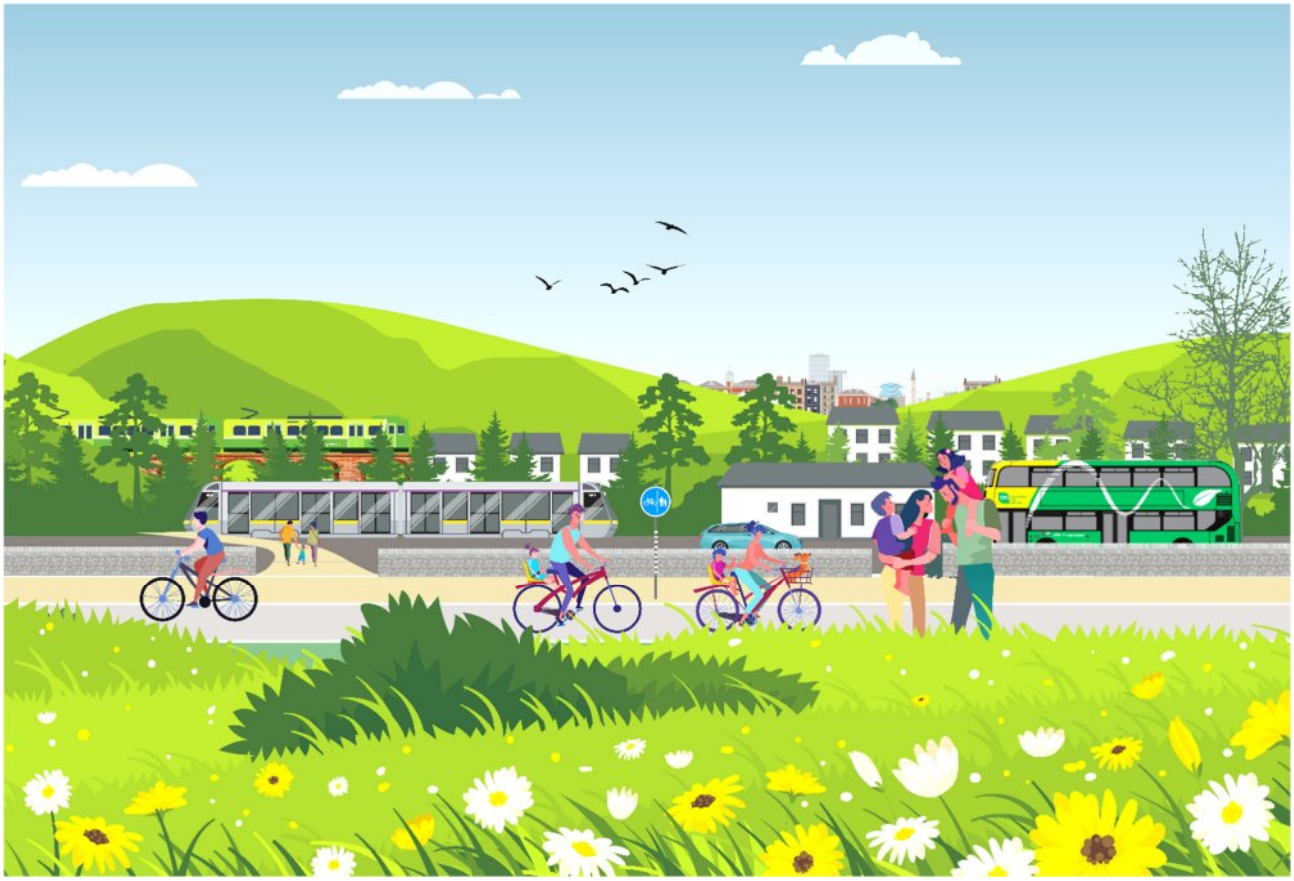
Dún Laoghaire-Rathdown County Council

Infrastructure Capacity Assessment Study

Part 4 - The Draft ICAS



Ove Arup & Partners Ireland Limited
50 Ringsend Road
Dublin 4
D04 T6X0
Ireland
arup.com

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Disclaimer

All information contained within this ICAS Part 4 Report is point in time and should not be relied on for any purpose other than for which it was prepared, that being to inform the ICAS Study. The information contained herewith is preliminary in nature and indicative only. All information may be subject to further consideration and assessment.

1. Introduction

Arup was commissioned by Dún Laoghaire-Rathdown County Council (dlr or "the County") to complete a high-level strategic Infrastructural Capacity Assessment Study (ICAS) to inform the proposed Old Connaught and Rathmichael Local Area Plans (LAP) in the southeast area of the County.

The overarching purpose of the ICAS is to identify the high level strategic enabling infrastructure to facilitate plan-led development of the two proposed LAP areas of Old Connaught and Rathmichael.

A key objective of the ICAS is to prepare a high-level implementation plan to include a phasing programme and set out the strategic infrastructure and service requirements for each phase of development in both proposed LAP areas, so that key elements of strategic infrastructure are delivered in tandem with development.

1.1 ICAS Part 4 - The Draft Study

This Part 4 Report comprises the Draft ICAS Study.

The purpose of this Report is to set out the proposed high level strategic enabling infrastructure requirements to support the plan-led development of the Old Connaught and Rathmichael LAP areas. The process of identifying the infrastructure requirements for the LAP areas is detailed in the ICAS Part 3 Report.

This Report progresses the ICAS Part 3 Report by setting out a high-level implementation plan including a phasing programme, setting out the strategic enabling infrastructure and service requirements for each phase of development in both LAP areas, so that key elements of strategic infrastructure are delivered in tandem with development. It is noted that not all infrastructure identified in the Part 3 Report is categorised as strategic enabling infrastructure for the purpose of inclusion in a phasing programme. Furthermore, this Part 4 Report outlines means of funding to support same.

It is highlighted that the contents of this ICAS Part 4 Report are informed by the preceding ICAS Reports prepared including: The Part 1 - Baseline Assessment; The Part 2 - Positions Report; and the Part 3 - Options Development and Assessment Report. This Part 4 Report should therefore be read in conjunction with these preceding Reports, with the pertinent components to progress the Part 4 included herein.

1.2 ICAS Study Area

The ICAS Study area is located in the south-east of the County and incorporates the boundaries of the two proposed Local Area Plans of Old Connaught and Rathmichael, see Figure 1-1 overleaf.

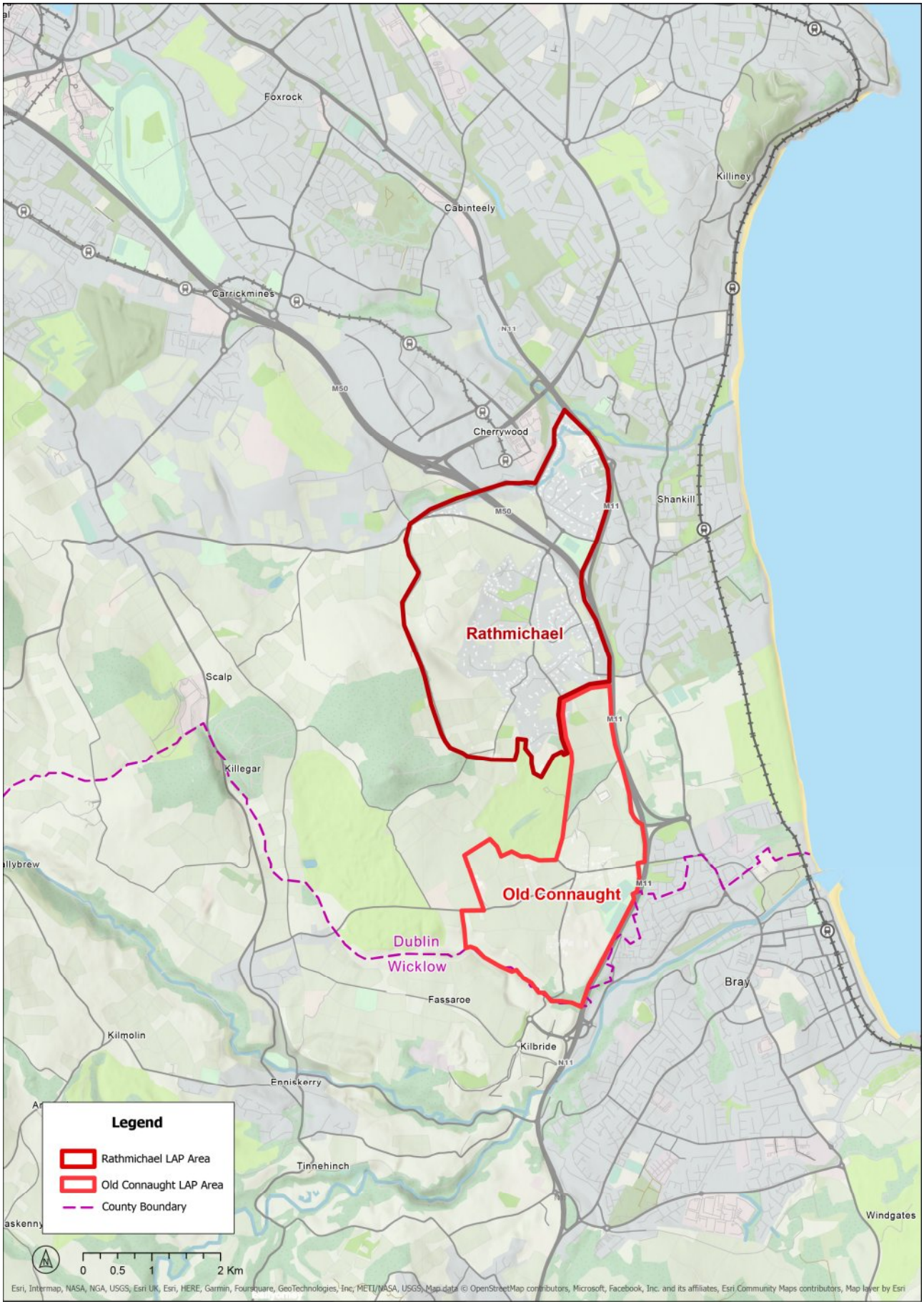


Figure 1-1: ICAS Study Area

1.3 Assessment Methodology

This Report comprises Part 4 in the ICAS assessment methodology.

The overall ICAS study methodology is broadly based on the Area Based Transport Assessment (ABTA) approach, see Figure 1-2. The availability of guidance for non-transport related infrastructure to support the development of sustainable communities is variable, and the ICAS therefore applied specific evidence based analysis to support recommendations with respect to other infrastructure requirements.

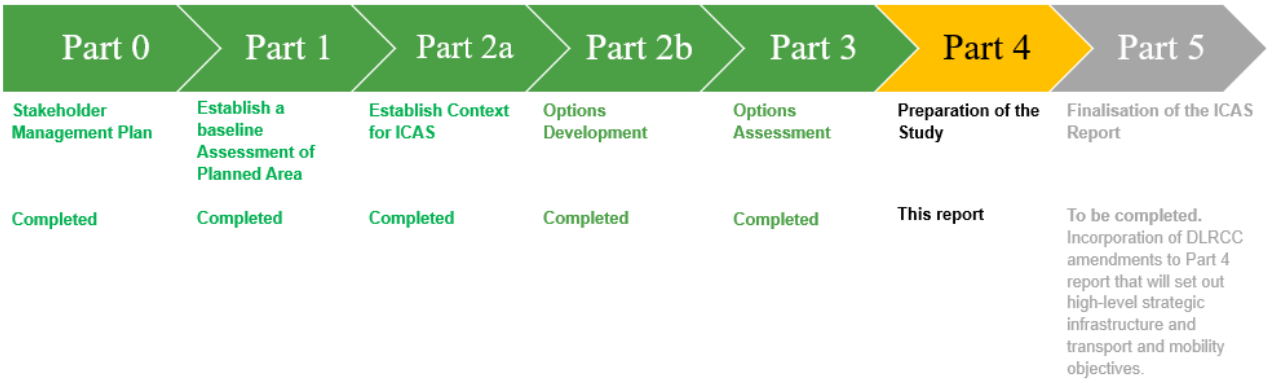


Figure 1-2 ICAS Methodology

1.4 Report Structure

This report provides a high level overview of the outcomes of the options development and assessment process, along with the preferred scenario for each LAP area. Following this, an outline of the proposed phasing is provided in Chapter 3, followed by implementation and funding, along with monitoring and evaluation, in Chapters 4 and 5 respectively.

This report is structured as follows:

- Chapter 1 – Introduction;
- Chapter 2 – Old Connaught and Rathmichael Infrastructure Requirements;
- Chapter 3 – Phasing of Development;
- Chapter 4 – Implementation and Funding;
- Chapter 5 – Monitoring and Evaluation;
- Chapter 6 – Conclusion.

2. Old Connaught and Rathmichael Infrastructure Requirements

2.1 Overview

This Chapter details the infrastructure requirements identified in the ICAS Part 3 Report - Options Development and Assessment - to support the plan-led development of the Old Connaught and Rathmichael LAP areas.

The development and assessment of transport options in the ICAS Part 3 Report was based on the Area Based Transport Assessment (ABTA) process while the options development and assessment process for other disciplines / infrastructure was based on methodologies specific to discipline requirements and needs.

Please refer to the ICAS Part 3 Report for more information with regards to the analysis and assessments undertaken in order to identify the infrastructure requirements set out herein.

2.2 Transport Infrastructure

The development and assessment of transport options and the subsequent identification of proposed transport infrastructure to support the plan-led development of Old Connaught and Rathmichael was undertaken using the Area Based Transport Assessment (ABTA) process. Full details regarding the analysis undertaken is provided in the ICAS Part 3 Report. For information purposes, a summary of the process undertaken, including a breakdown of the multi-criteria analysis assessment is included in Appendix A.

The following section sets out the ABTA preferred transport scenario for both Old Connaught and Rathmichael and details the transport infrastructure components.

2.2.1 Transport Infrastructure - ABTA Preferred Scenario

Figure 2-1 comprises a composite illustration of the ABTA preferred transport scenario for the Old Connaught and Rathmichael LAP areas. Figure 2-2 illustrates the proposed active travel network for the LAP areas, Figure 2-3 illustrates the proposed public transport measures and Figure 2-4 illustrates the proposed road and vehicular circulation measures. The transport infrastructure illustrated in these figures is detailed in Table 2-1.

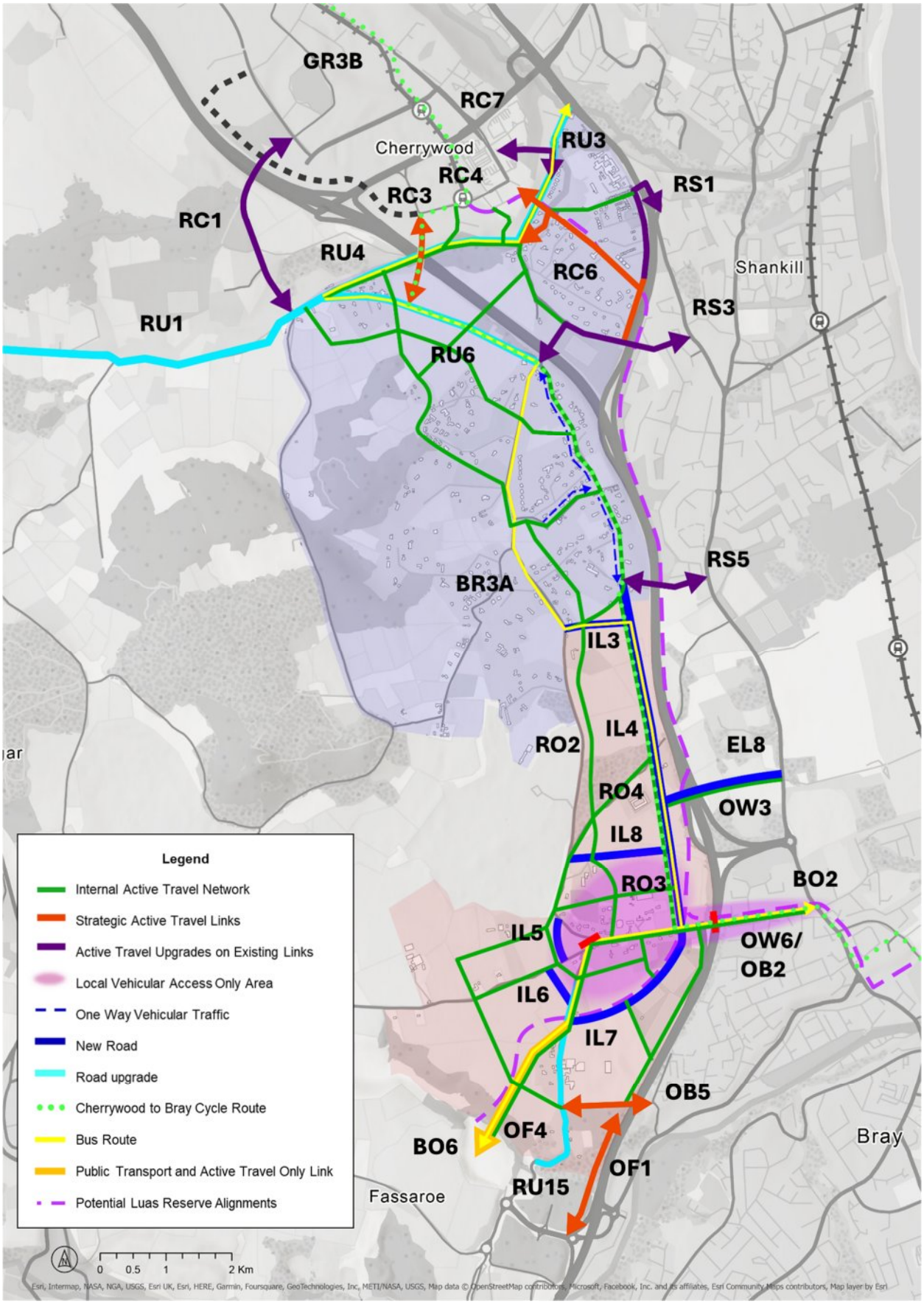


Figure 2-1: ABTA Preferred Scenario – Transport Overview

*Note: The Luas Line alignment illustrated is indicative. As stated in the GDA Transport Strategy 2022-2042, the alignment of the Luas extension and the locations to be served between Bride's Glen and Bray have yet to be determined and will be subject to detailed design and planning work.

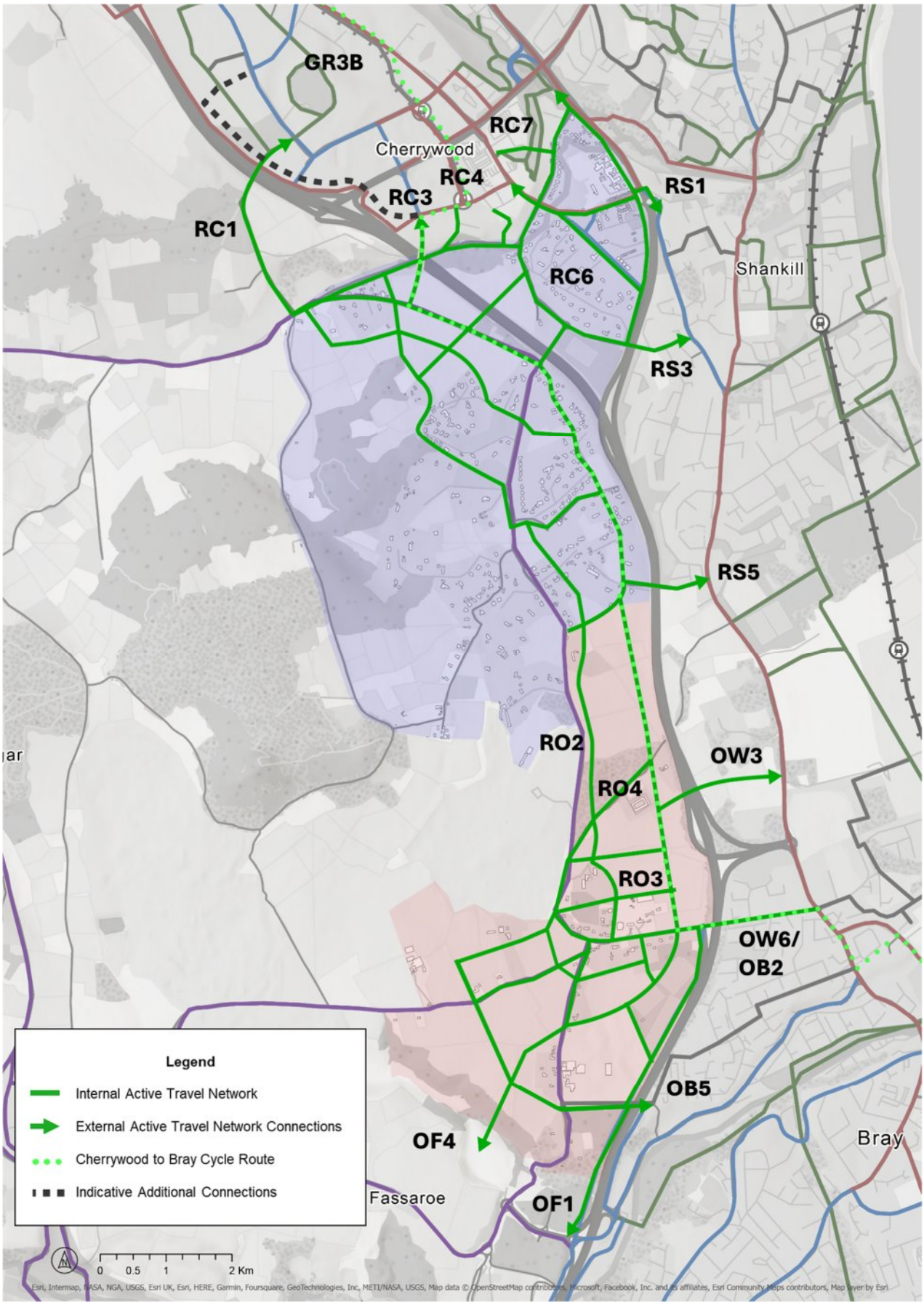


Figure 2-2: ABTA Preferred Scenario – Active Travel

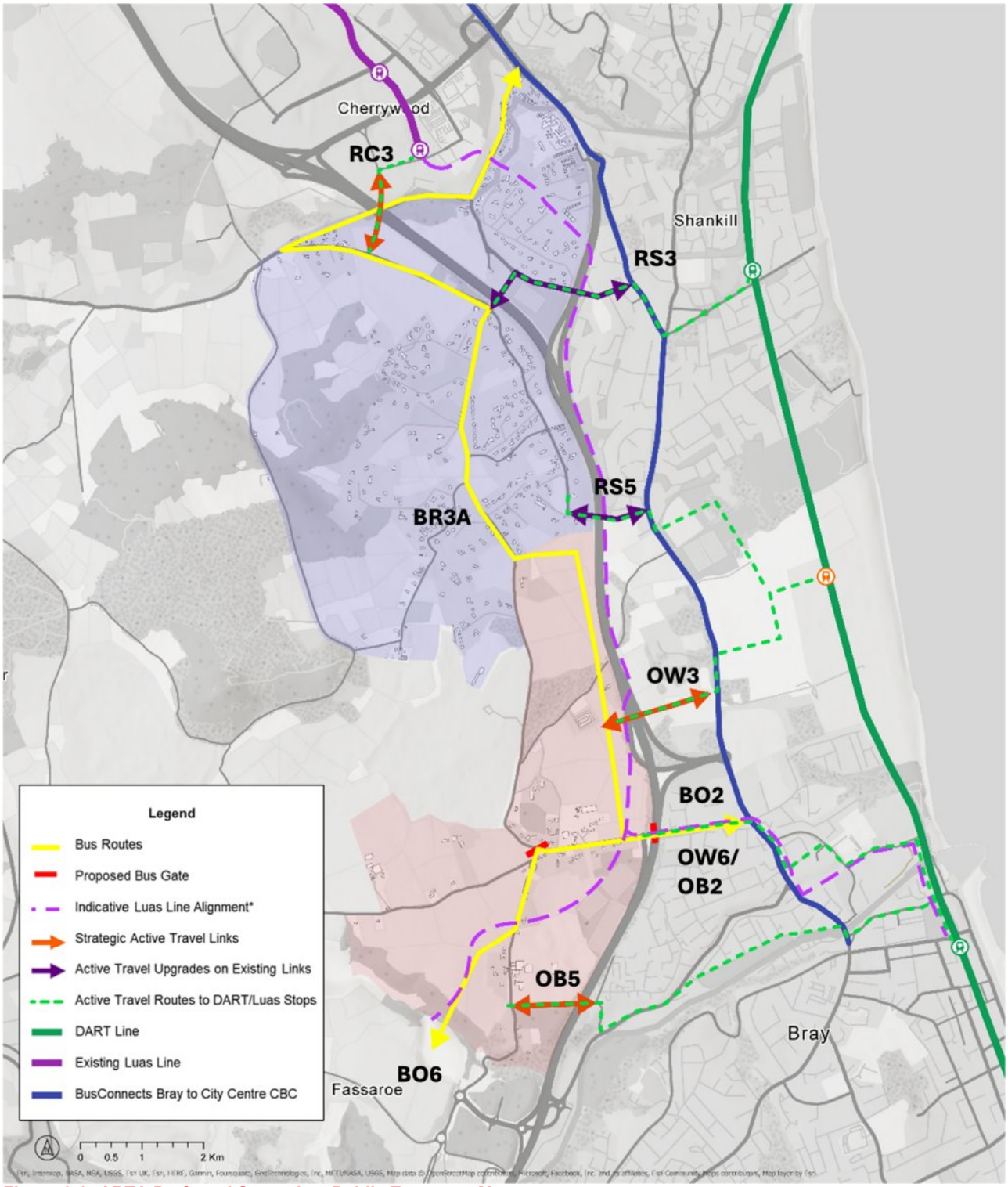


Figure 2-3: ABTA Preferred Scenario – Public Transport Measures

*Note: The Luas Line alignment illustrated is indicative. As stated in the GDA Transport Strategy 2022-2042, the alignment of the Luas extension and the locations to be served between Bride's Glen and Bray have yet to be determined and will be subject to detailed design and planning work.

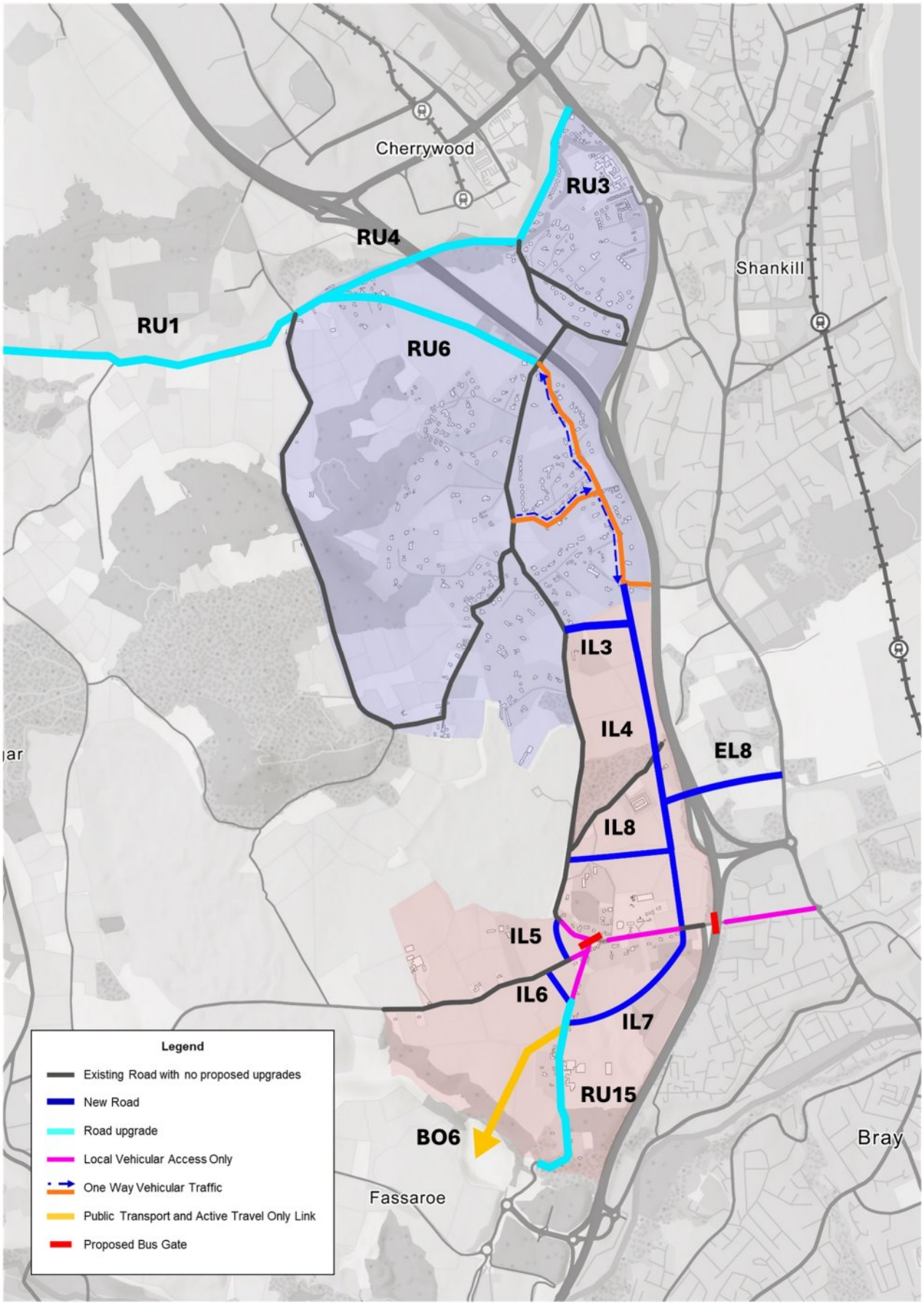


Figure 2-4: ABTA Preferred Scenario – Proposed Road and Vehicular Circulation Measures

Table 2-1 Transport Infrastructure Requirements

Infrastructure / Spatial Element	Sub-Element	Infrastructure Requirements
Transport	Active Travel	• Upgrade of Herenford Lane / Lehaunstown Lane • Provision of SLO 150 - Active Travel Link from Rathmichael Road to Cherrywood • Potential active travel link connecting Rathmichael and Cherrywood via the viaduct • Active travel link from Rathmichael Road via Brides Glen Road to Cherrywood • Provision of active travel link between Falls Road and Parc Na Silla Rise • Active Travel upgrades along Stonebridge Road from the roundabout junction of Ferndale Road to the junction with Dublin Road, part of which is proposed as part of the BusConnects Bray to City Centre CBC. • Bus Gates on Old Connaught Avenue • Love Lane and Love Lane Bridge • Active Travel Connection between Love Lane bridge and Fassaroe Lane • Internal Active Travel Network including north-south route parallel to Ferndale Road and an internal connection across M50, approximately 500m west of Stonebridge Road bridge • Designation of a Greenway route connecting Cherrywood to Bray which utilises a potential bridge between Cherrywood and Rathmichael Road, Rathmichael Road, Ballybride Road, a new link between Crinken Lane and Allies River Road, Old Connaught Avenue and Dublin Road. • Crinken Bridge - Active travel upgrades
	Public Transport	• Provision of a bus route running along Cherrywood Road, Brides Glen Road, Rathmichael Road, Ferndale Road, linking onto the proposed new North-South Link road and on to Old Connaught Avenue, with an additional route serving Fassaroe. • Accommodate for future Luas provision. • Accommodate for future provision of bus way bridge linking Fassaroe and Old Connaught across the Ballyman Glen.
	Vehicular Circulation	• Provision of a new road running North-South, connecting Ballybride Road/Crinken Lane with Old Connaught Avenue. • Provision of new road connecting Ferndale Road and the new North-South link Road • New development roads in the periphery of Old Connaught Village which allow for the removal of through traffic along Old Connaught Avenue • Conversion of Ballybride Road and Lordello Road to one-way circulation to allow for the provision of cycle facilities along these roads without the necessity for road widening. • Provision of a new road and bridge linking Old Connaught to the Old Dublin Road (N11 Overbridge to Dublin Road or N11/M11 Junction 4 to Junction 14 Improvement Scheme in this vicinity.) • Road upgrades as per Figure 2-4.

Note: Appendix G of the Part 3 - Options Development and Assessment Report provides a full list and descriptions of the transport measures proposed as part of the preferred scenario.

2.2.2 Strategic Transport Infrastructure - Function / Operation

In the preparation of this Part 4 Report further analysis was undertaken with regards to the proposed functioning of the transport system in Old Connaught and Rathmichael, in terms of active travel, public transport and traffic management. This information is included in Appendix B.

2.3 Water Infrastructure

The ICAS Part 3 Report includes a review of the existing Uisce Éireann (UÉ) networks and identifies preliminary high level strategies and workable options for the provision of water networks to support development in Old Connaught and Rathmichael.

The preferred strategy for both LAP areas is to create looped networks through connections to the existing watermains that are in the area. This would improve resiliency and reliability of the water supply and facilitate new development.

Figure 2-5 and Figure 2-6 illustrate how the local water supply distribution network could be expanded to serve the future development of the area. The strategic water infrastructure illustrated in these figures are detailed in Table 2-2.

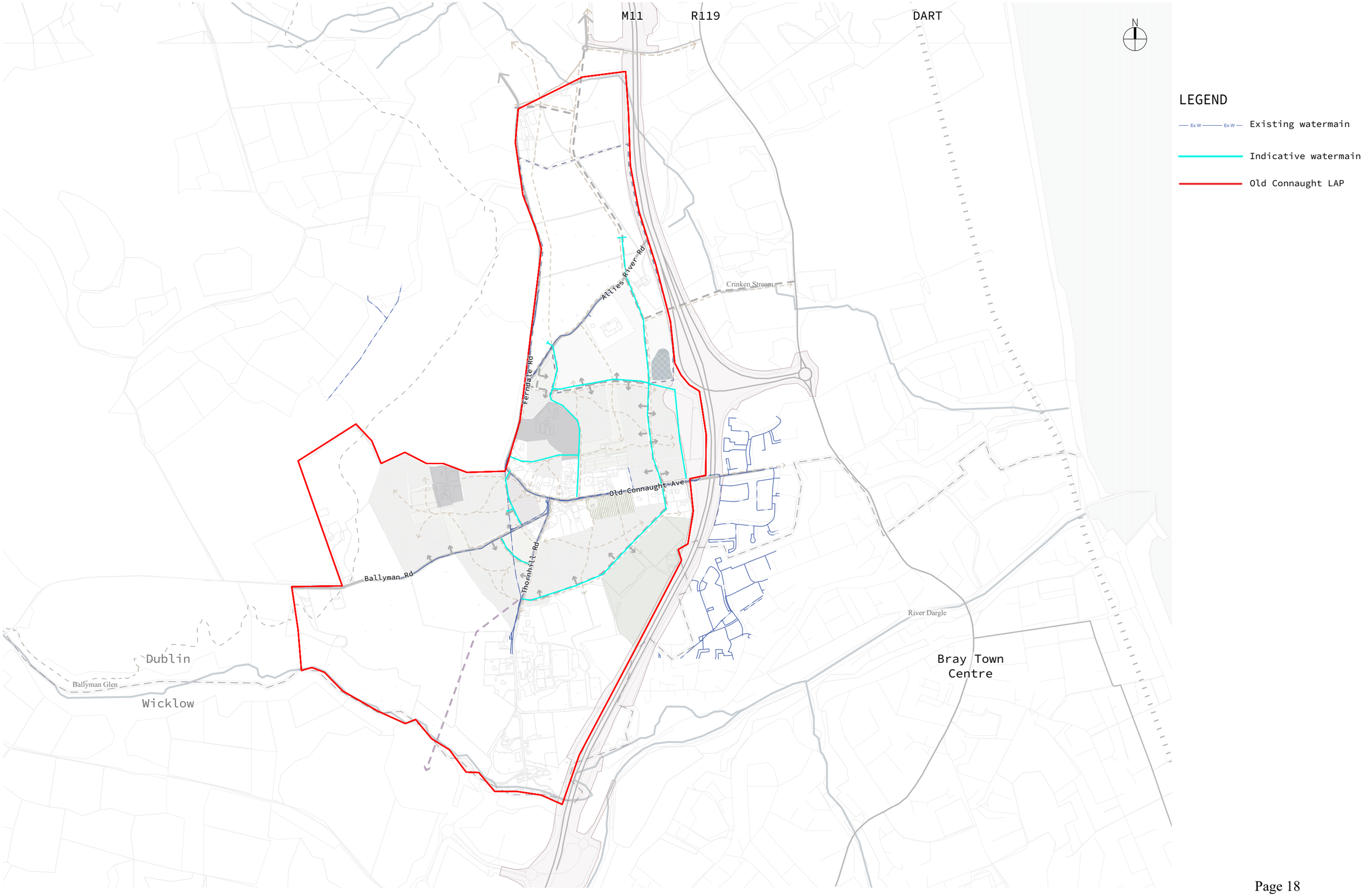


Figure 2-5: Indicative Water Supply Distribution Network for Old Connaught LAP area

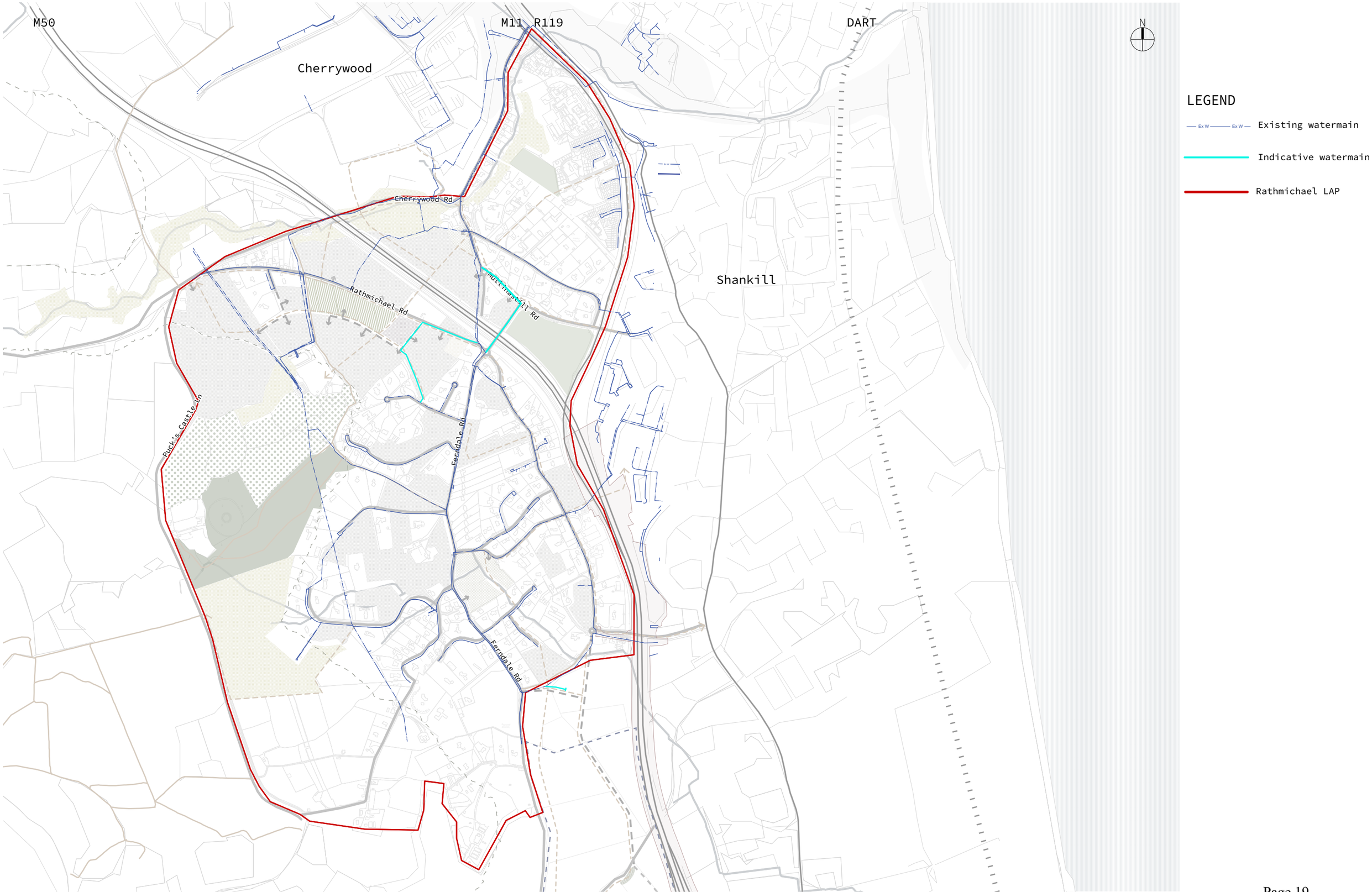


Figure 2-6: Indicative Water Supply Distribution Network for Rathmichael LAP area

Table 2-2 Water Infrastructure

Infrastructure / Spatial Element	Sub-Element	Infrastructure Requirements
Water	Potable Water	Old Connaught: Develop new looped watermain networks connecting to existing watermains to serve new developments. Rathmichael: Develop new looped watermain networks connecting to existing watermains to serve new developments.

2.4 Wastewater Infrastructure

The ICAS Part 3 Report includes a review of the existing Uisce Éireann (UÉ) networks and identifies preliminary high level strategies and workable options for the provision of wastewater networks to support development in Old Connaught and Rathmichael.

There are no existing wastewater networks within the Old Connaught area. The preferred strategy for the Old Connaught LAP area is to develop a new gravity wastewater network to facilitate new development and the future connection of existing dwellings. A pumping station and rising main crossing of the M11, in the vicinity of Old Connaught Avenue, are required to connect the Old Connaught LAP area to the existing wastewater network. Preliminary discussions between UÉ, TII, dlr and Arup have determined that a wastewater crossing of the M11 is feasible, subject to detailed design and technical agreement between the relevant parties.

Through the assessment process a potential interim connection solution was also identified which proposes using the space occupied by an existing spare duct in the Old Connaught Avenue bridge to install a rising main of up to 100mm diameter. This could act as an interim measure to facilitate development of up to 850 residential dwellings in Old Connaught in advance of the permanent solution to provide for full development of the Old Connaught LAP area.

There are limited existing wastewater networks within the Rathmichael area. The preferred strategy for the Rathmichael LAP area is to develop a new gravity wastewater network to facilitate new development and future connection of existing dwellings. A pumping station and rising main crossing of the M11, in the vicinity of Crinken Lane, are required to connect the Rathmichael LAP area to the existing wastewater network. Uisce Éireann has advised that a pumping station and rising main crossing of the M11 to the south of Crinken Lane are being progressed as a strategic asset project, which will provide capacity to service 3,000 residential units.

Indicative wastewater networks, including potential locations for pumping stations, to serve the LAP areas are shown in Figure 2-7 and Figure 2-8 below. The wastewater infrastructure illustrated is detailed in Table 2-3.

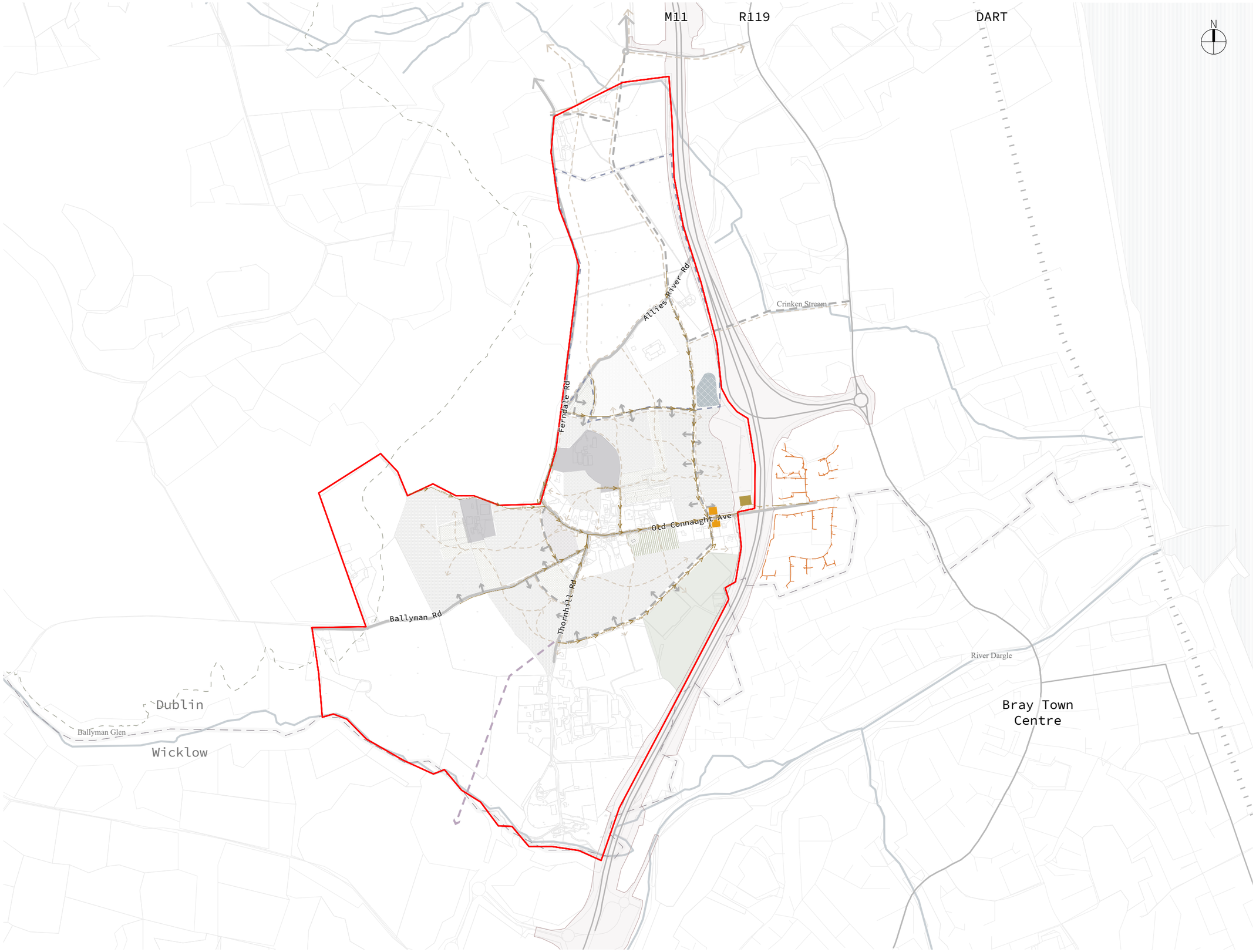


Figure 2-7: Indicative Wastewater Network for Old Connaught LAP area

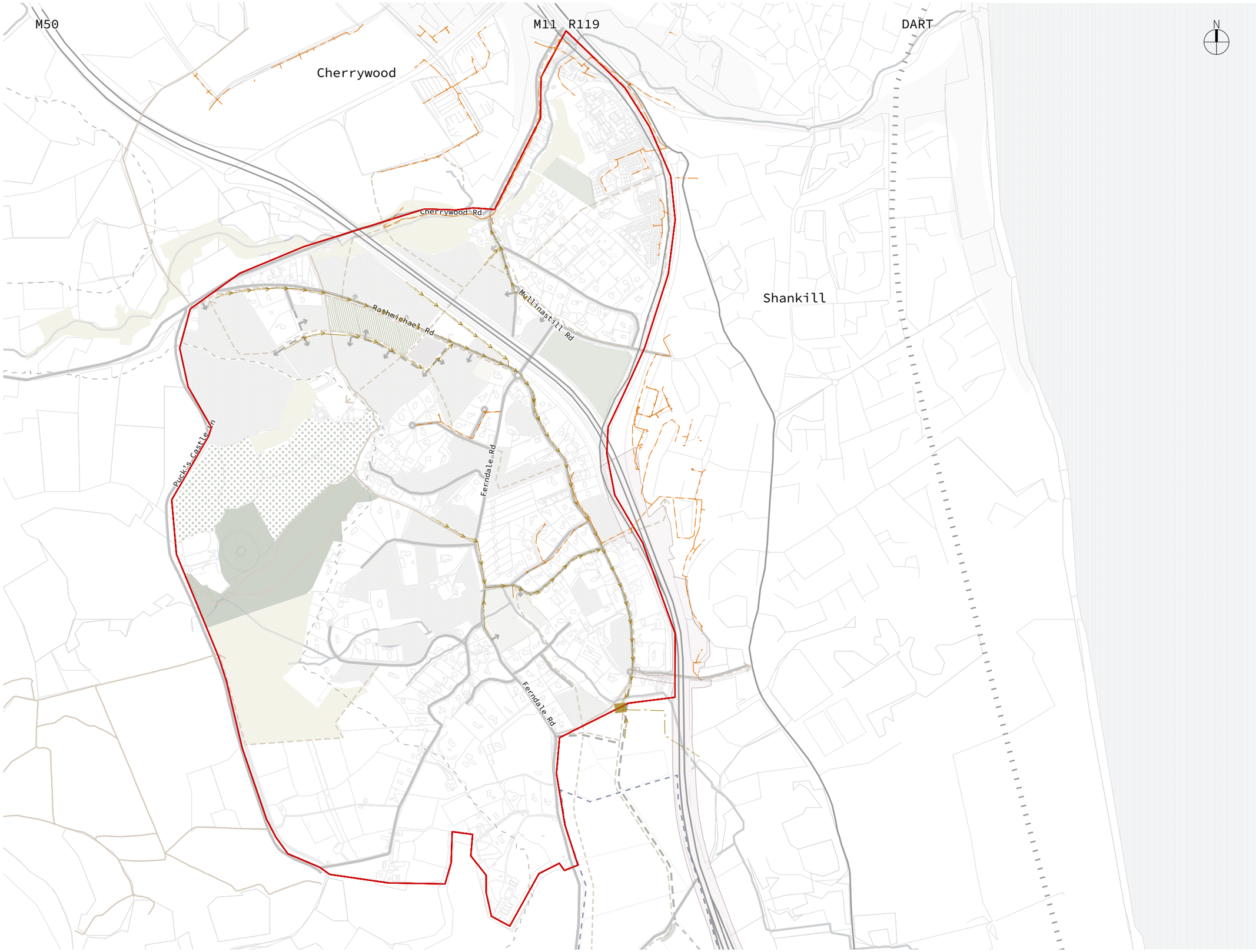


Figure 2-8: Indicative Wastewater Network for Rathmichael LAP area

Table 2-3 Wastewater Infrastructure

Infrastructure / Spatial Element	Sub-Element	Infrastructure Requirements
Water	Wastewater	Old Connaught: • Develop new gravity wastewater sewer network to serve new developments and existing dwellings within the LAP area. • 1 no. wastewater pumping station and associated rising main with trenchless crossing of the M11 motorway to connect the Old Connaught LAP area to the existing Uisce Éireann network to the east of the motorway. • Interim temporary proposal for a wastewater rising main in the Old Connaught Avenue bridge and a potential temporary wastewater pumping station Rathmichael: • Develop new gravity wastewater sewer network to serve new developments and existing dwellings within the LAP area. • 1 no. wastewater pumping station and associated rising main with trenchless crossing of the M11 motorway to connect the Rathmichael LAP area to the existing Uisce Éireann network to the east of the motorway.

2.5 Drainage Infrastructure

The ICAS Part 2: SuDS Strategy for Old Connaught and Rathmichael LAP Areas, details the surface water drainage and Sustainable Drainage Systems (SuDS) strategies for the Rathmichael and Old Connaught LAP areas.

The preferred strategy for the two LAP areas is to develop a new gravity stormwater network to facilitate new development. At plot level treatment should be provided and attenuation should accommodate the 3.3% AEP (or 1 in 30 year event) and provide for flood routing in the event of exceedance events. In addition to the plot level requirements for attenuation and treatment, regional SuDS features are to be provided for attenuation for the whole area for the 1% AEP (annual exceedance probability) and to attenuate and treat runoff from the catchment roads and public areas.

The indicative drainage networks and regional ponds to serve the LAP areas are show in Figure 2-9 and Figure 2-10. The drainage infrastructure illustrated is detailed in Table 2-4.

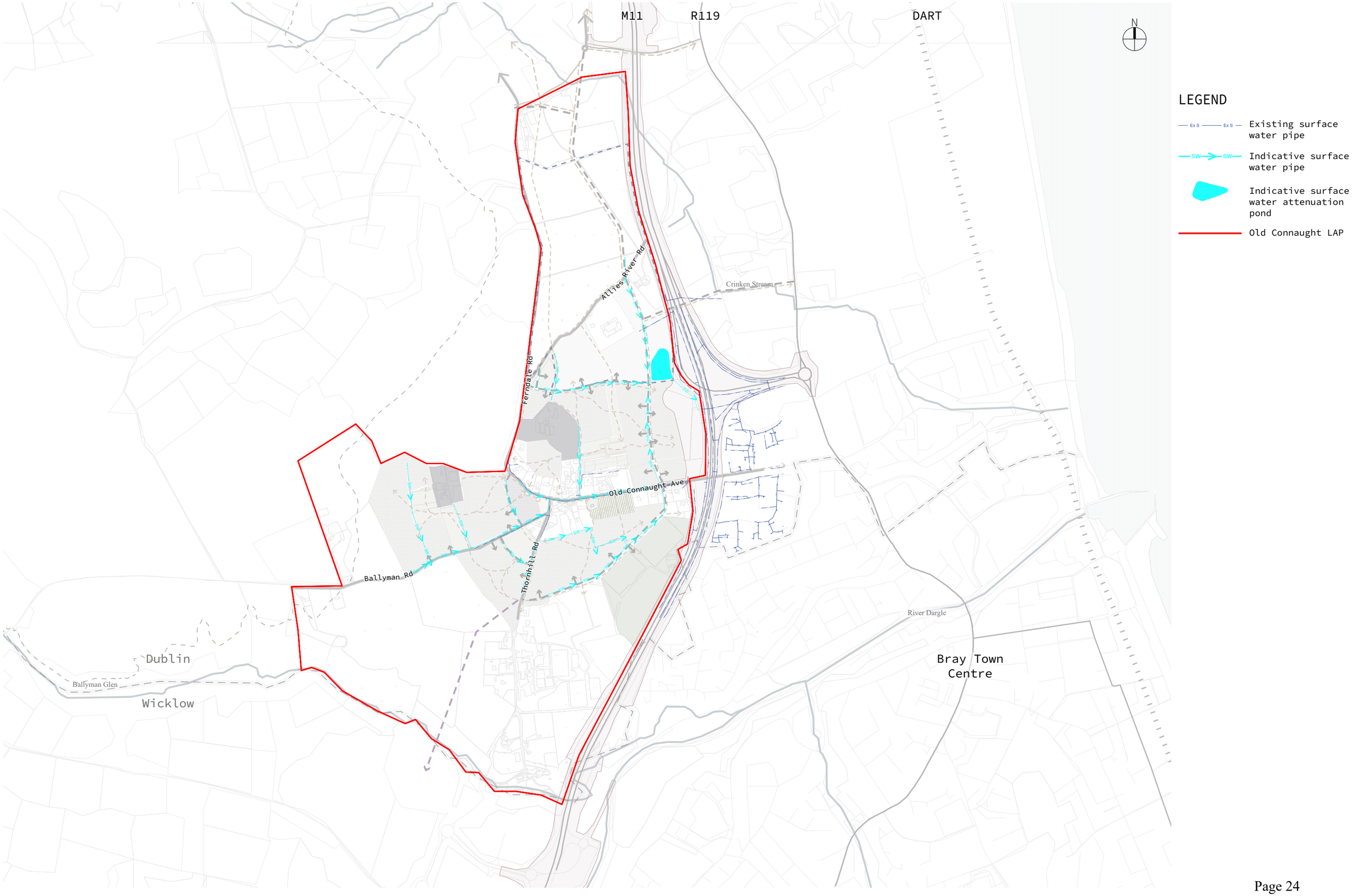


Figure 2-9: Indicative Stormwater Network for Old Connaught LAP area

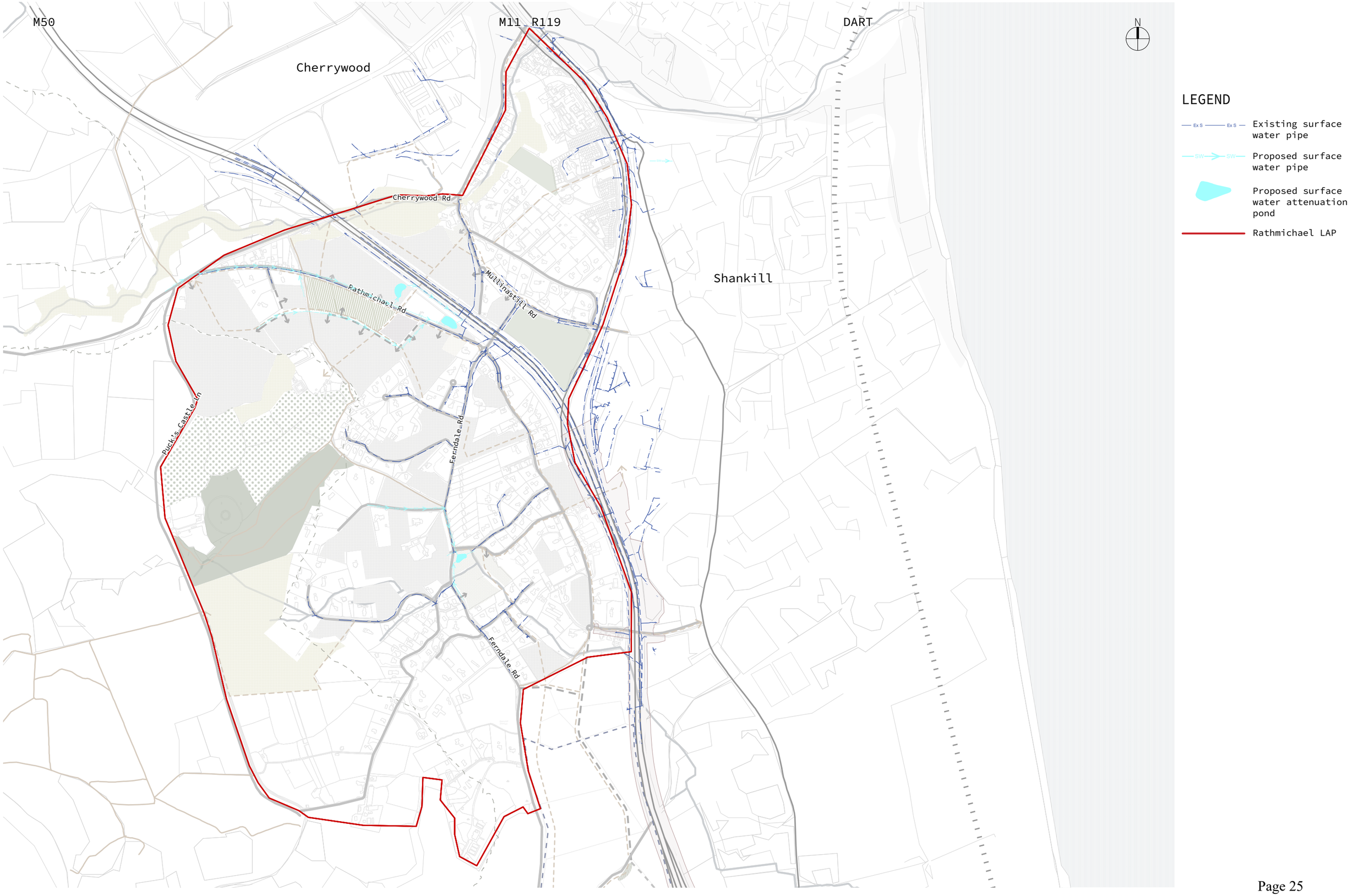


Figure 2-10: Indicative Stormwater Network for Rathmichael LAP area

Table 2-4 Drainage Infrastructure

Infrastructure / Spatial Element	Sub-Element	Infrastructure Requirements
Water	Storm Water	Old Connaught: • Develop new gravity stormwater drainage networks to serve new roads, public realm and development sites within the LAP area. • 1 no. regional pond for stormwater attenuation and treatment. Rathmichael: • Develop new gravity stormwater drainage networks to serve new roads, public realm and development sites within the LAP area. • 3 no. regional ponds for stormwater attenuation and treatment.

2.6 Utilities – Power Supply and Telecommunications

Both electrical and telecoms infrastructure are available within the LAP areas.

In the wider area, there are three existing zone substation supplies at Carrickmines, Cherrywood and Fassaroe. At Old Connaught, an existing 38kV substation is located near Bray Emmet's GAA Club. ESB have indicated that there may be existing residual capacity to cater for c. 1,000 additional residential homes on an interim basis. ESB has also indicated that a deep reinforcement including a new 38kV substation would be required to cater for total residential demand in Old Connaught and Rathmichael. While the ultimate location of a new 38kV substation is to be determined it is noted that lands at and adjacent to the existing 38kV substation at Old Connaught may be appropriate. Local network upgrades would also be required across both LAP areas to support anticipated levels of residential growth.

In terms of telecommunications infrastructure, fibre connections are available within the vicinity of the LAP areas. New development can connect to these networks but would require new fibre cabinet capacity and applications for new connections would need to be submitted to the telecom's providers.

Table 2-5 Power Supply and Communications Infrastructure

Infrastructure / Spatial Element	Sub-Element	Infrastructure Requirements
Power Supply and Telecommunication	Power Supply	1 no. 38kV substation
	Telecommunication	New fibre cabinet capacity

2.7 Social Infrastructure – Community Facilities and Education

2.7.1 Community, Cultural and Civic Facility Provision

A component of sustainable neighbourhood infrastructure is the provision of an appropriate range of community, cultural and civic facilities. The ICAS Part 3 Report - Options Development and Assessment - includes a preliminary assessment of the indicative quantitative floorspace requirement for community, cultural and civic facilities in the LAP areas, based on planned residential growth levels, and also considers indicative spatial locations for such uses.

The preliminary quantitative assessment based on Core Strategy growth levels (see Table 2-6) indicates that both LAP areas (Old Connaught and Rathmichael) may require a 'neighbourhood' level provision of community facilities. It is noted that the specific quantitative requirement for community, cultural and civic facilities will be further assessed as part of the LAP plan making process for each area taking into account additional considerations including inter alia existing population, changes in residential density guidance, the scale, location and function of existing community infrastructure, and potential planned infrastructure in the wider environs.

Table 2-6 Preliminary Assessment of Community, Cultural and Civic Facility Provision

Area	dlr CDP 2022-2028 Core Strategy Residential Yield	Approx. Population Increase (2.5 Average Household Size)	Approx. provision of community facilities based on 130sqm per 1,000 population
Old Connaught	2,005	5,013	652
Rathmichael	2,431	6,078	790
Total	**4,436**	**11,091**	**1,442**

The spatial location of community, cultural and civic facility provision will be determined through the local area plan plan-making process. Notwithstanding, a preliminary assessment undertaken as part of the ICAS Part 3 Report indicates that suitable locations for such uses include close to the inner core of each settlement and at locations adjacent to other land uses where synergies can be harnessed. Potential locations within both LAP areas are indicated in Figure 2-11 and Figure 2-12.

Figure 2-11 Potential Locations for Community, Cultural and Civic Provision at Old Connaught

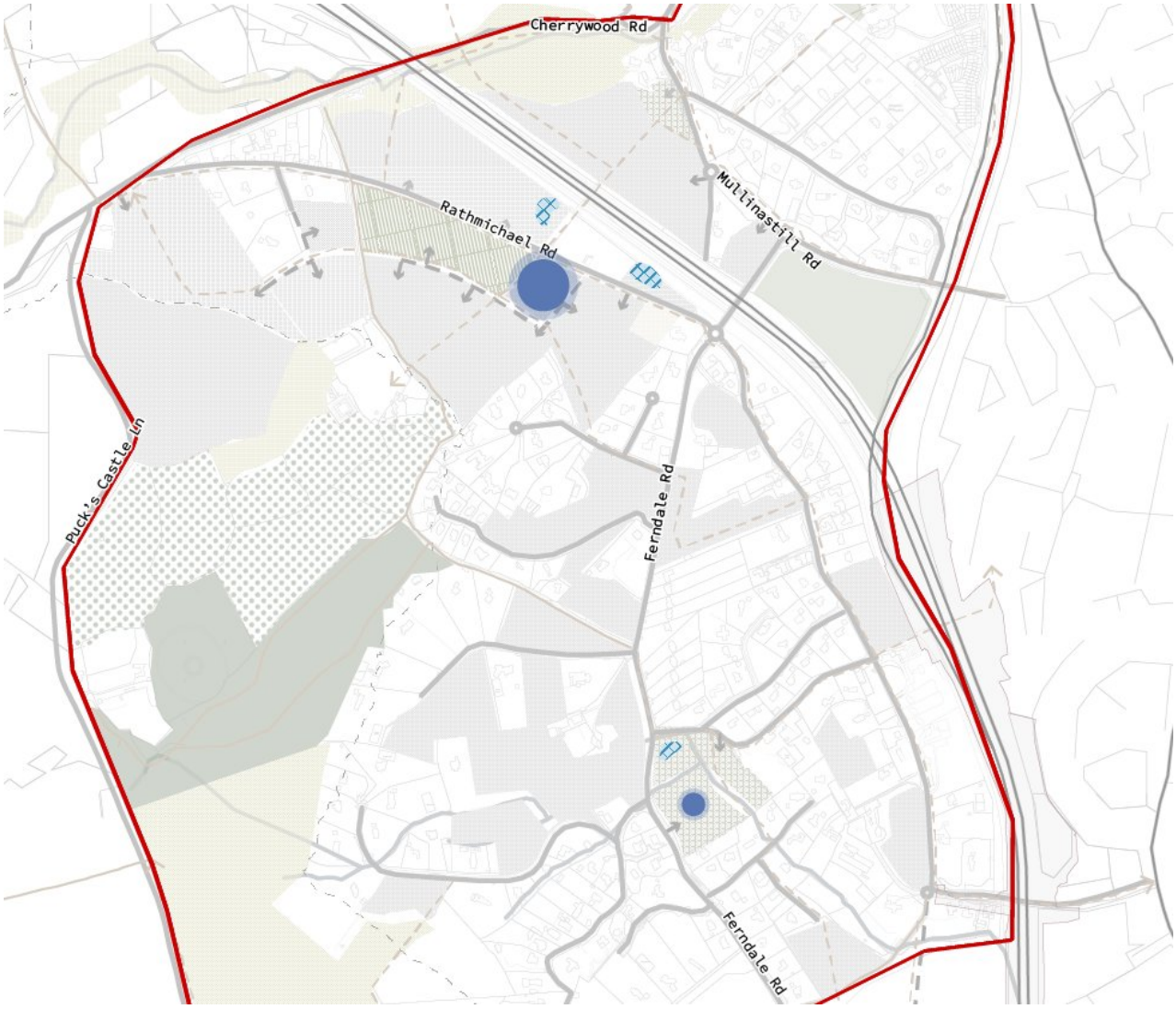


Figure 2-12 Potential Locations for Community, Cultural, and Civic Provision at Rathmichael

Table 2-7 Community Facilities Infrastructure

Infrastructure / Spatial Element	Sub-Element	Infrastructure Requirements
Sustainable Communities	Community Facilities	• Neighbourhood level community facilities at Old Connaught. • Neighbourhood level community facilities at Rathmichael.

2.7.2 Educational Facilities

As set out in the ICAS Part 3 Report - Options Development and Assessment - the Local Authority is engaging with the Department of Education (DoE) on an ongoing basis, discussing the school requirements for the two LAP areas. Through this engagement the DoE has identified a requirement for one or more primary schools in both Old Connaught and Rathmichael, and the DoE have also identified the potential requirement for a post primary school to serve the overall ICAS and wider area.

Figure 2-13 identifies the proposed location of a primary school in Old Connaught. This location is consistent with that identified on Land Use Zoning Map No. 14 of the dlr CDP 2022-2028. An indicative area of approx. 1.6 hectares has been identified for the primary school site at Old Connaught. As per the DoE Technical Guidance Document TGD-025 'Identification and Suitability Assessment of Sites for Primary Schools', a school site area of approx. 1.6 hectares would provide for a 16-24 classroom primary school and

associated components including play areas / ball courts etc. It is noted however that the exact size and location of educational facilities at Old Connaught will be subject to further assessment as part of the local area plan-making process for the area.

The location of educational facilities at Rathmichael is not indicated in the Land Use Zoning Maps of the dlr CDP 2022-2028. The size and location of the educational facilities at Rathmichael will be considered and identified as part of the local area plan-making process for the area, which will be subject to further engagement with the Department of Education.

It is noted that the Local Authority will continue to engage with the DoE with respect to specific school requirements as part of the local area plan-making process for both LAP areas.

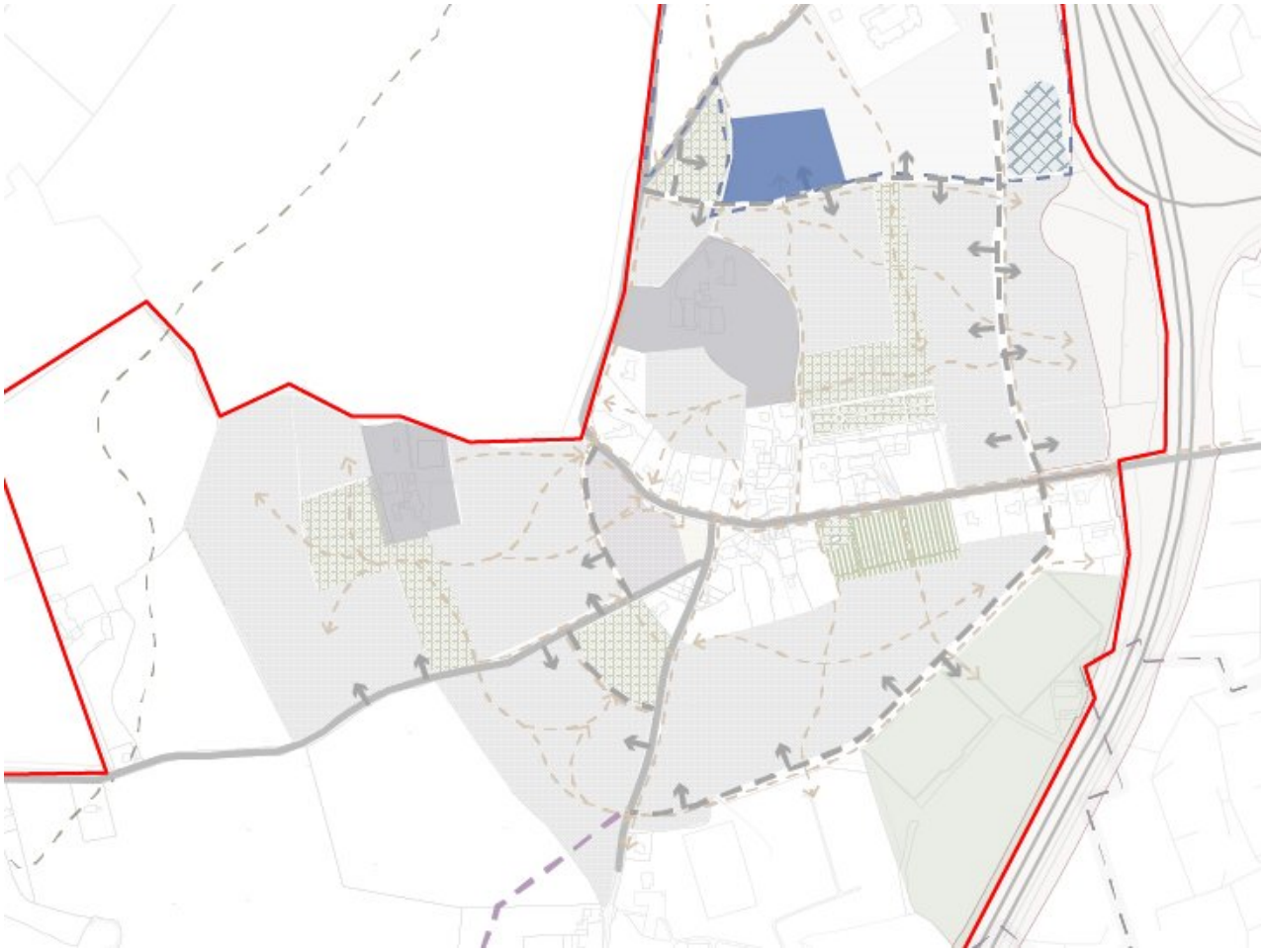


Figure 2-13: Proposed Education Site at Old Connaught

Table 2-8 Education Facilities Infrastructure

Infrastructure / Spatial Element	Sub-Element	Infrastructure Requirements
Sustainable Communities	Education Facilities	Old Connaught: • 1 or more primary schools. Rathmichael: • 1 or more primary schools. ICAS area: • Potential provision of a post primary school

2.8 Open Space, Parks and Recreation

The availability of accessible and high quality public open spaces is important in creating sustainable settlements. The development and assessment of parks and open space options and the subsequent identification of parks and open space infrastructure to support the plan-led development of Old Connaught and Rathmichael was undertaken in the ICAS Part 3 Report - Options Development and Assessment Report. Please refer to the ICAS Part 3 Report for further information on the analysis process.

Figure 2-14 illustrates the recommended indicative strategic level approach for parks and open space provision to support the sustainable development of the LAP areas, as identified in the ICAS Part 3 Report. The indicative strategy recommends the inclusion of village greens and civic spaces at central locations at both Old Connaught and Rathmichael to enhance the sense of place. The Strategy recommends the enhancement of Rathmichael Woods and the provision of a new active focussed recreation park at Old Connaught. A range of larger strategic open spaces are identified throughout the LAP areas providing a network of open spaces which maximise accessibility and take advantage of views of the surrounding landscape. Furthermore, the Strategy seeks to integrate Nature Based Solutions, enhance local important biodiversity areas and integrate heritage elements.

The overarching strategy illustrated in Figure 2-14 was progressed to a greater level of detail and comprises part of the preliminary development frameworks for the LAP areas. It is noted that the indicative strategic open space network for the LAP areas indicated in the preliminary development frameworks does not factor in additional local level provision of public open space which, as appropriate, would be assessed though the plan-making process and subsequently through the development management process and serve to supplement the overarching strategic network.

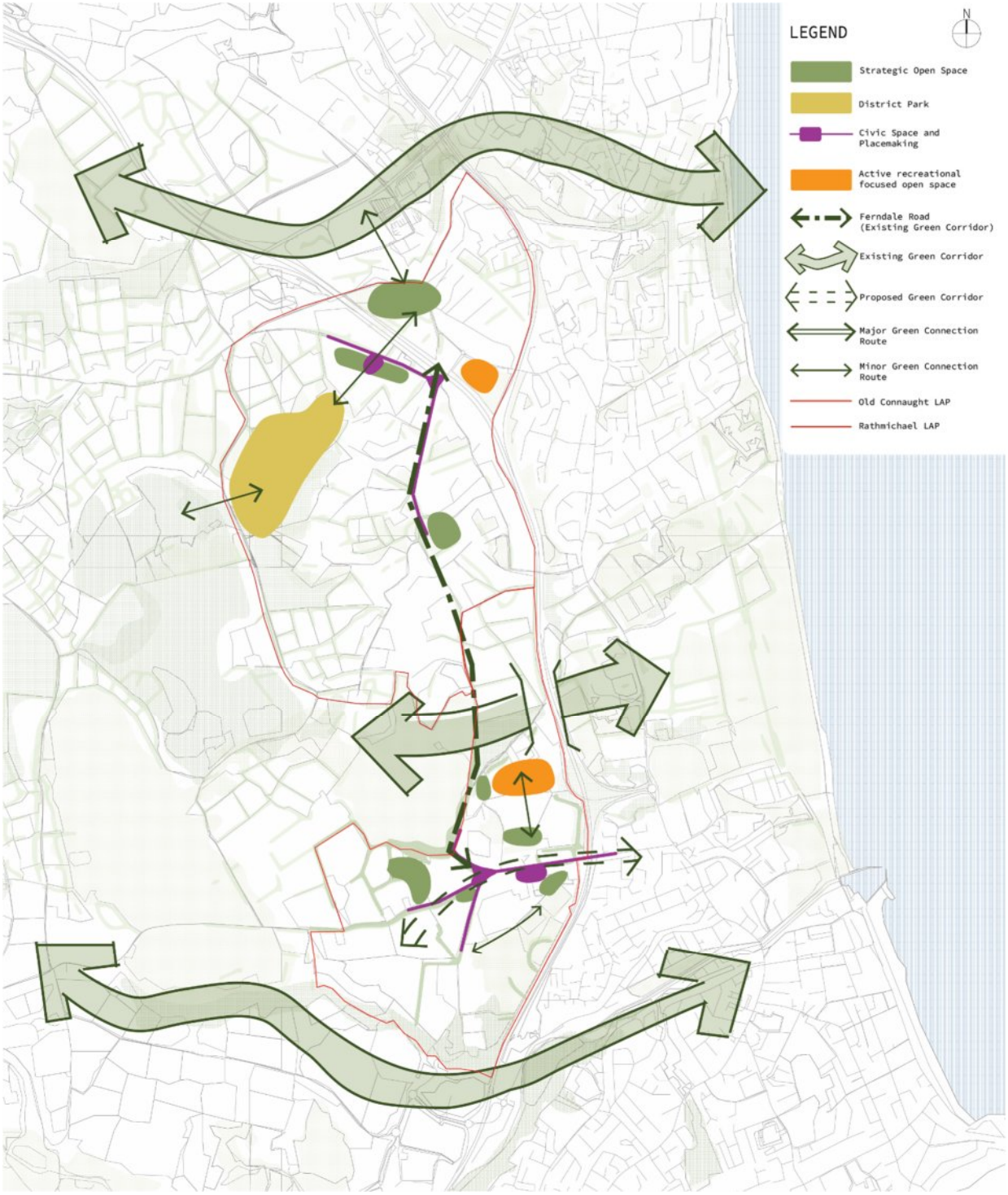


Figure 2-14: Indicative Strategic Level Parks and Open Space Network

Table 2-9 Open Space, Parks and Recreation Infrastructure

Sub-Element	Infrastructure Requirements
Open Space, Parks and Recreation	• Enhancement and extension of Rathmichael Woods as a Gateway/District Park. • New Active Park at Old Connaught • A range of other Strategic Open Spaces • New Village Green's at both Old Connaught and Rathmichael • Civic spaces/village centres. • Provision of greenways network and linear green connecting spaces

2.9 Heritage and Conservation

Heritage is recognised as an important social, cultural, and economic asset. The cultural heritage of Old Connaught and Rathmichael contributes to the well-being, shared community identity and social cohesion of these communities.

The ICAS Part 3 Report - Options Development and Assessment - identifies the key contributors to landscape character in the LAP areas and sets out recommendations for preservation, enhancement and management of these. An assessment of the potential impact and/or enhancement of existing heritage features was undertaken by capturing the existing baseline information and by measuring the impact and the perceived change in landscape character against preliminary settlement strategies for the LAP areas.

Landscape character change at Old Connaught will occur in and around the existing settlement patterns adjoining Old Connaught Avenue. It was found that the introduction of buildings and infrastructure at Old Connaught would change the visual, ecological and cultural aspects of the area.

Landscape character change in Rathmichael will occur primarily south of the existing M50. Aspects of current landscape character can be retained and enhanced by the conservation of biodiversity, and the conservation/management of key identified heritage elements within public open space areas. Cultural heritage elements are dispersed throughout and many fall within privately owned lands. Enhancement of Rathmichael Woods can be achieved through the conservation/interpretation of the Iron Age hillfort and provision of safe universal accessibility to the Old Rathmichael Church, its historical burial ground, and other nearby heritage features. Any enhancement would take account of the proximity of archaeological monuments. Appropriate signage can provide wayfinding and interpretation of these heritage features, fostering community engagement, appreciation and education.

The analysis of heritage assets informed the preparation of preliminary settlement frameworks for development at Old Connaught and Rathmichael. A summary of the analysis undertaken is illustrated in Figure 2-15. The preliminary settlement strategy for the LAP areas seeks to enhance the landscape by integrating cultural heritage, green spaces, sustainable design features and amenities that harmonise with the surroundings while minimising fragmentation of natural habitats and loss of scenic views.

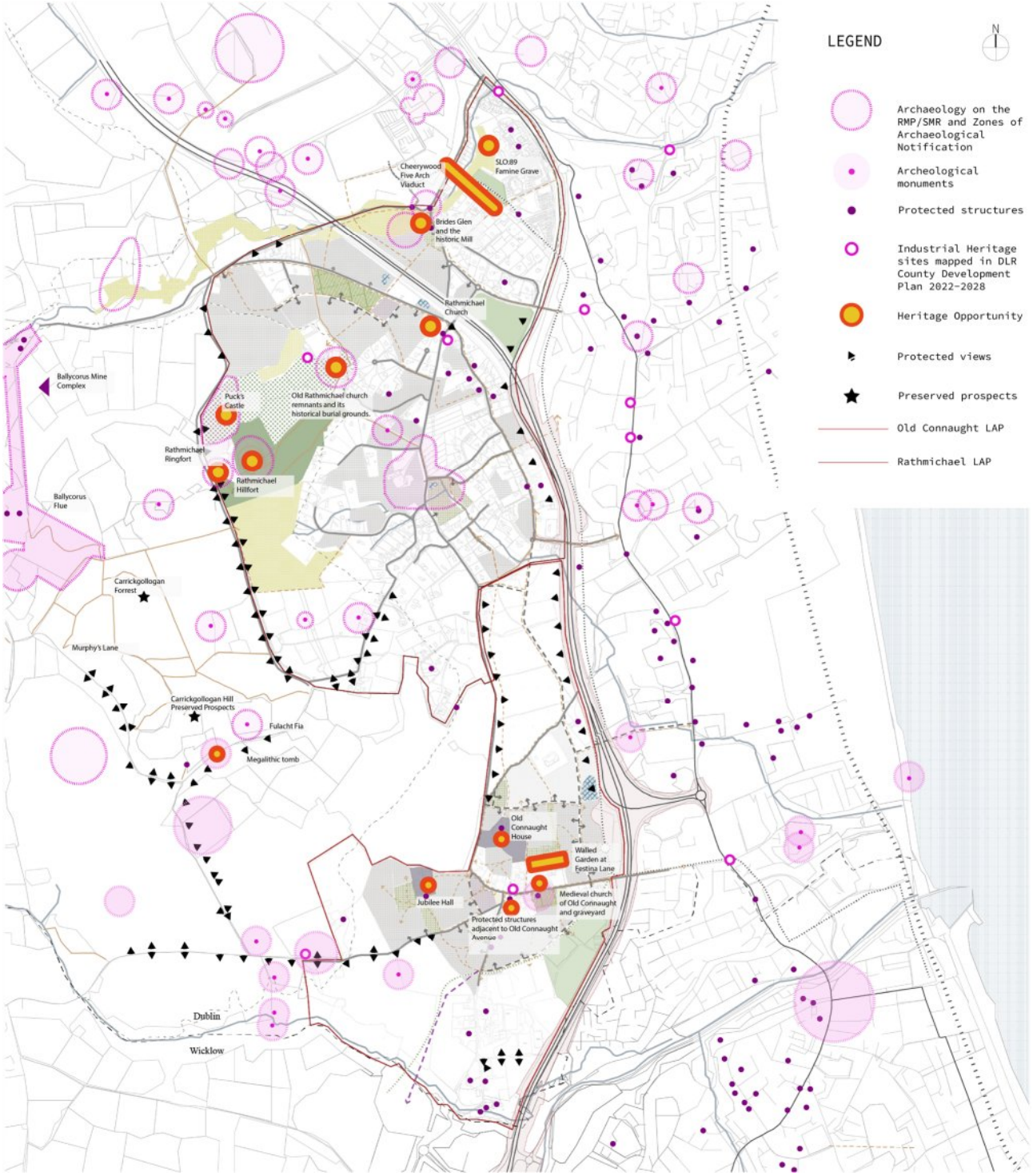


Figure 2-15: Analysis of Heritage Assets

Table 2-10 Heritage & Conservation Infrastructure

Sub-Element	Infrastructure Requirements
Heritage & Conservation	Protect, encourage and facilitate the conservation, development, design and management of cultural heritage assets.

2.10 Green Infrastructure and Biodiversity

From a policy perspective, the starting point for developing the approach to green infrastructure and biodiversity is the dlr CDP Green Infrastructure Strategy 2022-2028, which includes a high level county-wide network connected to surrounding and regional green infrastructure. The overarching objective (as per dlr CDP Policy Objective PO GIB1) for green infrastructure and biodiversity is to protect existing green infrastructure and encourage and facilitate, the development, design and management of high quality natural and semi-natural areas.

As part of the ICAS Part 3 Report - Options Development and Assessment – key habitats, and species of higher conservation value associated with the key habitats, were identified across the LAP areas. Based on the analysis undertaken, options were proposed for the maintenance and enhancement of ecological integrity in accordance with the Lawton principles. Consideration was also given to where habitat heterogeneity could be improved, in particular based upon the species and habitats noted to be of conservation status in the area in the base-mapping phase.

The below options include three overarching objectives illustrated in red, orange and green. It should be noted that all four options are not exclusive and the overarching objectives should be considered as a general direction for management rather than each management objective to be considered exclusive. It may be that protection i.e. red outline, is recommended for a site, but that in some options this is also given a green management option which relates to restoration.

Red highlights areas for protection of existing designated sites including Ballyman Glen SAC/pNHA and Loughlinstown Woods pNHA. The protection of these designated sites is of primary importance and is a minimum requirement for the area. This will maintain existing biodiversity and function with the aim of preventing any future damage. Protection measures are likely those already required under existing nature conservation regulations and policies. It should be noted that all options provide for protection of including Ballyman Glen SAC/pNHA and Loughlinstown Woods pNHA with an extended buffer around those sites and therefore they are not discussed in any further detail under the options.

Orange highlights areas for enhancement of existing known existing ecological features such as between Carrickgollogan, wooded areas adjacent to Puck's Castle Lane and locally important biodiversity site adjacent to the Annex 1 habitat in that general location. This would encompass woodland, heath and grassland habitats which are of high nature conservation value but are not formally designated as a nature conservation site. focuses on improving the existing condition of habitats with knock on effects for a variety of species with the goal to enhancing the ecological value and resilience these ecological features beyond their current state. Key actions are likely to include change in management techniques such as reducing negative impacts from human activities through maintaining buffers for dog walking etc., and management to improve habitat quality including changes in mowing/grazing regime for grassland. These areas could be given some level of formal protection in the future through council policy.

Green highlights areas for restoration of ecological features which aims to reverse any degradation of damaged habitats to good condition through active management. These management actions could include woodland planting, removing invasive species and removing sources of diffuse or point water pollution, and other active management regimes which may include mowing and grazing, or extending the coverage of certain habitats through planting. Change in management could also include change in how, where and when the public access certain areas specifically identified as important for nature conservation.

Option 1

Option 1 is shown in Figure 2-16 below. As well as the basic level of protection for Ballyman Glen SAC/pNHA Loughlinstown Woods pNHA this option focuses on extending wooded vegetation connectivity between the Loughlinstown Woods pNHA and the Ticknick LIA along the Shanganagh River incorporating Bride’s Glen east and Heron Bridge LIAs. By focusing on wooded habitats this option would also help to provide connectivity between two parcels of Annex I habitat (Alluvial Woodland) and result in greater connectivity for two lengths of County Important hedgerow.

This option would benefit a variety of habitats and species including the woodland habitat itself and any watercourses associated with Loughlinstown Woods pNHA. A variety of species would benefit from enhancing the woodland and Shanganagh River corridor including all bat species, badger and otter. If areas

of rough grassland and open scrubby areas could be incorporated this would amplify positive effects on.the small sallow mining bee *Enicocerous exsculptus*, common furrow bee and tawny mining bee.

The areas for enhancement (in orange) including areas within and between Carrickgollogan, wooded areas adjacent to Puck's Castle Lane and locally important biodiversity site adjacent to the Annex 1 habitat.

These orange enhancement areas in Option 1 are provided in order to form better connections to Loughlinstown Woods pNHA which is also promoted for further restoration through implementation of Option 1.

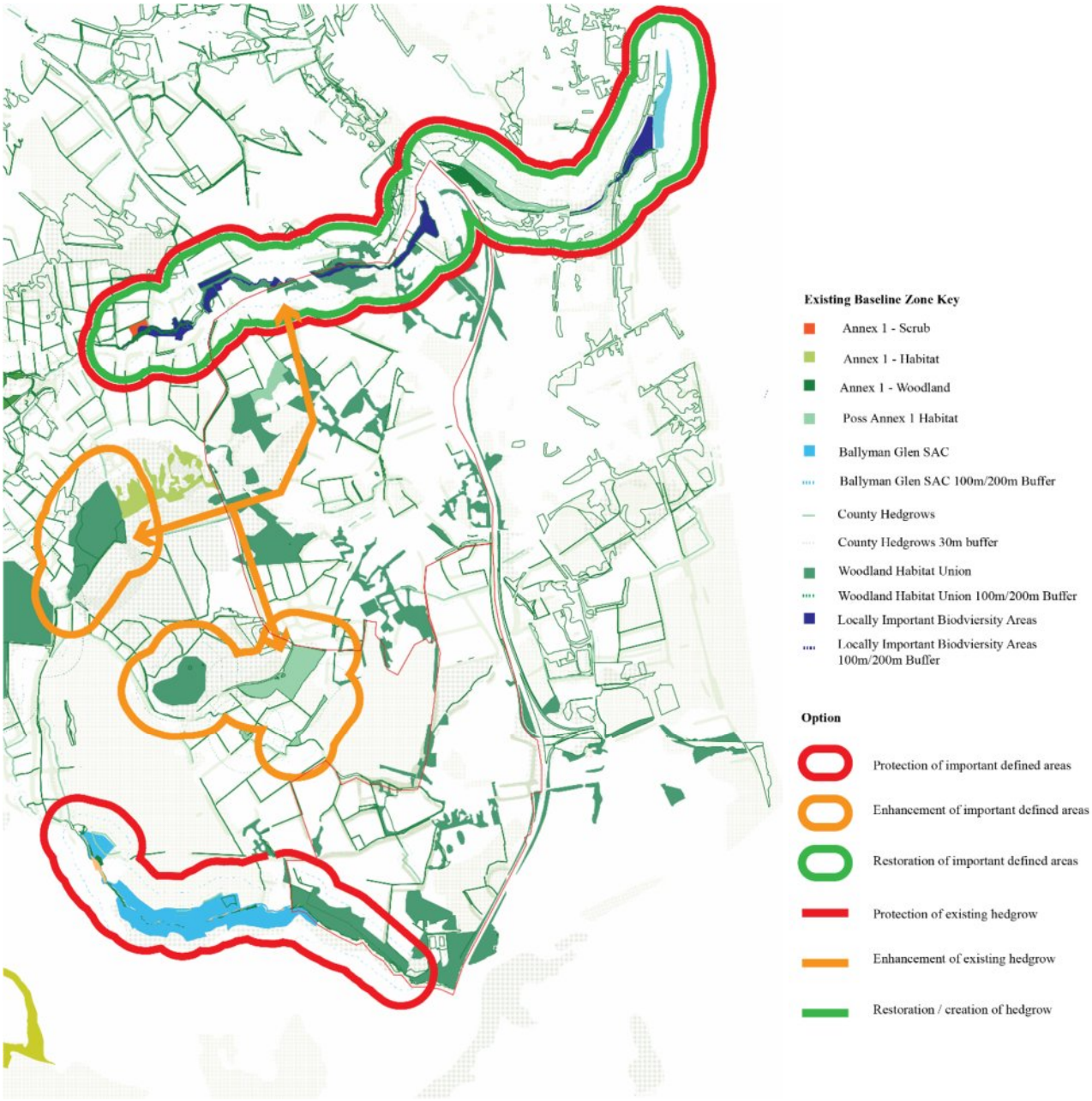


Figure 2-16 Ecology Option 1

Option 2

Option 2 is shown in Figure 2-17 below. This option differs from Option 1 in that attention and resources are directed at improving overall connectivity throughout the area as instead of focusing on restoring habitat for the entirety of Loughlinstown Woods pNHA resources would be directed at restoring dry heath and grassland habitats, enhancing connectivity between Rathmichael Wood, Carrickgollogan and Brides Glen. This option would also help to create a matrix of habitat types encompassing Annex I dry heath and potential Annex I semi-natural dry grassland and scrubland facies on Calcareous substrates whilst also

accommodating c. 1km of County Importance hedgerow and enhancing connectivity between large areas dedicated to nature conservation.

This option would benefit a wide variety of habitats and species. The dry heath and grassland habitats will be valuable for wider biodiversity interest and efforts should be made to enhance the habitat to accentuate this value. As well as benefitting mammals such as bats and badger and birds and such as skylark through creating areas easier for these species to move through and that are more attractive to feed or nest in, invertebrates such as dark green fritillary, common furrow bee, grey banded mining beewould have significantly more area to support their populations. Particular value from the option will come from the heterogeneity of the matrix that can be included and potentially enhanced.

These orange enhancement areas are the same as Option 1, forming a connection from Ballycorus and Carrickgollogan up through Rathmichael to Loughlinstown Woods which will work with the restoration of the grassland and heath habitats being restored between to provide greater levels of ecological connectivity.

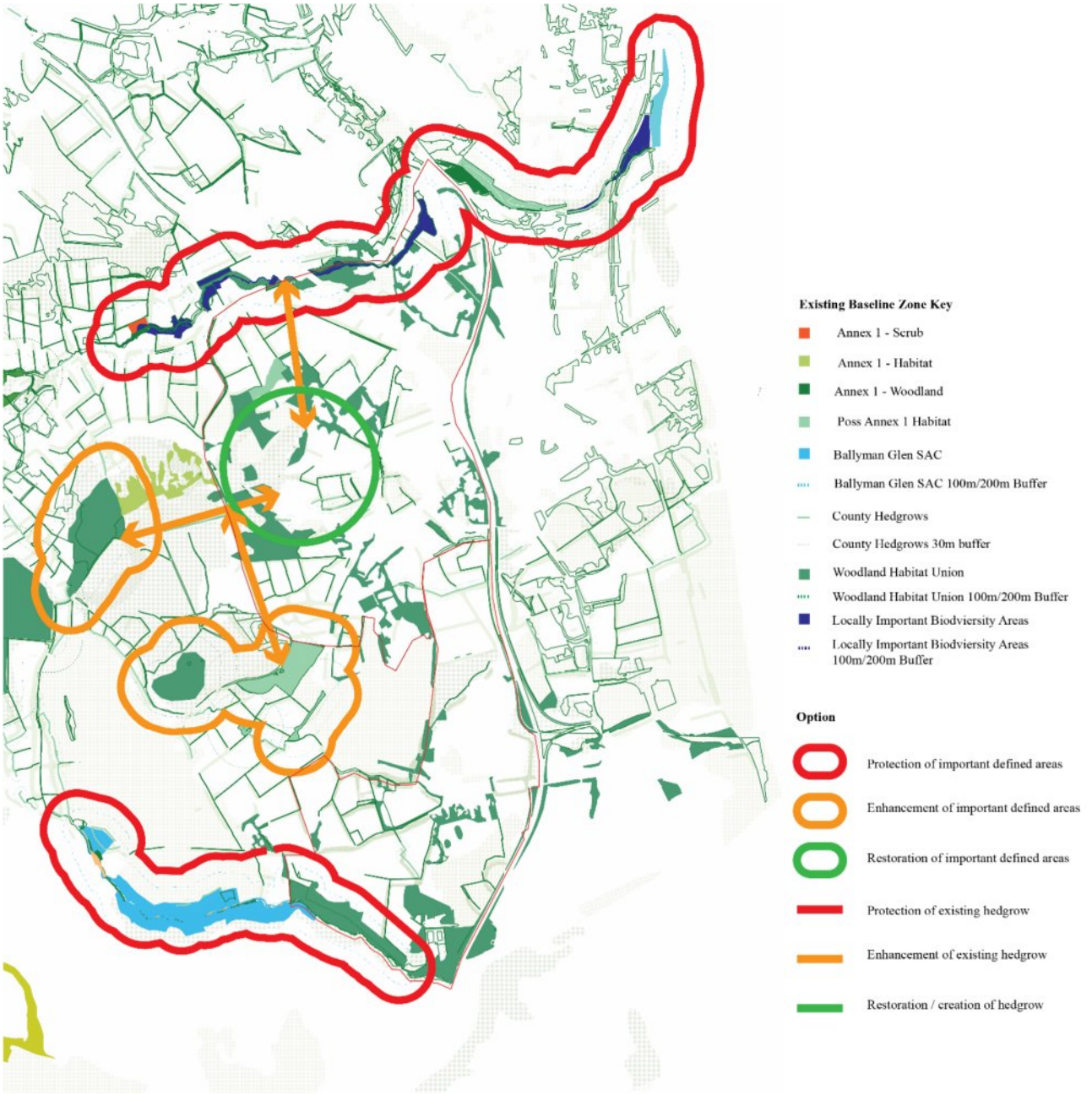


Figure 2-17 Ecology Option 2

Option 3

Option 3 is shown in Figure 2-18 below. This option would focus on enhancing connectivity along the M11, providing more linear strips of connectivity between Ballyman Glen SAC /pNHA and Loughlinstown Woods pNHA. Under this option resources would be not be focused on restoring a central area of Annex I habitat but would be used to enhance existing important hedgerows to east of the area and restoring a relatively long network of continuous length of hedgerow all the way from Ballyman Glen to Loughlinstown Woods east of the M11.

This option would provide benefits for many habitats and species but would differ in the level of resource being focused on linear hedgerow/woodland restoration rather than towards restoration of Loughlinstown Woods or of other larger areas of habitat between Ballycorus and Carrickgollogan up through Rathmichael to Loughlinstown Woods, as per Option 2. This Option would provide connectivity which benefits mammals and birds but also would see benefits for invertebrate species such as common furrow bee and grey banded mining bee. The overriding benefit of this option would be enhancement of areas to the east and restoration of those linear corridors on a north-south axis.

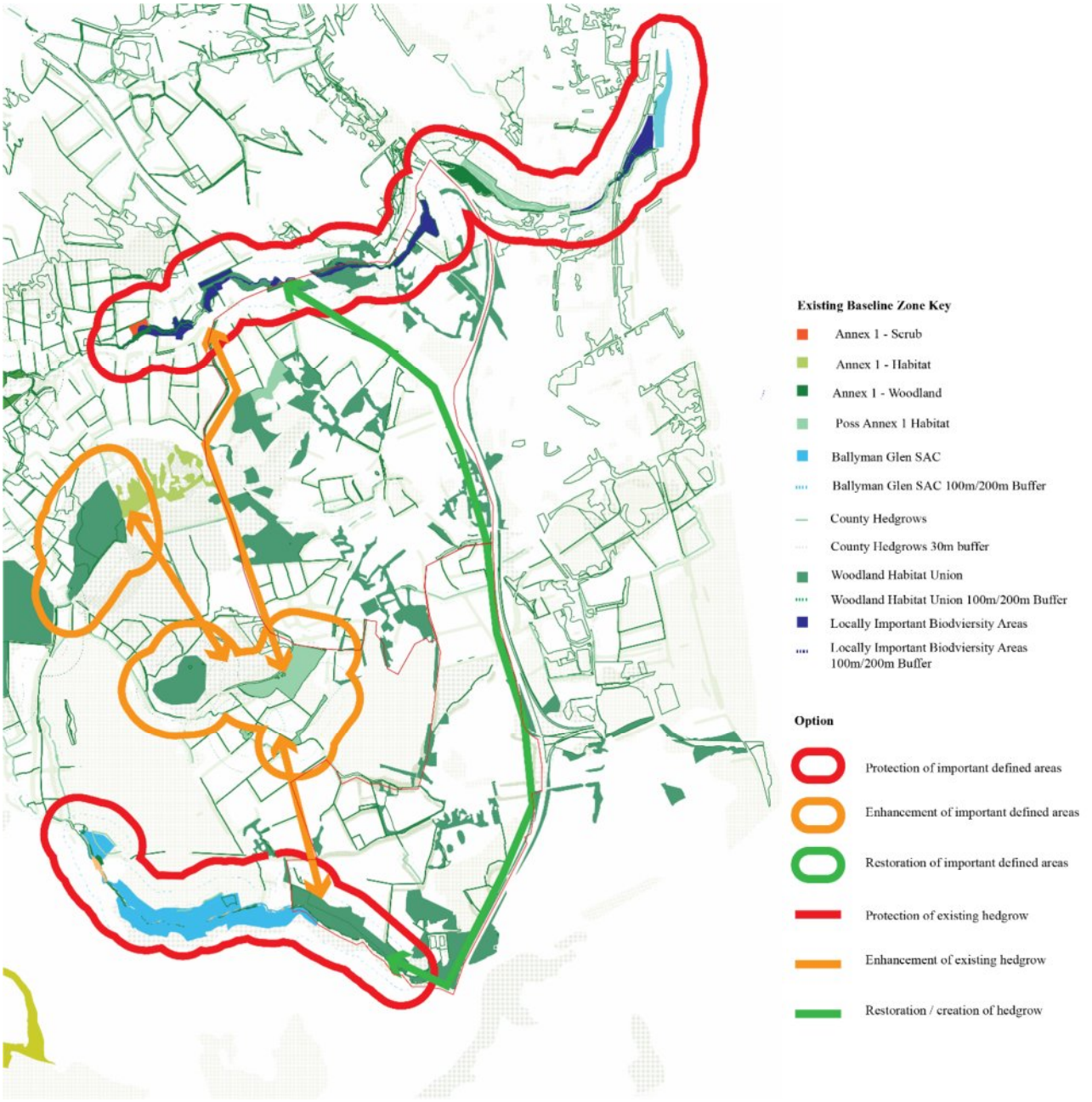


Figure 2-18 Ecology Option 3

Option 4

Option 4 is shown in Figure 2-19 below. This option differs from all other options in directing resources focusing nature conservation efforts on restoring connectivity along the east of the M11 corridor as included as part of Option 3 and restoring those areas in green, Carrickgollogan, the wooded areas adjacent to Puck's Castle Lane, and locally important biodiversity site adjacent to the Annex 1 habitat. As per Option 3, this option would help provide connectivity from north to south along the eastern spine of the site as well as provide connectivity perpendicular to 750m of county importance hedgerow and 750m of moderate importance hedgerow. Heterogeneity of good quality habitat is limited in this option but would enhance connectivity between the Ballyman Glen SAC and pNHA to the south and Loughlinstown Woods pNHA and Ticknick, Bride's Glen east and Heron Bridge LIAs to the north.

As per Option 3, this option would benefit all species including mammal and bird species and would most likely benefit grey banded mining bee and small sallow mining bee.

Resources are therefore focused on restoration of the key areas to the west and a linear strip of woodland/hedgerow habitat to the east. This may mean more benefits being realised in core areas to the east with however less connectivity to and from those areas.

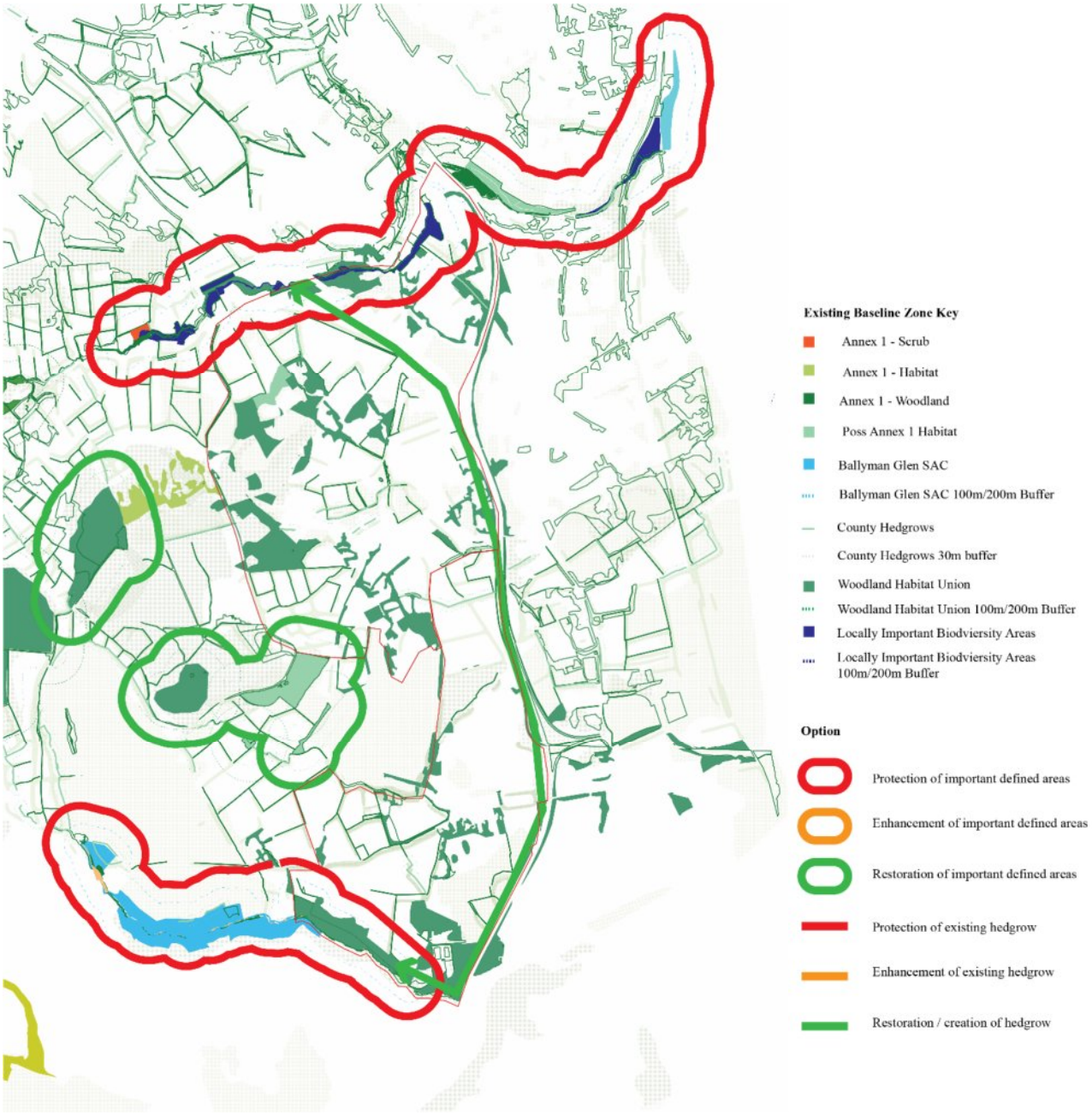


Figure 2-19 Ecology Option 4

A Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis of the options was undertaken utilising an options scoring system to provide a holistic evaluation of habitats, considering multiple factors crucial for biodiversity conservation. The analysis sought to prioritise conservation efforts, identifying areas for habitat restoration and guide land use planning to support and enhance biodiversity.

In terms of biodiversity Option 2 is preferred and opportunities to include semi-natural habitats as part of proposed parks in a sympathetic way is encouraged. Habitats will be enhanced and restored with consequential benefits for all species including bats. birds and badgers with invertebrates also benefitting. While no direct connection is achieved regarding policy ambition to connect Shanganagh Park to Rathmichael Wood, this option may assist in improving east west connections.

However operational pressures will be considerable in this option, and this would need to be managed to protect the wider ecological interest the option could cater for, in particular taking measures to manage light pollution and dog walking. Core nature conservation areas should be clearly demarcated and realised in any

proposals with restrictions placed as necessary on any activities which might have adverse effects on those nature conservation areas. For example dog walking is a highly disturbing activity for any species such as birds and mammals. In particular if skylark is seen as a target species for nesting in an area then human recreational activities including dog walking would need to be excluded.

Pursuit of Option 2 in itself should not preclude the development from also pursuing Options 1, 3 and 4, and indeed thoughtful consideration could de-risk proposals as well as provide for a more pleasant living environment. Pressures around options 1, 3 and 4 are much less substantial and embedding the options, even partially, could be synergetic to the wider project and policy ambitions. For instance, incorporation of measures for Option 1 would facilitate the extension of the Cherrywood Green Infrastructure into the plan area as well as provide a buffer between the project proposal and locally important biodiversity areas and a watercourse to the north.

Table 2-11 below outlines the proposed Green Infrastructure & Biodiversity infrastructure requirements as outlined in Table 6-1 in the Part 3 Options Development and Assessment Report.

Table 2-11: Infrastructural Requirements – Green Infrastructure & Biodiversity

Infrastructure / Spatial Element	Sub-Element	Infrastructure Requirements
Green Infrastructure & Biodiversity	Green Infrastructure & Biodiversity	• Protect existing green infrastructure and encourage and facilitate, the development, design and management of high quality natural and semi-natural areas • Expansion of the Rathmichael Woods Gateway Park and the Brides Glen to incorporate areas of biodiversity • The potential integration of attenuation ponds as part of the green infrastructure network

2.11 Preliminary Settlement Strategy

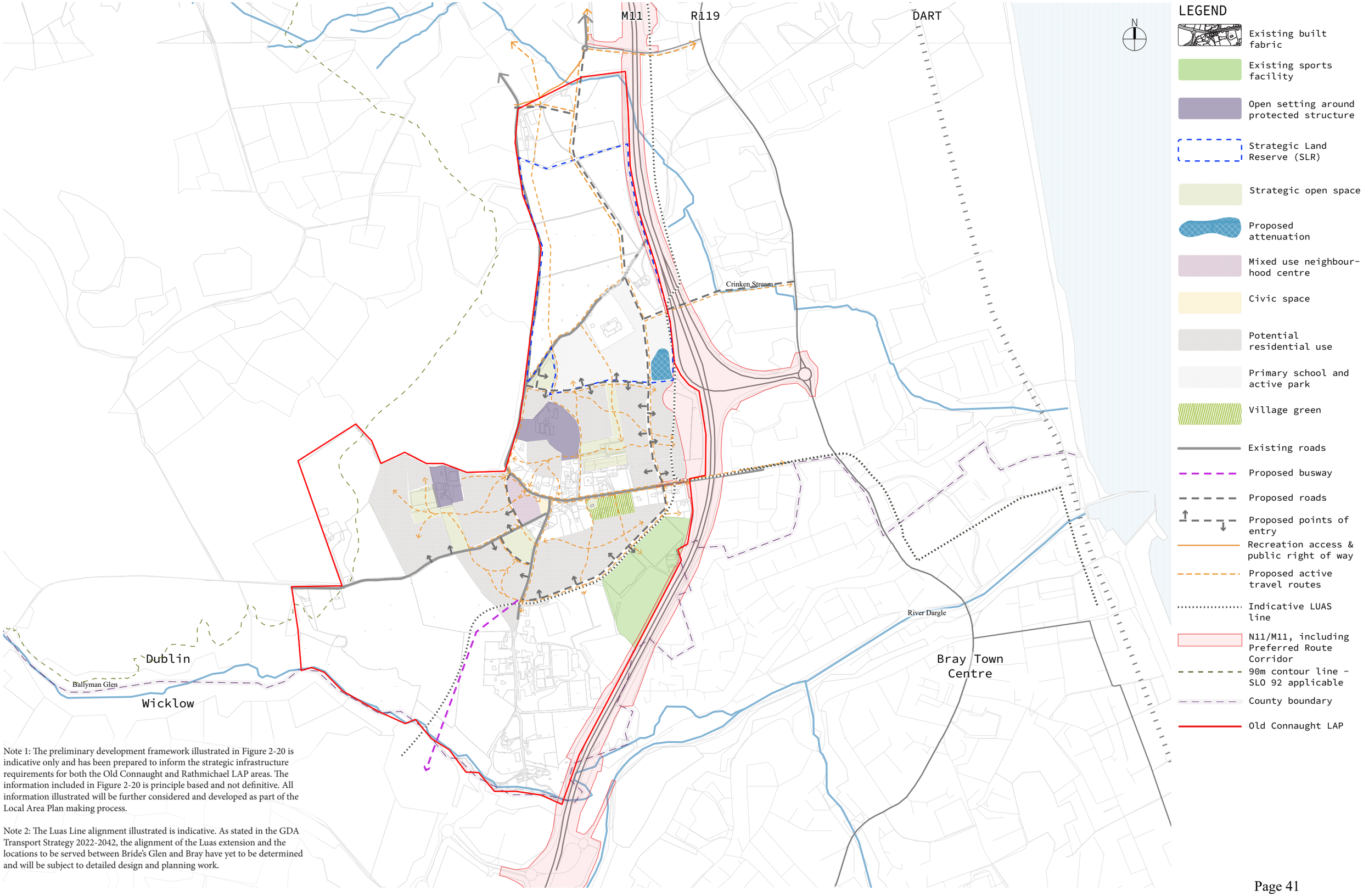
2.11.1 Overview

The Old Connaught and Rathmichael LAP areas exhibit distinct characteristics, each presenting unique challenges that require tailored spatial approaches to effectively provide for proper planning and sustainable development. The starting point in the development of a preliminary Settlement Strategy is to outline the context in terms of planning policy and objectives. A comprehensive assessment of relevant policy is contained in the ICAS Baseline Report.

As set out in the previous sections, the ICAS addresses a variety of infrastructural elements including green infrastructure, biodiversity, strategic open spaces, water and wastewater, drainage, housing, sustainable community facilities, ESB connections and telecommunications. The consideration of these infrastructural elements was progressed in parallel with the ABTA process to understand the transport needs for the LAP areas. Based on the analyses undertaken, existing assets and constraints and both existing and proposed infrastructural elements, were considered and integrated in order to develop a multidisciplinary infrastructure framework to support the proper planning and sustainable development of the Old Connaught and Rathmichael LAP areas. In tandem with this integrated analysis approach a high-level preliminary Spatial Strategy and preliminary development framework was developed for both areas. Details of the process undertaken is provided in the ICAS Part 3 Report - Options Development and Assessment.

Through the above integrated analysis approach, high-level development frameworks were developed for both Old Connaught and Rathmichael and these are illustrated in Figure 2-20 and Figure 2-21.

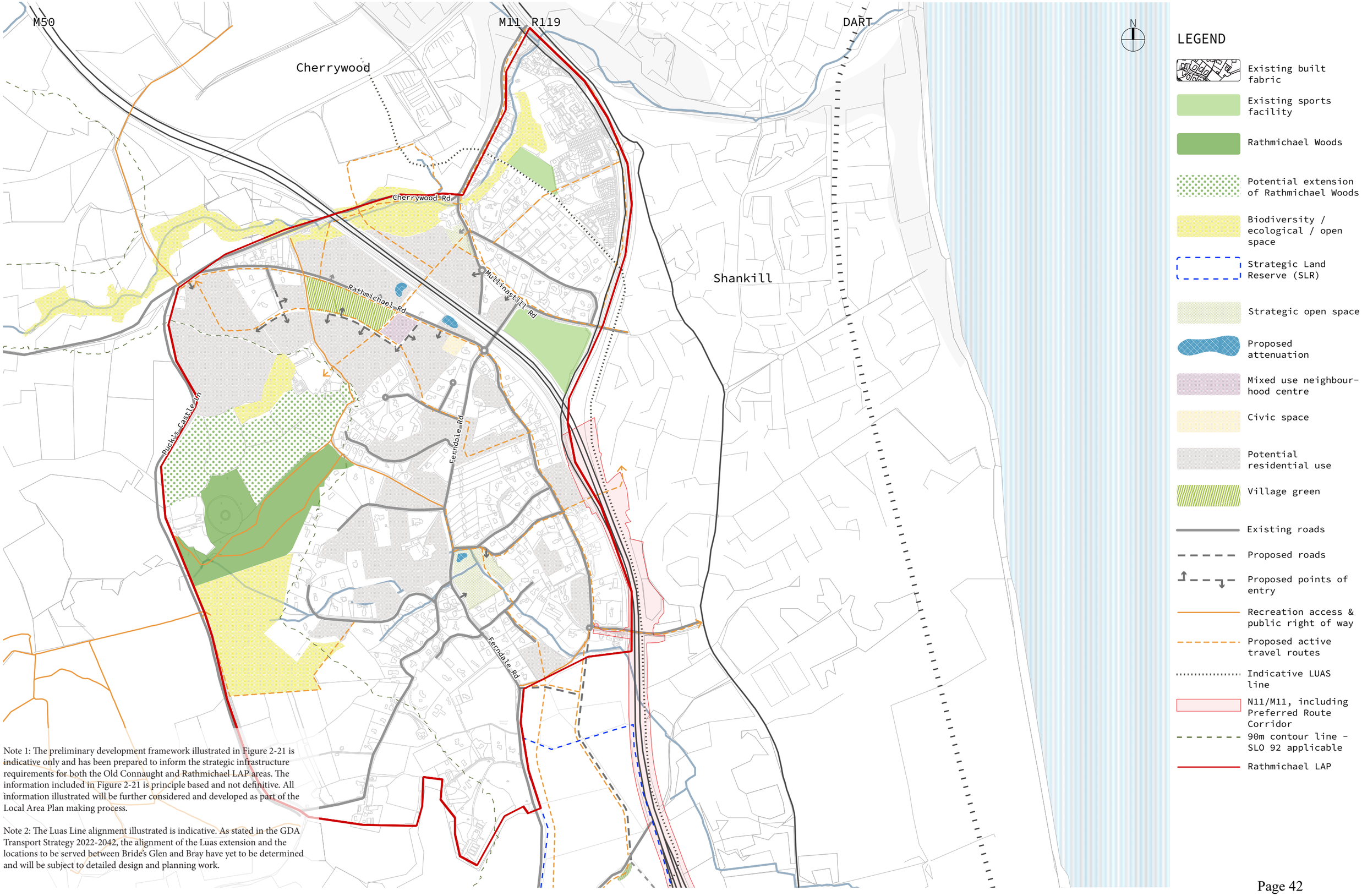
It is highlighted that the preliminary development frameworks were prepared for the purpose of the ICAS Study and to provide a more detailed framework and evidence basis to establish and inform the strategic enabling infrastructure requirements to facilitate plan-led development in the two LAP areas. The preliminary development frameworks are principle based, preliminary in format and not definitive. It is acknowledged and recommended that the frameworks are further considered and assessed as part of the Local Area Plan making process for each respective area.



Note 1: The preliminary development framework illustrated in Figure 2-20 is indicative only and has been prepared to inform the strategic infrastructure requirements for both the Old Connaught and Rathmichael LAP areas. The information included in Figure 2-20 is principle based and not definitive. All information illustrated will be further considered and developed as part of the Local Area Plan making process.

Note 2: The Luas Line alignment illustrated is indicative. As stated in the GDA Transport Strategy 2022-2042, the alignment of the Luas extension and the locations to be served between Bride's Glen and Bray have yet to be determined and will be subject to detailed design and planning work.

Figure 2-20: Preliminary Development Framework - Old Connaught



Note 1: The preliminary development framework illustrated in Figure 2-21 is indicative only and has been prepared to inform the strategic infrastructure requirements for both the Old Connaught and Rathmichael LAP areas. The information included in Figure 2-21 is principle based and not definitive. All information illustrated will be further considered and developed as part of the Local Area Plan making process.

Note 2: The Luas Line alignment illustrated is indicative. As stated in the GDA Transport Strategy 2022-2042, the alignment of the Luas extension and the locations to be served between Bride's Glen and Bray have yet to be determined and will be subject to detailed design and planning work.

Figure 2-21: Preliminary Development Framework - Rathmichael

2.12 Infrastructure Requirements

The identified infrastructure for the two LAP areas is summarised in Table 2-12 below. This includes infrastructure for all disciplines including transport, green infrastructure and biodiversity, strategic open spaces, parks and recreation, heritage and conservation, water, waste water and drainage, community facilities and education. It is noted that not all infrastructure identified in Table 2-12 may be categorised as strategic enabling infrastructure; that being infrastructure that is strategic in function and which enables sustainable residential development. Two land parcels are within dlr ownership for which details of the infrastructural requirements are outlined in Sections 3.4.8 and 3.5.7.

Table 2-12: Infrastructure Requirements - Summary

Infrastructure / Spatial Element	Sub-Element	Infrastructure Requirements
Transport	Active Travel	• Upgrade of Herenford Lane / Lehaunstown Lane • Provision of SLO 150 - Active Travel Link from Rathmichael Road to Cherrywood • Potential active travel link connecting Rathmichael and Cherrywood via the viaduct • Active travel link from Rathmichael Road via Brides Glen Road to Cherrywood • Provision of active travel link between Falls Road and Parc Na Silla Rise • Active Travel upgrades along Stonebridge Road from the roundabout junction of Ferndale Road to the junction with Dublin Road, part of which is proposed as part of the BusConnects Bray to City Centre CBC. • Bus Gates on Old Connaught Avenue • Love Lane and Love Lane Bridge • Active Travel Connection between Love Lane bridge and Fassaroe Lane • Internal Active Travel Network including north-south route parallel to Ferndale Road and an internal connection across M50, approximately 500m west of Stonebridge Road bridge • Designation of a Greenway route connecting Cherrywood to Bray which utilises a potential bridge between Cherrywood and Rathmichael Road, Rathmichael Road, Ballybride Road, a new link between Crinken Lane and Allies River Road, Old Connaught Avenue and Dublin Road. • Crinken Bridge - Active travel upgrades
	Public Transport	• Provision of a bus route running along Cherrywood Road, Brides Glen Road, Rathmichael Road, Ferndale Road, linking onto the proposed new North-South Link road and on to Old Connaught Avenue, with an additional route serving Fassaroe. • Accommodate for future Luas provision. • Accommodate for future provision of bus way bridge linking Fassaroe and Old Connaught across the Ballyman Glen.
	Vehicular Circulation	• Provision of a new road running North-South, connecting Ballybride Road/Crinken Lane with Old Connaught Avenue. • Provision of new road connecting Ferndale Road and the new North-South link Road • New development roads in the periphery of Old Connaught Village which allow for the removal of through traffic along Old Connaught Avenue • Conversion of Ballybride Road and Lordello Road to one-way circulation to allow for the provision of cycle facilities along these roads without the necessity for road widening. • Provision of a new road and bridge linking Old Connaught to the Old Dublin Road (N11 Overbridge to Dublin Road or N11/M11 Junction 4 to Junction 14 Improvement Scheme in this vicinity.) • Road upgrades

Infrastructure / Spatial Element	Sub-Element	Infrastructure Requirements
Green Infrastructure & Biodiversity, Open Space, Parks and Recreation, Heritage & Conservation	Green Infrastructure & Biodiversity	• Protect existing green infrastructure and encourage and facilitate, the development, design and management of high quality natural and semi-natural areas • Expansion of the Rathmichael Woods Gateway Park and the Brides Glen to incorporate areas of biodiversity • The potential integration of attenuation ponds as part of the green infrastructure network
	Open Space, Parks and Recreation	• Enhancement and extension of Rathmichael Woods as a Gateway/District Park. • New Active Park at Old Connaught • A range of other Strategic Open Spaces • New Village Green's at both Old Connaught and Rathmichael • Civic spaces/village centres. • Provision of greenways network and linear green connecting spaces
	Heritage & Conservation	Protect, encourage and facilitate the development, design and management of cultural heritage assets
Water	Potable Water	Old Connaught: Develop new looped watermain networks connecting to existing watermains to serve new developments. Rathmichael: Develop new looped watermain networks connecting to existing watermains to serve new developments.
	Wastewater	Old Connaught: • Develop new gravity wastewater sewer network to serve new developments and existing dwellings within the LAP area. • 1 no. wastewater pumping station and associated rising main with trenchless crossing of the M11 motorway to connect the Old Connaught LAP area to the existing Uisce Éireann network to the east of the motorway. • Interim temporary proposal for a wastewater rising main in the Old Connaught Avenue bridge and a potential temporary wastewater pumping station Rathmichael: • Develop new gravity wastewater sewer network to serve new developments and existing dwellings within the LAP area. • 1 no. wastewater pumping station and associated rising main with trenchless crossing of the M11 motorway to connect the Rathmichael LAP area to the existing Uisce Éireann network to the east of the motorway.
	Storm Water	Old Connaught: • Develop new gravity stormwater drainage networks to serve new roads, public realm and development sites within the LAP area. • 1 no. regional pond for stormwater attenuation and treatment. Rathmichael: • Develop new gravity stormwater drainage networks to serve new roads, public realm and development sites within the LAP area. • 3 no. regional ponds for stormwater attenuation and treatment.
Sustainable Communities	Community Facilities	Neighbourhood level community facilities at Old Connaught. Neighbourhood level community facilities at Rathmichael.
	Education Facilities	Old Connaught: • 1 or more primary schools. Rathmichael: • 1 or more primary schools. ICAS area: • Potential provision of a post primary school

Infrastructure / Spatial Element	Sub-Element	Infrastructure Requirements
ESB and Telecommunication	ESB	1 no. 38kV substation
	Telecommunication	New fibre cabinet capacity
Energy and Waste	Energy	Explore potential for district heating, renewable energy sources and distribution, geothermal options, heat transfer and climate change heat resilience.
	Waste (Circular Economy)	Reuse and consideration of waste management facilities to serve sustainable development.

Note: Appendix G of the Part 3 - Options Development and Assessment Report provides a full list and descriptions of the transport measures proposed as part of the preferred scenario.

2.13 SEA and AA Screening

Appendix C of this report includes the Strategic Environmental Assessment (SEA) Screening and Appropriate Assessment (AA) Screening reports.

The first stage of SEA Screening is 'Applicability Screening', whereby an assessment is carried out to determine whether a particular plan or programme is within the remit of the SEA Directive / SEA Regulations. The SEA Applicability Screening Report provides the findings of the SEA Applicability Screening process for the ICAS.

The ICAS Study will identify the proposed recommendations for high-level strategic enabling infrastructure required to facilitate plan-led development of the proposed LAP areas of Old Connaught and Rathmichael and to be considered in the formulation of policy by dlr to this effect. It has been determined that the SEA Directive does not apply to the ICAS and that proceeding to Stage 2 Screening is not necessary in this case.

An AA Screening report is also included in Appendix C which contains information regarding the need for a Screening for Appropriate Assessment on the ICAS project. An Appropriate Assessment of a plan or project is required if it is likely to have a significant effect on a European site, either alone or in combination with other plans and projects, pursuant to the Habitats Regulations (as amended) and the Planning and Development Act (as amended).

No pathways for effect were determined following review of the ICAS. Therefore, in accordance with guidance from the OPR, the ICAS cannot have a conceivable effect on a European site. Additionally, it has been determined that the ICAS does not meet the definitions of a 'project' or a 'plan' and therefore is not eligible for a Screening for AA.

The ICAS Study will identify the proposed recommendations for high-level strategic enabling infrastructure required to facilitate plan-led development of the proposed LAP areas of Old Connaught and Rathmichael and to be considered in the formulation of policy by dlr to this effect.

The ICAS Study is not required by legislative, regulatory or administrative provisions. The ICAS is not subject to a formal approval procedure.

3. Phasing of Development

3.1 Introduction

This Chapter sets out an indicative high-level phasing strategy to support the plan-led development of the two Local Area Plan areas. A phasing strategy is required to ensure the coordinated planning and delivery of essential infrastructure and services, in tandem with population growth, to ensure the sustainable development of these communities. The phasing strategy provides for the coordinated and incremental development of lands linked to the delivery of enabling infrastructure.

The proposed phasing strategy contained herein is indicative only and subject to further analysis to be undertaken during the local area plan making process. This proposed phasing strategy takes a high-level approach and focusses on the delivery of enabling infrastructure that is strategic in scale and/or function. It is noted that additional infrastructure, beyond that identified in this Chapter, will be required to support the development of the existing and new sustainable communities at Old Connaught and Rathmichael. This indicative phasing strategy therefore provides a high-level strategic infrastructure framework whereupon additional layers of detail would be further considered and integrated through the local area plan making process.

It is highlighted that there are additional uses that may be considered to form components of a phasing strategy for each Local Area Plan, which are not within the remit of the ICAS Study. For example, the phasing associated with the delivery of a Neighbourhood Centre, including retail and non-retail uses, may be considered a fundamental part of a phasing strategy to deliver a sustainable residential community. It is recommended, therefore, that infrastructure / services which do not form part of the ICAS Study, or are more localised in function, should be considered as part of the local area plan-making process. Furthermore, there is scope through the local area plan process to consider greater specifics regarding the timing of infrastructure and service delivery.

While the planning merits for the inclusion of a phasing programme are sound, that being to ensure the coordinated planning and delivery of essential enabling infrastructure and services, in tandem with population growth, to ensure sustainable development, it is also recognised that an inflexible phasing programme can be problematic where potential unforeseen issues arise. This is particularly relevant having regard to land ownership and property rights. In this regard, it is recommended that any final LAP phasing programme is assessed in the context of implementation certainty and, if necessary, the potential for flexibility to be built into any LAP phasing programme is considered.

3.2 Legislation and Planning Policy

Section 19(2)(b) of the Planning and Development Act 2000 (as amended), provides for the phasing of development within a Local Area Plan.

"(2) A local area plan shall be consistent with the objectives of the development plan, its core strategy, and any regional spatial and economic strategy that apply to the area of the plan and shall consist of a written statement and a plan or plans which may include,

(a) objectives for the zoning of land for the use solely or primarily of particular areas for particular purposes, or

(b) such other objectives in such detail as may be determined by the planning authority for the proper planning and sustainable development of the area to which it applies, including the objective of development of land on a phased basis and, detail on community facilities and amenities and on standards for the design of developments and structures." (Emphasis added.)

The Section 28 Guidelines, 'Local Area Plans – Guidelines for Planning Authorities' (2013) and the 'Development Plans – Guidelines for Planning Authorities' (2022), provide guidance on the phasing and sequencing of development as part of the plan-making process. The Section 28 Local Area Plan Guidelines (2013) note that:

'Local area plans for newly developing areas, in particular, should include a sequential development and phasing programme linked with any necessary investment in water services, public transport, community facilities, and schools.'

The Section 28 Development Plan Guidelines (2022) provide a more nuanced commentary on the requirement for phasing, highlighting that phasing should be viewed in the context of the urgent need to increase housing supply and applied where there is sound planning rationale for doing so:

'…phasing should be applied where there is a sound planning rationale for doing so, based on factors such as site location, the availability or proximity of, or capacity to provide, off-site services, facilities or infrastructure… Phasing may not be necessary where the planning judgement is that unconstrained zoned and serviced housing sites are of broadly equivalent merit for development purposes in a particular settlement or area at the plan-making stage.'

The proposed indicative phasing strategy set out herein has had regard to *inter alia* the above Section 28 Guidelines. It is considered that a balanced approach to phasing is required which – based on sound planning rationale - ensures the delivery of enabling infrastructure and services to support sustainable development having regard to the urgent need to deliver housing and the new communities.

3.3 Implementation and Funding

Implementation and funding are core components of a successful phasing strategy. As set out in Chapter 2,'Old Connaught and Rathmichael Infrastructure Requirements', a suite of enabling infrastructure and upgrades are identified for the LAP areas. It is noted, however, that not all infrastructure identified in Chapter 2 may be categorised as strategic enabling infrastructure and considered necessary for inclusion as part of a phasing strategy to enable sustainable residential development.

It is highlighted that a concerted range of actions will be required to ensure the successful implementation of the phasing strategies set out hereunder and progress the sustainable development of Old Connaught and Rathmichael. While this Chapter sets out an indicative high level phasing strategy for each LAP area, it should be read in conjunction with Chapter 4, 'Implementation and Funding', which provides an overview and assessment of some of the main means through which enabling infrastructure may be funded.

3.4 Old Connaught LAP Area - Phasing

As noted in section 3.2, the Section 28 Development Plan Guidelines (2022) advise, in the first instance that, *'…phasing should be applied where there is a sound planning rationale for doing so…'.* Having regard to the extent of the infrastructural requirements necessary to support the sustainable development of the Old Connaught area, identified as part of the ICAS Study, it is considered that a strong evidence-based rationale exists for the incorporation of a phasing strategy to guide and co-ordinate the development of the new residential community at Old Connaught.

3.4.1 Old Connaught Phasing Considerations

The recommended high-level phasing strategy for Old Connaught is informed by a range of factors including *inter alia*:

- Consolidation with the existing built-up area and delivering compact growth. As part of the regional settlement hierarchy, Old Connaught comprises a component part of the future growth and westward expansion of the 'Key Town' of Bray.
- Old Connaught is identified as a new residential community in the Dublin Metropolitan Area Strategic Plan on the North-South strategic development corridor.
- The objective for the creation of a sustainable new residential community – in accordance with dlr County Development Plan policy, it is an objective to plan for a sustainable new residential community at Old Connaught based on the concept of the sustainable urban village and the '10' minute neighbourhood concept.
- Proximity to existing public transport, facilities and services and proposed upgrades to same.

- The potential for lands to deliver infrastructure and services to support and facilitate growth in a sustainable and co-ordinated manner.
- The efficient use of both existing and proposed infrastructure.
- Acknowledgement of the urgent need to provide a planning framework to facilitate the timely delivery of residential development.
- Planning policy and guidance.

3.4.2 Recommended Phasing Strategy

The indicative high-level phasing strategy recommended for the Old Connaught LAP area is illustrated in Figure 3.1. While the strategy focusses on the efficient use of infrastructure and maximising development based on infrastructure capacity, based on the analysis undertaken as part of the ICAS Study, it is considered that significant 'early stage' progression of key strategic infrastructure is ultimately required in order to ensure the proper planning and sustainable development of the LAP area.

While the phasing strategy indicates three phases - Phases A, B and C – it is highlighted that only lands identified as 'Phase A' and 'Phase B' are zoned primarily Objective 'A1' under the dlr County Development Plan 2022-2028*, "To provide for new residential communities and Sustainable Neighbourhood Infrastructure in accordance with approved local area plans"*. The lands identified as 'Phase C' and Phase 'A to C' are identified as a Strategic Land Reserve and zoned 'GB' under the dlr County Development Plan 2022-2028, *"To protect and enhance the open nature of lands between urban areas."*. The proposed indicative high level phasing strategy for Old Connaught comprises the following:

- Phase A – These lands are zoned primarily Objective 'A1' and considered sequentially preferrable for the first phase of development at Old Connaught, with potential to deliver c. 850 - 1,000 new homes, subject to the delivery of strategic enabling infrastructure.
- Phase B – Lands identified as 'Phase B' are zoned Objective 'A1' and considered sequentially preferrable for the second phase of development at Old Connaught with potential to deliver c. 1,300 – 1,400 new homes, subject to the delivery of strategic enabling infrastructure.
- Phase C - Lands identified as 'Phase C' are zoned Objective 'GB' and not currently zoned for residential development. The lands are, however, identified under the County Development Plan as a Strategic Land Reserve, indicating potential for strategic residential expansion in the longer term. Based on the existing County Development Plan zoning status, the lands are identified as a potential third phase of residential development.
- Phase A to C - Lands identified as 'Phase A and C' are zoned Objective 'GB' and are also identified under the County Development Plan as a Strategic Land Reserve. As part of the ICAS Study the lands are primarily identified for the provision of enabling infrastructure to serve the Old Connaught area, including attenuation infrastructure; road infrastructure; educational facilities; and an active / recreational area.

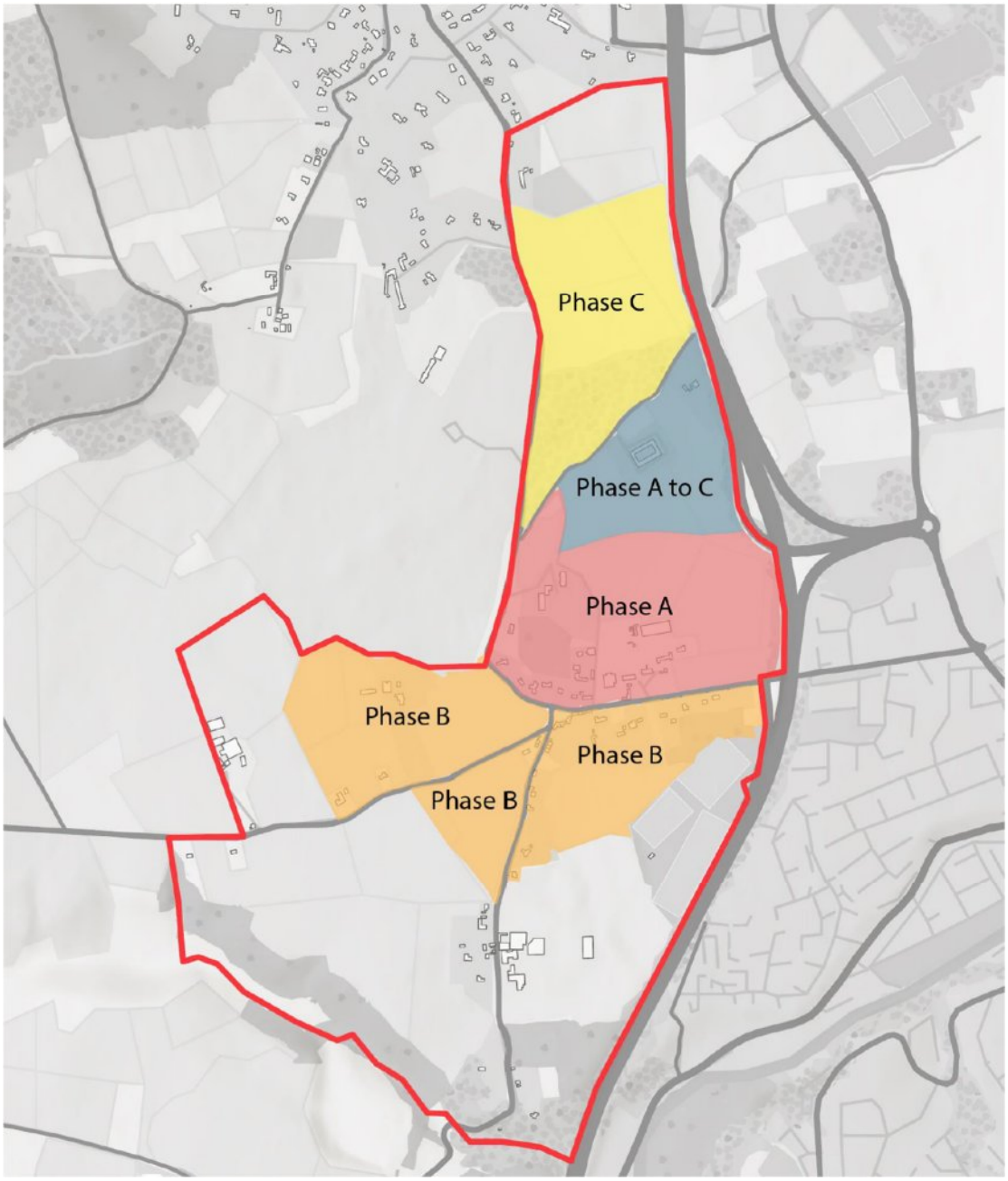


Figure 3-1: Old Connaught Indicative High Level Phasing Strategy

3.4.3 Old Connaught – Phase A

The lands identified as Phase A, located to the north of Old Connaught Avenue, are zoned primarily Objective 'A1' and considered sequentially preferrable for the first phase of residential development at Old Connaught, see Figure 3.2. Initial estimates based on the preliminary density ranges considered as part of the ICAS Study indicate that the potential residential yield of Phase A is c. 850 – 1,000 new homes. It is noted that there may be some limited potential for additional residential development through the potential consolidation of existing residential land uses in this area.

Based on the analysis undertaken as part of the ICAS Study, it is recommended that Phase A incorporates an initial sub-phase (sub-phase 1) where some limited residential development may be facilitated based on existing infrastructure capacity, interim measures including wastewater infrastructure and additional enabling infrastructure proportionate to the scale of development, see Table 3.1. Given the proximity to existing public transport, services and facilities, it is considered that lands located in the south and east of Phase A are sequentially preferrable for residential development in an initial sub-phase. However, given overall infrastructure upgrade requirements it is recommended that sub-phase 1 is limited, and further development is subject to the progression of the necessary additional enabling infrastructure.

It is recommended that the remaining residential development lands within Phase A (sub-phase 2) are progressed based on the incremental provision of strategic enabling infrastructure identified in Table 3.1. Of particular importance to support the sustainable development of the Old Connaught Local Area Plan area is the progression of the proposed new road and bridge over the N11 to the Dublin Road to the east (or the N11/M11 Junction 4 to Junction 14 Improvement Scheme in this area). The progression of these transportation improvements would enable the implementation of the bus gates and active travel measures at Old Connaught Avenue and ensure that the development of Old Connaught is underpinned at an early stage by sustainable travel patterns and modes.

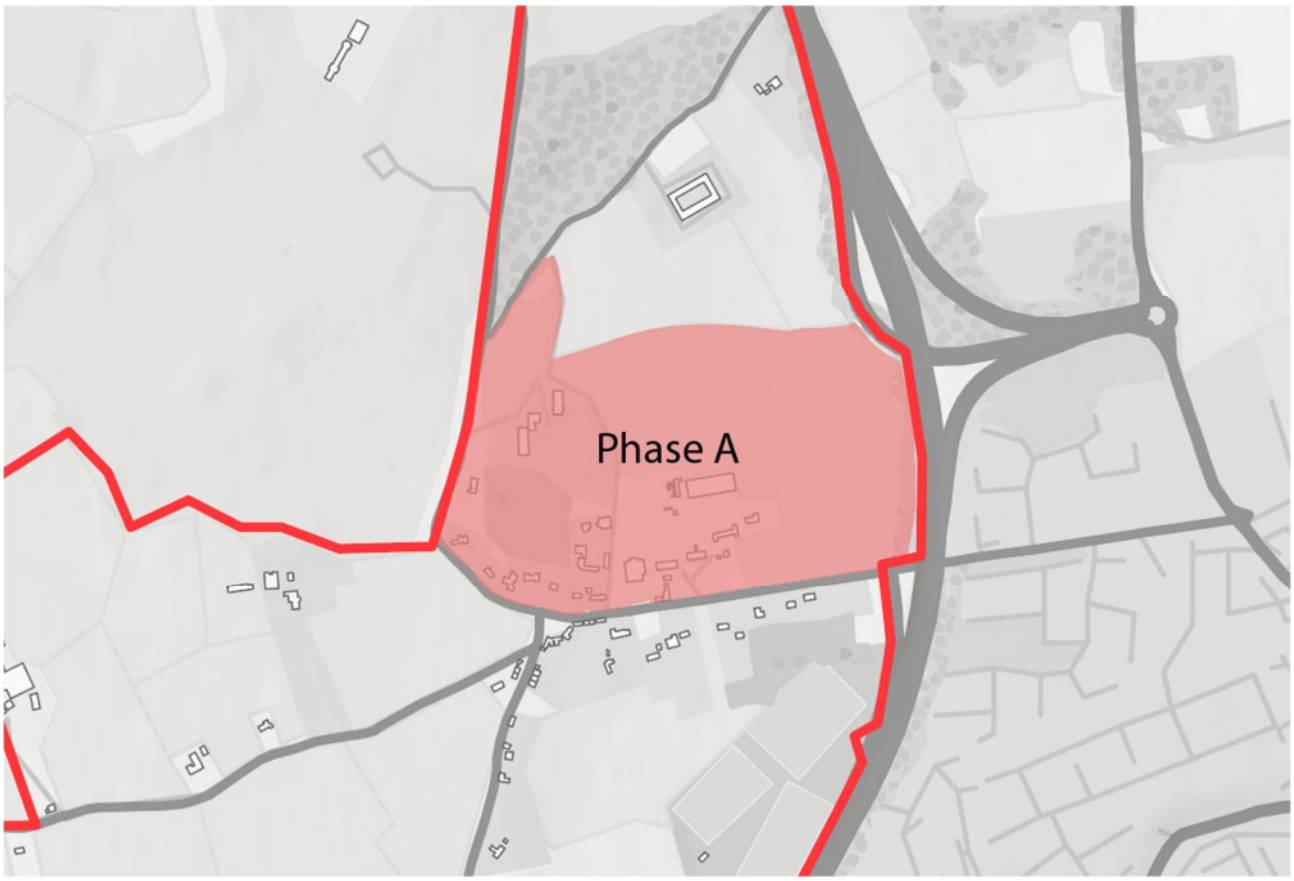


Figure 3-2: Old Connaught Phase A

Table 3-1 details the infrastructure to be delivered to support residential development as part of the area identified as Old Connaught Phase A. Figure 3-3 shows the indicative location of this infrastructure.

Table 3-1: Old Connaught Phase A – Infrastructure Phasing Table

Phase A	Approx. New Homes	Infrastructure
Sub-Phase 1	c. 300 - 400	Wastewater pumping station (temporary or permanent).
		Interim wastewater proposal using available footpath duct in the Old Connaught Avenue overbridge.
		Primary area wide attenuation pond (subject to further assessment).
		Delivery of part of the new north-south link road adjoining residential plots (as applicable).
		Incremental expansion of water, wastewater and drainage networks.
Sub-Phase 2	Remaining build-out of Phase A	Interim wastewater proposal using available footpath duct in the Old Connaught Avenue overbridge.
		Permanent wastewater pumping station (subject to capacity of any potential temporary pumping station) and trenchless motorway connection to existing wastewater network east of the motorway.
		Primary area wide attenuation pond
		Progression of new road and bridge over N11 to the Dublin Road to the east, or the N11/M11 Junction 4 to Junction 14 Improvement Scheme in this area.
		Bus Gates and active travel measures at Old Connaught Avenue.
		Link road between Ferndale Road and north-south road.
		Interim bus proposal.
		Active travel linkages.
		2 no. strategic open spaces (1.9 ha and 0.7 ha).
		Incremental expansion of water, wastewater and drainage networks.
		Electricity infrastructure upgrades (subject to further assessment).
Telecommunications: Progression of telecommunications infrastructure to take place through all the phases		

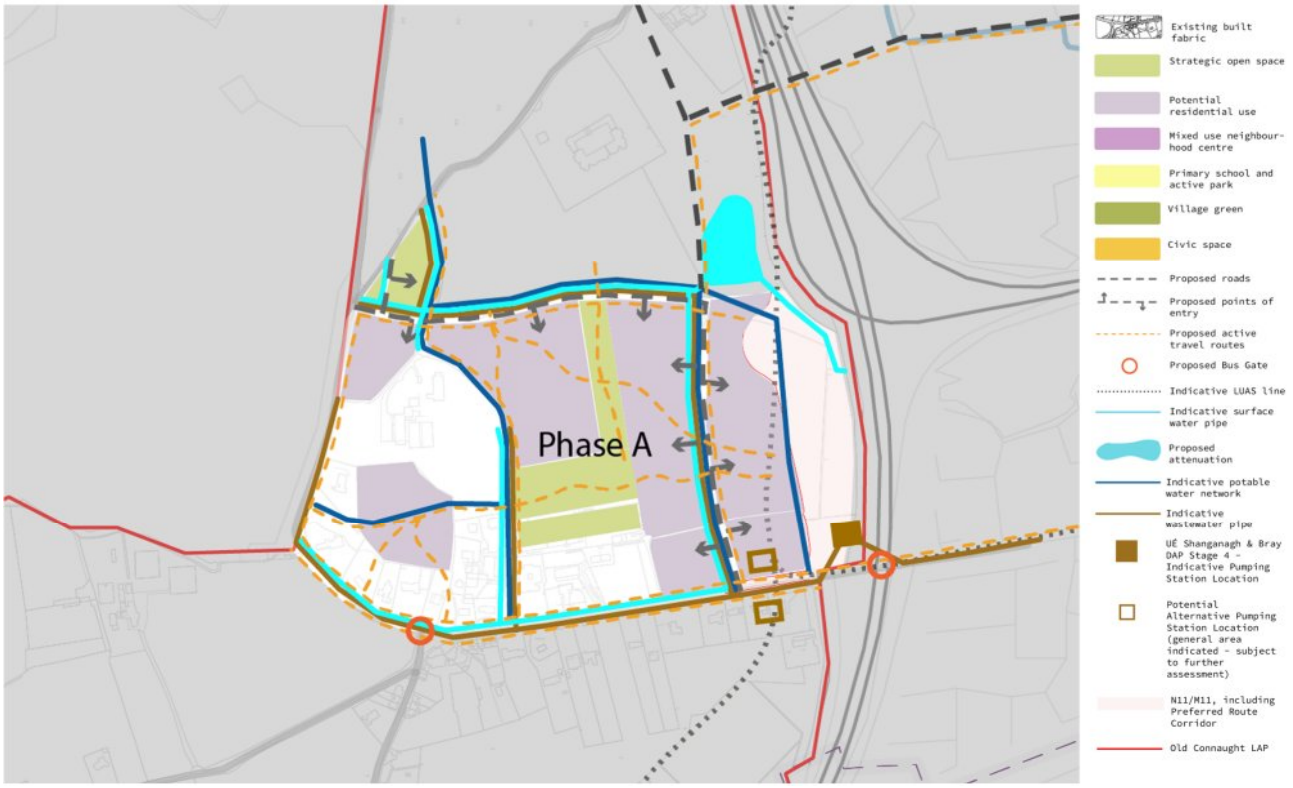


Figure 3-3: Old Connaught Phase A Infrastructure (For context, please see the overall Old Connaught Proposed Infrastructure Phasing Map in Appendix D)

3.4.4 Old Connaught – Phase B

The lands identified as Phase B are zoned Objective 'A1' and considered sequentially preferrable for the second phase of residential development at Old Connaught. Phase B incorporates three distinct areas of 'A1' zoned lands located to the south of Old Connaught Avenue and to the west of Ferndale Road, which are intersected by the Ballyman and Thornhill Roads. Phase B is illustrated in Figure 3-4. Initial estimates based on the preliminary density ranges considered as part of the ICAS Study indicate that the potential residential yield of Phase B is c. 1,300 – 1,400 new homes. It is noted that there may be some limited potential for additional residential development through the potential consolidation of existing residential land uses in this area.

While distance to existing services and facilities varies across the area identified as Phase B, it is considered appropriate, subject to the progression of sufficient infrastructure and services being provided within and serving the LAP area, to progress the development of Phase B based on the lands being of broadly equivalent merit for development purposes. This recommendation is reached assuming that sufficient area wide infrastructure is progressed as part of Phase A, additional area wide infrastructure is progressed to support the overall development of Phase B, and sufficient infrastructure is delivered to support development at the local level.

The objective of enabling the development of Phase B as a whole is to progress the internal consolidation of Old Connaught as a sustainable urban village. As distinct to Phase A, the progression of Phase B is based, to a greater extent, on the overarching development framework envisaged for Old Connaught, and to a lesser degree on existing facilities and services external to the Plan area. This creates a shift in geographic focus for sequential development focusing on the internal consolidation of Old Connaught Village with less weighting applied to the external consolidation of Old Connaught with its wider environs.

In order to progress Phase B, it is recommended therefore that the LAP phasing strategy is subject to a broader range of infrastructure and service provision which allows for the progression of residential development based on achieving the sustainable urban village and 10-minute neighbourhood concept at Old Connaught.

For example, and as indicated in the preliminary development framework for Old Connaught – see Figure 2-20 – lands within Phase B are identified for neighbourhood centre uses. While outside of the remit of the ICAS Study, it is recommended that the phasing of neighbourhood centre uses as part of Phase B should be considered as part of the phasing programme prepared for the Local Area Plan. It is considered that the progression of a neighbourhood centre at Old Connaught, in addition to other land uses, would create a shift in destination nodes and movement patterns which influences the recommended sequential phasing of development.

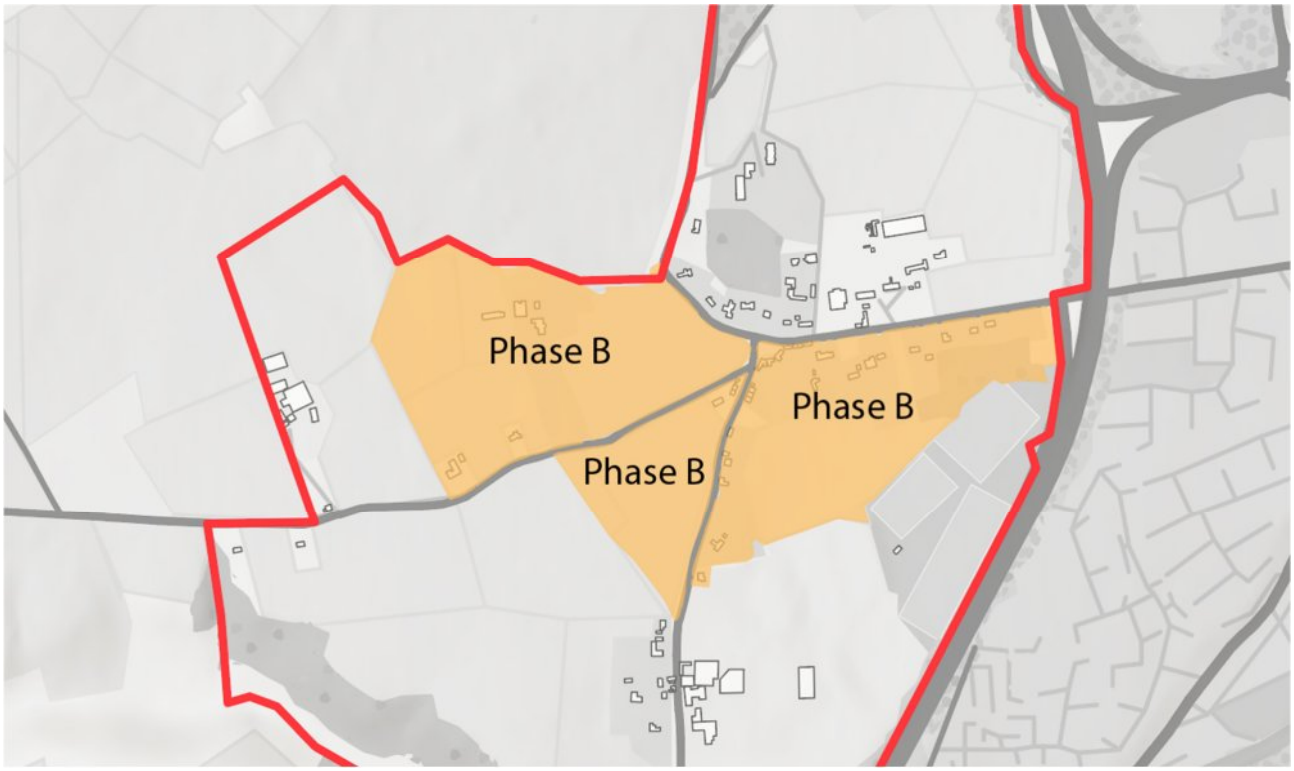


Figure 3-4: Old Connaught Phase B

Table 3-2 details the infrastructure to be delivered to support residential development as part of the area identified as Old Connaught Phase B. Figure 3-5 shows the indicative location of this infrastructure.

Table 3-2: Old Connaught Phase B – Infrastructure Phasing Table

Phase B	Infrastructure
	Phase A infrastructure.
	38kv substation (subject to existing capacity).
	Community infrastructure
	Link road between Old Connaught Avenue and Thornhill Road.
	Link road between Thornhill Road and Ballyman Road.
	Link road between Ballyman Road and Ferndale Road.
	Interim bus proposal.
	Strategic 1.4 ha Village Green at Old Connaught Avenue.
	c. 1 ha strategic open space at land to the west of Thornhill Road and south of Ballyman Road.
	c. 2.4 ha strategic open space adjacent to Jubilee Hall grounds.
	Incremental expansion of water, wastewater and drainage networks.
	Active travel linkages.
Telecommunications: Progression of telecommunications infrastructure to take place though all the phases	

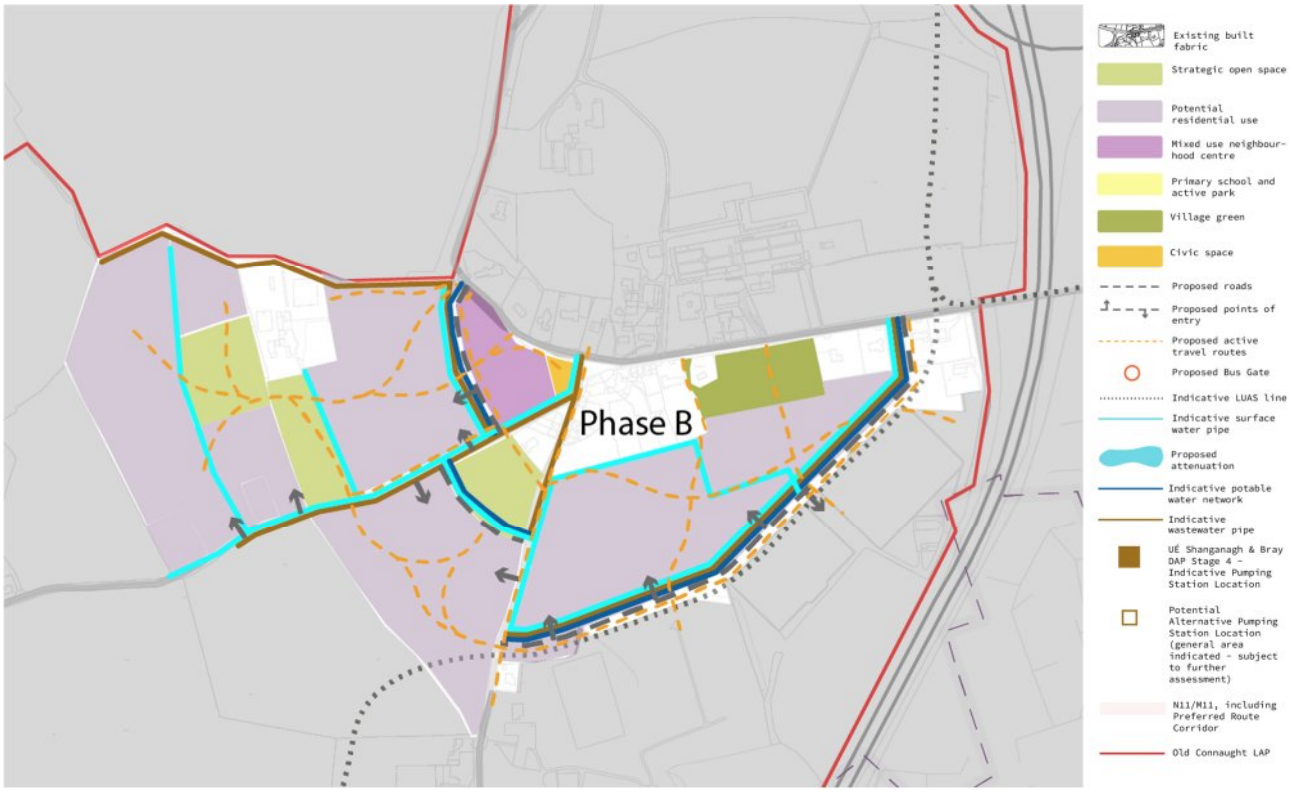


Figure 3-5: Old Connaught Phase B Infrastructure (For context, please see the overall Old Connaught Proposed Infrastructure Phasing Map in Appendix D)

3.4.5 Old Connaught – Phase C

Lands identified as 'Phase C' are zoned Objective 'GB' under the dlr County Development Plan 2022-2028 and located to the north of Allies River Road, see Figure 3-6. The lands are not currently zoned for residential development but are, however, identified under the County Development Plan as a Strategic Land Reserve, indicating potential for strategic residential expansion in the longer term. As indicated in Table 2.12 of the dlr County Development Plan the lands identified as a Strategic Land Reserve have a potential residential yield of c. 1,050 new homes. Having regard to the existing Development Plan status, the lands are identified as a potential third phase of residential development at Old Connaught. It is highlighted, however, that residential development at the lands would require a change in the existing zoning status.

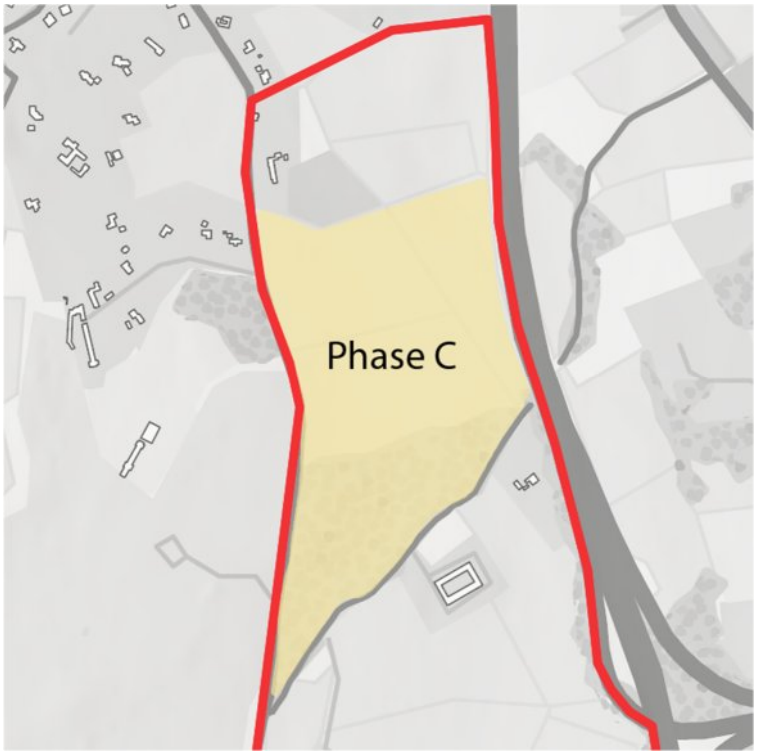


Figure 3-6: Old Connaught Phase C

Table 3-3 details infrastructure to be delivered to support potential residential development as part of the area identified as Old Connaught Phase C. Figure 3-7 shows the indicative location of this infrastructure.

It is noted that, as the subject lands are not currently zoned for residential development, the preliminary development framework developed for Old Connaught – see Figure 2-20 – has not assessed the lands at the same level of detail as that for the existing 'A1' zoned land at Old Connaught. In this regard, it is noted that, subject to further assessment, additional infrastructure requirements may be identified to support residential development at the lands.

Table 3-3: Old Connaught Phase C – Infrastructure Phasing Table

Phase C	Infrastructure
	Completion of the north-south link road connecting Old Connaught Avenue and the Ballybride Road.
	Northern link road between Ferndale Road and north-south road.
	Bus provision.
	Strategic active travel linkages.
	Incremental expansion of water, wastewater and drainage networks.
Telecommunications: Progression of telecommunications infrastructure to take place through all the phases	

Figure 3-7: Old Connaught Phase C Infrastructure (For context, please see the overall Old Connaught Proposed Infrastructure Phasing Map in Appendix D)

3.4.6 Old Connaught – Phase A to C

Lands identified as 'Phase A to C' are zoned Objective 'GB' under the dlr County Development Plan 2022-2028 and located to the south of Allies River Road, see Figure 3-8. The lands are not currently zoned for residential development but are, however, identified under the County Development Plan as a Strategic Land Reserve. The lands also include an 'ED' objective for a proposed education site under the County Development Plan. Through the ICAS Study the lands are primarily identified for the provision of enabling infrastructure to serve the Old Connaught area including attenuation infrastructure; road infrastructure; educational facilities; and an active / recreational area.

The provision and phasing of such uses at the subject lands is considered appropriate having regard to land uses identified as 'permitted in principle' and 'open for consideration' at 'GB' zoned lands and having regard to Policy Objective CS5 – Strategic Land Reserve of the County Development Plan which states:

"Policy Objective CS5 – Strategic Land Reserve

It is a Policy Objective:

- *To designate and maintain as a strategic land reserve the lands marked accordingly on Land Use Zoning Map No. 14.*
- *To protect the strategic land reserve for potential future residential growth and to restrict development except for minor modifications and extensions to existing properties and the development of appropriate educational/open space/ recreational facilities compatible with the underlying zoning objective and in line with any future Old Connaught LAP."*

In terms of phasing timeframes, it is recommended that the delivery of the infrastructure at the subject lands, as identified through the ICAS Study, is progressed in association with and to support residential development throughout the Old Connaught LAP area.

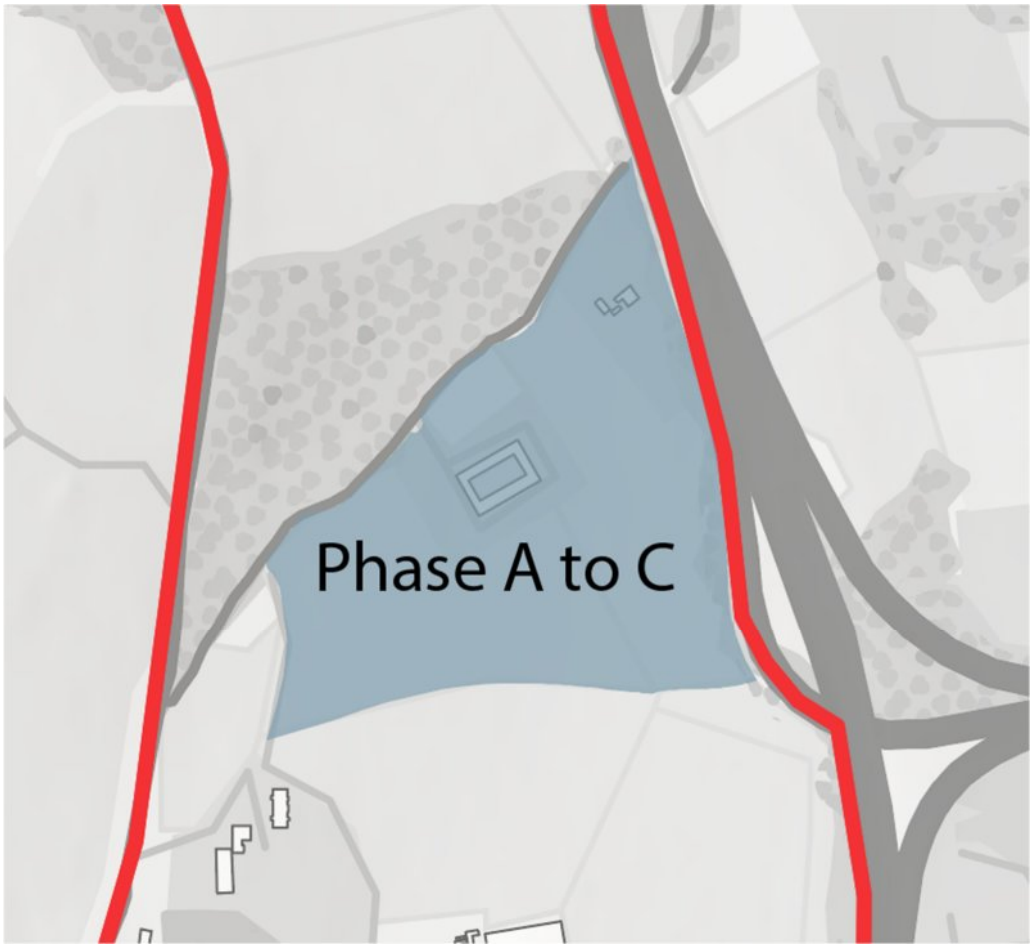


Figure 3-8: Old Connaught Phase A to C

Table 3-4 details infrastructure to be delivered to support potential residential development as part of the area identified as Old Connaught Phase C. Figure 3-9 shows the indicative location of this infrastructure.

Table 3-4: Old Connaught Phase A to C – Infrastructure Phasing Table

Phase A to C	Infrastructure
	Primary area wide attenuation pond.
	North-south road and new road and bridge over N11 to the Dublin Road to the east (or the N11/M11 Junction 4 to Junction 14 Improvement Scheme in this area).
	Educational Facilities.
	Active / Recreational area.
	Bus provision.
	Strategic active travel linkages.
	Community Infrastructure
Telecommunications: Progression of telecommunications infrastructure to take place through all the phases	

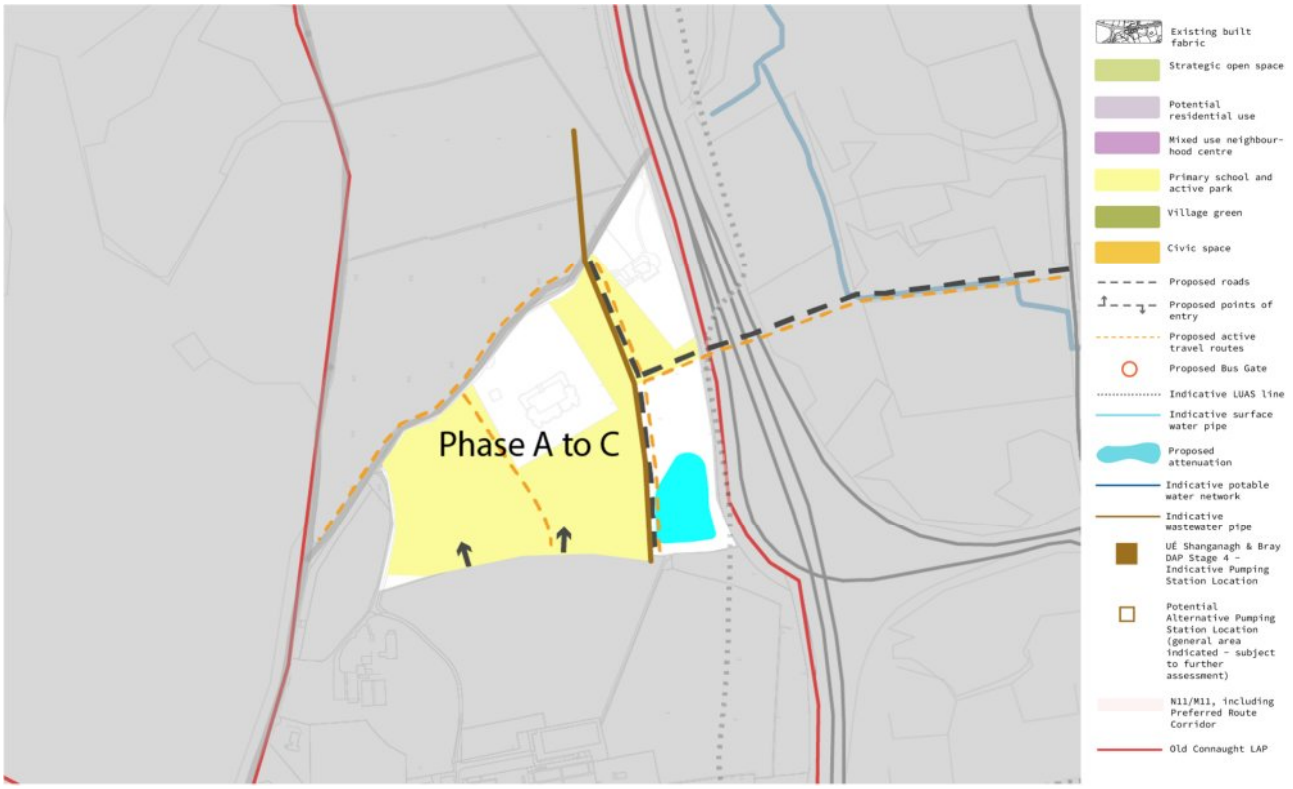


Figure 3-9: Old Connaught Phase A to C Infrastructure(For context, please see the overall Old Connaught Proposed Infrastructure Phasing Map in Appendix D)

3.4.7 Old Connaught – Medium/Longer Term Infrastructure Upgrades

Additional infrastructure requirements identified through the ICAS Study are recommended to be progressed over the medium / longer term. In terms of strategic enabling infrastructure this includes: the Luas Green Line extension to Bray; a potential busway and bridge between Old Connaught and Fassaroe; external active travel links including the Love Lane bridge and eastern Fassaroe connection; and the potential upgrade of Thornhill Road.

It is acknowledged that while the greenway route connecting Cherrywood to Bray comprises strategic infrastructure, it will ultimately be progressed incrementally through differing phases of development throughout both LAP areas, and as such it is expected to be fully delivered in the medium to long term. Other enhancements and improvements of green infrastructure & biodiversity and heritage & conservation, not already specifically referred to in this chapter, which are identified in the ICAS Study, will also be progressed in the medium to long term.

3.4.8 dlr Owned Lands at Old Connaught – Infrastructure and Phasing

The following section provides a preliminary list of infrastructure required to enable the sustainable development of dlr owned lands within the Old Connaught LAP area. There are two sites located within the Old Connaught LAP area in the ownership of dlr which are identified as potential sites for the development of housing, see Figure 3-10. The Old Connaught Avenue lands are c. 2 hectares in size and located centrally in the LAP area, while the Ballyman Road lands comprise c. 8.7 hectares in size and are located in the western environs of the LAP area.

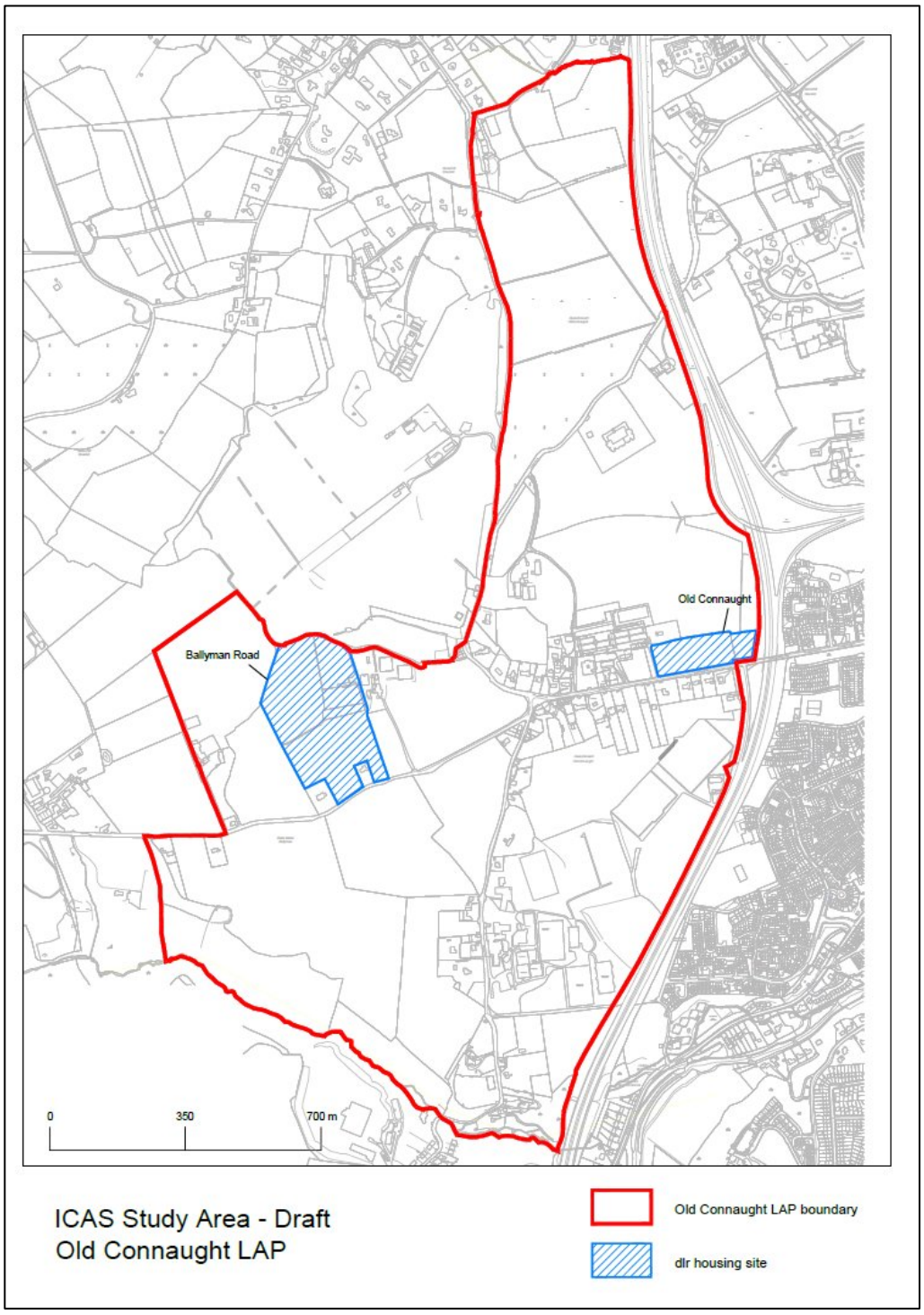


Figure 3-10: dlr Owned Lands at Old Connaught

The indicative high level phasing strategy identified for Old Connaught is illustrated in Figure 3.1. The dlr owned lands at Old Connaught Avenue are located within the area identified as development Phase A. Given the proximity of the dlr owned lands at Old Connaught Avenue to existing public transport, services and facilities, it is considered that the lands are sequentially preferrable for residential development as part of an initial sub-phase of development in Phase A (Phase A – sub-phase 1).

The dlr owned lands at Ballyman Road are located within the area identified as development Phase B, which comprises the second phase of residential development at Old Connaught. It is acknowledged that there are a number of infrastructure inter-dependencies across the overall Phase B lands across Old Connaught, within which the Ballyman Road lands are located.

Table 3-5 details the infrastructure required, at a strategic level, to enable the sustainable development of housing at dlr owned lands at Old Connaught.

Table 3-5: dlr Owned Lands at Old Connaught – Infrastructure

dlr Lands	Phase	Infrastructure
Old Connaught Avenue	Phase A – Sub-Phase 1	Wastewater pumping station (temporary or permanent).
		Interim wastewater proposal using available footpath duct in the Old Connaught Avenue overbridge.
		Primary area wide attenuation pond or alternative (potentially temporary) SuDS measures (subject to further assessment).
		Delivery of part of the new north-south link road adjoining residential plots (as applicable).
		Incremental expansion of water, wastewater and drainage networks.
Ballyman Road	Phase B	Phase A infrastructure.
		38kv substation (subject to existing capacity).
		New road / road upgrades.
		Strategic open space.
		Incremental expansion of water, wastewater and drainage networks.
		Active travel linkages.

3.5 Rathmichael LAP Area - Phasing

As noted in section 3.2, the Section 28 Development Plan Guidelines (2022) advise, in the first instance that, *'…phasing should be applied where there is a sound planning rationale for doing so…'*. Having regard to the extent of the infrastructural requirements necessary to support the sustainable development of the Rathmichael area, identified as part of the ICAS Study, it is considered that a strong evidence-based rationale exists for the incorporation of a phasing strategy to guide and co-ordinate the development of the new residential community at Rathmichael.

3.5.1 Rathmichael Phasing Considerations

The recommended high-level phasing strategy for Rathmichael is informed by a range of factors including *inter alia*:

- Consolidation with the existing built-up area, in particular at Cherrywood and Shankill, and delivering compact growth.
- The objective for the creation of a sustainable new residential community – in accordance with dlr County Development Plan policy it is an objective to plan for a sustainable new residential community at Rathmichael based on the concept of the sustainable urban village and the '10' minute neighbourhood.
- Proximity to existing public transport, facilities and services and proposed upgrades to same.
- The potential for lands to deliver infrastructure and services to support and facilitate growth in a sustainable and co-ordinated manner.
- The efficient use of both existing and proposed infrastructure.
- Acknowledgement of the urgent need to provide a planning framework to facilitate the timely delivery of residential development.
- Planning policy and guidance.

3.5.2 Recommended Phasing Strategy

The indicative high-level phasing strategy recommended for the Rathmichael LAP area is illustrated in Figure 3-11. While the strategy focusses on the efficient use of infrastructure and maximising development based on infrastructure capacity, based on the analysis undertaken as part of the ICAS Study, it is considered that significant 'early stage' progression of key strategic infrastructure is ultimately required in order to ensure the proper planning and sustainable development of the LAP area. The proposed indicative high level phasing strategy for Rathmichael comprises the following:

- Phase A – These lands are zoned primarily Objective 'A1' and considered sequentially preferrable for the first phase of development at Rathmichael, with potential to deliver c. 550 new homes, subject to the delivery of enabling infrastructure.
- Phase B – Lands identified as 'Phase B' are primarily zoned Objective 'A1' and considered sequentially preferrable for the second phase of development at Rathmichael with potential to deliver c. 1,800-2,000 new homes, subject to the delivery of strategic enabling infrastructure.
- Phase C - Lands identified as 'Phase C' are zoned Objective 'A1' and considered sequentially preferrable for a third phase of residential development at Rathmichael with potential to deliver c. 650 new homes, subject to the delivery of strategic enabling infrastructure.

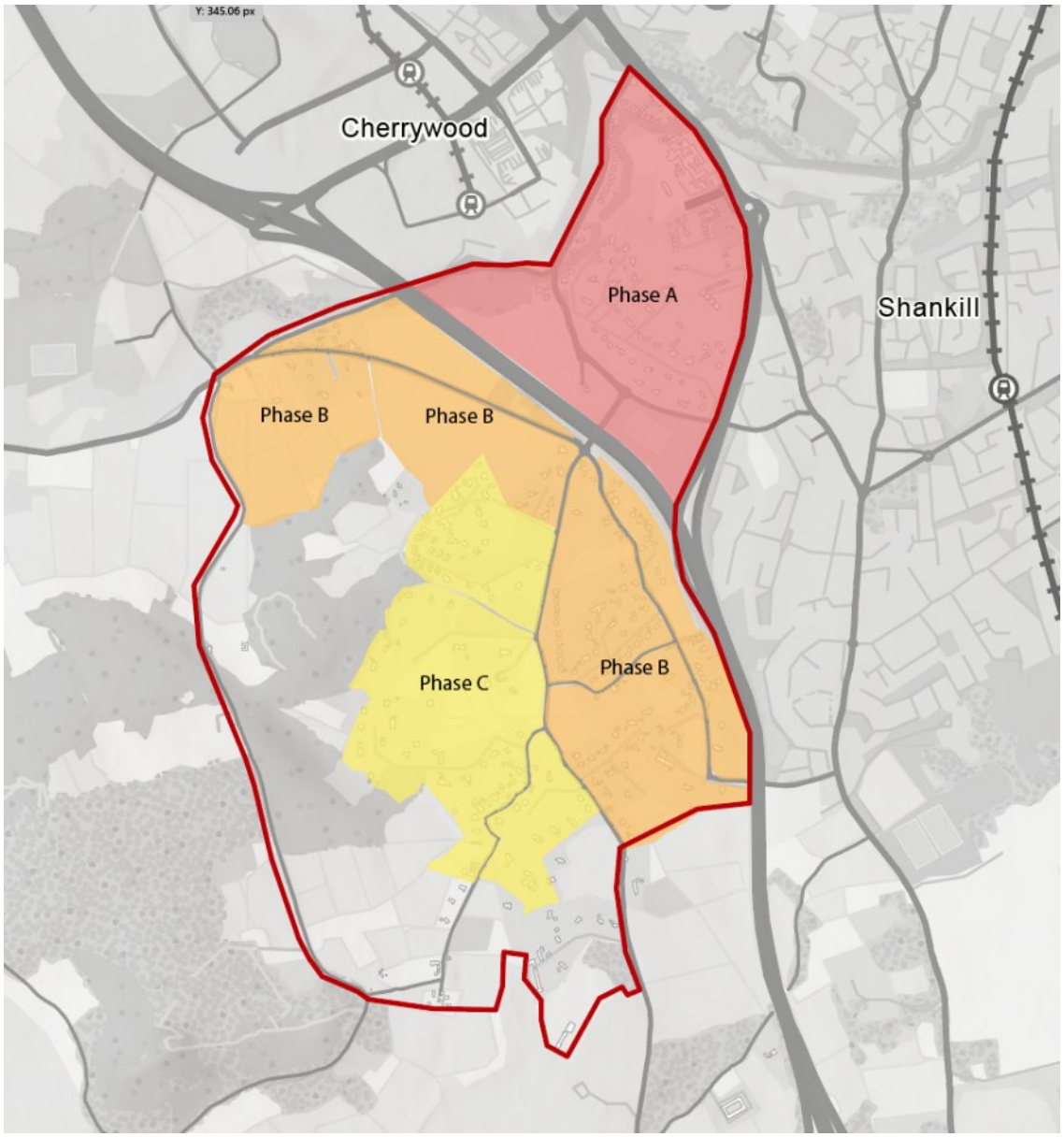


Figure 3-11: Rathmichael Indicative High Level Phasing Strategy

3.5.3 Rathmichael – Phase A

The lands identified as Phase A, located to the east of the M50 motorway and the west of the N11, are primarily zoned Objective 'A1' under the dlr County Development Plan 2022-2028 and are considered sequentially preferrable for the first phase of residential development at Rathmichael. Phase A is illustrated in Figure 3-12. Initial estimates based on the preliminary density ranges considered as part of the ICAS Study indicate that the potential residential yield of Phase A is c. 550 new homes.

Based on the analysis undertaken as part of the ICAS Study, it is recommended that residential development progresses at Phase A based on existing infrastructure capacity, interim measures including active travel measures, and additional enabling infrastructure proportionate to the scale of development, see Table 3.6. It is highlighted that the lands identified as Phase A benefit from proximity to existing public transport, facilities and services in the wider area, including in particular at Cherrywood and Shankill. It is considered that the progression of these lands as a first phase of residential development delivers consolidation with the existing built-up area and maximises the efficient use of existing infrastructure and services.

It is noted that there may be potential for additional residential development within Phase A through the consolidation of existing residential land uses. Subject to further assessment through the LAP plan-making process, additional infrastructure requirements may be identified.

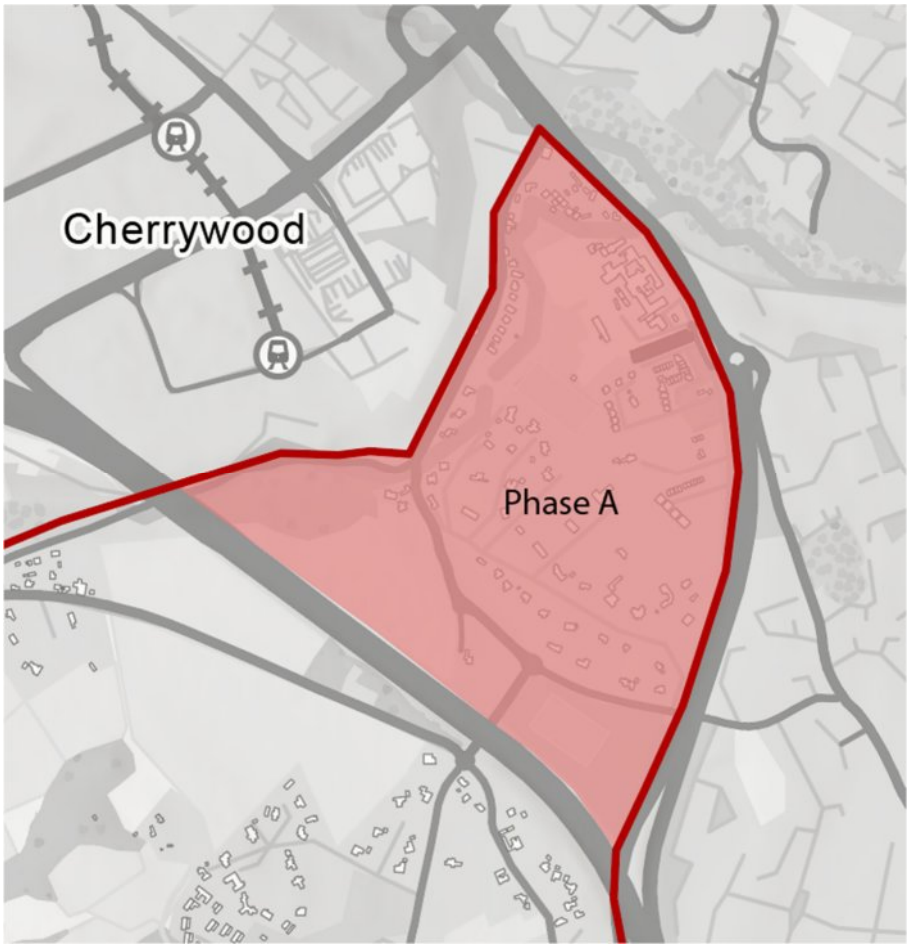


Figure 3-12: Rathmichael Phase A

Table 3-6 details the infrastructure to be delivered to support residential development as part of the area identified as Rathmichael Phase A. Figure 3-13 shows the indicative location of this infrastructure.

Table 3-6: Rathmichael Phase A – Infrastructure Phasing Table

Phase A	Approx. New Homes	Infrastructure
	c. 550	Strategic active travel linkages including inter alia: • Active travel connection to Cherrywood. • Active travel connection from Falls Road to Park na Silla.
		Active travel upgrades on Stonebridge Road and part of Mullinastill Road
		Delivery of strategic open space (0.8 ha)
		Brides Glen Biodiversity / Ecological Area / Open Space
		Incremental expansion of water, wastewater and drainage networks.
Telecommunications: Progression of telecommunications infrastructure to take place through all the phases		

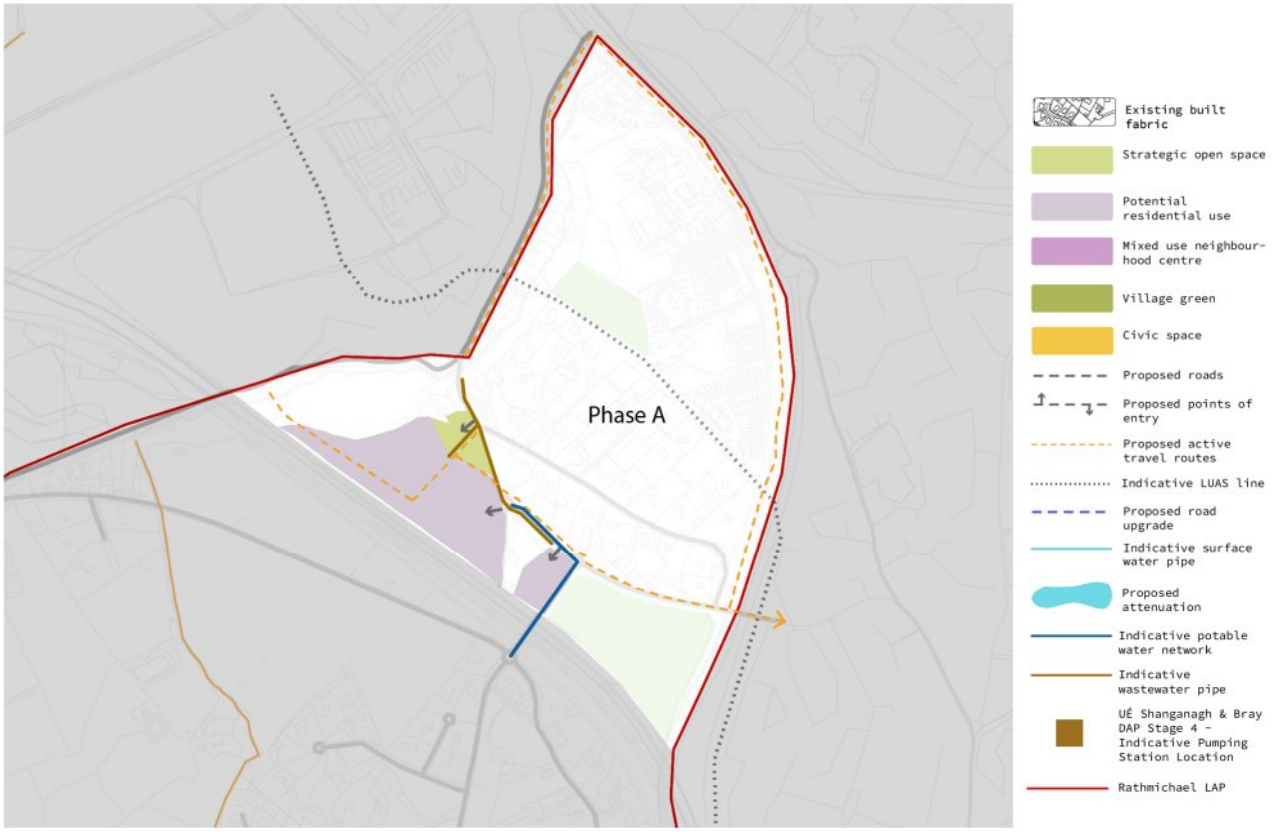


Figure 3-13: Rathmichael Phase A Infrastructure (For context, please see the overall Rathmichael Proposed Infrastructure Phasing Map in Appendix D)

3.5.4 Rathmichael – Phase B

The lands identified as Phase B, located to the west of the M50 motorway, are primarily zoned Objective 'A1' and considered sequentially preferrable for the second phase of residential development at Rathmichael. Phase B is illustrated in Figure 3-14. Initial estimates based on the preliminary density ranges considered as part of the ICAS Study indicate that the potential residential yield of Phase B is c. 1,800-2,000 new homes. It is noted that there may be potential for additional residential development within Phase B through the consolidation of existing residential land uses. Subject to further assessment through the LAP plan-making process, additional infrastructure requirements may be identified.

Based on the analysis undertaken as part of the ICAS Study, it is recommended that Phase B incorporates three sub-phases where residential development may be facilitated based on sufficient enabling infrastructure being provided proportionate to increasing scales of development, see Table 3-7. It is noted that the progression of Phase B, at lands located west of the M50 motorway, requires significant strategic enabling infrastructure upgrades in order to provide for the sustainable development of the Rathmichael area.

Lands identified in Figure 3-14 as sub-phase 1 are considered sequentially preferrable for development as an initial sub-phase as part of Phase B having regard to inter alia: proximity and connectivity to existing public transport, services and facilities; and the identified land uses and function of the lands as a 'heart' / central node for the new residential community. This strategic function is illustrated in the preliminary development framework developed for Rathmichael, see Figure 2-21.

The progression of the sub-phase 1 lands in an initial sub phase serves to progress the internal consolidation of Rathmichael as a sustainable urban village and lays the foundations for the subsequent sustainable residential development of subsequent Phase B lands. Similar to the phasing strategy for Old Connaught, it is recommended that the phasing strategy for Phase B is subject to a broader range of infrastructure and service provision which allows for the progression of residential development based on the sustainable urban village and 10-minute neighbourhood concept. It is highlighted that Phase B – sub-phase 1 – performs a particularly important role in this regard, and as such, the lands are a key focus for enabling the sustainable development of subsequent phases.

It is recommended that the sequencing for the development of Phase B - sub-phases 2 and 3 - is subject to the requisite progression of area wide infrastructure and services as part of sub-phase 1 and, as applicable, additional area wide and local level infrastructure being progressed to support the overall development of these subsequent sub-phases. This approach ensures sufficient area specific infrastructure is provided to support the development of sustainable communities. It is highlighted that the strategic enabling infrastructure requirements to support sub-phase 2 are primarily progressed as part of sub-phase 1, and as such the infrastructure requirements for sub-phase 2 are more localised in scale and function.

While parts of the area identified as sub-phase 3 benefit from proximity to services / facilities and access to existing public transport at Shankill, the area remains largely car dependent with a poor internal active travel network. Based on the analysis undertaken as part of the ICAS Study, it is considered that the progression of sub-phase 3 is inter-linked with the delivery of infrastructure and services both internal and external to the area. The strategic enabling infrastructure requirements for sub-phase 3 are primarily progressed as part of Phase B sub-phase 1, with additional strategic and local infrastructure required to support the sustainable residential development of this area, see Table 3.7. It is noted that, given the existing characteristics of the Rathmichael South area, a more detailed planning framework and localised phasing strategy may be necessary to guide the development of this sensitive area in a coordinated manner.

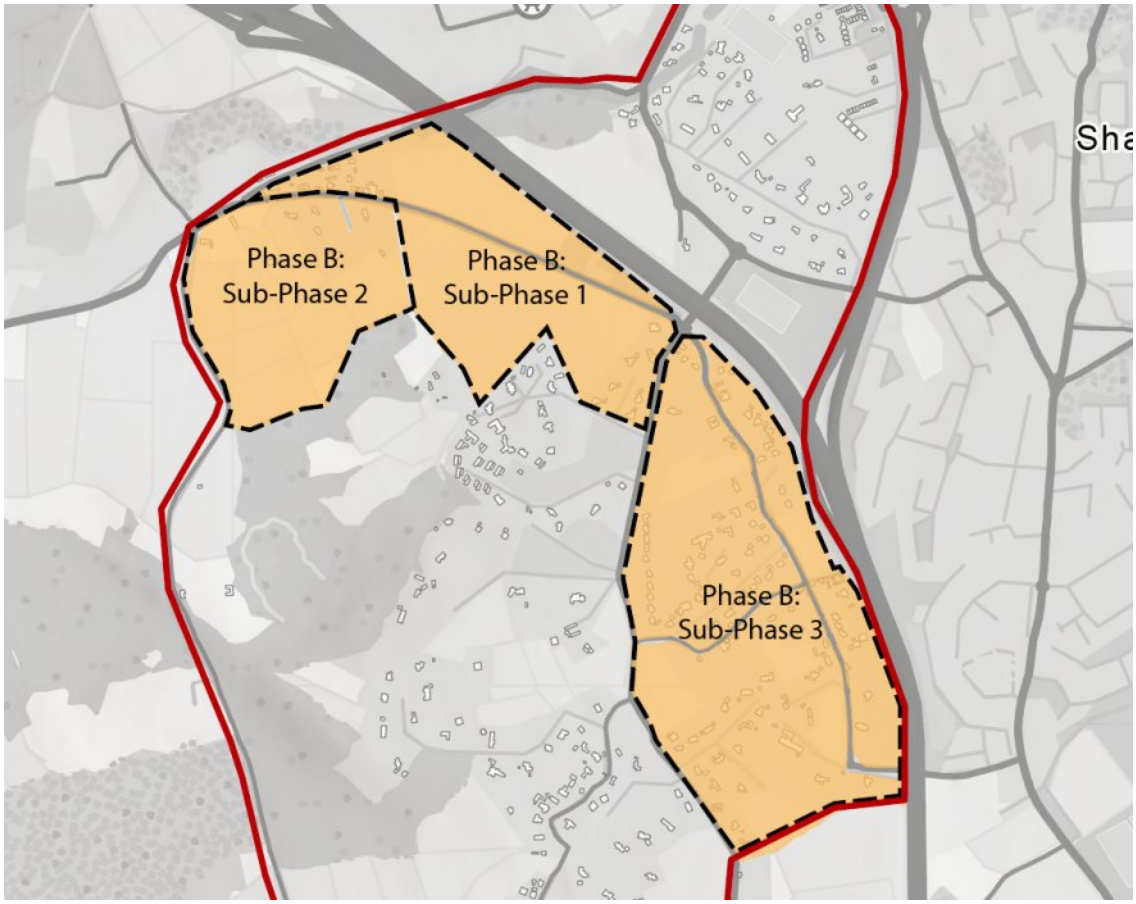


Figure 3-14: Rathmichael Phase B

Table 3-7 details the infrastructure to be delivered to support residential development as part of the area identified as Rathmichael Phase B. Figures 3-15 to 3-17 show the indicative location of this infrastructure, for each of the three sub-phases.

Table 3-7: Rathmichael Phase B – Infrastructure Phasing Table

Phase B	Approx. New Homes	Infrastructure
Sub-Phase 1	c. 950 – 1,050	Upgrade of Cherrywood Road and Mullinastill Road to include active travel.
		Upgrade of Brides Glen Road.
		Upgrade of Rathmichael Road.
		Active travel connection between Rathmichael Road and Cherrywood.
		Active travel bridge connecting Phase A and Phase B across M50
		Active travel linkages and internal road networks.
		Interim bus proposal.
		c. 3 ha strategic Village Green at Rathmichael Road.
		Strategic civic space adjacent to Rathmichael Church.
		Community Infrastructure
		Permanent wastewater pumping station and trenchless motorway connection to existing wastewater network east of the motorway.

		2 no. attenuation ponds.
		Incremental expansion of water, wastewater and drainage networks.
		Electricity infrastructure upgrades (subject to further assessment).
Sub-Phase 2	c. 450	Phase B sub-phase 1 infrastructure.
		Active travel linkages and internal road networks.
		Incremental expansion of water, wastewater and drainage networks.
Sub-Phase 3	c. 400 - 500	Phase B sub-phase 1 infrastructure.
		Crinken Lane bridge active travel upgrades.
		One way system at Ballybride Road/Lordello Road.
		Active travel linkages.
		Bus provision to serve the area.
		Strategic Open Space at Ferndale Road / Lordello Road.
		Community Infrastructure
		Attenuation pond (subject to further assessment).
		Incremental expansion of water, wastewater and drainage networks.
Telecommunications: Progression of telecommunications infrastructure to take place through all the phases		

Figure 3-15: Rathmichael Phase B Sub-Phase 1 Infrastructure (For context, please see the overall Rathmichael Proposed Infrastructure Phasing Map in Appendix D)

Figure 3-16: Rathmichael Phase B Sub-Phase 2 Infrastructure (For context, please see the overall Rathmichael Proposed Infrastructure Phasing Map in Appendix D)

Figure 3-17: Rathmichael Phase B Sub-Phase 3 Infrastructure (For context, please see the overall Rathmichael Proposed Infrastructure Phasing Map in Appendix D)

3.5.5 Rathmichael – Phase C

The lands identified as 'Phase C', located to the west of the Ferndale Road, are zoned Objective 'A1' and considered sequentially preferrable for the third phase of residential development at Rathmichael. Phase C is illustrated in Figure 3-18. Initial estimates based on the preliminary density ranges considered as part of the ICAS Study indicate that the potential residential yield of Phase C is c. 650 new homes. It is noted that there may be potential for additional residential development within Phase C through the consolidation of existing

residential land uses. Subject to further assessment through the LAP plan-making process, additional infrastructure requirements may be identified.

The strategic enabling infrastructure requirements to support the sustainable development of Phase C are primarily progressed as part of Phase B, with infrastructure upgrade requirements for Phase C being more local in scale. It is noted that, given the existing characteristics of the Rathmichael South area, a more detailed planning framework and localised phasing strategy may be necessary to guide the development of this sensitive area in a coordinated manner.

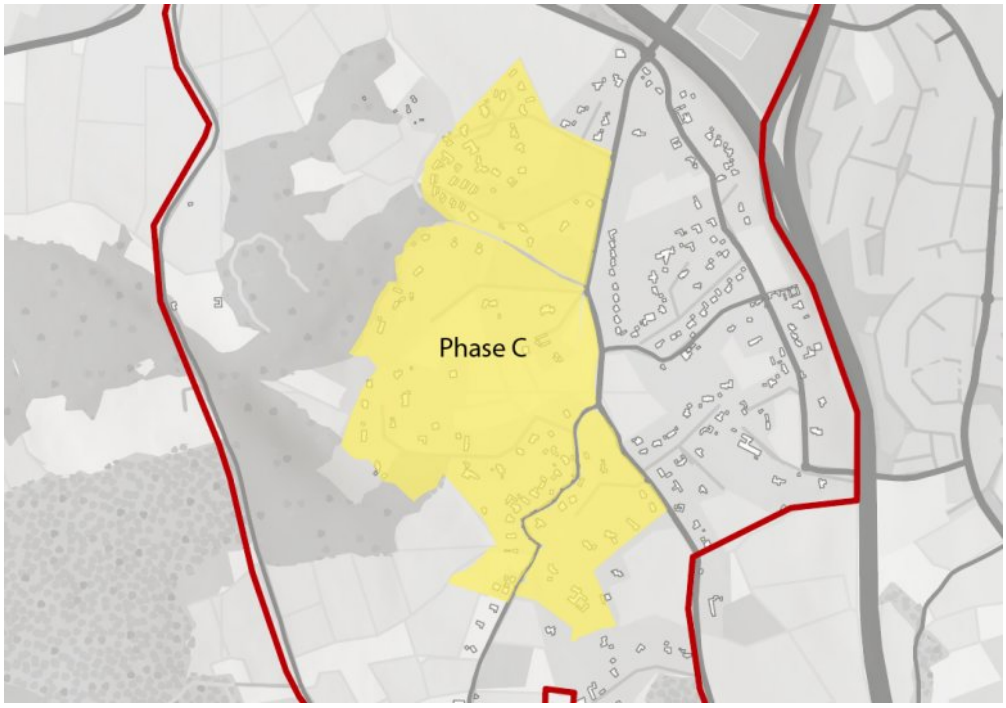


Figure 3-18: Rathmichael Phase C

Table 3-8 details the infrastructure to be delivered to support residential development as part of the area identified as Rathmichael Phase C. Figure 3-19 shows the indicative location of this infrastructure.

Table 3-8: Rathmichael Phase C – Infrastructure Phasing Table

Phase C	Approx. New Homes	Infrastructure
	c. 650	Active travel linkages.
		Incremental expansion of water, wastewater and drainage networks.
Telecommunications: Progression of telecommunications infrastructure to take place through all the phases		

Figure 3-19: Rathmichael Phase C Infrastructure (For context, please see the overall Rathmichael Proposed Infrastructure Phasing Map in Appendix D)

3.5.6 Rathmichael – Medium/Longer Term Infrastructure Upgrades

Additional infrastructure requirements identified through the ICAS Study are recommended to be progressed over the medium / longer term. In terms of strategic enabling infrastructure this includes: the Luas Green Line extension to Bray; the upgrade of the Ballycorus Road; the expansion and enhancement of Rathmichael Woods; the upgrade of Lehaunstown Lane/Heronford Lane; and the potential active travel link connecting Rathmichael and Cherrywood via the viaduct.

It is acknowledged that while the greenway route connecting Cherrywood to Bray comprises strategic infrastructure, it will ultimately be progressed incrementally through differing phases of development throughout both LAP areas, and as such it is expected to be fully delivered in the medium to long term. Other enhancements and improvements of green infrastructure & biodiversity and heritage & conservation, not already specifically referred to in this chapter, which are identified in the ICAS Study, will also be progressed in the medium to long term.

3.5.7 dlr Owned Lands at Rathmichael– Infrastructure and Phasing

The following section provides a preliminary list of infrastructure required to enable the sustainable development of dlr owned lands within the Rathmichael LAP area. There are three sites located within the Rathmichael LAP area in the ownership of dlr which are identified as potential sites for the development of housing, see Figure 3-20. The dlr owned lands are located east and west of the M50 Motorway and comprise the following: the Mulinastill Road lands (c. 10.7 hectares); the Rathmichael Bridge lands (0.5 hectares); and the Rathmichael Road lands (c. 7.9 hectares).

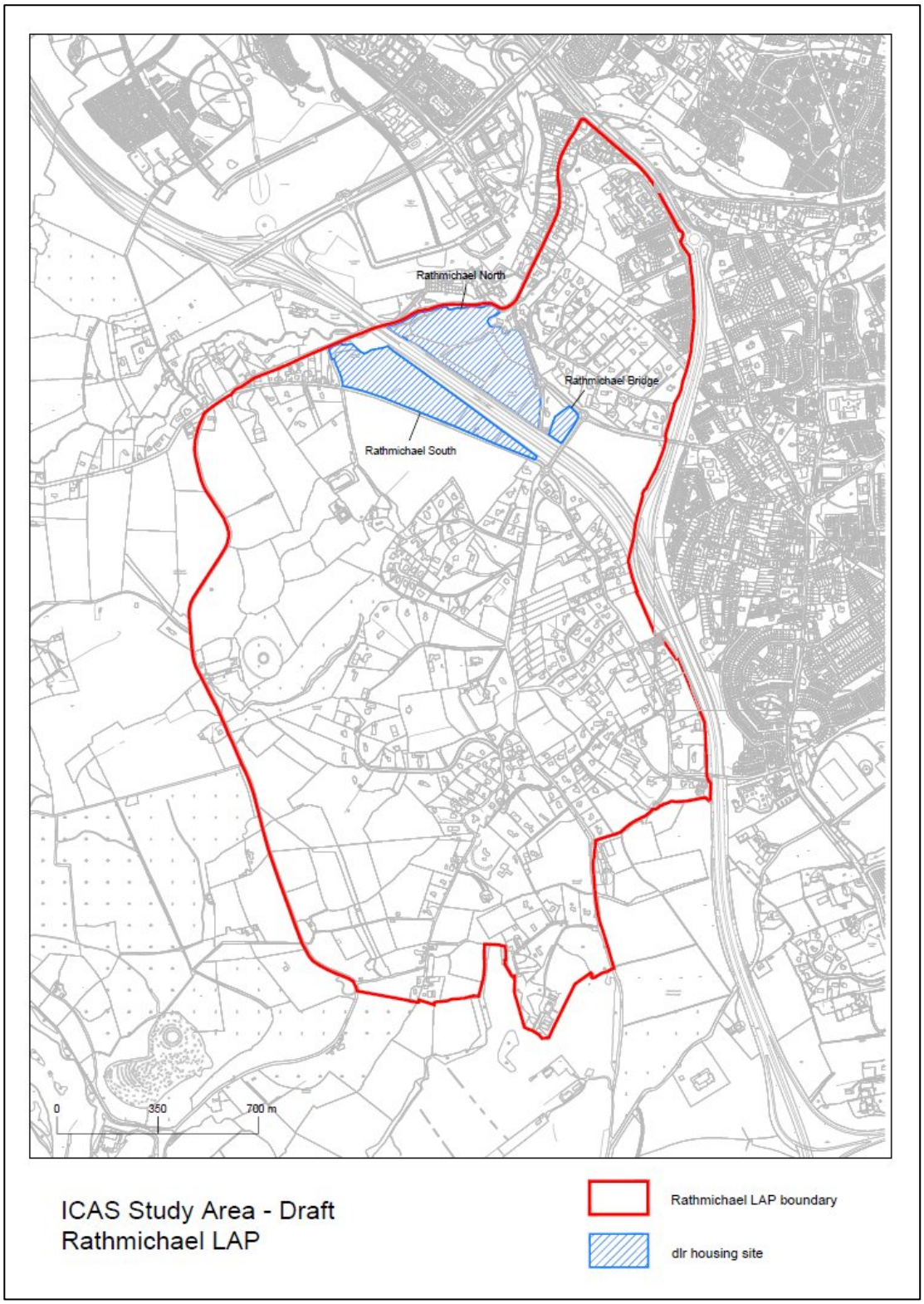


Figure 3-20: dlr Owned Lands at Rathmichael

The indicative high level phasing strategy identified for Rathmichael is illustrated in Figure 3-11. The dlr owned lands at Mullinastill Road and Rathmichael Bridge are both located within the area identified as development Phase A. Phase A lands at Rathmichael benefit from proximity to existing public transport, facilities and services. The progression of these lands as a first phase of residential development delivers consolidation with the existing built-up area and maximises the efficient use of existing infrastructure and services. The approach to infrastructure, therefore, is based on existing infrastructure capacity, interim measures, and additional enabling infrastructure proportionate to the scale of development

The dlr owned lands at Rathmichael Road are located within the area identified as development Phase B, which comprises the second phase of residential development at Rathmichael. The lands are identified as sequentially preferrable for development as an initial sub-phase as part of Phase B. Table 3-9 details the infrastructure required, at a strategic level, to enable the sustainable development of housing at dlr owned lands at Rathmichael.

Table 3-9: dlr Owned Lands at Rathmichael – Infrastructure

dlr Lands	Phase	Infrastructure
Mullinastill Road and Rathmichael Bridge	Phase A	Strategic active travel linkages including inter alia: Active travel connection to Cherrywood. Active travel connection from Falls Road to Park na Silla.
		Active travel upgrades on Stonebridge Road and part of Mullinastill Road
		Delivery of strategic open space
		Brides Glen Biodiversity / Ecological Area / Open Space
		Incremental expansion of water, wastewater and drainage networks.
Rathmichael Road	Phase B	Phase A Infrastructure
		Electricity infrastructure upgrades (subject to further assessment).
		New road / road upgrades.
		Strategic open space.
		Incremental expansion of water, wastewater and drainage networks.
		Active travel linkages.
		Waste water infrastructure
		Attenuation infrastructure

3.6 Phasing of Education

The Department of Education has identified a requirement for one or more primary schools in both the Old Connaught and Rathmichael LAP areas, and the DoE have also identified the potential requirement for a post primary school to serve the overall ICAS and wider area. It is noted that the assessment of the timeframe for the establishment of these new education facilities will be undertaken by the Department of Education taking into account a number of factors, including the pace of delivery of the expected additional residential development in the school planning areas, associated enrolments, demographic data and the capacity in existing schools in the areas.

It is recommended that the Local Authority continues to engage with the Department of Education post adoption of the Local Area Plans to co-ordinate the timely delivery of the new primary schools in each area, in addition to any future potential requirement for a post-primary school to serve the area, subject to the necessary demand.

3.7 Phasing of Other Uses

It is highlighted that there are additional uses, not within the remit of this ICAS Study, that may be considered to form components of a phasing strategy for the sustainable development of each Local Area Plan. For example, the phasing associated with the delivery of a Neighbourhood Centre, including retail and non-retail uses, a healthcare facility, or a creche, may be of fundamental importance in enabling development to progress. The protection and facilitation of the development, design and management of cultural heritage assets should also be encouraged during the local plan making processes in the ICAS area. It is recommended that the phasing strategy for each Local Area Plan considers the overarching phasing strategy set out in this Part 4 Report and develops the strategy through integrating other specific land uses / infrastructure as appropriate.

3.8 Phasing Implementation

While the recommended phasing strategies for Old Connaught and Rathmichael include measures which seek to prioritise development in a geographic sequence, it is acknowledged that there are limited measures included within each geographic phasing area to sequence development. The weighting and overarching approach applied in the recommended phasing strategy is to facilitate development whereupon sufficient infrastructure and services are in place to support sustainable development. Rather than include the micro specific sequencing of lands to be developed within phases, it is recommended that active land management mechanisms are utilised to ensure lands are brought forward in a timely manner when services are in place to facilitate development. In this regard, it is recommended that the Residential Zoned Land Tax, or any subsequent active land management tool, is utilised to support the implementation of the phasing strategy.

3.9 Inter-relationship of Phasing between LAP Areas

While the indicative high-level phasing strategies recommended for Old Connaught and Rathmichael were partly developed as independent phasing strategies to inform the preparation of separate Local Area Plans, it is acknowledged that there is an interdependence and connectivity of infrastructure across both LAP geographic boundaries and connections to the wider geographical area.

4. Implementation and Funding

4.1 Implementation

The Local Area Plan will comprise the key strategy to structure the development of the Old Connaught and Rathmichael areas through its statutory planning framework. It is recommended that the implementation of each Local Area Plan should comprise a key strategic focus for the Local Authority and will require a concerted range of actions by the entire organisation to be successfully implemented. The Local Authority may need to utilise its wide range of statutory powers and responsibilities to achieve the objectives of each Local Area Plan.

While ensuring that decisions on proposals for new development are consistent with the Local Area Plan through the development management system is important, the Local Authority also has a wide range of functions in housing, transport, development of amenities, economic development, infrastructure delivery and community involvement that can support the implementation of the Local Area Plan in practice.

It is highlighted that the adoption of a Local Area Plan will not, in and of itself, deliver the overarching development objectives for new residential communities at Old Connaught and Rathmichael. The implementation phase, therefore, necessitates proactive measures to be taken to enable the objectives of the Local Area Plan to be realised. Ensuring, for example, that infrastructure programmes are developed and progressed in tandem with state agencies and other infrastructure providers is essential.

Furthermore, as appropriate, the Local Authority must ensure that its organisational capacity and resources are deployed to support the implementation tasks of each Local Area Plan. Consideration should be given to the merits of establishing a development agency led structure within the Local Authority with the professional competence to engage in complex arrangements to progress the implementation process.

4.2 Funding

As noted in the Section 28 Guidelines, 'Local Area Plans – Guidelines for Planning Authorities' (2013), the successful implementation of local area plans depends on the identification of the funding and delivery mechanisms for the provision of the physical and social infrastructure that the plan identifies as essential to achieving its objectives.

The means of funding infrastructure are varied. The development contribution schemes provided for under Sections 48 and 49 of the Planning and Development Act 2000 (as amended), establish an important mechanism to fund public infrastructure benefitting development in a plan area. It is acknowledged that the Planning and Development Act 2024 has been enacted but not commenced at this time. This may have implications for the information provided herein in regard to reference to the Planning and Development Act 2000.There are also additional means by which to fund infrastructure including inter alia direct exchequer funded investment, private investment and public-private partnerships.

As set out in Chapter 2 of this Report, 'Old Connaught and Rathmichael Infrastructure Requirements', significant infrastructure requirements have been identified to support the sustainable development of Old Connaught and Rathmichael. The coordinated planning and delivery of infrastructure and services, in tandem with population growth, is essential to ensure the sustainable development of the LAP areas.

As provided in Chapter 3, 'Phasing of Development', the recommended phasing strategy for each LAP area requires – to varying degrees – significant early-stage investment in strategic infrastructure to enable residential development. The early stage 'up front' funding of strategic enabling infrastructure is of importance to ensure the timely delivery of new homes and communities. In this context, it is highlighted that the early-stage funding of infrastructure and services in both LAP areas may present a degree of uncertainty to the timing of development. In order to minimise this uncertainty associated with the early-stage funding of large scale strategic infrastructure, it is considered prudent that all available public and private funding avenues are considered to support the implementation of the Local Area Plans.

The following sections provide an overview of some of the main means through which infrastructure in the LAP areas may be funded.

4.3 Statutory Development Contribution Schemes

There are two types of statutory development contribution scheme provided for under the Planning and Development Act 2000 (as amended), namely:

- Section 48 – General Development Contribution Scheme
- Section 49 – Supplementary Development Contribution Scheme

4.3.1 Section 48 Development Contribution Scheme

Section 48 of the Planning and Development Act 2000 (as amended) provides the legislative framework for the preparation of a Development Contribution Scheme. A Development Contribution Scheme provides the basis for the determination of a contribution, as applied by way of condition when granting planning permission under Section 34 of the Act.

The Section 28 Guidelines 'Development Contributions Guidelines for Planning Authorities' issued by the Department of the Environment, Community and Local Government in 2013, provide guidance on the preparation of a Development Contribution Scheme.

Section 48 – Legislation and Guidance

Section 48 of the Planning and Development Act 2000 (as amended) provides for the making of a Development Contribution Scheme whereby any Planning Authority may, when granting planning permission, include conditions requiring the payment of a development contribution. The contribution is in respect of *"public infrastructure and facilities*" benefiting development in the area of the Planning Authority and that is provided, or is intended will be provided, by or on behalf of the Local Authority.

As set out in Section 48(17) of the Act, the types of "*public infrastructure and facilities*" that can be funded by a scheme under Section 48 of the Act are:

> *"(a) the acquisition of land*
>
> *(b) the provision of open spaces, recreational and community facilities and amenities and landscaping works,*
>
> *(c) the provision of roads, car parks, car parking places, surface water sewers and flood relief work, and ancillary infrastructure,*
>
> *(d) the provision of bus corridors and lanes, bus interchange facilities (including car parks for those facilities), infrastructure to facilitate public transport, cycle and pedestrian facilities, and traffic calming measures,*
>
> *(e) the refurbishment, upgrading, enlargement or replacement of roads, car parks, car parking places, surface water sewers, flood relief work and ancillary infrastructure,*
>
> *(f) the provision of high-capacity telecommunications infrastructure, such as broadband,*
>
> *(g) the provision of school sites, and*
>
> *(h) any matters ancillary to paragraphs (a) to (g)."*

The Section 28 Guidelines 'Development Contributions Guidelines for Planning Authorities' (2013) note that it is best practice that the preparation of Development Contribution Schemes should be finalised to take effect at the earliest stage possible in the Development Plan cycle.

Section 48 – dlr Development Contribution Schemes 2023-2028

There are currently two Section 48 Development Contribution Schemes being operated by Dún Laoghaire-Rathdown County Council:

- Dún Laoghaire-Rathdown County Council Development Contribution Scheme 2023-2028 – this Scheme comprises (1) Countywide excluding the Sandyford Urban Framework Plan Area and the

Cherrywood Planning Scheme Area – and - (2) The Sandyford Urban Framework Plan Area Only (Countywide Contribution + Sandyford Urban Framework Plan Contribution)

- Dún Laoghaire-Rathdown County Council Development Contribution Scheme in respect of development in the Cherrywood Planning Scheme Area 2023-2028 – this Scheme comprises the Countywide Contribution + Cherrywood Contribution.

The dlr County Council Development Contribution Scheme 2023-2028 was prepared following the adoption of the dlr County Development Plan 2022-2028. The County Scheme include rates of development contributions effective to all planning permissions across the County of Dún Laoghaire-Rathdown. Under the Scheme, development in the Sandyford Urban Framework Plan Area is subject to both the countywide contribution rate and an additional rate applicable to the Sandyford Urban Framework Plan Area, to fund specific public infrastructure and facilities benefitting development in the Sandyford Urban Framework Plan.

The level of contributions to be levied and paid for the countywide contribution (except where and insofar as an exemption or reduction applies in accordance with Article 6 of the Scheme) is in respect of the different classes of public infrastructure and facilities benefitting development throughout the County, as listed in Appendix II of the County Scheme. It is highlighted that – save for the Cherrywood Road upgrade – the primary strategic enabling level infrastructure required to enable development in the Old Connaught and Rathmichael LAP areas, are not listed in Appendix II of the dlr County Council Development Contribution Scheme 2023-2028, and as such do not fall within its scope of the Scheme for funding.

Dlr County Council has a second, separate, development contribution scheme in respect of development in the Cherrywood Planning Scheme Area for the period 2023-2028. The Cherrywood Section 48 Scheme makes provision for the payment of the countywide contribution in addition to the Cherrywood contribution. An extensive suite of infrastructure and services is required for the full development of the Cherrywood Planning Scheme Area, and these are listed as Appendix III of the Cherrywood Scheme. The internal infrastructure comprises the suite of public infrastructure and facilities that is required only for the purpose of opening-up and supporting development of the Cherrywood Planning Scheme Area lands.

Section 48 – High Level Appraisal

Having regard to the statutory function of Section 48 Development Contribution Schemes, and to Section 48 Schemes currently in operation by Dún Laoghaire-Rathdown County Council, the following is noted:

- Aside from the Cherrywood Road upgrade, the primary strategic enabling level infrastructure required to enable development in the Old Connaught and Rathmichael LAP areas does not fall within the scope of the current dlr County Council Development Contribution Scheme 2023-2028 for funding.
- The Development Contribution Schemes for the Cherrywood Planning Scheme Area presents a potential model to be followed to fund the suite of public infrastructure and facilities that is required only for the purpose of opening-up and supporting development of the Old Connaught and Rathmichael LAP areas.

4.3.2 Section 49 – Supplementary Development Contribution Scheme

Section 49 of the Planning and Development Act 2000 (as amended) provides for the preparation of a supplementary development contribution scheme to facilitate a particular public infrastructure service or project which is provided by a Local Authority or a private developer on behalf of and pursuant to an agreement with a Local Authority, and which will directly benefit the development on which the development contribution is imposed.

It is noted that the extent of "public infrastructure project or service" covered under a Section 49 Supplementary Development Contribution Scheme is more limited than that identified as "public infrastructure and facilities" under Section 48 of the Act. For the purposes of a Section 49 Supplementary Development Contribution Scheme, "public infrastructure project or service" means:

"(7) In this section, "public infrastructure project or service" means—

(a) the provision of particular rail, light rail or other public transport infrastructure, including car parks and other ancillary development,

(b) the provision of particular new roads,

(c) the provision of new surface water sewers and ancillary infrastructure,

(d) the provision of new schools and ancillary infrastructure."

Another key point of difference to note is that, as per Section 49(6) of the Act, a Section 49 Scheme may be amended whereupon the public infrastructure project or service is less than the cost that was estimated when the Planning Authority first determined the amount of the contribution. In contrast, a Section 48 Scheme is less flexible and can't be amended without bringing a full new scheme forward.

Section 49 – dlr Supplementary Development Contribution Schemes

There are currently two Section 49 Supplementary Development Contribution Schemes being operated by Dún Laoghaire-Rathdown County Council:

- Supplementary Development Contribution Scheme for the Extension of the Luas Line B1 – Sandyford to Cherrywood.
- Supplementary Development Contribution Scheme for the Glenamuck District Distributor Road Scheme and surface water attenuation ponds scheme.

The Section 49 Supplementary Development Contribution Scheme for the extension of the Luas Line from Sandyford to Cherrywood comprises light railway works, seven kilometres in length. The scheme applies within an area of 1,992 hectares, which is a primary catchment area approximately one kilometre on either side of the light rail. This primary catchment comprises the area that benefits directly from the scheme. A supplementary development contribution is attached as a condition of planning permission issued within the scheme/catchment area.

The other Section 49 Supplementary Development Contribution Scheme currently in operation in Dún Laoghaire-Rathdown comprises the Glenamuck District Distributor Road Scheme and surface water attenuation ponds scheme. The road project consists of the provision of a new district distributor road and a new link distributor road. The Scheme also consists of the provision of surface water attenuation ponds necessary to affect the Sustainable Drainage Strategy for the area.

The area to which the Section 49 Scheme applies is the Kiltiernan/Glenamuck Local Area Plan. The Scheme is operating to fund the construction of strategic infrastructure, which was not identified under the relevant Section 48 Scheme, at the time, and which was necessary to support residential development in the Kiltiernan/Glenamuck LAP area. It is noted that the strategic infrastructure projects funded by way of the Section 49 Development Contribution Scheme are now under construction.

Section 49 – High Level Appraisal

Having regard to the statutory function of Section 49 Supplementary Development Contribution Schemes, and to Section 49 Schemes currently in operation by Dún Laoghaire-Rathdown County Council, the following is noted:

- The existing dlr Section 49 Supplementary Development Contribution Scheme for the extension of the Luas from Sandyford to Cherrywood may provide an appropriate model to follow for the future extension of the Luas from Cherrywood to Bray.
- The Supplementary Development Contribution Scheme for the Kiltiernan/Glenamuck LAP Area presents a potential model to be followed to fund strategic infrastructure required for enabling residential development at the Old Connaught and Rathmichael LAP areas. In this regard, however, the limitations of the definition of "*public infrastructure project or service*" covered under a Section 49 Supplementary Development Contribution Scheme are highlighted and it is recommended these limitations are considered in formulating an overarching funding strategy for the LAP areas.

4.3.3 Section 48(2)(c) – Special Development Contributions

A special development contribution may be imposed under section 48(2)(c) of the Planning and Development Act 2000 (as amended), where specific exceptional costs, which are not covered by a general contribution scheme, are incurred by a Local Authority in the provision of public infrastructure or facilities which benefit very specific requirements for the proposed development, such as a new road junction or the relocation of piped services. The particular works should be specified in the conditions of any planning permission, if applicable. Only developments that will benefit from the public infrastructure or facility in question should be considered liable to pay the special development contribution.

4.3.4 Temporary Development Contribution Waiver Scheme

In April 2023, the Government approved measures under the Housing for All Action Plan to incentivise the activation of increased housing supply and help reduce housing construction costs. These included the introduction of temporary time-limited arrangements for the waiving of Local Authority Section 48 development contributions and the refunding of Uisce Eireann water and wastewater connection charges. The waiver also applies to special development contribution arrangements applied under section 48(2)(c) of the Act but does not apply to supplementary development contribution schemes which are in place under Section 49 of the Act.

In April 2024, the duration of the temporary waiver scheme was extended. It is noted that the waiver scheme includes strict timeframes relating to both the commencement - development works on qualifying houses must have commenced no later than 31 December 2024 - and also on the completion of development works. Given the existing time-based parameters in place, development within the Old Connaught and Rathmichael areas will not be able to avail of the current waiver scheme, unless significant further extensions are provided.

4.3.5 Statutory Development Contribution Schemes – Appraisal

The development contribution schemes provided for under Sections 48 and 49 of the Planning and Development Act 2000 (as amended) comprise a potential mechanism to fund strategic infrastructure benefitting development in the Old Connaught and Rathmichael LAP areas. Existing Section 48 and Section 49 Development Contribution Schemes operating in Dún Laoghaire-Rathdown represent potential models to follow to fund the delivery of strategic infrastructure. The limitations of infrastructure and services which may be funded by way of a Section 49 Supplementary Development Contribution Scheme are highlighted.

It is noted however that the traditional functioning of Section 48 and 49 Schemes - whereby development contribution levies are attached as a condition of planning permission - may present a degree of uncertainty with regards to the timing of infrastructure delivery. As per Chapter 3, ‘Phasing of Development’, the recommended phasing strategy for each LAP area requires – to varying degrees – significant early-stage investment in strategic infrastructure to enable residential development. It is recommended that consideration should be given to the potential conflict caused by the timing of receipt of development contribution levies received under a Section 48/49 Scheme and the necessary funding of public infrastructure in line with the phasing strategy for the LAP areas.

In order to minimise this uncertainty associated with the early stage funding of large scale strategic infrastructure, it is recommended that all additional public and private funding streams are considered to support the implementation of the Local Area Plans.

4.4 State Funding

The State is a primary actor in the provision of infrastructure and services necessary to support development. It is recommended that the Local Authority explore all potential means of mitigating the magnitude of funding infrastructure and services associated with the sustainable development of Old Connaught and Rathmichael.

The National Development Plan 2021-2030 is a strategic component of Project Ireland 2040, and it outlines the public capital investment framework. It has a particular focus on prioritising housing, climate ambitions, transport, healthcare and jobs growth in every region and economic renewal. It is the overarching national investment plan for the provision of infrastructure and should be leveraged as appropriate for the southeast area.

4.4.1 Urban Regeneration and Development Fund

As part of Project Ireland 2040, the Government announced the establishment of a new Urban Regeneration and Development Fund (URDF), primarily to support the compact growth and sustainable development of Ireland's five cities and other large urban centres. In line with the objectives of the National Planning Framework, the Fund is designed to leverage a greater proportion of residential and commercial development, supported by infrastructure, services and amenities, within the existing built 'footprint' of our larger settlements.

Dublin City and its Metropolitan area, including the Town of Bray, are specifically identified as eligible locations to apply for the urban fund. The fund operates on the basis of a scheme that invites competitive bids to be led by public bodies, ideally local authorities, which may be in the form of a consortium and may also include private sector and/or community/voluntary sector partners. Bid proposals must be co-funded and require a minimum 25% stakeholder contribution, which can be from other public or private sources.

It is noted that since the introduction of the URDF, Dún Laoghaire-Rathdown County Council has successfully utilised the URDF bidding process to secure funding for a range of infrastructure projects including public realm works at Stillorgan and Cherrywood public parks, greenways and attenuation infrastructure as part of URDF Call 1; and Cherrywood public access, permeability and amenity infrastructure as part of URDF Call 2.

The URDF has an initial allocation of 2 billion euro up to 2027 and the fund has been extended to 2030 under the revised National Development Plan 2021-2030. It is recommended that the Local Authority explore the potential role of the current URDF scheme (or any potential revised/alternative government scheme) as a part funding mechanism for infrastructure to support the sustainable development of Old Connaught and Rathmichael.

4.4.2 Grant Funding

There are a range of additional national funding programmes available which may provide potential funding streams to fund infrastructure and services to support the sustainable development of the Old Connaught and Rathmichael LAP areas. Having regard to the infrastructure identified in Chapter 2, 'Old Connaught and Rathmichael Infrastructure Requirements', the following section sets out some of the main potential national funding programmes to be considered. It is noted that the number and range of potential funding programmes is extensive, and as such, the following section is not intended to be exhaustive.

Active Travel Funding Sources

Active travel improvements are an integral component for delivering Government policy through the National Development Plan 2021-2030 and the Climate Action Plan 2023. The ICAS Study identified a range of active travel infrastructure upgrades required to support the sustainable development of the Old Connaught and Rathmichael areas, including greenway and cycling facilities; active travel links; and enabling infrastructure such as bus gates. Potential sources of active travel funding include the following:

- NTA Active Travel Fund – this fund invests in active travel projects for new walking and cycling infrastructure across the country, including the development of segregated cycle lanes and widened footpaths, new walking and cycling bridges, and new pedestrian crossings.
- Greenway Programme - Greenway projects are part of the Programme for Funding by central Government and administrated through Transport Infrastructure Ireland (TII) in 2024. Local Authorities across Ireland were allocated funding to progress greenway projects.
- Climate Action Fund – This fund supports projects, initiatives and research that contribute to the achievement of Ireland's climate and energy targets. In 2024, travel was flagged as a programme for funding. Application is through the Local Authority's with flexibility around local projects of small or medium size.

Green Infrastructure and Biodiversity

Green infrastructure and biodiversity comprise integral components of the ICAS Study. Potential sources of funding include the following:

- Climate Action Fund – this fund supports green infrastructure and biodiversity projects through 'nature based projects that enhance biodiversity and seek to reduce, or increase the removal of, greenhouse gas emissions or support climate resilience in the State'. Applications are periodical, and there is opportunity to enhance biodiversity.
- National Biodiversity Action Plan 2023–2030 – Government policy supports green infrastructure and natural and semi-natural areas as outlined in the National Biodiversity Action Plan 2020-2030. Funding is allocated through the Local Authority Biodiversity Grant Scheme for projects through a grant application and awards process.

Open Spaces, Parks and Recreation

The ICAS Study identifies a range of strategic open space and recreation infrastructure to support the sustainable development of Old Connaught and Rathmichael. Potential sources of funding include the following:

- Department of Rural & Community Development (DRCD) schemes;

  The following DRCD capital funding programmes feature criteria under which dlr may be eligible to apply:

  - Community Recognition Fund, which aims to support the development of community infrastructure and facilities in communities hosting significant numbers of arrivals from Ukraine and other countries.
  - Local Improvement Scheme, which provides funding to assist local authorities to carry out improvement works on private and non-publicly maintained roads that serve multiple homes, farmland, or amenities such as lakes, rivers or beaches.
  - Outdoor Recreation Infrastructure Scheme, which provides funding for the development of new outdoor recreational infrastructure.
  - Rural Regeneration and Development Fund, the purpose of which is to support job creation in rural areas, address de-population of rural communities and support improvements in towns and villages with a population of less than 10,000, and outlying areas.
  - Town and Village Renewal Scheme, which is designed to rejuvenate small rural towns and villages (population of <10,000) throughout Ireland.
- Large Scale Sports Infrastructure Fund (LSSIF)
- Sports Capital & Equipment Programme – this programme is operated by the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media and provides grants to assist in the development or refurbishment of sports facilities and the provision of sports equipment.

The grant funding may provide for the provision of,

- Natural grass sports pitches, tracks and courts (including pitch drainage and irrigation systems)
- Artificial sports pitches, tracks, courts and multi-use games areas
- Ball stop netting and goal posts, hurling walls / handball alleys
- Walking/jogging tracks
- Building or refurbishment of dressing rooms, showers and toilets
- Building or refurbishment of sports halls, gyms or fitness studios

Heritage and Conservation

The ICAS Study identifies a number of projects that could be advanced to protect, develop and manage existing heritage and conservation assets throughout the LAP areas. The following provides potential sources of funding to support these projects:

- Community Heritage Grant Scheme – this fund includes a wide range of heritage projects including conservation surveys, reports, plans, and audits that will inform the future management of buildings and monuments, habitats, collections, or objects.
- Community Monument Fund – this fund invests in archaeological heritage and helps owners and custodians of archaeological monuments to safeguard them into the future for the benefit of communities and the public. The core aims of this fund are the conservation, maintenance, protection and presentation of archaeological monuments.
- THRIVE – this fund seeks to support Local Authorities and their citizens to transform publicly owned vacant or derelict heritage buildings through renovation, renewal, and adaptive reuse.
- Historic Structures Fund – this fund finances extensive conservation efforts for important heritage structures. It encourages private capital investment in labour-intensive projects aimed at preserving historic buildings, whether they are publicly or privately owned.

Sustainable Communities

The ICAS Study identifies community infrastructure as necessary to support the sustainable development of Old Connaught and Rathmichael. Potential sources of funding for community infrastructure included the following:

- Community Investment Fund – this fund is a government initiative from the Department of Rural and Community Development that invests in community centres where the 'community tend to gather for group activities, social support, public information, and other purposes'. The 2023 Community Centres Investment Fund called for a New Builds Measure which where 'shovel-ready' projects with all necessary permissions in place. Previous calls looked at improvement and refurbishment.

4.4.3 Planning Designation Potential

It is noted that a potential opportunity exists to seek the designation of the south-east area of Dún Laoghaire-Rathdown, and in particular the Old Connaught LAP area, as a form of transport orientated development (TOD). TOD is a form of urban development that seeks to maximise the provision of housing, employment, public services and leisure space in close proximity to high quality transport services.

The designation of Old Connaught as a TOD may serve to better align the growth of the area with the necessary national funding arrangements with the ongoing programme of investment in the public transport network. The Department of Housing, Local Government and Heritage and the Department of Transport jointly have established a working group to identify opportunities and to accelerate TOD delivery.

There are a number of important factors which could support the designation of Old Connaught as a settlement suitable to be designated a TOD. The extension of the Green Line Luas from Cherrywood to Bray is fundamental and is specifically provided for in the NTA's Greater Dublin Area Transport Strategy 2022-2042. The delivery of the Luas at Old Connaught would achieve the optimum integration of residential land uses with access to high frequency public transport. Furthermore, it is highlighted that Old Connaught is identified in the Dublin Metropolitan Area Strategic Plan (MASP) on the north-south strategic development corridor. The Dublin MASP is aligned with the NPF and NDP to inform national-level sectoral investment plans and co-ordinate investment within the metropolitan area.

4.5 The Role of State Agencies

State Agencies have a significant role to play in the provision of enabling infrastructure to realise the potential of new emerging development areas in the two LAP areas in the southeast of the County. In this regard, the National Transport Authority, Transport Infrastructure Ireland, Uisce Éireann, ESB and other

relevant statutory agencies where appropriate, have an important role in bringing forward key projects and funding resources, in order to facilitate the timely and successful implementation of development.

It is recommended that the Local Authority continues to engage with each respective State Agency to co-ordinate the timely delivery of enabling infrastructure in the LAP areas.

4.6 Alternative Funding Mechanisms

The early-stage funding and delivery of strategic infrastructure to enable development presents difficulties for the more traditional statutory funding mechanisms, where a potential time lag is caused between the receipt of funding through development levies and the delivery of necessary infrastructure. It is noted that this time lag may conflict with optimal phasing scenarios and ultimately delay development.

Recognising the blockages caused by infrastructure funding and delivery, commercial entities exist which provide a design-build-finance service for infrastructure to facilitate residential development. While these entities will operate on a fully commercial basis, they do provide a potential alternative means to deliver infrastructure where no funding is available, and ultimately unlock development. It is recommended that potential private sector/commercial funding models are considered for their potential to support the implementation of the Local Area Plans. In addition, it is recommended that models of developer-led infrastructure are considered.

4.7 Land Value Sharing

Housing for All (2021) set out the Government's commitment to develop proposals for Land Value Sharing (LVS) mechanisms to respond to the objective of the State receiving an appropriate proportion of the increase in land values that result from key public decisions around zoning/designation and investment.

The Government has approved publication of the general scheme (draft heads) of the Land Value Sharing and Urban Development Zones Bill 2022. The aim of the LVS element of the legislation is to introduce a mechanism to ensure that a proportion of the value uplift associated with the decision to zone land for development purposes, is shared with the State in the interest of the common good; that this mechanism will facilitate an increase in the supply of housing by assisting the Local Authority with the funding of necessary social and physical infrastructure to support development in the area, and that greater certainty from the point of zoning around the obligations to be placed on landowners and developers to contribute towards the infrastructure required will exert downward pressure on the price of residential development land.

The implementation of such a land value scheme/mechanism could be financially significant given the future residential development that would come forward at Old Connaught and Rathmichael and the enabling infrastructure required to support the sustainable development of the area. It is highlighted, however, that there is currently no timeline for the advancement of the legislation and implementation.

4.8 Funding Strategy – Recommendations

In unlocking the southeast area of Dún Laoghaire-Rathdown, it is recommended that an equitable provision of infrastructure is achieved so that landowners, developers, statutory providers and other stakeholders can see how enabling infrastructure links to development and how the cost 'burden' of this, and the value creation, is appropriately shared.

Where the opportunity exists, it is recommended that the Local Authority should work with inter alia the Department of Housing, Local Government and Heritage, the Department of Transport, the National Transport Authority, Transport Infrastructure Ireland, Uisce Eireann, ESB and other relevant statutory agencies where appropriate, to bring forward key projects and funding streams in order to facilitate the timely and successful implementation of development in the LAP areas.

It is acknowledged that there is no one-size fits all approach to the funding of infrastructure and it is therefore recommended that all measures and funding streams available for the release of funding to provide for the delivery of the enabling infrastructure and services in the southeast of the County – both public and private -should be pursued.

5. Monitoring and Evaluation

The ICAS is a point in time Study with the purpose of providing an evidence basis to guide the direction of and to inform the Local Area Plans for Old Connaught and Rathmichael. It is highlighted that the ICAS Study does not, however, comprise planning policy which will be the outcome of the Local Area Plan process. In this regard, it is recommended therefore that monitoring and evaluation mechanisms are stitched into and comprise a component part of monitoring the progress of the Local Area Plan, and not the ICAS Study itself.

In this context, it is recommended that each Local Area Plan should include a monitoring framework which may serve to evaluate many of the components analysed as part of the ICAS Study. It is recommended that the following matters are considered for inclusion as part of monitoring frameworks devised for each respective LAP:

- Progress on implementation of preferred options by discipline.
- Cross-check of assumptions, including availability of new data.
- Appraisal of development which has taken place in each LAP area.

In terms of transport, it is recommended that any future Local Transport Plan for the LAP areas has regard to relevant NTA Guidance. NTA Guidance recommends undertaking reviews during defined timeframes (e.g. short term 1-2 years; medium 2-5 years; long term 5 to 10 years; future-term 10 to 15 years). At the end of each timeframe, monitoring can be conducted to establish the following:

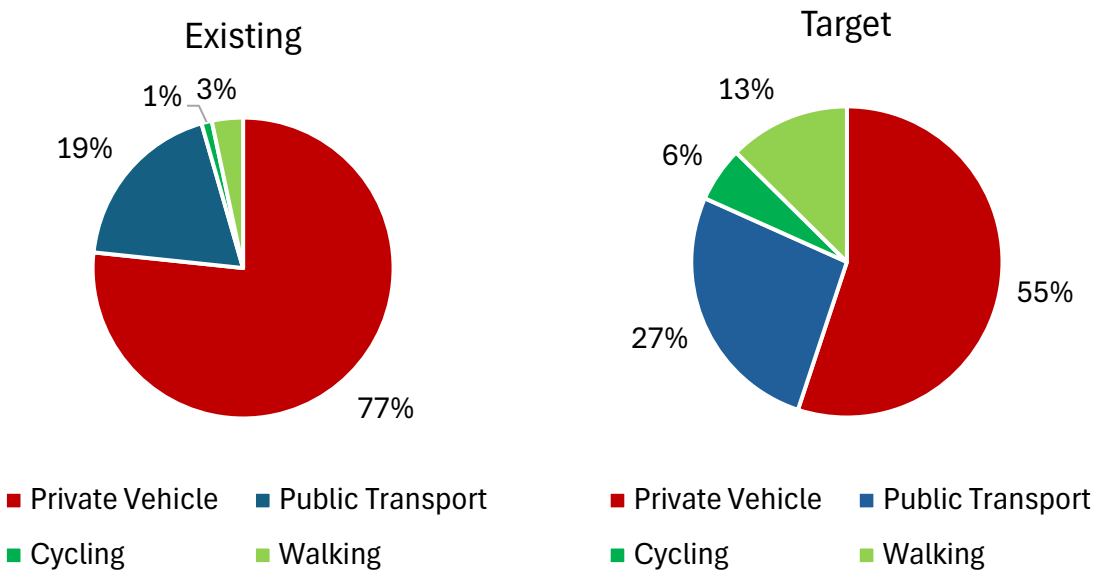
- Progress on the implementation of all infrastructure measures for each mode of transport.
- Progress on the implementation of all public transport service measures for each mode of transport.
- Progress on the implementation of all demand management and supporting smarter travel measures.
- Cross-checking of assumptions against current transport patterns and population at the time of monitoring.
- Assessment of actual development and land use outcomes within the Study Area at the time of monitoring against the original assumptions related to land use.

Evaluation of the outcomes of any future Local Transport Plan can also be undertaken within similar timeframes including evaluating the following:

- Sustainable Travel Mode Share
- Economic Benefits
- Health and Safety Benefits
- Environmental Benefits*
- Accessibility and Social Inclusion

*Note that environmental monitoring would also be required as part of the SEA process.

The transport strategy for both LAP areas is fundamentally rooted in active travel and public transport. In terms of travel mode share it is recommended that the mode share targets outlined below are used for monitoring and evaluation purposes. It should be noted that these targets differ from the overall targets set out in the dlr CDP 2022-2028, with lower targets for public transport, cycling, and walking. This is primarily due to the nature of the LAP areas' location, situated in an area currently lacking services. These targets do however contribute to meeting the overall county mode share targets, and represent a significant improvement upon the existing mode shares in this location.


Existing
1%
3%
19%
77%
Private Vehicle
Public Transport
Cycling
Walking
Target
13%
6%
55%
27%
Private Vehicle
Public Transport
Cycling
Walking

6. Conclusion

Arup have completed Parts 1 to 3 of the ICAS, which includes the Baseline Assessment Report, Position Report and the Options Development and Assessment Report. The purpose of Part 4, the Draft ICAS was to further develop the emerging preferred options which were identified in the Part 3 Options Development and Assessment Report. This Part 4 Report should therefore be considered in conjunction with these preceding ICAS reports.

This report has progressed the ICAS Part 3 Report by indicating the high level strategic enabling infrastructure and service requirements for each phase of development in both LAP areas and by setting out a high-level implementation plan including a phasing programme, so that key elements of strategic infrastructure are delivered in tandem with development. It is noted that not all infrastructure identified in the Part 3 Report is categorised as strategic enabling infrastructure for the purpose of inclusion in a phasing programme. Furthermore, this Part 4 Report outlines potential means of funding to progress the development of both LAP areas.

The Draft ICAS has been developed in order to inform the LAP process, providing an overview of the infrastructure necessary for the delivery of the proposed development in the two LAP areas. Further analysis and design will be required to better understand the feasibility and configuration of the proposed infrastructural measures. All information contained in the Part 4 Report is point in time, high level and will be further considered and assessed as part of the Local Area Plan making process.

To conclude, the ICAS process now moves forward to the final study, which is the Part 5 Report.

Appendix A

Transport Infrastructure: Overview of the ICAS Part 3 Report - Options Development and Assessment

A. Transport Infrastructure

A.1 Introduction

The options assessment for the proposed transport infrastructure was conducted using the Area Based Transport Assessment (ABTA) process, following the 'ABTA How To Guide - Guidance Document - Pilot Methodology' produced by Transport Infrastructure Ireland (TII) and the National Transport Authority (NTA).

A.2 Key Transport Policies and Plans

As a starting point for the development of options, key transport policies and plans on national, regional and local level were considered. Key National Policy and Plans include Project Ireland 2040: National Development Framework, National Development Plan 2021-2030, Climate Action Plan 2023 and the National Investment Framework for Transport in Ireland (NIFTI). NIFTI includes an intervention hierarchy that prioritises the utilisation and optimisation of existing infrastructure over investment in infrastructure improvements or new infrastructure.

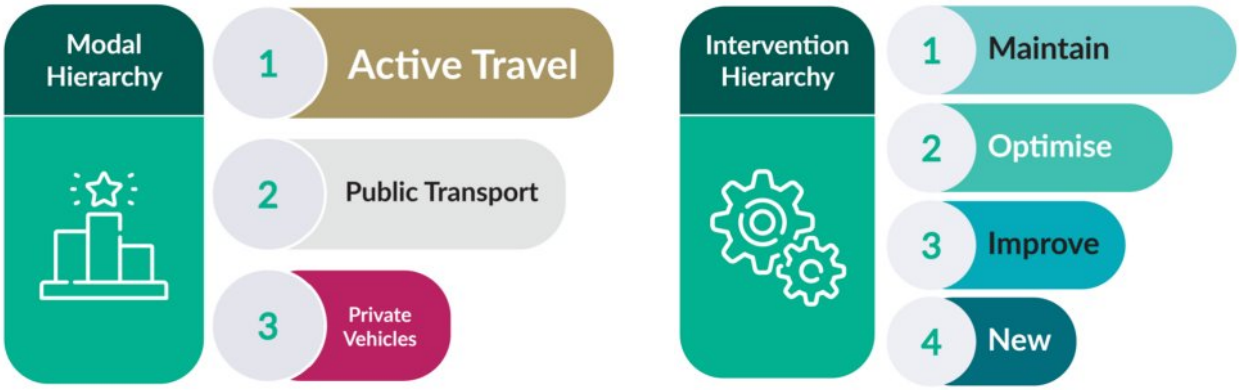


Figure A-1 NIFTI Modal and Intervention Hierarchy

Some of the key Regional Policy and Plans include Regional Spatial and Economic Strategy for the Eastern and Midland Region 2019-2031 and the Greater Dublin Area (GDA) Transport Strategy 2022 – 2042. These strategies encourage transit-oriented development and dense mixed use neighbourhoods within the GDA area by developing local area plans The local area plans is to provide for integration of modes in schemes, cycle infrastructure design and parking strategies, extension of the Luas towards the south, policy and principles on the provision of new roads and the incorporation of maximum residential parking standards within development plan areas.

On a Local Policy and Plan level the Dun Laoghaire-Rathdown County Council Development Plan 2022-2028 provides guidance on zoning of the LAP areas and is informed by the 2019 and 2021 Bray and Environs Transport Study to identify enabling infrastructure for development at the two LAP areas.

A.3 Transport Strategy Considerations

Based on principles of the key transport policies and plans, transport strategy considerations were outlined. The strategy is fundamentally rooted on active travel and public transport as shown in Figure A-2, although vehicle based transport was also considered. Active travel linkage to surrounding areas was a key building block of the strategy to ensure connectivity to surrounding nodes within the vicinity. Local bus services connected to surrounding nodes and local public transport stations and stops were identified as the backbone of the transport strategy.

The vehicular circulation strategy took note of the requirements of the SPNR and GDA strategy to protect the National Road Network by focussing on the development of sustainable modes of transport. Potential

local vehicular measures were identified to improve access within and between the two LAP areas and the surrounding areas. Although more road capacity was considered the strategy ensured priority is given to sustainable transport modes. Due to the local constraints such as property boundaries, hedgerows and trees within the LAP areas, widening for active travel infrastructure was limited, and so the potential for one-way systems for vehicles were considered. Converting roads to one-way created space for active travel infrastructure while maintaining the same overall carriageway width.

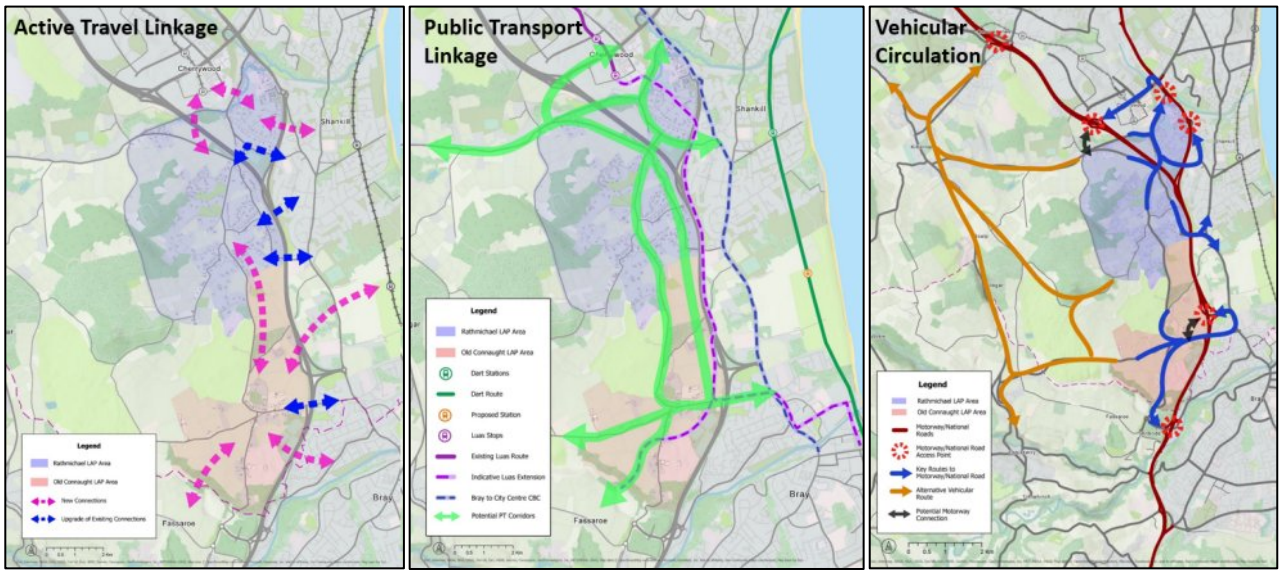


Figure A-2: High Level Transport Strategy for Old Connaught and Rathmichael LAP areas

A.4 Long List Development

A long list of transportation options was developed for the following transport elements outlined in Table A-1:

Table A-1 Initial Long List of Potential Transport Infrastructure Options

Transport Category	Description
Active Travel Connections	The provision of new pedestrian and cycle infrastructure to improve active travel connections between the LAP areas and adjacent areas. These connections may take the form of new links or new infrastructure provided along existing links.
Cherrywood to Bray Cycle Route	End-to-end routing options for a potential cycle route between Cherrywood and Bray, which has been identified.
Bus Provision	Bus provision in the form of route corridor options through Old Connaught and/or Rathmichael.
Road Upgrades	Upgrades to existing roads, which may include safety upgrades, realignment, footpath provision/upgrades, segregated cycle tracks.
New Internal Development Road Links	Upgrades to existing road links, which may include safety upgrades, pedestrian crossings, segregated cycle infrastructure, junction upgrades/signalling.
New External Strategic Road Links	The provision of new road links to serve the LAP areas, which may provide additional vehicular capacity, and/or allow for the provision of new bus routes.

A.4.1 Active Travel

Active travel connections were developed for the following desire lines:

- Rathmichael to Cherrywood
- Rathmichael to Shankill / Woodbrook
- Rathmichael to Old Connaught

- Old Connaught to Woodbrook
- Old Connaught to Bray
- Old Connaught to Fasseroe

Figure A-3 shows the connections considered along each desire line:

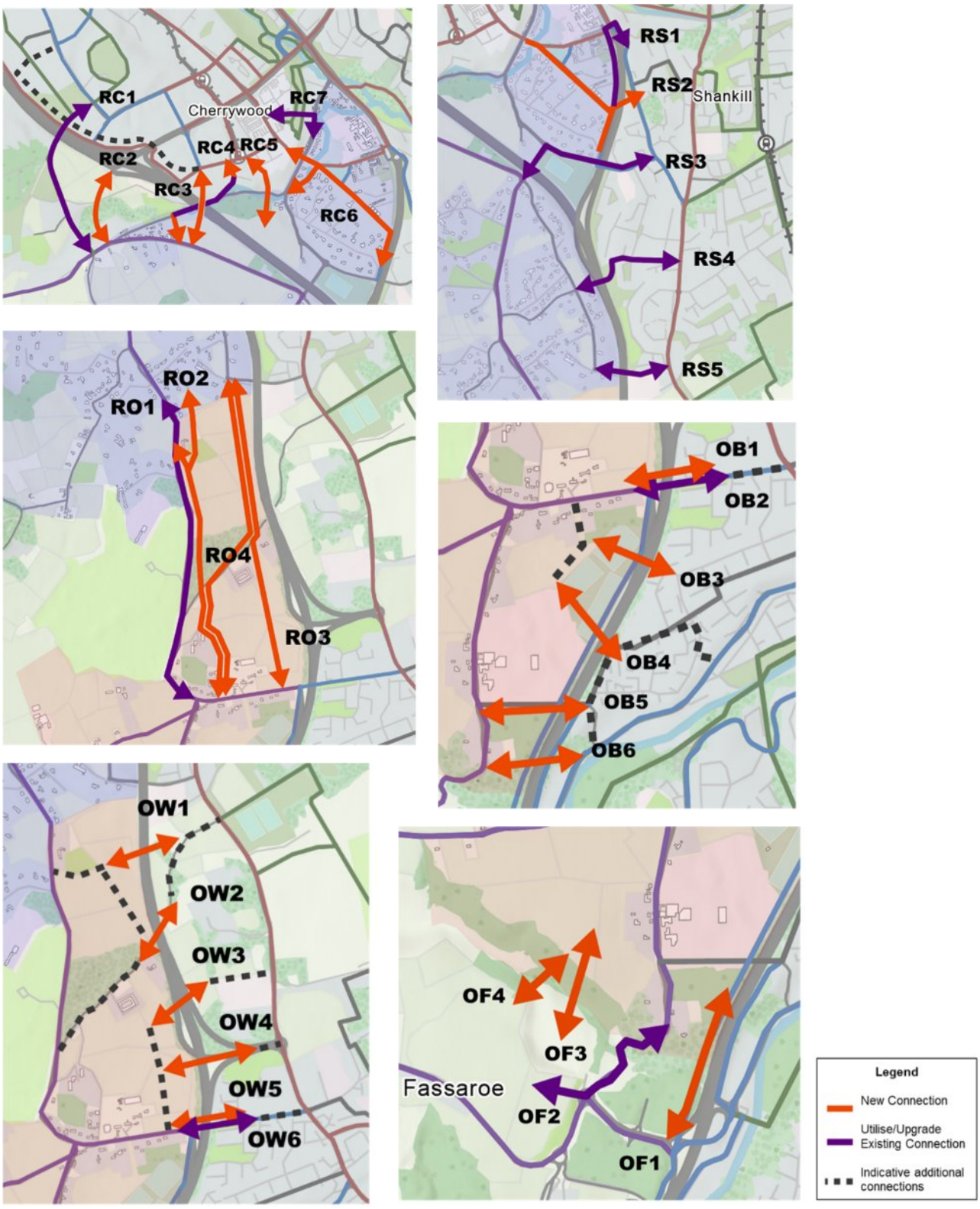


Figure A-3: Active Travel Options Considered

In addition to active travel options, a continuous cycle route from Cherrywood to Bray was identified as a key priority and various options for this route were considered as shown in Figure A-4.

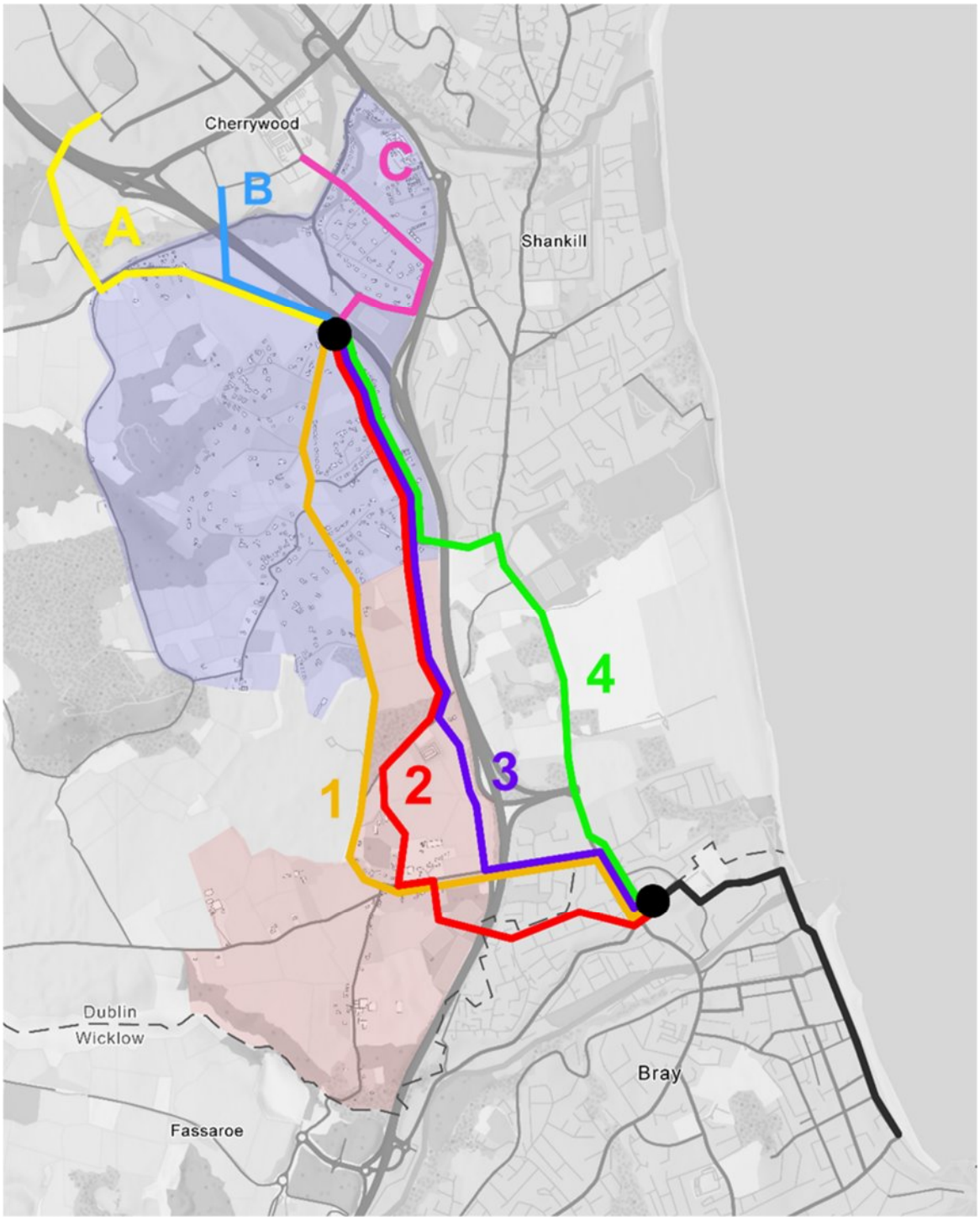


Figure A-4: Options for Cherrywood to Bray

A.4.2 Bus

Bus provision options were developed for Old Connaught and Rathmichael LAP areas with the objective to provide a bus network that provides 15 minute walking coverage to bus stops for the future communities. The starting point for developing the Old Connaught bus service was to consider only the existing and planned public transport within the area and to rely on only that to accommodate future development. This network was not considered adequate resulting in long walking distances to bus stops and therefore bus route options were considered. Seven bus route options for Old Connaught were considered as shown below in Figure A-5.

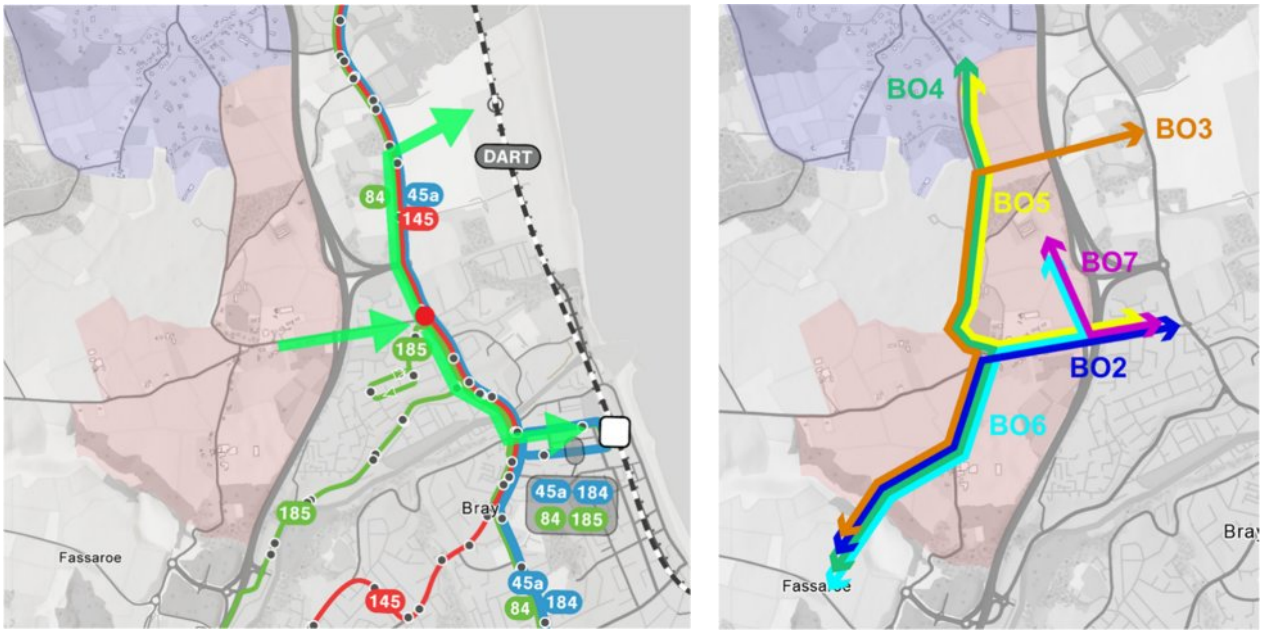


Figure A-5: Bus routes considered for Old Connaught LAP area (Left: Rely on existing. Right: Proposed Routes)

Similarly the existing and planned bus routes for Rathmichael were considered while an additional five bus with sub options were considered as shown below:

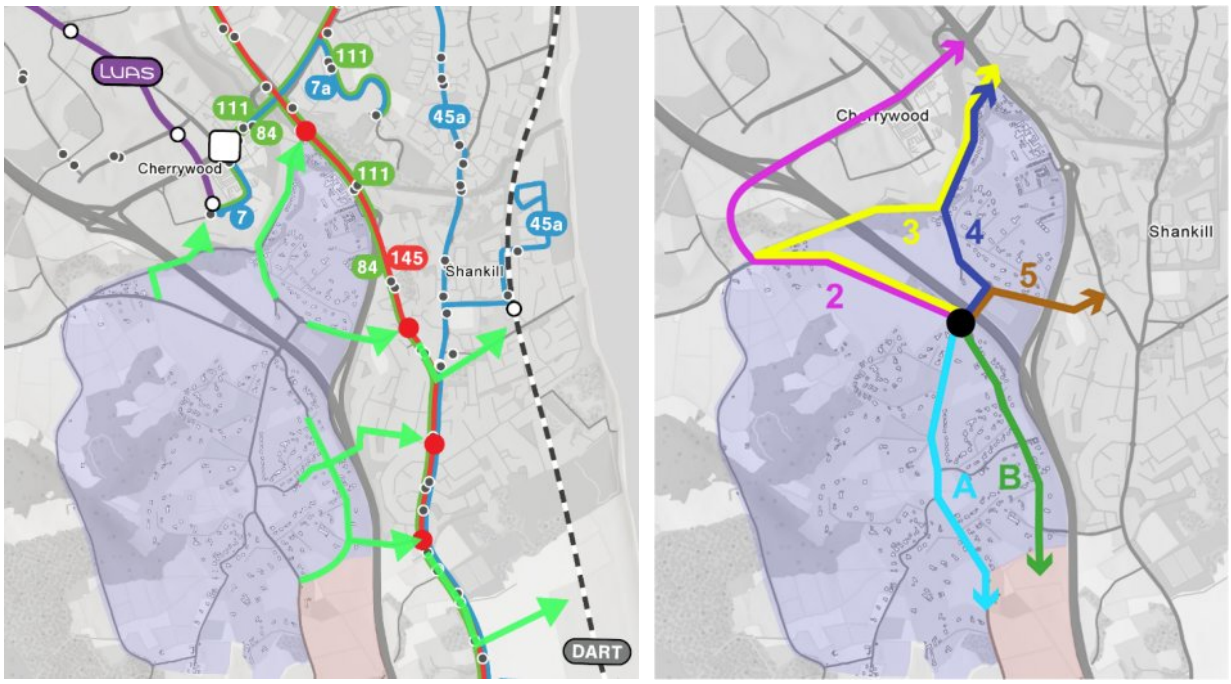


Figure A-6: Bus routes considered in Rathmichael LAP area (Left: Rely on existing. Right: Proposed Routes)

A number of options for the Luas were also considered. However, the GDA Transport Strategy 2022-2042 states that the alignment and the locations to be served between Bride's Glen and Bray have yet to be determined and will be subject to detailed design and planning work. Any options would need to be further considered by the NTA in its future evaluation of the LUAS extension alignment.

A.4.3 Roads

The starting point for developing road improvements was the road objectives in or adjacent to the LAP areas, complemented by potential additional road improvements identified in the ABTA process as shown below:

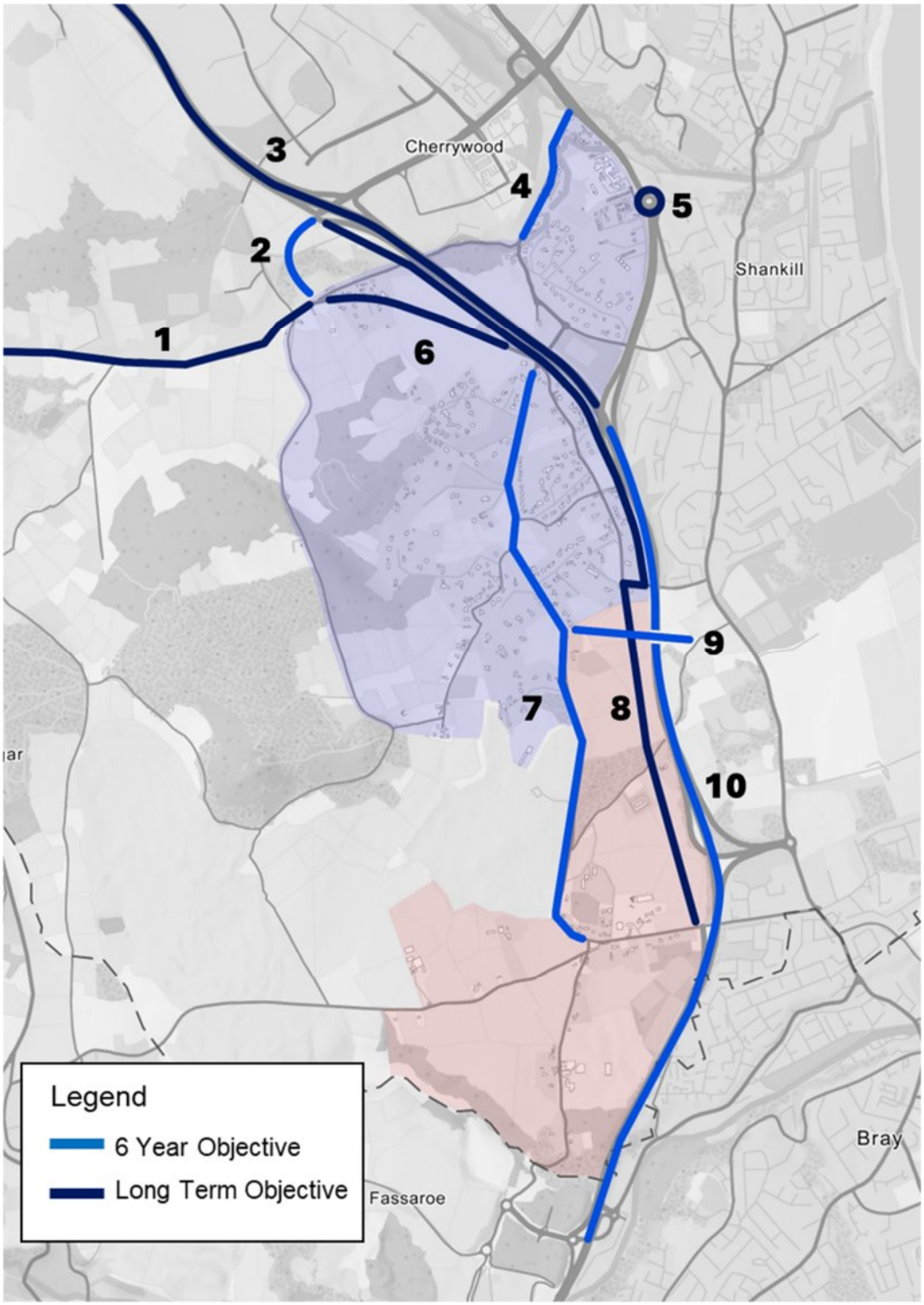


Figure A-7: dlr Development Plan Road Objectives

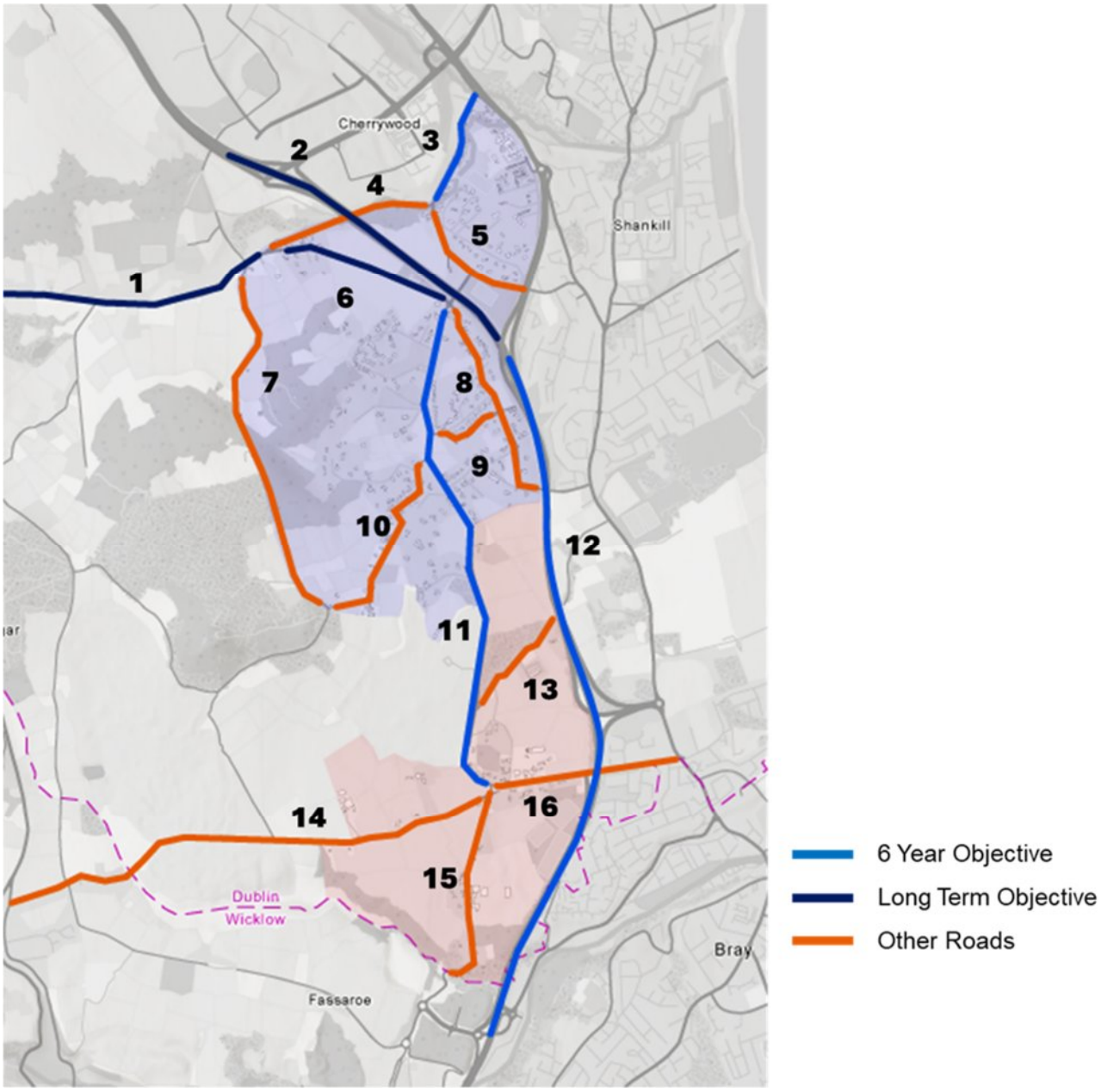
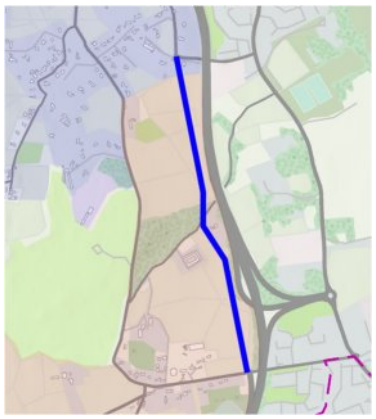


Figure A-8: Road Upgrade Options Considered

In addition, various options for internal and external road links improvements were considered as shown below in Tables A-2 and A-3

Table A-2 Internal Development Road Options

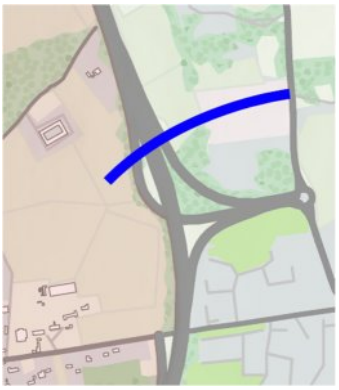
Option	Description	Location
Option IL1 Mulinastill Road/Falls Road to Rathmichael Road over M50	This option proposes a new road link across the M50 between Rathmichael Road and Mullinastill Road, providing a more direct connection between potential development lands and the N11. It also provides a connection between Rathmichael and areas to the east of the M50. A new overbridge at this general location over the M50 will have regard to SPNR and comply with TII Publications.	

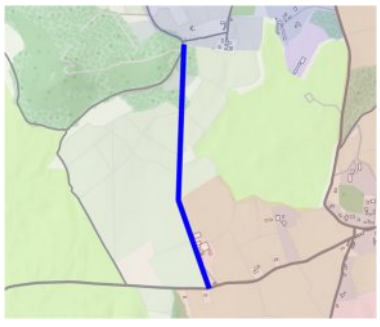
Option	Description	Location
Option IL2 Rathmichael Road to Pucks Castle Lane	This option proposes a new link road between Puck Castle Lane and Rathmichael Road, which would align with option 1 above. It would allow a more direct east-west connection between the eastern and western side of Rathmichael, and create a more direct connection to the N11 from Pucks Castle Lane.	
Option IL3 Ferndale Road to (Option 4)	This option proposes a new link road between Ferndale Road and the proposed North South Road indicated as Option 4 below. This option would allow for a bus route to run along the northern end of Ferndale Road but divert to the newly proposed road to avoid the more restricted southern end. This would also facilitate potential internal circulation between Ballybride Road and Ferndale Road.	
Option IL4 Ballybride Road / Crinken Lane to Old Connaught Avenue	This option proposes a new road parallel to the M11, connecting Crinken Lane to Old Connaught Avenue along the eastern side of the Old Connaught LAP area. This option would provide an additional north-south link as an alternative to the use of Ferndale Road, which is rural in character and can facilitate minimal widening.	
Option IL5 Ferndale Road to Ballyman Road	This option proposes a connecting road between Ferndale Road and Ballyman Road, this would allow for vehicles to bypass the core Old Connaught village junction.	
Option IL6 Ballyman Road to Thornhill Road	This option proposes a connecting road between Ballyman Road and Thornhill Road, this would allow for vehicles to bypass the core Old Connaught village junction. Any interaction with areas manged and operated as part of the M11 will require regard to SPNR and co-ordination with TII, including demonstration of compliance with TII Publications as appropriate.	
Option IL7 Old Connaught Southern Outer Road	This option proposes a connecting road between Thornhill Road and Old Connaught Avenue replicating the alignment shown for the Luas spur to Fassaroe as shown in the dlr 2022-2028 CDP. This would allow for vehicles to bypass the core Old Connaught village area which would facilitate potential active travel improvements, along with acting as an internal development road. Any interaction with areas manAged and operated as part of the M11 will require regard to SPNR and co-ordination with	

Option	Description	Location
	TII, including demonstration of compliance with TII Publications as appropriate.	
Option IL8 Old Connaught North Outer Road	This option proposes a connecting road between Old Connaught Avenue and Ferndale Road. This would allow for vehicles to bypass the core Old Connaught village area which would facilitate potential active travel improvements, along with acting as an internal development road. Any interaction with areas managed and operated as part of the M11 will require regard to SPNR and co-ordination with TII, including demonstration of compliance with TII Publications as appropriate.	

Table A-3 Strategic External Road Options

Option	Description	Location
Option EL1 Lehaunstown Lane	This option proposes a connection between Rathmichael Road and Cherrywood utilising the existing Lehaunstown Lane greenway route. This link would allow for direct access to the Cherrywood from the Rathmichael LAP area. The central and southern part of this option is a public right of way listed in the dlr CDP 2022-2028. Any associated alteration of the Tully Lane Overbridge will have regard to the presence of the M50, the requirements of SPNR and demonstrate compliance with TII Publications.	
Option EL2* M50 Junction 16 - Rathmichael Road Link	This option proposes a connection between Rathmichael Road and M50 Junction 16. This link would allow for direct access to the strategic road network from the Rathmichael LAP area. This link would fulfil a long-term road objective in the dlr 2022-2028 CDP.	
Option EL3 Cherrywood Viaduct Link	This option proposes a new road link across the Cherrywood viaduct connecting to Stonebridge Road. This option would better connect the Rathmichael LAP area, Cherrywood and the M50, but would likely inhibit an active travel/public transport link in this location.	

Option	Description	Location
Option EL4 M50 Western Parallel Road	This option proposes a new link road running directly parallel to the M11/M50 along its western edge from Crinken Lane to the M50 Junction 16. This would alleviate potential pressure on Ferndale Road and create a more direct connection between the LAP areas and the M50. Any interaction with areas managed and operated as part of the M11 will require regard to SPNR and co-ordination with TII, including demonstration of compliance with TII Publications as appropriate.	
Option EL5* Ferndale Road to Allies River Road (Option A)	This option proposes a new link road between Ferndale Road and the northern end of Allies River Road. This option would allow for a more direct connection between parts of the Old Connaught LAP area and Shankill/Woodbrook.	
Option EL6* Ferndale Road to Allies River Road (Options B)	This option proposes a new link road between Ferndale Road and the northern end of Allies River Road. This option would allow for a more direct connection between parts of the Old Connaught LAP area and Shankill/Woodbrook.	
Option EL7* Ferndale Road to Dublin Road (Allies River Road Crossing)	This option proposes a new link road between Ferndale Road and Dublin Road, crossing the M11 at the point where Allies River Road is truncated by the M11. This option would allow for a more direct connection between the LAP areas and Shankill/Woodbrook.	
Option EL8 Old Connaught to Dublin Road Link	This option proposes a connection between Old Connaught and Dublin Road to the north of the M11 junction 5. This link would allow for Old Connaught Avenue to be converted to an active travel and Public Transport only, with the proposed link acting as the only vehicular route across the M11 from Old Connaught. This link would not be necessary should the local road extension of M11 Junction 5 be undertaken as part of the M11/N11 Junction 4 to Junction 14 Improvement Scheme.	

Option	Description	Location
Option EL9 M11 Junction 5 Western Arm	This option proposes a new western link onto the M11 at junction 5. This is indicated as part of the M11/N11 Junction 4 to Junction 14 Improvement Scheme, preferred route option published at the end of 2021 and would allow for direct access from the Old Connaught LAP area onto the national road network. The progression of the M11/N11 Junction 4 to Junction 14 Improvement Scheme improvement scheme is subject to funding and priorities as set out in the NDP.	
Option EL10 Ferndale Alternative	This option proposes a connecting road between Thornhill Road and Fassaroe, replicating the proposed public transport connection as outlined in the Bray and Environs Transport Study.	
Option EL11 Quarry Road to Ferndale Road	This option proposes a new road connecting Quarry Road with Ferndale Road. This option provides improved connection between Pucks Castle Lane and Old Connaught.	
Option EL12 Pucks Castle Lane to Ferndale Road	This option proposes a new road connecting Pucks Castle Lane with Ferndale Road. This option provides improved connection between Pucks Castle Lane and Old Connaught.	
Option EL13 Pucks Castle Lane to Ballyman Road	This option proposes a new road connecting Pucks Castle Lane with Ballyman Road. This option provides improved connection between Pucks Castle Lane and Old Connaught.	

* The inclusion of these proposals is dependent on further assessment as set out in; the 'Spatial Planning and National Roads Guidelines for Planning Authorities' in particular Section 2.7 and Section 5.8.3 Principles of Road Development, feasibility and environmental assessment of the NTA Transport Strategy for the Greater Dublin Area 2016-2040 and the forthcoming Transport Strategy for the Greater Dublin Area; and demonstration of their compatibility with the strategic function of the national road network as set out in Sections 2.2 of the Bray and Environs Transport Study (2019).

The note above is from the existing dlr County Development Plan 2022-2028. Furthermore, the inclusion of these proposals and any national road crossing, or existing national road crossing alteration is subject to further assessments as set out in TII Publications. Since the adoption of the dlr County Development Plan, a new NTA Transport Strategy for the GDA 2022-2042 has been published, which has superseded the previous strategy. In addition, regard should be given to Section 2.2 and Sections 2.3.4, 2.3.5 of the Bray and Environs Transport Study (2019).

A.5 Long List Screening Results

A.5.1 Active Travel

The screening of the long list of active travel options was carried out on the basis of nine criteria which is outlined below:

Criteria	Assessment Considerations
Sustainable Accessibility to Key Facilities	For active travel provision, this criterion considers walking and cycling catchment analysis, determining whether the option increases the catchments, and the amount of key facilities within the increased catchment when compared to the existing catchment.
Likely Environmental Impact	This criterion considers the direct environmental impact of the proposed infrastructure. Impact on rivers, trees, and designated areas such as SAC's are considered. Broader environmental considerations such as emissions reductions will be considered as part of the MCA of transport packages, rather than in this initial screening of options.
Alignment with National Policy/Plans	For a comparative assessment of active travel options, this criterion is largely considered equal across all options, with the exception of options which impact on the national road network.
Alignment with Regional Policy/Plans	This criterion primarily considers the implementation of the GDA Transport Strategy, in particular the GDA cycle network plan and the Bray and Environs Transport Study (2021).
Alignment with Local Policy/Plans	For active travel provision, this criterion primarily focuses on the proposals delivery of active travel plans, or alignment with active travel policy. However, impact on other areas, such as national roads or spatial planning policy will be considered where appropriate.
Alignment with other potential infrastructure	For active travel provision, this criterion considers the potential alignment with other potential infrastructure where the active travel provision could be provided alongside road proposals for example, or whether the construction of an active travel link may allow for the inclusion of an important utilities link along with it.
Potential cost	This criterion involves an estimation of the potential cost of delivery of the proposal which includes motorway orders and compulsory purchase orders (CPOs). Where larger scale infrastructure would be required such as new bridges, the proposal may score poorly, whereas a new link along flat open land may score highly for this criterion.
Ease of implementation	This criterion considers elements beyond cost, which may make the proposal difficult to deliver, such as topography, existing buildings, or procedural difficulties.
Safety Impact	This criterion considers the safety implications of the proposed measure, whether it may decrease safety due to a lack of connection to existing safe infrastructure,

Criteria	Assessment Considerations
	or potentially increase safety through the upgrading of existing unsafe infrastructure.

The screening results of the active travel options assessment are shown in the Figures A-9 to A-14 below:

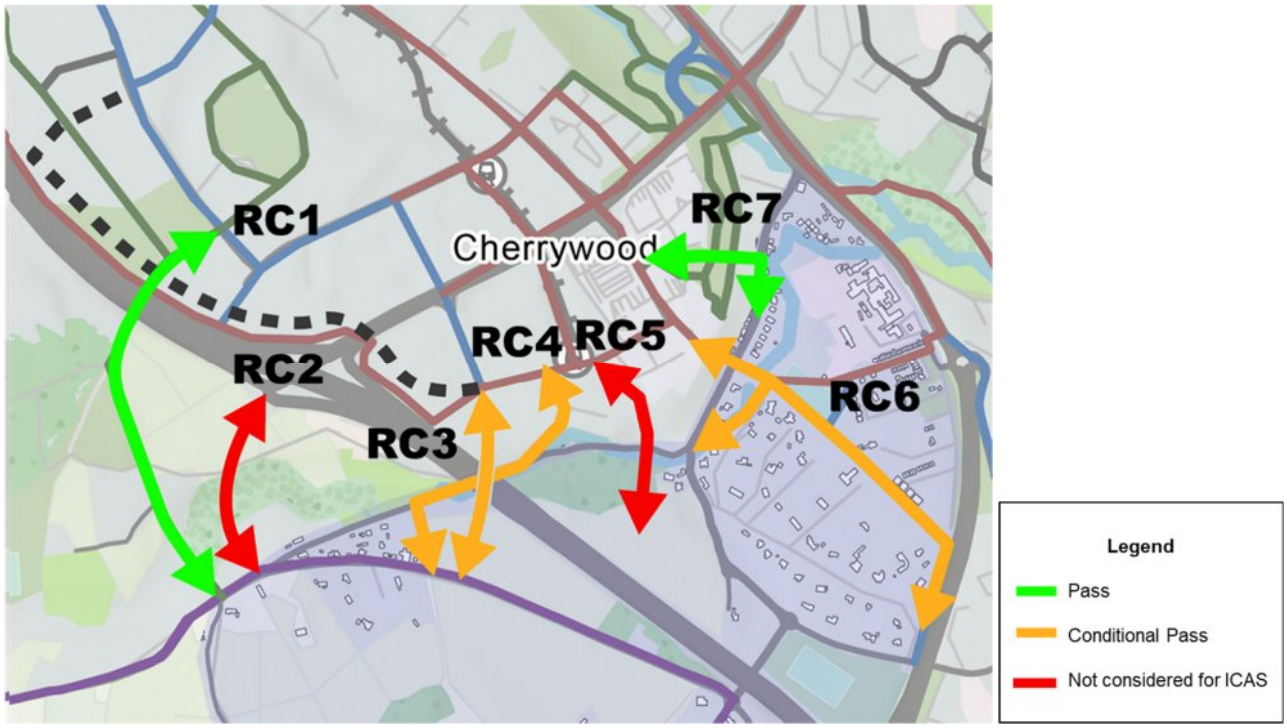


Figure A-9 Rathmichael to Cherrywood Active Travel Options Assessment

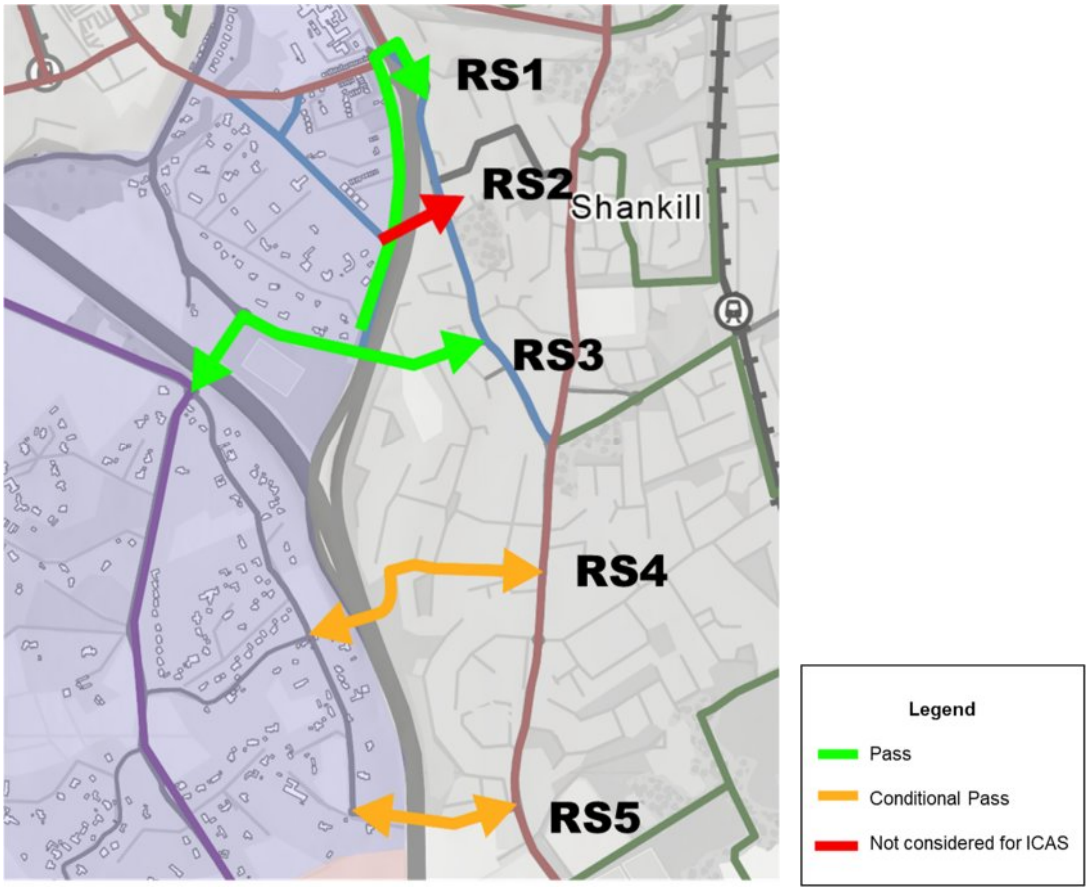


Figure A-10 Rathmichael to Shankill/Woodbrook Active Travel Options Assessment

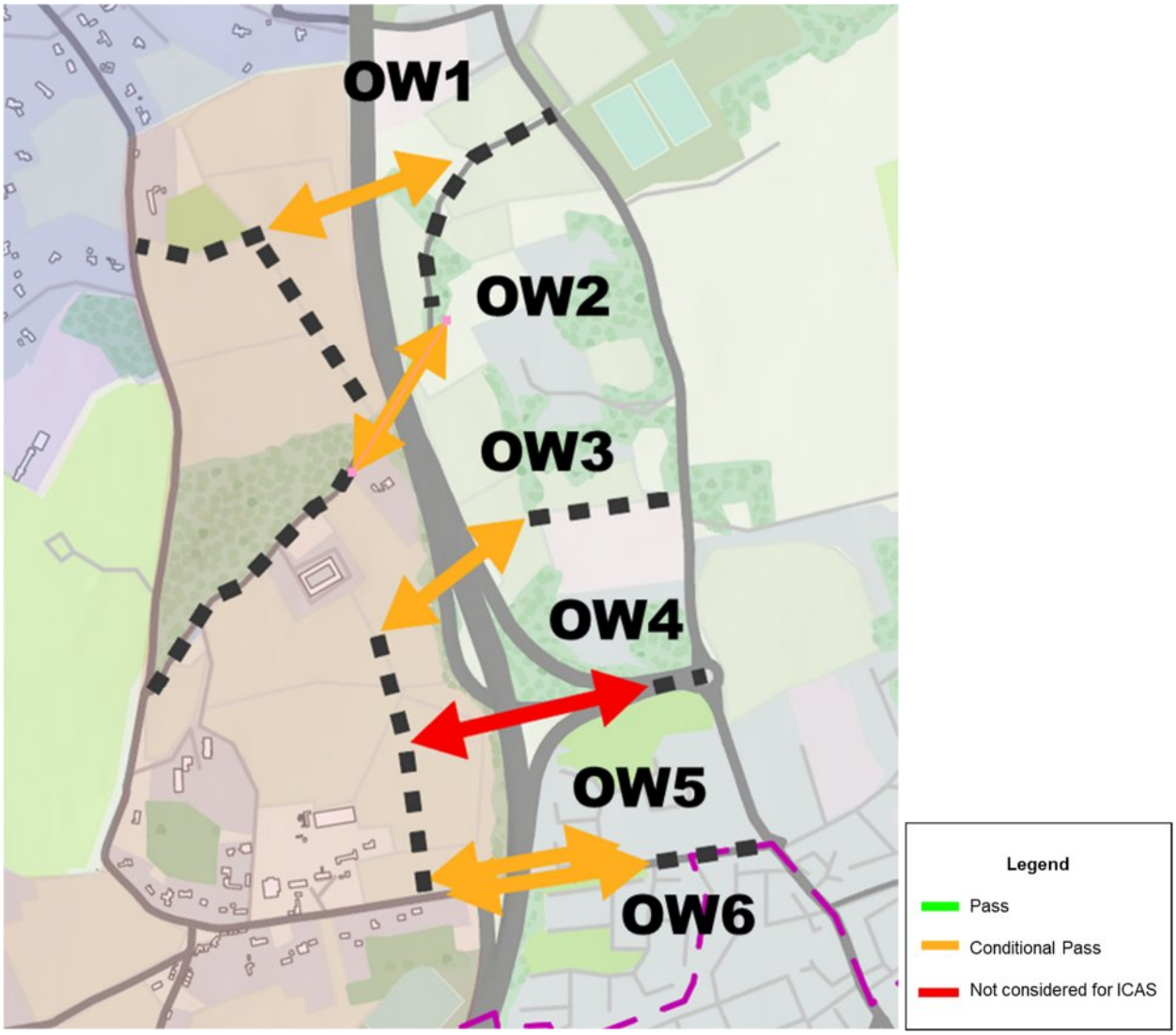


Figure A-11 Old Connaught to Woodbrook Active Travel Options Assessment

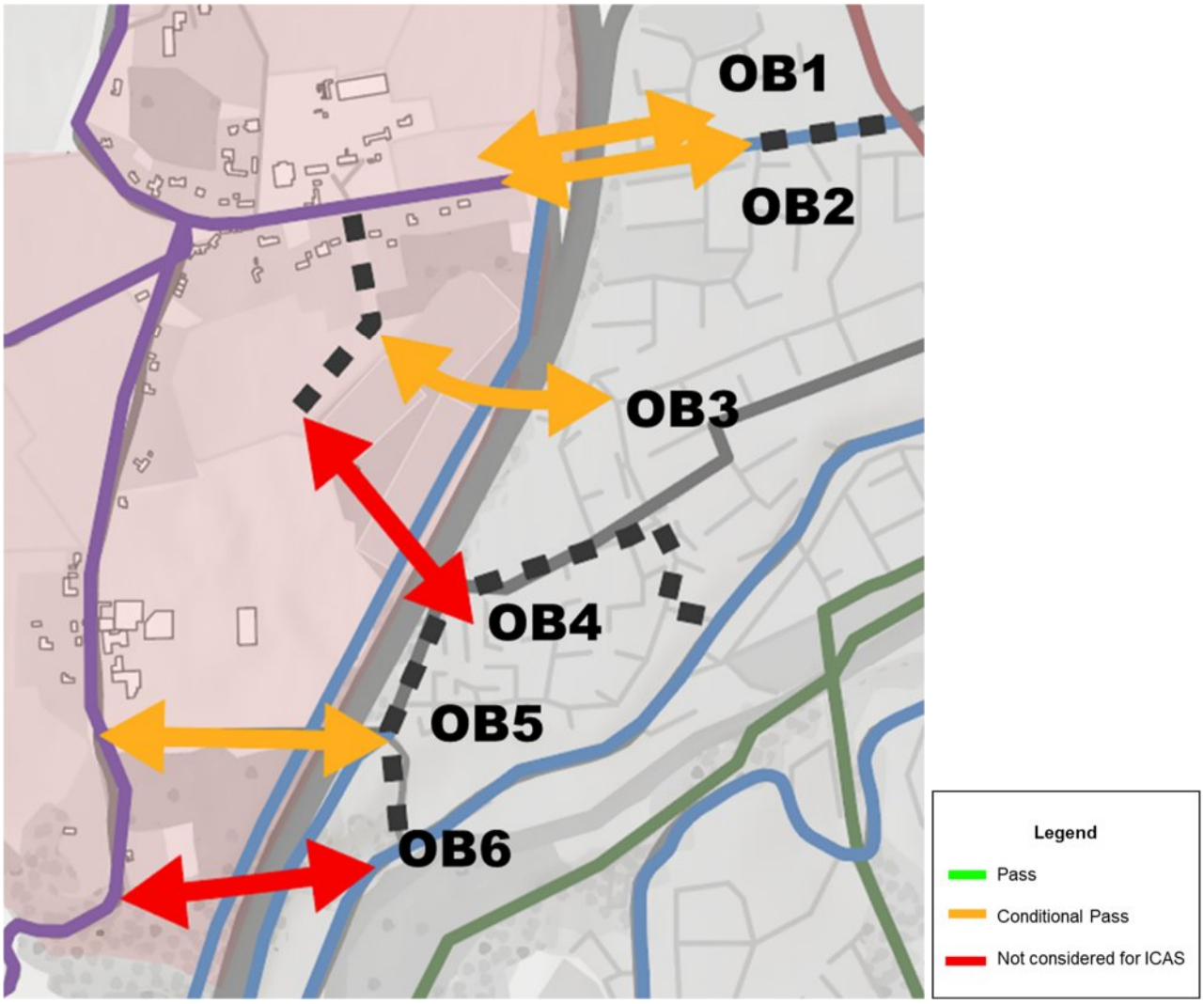


Figure A-12 Old Connaught to Bray Active Travel Options Assessment

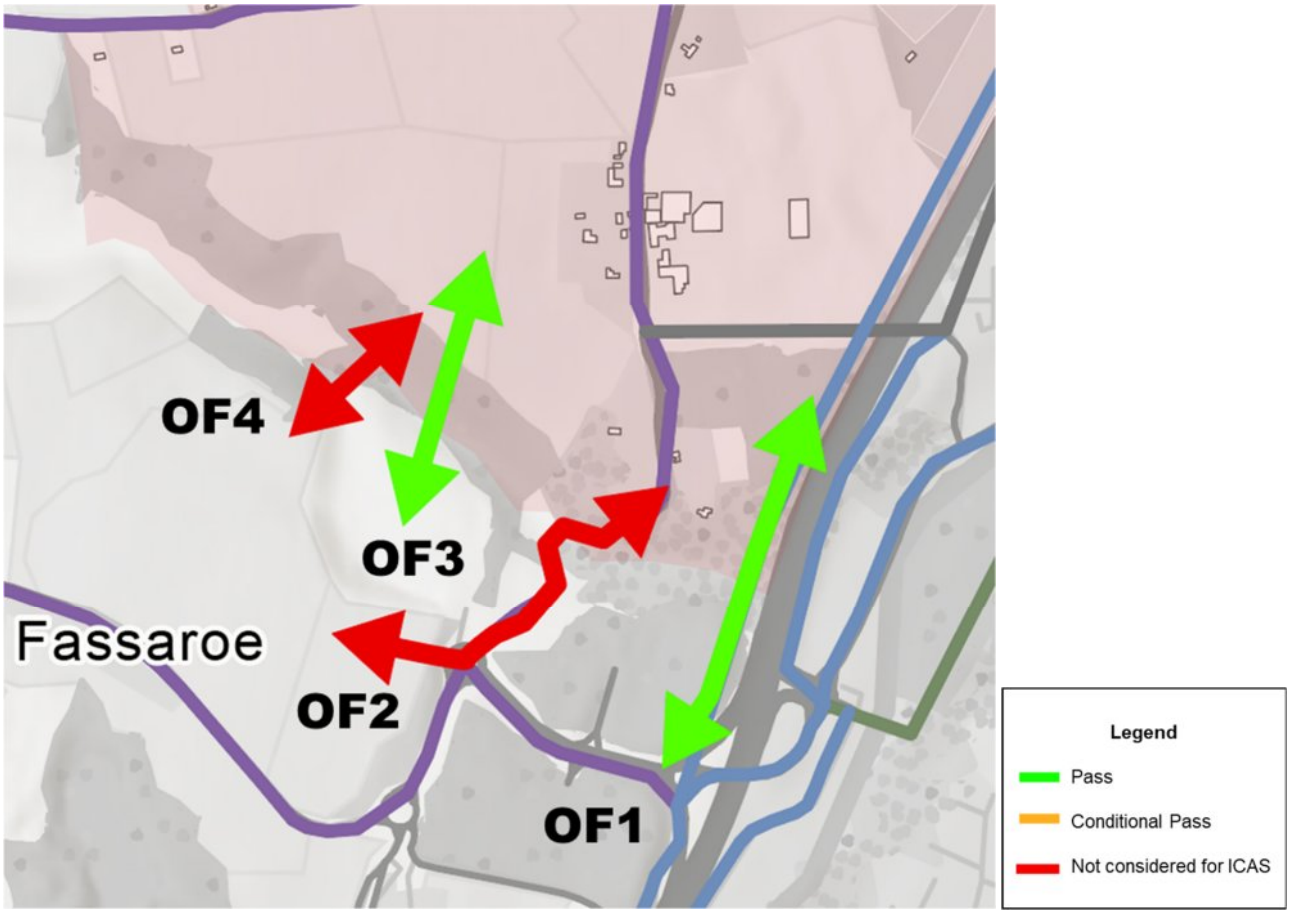


Figure A-13 Old Connaught to Fassaroe Active Travel Options Assessment

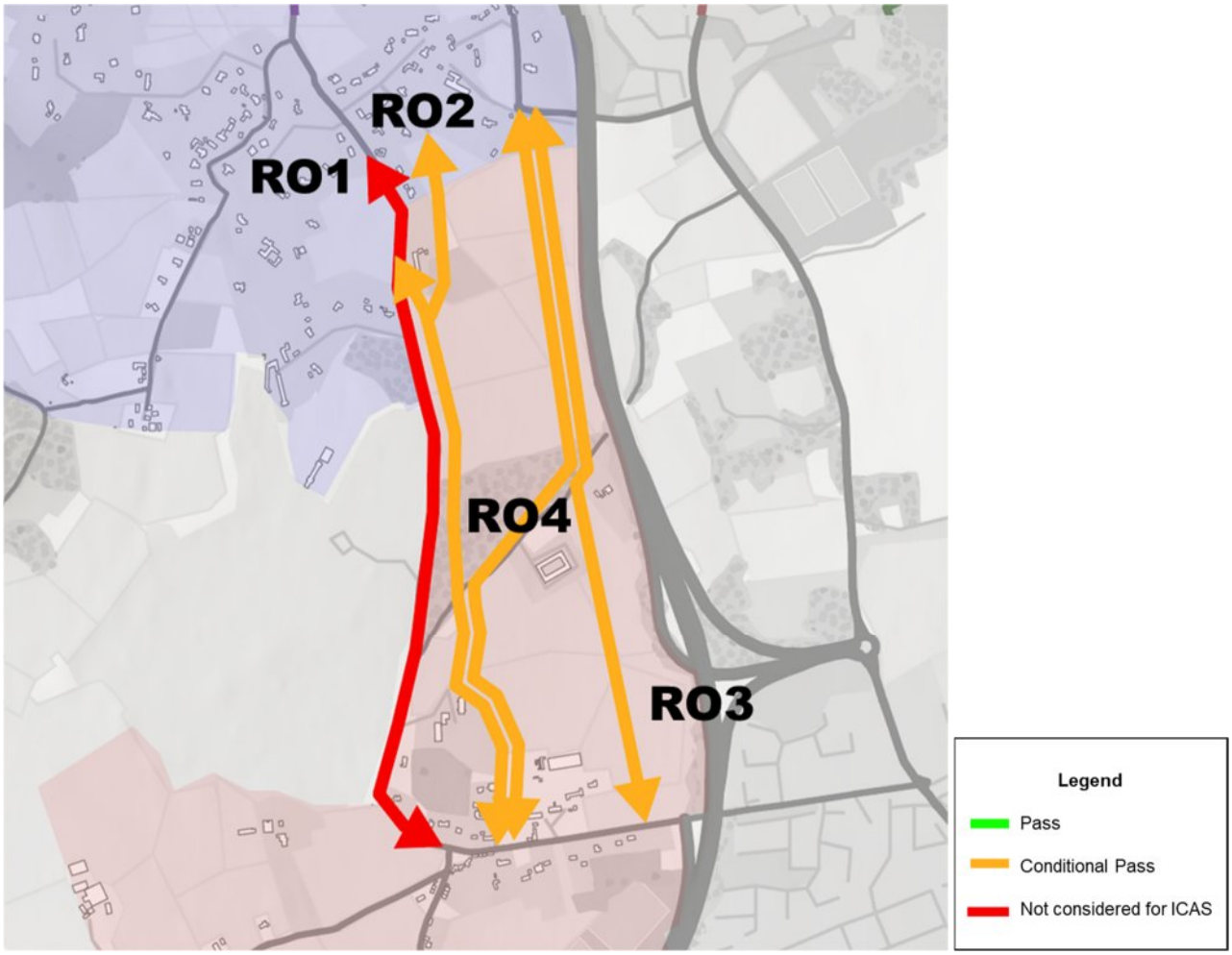


Figure A6-14 Rathmichael to Old Connaught Active Travel Options Assessment

A.5.2 Bus

The screening results of the bus provision options assessment is graphically shown in the figures below:

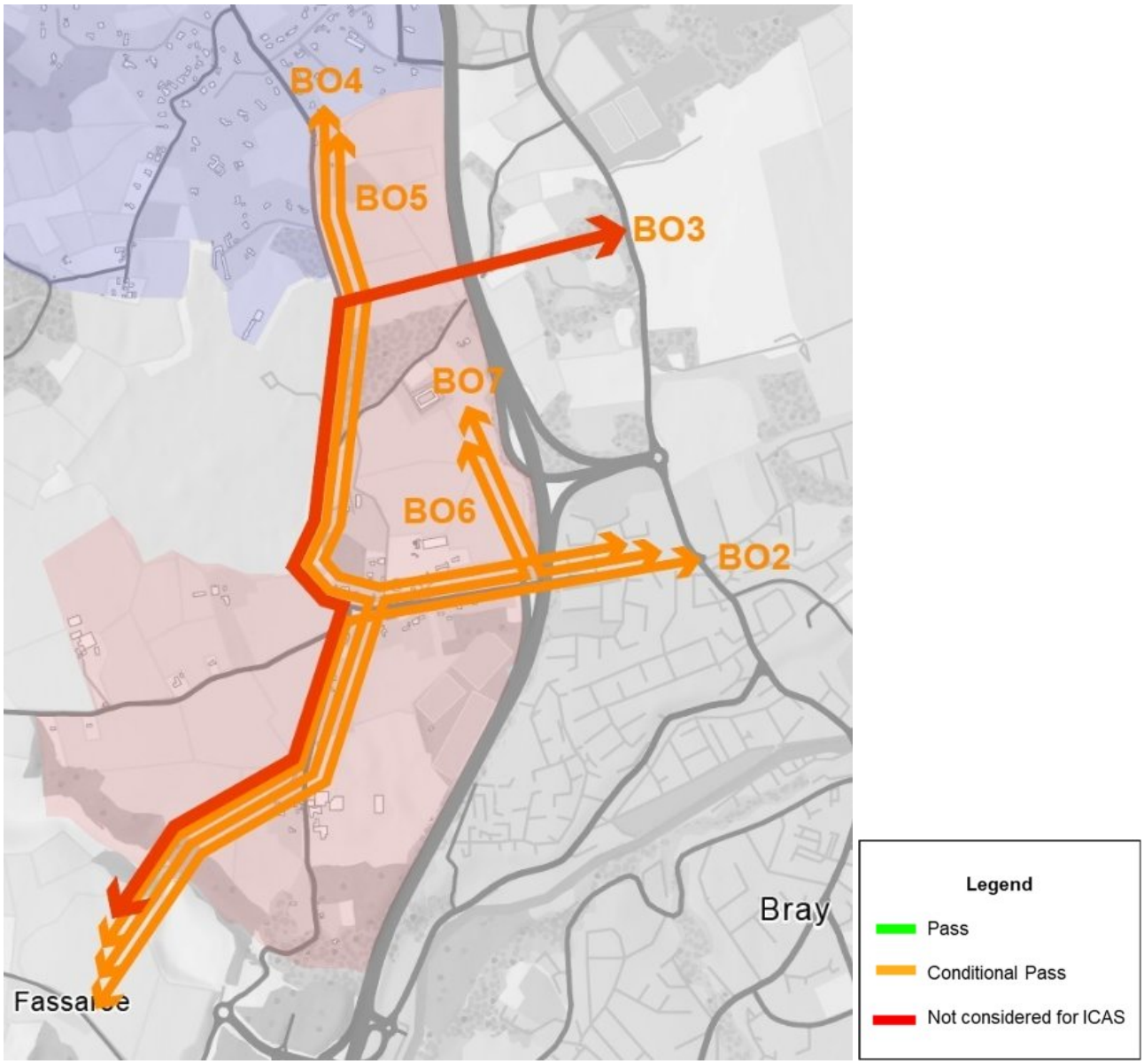


Figure A-15: Old Connaught Bus route screening results

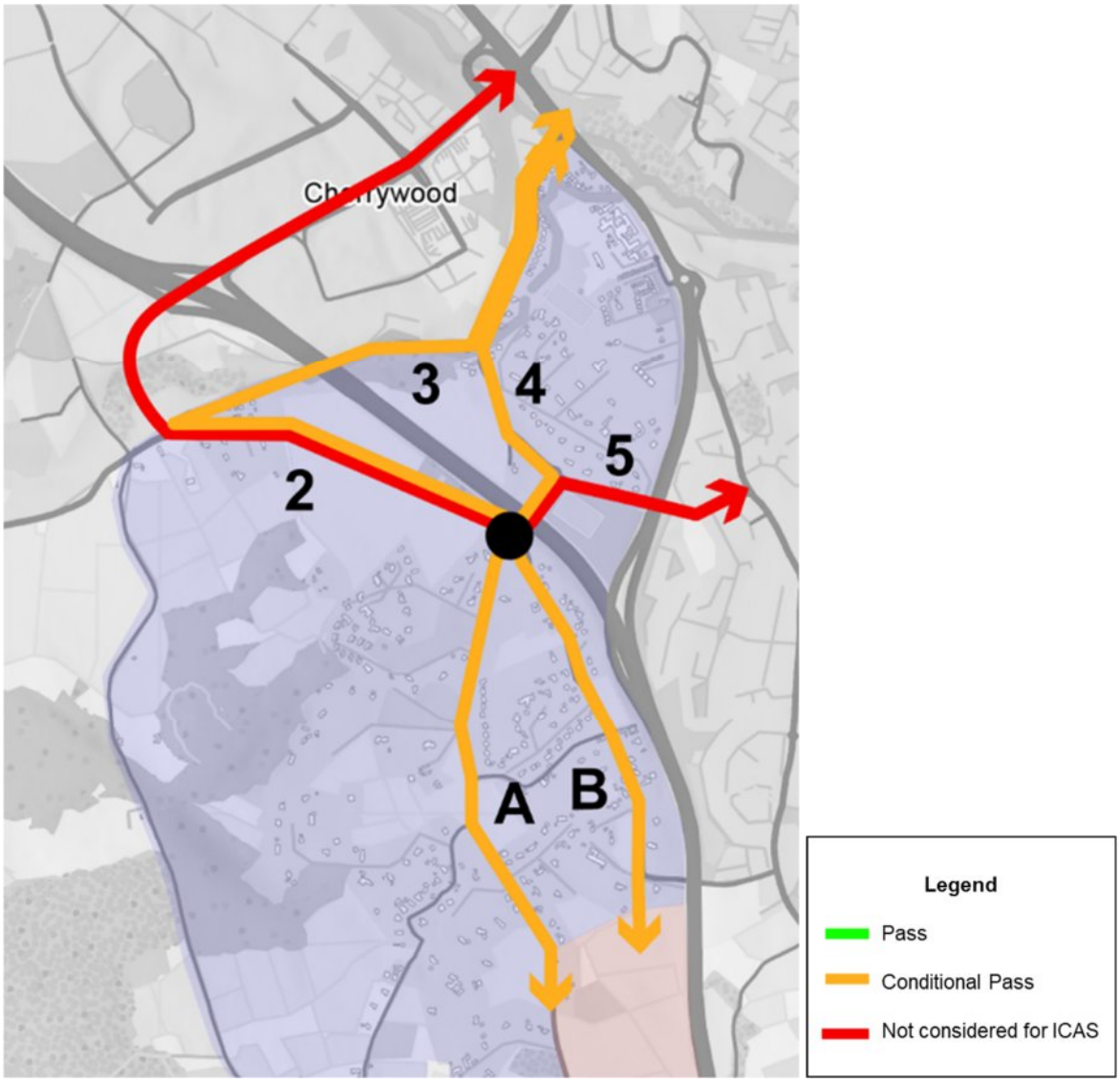


Figure A-16: Rathmichael Bus route screening results

A.5.3 Roads

The screening results of the road options assessment is graphically shown in the figures below:

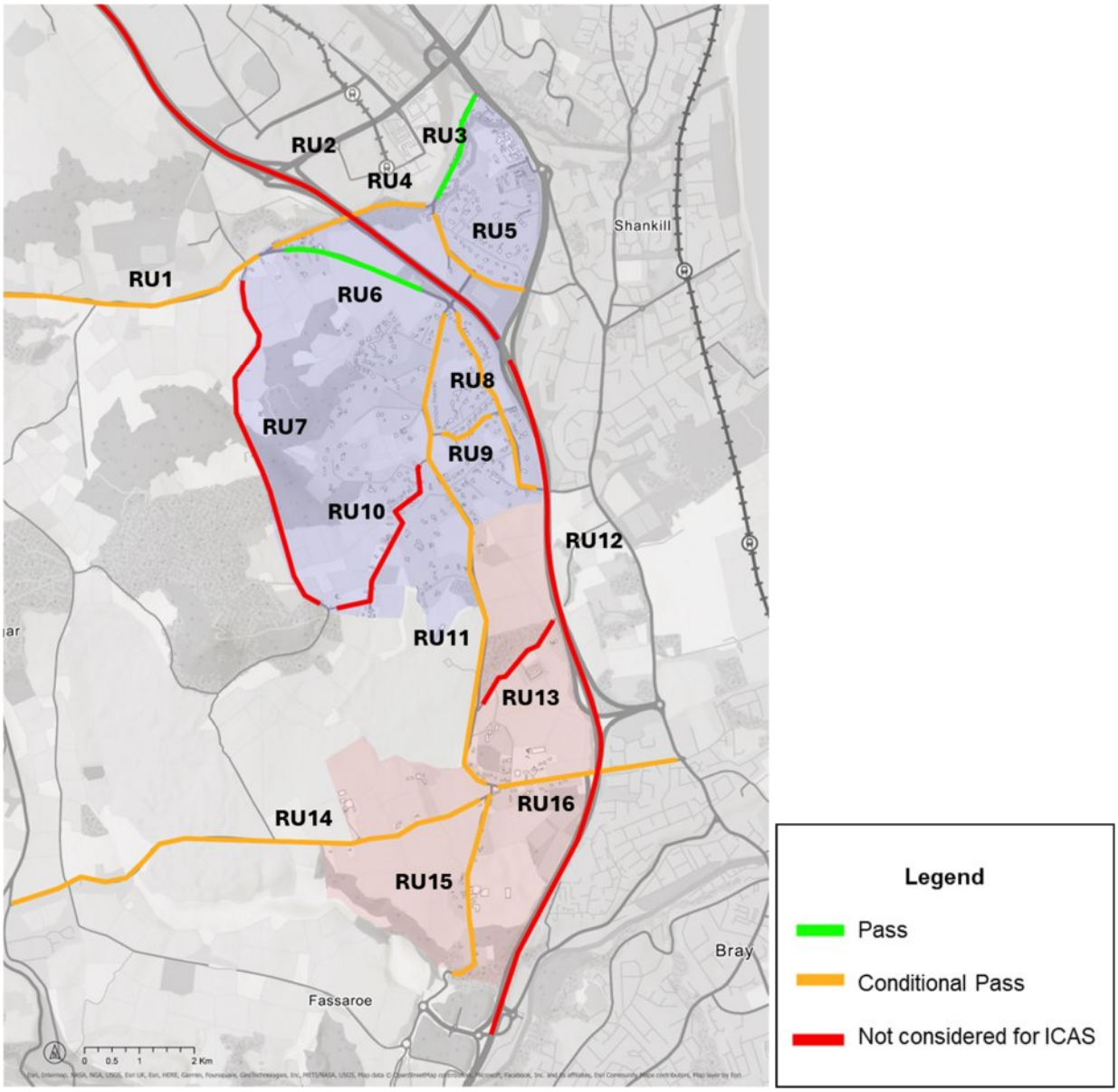


Figure A-17 Road Upgrade Options Assessment

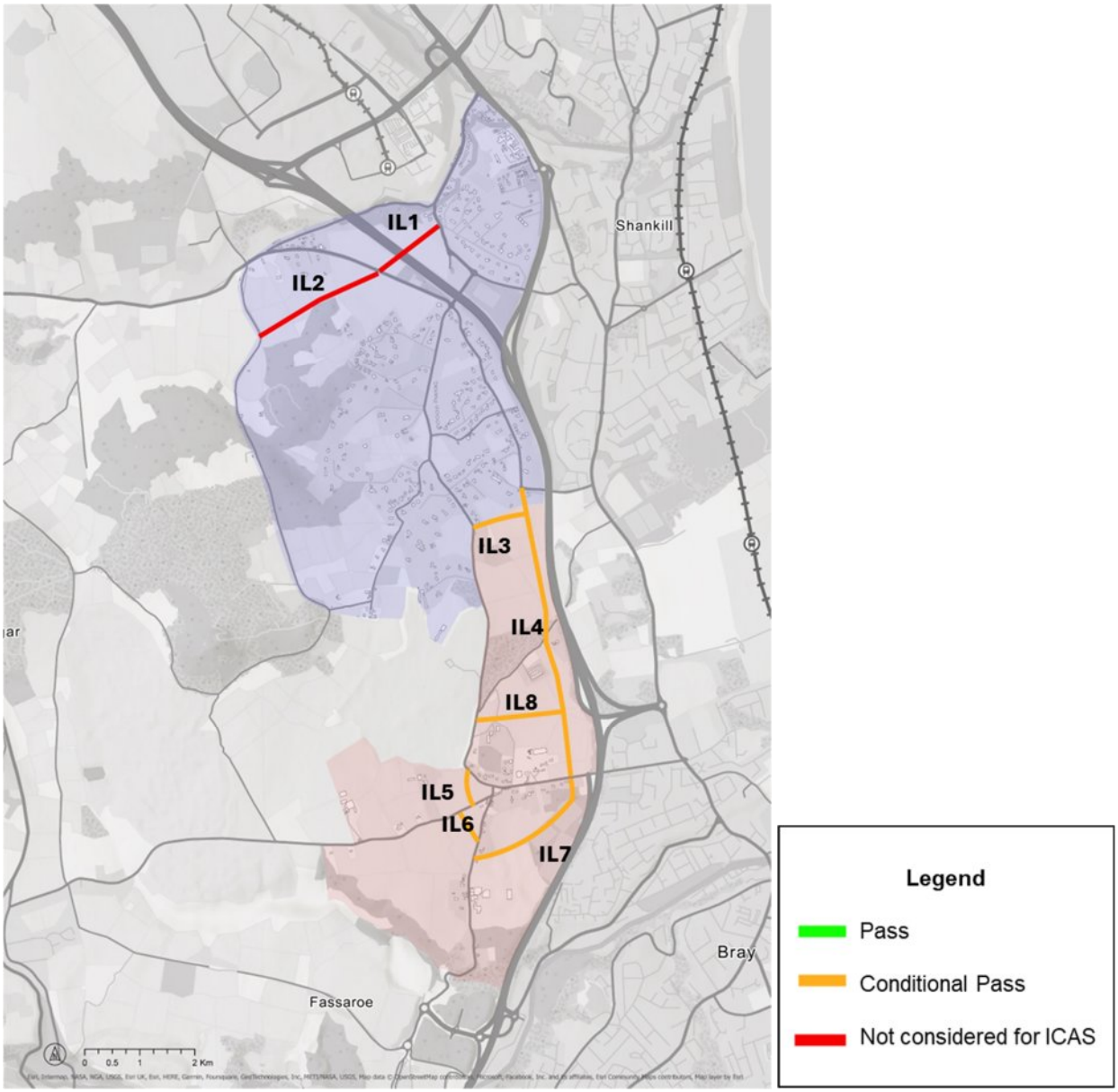


Figure A-18 Internal Development Road Link Options Assessment

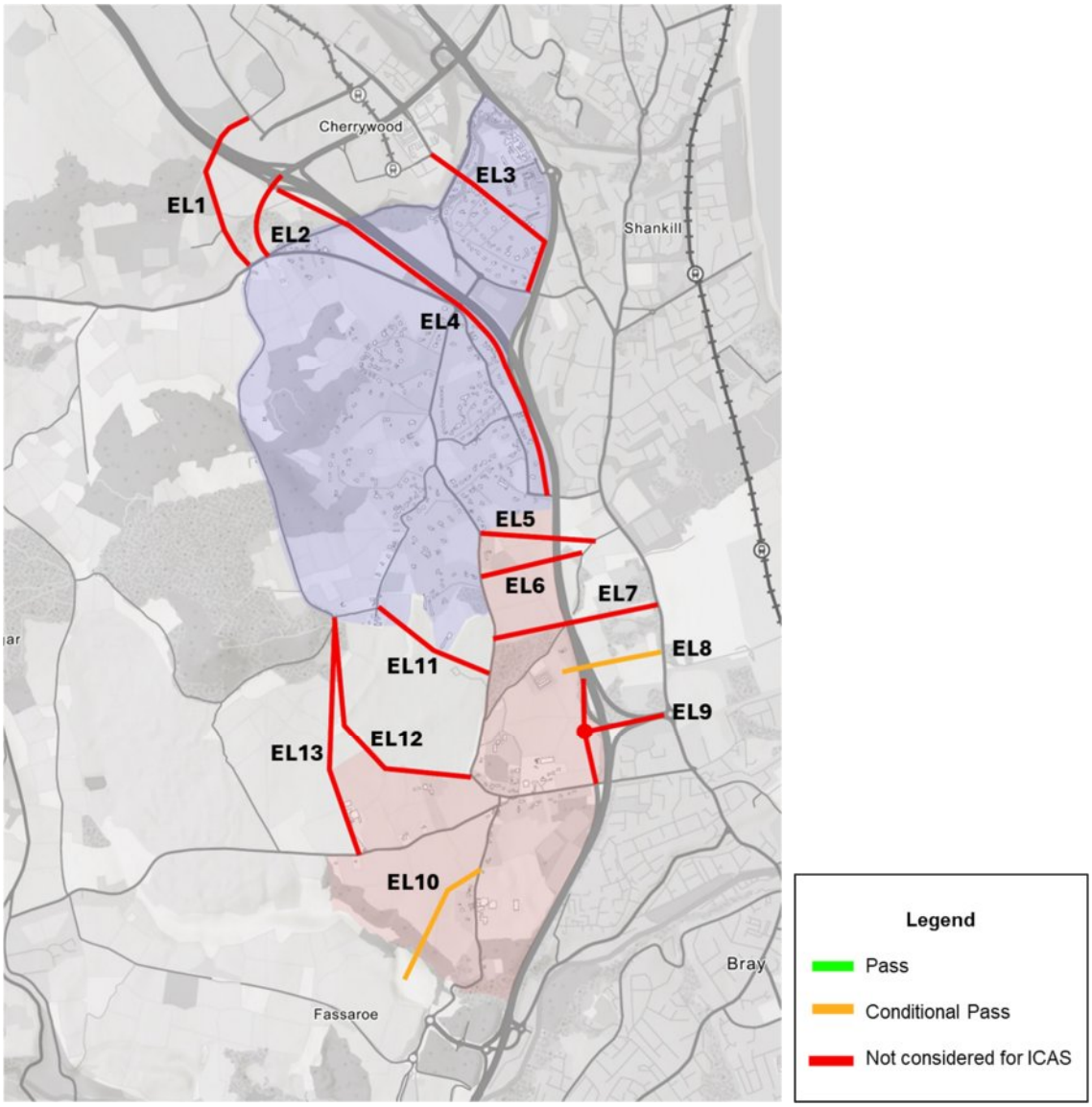


Figure A-19 External Road Link Options Assessment

A.6 Transport Option Packaging

Following the screening process transport packages were developed for each of the LAP areas to be further evaluated through a multi criteria assessment. These packages were all considered feasible and in agreement with local, regional and national plans and principles. The measures within the packages are considered to be complimentary to each other and the surrounding network. The packages strive to connect to key local areas and to public transport stops and stations and to the wider network. One of the objectives of developing these packages was to make use of existing infrastructure before introducing new infrastructure and to limit the availability of additional road infrastructure to manage car based demand. The outcome of the proposed road improvement packages is also informed by the NTA's Strategic model and local traffic modelling carried out to assess the expected additional traffic to be generated by the LAP areas.

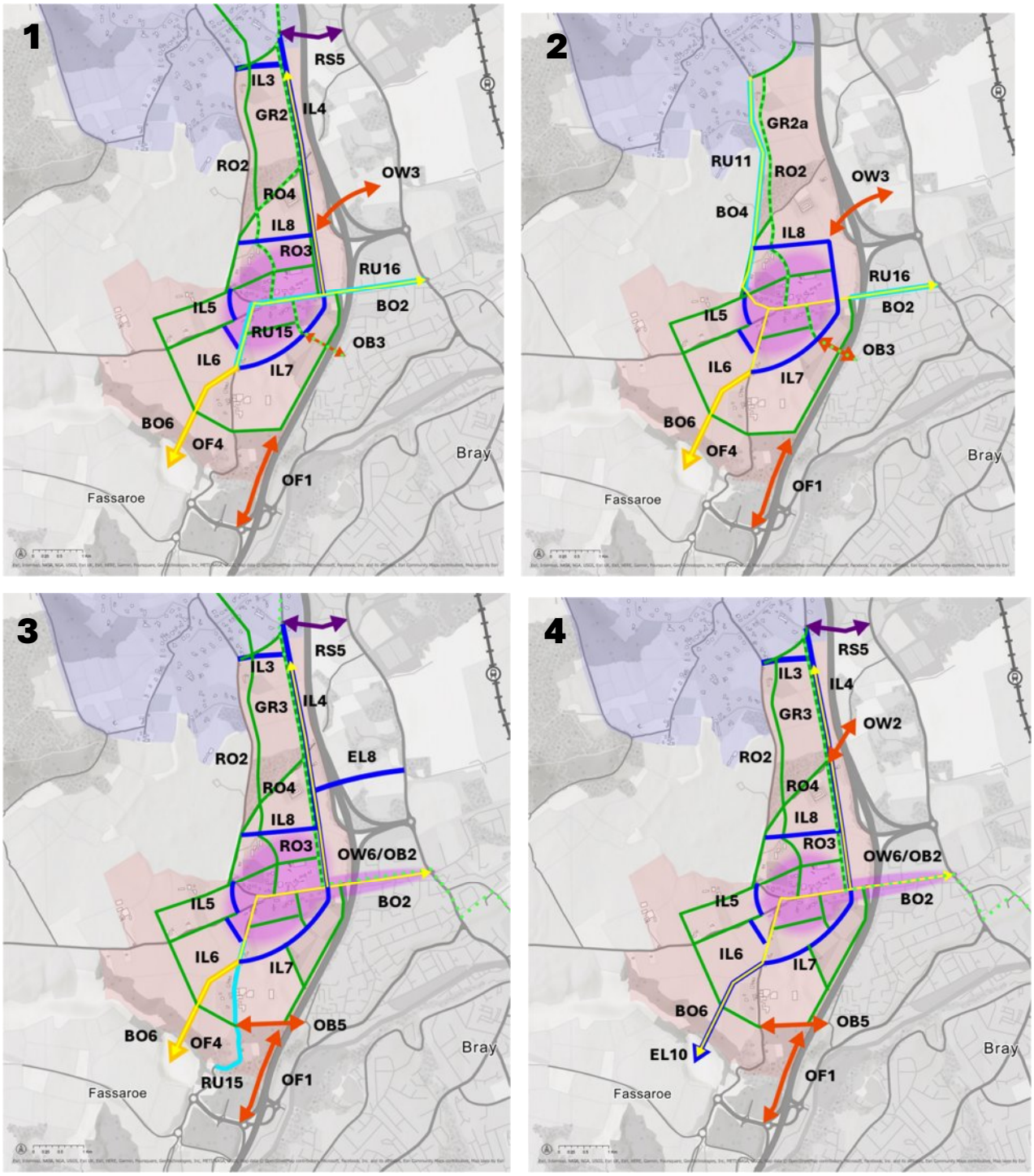
Following the screening process, complimentary options are packaged together in order to determine the optimal transport scenario. As part of the packages 'passing' options become constants, and feature in all transport packages, whereas 'conditional passing' options feature in some, but not all transport packages. This process allows for certain options which depend upon the implementation of other options to be considered, allowing the group of measures and their combined benefits or disbenefits to be assessed, whereas the initial screening generally considers the merits of the options individually.

It should be noted that only internal roads of a strategic nature are included in the assessment and that additional road infrastructure might be required at a more local level to facilitate access within development plots for example.

In addition to the strategic external active travel connections between the LAP areas and key adjacent areas, an internal network of active travel infrastructure is also indicated as part of the packages. These are shown indicatively for the purposes of demonstrating the potential active travel connectivity within the site, but the exact alignment of the internal active travel network is subject to further assessment and design. Any associated impacts to the national road network as a result of these proposals will have regard to the presence of the M11/N11, the M50, the requirements of SPNR and demonstrate compliance with TII Publications as part of any further development stages.

A.6.1 Old Connaught Transport Packages

This section presents the transport packages formed for the Old Connaught LAP area combining measures including active travel, public transport and road upgrades, as described in the previous sections for the long list screening. Five packages have been formed for the Old Connaught LAP area as shown in Figure A-20.



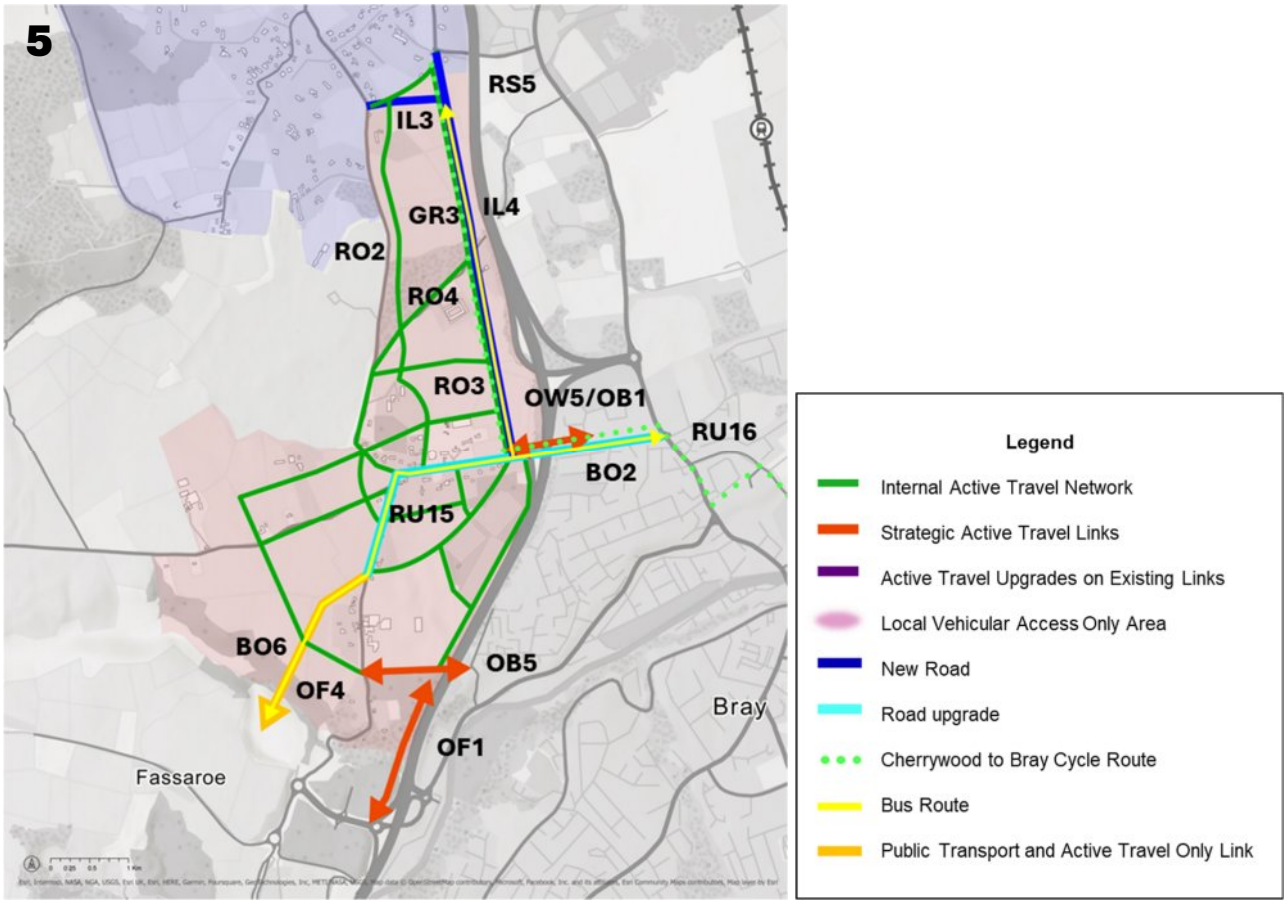
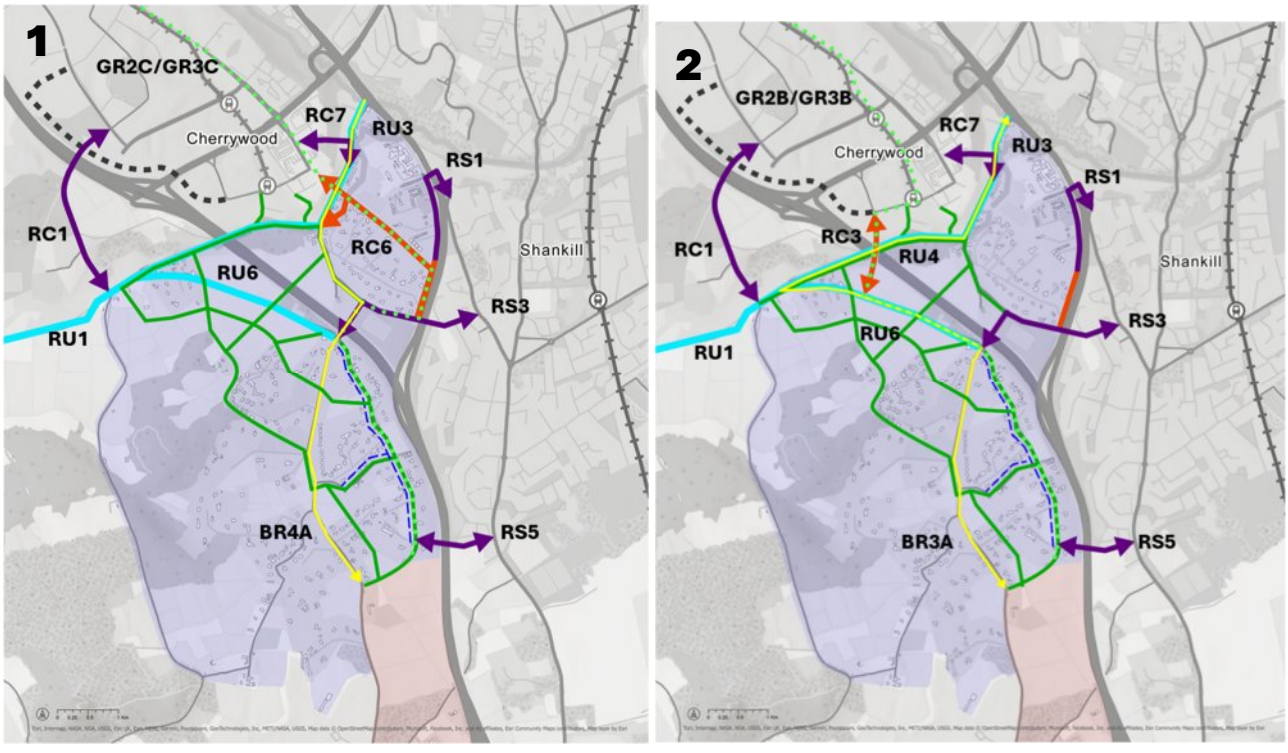


Figure A-20: Old Connaught LAP Area Transport Packages

A.6.2 Rathmichael Transport Packages

This section presents the transport packages formed for the Rathmichael LAP area combining measures including active travel, public transport and road upgrades, as described in the previous sections for the long list screening. Five packages have been formed for Rathmichael as shown in Figure A-21



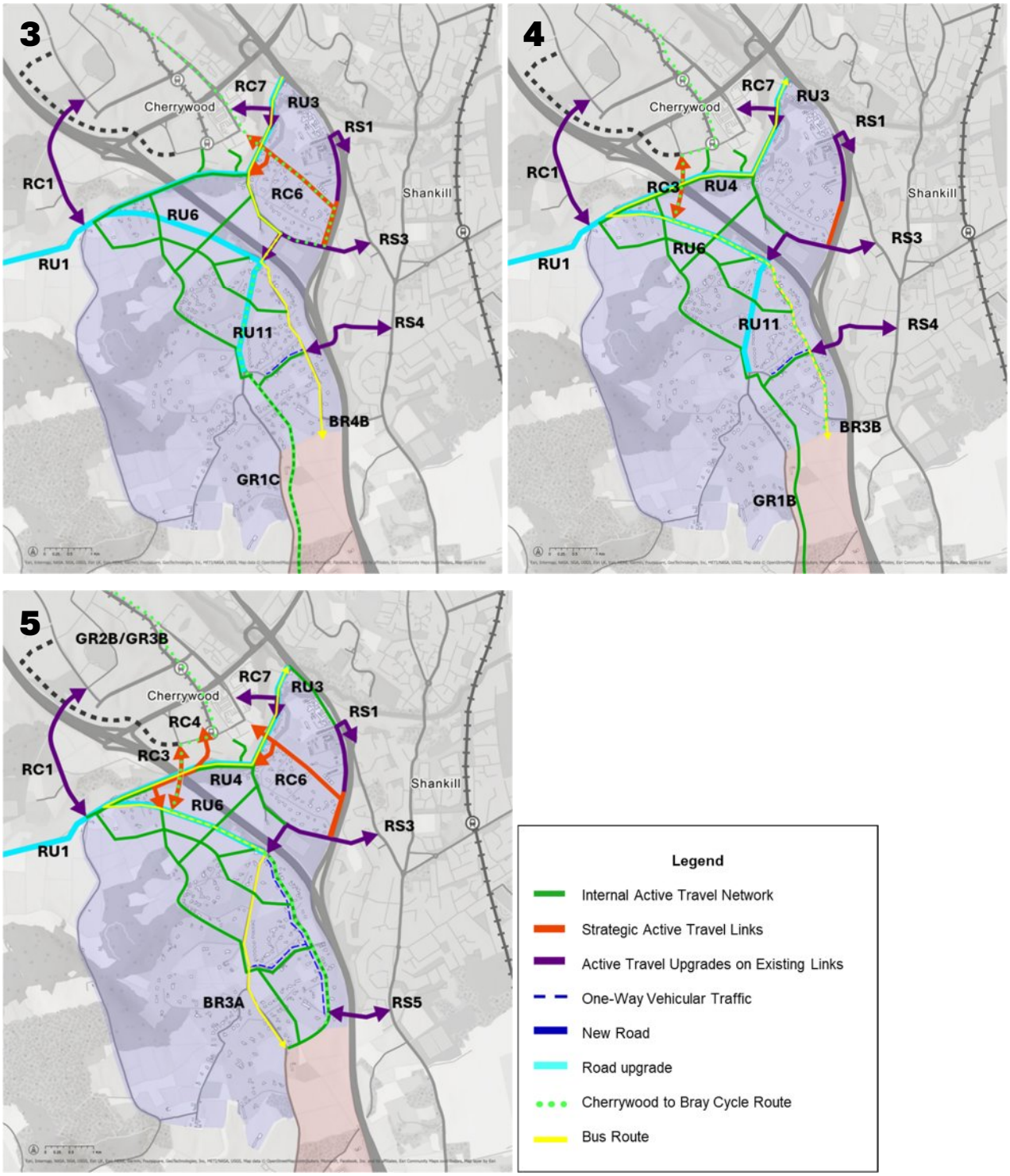


Figure A-21: Rathmichael LAP Area Transport Packages

A.7 Multi Criteria Analysis

A.7.1 Old Connaught LAP Area

Following the grouping of measures into transport packages for Old Connaught LAP area, these packages were then assessed on the basis of Key Performance Indicators (KPIs) as presented in the table below.

Table A-4 Old Connaught Transport Packages' MCA

	KPIs	Package 1	Package 2	Package 3	Package 4	Package 5
Transport	Availability of an attractive and safe pedestrian network linked to internal and external opportunities	Many services within 10 minute walking distance	Some services within 10 minute walking distance	Many services within 10 minute walking distance	Many services within 10 minute walking distance	Some services within 10 minute walking distance
	Journey time and distance reduction for sustainable modes of transport	Similar directness and journey time for sustainable modes when compared with vehicular travel	Similar directness and journey time for sustainable modes when compared with vehicular travel	Somewhat direct routes available when travelling by sustainable modes	Somewhat direct routes available when travelling by sustainable modes	Similar directness and journey time for sustainable modes when compared with vehicular travel
	Availability of a safe cycle route network linked to internal and external opportunities	Some services within 10 minute cycling distance along safe infrastructure	Some services within 10 minute cycling distance along safe infrastructure	Many services within 10 minute cycling distance along safe infrastructure	Many services within 10 minute cycling distance along safe infrastructure	Some services within 10 minute cycling distance along safe infrastructure
	High level of permeability and reduction of walking and cycling distance and time	Cycling and walking catchments somewhat restricted	Cycling and walking catchments somewhat restricted	Cycling and walking catchments less restricted	Cycling and walking catchments less restricted	Cycling and walking catchments more restricted
	LAP areas linked to adjacent centres and key transport interchanges through Public Transport	LAP areas each connected to many centres/key public transport interchanges	LAP areas each connected to many centres/key public transport interchanges	LAP areas each connected to many centres/key public transport interchanges	LAP areas each connected to many centres/key public transport interchanges	LAP areas each connected to some centres/key public transport interchanges
	Public transport stops within 10-minute walking distance	70-80% of residential area within 10 minute walking distance of a public transport stop	70-80% of residential area within 10 minute walking distance of a public transport stop	70-80% of residential area within 10 minute walking distance of a public transport stop	70-80% of residential area within 10 minute walking distance of a public transport stop	70-80% of residential area within 10 minute walking distance of a public transport stop
	Mode split which favours sustainable modes over car usage when compared to the existing situation	Measures proposed slightly favour sustainable modes	Measures proposed balance car usage and sustainable modes	Measures proposed slightly favour sustainable modes	Measures proposed Greatly favour sustainable modes	Measures proposed balance car usage and sustainable modes

	KPIs	Package 1	Package 2	Package 3	Package 4	Package 5
	Impact on National Road Network	Slight- Moderate positive impact on road network expected	Slight-Moderate positive impact on road network expected	Slight- moderate negative impact on road network expected	No impact on road network expected	Slight-Moderate positive impact on road network expected
	Proposed road network accommodates expected demand	Capacity expected to somewhat outweigh demand	Demand and Capacity are expected to be roughly equal	Demand and Capacity are expected to be roughly equal	Demand expected to somewhat outweighs capacity	Demand and Capacity are expected to be roughly equal
Environmental	Protection and enhancement of biodiversity	Significant negative impact on biodiversity expected	Significant negative impact on biodiversity expected	Significant negative impact on biodiversity expected	Significant negative impact on biodiversity expected	Significant negative impact on biodiversity expected
	Protection of environmentall y sensitive areas (e.g. aquifers, groundwater, streams and rivers)	Slight- moderate negative impact on water quality/water resources expected	Slight-moderate negative impact on biodiversity expected	Slight- moderate negative impact on biodiversity expected	Significant negative impact on biodiversity expected	Slight-moderate negative impact on biodiversity expected
	Improvement of air quality and reduction in noise pollution	Slight- Moderate positive impact on air/noise environment	No significant air/noise emissions expected	Slight- Moderate positive impact on air/noise environment	Significant positive impact on air/noise environment	No significant air/noise emissions expected
	Protection and enhancement of archaeology and cultural heritage	Slight- moderate negative impact on archaeology, architectural heritage or cultural heritage expected	Slight-moderate negative impact on archaeology, architectural heritage or cultural heritage expected	Slight- moderate negative impact on archaeology, architectural heritage or cultural heritage expected	Slight-moderate negative impact on archaeology, architectural heritage or cultural heritage expected	Significant negative impact on archaeology, architectural or cultural heritage expected
	Impact on Emissions	Slight- Moderate positive impact on emissions environment expected	No significant impact on emissions expected	Slight- Moderate positive impact on emissions environment expected	Significant positive impact on emissions expected	No significant impact on emissions expected

As can be seen from the above table, most of the packages generally score well in terms of the Transport KPIs.

Packages 3 and 4 score particularly well in terms of pedestrian and cycle network connectivity, largely as a result of the proposed active travel and public transport only link proposed along Old Connaught Avenue, providing for the most direct connection between Old Connaught and Bray.

Package 4 scores better in terms of the expected mode split favouring sustainable modes, this is due to the lack of direct vehicular road provision across the M11, which is expected to favour sustainable modes to a greater degree than other options still allow for a direct vehicular link. Package 4 however, scores worse in terms of the network accommodating the expected demand, due to a lack of direct road connection between Old Connaught and Bray.

Package 1 generally performs well across the transport criteria, with no negative categorisation given to any of the criteria, although no dark green given either. Package 2 similarly is given no red classifications but is given fewer green scores than package 1.

In terms of environmental criteria, due to the proposed construction of a new bridge across the Ballyman Glen in close proximity to the SAC, each of the options are marked as having a potential significant impact on biodiversity. This is primarily based on the construction activity involved in building a large scale bridge across the glen, and its potential impacts on the nearby SAC. This should be carefully managed during the construction stage to mitigate against any potential impacts on the nearby SAC. Package 5 scores particularly poorly on protection and enhancement of archaeology and cultural heritage due to the required road upgrades along Old Connaught Avenue.

From these results, Package 3 is seen as the preferred scenario, with package 4 being the next preferred option, followed by Package 1.

A.7.2 Rathmichael LAP Area

Following the grouping of measures into transport packages for Rathmichael LAP area, these packages were then assessed on the basis of Key Performance Indicators (KPIs) as presented in the table below.

Table A-5 Rathmichael Transport Packages' MCA

	KPIs	Package 1	Package 2	Package 3	Package 4	Package 5
Transport	Availability of an attractive and safe pedestrian network linked to internal and external opportunities	Many services within 10 minute walking distance	Many services within 10 minute walking distance	Many services within 10 minute walking distance	Many services within 10 minute walking distance	Many services within 10 minute walking distance
	Journey time and distance reduction for sustainable modes of transport	Somewhat direct routes available when travelling by sustainable modes	Similar directness and journey time for sustainable modes when compared with vehicular travel	Somewhat direct routes available when travelling by sustainable modes	Similar directness and journey time for sustainable modes when compared with vehicular travel	Similar directness and journey time for sustainable modes when compared with vehicular travel
	Availability of a safe cycle route network linked to internal and external opportunities	Some services within 10 minute cycling distance along safe infrastructure	Many services within 10 minute cycling distance along safe infrastructure	Many services within 10 minute cycling distance along safe infrastructure	Many services within 10 minute cycling distance along safe infrastructure	Many services within 10 minute cycling distance along safe infrastructure
	High level of permeability and reduction of walking and cycling distance and time	Cycling and walking catchments less restricted	Cycling and walking catchments less restricted	Cycling and walking catchments somewhat restricted	Cycling and walking catchments somewhat restricted	Cycling and walking catchments less restricted

	KPIs	Package 1	Package 2	Package 3	Package 4	Package 5
	LAP areas linked to adjacent centres and key transport interchanges through Public Transport	LAP areas each connected to some centres/key public transport interchanges	LAP areas each connected to many centres/key public transport interchanges	LAP areas each connected to some centres/key public transport interchanges	LAP areas each connected to many centres/key public transport interchanges	LAP areas each connected to many centres/key public transport interchanges
	Public transport stops within 10-minute walking distance	60-70% of residential area within 10 minute walking distance of a public transport stop	70-80% of residential area within 10 minute walking distance of a public transport stop	60-70% of residential area within 10 minute walking distance of a public transport stop	70-80% of residential area within 10 minute walking distance of a public transport stop	70-80% of residential area within 10 minute walking distance of a public transport stop
	Mode split which favours sustainable modes over car usage when compared to the existing situation	Measures proposed slightly favour sustainable modes	Measures proposed slightly favour sustainable modes	Measures proposed balance car usage and sustainable modes	Measures proposed balance car usage and sustainable modes	Measures proposed slightly favour sustainable modes
	Impact on National Road Network	No impact on road network expected	No impact on road network expected	No impact on road network expected	No impact on road network expected	No impact on road network expected
	Proposed road network accommodates expected demand	Demand and Capacity are expected to be roughly equal	Demand and Capacity are expected to be roughly equal	Demand and Capacity are expected to be roughly equal	Demand and Capacity are expected to be roughly equal	Demand and Capacity are expected to be roughly equal
Environmental	Protection and enhancement of biodiversity	Slight- moderate negative impact on biodiversity expected	Slight- moderate negative impact on biodiversity expected	Slight- moderate negative impact on biodiversity expected	Slight- moderate negative impact on biodiversity expected	Slight- moderate negative impact on biodiversity expected
	Protection of environmentally sensitive areas (e.g. aquifers, groundwater, streams and rivers)	No impact on water quality/water resources expected	Slight- moderate negative impact on water quality/water resources expected	No impact on water quality/water resources expected	Slight- moderate negative impact on water quality/water resources expected	Slight- moderate negative impact on water quality/water resources expected
	Improvement of air quality and reduction in noise pollution	No significant air/noise emissions expected	Slight- Moderate positive impact on air/noise environment	No significant air/noise emissions expected	Slight- Moderate positive impact on air/noise environment	Slight- Moderate positive impact on air/noise environment
	Protection and enhancement of archaeology and cultural heritage	No impact on archaeology, architectural or cultural heritage expected	Slight- moderate negative impact on archaeology, architectural heritage or cultural heritage expected	No impact on archaeology, architectural or cultural heritage expected	Slight- moderate negative impact on archaeology, architectural heritage or cultural heritage expected	Slight- moderate negative impact on archaeology, architectural heritage or cultural heritage expected
	Impact on Emissions	No significant impact on emissions expected	Slight- Moderate positive impact on emissions environment expected	No significant impact on emissions expected	Slight- Moderate positive impact on emissions environment expected	Slight- Moderate positive impact on emissions environment expected

As can be seen from the above table, all of the packages score well in terms of the transport KPI's.

Packages 1 and 3 score higher in terms of journey time reduction for sustainable modes of transport, largely as a result of the provision of a more direct bus route, however this also results in these packages scoring worse in terms of provision of access to public transport as areas to the west are not served.

Package 1 scores slightly worse in terms of availability of a safe cycle route network linked to internal and external opportunities primarily due to the lack of a direct connection to Cherrywood or improvements to the bridge between Lordello Road and Shankill, which is included in Package 3.

Packages 3 and 4 score worse in terms of potential mode share due to the proposed upgrade of Ferndale Road and lack of one-way system along Ballybride Road which is more favourable to vehicular traffic compared to packages 1, 2 and 5.

In terms of environmental criteria, all packages are broadly equal, with packages 2, 4 and 5 scoring worse in terms of potential impacts to rivers due to construction of the proposed bridge over the Brides Glen river, but score better in terms of impact on air quality, noise pollution and emissions.

Overall, packages 2 and 5 are the preferred packages, scoring equally, however 5 is the chosen package due to the assessment undertaken in the MCA and the increased accessibility due to the potential active travel routes.

A.8 Preferred Scenario

Following the MCA process of all transport packages considered, the preferred scenario emerged. This scenario is described in this section.

Table A-6 and Figure A-22 below summarises and illustrates the combined preferred transport scenario for both the Rathmichael and Old Connaught LAP areas.

The Preferred Scenario is a combination of Old Connaught package 3, and Rathmichael package 5. This scenario provides a balanced approach to transport provision across the two LAP areas, in which the needs of sustainable modes are prioritised while still accommodating the necessary vehicular circulation through the areas. Active travel provision is prioritised through the construction of key links across existing barriers where necessary, along with a strong internal network of active travel infrastructure across the LAP areas. The provision of active travel infrastructure directly along Ferndale Road is minimised in favour of alternative off-road cycle routes in order to maintain the character of the road while still accommodating for the movement of cyclists in the North-South axis and avoiding the need for lengthy one-way vehicular circulation routes.

The creation of one-way vehicular route along Lordello Road and Ballybride Road allows for the provision of two-way active travel infrastructure along these roads, while still allowing for access to these roads with minimal diversion routes, and removing the potential for it's use as a through route by creating opposing one-way directions along Ballybride Road. The provision for new vehicular routes around the periphery of Old Connaught Village facilitates the conversion of the existing village roads to Public Transport and Active Travel priority areas through the removal of through traffic along Old Connaught Avenue, along with the provision of a bus gate along the Old Connaught Avenue Bridge which extends this priority area to the east along Old Connaught Avenue as far as the junction with Dublin Road, while still facilitating local access for residents and access to facilities. The provision of new vehicular routes from Old Connaught to Crinken Lane and Dublin Road provides alternative vehicular access routes to the north and across the M11 to the east.

A bus route is proposed running through each of the LAP areas utilising the northern section of Ferndale Road with routes to Bray and Fassaroe to the south. The exact service and routing of the proposed bus routes beyond the LAP areas is subject to further analysis and consultation with the NTA and may be delivered in the form of a local route or offshoot of the E-spine depending on the needs of the area, however, should be of high frequency to accommodate the required number of units. Two bus gates are proposed along Old Connaught Avenue, one at the junction of Ferndale Road and Thornhill Road, and one along the Old

Connaught Avenue bridge across the N11. These bus gates will create an active travel and public transport priority area within Old Connaught Village and along Old Connaught Avenue as far as the junction with Dublin Road. The provision of new active travel connections also facilitates easier access to existing and proposed public transport services such as the Luas Brides Glen stop, the DART Shankill, Woodbrook, and Bray Stations, and the proposed BusConnects Bray to City Centre CBC along Dublin Road. Junction Modelling has been undertaken to determine the potential traffic impacts of the proposed scenario. Any associated impacts to the national road network as a result of the proposed bus gates will have regard to the presence of the M11/N11, the requirements of SPNR and demonstrate compliance with TII Publications as part of any further development stages.

This scenario will be carried forward into the overall ICAS Preferred Scenario, where adjustments will be made to further integrate the proposed measures into the overall LAP area strategy, accounting for the spatial requirements of other infrastructural and housing proposals in the areas.

Figure A-23 shows the proposed cycle network, Figure A-24 shows the proposed public transport measures, and Figure A-25 shows the proposed road and vehicular circulation measures for the two LAP areas.

Table A-6: Preferred Scenario - Old Connaught and Rathmichael

Measure Type	Proposed Measures
Active Travel Connections	OB5, OF1, OF4, OW6, OW3, RC1, RC3, RC4, RC6, RC7, RO2, RO3, RO4, RS1, RS3, RS5
Cherrywood to Bray cycle route	GR3B
Road Upgrades	RU1, RU3, RU4, RU6, RU15
Internal Development Road Links	IL3, IL4, IL5, IL6, IL7, IL8
Strategic External Road Links	EL8*
Bus Routes	BR3A, BO2, BO6

*If the N11/M11 Junction 4 to Junction 14 Improvement Scheme is progressed in this vicinity, then re-consideration should be given to the progression or otherwise of EL8.

Note: Appendix G of the Part 3 - Options Development and Assessment Report provides a full list and descriptions of the transport measures proposed as part of the preferred scenario.

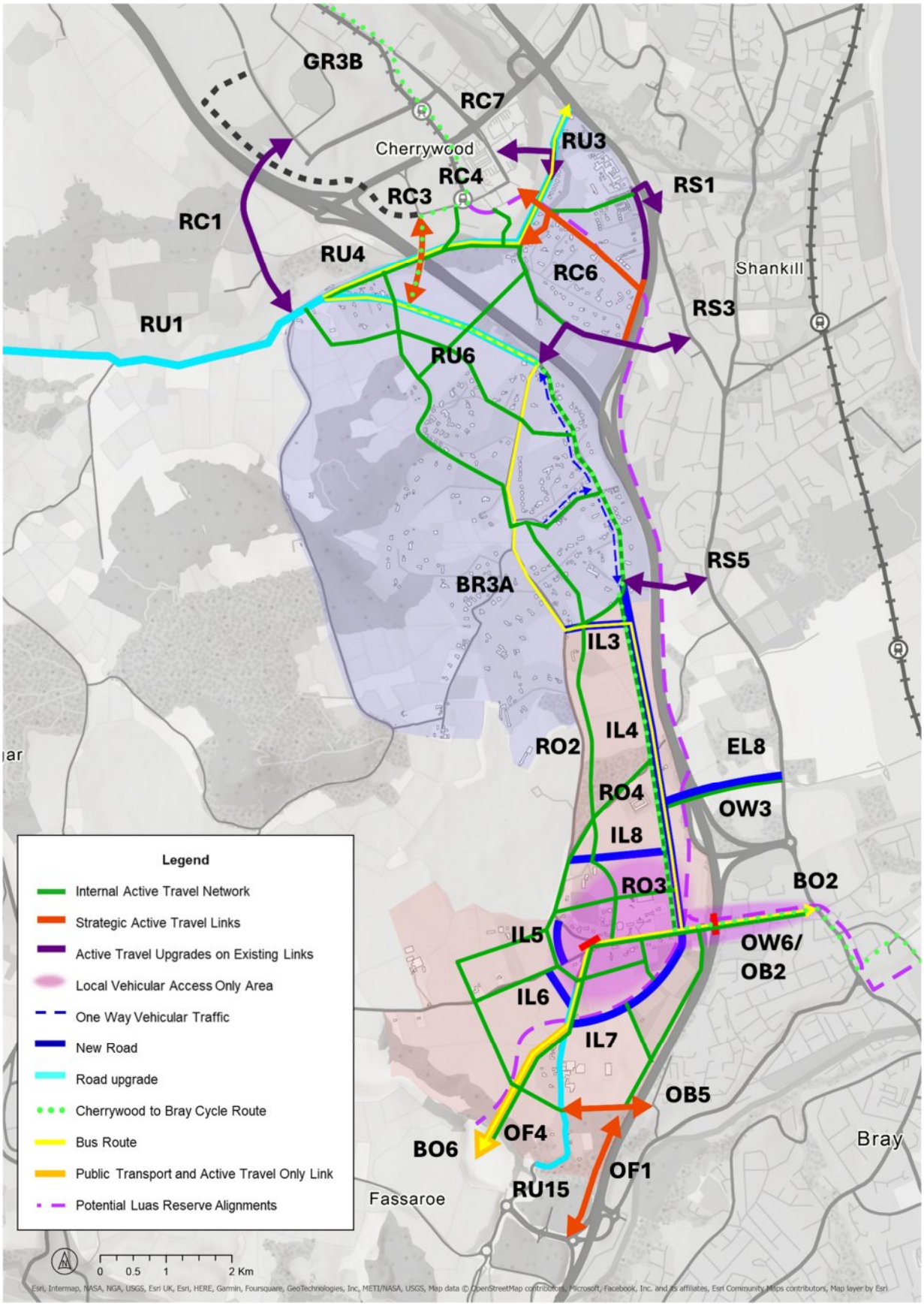


Figure A-22: ABTA Preferred Scenario – Transport Overview

*Note: The Luas Line alignment illustrated is indicative. As stated in the GDA Transport Strategy 2022-2042, the alignment of the Luas extension and the locations to be served between Bride's Glen and Bray have yet to be determined and will be subject to detailed design and planning work.

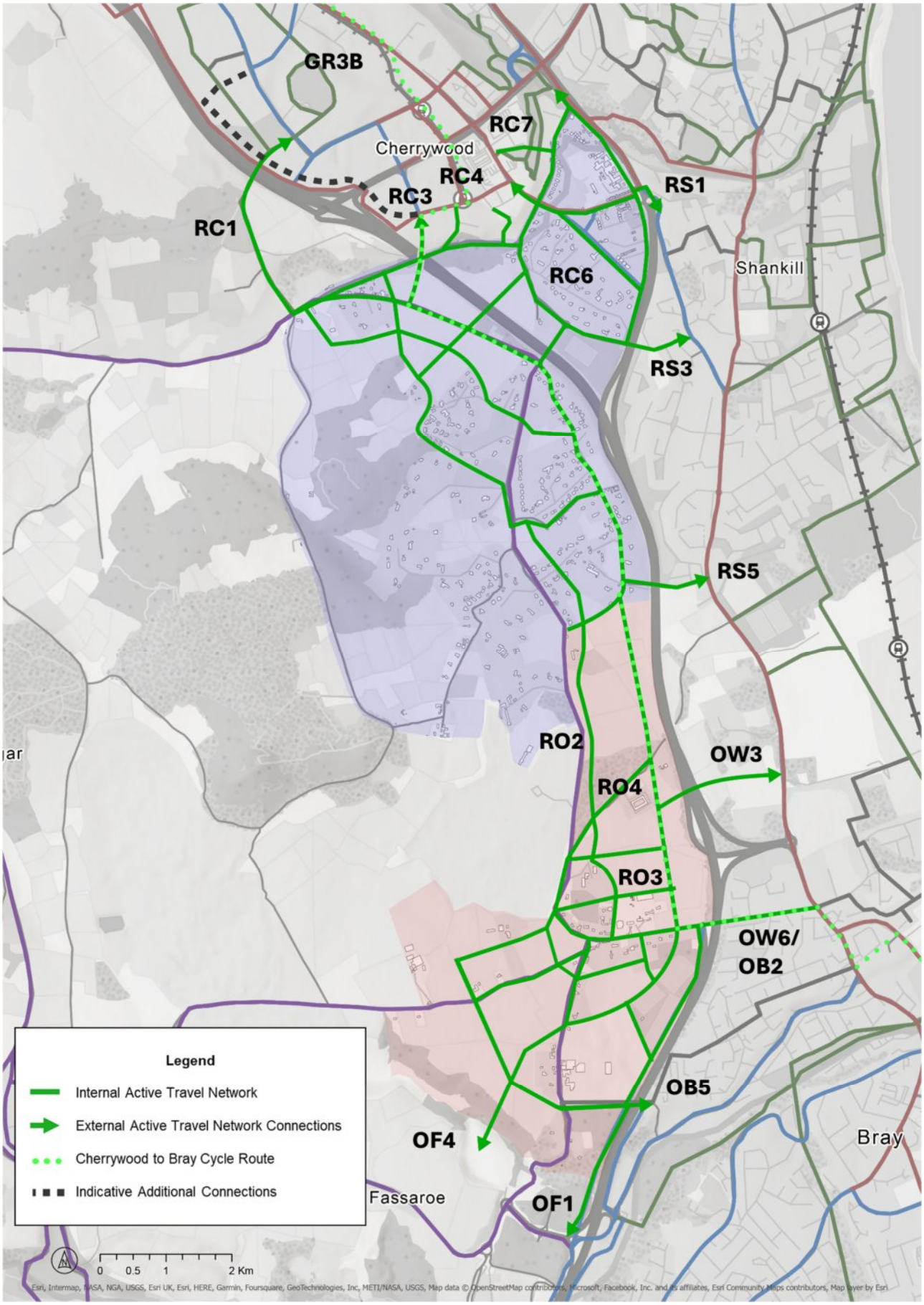


Figure A-23: ABTA Preferred Scenario – Active Travel

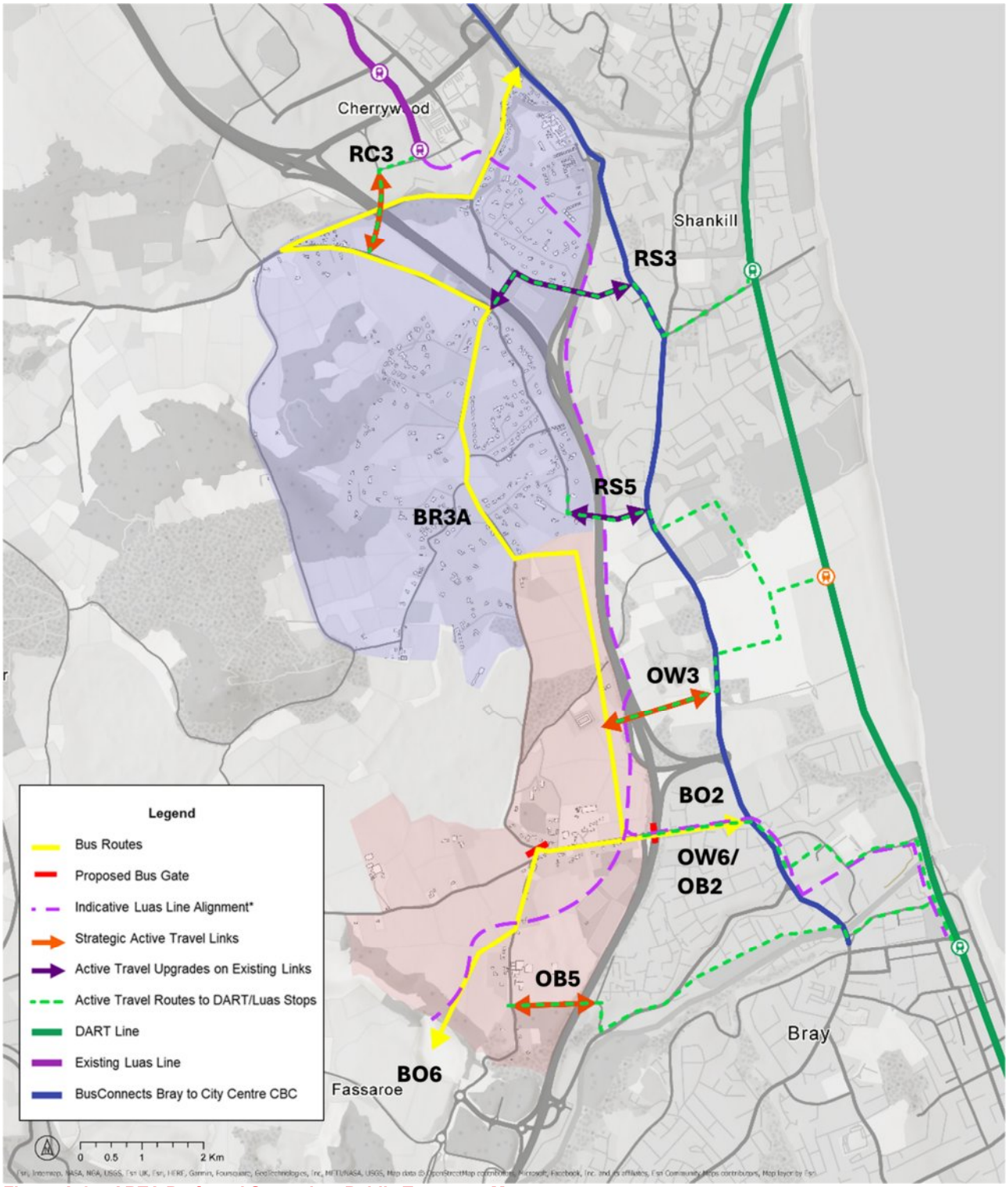


Figure A-24: ABTA Preferred Scenario – Public Transport Measures

*Note: The Luas Line alignment illustrated is indicative. As stated in the GDA Transport Strategy 2022-2042, the alignment of the Luas extension and the locations to be served between Bride's Glen and Bray have yet to be determined and will be subject to detailed design and planning work.

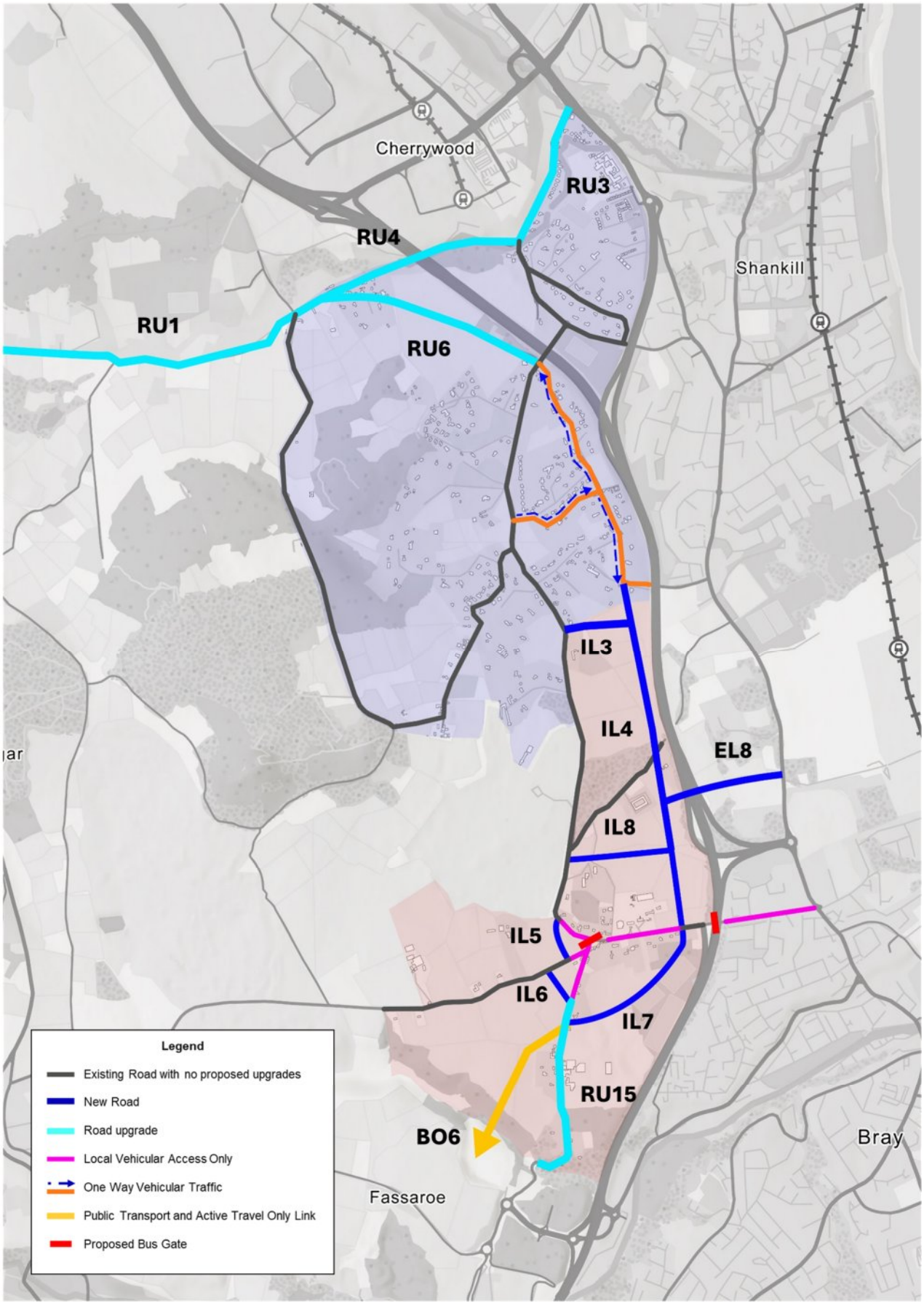


Figure A-25: ABTA Preferred Scenario – Proposed Road and Vehicular Circulation Measures

Appendix B

Transport Infrastructure Operation

B. Transport Infrastructure Operation

B.1 Introduction

This section provides additional detail on the proposed functioning of the transport system in Old Connaught and Rathmichael, in terms of Active Travel, Public Transport, and Traffic Management.

In terms of the transportation network functioning, new communities will be created for which it is essential to be connected by sustainable transport from as early as possible. Therefore networks should be in place from an early stage of the development to ensure that there are sufficient travel alternatives available for residents. This will provide the highest probability of establishing sustainable travel patterns. In some instances this might imply that infrastructure and services are lightly used in the early development phases and only in later phases becomes more heavily utilised.

B.2 Active Travel

B.2.1 Overview

Figure B-26 below provides an overview of the proposed active travel network. This represents the key strategic routes which would allow for pedestrians, cyclists, and other micromobility to traverse the area in a safe and relatively direct manor. This network is not exhaustive; it is recommended that additional routes/infrastructure should be provided, particularly within development plots to provide local active travel access and routes, developed as part of more details masterplans or development proposals.

For the purposes of design, the Cycle Design Manual (CDM) 2023 should be followed. For any strategic active travel routes that pass through greenfield sites, fully segregated off-road ‘greenway’ style facilities should be provided where possible. For more local access routes, particularly along commercial or other non-residential roads, roadside segregated cycle facilities should typically be provided. Where vehicular speed and volumes are expected to be low, shared facilities may be provided, in accordance with the guidance set out in the CDM.

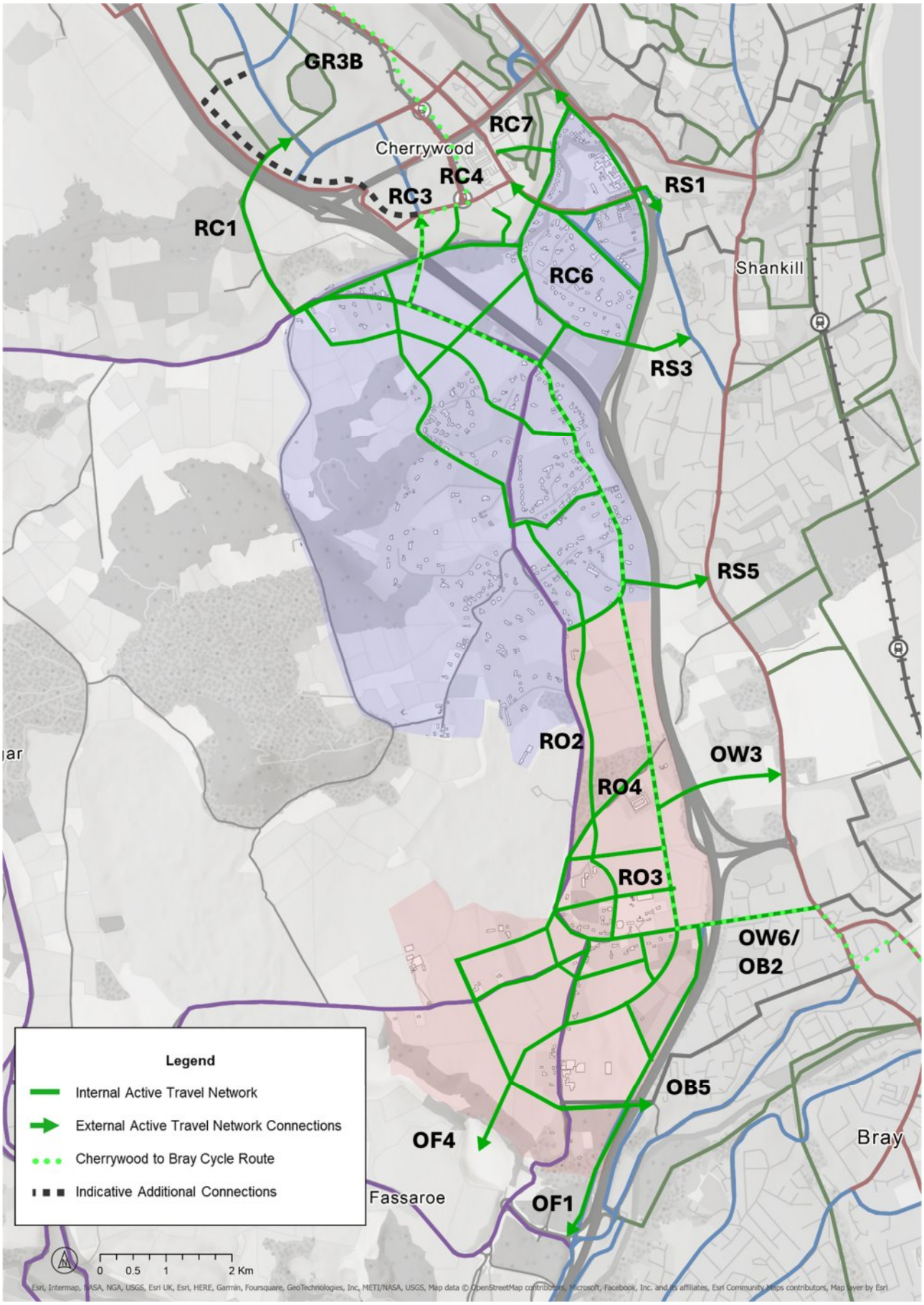


Figure B-26 Strategic Active Travel Network

B.3 Public Transport

B.3.1 Overview

Figure B-27 below presents the overall public transport network for the two LAP areas. The primary proposal of the ICAS is the provision of bus routes through the study area, with a core route running along Cherrywood Road, Brides Glen Road, Rathmichael Road, Ferndale Road and the newly proposed north-south road through the eastern side of the Old Connaught LAP area, along with an east-west route along Old Connaught Avenue between Bray and Fassaroe via a potential busway over the Ballyman Glen.

The operational elements of the routes, including the onward routing beyond the LAP areas, the route frequencies, and stop locations, are subject to further assessment to be conducted along with the NTA.

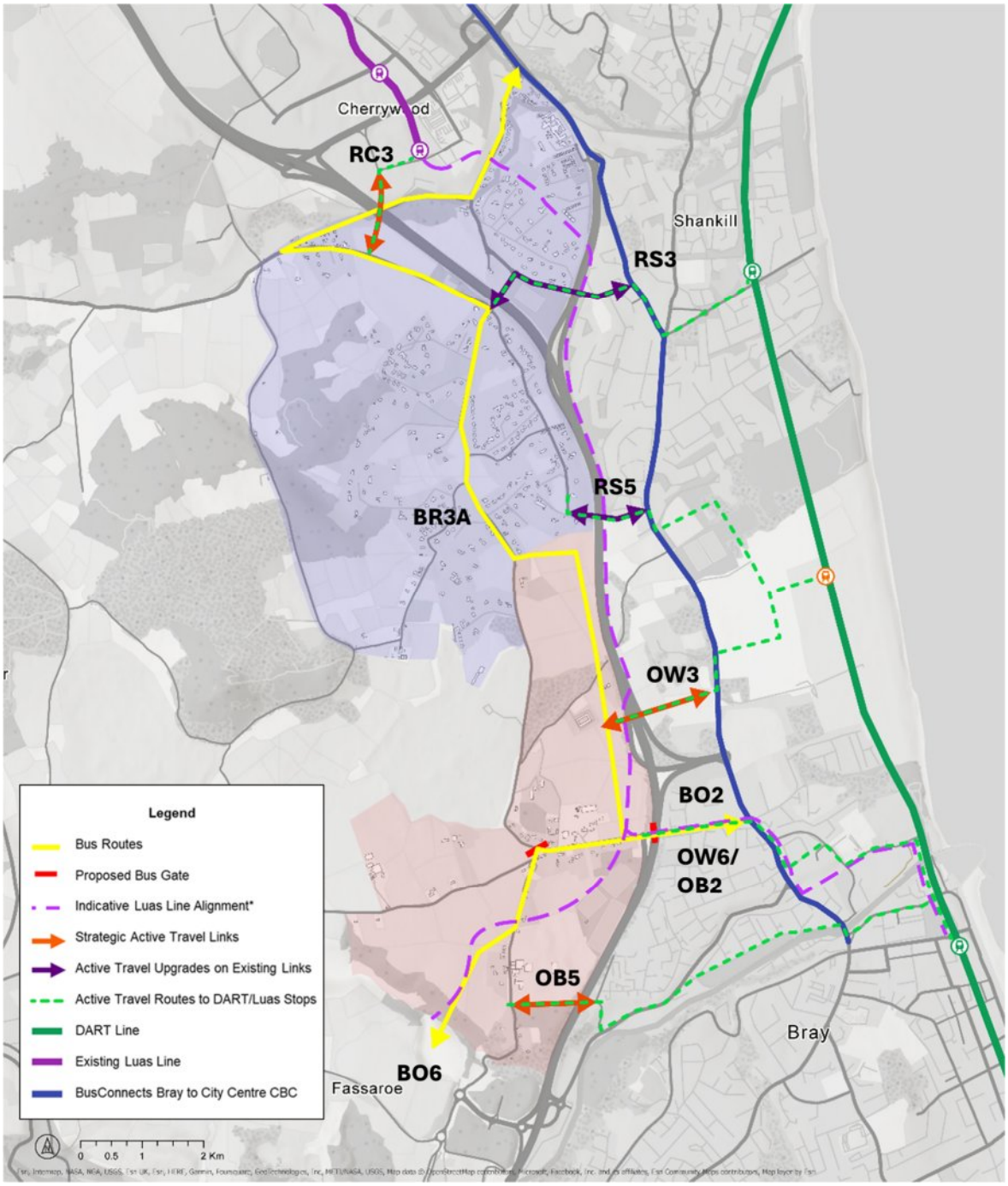


Figure B-27: Proposed Public Transport Network

*Note: The Luas Line alignment illustrated is indicative. As stated in the GDA Transport Strategy 2022-2042, the alignment of the Luas extension and the locations to be served between Bride's Glen and Bray have yet to be determined and will be subject to detailed design and planning work.

B.4 Traffic Management

B.4.1 Overview

A number of new roads, and the potential for some road upgrades are proposed in order to accommodate the proposed development of the LAP areas, and to enable certain improvements to Public Transport and Active Travel. Along with these new and potential upgraded roads, certain traffic management measures are proposed.

In Old Connaught, a central public transport and active travel priority zone is proposed for the existing village centre. To facilitate this, a central bus gate is proposed within the village core at the junction of Ferndale Road and Thornhill Road which would prohibit general traffic through the village core, but still maintain full vehicular access to any of the properties in the area. Through traffic is instead required to utilise new development roads around the periphery of the village core.

The public transport and active travel priority zone is proposed to extend further east along Old Connaught Avenue as far as Dublin Road through the implementation for another bus gate on the Old Connaught Avenue bridge across the N11. In order to facilitate east-west access for vehicles, a vehicular bridge is proposed to the north of Junction 5 connecting Old Connaught to Dublin Road. It should be noted that if the N11/M11 Junction 4 to Junction 14 Improvement Scheme is progressed in this vicinity, then further consideration should be given to the progression or otherwise of the overbridge to the Dublin Road to the east.

Figure B-28 below provides an overview the proposed vehicular network across the two LAP areas.

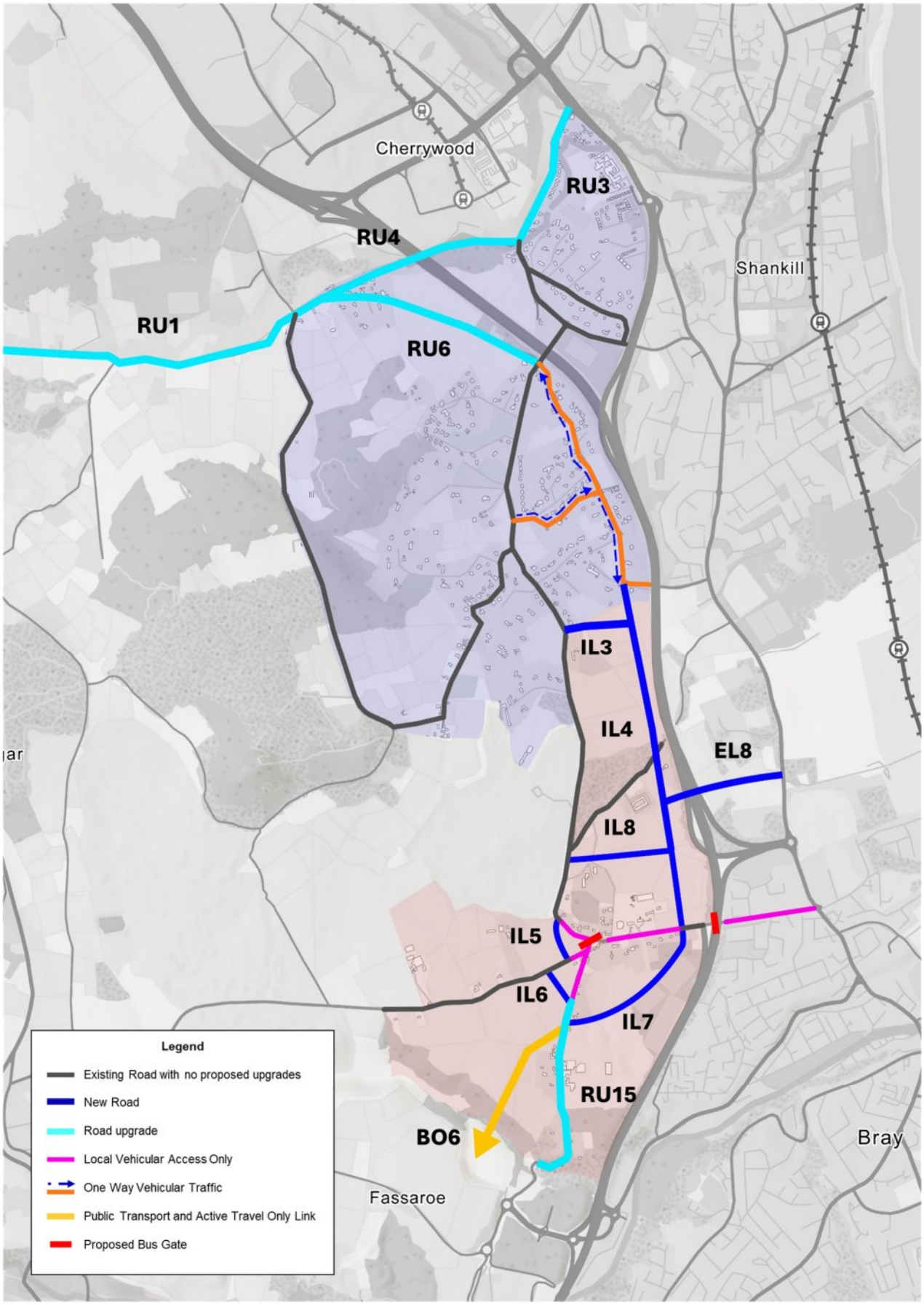


Figure B-28: Proposed Vehicular Network

B.4.2 Vehicular Circulation

Figure B-29 and Figure B-30 below outline the primary vehicular circulation routes proposed for Old Connaught and Rathmichael respectively.

It is the intention to create a traffic calmed village centre for Old Connaught. This will be achieved by the introduction of new peripheral routes around the village which includes a new north south link road adjacent and parallel to the M11 motorway connecting Old Connaught Avenue in the south ultimately to Ballybride Road in the north. New link roads will be provided including a route to the north of the village to connect the new north south route to Ferndale Road, a route to the south of the existing village to link Old Connaught Avenue to Thornhill Road and a shorter section of road to complete a circular route by linking Thornhill Road to Ballyman Road. It is the intention for these routes to be low speed streets with active travel infrastructure and active frontage from surrounding development, as opposed to car dominant 'outer orbital' style roads.

East-west vehicular movement across the N11 is proposed to shift from the existing route along Old Connaught Avenue to a new connection proposed to the north of Junction 5. It should be noted that if the N11/M11 Junction 4 to Junction 14 Improvement Scheme is progressed in this vicinity, then re-consideration should be given to the progression or otherwise of the overbridge to the Dublin Road to the east. This allows for a public transport and active travel priority street to be formed along Old Connaught Avenue.

Old Connaught Avenue will become a predominantly active travel and public transport route with low traffic volumes and only allowing for local access to adjacent properties to the road. Access to this road will be controlled by bus gates. The traffic calmed streets within the village will provide the opportunity to provide pedestrian and cycle access stimulating footfall and opportunities to create land uses with active street fronts adjacent to the road, developing a village centre and local community environment.

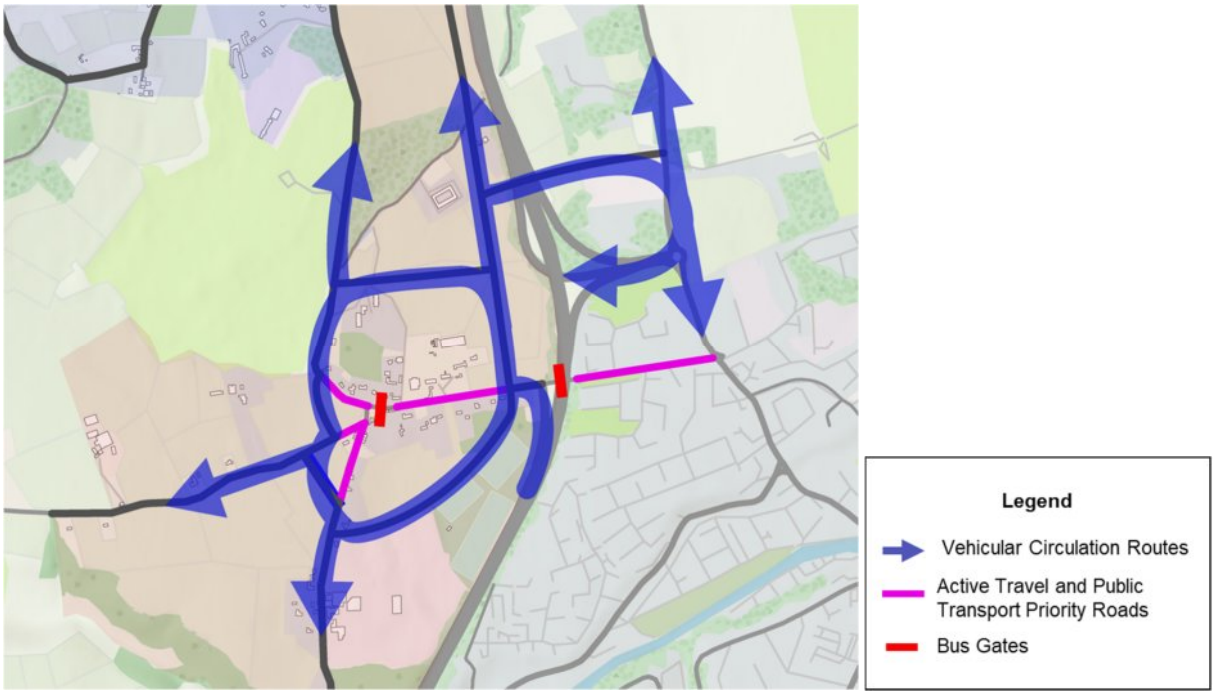


Figure B-29: Old Connaught Vehicular Circulation

Within the existing residential areas of Rathmichael, there is very limited space available for the provision of active travel. To accommodate the provision of these facilities, one way routes are proposed along Lordello Road and Ballybride Road. This allows road space to be reduced and to be used for active travel purposes. This proposed system still allows fully for vehicular access. Inbound access to the existing eastern parts of the Rathmichael residential area will be via Lordello Road while outbound will be via Ballybride Road allowing access to the north and the south.

To allow flexibility of vehicular movement, it is proposed to provide a new east west link that connects Ferndale Road to the new north south link from Old Connaught to Ballybride Road. This link therefore provides southbound traffic from Rathmichael residential areas to make use of both Crinken Lane in the south and Stonebridge Road in the north to travel to Shankhill and beyond.

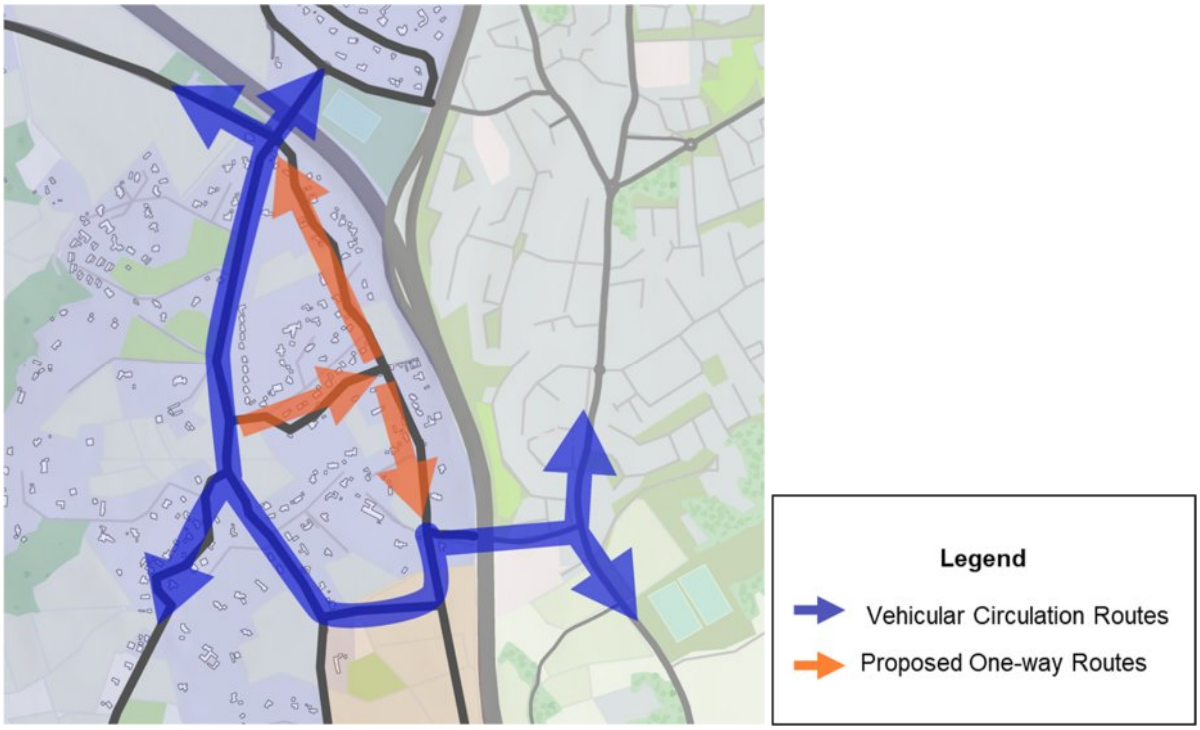


Figure B-30: Rathmichael Vehicular Circulation

B.4.3 Parking Strategy Considerations

B.4.3.1 Introduction

This section provides an outline of measures which could be implemented as part of the parking strategy for the area which would contribute to the overall transport strategy for the area.

B.4.3.2 Parking Ratios

The dlr County Development Plan 2022-2028 designates almost all of A1 zoned areas within the LAP areas as 'Zone 3 Remainder of County (non-rural)' with some small areas on the eastern edge falling within the 'Zone 2 Near Public Transport' classification. The Development Plan notes that the Parking Zone Map is indicative and there may be potential for an area to move from one zone to another during the lifetime of the plan due to the presence or delivery of permeability links which would increase the walkability catchment and/or due to future public transport provision including the Luas extension to Bray. With the provision of new active travel linkages, new bus routes and the future potential extension of the Luas to Bray, the current parking zone designations will be reviewed and are subject to change.

As part of the 'Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities', SPPR3 (ii) notes that "In accessible locations … car- parking provision should be substantially reduced. The maximum rate of car parking provision for residential development, where such provision is justified to the satisfaction of the planning authority, shall be 1.5 no. spaces per dwelling." and SPPR3 (iii) notes that "In intermediate and peripheral locations … the maximum rate of car parking provision for residential development, where such provision is justified to the satisfaction of the planning authority, shall be 2 no. spaces per dwelling". SPPR4 notes that "(i) Quantity – in the case of residential units that do not have ground level open space or have smaller terraces, a general minimum standard of 1 cycle storage space per bedroom should be applied. Visitor cycle parking should also be provided. Any deviation from these standards shall be at the discretion of the planning authority and shall be justified with respect to factors such as location, quality of facilities proposed, flexibility for future enhancement/ enlargement, etc. It will be important to make provision for a mix of bicycle parking types including larger/heavier cargo and electric bikes and for individual lockers. (ii) Design – cycle storage facilities should be provided in a dedicated facility of permanent construction, within the building footprint or, where not feasible, within an adjacent or adjoining purpose-built structure of permanent construction. Cycle parking areas shall be designed so that cyclists feel safe. It is best practice that either secure cycle cage/compound or preferably locker facilities are provided."

B.4.3.3 Unbundled parking

With unbundled parking, a parking space is not automatically provided along with every unit. Residents instead choose to purchase/rent a parking space when they first move in. This avoids the scenario where residents without a car are left with an empty parking space, who are then likely to rent it informally to others and potentially promote car use. Providing limited car parking within new communities reduces car ownership of households and incentivises residents to make use of other modes of transport. On the other hand, providing abundant car parking which are highly available encourages daily car usage and should be discouraged to promote sustainable travel.

B.4.3.4 Remote Parking

Remote parking refers to the provision of parking locations which are not directly adjacent to the user's residence. Some of the residential car parking in the LAP areas could be provided via remote parking facilities located at key areas.

Remote parking can reduce car impact in urban areas and allow better integration of sustainable mobility as space will be saved which would otherwise be utilised for private car parking directly adjacent to housing units. A benefit for providing remote car parking and not providing parking within residential areas is that safety for pedestrians and cyclist is improved, as residential streets carries less cars and provides priority to children playing, pedestrians and cyclists.

Remote parking can also involve use of parking facilities located at the periphery of main attractors. Therefore, it allows an efficient use of the parking facility and maximise its capacity where this often involves shared facilities (Residential Car Club).

To encourage car drivers to use more distant facilities, remote parking requires adequate information and reasonable incentives to be provided to users. Additionally, providing mobility alternatives for last mile is a crucial factor in encouraging the use of these facilities. For example, providing micromobility sharing, bike sharing, and cycle parking options will increase the attractiveness of this system.

B.4.3.5 Car Sharing

Residential Car Clubs

Residential car clubs give their members access to shared vehicles on a pay-as-you-go basis. Their main impact can be seen in reducing car ownership and improving people's choice about how to travel in urban areas.

Whilst a car club's efficiency is maximized in areas of high urban density and strong public transport access, considerable potential has also been identified in outer urban areas where private vehicle ownership is typically higher.

There is significant potential for growth of car clubs outer urban areas where there are good public transport links, as users can utilise public transport for their commuting purposes and utilise a car-sharing system for occasional trips.

Currently, there are three main types of car clubs systems:

- **Round-trip Car Clubs:** Cars are located in a dedicated parking bay. Members can book a specific car for a period of time and then return the car to the same dedicated parking bay.
- **Fixed one-way car sharing:** Cars are located in a dedicated parking bay. Members can book a specific car for a period of time and drive to another designated parking bay, where the reservation ends.
- **Floating one-way car sharing:** Cars have no dedicated parking bay and members can use any available nearby car sharing car and drive it to their destination. To end their reservation, the only requirement is that they park the car within a specified geographical operating area.

Public Car Sharing

In addition to specific residential car clubs, car sharing can be provided throughout the area in the form of spaces for public car sharing services such as Go-Car. These spaces may be less clustered than the residential car club spaces, instead being located in smaller groups in more dispersed locations. These spaces are more likely to be located on street, or immediately adjacent to the street at surface level.

One downside to these spaces, when compared with car club spaces, is that since they are publicly available, availability is less guaranteed.

Benefits of Car Sharing

Some benefits of car sharing include:

- **Reducing the need for car ownership:** Car sharing provide residents with access to a car, without the need to own one (and therefore the need for a private parking space).
- **Increasing the use of sustainable modes:** Case studies show that higher use of car sharing also leads to an increase in the use of public transport, taxis, walking and cycling.
- **Reduced need for parking:** With a reduced demand for parking spaces, car sharing can free up a considerable amount of space that can be reallocated to other uses.
- **Other benefits:** Car sharing helps to reduce traffic (less habitual car use) and bring considerable environmental improvement (reducing congestion and pollution).

B.5 Behavioural Change Measures

In addition to infrastructural measures, a number of softer behaviour based measures can be implemented to further incentive the use of active travel and public transport.

Workplace and School Travel Plans: These plans can encourage employees and students to use sustainable modes of transport. They can include measures such as providing secure bike storage, promoting carpooling, and offering discounted public transport tickets.

Personalised Travel Planning: This involves providing individuals with tailored information and advice to help them make more sustainable travel choices. This could include information on local public transport services, walking and cycling routes, and car sharing schemes.

Travel Awareness Campaigns: These campaigns aim to raise awareness about the benefits of sustainable travel and encourage people to change their travel habits. They can include a range of activities, such as community events, workshops, and promotional materials.

Public Transport Information and Marketing: Providing clear and accessible information about public transport services can make it easier for people to use these services. This can include real-time service updates, route maps, and information on fares and ticketing.

Car Clubs and Car Sharing Schemes: Promoting car clubs and car sharing schemes can reduce the need for individual car ownership and encourage more sustainable travel. These schemes can be particularly effective in urban areas where parking is limited.

Teleworking and Teleconferencing: Encouraging teleworking and teleconferencing can reduce the need for commuting and business travel. This can be supported through the provision of coworking spaces.

Home Shopping: Promoting home shopping can reduce the need for travel to shops and other services. This can be supported through the provision of pick-up and drop-off points for packages.

Appendix C

SEA and AA Screening Reports

ARUP

Dún Laoghaire-Rathdown County Council

Infrastructure Capacity Assessment Study

Strategic Environmental Assessment – Applicability Screening Report

Reference: 4

Issue | 20 September 2024

Job number 295742-00

Ove Arup & Partners Ireland Limited
50 Ringsend Road
Dublin 4
D04 T60
Ireland
arup.com

Contents

1. Introduction

Dún Laoghaire-Rathdown County Council (hereafter referred to as DLRCC) is currently preparing an Infrastructure Capacity Assessment Study (ICAS) to inform the development of the Rathmichael and Old Connaught Local Area Plans (LAPs).

Arup has been commissioned by DLRCC to carry out Strategic Environmental Assessment (SEA) Screening of the ICAS.

SEA Screening is defined in the relevant guidance documents[1] as "*the process for deciding whether a particular plan, other than those for which SEA is mandatory, would be likely to have significant environmental effects, and would thus warrant SEA*."

The first stage of SEA Screening is 'Applicability Screening', whereby an assessment is carried out to determine whether a particular plan or programme is within the remit of the SEA Directive / SEA Regulations.

This SEA Applicability Screening Report provides the findings of the SEA Applicability Screening process for the ICAS.

2. The Infrastructure Assessment Study

Arup was commissioned by DLRCC to complete a high-level strategic Infrastructural Capacity Assessment Study (ICAS) for the proposed Old Connaught and Rathmichael LAPs in the southeast area of the County.

The aim of the ICAS is to establish the existing context and capacities in the proposed LAP areas and to identify their constraints, challenges and opportunities. Following on from this, the ICAS will identify the proposed recommendations for high-level strategic enabling infrastructure required to facilitate plan-led development of the proposed LAP areas of Old Connaught and Rathmichael and to be considered in the formulation of policy by DLRCC to this effect. The strategic enabling infrastructure to be reviewed in this study includes:

- Transport;
- Drainage, Water Services and Utilities; and
- Parks & Open Spaces, Green Infrastructure, Biodiversity and Heritage.

3. Strategic Environmental Assessment

SEA is a process for evaluating, at the earliest appropriate stage, the environmental consequences of implementing Plan/Programme (P/P) initiatives prepared by authorities at a national, regional, or local level. The purpose is to ensure that the environmental consequences of P/P are assessed both during their preparation and prior to adoption.

The SEA process also gives interested parties an opportunity to comment on the environmental impacts of the proposed P/P and to be kept informed during the decision-making process.' (EPA, 2021)[1]

The European Directive (2001/42/EC) on the Assessment of the Effects of Certain Plans and Programmes on the Environment (the SEA Directive), was transposed into national legislation in Ireland by the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. 435/2004, as amended by S.I. 200/2011) and the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. 436/2004, as amended by S.I. 201/2011).

The SEA Directive applies to P/P which are (i) prepared or adopted by a national, regional or local level and (ii) required by legislative, regulatory or administrative provisions. Mandatory SEA is required for P/P that (i) are prepared for certain sectors and (ii) set the framework for future development consent of projects listed in Annexes I and II to the EIA Directive OR which require assessment under the EU Habitats Directive (92/43/EEC) (and which are not small area/local or minor modifications etc). SEA may also be required for other P/P where they are likely to have significant effects on the environment and this is determined on a case-by-case basis.

SEA Screening is the process of determining whether a P/P requires SEA.

4. SEA Screening Process and Methodology

Having regard to the provisions of the SEA Directive summarised in Section 3.1, the SEA Screening process can be broken down into a number of key steps:

Step 1: Applicability Screening- Is the P/P of a type which the SEA Directive Applies

Article 2(a) of the SEA Directive establishes two cumulative conditions which P/P must satisfy in order for the further elements of the SEA Directive to be applicable to them:

a. They must have been prepared and/or adopted by an authority at national, regional or local level or prepared by an authority for adoption, through a legislative procedure, by a parliament or government; and

b. They must be required by legislative, regulatory or administrative provisions.

If these conditions are not satisfied, the P/P is not regarded as a P/P which comes within the scope of the SEA Directive.

The first step in the Screening process is therefore to determine if the SEA Directive applies to the P/P under consideration. If the P/P is not of a type which falls within the remit of the SEA Directive, there is no requirement to consider further. According to the EPA Good Practice Guidance on Strategic Environmental Assessment Screening (EPA, 2021)[2], it is recommended as good practice to keep a note of the deliberations. There is no requirement to notify the environmental authorities.

If it is determined that the P/P is of a type to which the SEA Directive applies, the P/P is checked to determine if mandatory SEA is required under the provisions of the SEA Directive.

[1] Strategic Environmental Assessment Screening | Good Practice Guidance (EPA, 2021) https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/SEA_Screening_GoodPractice_2021.pdf

[2] https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/SEA_Screening_GoodPractice_2021.pdf

Step 2: Mandatory SEA Requirement – Does the P/P require mandatory SEA

Recital 10 of the SEA Directive states that:

"All plans and programmes which are prepared for a number of sectors and which set a framework for future development consent of projects listed in Annexes I and II to Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment, or plans and programmes which have been determined to require assessment pursuant to Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna, are likely to have significant effects on the environment, and should as a rule be made subject to formal environmental assessment. When they determine the use of small areas at local level or are minor modifications to the above plans or programmes, they should be assessed only where Member States determine that they are likely to have significant effects on the environment."

An SEA is therefore considered mandatory for P/P which are:

- Prepared for agriculture, forestry, fisheries, energy, industry, transport, waste/ water management, telecommunications, tourism, town & country planning or land use and which set the framework for future development consent of projects listed in the EIA Directive (85/337/EEC, as amended); or
- Have been determined to require an assessment under the Habitats Directive (92/43/EEC as amended).

If the P/P is considered to be of a type which falls within the remit of the SEA Directive and requires mandatory SEA, there is no need to continue through the Screening steps, and SEA Scoping can commence. The Screening outcome should be confirmed within the SEA Scoping Report.

SEA may also be required for other P/P where significant effects on the environment are likely and this is determined on a case-by-case basis. This is determined following an SEA Screening Assessment.

Step 3: Screening for Likely Significant Effects- Is the P/P likely to give rise to significant effects on the environment

The stages in SEA Screening are set out in Figure 3-1 below, which is reproduced from the EPA Good Practice Guidance on Strategic Environmental Assessment Screening[2].

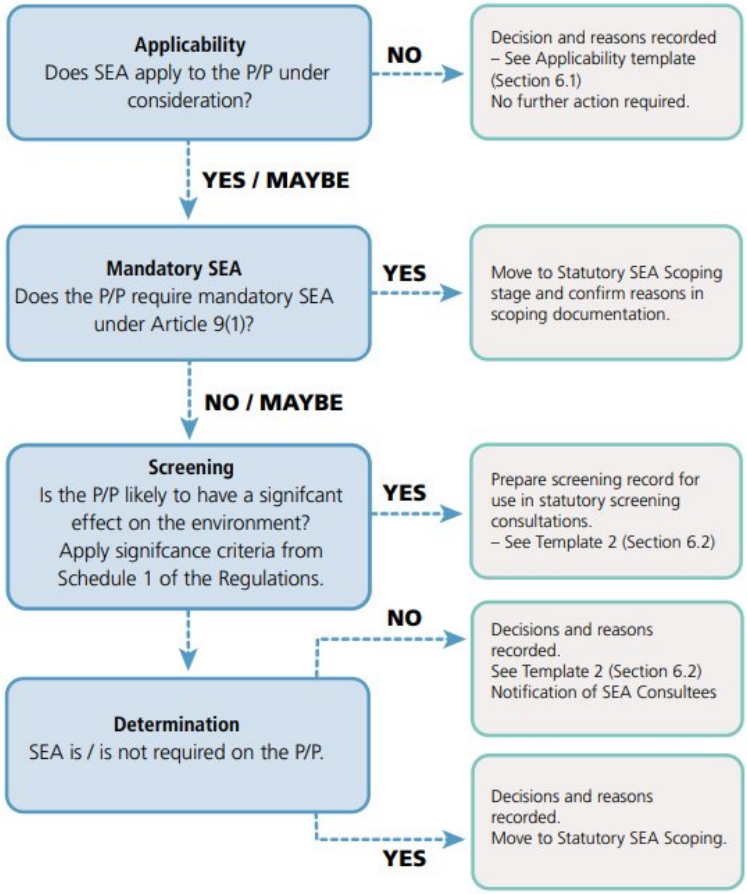


Figure 4-1 SEA Screening process (EPA, 2021)

5. SEA Applicability Screening

The Section relates to Step 1 of the SEA Screening Process: Applicability Screening.

As outlined in Section 4, the first step of the SEA Screening Process, 'Applicability Screening', requires a determination as to whether the SEA Directive applies to the P/P under consideration.

"Under the SEA Directive and Regulations, "plans and programmes" means plans and programmes, as well as any modifications to them

> *(a) which are subject to preparation and/or adoption by an authority at national, regional or local level or which are prepared by an authority for adoption, through a legislative procedure by Parliament or Government, and*
>
> *(b) which are required by legislative, regulatory or administrative provisions;"*

The ICAS is subject to the preparation and adoption by Dún Laoghaire-Rathdown County Council, an authority at a local level.

According to the EPA Guidance on SEA Screening (EPA, 2021)[2], "*required by legislative, regulatory or administrative provisions*" means that there is something by way of formal provision which could be said to govern or regulate the production of the P/P.

There is no formal legislative, regulatory or administrative provisions which could be said to govern or regulate the ICAS in and of itself. It is noted that the ICAS will inform the development of the Rathmichael and Old Connaught LAPs, which themselves are required by legislative provisions. The LAPs however will be subject to Strategic Environmental Assessment, subject to SEA Screening, prior to approval and adoption.

The Guidance goes on to state that the requirement for SEA covers Plans/Programmes that are subject to formal approval procedures, not only those where there is a specific legal requirement for these to be developed and adopted.

The ICAS will not be subject to any formal approval procedure in and of itself. The ICAS will, it is noted, inform the development of the Rathmichael and Old Connaught LAPs which will be subject to formal approval procedures. The LAPs however will be subject to Strategic Environmental Assessment, subject to SEA Screening, prior to approval and adoption.

It can therefore be concluded that the ICAS is not of a type of P/P to which the SEA Directive applies. Thus, there is no requirement to proceed to SEA Screening. The ICAS is not required to be subject to SEA.

6. Conclusion

As outlined in Section 5, it has been determined that the SEA Directive does not apply to the ICAS and that proceeding to Stage 2 Screening is not necessary in this case. The ICAS is not of a type of P/P which falls within the remit of the SEA Directive.

While the Study is prepared by a local authority, it is not required by legislative, regulatory, or administrative provisions. The ICAS Study is not subject to a formal approval procedure.

ARUP

Dun Laoghaire-Rathdown County Council

Infrastructure Capacity Assessment Study

Report to Inform Screening for Appropriate Assessment

Reference: DLRCC_ICAS_AA

Issue 02 | 24 September 2024

Job number 295742-00

Ove Arup & Partners Ireland Limited
50 Ringsend Road
Dublin 4
D04 T6X0
Ireland
arup.com

Contents

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1. Introduction

1.1 Overview

This report contains information regarding the need for a Screening for Appropriate Assessment on an Infrastructure Capacity Assessment Study (ICAS) currently being developed by DLRCC.

1.2 Purpose of the ICAS

DLRCC is currently preparing an Infrastructure Capacity Assessment Study (ICAS) to inform the development of the Rathmichael and Old Connaught LAPs. Following on from this, the ICAS will identify the proposed recommendations for high-level strategic enabling infrastructure required to facilitate plan-led development of the proposed LAP areas of Old Connaught and Rathmichael and to be considered in the formulation of policy by DLRCC to this effect.

The aim of the ICAS is to establish the existing context and capacities in the proposed LAP areas and to identify their constraints, challenges and opportunities. Following on from this, the ICAS Study will identify the proposed recommendations for high-level strategic enabling infrastructure required to facilitate plan-led development of the proposed LAP areas of Old Connaught and Rathmichael and to be considered in the formulation of policy by DLRCC to this effect.. The strategic enabling infrastructure to be reviewed in this study includes:

- Transport;
- Drainage, Water Services and Utilities; and
- Parks & Open Spaces, Green Infrastructure, Biodiversity and Heritage.

The ICAS is not required by legislative, regulatory or administrative provisions nor is the ICAS subject to a formal approval procedure.

1.3 Appropriate Assessment

Appropriate Assessment is a process required under Article 6(3) of the EU Habitats Directive which transposed into Irish legislation through the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. 477 of 2011) as amended (hereafter referred to as the Habitats Regulations) and by Part XAB of the Planning and Development Act 2000 (as amended).

An Appropriate Assessment of a plan or project is required if it is likely to have a significant effect on a European site, either alone or in combination with other plans and projects, pursuant to the Habitats Regulations (as amended) and the Planning and Development Act (as amended).

2. Screening for Appropriate Assessment

2.1 Legislative Requirement for Appropriate Assessment

Pursuant to the Habitats Regulations (as amended) and the Planning and Development Act (as amended), a Screening for AA is required for a 'plan or project'.

As defined in the Habitats Regulations (as amended):

"A screening for Appropriate Assessment ***of a plan or project for which an application for consent*** *is received, or which a public authority wishes to undertake or adopt, and which is not directly connected with or necessary to the management of the site as a European Site, shall be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that plan or project, individually or in combination with other plans or projects is likely to have a significant effect on the European site."*

As defined in the Planning and Development Act (as amended):

"A screening for appropriate assessment of a ***draft Land use plan or application for consent*** *for proposed development shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that Land use plan or proposed development, individually or in combination with another plan or project is likely to have a significant effect on the European site"*[1].

2.2 Screening for Appropriate Assessment Process

The Office for the Planning Regulator[2] provides guidance on the Screening for AA process and is defined below in Figure 1:

Describe the plan and or project and the characteristics of the area of which the plan or project shall be implemented.

⇩

Identify the relevant European sites and compile information on Qualifying Interests (QIs) and Conservation Objectives (COs)

- Identify all European sites using the Source-Pathway-Receptor model
- Identify the Qualifying Interests of the site concerned and the conservation objectives
- Determine which of those QIs/COs could be affected by the plan/project

⇩

Assess the likely significant direct and indirect effects on the COs of the site(s) in relation to the:
Project/Plan alone, *and*
In-combination with other plans and projects

⇩

Screening determination – in the absence of mitigation measures, determine if the project or plan, alone or in-combination with other plans and projects could undermine the COs of the site(s) and give rise to likely significant effects.

Figure 1 Screening for Appropriate Assessment Process

[1] A Screening for Appropriate Assessment as defined by the Planning and Development Act (as amended)

There are "*Cases where no Appropriate Assessment issues arise"* and as outlined within the guidance from the OPR. This is where the plan or project '*could not have any conceivable effect on a European site. For example, where the nature, scale, timing, duration and location of a development is entirely unconnected to a European site'.* The guidance further states that *"The project should only be considered to have no appropriate assessment issues if it is obvious that the entire project, through all of its stages, could not possibly have any effect on any European site, and that no measures intended to avoid or reduce potentially harmful effects on a European site are included"*

The aforementioned process and guidance have been considered as part of this report.

2.3 Definitions

The definitions of a 'plan' and a 'project', as defined within the Habitats Regulations (as amended) are provided for below.

2.3.1 A plan

""plan", subject to the exclusion, except where the contrary intention appears, of any plan that is a land use plan within the meaning of the Planning Acts 2000 to 2011, includes—

> *(a) any plan, programme or scheme, statutory or non-statutory, that establishes public policy in relation to land use and infrastructural development in one or more specified locations or regions, including any development of land or on land, the extraction or exploitation of mineral resources or of renewable energy resources and the carrying out of land use activities, that is to be considered for adoption or authorisation or approval or for the grant of a licence, consent, permission, permit, derogation or other authorisation by a public authority, or*
>
> *(b) a proposal to amend or extend a plan or scheme referred to in subparagraph (a);"*

2.3.2 A project

""project", subject to the exclusion, except where the contrary intention appears, of any project that is a development requiring development consent within the meaning of the Planning and Development Acts 2000 to 2011, includes—

> *(a) land use or infrastructural developments, including any development of land or on land,*
>
> *(b) the extraction or exploitation of mineral resources, prospecting for mineral resources, turf cutting, or the exploitation of renewable energy resources, and*
>
> *(c) any other land use activities,"*

3. Requirement of AA Screening to the ICAS

3.1 Review of the ICAS

The ICAS is a study document outlining the existing context and capacity within the Old Connaught and Rathmichael areas and is designed to inform the forthcoming LAPs for the respective areas.

The information within the ICAS was reviewed for any material which could be defined as a pathway for effect on European sites. These could take the form as actions, targets, measures or material that could be considered to require development consent. The objectives contained within the ICAS are considered to be guidance and ideas for the direction of which the future LAPs will take and are at this stage too vague to make a meaningful AA Screening upon.

3.2 Review Outcome

Following review, it was determined that there was no material within the ICAS that could be defined as a pathway for effect on European site(s). Similarly, there was no material within the ICAS that could define the ICAS as a 'project' or a 'plan' as per the definitions provided in Sections 2.3.1 and 2.3.2.

Therefore, in accordance with the relevant guidance set forward by the Office of the Planning Regulator[2], there is no instance (s) for effect(s) on European site(s) contained within the ICAS.

This review has determined that the ICAS cannot be defined as a 'project' or a 'plan' and as such, in line with the relevant guidance and legislation, is not subject to a Screening to AA.

It is anticipated that the forthcoming LAPs for Old Connaught and Rathmichael shall outline the future policies, and actions for each LAP and pursuant to Part XAB of the Planning and Development Act (as amended), shall be subject to a Screening for AA (at minimum). Any pathways for effect on European sites within a zone of influence of the draft LAPs shall be considered at this stage.

[2] OPR (2021) Office of the Planning Regulator. Appropriate Assessment Screening for Development Management. OPR Practice Note PN01. March 2021. Accessed at https://www.opr.ie/wp-content/uploads/2021/03/9729-Office-of-the-Planning-Regulator-Appropriate-Assessment-Screening-booklet-15.pdf

4. Conclusion & Recommendations

4.1 Summary

A project or a plan must undergo a Screening for AA to assess, in view of best scientific knowledge and in view of the conservation objectives of a European site, whether the plan or project, individually or in combination with other plans or projects is likely to have a significant effect on European site(s). The requirement for Screening for AA is set forward in the Habitats Regulations (as amended) and the Planning and Development Act (as amended).

The ICAS is a study commissioned to inform the development of the forthcoming LAPs for Old Connaught and Rathmichael. The ICAS does not contain any actions, targets or measures nor does it include material that could be defined as requiring development consent.

4.2 Conclusion

No pathways for effect were determined following review of the ICAS. Therefore, in accordance with guidance from the OPR, the ICAS cannot have a conceivable effect on a European site.

Additionally, it has been determined that the ICAS does not meet the definitions of a ‘project’ or a ‘plan’ and therefore is not eligible for a Screening for AA. The ICAS Study will identify the proposed recommendations for high-level strategic enabling infrastructure required to facilitate plan-led development of the proposed LAP areas of Old Connaught and Rathmichael and to be considered in the formulation of policy by DLRCC to this effect. The ICAS Study is not required by legislative, regulatory or administrative provisions. The ICAS is not subject to a formal approval procedure.

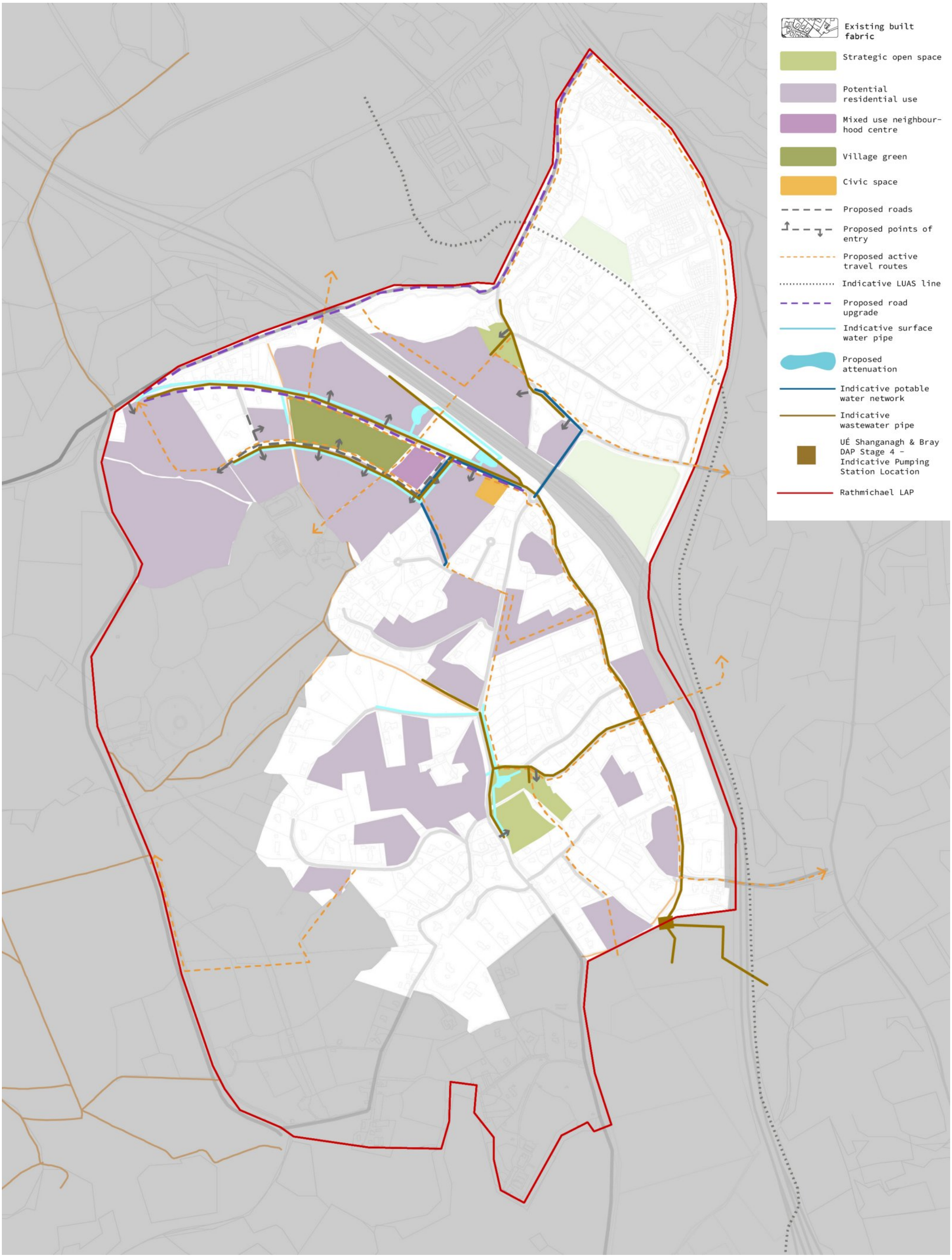
4.3 Future Requirements

Pursuant to Part XAB of the Planning & Development Act (as amended) the forthcoming LAPs for Old Connaught and Rathmichael will require a Screening for AA, and if necessary, full Appropriate Assessment. Each LAP shall be subject to its respective Screening for AA.

Appendix D

Overall Infrastructure Maps

Rathmichael Overall Infrastructure



Old Connaught Overall Infrastructure