

Design Manual for Urban Roads and Streets

Street Design Audit

Prepared in respect of:

The development will consist of the provision of a total of 120no. apartments in 4no. separate blocks incorporating provision of a crèche and restaurant/café and provision of a basement to provide for car parking, bicycle storage and ancillary bin storage areas. Particulars of the development comprise as follows:

- (a) Site excavation works to facilitate the proposed development to include levelling, excavation and general site preparation works.
- (b) Block A: A four-storey building (fronting onto Mill Street) comprising a creche at ground floor level (205.55sq.m), a restaurant/cafe (246.27sq.m); provision of 15no.residential 1bed apartments and 3no. 2bed apartments.
- (c) Block B1: An apartment block ranging from three to five storeys comprising a total of 32no.residential apartments to consist of 7no. 3 bed apartments, 19no. 2 bed apartments and 6no. 1 bed apartments.
- (d) Block B2: A 6 storey apartment block comprising a total of 48no. residential apartments to consist of 35no. 2 bed apartments and 13no. 1 bed apartments.
- (e) Block C: An apartment block ranging from four to five storeys comprising a total of 22no. residential apartments to consist of 13no. 2 bed apartments and 9no. 1bed apartments along with a ground level storage room for bicycles and bins.
- (f) Provision of a basement car parking area to comprise a total of 74no. car parking spaces along with provision for bicycle storage and bin storage areas;
- (g) Provision of bicycle storage areas at surface level
- (h) Provision of access from Mill Street to facilitate vehicular, pedestrian and cycle access;
- (i) Provision of internal access roads and footpaths/cycle paths;
- (j) Provision of residential communal open space areas (including formal play areas) to include a walkway and cycleway along the Lyreen River including all landscape works with public lighting, planting and boundary treatments;
- (k) Provision of an ESB substation adjacent to block B1;
- (l) Internal site works and basement attenuation systems as well as all ancillary site development/construction works to facilitate site drainage and foul networks for connection to the existing foul, storm and public water networks.

Prepared by: Michael Fitzpatrick Architects & Genesis Planning Consultants

Date: 30th September 2019

Connectivity		
Key Issues	Key DMURS Reference.	Design Response
Strategic routes/major desire lines been identified and are clearly incorporated into the design.	3.1 – Integrated Street Network 3.2.1 – Movement Function 3.3.1 – Street layouts 3.3.4 - Wayfinding	-Connections to adjoining lands facilitated via the cycleway/walkway which connects with adjacent Cairn Homes Lands (Mariavilla as under construction)
Multiple points of access are provided to the site/place, in particular for sustainable modes.	3.3.1 – Street Layouts 3.3.3 – Retrofitting ¹	-As above, connections to adjoining lands facilitated via the cycleway/walkway which connects with adjacent Cairn Homes Lands (Mariavilla as under construction) -The cycleway/walkway through the site from Mill Street encourages permeability for pedestrians/cyclists -Multiple pedestrian access points to the site from Mill Street are proposed
Accessibility throughout the site is maximised for pedestrians and cyclists, ensuring route choice.	3.3.1 – Street Layouts 3.3.2 – Block Sizes 3.4.1 – Vehicle Permeability	-Pedestrian and cyclist links are incorporated to all areas of the site and in particular to open space and landscaped areas.
Through movements by private vehicles on local streets are discouraged by an appropriate level of traffic calming measures.	3.2.1 – Movement Function 3.2.3 – Place Context 3.4.1 – Vehicle Permeability	-The internal access road is separated from the pedestrian and cyclist routes/zones via appropriate kerbing and collapsible bollards.

¹ When connecting with existing communities a detailed analysis and extensive community consultation should be carried out to identify the optimal location for connections (refer also to the NTA Permeability in Existing Urban Areas: Best Practice Guide).

Self-Regulating Street Environment

Key Issues	Key DMURS Reference.	Design Response
A suitable range of design speeds have been applied with regard to context and function.	3.2.1 – Movement Function. 3.2.3 – Place Context. 4.1.1 – A Balanced Approach to Speed ²	-The proposed development has been designed so that there is priority for pedestrians, cyclists, public transport and then cars. -The walkway/cycleway through the site provides connections and accessibility to the locality and is appropriate for the town centre location. -There is only 1 car park access point to the basement car park with all areas fully pedestrianised.
The street environment will facilitate the creation of a traffic calmed environment via the use of 'softer' or passive measures. ³	4.2.1 – Building Height and Street Width 4.2.2 – Street Trees 4.2.3 – Active Street Edges 4.2.4 – Signage and Line Marking 4.2.7 – Planting 4.4.2 – Carriageway Surfaces 4.4.9 - On-Street Parking Advice Note 1 – Transitions and Gateways	-Appropriate surface treatments at frontage onto Mill Street to create a pedestrian zone -Incorporation of a reduced entrance radii of 4.5 metres to prioritise pedestrians along Mill Street -Provision of a raised courtesy strip alongside block A to restrict traffic speeds -Active street edge provided alongside the main vehicular entrance
A suitable range of design standards/measures have been applied that are consistent with the applied design speeds.	4.4.1 - Carriageway Widths 4.4.4 – Forward Visibility 4.4.5 – Visibility Splays 4.4.6 – Alignment and curvature 4.4.7 – Horizontal and Vertical Deflections	Design requirements are met as below: -internal road width of 5.5m to car park and 4m width to internal courtyard for pedestrians, cyclists & fire appliance; -cycleway & walkway width of 4 metres throughout; -visibility splays of 2.4 X 49m achievable -reduced corner radii at entrance

² Refer also to the National Speed Limit Guidelines

³ In retrofit situations a detailed analysis should be carried out to establish what measures exist, what their likely effectiveness is and level of intervention required to achieve the designed design speed.

Pedestrian and Cycling Environment

Key Issues	Key DMURS Reference.	Design Response
The built environment contributes to the creation of a safe and comfortable pedestrian environment.	4.2.1 – Building Height and Street Width 4.2.3 – Active Street Edges 4.2.5 – Street Furniture 4.4.9 - On-Street parking	-The proposed development has been designed so that residential and commercial units are overlooking the main access route(s) to the site, the plaza area and all areas within the site. -High-quality landscaping works and tree planting are also proposed.
Junctions been designed to ensure the needs of pedestrians and cyclists are prioritised ⁴ .	4.3.2 - Pedestrian Crossings 4.3.3 – Corner Radii 4.4.3 - Junction Design 4.4.7 - Horizontal and Vertical Deflections	-At the entrance to the site and at the rear of block A courtesy strips are provided to prioritise pedestrian and cyclist crossings/connectivity. -The junction design incorporates a radii of 4.5m to slow vehicle speeds
Footpaths are continuous and wide enough to cater for the anticipated number of pedestrian movements.	3.2.1 – Movement Function. 3.2.3 – Place Context. 4.2.5 – Street Furniture 4.3.1 - Footways, Verges and Strips 4.3.2 - Pedestrian Crossings	Throughout the site, pedestrian routes are 2m wide or greater which provides adequate space for 2 people to pass comfortably. (DMURS identifies a minimum width of 1.8m) Similarly, the cycle path width meets required design standard via a minimum 2 metre width throughout.

⁴ Refer also to the National Cycle Manual (2011)

Pedestrian and Cycling Environment (cont)

Key Issues	Key DMURS Reference.	Response
<p>The particular needs of visually and mobility impaired users have been identified and incorporated in the design.</p>	<p>4.2.5 - Street Furniture 4.3.1 - Footways, Verges and Strips 4.2.5 - Street Furniture 4.3.2 - Pedestrian Crossings 4.3.4 - Pedestrianised and Shared Surfaces</p>	<p>-The design of the scheme has placed a particular focus on the pedestrian. -The plaza, walkways and open space area has been designed to provide a sense of enclosure, be active spaces and with good surveillance in order to enhance pedestrians sense of safety.</p>
<p>Cycling facilities will cater for cyclists of all ages and abilities.⁵</p>	<p>3.2.1 – Movement Function. 3.2.3 – Place Context. 4.3.5 - Cycle facilities.</p>	<p>-Provision of cycle path throughout the site to connect with all blocks and the locality. -Provision of adequate bicycle storage areas at various locations throughout the site to encourage usability.</p>

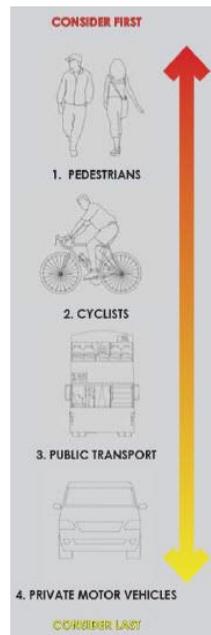
⁵ Refer also to the National Cycle Manual (2011)

Visual Quality

Key Issues	Key Considerations and DMURS Ref:	Design Response
<p>The landscape plan responds to the street hierarchy and the value of the place.</p>	<p>3.2.1 – Movement Function. 3.2.3 – Place Context. 4.2.2 – Street Trees 4.2.7 – Planting Advice Note 1 – Transitions and Gateways</p>	<p>-The plaza fronting onto Mill Street creates a sense of place which is re-iterated via the central open space which is only accessible to pedestrians and cyclists. -Landscaping proposals are designed specifically to create a high quality residential environment in accordance with DMURS via feature planting, trees and buffer/privacy strips.</p>
<p>Street furniture is orderly placed.</p>	<p>3.2.1 – Movement Function. 3.2.3 – Place Context. 4.2.5 - Street Furniture. 4.3.1 Footways, Verges and Strips</p>	<p>-The street furniture positioned at focal points such as the plaza and at the open space area to serve the movement patterns of pedestrians and encourage usability. -Footpaths, verges and strips designed to required standards (refer to road design specifics)</p>
<p>The use of signage and line marking has been minimised.</p>	<p>3.2.1 – Movement Function. 3.2.3 – Place Context. 4.2.4 - Signage and Line Marking.</p>	<p>-Line marking only required to serve the single vehicle access road. -All other surface treatments will consist of paving, resin-bound surfacing and a tarmac finish for the main pedestrian and cyclist route. -Provision of internal speed limit and 'children at play' signs.</p>
<p>Materials and finishes used throughout the scheme have been selected from a limited palette and respond to the value of the place?</p>	<p>3.2.1 – Movement Function. 3.2.3 – Place Context. 4.2.6 – Materials and Finishes 4.2.8 – Historic Contexts. 4.3.2 – Pedestrian Crossings 4.4.2 – Carriageway Surfaces</p>	<p>-As above, landscaping proposals designed specifically to create a high quality residential environment in accordance with DMURS; specifically block paving to the perimeter of buildings and the courtyard and resin bound surfacing within the open space. -Surface finishes to the walkway & cycleway will be a high quality tarmac surface and constructed to a taking in charge finish specification.</p>

Additional Comments

The principle design guidance of DMURS has been considered in the design as the design prioritises pedestrians, cyclists, public transport and then private cars, as per the extract opposite from DMURS. Specifically we highlight:



- a 'pedestrian focus' is incorporated into the layout via car parking being provided at basement level.
- pedestrian links to open space and landscaped areas.
- provision of adequate street furniture & street lighting throughout.
- use of contrasting materials between pedestrian and vehicular routes.
- provision of cycleway(s) within/through the site of 2.0 metres width.
- provision of pedestrian footpaths of 2.0 metres; this includes along the road frontage of the site.
- entrance corner radii of 4.5 metres to give priority to pedestrians along Mill Street.
- internal pedestrian and cyclist crossings via provision of 'courtesy crossings'.
- provision of bicycle storage spaces both at basement and street level to encourage use of public transport/sustainable modes of transport.
- incorporation of the 'pedestrian focus' to inform the site landscaping works.
- provision of internal speed limit and 'children at play' signs.

Overall the scheme design will be consistent with standards and objectives as set out under DMURS.

Personnel Information

	Name	Date	Signature
Report Prepared By:	David Reilly Ronan Woods	30th September 2019	 
Principle Designers	David Reilly Ronan Woods	30th September 2019	 