



DMURS Report, including DMURS Statement of Consistency

Cherry Orchard Point – Phase 2 of Proposed Development at Sites 4 and 5, Park West Avenue, Dublin 10

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This document has been prepared and checked in accordance with
Waterman Group's IMS (BS EN ISO 9001: 2015 and BS EN ISO 14001: 2015)

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Comments

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1. Introduction

This DMURS Report has been prepared by Waterman Moylan as part of the planning documentation for the proposed Phase 2 development of the Cherry Orchard Point masterplan development at Sites 4 and 5, Park West Avenue, Dublin 10.

This report assesses the guidelines and design criteria as set out by the Design Manual for Urban Roads and Streets 2019 (DMURS) and illustrates how the proposed development is in accordance with such. The development of the road network design has also been finalised in conjunction with addressing the items highlighted in the Quality Audit. This Quality Audit incorporates a Road Safety Audit, and has been undertaken by RoadPlan, who have undertaken this Quality Audit as independent auditors. The Quality Audit is submitted under an Appendix D of the Waterman Moylan Engineering Assessment Report.

2. Masterplan Lands

2.1 Cherry Orchard Point Site Location and Description

The subject masterplan development is comprised of 2 no. sites. Site 4 & Site 5 are bisected by Park West Avenue and lie to the west and east of this roadway respectively, as per the blue boundary lines indicated on Figure 2-1: Site Location Map (Source: Google Earth). The proposed Phase 2 Subject Site is located within Site 4 of the masterplan development.

The 2022 and 2024 Site Investigation Report undertaken by Ground Investigations Ireland (GII), included as an appendix to the Preliminary Construction Environmental Management Plan submitted under a separate cover, has determined that Site 4 is combination of Greenfield and Brownfield, with evidence of fill material in the area of the site previously used as a construction compound. Site 5 is predominantly a brownfield site, with fill material found for the same reason.

Site 4 is bound to the west by the M50, to the south by the Dublin-Kildare rail line and the Park West & Cherry Orchard station, and to the east and north by Park West Avenue. Site 5 is bound to the west by Park West Avenue, the northwest by Cedar Brook Way, the northeast and east by Barnville Park, and to the south by the Dublin-Kildare rail line and the residential unit of 62 Barnville Park.

Site 4 is currently accessed via a secured gate from Park West Avenue. Site 5 is accessed via a similar arrangement from Cedar Brook Way.

The masterplan development is a 4-Phase development with Phase 1, 2, and 4 located on Site 4, and Phase 3 located on Site 5. The subject site for this assessment, Phase 2 of the multi-phase masterplan development is indicated by the red boundary line, also shown on Figure 2-1: Site Location Map (Source: Google Earth).

The overall masterplan development area as per the blue line boundaries is c. 13.02ha, with Site 4 being c. 11.41 ha and Site 5 being c. 1.61ha. The area of the subject application indicated by the redline boundary, including for works in the public domain, is 3.185ha (31,850m²).

For Site 4, the topographic survey of the area indicates that the low point of the site has a level of 55.70m OD. This is located on the eastern site boundary approximately 140m north of the junction of Park West Avenue and Cedar Brook Way. The remainder of the site generally slopes to this location owing to the embankments and subsequent site grading from the Dublin-Kildare Rail line to the south, M50 to the west, and approach road to the overpass on the M50 to the north. A local high point of the site has a level of 62.65m OD located at the northeast of Site 4.

Site 5 has a central high point with a level of 58.05m OD, and slopes outwards to all boundaries. The boundaries of Site 5 typically have levels between 54.80m and 56.00m, with the higher of these levels being located to the south of the site, adjacent to the retaining wall of the Park West Avenue Bridge over the rail lines.

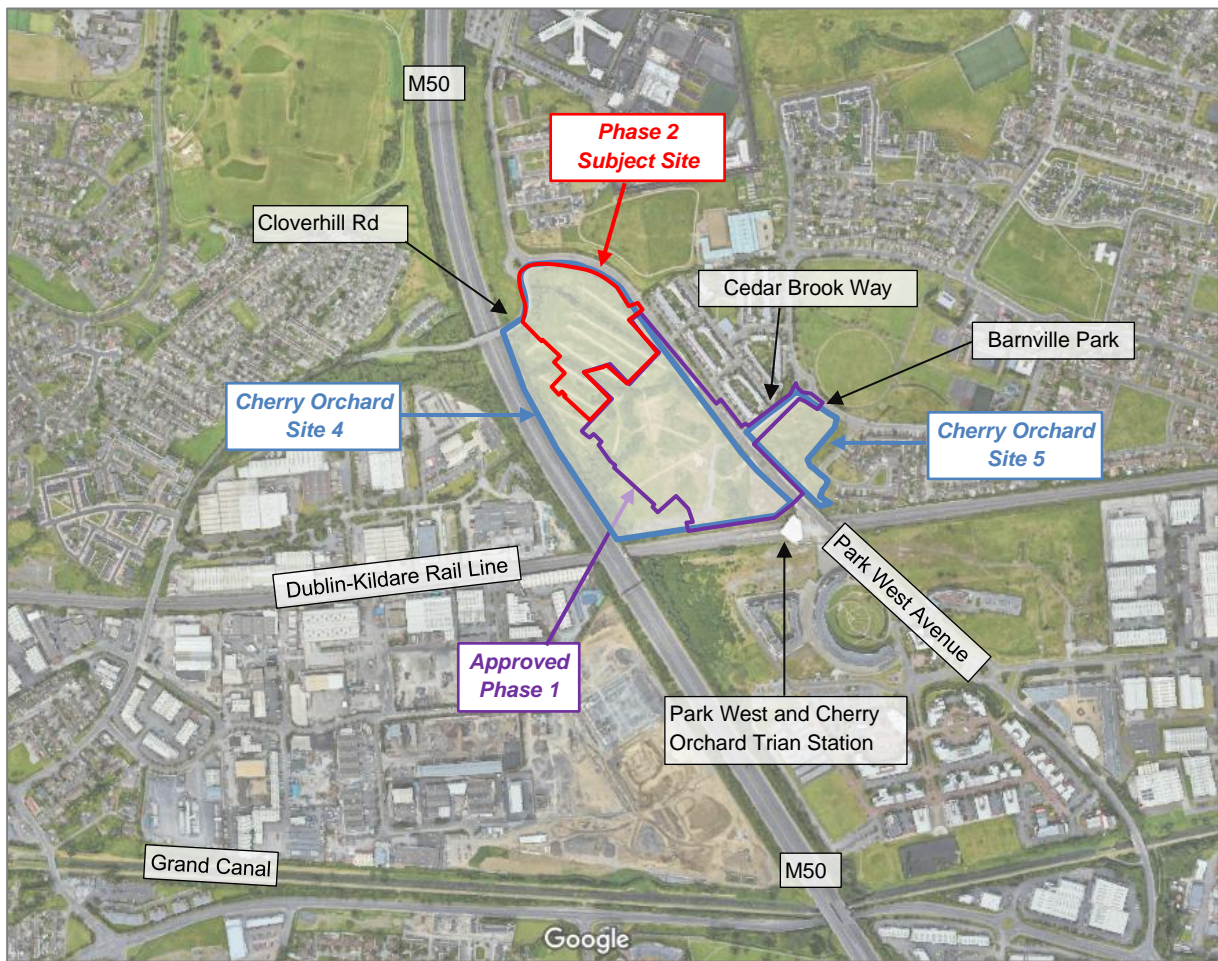


Figure 2-1: Site Location Map (Source: Google Earth)

2.2 Proposed Masterplan Development

The proposed masterplan development is a 4-Phase development to be built on Site 4 and Site 5. Each Phase is subject to its own planning permission application. Refer to Figure 2-2: Masterplan Development Phasing Layout for an illustration of the masterplan development layout.

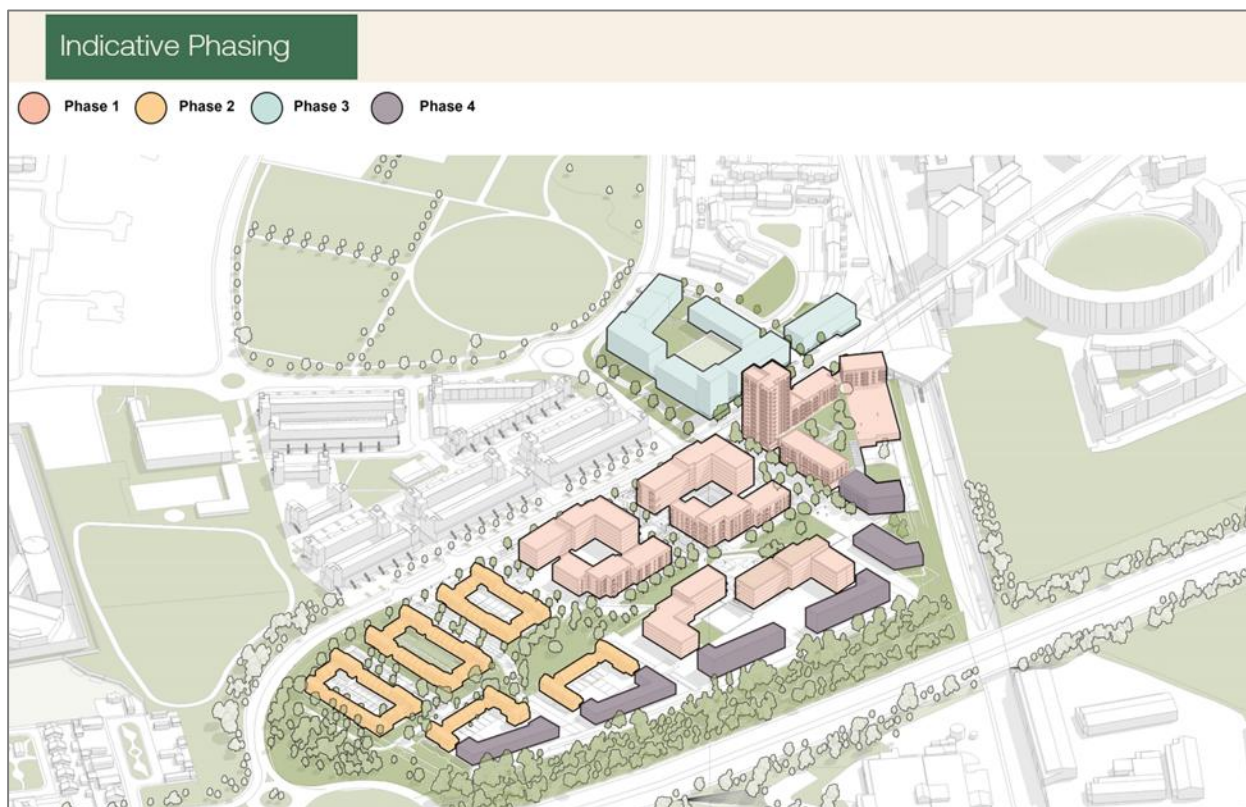


Figure 2-2: Masterplan Development Phasing Layout

A description of each of the 4-Phases is included below:

Approved Phase 1

Is a medium and high-density area located on Site 4 which will provide a total of 708 no. residential units ranging in size from studio to 3-bed apartments, a 2,523m² supermarket, a combined area of 373m² for retail over 7 units, a 672m² creche and 1,222m² of community spaces over 13 buildings. It is noted that the trunk foul and surface water drainage, including attenuation storage, to serve phases 2, 3, & 4 are part-provided under the planning application submission for Phase 1.

Phase 1 of Cherry Orchard Point was approved in July 2024 under ABP Ref. ABP-318607-23.

Phase 2 (Subject Site)

The subject development, Cherry Orchard Point - Phase 2, is a low-density housing area located to the north of Site 4 and is proposed to contain 137 no. residential units comprising a mix of apartment/duplex units and houses.

The subject development, Cherry Orchard Point – Phase 2 will be referred to as the “Phase 2” development or subject site within this report.

Phase 3

Is located on Site 5, and comprises 254 residential units, 1,200m² of retail space, with community facilities to be confirmed.

Phase 4

Is located on Site 4 and will consist of the construction of commercial office space over 6 blocks with a total area of c. 16,310m².

2.3 Proposed Subject Development

The proposed Phase 2 development located on lands at Cherry Orchard, Dublin 10 (known as Development Site 4 in the Park West Cherry Orchard Local Area Plan 2019) is on a site of c. 3.185 hectares.

The Phase 2 Subject Site is bound by Cloverhill Road to the north, Cedar Brook Avenue and Park West Avenue to the east, the consented Phase 1 development (Bord. Ref: ABP-318607-23) to the south, and the M50 motorway to the west. The development will consist of the construction of a residential scheme containing 137no. residential dwellings (comprising 31no. 2-bedroom units, and 106no. 3-bedroom units) through a mixture of houses, duplex units and own-door apartments. The proposed development will include a new access road connecting to the entrance point at Park West Avenue as permitted under the Phase 1 scheme, new internal streets, landscaped public and communal open space, a new pedestrian connection to Cloverhill Road and all associated site and development works. The proposed development represents Phase 2 of the overall planned development for Development Sites 4 and 5 of the LAP lands. Phase 1 of the overall planned development was granted permission in July 2024 (Bord. Ref: ABP-318607-23). The proposed development (GFA of c. 13,280sqm) involves the construction of 137no. dwellings in a mix of houses, duplexes and own-door apartments ranging in height from 2 to 3 storeys comprising 31no. two-bed units (9no. two-bed three-person and 22no. two-bed four-person) and 106no. three-bed units (13,015 sqm total residential floor area), and all ancillary accommodation including bike and bin stores and ESB substation (265sqm total GFA). The proposed development also includes the provision of 2,133sqm landscaped public open space, in addition to 2,050sq.m of public open space as consented under the Phase 1 permission (Bord. Ref: ABP-318607-23).

The total public open space provided for Phase 2 totals 4,183 sqm (12.34% of the net site/development area (3,390ha) of Phase 2 lands). Communal open space for the duplex and apartment units is provided across three dedicated communal amenity areas (602sq.m in total area) with private open space to serve the proposed units to be delivered through a mixture of rear gardens and terraces.

The proposed development will also involve the provision of 141no. car parking spaces at curtilage and street level throughout the development, of which 7no. are accessible spaces and 71no. EV charging points (representing 50% of the total parking spaces). A total of 306no. bicycle parking spaces, of which 18no. are visitor spaces accommodated through a mixture of bike stores and external cycle parking stands. A total of 7no. motorbike parking spaces are also provided. Vehicular, pedestrian and cycle access routes to serve the proposed development are provided via the consented Phase 1 entrance to the east of the site along Park West Avenue with further connections provided to the north and to the south to the permitted Phase 1 scheme. Provision is also made for the installation of a signalised access junction with associated traffic lights and below ground infrastructure and the relocation of bus stop and shelter along Park West Avenue. The need to provide a signalised junction requires minor alterations to the entrance to the development including adjustment to the paving as previously permitted under the Phase 1 scheme (no further amendments to that permission are proposed under this application.) The proposed development also includes the provision of off-street cycle lanes along Park West Avenue that will provide direct connectivity to the Rail Station to the southeast and Cherry Orchard Park to the east.

The development will also provide for all associated ancillary site development works including site clearance, boundary treatment, associated public lighting, internal roads and pathways, bin and bike stores, ESB substation, hard and soft landscaping, play equipment, and all associated works and infrastructure to facilitate the development including connection to foul and surface water drainage and water supply.

Refer to Figure 2-3: Subject Site Location within Masterplan development for the location of the subject development.

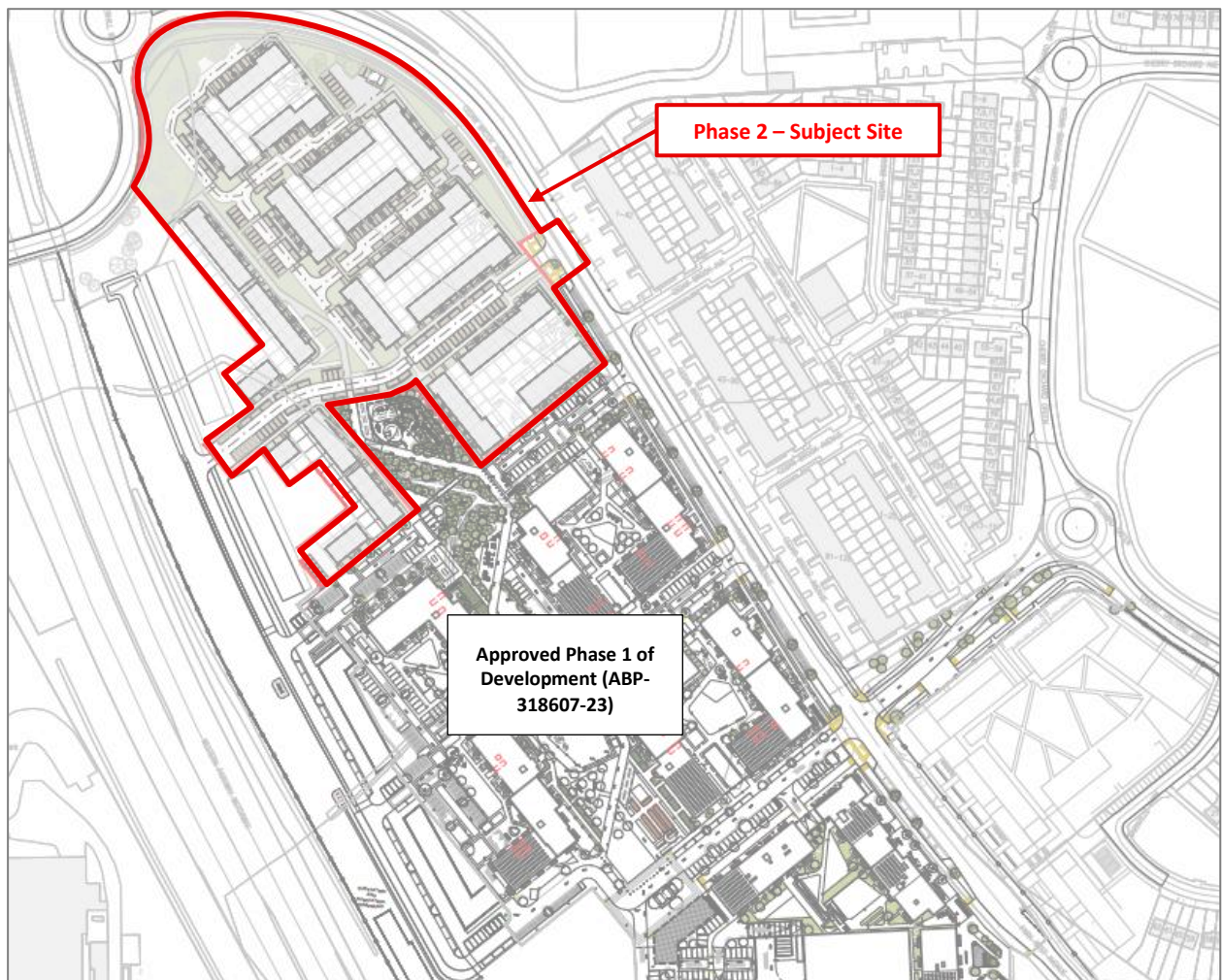


Figure 2-3: Subject Site Location within Masterplan development

A breakdown of the schedule of accommodation for the proposed Phase 2 Subject Site is provided below.

Table 2-1: Phase 2 Schedule of Accommodation

| Unit Type | | Area sqm | No. of Units | Total Floor Area |
|---------------------------------------------------|----------------|----------|--------------|------------------|
| 2 Bed/ 4 Person House | HT A | 81 | 13 | 1053 |
| 3 Bed/ 5 Person House - 2 storey | HT B | 96 | 56 | 5376 |
| 3 Bed/ 5 Person House - 2 storey (end terrace) | HT B1 | 96 | 19 | 1824 |
| 3 Bed/ 5 Person House - 2 storey | HT C | 106 | 13 | 1378 |
| 2 Bed/ 4P Own-Door Apt - mid terrace | Duplex A | 73 | 6 | 438 |
| 2 Bed/ 3P Own-Door Apt (UD) - mid terrace | Duplex A (UD) | 73 | 4 | 292 |
| 2 Bed/ 4P Own-Door Apt - end terrace/ corner | Duplex A1 | 73 | 3 | 219 |
| 2 Bed/ 3P Own-Door Apt (UD) - end terrace/ corner | Duplex A1 (UD) | 73 | 5 | 365 |
| 3 Bed/5P Own-Door Duplex - end terrace/ corner | Duplex A2 | 115 | 8 | 920 |
| 3 Bed/5P Own-Door Duplex - mid terrace | Duplex A3 | 115 | 10 | 1150 |
| Total | | | 137 | 13015 |

The development includes all associated site works, undergrounding of overhead lines, boundary treatments, drainage, and service connections.

3. Roads and Transport Network

This section provides an overview of the existing and proposed road and transportation network in the vicinity of the site. A comprehensive Traffic and Transport Assessment and a Mobility Management Plan have been prepared by Waterman Moylan in accordance with the requirements of the Traffic and Transport Assessment Guidelines published by National Roads Authority in May 2014 and accompanies this submission under separate covers.

3.1 Existing Road Layout

Sites 4 (west) & Site 5 (east) are bisected by Park West Avenue. Site 4 is bound to the west by the M50 and to the south by the Dublin-Kildare rail line. Site 5 is bound to the northwest by Cedar Brook Way, to the northeast and southeast by Barnville Park. It is further bound to the south by the Dublin Kildare rail line. The subject development, Phase 2, is located in the northern portion of Site 4.



Figure 3-1: Park West Avenue & Cedar Brook Way Junction Facing Northwest

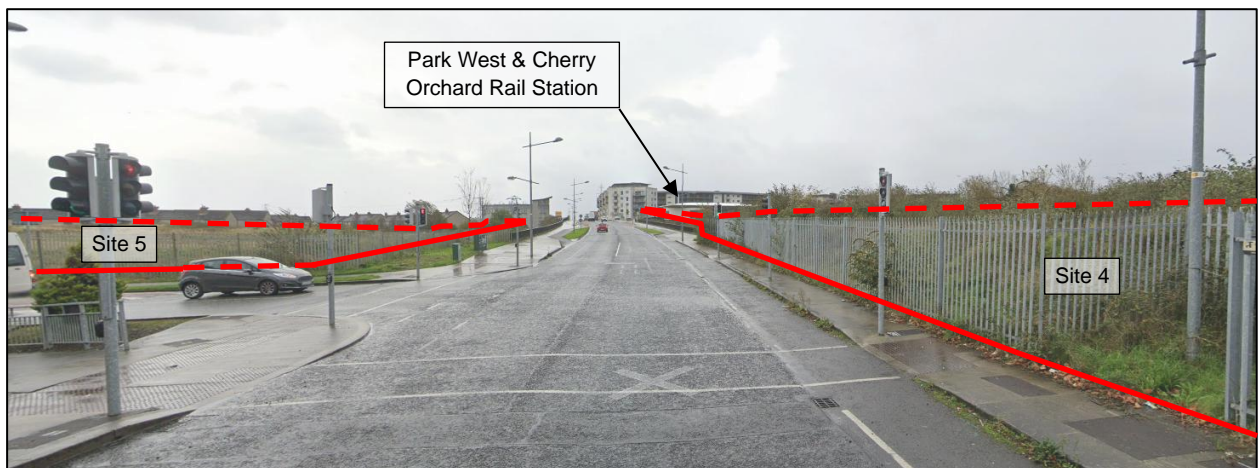


Figure 3-2: Park West Avenue & Cedar Brook Way Junction Facing Southeast

Park West Avenue terminates to the north of Site 4 as the eastern arm of a 3-arm roundabout. The western arm is an overpass of the M50, while the northern arm is the Cloverhill Road which leads to the R833 (Ballyfermot Road). Southwards, the Park West Avenue connects with the R134 (New Nagor Road) at Fox and Geese.

Park West Avenue is a generally a 9m wide carriageway, with pedestrian and cycle paths on both sides of the road. The cycle lane on the east side of Park West Avenue becomes an on-road cycle lane for the crossing of the T-junction with Cedar Brook Way. Signalised pedestrian crossings are present at this location. Park West Avenue has a posted speed limit of 50kph.



Figure 3-3: Site 4 (left) & Site 5 (right) Existing Access Points

3.2 Proposed Masterplan Road Layout

Site 4 (for which the subject development is located within) is proposed to have 4-no. access points from the Park West Avenue. The northernmost of the access point on Site 4 will be formed with a 4-way signalised junction with Park West Avenue and Cedar Brook Walk, the western entrance to the Cedar Brook residential development. This junction access is the proposed main access location for the Phase 2 subject development.

The 2-no. centrally located accesses along Site 4 are proposed as Homezones. The southern access to Site 4 will be a 4-way signalised junction with Park West Avenue and the realigned Cedar Brook Way.

The 4-no. access locations along Site 4 mentioned above were submitted under the approved Phase 1 planning submission, thus, the subject site's main access location is approved under Phase 1 and will be constructed as part of the Phase 1 works.

Figure 3-4: Extract of Masterplan Showing Access Locations along Site 4, below, that shows the 4-no. access points from Park West Avenue.

Site 5 will be served by 1 No. access point to the southeast of the site from Barnville Park cul-de-sac.

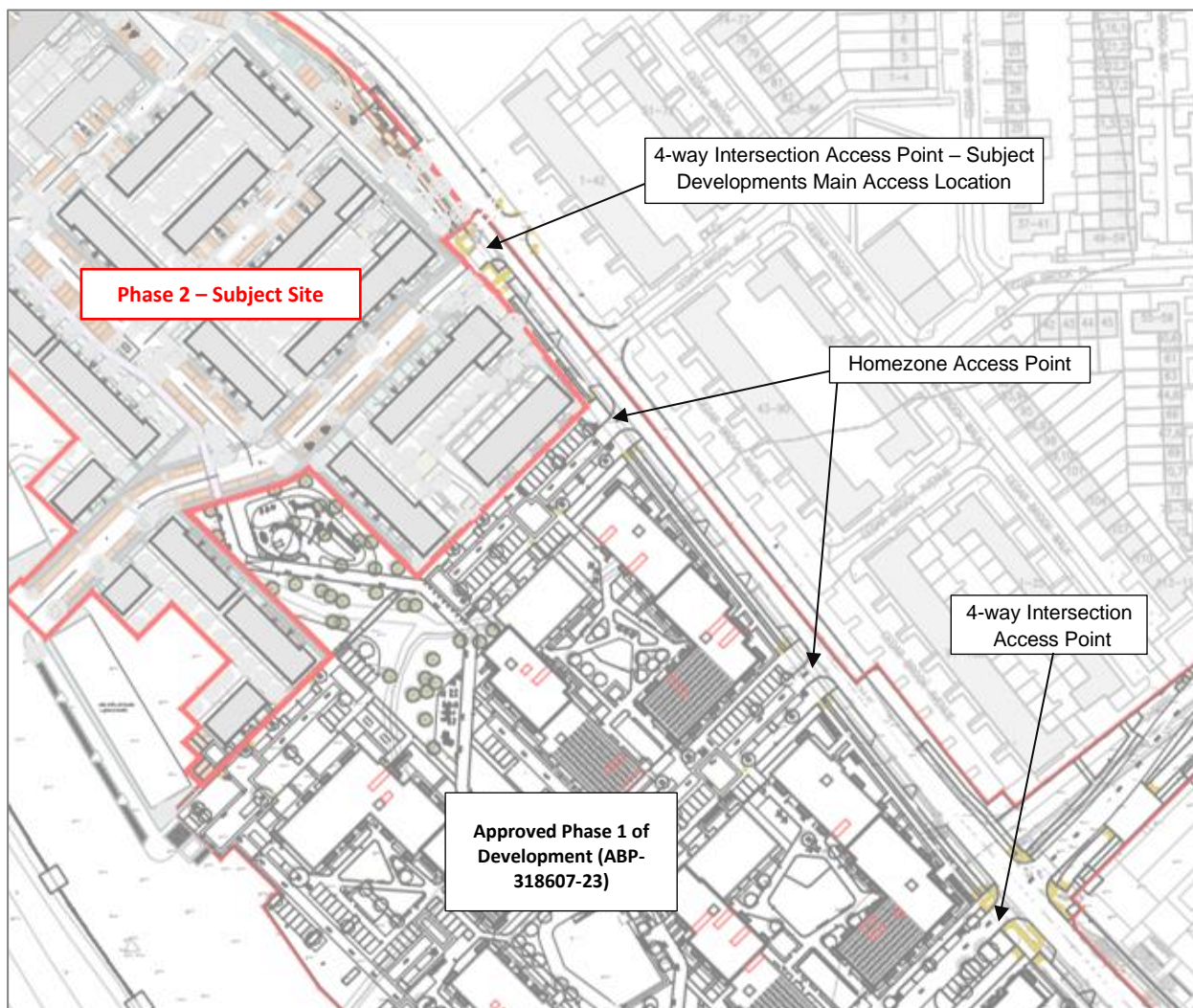


Figure 3-4: Extract of Masterplan Showing Access Locations along Site 4 (Approved under Phase 1)

3.2.1 Subject Site Proposed Access

Site access is via the signalised junction proposed under the approved Phase 1 development, located at the southeast corner of the Phase 2 subject site.

Park West Avenue is generally a 9.0m wide single carriageway road with a north-south alignment and a posted speed limit of 50km/h.

The width of the Part West Avenue at the subject access location is 9.20m.

3.2.2 Subject Site Proposed Roads

Proposed Main Access Route

A 6m wide road is proposed to connect the Phase 2 development to the main site access on Park West Avenue to the east.

The main access road connects the site to Park West Avenue on the east and the future Phase 4 development to the west.

This main road through the subject site is proposed as the northern segment of a loop road connecting Park West Avenue to Phase 4 of the subject site with the loop road constructed in segments as part of Phases 1, 2, and 4.

Waterman Moylan Drawing No. COP-WMC-PH2-00-DR-P-0130 - Typical Road Cross Sections contains a cross-section through the proposed main access road of the development under Section D-D, an extract of which is shown below:

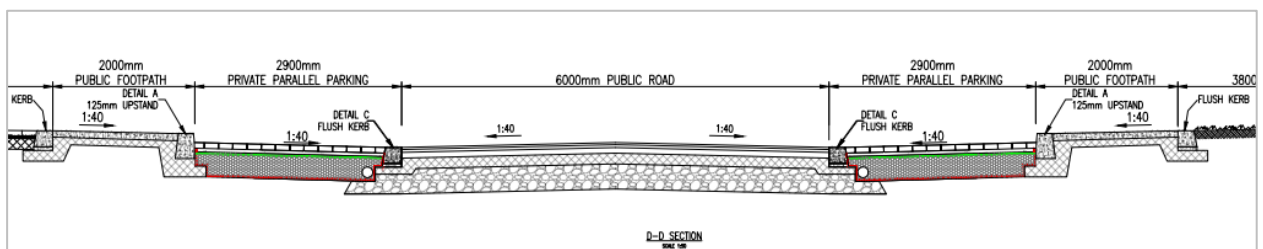


Figure 3-5: Extract of Proposed Phase 2 Main Access Roads Cross-Section

Proposed Internal Roads

The local internal roads network is proposed to be designed with carriageway widths ranging between 5.0 and 6.0 m in accordance with DMURS.

The 3-no. internal roads designed with east-west alignment terminate in T-junctions or a cul-de-sac arrangement with parking spaces. Traffic calming measures in the form of street width variations and adjusted road alignments/horizontal deflections have been included in the design within these internal roads.

Homezones / Woonerfs

DMURS Guidance on Homezones:

- *“Shared surface streets and junctions are integrated spaces where pedestrians, cyclists and vehicles share the main carriageway. This may include streets where the entire street reserve is shared.”*
- *“The key condition for the design of any shared surface is that drivers, upon entering the street, recognise that they are in a shared space and react by driving very slowly (i.e. 20km/h or less).”*
- *“Avoid raised kerb lines. Any kerb line should be fully embedded within the street surface.”*

The 3- no. homezone/woonerf areas proposed within the subject site (east-west road alignments north of the main access road) have been designed in accordance with above guidance, including the following in the design:

- Road surface material is differentiated from the standard tarmac surfacing proposed throughout the subject site's internal roads to ensure drivers recognise the shared space area and can react by reducing their speed;
- No raised kerbs are proposed within the homezone, all kerbs will be flush kerb type.

Refer to Figure 3-6: Layout Map showing Location of Woonerf (Homezone) Streets, below, for details of the woonerf streets proposed within the Phase 2 development.

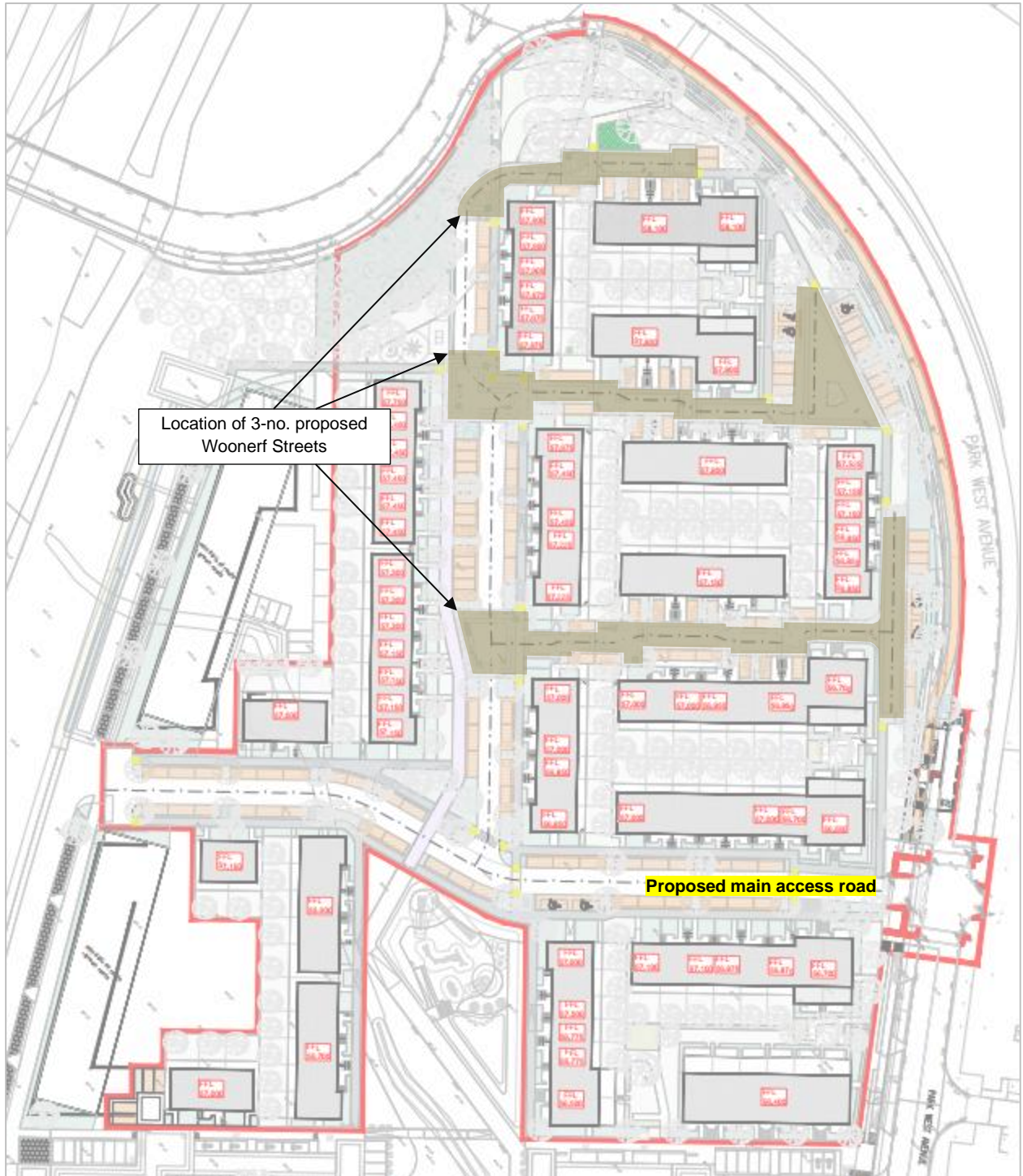


Figure 3-6: Layout Map showing Location of Woonerf (Homezone) Streets

Proposed Pedestrian and Cycle Facilities

The subject site includes a main pedestrian footpath link with a north-south alignment linking the northern green open space of the subject site to the approved Phase 1 development green open space area, to the south.

Footpaths are designed as 2.0m wide (minimum) in accordance with DMURS.

Footpaths are proposed on both sides of the main internal road (loop segment) connecting the site access from the approved signalised junction on Park West Avenue (under the approved Phase 1) to the future Phase 4 development located to the west of the subject site.

A series of footpaths along the east of the subject site is proposed to connect the site access from the approved signalized junction on Park West Avenue (under Phase 1) to the northeast area of the subject site.

Direct pedestrian access from the existing Park West Avenue footpath arrangement is also proposed at the north and northeast corner of the subject site.

An ample level of pedestrian permeability is proposed throughout the subject site.

Parking Areas

DMURS Guidance on parking areas:

- *“Perpendicular parking bays are to be designed as 4.8 m x 2.4 m (standard minimum) with a minimum overhang of 0.3 m (when parking bays are proposed in front of the public footpath).”*
- *“The standard length of a space should be 6m (parallel spaces)”*

The following parking space arrangements are included in the design:

On-street perpendicular parking spaces located along the internal north-south road with dimensions of 5.5m x 2.5m. These parking spaces are deemed compliant as they are above the sizing requirement cited above.

On-street parallel parking spaces located along the main internal access road with dimensions of 6.0m x 2.4m, a 0.50m overhang has been included behind the parallel parking bays at the front of the footpath. These parking spaces are deemed compliant as they meet the sizing requirement cited above.

On-street parallel parking spaces located along the internal north-south road with dimensions of 6.0m x 2.9m. These parking spaces are deemed compliant as they meet the sizing requirement cited above.

Please refer to the architect's Parking Allocation Map, with drawing no. COP-PH2-CCK-S1b-00-DR-A-1034, for full details of the proposed parking spaces within the development.

This parking strategy design is in accordance with the minimum requirements and considered acceptable.

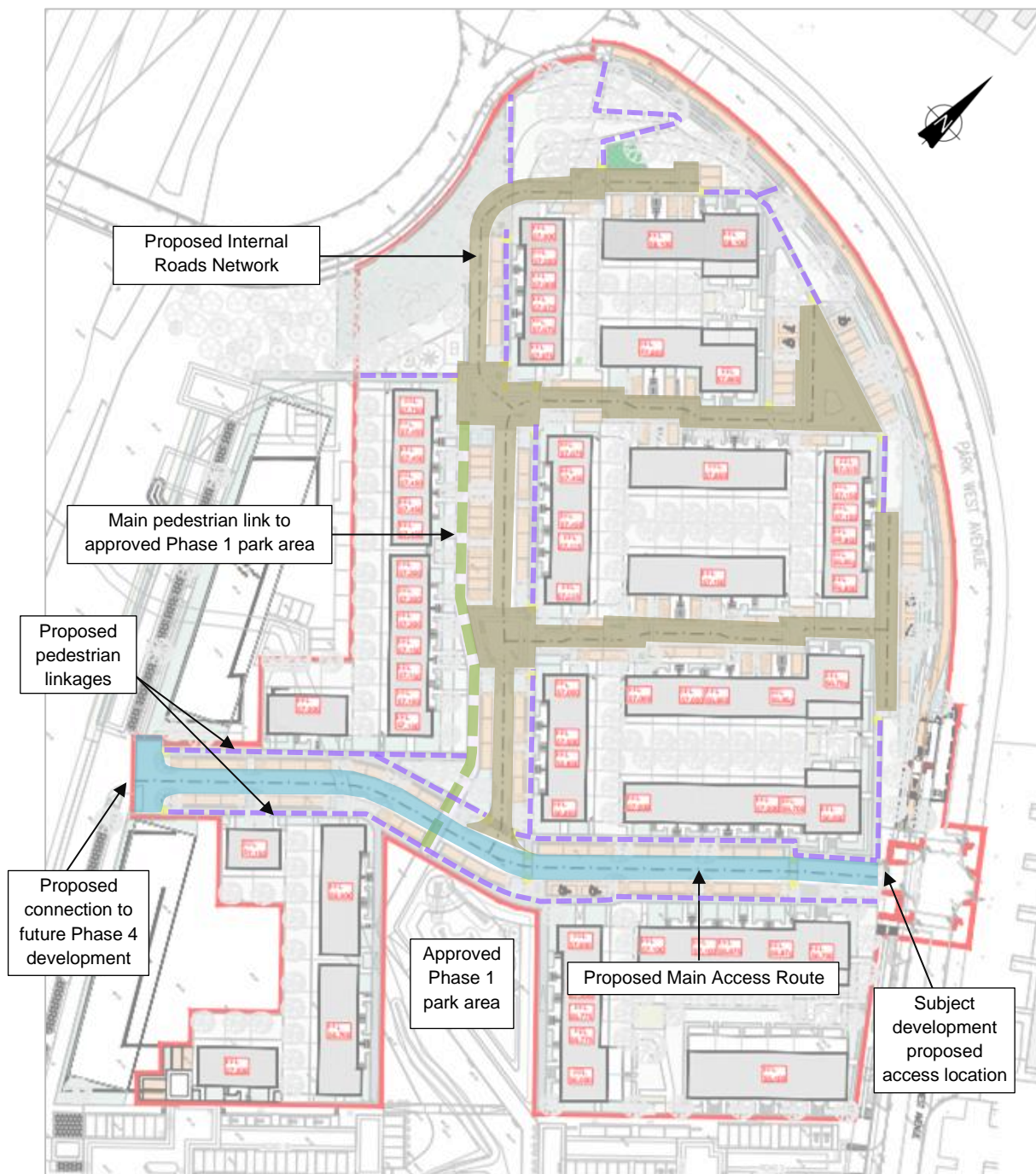


Figure 3-7: Extract of Phase 2 Site Layout Showing Internal Roads Network

The layout of the proposed developments road network has focused heavily on the desire line and permeability of pedestrians and cyclists, and their connectivity to local public transport hubs, such as bus stops and the Park West & Cherry Orchard rail station located to the south of the proposed development.

The road layout and details are shown the following Phase 2 drawing numbers that are also submitted as part of this planning application:

- COP-WMC-PH2-00-DR-P-0101 - Proposed General Arrangement & Levels Layout
- COP-WMC-PH2-00-DR-P-0110 - Proposed Road Markings and Signage
- COP-WMC-PH2-00-DR-P-0111 - Proposed Traffic Signal Details
- COP-WMC-PH2-00-DR-P-0113 - Proposed Visibility Splays
- COP-WMC-PH2-00-DR-P-0115 - Swept Path Analysis Refuse Vehicle
- COP-WMC-PH2-00-DR-P-0116 - Swept Path Analysis Fire Tender
- COP-WMC-PH2-00-DR-P-0117 - Swept Path Analysis Large Car
- COP-WMC-PH2-00-DR-P-0118 - Swept Path Analysis Rigid Truck
- COP-WMC-PH2-00-DR-P-0119 - Swept Path Analysis Articulated E-Truck and Trailer
- COP-WMC-PH2-00-DR-P-0120 - Proposed Typical Road Construction Details - Sheet 1 of 2
- COP-WMC-PH2-00-DR-P-0121 - Proposed Typical Road Construction Details - Sheet 2 of 2
- COP-WMC-PH2-00-DR-P-0130 - Typical Road Cross Sections

4. Design Manual for Urban Roads and Streets (DMURS)

4.1 Background

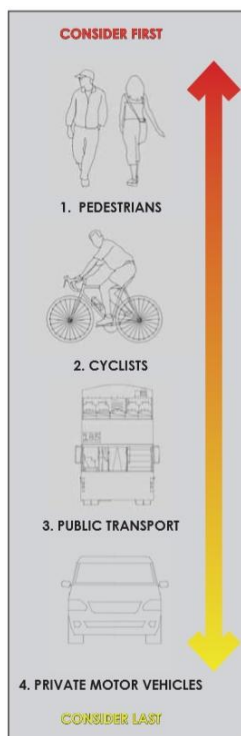
The stated objective of DMURS is to achieve better street design in urban areas. This will encourage more people to choose to walk, cycle or use public transport by making the experience safer and more pleasant. It will lower traffic speeds, reduce unnecessary car use, and create a built environment that promotes healthy lifestyles and responds more sympathetically to the distinctive nature of individual communities and places. The implementation of DMURS is intended to enhance how we go about our business, how we interact with each other, and have a positive impact on our enjoyment of the places to and through which we travel.

4.2 DMURS: Statement of Design Consistency

Waterman Moylan Consulting Engineers considers that the proposed road and street design is consistent with the principles and guidance outlined in the Design Manual for Urban Roads and Streets (DMURS). Outlined below are some of the specific design features that have been incorporated within the proposed scheme with the objective of delivering a design that is in compliance with DMURS.

4.3 Creating a Sense of Place

Four characteristics represent the basic measures that should be established in order to create people friendly streets that facilitate more sustainable neighbourhoods. These characteristics are connectivity, enclosure, active edges, and pedestrian activities/facilities.



Connectivity:

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

In order of importance, DMURS prioritises pedestrians, cyclists, public transport, and private cars. This is illustrated in the adjacent image extracted from DMURS.

The proposed development has been designed with pedestrians and cyclists taking precedence over other modes of transport. In this regard, footpaths are provided throughout the development with regular pedestrian crossings along anticipated desire lines. Footpaths within the development will be 2m wide at minimum, which is wide enough to allow 2 wheelchairs to pass each other without inconvenience.

Pedestrian crossings have been designed to allow pedestrians to cross the street at grade. ‘Homezones’ (also known as woonerfs) are proposed, which provide a safe space for residents, pedestrians, and cyclists with the dominance of cars reduced. Homezones are similar in design to shared surface style streets but located in residential areas, and in line with the recommendations of DMURS, to reduce the speed of vehicles.

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 towards the street and placing them along its edge. The use of street trees can also enhance the feeling of enclosure.”

The proposed development has been designed with residential units overlooking streets and pedestrian routes throughout. High quality landscaping and tree planting are proposed throughout the scheme which creates a definitive sense of place. Road widths are generally between 4.0 – 6.0m throughout the development and ensure that a strong sense of enclosure is achieved on residential roads.

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.”

As stated in Sections 2.2.1 & 4.2.3 of DMURS, 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. This has been incorporated throughout the development with residential units entrances and openings overlooking the streetscapes.

The provision of pedestrian crossings will encourage and facilitate pedestrian and cyclist activity. The proposed pedestrian and cyclists linkages throughout the subject development can be seen in Figure 3-7: Extract of Phase 2 Site Layout Showing Internal Roads Network represented by the green and purple dashed lines.

There are a number of advantages to more permeable networks in regard to the management of traffic and vehicle speeds. Drivers are more likely to maintain lower speeds over shorter distances than over longer ones. Since 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, as stated in Section 3.4.1 of DMURS. All proposed roads shall have a maximum speed limit of 30 km/h in accordance with Smarter Travel (2009) requirements for central urban areas.

Section 4.3.4 of DMURS advises that “The key condition for the design of any shared surface is that drivers, upon entering the street, recognise that they are in a share space and react by driving very slowly (20km/h or less)”. This is achieved through several measures such as a change in road surface finish/colour and potentially texture (subject to local authority Taking in Charge requirements and approval), and through the incorporation of appropriate road signage.

Section 4.4.7 of DMURS recommends the use of horizontal and vertical deflections on straights where there is more than 70m between junctions. The internal road network of the proposed development has been designed by the Civil Engineers in conjunction with the Architects so as to ensure that this distance of 70m has not been exceeded through the development, or where longer than 70m that a suitable deflection has been introduced. On-street parking separates pedestrians from the vehicle carriageway and, as per DMURS Section 4.4.9, can calm traffic by increasing driver caution, contribute to pedestrian comfort by providing a buffer between the vehicular carriageway and footpath and provide good levels of passive security. On-street parking has been designed at selected locations to implement the DMURS recommendation.

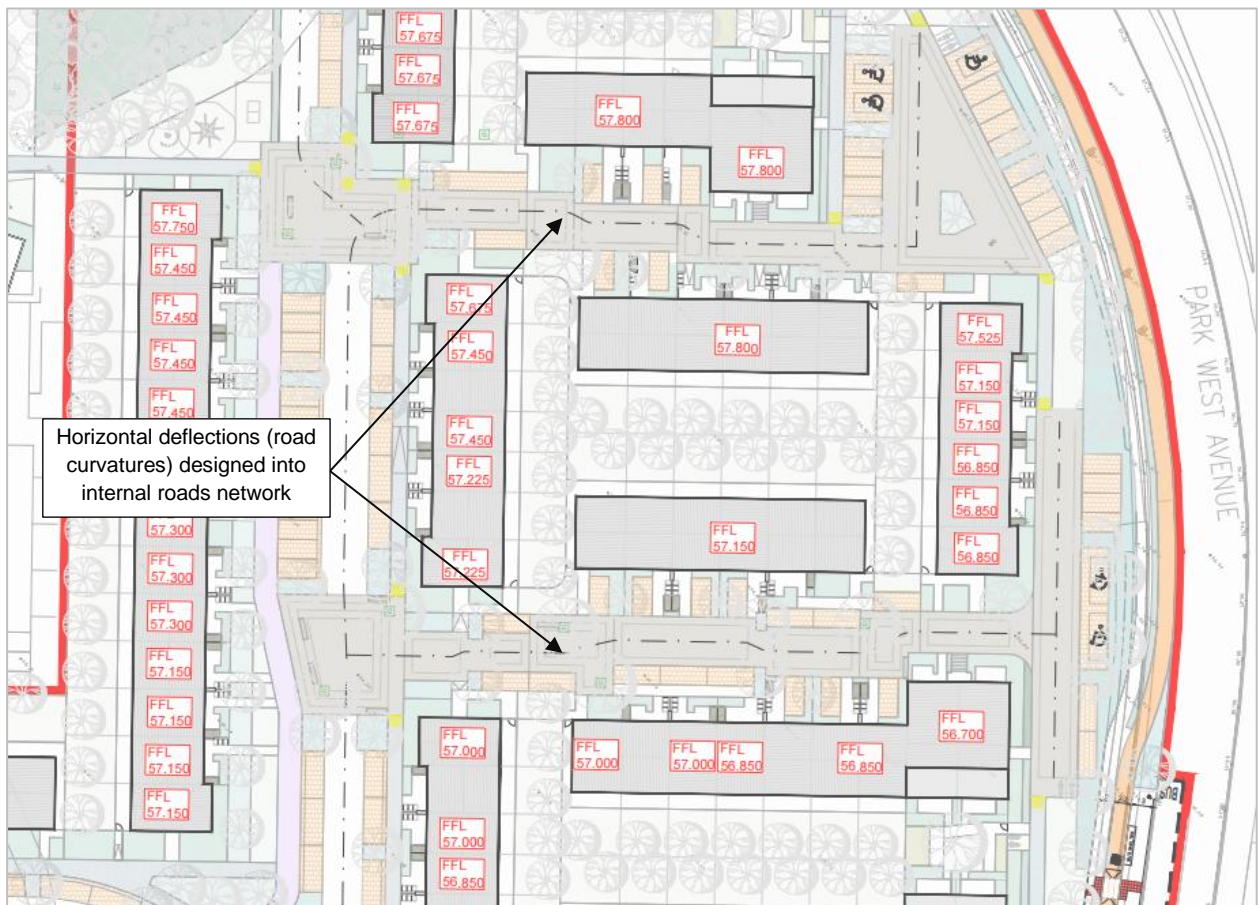


Figure 4-1: Examples of Horizontal Deflection (Road Curvature)

Suitable sightlines have been provided throughout the development, ensuring that localised planting does not obscure visibility as cars make turning manoeuvres, improving the pedestrian safety at crossing points.

Pedestrian Activities/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.”

As outlined in the items above, the proposed development has been designed to provide excellent pedestrian connectivity, with footpaths providing permeability throughout the site and to the approved Phase 1 development (located to the south) and Park West Avenue (to the east). Allowance has also been made for pedestrian connectivity to the future Phase 4 development which is located along the western edge of the proposed development.

Throughout the site, pedestrian routes are 2m wide or greater which, as mentioned previously, provides adequate space for two wheelchairs to pass one another. DMURS identifies a 1.8m wide footpath as being suitable for areas of low pedestrian activity. Pedestrian desire lines throughout the proposed development have been assessed to ensure that a footpath width over the minimum required width has been provided,

especially in areas fronting commercial and amenity areas such as the central green corridor. This is in accordance with Figure 4.34 of DMURS. This figure outlines the following widths and their suitability:

- 1.8m – Minimum space for two people to pass comfortably. Areas of low pedestrian activity. All internal footpaths have been designed at least 2m in width.
- 3.0m – Minimum space for small groups to pass comfortably. Areas of moderate to high pedestrian activity. The main cyclist and pedestrian linkage between the approved Phase 1 development and the proposed open green space area to the north of the subject development has been designed as 3.0m wide.

4.4 Key Design Principles

DMURS sets out four core design principles which designers must have regard to when designing roads and streets. These four core principles are set out below together with a commentary establishing how these design principles have been incorporated into the design of the proposed development.

Design Principle 1: Pedestrian Activity/Facilities:

“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.”

Streets have been designed in accordance with the alignment and curvature recommendations set out in DMURS Section 4.4.6. The road layout is generally orthogonal. Section 3.3.1 of DMURS notes that street networks that are generally orthogonal in nature are the most effective in terms of permeability (and legibility). Staggered junctions along with raised pedestrian tables/crossings at main pedestrian desire lines will encourage reduced driving speeds.

Design Principle 2: Multi-Functional Streets:

“The promotion of multi-functional, place-based streets that balance the needs of all users within a self-regulating environment.”

The proposed internal streets are designed primarily to meet the needs of pedestrians, cyclists, children, and residents, where the speeds and dominance of cars is reduced.

It is proposed to utilise block paving with granite surface finish colour silver within the woonerf streets and footpaths and block paving with granite surface finish colour mid-grey within the woonerf streets. subject to the Council’s Roads and Transportation Department approval. Use of a shared-surface block paving street with flush kerbs indicates to both drivers and pedestrians/cyclists that the road is a shared space. As stated in Section 4.4.2 of DMURS, paving materials combined with embedded kerbs can encourage a low vehicle speed shared environment.

It is stated in Section 4.3.4 of DMURS that shared surface streets and junctions are highly desirable where 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 Neighbourhoods and Suburbs.

Design Principle 3: Pedestrian Focus:

“The quality of the street is measured by the quality of the pedestrian environment.”

The design of the scheme has placed a particular focus on the pedestrian. Connectivity throughout the scheme is heavily weighted towards the pedestrian. There are excellent pedestrian links to the Park West Avenue and its associated public transport services for residents of the development. These public

transport services are assessed in the Traffic and Transport Assessment, submitted under a separate cover as part of this Phase 2 planning package.

Design Principle 4: Multi-Disciplinary Approach:

“Greater communication and co-operation between design professionals through promotion plan led multidisciplinary approach to design.”

The design of the proposed scheme has been developed through the design team working closely together. The proposed development design is led by CCK Architects working together with multiple disciplines including Waterman Moylan Consulting Engineers, and Mitchell and Associates Landscaping Architects.

Public areas fronting and within the proposed development have been designed by a multidisciplinary design team to accommodate pedestrians and cyclists in accordance with the appropriate principles and guidelines set out in DMURS. In particular the vehicular access and public footways within the remit of the development will incorporate the relevant DMURS requirements and guidelines as set out above.

4.5 Traffic and Transport Assessment & Mobility Management Plan

As noted above, a comprehensive Traffic and Transport Assessment, and a Mobility Management Plan, has been prepared by Waterman Moylan and accompanies this submission under separate covers.

4.6 Quality Audit

As discussed in the introduction this report, a Quality Audit comprising a Road Safety Audit has been undertaken independently by RoadPlan and is included as part of this planning submission under an Appendices of the Waterman Moylan Engineering Assessment Report. A part of this report is the identification of potential design flaws or weaknesses and remediation of these issues through further detailed design coordination between the engineers and independent consultants. Full details of the identified issues and the process by which they were resolved is included in the appendix of the Quality Audit.

UK and Ireland Office Locations

