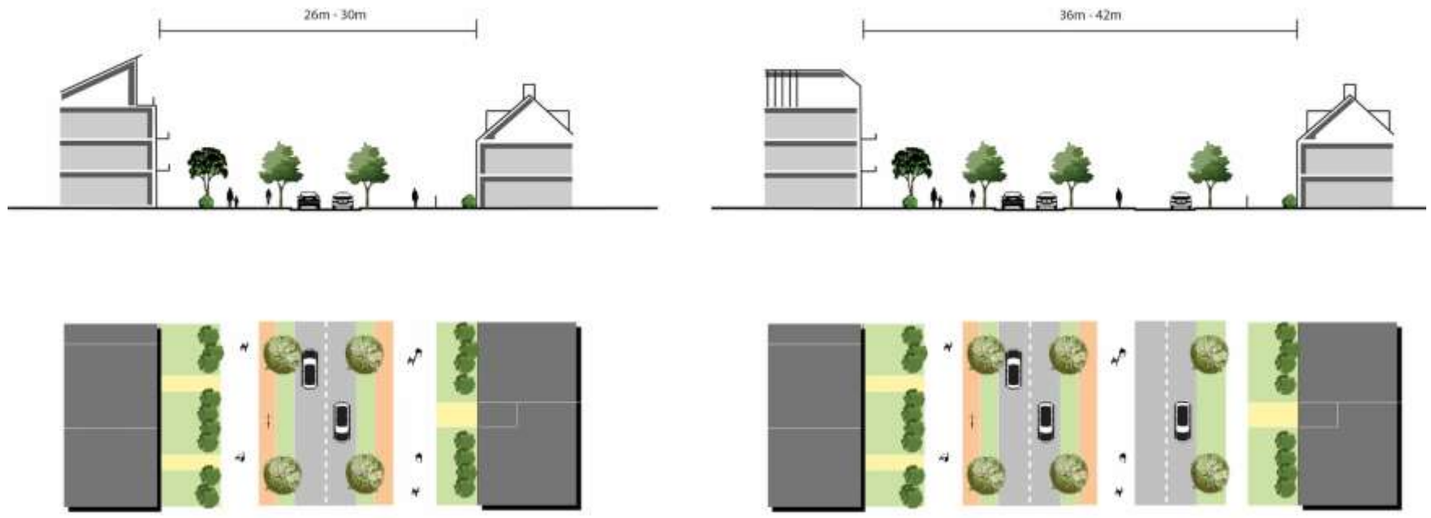


Figure 5.2 City Avenue typical sections (LHS at lands; RHS towards By-pass junction) Below: Clongriffin, Dublin; Ashtown Dublin and DMURS illustration of avenue frontage and movement in the homezone.

Figure 4.53: Example of a narrow verge between a cycle track and on-street parking. This verge provides a buffer that protects cyclists from opening doors.

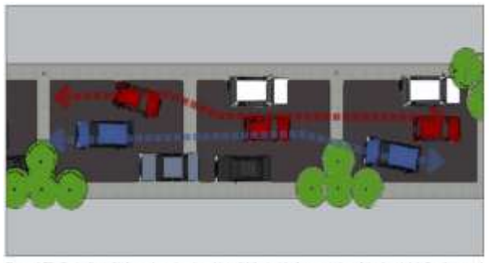


Figure 4.78: Illustration of informal on-street parking distributed to form a series of horizontal deflections and pinch points to reinforce a low speed environment

Local streets – parkland frontages

The frontages to the surrounding open spaces and parkland will need to respond to the unique landscape character, views and aspects of the location. The frontages will also need to enhance the visual character and coherence of the edge of the open spaces while providing for passive supervision from overlooking homes.

Modest levels of frontage vehicular access and parking will be provided to park at the frontage. In some locations, it is preferable to limit frontage access to pedestrians and cyclists (these locations are shown in the Masterplan).

The parkland should be highly accessible, with frequent and permanent points of pedestrian and cycle access. Any railing or other boundary to the parkland will be limited in extent. Apart from retained and enhanced hedgerows, walls and tree lines, there will be no additional gates or fences on these frontages.

Key components:

- New dedicated pedestrian and cycle links along the strategic green spaces.
- Local level access streets, with a strong place function, conducive to play and street life.
- Small scale SuDS (nature-based) measures, such as swales and infiltration at permeable car parking areas and retention and conveyancing areas.
- Parallel on-street car parking parallel with perpendicular as necessary (generally only single-sided and frontage side only).
- Continuity of building frontage with typical scale of 2 to 3 storeys, and potential for occasional 4 storey scale, for example at corners.
- A variety of building frontage, principally comprising duplex and townhouses.

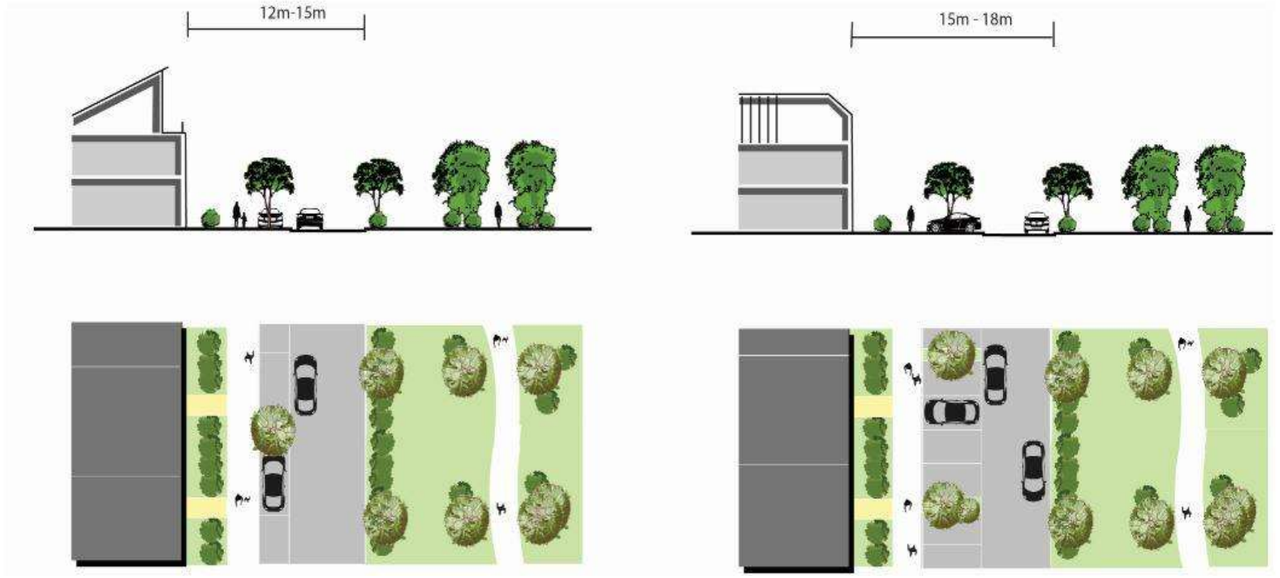


Figure 5.3 Park frontage typical section

(Photos: Almere, Netherlands; Vauban, Freiburg)

Local streets – residential

Local streets will provide the visual and physical connections between the parkland and Dublin Road. They need to be carefully designed, to prioritise their safe use and enjoyment by residents. The overriding design aim will be to ensure low vehicle volumes and speed. Local streets should prioritise pedestrian activity and street life and they should be safe for cyclists. Local streets should also provide a pleasant scale, an intimate sense of enclosure and continuity of street frontage. Car parking will need to be sensitively integrated into the streetscape to ensure that it does not dominate visually and does not result in excessive building-to-building (front-to-front) dimensions. SuDS measures will also need to be integrated into the design of the footpaths and car parking areas, and carriageways, if feasible.

Homezones are pedestrian-priority local streets, where a more informal approach to street design can be taken. This may include shared surfaces, narrow and restricted carriageways and informal boundaries. Homezones will be subject to merit-based assessment at the proposals stage.

Key components:

- Single carriageway – one or two-way depending on context within the development and the route structure.
- Parallel or combined parallel and perpendicular car parking.
- Coherent landscape design, including tree-lining integrated with on-street car parking.
- Small scale SuDS (nature-based) features providing for surface conveyancing and infiltration on permeable surfaces, including permeable car parking areas and carriageways, if feasible.
- Generous footpaths (3m width preferred).
- Lower-level, energy-efficient street lighting.
- Continuity of building frontage with typical scale of 1 to 3 storeys.
- Good building interface with appropriately-sized set-backs/privacy strips.
- A variety of building frontages and typologies encouraged, to include terraces, townhouses and mews.

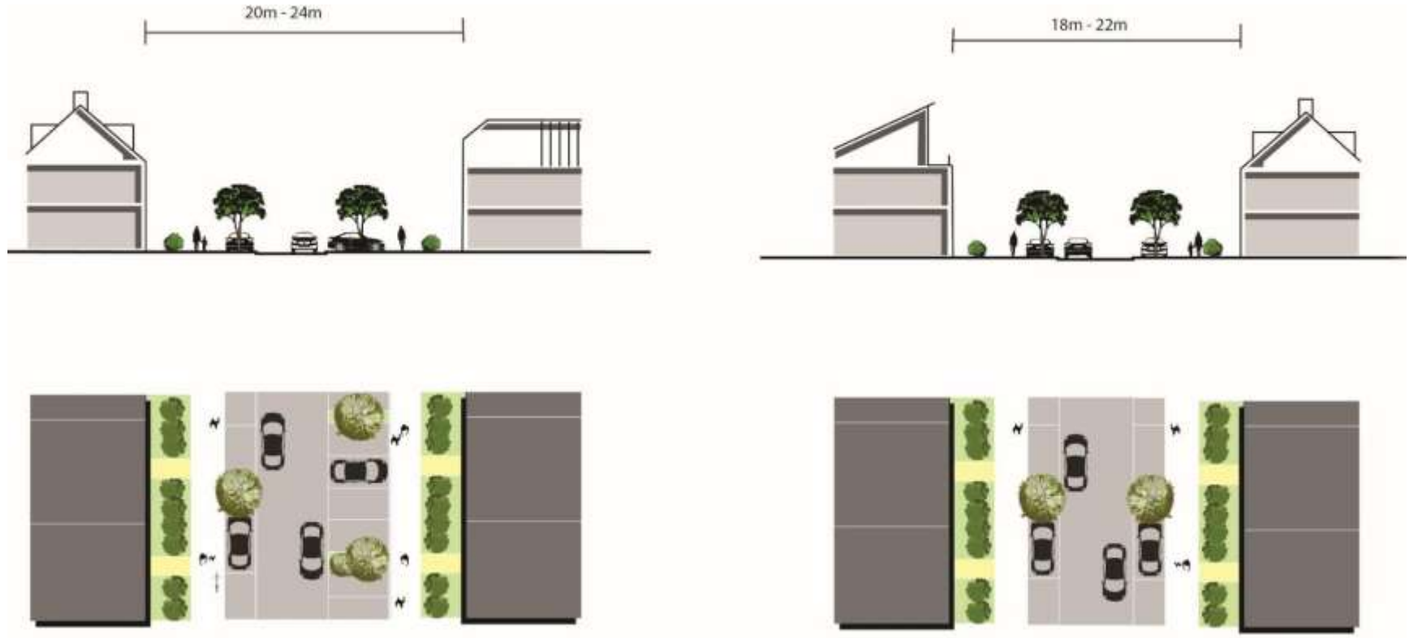


Figure 5.4 Local Street typical section (photos: Adamstown and Portmarnock, Dublin)

Active travel and movement strategy

The active travel and movement strategy is closely aligned with the objectives of the draft Kilkenny Sustainable Urban Mobility Plan (SUMP), supporting a transition toward a more sustainable, integrated, and low-carbon transport system. The Masterplan prioritises walking, cycling, and public transport, reflecting the SUMP's emphasis on modal shift and the creation of a compact, highly connected urban form.

The site is located within 500m from MacDonagh Junction Railway Station, which is a proposed Primary Mobility Hub, which will integrate multiple modes of transport including rail, bus service, shared micromobility options (e.g. bikes, mobility devices) taxis and other supporting facilities.

The site has strong linkages to proposed key infrastructure improvements including bus corridor enhancements along the Dublin Road, and the wider strategic cycle network. The inclusion of enhanced east–west connections, notably the proposed pedestrian and cycle 'green' bridge over the River Nore (Objective C5Q in the Development Plan), directly responds to SUMP objectives to reduce severance and improve permeability across the city.

Integration with public space design to include:

- Establish a coherent and legible network of pedestrian and cycle routes, connecting the site to the wider city, including the Dublin Road bus corridor, strategic cycle routes, and the River Nore Linear Park, ensuring safe, continuous, and direct connections. Movement corridors should be designed to accommodate future mobility and infrastructure needs, including public transport enhancements.
- High-quality landscape design with seating, shelter, lighting and signage.
- Movement corridors and public spaces must be designed in accordance with universal design principles, ensuring accessibility for all users, including those with reduced mobility, through appropriate gradients, surface materials, crossings, and rest points.
- Traffic-calmed design with minimal conflict between modes and clear prioritisation of active modes.
- Passive supervision through adjacent overlooking uses and street life/activity.
- Integration with green and blue infrastructure: Movement routes, particularly those linked to the proposed pedestrian and cycle bridge (Objective C5Q), shall integrate with open space and riverside corridors, reinforcing connections to the River Nore and supporting recreational as well as functional journeys.

5.2 Urban Blocks

The framework plan provides a structure of robust and appropriately-sized urban blocks. Urban blocks provide the basic parcels for the development of the area. The grain of urban blocks in the Masterplan area provides for high levels of permeability for all users, and particularly pedestrians and cyclists. Important considerations when designing with the urban blocks are to:

- Achieve adequate building massing to the street frontage in order to secure appropriate continuity of frontage and intimate enclosure of street space.
- Provide for well-defined corners to aid legibility and sense of enclosure, with appropriately designed corner buildings, which utilise additional building height if appropriate.
- Provide active building frontage to all block sides, including the shorter block sides to lesser streets and spaces.
- Avoid staggered building lines, while allowing reasonable variation within coherent street frontages.
- Provide for adequate back-to-back distances between buildings, in order to achieve adequate amounts of private open space, levels of privacy and access to daylight and sunlight.
- Provide for access to the internal areas of blocks (for access and parking) for larger building typologies (apartments) and mixed use or commercial typologies, where necessary.

Figure 5.5 Some features of a robust urban block

Above: Urban block, Ashtown, Dublin (Source: Google)

5.3 Quality housing

Green building

Green building is a philosophy and a code for sustainable building. It relates to all types of building and its key components are:

- A low carbon approach;
- Energy management – including energy supply, energy efficiency (See NZEB below) and energy use;
- Water management – including water conservation, rainwater harvesting and grey water recycling, and surface water management;
- Waste management – including fewer and more durable materials, end of life recovery and reuse of materials, and building user's reuse and recycling;
- Health and well-being – including achieving good indoor air quality, natural light, noise levels;
- Landscape - including integration of biodiversity, roof gardens, green roof, planting etc.;
- Resilience and adaptability – including resilience to flooding and climate change, flexible spaces for use changes; and
- A Renewable Energy Strategy.

Energy-efficient buildings

As part of the Building Code all new buildings are required to meet Near Zero Energy Buildings (NZEB), which require a high building energy rating. Developers are also required to consider the risk of overheating in dwellings.

Other measures around energy, such as potential local energy networks and EV charging will need to be considered along with energy efficient building and block design.

Building materials and finishes

High quality and durable materials are essential in creating successful places. Finishes and materials will be subject to the following considerations:

- Preference of natural and 'tried and tested' building materials, including stone, reconstructed brick, render, timber, steel and glass.
- Environmentally friendly materials in terms of production and composition, energy performance, with a preference for low carbon materials.
- Encouragement of the use of suitable recycled material.
- Durability and weathering to avoid long-term maintenance problems. This will be important when considering, for example, the use of render in larger buildings.

5.4 Nore Valley Green Bridge

It is an objective of the current City and County Plan to provide a strategic pedestrian and cycle bridge connecting the Masterplan lands directly with the west bank of the Nore (Dukesmeadows). The location of the bridge is determined by the landscape structure on the lands and the most beneficial connection point on the west bank. Given the natural heritage and ecological value of the river and valley, the design will need to be carefully considered to minimise its impact on the waterbody, the banks and biodiversity. Detailed ecological studies will need to inform its final location and design. The following are principles for design:

- A clear span of the river and the riparian areas.
- Minimise loss of woodland.
- Lightweight construction and supporting structures and slender proportions.
- Gently graded approaches designed in harmony with existing landform on both banks.
- Careful choice of materials, textures and colours.
- Ecologically sensitive lighting.

Figure 5.6 Dodder Valley Bridge, and pedestrian bridge (Griffeen Valley Park, Dublin, South Dublin County Council) and UL Living Bridge (Shannon River, Limerick)

5.5 Nature-based Urban Drainage Systems

The surface water management strategy for the St. Canice's / Lacken Masterplan will be based on nature-based urban drainage solutions (NbS), in accordance with the *Implementation of Urban Nature-Based Solutions: Guidance Document for Planners, Developers and Developer Agents (LAWPRO, 2024)*. This approach integrates stormwater management with biodiversity, climate adaptation, and placemaking, replacing conventional piped systems with multi-functional, landscape-led solutions. The following Masterplanning principles apply:

- Integrate Sustainable Drainage Systems (SuDS) throughout all areas within the Masterplan areas, including streets, open spaces, car parks and urban blocks, plots/sites.
- Incorporate a variety of SuDS components such as:
    - Rain gardens and bioretention areas (in residential blocks)
    - Swales and vegetated channels (in all new development areas)
    - Tree pits and linear planting beds (on all streets and spaces, including Dublin Road and the By-pass frontage)
    - Constructed wetlands (to be investigated in the southern parkland area)
    - Permeable paving (throughout)
    - Green roofs and green walls (recommended for non-residential buildings, community buildings and pavilions)
- Design SuDS as visible, functional, and attractive features within the public realm, contributing to landscape quality and urban biodiversity.
- Ensure surface water runoff is managed at source, utilising the full SuDS treatment train to reduce runoff volumes and improve water quality.
- Retain and enhance existing trees, hedgerows, and riparian buffers to provide natural attenuation and ecological linkages.
- Incorporate multi-functional open spaces that combine water management with recreation, amenity, habitat creation, and microclimate regulation. This is will be important in the parkland adjacent to new housing and healthcare expansion.
- Ensure all nature-based drainage features are designed for ease of maintenance, long-term performance, and resilience to climate change impacts.
- Align all drainage design with the LAWPRO NbS toolbox to deliver measurable benefits for flood risk reduction, water quality, public amenity, and ecosystem services.

6. Development Potential and Delivery

6.1 Statutory Development Plan and planning processes

This Masterplan must be read in conjunction with the accompanying Planning Statement. It should be noted that the policies and development management standards of the County Development Plan apply to the development of these lands.

This Masterplan satisfies the Development Plan local objectives in accordance with the zoning of the lands. Notably, the preparation of a Masterplan, and local amenity and heritage objectives. The next step will be to commence the Variation process to the Development Plan, to incorporate the necessary principles of the Masterplan (including the zoning objectives).

The development of the land will involve the preparation of detailed development proposals, which will be subject to the statutory development management processes (planning applications or similar provisions made for development by the local authority).

All development proposals will be considered having regard to the statutory Development Plan, this Masterplan, any relevant planning guidance and any other relevant, merit considerations.

6.2 Development Potential

The nature of land use and the density of development is determined by the characteristics of the Masterplan area, Masterplan concepts, the range of considerations set out in the statutory Development Plan and relevant planning guidelines.

Strategic infrastructure, such as parkland and NbS, comprises the largest area of the lands (Table 6.1). The remaining developable area envisages a range of densities, which closely reflect route structure, landscape and position within the Masterplan.

6.3 Phasing

As already set out in Section 3.5 Masterplan and 4.Code, the development of the lands can be approached in two phases to allow for greater flexibility in delivery (around C1 and C2 development). This will allow for phased delivery and reconfiguration of physical, social and amenity infrastructure, while allowing the opportunity to retain existing C1 office uses. While a phased approach is envisaged, both phases can be amalgamated into one single phase if it considered a more viable and sustainable option (having particular regard to operational and feasibility considerations) in agreement with the HSE.

Masterplan areas	Area (ha.)
Developable / Consolidation area (Sectors C1-C4)	8.3
Strategic infrastructure and strategic open space (parkland) (mainly Sector C5)	16.7
Total Masterplan area	**25.0**

Table 6.1. Masterplan area

The developable area has potential for new development, redevelopment and refurbishment and renovation (Table 6.2). The potential exists for refurbishment and adaptation of the existing hospital and its curtilage (hospital complex). Decisions on this will be dependent on a detailed assessment of the condition and occupancy of the complex by the HSE. Potential also exists to consider redevelopment/replacement of existing curtilage buildings that are not of heritage value, and the development of additional building within the curtilage of the hospital. In addition, substantial potential exists to expand the hospital complex into the adjoining sector (C4). Potential also exists to relocate Lacken Offices from sector C1 to C3 or C4, within a more compact footprint. For the advancement of projects on the campus, detailed design by the relevant agencies will be required. Non-residential (i.e. offices, healthcare and related) development potential figures are provided only for sectors C1 and C4.

There is potential to provide between 190 and 340 homes in the Masterplan area. The lower figure relates to Phase 1 and assumes that sector C1 remains in office and related use. The higher figure assumes the relocation of the C1 offices as outlined above and the redevelopment of the sector for housing. A housing density range of between 80 and 100 dwellings per hectare (dph) is assumed with limited potential for a higher 'spot' density of 125dph at sector C1/Phase 2.

Sector	**Area (ha.)**	**Potential Res. (units)**	**Potential new Non-res (sqm)**	**Refurbishment/ Renovation (sqm)**
C1 – (Phase 1) – (redeveloped on plot ratio 0.5-1:1)	0.8	0	4,000-8,000	3,000
C1 – (Phase 2) - (Residential at 80-125dph)	0.8	65-100	0	0
C2 – (Residential at 80-100dph)	2.4	190-240	0	0
C3 – (Consolidation)	3.5	Subject to further study	Subject to further study	Subject to further study
C4 (redeveloped on plot ratio 1.0-1.5:1)	1.6	0	16,000-24,000	
Totals	**8.3**	**190-340**		

Table 6.2 Development potential

Figure 6.1 Sector or superblock diagram