

## 5.0 MOVEMENT

The ‘2030 Vision - Transport Strategy’, published by the National Transport Authority, is the strategic transport plan for the Greater Dublin Area and informs policy making in the LAP. A key overarching aim in the Strategy focuses on reducing the need to travel by private car and encouraging greater use of public and other transport modes - including cycling and walking. The Council, acting primarily as facilitator rather than the direct provider of some sustainable transportation networks, will, nevertheless, have a significant role to play both in the development of an efficient transportation system and in planning for the future transport needs of the County. In pursuing the objective of encouraging modal shift, the Council will cooperate closely with other relevant agencies and stakeholders, including the National Transport Authority.

north of the LAP boundary. Known as “Luas Cherrywood”, the line serves 9 new Luas Stops located at:

- Central Park
- Glencairn
- The Gallops
- Leopardstown Valley
- Ballyogan Wood
- Carrickmines
- Laughanstown
- Cherrywood
- Brides Glen

### 5.1 PUBLIC TRANSPORT

The LAP area is presently served by the Luas Green Line (B1) and three bus services, operated by Dublin Bus. It is envisaged that, with the growth in development in the area, there is potential to improve the range and frequency of bus services, to include Luas feeder buses.



#### 5.1.1 Luas Line B1

The Luas Green Line (B1), 7.5 km extension of the Luas Green Line from Sandyford to Brides Glen, commenced service in October 2010. Luas Cherrywood Line B1 was developed on a Public Private Partnership (PPP) basis and was part funded by the Department of Transport, Tourism and Sport. The total journey time for the Green Line from Brides Glen to Saint Stephen’s Green is less than 40 minutes. The closest stop to the Plan area is the Ballyogan Wood stop on Ballyogan Road to the

The north-eastern portion of the LAP area falls within the catchment of the Luas B1 Supplementary Development Contribution Scheme (SDCS) (Section 49 Levy). This amounts to approximately 15% of the total land area of the LAP. The purpose of this Levy is to part finance the construction of this particular light rail project, including car parks and other ancillary development. The supplementary development contribution is a condition of planning permission for all developments falling within the catchment area of the Scheme and are levied at the stipulated rates.

It is estimated (based on an analysis of the existing developed lands within the Luas catchment and the capacity of the zoned

undeveloped lands) that approximately 30% to 40% of the future estimated total population of the LAP lands will be living within the Luas catchment.

### 5.1.2 Bus Network

There are currently three relatively infrequent bus services that serve the LAP area. They include Route 63, which operates from Dun Laoghaire to Kiltiernan; Route 44, which operates from Dublin City Centre to Enniskerry; and Route 118, which operates from Kiltiernan via Stepside to the Stillorgan Rd Q.B.C. Existing bus stops for these services are shown on Map No. 10. No bus lanes or dedicated layby facilities currently exist on either Glenamuck or Enniskerry Roads

The transportation policies and objectives informing the design of the proposed new roads scheme for the LAP area reflect the central elements of both the 2010 County Development Plan and the NTA's "2030 Vision", a Strategic Transport Plan for the Greater Dublin Area. Each junction on the Scheme has been designed to enable provision of bus lanes/priority through each junction. The Scheme also proposes that space be provided for the provision of bus stops/shelters along the route.

The frequencies and routes of the future bus networks to serve the new development area will be the subject of ongoing discussions between the County Council, the NTA, Dublin Bus and other private bus operators. It will be a requirement that developers pump-prime such provision by their own funding, should such be necessary.

#### **MT01**

***To reduce the need for travel by private car within the LAP by:***

- ***facilitating appropriate frequencies and routings of bus services to address increased population levels, including good linkages to Ballyogan Wood Luas stop on the Luas Green Line,***
- ***providing and/or facilitating the development of an interlinked cycle and pedestrian network that would connect the LAP to the wider locality,***
- ***maximise pedestrian catchment of bus services operating on Enniskerry and Glenamuck Roads,***
- ***encouraging mixed use development to optimise internal trips and make accessibility by non car modes more viable/desirable,***
- ***requiring Commercial/Retail uses to operate Mobility Management Plans to provide incentives to reduce dependence on travel by car.***
- ***To reduce the need for travel by private car within the LAP and to acknowledge the amenity and health benefits of off-road recreational cycling by providing both on-road and complementary off-road cycling facilities within the Plan area.***

## 5.2 Walking and Cycling

It is Council policy (12.1.12 Policy T12 of the CDP 2010-2016) to promote the development of cycling and walking as important forms of movement in the County. In order to promote the development of cycling, the design of all public transport routes and road schemes shall include cycle and pedestrian facilities.

The GDDR (Glenamuck District Distributor Road) Scheme design has included for both pedestrian and cyclist infrastructure along the entire length of the GDDR scheme. It is proposed to provide footpaths and cyclepaths 2.0m wide on either side of the proposed roads. Each junction on the scheme will cater for the signalised controlled movements of both pedestrian and cyclists, with minimal delay (wait time) experienced by pedestrians at junctions.

Given the objective to reduce the need for travel by private car within the LAP by providing and/or facilitating the development of an interlinked cycle and pedestrian network that would

connect the LAP to the wider locality, it is important that other cycle and pedestrian routes are provided within the LAP area.

In this regard the use of the existing Glenamuck Road by cyclists and pedestrians (on an improved alignment) will be facilitated. The traffic improvements proposed for the portion of (traffic calmed) Enniskerry Road aligned through the Kiltiernan Village Core. - from The Church of Ireland Parish site to the north to the Enniskerry/Ballybetagh Road junction must include provisions for cyclists and pedestrians. This is particularly important given the juxtaposition of the two primary schools at either end of this proposed traffic calmed section of roadway.

Controlled pedestrian crossings in the form of flat topped full width ramps preceded by alternative surface material treatments will need to be introduced at the two locations on Enniskerry Road adjacent to the Neighbourhood Centres.

It is also proposed that the indicative Green Way Link linking the future amenity facility on the remediated Ballyogan landfill site via the Wayside Celtic recreation facility to the primary Neighbourhood Centre east of Enniskerry Road will incorporate a walkway / cycleway. While the majority of this route would be off-road, a portion of it would comprise the cycle and pedestrian facilities which form part of the GDDR Scheme.

The Council published a 'Cycle Network Review' (2012), recently, which consisted of a 'County Wide Cycle Network Assessment' and identified a network of 'desire lines' for cyclists. This network of desire lines was generated by identifying the most convenient routes for cyclists between major attraction zones within the County e.g. education centres, employment centres, towns etc. These desire lines formed the basis for the proposed cycle network and includes a proposed route in the Plan area from Ballyogan Road to the Enniskerry Road via the proposed Jamestown Park.

### 5.2.1 Bicycle Parking



The provision of bicycle parking facilities shall be in accordance with the provisions of the County Development Plan, which

requires that secure covered parking facilities be provided close to building entrances for new office blocks, apartment blocks, shopping centres etc.

### 5.2.2 Residential Areas and High Pedestrian Activity Zones

The streets in these areas shall be designed on the basis that a 30km/h special speed zone shall be created, which shall entail installing physical traffic calming measures to ensure such a speed limit can be achieved and in accordance with the Department of Transport (DoT) Guidelines on the imposition of such special speed limits.

<b>MT02</b>	<b><i>To promote maximum accessibility through routes of optimised connectivity and permeability for walking, cycling and public transport while establishing safe infrastructure for all vulnerable road users.</i></b>
<b>MT03</b>	<b><i>It is an objective of the Plan that all new residential and commercial development schemes must include adequate provisions for safe and secure cycle parking facilities at appropriate locations in accordance with County Development Plan standards</i></b>

## 5.3 ROAD NETWORK

### 5.3.1 Primary Road Network

In 2005 Consulting Engineers were appointed by DLRCC to undertake a study on feasible solutions and to produce a Preliminary Design Report of an optimal route option for the Glenamuck District Distributor Road (GDDR) Scheme. It was the intention that this Study would identify an appropriate primary road framework for incorporation into the LAP.

The principal objectives of the GDDR Scheme were:

- To operate successfully as a distributor road to the South Eastern Motorway.
- To improve the capacity of the local road network at peak commuter times and accommodate the various modes of transport.
- To improve access to public transport including LUAS and Quality Bus Corridors.
- To improve road safety and reduce the number of accidents along the existing Glenamuck and Enniskerry Roads.
- To improve provisions for cyclists, pedestrians and other vulnerable road users.

- To promote the economic development within the area as identified in the Dun Laoghaire-Rathdown County Development Plan.

The Consultants in advancing the Study completed a number of reports which informed the 2007 LAP, including 'Existing Conditions' (January 2005), 'Constraints Study' (January 2005), 'Feasibility & Route Selection' (October 2005) and 'Preliminary Design Report' (May 2006). As part of the LAP, the Consultants were required to update the original Preliminary Design Report from 2006 in order to assess whether the existing GDDR design was still appropriate.



Some changes have taken place since the previous 2006 modelling work:

- Changes in the national and regional prospects for growth in demography, employment and income
- The collapse of the property market, which has been particularly pronounced with regard to apartments in high-density blocks.
- Significant rises in real fuel price, and uncertain prospects for further rises in future
- Completion of some major transport infrastructure projects (including M50 and the extension of the Luas Line B1 to Brides Glen)
- Substantial cuts to Government programmes of future investment in transport
- Changes in proposed levels and timing of development in the surrounding areas of DLR
- Changes in proposed access arrangements for planned nearby development at 'The Park' (Carrickmines) and at Cherrywood
- A new direction for transport policy, typified by the Smarter Travel policy agenda, which seeks to limit car travel and encourage walking and cycling, and embodied in the 2030 Vision strategy for the Greater Dublin Area

- Improvements to the NTA model from the 2001-based version used in the 2006 modelling work
- Static or declining traffic levels (analysis of data from the NRA permanent traffic counter at Fassaroe suggests that traffic in the N11 corridor has been declining by around 1.75% per annum since early 2008)

In light of these changes, a 'Traffic Modelling Review' of the Transportation aspects of the LAP was undertaken in 2012 and sought to identify the necessary road infrastructure required for the sustainable development of the whole area. Also identified was a requirement for a regional bus service and also a local feeder bus service to the LUAS stop at Ballyogon Wood.

The 'Traffic Modelling Review' determined that that the main elements of the original design for the GDDR/GLDR (Glenamuck Link Distributor Road) scheme remained robust. Some amendments to the 'Preliminary Design' of 2006 were, however, recommended. These include:

- The reduction in cross-section to single-carriageway for the full length of both the GDDR and the GLDR, save for bus-priority measures and provision for future storage lanes at some junctions.
- It is proposed to introduce two 'bus-gates' at two locations, (i) at the junction of the Enniskerry Road and (ii) the GLDR and the junction of the Glenamuck Road East and the GLDR.
- The removal of the proposed 'Link Road' between the GDDR and existing Glenamuck Road.

To summarise, in terms of road infrastructure, the 2012 Review continued to recommend that an essential minimum provision of a new distributor road system will need to be provided for lands to be developed in a sensible and sustainable manner. This minimum essential (core) level of road infrastructure consists of

- GDDR (Glenamuck District Distributor Road) - Primary Link Road - single carriageway from Enniskerry Road to the Glenamuck Road East/Golf Lane Roundabout
- GLDR (Glenamuck Link Distributor Road) - Primary Link Road - single carriageway from Enniskerry Road to GDDR
- Junction of GDDR and GLDR
- Staggered junction between GLDR and the existing Glenamuck Road (East and West side)
- Junction of GLDR and Ballycorus Road
- Junction of Enniskerry Road and GDDR
- Provision of necessary SuDS attenuation ponds

The basic design philosophy adopted was the provision of a roads network that would allow traffic to/from the north and south of the Enniskerry Road to feed into one road (the GDDR) to facilitate access to/from the M50 and future development lands. The road hierarchy of this design provides for two Standard Two-Lane Single Carriageway sections of road (the GDDR and the GLDR) with capacity for bus priority measures and provision for future traffic storage lanes at some junctions. The existing Enniskerry Road and the existing Glenamuck Road (East and West) will be the main public transport routes for the area. To facilitate and encourage this certain changes will be made to the planned infrastructure. A new bus gate will be provided on the existing Enniskerry Road where it joins with the extended GLDR. This will only allow public transport vehicles, cyclists and pedestrians access to and from Kiltiernan Village from the Enniskerry Road at the bus gate. All other vehicles will not be allowed to make this movement.

The design of the ‘staggered’ junction between the existing Glenamuck Road and the GLDR will facilitate the movement of public transport from Glenamuck Road (West) and the GLDR to Glenamuck Road (East), via a new bus gate. Public transport vehicles, cyclists and pedestrians will be able to access and egress from Glenamuck Road (East) onto the GLDR. All other vehicles will not be allowed to access or egress from Glenamuck Road (East) onto the GLDR.

As referred to above, it is no longer proposed to provide a cul-de-sac at the junction of the Glenamuck Road East and the Glenamuck Road (East)/Golf Lane roundabout. The proposed network provides for the GDDR and GLDR to tie in to the Enniskerry Road to the north and south of Kiltiernan Village respectively. This proposed layout will effectively create a bypass of Kiltiernan Village for traffic in the study area. This provision will remove the majority of extraneous through-traffic from the Village and facilitate the establishment of a more pedestrian friendly, traffic calmed street. The Council will develop proposals for the operation of the ‘bus-gates’ at the detailed design stage for the proposed new road network. The Council will consider whether the bus-gates should operate at ‘peak-times’ only, with little or no restrictions at other times of the day.

### 5.3.2 Secondary Road Network

In addition to the primary road network proposed for the area comprising the GDDR Scheme, a secondary tier of roads is also required in order to provide access to zoned land parcels within the LAP area. The location of a number of these roads, in addition to the existing Glenamuck Road and Ballycorus Road, are informed by the position of other junctions in the GDDR Scheme which are likely to be development driven (i.e. will be designed and constructed subject to future development and planning applications on zoned lands).

With regard to the proposed indicative secondary and tertiary roads network identified in the LAP, there will be consultation with adjoining landowners as part of the detailed design process.

### 5.3.3 Road Objectives (see Map No. 11)

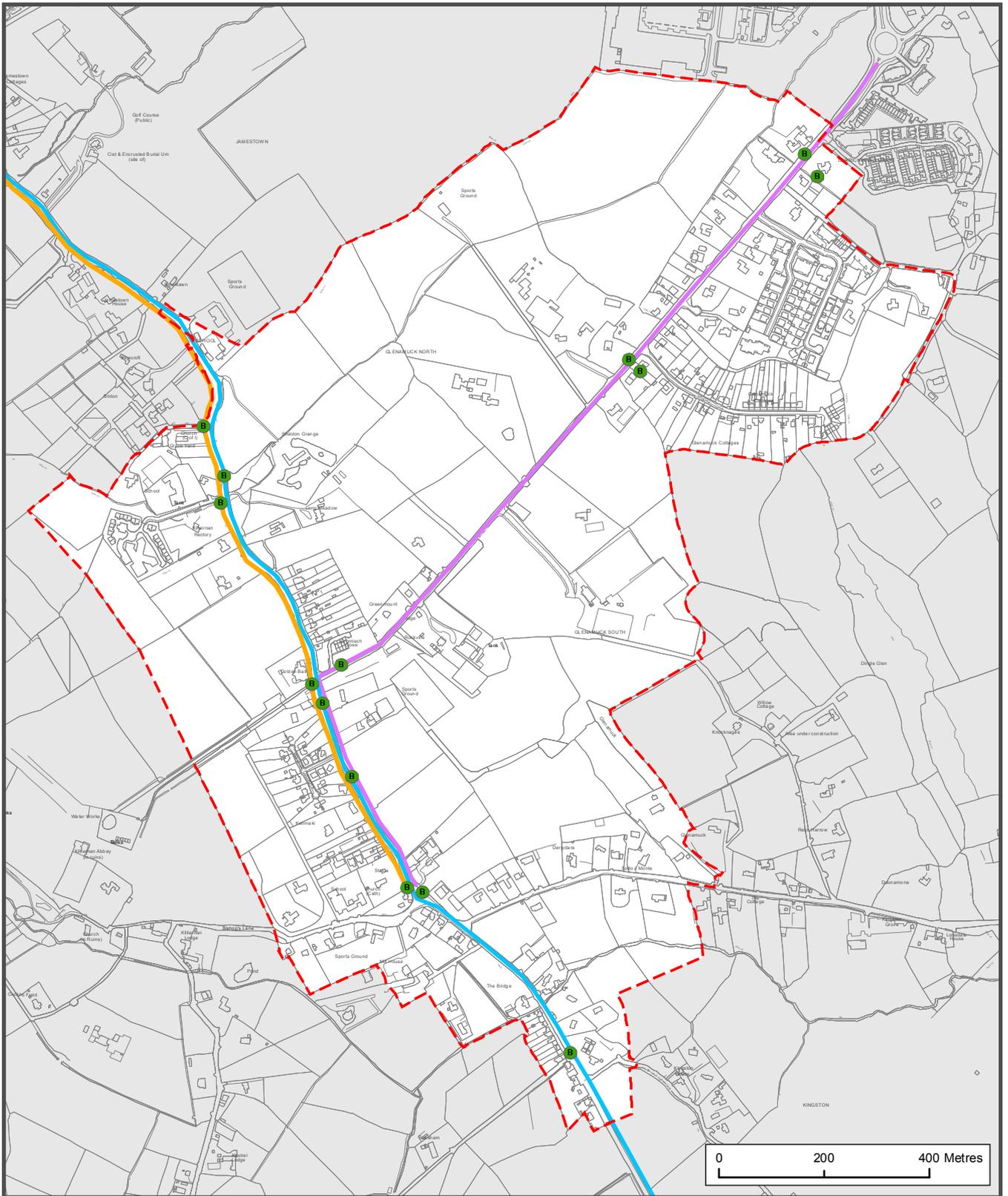
It is a Council objective to facilitate the provision of roads as contained within Table 12.4 of the CDP, 2010-2016, as part of a Six-Year programme. Included on this list are

- Glenamuck Road,
- Enniskerry Road (Stepaside to Golden Ball)
- ‘Kiltiernan/Glenamuck LAP (necessary roads infrastructure).



It is also an objective of the LAP to seek improvements to the existing road network in the area, where necessary. The existing Glenamuck Road, irrespective of the new roads network, requires upgrading in terms of footpath improvements and/or installation, re-surfacing and, most importantly, improvements to address the pinchpoint which restricts traffic movements at a location at the western end of Glenamuck Road, adjacent to Cromlech Close. Whilst undertaking the appropriate

Map 10:



<p><b>Legend</b></p> <ul style="list-style-type: none"> <li><span style="border-bottom: 2px dashed red; width: 20px; display: inline-block;"></span> Local Area Plan Boundary</li> <li><span style="border: 1px solid green; border-radius: 50%; width: 15px; height: 15px; display: inline-block; vertical-align: middle;"></span> Existing Bus Stops</li> <li><span style="border-bottom: 2px solid orange; width: 20px; display: inline-block;"></span> Existing Bus Route 118</li> <li><span style="border-bottom: 2px solid blue; width: 20px; display: inline-block;"></span> Existing Bus Route 44C</li> <li><span style="border-bottom: 2px solid purple; width: 20px; display: inline-block;"></span> Existing Bus Route 63</li> </ul>	<p><b>Adopted Kiltiernan/Glenamuck Local Area Plan 2013</b></p> <p><b>Map 10 Existing Bus Routes &amp; Bus Stops</b></p>	<table border="1" style="width: 100%;"> <tr> <td colspan="2" data-bbox="1077 1758 1276 1848"> <p><b>Planning and Enterprise Department</b> G. Hayden Director of Planning</p> </td> <td data-bbox="1276 1758 1489 1848" style="text-align: center;">                   Dun Laoghaire-Rathdown County Council             </td> </tr> <tr> <td colspan="3" data-bbox="1077 1848 1489 1960" style="text-align: center;"> <p><small>Includes Ordnance Survey Ireland data reproduced under OSI Licence Number 2012/25 CCMA/ Dun Laoghaire-Rathdown County Council. Unauthorised reproduction infringes Ordnance Survey Ireland and Government of Ireland copyright. © - Ordnance Survey Ireland, 2013.</small></p> </td> </tr> <tr> <td data-bbox="1077 1960 1276 1993"> <p><b>Senior Planner:</b> D. Irvine</p> </td> <td colspan="2" data-bbox="1276 1960 1489 1993"> <p><b>A/Chief Tech.:</b> M. Hevehan</p> </td> </tr> <tr> <td data-bbox="1077 1993 1276 2027"> <p><b>Prepared By:</b> C. Fulcher</p> </td> <td colspan="2" data-bbox="1276 1993 1489 2027"> <p><b>Drawn By:</b> M. Hennessy</p> </td> </tr> <tr> <td data-bbox="1077 2027 1276 2085"> <p><b>Date:</b> October 2013</p> </td> <td data-bbox="1276 2027 1348 2085"> <p><b>Scale:</b> 1:10000</p> </td> <td data-bbox="1348 2027 1489 2085"> <p><b>Drawing No.:</b> PL-13-412</p> </td> </tr> </table>	<p><b>Planning and Enterprise Department</b> G. Hayden Director of Planning</p>		 Dun Laoghaire-Rathdown County Council	<p><small>Includes Ordnance Survey Ireland data reproduced under OSI Licence Number 2012/25 CCMA/ Dun Laoghaire-Rathdown County Council. Unauthorised reproduction infringes Ordnance Survey Ireland and Government of Ireland copyright. © - Ordnance Survey Ireland, 2013.</small></p>			<p><b>Senior Planner:</b> D. Irvine</p>	<p><b>A/Chief Tech.:</b> M. Hevehan</p>		<p><b>Prepared By:</b> C. Fulcher</p>	<p><b>Drawn By:</b> M. Hennessy</p>		<p><b>Date:</b> October 2013</p>	<p><b>Scale:</b> 1:10000</p>	<p><b>Drawing No.:</b> PL-13-412</p>
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improvements, it would be an objective to, where possible, retain the sylvan character of the Glenamuck Road corridor.

Notwithstanding the long term road (improvement) objective pertinent to Enniskerry Road, the section of Enniskerry Road that traverses the Kiltiernan civic node will require upgrading. This is to take the form of setting back developments to create widened pavements to encourage 'lively streets', the upgrading of footpaths and the installation of traffic calming measures including surface treatment of the roadway at selected pedestrian crossing points. In order to further discourage through traffic via this section of road, other further positive measures including restrictions may be required to achieve this objective.

Traffic management measures, including a possible cul de sac, will be introduced to the indicative loop road through Parcels 12 and 13a to actively discourage potential 'rat-running' to and from Ballybetagh Road and Enniskerry Road in the village centre.

### 5.3.4 Parking and Loading Requirements

Parking and loading facilities to be introduced in the Plan area shall be in accordance with the provisions of the County Development Plan.

New developments within the LAP area shall be designed to accommodate, but not be dominated by the car. Car parking provision shall be integrated in terms of layout, surface treatment and screen planting. Car parking provision in new residential estates shall preferably be underground. Where this is not feasible, however, car parking spaces shall be provided in locations which are convenient for residents, but should not dominate the layout. Methods for softening the parking provision e.g. screening, different surface treatments shall be implemented.

Parking provision for the Primary Neighbourhood Centre shall preferably be underground. If not feasible, then car parking shall be provided at a location that does not impinge on/ detract from areas where the focus is on providing a boulevard setting for the pedestrian shopper/patrons. This parking may need to be provided to the 'rear' of the facility and/or screened.

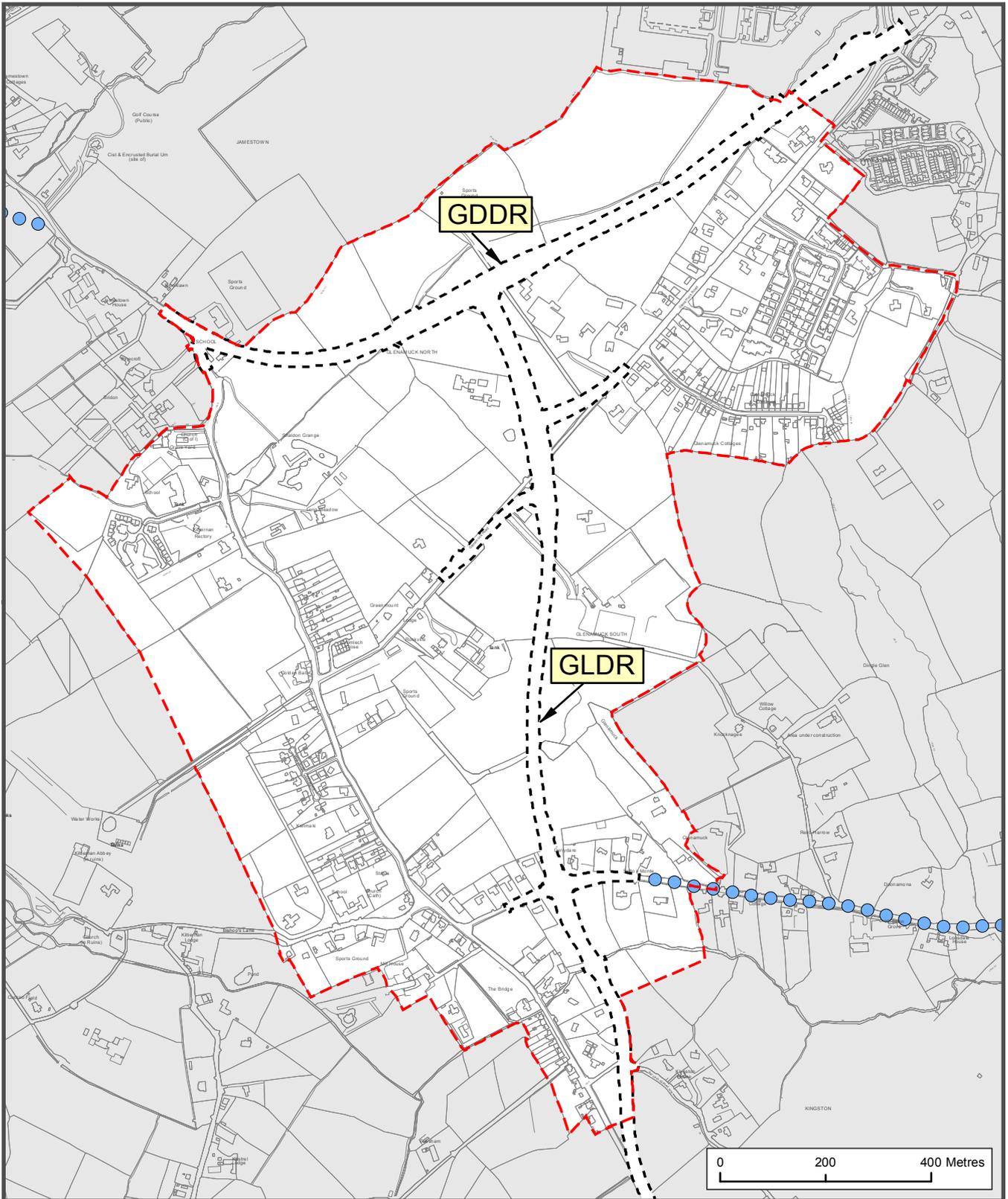
It is an objective of the Plan that adequate parking should be provided and in this regard, the parking standards as set out in the 2010-2016 County Development Plan will fully apply to commercial and retail developments which are proposed both in the Neighbourhood Centre lands and the Employment zoned lands in the Plan area.

Car parking spaces shall not be provided on the (proposed) Glenamuck District Distributor Road, the associated Link Distributor Road, other main access roads, stipulated sections of Enniskerry Road.

### TRANSPORTATION OBJECTIVES:

<b>MTO4</b>	<i>To establish the function, shape and usage of the strategic road network generally within the LAP area.</i>
<b>MTO5</b>	<i>To establish the future function of Glenamuck Road in terms of providing local access (including car, bus, pedestrian and cycle) to the wider strategic road network.</i>
<b>MTO6</b>	<i>To establish the appropriate functions of Enniskerry Road in terms of minimising through movements while accommodating locally generated movements (car, pedestrian and cycle) from future developments, and also potential future movements associated with the planned neighbourhood centre facility.</i>
<b>MTO7</b>	<i>To introduce appropriate traffic calming measures and to divert through traffic away from the future LAP civic node in order to address issues such as safety, noise and air pollution, and the potentially negative severance of the component parts of the LAP area.</i>
<b>MTO8</b>	<i>In acknowledgement that some car usage is inevitable, to stipulate maximum car parking provision for differing development types on a demand management basis with appropriate restrictions on on-street parking in order not to undermine that objective.</i>
<b>MTO9</b>	<i>To have regard to the EU Ambient Air Quality Directive, the EU Ozone Directive, the EU guidance documents Greening Transport (EU 2008) and A Sustainable Future for Transport (EU 2009) and the National Transport Strategy Smarter Travel: A Sustainable Transport Future (DTTS 2009) to develop strategies which better reflect the real costs that transport volumes and emissions impose onto society, environment and economic efficiency.</i>
<b>MT10</b>	<i>New developments shall provide noise mitigation measures (e.g. boundary walls and/or double/triple glazing) to reduce noise caused by new roads to within acceptable levels.</i>
<b>MT11</b>	<i>To ensure implementation of the Dublin Agglomeration Environmental Noise Action Plan.</i>

Map 11:



<p><b>Legend</b></p> <ul style="list-style-type: none"> <li><span style="border: 2px dashed red; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> Local Area Plan Boundary</li> <li><span style="border-bottom: 2px dashed yellow; display: inline-block; width: 20px; margin-right: 5px;"></span> 6 Year Road Proposal</li> <li><span style="color: blue; font-size: 20px; margin-right: 5px;">● ●</span> Long Term Road Proposals</li> <li><span style="border: 1px solid black; padding: 2px; display: inline-block; margin-right: 5px;">GDDR</span> Glenamuck District Distributor Road</li> <li><span style="border: 1px solid black; padding: 2px; display: inline-block; margin-right: 5px;">GLDR</span> Glenamuck Link Distributor Road</li> </ul>	<p><b>Adopted Kiltiernan/Glenamuck Local Area Plan 2013</b></p>	<p><b>Planning and Enterprise Department</b> G. Hayden Director of Planning</p>	 <p>Comhairle Contae County Council</p>
<p><b>Map 11 2010 - 2016 County Development Plan Objectives - Roads</b></p>		<p><small>Includes Ordnance Survey Ireland data reproduced under OSI Licence Number 2012/25 CCMA/ Dun Laoghaire-Rathdown County Council. Unauthorised reproduction infringes Ordnance Survey Ireland and Government of Ireland copyright. © - Ordnance Survey Ireland, 2013.</small></p>	
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<p><b>Date:</b> October 2013</p>		<p><b>Scale:</b> 1:10000     <b>Drawing No:</b> PL-13-413</p>	

## 6.0 ENVIRONMENTAL INFRASTRUCTURE

The LAP area is relatively well-served in relation to water and drainage infrastructure, in comparison to other strategic development nodes in the County. The recent completion of both the Kiltiernan–Glenamuck Water and Drainage Scheme and the Sandyford High Level Water Supply Scheme have significantly enhanced the amount of serviced land in the area.

### 6.1 Foul Drainage



Traditionally, developments in the Kiltiernan/Glenamuck Area were served by septic tanks and/or separate waste water treatment systems.

The completion of the Kiltiernan/Glenamuck Water and Drainage Scheme in 2009 involved the construction of a new gravity sewer and a watermain connecting Kiltiernan (village) to the existing network at Carrickmines and Ballyogan. A pumping station is situated at Kiltiernan Bridge which links Ballybetagh Road to the Carrickmines Sewer. A sewerline has also been installed between Kiltiernan Hotel and this Pump Station, serving some of the Scalp Area.

The Scheme also included a new sewer/watermain to serve houses/cottages (55 no. in total) on a section of Glenamuck Road, Glenamuck Cottages road and Rockville Drive and the decommissioning of the Council’s communal septic tank on a site at the top of Rockville Drive.

The LAP area is within the catchment of the Shanganagh Bray Waste Water Treatment Plant. The upgrade of the plant was recently completed and it now has capacity to treat effluent from a 186,000 population equivalent and the potential to increase capacity to 248,000 in the future for the wider conurbation on the Dublin/ Wicklow border.

The upgrading of the Shanganagh Wastewater Treatment Works includes the provision of high level secondary treatment, and the laying of a pipeline from Bray Pumping Station to the new Shanganagh plant to bring wastewater for treatment. The upgrade works brought to an end the discharge of untreated wastewater into the Irish Sea at this area and safeguards and protects water quality at Killiney Beach and Bray Strand to meet EU standards.

The very significant additional capacity now available at the Shanganagh Bray Waste Water Treatment Works can comfortably accommodate the projected population increase in the LAP area.

### 6.2 Water Supply

Water supply for the LAP area is facilitated primarily through the recently completed Sandyford High Level Water Supply Scheme. This Scheme consisted of the provision of pumping plant, rising main, service reservoirs and distribution mains to improve security of existing water supply and to facilitate development in Sandyford, Ballyogan, Stepside and adjoining areas. The Scheme was officially opened in 2011 and provided extensive new water supply infrastructure to the southern part of the County. The project addressed a number of issues relating to drinking water supply by providing a single source of supply, elimination of small variable sources, adequate storage, adequate pressures and capacity to meet future demand. The new water supply scheme has the potential to serve up to 60,000 residents.

The Sandyford High Level Water Supply Scheme comprises two supply areas, a low level supply area with a new 12,500m<sup>3</sup> storage reservoir at Aiken’s Village and a high level supply area with a new 10,000m<sup>3</sup> storage reservoir at Burrow Road in Stepside. Two pumping stations, a chlorination plant, a control building and 12km of new watermains have also been constructed as part of the project.

### 6.3 Surface Water Drainage

Having regard to Sustainable Drainage Systems (SuDS), it is the policy of the Council that all new relevant developments be required to incorporate Best Management Practices for the disposal of storm water drainage. Specifically, developments should generally comply with all relevant criteria set out in the U.K. CIRIA (Construction Industry Research & Information

Association) document– “Sustainable Urban Drainage Systems – Design Manual for Scotland and Northern Ireland”.

As with all matters pertaining to Drainage, development must be carried out in accordance with the requirements of the policy documents arising from the Greater Dublin Strategic Drainage Study (GSDSDS).

## OBJECTIVES

<b>Elo1</b>	<i>To ensure the implementation of the EU Drinking Water Directive in order to achieve and improve appropriate water quality standards for the LAP for human consumption while conditioning development dependent on sufficient water supply</i>
<b>Elo2</b>	<i>To ensure the implementation of the European Communities Drinking Water (No.2) Regulations 2007, S.I. No. 278 of 2007 and the EPA 2010 guidance on the Implementation of the Regulations for Water Services Authorities for Public Water Supplies. These regulations shall be applied for increased penalties in case of non-compliance and programmes to minimise water supply leakage shall be developed.</i>
<b>Elo3</b>	<i>To require that all development relating to water supply and waste water treatment are subject to Appropriate Assessment to ensure there are no likely significant effects on the integrity, defined by the structure and function, of any Natura 2000 sites and that the requirements of Article 6 of the EU Habitats Directive are met.</i>
<b>Elo4</b>	<i>To ensure the implementation of the EU Urban Waste Water Directive and its transposition into Irish legislation, namely the Urban Waste Water Treatment Regulations 2001 and 2004.</i>
<b>Elo5</b>	<i>To ensure the changeover from septic tanks to mains connections in all cases where this is feasible and that all new developments utilise and connect to the existing wastewater infrastructure. The provision of individual septic tanks and treatment plants in the LAP will be strongly discouraged to minimise the risk of groundwater pollution. Where such facilities are permitted, full compliance with the prevailing regulations and standards will be required, including the EPA 2009 Code of Practice: Wastewater Treatment and Disposal Systems Serving Single Houses (p.e.≤ 10).</i>

<b>Elo6</b>	<i>To promote assessment of the adequacy of the existing wastewater treatment facilities in terms of both capacity and performance as well as potential risk to human health and water quality.</i>
<b>Elo7</b>	<i>To ensure the implementation of the EU Water Framework Directive and its transpositions into Irish legislation.</i>
<b>Elo8</b>	<i>To implement the specific relevant objectives and measures for individual water bodies set out in the Eastern River Basin Management Plan and associated Programme of Measures, where relevant. To ensure the implementation of the surface water legislation Environmental Objectives (Surface Waters) Regulations 2009 S.I. No 272 of 2009 and the EPA report Water Quality in Ireland 2007-2009 in order to achieve general improvements of any water supplies in the LAP.</i>
<b>Elo9</b>	<i>To require that a Sustainable Drainage System (SuDS) is applied to any development and that site specific solutions to surface water drainage systems are developed, which meet the requirements of the Water Framework Directive and associated River Basin Management Plans.</i>
<b>Elo10</b>	<i>It is a policy of the Council to facilitate the provision, upgrading and maintenance of adequate and appropriate waste water services and water supply to service new developments and in assessing applications will require that development proposed will only take place where appropriate sustainable waste water infrastructure is in place.</i>

## 6.4 Gas Mains (Bord Gais)

Gas infrastructure exists in the area in the form of a gas main along the Enniskerry Road and a section of the Glenamuck Road. It is anticipated that future developments would be supplied from these existing gas mains.

## 6.5 Waste Management/Landfills

Further to the opening of the Ballyogan Recycling facility<sup>2</sup> off Ballyogan Road in November 2004, the Ballyogan Landfill, which had been in operation for some 20 years, was closed.

<sup>2</sup> The Recycling Park was approved and licenced by the Environmental Protection Agency (EPA) to process household and commercial waste, collected by, and on behalf of, the local authority. No industrial hazardous waste will be accepted. The design of the Park incorporates measures to minimise interference and disruption to nearby properties, whilst encouraging the public to use the facility to re-cycle their waste. The compilation of an Environmental Impact Statement (EIS) (July 1998) was undertaken as part of the planning for the recycling park.

It is intended that the landfill site will be restored to a public amenity area. A portion of this area abuts the north-western boundary of the LAP area.

The restoration of the former Ballyogan landfill includes being capped (covered) and restored to a recreational parkland (Jamestown Park). The rehabilitation of the landfill is substantially underway with a phased development anticipated. Subject to available finance, it is planned to provide facilities for mountain biking and BMX as well as a playground and off-leash area for dogs.

<b>El11</b>	<b><i>To ensure the implementation of the EU Waste Framework Directive and its affiliated directives, namely the EU IPPC Directive, the Landfill Directive and the WEEE Directive.</i></b>
<b>El12</b>	<b><i>Prevent and minimise the generation of waste in accordance with the Waste Management Plan for the Dublin Region while minimising waste to landfill and considering suitable alternatives.</i></b>

## 6.6 Electricity

### 6.6.1 Existing services

The LAP Area is traversed by three ESB High Voltage Cables (i.e. 110kV or higher) (see Map No. 14). They are as follows:

- Carrickmines-Fassaroe East 110kV line which originates from the Carrickmines 220kV Station located at the Ballyogan Road and crosses Glenamuck Road at the road entrance leading to the Carrickmines Equestrian Centre.
- Carrickmines-Fassaroe West 110kV line which also originates from the Carrickmines 220kV Station and which crosses Glenamuck Road further to the south of the Carrickmines-Fassaroe East line.
- The Arklow-Carrickmines 220kV Double Circuit Line also originates from the Carrickmines 220kV Station and crosses Glenamuck Road at a location in the vicinity of the zoned Open Space site.

For planning and development purposes, certain limits are imposed on building adjacent to transmission lines, especially in the case of suburban-type residential developments and commercial/industrial developments. These restrictions are as follows:

<b>110kV Lines</b>	A minimum lateral clearance of 20 metres either side of the centreline (i.e. a 40m wide restricted corridor)  A clearance of 23 metres must be allowed for any tower leg.
<b>220kV Lines</b>	A minimum lateral clearance of 30 metres either side of the centreline (i.e. a 60m wide restricted corridor)

There are also a number of low (10KV) and medium (38KV) voltage cables that traverse the LAP area. There are no specific clearance requirements required by ESB for these cables, although for 38kV lines, ESB may need to re-inforce or divert the line/s.

No underground ESB cable routes exist within the LAP area.

### 6.6.2 Future Capacity

The ESB have indicated the estimated development forecast for the LAP area (both residential and retail/commercial development) could readily be accommodated utilising the existing substation capacity. However, the Medium Voltage (MV) network would need to be upgraded to feed the new load as it develops. The anticipated extent of this could only be determined when more specific development proposals are advanced.

The restriction limits imposed on building adjacent to transmission lines shall be adhered to. Any new large-scale commercial and residential developments shall have regard for the application of guidelines pertaining to electrical requirements as issued by ESB Networks.



### 6.6.3 Undergrounding of ESB Cables

The Council have been involved in ongoing consultation with ESB Networks regarding the possibility of undergrounding the high voltage cables that traverse the LAP area. A feasibility study was prepared by ESB Networks in 2010, which examined the 220kv line options including; undergrounding the line, diverting it or maintaining its existing route. The report recommended maintaining the existing overhead route as a “realistic and feasible option”, but stressed that “one of the undergrounding and diversion options could also be considered further.”

The Council, in conjunction with ESB Networks, will continue to explore the feasibility of undergrounding/rerouting the 220kv double circuit powerline that traverses the LAP area.

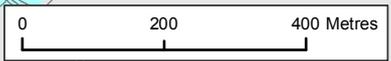
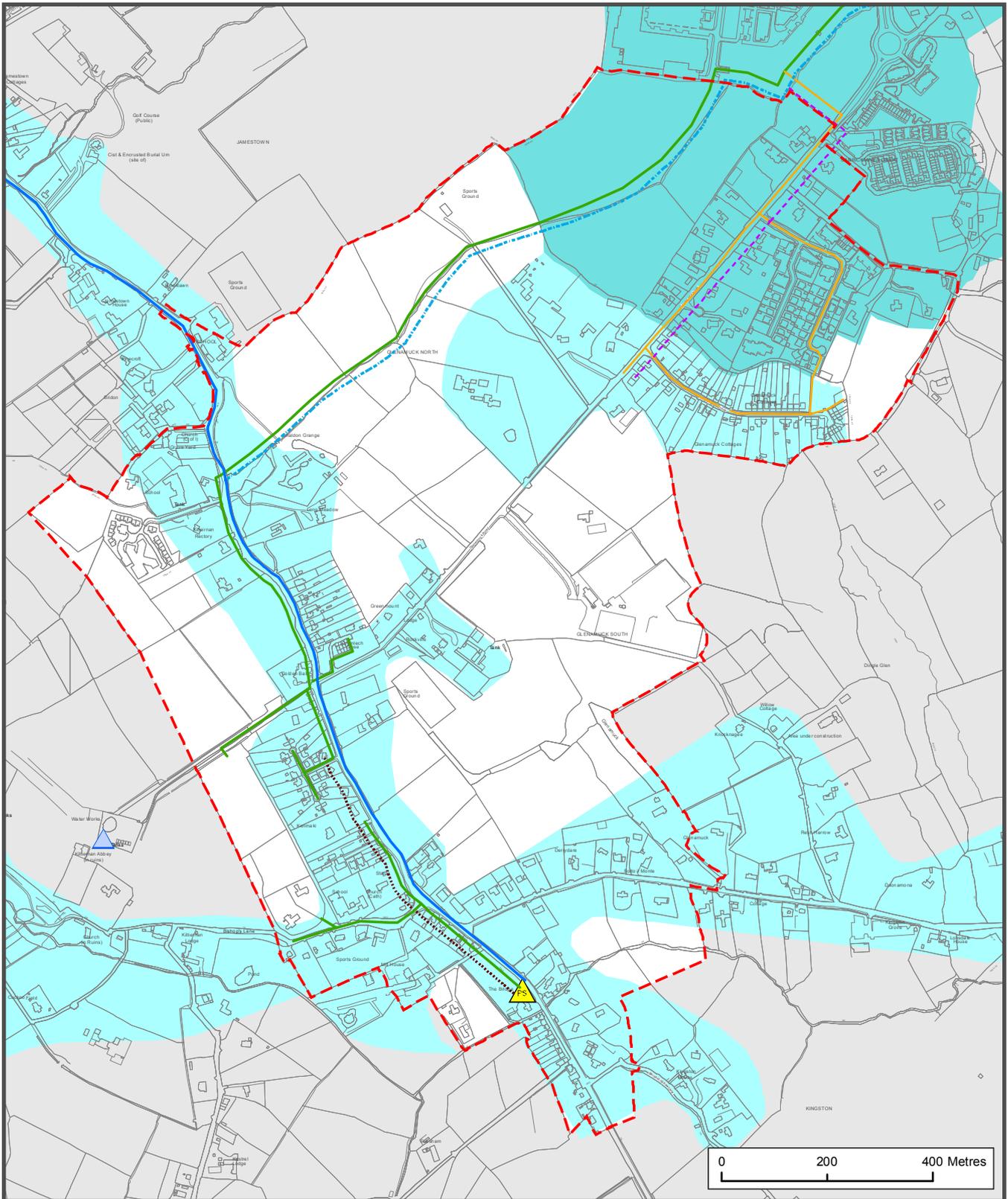
**E13**

*It is an objective of the Council that high voltage transmission lines in the Plan area be undergrounded, both to improve the visual amenities of the area and to remove the constraints to development presented by the lines. To this end, the Council will work with Eirgrid, ESB Networks and other relevant stakeholders. To encourage and/or facilitate the undergrounding of the Arklow-Carrickmines double circuit 220/110kV transmission line and the Carrickmines-Fassoroe 110kV transmission lines Nos. 1 and 2. Where undergrounding is not feasible, to sensitively incorporate any restriction corridors associated with said powerlines into the design of future developments.*

## 6.7 Telecommunications

There are a number of current telecommunications providers within the Plan Area. It is anticipated that the fibre network will be extended with the development of the proposed road network. This should be considered at the detailed design stage of the roads.

Map 12:



Legend	
	Local Area Plan Boundary
<b>WASTE</b>	
	SLI 450mm Gravity Sewer
	VS 225mm Sewer
	Pumping Station Rising Main 150mm
<b>WATER SUPPLY</b>	
	Pump Station
	Water Treatment Plant
	Catchment of High Level Scheme
	Catchment of Low Level Scheme

<p><b>Adopted Kiltiernan/Glenamuck Local Area Plan 2013</b></p> <p><b>Map 12 Water &amp; Foul Drainage Schemes</b></p>	<p><b>Planning and Enterprise Department</b> G. Hayden Director of Planning</p>	
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<p>Prepared By: C Fulcher</p>	<p>Drawn By: M Hennessy</p>	
<p>Date: October 2013</p>	<p>Scale: 1:10000</p>	<p>Drawing No: PL-13-414</p>