



TECHNICAL NOTE 210027-TN-001

Project:	RICHMOND ROAD SHD	Prepared by:	IA
Title:	DMURS Design Statement	Checked by:	TJ
Client:	Birkey Limited	Date:	20 December 2021
Job No:	210027	Revision:	P02

1. INTRODUCTION

1.1 OVERVIEW

1.1.1 DBFL Consulting Engineers (DBFL) have been commissioned to form part of a multidisciplinary design team who together have been appointed to investigate, analyse, and prepare the preliminary design (and associated SHD planning documentation) for a proposed mixed-use development at Richmond Road, Dublin 3.

1.1.2 The principal members of the design team that have influenced the scheme design include;

- **RKD Architects** (Architects).
- **AXISENG Consulting Engineers** (M&E Engineers).
- **MITCHELLS & Associates** (Landscape Architects).
- **GSP Fire & Access Consultancy** (Fire and DAC Consultant)
- **THORNTON O’CONNOR TOWN PLANNING** (Planning Consultant)
- **DBFL Consulting Engineers** (Consulting Civil, Structural and Transportation Engineers).

1.1.3 The scheme proposals now being presented to An Bord Pleanála are the outcome of an integrated design approach that seeks to deliver a sustainable residential community connected by well-designed pedestrian links with assimilated open spaces which together deliver safe, secure, convenient, and attractive networks in addition to promoting a real and viable alternative to car-based journeys.

1.1.4 In response to the Richmond Road sites characteristics and associated accessibility characteristics, it is the design team’s view that the design presented for the proposed Strategic Housing Development has maximised every opportunity to ensure consistency

with both the principles and design guidance outlined within the Design Manual for Urban Roads and Streets (DMURS) (Version 1.1, 2019)

- 1.1.5 This DMURS Compliance Report seeks to outline the specific design features that have been incorporated within the proposed residential scheme with the objective of delivering an integrated design that complies with the guidance outlined within DMURS.
- 1.1.6 This DMURS compliance report should be reviewed in conjunction with the architectural, landscape and engineering site layout drawings in addition to the documentation submitted as part of the Planning Application.

1.2 PROPOSED DEVELOPMENT

- 1.2.1 The proposals include for a strategic housing development at a c. 0.61 hectare (c. 6,067 sq.m) site at No. 146A and No's. 148-148A Richmond Road, Dublin 3. The site is bounded to the north-east by Richmond Road and the Leyden's Wholesalers & Distributor Site, to the north-west by an apartment development (Deakin Court), to the south-west by the Tolka River and to the south-east by a residential and commercial development (Distillery Lofts). Improvement works to Richmond Road are also proposed including carriageway widening and a new signal controlled pedestrian crossing facility on an area of c. 0.08 hectares (c. 762 sq.m). The development site area and road works area will provide a total application site area of c. 0.69 hectares (c. 6,829 sq.m). . The subject site is currently occupied by a number of different businesses and 2 No. dwellings including EQ Audio and Events, and QLX Lighting while benefitting from an access point directly onto Richmond Road. The proposed development will principally consist of the demolition of all existing structures on site (measuring c. 2,346 sq.m) including warehouses and 2 No. dwellings; and the construction of a part 6 No. to part 10 No. storey over basement development (with roof level telecommunications infrastructure over), comprising 1 No. café/retail unit (157 sq.m) at ground floor level and 183 No. Build-to-Rent apartments (104 No. one bedroom units and 79 No. two bedroom units). The proposed development has a gross floor area of c. 16,366 sq.m over a basement of c. 2,729 sq.m. The proposed development has a gross floor space of c. 15,689 sq.m.
- 1.2.2 The development also includes the construction of a new c. 135 No. metre long section of flood wall to the River Tolka along the site's southern boundary. The new flood wall is positioned at the top of the existing river bank and will connect to existing constructed sections of flood wall upstream and downstream of the site. The top of the wall will be set at the required flood defence level resulting in typical wall heights of c. 1.2 to 2 metres above existing ground levels. The development will also include the repair and maintenance of the existing river wall on site adjacent to the River Tolka.

- 1.2.3 The development also provides ancillary residential amenities and facilities; 71 No. car parking spaces including 8 No. electric vehicle spaces, 4 No. mobility impaired spaces and 1 No. car share space; 5 No. motorcycle parking spaces; bicycle parking; electric scooter storage; a drop off space; the decommissioning of the existing telecommunications mast at ground level and provision of new telecommunications infrastructure at roof level including shrouds, antennas and microwave link dishes; balconies facing all directions; public and communal open space; a pedestrian/bicycle connection along the north-western boundary of the site from Richmond Road to the proposed pedestrian/bicycle route to the south-west of the site adjoining the River Tolka; roof gardens; hard and soft landscaping; boundary treatments; green roofs; ESB Substation; switch room; comms rooms; generator; lift overruns; stores; plant; and all associated works above and below ground.
- 1.2.4 Vehicular access to the subject site is to be accommodated via the existing **Link** street Richmond Road which provides access to/from the development for all modes of travel with various **Link and Local** streets neighbouring the site.
- 1.2.5 The Richmond Road corridor is generally aligned in a northwest-southeast direction. At the northwest extent this corridor terminates at the **Arterial** street N1 / R312 Drumcondra Road Upper / Richmond Road / Millmount Avenue signal-controlled junction. The N1 connects the development with Dublin City Centre. Between the subject site access and the N1 / Richmond Road / Millmount Avenue junction, Grace Park Road is accessible which provides a connection to the N1 northbound and subsequently the strategic **arterial** M50 road network. **Figure 1.1** below shows the subject site location in regard to the surrounding road network.



Figure 1.1: Subject Site Location (Reference: Google Maps)

Vehicle Access

- 1.2.6 The subject site will benefit from a vehicle access point directly onto Richmond Road as shown in **Figure 1.2** below. The proposed vehicular access will be priority controlled providing direct access between Richmond Road and the proposed developments basement car parking facility. A supplementary access leading to/from an informal 'shared area' incorporating a set-down/collection bay is also provided at the site frontage with Richmond Road.
- 1.2.7 Accordingly, the development will benefit from direct vehicular access onto Richmond Road as shown in **Figure 1.2** below. The proposed access arrangements are in the same general location as that currently provided to the existing on-site commercial and 2 No. residential buildings. Further details of the proposed site access arrangements with Richmond Road are presented in DBFL drawing No: **210027-DBFL-TR-SP-DR-C-1001**. It is noted that the design of the site access arrangements including the internal set-down/collection space have been designed to safeguard the opportunity for DCC to implement corridor enhancements works in the future.

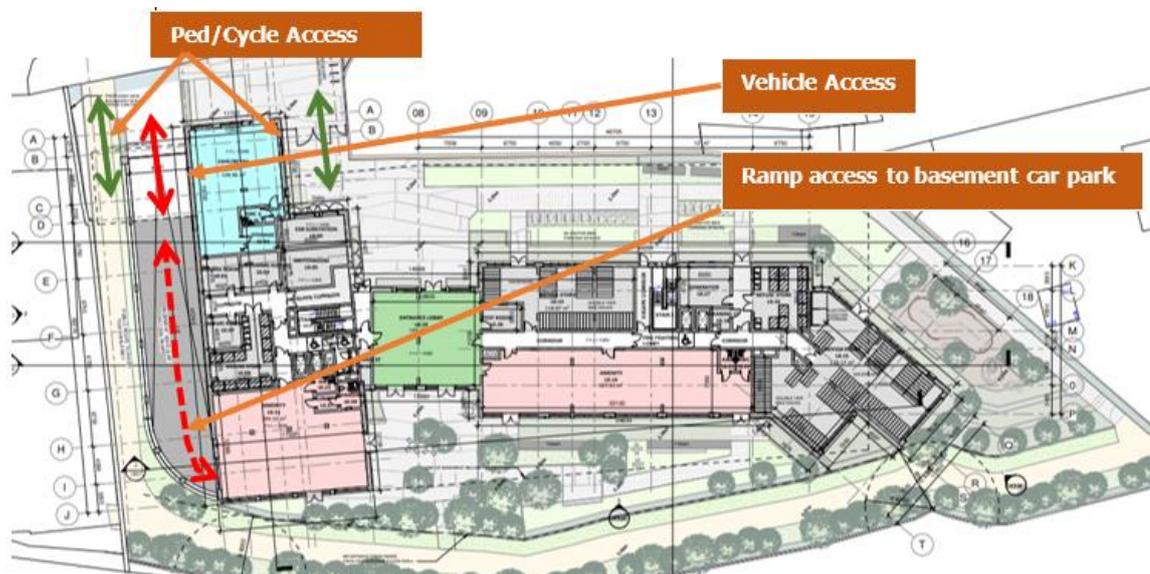


Figure 1.2: Proposed Richmond Road Site Access

Pedestrian/Bicycle Access

- 1.2.8 Pedestrian and cycle accesses are provided adjacent to the proposed vehicular site access on Richmond Road as presented in **Figure 1.3** below. Carriageway widening (5.5m wide) and a new signal controlled pedestrian crossing facility on an area of c. 0.08 hectares is proposed along Richmond Road. A direct and segregated pedestrian/cycle access is available to the west of the proposed vehicular access which provides access

2. DMURS OBJECTIVES

2.1 OVERVIEW

2.1.1 DMURS seeks to balance the needs of all users, creating well-designed streets at the heart of sustainable communities. It states that:

"Well designed streets can create connected physical, social and transport networks that promote real alternatives to car journeys, namely walking, cycling or public transport"

2.1.2 DMURS also seeks to create streets which are attractive places and encourage designs appropriate to context, character and location that can be used safely and enjoyably by the public. The recommended approach includes the adoption of a more integrated model of street design, where barriers (physical and perceived) are removed to promote more equitable interaction between users in a safe and traffic calmed urban environment.

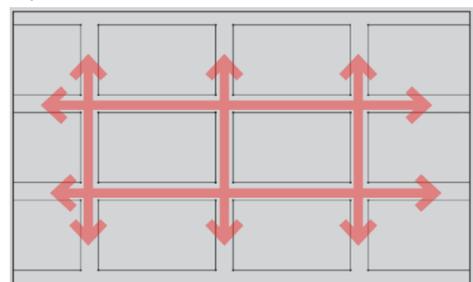
2.1.3 This integrated approach incorporates elements of urban design and landscaping that contribute to positively influence behaviour. The recommended approach creates environments where:

- Street Networks are similar in structure (more eligible) with higher levels of connectivity (more permeability) thus reducing travel distances.
- Higher quality street environments attract pedestrians and cyclists, promoting the use of sustainable modes of transport.
- Self-regulating streets proactively manage vehicle driver behaviour and calm traffic, promoting safer streets.
- Street and junctions are more compact, providing better value for money.

2.2 PLACEMAKING

2.2.1 DMURS recommends that whilst the movement of traffic is still a key issue, there are several others, including the 'sense of place', which are of core significance to the creation of safe and more integrated street designs. DMURS reveals that place can be difficult to define but can be measured and relate to;

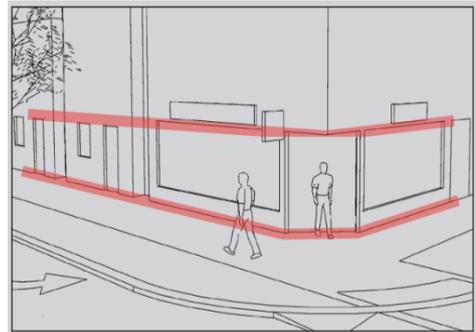
***CONNECTIVITY** : The creation of a vibrant and active places requires pedestrian activity. This in turn requires walkable street networks that can be easily navigated and are well connected.*



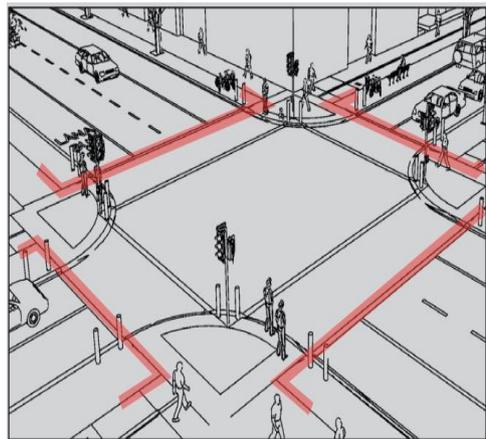
ENCLOSURE : A sense of enclosure spatially defines streets and creates a more intimate and supervised environment. A sense of enclosure is achieved by orientating buildings toward the street and placing them along its edge. The use of street trees can also enhance the feeling of enclosure.



ACTIVE EDGE : An active frontage enlivens the edge of the street creating a more interesting and engaging environment. An active frontage is achieved with frequent entrances and openings that ensure the street is overlooked and generate pedestrian activity as people come and go from buildings.

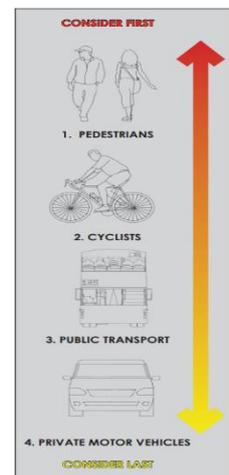


PEDESTRIAN ACTIVITY / FACILITIES: The sense of intimacy, interest and overlooking that is created by a street that is enclosed and lined with active frontages enhances a pedestrian's feeling of security and well-being. Good pedestrian facilities (such as wide footpaths and well designed crossings) also make walking a more convenient and pleasurable experience that will further encourage pedestrian activity.



2.3 THE DMURS USER HIERARCHY

2.3.1 DMURS set out a clear user hierarchy for scheme designers which prioritises sustainable forms of transport. Walking is the most sustainable form of transport with all journeys beginning / ending on foot. By prioritising design for pedestrians, the number of short journeys taken by car can be reduced, public transport made more accessible and the delivery of walkable communities addresses issues of social equity. DMURS reveals that cyclists must be afforded a high priority as trips by bicycle have the potential to replace motor vehicles as an alternative means of transport for short to medium range trips.



2.3.2 The movement of buses should be prioritised over other motorised vehicles according to DMURS whilst the placement of private motor vehicles at the bottom of the user hierarchy is not anti-car but acknowledges that a balanced solution is required with the needs of the car no longer taking priority over (i) the needs of other users or (ii) the value of place within the proposed residential development and across the local receiving environment.

2.3.3 As outlined in Chapter 3 (DMURS Design Attributes) the design team have adhered closely to this hierarchy, by assigning higher priority to the movement of pedestrians and cyclists within the development and implementing self-regulating active travel linkages which actively manage vehicle movements within a low speed, high-quality residential environment.

2.4 DMURS DESIGN PRINCIPLES

2.4.1 At the heart of DMURS is a place-based, integrated approach to road and street design with the following four overarching design principals to be applied to the design of all urban roads and streets.

- ***Design Principle 1:*** To support the creation of integrated street networks which promote higher levels of permeability and legibility for all users, and in particular more sustainable forms of transport
- ***Design Principle 2:*** The promotion of multi-functional, place-based streets that balance the needs of all users within a self-regulating environment
- ***Design Principle 3:*** The quality of the street is measured by the quality of the pedestrian environment
- ***Design Principle 4:*** Greater communication and co-operation between design professionals through the promotion of a plan-led, multidisciplinary approach to design

2.4.2 Compliance of the proposed development with the design principles of DMURS is described in the following section, with details of how these will be implemented through adherence to recommendations in relation to individual design elements.

3. DMURS DESIGN ATTRIBUTES

Design Element	DMURS Guidance	Proposed Development Adopted Design Approach
<p>Movement Function</p>	<p>DMURS encourages designers to consider the movement function of a street / street network and develop a street hierarchy reflective of the levels of connectivity required and volumes of traffic</p>	<p>The proposed development's hierarchy is illustrated in Figure 1.3. With the Richmond Road corridor exhibiting LINK street functions, the proposed internal network incorporates a structured hierarchy of integrated linkages responding to their context and function attributes;</p> <ul style="list-style-type: none"> • Type 1 : Pedestrian Footpath on southern end of Richmond Road (along site frontage) • Type 2 : Tolka Greenway (Segregated pedestrian / cycle facilities providing an east-west link along the site's southern boundary. • Type 3 : Pedestrian/Cycle Access between Richmond Road and route of Tolka Greenway • Type 4 : Front 'shared' surface plaza area adjoining Richmond Road • Type 5 : Internal Private Pedestrian Link <p>The NTA's Cycle Network Plan for the Greater Dublin Area will enhance the attraction of cycling and includes proposals for the provision of a Greenway route along the Tolka Riverbank (through the subject site) which will provide additional permeability and convenient connections to the south via both the Greenway and a new link via Distillery Road. Accordingly, the development proposals only include for vehicle access (i) directly into the basement car park, and (ii) at the 'shared' plaza area to the front of the development. This approach leaves the vast majority of the development's ground floor/surface level completely car-free thus prioritising pedestrians and cyclists.</p>
<p>Place Function</p>	<p>The '<i>Place Function</i>' essentially distinguishes a street from a road, achieved largely by creating a relationship between the street and the buildings and spaces that frame it, ultimately resulting in a richer and more fulfilling environment</p>	<p>The adopted design philosophy has sought to achieve a quality '<i>sense of place</i>' by placing all car parking into the basement, incorporating several green open space areas to facilitate active travel in an attractive safe environment and encourages social activity. Furthermore, the type of surface materials, landscaping and street furniture have been chosen with consideration of both their aesthetic qualities and context of the existing surrounding environment. The design has also sought to minimise the impact of highway features by avoiding excessive signing, road markings and street furniture. Significant levels of enclosure along all links as achieved by the building open space, landscaped orientation and tree planting contribute to providing a more intimate and supervised street environment.</p>

Design Element	DMURS Guidance	Proposed Development Adopted Design Approach
Street Layout	DMURS looks to encourage street layouts where <i>"all streets lead to other streets, limiting the number of cul-de-sacs that provide no through access"</i> and maximise the number of walkable / cyclable routes between destinations	The internal car-free street layout has been influenced by several factors including boundary conditions, future and existing development, watercourses, hedgerows, and consultations with the local planning authority. The resulting street pattern is largely a pedestrian grid pattern, creating attractive legible active travel streetscapes. The street layout was derived from several factors which include, the distinct shape of the site, boundary conditions, policy objectives (e.g., Greenway) and travel desire lines. This has led to the creation of a pedestrian link from Richmond Road to the future Tolka Greenway along the southern edge of the proposed development with future through access maintained for walking and cycling throughout, thereby maximising connections within the site and to adjoining lands thereby complying with DMURS principles.
Block Sizes	DMURS states that block dimensions of 60-80m are optimal for pedestrian movement in Centres, whilst block dimensions of up to 100m enable reasonable levels of pedestrian permeability in Neighbourhoods / Suburbs. Block dimensions should not exceed 120m	The block's size within the proposed development is only 85m long and are optimised in line with density and comply with the requirements of DMURS.
Wayfinding	DMURS states that in general <i>"the more the orthogonal street layout the more legible it will be (as well as being the most connected)"</i>	The link pattern, proposed material specification and provision of access controls to/from the private residential communal area accumulatively influence the users understanding of the proposed development which is recognised by DMURS as being generally legible in terms of wayfinding.
Permeability	Permeability can be categorised into four types: <ul style="list-style-type: none"> • Dendritic Networks • Open Networks • 3 Way Off-Set Networks • Filtered Permeability 	The development strategy adopts an open network model with elements of a filtered permeability network, maximising connectivity between key local destinations through the provision of a high degree of permeability and legibility for 'active' forms of travel.
Approach to Speed (Geometry)	DMURS states that designers should balance speed management, the values of place and reasonable expectations of appropriate speed according to Context and Function. Where vehicle movement priorities are low, such as on Local Streets, lower speeds limits should be applied.	With the exception of emergency and maintenance vehicles, the proposed mixed-use development will have no vehicular movement at surface level other than the lightly trafficked drop-off/collection bay at the development's front plaza area. Thus, with vehicle movement being restricted to the basement car parking facility, vehicles will not be travelling within the site at speeds above 10-15kph.

Design Element	DMURS Guidance	Proposed Development Adopted Design Approach
Approach to Legibility and Self Regulating Streets	<p>Legibility can be achieved with street networks that are structured to draw people towards focal points such as Landmarks, Gateways and other civic buildings and spaces.</p> <p>Self-regulating environments can successfully balance the functional needs of different users, enhance the sense of place, and manage speed in a manner that does not rely on extensive regulatory controls and physically intrusive measures for enforcement.</p>	<p>Movement through the subject development is structured by connecting major focal points in a similar manner to DMURS with proposed focal points also used to deliver a legible network to assist wayfinding and draw people towards key destinations (e.g., Tolka River) and the proposed building focal points / open spaces and key public realm areas.</p> <p>The clear prioritisation of pedestrians and cyclists within the development by the restriction of regular vehicular movements to the basement car parking and the segregating of the bicycle storage facilities (both long-term and short-term) to the development surface/ground floor, promotes the self-regulating environment and functional needs of different active travel.</p>
Street Trees, Planting & Street Furniture	<p>DMURS primarily considers street trees in terms of enclosure and suggests that for ratios of building height and street width within this development that supplementary street trees are desirable</p>	<p>A comprehensive landscape masterplan for the proposed development has been prepared by MITCHELLS & Associates Landscape Architects. The masterplan reinforces a sense of street enclosure through the addition of soft landscaping and street trees with appropriate canopy spreads best suited for optimal compliance with DMURS.</p>
Active Street Edges	<p>Designers should aim for active street edges which provide passive surveillance and promote pedestrian activity</p>	<p>On-street activity is promoted within the internal layout of the development particularly at the development's entrance 'plaza' and route to/from the building entry points in addition to the Pedestrian / Cycle only linkage along the southern edge of the site boundary which benefits from excellent passive surveillance.</p>
Signage & Line Marking	<p>DMURS notes that designers should use discretion with regard to the self-regulating characteristics of streets and the impact of signs / line marking on the value of place</p>	<p>The absence of vehicular traffic at the surface level of the development, and the self-regulating characteristics has removed the need for excessive street signs and line markings. As per the request of DCC, signage will be provided at the basement car park access purely for the prioritisation of pedestrians along the Richmond Road southern footpath along the site frontage.</p>

Design Element	DMURS Guidance	Proposed Development Adopted Design Approach
Materials & Finishes	DMURS states that designers should use <i>'contrasting materials and textures to inform pedestrians of changes to the function of space (i.e., to demarcate verges, footway, strips, cycle paths and driveways) and in particular to guide the visually impaired'</i>	The range of proposed materials is in line with the DCC requirements in regard to external works along Richmond Road 'Link' street. Internally, a range of different surface material treatments are proposed to alert, inform, and influence user's behaviour. The 'shared' use entrance plaza area adjoining Richmond Road will be distinguished through the application of high-quality material specification and future paring to highlight pedestrian priority in the area. The high quality feature paving will be extended in the private development's communal area and courtyard approach to the residential entrance point and onwards along the open space to the north of the residential block. A 'Tarmac' finish is to be applied to the shared pedestrian/cycle path along the western and southern boundary whilst a standard concrete finish is applied to the vehicle route between the basement and Richmond Road.
Footways	DMURS notes that well designed footpaths are free of obstacles and wide enough to allow pedestrians to pass each other in comfort.	Clear, unobstructed footpaths of no less than 2.0m wide are provided throughout the scheme, with connections and tie-ins to existing external pedestrian networks thereby complying with DMURS requirements. Greenways (shared ped / cycle connections) have been designed to incorporate 3.0m wide facilities as per the guidance outlined in the National Cycle Manual which accompany DMURS
Pedestrian Crossings	DMURS considers crossings to be <i>"one of the most important aspects of street design as it is at this location that most interactions between pedestrians, cyclists and motor vehicles occur"</i> .	The proposals include the provision of a signal controlled crossing on Richmond Road which is provided with dropped kerbs thereby allowing pedestrians to gain priority when seeking to cross this road carriageway.
Corner Radii	Reducing corner radii improves pedestrian and cyclist safety at junctions by lowering vehicle speeds and increasing inter-visibility between users	With the objective of encouraging low vehicle speeds and maximising pedestrian priority, safety and convenience, the private access to the scheme has not been designed as a traditional junction, but with pedestrians along the raised footpath given priority and vehicles requiring to cross the footpath via dropped kerbs as per DCC standards and guidance.
Pedestrian & Shared Surfaces	In the context of the proposed development, DMURS recognises the use of shared surfaces as being highly desirable where <i>"movement priorities are low and there is a high place value in promoting more liveable streets (i.e., Homezones) such as on local streets within neighbourhood"</i>	The 'plaza/ area at the site frontage between Richmond Road carriageway and the 'gated' entrance to the scheme's 'private' communal area is to function as a 'shared' area. Nevertheless, the only motorised vehicles that will use this area is the occasional drop-off/collection trip. The design of this shared area has been achieved by applying different materials and finishes within the design at the site access clearly prioritising the pedestrian/cycle and controlling vehicle accesses to the subject site. The development prioritises the movement and safety of pedestrians across the plaza area.

Design Element	DMURS Guidance	Proposed Development Adopted Design Approach
Cycling Facilities	DMURS references the National Cycle Manual (NCM) in terms of the provision of appropriate cycling facilities.	The scheme proposals include the provision of the DCC/NTA Tolka Greenway infrastructure operations along the entirety of the southern edge of the proposed development in addition to a link to the Richmond Road corridor along the western boundary. At 3.0 m wide this pedestrian/cycle greenway connection accords with the guidance outlined within the National Cycle Manual. Furthermore, the proposed development has made adequate provision for potential future enhancement along Richmond Road corridor allowing for a wider carriageway cross section and the incorporation of a formal cycle lane as per the NCM guidelines.
Carriageway Width	DMURS states that LINK Streets should lie in the range of 5.5m to 7m, while on Local Streets carriageway widths should be between 5.0m-5.5m and on local streets where a shared surface is provided should not exceed 4.8m	The proposed developments internal pedestrian street network is considered to be compliant with DMURS. Swept path analysis and vehicle tracking movements have been undertaken to demonstrate the manoeuvring requirement vehicles accessing their designated locations. The proposed development proposals do not include any traditional vehicular streets within the proposals other than the designated basement car parking facility which has been designed in reference to the appropriate standards.
Carriageway Surfaces	Where low design speeds are desirable (i.e., 30km/h) DMURS states that changes in colour and/or texture of the carriageway should be used periodically such as at crossings or where shared carriageways are proposed (i.e., 10-20km/h) applied to the full length of the street	Traffic calming features such as requiring vehicles to cross raised pedestrian crossings and shared surfaces have been supplemented with the use of differentiated coloured surfacing in reference to the function of any given area including the specification of feature paving across the 'plaza' area.
Junction Design	Junction design has traditionally been determined by traffic volumes however DMURS recommends that designers should now take a more balanced approach to junction design catering for all road users' specific requirements	Both vehicle access points (basement/'plaza' area) are required to cross the raised footpath area (as per DCC request) thereby affording priority to pedestrians representing a move from away the traditional junction design which focuses upon vehicle movements.
Forward Visibility & Visibility Splays	DMURS provides SSD Standards in relation to forward visibility requirements at junctions to ensure drivers have sufficient reaction time	Appropriate clear unobstructed visibility splays on both the horizontal and vertical planes, as per DMURS requirements; are provided / safeguarded at the site access/egress locations to the external road network in response to the adopted 50kph design speeds along Richmond Road Corridor.

Design Element	DMURS Guidance	Proposed Development Adopted Design Approach
Kerbs	DMURS provides indicative kerbs heights of 125mm on Link Streets for clear segregation, while lower kerb heights of 60mm are appropriate pedestrian activity is higher & design speeds lower i.e., Local Streets and no kerb should be provided for shared surface	Along Richmond Road carriageway kerb heights comply with DMURS requirements.
On-Street Parking	Well designed on-street parking can help calm traffic, although a balance needs to be struck as an over provision will conflict with sustainability objectives and be visually dominant.	It is noted that in response to preplanning observations, the location and BTR characteristics of the proposed development, a 'car lite' scheme is proposed. The car parking management strategy as referred to in DBFL's TTA report prioritises active travel and pedestrian and cyclist comfort and safety at surface/ground floor level. Accordingly, with the local guidelines and the DHPLG's recommendation to apply a significantly reduced car parking quantum and the prioritisation of active travel on the entirety of the development surface level has been achieved with all car parking being accommodated in an internal basement facility. Accordingly, no on-street car parking on Richmond Road/Public Road network is provided for.
Multi-disciplinary Design Team	DMURS advocates multi-disciplinary input into the development of a scheme to ensure a holistic design approach is implemented	In accordance with design philosophy of DMURS, the proposed development has been prepared by a multi-disciplinary design team including RKD Architects (architects), DBFL Consulting Engineers (civil engineers & transport planning), Mitchells & Associates (landscape architects), GSP Fire Access Consultant (Fire and DAC Consultant), Axiseng Consulting (M&E Engineers) and Thornton O'Connor Town Planning (Planning Consultant).
Road Safety Audit (RSA)	RSAs are required to identify potential hazards and how they could affect road users. They should be undertaken in full cognisance of the principles, approaches and standards contained within DMURS	RSAs will be considered for all stages of the development to ensure adequate and appropriate measures are included guaranteeing satisfactory standards of personal and traffic safety. A stage 1 RSA has been included as part of the independent Quality Audit undertaken by Burton Consulting Engineers and as reported in a separate stand alone report which is included in the Planning Application Documentation.