Waterford City and County Draft Development Plan 2022 – 2028

Appendix 5

Placemaking Strategy

1.0 Introduction

The following appendix sets out key parameters in relation to design, block size, block form, street frontage and design, topography and urban grain. It is the interrelationship between all these elements that creates an attractive place to live, work and visit, rather than their individual characteristics. Together they create the built environment and contribute to its character and sense of place. It is hoped that the following guidance which is relevant to city and town centres, suburbs, neighbourhoods and villages, will assist developers, architects and planners in creating an integrated urban fabric comprising of well-designed character areas, and linkages between new and existing places.

Well-designed places have compact forms of development that are walkable, and contribute positively to well-being and placemaking. New development should have recognisable streets and other spaces with their edges defined by buildings, making it easy for anyone to find their way around, and promoting safety and accessibility. New development should strive to be memorable features or groupings of buildings, spaces, uses or activities that create a sense of place, promoting inclusion and cohesion

The appendix also outlines guidelines to consolidate urban centres and support the achievement of sustainable towns and villages, and should be read in conjunction with relevant guidelines in this area to include but is not limited to:

- Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas (Cities, Towns and Villages), DEHLG, (2009).
- Urban Design Manual: A Best Practice Guide, DEHLG, (2009).
- Government Policy on Architecture 2009-2012, DEHLG (2009).
- Design Manual for Urban Roads and Streets, DTTS and DECLG (2013).
- Sustainable Urban Housing: Design Standards for New Apartments, DECLG (2015.)

2.0 Design Statement

To ensure a quality and coherent approach in design, all medium to large scale development proposals (i.e. Landmark Buildings, city centre developments, 10 dwellings or more in the case of residential development, or proposed development of over 1,000 sqm in the case of employment or retail/ non-retail services development) should be accompanied by a Design Statement that:

- Includes an integrated 'movement'/ mobility plan that demonstrates existing, and proposed integration with the development of surrounding sites and character areas including vehicular, walking, cycle and public transport connections –
- Demonstrates compliance with the 12 design criteria contained within the DoEHLG Urban Design Manual A Best Practice Guide (2009), in the case of residential development; and demonstrates a mix of dwelling types to support a variety of household sizes and tenure types;
- Include street cross sections and plans that demonstrate compliance with DMURS (2013) in terms of 'Movement, Place and Speed', 'Streetscape', 'Walking and Cyclist Environment' and 'Carriageway Conditions' etc.;
- Includes a Quality Audit addressing street design as outlined under DMURS (2013); and
- For commercial developments (retail), compliance with the 10 design criteria contained within the DoEHLG Retail Design Manual (2012);
- Includes cross sections that demonstrates appropriate design responses to existing and proposed site levels, including those that relate to streets, spaces, building frontages, services, nature based engineering solution and SUDS.

3.0 Landmark Buildings

Landmark Buildings can emphasise the urban identity of a place. Their purpose is to provide a signal of a significant place either in terms of movement or use. These buildings have the potential to act as important landmarks and should therefore address the significance of the site

Suitable locations for these buildings include:

- Important street corners;
- Junctions;
- Corner sites,
- The end of vistas and gateways,
- Local centres; and
- The edges of public squares.

They ensure visual interest and develop a stimulating streetscape and should only occur at these locations. In the development of Landmark Building their design as opposed to building height should be a key determinant. Their design should be unique and distinctive from surrounding buildings in architectural treatment and use of materials. To further distinguish their place-making function, Landmark Buildings should include high quality public realm treatment in terms of surrounding street planting, furniture, lighting and materials etc. The design of such buildings should be based on a coherent design concept that is clearly communicated via a Design Statement and Landscape Plan.

In addition to the above and Design Statements for Landmark Buildings should analyse and illustrate the impact of the proposed development in relation to its immediate and wider context including views/vistas within and beyond the development site and in terms of sunlight and daylight effects.

4.0 Corner buildings

Corner buildings offer another opportunity to define and enclose space. Such sites are visually prominent as they have two frontages facing the public street. These buildings shall be designed with windows and, where appropriate, entrance ways onto both streets. Corner buildings can also provide special opportunities for mixing uses. Figure 1 below illustrates various possible corner treatments e.g. an increase or stepping up in building height, a round corner, a stepped back corner (for example, to create a civic space), or a simple splayed corner. Such buildings shall be designed to an exceptional standard on all elevations

It is important to note that houses on corners need to face two ways; many standard building types used by housing developers are rarely able to do this. It is therefore necessary that more tailored designs be considered for these sites. Corners are best emphasised by incorporating prominent entrances and/or windows at the apex, expressing the height by, for instance, using a 'mansion block' of apartments, or incorporating a special use into the mix (Urban Design Compendium, 2000[1]).

[1] References: Llewelyn-Davies (2000) Urban Design Compendium, English Partnerships The Housing Corporation

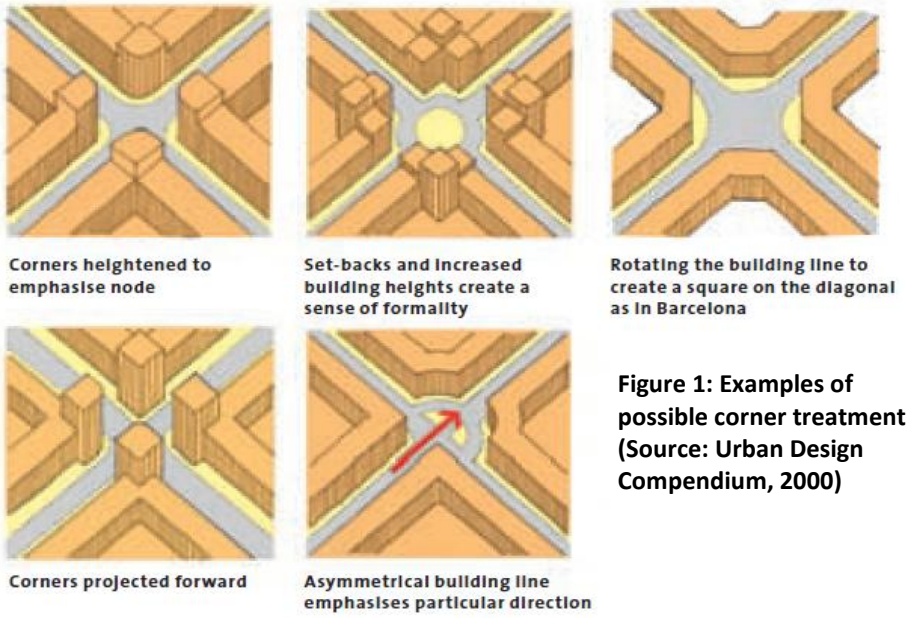

Figure 1: Examples of possible corner treatment (Source: Urban Design Compendium, 2000)

5.0 Building Line and Roof Line

Building lines are is the line created by the building frontage along the street edge. This is important as the position of the building line determines the width of the street, therefore influencing the sense of enclosure created. Established building lines should be maintained. Building lines may be relaxed to accentuate an important building or place or where important areas of public or civic space are required or where innovative design solutions can demonstrate that the design will positively enhance the streetscape.

The scale of buildings and their rooflines have a direct influence on the skyline. Rooftops of traditional buildings are generally constructed of slate and contain features such as chimneys which add visual interest and variety to the skyline. In many contemporary buildings, roofs tend to be flat; where this type of roof occurs on a building with a long façade it can result in monotony. In such cases the monotony can be relieved by variations in building height at appropriate locations (i.e. stepping up heights at the corners or at the centre of a symmetrical building). Regard should be had to the following:

- Rooflines should respond to the articulation of the rest of the façade so that the building can be read from the bottom to the top.
- The roofline should acknowledge the rhythm, harmony and scale of the entire street frontage. − Materials should be chosen for their compatibility with the existing rooftops of towns in the county, e.g. dark grey slate.
- Machine and mechanical plant rooms should be designed as an integral part of the building and should not appear as a disruption of the roof line

6.0 Block Form and Size

Residential layouts should generally utilise the perimeter block principle, as a departure from more recent cul-de-sac type layouts. This will increase pedestrian permeability and legibility of a new development area and will help to define streets and public spaces. Blocks can vary considerably in shape and size according to the configuration of streets, orientation and topography and the nature of plot sub-division and building types that are to be accommodated.

6.1 Block Form

The fundamental requirement in structuring built form within the development blocks is to make a clear distinction between public fronts and private backs. Buildings which front street and public spaces present their 'public face' and create active street frontages. Well designed blocks can enclose private and semi-private open spaces. All blocks should be designed according to the following principles:

- Where possible building massing to the perimeter of the block;
- Building frontage to all sides, including the shorter sides (secondary street frontage) of the block;
- Proper design and attention to corners, avoiding dead or windowless gables;
- A continuity of building frontage, which relates to the local or urban context, and avoidance of blank walls;
- Block layout places some public spaces in front of building lines as squares or greens, and some semi private spaces to the back as communal courts;
- An appropriate scale of buildings to provide the appropriate level of enclosure of the streets and spaces;
- Adequate back-to-back distances within the block;
- Appropriate building set-backs from the street in line with the use of ground floors;
- Adequate arrangements for car parking and access around, within or below the block; and
- Carefully considered subdivision of the block into plots where fine urban grain or mixed use is proposed.

6.2 Block Size

To encourage pedestrian and cyclist permeability and ensure that streets and blocks are dimensioned to reflect their function and setting, reduced block lengths should be utilised. Block sizes on should have dimensions of approximately 60 to 80 metres and should be no more than 100 metres in length/depth as illustrated in Figure 2. Some sites could facilitate larger block dimensions however these should be no more than 100 metres. Larger or irregular blocks of up to 120 metres should be broken up using mid-block penetration. Section 3.3.2 of DMURS (2013) should be consulted in the design of block size.

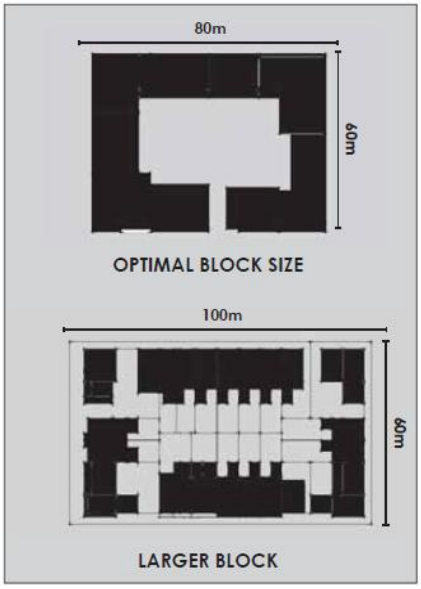

Figure 2: Optimal and Larger Block Sizes which will promote a 'walkable' neighbourhood (Source: DMURS, 2013)

7.0 Urban Grain and Facade Treatment

It is widely accepted that the creation of satisfactory street space requires the enclosure of space, either through buildings, street furniture or planting of trees. These spaces are safe, visually pleasing and create a sense of place.

Connecting buildings to one another creates active street frontages, assists in providing a sense of 'enclosure' minimises heat loss through external walls and allows more economic construction. This should not result in the mono design of terrace buildings, but reflect the fabric of historic town/ village centres which are largely made up of individual buildings which are joined to one another. The architectural diversity, vibrant mix of finishes and building types, will aid in place making, way finding, and add to the legibility of the overall development.

The subdivision of large undeveloped lands within our urban areas, such as Kilbarry and Carrickphierish in Waterford City or Monang in Dungarvan, gives an opportunity for developers to subdivide these into development parcels with distinct character areas. This will enable the areas to develop a richer mix of building types, tenures and uses. The Urban Design Compendium (2010) suggests that parcels of 1 to 2 hectares will avoid a 'monoculture' in any area. Block form and design is explained in more detail in the section below.

8.0 Dwelling Type

All new residential development should be inclusive with regards to the provision for housing of different types, including first time buyers, single people, families, empty nesters and the elderly, in order to ensure a social mix and balance is achieved. Providing this choice will enable people from different backgrounds to benefit from the opportunity afforded by the development, and will help to create a balanced, sustainable community.

On larger developments, the overall mix should be selected to create a mixed neighbourhood that can support a variety of people through all stages of their lives as depicted in Figure 3.

Figure 3: Illustrates a residential scheme with a mix of housing sizes and forms which covers a range of demographics (Source: Urban Design Manual, 2009)

9.0 Suburban District and Neighbourhood Centres

Suburban District and neighbourhood centres, where appropriate, should typically include services and facilities such as shops, pub, post office, crèche, doctor's surgery, health centre, community centre, civic space, park, playground, primary school, as well as some local services and/or employment uses, and should comply as appropriate with the relevant retail provisions of Chapters 3 and 4. Suburban District / Neighbourhood centres should generally be located within 10 minutes walking distance (800m – 1Km) of significant residential development schemes.

10.0 Car Parking

Parking standards are set out in Volume 2 Development Management Standards of the draft Development Plan. Regard shall be had to the following in relation to the location and layout of car parking areas:

- Car parking should be sited within established site boundaries to ensure minimal impact to the amenity of adjoining premises.
- In town centres, suburban district and neighbourhood centres parking spaces should be located behind buildings or underground wherever possible, to encourage the continuity of streetscapes.
- Landscaping, tree planting and nature based solution to surface water management must be provided to counteract the appearance of parking areas.
- Where on-street parking is proposed properly marked car parking spaces shall be provided with regular tree planting and a high standard of kerbing and paving. Generally not more than five perpendicular or two parallel car parking spaces shall be provided between trees.
- Where surface car parking is required it should be designed to be overlooked and therefore comply with the principles of passive surveillance, and should not dominate the street frontage.
- Cycle parking facilities must be conveniently located, secure, easy to use, adequately lit and well posted. Weather protected facilities should be considered where appropriate. In addition, parking should be placed within a populated, well-supervised area, and monitored by CCTV where possible.

11.0 Building Language and Finishes

Good modern architecture and design should prevail throughout developments. There should be consistency in materials, colour, proportions, roof pitches, building detail, street/route surfaces, planting and street furniture within a development. Certain principles will apply in relation to materials and finishes for a development, as follows:

- Finishes and materials should be of a high quality.
- Where possible natural materials should be used including wood, stone, slate etc. The use of native Irish material should be maximised.
- Materials and finishes should, as far as possible, reflect an Irish vernacular and, where appropriate and feasible, a Waterford vernacular.
- In the interests of sustainable development environmentally friendly materials should be used.
- All walking and cycling routes should be overlooked where feasible by adjoining uses to ensure passive surveillance.

12.0 Layout and Design Considerations

Design considerations should include:

- Recognisable routes, intersections and key buildings should be provided to help people find their way around.

- Priority should be given to pedestrians and cyclists by providing routes that are direct, safe and secure.
- Streets should be designed and well lit to give control to pedestrians and therefore encourage pedestrian activity.
- Attractive and successful outdoor areas should provide a quality public realm which is essential to providing each area with its own individual identity.
- Passive supervision of the public realm, which is the most effective means of preventing anti-social behaviour.
- Buildings should be orientated to maximise privacy, where appropriate, and elements such as planting and boundary treatment used to maximum effect.
- Residential layouts should, where appropriate, utilise the perimeter block principle as a departure from cul-de-sac type layouts.
- All housing should at a minimum be dual aspect and designed so that greatest advantage is taken of southwest orientation.

13.0 Street Layout

The street network within any new development forms the basis for movement. All development should include a hierarchy of streets (Arterial, Link, Local Streets) designed to recognise the needs of pedestrians and cyclists and therefore encourage healthy activity. This can be achieved by paying close attention to the design of street surfaces and planting, which should be integrated with passive traffic calming measures such as changes in road colour, planting, narrowing of streets or other forms of traffic calming, further guidance can be found in DMURs (2013), the National Cycle Manual (2011), the Guidelines for Setting and Managing Speed Limits in Ireland (2015). These include:

13.1 Arterial Streets

According to DMURS (2013) the main purpose of Arterial Streets is to connect major centres at a strategic level and largely comprise major orbital. These streets should be provided in the form of spacious, tree-lined streets to provide a safe environment for pedestrians and cyclists with associated cycle lanes, footpaths and verges. These streets should fronted by buildings and comprise a high quality public realm, planted with appropriate native species.

13.2 Link Streets

Link Streets form a vital linking component between Arterial Streets and Local Streets and are instrumental in creating a highly accessible and permeable street network. Link Streets will act as the principle corridors for the movement of pedestrians, cyclists, public transport and vehicles within new developments. Traffic speeds must be reduced along Link Streets in order to promote walking and cycling. The design of link streets will vary according to the density of the area it is in, and this largely affects the distribution of parking and kerb alignment.

13.3 Local Streets and Intimate Local Streets

Local Streets provide access within communities and to Arterial and Link Streets. Local Streets act as quieter traffic calmed thoroughfares that are closely fronted and overlooked by development and provide through access to neighbourhood blocks and local open spaces. They tend to carry less vehicular traffic and place a greater emphasis of pedestrian and cycling movement. Local Street can also act as ‘homezones’ which are more Intimate Local Streets. These streets will be a fully shared surface for the integrated movement of vehicles. These streets should be designed as shared level surfaces, where pedestrians and cyclists have equal priority with vehicles, therefore having the advantage of providing sufficient space for large vehicles to approach close to buildings without giving the impression of a ‘tarmac prairie’. These streets must have building frontages on both sides.

14.0 Permeability, Accessibility & Legibility
New developments must be supported by a permeable, accessible and legible street network that offers a choice and flexibility for managing movement.

Permeability
Good connections for walking and cycling between existing and new area/developments are central to the vitality of any urban centre and should follow the Permeability Best Practice Guide published by the National Transport Authority.

Permeable layout offers the pedestrian a selection of routes providing greater visual interest. The higher level of pedestrian activity generated provides greater security. If there are more pedestrians around in the street there is a greater chance of casual social encounters and less anti-social behaviour and criminal activities. In order to allow free movement the ideal pattern would be a deformed grid based on the use of small residential blocks (Making Places: A Design Guide for Residential Estate Development, 2011).

A fine grained network is critical to the creation of an attractive and accessible pedestrian environment. All new development should provide a fully permeable and recognisable interconnecting network of streets and places. Where it is not practicable to provide vehicular links between old and new residential areas, pedestrian and walking and cycle links should be achieved. Opportunities to organize permeable layouts in a way which extend or link into established walking/cycle routes should also be developed. Permeability within town and village centres must be protected and where possible improved. Any new development should open up new routes as part of the development. Permeability through existing housing estates shall be subject to local public consultation.

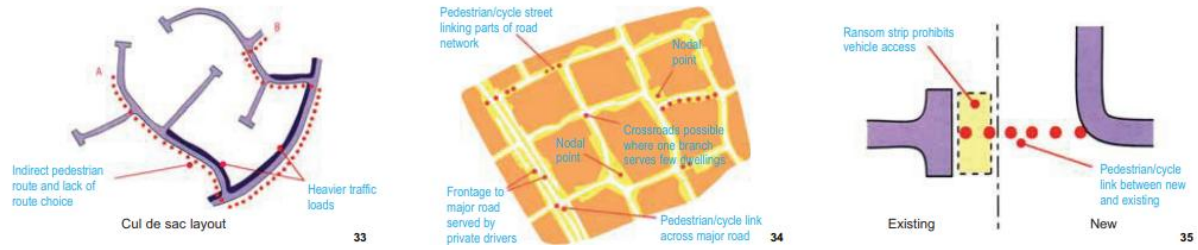

Figure 4: Depicts residential development which have a permeable and non-permeable layout (Source: Making Places: A Design Guide for Residential Estate Development, 2011)

Accessible Streets
All new streets within developments must be designed so that they are walkable. Blocks must be permeable as to encourage more sustainable active modes of transport by providing direct walking and cycling links to adjacent residential and open space areas, public transport and local shops/services which will reduce the dependency on the private car.

The design of streets/roads has a major impact on the level of permeability and safety within new developments. Streets and roads which are characterised by narrow carriageways, active facades, several points of access and frequent crossings will encourage walking and cycling as shown in Figure 5. These types of environments will produce a much safer environment for pedestrians and cyclists as they slow the flow of vehicles, create passive surveillance and provide exist points.

Figure 5: The elimination of access and frontage along roads was introduced to reduce risk, but it serves to encourage speeding (DMURS, 2013)

Legible Street
Residential development in recent years has been characterised by a sense of sameness, with entire housing estates designed with a uniform house type and layout. This generic design motif in conjunction with street layouts with proliferation of cul-de-sacs surrounded by faster distributor/link roads with limited pedestrian/vehicular access makes for a poor and extremely difficult environment to navigate for the end user.

The layout of new residential development should be designed around a set hierarchy of streets as set out above and building types that work in unison to promote a highly legible environment.

The height and scale of buildings must relate explicitly to street types, with larger scale buildings on major arterial streets and lower scale buildings on minor link or local streets. Important corners and areas around public open space lend themselves to taller buildings and also provides for the placement of landmark buildings at key strategic locations (please see Landmark buildings above).

15.0 Nature Based Solutions to Hard Infrastructure and Sustainable Urban Drainage Systems (SuDS)
Protecting and enhancing open spaces for both biodiversity and recreational use has benefits for the sustainability and attractiveness as a place to live, work and visit. Natural assets, open spaces and recreational areas may come under increased pressure as our city, towns and villages grow. We need to ensure the balance between the need grow with the need to protect and enhance vulnerable natural areas.

Nature-based solutions are defined by the International Union for Conservation of Nature as "actions to protect, sustainably manage, and restore natural or modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human wellbeing and biodiversity benefits"[2]

Nature-based solutions are critical in climate change adaptation; they can play an important role not only for biodiversity and ecosystems, flood prevention and carbon sequestration, but also in temperature regulation, water quality, erosion prevention, filtering pollutants and. Nature-based solutions are used in a smart, 'engineered' way to provide sustainable, cost-effective, and adaptable measures that support climate resilience.

[2] International Union for Conservation of Nature. [Internet]. Available from https://www.iucn.org/

All new development should incorporate elements of nature based solutions to hard infrastructure as part of their Sustainable Urban Drainage System (SuDS) in order to reduce storm water runoff and improve biodiversity. Examples of nature-based solutions include green roofs and tree pits as part of SuDS, constructed wetlands to improve water quality and prevent flash flooding, increased biodiversity, and more tree canopy cover to regulate urban heat, improve air quality and provide shade and corridors for movement of wildlife within urban areas.

Permeable surfaces (gravel, turf and structurally reinforced turf, 'grass-crete', trees and shrubbed areas, green roofs, rain gardens and bio swales etc.) should be used to aid water runoff wherever possible.

Porous pavements give trees the rooting space they need to grow to full size, and in the void spaces within these surfaces naturally occurring micro-organisms digest car oils and the oil ceases to exist as a pollutant. Rainwater infiltration through the pavement into underlying soil reduces stormwater volumes.