

Section 2.8 Built Form and Design

Overarching Principle

To ensure that development across the SDZ lands is carried out in a design led manner that prioritises place making and accords with the core principles of urban design and the creation of integrated streets.



2.8.1 Introduction

The primarily greenfield nature of the SDZ lands at Clonburr presents an opportunity to create a coherent framework of streets, buildings, parks and spaces. This requires guidance in relation to buildings, development blocks and street design.

This Planning Scheme provides guidance in relation to Built Form and Design in order to further detail the urban structure for the SDZ Lands in a manner that will help create an integrated urban district comprising well-designed Development Areas. This builds upon the provisions of this Planning Scheme in relation to (inter alia) movement, land use, density and green infrastructure by setting out key parameters in relation to design, block size, block form, street frontage, topography, urban grain, building heights, street design and parking etc.

Key Principles

- » To ensure that development is designed in accordance with best practice and promotes identity and diversity between Development Areas;
- » To ensure that development is laid out in a series of blocks and plots that are legible, permeable and human in scale with appropriate topography responses, building heights, street widths, urban grain and street frontages; and
- » To design streets using a more integrated approach to pedestrian, cyclist and vehicular movement and ensure that the movement function of each street is reflected by an appropriate design response and design speed.

To ensure that development is designed in accordance with best practice and promotes identity and diversity between Development Areas.

2.8.2 Design Criteria

To aid in a coherent approach to the design of development across the SDZ lands, the external finishes of structures and the general appearance and design of development shall accord with the design led criteria set out under the:

- » *Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas* (2009);
- » *Retail Planning Guidelines for Planning Authorities* (2012); and
- » The design manuals that accompany the above documents.

Streets and junctions shall be designed in accordance with:

- » *DMURS* (2013);
- » *The National Cycle Manual* (2011); and
- » *The Guidelines for Setting and Managing Speed Limits in Ireland* (2015).

The Urban Design Compendium (English Partnerships, 2000) should also be referenced in relation to the design of other aspects of development.

Design Statements

To ensure coherency and quality in design, all medium to large scale development proposals on the SDZ lands (Landmark Buildings, 10 dwellings or more in the case of residential development or development of over 1,000 sq.m in the case of employment or retail/non-retail services development) shall be accompanied by a Design Statement that:

- » Demonstrates compliance with this SDZ Planning Scheme including its various requirements that relate to (inter alia) green infrastructure, blue infrastructure, movement, transport, land use, density (see Section 2.1.5 – Residential Density), built form and design;
- » Includes a masterplan that demonstrates proposed and future integration with the development of surrounding sites and Development Areas including vehicular, pedestrian, cycle and public transport connections;
- » Demonstrates compliance with the 12 design criteria contained within the *Urban Design Manual A Best Practice Guide* (2009) in the case of residential development;
- » Demonstrates a range of dwelling sizes to support a variety of household sizes and dwelling types;
- » Demonstrates compliance with the 10 design criteria contained within the *Retail Design Manual* (2012) in the case of retail development;
- » Includes street cross sections and plans that demonstrate compliance with *DMURS* (2013) in terms of ‘Movement, Place and Speed’, ‘Streetscape’, ‘Pedestrian and Cyclist Environment’ and ‘Carriageway Conditions’ etc.;
- » Includes a Quality Audit addressing street design as outlined under *DMURS* (2013);
- » Includes cross sections that demonstrates appropriate design responses to existing and proposed site levels including those that relate to streets, spaces, building frontages, services and SUDS;
- » Is accompanied by a detailed Landscape Plan that is consistent with the Parks and Landscape Strategy for the SDZ lands (see Section 2.10 – Landscape and Open Space) and specifies and illustrates the proposed treatment of streets and spaces including parking, street furniture, lighting (street and dedicated pedestrian/cycle routes), planting, surface treatment and children’s play facilities; and
- » Is accompanied by details in relation to the identification and incorporation of any features and structures of architectural merit and/or any sites and features of archaeological interest.

Within the context of the above, permission should only be granted for development on the SDZ lands where its design is of good quality and would not result in a sub-standard environment.

External Finishes and Appearance

To aid in place making and way-finding, careful consideration should be paid to materials and design to ensure that each development makes a positive contribution to its locality and Development Area. Building finishes shall be durable and of a high quality and should adhere to the principles of sustainability and energy efficiency. Traditional materials such as stone, brick, timber, metal and glass should be utilised throughout the SDZ lands. Consideration should be given, where possible, to reusing and recycling materials to promote the circular economy and reduce construction and demolition waste.

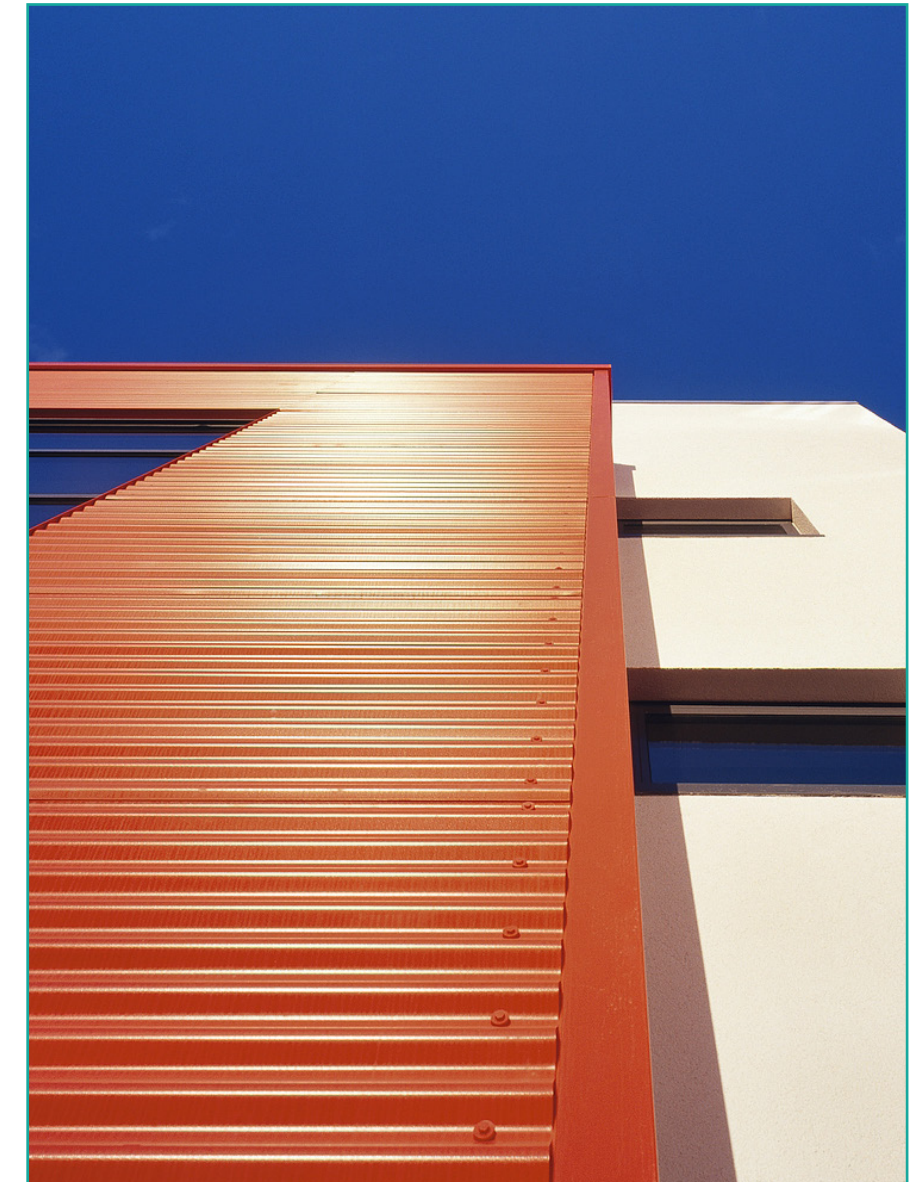
To promote a tangible identity within each Development Area, consistency in finishes and detailing including those that relate to buildings, streets and spaces is promoted. Diversity in finishes and detailing will be encouraged between Development Areas in order to emphasise identity. Materials such as limestone, granite and native Irish hardwood species should be especially considered to connect a scheme including its buildings, streets and spaces to its place and tradition.

Architectural diversity and a vibrant mix of finishes, colour and detailing is promoted in the Clonburris and Kishoge Urban Centres particularly in the case of Landmark and Local Landmark Buildings (see Section 2.8.6). Individual architectural design approaches by different design practices are therefore promoted in both designated urban centres together with innovation of design and construction.

In regards to the general appearance and design of residential buildings, all such development shall also comply with the Positive Indicators outlined under the *Urban Design Manual A Best Practise Guide* (2009) particularly those that relate to ‘Context’, ‘Distinctiveness’, ‘Public Realm’ and ‘Detailed Design’. All Retail development shall also be designed to comply with the Key Principles set out under the *Retail Design Manual* (2012) particularly those that relate to ‘Design Quality’, ‘Context and Character’, ‘Public Realm’ and ‘Built Form’.

All proposals for signage (advertisement, corporate and public information) shall be designed in accordance with the criteria set out under the County Development Plan. Proposals for residential extension within the SDZ Lands shall be designed in accordance with the *South Dublin County Council House Extension Design Guide* (2010).

The *Urban Design Compendium* (English Partnerships, 2000) should also be referenced in relation to design parameters for other development typologies.



2.8.3 Block Size and Form

Development across the SDZ lands shall be shaped and defined by the street network prescribed under the Movement and Transport section of this Planning Scheme (Section 2.2) and shall be divided into a series of blocks that present strong building frontages to surrounding streets especially at corners.

Block Form

Buildings shall be laid out in perimeter blocks across the SDZ lands. Such blocks shall be used to enclose private and semi-private open spaces and, depending on the context and demonstration of need larger blocks or irregular sized blocks may contain small scale mews development, homezones or an element of private parking (see Section 2.8.10 - Design of Parking and Loading).

All perimeter blocks shall be designed according to the following principles:

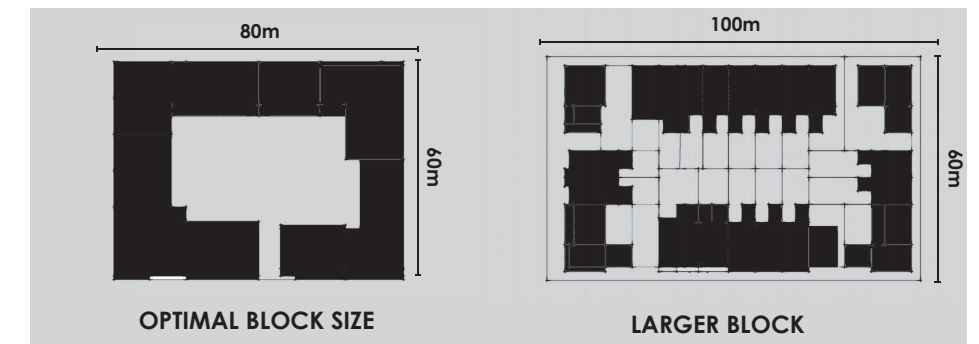
- » Building massing to the perimeter of the block;
- » Building frontage to all sides, including the shorter sides (secondary street frontage) of the block;
- » Proper design and attention to corners, avoiding dead or windowless gables;
- » A continuity of building frontage, which relates to the local or urban context, and avoidance of blank walls;
- » 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.

Block Size

In order to encourage pedestrian permeability and ensure that streets and blocks are dimensioned to reflect their function and setting, reduced block lengths shall be utilised across the SDZ lands.

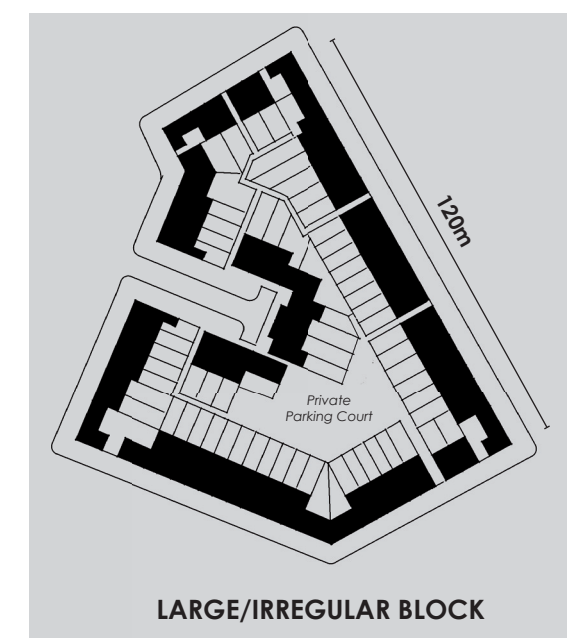
Block sizes in the Clonburriss and Kishoge Urban Centres should have dimensions of approximately 60 to 80 metres and shall be no more than 100 metres in length/depth. Block dimensions in the Development Areas that are contiguous to both urban centres should be no more than 100 metres. Blocks within Development Areas that are beyond the edge of both centres (Adamstown Extension and Canal Extension) shall not exceed 120 metres. Larger or irregular blocks of up to 120 metres should be broken up using mid-block penetration with short cul-de-sac/mews development to serve a small number of dwellings.

Figure 2.8.2 | Optimal and Larger Block Sizes



Source: DMURS

Figure 2.8.3 | Large/Irregular Block with Mid-Block Penetration



Source: DMURS

Figure 2.8.1 Example Perimeter Blocks Containing Private and Semi-Private Open Space



2.8.4 Topography, Street Interface and Urban Grain

Topography

All Development shall respond sensitively to level differences particularly in those areas of the SDZ Lands where levels change significantly either side of existing strategic roads. Development should therefore be laid out and designed in a manner that circumvents the need for retaining walls and blank frontages.

Gradients on all Link Streets and Local Streets should be as gradual as possible with a gradient of between 1 in 33 (or 3%) and 1 in 20 (or 5%) targeted. In pedestrian streets and the urban squares a gradient change of between 1 in 33 (or 3%) shall be targeted and all surfaces should be smooth and continuous with a gentle slope while avoiding, where possible, steps in level. In some areas level changes will need to be carefully regraded. In other areas basement car-parking, services or storage can be provided to raise building ground floor levels to the finished street or space level. This should be carried out akin to that illustrated in Figure 2.8.4.

Building entrances must be level with the adjoining footpath or public space. Excessive level differences will not be permitted between the ground floor of buildings and the footpath. Buildings along streets and spaces with a sloping gradient shall step incrementally with the gradient change and the utilisation of a finer urban grain should be considered to help achieve this.



Figure 2.8.4 | Section of Example Response to Site Levels

Indicative arterial route transect (adjacent to new link streets)

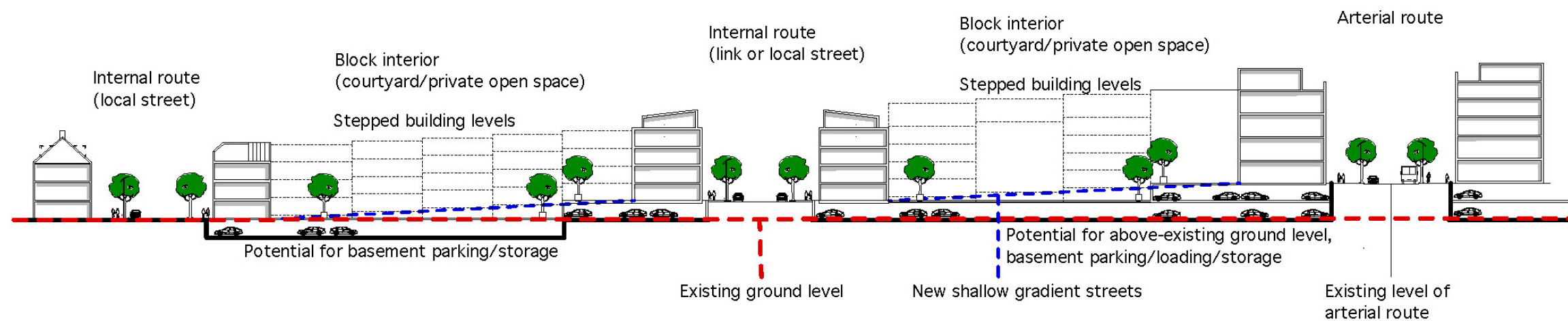
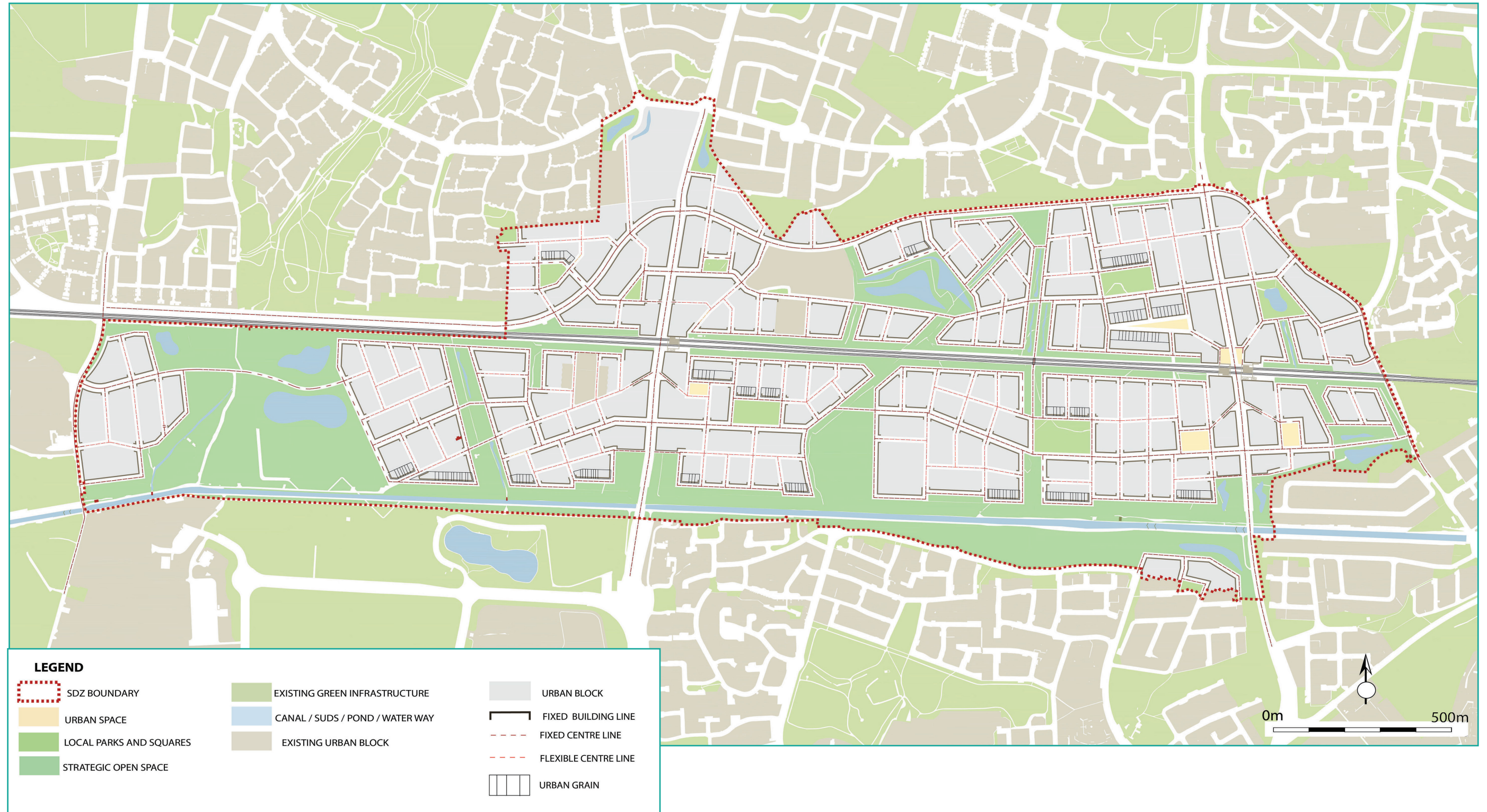


Figure 2.8.5 | Building Centre Line and Urban Grain



Urban Grain and Façade Treatment

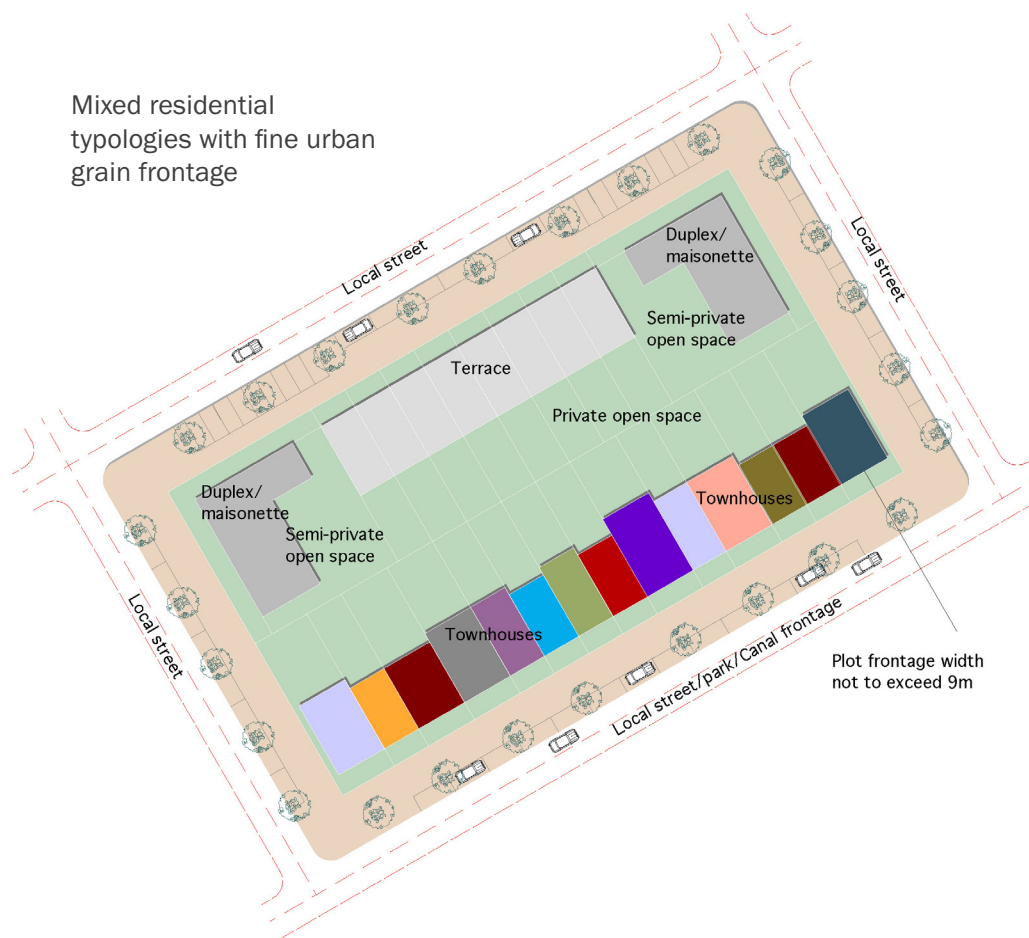
Plot widths should vary across the SDZ lands with a finer urban grain along selected park, canal and urban space frontages (see Fig. 2.8.5).

Plot widths for houses and duplexes across the SDZ lands should generally be between 5 metres and 9 metres particularly along residential streets with canal and park frontages, which shall be developed with terraces of houses/townhouses or duplexes subdivided into plots of no more than 9 metres (see Fig. 2.8.6). Each plot along canal and park frontages shall be capable of development independently of other buildings/plots within the block with own door access to dwellings. Further details in relation to urban grain along urban spaces are set out under Section 2.4 (Urban Centres).

In areas where coarser urban grain is proposed such as the urban centres (with the exception of urban spaces), designers will be required to clearly express the ground floor, main façade, a strong parapet and roof form. Individual blocks should express distinctive building design. Plots should be vertically articulated into bays with good shopfront design and division with the use of different materials and colours. Building entrances should be designed as a key element of the façade, which may also be expressed vertically in the main façade.

Balconies should also be incorporated in residential development in coarser grain areas to improve the expression of the façade and the interface with the street. The treatment of ground floor corners must also be carefully considered in such areas in terms of design and interface. Corners also provide an opportunity for architectural design features such as projecting features and zero setbacks at upper floors.

Figure 2.8.6 | Example Urban Grain along Selected Park & Canal Frontages



Mixed residential typologies with fine urban grain frontage

Street Interface

All streets and spaces shall benefit from passive surveillance especially at street corners. In the mixed use areas of the Kishoge and Clonburris Urban Centres, active street edges shall be provided and the dominant building typology in the retail cores should comprise apartments or office based space over retail, service, commercial, community or civic uses.

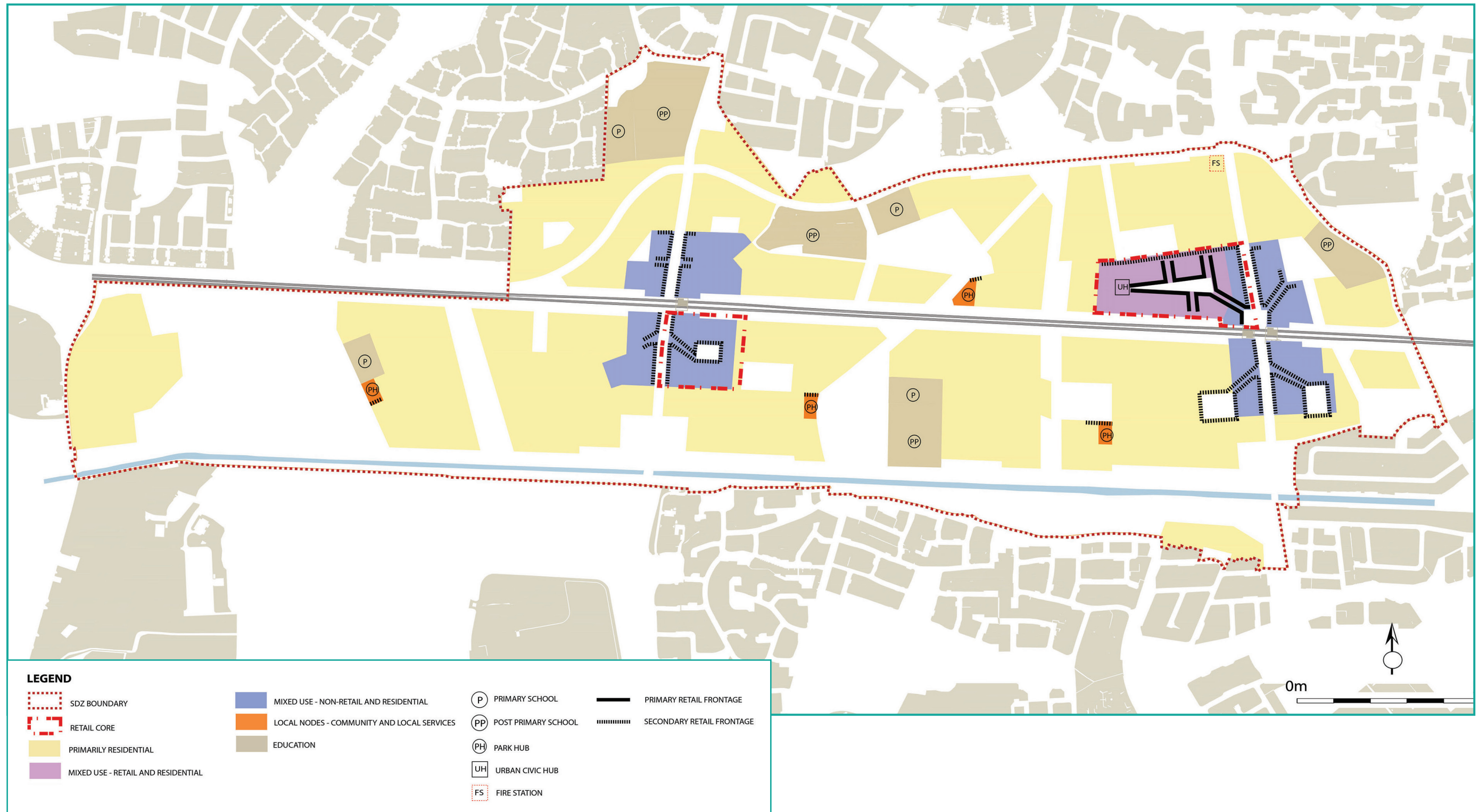
In other areas of both urban centres, office based buildings and residential buildings may be developed separately within the urban block. In such cases, apartment schemes should seek to minimise the use of shared entrances, where possible, in favour of own door access at street level. Any ground floor apartment or duplex/maisonette units shall incorporate own door access directly onto the street.

The main entrances to buildings should be from the main street or space. In general, these frontages should be frequent and a similar approach should be taken in relation to residential development along Local Streets. Distances between entrances should not exceed those set out in Table 2.8.1 (see Section 2.4 for further detail in relation to Urban Centres and Figure 2.8.7 for retail frontages).

Table 2.8.1 | Maximum Distances between Entrances

Place	Maximum Distance
Urban Centres - Primary and Secondary Retail Frontages	10 metres
Urban Centres - Other Frontages	15 metres
Local Streets - Residential	9 metres

Figure 2.8.7 | Primary and Secondary Retail Frontages Reference Map



Building Setback

Development across the SDZ lands should present strong building frontages close to street edges. Setbacks from the street edge should therefore be minimised and on-street parking should be incorporated in line with the requirements of DMURS (2013), the street typologies illustrated under this Planning Scheme (Section 2.2 – Transport & Movement) and the requirements set out under Section 2.8.10 in relation to the design of parking and loading.

Where dwellings front the street edge, privacy strips/short gardens that range from 1 to 3 metres in depth should be considered particularly along Local Streets (see Fig. 2.8.8 for example), Link Streets and within Urban Centres. In curtilage parking should only be utilised along Local Streets in low density areas with front garden/driveway depths minimised to retain the required building height to street width ratios (see Section 2.8.6)..

Buildings should not be set back from the street or space where commercial uses are proposed at ground floor particularly along primary and secondary retail frontages in both urban centres.

Measures to reduce noise and air pollution along wider streets such as Arterial and Link Streets shall be incorporated in line with those recommended by DMURS (2013) in order to counteract reduced building setbacks.

Figure 2.8.8 | Example of Shallow Privacy Strip to Front of House on Local Street.



2.8.5 Street and Junction Design

The Movement and Transport section of this Planning Scheme (Section 2.2) prescribes the street hierarchy for the SDZ lands and the function for each street typology. Streets including junctions shall be designed from the outset according to their function and as places that balance the needs of users. Junctions shall also perform a number of functions including the safe movement of pedestrians and cyclists while catering for vehicular movement.

Development proposals shall identify the movement function of each street, which shall be reflected by an appropriate design speed and series of design measures. This should be communicated via a Design Statement as prescribed under Section 2.8.2. Such Design Statements shall also be accompanied by a Quality Audit as prescribed under DMURS (2013).

In order to calm vehicular traffic and promote pedestrian and cyclist activity and safety together with self-regulating integrated streets and junctions, a series of design measures in line with the *National Cycle Manual* (2011) and DMURS (2013) shall be incorporated including those that relate to ‘Movement’, ‘Place and Speed’, ‘Streetscape’, ‘Pedestrian and Cyclist Environment’, and ‘Carriageway Conditions’.

Such measures shall include closer proximity of buildings, narrow carriageways, wide footpaths, carefully considered cycle lanes/tracks, reduced visibility splays, on-street parking, tighter corner radii, shared surfaces, frequent and carefully considered crossing points and horizontal and vertical elements (see Figure 2.8.9). These measures shall be fully incorporated to negate the need for retrofitted traffic calming measures. Horizontal and vertical measures shall also be utilised at transition zones between Development Areas and gateway locations along Link Streets and Arterial Streets at the edges of the SDZ lands.

Existing junctions including roundabout junctions along Arterial Streets within and along the edges of the SDZ lands shall be upgraded to signalised traffic junctions in accordance with the Movement and Transport requirements (Section 2.2) of this Planning Scheme and the Transport Assessment/Strategy that accompanies this Planning Scheme. Signalised junctions shall be designed along Arterial and Link Streets for safe and convenient pedestrian and cyclist movement. Toucan crossings designed in accordance with DMURS (2013) shall also be incorporated where strategic and local pedestrian and cycle routes intersect with such higher order streets.

Local streets designated as Home Zones/Intimate Local Streets shall incorporate carriageways and junctions designed for shared use by pedestrians, cyclists and motorised vehicles. Non-vehicular junctions associated with such Homezones shall be designed for filtered permeability (pedestrian and cyclist movement only) (see Figure 2.2.7). Such junctions shall prevent through vehicular traffic movement by incorporating appropriate design measures such as street furniture, horizontal and/or vertical measures and landscaping that avoids the use of barriers such as bollards. The use of boundary walls and railings that prevent clear sightlines and passive surveillance through filtered junctions shall also be avoided.

Pedestrianised streets and spaces designated within and around the Kishoge and Clonburris Urban Centres shall also be designed to fully segregate pedestrians from motor vehicular movement.

2.8.6 Building Heights and Street Widths

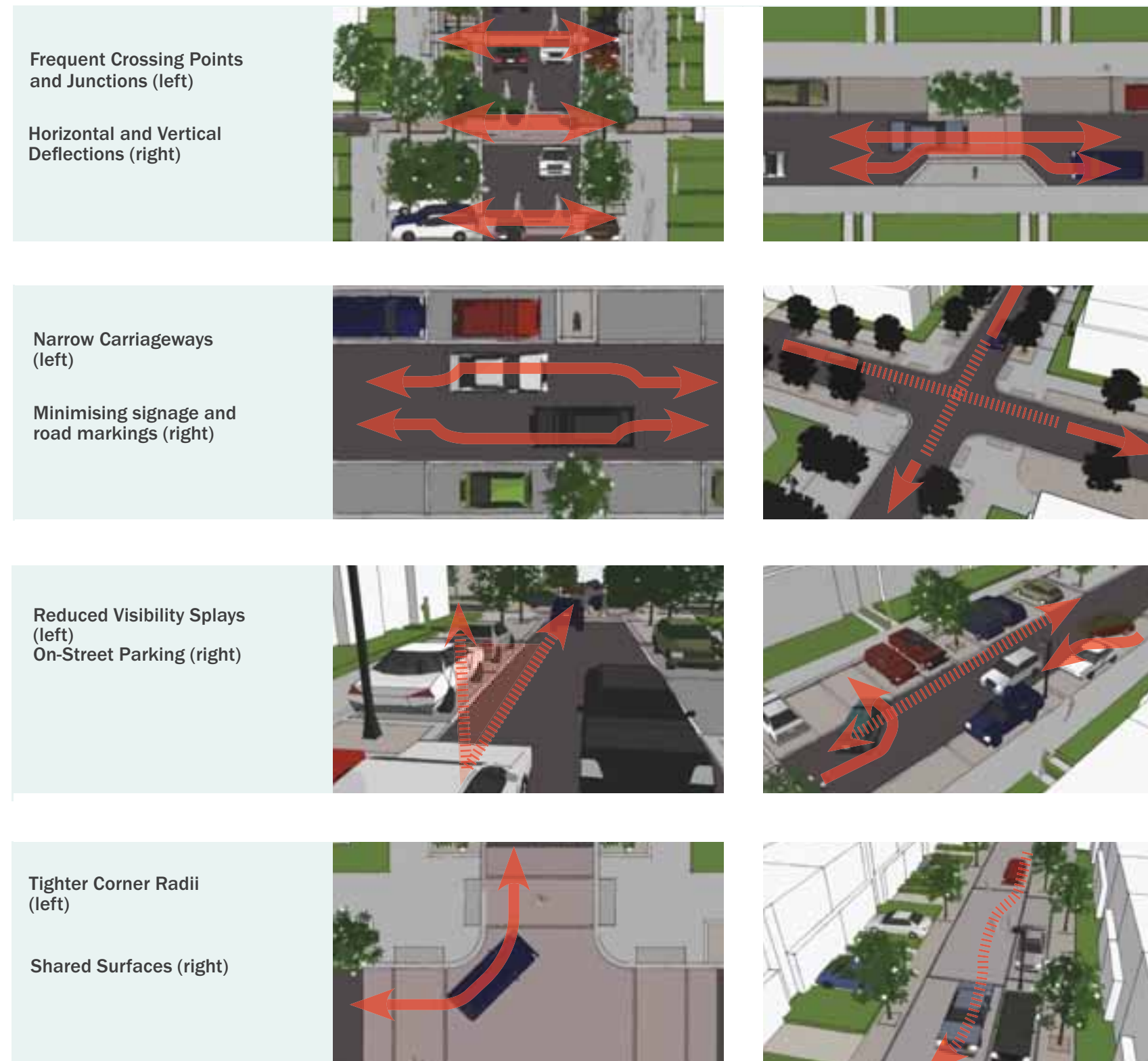
General

In order to promote place making, urban legibility and visual diversity, varied building heights are supported across the SDZ lands. Appropriate building height to street width ratios shall be incorporated across the SDZ lands in a manner that promotes and maintains a sense of enclosure along streetscapes. This shall be carried out in accordance with the requirements of DMURS (2013), the example street cross sections contained in Section 2.2 (Movement & Transport), the general building heights outlined in Figure 2.8.10 and the detailed requirements set out under Section 3.0 (Development Areas).

Building heights have been designated under this Planning Scheme in a manner that recognises the importance of place making and also reflects other aspects of this scheme including density and urban structure requirements such as the primacy of Urban Centres, Link Streets and Arterial Streets. Designated building heights along Arterial and Link Streets have been determined by street width and proximity to the urban centres. Lower building heights are therefore required along Local Streets to provide a more intimate scale with the exception of park frontages where a modest increase in scale shall be utilised to provide adequate enclosure.

To ensure that building heights respect the surrounding context, new developments immediately adjoining existing one and two storey housing shall incorporate a gradual change in building height with no significant marked increase in close proximity to existing low-rise housing.

Figure 2.8.9 | Suggested Measures for the Design of Integrated Streets



Source: Adamstown Street Design Guide (2010)

Roofscapes

A variety of roofscapes are encouraged to contribute to the architectural and visual diversity of the SDZ Lands and the quality of streets and spaces. An additional set-back floor above the maximum permissible storey height will be considered where it is shown to make a positive contribution to the streetscape via a Design Statement and where there are no adverse effects on amenity, such as an unacceptable loss of daylight or sunlight.

Landmark Buildings

In the interest of place making and improving legibility, Local Landmark Buildings and Landmark Buildings are permissible at key locations that will punctuate both urban centres and designated local nodes (see Figs. 2.8.11 & 2.8.12 for examples).

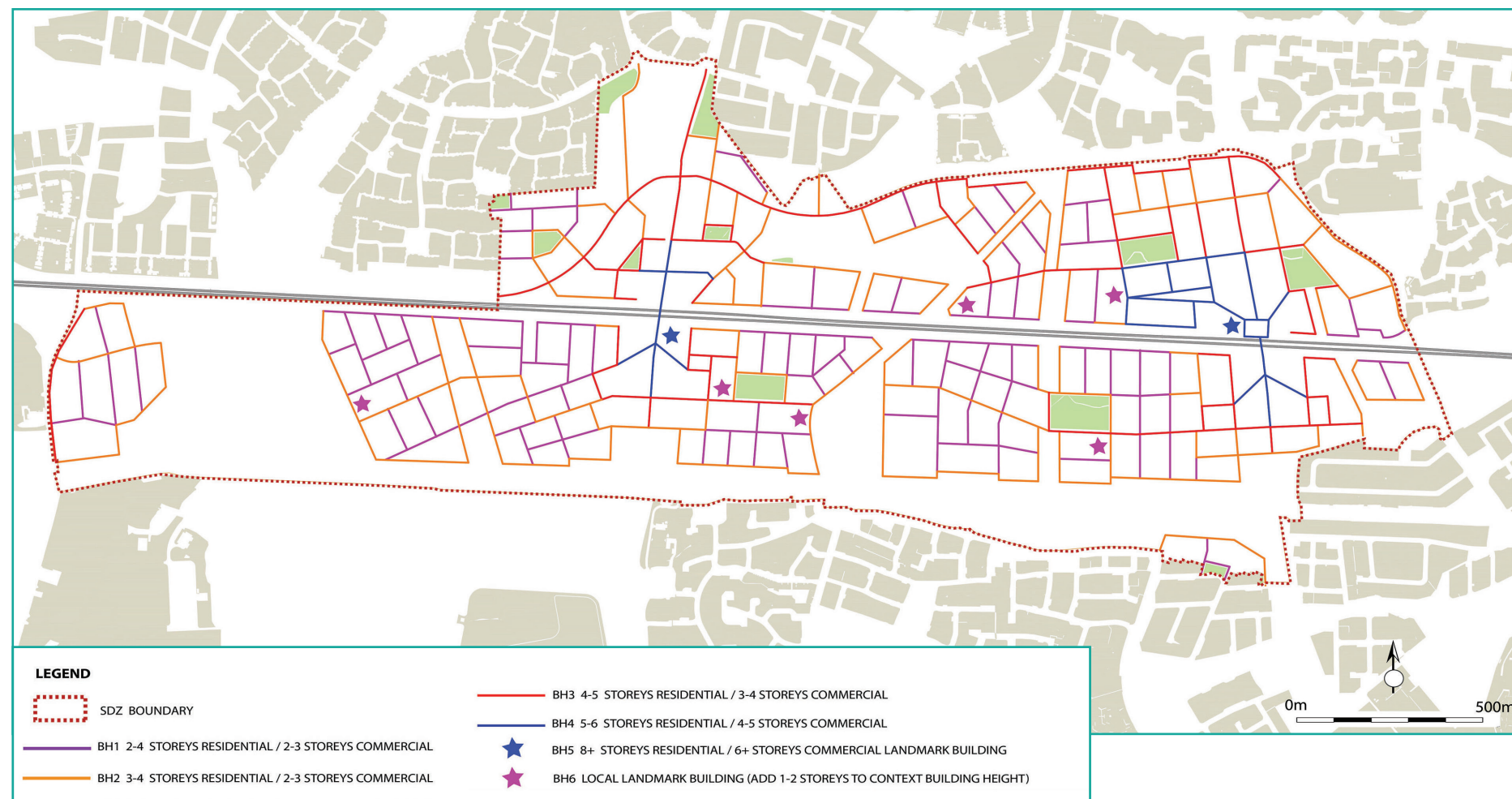
Buildings that exceed the prescribed general buildings heights shall only be provided at these designated landmark locations (see Fig. 2.8.10). An additional 1-2 storeys is permissible for Local Landmark Buildings and 6+ storeys (in the case of commercial buildings) to 8+ storeys (in the case of residential buildings) are permissible for Landmark Buildings, subject to a maximum height of 42 metres (above street level) in the case of the Clonburris Landmark Building and 34 metres (above street level) in the case of the Kishoge Landmark Building.

Landmark buildings shall be vertically proportioned as towers. Building design as opposed to building height is the key determinant in producing an acceptable Landmark Building and such buildings should be subject to architectural design competition prior to planning application.

Landmark Buildings should therefore be designed in a manner that is distinctive from surrounding buildings both in terms of architectural treatment and use of materials. To further emphasise their place-making function, Landmark Buildings shall incorporate high quality public realm treatment in terms of surrounding street planting, furniture, lighting and materials etc.

The design of such buildings shall therefore be based on a coherent design concept that is clearly communicated via a Design Statement and Landscape Plan. In addition to the above and the requirement of Section 2.8.2, Design Statements for Landmark Buildings shall also analyse and illustrate the impact of the proposed development in relation to its immediate and wider context including views/vistas within and beyond the SDZ lands and in terms of sunlight and daylight effects.

Figure 2.8.10 Building Height Strategy



2.8.7 Privacy and Overlooking

Section 10 of the Urban Design Manual (2009) addresses issues in relation to privacy and overlooking. A separation distance of 22 metres should generally be provided between directly opposing above ground floor windows to maintain privacy between residential schemes. The urban blocks outlined under this Planning Scheme (see Section 3 - Development Areas) have been designed to allow for adequate back-to-back distances between buildings. Reduced distances will be considered in respect of higher density schemes or where innovative design solutions are used to maintain a high standard of privacy.

2.8.8 Sunlight and Daylight

This Planning Scheme provides the broad framework where daylight and sunlight requirements can be met through appropriate block layout and building design. Adherence to the prescribed street proportions and building heights will help ensure that appropriate daylight and sunlight are achieved. On pedestrian streets with closer building front-to-front dimensions, designers will be required to provide all residential development in a dual aspect typology.

2.8.9 Energy Efficiency & Resilience

The energy efficiency and renewable energy requirements for the construction of new homes and non-residential buildings are primarily addressed in the current Building Regulations Part L (2008 and 2011). Further to these provisions, the accompanying *Clonburris Energy Masterplan* (2017) appraises a range of options for energy provision (energy efficiency, heating, cooling and electricity etc.) in relation to reaching Nearly Zero Energy Buildings (NZEB) standards and includes a viability and economic analysis.

Section 2.9 (Services, Infrastructure and Energy Framework) of this Planning Scheme also sets out measures in relation to optimising water management and waste management while mitigating the effects of flooding and climate change.

Figure 2.8.11 Example of Corner Building with Additional Storey at Local Node



Figure 2.8.12 Example of Landmark Building with Distinctive and Coherent Architectural Treatment



Section 2.9 together with the Clonburris Energy Masterplan should therefore be referenced in relation to ensuring that development adheres to the principles of sustainable development, Green Building and meeting NZEB standards into the future.

Further to the *Clonburris Surface Water Strategy (2017)* that accompanies this Planning Scheme, blue and green roofs will be required for all large scale development proposals in the Clonburris and Kishoge Urban Centres (10 dwellings or more in the case of residential development or development of over 1,000 sq.m in the case of employment or retail development).

2.8.10 Design of Parking and Loading

Car Parking

Parking shall not dominate streetscapes and should be carefully considered as part of the overall public realm in terms of layout, surface treatment and landscaping. External parking should primarily be provided on-street in accordance with the recommendations of *DMURS (2013)*.

All on-street parking shall be broken up, landscaped and designed according to street typology in line with the measures set out under *DMURS (2013)*, the example street typologies contained within Section 2.2 of this Planning Scheme and, where provided adjacent to cycle paths/lanes, the *National Cycle Manual (2011)*.

To ensure that it does not dominate streetscapes, on-street parking shall be broken up into a series of bays separated by planted build outs. The number of parking spaces per bay should generally be limited to three parallel spaces (including loading areas) and six perpendicular spaces.

Supplementary parking in the form of basement, semi-basement, or courtyard parking will generally be required in medium to higher density areas (50 – 80 dwellings per hectare) unless it can be demonstrated (via a car parking strategy, MMP, workforce travel plan and/or the consideration of reduced parking rates) that parking can be accommodated on-street in accordance with design parameters.

On-street parking along mixed use and higher density streets including both urban centres, particularly where the majority of parking is supplementary, should primarily serve visitors only. A mixture of on-street parking for visitors and residents should be provided in all other areas.

A range of less formal or alternative parking arrangements may be used along Local Streets where densities range between 40 – 50 dwellings per hectare. This may include a mixture of on-street and in-curtilage parking, however, no more than 60% of residential parking spaces shall be provided as in-curtilage parking spaces in any Development Area. Parking within Home Zones/Intimate Local Streets shall be on-street.

Large areas of surface parking will not be permitted within the SDZ Lands. Parking courts should therefore be restricted in size to no more than 40 spaces and should also be well landscaped and subject to a landscape plan.

A Park and Ride facility with associated disabled, bus, taxi and cycle parking facilities has been built at the Clondalkin-Fonthill Railway Station and a similar facility has been permitted at the Kishoge Railway Station under the Kildare Route Project Railway Order. In the interest of the vitality and viability of both urban centres and place making, both Park and Ride facilities may be incorporated into mixed use building forms.

Any multi-storey communal and semi-basement car parking within the SDZ lands should be enclosed by active uses and shielded from the public realm or placed over active uses and designed to make a positive contribution to the public realm. Basement car parks that protrude above the ground level as a street interface will generally not be acceptable.

Loading

Loading and servicing facilities should be provided through a combination of on-street bays and in-curtilage docks designed in accordance with *DMURS (2013)*. On-street loading bays should be spread along and immediately adjacent to all retail and commercial streets and balanced with on-street parking. These bays should be time limited, so that they revert to on-street parking bays or pedestrian paths/pedestrian priority areas outside of delivery hours. Loading docks should be provided within all major retail anchors.

To mitigate the impact of loading docks on the street environment, loading docks should be:

- » Accessible from Link Streets;
- » Integrated with entrances to car parks;
- » No greater than 4 metres in width;
- » Designed for in-curtilage turning movements so that all larger vehicles enter and exit in a forward motion.



Figure 2.8.13 | Planting and Surface Finish along Local Street/Homezone



2.8.11 Street Planting, Furniture and Materials

Further to the requirements of Section 2.8.2, a detailed Landscape Plan that specifies and illustrates proposed treatment of all streets and spaces including (inter alia) street furniture, lighting (streets and dedicated pedestrian/cycle routes), planting and surface treatment shall be submitted with all medium to large scale development proposals on the SDZ lands.

Street Planting

Street trees should be considered as an integral part of the street environment in accordance with *DMURS* (2013) with the size of species selected proportionate to the width of the street. Larger species should therefore be planted along Arterial and Link Streets and smaller species along Local Streets (see Fig. 2.8.13 for example).

Streets should be generously planted at frequent intervals to soften the impact of parking and strong building frontages at intervals of 14 – 20 metres. Street trees should be planted in areas such as medians, verges and build outs. Street trees should also be augmented by planting within privacy strips along residential streets. In the interest of biodiversity and place making, reduced spacing between street trees should be considered where appropriate and achievable.

In order to mitigate against noise and air pollution, double and triple planting of trees in medians and verges shall be incorporated along wide and busy streets such as Arterial and Link Streets.

Materials and Finishes

In line with the recommendations of *DMURS* (2013), a hierarchical approach to the application of materials and finishes should be taken in relation to the design of streets. The palette of finishes and materials should therefore be altered according to street hierarchy and importance of place.

More robust and higher quality materials such as natural stone (see Fig 2.8.14 for example), concrete block paving or imprinted asphalt should be used within both Urban Centres. Robust surfaces and/or changes in colour should also be used at gateways into the SDZ lands and transitional zones between Development Areas.

The use of standard materials such as macadam/asphalt should be confined to the carriageways of streets with moderate design speeds such as Link and Arterial Streets. Where lower design speeds are desirable along Local Streets and within urban centres, changes in the colour and/or texture of the carriageway should be used.

For shared surface streets such as homezones, material and finishes such as paving or imprinted materials should be used to slow traffic and indicate that the carriageway is an extension of the pedestrian domain. Similar finishes shall also be utilised for pedestrianised streets.



Figure 2.8.14 | High Quality Natural Stone Paviers to Main Link Street/Shopping Avenue



Street Furniture

Landscape Plans shall seek to limit clutter. The provision of street furniture such as public art, lighting, bollards, seating and cycle parking must therefore be considered as part of the overall design of the street and should be considered as part of a wider strategy.

Street furniture should be placed within a designated zone such as a verge and items should be selected from a limited palette that promotes visual cohesion. Further details in relation to street furniture including the design of good quality street lighting is provided in DMURS (2013).

2.8.12 Boundary Treatment

Further to the requirements of Section 2.8.4 (Topography, Street Frontage and Urban Grain) of this Planning Scheme, boundary treatment to front gardens and privacy strips for residential schemes should be unobtrusive and should allow for good passive surveillance. Such boundary treatment may comprise low planting, low masonry walls, low timber fencing or low metal railings with heights of no more than 1.2 metres.

Rear boundaries between gardens should be demarcated appropriately and robustly with maximum heights of 2 metres. Timber fencing is promoted between rear gardens with the exception of those that interface with the public realm (streets and public spaces) where boundary treatment shall comprise appropriately rendered masonry walls with a minimum height of 1.8 metres and maximum height of 2 metres.

Rear boundaries to communal gardens/spaces should also be demarcated through appropriate hedging or fencing. The use of masonry walls as boundaries to these spaces is generally not promoted.