

OCSC

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MULTIDISCIPLINARY CONSULTING ENGINEERS

Z040: BLACKGLEN ROAD LRD

DMURS COMPLIANCE STATEMENT

For
Zolbury Ltd

17 December 2024

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DOCUMENT CONTROL & HISTORY

OCSC Job No: Z040	Project Code	Originator	Zone Volume	Level	File Type	Role Type	Number	Status / Suitability Code	Revision
	Z040	OCSC	XX	XX	RP	C	0106	S4	P04

Rev.	Status	Authors	Checked	Authorised	Issue Date
P01	S2	Wian Marais	Patrick Raggett	Anthony Horan	3/05/2024
P02	S4	Wian Marais	Patrick Raggett	Anthony Horan	31/05/2024
P03	S2	Wian Marais	Patrick Raggett	Anthony Horan	8/11/2024
P04	S4	Wian Marais	Patrick Raggett	Anthony Horan	17/12/2024

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1 INTRODUCTION

O'Connor Sutton Cronin & Associates (OCSC) have been appointed by Zolbury Ltd. to prepare this DMURS Statement of Compliance with respect to the proposed residential development comprising the design of 192 no. residential units, associated resident amenity facilities and a childcare facility at Blackglen Road, Sandyford.

1.1 ADMINISTRATIVE JURISDICTION

The proposed development is located in the jurisdiction of Dun Laoghaire Rathdown County Council (DLRCC), and therefore this assessment has given due consideration to the relevant guidelines including:

- Design Manual for Urban Roads and Streets – May 2019
- Dún Laoghaire-Rathdown County Development Plan 2022 – 2028.

1.2 STUDY AREA

The subject site is located at lands at Blackglen Road in Sandyford, Co. Dublin as shown in the figure overleaf. The proposed development site is immediately bound by:

- Blackglen Road to the north;
- Residential properties to the east, south, and west; and
- Woodside Road to the west and south.



Figure 1: Site Location

1.3 DEVELOPMENT DESCRIPTION

Zolbury Ltd., intend to apply to Dun Laoghaire Rathdown County Council for permission for development for a Large Scale Residential Development (LRD) on a site of approx. 3.86ha on lands at Blackglen Road, Sandyford, Dublin 18.

The development will consist of 192 no. residential units ranging from 2-5 storeys in height, associated resident amenity facilities, a childcare facility, all boundary treatment and landscaping works, site services connections and all site development works to include:

(a) Construction of 192 no. residential units, in the form of 6 no. new apartment buildings (A1 – B4), 40 duplexes (C1, C2, C2A) and 14 houses (D1 & D2), to include 33 no. 1-beds, 84 no. 2 -beds, 61 no. 3-beds and 14 no. 4-beds as follows:

- Block A1 (4 storeys) comprising 15 no. apartments (3 no. 1 bed units, 6 no. 2 bed units & 6 no. 3 bed units); a crèche facility of approx. 378.2 sq. m with associated outdoor play space of approx. 170 sq. m; and resident amenity facilities of approx. 31.6 sq. m.
- Block A2 (3-4 storeys) comprising 26 no. apartments (2 no. 1 bed units, 20 no. 2 bed units and 4 no. no. 3 bed units) and resident amenity facilities of approx. 353.6 sq. m.
- Blocks B1 and B2 (2-5 storeys) comprising 51 no. apartments (15 no. 1 bed units, 29 no. 2 bed units, 7 no. 3 bed units).
- Blocks B3 and B4 (2-5 storeys) comprising 46 no. apartments (13 no. 1 bed units, 23 no. 2 bed units and 10 no. 3 bed units).
- Duplex Units C1 (4 storeys), C2 and C2A (3 storeys) comprising 40 duplexes (6 no. 2 bed units, 20 no. 3 bed units and 14 no. 4 bed units).
- House Units D1 and D2 (2 storeys) comprising 14 houses (14 no. 3 bed units).

(b) Total Open space (approx. 10,854 sq. m) is proposed in the form of public open space (approx. 8, 686 sq. m), and residential communal open space (approx. 2,168 sq. m). Each residential unit is afforded with associated private open space in the form of a garden/terrace/balcony.

(c) The development will be served via a new vehicular access via Blackglen Road. This will be designed as a priority junction with pedestrian and cycle crossings where required to tie in with the Blackglen Road Improvement Scheme.

(d) A new toucan crossing is proposed across Blackglen Road just to the east of the new vehicular access. This toucan crossing has been designed as per TL607 of the Cycle Design Manual to allow crossing of pedestrians and cyclists to the northern side of Blackglen Road for improved public transport access.

(e) Emergency access only is proposed via Woodside Road.

(f) A dedicated wildlife corridor is proposed to the east/south-east side of the site and a public open space (approx. 307 m in length) tree trail to the west/north-west side of the site.

(g) Basement/Podium car park areas are proposed below Blocks B1, B2, B3 and B4. A total of 226 no. car parking spaces are proposed, which includes 2 no. car club spaces, 12 no. accessible spaces and 47 no. EV charging spaces (198 no. long-stay spaces, 18 no. visitor space & 10 no. car parking spaces for creche use), in addition to 9 no. motorcycle spaces.

(h) A total of 484 no. bicycle spaces are proposed in the form of 442 no. long stay bicycle spaces 42 short-term stay visitor parking.

(i) 2 no. ESB substations at surface level.

(j) Bin Storage areas for the Duplex blocks are proposed at ground level adjacent to the Duplex blocks.

(k) All associated site and infrastructural works to include provision for water services; foul and surface water drainage and connections; internal roads, attenuation proposal; permeable paving; all landscaping works including green infrastructure zones; green roofs; and general plant areas; photovoltaic panels; landscaped boundary treatment; footpaths; public lighting; and electrical services.

2 CHARACTERISTICS OF THE DEVELOPMENT

2.1 DEVELOPMENT OVERVIEW

The proposed LRD development will consist of the following elements:

192 no. residential units, associated resident amenity facilities and a childcare facility as follows:

- 138 no. apartments;
- 40 no. duplexes;
- 14 no. houses; and
- A crèche facility of approx. 378 sq. m.

The proposed site layout plan is shown in the figure below.



Figure 2: Proposed Site Layout

2.2 SITE ACCESSIBILITY

The proposed vehicular access to the site will be via Blackglen Road. This was designed as a priority junction with pedestrian and cycle crossings where required, based on the outcome of this analysis. The proposed entrance has been designed in accordance with the requirements of DMURS, particularly with respect to sightline requirements (Section 4.4.5), corner radii (Section 4.3.3) and pedestrian infrastructure (Section 4.3).

The site will also feature access on the southwestern side, on Woodside Road; however, it should be noted that this access will only be used as emergency access. This access will be closed off with retractable bollards spaced less than 2m apart to prevent cars from entering. The bollards will be managed by the concierge, with the ability to lower the bollards in case of emergency. It should however be noted that this access has only been provided as an alternative access for a situation where the main spine road is blocked or access to the upper hillside is restricted. In most instances, the main access will be used for emergencies.

This access will also serve as a pedestrian and cycle access to provide permeability through the site. The site will include an access road with minor roads branching off as shown in the figure below:



Figure 3: Development Access and Road Layout

To improve pedestrian and cyclist accessibility and movements around the site, it is also proposed to provide a controlled toucan crossing just east of the Blackglen Road access to facilitate the north-south crossing of active travel users. This toucan crossing has been designed as per TL607 of the Cycle Design Manual as shown below.

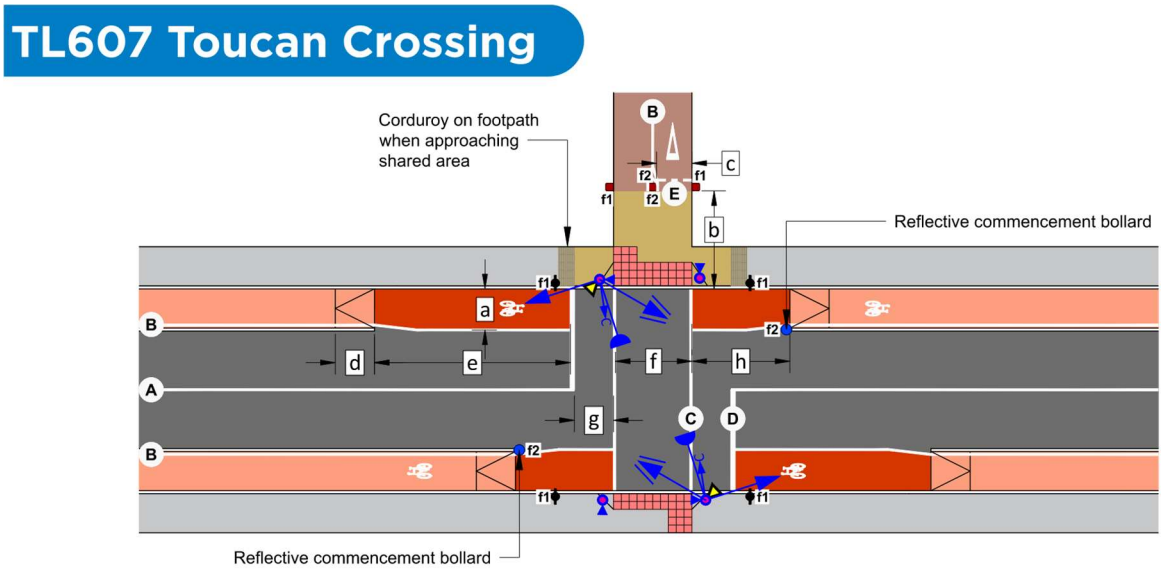


Figure 4: TL607 Toucan Crossing (Source: Cycle Design Manual)

3 DMURS DESIGN PRINCIPLES

The proposed link roads and streets together with the junctions, footpaths and cycle facilities will be designed per the requirements of the Design Manual for Urban Roads and Streets (DMURS) and the National Cycle Manual (NCM). DMURS is the design philosophy used in the design of all new residential roads and urban streets and the key objective of DMURS is to achieve safe, attractive, and vibrant streets by balancing the needs of all users and prioritising alternatives to car journeys. The subject site will be fully consistent with this recommended approach whilst also facilitating efficient and secure internal movement. The proposed site layout encourages permeability through the site, connecting to the wider area via pedestrian links and cycleways and seeks to prioritise pedestrians and cyclists under the policies set out in DMURS.

3.1 INTEGRATED STREET NETWORKS

The subject site will be linked to the road network via new access on Blackglen Road. Dedicated pedestrian and cyclist infrastructure will link with new infrastructure that has been implemented as part of the Blackglen Improvement Scheme. All footpaths within the development that run parallel to the proposed road infrastructure will be a minimum of 1.80m. Where footpaths run parallel to shared space, a minimum width of 1.50m will be allowed.

3.2 MOVEMENT AND PLACE

The proposed development incorporates a permeable and legible street network that offers route choice and flexibility for managing movement. There is a fully integrated pedestrian network with all the main landscape spaces connected to a universally accessible route. In line with best practice, the design incorporates an orthogonal type of street layout thus promoting legibility as well as connectivity.

The proposed network is structured and will draw future occupants toward focal points including green open spaces and courtyards.

3.3 PERMEABILITY AND LEGIBILITY

Pedestrian and cyclist movement is prioritised by providing a layout that restricts vehicular access to the spaces between residential blocks. A high degree of pedestrian permeability throughout the site is created by providing footways that connect the spaces between each block with crossing facilities at the various junctions. A pedestrian and cyclist access is also provided at Woodside Road at the southwestern portion of the site. This will allow permeability through the site between Woodside Road and Blackglen Road.

3.4 TRAFFIC MANAGEMENT

By assigning carriageway widths of 5.50m for link road access and where perpendicular parking occurs on both sides of the road and the remaining local streets, along with variations in the horizontal alignment of the access road, a natural traffic calming effect is provided in both a physical and psychological sense, which will assist in self-regulating vehicular speeds.

Gradients proposed to minimise the need for revving of engines and associated noise and emissions, while appropriate landscaping will absorb excessive sound. Pedestrian priority will be provided at internal junctions which also serve as a traffic calming measure. The location of the site will promote the use of public transport thus contributing to reduced air emissions.

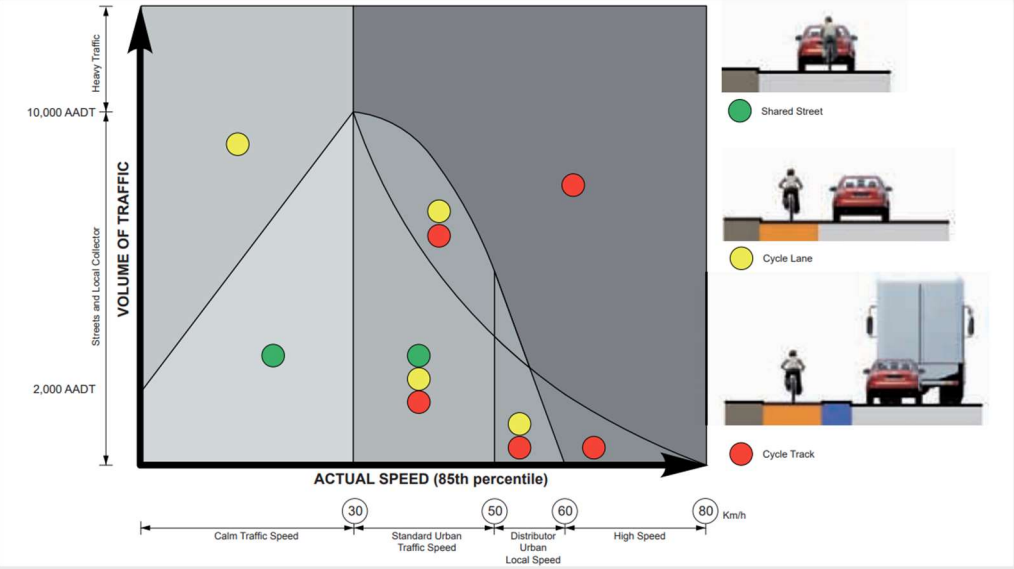
The main spine road has been designed according to section 4.4.6 of DMURS to include some changes in horizontal alignment in order to improve traffic calming. This is especially important due to the relatively steep gradient from the southwestern (hillside) side of the development to the central part, which could lead to unnecessarily high speeds if the road is straight. This curvature and alignment is also required in order to ensure road levels remain within acceptable gradients below 5%.

In addition to the above, the proposed playground has been relocated to the main public open space to form one larger area. This will also ensure that the safety of children playing are not compromised due to the proximity of the playground to the road, and the potential division that the road creates between different elements of the development.

3.5 MOVEMENT, PLACE AND SPEED

High levels of pedestrian movement are catered for which supports vibrant and sustainable places. The segregation and exclusion of vehicular traffic and where appropriate the use of shared streets within the development also supports the sense of place.

Element	Consistency with DMURS
Streets and Link Roads	All Link Roads and Streets within the development showcase their hierarchy through their widths by means of a 5.50m width for the main link road and 4.50m for the minor roads. The two short sections of roads which are used to access the basement parking have been designed at a width of 6.00m in order to accommodate the required width for these accesses. • The maximum road gradient is 1:12 with a minimum gradient of 1:100. • Corner Radii to be 3.0m to 4.0m depending on the required swept paths. • Speed Limits to be 30.0 kph.
Footpaths	All footpaths provided will be a minimum of 1.8m in line with DMURS. New footpath links will be constructed to enhance connectivity.

Element	Consistency with DMURS
Cycle Lanes	Cyclists will utilise a shared surface with vehicular traffic. This is in line with DMURS and the National Cycle Manual and can be incorporated due to low speeds and low AADT within the development: 
Junctions	The entrance junction is a priority junction with pedestrian and cycle crossings where required. A balanced approach to junction design has been made to meet the objectives of Smarter Travel (2009) and the DMURS Manual wherein the following were observed in the design: • Pedestrian crossings have been provided; • Kerb radii have been reduced, thereby reducing crossing distances for pedestrians and slowing turning vehicles; • Direct/single-phase crossings have been provided. • Visibility standards are maintained at all junctions.
Visibility	The internal development of horizontal and vertical visibility is to be maintained at all junctions and crossings in line with the 30 kph Design Speed.

4 VERIFICATION

This report was compiled and verified by:

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