



Carmanhall Road SHD 2022

Travel Plan

August 2022

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Comments



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1. Introduction

1.1 Introduction

This Travel Plan (formerly Mobility Management Plan) is intended to deal with the typical day-to-day operating conditions at Carmanhall Road.

It has been prepared by Waterman Moylan on behalf of Atlas GP Limited to accompany an SHD application for a residential development at the junction of Carmanhall Road and Blackthorn Road, Sandyford, Dublin 18. See Figure 1.

The site comprises the former Avid Technology site the junction of Carmanhall Road and Blackthorn Road. The adjoining site to the west at the junction of Carmanhall Road and Ravens Rock was formerly occupied by Tack Packaging. See Figure 2.

1.2 Threshold for Travel Plan

Section 12.4.3 and Appendix 3 of the Dun Laoghaire-Rathdown County Development Plan 2022 – 2028 specifies that that a Travel Plan is required where an existing or proposed development meets one or more of the following thresholds: -

- Residential developments of 100 dwellings or more
- Any development proposing 100 or more car parking spaces or generating 100 or more trips in the peak hours.

The proposed provision of residential units in this development is 334 units.

1.3 Program

The travel targets in this Plan are based on an Opening Year of 2026 and a five year horizon of 2031.

1.4 Scope

Travel management will a key operational feature in the provision of sustainable travel infrastructure at Carmanhall Road. The owners will implement the Travel Plan on an ongoing basis with the triple objectives of promoting sustainability, enhancing public transport and reducing dependency on the use of the private car for the journey to work.

The targets set in the Travel Plan will be achieved against the background of expanding public transport capacity in the surrounding catchment.



Figure 1 Location Map

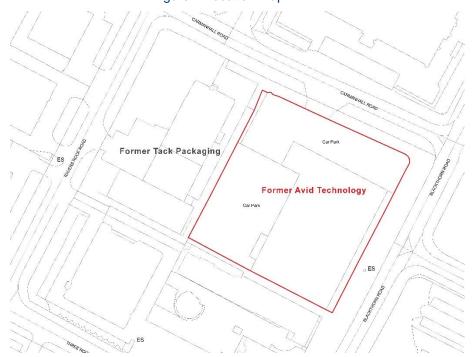


Figure 2 Former Tack Packaging Site

2. Proposed Development

2.1 Proposed Development

The proposed development will comprise some 334 Build-to-Rent residential units on the former Avid Technology site. See Figure 3.

Car parking with a total of 125 car spaces will be provided at Lower Ground and Basement. Cycle parking with 447 spaces will be provided at Lower Ground Level. Access is proposed from Carmanhall Road and egress to Blackthorn Road. The public realm around the site will incorporate an upgrade of the pedestrian and cycle environment.

The development includes all associated infrastructure to service the development including access junctions, footpaths and cycle paths together with a network of watermains, foul water drains and surface water drains.

A concurrent development with its own Construction Management Plan is also expected to be developed on the former Tack Packaging site to the west. It will comprise 207 Build-to-Rent residential units and 79 car parking spaces at Lower Ground Level and Basement. Access will be from Ravens Rock Road and egress onto Carmanhall Road. See Figure 3.

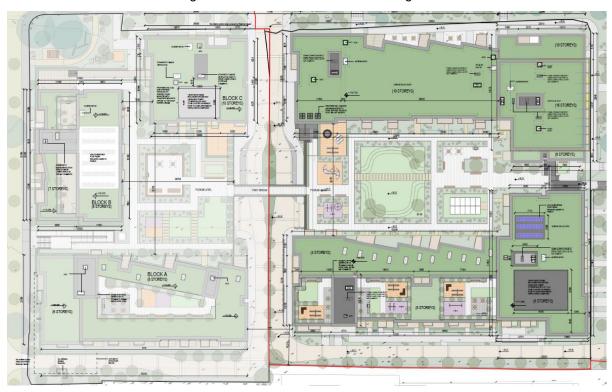


Figure 3 Proposed Site Layout

3. DLR County Development Plan 2022 – 2028

3.1 DLR Commuting Travel Mode Share Trends

In terms of current commuting, only preliminary data is available from Census 2022 conducted by the CSO in April 2022. Detailed data is not expected until April 2023.

The travel mode share (as detailed in Census 2011 and 2016) for all trips to work, school or college for residents of Dún Laoghaire-Rathdown is shown in Table 1 which has been reproduced from Table 5.0 in Chapter 5.0:of the DLR County Development Plan 2022 – 2028.

Table 1 Means of Travel to Work - CSO 2016

Mode	%
On Foot	14%
Pedal Cycle	7%
Bus	11%
Train / DART / LUAS	14%
Motorcycle	1%
Car Driver	37%
Car Passenger	15%
Van/ Lorry / Other	2%%
Total	100

3.2 Travel Mode Share Target

Section 12.4.3 of the DLR County Development Plan 2022 - 2028 requires that

The travel mode share target shall at minimum meet the Smarter Travel targets (or any subsequent updated national/regional targets) - peak hour transport mode split of a maximum of 45 % trips by Car Driver and 55% minimum by sustainable modes (walking, cycling and public transport)

3.3 Sandyford Urban Framework Plan

Objective TAM1 of the Sandyford Urban Framework Plan included as Appendix 16 in the Dun Laoghaire-Rathdown County Development Plan 2022 – 2028 states that

It is an objective of the Council to require all future development in the Sandyford Business District to achieve a peak hour transport mode split of 45% trips by car drivers (maximum) and 55% trips by walking, cycling and public transport and other sustainable modes (minimum targets) as per Government policy stated in the document published by the Department of Transport entitled, 'Smarter Travel, A Sustainable Transport Future 2009-2020'

4. Overall Strategy

4.1 Overall 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 to the development, especially during network peak periods.
- (c) To encourage the development of more sustainable transport modes for trips to and from the development.
- (d) To increase the percentage of persons choosing to walk, cycle or travel by public transport to and from the development instead of driving.
- (e) To develop an integrated approach to travel management including public transport, private vehicles and suppliers of commercial services accessing the development.
- (f) To create an alliance with Dun Laoghaire-Rathdown County Council, providers of public transport and tenants/owners of other major developments, to promote a sustainable transport network in the Sandyford area.

In pursuance of these objectives, targets for residents have been set in a number of main areas for the next 6 years between 2026 and 2031.

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 owners of the development are aware of the importance of maximising opportunities to make non-car trips for the journey to/from the development. To this end, providing on-site facilities can help to reduce the need use a car for other purposes (i.e. lunchtime, shopping, leisure etc.).

4.2 Mobility Management Targets – Residents

The proposed development is located in a mixed residential and commercial area in Sandyford. This area currently has good public transport accessibility, footpaths and pedestrian crossing facilities.

Based on current practice and the targets in the County Development Plan and Sandyford Urban Framework Plan, the following opening and future year targets are proposed for travel by the residents of the proposed development.

Modal Split

The 2026 and 2031 proposals for target modal split for resident journeys to/from the proposed development are presented in Table 2 below.

It is estimated that the number of residents will be some 749 persons based on a total of 334 units comprising 79 x Studio (1 person), 175 x 1-Bed (2 persons) and 80 x 2-Bed (4 persons).

Target 1 - Car Driver

The target rate proposed for residents driving to work by car is 12.3% in 2026 decreasing to 10.0% by the end of 2031. This rate is significantly lower than the current rate of 37.0% in Dun Laoghaire-Rathdown and the target rate of 45.0% set out in the Sandyford Urban Framework Plan.

Target 2: Car Occupancy

The target rate proposed for residents travelling to work as car passengers is 1.25 persons per car in 2026 increasing to 1.30 persons per car by the end of 2031.

Target 3: Public Transport

The target rates proposed for residents travelling to work by public transport are 48.0% for 2026 increasing to 48.3% for 2031.

Target 4: Cycling

The target rates proposed for residents travelling to work by cycle are 6.0% for 2026 increasing to 7.0% for 2031.

Target 5: Walking

The target rates proposed for residents walking to work are 20.0% for 2026 and 21.0% for 2031.

Target 6: Demand for Car Parking

The development is located in a mixed residential and commercial area in Sandyford. This area currently has good public transport accessibility, footpaths and pedestrian crossing facilities.

Notwithstanding the ongoing implementation of this Travel Plan and the increasing provision of public transport, it is not expected that demand for car parking by residents will reduce between 2026 and 2031.

Table 2 Target Modal Split for Residents at Carmanhall Road

	202	26	203	31
Mode	Modal Split	Persons	Modal Split	Persons
Walk	20.0%	150	21.0%	157
Cycle	6.0%	45	7.0%	52
Bus	20.0%	150	19.3%	146
Luas	28.0%	210	29.0%	217
Motorcycle	0.3%	2	0.3%	2
Car Driver	12.3%	92	10.0%	75
Car Passenger	3.0%	22	3.0%	22
Go Car (Car Share)	0.4%	3	0.4%	3
Work at Home	10.0%	75	10.0%	75
Total	100.0%	749	100.0%	749

5. Mobility Management Background

5.1 Local Transport Links

Sandyford and particularly Carmanhall Road is particularly well served by public transport.

The services include LUAS, Dublin Bus stage services, GoAhead stage services and Aircoach.

5.2 LUAS

The operational times for the LUAS Green Line between Broombridge and Cherrywood are 05h30 – 00h30 Monday to Friday, 06h30 – 00h30 on Saturday and 07h30 – 11h30 on Sunday.

The service operates in both directions at a peak hour frequency of 4 - 10 minutes Monday – Friday, 13 - 15 minutes on Saturday and 11 - 12 minutes on Sunday.

The corresponding off-peak frequency in both directions is 10 - 15 minutes Monday – Friday, 15 minutes on Saturday and 12 - 15 minutes on Sunday.

Longer trams operating at shorter intervals have recently been introduced to service on the LUAS Green Line through Sandyford. The Green Line Capacity Enhancement Scheme was launched in 2017 and completed by Transport Infrastructure Ireland (TII) in 2021 at a cost of €100m. The Capacity Enhancement Scheme provided for the replacement of the original 44 metre long trams with 55 metre long trams.

Both the Sandyford Stop and the Stillorgan Stop on Blackthorn Avenue will serve the proposed development with both stops being 6 minutes' walk time from the subject site.

5.3 Bus

Dublin Bus

Dublin Bus operates a number of staged services connecting Sandyford to diverse areas including City Centre, Blackrock (DART), Tallaght (LUAS) and Dun Laoghaire.

Dublin Bus also runs regular stage services on the road network around the Sandyford area.

Aircoach

Aircoach operate a 24-hour coach service between Clayton Hotel (formerly Bewleys Hotel) at Central Park and Dublin Airport.

GoAhead

GoAhead operates operate a number of staged services connecting Sandyford to diverse areas including Blackrock, UCD, Dun Laoghaire and Tallaght.

5.4 Pedestrian Linkage

Existing Environment - Pedestrians

Pedestrian facilities in the area surrounding the proposed development are generally of high standard. Street lighting and tactile paving are provided at most crossing points and footways are free of street clutter caused by inappropriately located street furniture.

Future Environment – Pedestrians

In addition to the existing facilities, the pedestrian environment in the area of the subject will be enhanced by the implementation of the Sandyford Business District Pedestrian and Cycle Improvement Scheme. See Figure 4.

5.5 Cycle Linkage

Existing Environment - Bicycles

At the time of writing in February 2022, there were very limited cycle facilities on the road network in the area around the subject site. This deficiency will be remedied by the implementation of the Sandyford Business District Pedestrian and Cycle Improvement Scheme.

Proposed Cycle Routes

The Council Cycling Policy, adopted in June 2010, provides local guidelines on the delivery of the aims and 19 objectives of the National Cycle Policy Framework 2009-2020.

The Cycling Policy includes guidance and standards for the provision of cycle parking and associated cycling facilities for all new developments. Developments in the Sandyford Business District are required to adhere to the Council Cycling Policy as part of their Travel Plan.

In addition to the existing pedestrian facilities, the cycle environment in the area of the subject will be enhanced by the implementation of the Sandyford Business District Pedestrian and Cycle Improvement Scheme. See Figure 4.

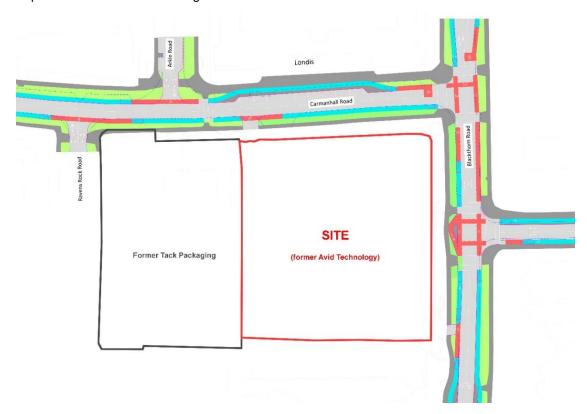


Figure 4 Extract from Sandyford Business District Pedestrian and Cycle Improvement Scheme

5.6 Car Park Management Plan

Access

Access for all vehicles to/from the car parks at lower ground and basement are through controlled lifting barriers at each of the accesses.

Following the completion of the proposed development, the barriers at the car park entry and exit points will accept pre-issued fobs and / or tags from residents who have been allocated access to a specific car parking space.

Parking

Parking by residents to be in pre-allocated marked and designated spaces at all times.

Car Sharing

A number of spaces will be set aside for car sharing and their use will be restricted to the appointed car share company such as Go Car

Visitors

Parking for visitors to the proposed development will be in the space allocated to the admitting resident. Access to the space must be granted to the visitor by the resident and the allocated space must be free for the incoming visitor's car.

There will be no other visitor spaces within the proposed development.

Disabled Spaces

spaces reserved for disabled badge holders cannot be used by non-badge holders.

Inappropriate Parking

All car park users will be advised by signage that that clamping of inappropriately parked cars will be in operation at the development. The fee for release of a clamp will be a flat rate of not less than €80.00. This fee will be subject to annual review by the Management Company.

Inappropriate parking is defined as parking in restricted areas and locations such as:

- Access roads, ramps and aisles
- Disabled bays (if no window badge is displayed).
- Parking by unregistered drivers at spaces reserved for registered users.

The Management Company will arrange for clamping to be in place to prevent parking in authorised spaces or areas.

6. Public Transport - Light Rail

6.1 Background

Services on the Luas Green Line between St Stephens Green and Sandyford commenced in 2004. Subsequently, the line was extended south to Cherrywood in 2010 (Line B1) and north to Broombridge in 2017 (Line BX).

Luas services operate at 2 – 15-minute intervals in both directions.

Both the Sandyford Stop and the Stillorgan Stop on Blackthorn Avenue will serve the proposed development with both stops being 6 minutes' walk time from the subject site.

6.2 Operation

There are some 200 services per day in each direction on the central section of the Green Line north of Sandyford Depot reducing to 100 services per day on the outer section of the Green Line south of Sandyford Depot. See Tables 3- 6.

The peak inbound frequency on the central section of the Green Line north of Sandyford Depot between 07.00 and 10.00 on a weekday is 45 trams southbound and 45 trams northbound. See Tables 3 and 4. This frequency reduces to 20 trams southbound and 20 trams northbound south of Sandyford Depot. See Tables 5 and 6.

Table 3 Green Line Service Frequency - Central Section - Northbound

Time	Minimum	Average	Maximum	Trams per Hour	Total Number of Trams
05:30-07:00	5	9	18	6.66	10
07:00-10:00	1	4	7	15	45
10:00-16:00	5	6	7	10	60
16:00-19:00	3	5	9	12	36
19:00-00.30	5	8	15	7.5	41
				Total	192

Table 4 Green Line Service Frequency - Central Section – Southbound

Time	Minimum	Average	Maximum	Trams per Hour	Total Number of Trams
06.00-07:00	9	12	27	5	5
07:00-10:00	3	4	7	15	45
10:00-16:00	5	6	7	10	60
16:00-19:00	4	4	7	15	45
19:00-01.00	5	8	15	7.5	45
				Total	200

Table 5 Green Line Service Frequency - Outer Section - Southbound

05:40-07:00	6	12	21	5	7
07:00-10:00	4	9	14	6.66	20
10:00-16:00	13	13	15	4.6	28
16:00-19:00	6	10	14	6	18
19:00-01:18	10	13	19	4.6	29
				Total	102

Table 6 Green Line Service Frequency - Outer Section - Northbound

Time	Minimum	Average	Maximum	Trams per Hour	Total
05:33-07:00	10	16	20	3.75	6
07:00-10:00	6	9	14	6.66	20
10:00-16:00	12	13	14	4.6	28
16:00-19:00	6	10	16	6	18
19:00-00:03	12	13	15	4.6	23
					95

6.3 Tram Capacity

The Green Line Capacity Enhancement Scheme was launched in 2017 and completed by TII in 2021 at a cost of €100m.

Earlier surveys by the NTA of passenger demand and conditions on the Luas Green Line indicated that the line was operating at capacity during peak periods, with crowding experienced between the Balally and Ranelagh stops. This crowding resulted in passengers being unable or unwilling to board at these stops.

The Capacity Enhancement Scheme provided for the replacement of the original 44 metre long trams each with a capacity of 319 passengers with 55 metre long trams each with a capacity of 408 passengers.

6.4 Line Capacity

On the basis of the foregoing, the current capacity of the Green Line north of Sandyford Depot through the central section to the City Centre during the AM Peak 07.00 – 09.00 is calculated to be 8,160 passengers per hour in both directions (20 trams per hour x 408 passengers per tram).

On the same basis, the current passenger capacity of the Green Line south of Sandyford Depot on the outer section to Brides Glen during the AM Peak 07.00 - 09.00 is calculated to be 4,080 passengers per hour in both directions (10 trams per hour x 408 passengers per tram).

6.5 Boardings and Alightings at Stillorgan Stop

The recorded boardings and alightings at the Sandyford Stop during the AM Peak Hour in 2019 are presented in Table 7. Total boardings and alightings during the AM Peak Hour 8 – 9 aggregate to 1,562 passengers per hour

Table 7 Boardings and Alightings at Sandyford Stop in 2019

Activity	Northbound	Southbound
Boardings	626	153
Alightings	102	681

[Source: Luas Annual Census Results 2019, Tracsis plc]

6.6 Development Generated Trips

From Table 2, it will be seen that the projected number of trips on the Luas during the AM Peak is expected to be 210 in 2026 increasing to 217 trips in 2031.

On the basis of the relative number of boardings recorded during the 2019 Luas Annual Census, these trips are expected to be 80% northbound towards the City Centre and 20% southbound towards Brides Glen.

This distribution would generate 168 trips northbound in 2026 increasing to 174 trips in 2031.

The corresponding southbound trips would be 42 in 2026 increasing to 31 trips in 2031.

6.7 Luas Capacity v Demand AM Peak 2031

The expected demand for outbound Luas services during the AM Peak is summarised in Table 8, as calculated in Section 6.6 above.

From this Table 8, it will be seen that the demand from the proposed development will have an insignificant impact on the capacity of the Luas Green Line through Sandyford.

Table 8 Luas Capacity and Demand AM Peak 2031

Direction	Demand	Capacity	Demand / Capacity
Northbound	168	8,160	2.0%
Southbound	42	8,160	0.5%
Total	210	16,320	1.3%

6.8 Access to Luas Green Line

Walking distances to Luas stops in the area of the proposed development are set out in Table 8.

The nearest Luas stops are Stillorgan and Sandyford both located on Blackthorn Avenue less than 0.5km to the north of the proposed development Both are within 6 minutes walking distance.

Other stops within 20 minutes walking distance are Kilmacud and Central Park.

Table 9 Walking Time to Luas Stops

<u> </u>	<u> </u>	
Luas Stop	Services	Walk Time from Development
Kilmacud	Blackthorn Avenue	17 minutes
Stillorgan	Blackthorn Avenue	4 minutes
Sandyford	Blackthorn Avenue	6 minutes
Central Park	Leopardstown Road	16 minutes



7. Public Transport - Bus

7.1 Dublin Bus

Details of the Dublin Bus services in the area of the proposed development are presented in Table 10 below.

Table 10 Dublin Bus Services

Bus Route	From	То	AM Peak Hour Frequency (08h00 – 09h00)	PM Peak Hour Frequency (17h00 – 18h00)
11	Ballymun	Sandyford Industrial Estate	3 in each direction	3 in each direction
47	City Centre	Belarmine	2 in each direction	2 in each direction
75	Dun Laoghaire	Tallaght	2 in each direction	3 in each direction

7.2 GoAhead Bus Services

Details of the bus services in the area of the proposed development are presented in Table 11 below.

Table 11 GoAhead Bus Services

Bus Route	From	То	AM Peak Hour Frequency (08h00 – 09h00)	PM Peak Hour Frequency (17h00 – 18h00)
114	Blackrock DART	Ticknock	1 in each direction	1 in each direction

7.3 Aircoach Services

Aircoach operate a 24-hour coach service between Clayton Hotel (formerly Bewleys Hotel) at Central Park and Dublin Airport.

Services to and from Central Park operate at the following frequencies:

From	00h00 - 04h00	:	Every Hour
From	04h00 - 06h00	:	Every 20 minutes
From	06h00 - 20h00	:	Every 10 minutes
From	20h00 - 00h00	:	Every 20 minutes

7.4 Future Bus Services

Objective TAM 3 of the Sandyford Urban Framework Plan 2022 – 2028 sets out the objectives for the expansion of bus services in the Sandyford area including

- Fast and frequent shuttle bus service from the DART to the Stillorgan Luas and Sandyford Business Park. This service shall open up public transport as an option to the vast hinterland of the DART line from Greystones to Malahide and Howth.
- Coordination with Bus Connects Network review.
- An internal shuttle bus service. This service will provide a more sustainable travel opportunity
 and provide a campus feel to the area. It will also aid in the transporting of people from the
 Luas/Bus Interchange to their destination within the Sandyford Business District

7.5 Bus Connects

Future bus services in the area of the proposed development are set out in Table 12 and illustrated in Figure 5.

The proposed timetable provides for a total of 10 buses in each direction during the AM Peak.

Table 12 Bus Connects Services

Route No	Route	Туре	Frequency AM Peak
S8	Dun Laoghaire – City West	Orbital	15 minutes
86	Ticknock – City Centre	Other City Bound Route	30 minutes
L13	Kilternan – City Centre	Local Route	60 minutes
P13	Kilternan - UCD	Peak Time Route	30 minutes
P16	Ballyboden – UCD	Peak Time Route	60 minutes



Figure 5 Bus Connects - Extract from Dundrum Area Map

7.6 Access to Bus Stops

Walking distances to the bus stops in the area of the proposed development are set out in Table 13. The nearest bus stops are located on Burton Hall Road, Blackthorn Road, and Blackthorn Avenue.

All of the stops are less than 6 minutes' walk from the proposed development.

Table 13 Walking Time to Bus Stops

Location	Stop No	Services	Walk Time from Development
Blackthorn Drive (Carmanhall Road)	3181	11, 47, 75A, 114, 116	3 minutes
Blackthorn Drive (pick up)		Aircoach	4 minutes
Blackthorn Avenue (Blackthorn Drive)	451	11. 47, 116	3 minutes
Blackthorn Avenue (Luas Stop)		47, 114	6 minutes
Burton Hall Road (Arena Road)	448	47, 114, 700	3 minutes

8. Travel Plan

8.1 Strategy for Travel

On an ongoing basis, a strategy of encouraging residents to travel as often as possible to and from the proposed development by modes other than the private car will be implemented by the Management Company.

To this end, the strategy will encourage residents to travel to work by public transport, by cycle / motorcycle and on foot.

The methodology being employed to implement the strategy includes:

- The provision of good levels of accessibility to and serviceability of the development by public transport modes primarily tram and bus services, some of which link to other modes.
- Ease of access to LUAS and bus stops.
- 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 extensive information services for public transport routes at a public location(s) within the development.
- The ongoing updating of public transport information.
- Liaison with the National Transport Authority, Dun Laoghaire Rathdown County Council, Dublin Bus and other bus operators.
- The provisions of extensive cycle parking within the development
- The provision of high quality footpaths and signal controlled pedestrian crossings on the surrounding roads.
- Control on the use of car parking by non-residents

8.2 Local Bus Services

An important element of this Plan is the provision of improved public transport accessibility in addition to the Luas stops on Blackthorn Avenue and the bus stops

To this end, the Management Company will arrange meetings and consultation with public transport service providers. The agenda for these consultations will include the provision of enhanced tram and bus services to the Sandyford area and operational issues such as service frequency, ticket purchase at place of work and fare concessions.

The enhancement of the bus service includes diverted services, variation of existing routes, increased frequency of service and service modifications.

The Management Company and particularly the Travel Plan Co-ordinator will endeavour to maintain close liaison with private coach operators, so that their services are integrated into the overall Strategy. As many of the transportation linkages are outside the ownership of the applicants,

discussions will be held with the appropriate departments of Dun Laoghaire Rathdown County Council.

Issues for discussion in the Sandyford area would include improvements by Dun Laoghaire Rathdown County Council to pedestrian and cycling facilities, improvements to the road network, traffic management measures, how the development could be served by such facilities and how Travel Plan initiatives would integrate with Council policy.

In addition, the Travel Plan Co-ordinator will liaise with the operators of other Travel Plans in the area with a view to improving services by improving accessibility to other services in the surrounding area.

Details of these arrangements will be included in the public transport information, which will be regularly updated by the Travel Plan Co-ordinator.

9. Specific Measures

9.1 Public Transport Information

As the development nears completion, the Management Company will nominate a Travel Plan Coordinator who will co-ordinate the Travel Plan for the development. The Travel Plan Co-ordinator will update and distribute information to the residents.

Detailed information on the availability, timetabling and cost of public transport services will be displayed on the Travel Plan noticeboard.

The information will also be available in the Travel Plan section of the development web site with links to the NTA's web-based journey planner facility.

Public transport information will be collected, monitored and updated by the Travel Plan Co-ordinator on a regular basis.

9.2 Public Transport Fares and Discounts

For those residents who wish to travel by public transport, the Travel Plan Co-ordinator will seek to negotiate reduced fares with Dublin Bus, LUAS, private bus operators and Aircoach for travel on their services.

Details of the fares which can cover travel on one or more services i.e. bus / bus, bus / tram etc. will be posted on the Travel Plan information noticeboard and included in the Travel Plan section of the web site.

If a requested journey is not included in those listed, residents can contact the Travel Plan Coordinator who will seek to negotiate with the operator for reduced cost tickets on their behalf.

Residents who are employees of external companies can avail of the Tax-Saver Plan, whereby their employer can obtain monthly and annual commuter tickets from companies such as LUAS, Dublin Bus and Irish Rail. These can be provided to the employee as a tax-free bonus, or the employee can choose to take a deduction in salary and the employer can provides tickets tax free (equivalent to the amount involved).

The Tax Saver Commuter Ticket Scheme was established in Ireland in 2000 as an incentive for workers in some parts of the country to use public transport. Staff can avail of public transport commuter tickets if travelling for work, by public transport, bus, tram or rail. The scheme includes DART, LUAS, Dublin Bus and private bus operators provided they are approved transport providers.

Information on the operation of the TaxSaver Commuter Ticket Scheme will be posted on the development website.

9.3 Cycling

For those who wish to cycle to and from the proposed development, cycle parking will be available in appropriate locations. Residents can contact the Travel Plan Co-ordinator for details. All cycle parking is free to staff and visitors.

For residents who wish to purchase cycles for cycling to work, the Management Company may seek to negotiate with suppliers to attempt to arrange discounts for staff. Staff can contact the Travel Plan Co-ordinator for details.

The National Transport Authority operate a national Journey Planner and the Travel Plan Section of the development website provides a link to the NTA facility.

9.4 Car Sharing

The Car Sharers Scheme will be operated by the Travel Plan Co-ordinator.

The Scheme will maintain a database of all registered car sharers which will be updated on a regular basis. Car sharers will agree amongst themselves as to how they wish to split the cost of the journey. Arrangements for payment will usually be agreed in advance.

The two usual ways to split the costs are:

- (a) Sharers drive their own cars in rotation so that the costs are distributed evenly over time.
- (b) The driver agrees a contribution with passengers on the basis of mileage or distance.

Members of the Scheme are advised that drivers should be fully insured and must inform their insurance company that they have registered with the Scheme. Most insurance policies cover the driver to carry passengers on a car-sharing basis provided the driver does not receive more than the cost of running the car.

Residents who wish to register with the Scheme can contact the Travel Plan Co-ordinator

9.5 Walking Incentives

To facilitate persons who work within 3 kilometres of the proposed development and wish to walk, the MM Co-ordinator will make representations on their behalf to Dun Laoghaire Rathdown County Council on the local infrastructure in terms of convenience, surfacing, lighting and personal security.

Residents who consider that any of the pedestrian routes to the development could be improved, will be invited to contact the Travel Plan Co-ordinator.

The NTA have a journey planner facility on their website which provides details of routes and journey times and the Travel Plan section of the development website provides a link to the NTA facility.

9.6 Personalised Travel Plan

Personal Travel Plans for residents' use' are being developed in response to demand from publicity material and information published by the NTA.

In light of the foregoing proposed measures, it is considered that a significant gain can be made in the implementation of an effective Travel Plan by asking the right questions at the right time, through travel surveys. A further and more proactive step can be made through the development of a personalised travel plan (PTP) system. The PTP will be operated by the Travel Plan Co-ordinator and will pull together all of the other measures by developing an understanding of an individual's travel needs, journey purpose, etc., and assisting them by preparing optimum solutions.

For example, a person working in another suburb may travel to work by a certain mode because at times outside the working day they may be making linked trips (i.e. to the gym, to the supermarket, dropping off children to school). Many of these secondary trip journeys are undertaken between 08h00 and 09h00 in the morning and after 17h00 in the evening. Thus, while the car may be perceived by the employee as necessary for these secondary trips, during the working day it may not be used at all and results in commuter traffic during the peak hours and long-stay parking during the working day.

In such a case the PTP could assist the employee by identifying alternative working schedules to facilitate undertaking these secondary trip purposes without the need for a car to travel to work.

Alternatively, the individual's knowledge of the transportation options on offer may not be complete and the PTP could identify a better route to / from work. For example, the PTP could identify different mode options, interchange points, cheaper fare options, or improved journey times (in some cases) by non-car modes.

10. Implementation and Co-ordination of the Plan

The Co-ordinator for this Travel Plan will be:

Rory O'Brien,

Management Office,

Atlas GP Ltd,

Carmanhall Road,

Sandyford,

Dublin 18.

Tel : 01 2444011

e-mail : robrien@tavidtech.ie

Website : www.avidtech.ie

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

- · Ongoing assessment of the objectives of the Plan.
- Distribution of the Travel Plan Pack to tenants.
- Promotion of the Travel Plan Pack.
- Implementation of the Travel Plan
- Management of the Travel Plan.

The management functions being undertaken by the Co-ordinator also include:

- Liaison with Luas operators.
- Liaison with Dublin Bus / local bus service providers.
- Liaison with Dun Laoghaire Rathdown County Council.
- Collation and distribution of public transport information.
- Implementation of car sharing programme.
- Implementation of cycling programme.
- · Management of car parking.

11. Monitoring of the Travel Plan

The monitoring of this Travel Plan will be undertaken on behalf of the Management Company by:

Rory O'Brien,

Management Office,

Avid Tack,

Carmanhall Road,

Sandyford,

Dublin 18.

Tel : 01 2444011

e-mail : robrien@avidtech.ie

Website : www.avidtech.ie

The monitors of the Travel Plan undertake various functions including: -

- Assessment of Travel Surveys.
- Verification of modal split.
- · Quantification of traffic volumes.
- · Review of objectives and targets.
- Review of car park management.
- Preparation of reports to Dun Laoghaire Rathdown County Council.
- Liaison with the Travel Plan Co-ordinator.

12. Marketing Pack/Resident Induction Handbook

As part of the implementation of this Plan, the Management Company will provide residents locating at Carmanhall with a Marketing Pack and advise them on details of the Travel Plan.

The pack includes inter alia:

- (a) The Travel Plan.
- (b) Public Transport information.
- (c) Benefits of the Travel Plan for residents
- (d) Travel Survey Form.
- (e) Car Sharing Registration Form.
- (f) Details of pedestrian facilities.
- (g) Car parking management information.

Residents will be encouraged to adopt the Travel Plan with the objective of putting in place efficient and sustainable procedures for all elements including transportation.

UK and Ireland Office Locations

