



# PROPOSED RESIDENTIAL DEVELOPMENT ON BOHERBOY ROAD.

**PIN-RP-00-C003-V2**

## STATEMENT OF COMPLIANCE WITH DMURS

- BUILDING INFORMATION MODELLING (BIM)
- CIVIL DESIGN & ENGINEERING
- DUE DILIGENCE
- OFFSHORE & ONSHORE ENGINEERING
- PRE-DEVELOPMENT
- STRUCTURAL ENGINEERING
- TRANSPORTATION & HIGHWAYS

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Statement of Compliance with DMURS

Version No – 2

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## 1 INTRODUCTION

### 1.1 Introduction

This Statement of Compliance with DMURS has been prepared by Pinnacle Consulting Engineers in support of a Large-Scale Residential Development application to South Dublin County Council for a residential development located off Boherboy Road, Co. Dublin.

Kelland Homes Ltd. and Evara Developments Ltd. wish to apply for permission for a Large-scale Residential Development (LRD) on a site located at Boherboy, Saggart, County Dublin. To the immediate north of the site is the Carrigmore residential estate, to the west are agricultural lands and a single dwelling, to the east is the Corbally residential estate and Carrigmore Park, while to the south is the Boherboy Road.

The proposed development consists of 611 no. dwellings, comprised of 306 no. 2, 3, 4 & 4-5 bed, 2 & 3 storey, detached, semi-detached & terraced houses, 133 no. 1, 2 & 3 bed duplex units in 12 no. 2-3 storey blocks, and 172 no. 1, 2 & 3 bed apartments in 5 no. buildings ranging in height from 4-5 & 5 storeys. The proposed development also includes a 2-storey crèche (c.630m<sup>2</sup>).

Access to the development will be via one no. new vehicular access point from the Boherboy Road, along with new vehicular connections to adjoining developments at Corbally Heath to the east and Carrigmore Green to the north. Ten no. houses in the south-east part of the site will be accessed from Corbally Glade to the east. The proposed development includes for pedestrian and cyclist connections throughout the proposed development and accesses into adjoining lands at Carrigmore Park, Corbally Heath and Corbally Glade to the east and Carrigmore Green to the north.

Private amenity space for the residential units is provided in the form of rear gardens for houses and ground floor terraces / upper floor balconies for apartments and duplex units. The proposed development provides for a total of c. 2.3Ha of public open space, and c. 4,750sq.m of communal open space associated with proposed development.

The proposed development provides for (i) all associated site development works above and below ground, including surface water attenuation & an underground foul sewerage pumping station at the northern end of the site, (ii) public open spaces (c. 2.3Ha), (iii) communal open spaces (c. 4,750sq.m), (iv) hard & soft landscaping and boundary treatments, (v) surface car parking (861 no. car parking spaces), (vi) bicycle parking (711 no. bicycle parking spaces), (vii) bin & bicycle storage, (viii) diversion of all existing overhead ESB lines underground, (ix) public lighting, and (x), plant / PV panels (M&E), utility services & 8 no. ESB sub-stations, all on an overall application site area of c.18.7Hha. In accordance with the South Dublin County Development Plan (2022-2028), an area of c.1.03Ha within the site is reserved as a future school site.

It is proposed to develop this site based on the following schedule of accommodation:

Proposed Land Uses	
Houses	306
Duplex	133
Apartments	172
Total	611
Crèche	630 sq. m

Table 1 Proposed Land Uses

Access to the development will be via one no. new vehicular access point from the Boherboy Road, along with vehicular, pedestrian and cyclist connections to adjoining developments at Corbally Heath and Corbally Glade to the east and Carrigmore Green to the north.

The site has an area of 18.7Ha

The site is located approximately c. 13.7 Km southwest of Dublin City Centre and is bounded to the north by Carrigmore Estate; Corbally Estate to the east; agricultural land to the west and Boherboy Road to the south.

The site is currently a greenfield site.

The site location is shown in Figure 1.

In order to complete this report, Pinnacle Consulting Engineering has made reference to the following documents:

- The Design Manual for Urban Roads and Streets (2023)



Figure 1 Site Location (Source: GeoHive)

## 1.2 Development

It is proposed to develop a residential development consisting of 611 residential units with associated car park and servicing arrangements on lands of Boherboy Road, Co. Dublin.

Refer to the Architect's and Landscape Architect's drawings for details on the road hierarchy.

## 1.3 Boherboy Site Context

The proposed development is located on the Boherboy Road (L2008), within the established suburban area of Saggart, County Dublin, approximately 13.7 km southwest of Dublin City Centre. The site benefits from strong connectivity to the N81 regional corridor and the wider Citywest employment and residential area, which together provide access to a range of public transport options and local services. The Fortunestown Luas Stop, situated approximately 950 metres north of the site, offers frequent tram services to Tallaght and Dublin City Centre, while multiple Dublin Bus routes operate within walking distance of the site, linking to regional destinations such as Blessington and Rathcoole. This locational context supports a sustainable transport framework, in line with the objectives of the South Dublin County Development Plan 2022–2028 and national mobility policy.

Access to the development will be via one no. new vehicular access point from the Boherboy Road, along with vehicular, pedestrian and cyclist connections to adjoining developments at Corbally Heath and Corbally Glade to the east and Carrigmore Green to the north.

The proposed site access points are illustrated in Figure 21 below.



Figure 2 Proposed Access

These access arrangements have been designed in accordance with DMURS (2023) and TII's traffic management standards, providing suitable visibility, turning geometry, and pedestrian crossing facilities. No construction or operational traffic will route through existing residential estates such as Carrigmore or Corbally. This arrangement aligns fully with the Construction Traffic Management Plan (PIN-RP-00-C005-V1) and the EIAR Transport and Traffic Chapter, ensuring that construction-related movements are confined to the designated haul route and that operational traffic integrates safely into the existing transport network without adverse impact on local residents.

#### 1.4 Boherboy Site Context and Local Policy Context

The proposed development is located on Boherboy Road (L2008) within the established suburban settlement of Saggart, County Dublin, approximately 13.7 kilometres southwest of Dublin City Centre. The site benefits from strong connections to the N81 regional corridor and the wider Citywest and Fortunestown area, which provide a range of public transport and local service opportunities. The Fortunestown Luas Stop, located approximately 950 metres north of the site, offers frequent tram services to Tallaght, Heuston, and Dublin City Centre. In addition, multiple Dublin Bus routes operate within walking distance of the site, linking to regional destinations such as Blessington, Rathcoole, and Clondalkin. This locational context supports the principles of compact growth and sustainable mobility, ensuring future residents can rely on walking, cycling, and public transport as viable alternatives to private car use.

Access to the development will be via one no. new vehicular access point from the Boherboy Road, along with vehicular, pedestrian and cyclist connections to adjoining developments at Corbally Heath and Corbally Glade to the east and Carrigmore Green to the north.

These access arrangements have been designed in accordance with DMURS (2023) and TII's Traffic Management Guidelines, incorporating appropriate sightlines, junction geometry, and pedestrian crossing facilities. No construction or operational traffic will route through existing residential estates such as Carrigmore or Corbally. This arrangement aligns fully with the Construction Traffic Management Plan (PIN-RP-00-C005-V1) and the EIAR Transport and Traffic Chapter, ensuring that construction-related movements are confined to the designated haul route and that operational traffic integrates safely into the existing network without adverse effects on local residents or community amenity.

#### 1.5 Local Policy Context

The proposed development accords with the principles and objectives of the South Dublin County Development Plan 2022–2028, which promotes compact, walkable neighbourhoods and high-quality street environments consistent with the guidance set out in DMURS (2023). The development also aligns with Policy SM3 – Walking and Cycling, which seeks to prioritise active travel modes in new residential layouts through the provision of permeable street networks, safe crossing points, and direct connections to local services and transport nodes. The inclusion of segregated cycle facilities along the internal link streets, high-quality pedestrian routes connecting to Carrigmore District Park, and permeability to Corbally Estate demonstrates compliance with the County Council's vision for sustainable and connected communities.

In addition, the design responds to the principles of the National Sustainable Mobility Policy (2022) and the Sustainable Residential Development and Compact Settlements Guidelines (2024), ensuring that the layout promotes a balance between movement and place, reduces reliance on

private vehicles, and supports the creation of a safe, vibrant, and inclusive neighbourhood consistent with current planning policy and urban design best practice.

## 2 ROAD HIERARCHY

### 2.1 Introduction

A hierarchy of roads has been provided as:

- Link Streets,
- Side Streets &
- Homezones.

The aim is to provide self-regulating streets offering low speed route choices within a high-quality residential environment. While there is a hierarchy of road types, all roads through this residential development are provided as slow-moving traffic roads.

All internal estate roads have been designed with short straight elements, gentle horizontal curves from junction to junction, varying road widths (6.0m, 5.5m, 5.0m & 4.8m), smooth & gentle vertical alignments and numerous interconnections, route options & looped sections keeping speeds low to create a pleasant living environment.

Fast moving traffic is discouraged by the horizontal alignment arrangement. Speed limits of 30km/hr maximum is proposed. Home-zones such as those proposed for "local access only" and short cul de sacs shown below will have lesser speed limits applied, i.e., 10-20km/hr.

### 2.2 Road Hierarchy

The proposed internal street network for the Boherboy Large-Scale Residential Development (LRD) has been designed in accordance with the principles set out in the Design Manual for Urban Roads and Streets (DMURS, 2023), creating a clear and legible hierarchy of routes that balance movement and place functions across the site. The road hierarchy defines the roles and design characteristics of each route type to ensure safe and efficient movement for all users, including pedestrians, cyclists, public transport, and vehicles, while maintaining a high-quality residential environment.

The Primary Distributor Route, forming the main access spine through the development, extends northwards from the new entrance on Boherboy Road (L2008) and provides the principal connection between the site access and the central and northern development areas. This route will facilitate general traffic movement as well as access for service, delivery, and emergency vehicles.

It is designed as a low-speed urban street (30 km/h) with a carriageway width of approximately 6.0 metres. The street layout has been developed in accordance with DMURS principles, ensuring a balanced approach to vehicular movement, pedestrian permeability and cyclist safety.

Along the Primary Distributor Route, a series of street typologies are incorporated to respond to context and function. On the southern section, the design includes a 2.0-metre footpath located behind on-street parking spaces, together with a 2.0-metre segregated cycle track.

Through the middle third of the route, the cross-section transitions to provide a 2.0-metre footpath, on-street parking and a verge on the opposite side of the carriageway. This arrangement maintains pedestrian safety and supports a more urban edge while accommodating parking demand.

Along the remaining sections of the route, a combination of 2.0-metre footpaths and on-street parking is provided on both sides of the road, ensuring consistency of design while supporting accessibility and permeability throughout the street network. The spine also provides frontage access to key community facilities and interfaces with the main areas of public open space.

From the primary spine, a series of Secondary Link Streets branch into the wider residential layout, connecting various neighbourhood cells and open space areas. These streets provide permeability throughout the development while accommodating moderate traffic volumes and promoting traffic calming through horizontal and vertical deflection. They typically have a carriageway width of between 5.5 and 6.0 metres, with 1.8–2.0 metre footpaths on both sides. The design speed for these routes is generally 25–30 km/h, supporting a safe and comfortable shared environment for residents, visitors, and cyclists.

Within the residential clusters, Local Access Streets provide direct access to individual dwellings and smaller cul-de-sacs. These streets are designed to prioritise the local community environment rather than through-movement and incorporate tight geometry and on-street parking to naturally moderate vehicle speeds. Carriageway widths generally range from 5.0 to 5.5 metres, with footpaths provided on both sides or, in some lower-volume sections, as shared surfaces. Design speeds along these streets will not exceed 20 km/h, consistent with DMURS home-zone principles.

A number of Shared Surface and Home Zone Areas are proposed within the development, primarily serving short internal loops and residential courtyards. These are designed as pedestrian-priority spaces with low vehicle speeds (10–15 km/h), high-quality paving, flush kerbs, and street trees to create a sense of enclosure. These areas will encourage community interaction, passive surveillance, and a human-scaled public realm.

Complementing the vehicular network, a series of Pedestrian and Cycle Links will ensure strong permeability throughout the development and into adjacent areas such as Carrigmore, Corbally, and Carrigmore District Park. These routes, generally 3.0 metres in width, will provide safe and attractive off-road connections between residential areas, public open spaces, and the wider active-travel network. They will include lighting and passive surveillance from adjoining properties to ensure year-round safety and accessibility.



**Figure 3 Road Hierarchy**

Externally, all vehicular construction and operational access will be provided solely via Boherboy Road (L2008). This route serves as the primary and only vehicular connection to the wider regional road network, linking directly to the N81 and Citywest area. No other vehicular access points, including the internal pedestrian or cycle connections to Carrigmore or Corbally, will be used for construction traffic. This ensures that all heavy and light vehicle movements are confined to a designated and managed access route, minimising disturbance to established residential areas.

### 3 DESIGN PRINCIPLES

#### 3.1 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*

The site is located within zoned 'Residential' lands in the Boherboy LAP.

The proposal is for sustainable residential development with linkage to the adjacent urban areas and transport hubs to the north, south and east, via Carrigmore and Corbally Estates and the Boherboy Road corridor. The residential use and associated open space provided will complement the current residential developments surrounding the site including mature estates to the north and east of the site.

The layout for the proposed housing scheme has been carefully developed to provide smaller residential clusters which centre on well landscaped public open spaces located throughout the development. There is pedestrian linkage to the open spaces, and we have provided permeability through these spaces. Finishes within key public spaces use home-zone materials to reinforce pedestrian priority.

The proposed road layout provides for both road, cyclist and pedestrian connectivity with the proposed layout creating a clear system of roads and pavements which are easy to navigate for both drivers and pedestrians. The design of the road and pavement alignment has been carefully designed to introduce curvature into the horizontal alignment which acts as a traffic calming measure throughout the scheme.

Long, uninterrupted straight sections of roadway have been deliberately avoided. This approach is consistent with DMURS guidance, which encourages horizontal deflection and varied alignment to moderate vehicle speeds and enhance overall streetscape safety.

Access to and from the site is through a new DMURs compliant access junction located off the Boherboy Road. The design of these junction has been selected to ensure sight visibility both from the junction and for forward visibility from other road users on the Boherboy Road. Additional access will be provided into the Corbally and Carrigmore estates.

There are presently no footpaths along Boherboy Road. Associated public lighting and drainage is also proposed.

There are other alternative pedestrian routes available to provide good pedestrian linkage to the N82 via Corbally estate to the west and Citywest Road to the north via Carrigmore.

#### 3.2 Design Principle 2

*The promotion of multifunctional streets that balance the needs of all users within a self-regulating environment.*

The roads alignment design throughout the proposed development consists of short, curved stretches of roadway in order to slow traffic down. These features create a passive method for controlling the speed of the vehicular movements throughout the development.

The development has been designed to include car parking for both the apartment development, crèche and housing units.

The apartment car parking comprises mostly on-street parking.

However, parking for homeowners in the development shall be predominantly within their front of house areas within their site boundary with some on-street parking. This has been specifically designed to align with homeowners' preference to have their private vehicles positioned within the limitations of the individual site ownership and to avoid a feeling of over dominance associated with having the majority of parking located on-street.

### 3.3 Design Principle 3

*The quality of the street is measured by the quality of the pedestrian environment.*

Raised tables located along the road alignment have been incorporated throughout the proposed development at specific locations to promote lower speed limits along the long sections of roadway which is sloped to act as passive speed control measures.

These raised tables also act as providing pedestrian crossing points at-grade. These raised crossings shall provide the pedestrian with a sense of priority over vehicular movements at these interfaces. While footways adjacent to the roads have been provided through the development, a further independent network of footways is included through the open spaces away from vehicular routes.

The following geometric designs have been incorporated into the development:

- Pedestrian footpaths located alongside the road carriageways are a minimum 2.0m wide. The footpaths that extend through the open spaces are also 2.0m wide.
- The radii have been kept to a minimum in accordance with the guidance in DMURS (2023). The road entrance radii are range from 6.0m at the main entrance to the development and 4.5m on the internal junctions. Road widths within the development are as follows:
  - Link Streets is to be 6.0m wide
  - Side Streets are to be 5.5m wide
  - Homezones are to be 4.8m wide with a 1.2m footpath delineated with a 25mm bull nose kerb

The internal layout of the proposed development incorporates a number of designed features such as varying surface materials and colours which will establish a sense of place while increasing the overall safety of providing a shared surfacing for all road users. The inclusion of a shared paved vehicular and paved areas and an abundance of planting/vegetation will also encourage lower vehicle speeds throughout the development and give the pedestrian a sense of priority.

Pedestrian crossing points have been located along the entire road alignment throughout the development to allow the pedestrian to be afforded ease of movement through the complex and all desire lines have been carefully designed and incorporated into the scheme. Refer to Pinnacle Engineering Drawing No. P200107-PIN-XX-DR-D-101-S1-P03 to 104-S1-P03 for details of the Internal Road Network.

The main link street through the site has a very strong building edge. The building edge is defined by 3 and 4 storey buildings with a mixture on street and perpendicular car parking. This creates a visual queue for drives by creating a 'canyon effect'. This can calm traffic by increasing drive caution as the 'canyon' effect visually narrows the carriageway and appears to reduce forward visibility.

### 3.4 Design Principle 4

Greater communication and cooperation between design professionals through the promotion of a plan led, multidisciplinary approach to design.

The design of the proposed housing development for 611 units has been designed using a coordinated design team inclusive approach between architect, engineers, planning consultants and landscape designers taking into account considerations from all discipline specialists.

The design team have progressed through several iterations of the layout in line with comments received from each discipline while also taking into consideration feedback received from both South Dublin County Council and An Bord Pleanála as part of the previous application on this site to arrive at a solution which meets the guidance outlined in the DMURS. The resulting layout provides a development of high standard which incorporates spatial requirements and takes into account relevant plans and policies.

Therefore, we are satisfied that the now proposed design addresses all issues raised by the various disciplines and following integration of all authorities and design members meets the requirements / guidance of DMURS.

### 3.5 Design Principle 5

**Social Inclusion** – The proposed development has been designed to allow permeability, both in terms of future residents and people currently living in the Boherboy area.

As outlined previously, the proposed development has been designed to ensure that future residents have access to local amenities, public transport nodes and highways through appropriately designed road, pedestrian and cycle links.

This permeability also opens up existing estates to greater access to local amenities. For example, the link through to Corbally will allow Corbally resident's easier access to Carrigmore District Park.

### 3.6 Design Principle 6

#### *The functionality of cycling*

##### General

The purpose of a cycle trip can generally be broken down into two forms

A functional trip where there is a destination i.e., commuter trips, trips to shops etc

A pleasure trip, where the journey has no destination

The proposed development will cater for each of these trips as follows:

1. Functional trips will be catered for along the Link Street towards Carrigmore which will provide access to local amenities, areas of employment and access to public transport. Additional permeability will be provided through Corbally and on to the Boherboy Road.
2. A greenway will be provided along the eastern and western boundaries that allows a person to cycle for enjoyment rather than it being functional. The eastern greenway will be provided access long the eastern boundary to the local district park.

#### Link Street

Section 4.3.5 of DMURS covers cycle facilities. There are 3 levels of provision.

1. On lightly trafficked/low-speed streets, designers are generally directed to create shared Streets where cyclists and motor vehicles share the carriageway
2. On busier/moderate speed streets, designers are generally directed to apply separate cycle lanes
3. On busier streets with HGV movements off street cycle tracks are desirable

The proposed development will have an AADT of c. 3300. The Link Street will be a lightly traffic/low speed street, through the adoption of traffic calming and the application of a 30km/h speed limit, therefore cyclists will share the carriageway with motor vehicles.

#### Greenway

The eastern/western cycle tracks are defined as amenity cycle tracks that would cater for pleasure trips.

The greenway should be a two-way shared facility, for pedestrians and cyclists, along the respective boundaries. The cross-sectional width is determined on the likely level of usage. The usage will be less than 1500 users per day (assumed). Therefore, the greenway is a low volume facility and segregation between pedestrians and cyclists is not considered necessary.

The greenway will not be used by motorised vehicles, apart from maintenance and emergency vehicles.

According to Transport Infrastructure Ireland (TII) document DN-GEO-03047 – Rural Cycleway Design (Offline & Greenway), “low volume” cycle/greenway facilities are defined as those expected to attract less than 1,500 users per day.

For these low-volume facilities the recommended (desirable minimum) widths are outlined in Table 4.1 of the 2014 version:

Shared use (pedestrians + cyclists) facility:

- 3.0 m width for “low volume” (< 1,500 users/day).
- “High volume” (> 1,500/day) shared use: 5.0 m width.

In summary: if the greenway is expected to serve fewer than 1,500 users per day, a minimum width of 3.0 m is desirable.

The proposed Greenway pavement shall be made up of 40mm bituminous surface laid on 150mm of crushed stone sub-base. The sub-base should be laid with a paving machine so as to give a high-quality surface level control which is a requirement for multi-user trails.



Figure 4 Typical Greenway Construction

### 3.7 Design Principle 7

#### *Vehicle Permeability*

Integrated networks do not require the same degree of restrictions to be placed on the movement of vehicles as is applied to more conventional/segregated networks. A network of integrated/self-regulating streets provides the framework for higher levels of accessibility for slow modes (including motor vehicles at slow speed) and strategic continuity for cross-network modes at more moderate speeds (such as public transport) as

- The slower nature of Local streets (i.e., 10-30 km/h) will result in them being less attractive to through traffic. Although trips through Local streets may be more direct (and therefore legible), the traffic-calmed nature of these streets may not necessarily result in significant advantages in overall journey times.

There are a number of advantages to more permeable networks in regard to the management of traffic and vehicle speeds such as:

- Drivers are more likely to maintain lower speeds over shorter distances than over longer ones. As drivers are able to access individual properties more directly from Access/Link streets (where speeds are more moderate) they are more likely to comply with lower speed limits on Local streets.
- Permeable layouts provide more frequent junctions which have a traffic-calming effect as drivers slow and show greater levels of caution.

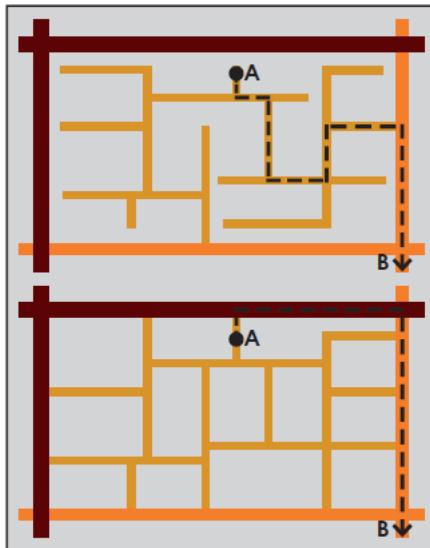


Figure 3.21: Drivers are more likely to comply with posted speed limits where less time is spent on streets with a low design speed (as per the bottom example)

Figure 5 Networks

Increasing access to neighbourhood cells can result in the more equitable distribution of traffic and the impacts of congestion as it is no longer concentrated on a few select junctions or local access streets

The value of place can also be improved as slower moving traffic has less impact on the surrounding environment

Frequent entrances to a neighbourhood cell can reduce the size of individual junctions and streets. This will reduce the potential for severance between communities and increase pedestrian/ cyclist mobility as streets/junctions are more compact and easier to navigate.

Traditionally, Designers may be concerned that more permeable street layouts will result in a higher rate of collisions. However, research has shown that there is no significant difference in the collision risk attributable to more permeable street layouts in urban areas and that more frequent and less busy junctions need not lead to higher numbers of accidents.

The proposed development has taken on these principles to ensure that the development is permeable for all modes of transport including vehicular, pedestrian and cyclist alike.

### 3.8 Concision

In conclusion, the proposed internal street network and associated public realm have been designed in full compliance with the principles and guidance set out in the Design Manual for Urban Roads and Streets (2023). The layout supports a coherent movement hierarchy, prioritises walking and cycling, and delivers a safe, attractive, and permeable residential environment consistent with national and local transport policy.

The internal layout and hierarchy are fully consistent with the construction and operational access arrangements set out in the Construction Traffic Management Plan (PIN-RP-00-C005-V1) and the EIAR Transport and Traffic Chapter.

## 4 CONCLUSION

### 4.1 Summary

The Design Manual for Urban Roads and Streets offers a holistic approach to the design of streets within the proposed development.

The design process has been a collaborative and consultative design process involving architects, engineers, and landscape architects. The outcome is a safer environment for pedestrians, cyclists and drivers alike.

This integrated design approach delivers a safe, legible, and high-quality residential environment consistent with national urban design policy. It is, therefore, concluded that the proposed development is compliant with the design principles outlined in the Design Manual for Urban Roads and Streets.







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