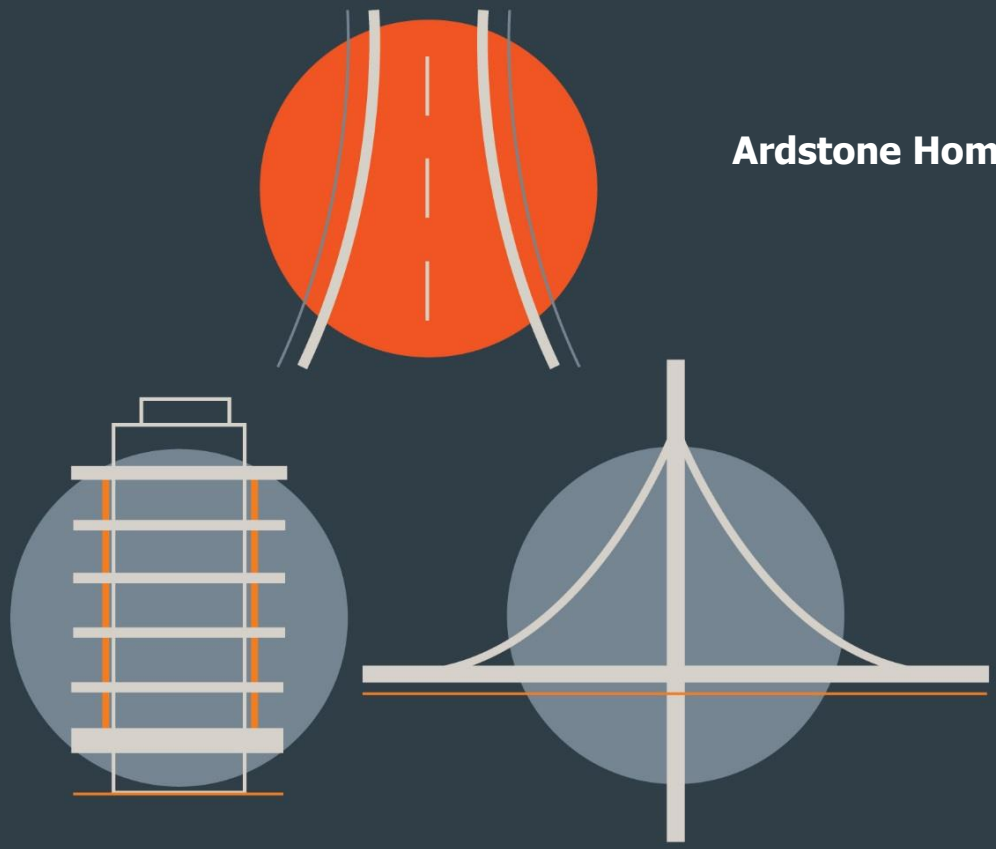
TRANSPORTATION

Project

White Pines Central Residential Development, Stocking Avenue, Dublin 16

Report Title

Parking Strategy



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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 development on a site south of Stocking Avenue, Dublin 16.

1.1.2 The proposed development, located on lands south of Stocking Avenue, comprises the construction of 114 no. residential units, consisting of 32 no. 1-bed apartment units, 53 no. 2-bed apartment units and 29 no. 3-bed duplex units. The development also comprises 98 no. car parking spaces and 238 no. cycle parking spaces and will be accessed via White Pines South located to the south of the subject development site.

1.1.3 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. It also sets out the management measures that will be deployed to allocate the use and control of parking provided at the proposed development site.

1.1.4 This document will set out the principles of the parking management strategy proposed at the Stocking Avenue development and should be read in conjunction with the following complementary reports prepared by DBFL submitted with this application:

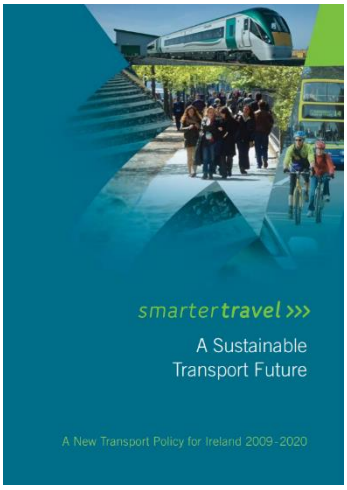
- Traffic and Transport Assessment (TTA)
- Mobility Management Plan (MMP)

1.1.5 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.



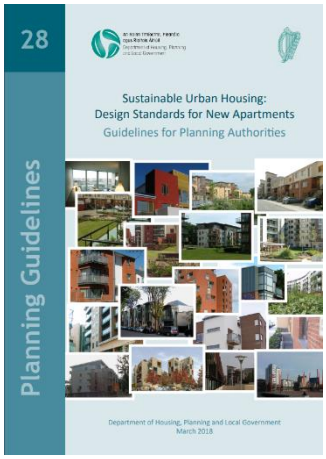
1.2.2 In order to address the unsustainable nature of current travel behaviour, Smarter Travel sets down a number of key goals and targets for 2020 - including:

- 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 – DECEMBER 2020



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 December 2020. 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.

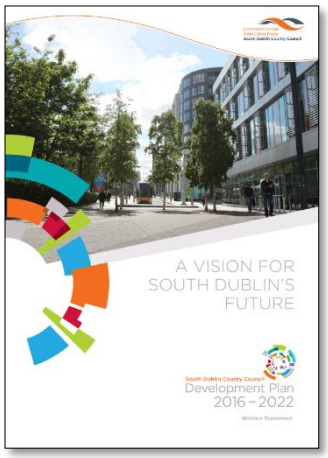
1.2.8 The quantum of car parking or the requirement for any such provision for apartment developments will vary, having regard to the types of location in cities and towns that may be suitable for apartment development, broadly based on proximity and accessibility criteria. There are three types of locations 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 SDCC Development Plan outlines the cycle and car parking standards required for residential units. **Table 1.1** below outlines the SDCC maximum car parking requirement for 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
Total Maximum Spaces		**113**

Table 1.1 SDCC Car Parking Standard for Residential Developments

1.2.14 The South Dublin County Council Development Plan outlines the provision for cycle parking for residential units for both long term and short-term stay. These are outlined in **Table 1.2** below. The subject site is situated in zone 2, which is ideally located within 400m of good public transport.

SDCC Cycle Parking Standards (Residential)			
Category	**Land Use**	**Long Term**	**Short Term**
Accommodation	Residential Apartment	1 per 5 apartments	1 per 10 apartments

Table 1.2 SDCC Cycle Parking Standard for Residential Developments

2.0 VEHICLE PARKING

2.1 PARKING OVERVIEW

2.1.1 The development vehicle parking proposals include the provision of a total 98 no. car parking spaces. The layout of on-site vehicle parking is as illustrated in **Figure 2.1** below.

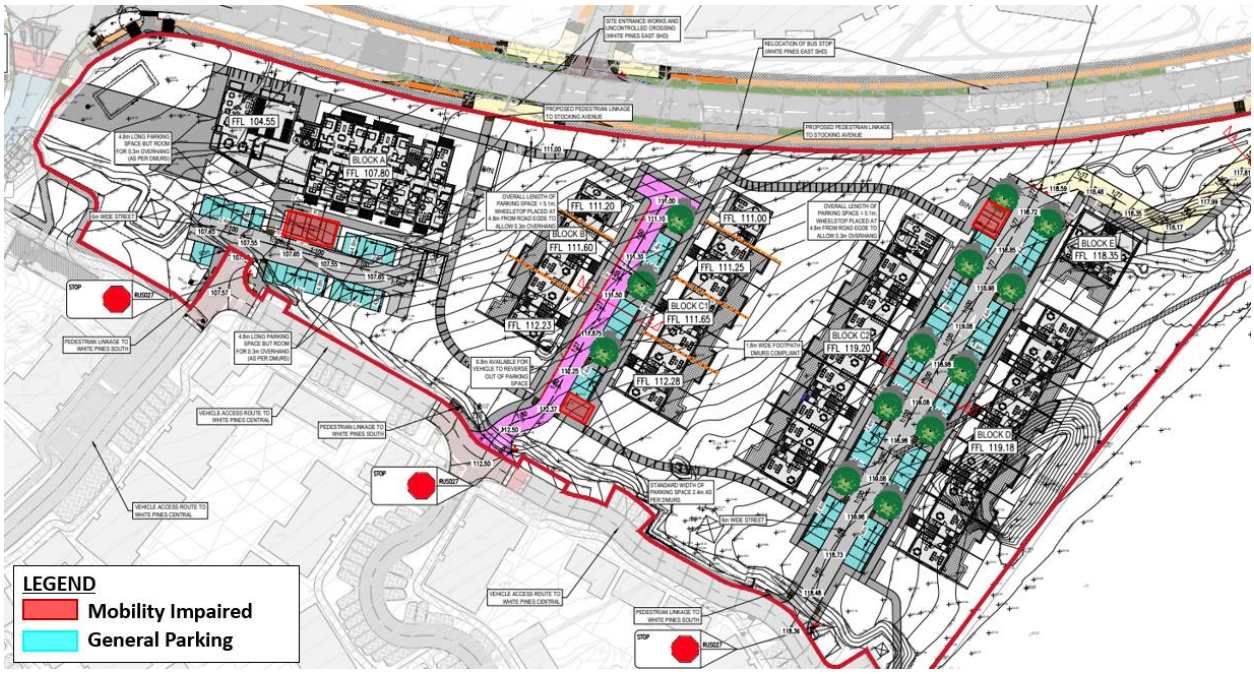


Figure 2.1: Vehicle Parking Proposals

2.1.2 The car parking spaces have been allocated as follows:

- 98 no. car parking spaces for the residential units (114 units) including:
  - 6 no. mobility impaired parking spaces;
  - 10 no. electric vehicle charging spaces; and
  - 2 no. car parking spaces will be provided for Car-share.

CAR SHARE PARKING SPACE

GOCAR

2.1.3 The provision of 2 dedicated GoCar spaces located within the development will ensure that they are highly accessible to residents of the subject development.

2.1.4 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 1 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.

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

2.2 CAR PARKING PROVISION

2.2.1 The provision of total 98 no. residential car parking spaces (0.85/unit) on site are proposed based on the standards/guidelines mentioned in **Section 1.2** and have been allocated as following;

2.2.2 The Apartment and Duplex units (comprising 32 no. 1-bed apartment units, 53 no. 2-bed apartment units and 29 no. 3-bed duplex units) have been allocated a total of 98 no. parking spaces; This equates to 0.85 per unit and it is in accordance with the SUHD Design Standards for New Apartments as referenced in **Section 1**.

- 2 no. car parking spaces will be provided for Car-share;
- 6 no. mobility impaired parking spaces;

2.2.3 The SDCC Development Plan outlines that 10% of total car parking provision is allocated for Electric Vehicle spaces within the development. The development proposes a total of 10 electric vehicle spaces that will be operational on opening of the development, in accordance with SDCC requirements. The total 98 no. parking spaces will be provided with ESB ducting for future potential use by electric vehicles.

2.2.4 The parking provision for the 114 no. apartments within the development has been allocated at a reduced parking rate of 0.85 spaces per unit. This is based on the standards provided within the Sustainable Urban Housing Design Standards for New Apartments. The proposed residential development is located within the **'Intermediate Urban Location'** as classified within these guidelines. The document highlights that for new developments in these locations, ***'the Planning Authority must consider a reduced overall car parking standard'.*** It is noted that the amenity area does not require any car parking, as this space is for use by the proposed residents only (i.e. ancillary) and therefore will not create any additional demand for car parking.

2.2.5 With the objective of establishing whether this parking ratio (approximately 0.85/unit) would be appropriate to accommodate the likely demand generated for car parking at the subject Stocking Avenue 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 & Accommodation Type;

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

2.2.6 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.

2.3 CAR OWNERSHIP & USAGE

2.3.1 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 mainly well-established housing units (not apartment units) and, therefore, are not very reflective of the type of development being proposed to undertake a comparison in terms of car ownership. However, these residential properties represent similar attributes to the proposed apartment development in terms of location within an urban environment, similar distance from the City Centre as well as having good availability of Dublin Bus routes. Therefore, 10 no. small areas in vicinity of the subject site were assessed to get an indication of the car ownership within the area, as detailed in the map in **Figure 2.2**.

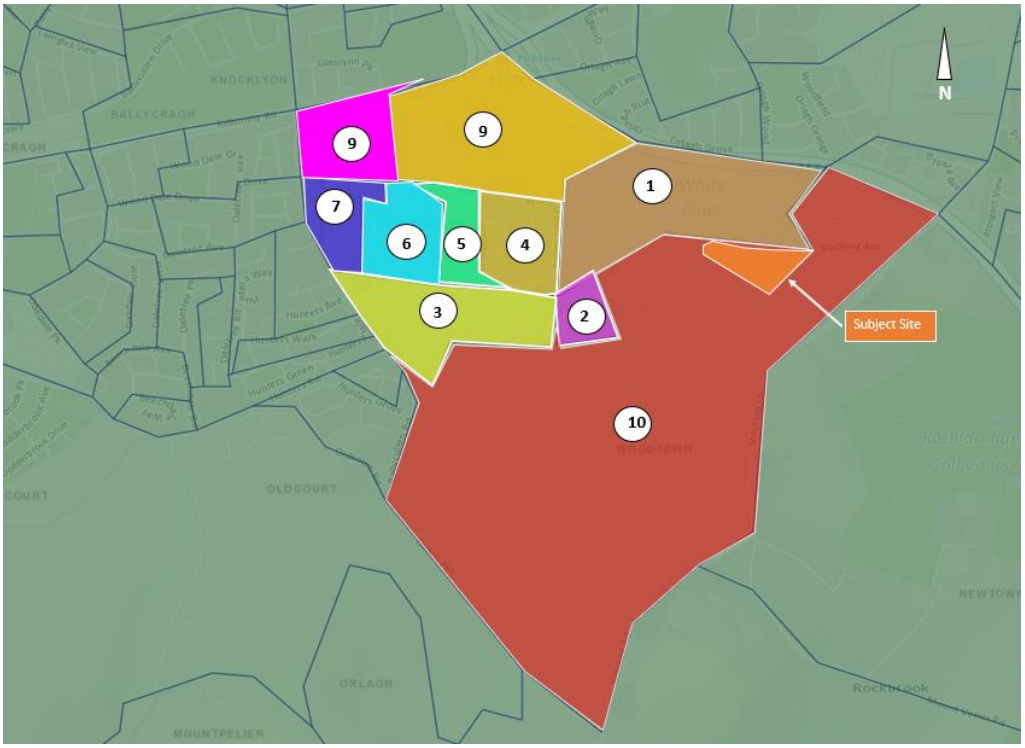


Figure 2.2: 2016 CSO Small Areas containing apartments near the site

2.3.2 A total of 1080 units (274 Apartments and 806 Houses) within the Census 10 small areas of interest were included in this assessment. The CSO data for Apartments who do not own a car in this area is presented in **Table 2.1** overleaf.

Small Area	No. Apts	No. Houses	No. Households with No Car	% of Households with No Car	Equivalent Rate of Parking Ownership (Space/Unit)
1	100	13	13	12%	0.88
2	29	50	1	1%	0.99
3	43	62	0	0%	1.00
4	0	112	0	0%	1.00
5	0	84	1	1%	0.99
6	0	121	0	0%	1.00
7	0	71	1	1%	0.99
8	0	111	0	0%	1.00
9	56	59	8	7%	0.93
10	46	123	2	1%	0.99

Table 2.1: 2016 CSO Car Ownership Data

2.3.3 **Table 2.1** highlights that the level of households that do not own a car within the particular census small area varies between a low 0% in Areas 3, 4, 5 and 8 to a high 12% in Area 1. The overall average level of car parking ownership within these locations is 0.98 spaces per unit. It is noted that these Small Areas are mainly housing units based on past development standards that adhered to the 2 car spaces per housing unit. The proposed apartment development has a majority of one and two bed units and therefore would more likely attract young professionals (not large families), having less of a requirement to own a car and who are more likely to use sustainable modes. The Small Area 1 has mainly apartment units and is adjacent to the subject site, therefore, provides the most suitable comparison for the subject development. As illustrated in the **Table 2.1**, Small Area 1 has the lowest car ownership of 0.88 spaces per unit. The Small Area with the second lowest car ownership 0.93 is Small Area 9, which has a 50/50 proportion of apartment units and houses (housing units tend to increase car ownership percentage). It is worth noting, that the total number of cars owned within each of the Small Areas assessed does not exceed the total number of residential properties in each small area.

2.3.4 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.

2.3.5 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 2.2**.

Small Area	No. Commuters	% Households with No Car	No. Commuters that Drive	% Commuters that Drive
1	222	13%	87	39%
2	177	1%	105	59%
3	217	0%	118	54%
4	314	0%	143	46%
5	257	0%	99	39%
6	348	0%	140	40%
7	188	1%	77	41%
8	341	0%	139	41%
9	261	7%	115	44%
10	349	1%	186	53%

Table 2.2: 2016 CSO Data – Percentage of Commuters that use their Vehicle

2.3.6 **Table 2.2** outlines that, although the level of car ownership within these locations has an overall average of 98%, the percentage of commuters that use their vehicle to drive to work, college or school is lower at an average of 46% over all areas assessed. Small Area 1 has the lowest percentage of commuters that drive 39% and the lowest car ownership of 0.88 spaces per unit (**Table 2.1**).

2.3.7 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. The proposed development is located adjacent to the Stocking Avenue with high frequency bus routes 15B and 15 within walking distance.

2.3.8 The level of car ownership (0.98) together with the reduced **car usage for commuting (0.46)** within the CSO Small Areas indicates that the development proposal of parking provision 0.85 per residential unit is reasonable.

2.4 MODAL SPLIT FOR SMALL AREAS

2.4.1 The same ten 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 45% driving and 19% as car passengers. The second most prominent mode of transport is Active mode with 15% (11% walking and 4% Bicycle) whereas Bus has a modal share of 12% within the assessed areas. **Figure 2.3** below depicts the modal split within the area.

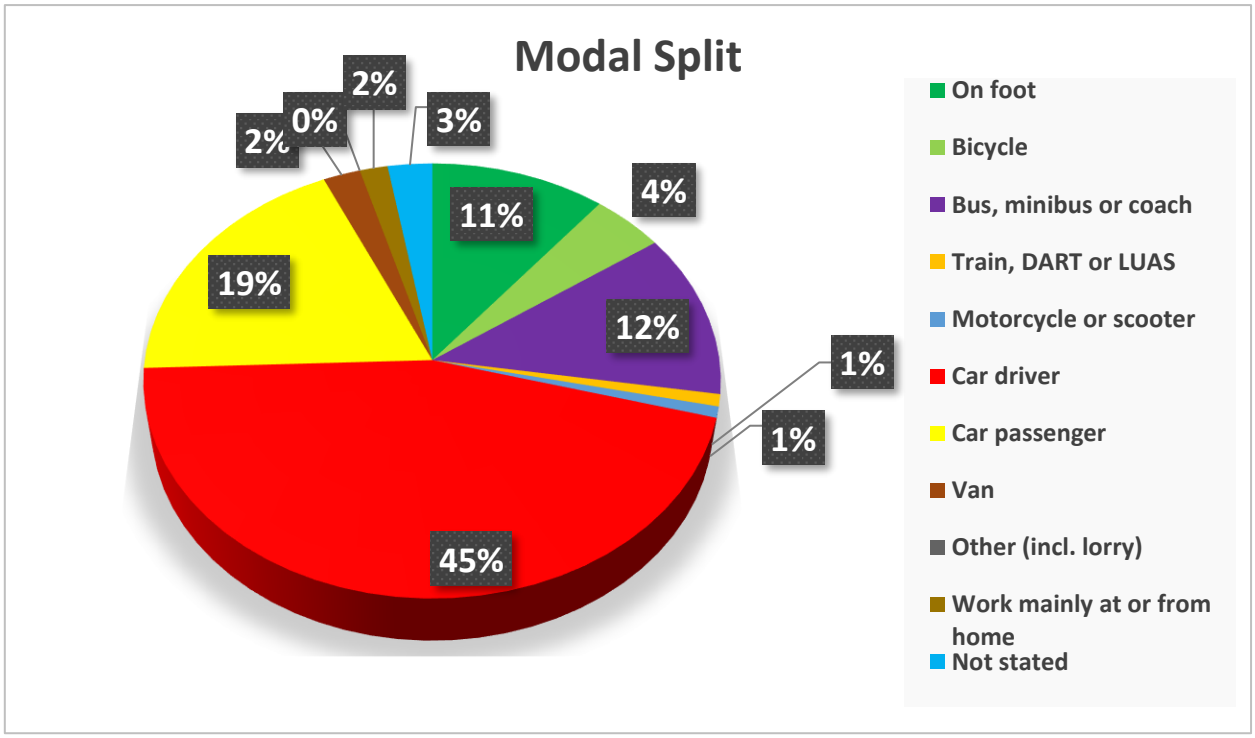


Figure 2.3: Existing Modal Split

2.4.2 In summary, existing levels of car usage would indicate a trend towards the use of sustainable travel modes by residents of the existing residential developments surrounding the subject site and the future residents of the proposed development. 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.

2.5 PROPERTY OWNERSHIP TREND

2.5.1 The Central Statistics Office (CSO) data was reviewed to establish home ownership by age group. **Figure 2.4** below is CSO *"Figure 3.5 Tenure Status by Age of Householder, 2016"* which illustrates the changing tenure status according to the age of the head of household in 2016.

2.5.2 CSO data shows that home ownership rises quickly among householders from age 32 onwards and continues to climb at a steady pace until reaching a plateau of close to 90 per cent near age 70. The point at which two-thirds of householders owned their own homes (with or without a loan) occurred at age 41 in 2016. This home ownership trend has coincided with a significant increase in the young age population who are in rented accommodation in 2016. There is a large demand for housing, an absolute minimum of 275,000 new homes in Ireland's cities are required by 2040 (as per SUHDS 2018).

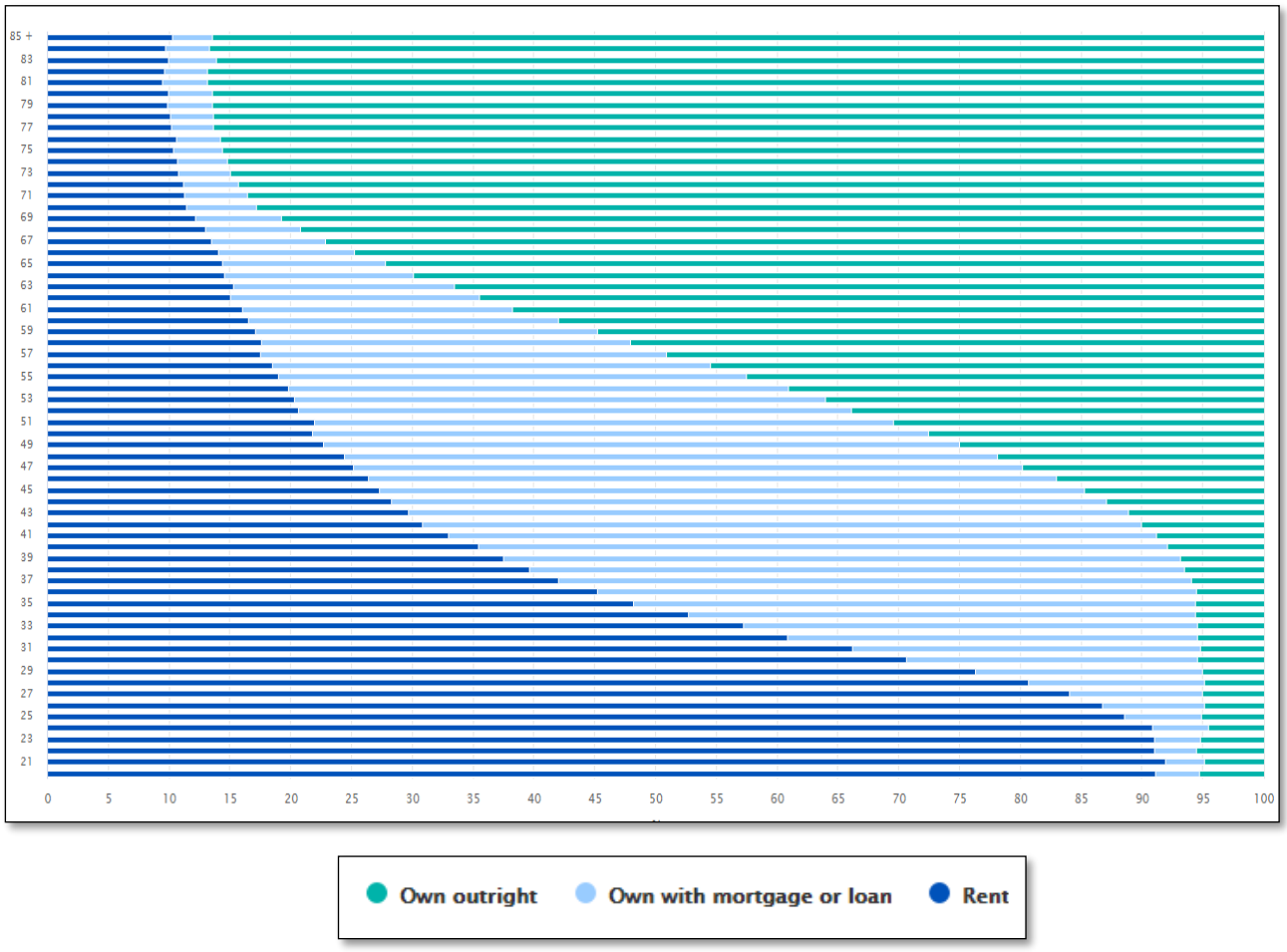


Figure 2.4: Tenure Status by Age of Householder, 2016 (Source: CSO Ireland)

2.6 AGE DEMOGRAPHIC AND TYPE OF ACCOMMODATION

2.6.1 The overall age profile for the 10 CSO Small Areas were assessed and are outlined in the **Figure 2.5** below. The results indicate that there is a young age demographic within these areas with the highest number of residents within the 35-39 age bracket followed by 40-44 age profile respectively, which is indicative of established residential housing developments.

2.6.2 However, the proposed residential apartment development, which comprises of a large proportion of 1 and 2 bed units, will more likely attract young professionals within the aged bracket of 25-35, rather than 35-44 age bracket who may have children.

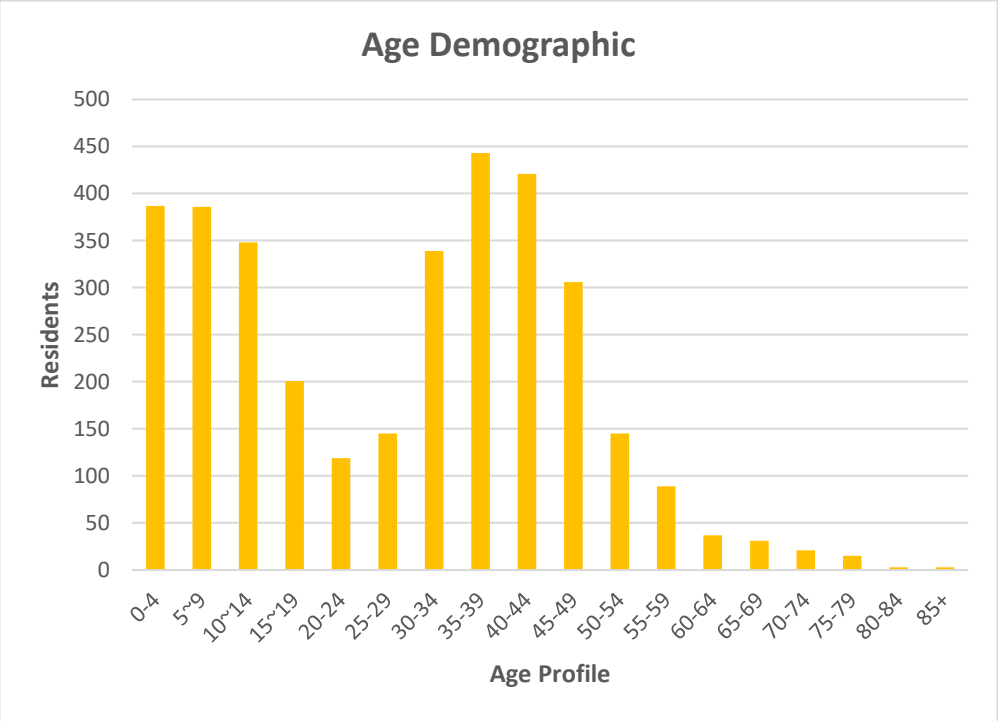


Figure 2.5: CSO 2016 Age Profile for Small Areas

2.7 NATIONAL HOUSEHOLD SURVEY 2017

2.7.1 The National Transport Authority (NTA) has undertaken National Household Travel Survey (2017), which is a representative study of Ireland's travel habits. The main aim of this study is to obtain accurate data describing the typical travel habits of the representative sample of the Irish population throughout the week, across all regions of the country and including number of trips made daily, the mode and time of travel, the distance travelled and the journey purpose.

2.7.2 This intensive study reveals that within the Greater Dublin Area (GDA), car is the dominant mode of transport across all ages. However, car usage is the lowest (2.8%) for age group 18-24 and the highest for age group 8-12 (76%). The second highest car usage is by age group 35-44 and 45-54 (73%). However, the age group 25-34, which is most relevant to the subject site, due the development type mainly 1-2 bed units, has a lower car usage of 53%. **Figure 2.6** below illustrates Mode of Transport by Age within Greater Dublin Area.

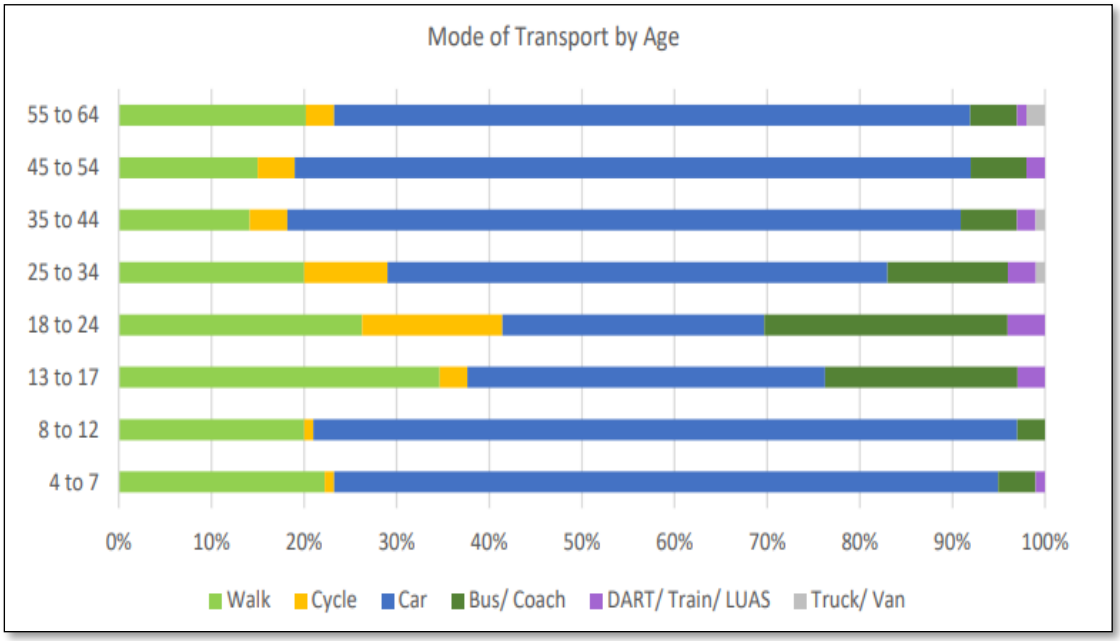


Figure 2.6: Mode of Transport by Age-GDA (National Household Travel Survey 2017)

2.8 WORKING FROM HOME SURVEY – FÓRSA (July 2020)

2.8.1 Long-term employment working patterns may permanently adapt to increased working from home, due to its recent success and acceptance during this COVID-19 pandemic.

2.8.2 A survey of 4,300 employees (mainly civil and public servants) was undertaken for the trade union, Fórsa, in July 2020. The study found that 86% of respondents were interested in working remotely and over 80% of those who favour home working expressed a preference for a hybrid arrangement.

2.8.3 Seven in ten of those who had worked at home during the Covid-19 crisis said remote working had been a positive or very positive experience.

2.8.4 The most frequently-cited positive factor associated with home working during the pandemic was the reduced exposure to COVID-19 (81%), followed by improved work-life balance (70%), reduced commuting time (67%), and increased work flexibility (55%).

2.8.5 The following survey indicates that it is more than likely that there will be a long-term shift to people working full time at home or a hybrid arrangement. Therefore, this will result in less demand for car ownership and car parking spaces.

2.9 SUMMARY

2.9.1 The proposed parking of **0.85** per unit is deemed appropriate, considering the access to sustainable modes of travel in the area and the potential permanent shift to working from home. Furthermore, provisions made in this subject development, such as an excess in the provision of cycle parking, Car Share and GoCar availability within the subject site and an MMP to govern the development (refer to MMP report submitted for more detail), all contribute to the suitability of the 0.85 per unit parking proposal.

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

Table 3.1: Cycle Parking Requirements

3.1.2 In total, there are 114 residential apartment units being proposed. **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	23	11

Table 3.2: Cycle Parking Requirements Provision

3.1.3 With reference to **Table 3.2** above, the development is required to provide **23** long term cycle spaces for residents and **11** short term cycle spaces for visitors. This equates to a total cycle parking provision requirement of **34** cycle 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 space per two residential units for visitor parking

3.1.5 As noted, there are a total of 114 residential apartment units. Of these, there are 32 No. 1-bedroom apartments, 53 No. 2-bedroom apartments and 29 No. 3-bedroom duplexes . Therefore, in accordance with the SUHDS guidelines, there is a requirement to provide a total of **225** residential cycle spaces as well as **57** visitor cycle parking spaces. This equates to a total of **282** cycle parking spaces.

3.1.6 It is considered that a provision of cycle parking that is between the SDCC guidelines of 34 spaces and the new SUHDS guidelines of 282 spaces is acceptable.

Therefore, the development proposes to provide a total of **238** cycle parking spaces with **188** of these proposed as long term stay within the lower ground floor and ground floor and an additional **50** proposed as short term stay on the surface.

3.1.7 In reference to **Table 3.3**, it can be established that the proposed on-site bicycle parking provision of **238** 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	Sub Total
SDCC Standards	Short	11
	Long	23
	Total	**34**
SUHDS Standards	Short	57
	Long	225
	Total	**282**
Proposed	Short	50
	Long	188
	Total	**238**

Table 3.3: Comparison of Bicycle Parking Provision

3.1.8 The **Figures 3.1** overleaf illustrate the layout of on-site proposed cycle parking spaces.

Figure 3.1a: Proposed Cycle Parking Locations

Figure 3.1b: Proposed Cycle Parking Locations

4.0 INITIATIVES FOR SUSTAINABLE TRAVEL

4.1.1 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 to 0.85 spaces per unit 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); and
- Parking Management.

Car Club

4.1.2 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 close proximity to the development or within the development itself where residents would have availability to use.

4.1.3 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.

4.1.4 A total of 2 no. car parking spaces have been allocated to car sharing for residents, which will be operated by GoCar.

Mobility Management Plan

4.1.5 An outline Mobility Management Plan has been prepared as part of this application 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 more active role than a management company from a traditional apartment development.

Increased Cycle Parking

4.1.6 Increasing cycle parking is an alternative measure when reducing car parking spaces. A total of 238 cycle spaces are proposed for this development with a total of 114 residential units being proposed. It is noted that the provision of cycle parking proposed within the development is more than adequate to accommodate residents and visitors to the site.

Parking Management Strategy

4.1.7 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.

4.1.8 In summary, the Parking Management Strategy will be founded on the principles that 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.

5.0 MANAGEMENT OF ON-SITE PARKING FACILITIES

5.1 INTRODUCTION

5.1.1 As outlined in **Section 3** 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.

5.2 CAR PARKING ALLOCATION

General Parking

5.2.1 A total of 98 no. car parking spaces are allocated for the 114 no. residential apartment units. Parking allocation includes 6 no. mobility impaired spaces and 2 no. GoCar spaces within the development.

Car Parking Management Regime

5.2.2 A car parking management regime will be implemented by the development's management company to control access to the on-site apartment car parking bays thereby actively managing the availability of on-site car parking for residents / visitors.

5.2.3 The residents within one of the proposed residential apartments will NOT include the ownership of a designated parking space. Nevertheless, all residents of the proposed residential apartment scheme will have the opportunity to apply to the management company for both (i) a resident's car parking permit (updated annually or upon return of same permit) to the management company to gain access to a dedicated (assigned) on-site car parking space or (ii) a visitor's car parking permit (which will be issued electronically and subject to time restrictions). A nominal charge will be applied to obtain a permit with the objective of covering the associated management and enforcement costs.

5.2.4 Each permit will enable the resident (or visitor) to park a vehicle within a specific assigned parking bay for a defined period of time. This management regime will enhance the availability of on-site car parking, ensuring that every resident who needs car parking can avail of an on-site car parking space whilst residents that actually don't own a car are not unnecessarily assigned a car parking space.

Car Sharing

5.2.5 A total of 2 no. car parking spaces have been allocated to car sharing for residents, which will be operated by GoCar.

5.2.6 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 2 spaces are used by GoCar only.

5.2.7 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.

6.0 SUMMARY & CONCLUSION

6.1.1 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 98 car parking spaces, including 6 no. mobility impaired spaces, (0.85 spaces per unit) for 114 residential apartment units are provided. Also, 10 no. e-Car parking spaces will be provided in accordance with the SDCC standards of 10% of overall parking requirement.

6.1.2 A total of 2 no. spaces will be provided for car share in the form of GoCar. GoCar reduces the demand of car ownership and parking, with a potential of replacing 15 cars per GoCar.

6.1.3 The development will provide 238 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.