



Travel Plan

Residential Development at Broomfield SHD Lands, Malahide

April 2022

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1. Introduction

1.1 Context

This Travel Plan has been prepared by Waterman Moylan to accompany a planning application to An Bord Pleanála for a proposed residential development in lands at Broomfield, Malahide Co. Dublin.

The proposed development consists of two sites. The northern site consists of 328 residential units and a creche approximately 476 sqm. The southern site will consist of 87 residential units.

The combined total of proposed development is 415 residential units, comprising of 252 houses, 28 duplex units and 135 apartments, as set out in the Schedule of Accommodation below:

Description	1-bed	2-bed	3-bed	4-bed	5-bed	GFA (Sqm)	Total
Northern Site							
House	-	-	133	36	12	-	181
Duplex	-	6	6	-	-	-	12
Apartment	37	93	5	-	-	-	135
Creche	-	-	-	-	-	476 sqm	-
Northern Total	37	99	144	36	12	476sqm	328 units 476 sqm
Southern Site							
House	-	-	59	12	-	-	71
Duplex	-	8	8	-	-	-	16
Southern Total	-	8	67	12	-	-	87
Total Site	37	107	211	48	12	476sqm	415 units 476 sqm

Table 1 | Schedule of Accommodation

The development includes all associated site works, boundary treatments, drainage and service connections.

1.2 Programme

It is anticipated that construction of the proposed development will commence in 2022 for completion in 2026. (Note: The assessment years may lag pending approval of the planning application and may differ from the programme)

1.3 Scope

This Travel Plan will be a key operational feature at Broomfield. The owners will implement a Travel Plan on an ongoing basis with the triple objectives of promoting sustainability, enhancing the use of public transport and reducing dependency on the use of the private car.

This Travel Plan is intended to deal with the typical day-to-day operational conditions at the site. The targets set out in the plan will be achieved against the background of expanding public transport capacity.

The plan will assess, examine and manage the typical traffic that will be generated by the residential units during the operational phase of the development. It will also encourage the residents to avail of public

transport by improving awareness of public transport options and providing information on bus and train routes and frequencies.

2. Site Description

2.1 Location of Development

The subject site is located in Broomfield, Malahide, Co. Dublin. The development entrance is from Back Road, 0.55km east of the junction between Back Road and Kinsealy Lane.

The overall proposed development is divided into 2 sites, as shown in the Figure below:



Figure 1 | Site Location (Source: Google Maps)

The north site is located between the existing Ashwood Hall residential development to the west and the Dublin-Belfast rail line to the east, with agricultural land to the south and residential properties and Back Road to the north.

The southern site is bounded by the Hazelbrook development to the west, Brookfield development to the north and agricultural lands to the south and east.

2.2 Site Characteristics

The site is currently a greenfield used predominantly for agricultural purposes.

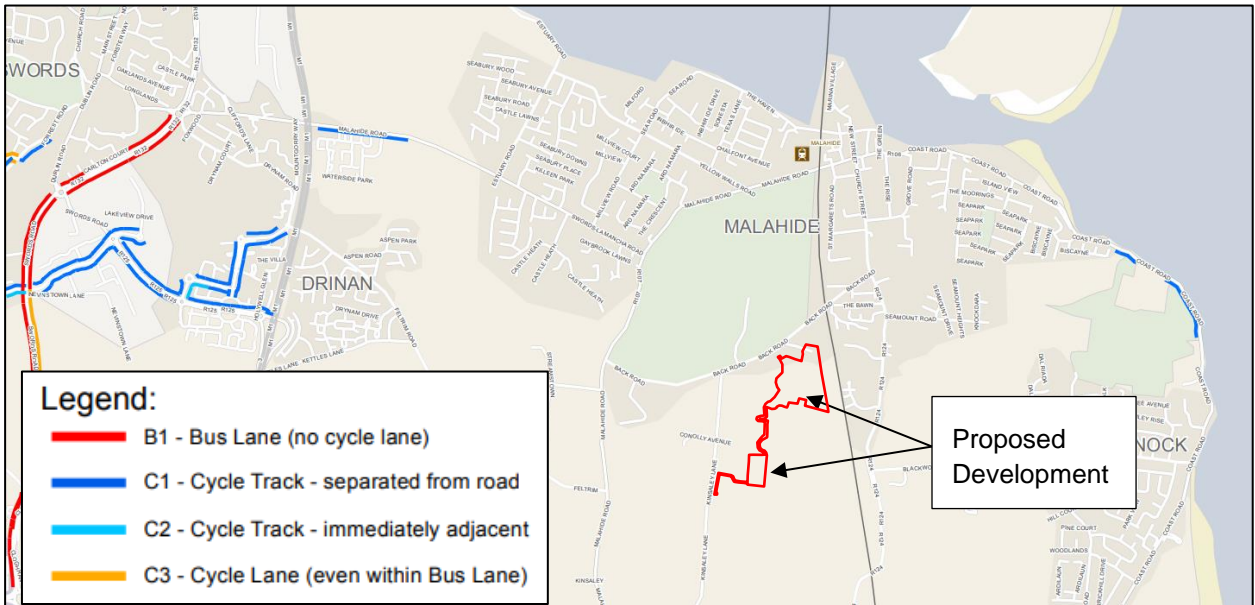


Figure 3 | Existing Facilities Map – Sheet E9, Extracted from GDA Cycle Network Plan

The Bleeper Bike scheme is Ireland’s first stationless bike sharing scheme and has been implemented widely in Dublin City. Stationless bikes are equipped with a fixed smart lock that controls usage of the bike by communicating with the app. Bleeper Bikes do not require custom build docking bays; however, they must be parked at designated bike racks.

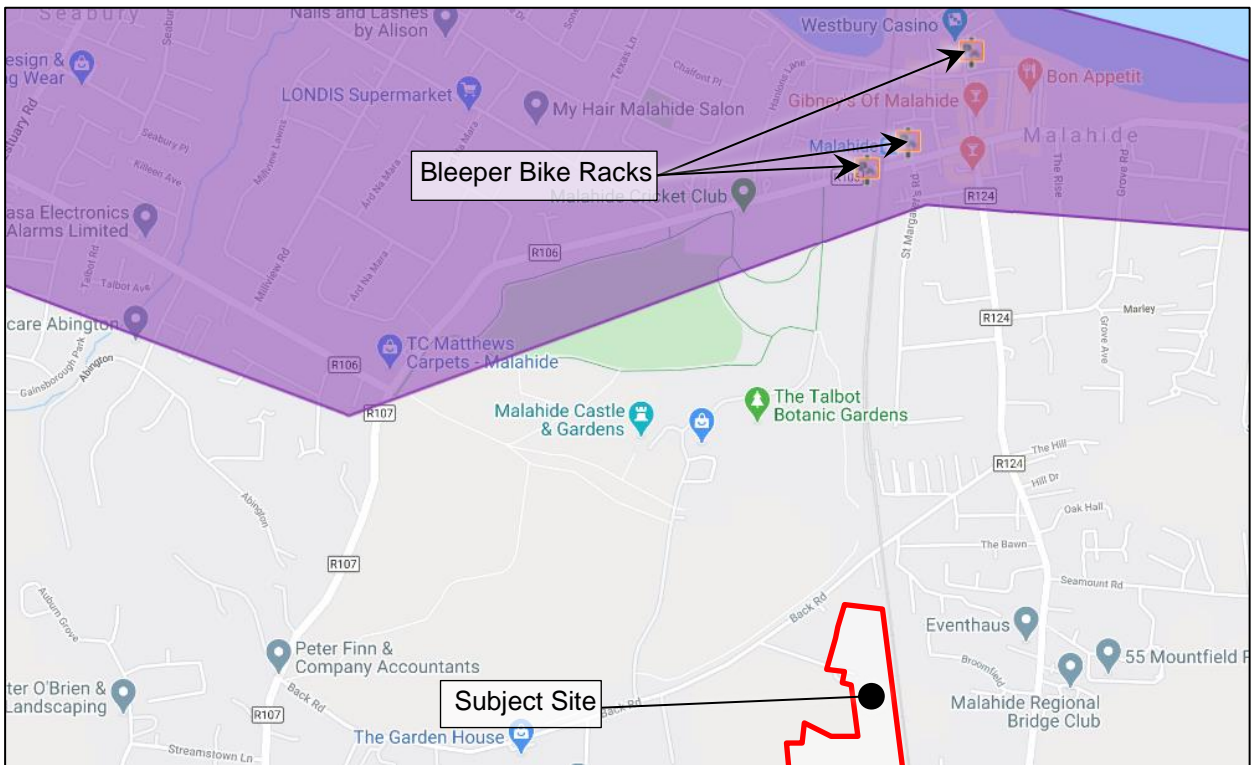


Figure 4 | Bleeper Bike Designated Racks in Malahide

Three designated bike racks are provided in Malahide centre. The location of these racks is illustrated in the Figure below. The purple zone shown in the Figure is a dedicated area where users will be able to find available Bleeper Bikes to use.

The NTA’s “The Route to Sustainable Commuting” also sets out acceptable cycling distances for cyclists without mobility impairment. It states that 10km is the maximum distance people will travel by bicycle. There are a large number of commercial and employment areas within 10km or c.50min bike ride from the site.

Those travelling by bike could travel as far as Lusk to the north, and could visit much of north Dublin city centre to the south as demonstrated in the Figure below:

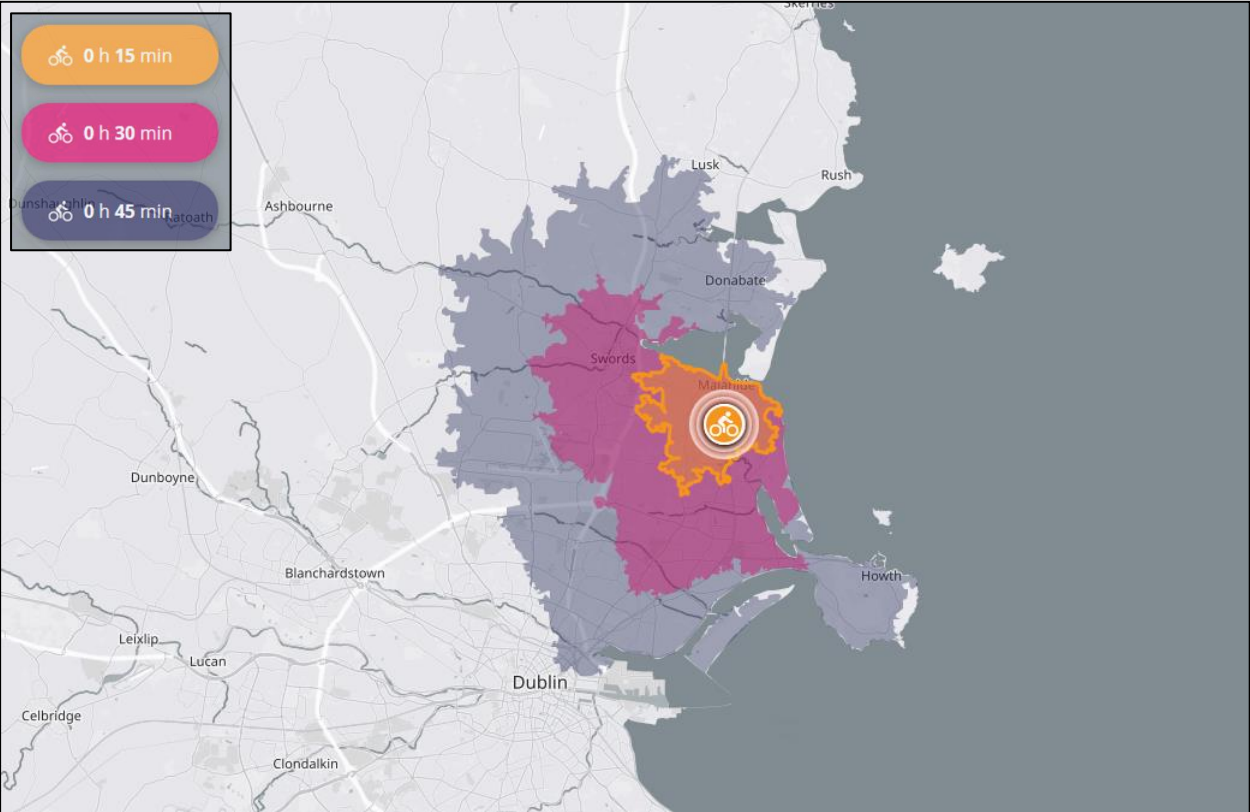


Figure 5 | Cycle time from the proposed development

3.3 Existing Roads and Junctions

Main vehicular access to the proposed development will be provided from the north via Back Road. Back Road is a single carriageway road that runs generally east–west for approximately 1.8km between the Malahide Road (R107) to the west and the Hill Road (R124) to the east. This road, which crosses the railway line via an existing bridge, currently comprises a carriageway of approximately 7.30m with narrow footpaths running along both sides of the road for the majority of its length. The speed limit on Back Road is 50km/hr.

The Malahide Road (R107) continues north, intersecting with the R106 which continues east towards Malahide village and west towards Swords. Travelling south, the Malahide Road intersects with the Clontarf Road (R105), which continues south-west towards Connolly Station and Dublin city centre. At the portion of the road that intersects with Back Road, the Malahide Road has a posted speed limit of 60km/hr.

The R124 intersects with the R106 to the north of the subject site in the centre of Malahide village and continues south to the Moyne Road (R123).

3.4 Existing Public Transport Network

The assessment of the public transport and the surrounding existing roads, junctions and pathways is shown in Section 3.4. The proposed development has adequate capacity and accessibility of current public transport infrastructure with access to Malahide Dart Station and several Dublin Bus routes.

3.4.1 Bus Network

The subject site is served by Dublin Bus Routes 42 and 142. Route 42 connects Sand’s Hotel in Portmarnock to Talbot Street in Dublin City Centre, and Route 142 connects Portmarnock to UCD Belfield via the Port Tunnel.

The nearest bus stops to the subject site are located on either side of The Hill Road (R124), immediately south of the junction with Back Road. These stops are approximately 900m north-east of the subject site entrance. This equates to a c.11-minute walk from the northern site.

The walking distance to these bus stops from the southern site is longer, approximately 1.7km, which equates to a c.22-minute walk. Residents at the southern site also have the option of walking to bus stops on the Malahide Road (R107), immediately north of the junction with Back Road, which are served by the 42 Bus Route. The walking route is via Hazelbrook and Kinsealy Lane, and is approximately 1.6km, which equates to a c.9-minute walk.

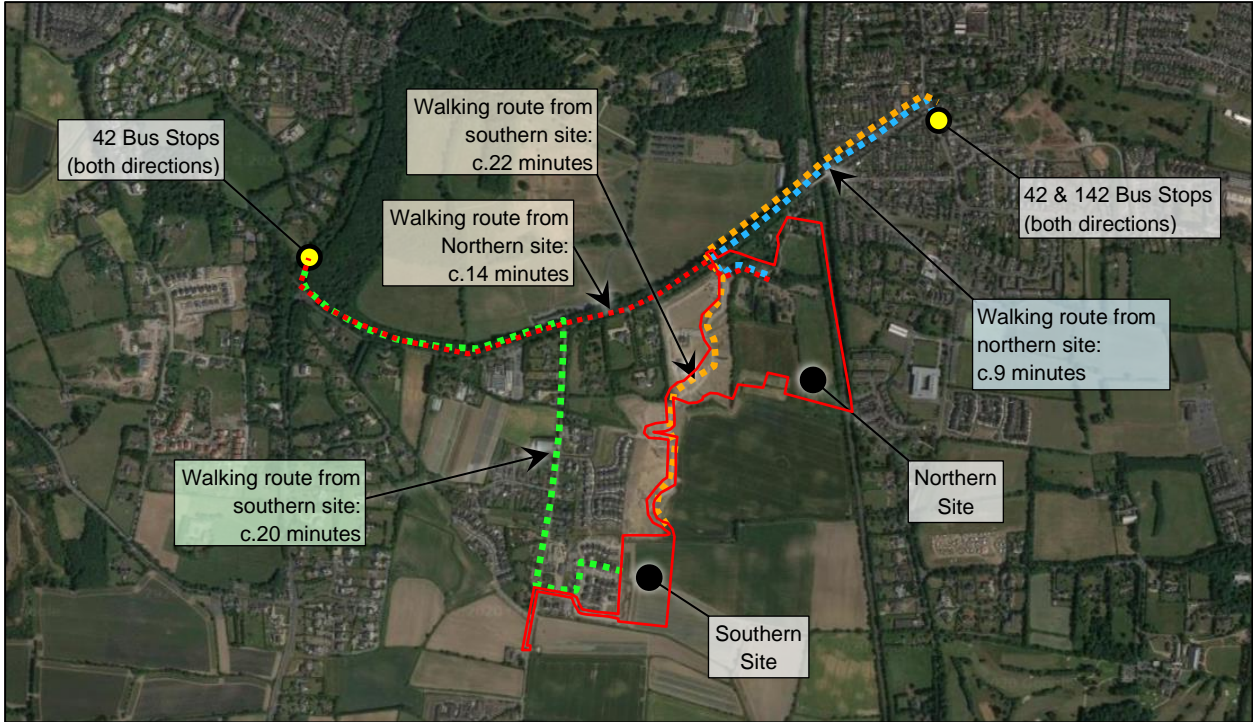


Figure 6 | Bus Stop Locations

A summary of the Dublin Bus Route frequencies is presented in the Table below. Travel time on the 42 bus between Malahide and Talbot Street is approximately 42 minutes in either direction, while the travel time on the 142 between Malahide and UCD Belfield is approximately 60 minutes in either direction.

Route No.	From	To	AM Weekday Frequency	PM Weekday Frequency
			(07:00 to 09:00)	(17:00 to 19:00)
42	Sand's Hotel (Portmarnock)	Talbot Street	Every 20 minutes	Every 20 to 25 minutes
42	Talbot Street	Sand's Hotel (Portmarnock)	Every 15 to 30 minutes	Every 20 to 25 minutes
142	Portmarnock	UCD Belfield	Bus leaves terminus at: 07:10, 07:35, 07:55	No evening buses
142	UCD Belfield	Portmarnock	No morning buses	Bus leaves terminus at: 16:35, 17:05

Table 2 | Dublin Bus AM and PM Weekday Frequencies

3.4.2 Rail Network

The nearest train station to the subject site is the Malahide station, located approximately 1.6km from the northern site (c. 20-minute walk or c.6-minute cycle) and 2.7km north-east of the southern site (c.34-minute walk or c.10-minute cycle). It is also possible to take the 42 Bus to Malahide Train Station, which reduces the travel time from the northern site from c.20 minutes to c.14 minutes.

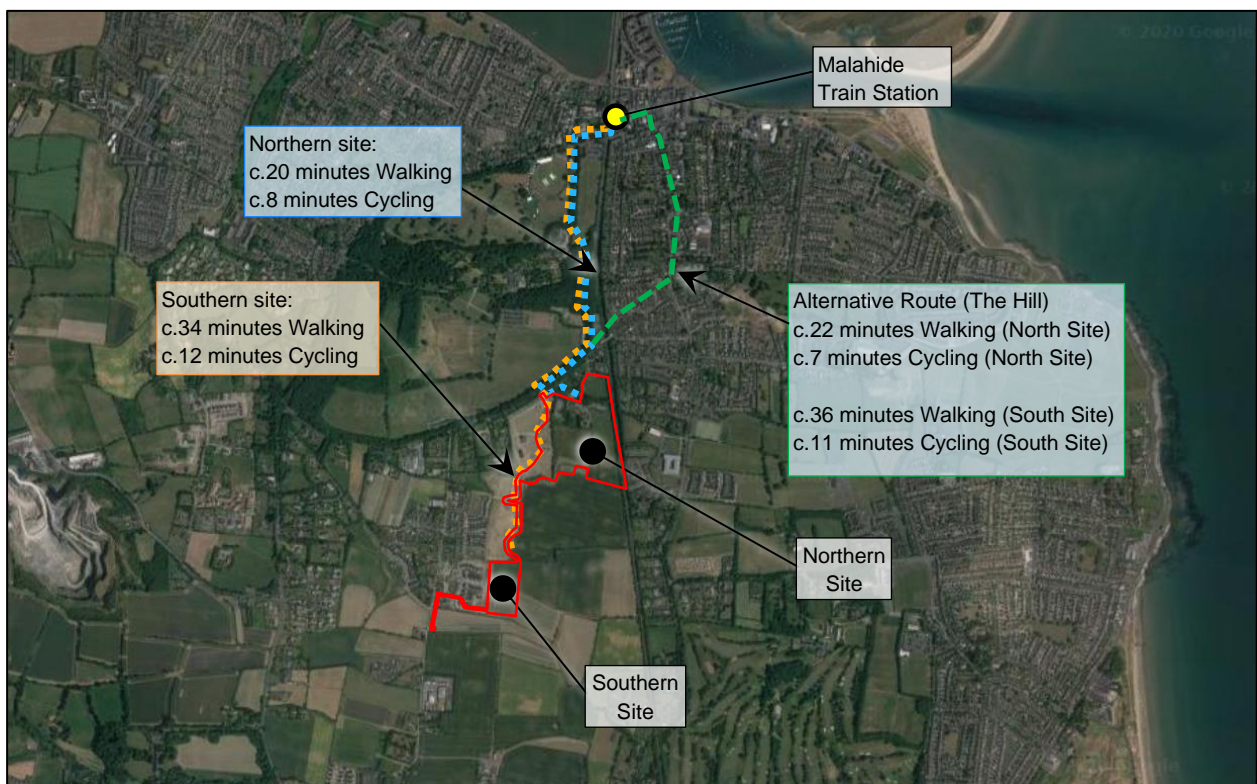


Figure 7 | Railway Station Location

The Malahide Station is served by Commuter Rail and DART services. The Commuter Rail service through Malahide Station serves all stations from Dundalk through Dublin City Centre to Gorey. The service operates at 3 to 4 services per hour in both direction on weekdays.

The DART service through Malahide Station serves all stations from Malahide through Dublin City Centre to Bray and Greystones. On weekdays, this service operates at a 20-minute frequency in both directions.

4. Transportation Improvements

4.1 Greater Dublin Area Cycle Network Plan

Proposals for the Greater Dublin Area Cycle Network Plan were published by the National Transport Authority in December 2013. The plan sets out a vision and a strategy for the construction and/or designation of a comprehensive network of cycling routes throughout the Greater Dublin Area (Counties Dublin, Meath, Kildare and Wicklow).

The Figure below shows an extract of Sheet N9, Proposed Cycle Network Swords & Malahide, from the Greater Dublin Area Cycle Network Plan:

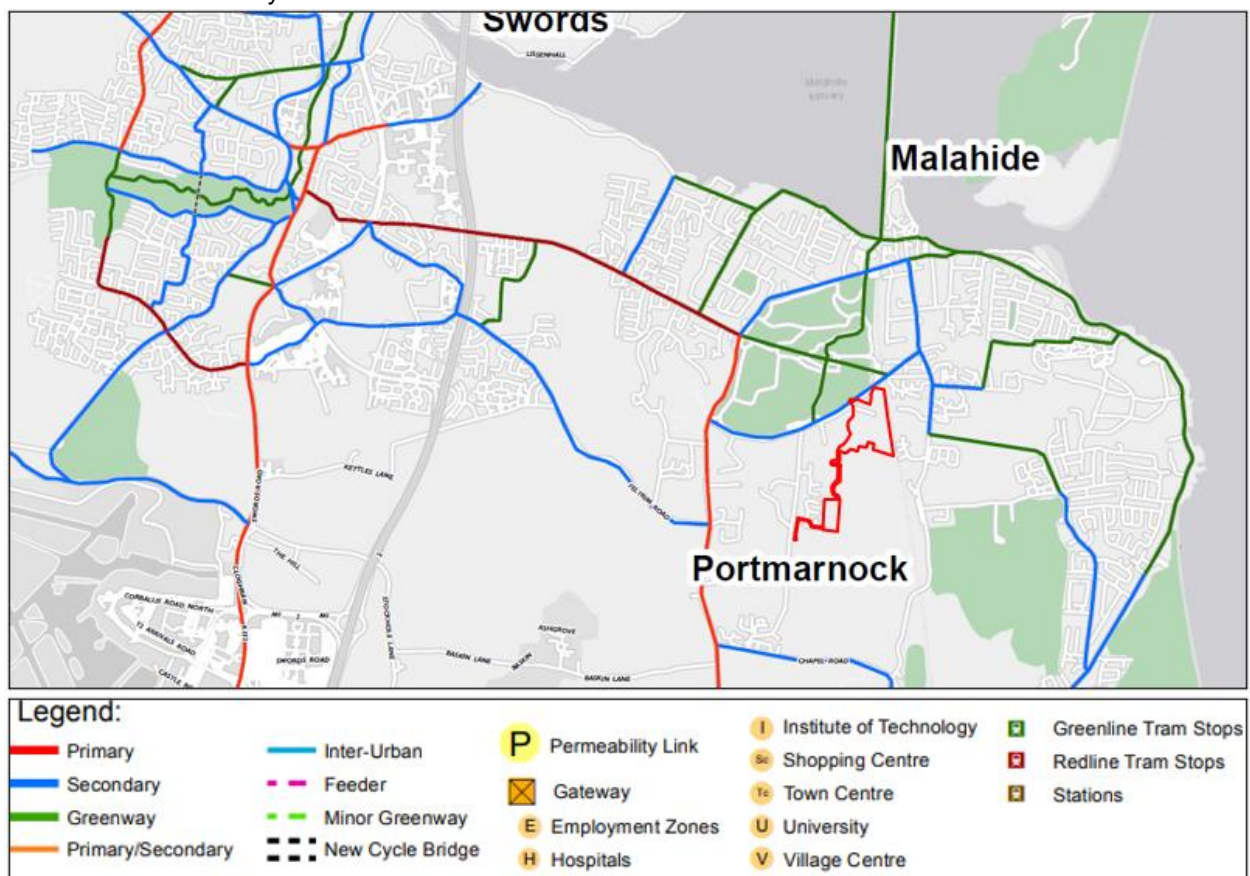


Figure 8 | Proposed Cycle Network Upgrades

The Greater Dublin Area Cycle Network Plan includes proposed new primary/secondary, greenway and feeder cycle routes in close proximity to the site, providing direct cycle routes to Malahide village, Swords and Portmarnock.

It is approximately an 18-minute cycle to Swords from the proposed development. The route will use the cycle lanes provided as part of the GDA Cycle Network Plan.

4.2 BusConnects

The Bus Connects project currently being implemented by the National Transport Authority aims to deliver a much-enhanced bus service to the Greater Dublin Area (GDA).

There are several new bus routes proposed in the vicinity of the site, as shown in the Figure below:



Figure 9 | BusConnects Route Map

Route	To and from	Weekday	Saturday	Sunday
20	Malahide - Kinsealy - City Centre	Every 30 mins	Every 30 mins	Every 30 mins
21	Swords Business Park - Kinsealy - City Centre	Every 30 mins	Every 30 mins	Every 30 mins

Table 3 | Dublin Bus Connects – Routes and Frequencies

4.3 Dart Expansion Programme

The Dart Expansion Programme is included within the 10-year horizon for the National Development Plan 2018 – 2027. It includes for an extension of the DART service to Balbriggan and an increased weekday frequency of 15 minutes in each direction.

5. Walking and Cycling Routes

5.1 Walking and Cycling Routes to Malahide Train Station

Figure 10 below show the walking cycling routes to Malahide Train Station. There are two routes leading towards Malahide Train Station. The first route is through Malahide Castle Gardens joining on the Dublin Road. The other route is along Back Road connecting to R124 The Hill Road through Malahide Town Centre. Both routes are viable for the Northern and Southern Site and Table 4 below shows the travel times for walking and cycling from each site.

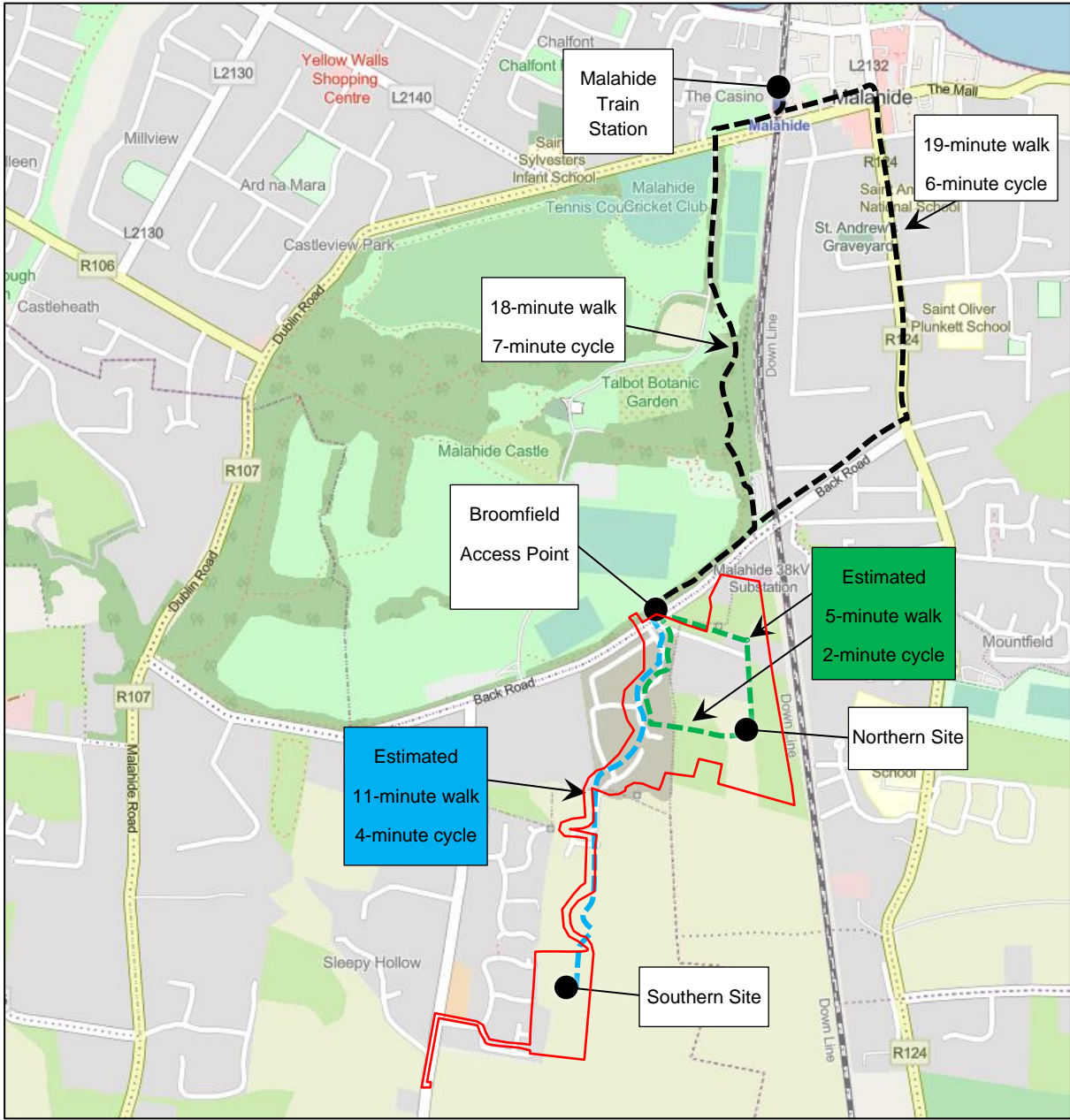


Figure 10 | Walking and Cycling Routes to Malahide Train Station

From	To	Via	Mode	Time	Distance
Southern Site (Centre Point)	Malahide Train Station	Malahide Castle Demesne	Walking	29 minutes	2,350 m
			Cycling	11 minutes	2,350 m
		R124 The Hill	Walking	30 minutes	2,550 m
			Cycling	10 minutes	2,550 m
Northern Site (Centre Point)	Malahide Train Station	Malahide Castle Demesne	Walking	23 minutes	1,850 m
			Cycling	9 minutes	1,850 m
		R124 The Hill	Walking	24 minutes	2,050 m
			Cycling	8 minutes	2,050 m

Table 4 | Walking and Cycling Routes to Malahide Train Station

5.2 Walking and Cycling Routes to Malahide Town Centre

Figure 11 below show the walking cycling routes to Malahide Town Centre. There are two routes leading towards Malahide Train Station. The first route is through Malahide Castle Gardens joining on the Dublin Road. The other route is along Back Road connecting to R124 The Hill Road through Malahide Town Centre. Both routes are viable for the Northern and Southern Site and Table 5 below shows the travel times for walking and cycling from each site.

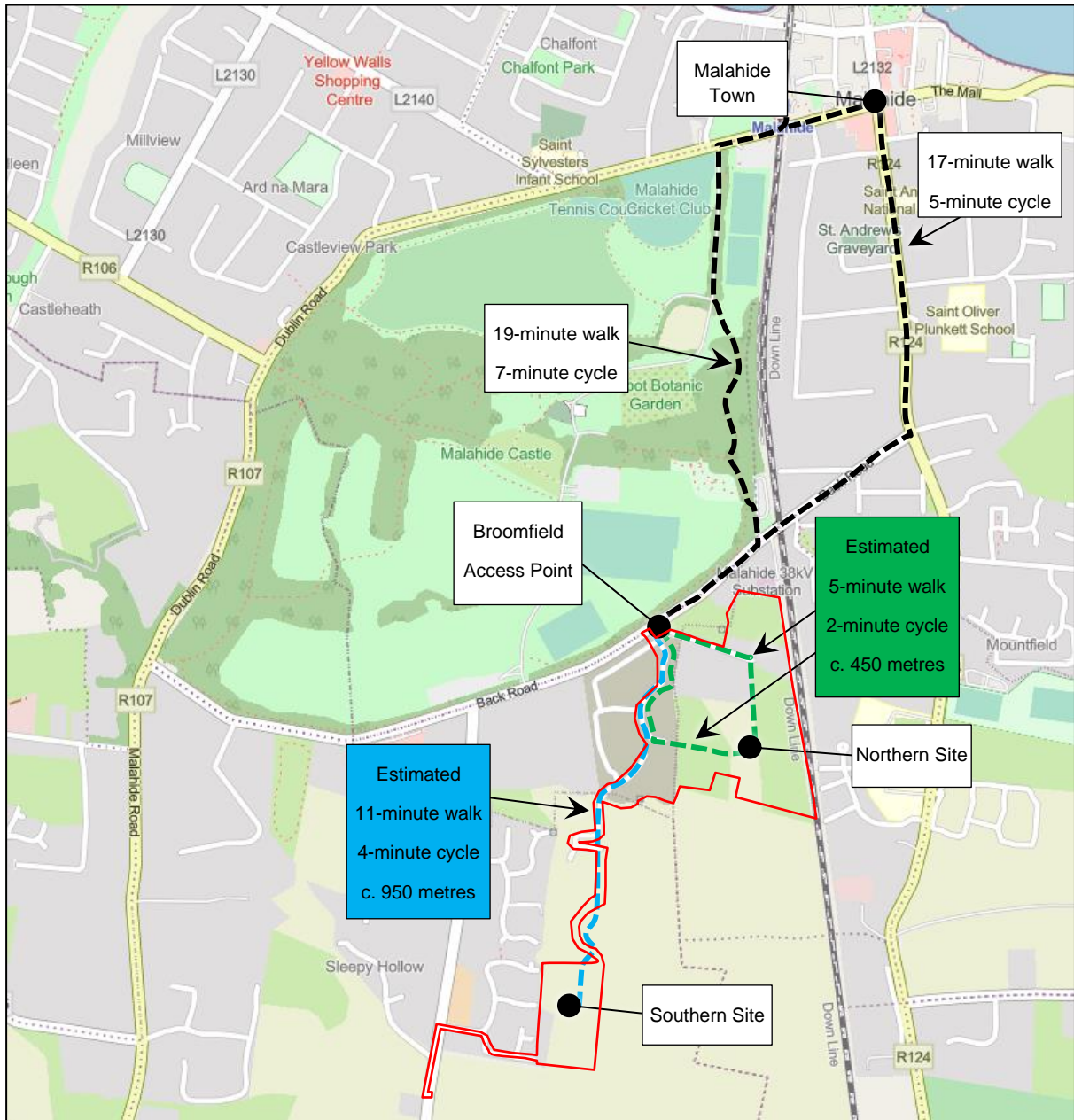


Figure 11 | Walking and Cycling Routes to Malahide Town Centre

From	To	Via	Mode	Time	Distance
Southern Site (Centre Point)	Malahide Town Centre	Malahide Castle Demesne	Walking	30 minutes	2,450 m
			Cycling	11 minutes	2,450 m
		R124 The Hill	Walking	28 minutes	2,350 m
			Cycling	9 minutes	2,350 m
Northern Site (Centre Point)	Malahide Castle Demesne	Walking	24 minutes	1,950 m	
		Cycling	9 minutes	1,950 m	

Malahide Town Centre	R124 The Hill	Walking	22 minutes	1,850 m
		Cycling	7 minutes	1,850 m

Table 5 | Walking and Cycling Routes to Malahide Town Centre

5.3 Walking Routes to Bus Stops on R107 Malahide Road and R124 The Hill

The walking routes for all nearby bus stops is shown below. The bus stops are located on R107 Malahide Road and R124 the Hill. There are several routes from the southern site to the bus stop locations. To the bus stops west of the development the southern site has a route from Kinsealy Lane to Back Road and through the Northern site to Back Road for the bus stop on R124 The Hill. The northern site uses the site access road on Back Road to access both bus stops. Table 5 below shows the walking distances and times to each bus stops.

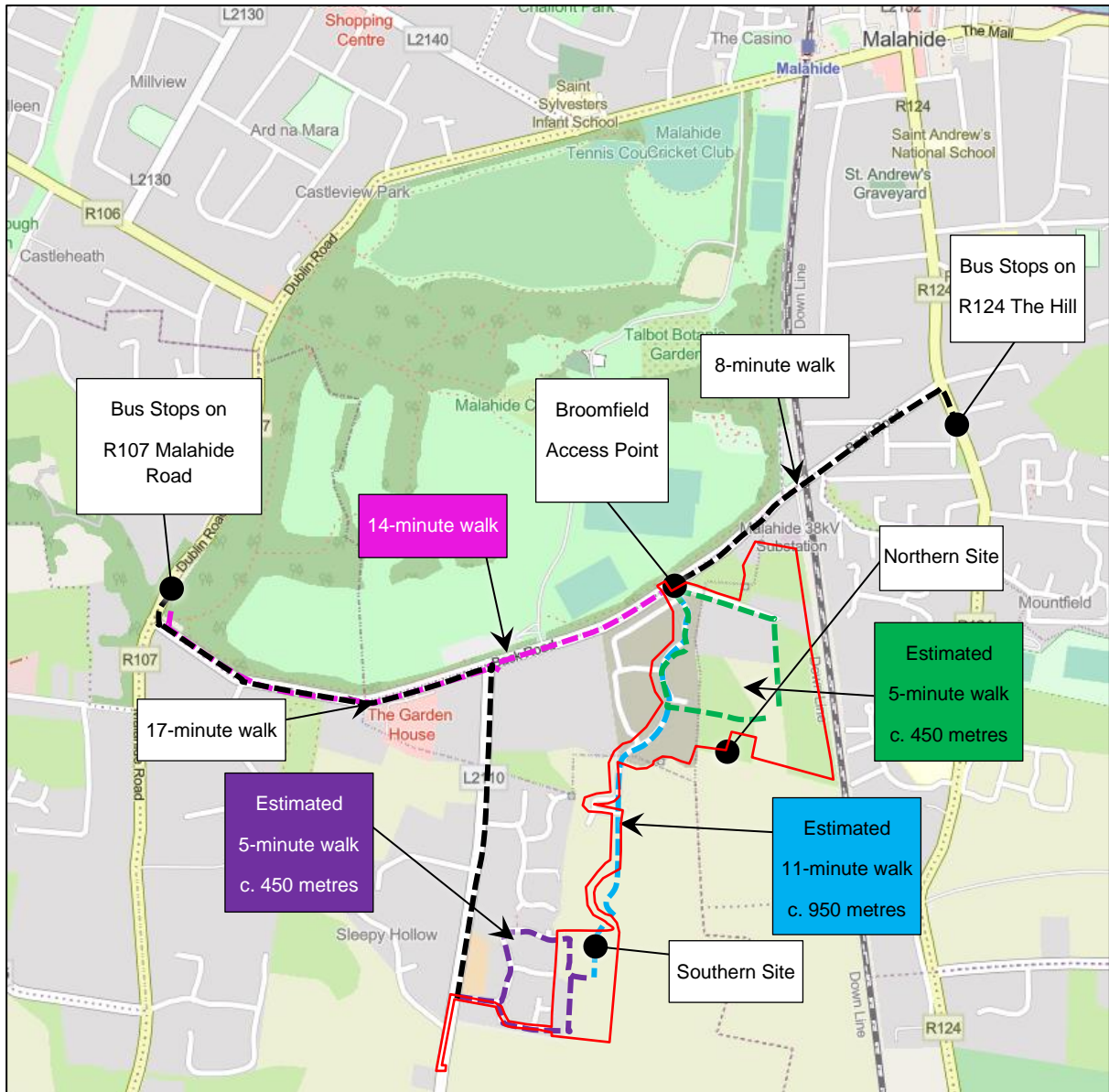


Figure 12 | Walking Routes to Bus Stops on R107 Malahide Road and R124 The Hill

From	To	Via	Mode	Time	Distance
Southern Site (Centre Point)	Bus Stops on R107 Malahide Road	Kinsealy Road and Back Road	Walking	22 minutes	1,850 m
	Bus Stops on R124 The Hill	Back Road	Walking	19 minutes	1,650 m
Northern Site (Centre Point)	Bus Stops on R107 Malahide Road	Back Road	Walking	19 minutes	1,650 m
	Bus Stops on R124 The Hill	Back Road	Walking	13 minutes	1,150 m

Table 6 | Walking Routes to Bus Stops on R107 Malahide Road and R124 The Hill

6. Proposed Development

6.1 Development Proposals

The proposed development consists of two sites. The northern site consists of 328 residential units and a creche approximately 476 sqm. The southern site will consist of 87 residential units.

The combined total of proposed development is 415 residential units, comprising of 252 houses, 28 duplex units and 135 apartments, as set out in the Schedule of Accommodation below:

Description	1-bed	2-bed	3-bed	4-bed	5-bed	GFA (Sqm)	Total
Northern Site							
House	-	-	133	36	12	-	181
Duplex	-	6	6	-	-	-	12
Apartment	37	93	5	-	-	-	135
Creche	-	-	-	-	-	476 sqm	-
Northern Total	37	99	144	36	12	476sqm	328 units 476 sqm
Southern Site							
House	-	-	59	12	-	-	71
Duplex	-	8	8	-	-	-	16
Southern Total	-	8	67	12	-	-	87
Total Site	37	107	211	48	12	476sqm	415 units 476 sqm

Table 7 | Schedule of Accommodation

6.2 Proposed Access

Ashwood hall includes a site access point to the north of the overall site connecting to Back Road and creating a priority T-Junction. The proposed development will connect to this site access point also.

Fingal County Council recommended a secondary vehicular access to the site is now proposed from Kinsealy Lane, via Hazelbrook during the SHD pre-planning process. This will benefit the southern site for vehicular, pedestrian and cycle access. Fingal County Council requested that a road connects between the north and south sites for Broomfield to increase the permeability of the area including Broomfield and the existing Hazelbrook residential area.

As part of the proposed road connecting the northern and southern site, Fingal County Council, along with the developer, will monitor the road in order to assess whether 'rat-running' will become an issue. Fingal County Council can then introduce bollards if necessary to stop 'rat-running' from occurring.

It is considered that the route between the site entrance from the Hazelbrook residential development to the site exit on the north on the Back Road, and vice versa, will not create a "rat-run" if there is any potential build-up of traffic at the Kinsealy Lane-Back Road junction. This is owing to the fact the layout of the proposed route is meandering, and has frequent interruptions such; as raised tables, pedestrian crossings and low radii corners which will effectively enforce a slower vehicular speed of as per DMURS guidelines discussed further in the reports accompanying this planning application. Further measures to

stop the creation of a rat run are the speed limit of 30 Kmph for the proposed development and several T-junctions within the proposed development will also enforce a slower vehicular speed.

6.3 Car Parking

6.4 Fingal County Council Development Plan 2017-2023 Standards

Standards for car parking in new developments are set out in Table 12.8 of the Fingal County Council Development plan 2017-2023 (FCC).

The maximum car parking standards for the proposed development (Broomfield Northern and Southern Site) are listed in Table 8 below.

Land Use	Standard
Residential – Apartments (1 Bedroom)	1 Space per unit (Plus 1 Visitor per 5 units)
Residential – Apartments (2 Bedroom)	1.5 Spaces per unit (Plus 1 Visitor per 5 units)
Residential – Apartments (3+ Bedroom)	2 Spaces per unit (Plus 1 Visitor per 5 units)
House - urban/suburban 3 or more bedrooms	2 Spaces per unit
Creche	0.5 Spaces per classroom

Table 8 | FCC Development Plan Standards.

6.5 Car Parking Required

Based on the car parking standard set out in the Fingal County Council Development Plan 2017-2023, the maximum quantum of car parking required to serve the proposed development is 723 spaces as calculated in Table 9 below.

Land Use	No. of units/No. of classrooms	FCC Standard	Spaces Required
Apartments (1 Bedroom)	37	1 Space per unit*	37 Spaces 7 Visitor Spaces
Apartments (2 Bedroom)	93	1.5 Spaces per unit*	140 Spaces 19 Visitor Spaces
Apartments (3+ Bedroom)	5	2 Spaces per unit*	10 Spaces 1 Visitor Space
House - urban/suburban 3 or more bedrooms	252	2 Spaces per unit	504 Spaces
Creche	10	0.5 Spaces per classroom	5 Spaces

Total	691 Residential 27 Visitor 5 Creche
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*Plus 1 Visitor Space per 5 units

Table 9 | FCC Standards – Car Parking Spaces Required

6.6 Design Standards for New Apartments – December 2020

The Design Standards for New Apartments – December 2020 set out standards for new apartments. The standards are designed to reduce the number of car parking spaces required for new apartments depending on the area. Based on the Design Standards for New Apartments criteria the proposed development can be classified as a “Peripheral and/or Less Accessible Urban Locations”. This classification is judged on the Apartments only and does not reflect the overall accessibility of the proposed development. The basis of this categorisation is on car parking and does not reflect the overall accessibility of the site. An extract from the design standards for New Apartments is shown below:

“Such locations are generally suitable for limited, very small-scale (will vary subject to location), higher density development that may wholly comprise apartments, or residential development of any scale that will include a minority of apartments at low-medium densities (will also vary, but broadly <45 dwellings per hectare net)”

The proposed development is served by public transport within walking distance but has 37.5 units per hectare overall. Therefore, the proposed development can be classified as a “Peripheral and/or Less Accessible Urban Location”. While the proposed development is accessible by public transport the density of the proposed development is less than the criteria outlined above. Below is an extract of the standards used for car parking based on the above criteria.

“As a benchmark guideline for apartments in relatively peripheral or less accessible urban locations, one car parking space per unit, together with an element of visitor parking, such as one space for every 3-4 apartments, should generally be required.”

Based on the above criteria a minimum of 1.25 spaces per unit must be offered for Apartments.

6.7 Car Parking Proposed

The number of car parking spaces projected to serve the proposed development is presented in Table 10 below.

Description	No. of Units	Spaces per Unit	Total Spaces
Apartment Blocks A & B	110	1.25	138 (Includes 28 visitor spaces)
Apartment Block C	25	1.25	31 (Includes 6 visitor spaces)
Apartment Block D + creche	24	1.25	28 (Includes 10 visitor spaces)
Duplex Block E	16	1.25	20 (Includes 4 visitor spaces)
Houses	252	2	508
Total	415	-	721

Table 10 | Proposed Parking Spaces

As seen from the above table, the proposed will be served with 725 car parking spaces, with 217 being provided for the apartment and Duplex units (1.25 car parking spaces per unit). In-curtilage parking is proposed for each of the houses. The creche includes 6 no. pickup and drop off spaces and 10 staff parking which also serve as visitor parking for Apartment Block D.

There are 7 disabled car parking spaces included in the Apartment Blocks. This consists of 1 disabled car parking space per block except 4 disabled car parking spaces for Blocks A and B.

The reduced provision of car parking spaces per apartment reflects the location of the proposed development in relation to public transport services.

As per the Fingal Development 2017 – 2023, One space or more per 100 spaces should be reserved for electric vehicles with charging facilities. Therefore, as part of the proposed development, there will be 7 electric vehicle charging point within the Proposed Development.

6.8 Bicycle Parking

6.9 Fingal County Council Development Plan 2017-2023 Standards

Standards for bicycle parking in new developments are set out in Table 12.9 of the Fingal County Council Development plan 2017-2023 (FCC).

The maximum bicycle parking standards for the proposed development (Broomfield Northern and Southern Site) are listed in Table 11 below.

Land Uses	FCC Standards
Apartment, townhouse 1 bedroom	1 Bike per unit (Plus 1 Visitor Space per 5 units)
Pre-school facilities / creche	0.5 bikes per classroom

Table 11 | FCC Bicycle Parking Standards

6.10 Bicycle Parking Required

Based on the bicycle parking standard set out in the Fingal County Council Development Plan, the quantum of bicycle parking required for the proposed development is shown in Table 12 below.

Land Use	No. of units/No. of classrooms	FCC Standard	Spaces Required
Apartments (1,2 or 3 Bedroom)	163	1 Space per unit*	163 Spaces
House - urban/suburban 3 or more bedrooms	252	No spaces required	-
Creche	4	0.5 Spaces per classroom	2 Spaces

Table 12 | FCC Bicycling Parking Standards required

6.11 Design Standards for New Apartments - December 2020

The Design Standards for New Apartments – December 2020 set out standards for new apartments. 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.

An extract from the design standards – “a general minimum standard of 1 cycle storage space per bedroom shall be applied. For studio units, at least 1 cycle storage space shall be provided. Visitor cycle parking shall also be provided at a standard of 1 space per 2 residential units. Any deviation from these standards shall be at the discretion of the planning authority and shall be justified with respect to factors such as location, quality of facilities proposed, flexibility for future enhancement/enlargement, etc.”

6.12 Bicycle/Motorbike Parking Proposed

The number of bicycle & motorbike parking spaces projected to serve the proposed development is presented in Table 13 below.

Land Uses	Motorbike Storage	Secure Cargo Bikes	Visitors Bikes
Residential	5	169	53
Creche	-	-	5
Total	5	169	58

Table 13 | Proposed Bicycle/Motorbike Parking

As can be seen above, the proposed number of bicycle parking to serve *the* subject development is 227 spaces with an additional 5 for motorbikes. This is in line with the Fingal County Council Development Plan 2017-2023.

7. Modal Choice Targets Development

7.1 Strategy

The strategy for this Travel Plan is based on the movement of people, not vehicles.

The objectives of the Plan are:

- (a) To endeavour to reduce the use of the car by single occupants;
- (b) To endeavour to reduce the use of the car for the journey from Broomfield to work, especially during network peak periods;
- (c) To encourage the development of more sustainable transport modes for trips to and from Broomfield
- (d) To increase the percentage of persons choosing to walk, cycle or travel by public transport to and from Broomfield instead of driving;
- (e) To create an alliance with Fingal County Council, providers of public transport and tenants/owners of other major developments to promote a sustainable transport network in the Broomfield area.

In pursuance of achieving these objectives, targets for residents have been set for the future year of 2030.

These targets are based on data presently available and will be measured to monitor progress. They follow examples of good practice in other developments both in Ireland and overseas.

Further targets will be developed during the implementation of this Plan as development and infrastructure progresses and new data becomes available.

The promoters of Broomfield are aware of the importance of maximising opportunities to make non-car trips for the journey to/from the development. To this end, the provision of close facilities helps in reducing the car use for other purposes (i.e. schools, employment, shopping, etc.).

7.2 Existing Modal Split – Adjoining Areas

Census 2016 was carried out by the Central Statistics Office (CSO) on 24th April 2016. The data obtained includes information regarding car ownership and the modal split for the journey to work, school or college.

The data for five areas surrounding the proposed development site have been consulted to determine an estimate of the opening year modal split. Areas 1, 2 and 3 in the Figure below are Small Areas which have been defined by the Central Statistics Office in 2016. Areas 4 and 5 are a grouping of some Small Areas defined by CSO.

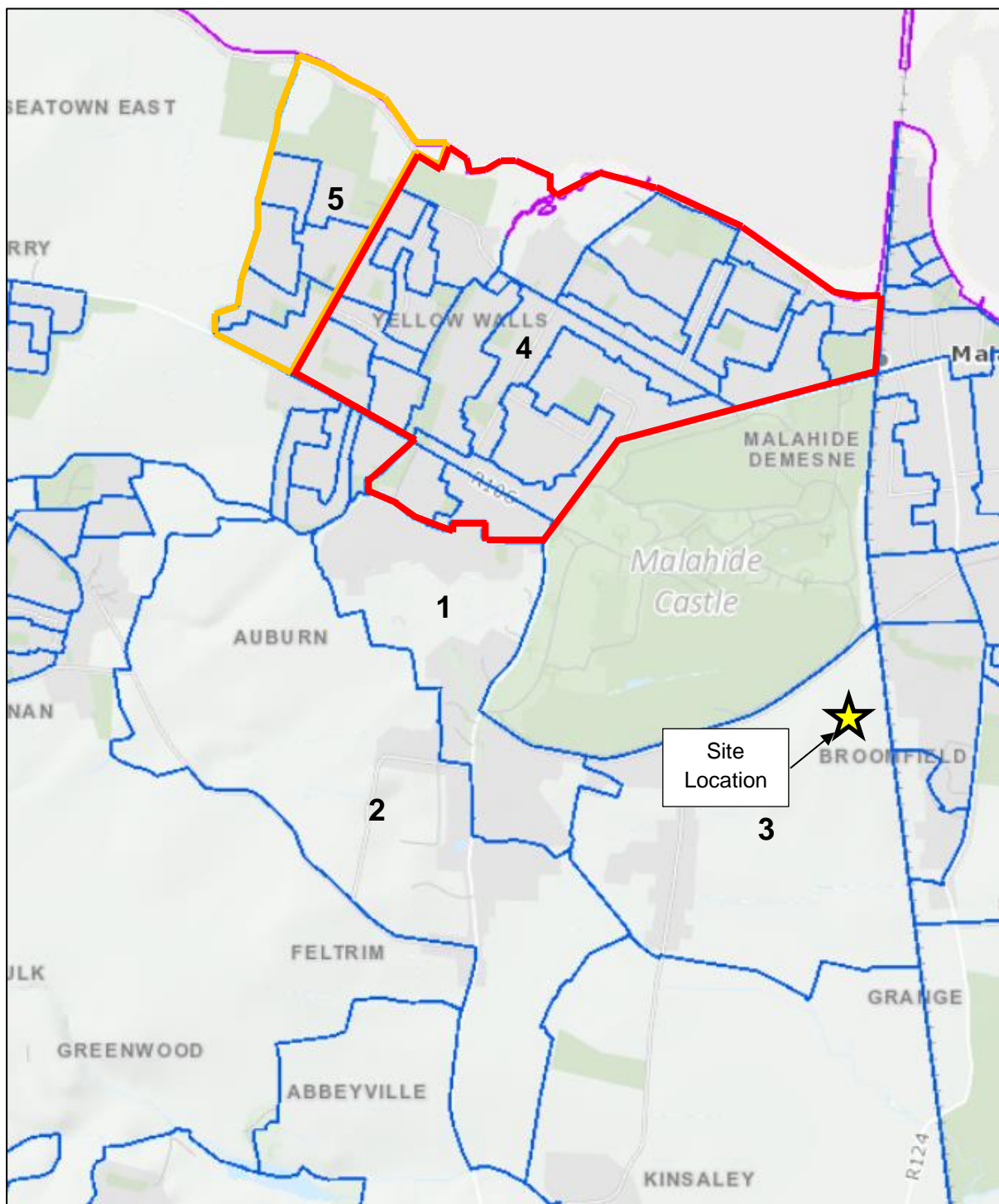


Figure 13 | Areas for Census 2016 – Extracted from SAPMAPs

The surveyed 'modal split for the journey to work, school or college' by the residents at the five consulted areas as surveyed in Census 2016 recorded that 70% of 8,777 population generated 6,122 trips for the journey to work, school or college. Some 54.0% of trips were by car, 13.8% by train, 13.4% by bus, 2.1% by cycle, 8.8% by walk and the remaining 7.8% by others or were not stated.

The survey results for each consulted area is presented in the Table below:

Area	Pop.	Trip Attractor	Car Driver	Car Passenger	Train	Bus	Bicycle	On Foot	Others or Not Stated	Total Trips
1	328	Work, School or College	110	53	25	17	5	7	16	233
			47.2	22.7	10.7	7.3	2.1	3.0	6.9	100.0
2	325	Work, School or College	84	65	22	22	4	8	26	231
			36.4	28.1	9.5	9.5	1.7	3.5	11.3	100.0
3	353	Work, School or College	95	69	22	17	10	8	31	252
			37.7	27.4	8.7	6.7	4.0	3.2	12.3	100.0
4	6,224	Work, School or College	1,570	507	641	507	83	438	314	4,060
			38.7	12.5	15.8	12.5	2.0	10.8	7.7	100.0
5	1,547	Work, School or College	536	221	132	258	29	78	92	1,346
			39.8	16.4	9.8	19.2	2.2	5.8	6.8	100.0
Total	8,777	Work, School or College	2,395	915	842	821	131	539	479	6,122
			39.1	14.9	13.8	13.4	2.1	8.8	7.9	100.0

Table 14 | Surveyed Modal Split for the Journey to Work, School or College - Census 2016

7.3 Target Modal Split

The 2030 target proposals for modal split for residents engaged on the journey to and from work, school or college are presented in the Table below:

Mode	Census 2016	Target 2030
Car (Driver)	39.1%	33%
Car (Passenger)	14.9%	12%
Train	13.8%	20%
Bus	13.4%	20%
Cycle	2.1%	5%
Walking	8.8%	10%
Other or Not Stated	7.9%	-
Total	100%	100%

Table 15 | Target Modal Split for Residents Journey to Work, School or College in 2028.

This target reduction in the use of private car and increase in the use of public transports have been based on the proposed local improvements on the public transport in the area.

8. Mobility Management Plan

8.1 Introduction

The Dublin Transportation Office in its Advice Note on Mobility Management Plans (July 2002) describes Mobility Management as *“a transport demand management mechanism that seeks to provide for the transportation needs of people and goods. The aim is to reduce demand for and use of cars by increasing the attractiveness and practicality of other modes of transport.”*

A Mobility Management Plan will be implemented and developed on an ongoing basis with the triple objectives of promoting sustainability, enhancing public transport and reducing dependency on the use of the private car. It is important to strike an appropriate balance between promoting new development and preventing excessive car parking provision that can undermine cycling, walking and public transport use.

The Mobility Management Plan is intended to deal with the typical day-to-day operating conditions at the site.

8.2 Action Plan

8.2.1 Walking

It is well understood that there are many local, global and personal benefits to walking to/from work every day. The proposed development is situated close to Malahide Village. Residents who work in Malahide will be encouraged to walk to/from work. A Facebook page will be set up in order to create a communication tool between residents to meet and walk together, thereby creating a sense of community between residents of the development.

Furthermore, residents will be encouraged to travel from/to work under a travel share-mode, meaning walking to/from the closest Dart, commuter train or bus station before using these other means of transport.

8.2.2 Cycling

Cycling is an efficient way to travel short distances. It helps to promote independence and reduces negative impacts on the environment. This means of transport would be a suitable option for residents to travel to work from the proposed development to destinations in Malahide, Swords, Portmarnock and parts of Dublin city centre. An effort will be put into target an increase in residents who cycle to work. The good cycle infrastructure around the development will facilitate this task. For those residents wishing to commute to work by this mode, the proposed development will provide a number of secure bicycle parking spaces on site. The number of bicycle spaces can be increased if demand arises.

8.2.3 Public Transport

There are many benefits to taking public transport (rail and bus service) every day to/from work, such as helping the environment by reducing carbon emissions, reducing congestion, saving money and allowing users to relax and read. In this regard, some initiatives will be used to encourage residents to take public transport to work, such as providing information to residents about tax incentives for public transport users, provision of up to date public transport timetables and routes and advice for new residents regarding local bus routes and the nearest bus stops, and the travel time to/from Dublin City Centre and other key destinations.

8.2.4 Car Sharing

There are many benefits of car sharing to/from work daily, such as reducing carbon emissions, reducing fuel costs and parking fees, reducing congestion and journey times due to fewer cars being on the road and increasing the pleasure of the journey due to less congestion and to having company.

A car sharing scheme will be incentivised to encourage the future residents to commute together and to minimise the number of people traveling to and from work alone.

8.3 Strategy for Travel

The strategy of this Travel Plan will be to encourage residents to reduce dependency on the private car and instead encourage travel by green modes of transport. The methodology to be employed to implement the strategy will include:

- The provision of an extensive information service for public transport routes at locations within the development;
- The ongoing updating of public transport information adjacent to the development;
- Advising residents of tax incentives for public transport and bike to work schemes which may be available from their employer;
- Lobbying the public transport operators to ensure the ongoing provision of a high level of service on the public transport routes serving the development;
- The provision of secure cycle parking;
- The provision of good footpaths and pedestrian crossings in the area of the development;
- The provision of information regarding car sharing schemes

8.4 Specific Measures

8.4.1 Transport Coordinator

A management company will be appointed by the developer to manage the development. A senior member of staff from the management company who supports the philosophy of the Plan will be appointed as the Co-ordinator. The Co-ordinator should be appointed within 2 months of the Site being occupied. A dedicated commuter space will be provided within the tenant amenity areas where travel information, timetables, access to the internet and notice boards will be provided.

The Co-ordinator's roles in the development, implementation and management of the Plan shall include:

- Promotion of the Travel Plan to residents;
- Implementation and maintenance of the Plan;
- Monitoring progress of the Plan;
- Liaison with public transport operators and officers of the Planning and Highway Authorities;
- Production of information reports for the Developer, the Occupier(s) and the Planning and Highway Authorities; and
- Ongoing assessment of the objectives of the Plan.

Within the first 4 months of being appointed, the Co-ordinator shall arrange for a resident's travel survey to be carried out. This can be achieved by means of self-completion questionnaires, which will help to identify travel requirements and set targets and needs.

The information requested in the questionnaire should include:

- Personal details;
- Primary mode of transport;
- Current travel patterns including the time taken to travel to work and the place of work;
- Views on alternative modes to the car (i.e. what would encourage them to switch to other modes); and
- Usage of car sharing scheme;

Traditionally, response rates to such questionnaires are relatively low and it may be necessary to encourage recipients to complete and return them.

The information obtained from the survey should be entered onto a database and used to formulate and monitor the implementation of the Plan and to set and review targets. These targets are to be agreed with the Planning and Highway Authorities or their agents within 6 months of the survey being carried out.

8.4.2 Public Transport

Up to date local bus and rail timetables will be maintained within the tenant amenity areas and other fixed points within the facilities on the site. Residents will be advised of their location. In addition, Internet access to travel information will be provided. The developer will provide all new residents with a travel pack showing alternative modes of travel to the development. Where possible, the developer will advise visitors to the site of alternative modes of travel to that of the car.

8.4.3 Provision for Cyclists

Secure bicycle parking facilities will be provided for residents at designated areas within the apartment blocks and on the curtilage of each house. For visitors and crèche users, a number of bicycle parking spaces will be provided through the site at the surface level. Local cycle route information will be provided in the tenant amenity areas and at other fixed points within the development, and residents will be advised of their location.

8.4.4 Car Parking

The co-ordinator will be responsible for the management of inappropriate parking within the development.

8.5 Monitoring of the Travel Plan

The monitoring and review of the Plan will be the responsibility of the Co-ordinator. The travel survey will establish the initial modal split of travel by residents.

The Co-ordinator, in consultation with the Developer, the Occupiers, and the Local Authority or its agents, will agree annual targets, following completion and analysis of the travel survey, for increasing the percentage of non-car modes.

The Co-ordinator will:

- Meet with officers of the Local Authorities or its agents within a period of 6 months following occupation of the building(s) and thereafter every 12 months to assess and review progress of the Plan and agree objectives for the next 12 months, and
- Prepare and submit to senior management of the Developer, the Occupier(s) and the Local Authorities or its agents, an annual Monitoring Report.

8.6 Marketing and Implementation

As part of the implementation of this Plan, the Management Company will provide all new residents at the site with a Travel Pack. The pack will include:

- The Travel Plan;
- Public Transport information, such as Bus and Rail routes and frequencies;
- Benefits of the Travel Plan for residents and visitors;
- Details of tax incentives available, such as Bike to Work Scheme, Tax Saver Scheme for public transport tickets, etc.;
- Travel Survey Form;
- Details of pedestrian facilities;
- Details of cycle facilities; and
- Details of car sharing scheme.

9. Conclusion

This Travel Plan has been prepared in support of a planning application for a residential development in Broomfield, Malahide, Co. Dublin. This document focuses on how residents could be encouraged to use sustainable means of transport to and from the site and to minimise the number of residents who will drive to work, college or school.

The implementation of the strategy proposed in this document, such as the provision of secure cycle parking spaces, up-to-date information of public transport routes and bus stop locations, and information about the bike to work scheme to all residents, will encourage residents to reduce dependency of private car and increase the travel by green modes of transport. These measures will not only benefit the residents but will also mitigate against any negative transport impacts that can be provoked by the operational phase of the proposed development.

UK and Ireland Office Locations

