TRANSPORTATION

DBFL CONSULTING ENGINEERS

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1.0 INTRODUCTION

1.1 BACKGROUND

1.1.1 This Parking Strategy document has been prepared by DBFL Consulting Engineers (DBFL) in support of a planning application for a proposed residential and mixed-use development on a site at Scholarstown Road, Dublin 16.

1.1.2 Ardstone Homes Limited intend to apply to An Bord Pleanála for permission for a strategic housing development at a 5.35 hectare site located north of Scholarstown Road incorporating dwellings known as 'Beechpark' and 'Maryfield', Scholarstown Road, Dublin 16, D16 X3X8 and D16 N6V6. Works are also proposed to Scholarstown Road and Woodfield junction including new traffic signals, the elimination of the left-turn slip-lane into Woodfield off Scholarstown Road, upgraded public lighting and upgraded cycle and pedestrian facilities on an area measuring 0.7 hectares, providing a total application site area of 6.05 hectares.

1.1.3 The development will principally consist of: the demolition of all existing structures on site which include a single story dwelling known as 'Beechpark' (172 sq m), a 2 No. storey dwelling known as 'Maryfield' (182 sq m) with associated garage/shed (33.5 sq m) and associated outbuildings (47.1 sq m); and the construction of 590 No. residential units (480 No. Build-to-Rent apartment units and 110 No. Build-to-Sell duplex units and apartments), ancillary residential support facilities and commercial floorspace. The total gross floor space of the development is 51,252 sq m over a partial basement of 5,888 sq m (which principally provides car and bicycle parking, plant and bin stores).

1.1.4 The 480 No. 'Build-to-Rent' units will be provided in 8 No. blocks as follows: 7 No. blocks ranging in height from part 5 to part 6 No. storeys (Blocks B1 – B5, C1 and C3) and 1 No. block ranging in height from part 4 to part 6 No. storeys (Block C2) and will comprise 246 No. one bed units and 234 No. two bed units. The 110 No. 'Build-to-Sell' units will be provided in 9 No. duplex blocks which will be 3 No. storeys in height (Blocks A1 – A9) and will comprise 55 No. two bed units and 55 No. three bed units.

1.1.5 The development will also consist of the provision of a part 1 to part 2 No. storey ancillary amenity block (Block D1) (414 sq m) within the central open space which comprises a gymnasium, lobby, kitchenette and lounge at ground floor level and lounge at first floor level in addition to a roof terrace (facing north, south and west)

to serve the Build-to-Rent residents; a 2 No. storey retail/café/restaurant building (Block D2) (657 sq m) comprising 2 No. retail units at ground floor level (328.5 sq m) and a café/restaurant unit at first floor level (328.5 sq m); a creche (438 sq m) within Block C2 at ground floor level; and a management suite (261 sq m) and café/restaurant (288 sq m) within Block C3 at ground floor level.

1.1.6   The development provides a vehicular access off Scholarstown Road between Blocks C1 and C3 towards the south-east corner of the site; a separate pedestrian access and emergency vehicular access off Scholarstown Road between Blocks A9 and C2 towards the south-west corner of the site; the facilitation of a pedestrian connection from the north-east corner of the subject site to the public open space in Dargle Park; 459 No. car parking spaces (178 No. at basement level and 281 No. at surface level); bicycle parking; bin storage; boundary treatments; private balconies and terraces; hard and soft landscaping; plant; services; sedum roofs; PV panels; substations; lighting; and all other associated site works above and below ground.

1.1.7   This document presents the rationale behind the identification of the quantum of vehicle parking (including mobility impaired parking and service vehicle parking) and cycle parking that is being proposed as part of the subject site development proposals. The document also sets out the management measures that will be deployed to allocate the use and control of parking provided at the proposed development site.

1.1.8   This document will set out the principles of the parking management strategy proposed at the Scholarstown Road development and should be read in conjunction with the following complementary reports:

- Traffic and Transport Assessment (TTA)

- Mobility Management Plan (MMP)

- Waste Management Plan (Appendix to EIAR)

- Traffic Chapter, Environmental Impact Assessment Report (EIAR)

1.1.9   The TTA and MMP, in particular, set out the excellent alternative modes of travel which will be available to residents of the proposed development as well as providing details on existing conditions surrounding the site.

1.2   POLICY CONTEXT/RELEVANT STANDARDS

### SMARTER TRAVEL – A SUSTAINABLE TRANSPORT FUTURE

1.2.1   Smarter Travel was published in 2009 by the Department of Transport which represents the national policy documentation outlining a broad vision for the future and establishes objectives and targets for transport. The document examines past trends in population and economic growth and transport concluding that these trends are unsustainable into the future.

1.2.2   In order to address the unsustainable nature of current travel behaviour, Smarter Travel sets down a number of key goals and targets for 2020 - including:

- Total vehicle km travelled by car will not significantly increase;

- Work-related commuting by car will be reduced from 65% to 45%;

- 10% of all trips will be by cycling;

- The efficiency of the transport system will be significantly improved.

1.2.3   The document recognises that these are ambitious targets, and outlines a suite of 49 actions required to achieve these targets – summarised under the following four main headings:

- Actions aimed at reducing distances travelled by car and the use of fiscal measures to discourage use of the car;
- Actions aimed at ensuring that alternatives to the car are more widely available;
- Actions aimed at improving fuel efficiency of motorised travel; and
- Actions aimed at strengthening institutional arrangements to deliver the targets.
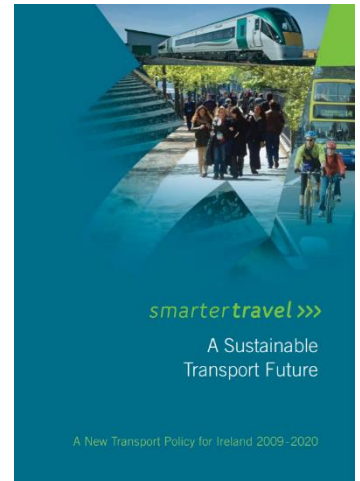
SUSTAINABLE URBAN HOUSING: DESIGN STANDARDS FOR NEW APARTMENTS – MARCH 2018

1.2.4   This guideline document was produced by the Department of Housing, Planning and Local Government and was updated with the latest version in March 2018. The purpose of this document is to set out standards for apartment development, mainly in response to circumstances that had arisen whereby some local authority standards were at odds with national guidance.

1.2.5   With the demand for housing increasing, this means that there is a need for an absolute minimum of 275,000 new homes in Ireland's cities by 2040. It is therefore critical to ensure that apartment living is an increasingly attractive and desirable housing option for a range of household types and tenures.

1.2.6   These Guidelines apply to all housing developments that include apartments that may be made available for sale, whether for owner occupation or for individual lease. They also apply to housing developments that include apartments that are built specifically for rental purposes, whether as 'build to rent' or as 'shared accommodation'.

1.2.7   Cycling provides a flexible, efficient and attractive transport option for urban living and these guidelines require that this transport mode is fully integrated into the design and operation of all new apartment development schemes.

1.2.8   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. There are three types of locations set out that will determine the level of parking provided. The **Central and/or Accessible Urban Locations** comprise of apartments in more central locations that are well served by public transport. These locations have a default policy for car parking provision to be minimised, substantially reduced or wholly eliminated in certain circumstances. The **Intermediate Urban Locations** comprise of apartments in suburban/urban locations served by public transport or close to town centres or employments areas. These locations require that planning authorities must
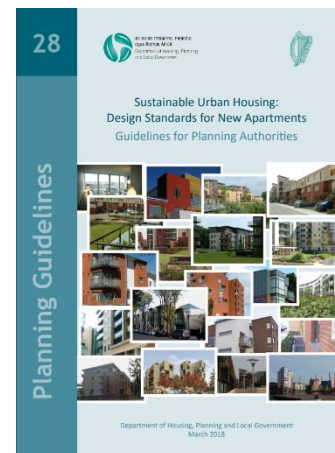
consider a reduced overall car parking standard and apply an appropriate maximum cap parking standard. The **Peripheral and/or Less Accessible Urban Locations** comprise of apartments located in relatively peripheral or less accessible urban locations, one car parking space per unit, together with an element of visitor parking should generally be required.

1.2.9   For all types of locations, where it is sought to eliminate or reduce car parking provision, it is necessary to ensure, where possible, the provision of an appropriate number of drop off, service, visitor parking spaces and parking for the mobility impaired. Provision is also to be made for alternative mobility solutions including facilities for car sharing club vehicles and cycle parking and secure storage.

SOUTH DUBLIN COUNTY COUNCIL DEVELOPMENT PLAN 2016-2022

1.2.10 Transport and mobility policy in South Dublin is guided by a comprehensive and coordinated set of national and regional policy documents. National and Regional policy recognises that current transport trends, in particular levels of car use, are unsustainable and that a transition towards more sustainable modes of transport, such as walking, cycling and public transport is required. There are concerns that if current trends continue, congestion will increase, transport emissions will grow, economic competitiveness will suffer and quality of life will decline.
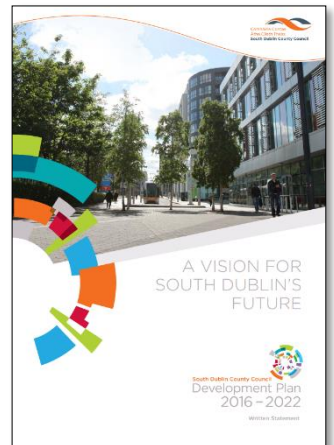
1.2.11 The council will seek to rebalance transport and mobility within the County by promoting ease of movement by sustainable modes (including walking, cycling and public transport) and freeing up road space for economic growth and new development.

1.2.12 The Council recognises that new development, both residential and commercial, permitted in line with this Plan will lead to additional trips being generated. The Council will work with the relevant agencies to seek to ensure that as high a proportion as possible would be conducted by sustainable means.

1.2.13 The following objectives have seen set out within the plan in order to promote transport and mobility within the County:

- **TM1 Objective 1: To support and guide national agencies in delivering major improvements to the transport network.**

- **TM1 Objective 2**: To spatially arrange activities around, and improve access to, existing and planned public transport infrastructure and services.

- **TM1 Objective 3**: To focus on improvements to the local road and street network that will better utilise existing road space and encourage a transition towards more sustainable modes of transport, while also ensuring sufficient road capacity exists for the residual proportion of the trips which will continue to be taken by private vehicle.

- **TM1 Objective 4**: To prioritise new road construction that provides access to new communities and development areas and supports the economic development of the County.

- **TM1 Objective 5**: To balance the needs of road users and the local community with the need to support the development of a sustainable transportation network.

- **TM1 Objective 6**: To support the delivery of sufficient public transport and road capacity to facilitate sustainable new development in the County.

1.2.14 The SDCC Development Plan outlines the cycle and car parking standards required for non-residential units; i.e., retail/commercial and residential elements. **Table 1.1** and **Table 1.2** below outlines the SDCC maximum car parking requirement for non-residential and residential developments respectively.

SDCC Maximum Car Parking Standards (Non - Residential)		
Category	**Land Use**	**Zone 2**
Education	Creche	0.5 per classroom
Retail and Retail Services	Retail Convenience	1 per 25 sqm
Retail and Retail Services	Café/Restaurant	1 per 20 sqm

Table 1.1 SDCC Car Parking Standard for Non-Residential Developments

SDCC Maximum Car Parking Standards (Residential)		
Dwelling type	**No. of Bedrooms**	**Zone 2**
Apartment Duplex	1 Bed	0.75 space
	2 Bed	1 space
	3 Bed+	1.25 space

Table 1.2 SDCC Car Parking Standard for Residential Developments

1.2.15   The South Dublin County Council Development Plan outlines that the provision for cycle parking for both residential and retail/commercial units for both long term and short term stay. These are outlined in **Table 1.3** below.

SDCC Cycle Parking Standards			
Category	**Land Use**	**Long Term**	**Short Term**
Accommodation	Residential Apartment	1 per 5 apartments	1 per 10 apartments
Education	Creche	1 per 5 staff	1 per 10 children
Retail and Retail services	Café/Restaurant	1 per 5 staff	1 per 10 seats
Retail and Retail services	Retail Convenience	1 per 5 staff	1 per 50 GFA

Table 1.3 SDCC Cycle Parking Standard for Non-Residential Developments

2.0   VEHICLE PARKING

2.1   PARKING OVERVIEW

2.1.1   The development's vehicle parking proposals include the provision of a total 459 no. of parking spaces of which 281 spaces are provided on surface and 178 spaces are provided within a basement car park. The layout of on-site surface vehicle parking is as illustrated in **Figure 2.1** below.

Figure 2.1: Vehicle Parking Proposals

2.1.2   As noted, there are 281 spaces proposed at surface level; of these, 25 spaces have been allocated as disabled spaces.

CAR PARKING PROVISION

2.1.3   The provision of a total of 459 no. car parking spaces on-site have been allocated as follows: -

- The Duplex units (110 Build to Sell units) have been allocated a total of 124 parking spaces; this is a rate of 1.25 spaces per the 3 bedroom units and 1 space per 2 bedroom units. This is in accordance with the SDCC parking standards.

- The Apartment units (480 Build to Rent units) have been allocated a total of 288 no. parking spaces; this is a rate of 0.60 spaces per unit. This is in accordance with the SUHD Design Standards for New Apartments as referenced in Section 1.

- 3 no. car parking spaces have been allocated to car share in the form of GoCar or similar Car Share services.

- Of the total number of parking spaces within the development, 5% mobility impaired spaces have been proposed; this equates to total 25 no. Mobility Impaired spaces.

- 3no. car parking spaces reserved for creche which includes 1 Mobility Impaired Spaces.

- 31no. car parking spaces are allocated for Café/Restaurant which includes 2 Mobility Impaired Spaces

- 13no. car parking spaces are allocated for the retail element which includes 1 Mobility Impaired spaces.

- The total no. 178 basement parking spaces will be provided with ESB ducting for future potential use by electric vehicles. However, 50no. out of the 178 electric vehicle spaces with charging points will be operational on the opening of the development which is in accordance with the SDCC 10% Electric Vehicle spaces requirement of overall parking provision.

2.1.4   **Table 2.1** below summarises breakdown of the total provision of 459 car parking spaces which includes 25 mobility impaired spaces.

Unit Type	Parking Spaces	Basement	Surface
Build to Rent	288	178 *(includes 50 e-car)*	110 *(includes 3 Car Share and 15 Disabled Spaces)*
Build to Sell	124	-	124 *(Includes 6 Disabled Spaces)*
Creche	3	-	3 *(Includes 1 Disabled Spaces)*
Retail	13	-	13 *(Includes 1 Disabled Spaces)*
Café/Restaurant	31		31 *(Includes 2 Disabled Spaces)*
Total	**459**	**178**	**281**

Table 2.1 Breakdown of Car Parking Provision

CAR SHARE PARKING SPACE (GOCAR)

2.1.5   The provision of 3 dedicated car share facility spaces located within the development will ensure that they are highly accessible to residents of the subject development. GoCar has given a confirmation letter to provide its service for the proposed development. See **Appendix A**.

2.1.6   Managed by a specialised private operator (GoCar) all residents will have the option to become members of the car share service. Once members, residents can then book cars online or via the app for as little as an hour, then unlock with their phone or GoCar. The keys are located in the car, with fuel, insurance and city parking all included. The benefits of such car sharing services include: -

- the reduction of the number of cars on the road and therefore traffic congestion, noise and air pollution;

- minimises demand for car parking and frees up land traditionally used for private parking spaces as 3 GoCar potentially replaces 15 private cars.

- increases use of public transport, walking and cycling as the need for car ownership is reduced; and

- Car sharing allows those who cannot afford a car the opportunity to drive, thereby encouraging social inclusivity.

2.1.7   The marketing and benefits of the proposed car share facilities form a key component of the developments' Mobility Management Plan (MMP).

SERVICE VEHICLE PARKING

2.1.8   Access can be granted on a 'controlled' basis to the basement car park for servicing of the residential elements of the development. The Waste receptacles from the Waste Storage Area within the basement are directly collected by waste contractors and taken to the vehicle for emptying. A Waste Management Plan has been prepared as part of the EIAR and should be referenced for further detail.

2.2   CAR PARKING PROVISION FOR BUILD TO RENT APARTMENTS

2.2.1   As mentioned above, the parking provision for the Build to Rent units (480 no. apartments) within the development has been allocated at a reduced parking rate of 0.60 spaces per unit. This is based on the standards provided within the Sustainable Urban Housing Design Standards for New Apartments. This is based on good site location as well as the availability of travel alternatives such as public

transport, walking and cycle links, and as such the quantum of vehicle parking provided on site should be '*minimised, substantially reduced or wholly eliminated'*.

2.2.2   With the objective of establishing whether this parking ratio (approximately 0.60/unit) would be appropriate to accommodate the likely demand generated for car parking at the subject Scholarstown Road development, DBFL have reviewed the following data sources; -

- Review of 2016 Census Data – Existing Modal Split trends; and

- Review of 2016 Census Data – Car Ownership trends;

- Review of 2016 Census Data – Age Demographics and Accommodation Type;

- Review of 2016 Census Data – Accommodation Rental trends;

- Review of National Transport Authority– National Household Survey 2017;

- Review of UK research 'Unlocking the Benefits and Potential of Build to Rent'

2.2.3   It is an objective for this development to reduce the need for commuters to travel by car and instead to avail of more sustainable modes of travel in line with current and future travel requirements as set out in recent policy documents within Ireland. It is noted that the concept for car parking reduction in apartments is relatively new in Ireland, and therefore, proposals to implement a more sustainable approach for car parking may take time. Case studies in the UK with reference to the 'Build to Rent' schemes have been reviewed as part of this study in order to determine the market type for these types of developments, i.e. age demographic attracted to this type of development, car parking ownership levels etc.

2.3   BUILD TO RENT (BTR) SCHEMES

2.3.1   Although considered a relatively new feature within Ireland and UK property market, the Build to Rent (BTR) scheme is being increasingly recognised as an exciting opportunity for investors, local authorities and developers. Significant research has been undertaken, in particular within the UK, with regard to this emerging concept. The research affirms the value of BTR to the property industry as it seeks to accelerate new developments to help address the housing crisis whilst also delivering broader social and economic benefits to local communities.

2.3.2   By delivering high quality and well managed homes and creating new, sustainable communities, BTR will enhance the overall quality of housing and become woven in to the residential landscape.

2.3.3   From a number of surveys undertaken in the UK regarding BTR schemes, the surveys suggest that the main age demographic interested in the BTR schemes are the 25 – 35 year age bracket. This is likely due to a number of factors including the difficulty of procuring a mortgage and getting on to the property ladder in this current property climate. Also, a consideration for this is that renting properties tends to suit this age demographic as many people of this age may wish to move around and travel and may not wish to buy at that time.

2.3.4   The UK reference document 'Unlocking the Benefits and Potential of Build to Rent' identifies a link, from the UK Census 2011, between car ownership and the tenure of a residence, i.e. whether a resident is renting in the public domain or privately owns their residence. The graph in **Figure 2.2** shows that residents who own their property are more likely to own a car than residents who rent their property. It shows that the total average of car ownership for privately owned residences is 0.8 cars per residential unit, this is compared with a car ownership of just 0.4 cars per residential unit for residences that are publicly rented. This suggests that car parking demand for the rental market may well be lower than traditional build to sell schemes.
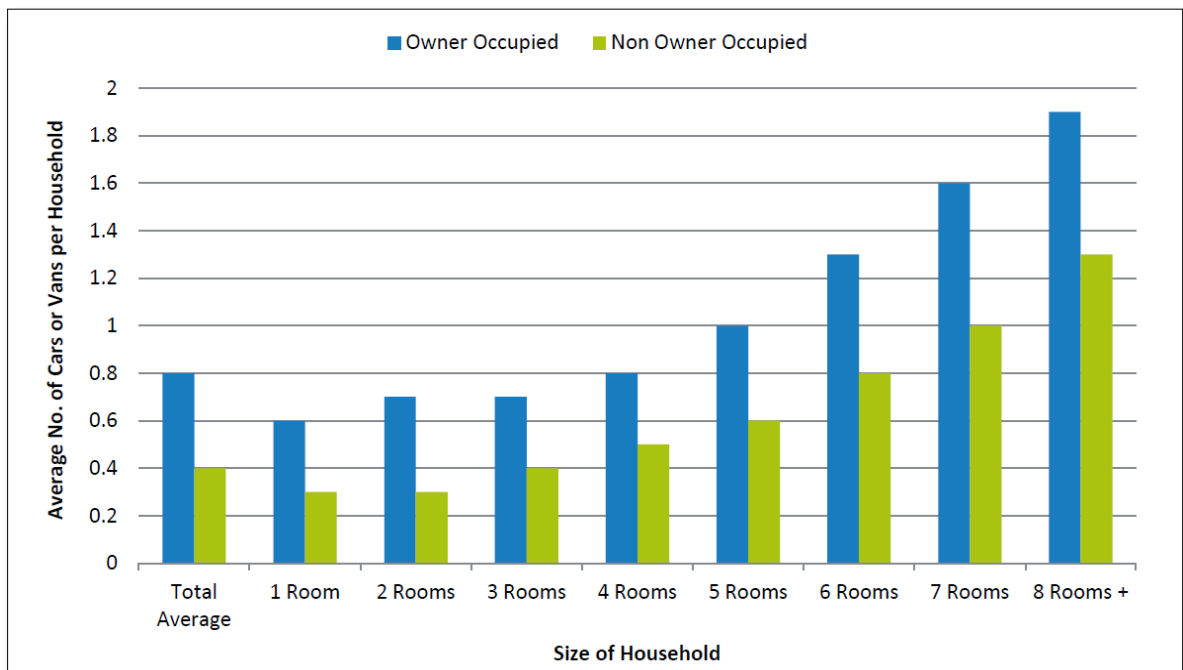

Figure 2.2: Car Ownership between Privately Owned and Publicly Rented Dwellings
(Source: Unlocking the Benefits and Potential of Build to Rent by British Property Federation)

2.4 CAR OWNERSHIP & USAGE

2.4.1 In order to determine an appropriate parking provision for the subject development the current demand for car parking within the surrounding area of the proposed development site was researched using the 2016 CSO data and in particular the level of current car ownership. The 2016 CSO small area map has been reviewed. The residential properties within the immediate vicinity of the proposed development site are well established housing units and therefore were not reflective of the type of development proposed in terms of undertaking a comparison in travel patterns. Therefore, apartment blocks within five small areas similar to the proposed development was assessed, as detailed in the map in **Figure 2.3**. These Small Areas represent similar attributes to the proposed apartment units in terms of being located within an urban environment, similar distance from the City Centre as well as having good availability of Dublin Bus routes.
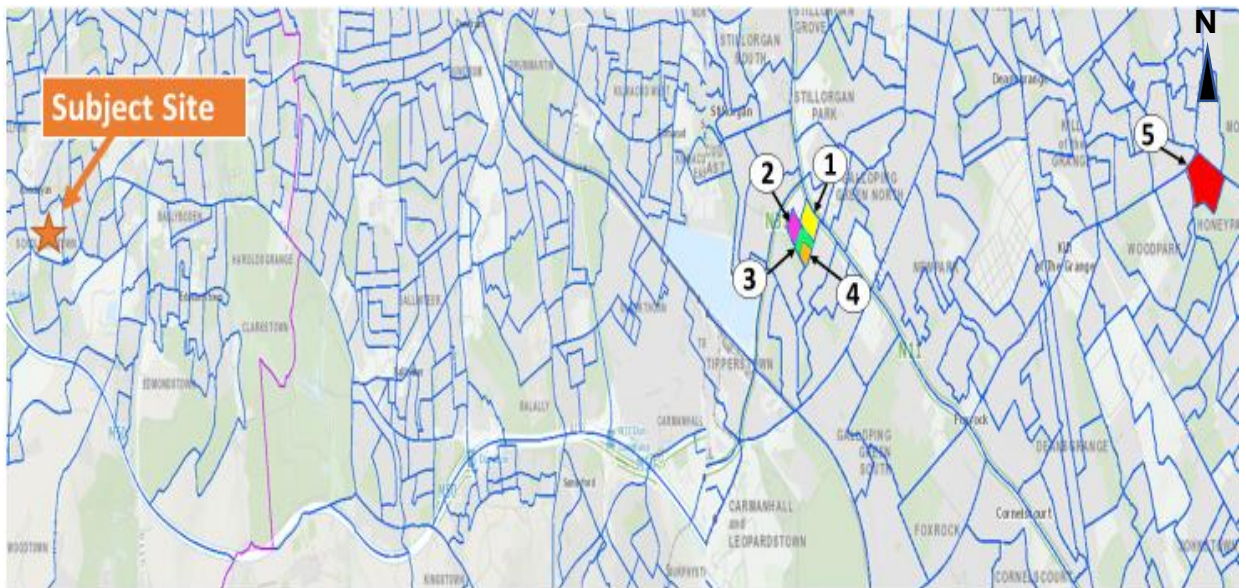

Figure 2.3: 2016 CSO Small Areas containing apartments near the site

2.4.2 A total of 589 units were included in this assessment. The CSO data for Apartments who do not own a car in this area is presented in **Table 2.2** below.

Small Area	No. Apts	No. Houses	No. Households with No Car	% of Households with No Car	Equivalent Rate of Parking Ownership (Space/Unit)
1	138	0	30	22%	0.78
2	105	0	22	21%	0.79
3	73	0	12	16%	0.84
4	79	0	9	11%	0.89
5	132	62	39	20%	0.80

Table 2.2: 2016 CSO Car Ownership Data

2.4.3   **Table 2.2** highlights that the level of households that do not own a car within the particular census small area varies between a low 11% in Area 4 to a high 22% in Area 1. The overall average level of car parking ownership within these locations is 0.82 spaces per unit. It is noted that these apartments are typically based on past development standards that adhered to the 1 car space per unit for apartment blocks and also based on a different commercial model with parking spaces designated to units as part of the sale/rental agreement.

2.4.4   It should also be considered that whilst many households own a car, they may not avail of their car for commuting purposes and may use their vehicle infrequently. Using a vehicle for commuting purposes could also be hindered by a commuter's destination, for example, does their place of work have restricted car parking allocation in force. Therefore, in order to assess the level of daily use for commuters who drive their vehicle to work, the 2016 CSO data was again reviewed for the modal split for people travelling to Work, School or College. This was assessed for the same Census Small Areas as previously discussed. The results of this assessment are detailed in **Table 2.3** below.

Small Area	No. Commuters	% Households with No Car	No. Commuters that Drive	% Commuters that Drive
1	227	22%	81	36%
2	184	21%	73	40%
3	115	16%	40	35%
4	132	11%	48	36%
5	365	20%	108	30%

Table 2.3: 2016 CSO Data – Percentage of Commuters that use their Vehicle

2.4.5   **Table 2.2** outlines that although level of car ownership within these locations is overall average of 82%, the percentage of commuters that use their vehicle to drive to work, college or school is lower at an average of 35% over all areas assessed. This highlights that although commuters may own vehicles within this area, a high proportion of them avail of other, more sustainable, modes of travel for commuting purposes.

2.5   MODAL SPLIT FOR SMALL AREAS

2.5.1   The same five Census Small Areas were assessed to identify the modal split within the area. The assessment reveals that car is the predominant mode of transport with 34% driving and 10% as car passengers. The second most prominent mode of transport is Bus with 25% of all commuting journeys made by bus within the assessed areas. Walking and cycling has a modal share of 12% and 7% respectively. **Figure 2.4** below depicts the modal split within the area.
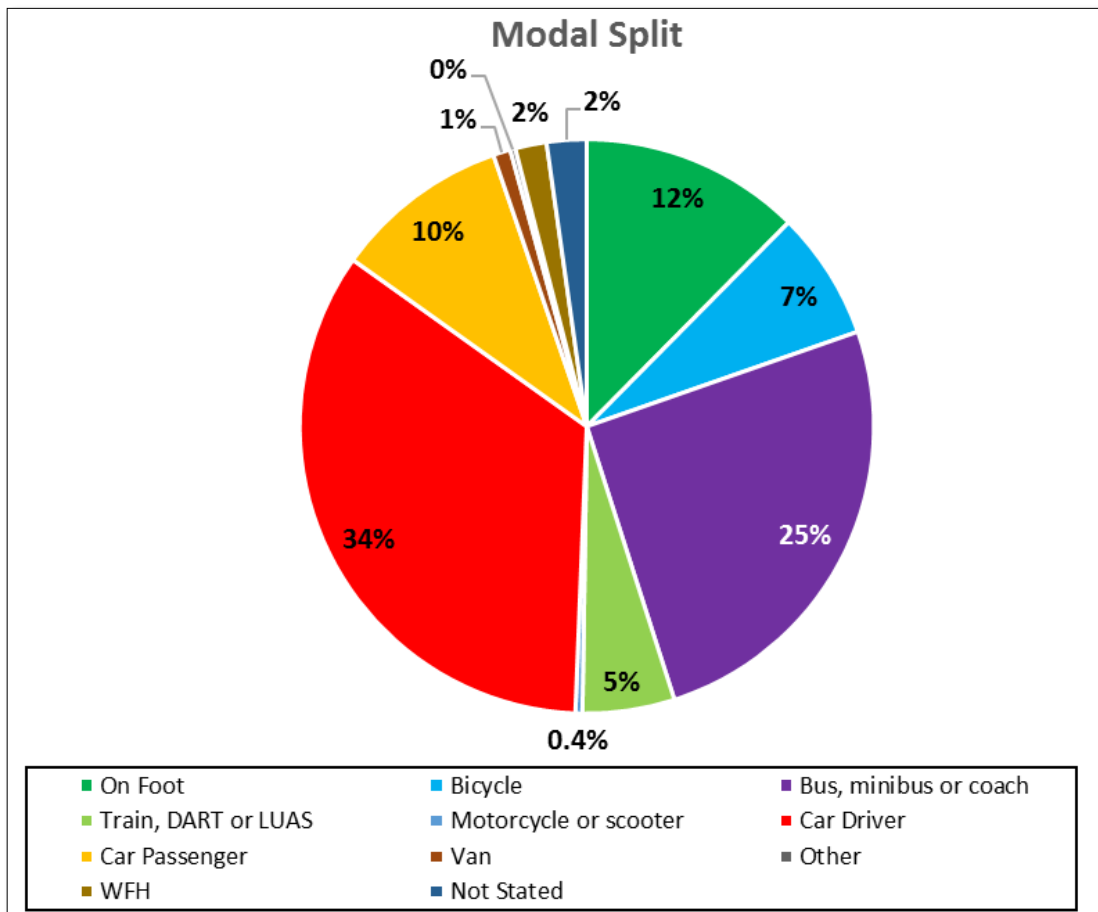

Figure 2.4: Existing Modal Split

2.5.2   In summary, existing levels of car ownership and usage would indicate a trend towards the use of sustainable travel modes by residents of apartment developments in the Dublin area. It is imperative that viable travel alternatives are provided and encouraged. This will have the impact of reducing demand for use of the private vehicle and subsequent requirements for car parking. To this end a Mobility Management Plan has been produced for the development and should be read in conjunction with this report.

2.6   PROPERTY RENTAL TREND

2.6.1   The Census of Population 2016- Profile 1 Housing in Ireland shows that Rented accommodation has continued its upward trend with 497,111 households renting. This is approaching the half million mark which is an increase of 4.7% from the 2011 Census.

2.6.2   This is likely due to a number of factors including the difficulty of procuring a mortgage and getting on to the property ladder in this current property climate. Also, it is considered that renting properties tends to suit a younger age demographic as many people of this age may wish to move around and travel and may not wish to buy at that time. **Figure 2.5** below illustrates Census data of Householders who rent by age dating from 1991-2016.
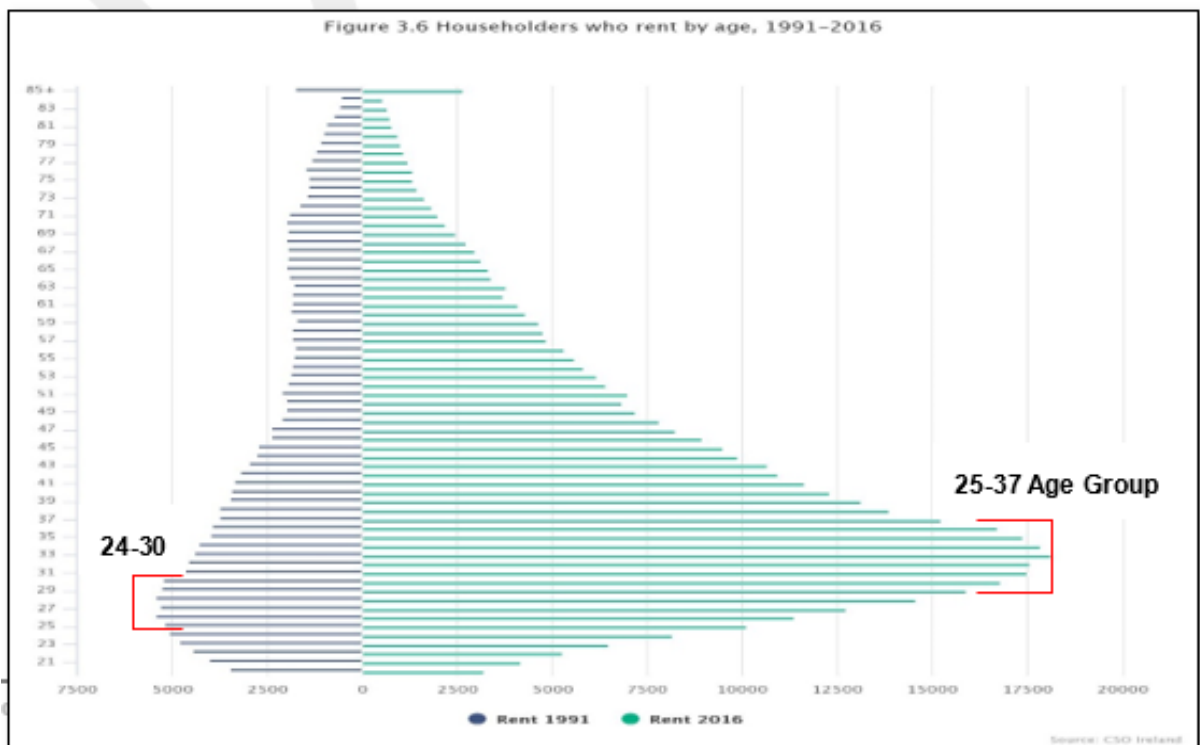

Figure 2.5: Households Renting by Age, 1991-2016

2.6.3   The main age demographic of households renting in Ireland in 2016 was 25-37. This is compared with the 1991 age demographics of 24-30 year old demographic renting.

2.7   AGE DEMOGRAPHIC AND TYPE OF ACCOMMODATION

2.7.1   Considering the type of demand that residential developments tend to attract (25-37 years old tenants), it was considered necessary to establish the general age demographic for rental properties and accommodation types similar to those of the proposed development apartments. The same five Census Small Areas were used for this assessment as highlighted in **Figure 2.3** above in **Section 2.4.**

2.7.2   The overall age profile for the 5 CSO Small Areas were assessed and are outlined in the **Figure 2.6** below. The results indicate that there is a young age demographic within these areas with the highest number of residents within the 30-35 age bracket followed by 35-39 age profile and the 25-29 age profile.
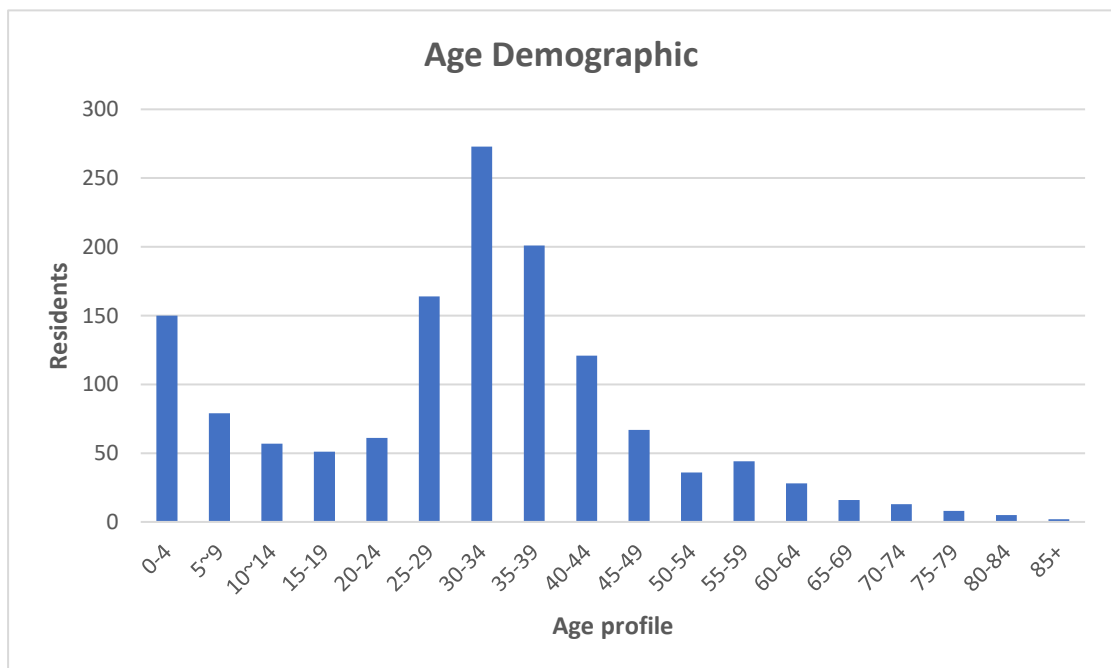
Figure 2.6: CSO 2016 Age Profile for Small Areas

2.7.3   The same five areas were assessed for identifying the type of accommodation, privately rented or owned, in order to know the demand for rental accommodation within the area for apartment units. **Figure 2.7** illustrates that 71% of residents are renting their apartment accommodation with 29% of residents owning their property. It is noted some of the residential dwellings within these areas are houses.
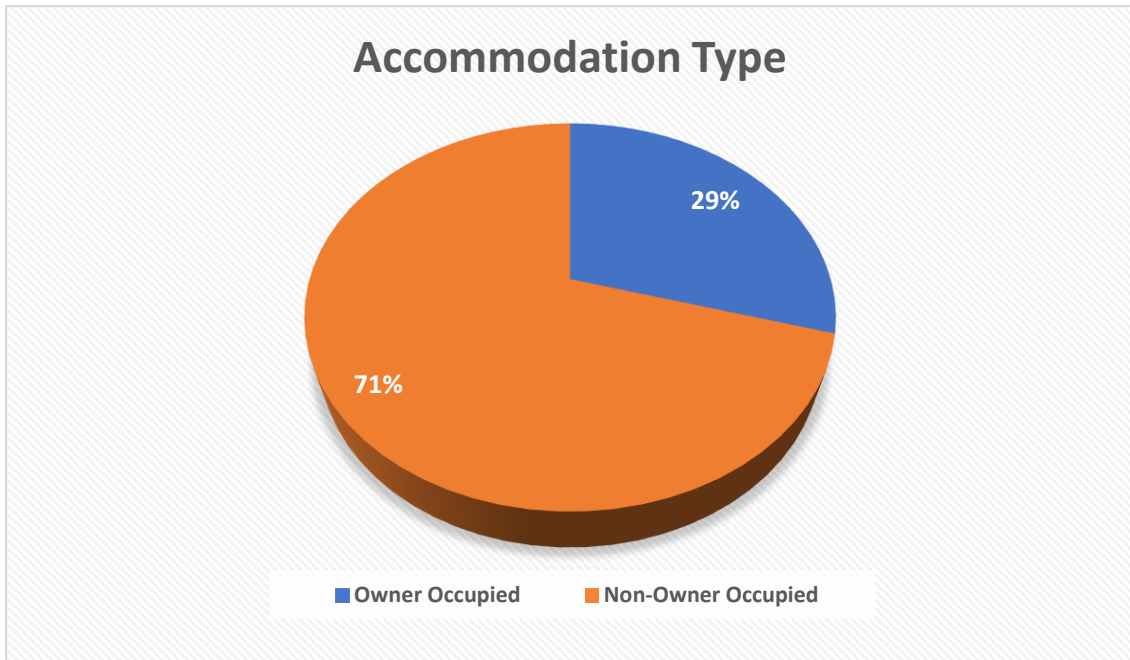
Figure 2.7: CSO 2016 Type of Accommodation in areas surrounding the subject site

2.7.4   The young age profile in combination with the high rental demand in the area as well as the low use of cars for peak commuting trips (Average 35%) indicates that the proposed Build to Rent development will not generate significant residential car trips, therefore, it is deemed appropriate to provide a reduced parking provision of 0.60 spaces per unit for the Build to Rent element.

2.7.5   The level of car ownership amongst this demographic is decreasing with many unprepared to commit to the additional cost of retaining a designated car parking space when viable alternative modes of travel are available.

3.0   CYCLE PARKING

3.1   Cycle Parking Provision

3.1.1   The appropriate level of cycle parking provision for the proposed development will also be provided in reference to both (i) the South Dublin County Council (SDCC) requirements; and (ii) the SUHDS guidelines. The SDCC cycle parking standards are detailed in **Table 3.1** below: -

SDCC Cycle Parking Standards			
Category	**Land Use**	**Long Term**	**Short Term**
Accommodation	Residential Apartment	1 per 5 apartments	1 per 10 apartments
Education	Creche	1 per 5 staff	1 per 10 children
Retail and retail services	Retail Convenience	1 per 5 staff	1 per 50 sqm GFA
Retail and retail services	Café/Restaurant	1 per 5 staff	1 per 10 seats

Table 3.1: Cycle Parking Requirements

3.1.2   With a total of 480 Built to Rent apartment units and 110 Build to Sell duplex units, this equates to a total of 590 residential units. The Creche is proposed to have capacity of 101 children with 10 no. staff employed and a total of 25 no. staff envisaged to be employed within the retail/commercial units (10 retail and 15 café/restaurant with 100 seats). **Table 3.2** below outlines the requirement for the development for cycle parking spaces based on the SDCC cycle parking standards.

SDCC Cycle Parking Standards			
Category	**Land Use**	**Long Term**	**Short Term**
Accommodation	Residential Apartment	118	59
Education	Creche	2	10
Retail and retail services	Retail Convenience	2	7
Retail and retail services	Café/Restaurant	3	10
Total		**125**	**86**

Table 3.2: Cycle Parking Requirements Provision

3.1.3   With reference to **Table 3.2** above, the development is required to provide 125 long term cycle spaces for residents and staff and 86 short term cycle spaces for visitors. This equates to a total provision requirement of 211 bicycle parking spaces in accordance with the SDCC Development standards.

3.1.4   The Sustainable Urban Housing Design Standards (SUHDS) for New Apartments was also reviewed for cycle parking standards. These standards state the following requirements for cycle parking:

- 1 cycle storage space per bedroom
- 1 cycle storage space for studio units;
- 1 cycle space per two residential units for visitor parking

3.1.5   As noted, there are a total of 480 residential apartment units and 110 residential duplex units proposed. Of these, there are 246no. 1-bedroom apartments, 289 no. are 2-bedroom apartments and 55 are 3-bedroom apartments. Therefore, in accordance with the SUHDS guidelines, there is a requirement to provide a total of 989 residential cycle spaces as well as 295 visitor cycle parking spaces. This equates to a total of 1,284 cycle parking spaces.

3.1.6   It is considered that a provision of cycle parking that is between the SDCC guidelines of 211 spaces and the new SUHDS guidelines of 1,284 spaces is acceptable. Therefore, the development proposes to provide a total **of 800 cycle parking spaces** with 320 of these proposed as long term stay in the basement and 480 proposed as both long terms and short term stay on the surface.

3.1.7   In reference to **Table 3.3** overleaf, it can be established that the proposed on-site bicycle parking provision of 800 spaces is deemed appropriate which is between SDCC and SUHDS cycle parking standards. This provision of cycle facilities within the development is in excess of the required standard within the SDCC Development Plan. This increased level of cycle parking is intended to further facilitate a positive modal shift away from a dependency on car travel.

Standard/Proposed	Type	Apts	Retail	Café/Restaurant	Crèche	Sub Total
SDCC Standards	Short	59	7	10	10	86
	Long	118	2	3	2	125
	Total	177	9	13	12	211
SUHDS Standards	Short	295	-	-	-	295
	Long	989	-	-	-	989
	Total	1340	-	-	-	1284
Proposed	Short	181	-	-	-	181
	Long	619	-	-	-	619
	Total	800	-	-	-	800

Table 3.3: Comparison of Bicycle Parking Provision

3.1.8 The **Figure 3.1** illustrates the layout of on-site proposed cycle parking spaces both on surface and within the basement.

Figure 3.1: Bicycle Parking Layout

Surface Cycle Parking: 480 No. Long and Short-Term Spaces on surface

Basement Cycle Parking: 320 No. spaces

3.2   INITIATIVES FOR SUSTAINABLE TRAVEL

3.2.1   It is acknowledged that home owners may require a vehicle of some sort for purposes other than commuting on an everyday basis and simply reducing car parking would not be realistic without implementing alternative measures to accommodate residents and visitors alike. Therefore, the following alternative arrangements are proposed should car parking and car ownership be reduced within the development:

- Car Club (Go Car);

- Mobility Management Plan;

- Increased Cycle Parking (Including Initiatives such a Bleeper Bike, See **Appendix A** for confirmation letter); and

- Parking Management.

Car Club

3.2.2   A car club provides its members with quick and easy access to a vehicle for short term hire. The GoCar is a well-established and successful car club operator in Dublin. This service has been recommended in recent developments as a means for car sharing where car parking is reduced. GoCar would provide a number of permanent vehicles within the development which residents would have the ability to avail of. A recent survey undertaken by GoCar indicated that the main uses of the service was for day trips, family trips and big shopping trips. The survey also highlighted that the average use of a car was for 1 hour a day.

3.2.3   It is noted that 3 parking spaces within the proposed development has been allocated as Car Club spaces. The GoCar has given a letter of confirmation to provide its service for the proposed development site. See **Appendix A**.

Mobility Management Plan

3.2.4   An outline Mobility Management Plan (MMP) has been prepared, within a separate document, and should be read in conjunction with this document. The MMP will be developed further at operation stage by the management company who will have a much more active role than a management company from a traditional apartment

development. MMP is a set of initiatives which are undertaken to influence a sustainable modal shift for future residents that will reduce demand for car usage.

Increased Cycle Parking

3.2.5   Increasing cycle parking is an alternative measure when reducing car parking spaces. A total of 800 cycle spaces are proposed for this development which includes provision for residential, visitor, commercial and creche.

3.2.6   Although a sufficient level of cycle parking is being proposed within the development, additional bicycle parking could be considered in the form of the relatively new 'BLEEPER bike' scheme. This scheme allows for a stationless bike sharing scheme. This scheme uses a phone application and bikes can be picked up and left anywhere that traditional bicycle parking is permitted. They do not require custom built docking bays. Bleeper Bike has given a confirmation letter to provide its service for the proposed development. See **Appendix A**.

Parking Management Strategy

3.2.7   A key component in the continued efficiency of on – site car parking is an active and enforced parking management strategy. This strategy will be managed by the management company and specific details of these proposals are provided in **Section 4** of this report.

3.2.8   In summary, the Parking Management Strategy will be founded on the principle that none of the Build to Rent apartment units will be allocated a parking space as part of the rental agreement for the property. The parking spaces will be allocated to those paying the prescribed fee. Aside from the 3 GoCar spaces, the remaining spaces will be available for tenants to rent on a need's basis. The rental cost associated with the parking spaces is expected to be specified at such a rate so as to discourage the use of the private vehicle unless necessary and to encourage the uptake of more sustainable modes such as walking, cycling and public transport for which there are excellent opportunities within and directly adjacent to the development site.

4.0 MANAGEMENT OF ON-SITE PARKING FACILITIES

4.1 INTRODUCTION

4.1.1 As outlined in **Section 2** above, a key component in the effective operation of on – site car parking is an active and enforced parking management strategy. This strategy will be managed by the management company who will be responsible for the control of the parking and access arrangements as well as the allocation of the parking spaces.

4.2 CAR PARKING ALLOCATION

Car Sharing

4.2.1 3 no. spaces have been allocated to car sharing for residents with the GoCar operation. Pre-planning consultation has taken place with GoCar who are committed to operating the facility at the development site. The Management Company will engage with GoCar as part of its role as Mobility Manager for the development. The management company will also ensure that the 3 spaces is used by GoCar only. GoCar has given a support letter which states that 3 shared car club vehicles will be provided on site for use by residents of the development. See **Appendix A**.

4.2.2 Carsharing is a sustainable service. By allowing multiple people to use the same vehicle at different times, car sharing reduces car ownership, car dependency, congestion, noise and air pollution. Every GoCar has the potential to replace up to 15 private cars.

General Parking

4.2.3 The remaining car parking spaces for the Build to Rent apartments within the proposed development will be set aside for the use of residents who may rent a space for a defined period of time. None of the residential units will be automatically allocated a parking space as part of the rental agreement for the property. In order to be allocated a parking space, tenants will have to apply to the management company to gain a parking permit and an assigned dedicated parking space, i.e. a tenant is not automatically allocated a parking space when they take up residency at the site.

4.2.4 These car parking spaces will be available for tenants to rent on a need's basis. The rental cost associated with the parking spaces is expected to specified at such

a rate so as to discourage the use of the private vehicle unless necessary and to encourage the uptake of more sustainable modes such as walking, cycling and public transport for which there are excellent opportunities within and directly adjacent to the development site. The parking spaces will be allocated to those paying the prescribed fee.

4.2.5   The Build to Sell elements of the development have been allocated 1 space per 2 bedroom units and 1.25 spaces per 3 bedroom units which is in accordance with the SDCC Development plan parking standards.

4.3   CAR PARKING ACCESS

4.3.1   Access to the Basement car parking provided for BTR will be provided via a controlled access/egress to ensure unpermitted vehicles cannot gain entry. Only residents who paid parking subscription will gain access to parking. A clamping enforcement regime will be in place for surface parking to ensure that parking restrictions are adhered to.

Figure 4.1: Typical ANPR and Barrier Access Control

5.0   SUMMARY & CONCLUSION

5.1.1   Taking all of the above factors, such as the characteristics of the development, the baseline low levels of car use in apartment developments in the area, the proposed mobility measures, the level of car ownership & usage as well the requirement for reduced car parking as set out in the 'Sustainable Urban Housing: Design Standards for New Apartments, into account it is considered appropriate that a parking provision of 288 car parking spaces (0.60 spaces per unit) for the Built to Rent scheme (480 Apartment units), 124 spaces for the Build to Sell (110 Duplex units), 3 spaces for creche and 13 spaces for the retail and 31 spaces for café/restaurant are provided. This equate to a total of 459 car parking spaces, of which 281 spaces will be provided on surface level and 178 within the basement. Of this provision, 5% mobility impaired parking spaces are to be provided in the development which equates to total 25 mobility impaired car-parking spaces. Also, 50no. e-Car parking spaces will be provided in accordance with the SDCC standards of 10% of overall parking requirement.

5.1.2   A total of 3 no. spaces will be provided for shared car club in the form of GoCar. A written confirmation has been provided by GoCar to operate its service on the proposed development site. GoCar reduces the demand of car ownership and parking, with a potential of replacing 15 cars.

5.1.3   The development provides 800 bicycle parking spaces on site which is in excess of the SDCC development management standard. This increased level of cycle parking is intended to further facilitate a positive modal shift away from a dependency on car travel.

APPENDX A

GoCar & Bleeper Bike Letters of Support

DBFL Consulting Engineers,
Ormond House,
Upper Ormond Quay,
Dublin 7

To Whom It May Concern,

This is a letter to confirm that GoCar intends to provide a 3-vehicle shared car club service in the proposed Residential Development, Scholarstown Road, Dublin 16. GoCar representatives have discussed the project with representatives of DBFL Consulting Engineers and are excited to provide a car club at this location.

It is understood that the vehicles situated at this development will be used exclusively by the residents living therein. GoCar will work with the eventual management company to work out how best to sign residents up to the service as the development comes online.

GoCar is Ireland's leading car sharing service with over 50,000 members and over 700 cars and vans on fleet. Each GoCar which is placed in a community has the potential to replace the journeys of up to 15 private cars. The Department of Housing's Design Standards for New Apartments - Guidelines for Planning Authorities 2018 outline: "For all types of location, where it is sought to eliminate or reduce car parking provision, it is necessary to ensure... provision is also to be made for alternative mobility solutions including facilities for car sharing club vehicles."

Carsharing is a sustainable service. By allowing multiple people to use the same vehicle at different times, car sharing reduces car ownership, car dependency, congestion, noise and air pollution. It frees up land which would otherwise be used for additional parking spaces. Most GoCar users only use a car when necessary, and walk and use public transport more often than car owners.

By having GoCar vehicles situated in a development such as this, residents and staff will have access to pay-as-you-go driving, in close proximity to their homes or workplaces, which will increase usership of the service.

I trust that this information is satisfactory. For any queries, please do not hesitate to contact me.

Regards,

Rob Kearns
Head of Growth
GoCar Carsharing Limited
M: 083 822 3924
E: rob.kearns@gocar.ie

BleeperBike
Rear of 24
South Richmond Street
Portobello
Dublin 2
D02 HF29

14th October 2019

Re: **Scholarstown Road, Dublin 16 - South Dublin County Council**
GPS coordinates: 53°16'48.7"N 6°18'50.0"W

To Whom It May Concern,

Thank you for registering an interest in integrating Bleeper Bikes into the Mobility Plan for the proposed development at Scholarstown Road, Dublin 16. Whilst the location is currently not within our operating zone it is scheduled for inclusion in 2020 therefore we would be delighted to work with Ardstone Homes to ensure the sustainable cycle needs of the residents and others living nearby are met, with the provision of BleeperBike parking either on site or close by.

BleeperBike currently runs a fleet of 700 shared bicycles throughout the administrative areas of Dublin City, Dun Laoghaire Rathdown and Fingal. The bicycles are available to use 19hrs per day (5am-12am) and are used primarily for short journeys (1-5km distances), with a typical journey time averaging 10-15 minutes. The bicycles are equipped with a 'smart lock' system utilising GPS and 3/4G technology, which works in tandem with our bespoke App. To unlock a bike, a user simply downloads the app, selects a payment plan and provides basic personal information. Once this is complete they open the App and scan the unique QR code on the bicycle lock to unlock the bike.

BleeperBike offers residents easy access to a fleet of bicycles that can be used for short to middle distance trips, which can **significantly reduce their dependency on car ownership**.

Regards,

John Buckley

_____
John Buckley
Business Development Manager
BleeperBike Ireland Opco Limited