

4.2 Transportation

It is a fundamental objective of the Cherrywood Planning Scheme to ensure that the future demands for travel are met in a sustainable way. The plan envisages Cherrywood developing as a network of interconnected urban villages and employment/mixed use quarters where walking and cycling will be a convenient alternative to the private car. The strategy of the plan is to limit car usage by making alternative modes of access more attractive. The first phase of development will be directed towards areas with convenient access to Luas stops in order to foster sustainable travel patterns from the outset.

Specific Objective:

PI 13 It is an objective to develop and support a culture of sustainable travel into and within the Planning Scheme.

Development in the Planning Scheme shall constrain work related commuting so as to achieve a transport modal split of 45% trips by car drivers (maximum) and 55% trips by public transport, walking, cycling and other sustainable modes (minimum) as per Government policy (see the Department of Transport's 'Smarter Travel, A Sustainable Transport Future 2009-2020').

4.2.1 Sustainable Travel Targets

The Planning Scheme sets challenging but achievable targets for sustainable travel modes in Cherrywood and identifies the measures for achieving them. Separate targets have been adopted for internal and external trips.

Census 2006 data for 7 Electoral Districts similar to the proposed Cherrywood development showed an existing average of 14% internal trips. Therefore a higher target of 19% is set for Cherrywood as it is an objective to promote internal trips by creating a self sustaining mixed use development, reducing the need for external travel.

National Smarter Travel targets for sustainable travel in the year 2020 have been adopted for external trips. The main objectives of Smarter Travel are to reduce dependency on car travel and long distance commuting, increase public transport modal share and encourage walking and cycling. The policy document supports greater integration between spatial planning and transport policy and sets a target to reduce car based commuting from 65% to 45% by 2020.

Table 4.1: Sustainable Travel Targets

Mode	Mode Share	Measures
Car driver	45% of external trips 15% of internal trips 39.3% overall	A parking strategy will be used to determine car use. Road proposals will limit private car access and prioritise walking, cycling and public transport.
Car sharer	10% of external trips 0% of internal trips 8.1% overall	Car sharing will be promoted through mobility management planning and use of the NTA car share portal.
Luas	25% of external trips 5% of internal trips 21.2% overall	Development will be phased in line with capacity enhancements to Luas.
Bus	12% of external trips 5% of internal trips 10.7% overall	A practical "pump priming" scheme will be introduced to allow for the funding of the extension of bus services and the provision of new bus services as development occurs. This funding will occur over a period of time and will reduce as patronage increases. A development contribution scheme will include the provision of bus infrastructure. Major employers may be required to provide local bus services as part of their Travel Plans. Any new bus services should not duplicate the existing or proposed bus network in the area.
Cycling	5% of external trips 45% of internal trips 12.6% overall	A network of cycleways, covered cycle parking stands at schools, offices and Luas stops and shower and changing facilities at places of employment will promote cycling between different land uses at Cherrywood.
Walking	2% of external trips 30% of internal trips 7.3% overall	A network of footpaths and pedestrian crossings will promote walking between different land uses at Cherrywood.
DART	1% of external trips 0% of internal trips 0.8% overall	The DART would provide connectivity not available by other modes to Northeast Dublin and Greystones.

4.2.2 Potential for Public Transport

Understanding the future distribution of trips to and from the Cherrywood Planning Scheme is fundamental to planning for public transport demand. The demand for public transport is greatest in the am peak hours with trips to work being the dominant travel purpose in this time period. Therefore employment trip projections derived from the model used for the NTA 2030 Transport Strategy for the GDA was used to give an indication of future travel patterns in the Cherrywood Planning Scheme. This data represents all work trips to and from the Cherrywood Town Centre in the three hour period 7am-10am.

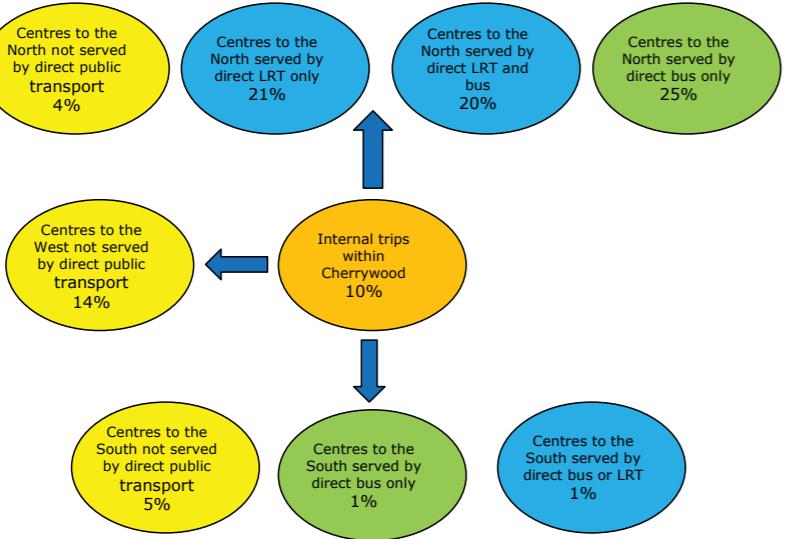
Table 4.2: Distribution of work trips from Cherrywood (NTA 2030 Transport Strategy Model)

District Centre	%
Sandyford	10%
Cherrywood	10%
Point Village	8%
Ballsbridge	7%
Stephens Green	7%
Dún Laoghaire	7%
Bray	5%
North City	4%
Cornelscourt	4%
Dundrum	4%
Blackrock	4%
Rathmines	4%
Tallaght	2%
Kylemore	2%
Kilternan	2%
Stillorgan	2%
Liberties	2%
Other	15%
Total	100%

The model indicates that 10% of work trips from Cherrywood in the 2030 a.m. peak hour would be internal. (The model does not take account of the specific measures proposed in this Planning Scheme to reduce the need for external travel by creating a self sustaining mixed use development.) Externally a large percentage of workers would travel to Sandyford (10%) and to the City Centre locations of Point Village (8%), Ballsbridge (7%), Stephens Green (7%) and North City (4%). There would also be a significant amount of work trips going to the neighbouring centres of Dún Laoghaire (7%), Bray (5%) and Cornelscourt (4%).

The NTA model takes account of land use planning policy, new transport infrastructure, changes to public transport operations, enhanced traffic management arrangements and travel demand management measures. In the 2030 model Cherrywood is connected by Metro / BRT to Bray, the City Centre, Dublin Airport and Swords, while the capacity of the N11 QBC is upgraded to a BRT level of service. A region wide road user charge applies as well as restrictions on parking in the City Centre. When the proposed transport networks for 2030 are taken into account, an approximate indication of the areas served by public transport may be presented as follows (prepared by the NTA):

Figure 4.1: Distribution of work trips from Cherrywood (NTA 2030 Transport Strategy Model)



It can be seen that in the longer-term there is potential for the use of public transport for a large proportion of trips from the Planning Scheme, with only 23% of trips not served by direct public transport.

Table 4.3: Distribution of work trips to Cherrywood (NTA 2030 Transport Strategy Model)

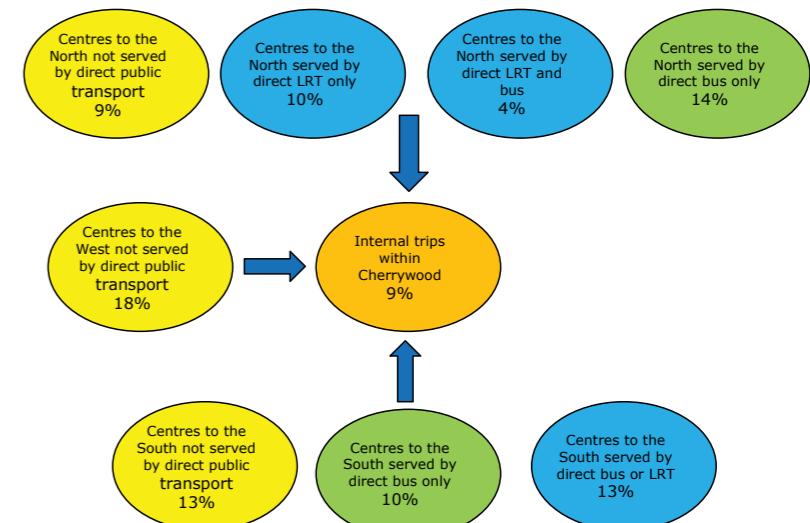
District Centre	%
Bray	13%
Cherrywood	9%
Greystones	7%
Wicklow	5%
Dún Laoghaire	4%
Kilternan	3%
Nutgrove	3%
Sandyford	3%
Arklow	3%
Kilcoole	3%
Cornelscourt	3%
Blackrock	3%
Ballsbridge	3%
Rathmines	2%
Dundrum	2%
Newtown Mt Kennedy	2%
Point Village	2%
Tallaght	2%
Stillorgan	2%
Other	24%
Total	100%

The model indicates that 9% of work trips to Cherrywood in the 2030 am peak hour would be internal. Externally a large percentage of workers would originate in Bray (13%), Greystones (7%), Wicklow (5%) and other areas of County Wicklow (8%). There would also be a significant amount of work trips coming from the neighbouring centres of Dundrum / Sandyford (5%), Dún Laoghaire (4%), and Kilternan, Nutgrove, Cornelscourt, Blackrock and Ballsbridge (3% each).

When the proposed transport networks for 2030 are taken into account, the data may be presented as follows:



Figure 4.2: Distribution of work trips to Cherrywood (NTA 2030 Transport Strategy Model)



In terms of trips to the Planning Scheme, just over a quarter would travel from areas served by rail, including Bray and areas served by Metro North. A significant proportion of trips would come from the north and west, areas not served by rail. Some of this demand may be served by the proposed orbital QBC and associated interchange with light rail.

4.2.3 Potential for walking and cycling

The primary indicator of the potential for walking and cycling is the distance travelled. The majority of walking trips are less than two kilometres, whereas cycling journey distances tend to be between two and ten kilometres in length.

In terms of distance travelled, the 2030 model data indicates that 23% of future trips to work originating in Cherrywood will be less than 5km and a further 27% will be less than 10km. The proportion of future trips to work with a destination in the Cherrywood Town Centre will be 28% less than 5km and a further 22% less than 10km. These percentages show significant potential for cycling and walking to and from locations such as Bray, Sandyford and Dún Laoghaire.

Besides the distance travelled, the potential for walking and cycling will also depend on the quality and convenience of the networks. The difficult topography of the area and the presence of heavily trafficked roads may counter a potential mode shift to walking and cycling. The relative convenience of the private car and public transport will mean that a number of short trips are likely to be undertaken by these modes.

4.2.4 Overall potential for sustainable travel

An assessment of the achievable mode share in the Planning Scheme can be made using data from the NTA 2030 Transport Strategy Model. The mode share for 2030 was extracted for future work trips to and from the Cherrywood zone in the 3 hour am peak period.

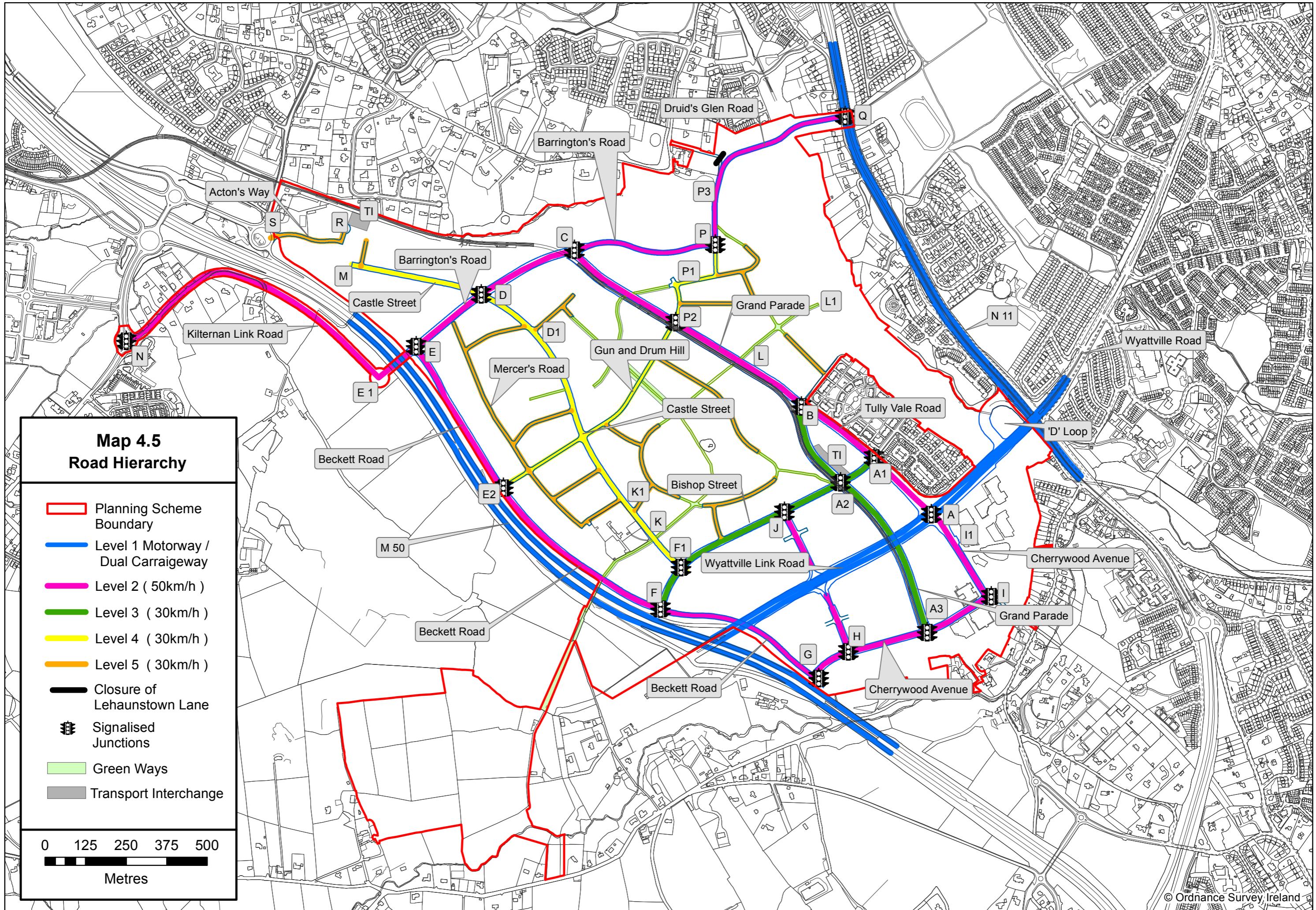
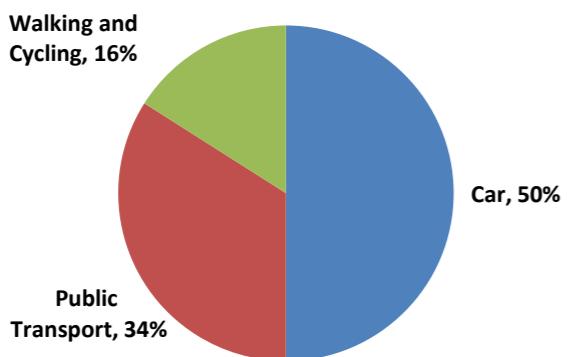
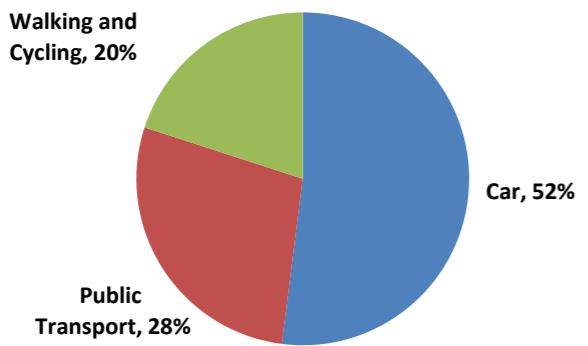


Figure 4.3: Cherrywood Mode Share
(NTA 2030 Transport Strategy Model)

Work Trips to Cherrywood



Work Trips from Cherrywood



It can be seen that the NTA 2030 Transport Strategy Model estimates public transport mode share at 28% to 34%, which agrees well with the overall target of 32% set out in Table 4.1. Walking and cycling at 16% to 20% is estimated slightly lower than the target of 20% and the car mode share at 50% to 51% is estimated slightly higher than the target of 48% for car drivers and car sharers.

However the data confirms that the target mode shares can be achieved by the provision of an excellent public transport service, an attractive environment for walking and cycling and disincentives to the use of the private car.

4.2.5 Existing Transportation Infrastructure

Roads

Cherrywood is well situated adjacent to the strategic national road network. It has access to the M50 motorway at Lehaunstown interchange, which directly links the site into the national inter-urban motorway network and also provides vehicular access to centres to the south (Bray / Wicklow), the north (Sandyford / Dundrum) and the west (Tallaght / Blanchardstown). The site also has access to the N11 dual carriageway at Wyattville interchange, which provides access to Dublin city centre via Cornelscourt, Stillorgan, UCD and Donnybrook.

The Wyattville Link Road traverses the site between the two interchanges. It forms part of a route that has been developed over many years to improve access from Dún Laoghaire town and environs to the N11 and M50. The Glenamuck Road is an important link road to the north of the site between Kilternan and Cornelscourt.

On the northern boundary of the site is Brennanstown Road, a sylvan route that passes through Cabinteely Village and cannot be upgraded to provide adequate access to Cherrywood without seriously undermining the environmental quality of the area.

Cherrywood Road is also sylvan in nature with limited ability to be upgraded. Lehaunstown Lane is a winding, narrow lane that runs through Cherrywood and the alignment, width and character of the road could not serve significant increases in traffic.

Public Transport

The Cherrywood area is served by the N11 QBC and the No.7 bus route. On the N11 QBC in the am peak hour there are currently (2012) seven No. 145/45 buses operating between the City Centre and Wicklow and one No. 84 bus operating between UCD and Newcastle. The No.7 bus operates 5 services between the Cherrywood / Loughlinstown area and the City Centre via Dún Laoghaire. In the short term it is proposed to move the No.7 terminus to a bus / Luas interchange at Bride's Glen stop, where shelters, bus stops, RTPI information signs etc. will be provided (see Map 4.6).

The Luas Green Line traverses the Planning Scheme with stations at Carrickmines, Brennanstown, Lehaunstown, Cherrywood and Bride's Glen. The total journey time from Stephen's Green to Bride's Glen is estimated at 40 minutes. Currently, parts of this service operate 40m trams at up to 18 times in the peak hour (8-9 am) providing an achievable hourly capacity of c.4,200.

Demand for public transport is greatest in the am peak hour. In the 2010 TII Rail Census, the highest am peak hour inbound line flow was 3,740 between Beechwood and Ranelagh. The demand peaks at 8.27am with 294 passengers on board. The highest am peak hour outbound lineflow was 1,647 at the section between Milltown and Windy Arbour. There is more demand from passengers wishing to go to jobs in the city centre than vice versa.

The nearest DART stations to Cherrywood are approximately 2.5km away at Killiney and Shankill. The DART provides a high frequency rail service to Dublin City Centre.

Walking and Cycling

Existing pedestrian and cycle facilities adjacent to Cherrywood include:

- Segregated one-way cycle lanes and footways on Wyattville Road, crossing the N11 to Wyattville Link Road as far as Cherrywood roundabout;
- Pedestrian phases in the various sets of traffic signals at the Wyattville interchange;
- Segregated one-way cycle lanes and footways along the majority of the N11;
- Pedestrian footbridges over the N11 at Johnstown Road and Loughlinstown roundabout;
- Two signalised pedestrian crossings of the N11 between the Wyattville interchange and the Johnstown Road junction (Kilbogget and Shanganagh Vale).

The Planning Scheme Area suffers from high levels of severance due to the steep topography of the Carrickmines and Bride's Glen river valleys and the M50 motorway. The surrounding road network, particularly the N11, is not an attractive environment for cyclists and pedestrians due to the type, speed and volume of the traffic.

The Council, in conjunction with the NTA, is currently progressing two proposals for pedestrian / cycle routes between Cherrywood and Shankill:

- Via Brides Glen viaduct and the grounds of Loughlinstown hospital to the pedestrian bridge at Loughlinstown roundabout and then to Dublin Road, Shankill.
- Via Loughlinstown Main Street (Old Bray Road) and a Toucan crossing of the N11 near its junction with Cherrywood Road and then along the east side of the N11 to Dublin Road, Shankill.

4.2.6 Future Road Strategy

Specific Objective:

- PI 14** It is an objective to implement the road infrastructure (including segregated pedestrian / cycle routes) proposed in this Planning Scheme to facilitate access to and within the area by all travel modes (see Map 4.5).

Four detailed studies have informed the proposed road infrastructure, its deliverability and implementation, namely:

- 1) The Mouchel Parkman Traffic Management Plan (Jan. 2007) was commissioned to optimise and manage the capacity of the existing road network, determine the need for new transport infrastructure to facilitate predicted development growth and define the maximum scale of development that is sustainable in transportation terms.
- 2) The Cherrywood Town Centre Development – Tunnel Appraisal Report (RPS/Delcan April 2007) was a review of a developer proposal to bridge the Wyattville Link Road with streets and buildings linking both sides of the proposed Town Centre.
- 3) The Cherrywood Common Infrastructure Implementation Plan (RPS Feb. 2008) gave practical expression to the Mouchel Parkman Traffic Management Plan and provided a clear and detailed strategy to co-ordinate residential, commercial, retail and other development with the essential economic, social and physical infrastructure required to serve the new community.
- 4) Cherrywood Traffic Study – Update of Traffic Model (RPS May 2010) was a review of the Mouchel Parkman Traffic Management Plan of January 2007 in the context of changes to the infrastructure proposed in the RPS Implementation Plan of March 2008. The study created an updated SATURN Model to demonstrate that the existing and proposed infrastructure would be adequate to cater for the phased Cherrywood Development.

A number of key proposals have emerged to address the constraints on the Plan Area, (see Map 4.5) as follows:

- A new route onto the N11 at Cabinteely will provide essential access into the north-east area of Cherrywood and promote use of the N11 to the maximum extent, while protecting the village of Cabinteely and the character of Brennanstown Road (Barrington's Road and Druid's Glen Road);
- A new route over the M50 will link Cherrywood to Carrickmines and Kilternan / Glenamuck (Kilternan Link Road);

Figure 4.4: Road & Street Sections

