consulting engineers

NRB

Traffic & Transport Report

Addressing….

Site Accessibility / Modal Split

and

Cycle Review/Audit

For

Proposed Purpose-Built Student Accommodation.

(DLRCC Ref PAC/LRD2/002/24)

At

Former Vector Motors Site,
Goatstown Road,
Dublin 14, D14FD23.

FINAL ISSUE

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EXECUTIVE SUMMARY

NRB Consulting Engineers Ltd were appointed to address specific Traffic/Transportation and Parking issues associated with a proposed Large Scale Residential Development, comprising Student Accommodation, on the former Vector Motors Site at Goatstown Road, Goatstown, Dublin 14.

This Report assists in addressing specific additional issues identified in the DLRCC Opinion following-on from the LRD meeting on the 12th of June 2024.

The proposed new residential development shall provide for 210 No Student Apartment units, with a total of 220 bedspaces, along with limited car parking and copious bicycle parking, associated infrastructure and landscaping.

This Report utilises available data to explain:

- Occupancy / Locations Characteristics of the Proposed Development,
- Current and Anticipated Modal Split,
- Car & Bicycle Parking Provision, and
- Bicycle Parking Audit/Review in accordance with DLRCC Requirements.

Based on our study and assessment, we believe that the non-provision of dedicated car parking is appropriate. The UCD Travel Plan contains a target mode share of 0% for car usage. In addition, our assessment of CSO Data confirms that 95% of Students in the Local Electoral Area are Non-Car Drivers for their mode of travel to School / College, a trend that the proposed development is expected to maintain and exceed.

We have undertaken a review of the number and design of the Bicycle Parking to be provided at the site and we believe that it exceeds the requirements of the DLRCC Development Plan and associated Policy Documents.

1.0 INTRODUCTION: LOCATION AND ACCESSIBILITY

1.1 The site is located a short distance from the westernmost access, the Wynnsward Drive Gate of UCD Belfield Campus, and is also within close distance of the Roebuck Road UCD entrance.

1.2 A site location plan for the site, showing the context of the local area, is below as ***Fig 1.1***.

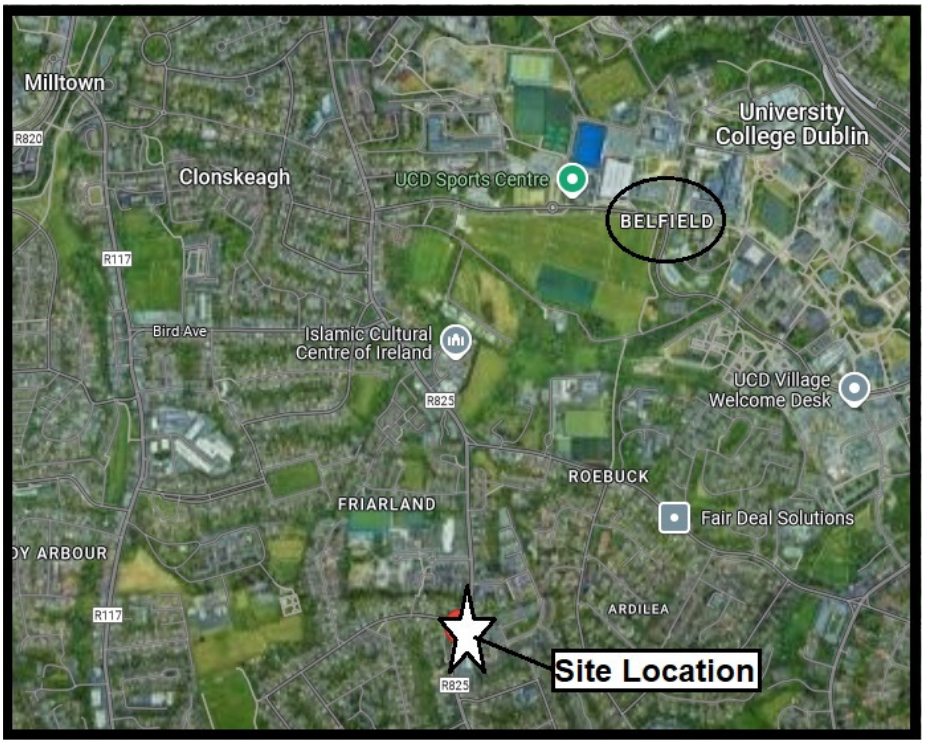


Figure 1.1 - Site Location

1.3 The site is considered to represent a highly sustainable location, for a Student Accommodation development of the nature proposed, particularly given its proximity to the UCD Belfield Campus. Sustainability will be further promoted through the implementation of a working Mobility Management Plan, with a Planning Stage MMP included with the application.

1.4 The development is located close to the UCD Belfield Campus being approximately 1.7km away (from the UCD Sports Building) and for example being c. 6 km to Trinity College Dublin, and 5.8 km from the Royal College of Surgeons. It is anticipated that the vast majority if not all of the student residents will attend UCD. Limited Car Parking is proposed as part of this development, with all trips taken by walking, cycling or using public transportation. Based on the UCD Campus Travel Plan (See Section 2), the predicted

modal split of a development in this area will be 22% walking, 29% cycling and 49% using public transport (i.e. Zero Car Usage).

1.5 We include below an annotated extract from *Google Maps* showing the walk distance from Belfield (24 mins). (The site is also within 800m distance of the Roebuck Road entrance to UCD).

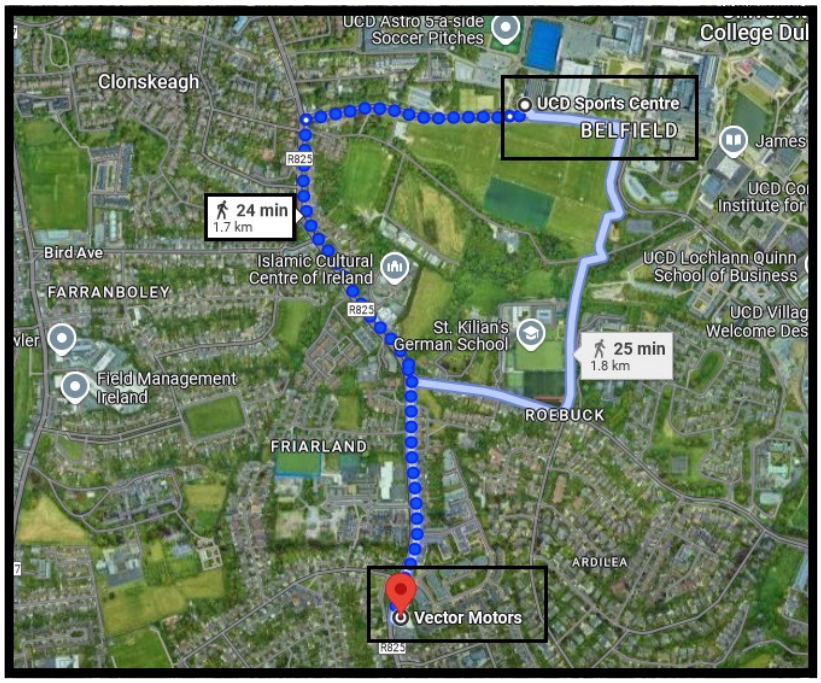


Figure 1.2 – Walk Distance of 24 Mins (Google Maps)

1.6 We include below an annotated extract from *Google Maps* showing the cycle distance from Belfield (6 mins).

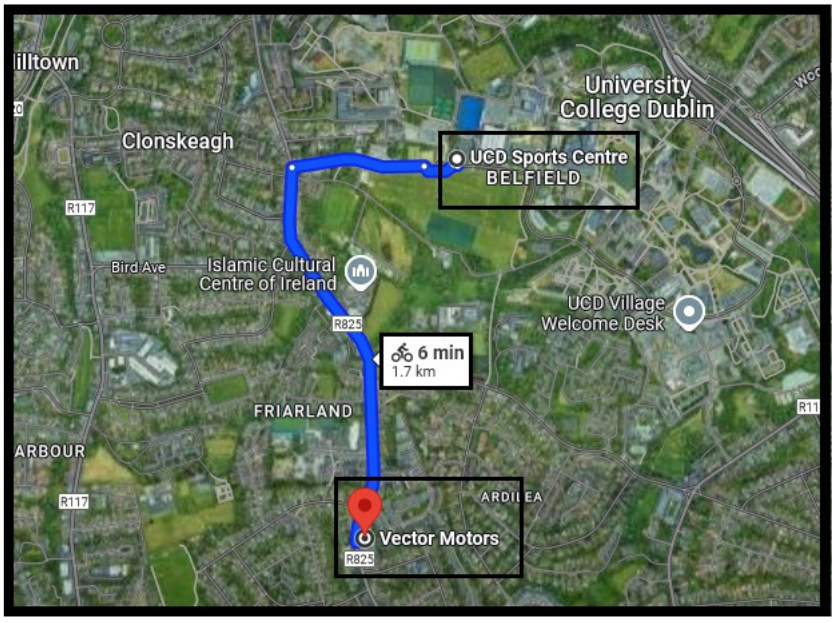


Figure 1.3 – Cycle Distance of 6 Mins (Google Maps)

1.7 The site is therefore clearly highly accessible, particularly to the UCD Belfield Campus. It is therefore likely that the vast majority of occupants will be students of UCD.

1.8 The commentary contained within this Report is based on the following sources of information and industry-standard practices; -

- DLRCC Development Plan 2022-2028,
- TII Traffic & Transport Assessment Guidelines,
- Design Manual for Urban Roads and Streets,
- UCD Campus Travel Plan 2016-2021-2026,
- CSO Census Data 2022, and,
- Our experience in assessing the impact of Developments of this Nature.

2.0 LOCATIONAL CHARACTERISTICS & MODE OF TRAVEL

WALK DISTANCE (ACCESSIBILITY TO BELFIELD)

2.1 Walking is ideal for shorter journeys, up to 3.5km, and considered an ideal alternative mode of transport, compared to the private car, particularly in considering the age profile of the development is likely to be young. The UCD Belfield Campus is located only 1.7km from the proposed development, with the vast majority of the student residents likely to be studying in the University. The 1.7km walk can be undertaken in 24 minutes (to the Sports Centre), as shown above in ***Figure 1.2*** (based on Google Streetview). The site is also within 800m distance from the Roebuck Road UCD entrance. In addition, the subject site is located c. 6 km to Trinity College Dublin, and 5.8 km from the Royal College of Surgeons.

CYCLE DISTANCE (ACCESSIBILITY TO BELFIELD)

2.2 At present, there are protected cycle lanes on Goatstown Road, consistent with Section 2.4 of the Cycle Design Manual. A Google Streetview image showing the current cycle lane arrangement is included below as ***Figure 2.1***.

Figure 2.1 – Existing Protected Cycle Lanes at the Site

2.3 In addition, cycle facilities are continually improving, and of course the nature of the area and current practices by the Dublin Local Authorities is that the GDA cycle network will be rolled out within a short timeframe. The site is clearly ideally placed in terms of the NTA's GDA Cycle Network Plan for this area of Dublin. An extract from the plan is included and illustrated in ***Figure 2.2*** below.

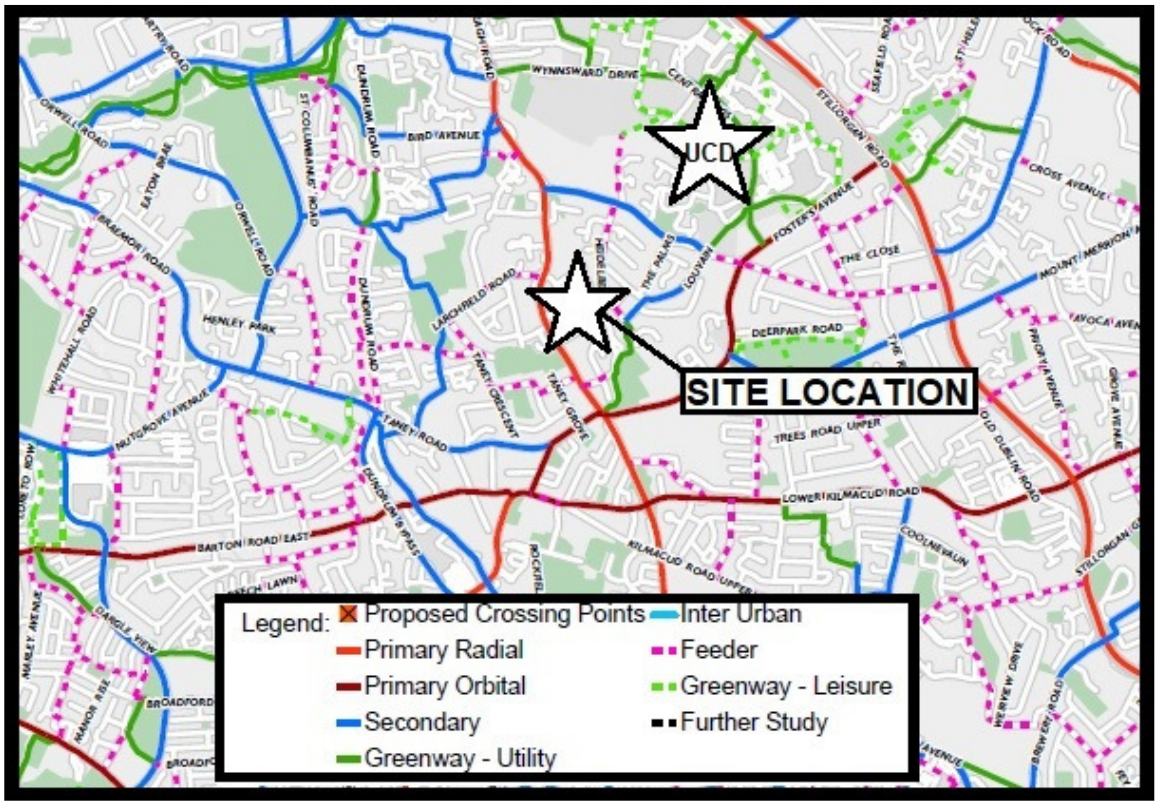


Figure 2.2 – Extract NTA GDA Cycle Network Plan

2.4 The site is served a Primary Radial Cycle Route on Goatstown Road, leading directly to the Greenway Route at Wynnsward Drive, being the western entrance to UCD. These links ensure that the site is highly accessible by bicycle to both UCD and to the entire of Dublin City and environs.

PUBLIC TRANSPORT

2.5 For commuting, a walk distance to/ from Bus Stops of up to 1km is generally considered to be acceptable. For the purposes of this assessment, we have assumed an 8-10min walk time as being appropriate, reflecting a distance of 700-1,000m depending on speed of walking. The site is well served by frequent Bus Services, and this is illustrated below within ***Figure 2.3*** which illustrates the existing bus services & Stops within acceptable walking distance of the site. Clearly, the Number 11 service passes the site directly on Goatstown Road. The existing Bus Stops and Services S4 / S6 are illustrated below (correct at time of writing), with the walk distance of 700m to the *S6* Service adjacent The Goat being illustrated (Serving Luas and UCD).The S4 bus route to the north on Bird Avenue is also within easy walk distance of the site.

2.6 We have included and referenced the S6 Service as it provides for easy access to both Dundrum LUAS Stop and also UCD Belfield Campus by way of a frequent new service. This provides for a bus link for the residents to/from Dundrum LUAS, supplementing the

multi modal accessibility of the site to LUAS and onwards to City Centre Transport Hubs and inter-city services. As an illustration of walk time to LUAS we include below the *Google* Walk time to the Green Line LUAS Services at Dundrum as ***Figure 2.4*** and the *Google* Cycle time to the Green Line LUAS Services at Dundrum as ***Figure 2.5***. Many students are cyclists, and the cycling/walking distance to/from LUAS will ensure it is a viable alternative for use by student residents.

Figure 2.3 – Existing Bus Stops Adjacent the Site

Figure 2.4 – Walk Time of 17 Mins to Dundrum LUAS (Google, Dist from Vector Motors)

Figure 2.5 – Cycle Time of 7 Mins to Dundrum LUAS (Google, Dist from Vector Motors)

2.7 The majority of these existing bus services provide for connectivity to Public Transports Hubs and Interchanges (Rail, Intercity Bus Services, LUAS etc) located within the City Core. The Go-Ahead Ireland Services provide frequent links to both UCD Belfield Campus and to Dundrum LUAS.

2.8 The **LUAS Green Line** Service runs via Dundrum. Luas Green Line is c24.5km in length and has 35 Stops along the route. It runs from Brides Glen to Broombridge via the City centre and provides connectivity to public transport hubs and interchanges. The Green Line has *Park & Ride* and *Cycle & Ride* facilities incorporated into the design. The service operates on a continual basis throughout the day, with Trams running on an approximate average 5-minute interval basis during the morning and evening peaks (in both directions).

2.9 The Transport for Ireland, LUAS & Dublin Bus websites (and Mobile Phone Apps) now provide a service that allows customers access up to date real information for Arrivals and Departures on a stop-by-stop basis. This information on Arrivals and Departures allows customers to plan their arrivals and departures & associated walk/cycle times accurately, facilitating efficient journey planning (and minimising congestion on platforms or stops). The LUAS Trams are of course modern and of high quality.

2.10 Almost all of Dublin Bus & Go-Ahead Bus Services consist of fleets of high quality comfortable 'Double Decker' Buses, being accessible buses with 'low-floor' technology

incorporated into their design. Transport for Ireland also provides an interactive online tool that enables the user to plan journeys, with real time information on Bus & Rail services on a nationwide basis. In terms of planned bus services, we have set out below details of the proposed bus service improvements locally as part of BusConnects.

2.11 The NTA have recently published details of the overall bus network for the GDA, the 'New Dublin Area Network' - showing Spine Routes, Feeder and Orbital Routes. An extract from the NTA Plans showing the site location is included below as ***Figure 2.6.***

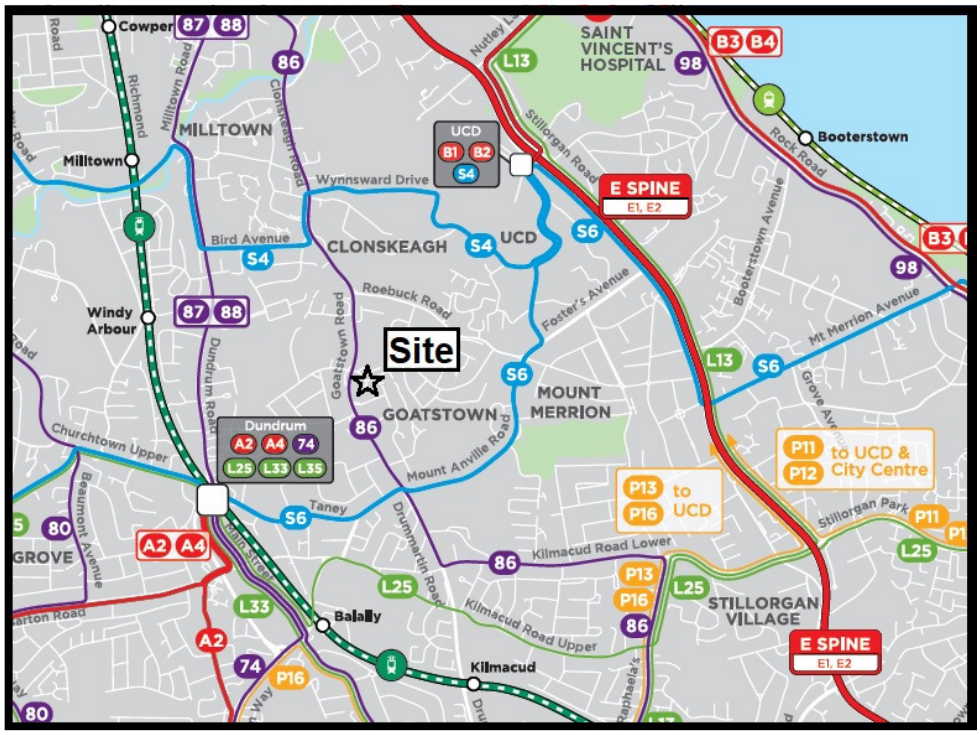
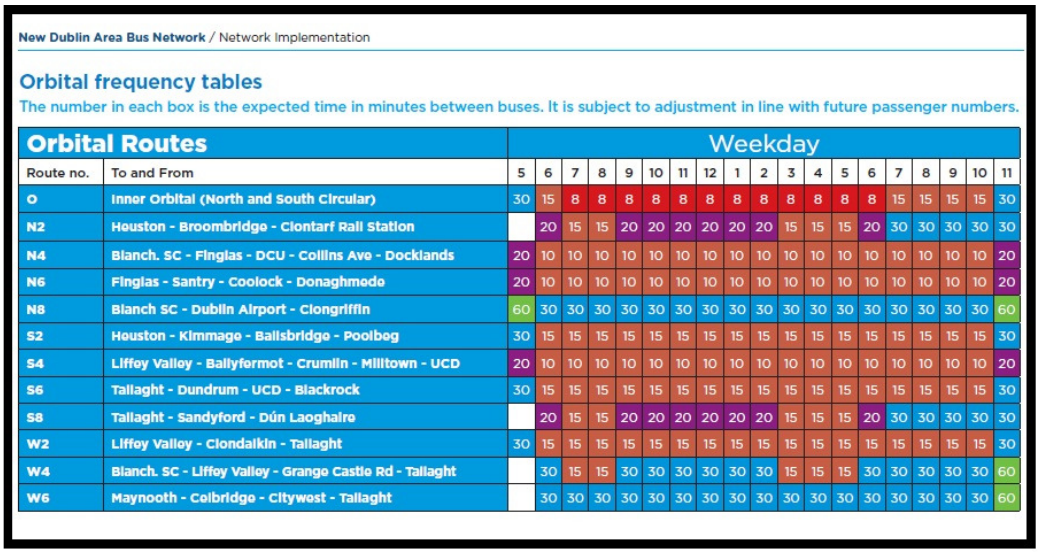


Figure 2.6 – Extract Current NTA Network Plans & Site

2.12 This future network shows that the site's accessibility to bus services will be further enhanced, with a high frequency and permeable service to be provided. The site is located served by **Orbital Route S6** (Blue) and **S4** (on Bird Ave) and **Radial Route 86** (Purple) with the approximate frequency of these services as illustrated in extracts included ***Figure 2.7*** and ***Figure 2.8*** below.



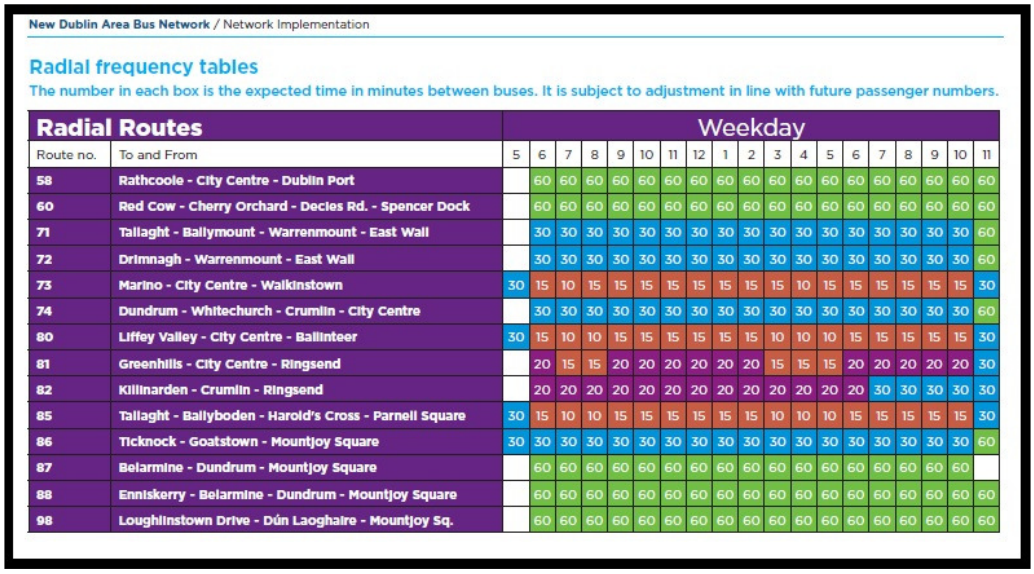
New Dublin Area Bus Network / Network Implementation

Orbital frequency tables

The number in each box is the expected time in minutes between buses. It is subject to adjustment in line with future passenger numbers.

Orbital Routes		Weekday																		
Route no.	To and From	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
O	Inner Orbital (North and South Circular)	30	15	8	8	8	8	8	8	8	8	8	8	8	8	15	15	15	15	30
N2	Houston - Broombridge - Clontarf Rail Station		20	15	15	20	20	20	20	20	20	15	15	15	20	30	30	30	30	30
N4	Blanch. SC - Fingias - DCU - Collins Ave - Docklands	20	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	20
N6	Fingias - Santry - Coolock - Donaghmede	20	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	20
N8	Blanch SC - Dublin Airport - Clongriffin	60	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	60
S2	Houston - Kimmage - Ballsbridge - Poolbeg	30	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	30
S4	Liffey Valley - Ballyfermot - Crumlin - Milltown - UCD	20	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	20
S6	Tallaght - Dundrum - UCD - Blackrock	30	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	30
S8	Tallaght - Sandyford - Dún Laoghaire		20	15	15	20	20	20	20	20	20	15	15	15	20	30	30	30	30	30
W2	Liffey Valley - Clondalkin - Tallaght	30	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	30
W4	Blanch. SC - Liffey Valley - Grange Castle Rd - Tallaght		30	15	15	30	30	30	30	30	30	15	15	15	30	30	30	30	30	60
W6	Maynooth - Celbridge - Citywest - Tallaght		30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	60

Figure 2.7 – Extract NTA Core Bus Network GDA, Orbital Route Frequencies



New Dublin Area Bus Network / Network Implementation

Radial frequency tables

The number in each box is the expected time in minutes between buses. It is subject to adjustment in line with future passenger numbers.

Radial Routes		Weekday																		
Route no.	To and From	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
58	Rathcoole - City Centre - Dublin Port		60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
60	Red Cow - Cherry Orchard - Decies Rd. - Spencer Dock		60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
71	Tallaght - Ballymount - Warrenmount - East Wall		30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	60
72	Drimnagh - Warrenmount - East Wall		30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	60
73	Marino - City Centre - Walkinstown	30	15	10	15	15	15	15	15	15	15	15	10	15	15	15	15	15	15	30
74	Dundrum - Whitechurch - Crumlin - City Centre		30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	60
80	Liffey Valley - City Centre - Ballinteer	30	15	10	10	15	15	15	15	15	15	10	10	10	15	15	15	15	15	30
81	Greenhills - City Centre - Ringsend		20	15	15	20	20	20	20	20	20	15	15	15	20	20	20	20	20	30
82	Killinarden - Crumlin - Ringsend		20	20	20	20	20	20	20	20	20	20	20	20	30	30	30	30	30	30
85	Tallaght - Ballyboden - Harold's Cross - Parnell Square	30	15	10	10	15	15	15	15	15	15	10	10	10	15	15	15	15	15	30
86	Ticknock - Goatstown - Mountjoy Square	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	60
87	Belarmine - Dundrum - Mountjoy Square		60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
88	Enniskerry - Belarmine - Dundrum - Mountjoy Square		60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
98	Loughlinstown Drive - Dún Laoghaire - Mountjoy Sq.		60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60

Figure 2.8 – Extract NTA Core Bus Network GDA, Radial Route Frequencies

2.13 The site is therefore also ideally placed in terms of future high frequency bus availability, based on the NTAs published Plans.

UCD CAMPUS TRAVEL PLAN DETAILS

2.14 The proposed modal split targets for the UCD Belfield Campus site, is set out in the UCD Campus Travel Plan 2016-2021-2026. The travel modal split targets set in the Travel Plan are based on a number of factors, including the existing campus development and transport context, the extent to which previous commuting strategy initiatives have been achieved, measured through annual commuting surveys, demographic analysis of staff and student populations within travel mode catchment areas and assumptions made with regard to the likely extent of additional or improved connecting transport infrastructure, capacity and level of service provision externally to the campus.

2.15 ***Figure 2.9*** below is taken from Figure 15 of the UCD Travel Plan and presents the future (2026) travel mode targets for Belfield Campus as a whole, and compares to the existing travel mode splits as identified from the 2016 commuting survey.

2.16 Limited Car Parking is proposed as part of this development, with all trips expected to be by walking, cycling or using public transportation. Based on the UCD Campus Travel Plan figures, the predicted modal split will be 22% walking, 29% cycling and 49% by public transport (refer to MMP for details of Public Transport accessibility).

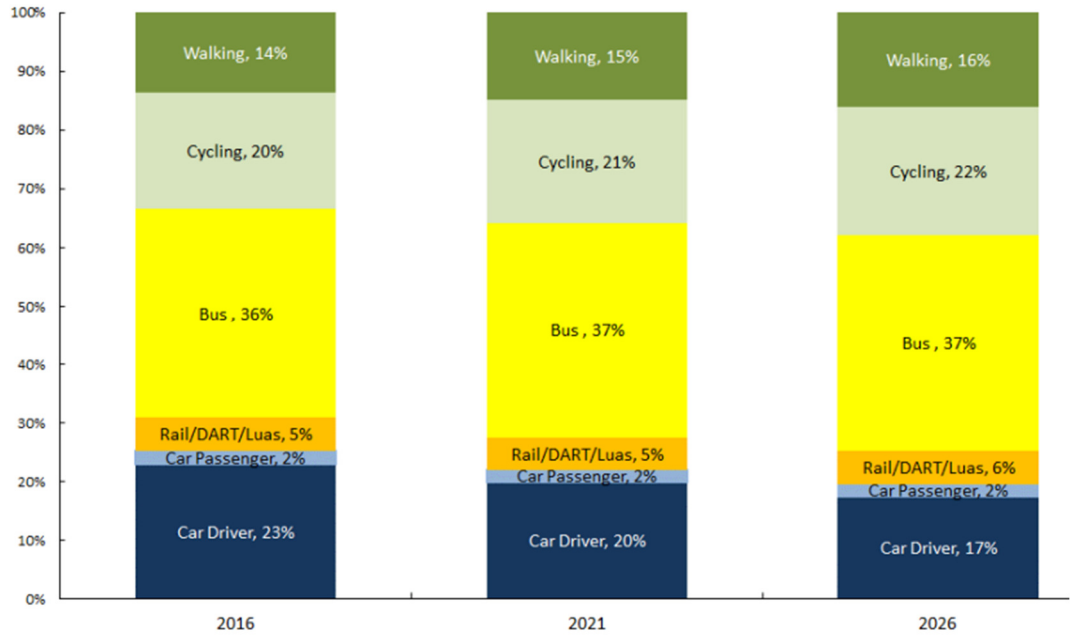


Figure 2.9 – Annotated Extract Figure 15 of UCD Development Plan

2.17 We have used the CSO Local Small Area Mapping to establish the mode of travel of existing students within the immediate local area surrounding the site, utilising real data rather than estimations of modal split as extracted from the UCD MMP. An annotated extract from the CSO Database Small Area Mapping used for this purpose, based on the Local Electoral Area of Stillorgan is included below as ***Figure 2.10***.

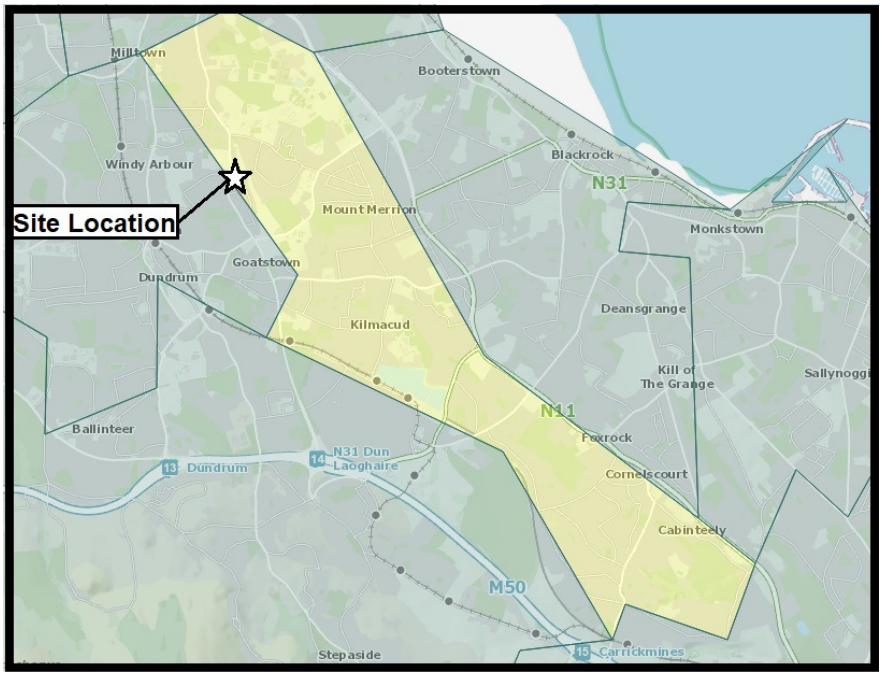


Figure 2.10 – CSO Maps Extract, Stillorgan Electoral Area

2.18 We have extracted information from the Census Data for the Local Electoral Area in order to establish the usage and Modal Split for Students within the Catchment, based on stated mode of travel. A summary of this exercise is illustrated below as ***Figure 2.11***.

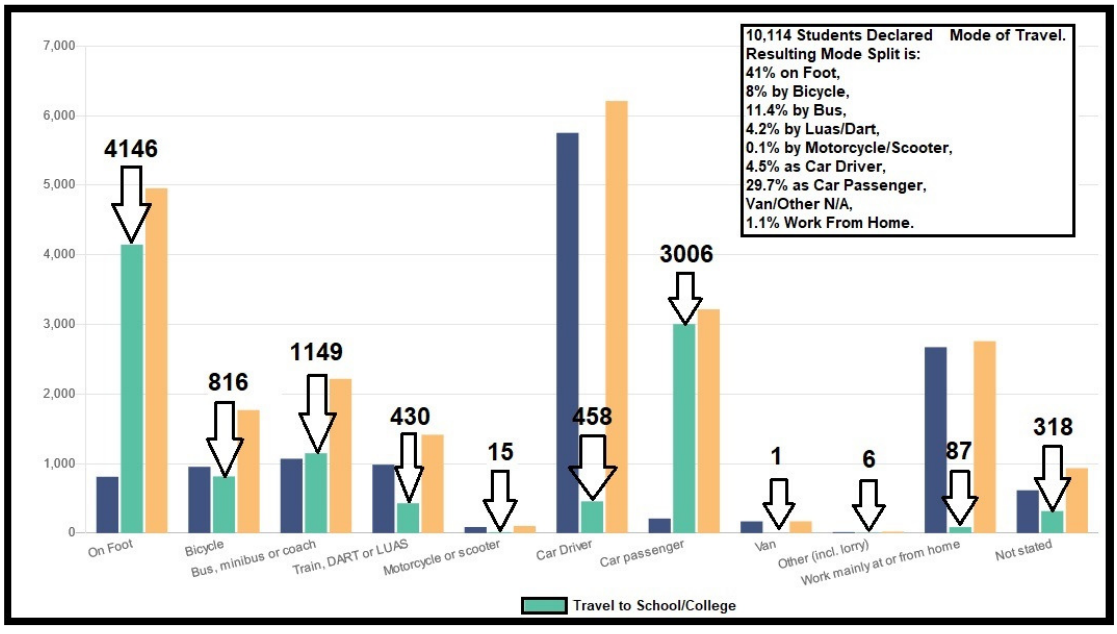


Figure 2.11 – Student Mode of Travel to School / College,

2.19 The above assessment confirms that, based on the 2022 Census Data, 95.5% of Students within the local catchment currently travel to College or School by means other than as a car driver. This underscores the highly sustainable nature of the proposed Student Accommodation development in this location.

Maximum Car Parking Standards

As the DLRCC standards are clearly stated as being "maximum" in the Development Plan, the delivery of parking below these levels is expected. Policy states that

"A relaxation of maximum car parking standards will be considered in Zone 1 and Zone 2 for any site located within a highly accessible location. Applicants must set out a clear case satisfactorily demonstrating a reduction of car parking need for the development based on the following criteria:

- ***Locational Suitability & advantages of the site*** ✓
- ***Proximity to high frequency public transport services (10 min frequency)*** ✓
- ***Walking & Cycling accessibility/permeability & any improvement to same*** ✓
- ***The range of services and sources of employment available within walking distance of the development*** ✓
- ***Availability of Shared Mobility*** ✓
- ***Impact on the amenities of surrounding properties or areas including overspill parking*** ✓
- ***Impact on traffic safety including obstruction of other road users*** ✓
- ***Robustness of Mobility Management Plan to support the development"*** ✓

2.20 We believe that given the intended uses and location, the proposed development meets the criteria for the non-provision of car parking at this site.

2.21 Car Parking is also considered in terms of The National Apartment Guidelines. The 'Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities', updates previous guidance in the context of greater evidence and knowledge of current and likely future housing demand in Ireland taking account of the Housing Agency's National Statement on Housing Demand and Supply, the Government's action programme on housing and homelessness Rebuilding Ireland and Project Ireland 2040 and the National Planning Framework.

2.22 These guidelines address Apartment Design Parameters, including car and cycle parking. Under Car Parking - Section 4.20 the guidelines acknowledge that the quantum of car parking or the requirement for any such provision for apartment developments will vary,

having regard to the types of location in cities and towns that may be suitable for apartment development, broadly based on proximity and accessibility criteria. We are also mindful of the guidance provided within the Guidelines in relation to what it deems to be 'Central and/or Accessible Urban Locations', as the site is within the Goatstown Area (in close proximity to UCD) (benefitting from a host of services and amenities and employment opportunities). Under Section 4.21 the guidelines note that in larger scale and higher density developments, comprising wholly of apartments in more central locations that are well served by public transport, the default policy is for car parking provision to be wholly eliminated or substantially reduced. Specifically, Paragraph 4.21 states; -

> ***Central and/or Accessible Urban Locations***
>
> **In larger scale and higher density developments, comprising wholly of apartments in more central locations that are well served by public transport, the default policy is for car parking provision to be minimised, substantially reduced or wholly eliminated in certain circumstances. The policies above would be particularly applicable in highly accessible areas such as in or adjoining city cores or at a confluence of public transport systems such rail and bus stations located in close proximity.**

2.23 Furthermore, under Section 4.23, the guidelines note that in higher density developments (greater than 45 dwellings per hectare), close to town centres or employment areas, the default policy is for planning authorities to consider a reduced overall car parking standard. Specifically, Paragraph 4.23 states; -

> ***Intermediate Urban Locations***
>
> **In suburban/urban locations served by public transport or close to town centres or employment areas and particularly for housing schemes with more than 45 dwellings per hectare net (18 per acre), planning authorities must consider a reduced overall car parking standard and apply an appropriate maximum car parking standard.**

2.24 The **Compact Settlement Guidelines (CSG)** was published in January 2024. We note that the DLRCC Opinion requires reference to the CSG to justify any Parking Requirement. We highlight that we understand that the CSG does not cover Student Residences, as proposed here, but rather addresses traditional Residential Development. We therefore do not believe that the CSG is relevant to the consideration of the proposed development in terms of addressing or justifying Car Parking provision.

2.25 In terms of the relevant Policy, and our assessment, the subject site meets all the requirements for significantly reducing the provision of Private Car Parking, under the headings.

High Density Development	✓
Comprising Wholly of Apartments	✓
Proximity to Town Centre	✓
Well Served by Public Transport	✓
Implementation of Travel Plan	✓

3.0 ACCESS / CAR & BICYCLE PARKING ASSESSMENT

3.1 An extract from the Architects GF Layout Plan is included below for ease of reference, with annotated version included within ***Appendix A***.

Figure 3.1 – Proposed GF Layout Plan

3.2 The proposed vehicular access is by way of a simple priority junction created onto Goatstown Road, consistent with the existing site access arrangement.

Car Parking / Deliveries

3.3 The site is within Zone 3 of Parking Zone Map T2 of the DLRCC Development Plan, an extract from which showing the site location is included below for ease of reference.

Figure 3.2 – Extract Parking Zone Map T2 DLRCC Dev Plan

3.4 The Car Parking requirements for the development are set out within Chapter 12 Development Management Standards of the DLRCC Development Plan 2022-2028. An annotated extract showing the Maximum Car Parking requirement is included below as ***Figure 3.3***.

Table 12.5 *Car Parking Zones and Standards*

Land Use		Zone 1 MTC Areas and Blackrock	Zone 2 Near Public Transport	Zone 3 Remainder of County (non-rural)	Zone 4 Rural
Other Uses	**Criterion**	**Maximum**	**Maximum**	**Maximum**	**Maximum**
Student Hostel / Accommodation	bed space	1 per 20	1 per 15	1 per 10	n/a

Figure 3.3 – Extract Parking Zone/Standards Table 12.5 DLRCC DP

3.5 In this case it is proposed to provide a total of 2 Mobility / Accessible parking spaces in addition to 4 x set-down spaces. The non-provision of car parking in this case is considered appropriate as an important demand management measure. It is consistent with the adopted UCD Campus Travel Plan which includes a predicted modal split of 22% walking, 29% cycling and 49% by public transport – zero car usage. An examination of the CSO Data for the Local Electoral Area using 2022 Census Data confirmed that 95.5% of Students within the area currently travel to college or school by means other than a car driver (Refer to Section 2.17 to 2.19 above).

3.6 The sites proximity to UCD campus, and accessibility on foot and by bicycle is highlighted in Section 2.0 above, and it means that there will be no requirement to use or own a car.

3.7 Car Parking provision or requirement is also considered in terms of The National Apartment Guidelines. The 'Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities', updates previous guidance in the context of greater evidence and knowledge of current and likely future housing demand in Ireland taking account of the Housing Agency's National Statement on Housing Demand and Supply, the Government's action programme on housing and homelessness Rebuilding Ireland and Project Ireland 2040 and the National Planning Framework.

3.8 These guidelines address Apartment Design Parameters, including car and cycle parking. Under Car Parking - Section 4.20 the guidelines acknowledge that the quantum of car parking or the requirement for any such provision for apartment developments will vary, having regard to the types of location in cities and towns that may be suitable for apartment development, broadly based on proximity and accessibility criteria. We are also mindful of the guidance provided within the Guidelines in relation to what it deems to be 'Central and/or Accessible Urban Locations', as the site is within very close proximity to UCD and

has high quality multi-mode accessibility. Under Section 4.21 the guidelines note that in larger scale and higher density developments, comprising wholly of apartments in more central locations that are well served by public transport, the default policy is for car parking provision to be wholly eliminated or substantially reduced. In terms of the stated Policy, the subject site meets all the requirements for significantly reducing the provision of Private Car Parking, under the headings:

High Density Development	✓
Comprising Wholly of Apartments	✓
Proximity to UCD Campus	✓
Well Served by Public Transport	✓
Implementation of Travel Plan	✓
Parking Management Strategy Adopted	✓

3.9 A key component in the effective operation of and control of car parking is an active and enforced parking management strategy. Such a strategy will be implemented by both the Developer and the Management Company. The Management Company will be charged with responsibility for the control of parking and access within the site. All marketing material for the development and websites will make it clear that the Student Accommodation has zero car parking availability and will also highlight the alternatives available. Dedicated Clauses will be contained within Letting Agreements for all Students which specifically address non provision of Car Parking. A working MMP will also be implemented as part of the development operation.

3.10 In terms of Moving-in and Moving-out, student residents will be required to pre-book half-hr or 1-hr slots including details of the type of vehicle that will be used to undertake the delivery / collection and the scale/nature of the requirement. The timed slots would allow for the vagaries of Dublin traffic etc and any restrictions applicable at that time. Prior to moving in, Student Accommodation Operators typically issue welcome packs which are distributed electronically to all students, and which are available on websites. These packs include details of the site & how it is run, advice on moving in, public transport information, useful local information and usually require confirmation of a timeslot to move in. The preparation of this information enables a swift and largely trouble-free process enabling Operators to welcome students and direct them to their rooms quickly and efficiently. Moving out mirrors this operation.

3.11 Notwithstanding the above, there will clearly be a requirement for deliveries and possibly e-shopping deliveries for student residents, which can be accommodated within the dedicated service spaces. The vast majority of deliveries to the development will be by

small to medium sized vehicles, such as transit vans, with the rare and infrequent need for a larger vehicle such as a 7.5t box van or smaller rigid bodied truck, all of which can be accommodated at surface level. Deliveries will be pre-booked where possible, and a delivery slot then allocated so as to minimise the potential for multiple vehicles arriving simultaneously and requiring use of the same loading facility. However, the frequency of deliveries anticipated means that multiple overlapping deliveries are very unlikely.

Bicycle Parking

3.12 The Bicycle Parking requirement is set out in the DLRCC Standards for Cycle Parking and Associated Cycling Facilities for New Development, with the relevant extract included below as ***Figure 3.4*** for ease of reference.

Table 4.1 Cycle parking for residential development

Residential Development type	1 short stay (visitor) parking space per: (Minimum of 2 spaces)	1 long stay parking space per: (Minimum of 2 spaces)
Student Accommodation	5 bedrooms	2 bedrooms

Figure 3.4 – Bicycle Parking for Student Accommodation, Table 4.1 Extract

3.13 The proposed development consists of a total of 220 Bedspaces contained within 210 Bedrooms. This results in a DLRCC requirement for 42 No. Short-stay visitor bicycle parking spaces and 105 No. Long-stay residential bicycle parking spaces. The breakdown of parking is included in the schedule extract below. Tthe **total bicycle parking provision is 218 No. spaces**. This effectively represents double the DLRCC Development Plan requirements for residential bicycle parking provision, thereby assisting in promoting active and sustainable travel.

Total Long Stay	**174**
Cargo Long Stay	2
E-Bike	2
Stacked	85
Long Stay Sheffield	85
Short Stay	**44**
Short Stay Sheffield Front	34
Short Stay Sheffield Courtyard	8
Cargo Short Stay	2
Total Sheffields	**127**
Total Bike Parking	**218**

Figure 3.5 – Bicycle Parking Schedule

3.14 The Bicycle Parking provided is further addressed within Section 4 of this Report.

4.0 BICYCLE PARKING: AUDIT / REVIEW

4.1 With 220 resident bedspaces, and with a target cycle modal split of 29% (based on the UCD Campus Travel Plan), this results in an actual requirement of 64 no. cycle spaces for all those student residents wishing to travel to UCD Belfield by bike. However, the proposed number of bicycle parking spaces, at 218 total No. as set out above, significantly exceeds this target bicycle usage. The DLRCC Development Plan requirement is for 105 long-stay residential bicycle parking spaces

4.2 It should be noted that the 174 No Long Stay Residential Spaces are intended to be provided by way of a Double Stack system, with the upper tier being 'gas-strut' assisted for ease of use. The lower tier of the proposals are all Sheffield Stands, as illustrated below in the CGi Image included. **In effect the lower tier by way of Sheffield Stands meets in full the DLRCC number / requirement. In this regard the lower tier of residential bicycle spaces provided in the enclosed compounds meets in full the Cycle Audit requirements of the Development Plan in terms of number and footprint**.

Figure 4.1 – Bicycle Parking, with 'Gas-Strut' Assisted Upper Tier and Lower Tier by way of Traditional Sheffield Stands

4.3 Chapter 12 Development Management Guidelines of the DLRCC Development Plan 2022 – 2028 requires "new residential development of 5 residential units or more or non-residential type developments of 400m^2, or over, to submit a Cycle Audit as part of the planning application". The Cycle Audit must be prepared by a suitably qualified person and shall clearly demonstrate, in plan format, how all the requirements of the Council's Standards for Cycle Parking and Associated Cycling Facilities are met within the development".

4.4 Section 12.4.6.2 or the Development Management Guidelines includes Cycle Parking Assessment Criteria, and we have checked the provision at the site in terms of these 5 headings, summarised below as ***Table 4.1***. In addition, we have examined the visitor parking provided, with a 'blow-up' drawing of the south-western front provision by way of Sheffield Stands included below as ***Figure 4.2*** to illustrate the space / dimensions provided.

Table 4.1 – Cycle Audit (Section 12.4.6.2) of the Dev Management Guidelines

12.4.6.2 Cycle Parking Assessment Criteria	Response
Is the number of cycle parking spaces and footprint adequate and is there suitable provision for parking of outsized formats (cargo bikes etc)?	Yes – cycle parking provided is in accordance with the DLR Cycle Policy numbers / types and spacing guidance as set out in Figures 3.1, 3.2 and 3.3 (Refer to Para 4.2 and 4.3 above)
Is the location of cycle parking convenient, appropriate and secure with adequate provision for covered parking?	Yes – Visitor spaces are conveniently located near the main development accesses, secure and can be covered as required. The visitor parking at the front and rear are subject to high quality passive surveillance.
Is the cycle parking area accessible in terms of dedicated access routes with ramps and/or kerb dishing where required?	Yes - cycle parking areas area are accessible, with direct easy access available by way of flat surfaces to all residential and visitor cycle parking.
Do the internal cycle access routes connect well with off-site cycle facilities – existing and proposed?	Yes – scheme connects to off-site cycle facilities –existing and proposed at Goatstown Rd by way of the lightly trafficked shared surface.
Is there adequate and appropriately designed and integrated provision for ancillary cycling and pedestrian facilities including showers, locker / changing rooms and drying areas?	Yes – all contained within the Student Accommodation Units.

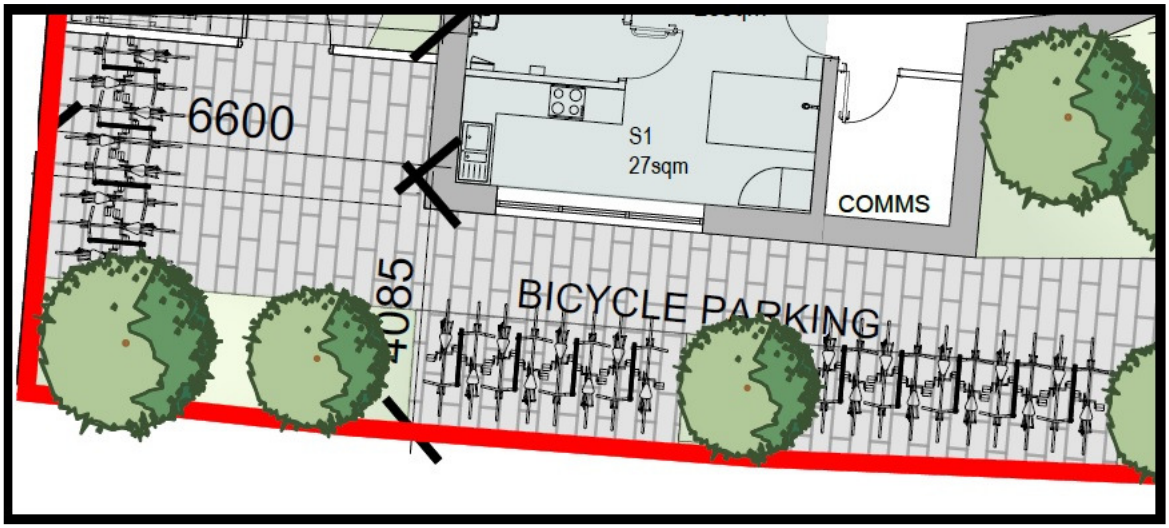


Figure 4.2 – Visitor Bicycle Sheffield Stand Bicycle Parking provision at SW of Site

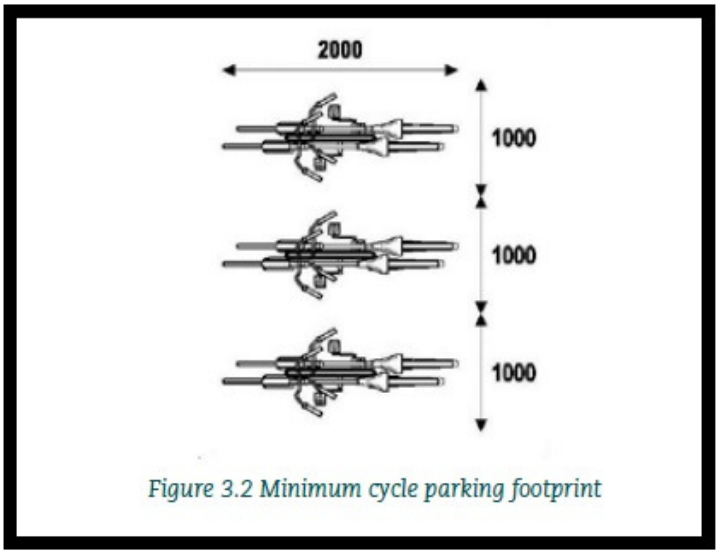


Figure 4.3 – Extract Fig 3.2 of DLRCC Cycle Standards

4.5 The Sheffield Stands provided, both within the Visitor Parking Areas and as the lower tier of the proposed 'double stack' system, are all consistent with the spacing requirements reproduced above as ***Figure 4.3***. In addition, we have checked the clearance to the rear, and the provision is in all cases in excess of 1.5m minimum aisle width as required in the DLRCC Standards.

4.6 We have further assessed the Bicycle Parking provided, with additional comments under the Cycle Audit provided below as ***Table 4.2***.

Table 4.2 – Cycle Audit (Additional Assessment Criteria)

Other Cycle Parking Assessment Criteria	Response
Consideration should be given to requiring the provision of cycle parking-related directional signage, in particular for storage and commercial parking facilities. Bike lockers, showers and changing rooms should be available at destination storage facilities (private).	Given the type and scale of the scheme, dedicated directional signage is not considered necessary. Visitor Cycle parking is conveniently located near the main development access and visitor cycle parking is evident to arrivals, with more visitor parking to the rear so that the travel distance to pedestrian access doors is not too great.
For short-term cycle parking (e.g. for customers or visitors), cycle parking is required at ground level. This should be located within 25 metres of the destination in an area of good passive surveillance. Weather protected covered facilities should be considered where appropriate.	Yes – at ground level near the main development access by way of Sheffield Stands, with more visitor parking to the rear so that the travel distance to pedestrian access doors is not too great.
For long-term cycle parking secure covered cycle parking is a requirement. This should be conveniently located within 50 metres of the destination and located near building access points where possible.	Yes – Secure Enclosed Cycle Long Term Bicycle Parking is provided within 2 dedicated enclosed compounds, with a numbering system to be deployed so that they are within closest walking distance of the allocated units.
In all cases it is a requirement to provide showers, changing facilities, lockers and clothes drying facilities, for use by staff that walk or cycle to work. CCTV cameras or passive surveillance of car parks and cycle parks may be required for personal safety and security considerations.	Yes – contained within the student accommodation. Yes, CCTV can be deployed and Passive surveillance will also assist.

4.7 In addition to the above assessment as Table 4.1 and Table 4.2, the Development Plan requires that we demonstrate “in plan format how all the requirements of Councils Standards for Cycle Parking and Associated Cycling Facilities for New Developments are met within the Development”. A drawing illustrating this is therefore included as ***Appendix A*** in order to be consistent with the DP Requirements.

5.0 CONCLUSIONS

5.1 NRB Consulting Engineers Ltd were appointed to address specific Traffic/Transportation and Parking issues associated with a proposed Large Scale Residential Development, comprising Student Accommodation, on the former Vector Motors Site at Goatstown Road, Goatstown, Dublin 14.

5.2 This Report assists in addressing specific additional issues identified in the DLRCC Opinion following-on from the LRD meeting on the 12th of June 2024.

5.3 The proposed new residential development will provide for 210 No Student Apartment units, with a total of 220 bedspaces, along with limited car parking and copious bicycle parking, associated infrastructure and landscaping.

5.4 This Report utilises available data to explain:

- Occupancy / Locations Characteristics of the Proposed Development,
- Current and Anticipated Modal Split, with zero car drivers anticipated,
- Car & Bicycle Parking Provision, and,
- Bicycle Parking Audit/Review in accordance with DLRCC Requirements.

5.5 Based on our study and assessment, we believe that the non-provision of dedicated car parking is appropriate. The UCD Travel Plan contains a target mode share of 0% for car usage. In addition, our assessment of CSO Data confirms that 95% of Students in the Local Electoral Area are Non-Car Drivers for their mode of travel to School / College, a trend that the proposed development is expected to maintain and exceed.

5.6 We have undertaken a review of the number and design of the Bicycle Parking to be provided at the site and we believe that it exceeds the requirements of the DLRCC Development Plan and associated Policy Documents.

5.7 Based on our review we believe that the development provides for a high quality of development adjacent the UCD campus and we would support a grant of planning permission by DLRCC.

APPENDICES

A	Site Layout Plan
B	Bicycle Parking Audit and Drawing

APPENDIX A

Proposed Development
Ground Floor Layout Plan

1 SITE LAYOUT PLAN - GROUND FLOOR PLAN

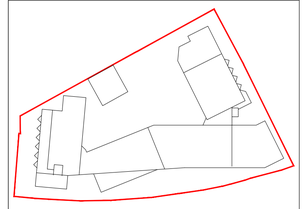
1 : 200 - 28 Bedspaces/floor

Notes:

DO NOT SCALE FROM THIS DRAWING. USE FIGURED DIMENSIONS IN ALL CASES. VERIFY DIMENSIONS ON SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECTS IMMEDIATELY. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE ARCHITECTS SPECIFICATION. © THIS DRAWING IS COPYRIGHT AND MAY ONLY BE REPRODUCED WITH THE ARCHITECTS PERMISSION.

Projection / Spatial Reference:
Projection= IRENET95_Irish_Transverse_Mercator
Centre Point Coordinates:
X,Y= 717752,728982
Reference Index:
Map Series | Map Sheets
1:1,000 | 3329-23
1:1,000 | 3392-03
Vertical Datum:
Malin Head

N



Key Plan

PLANNING LEGEND

SYMBOL	DESCRIPTION
	SITE BOUNDARY LINE SITE AREA: 3437.2 SQM / 0.34 HA

P4	Feb 24	IR	Pre-Planning issue
P3	March 22	LW	Planning
P2	Aug 20	LW	Planning
P1	Aug 20	LW	Pre-Planning issue

Rev	Date	DRN	Description

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W: www.reddyarchitecture.com
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Client Details:
Orchid Residential Ltd.
9 Clare Street, Dublin 2

Project Details:
PROPOSED STUDENT RESIDENCE
GOATSTOWN ROAD, DUBLIN 14

Drawing Title:
Site Layout Plan - Ground Floor Plan

Job No	Date	Scale@A1
19-181D	February 2024	1:200
Status: Planning		Drawn By: IR
Purpose: Planning Permission		Checked By: LW
Drawing Number: 19-181D-RAU-ZZ-GF-DR-A-GAP-104		Revision: P04

APPENDIX B

BICYCLE PARKING
Review / Audit and Drawing

APPENDIX B
Tabular Response to DLR Cycle Parking Assessment Criteria / Policy

12.4.6.2 Cycle Parking Assessment Criteria	Response
Is the number of cycle parking spaces and footprint adequate and is there suitable provision for parking of outsized formats (cargo bikes etc)?	Yes – cycle parking provided is in accordance with the DLR Cycle Policy numbers / types and spacing guidance as set out in Figures 3.1, 3.2 and 3.3
Is the location of cycle parking convenient, appropriate and secure with adequate provision for covered parking?	Yes – Visitor spaces are conveniently located near the main development accesses, secure and can be covered as required. The visitor parking at the front and rear are subject to high quality passive surveillance.
Is the cycle parking area accessible in terms of dedicated access routes with ramps and/or kerb dishing where required?	Yes - cycle parking areas area are accessible, with direct easy access available by way of flat surfaces to all residential and visitor cycle parking.
Do the internal cycle access routes connect well with off-site cycle facilities – existing and proposed?	Yes – scheme connects to off-site cycle facilities – existing and proposed at Goatstown Road by way of the lightly trafficked shared surface.
Is there adequate and appropriately designed and integrated provision for ancillary cycling and pedestrian facilities including showers, locker / changing rooms and drying areas?	Yes – all contained within the Student Accommodation Units.

Other Cycle Parking Assessment Criteria	Response
Consideration should be given to requiring the provision of cycle parking-related directional signage, in particular for storage and commercial parking facilities. Bike lockers, showers and changing rooms should be available at destination storage facilities (private).	Given the type and scale of the scheme, dedicated directional signage is not considered necessary. Visitor Cycle parking is conveniently located near the main development access and visitor cycle parking is evident to arrivals, with more visitor parking to the rear so that the travel distance to pedestrian access doors is not too great.
For short-term cycle parking (e.g. for customers or visitors), cycle parking is required at ground level. This should be located within 25 metres of the destination in an area of good passive surveillance. Weather protected covered facilities should be considered where appropriate.	Yes – at ground level near the main development access by way of Sheffield Stands, with more visitor parking to the rear so that the travel distance to pedestrian access doors is not too great.
For long-term cycle parking secure covered cycle parking is a requirement. This should be conveniently located within 50 metres of the destination and located near building access points where possible.	Yes – Secure Enclosed Cycle Long Term Bicycle Parking is provided within 2 dedicated enclosed compounds, with a numbering system to be deployed so that they are within closest walking distance of the allocated units.
In all cases it is a requirement to provide showers, changing facilities, lockers and clothes drying facilities, for use by staff that walk or cycle to work. CCTV cameras or passive surveillance of car parks and cycle parks may be required for personal safety and security considerations.	Yes – contained within the student accommodation. Yes, CCTV can be deployed, and Passive surveillance will also assist.
All cycle facilities in multi-storey car parks shall be at ground floor level and completely segregated from vehicular traffic. Cyclists should also have designated entry and exit routes at the car park and with minimum headroom of 2.4 metres to facilitate access by cyclists.	Not a multi-storey car park.
Within larger new developments cycle routes shall link to the existing cycle network where possible and maintain a high degree of permeability through developments. Cycle Audits may be required in such developments.	Yes – scheme connects to off-site cycle facilities – existing on Goatstown Rd & onwards to Clonskeagh road & UCD.

LOWER ROW OF DOUBLE TIER PARKING BEING SHEFFIELD STANDS, WITH THE MIN. TOTAL PROVISION IN THE LOWER LEVEL OF 105 BEING CONSISTENT WITH THE 105 MIN NUMBER REQUIRED UNDER DLRCC POLICY. THE TOTAL PROVISION IS 210 NO INCLUDING UPPER TIER PARKING. THE DIMENSIONS AND SPACING OF THE LOWER LEVEL IS CONSISTENT WITH THE LAYOUT GUIDANCE AS SET OUT IN FIGURES 3.1, 3.2 AND 3.3 OF DLRCC CYCLING POLICY, WITH 1m ALSO PROVIDED BETWEEN STANDS AND IN EXCESS OF 1.5m SPACE TO REAR. ALL SPACES ARE COVERED WITHIN AN ENCLOSED COMPOUND

UPPER TIER OF DOUBLE STACK SYSTEM IS 'GAS-STRUT' ASSISTED FOR EASE OF USE. TWO TIER BIKE PARKING RACKS ARE NOW VERY COMMON THROUGHOUT MAINLAND EUROPE AND PROVIDE HIGH QUALITY, HIGH DENSITY BIKE PARKING IN A SMALLER FOOTPRINT. THE 2-TIER PARKING SYSTEM WAS INSTALLED AT BOTH THE JAMES JOYCE LIBRARY AND NEWMAN BUILDING IN UCD CAMPUS IN 2019 AND IS NOW WIDELY USED AND ACCEPTED BY STUDENTS THERE AND THROUGHOUT DUBLIN

VISITOR SPACES ARE CONVENIENTLY LOCATED NEAR THE MAIN DEVELOPMENT ACCESSES, SECURE AND CAN BE COVERED AS REQUIRED. THE VISITOR PARKING AT THE FRONT AND REAR ARE SUBJECT TO HIGH QUALITY PASSIVE SURVEILLANCE

TWO-TIER COVERED BICYCLE STANDS

LOWER ROW OF DOUBLE TIER PARKING BEING SHEFFIELD STANDS, WITH THE MIN. TOTAL PROVISION IN THE LOWER LEVEL OF 105 BEING CONSISTENT WITH THE 105 MIN NUMBER REQUIRED UNDER DLRCC POLICY. THE TOTAL PROVISION IS 210 NO INCLUDING UPPER TIER PARKING. THE DIMENSIONS AND SPACING OF THE LOWER LEVEL IS CONSISTENT WITH THE LAYOUT GUIDANCE AS SET OUT IN FIGURES 3.1, 3.2 AND 3.3 OF DLRCC CYCLING POLICY, WITH 1m ALSO PROVIDED BETWEEN STANDS AND IN EXCESS OF 1.5m SPACE TO REAR. ALL SPACES ARE COVERED WITHIN AN ENCLOSED COMPOUND

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GOATSTOWN ROAD

VISITOR SPACES ARE CONVENIENTLY LOCATED NEAR THE MAIN DEVELOPMENT ACCESSES, SECURE AND CAN BE COVERED AS REQUIRED. THE VISITOR PARKING AT THE FRONT AND REAR ARE SUBJECT TO HIGH QUALITY PASSIVE SURVEILLANCE

SINGLE ROWS OF SHEFFIELD STANDS WITH MINIMUM 1m SPACING AND 1.5m MINIMUM AISLE WIDTH TO REAR AS REQUIRED IN FIGURE 3.3 OF THE DLRCC POLICY STANDARDS

NRB Consulting Engineers Ltd recommend that Road and land ownership boundaries are verified through Legal & Land searches by the Client.

This drawing is based upon Architects drawing P19-181D_104-108_Proposed Floor Plans_revC, received 10/09/24. NRB Consulting Engineers Ltd shall not be liable for any inaccuracies or deficiencies.

REV	DATE	AMENDMENTS	DRAWN	CHK	APP

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Client		Project No. 22-028	Drawing No. NRB-SK-001
Project	Goatstown SHD Dublin	Drawn PB	Checked ER 16/09/24 — Approved ER 16/09/24
Title	DLRCC Policy Cycle Audit/Review	Date 16-Sep-24	Scale @ A3 1:500 — Rev -

NRB Consulting Engineers Ltd accept no responsibility for any unauthorised amendments to this drawing. Only figured dimensions to be worked to.

Purpose of Issue: ☐ Draft ☐ As Built ☐ Information ☐ Tender ☐ Approval ☐ Construction