Ballymun / Finglas to City Centre Core Bus Corridor Scheme

May 2022

Preferred Route Option Report

BUS CONNECTS

SUSTAINABLE TRANSPORT FOR A BETTER CITY.

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Glossary of Technical Terms

Bus Gate – A Bus Gate is a sign-posted short length of stand-alone bus lane. This short length of road is restricted exclusively to buses, taxis and cyclists plus emergency vehicles. It facilitates bus priority by removing general through traffic along the overall road where the bus gate is located. General traffic will be directed by signage to divert away to other roads before they arrive at the Bus Gate.

Carbon - The term Carbon is used to refer to carbon emissions or Green House Gas Emissions interchangeably'

Cycle Lane – A cycle lane is a lane on the carriageway that is reserved either exclusively or primarily for cycling and is separated from general traffic or bus lanes by road markings.

Cycle Track – A cycle track is a separate section of the road dedicated for cycling only. This space will generally be isolated from other vehicular traffic by a physical kerb.

Greenway – A greenway is a recreational corridor for non-motorised journeys, developed in an integrated manner which enhances both the environment and quality of life of the surrounding area. These routes should meet satisfactory standards of width, gradient and surface condition to ensure that they are both user-friendly and low-risk for users of all abilities.

Protected Junctions - Refers to junctions, which provide physical kerb buildouts to protect cyclists through the junction. Due to the inherently complex nature of mixed mode movements at junctions, the provision for cyclists at junctions is a critical factor in managing conflict and providing safe junctions for all road users. As such, this is the preferred layout for signalised junctions as part of the Infrastructure Works where practicable.

Quiet Street Treatment – Where roadway widths cannot facilitate cyclists without significant impact on bus priority, alternative cycle routes are explored for short distances away from the bus route. Such offline options may include directing cyclists along streets with minimal general traffic other than car users who live on the street. They are called Quiet Streets due to the low amount of general traffic and are deemed suitable for cyclists sharing the roadway with the general traffic without the need to construct segregated cycle tracks or painted cycle lanes. The Quiet Street Treatment would involve appropriate advisory signage for both the general road users and cyclists.

Signal Controlled Priority - Signal Control Priority uses traffic signals to enable buses to get priority ahead of other traffic on single lane road sections, but it is only effective for short distances. This typically arises where the bus lane cannot continue due to obstructions on the roadway. An example might be where a road has pinch-points where it narrows due to existing buildings or structures that cannot be demolished to widen the road to make space for a bus lane. It works through the use of traffic signal controls (typically at junctions) where the bus lane and general traffic lane must merge ahead and share the road space for a short distance until the bus lane recommences downstream. The general traffic will be stopped at the signal to allow the bus pass through the narrow section first and when the bus has passed, the general traffic will then be allowed through the lights

Executive Summary

The purpose of this report is to present an overview of the Preferred Route Option (PRO) for the Ballymun / Finglas to City Centre Core Bus Corridor (CBC) Scheme as well as describing the options assessed, and changes made to the Proposed Scheme since the first non-statutory public consultation in early 2019.

The aim of the Ballymun / Finglas to City Centre CBC is to provide enhanced walking, cycling and bus infrastructure on this key access corridor in the Dublin region, which will enable and deliver efficient, safe, and integrated sustainable transport movement along the corridor.

The objectives are to:

- Enhance the capacity and potential of the public transport system by improving bus speeds, reliability, and punctuality through the provision of bus lanes and other measures to provide priority to bus movement over general traffic movements.
- Enhance the potential for cycling by providing safe infrastructure for cycling, segregated from general traffic wherever practicable.
- Support the delivery of an efficient, low carbon and climate resilient public transport service, which supports the achievement of Ireland's emission reduction targets.
- Enable compact growth, regeneration opportunities and more effective use of land in Dublin, for present and future generations, through the provision of safe and efficient sustainable transport networks.
- Improve accessibility to jobs, education, and other social and economic opportunities through the provision of improved sustainable connectivity and integration with other public transport services; and
- Ensure that the public realm is carefully considered in the design and development of the transport infrastructure and seek to enhance key urban focal points where appropriate and feasible.

Scheme Overview & Assessment Process

The Proposed Ballymun / Finglas to City Centre Core Bus Corridor Scheme comprises two sections, namely

- The Ballymun Section (previously Ballymun to City Centre Core Bus Corridor)
- The Finglas Section (previously Finglas to Phibsborough Core Bus Corridor)

The Proposed Scheme will be 10.9 km in length.

The Ballymun Section of the Proposed Scheme will commence on R108 Ballymun Road at its junction with St. Margaret's Road, just south of M50 Motorway Junction 4, and will be routed along the R108 on Ballymun Road, St. Mobhi Road, Botanic Road, Prospect Road, Phibsborough Road, Constitution Hill and R132 Church Street as far as R148 Arran Quay at the River Liffey on the western edge of Dublin City Centre. Priority for buses will be provided along the entire route, consisting primarily of dedicated bus lanes in both directions, where feasible, with alternative measures proposed at particularly constrained locations such as at R108 St. Mobhi Road.

A complementary off-line cycle route along quiet streets is proposed along Royal Canal Bank in Phibsborough, which will extend southwards from the Royal Canal to Western Way, parallel to and a

short distance to the east of R108 Phibsborough Road, and also through the Markets Area at the southern end of the Proposed Scheme.

The Finglas Section of the Proposed Scheme will commence on the R135 Finglas Road at the junction with R104 St. Margaret's Road and will be routed along the R135 Finglas Road as far as Hart's Corner in Phibsborough, where it will join the Ballymun Section of the Proposed Scheme.

Priority for buses will be provided along the Finglas Section, consisting of dedicated bus lanes in both directions. Continuous segregated cycle tracks will be provided from the Church Street Junction in Finglas to Hart's Corner. No cycle tracks are proposed along Finglas Road at the northern end of the Proposed Scheme, where more suitable routes are available along local streets.

Where substantial revisions have been made to the design of both corridors since the publication of the Emerging Preferred Route (EPR) Option in December 2017, options have been assessed using a Multi-Criteria Analysis (MCA) to determine the preferred option. The methodology used is consistent with that carried out during the initial route optioneering work which informed the EPR Option.

This additional assessment does not supersede the work done during earlier stages, but rather complements it and is a direct response to issues raised by the public during the public consultation process. This assessment has also been carried out in the context of more detailed information now available, including topographical survey.

A full review was undertaken of the previous design proposals as published for the Emerging Preferred Route. This review was informed by additional technical information and the feedback received from the non-statutory Public Consultations.

Changes from the Emerging Preferred Route

The following list highlights the main changes between the published EPR Option and the PRO:

1. The Ballymun Section of the Proposed Scheme has been extended at the northern end to include the 0.5km long section from the junction of Ballymun Road with St. Margaret's Road to the Santry Cross junction with Santry Avenue, to best suit bus operations.

2. Ballymun Main Street between Shangan Road at the northern end and Gateway Crescent at the southern end will be narrowed to a single traffic lane in each direction which will accommodate permanent on-street parking on both sides of the street with additional trees, and this will allow the bus lanes to operate on a 24-hours basis in both directions without risk of blockage by parked vehicles.

3. South of Collins Avenue Ballymun Road on the western side between St. Pappin Road and Our Lady of Victories Primary School will be narrowed to a single traffic lane in the northbound direction on the western side which will accommodate permanent on-street parking near the school, and this will remove the risk of blockage of the bus lane and cycle track by parked vehicles.

4. At the junction of Ballymun Road, St. Mobhi Road and Griffith Avenue, the one-way traffic system will be modified for two-way movements on the western and southern arms, so that the southbound left-turn from St. Mobhi Road into Griffith Avenue eastbound can be redirected away from the eastern side of the gyratory system. This will remove the conflict between buses and cyclists with a high volume of left-turning traffic.

5. Of the two options for bus priority considered in the Emerging Preferred Route at St. Mobhi Road, Option A for a northbound bus gate at the northern end of St. Mobhi Road was selected for adoption in the Proposed Scheme. Local traffic access will be retained and through traffic in the northbound direction will have a choice of two alternative routes to the west.

6. Additional modifications have been proposed in the Glasnevin area with enhanced cycling facilities on Glasnevin Hill, a southbound one-way traffic restriction on part of Ballymun Road south of Griffith Avenue to accommodate on-street parking where the road is very narrow, and an urban realm improvement at Glasnevin Village at the junction of Botanic Avenue and Botanic Road.

7. Along St. Mobhi Road the proposed road layout design has been adjusted to retain almost all existing street trees and a small amount of on-street parking south of the River Tolka on the eastern side. However, on the eastern side of the road it is proposed to widen into the grounds of Na Fianna GAA Club, Scoil Chaitríona, Home Farm Football Club and Whitehall College to accommodate a wider footpath and two-way cycle track for improved local access to these facilities.

8. On Botanic Road it is proposed to provide segregated cycle tracks in both directions instead of a bus lane in the northbound direction, which would have required cyclists to share space with buses or general traffic. Instead signal controlled priority will be provided on this section without bus lanes.

9. On Prospect Road there will be a two-way cycle track along the eastern side to replace one of the two existing traffic lanes, which will enable northbound cyclists to bypass the one-way traffic system at Hart's Corner.

10. On the proposed quiet streets cycle route east of Phibsborough Road at Royal Canal Bank there will be a bridge provided for cyclists and pedestrians under North Circular Road instead of a traffic signal crossing.

11. An extended two-way cycle route will extend from Western Way along the eastern side of Constitution Hill to a quiet-streets route through the Markets Area to the River Liffey corridor. This will provide an alternative route for cyclists instead of shared use of bus lanes along Church Street Lower, which is too narrow for segregated cycle tracks.

12. On Finglas Road an additional 400m length of northbound bus lane from Mellowes Road to St. Margaret's Road will be provided by converting the existing left traffic lane instead of road widening.

13. On Finglas Road segregated cycle tracks will be provided mainly on the existing road carriageway with most of the existing verges and trees to be retained.

14. At Finglas the northbound cycle track was extended by 250m northward from Church Street to Mellowes Road.

15. At the southern end of Finglas Road the proposed road layout was adjusted to omit a short section of northbound bus lane which reduced land acquisition impacts, particularly at houses with short driveways at the southern end of the Proposed Scheme at Hart's Corner.

16. Full replacement parking facilities are proposed on Finglas Road at Glasnevin Cemetery to replace the existing on-street parking.

17. All existing mature trees are to be retained on Prospect Way.

18. A segregated two-way cycle track is proposed on Prospect Way to connect to the cycle track on Prospect Road that will allow cyclists to bypass the one-way traffic system at Hart's Corner. It will also provide a shorter and more direct route for northbound cyclists towards Ballymun.

1. Introduction and Background

1.1. Introduction

This report presents the Preferred Route Option (PRO) for the Ballymun / Finglas to City Centre Core Bus Corridor Scheme (herein after called the Proposed Scheme).

The Proposed Scheme is in two sections:

- The Ballymun Section (previously Ballymun to City Centre Core Bus Corridor)
- The Finglas Section (previously Finglas to Phibsborough Core Bus Corridor)

The Proposed Scheme will be 10.9 km in length.

During the non-statutory public consultations and the route selection process (up to the choice of the PRO), these two sections had been considered separately. The sections have now been combined as the Proposed Scheme. The principal reasons for combining the two sections into the Proposed Scheme include their geographical association and functional interdependence, and the fact that the Finglas Section joins the Ballymun Section at the Hart's Corner junction north of Phibsborough and shares the same route towards the City Centre.

The Proposed Scheme for the Ballymun Section commences at the St. Margaret's Road with Ballymun Road junction and is routed southbound all along Ballymun Road to the Griffith Avenue junction. The corridor runs southbound all along St. Mobhi Road to the junction with Botanic Road, and then to Hart's Corner. South of Hart's corner, the corridor runs along Prospect Road and Phibsborough Road, through Phibsborough Village, passing Doyle's Corner down to Western way junction. It then follows southwards via Constitution Hill and Church Street to Ormond Quay / Arran Quay.

The Finglas Section follows Finglas Road and extends from Finglas Village to Hart's Corner at Phibsborough where it joins the Ballymun Section.

The Proposed Scheme will significantly enhance travel by public transport by providing continuous bus priority as well as improved pedestrian and cycling infrastructure along the route sections. Currently these key access corridors are characterised by traffic congestion and discontinuous inadequate bus and cycling infrastructure, meaning that for most of the journey, buses and cyclists are competing for space with the general traffic, impacting on the attractiveness of these sustainable modes. The objectives of the Proposed Scheme include provision of necessary bus, cycle, and walking infrastructure enhancements that will facilitate modal shift from car dependency contributing to an efficient, low carbon and climate resilient City. Refer to Figure 1-1 for Scheme location.

Figure 1-1 – Ballymun / Finglas to City Centre Proposed Scheme

1.2. The Core Bus Corridor Infrastructure Works

The Proposed Scheme is one of 12 stand-alone core bus corridor schemes to be delivered under the BusConnects Dublin - Core Bus Corridors Infrastructure Works (herein after called the Infrastructure Works). The Infrastructure Works, once completed, will deliver the radial core corridors identified in the Greater Dublin Area Transport Strategy 2016-2035 (herein after called the GDA Transport Strategy) Core Bus Network which is discussed below.

The BusConnects Dublin Programme is the National Transport Authority's (NTA) programme to greatly improve bus services in the Greater Dublin Area and the Infrastructure Works is one element of that Programme, itself containing 12 stand-alone Core Bus Corridor Schemes. It is a key part of the Government's polices to improve public transport and address climate change in Dublin and other cities.

The NTA established a dedicated BusConnects Infrastructure team to advance the planning and construction of the Infrastructure Works. It comprises an inhouse team including technical and communications resources and external service providers procured from time-to-time to assist the internal team in the planning and design of the 12 Proposed Schemes.

The Infrastructure Works will deliver a major component of the overall Core Bus Network as identified in the GDA Transport Strategy, encompassing the delivery of approximately 230km of dedicated bus lanes and 200kms of cycle tracks along 12 stand-alone Core Bus Corridors Schemes.

The 12 stand-alone Core Bus Corridor Schemes to be delivered under the Infrastructure Works are (see Figure 1-2):

- Clongriffin to City Centre Core Bus Corridor.
- Swords to City Centre Core Bus Corridor.
- **Ballymun / Finglas to City Centre Core Bus Corridor.**
- Blanchardstown to City Centre Core Bus Corridor.
- Lucan to City Centre Core Bus Corridor.
- Liffey Valley to City Centre Core Bus Corridor.
- Tallaght / Clondalkin to City Centre Core Bus Corridor.
- Kimmage to City Centre Core Bus Corridor.
- Templeogue / Rathfarnham to City Centre Core Bus Corridor.
- Bray to City Centre Core Bus Corridor.
- Belfield / Blackrock to City Centre Core Bus Corridor; and
- Ringsend to City Centre Core Bus Corridor

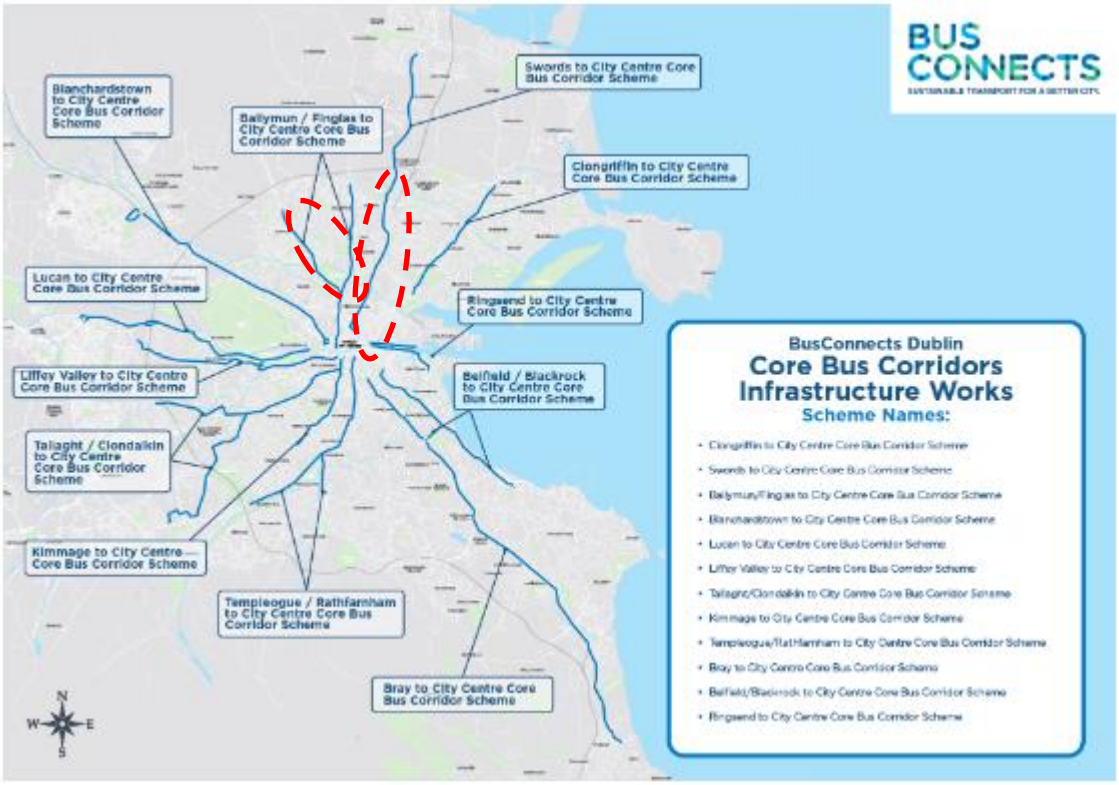

Figure 1-2 – Core Bus Corridor Infrastructure Works with the Proposed Scheme highlighted

1.3. Approach for this Report

In June 2018, the National Transport Authority (NTA) published the Core Bus Corridors Project Report. The report was a discussion document outlining proposals for the delivery of a network across Dublin. The Ballymun to City Centre' and the 'Finglas to Phibsborough' are identified in this document as forming part of the radial Core Bus Network.

As part of this process a 'Core Bus Corridor Feasibility Study and Options Assessment Reports were published separately for the Ballymun to City Centre and for the Finglas to Phibsborough, which identified feasible options along the corridors, assessed these options and arrived at an Emerging Preferred Route (EPR) Option for each. Submissions were invited from the public to provide comment on the EPR Option proposals and to inform subsequent design stages.

This 'Preferred Route Option Report' has been prepared for the Proposed Scheme, which will build on the assessment carried out in the Feasibility Reports.

These Feasibility and Options Assessment reports referenced above, along with their associated appendices as published, are included in Appendix E.

The Study Area Analysis and Multi-Criteria Analysis (MCA) for the previously proposed feasible route options are considered to still be valid unless otherwise detailed and updated in this PRO Report. Any additional design work or optioneering has been assessed against the previously identified EPR Option and draft PRO in order to determine the PRO. Additional design development has been detailed in this report, and the resulting PRO referenced in this report has been based on:

- Updated topographical survey information.
- Output from public engagement and consultations.

- Clarifications to the previous assessments in the Feasibility Study and Options Assessment Reports.
- Further design development and options assessment; and
- Change in the extent of the Proposed Scheme.

1.4. Report Structure

This report is structured as follows:

- **Chapter 2: Planning and Policy Context** – This chapter summarises a review of transport and planning policy which is relevant to the route selection process for the Proposed Scheme.
- **Chapter 3: Background and Non Statutory Public Consultation** – This chapter outlines the summary of the non-statutory public consultation process.
- **Chapter 4: Study Area** – In this chapter, the study area for the Proposed Scheme is detailed. The integration of the Proposed Scheme with existing and planned transport networks is considered, along with considerations of the Proposed Scheme for other road users.
- **Chapter 5: Review of The Feasibility Study and Options Assessment Reports** – This chapter is a summary of the options assessment that was previously carried out in each section of the previous Feasibility and Options Reports. An assessment has been made on the validity of the previous options assessment in the context of additional information collected, including through more detailed survey work undertaken and feedback from the public consultation process. Issues arising and material changes resulting from the design development are detailed.
- **Chapter 6: Options Assessment** – This chapter updates the previous options assessment work undertaken in light of the additional considerations set out in Chapter 5.
- **Chapter 7: Preferred Route Option** – This chapter gives the overall conclusions adopted from the Proposed Scheme options assessment process and identifies and describes the PRO proposal.

2. Planning and Policy Context

This chapter summarises a review of transport and planning policies which are relevant to the route selection process for the Proposed Scheme.

2.1 Transport Strategy for the Greater Dublin Area, 2016-2035

2.1.1 Introduction

The GDA Transport Strategy, which was published by the National Transport Authority (NTA) in 2016, provides a statutory planning basis and framework for the planning and delivery of transport infrastructure and services in the Greater Dublin Area (GDA).

The GDA Transport Strategy has been prepared in accordance with Section 12 of the Dublin Transport Authority Act, 2008 (as amended) and was approved in 2016 by the then Minister for Transport, Tourism and Sport (now the Department of Transport). The GDA Transport Strategy, along with supporting Government investment programmes, is an essential component for the orderly development of the GDA over the next 20 years. The purpose of the GDA Transport Strategy is stated as being "to contribute to the economic, social and cultural progress of the Greater Dublin Area by providing for the efficient, effective and sustainable movement of people and goods".

2.1.2 The Core Bus Network as identified in the GDA Transport Strategy

The delivery of an efficient reliable bus service is an essential component of the GDA Transport Strategy as it will provide a viable and readily accessible alternative to private general traffic that is causing congestion problems in the GDA. As Dublin is a low-density city there are few areas with the size and concentration of population for rail based public transport. This means that for most corridors in Dublin, bus travel represents the optimum form of public transport. Dublin City Bus Services carried 153 million passengers in 2019. In percentage terms, the bus system accounts for over 65% of public transport passenger journeys in the GDA; the Luas carries 20%, and DART and commuter rail services deliver the remaining 15%.

In terms of geographical reach and coverage, bus operations extend across every corridor in the Dublin region. Luas operates two fixed lines - Red and Green and heavy rail operates four railway services – Kildare, Maynooth, Northern and South-eastern lines. While the GDA Transport Strategy identified key rail-based enhancements it is underpinned by the bus-based city-wide public transport system. The GDA Transport Strategy identified a "Core Bus Network", representing the most important bus routes within the GDA, generally characterised by high passenger volumes, frequent services, and significant trip attractors along the routes. The Core Bus Network forms part of an overall integrated transport system planned for the GDA. In developing the GDA Transport Strategy, alternatives were considered by the NTA at both a corridor and overall network level.

The identified Core Bus Network comprised radial bus corridors, orbital bus corridors and regional bus corridors. These corridors are generally characterised by discontinuity, whereby the corridors currently have dedicated bus lanes along only less than one third of their lengths which means that for most of the journey, buses and cyclists are competing for space with general traffic and are negatively affected by the increasing levels of congestion. This results in delayed buses and unreliable journey times for passengers.

The GDA Transport Strategy states that it is intended to provide continuous bus priority, as far as is practicable, along the core bus routes, with the objective of supporting a more efficient and reliable bus service with lower journey times, increasing the attractiveness of public transport in these areas and facilitating a shift to more sustainable modes of transport.

In Section 5.5.4 of the GDA Transport Strategy it states that "[a] number of the Core Radial Bus Corridors are proposed to be developed as Bus Rapid Transit (BRT) routes, where the passenger numbers forecast on the routes are approaching the limits of conventional bus route capacity."

As design and planning work was progressed by the BusConnects Infrastructure team NTA, it became clear that the level of differentiation between the BRT corridors and the Core Bus Corridors would, ultimately, be limited, and that all of the radial Core Bus Corridors should be developed to provide a similarly high level of priority service provision (i.e., to provide a consistency in terms of bus priority and infrastructure to support the bus services).

2.2 Greater Dublin Area Cycle Network Plan

The Greater Dublin Area Cycle Network Plan was adopted by the NTA in early 2014 following a period of consultation with the public and various stakeholders. This plan forms the strategy for the implementation of a high quality, integrated cycle network for the Greater Dublin Area.

There are a number of primary and secondary cycle routes identified along the Proposed Scheme as follows:

- Radial Primary Route 3 northward from the City Centre, with branches 3a to Ballymun and 3b to Finglas. This route departs from the Proposed Scheme at Phibsborough via Royal Canal Bank immediately to the east, and then branches off at Geraldine Street towards O'Connell Street.
- Radial Primary Route 4 from the City Centre to Blanchardstown crossing the Proposed Scheme at Broadstone at the edge of the City Centre.
- Radial Primary Route 5 from the City Centre to Lucan along the River Liffey crossing the Proposed Scheme at the junction of Church Street and Ormond Quay / Arran Quay.
- Radial Secondary Route 2C from the Stoneybatter area towards the Swords Corridor crossing the Proposed Scheme at the North King Street and Church Street junction at the edge of the City Centre.
- Cross-City Orbital Secondary Route C6 diverges from Radial Primary Route 3 at Royal Canal Bank and proceeds southwards along Constitution Hill and then deviates through the Markets area.
- Cross-City Orbital Secondary Route C8 along North Circular Road crossing the Proposed Scheme at Doyle's Corner in Phibsborough.
- National Cycle Route N2 along the Royal Canal crossing the Proposed Scheme at Cross-Guns Bridge in Phibsborough.
- Orbital Greenway Route NO2 along the River Tolka crossing the Proposed Scheme at St. Mobhi Road in Glasnevin and crossing the Finglas north of the Ballyboggan Road junction on Finglas Road.
- Orbital Secondary Route NO3 crossing the Proposed Scheme along Griffith Avenue at the junction with St. Mobhi Road and intersecting the Proposed Scheme at the junction of Finglas Road and Old Finglas Road.

- Orbital Primary Route NO4 crossing the Proposed Scheme along Collins Avenue and Glasnevin Avenue and crossing the Proposed Scheme at Mellowes Road.
- Orbital Primary Route NO5 crossing the Proposed Scheme at the Santry Avenue junction on Ballymun Road.
- The Santry River Greenway will intersect the northern end of the Proposed Scheme at the junction of Ballymun Road with St. Margaret's Road.

During the course of the analysis carried out to identify the preferred core bus corridor, the provision of these cycle routes was considered at all stages. Therefore, as part of the options assessment process, any upgrading of infrastructure to provide bus priority also needs to consider and provide for the required cycling infrastructure, where practicable, to the appropriate level and quality of service (as defined by the NTA National Cycle Manual) required for primary and secondary cycle routes.

2.3 Development Plan, Local Area Plans and Strategic Development Zones

2.3.1 Dublin City Council Development Plan (2016 – 2022)

The current Development Plan for Dublin City Council (DCC) came into effect on the 21st of October 2016. The DCC Development Plan recognises the challenge that Transport has in making an important contribution to make towards achieving a sustainable city. These key challenges for the city are outlined as follows:

- *Effective integration of land-use and transportation, and the management of access and mobility.*
- *Pro-active engagement and collaboration with communities to bring about further modal shift and effective mobility management.*
- *The expansion of the strategic cycle network along all major water bodies including the River Liffey and the canals.*
- *Improving the city centre environment for pedestrians through public realm enhancements and through improvement of the strategic pedestrian network.*
- *Ensuring maximum benefits are achieved from public transport improvements including Luas cross-city and the anticipated Bus Rapid Transit network.*
- *Managing city centre road-space to best address the competing needs of public transport, pedestrians, cyclists, and the private car.*
- *Increasing significantly the existing mode share for active modes, i.e. walking and cycling, and supporting the forthcoming National Policy Framework for Alternative Fuels Infrastructure.*

Therefore, sustainable forms of transport such as public transport, walking, and cycling are strongly promoted in this plan, which takes a pro-active approach to influencing travel behaviour and effective traffic management.

Table 2.1: DCC Development Plan Policies for Modal Change and Active Travel aligned with the proposed development

Movement and Transport: Promoting Modal Change and Active Travel	
MT2	Whilst having regard to the necessity for private car usage and the economic benefit to the city centre retail core as well as the city and national economy, to continue to promote modal shift from private car use towards increased use of more sustainable forms of transport such as cycling, walking and public transport, and to co-operate with the NTA, Transport Infrastructure Ireland (TII) and other transport agencies in progressing an integrated set of transport objectives. Initiatives contained in the government's 'Smarter Travel' document and in the NTA's draft transport strategy are key elements of this approach.

Table 2.2: DCC Development Plan Policies for Public Transport aligned with the proposed development

Movement and Transport: Public Transport	
MT3	To support and facilitate the development of an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city in association with relevant transport providers, agencies and stakeholders.
MT4	To promote and facilitate the provision of Metro, all heavy elements of the DART Expansion Programme including DART Underground (rail interconnector), the electrification of existing lines, the expansion of Luas, and improvements to the bus network in order to achieve strategic transport objectives.
MT5	To work with the relevant transport providers, agencies and stakeholders to facilitate the integration of active travel (walking, cycling etc.) with public transport, thereby making it easier for people to access and use the public transport system.
MT6 (i)	To work with Iarnród Eireann, the NTA, Transport Infrastructure Ireland (TII) and other operators to progress a coordinated approach to improving the rail network, integrated with other public transport modes to ensure maximum public benefit and promoting sustainable transport and improved connectivity.

2.3.2 Fingal Development Plan (2017 – 2023)

The current Development Plan for Fingal County Council (FCC) came into effect in 2017 and generally seeks to "*Promote and facilitate movement to, from, and within the County of Fingal, by integrating land use with a high quality, sustainable transport system that prioritises walking, cycling and public"*

The FCC Development Plan includes transport and mobility policies and objectives to promote the sustainable development of the County by supporting and guiding national agencies in delivering major improvements to the public transport network and to ensure existing and planned public transport services provide an attractive and convenient alternative to the car.

The Development Plan recognises that one of the major challenges facing the County during the life of this Plan is the need to promote and provide for road network.

In terms of transport infrastructure, the following (see Table 2.3, Table 2.4 and Table 2.5) Policies and Objectives have been identified in the County Development Plan which support the proposed development:

Table 2.3: FCC Development Plan Policies for Movement & Transport aligned with the proposed development

Objective	Movement and Transport
MT01	Support National and Regional transport policies as they apply to Fingal. In particular, the Council supports the Government's commitment to the proposed new Metro North and DART expansion included in Building on Recovery: Infrastructure and Capital Investment 2016-2021. The Council also supports the implementation of sustainable transport solutions.
MT02	Support the recommendations of the National Transport Authority's Transport Strategy for the Greater Dublin Area 2016-2035 to facilitate the future sustainable growth of Fingal.
MT03	Implement Smarter Travel – A Sustainable Travel Future policy and work to achieve the Key Goals set out in this policy.
MT04	At locations where higher density development is being provided, encourage the development of car-free neighbourhoods, where non-motorised transport is allowed and motorised vehicles have access only for deliveries but must park outside the neighbourhood, creating a much better-quality public realm with green infrastructure, public health, economic and community benefits.

Table 2.4: FCC Development Plan Policies for Public Transport aligned with the proposed development

Objective	Public Transport
MT24	Support and advise the NTA and TII on the planning and implementation of public transport infrastructure, in particular by providing an understanding of Fingal's policies, objectives and requirements, including environmental sensitivities.
MT25	Support TII and the NTA in developing a revised design of the proposed new Metro North that addresses the needs of the Swords-Airport-City Centre corridor, environmental sensitivities and securing permission from An Bord Pleanála.
MT30	Support Iarnród Éireann and the NTA in implementing the DART Expansion Programme, including the extension of the DART line to Balbriggan, the design and planning for the expansion of DART services to Maynooth, and the redesign of the DART Underground.
MT33	Facilitate and promote the enhancement of bus services through bus priority measures including bus lanes and bus gates. Support the NTA in the implementation of Bus Rapid Transit from Blanchardstown to Belfield and from Swords to Merrion Square, subject to detailed design.

Table 2.5: FCC Development Plan Policies for Walking & Cycling aligned with the proposed development

Objective	Walking & Cycling
MT13	Promote walking and cycling as efficient, healthy, and environmentally-friendly modes of transport by securing the development of a network of direct, comfortable, convenient, and safe cycle routes and footpaths, particularly in urban areas.
MT14	The Council will work in cooperation with the NTA and adjoining Local Authorities to implement the Greater Dublin Area Cycle Network Plan subject to detailed engineering design and the mitigation measures presented in the SEA and Natura Impact Statement accompanying the NTA Plan.

2.4 The Aims and Objectives of the Proposed Scheme

The aim of delivering the Ballymun / Finglas to City Centre CBC Scheme is to provide enhanced walking, cycling and bus infrastructure on these key access corridors in the Dublin region, which will enable and deliver efficient, safe, and integrated sustainable transport movement along the corridor.

The objectives are to:

- Enhance the capacity and potential of the public transport system by improving bus speeds, reliability and punctuality through the provision of bus lanes and other measures to provide priority to bus movement over general traffic movements;
- Enhance the potential for cycling by providing safe infrastructure for cycling, segregated from general traffic wherever practicable;
- Support the delivery of an efficient, low carbon and climate resilient public transport service, which supports the achievement of Ireland's emission reduction targets;
- Enable compact growth, regeneration opportunities and more effective use of land in Dublin, for present and future generations, through the provision of safe and efficient sustainable transport networks;
- Improve accessibility to jobs, education and other social and economic opportunities through the provision of improved sustainable connectivity and integration with other public transport services; and
- Ensure that the public realm is carefully considered in the design and development of the transport infrastructure and seek to enhance key urban focal points where appropriate and feasible.

3. Background and Public Consultation

3.1 Feasibility and Options Assessment Reports and Emerging Preferred Routes

In early 2016, the NTA initiated plans to develop the network of Core Bus Corridors identified in the GDA Transport Strategy. As part of this body of work, the 'Ballymun to City Centre Core Bus Corridor Feasibility Study and Options Assessment Report' and the 'Finglas - Phibsborough Core Bus Corridor Feasibility Study and Options Assessment Report' were prepared which identified feasible options along the corridor, assessed these options and arrived at an EPR Option. These proposals formed the basis for the first Non-Statutory Public Consultation on the Ballymun to City Centre CBC and the Finglas to Phibsborough CBC.

3.2 First Non-Statutory Public Consultation – Emerging Preferred Routes

3.2.1 Ballymun to City Centre CBC

The first non-statutory public consultation on the BusConnects Core Bus Corridor Emerging Preferred Routes took place on a phased basis and ran until the 31st of May 2019. The consultation for the then Ballymun to City Centre CBC Emerging Preferred Route was in Phase 3 from 26th February 2019 to 31st May 2019. The Information Brochure published as part of this consultation is included in Appendix F1.

There were 475 submissions received in relation to the Ballymun to City Centre CBC. These submissions ranged from individual submissions by residents, commuters, local representatives, various associations, and private sector businesses.

A brief summary of the feedback received on the Ballymun to City Centre CBC during the public consultation is presented in this section of the report. While a variety of matters were raised in the submissions, the key issues emerging from the consultation were as follows:

1) Options at St. Mobhi Road
2) Traffic and Access Impact
3) Impacts on Community
4) Metrolink
5) Safety
6) Car Parking
7) Impact for Properties
8) Cycling facilities
9) Bus facilities
10) Pedestrian facilities
11) Environmental Issues

Further detail on these issues can be found in the Ballymun to City Centre Core Bus Corridor Emerging Preferred Route First Non-Statutory Public Consultation Report (March 2020) in Appendix B1.

3.2.2 Finglas to Phibsborough CBC

The first non-statutory public consultation on the BusConnects Core Bus Corridor Emerging Preferred Routes took place on a phased basis and ran until the 31st of May 2019. The consultation for the then Finglas to Phibsborough CBC Emerging Preferred Route was in Phase 3 from 26th February 2019 to 31st May 2019. The Information Brochure published as part of this consultation is included in Appendix F2.

In total 33 submissions were received from 30 separate parties in relation to the Finglas corridor.

These submissions ranged from individual submissions by residents, commuters, local representatives, various associations, and private sector businesses. A brief summary of the feedback received on the Finglas to Phibsborough CBC during the public consultation is presented in this section of the report. While a variety of matters were raised in the submissions, the key issues emerging from the consultation were as follows:

1) Impact on trees.
2) Land Acquisition / CPO concerns
3) Environmental impacts.
4) Cycle Facilities.
5) Traffic and Access impacts
6) Safety and Pedestrian facilities

Further detail on these issues can be found in the Finglas to Phibsborough Core Bus Corridor Emerging Preferred Route First Non-Statutory Public Consultation Report (March 2020) in Appendix B2.

3.3 Development of the Draft Preferred Route Option

3.3.1 Ballymun to City Centre CBC

Following the first non-statutory public consultation, a review was undertaken of the Proposed Scheme proposals along the route based on the following new information which was available for consideration:

- Detailed topographical survey along the route corridor.
- Submissions received during the first non-statutory public consultation; and
- Issues raised during meetings with community forum, resident groups, and one-on-one meetings with directly impacted property owners.

As part of this review new options were developed for consideration in specific areas where issues were identified. These new options were subject to further options assessment (as detailed in Section 6 of this report) to identify the draft Preferred Rout Option (PRO). The selected draft PRO identified formed the basis for the second non-statutory public consultation between 4th March and 17th April 2020.

The key changes adopted in the draft Preferred Route Option are as follows:

a) The corridor was extended further north to St. Margaret's Road to best suit bus operations This facilitates better public transport interchange between bus and the future Metrolink.

b) In the Glasnevin area Option A was selected with a northbound Bus Gate at the junction of St. Mobhi Road and Griffith Avenue. This significantly reduces the requirement for road widening on St. Mobhi Road and allows for the retention of trees. During the period of operation of the Bus Gate on St. Mobhi Road, northbound through traffic will be directed to Ballymun via Finglas Road, Old Finglas Road, Tolka Estate and Griffith Avenue. A more localised diversion will operate via Glasnevin Hill, Cremore Villas and Griffith Avenue.

c) Enhanced cycling and pedestrian facilities are proposed at Glasnevin Hill, with Urban Realm improvements planned for Glasnevin Village.

d) Signal Controlled Priority is proposed for Botanic Road in both directions to give priority to buses through a short section without bus lanes to facilitate the provision of segregated cycle tracks.

e) Significant Urban Realm enhancements are proposed for Ballymun Town Centre, Phibsborough Village and in Glasnevin Village.

f) The proposed off-line cycle route at Royal Canal Bank at the eastern side of Phibsborough is provided with new cycle/pedestrian bridge over the Royal Canal to the east of Cross Guns Bridge and a new underpass is proposed under North Circular Road.

g) A two-way cycle track is proposed on Constitution Hill with a quiet street cycle route through the Markets area to the Liffey Cycle Route at Ormond Quay.

3.3.2 Finglas to Phibsborough CBC

As part of the review, a technical analysis was undertaken, and new options were developed for consideration in specific areas where issues were identified. These new options were subject to further options assessment (as detailed in Section 6 of this report) to identify the draft PRO. The selected draft PRO identified formed the basis for the second non-statutory public consultation in March / April 2020.

The key changes adopted in the draft Preferred Route Option were as follows:

a) The proposed road layout along the Finglas Road dual carriageway was adjusted to retain almost all existing trees in the median and verges by reducing the traffic lane and bus lanes widths to 3m in line with the relevant standards which provides enough space for the proposed cycle tracks to fit mainly on the existing road with limited encroachment into the grass verges.

b) The previously proposed road widening along Finglas Road south of Glasnevin Cemetery was reduced with significantly less encroachment into private properties through a revised alignment, use of narrow traffic lanes and reduction of the very wide footpath width on the northern side.

c) At Hart's Corner a two-way segregated cycle track was introduced to bypass the one-way traffic system.

3.4 Second Non-Statutory Public Consultation – Draft Preferred Route Option

3.4.1 Ballymun to City Centre CBC

The draft Preferred Route Option was published in March 2020 and a second round of public consultation took place from 4th March 2020 to the 17th of April 2020. The Information Brochure published as part of this consultation is included in Appendix G1.

Due to Covid-19 restrictions being imposed by Government in mid-March the planned Public Information Events were impacted. Consequently there were 23 submissions received relating to the Ballymun to City Centre CBC (compared to 475 submissions following the First Public Consultation).

A brief summary of the feedback received on the Ballymun to City Centre CBC during the public consultation is presented in this section of the report.

While a variety of matters were raised in the submissions, the key issues emerging from the consultation were as follows:

1) Many submissions welcomed the changes of the proposals since the EPR.
2) Dublin Airport Authority has requested the Proposed Scheme be extended to the airport campus.
3) Concern about security at the proposed bridge under North Circular Road.
4) Removal of trees (misunderstood in some cases). Alternative proposal for St. Mobhi Road south of River Tolka bridge suggested to drop bus lane for a short section and retain the trees on the western side.
5) Narrow footpaths & island bus stops for people with disabilities.
6) Preference for Metrolink instead of BusConnects.
7) Alternative cycle route via Walsh Road instead of St. Mobhi Road.
8) Local traffic access concerns in the St. Mobhi Road area.
9) Through traffic concern in area at Iona Road and Lindsay Road, Phibsborough/Drumcondra.
10) Traffic impacts at Glasnevin Hill due to the diversion from the proposed bus gate at St. Mobhi Road.
11) 30 km/h speed limit requested along the Proposed Scheme, and at Glasnevin Hill with speed ramps.
12) Ballymun Road to be reduced from 2 traffic lanes to 1 with green verges instead.
13) Cycling facilities:
    a) Further improvements to specific details for cycle tracks at junctions and bus stops.
    b) Separated rather than toucan crossings preferred at Prospect Way.
    c) Cycle priority at Dominick Street.
    d) Markets route via Greek Street to O'Donovan Rossa Bridge instead.
    e) Cycle link towards Stoneybatter.
    f) Cycle tracks requested on Phibsborough Road and Church Street, with one-way traffic to suit.

14) Various queries about specific local issues.
15) Flood risk at Botanic Avenue / Botanic Road junction.
16) Query about left turn southbound at North King Street.
17) Impact for Phibsborough Shopping Centre.
18) Access for a development site at North Mill, Cross Guns Bridge.
19) Complaints about the public consultation process due to the disruption caused by the public

The issues raised during the second public consultation have been considered as part of the further development of the Preferred Route Option and are included in the Public Consultation Submissions Report for the 2nd and 3rd Non-Statutory Public Consultation in Appendix C1.

3.4.2 Finglas to Phibsborough CBC

The draft Preferred Route option was published in March 2020 and a second round of public consultation took place from 4th March 2020 to the 17th of April 2020. The Information Brochure published as part of this consultation is included in Appendix G2.

Due to Covid-19 restrictions being imposed by Government in mid-March the planned Public Information Events were impacted. Consequently there were 3 submissions received relating to the Finglas to Phibsborough CBC (compared to 475 submissions following the First Public Consultation).

The key issues emerging from the consultation were as follows:

1) Cycling facilities to be of a uniformly high quality and 2m wide rather than 1.5m in places. Link into Finglas Village should be more prominent for continuation northward.
2) Concern about intrusion at one property on the western side of Finglas Road at Hart's Corner.

The issues raised during the second public consultation have been considered in the further development of the Preferred Route Option.

3.5 Development of the Updated Preferred Route Option

Following the second non-statutory public consultation, a review was undertaken of the Proposed Scheme proposals along the route based on the following new information which was available for consideration:

- Updated topographical survey along the route corridor.
- Submissions received during the second non-statutory public consultation; and
- Issues raised during meetings with community forums, resident groups, and one-on-one meetings with directly impacted property owners.

As part of this review, several new options were reviewed further, and new options were developed for consideration in specific areas where issues were identified. These new options were subject to further options assessment to identify the updated PRO that was subsequently identified and formed the basis for the third non-statutory public consultation in November / December 2020.

3.6 Third Non-Statutory Public Consultation – Updated Draft Preferred Route Option

The third round of non-statutory public consultation for the Proposed Scheme took place from the 4th of November 2020 until 16th December 2020 on the updated draft PRO. The Information Brochures published as part of this consultation are included in Appendix H.

With the continuing effect of the COVID-19 pandemic and associated Government restrictions, the third non-statutory public consultations were held virtually. Virtual consultation rooms for each Proposed Scheme were developed and published. Along with offering a call back facility, these rooms provided a description of each Preferred Route from start to finish with supporting maps and included information of all revisions made, if any, since the previous rounds of non-statutory public consultation as well as other supporting documents.

The consultation period remained open until the 16th of December 2020 and submissions were accepted by email, through the virtual consultation rooms or by post. All relevant information including the updated Information Brochures and the Emerging Preferred Route public consultation reports were made available on the BusConnects website (https://busconnects.ie) to view and download. In addition, landowner meetings were held over the phone and/or online, and minutes were recorded as part of the consultation process.

The Public Consultation Submissions Reports for the 2nd and 3rd Non-Statutory Public Consultation have been included in Appendix C. The next sections below summarize the content of the submissions received.

3.6.1 Ballymun to City Centre CBC

230 submissions were received in relation to the then Ballymun to City Centre CBC updated draft PRO as part of the third public consultation. A summary of the key issues raised during the third public consultation is outlined below.

1) Supportive: Some submissions were explicitly supportive, but in general most of the submissions showed agreement with the overall objective and approach of BusConnects Infrastructure Development project.
2) Transport / Public transport: Submission related to the movement of some bus stops at St. Mobhi Road.

3) Transport / Pedestrians:

   a) Requests for wider footpaths along Phibsborough Road and improved and additional pedestrian crossings.

   b) Concerns about the interaction between disabled bus users and cyclists at island bus stops.

   c) The design at St. Mobhi Road with the footpaths and cycle tracks beside each other behind the trees in the verges.

   d) Concerns for the safety of pedestrians in Connaught Street and Monck Place, due to the traffic increase that would be diverted from the Blanchardstown at Old Cabra Road.

   e) Concerns about the impact of increased traffic through Glasnevin for pedestrians.

4) Transport / Cycling:

   a) Many submissions requesting segregated cycle facilities along Phibsborough Road.

   b) Concerns about the interaction between increased traffic and parking for cyclists in Glasnevin.

   c) The design at St. Mobhi Road with the footpaths and cycle tracks beside each other behind the trees in the verges.

   d) Some comments about the junctions designs for cyclists.

   e) A few submissions with specific requests, such as requesting protected cycle lanes on Ballymun Road south of Griffith Avenue, or a continuous toucan crossing at Botanic Road at Hart's Corner, instead of a staggered crossing.

5) Transport / Traffic:

   a) Many submissions regarding traffic impact at Monck Place.

   b) Concerns about the traffic increase at Connaught Street in Phibsborough.

   c) Requests for reduced provision for motorised traffic (both general traffic and bus) rather than replacement of cycle lanes with a new bus lane along Phibsborough Road.

   d) Some of the submissions request clear and effective directional signing at Hart's Corner to divert traffic via Finglas Road instead of at Botanic Road further north.

   e) Many submissions requested the bus gate at St. Mobhi Road to operate only in peak hours. Some submissions, however, supported the idea of a full-time bus gate. In this regard, entities as Scoil Chaitríona, Scoil Mobhi, CLG Na Fianna, Rohan Cahill Dental Surgery and some residents raised concerns about their access and egress during Bus Gate hours.

   f) A few submissions questioned the reduction of one traffic lane in each direction on parts of Ballymun Road in relation to potential congestion at rush hours. On the other hand some comments asked to extend the reduction to the whole length of Ballymun Road.

   g) A few submissions questioned the proposals to remove corner slip lanes at the Northwood junction.

6) Transport / Parking:

   Parking issues were referred to in the submissions for the following locations:

   a) Glasnevin Village where there are multiple attractors and little regulation of on-street parking.

b) Phibsborough Shopping Centre: loss of a large part of the existing parking.

c) Requests for an additional loading bay along Phibsborough Road south of Doyle's Corner.

d) Park and Ride facilities in the suburbs to reduce private car traffic to the city centre.

7) General Safety: Some submissions raised concerns about the safety of pedestrians and cyclists in general due to diverted traffic onto certain streets.

8) Safety / Speed limits:

a) A group of 58 submissions from the Monck Place / Avondale Road / Great Western Square area in Phibsborough raised concerns about inappropriately high traffic speeds on residential streets.

b) Similar concerns have been noted at Connaught Street in Phibsborough and at Glasnevin Village (specifically in front of the Bon Secours hospital entrance).

9) Economy / Business: Some submissions raised potential impacts for their businesses:

a) Phibsborough Shopping Centre

b) Rothar Bike Shop on Phibsborough Road

c) Benefits to local businesses in Phibsborough generally.

10) Economy / Development: Submissions that noted impacts for future developments:

a) Phibsborough Shopping Centre

b) Dublin Airport

11) Environment / Trees: A group of submissions had concerns about the removal of existing trees along the boundary of the Na Fianna GAA Club on St. Mobhi Road.

12) Environment / Property: Submissions from the schools and sports clubs on St. Mobhi Road queried the arrangements for acquisition of land at their properties and the associated accommodation works to be provided.

13) Environment / Public Realm: These submissions sought improvements to the Public Realm in Phibsborough and in Connaught Street.

14) Social: Several submissions raised concerns about the impact for social life:

a) The impact of the dominant traffic flows for social life in Phibsborough, with a desire to enhance the sense of place for the local community.

b) Scoil Chaitríona, Scoil Mobhi and CLG Na Fianna expressed concerns about the impact of the construction phase on their activity, asking for BusConnects works to be coordinated with the Metrolink construction schedule.

15) Consultation process: Submissions that expressed dissatisfaction with the consultation process during the pandemic lockdown.

16) Transport Strategy:

a) Some submissions requested that BusConnects would not be progressed in advance of Metrolink becoming operational.

b) The Green Party proposed that the transport policy should be broadened to cater for public transport across all directions, rather than being confined to just radial routes to the city centre.

Further details on these issues are included in the Public Consultation Submissions Report for the 2nd and 3rd Non-Statutory Public Consultation in Appendix C1.

3.6.2 Finglas to Phibsborough CBC

12 submissions were received in relation to the then Finglas to Phibsborough CBC updated draft PRO as part of the third public consultation. A summary of the key issues raised during the third public consultation is outlined below.

1) Supportive: in general most of the submissions were positive about the BusConnects proposals.
2) Transport / Public transport: Submission from the Finglas South Combined Residents Association related to the location of some bus stops at Old Finglas Road and Tolka Valley Road.
3) Transport / Pedestrians:
    a) Concerns about the interaction between disabled bus users and cyclists at island bus stops.
    b) Requests for clear segregation between pedestrians and cyclists in all locations, with a preference for the cycle tracks to be located on the road side of the grass verges.
    c) Dissatisfaction with the existing maintenance of footpaths in terms of clearance of leaves where the route has many trees.
    d) One submission requested some additional pedestrian crossings at Hart's Corner.
4) Transport / Cycling:
    a) As for the pedestrian facilities requests for clear segregation between pedestrians and cyclists in all locations, with a preference for the cycle tracks to be located on the road side of the grass verges.
    b) Dublin Cycling Campaign made a general submission about cycling provisions in the junction designs.
    c) One submission suggested a cycle detour from Church Street to Finglas Place to bypass the busy junctions at Finglas Village centre.
    d) Doubts about the 2-way cycle track at Prospect Way with a request for adjustments at the western end.
5) Transport / Traffic:
    a) Challenging the whole Hart's Corner design, claiming that is unsafe and will not work for the traffic and the movements required in the area. They request a total redesign, even with additional land take
    b) Request for more tolls on the M50 to reduce traffic in the route and to enable fewer traffic lanes when entering Phibsborough from Hart's Corner.
    c) Dublin Cycling Campaign requests also a redesign at Prospect Way reducing traffic lanes.
    d) The Public Participation Network requested some extension of the Northbound bus lane on Finglas Road at Hart's Corner.

e) Access to Iona Road from Prospect Road where the residents of Prospect Road are assigned residents parking.

6) Transport / Parking:

   a) A request for Park and Ride facilities.

7) General safety: Some submissions raised concerns about safety of pedestrians and cyclists and in particular about

   a) the Hart's Corner design

   b) bus stops design

   c) pedestrian crossing at the turning lane from Prospect Road onto Finglas Road that has been already tried and removed.

8) Economy / Business:

   a) The Green Party requested loading bays to cater for local business's needs.

9) Environment / Trees:

   a) A request of one-for-one replacement of removed trees.

10) Environment / Property:

   a) The Public Participation Network expects that the proposed land take at Hart's Corner will be objected to by the affected residents (although the residents have made no such submissions).

11) Transport Strategy:

   a) The Green Party proposed that the transport policy should be broadened to cater for public transport across all directions, rather than being confined to just radial routes to the city centre.

Further details on these issues are included in the Public Consultation Submissions Report for the 2nd and 3rd Non-Statutory Public Consultation in Appendix C1.

4. The Study Area

4.1 Ballymun to City Centre CBC

The Ballymun to City Centre Bus Corridor Study Area runs from the M50 at the northern end southward to the River Liffey at the western edge of the city centre. It is centred on the axis of Ballymun Road and Phibsborough Road and extends for a width of about 3 km in the east-west direction as shown in Figure 4-1.

The study area included in the Feasibility Study & Options Assessment Report, as shown below, was generally developed to include the main trip generators between Ballymun and the City Centre. Most of the entire study area lies within the administrative area of Dublin City Council, with the most northerly 0.5 km located at the southern fringe of the Fingal County Council area.

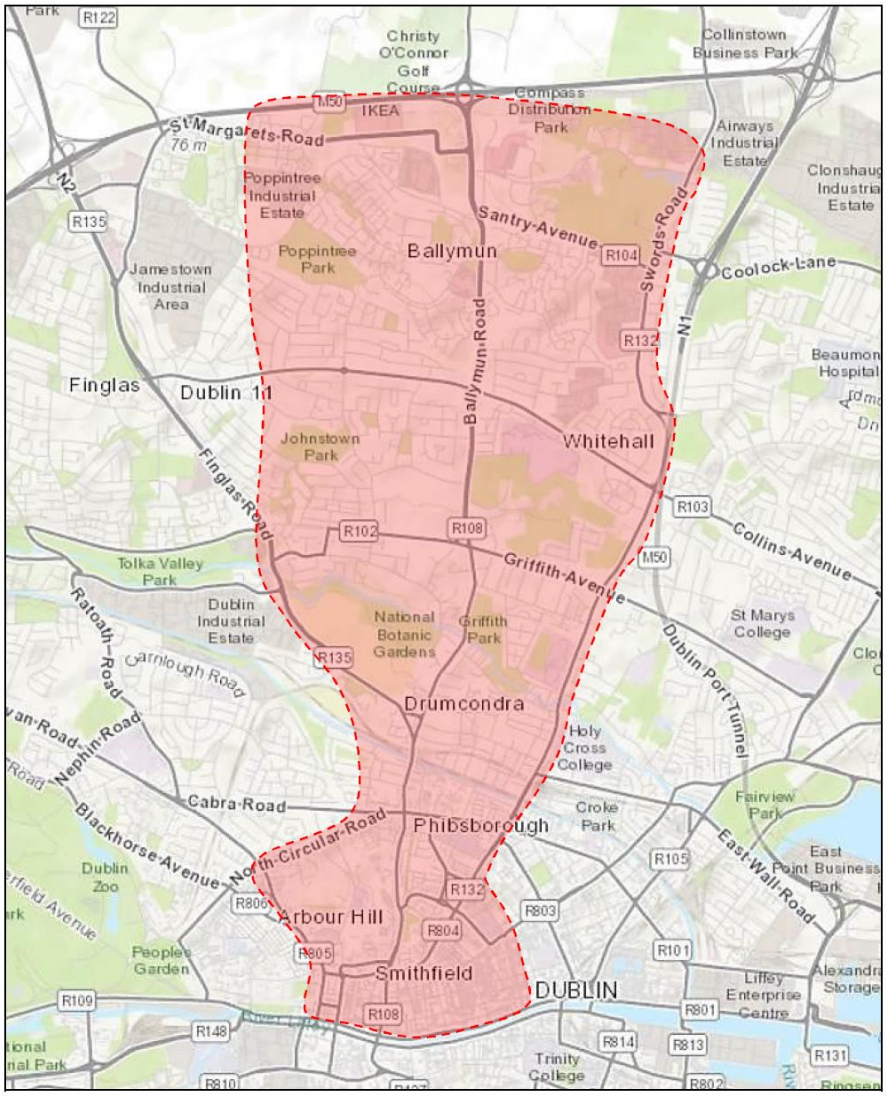

Figure 4-1 – Study Area as defined in the Feasibility Study & Options Assessment Report for the (then) Ballymun to City Centre CBC

4.2 Finglas to Phibsborough CBC

The original Finglas to Phibsborough Bus Corridor Study Area consisted of two sections extending from Tyrrelstown at the north-western end southwards over a distance of 5.5km to the edge of the M50 motorway, and from there to Phibsborough over a distance of approximately 5km. The study area included in the Feasibility Study & Options Assessment Report, as shown below, was generally developed to include the main trip generators between Tyrrelstown and Phibsborough. The study area lies within the administrative area of Fingal County Council as shown on Figure 4-2.

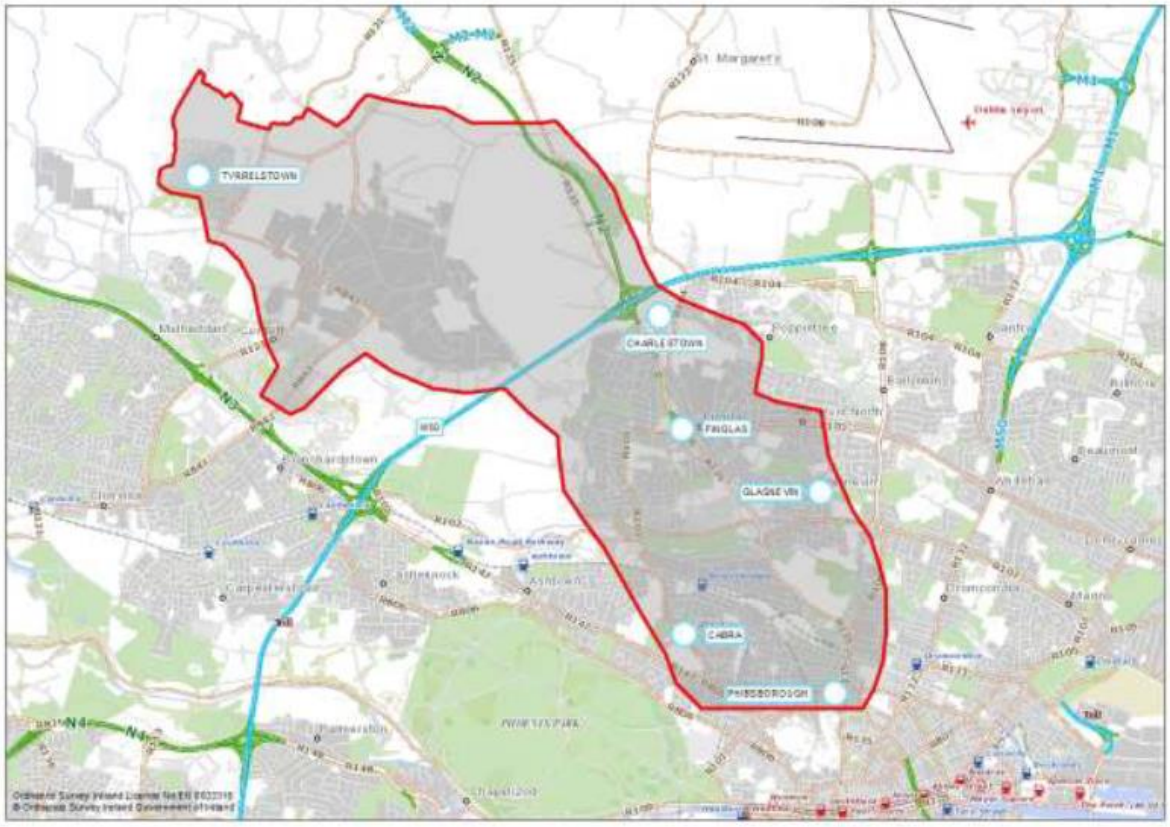

Figure 4-3 – Study Area as defined in the Feasibility Study & Options Assessment Report for the (then) Finglas to Phibsborough CBC

The proposed Core Bus Corridor from Finglas to Phibsborough is included in the BusConnects Infrastructure Works, which comprises part of Section 2 as defined in the Feasibility Study & Options Assessment Report. Section 1 of the route between Tyrrelstown to the M50, and the M50 to Finglas portion of Section 2 may be progressed at a later stage.

4.3 Physical Constraints and Opportunities

4.3.1 Physical Constraints and Opportunities on the Ballymun to City Centre CBC

There are constraints and opportunities, both natural (i.e.: existing natural environment) and physical (the built environment), which affect the potential route options for the Proposed Scheme within the defined study area including:

- Ballymun Road north of Griffith Avenue is a wide dual carriageway with existing bus lanes along Ballymun Road south of Santry Cross and hard shoulders north of there. There is sufficient space available within the existing road for the necessary improvements for the extension of the bus lanes in Section 1 and provision of cycle tracks over the full length.
- From Griffith Avenue to Hart's Corner the existing streets are much narrower single lane carriageways, and this is a very significant constraint for the provision of appropriate bus priority and segregated cycle tracks with the road boundaries.
- The River Tolka is a major constraint through the Glasnevin area in Sub-Section 2, with just two existing bridges at St. Mobhi Road and Glasnevin Hill within a 2.3km length of the river between Drumcondra to the east and the Finglas Road to the west.
- On Botanic Road south of the junction with St. Mobhi Road the available space between existing houses with small front gardens restrains the potential road widening for additional lanes.
- The Hart's Corner traffic gyratory at the southern end of Glasnevin and the northern end of Phibsborough is a considerable constraint for the provision of segregated cycle tracks within the existing narrow street width on Finglas Road.
- The crossing of the 2 railways and the Royal Canal at Phibsborough are physical constraints where the street layout is quite narrow, and widening is required to accommodate suitable and segregated facilities for all road users including public transport, pedestrians, cyclists and general traffic.
- The Proposed Scheme can integrate with other proposals for intersecting greenways along the Royal Canal at Phibsborough, and at the River Tolka in Glasnevin.
- Royal Canal Bank is a quiet street along a disused canal spur that has been infilled along the eastern edge of Phibsborough over a length of 1km south of the Royal Canal. This provides an opportunity for an off-line cycle route away from traffic on Phibsborough Road where it is not feasible to provide cycle tracks segregated from the bus lanes.
- A quiet streets network is available in the Markets Area at the southern end of the corridor which provides an opportunity for a cycle route over a length of 0.7km that is separate from busy Church Street Lower where it is not feasible to provide cycle tracks segregated from the bus lanes.
- There are opportunities for enhanced public realm at key centres along the proposed core bus corridor.

4.3.2 Physical Constraints and Opportunities along the Finglas Section

There are constraints and opportunities, both natural (i.e. existing natural environment) and physical (the built environment), which affect the potential route options for the Proposed Scheme within the defined study area including:

- Much of the route, from Mellowes Park to Glasnevin Cemetery, is surrounded by a mature landscaped screening. There is an opportunity to maintain or enhance this landscaping as part of the overall Proposed Scheme. The landscaping comprises a variety of grass areas, shrubs, and trees, and may be improved upon to provide pollinator friendly type planting.
- The road cross section at the Glasnevin Cemetery will be widened on the southern side to accommodate a northbound bus lane, thereby affecting the current parking arrangements. A new offline parking facility is proposed which will require encroachment on the large green area fronting Claremont Lawns.

Space constraints have been identified on approach to Hart's Corner where some encroachment is necessary at private gardens and Saint Vincent's Secondary School car park. The design of the proposed route will be such that the impact on such lands will be minimised as much as possible without compromising the objectives of the Proposed Scheme.

4.4 Integration with Existing and Proposed Public Transport Network

One of the key objectives of the Proposed Scheme is to enhance interchange between the various modes of public transport operating in the city and wider metropolitan area, both now and in the future. Route options within the study area have therefore been developed in so far as possible to seek to provide for improved existing or new interchange opportunities with other transport services including:

- Interface with other CBC schemes
    - Blanchardstown to City Centre CBC Scheme at Phibsborough / Stoneybatter
- Greater Dublin Area (GDA) Cycle Network Plan
- Bus network:
    - Existing bus routes – City Routes 4, 9, 11, 13, 17a, 40, 42d, 70d, 83a, 104, 140, and 155, and Regional Routes 103, 109, & 980.
    - Revised Dublin Bus Network Redesign routes – Spines E, F, C & B and routes O, N2, N4, N6, 19, 23 & 24.
- Metropolitan Light Rail – LUAS MetroLink:
    - LUAS Green Line tram service at Broadstone.
    - LUAS Red Line tram service at Chancery Street.
    - Proposed MetroLink underground rail line at 5 stations: Northwood, Ballymun, Collins Avenue, Griffith Park and Glasnevin.
    - Proposed LUAS Green Line extension at Finglas Village.
- Metropolitan heavy rail – Inter-City, Commuter and DART:
    - Future railway station at Glasnevin as part of the proposed DART+ West project that will serve rail services on the Dublin to Sligo line, including Inter-City services to Sligo, and Commuter/DART services to Maynooth and Dunboyne.

4.4.1 Existing Bus Services

The existing bus and scheduled coach routes along the proposed Core Bus Corridor are listed below:

City Routes

- 4: Harristown to Monkstown
- 9: Charlestown to Greenhills
- 11: St. Pappin Road to Sandyford Business District
- 13: Harristown to Grange Castle
- 17a: Blanchardstown to Kilbarrack
- 40: Charlestown to Liffey Valley
- 40B Parnell Street – Finglas – Toberburr
- 40D Harristown– Stannaway Avenue

- 42d: Portmarnock to DCU
- 70d: Dunboyne to DCU
- 83(a): Charlestown to Kimmage
- 104: DCU to Beaumont Hospital
- 140: Ballymun (IKEA) - St. Margaret's Road to Palmerston Park
- 155: Harristown to Bray

Regional:

- 103: Ratoath to Dublin
- 109X: Cavan to Dublin
- 980: Carrickmacross to Dublin

Figure 4-3 – Existing Bus Network – North Central Area with Proposed Scheme highlighted

4.4.2 Dublin Area Revised Bus Network

BusConnects Dublin will introduce a redesigned, higher capacity bus network which is more coherently planned and more understandable, delivering a better overall bus system for Dublin and the surrounding areas as shown in Figure 4-.

The following is a list of the different Spines & Branches, Orbital Routes, Radial Routes and Local Routes that interact with the Proposed Scheme

- Spines & Branches

  E-SPINE Ballymun - City Centre - Kimmage

  - E1 Northwood - City Centre – Stillorgan - Dun Laoghaire
  - E2 Charlestown - City Centre – Bray

  F Spine at Phibsborough.

  C & B-SPINES along the River Liffey at the southern end

- Orbital Routes
  - N6 at Santry Cross near the northern end.
  - N4 at Collins Avenue.
  - N2 at Griffith Avenue.
  - O at North Circular Road (Doyle's Corner) in Phibsborough.
- Radial Routes
  - 19: Dublin Airport – Ballymun – Drumcondra – City Centre (Parnell Square)
  - 23: Charlestown – Phibsborough – City Centre (Merrion Square)
  - 24: Dublin Airport Charlestown – Phibsborough – City Centre (Merrion Square)

Figure 4-4 – Revised Bus Network – North Central Area. Ballymun/Finglas to City Centre CBC Proposed Scheme highlighted

4.5 Compatibility with Other Road Users

A key objective of the Proposed Scheme is to improve pedestrian and cyclist facilities along the route. In general, segregated facilities should be proposed for these modes.

Pedestrian Facilities

For pedestrians it is proposed where practicable to simplify and shorten the road crossings at major junctions, which can be a barrier to mobility. The design development has also undertaken an audit of the public realm for pedestrians so that necessary improvements can be undertaken through application of *Universal Design* principles to ensure that barriers to mobility are removed for people with mobility and visual impairments.

Cycle Routes

Figures 4-5 and 4-6 are extracts from GDA Cycle Network Plan and shows the different interfaces of proposed cycle routes along the corridor of the proposed Ballymun / Finglas to City Centre CBC. Stub cycle tracks have been provided at the majority of interfaces that adjoin the Proposed Scheme.

Figure 4-5 – GDA Cycle Network Plan for Central & North Dublin

Figure 4-6 – GDA Cycle Network Plan for Central with the proposed route (highlighted in yellow)

The proposed core bus corridor will include the following sections of the GDA Cycle Network Plan:

- Primary Route 3A from Ballymun to Hart's Corner north of Phibsborough
- Primary Route 3B from Finglas Village to Hart's Corner
- Primary Route 3 from Hart's Corner to the Royal Canal and then east of Phibsborough along Royal Canal Bank to Geraldine Street, from where it turns east towards the city centre.
- Cross -City Rout C6 along the western edge of the city centre from Royal Canal Bank southwards through the Markets Area.

Other cycle routes intersect the proposed CBC at the following locations from south to north:

- Primary Route 5 along the River Liffey at the southern end on Ormond Quay.
- Primary Radial Route 4 from the Navan Road intersects the route at Broadstone / Constitution Hill.
- Secondary Orbital Route NO1 / Cross-City Route C8 at the North Circular Road.
- *Royal Canal Greenway* from Galway to Dublin at Phibsborough.
- NO2 *River Tolka Greenway* at Glasnevin (St. Mobhi Road) and at Finglas Road.
- Secondary Orbital Route NO3 at Griffith Avenue and at Old Finglas Road.
- Primary Orbital Route NO4 at Collins Avenue / Glasnevin Avenue and at Mellowes Road.

- Secondary Orbital Route NO5 at Santry Avenue.
- *River Santry Greenway* at Northwood.

5. Review of the Previous Feasibility Study & Options Assessment Reports

5.1 Introduction

Following a comprehensive review of the potential route options within the study area a 2-stage assessment process was used to narrow down the number of routes available to one optimal route per study area. These routes then converged to form the overall EPR which was presented at public consultation for information and feedback.

As part of the consultation process the preparation of the Feasibility Study & Options Assessment Reports served to give the public a greater insight to how the process took place in addition to providing a transparency to the process of elimination used to determine the optimal route, given the information available and best engineering judgement.

From a review of submissions received as part of the public consultation process, as well as a review of the topographical survey carried out since the EPR Option's publication, a number of issues were identified which could be overcome through the implementation of alternative design solutions. These issues are described in the following sections.

5.2 Assessment Methodology

The first step in the assessment process was to review the feasibility and options reports. The development of the Emerging Preferred Option during the feasibility and options stage was carried out in 2 stages. The first stage was a high-level route options assessment or 'sifting' process which appraised several potentially viable route options in terms of their ability to achieve the project objectives. The second stage of the option assessment is a comparison of each viable scheme option for each of the study area sections using a multi-Criteria Analysis to determine the Emerging Preferred Route.

This additional assessment does not supersede work undertaken during earlier stages but complements it and responds to issues raised by the public during the non-statutory public consultation process or issues identified by additional information available to the Design Team.

5.2.1 Stage 1 – Route Options Assessment – Sifting Stage

A 'spider's web' of route options was produced that would accommodate the objectives of the Proposed Scheme for each study area as shown in Figure 5-1 for part of the Ballymun to City Centre CBC of the Proposed Scheme as an example.

As part of the sifting stage each of the route options were assessed using a high level qualitive method, based on professional judgement and general appreciation for existing constraints and conditions within the study area that could be ascertained from available surveys and site visits.

This exercise screened and assessed technically feasible route options, based on distinct, project specific objectives. In addition to being assessed on their individual merits, routes were also screened relative to each other allowing some routes to be ruled out if more suitable alternatives existed.

This assessment stage focused on engineering constraints together with a desktop study, identifying high level environmental constraints and population catchment analysis.

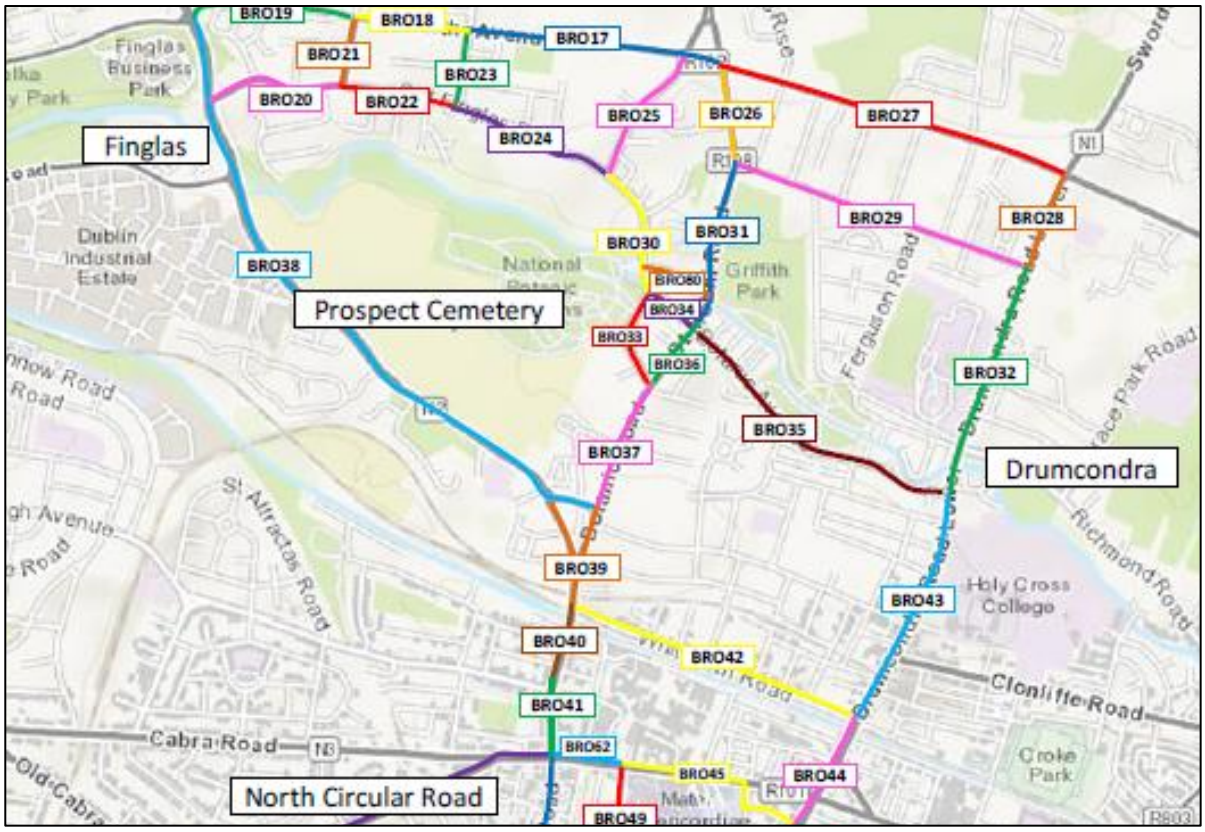

Figure 5-1 – Example Spider's Web Assessment for Section 2 from Feasibility Study and Options Assessment Report

5.2.2 Stage 2 – Route Options Assessment – Detailed Assessment

Following completion of Stage 1, the remaining potentially viable options were progressed to Stage 2 of the assessment process. This process involved a more detailed qualitative and quantitative assessment using criteria established to compare the route options.

The indicative Proposed Scheme for each route option was then progressed to a multi-criteria assessment. The 'Common Appraisal Framework for Transport Projects and Programmes published by the Department of Transport, Tourism and Sport (DTTAS), March 2016, requires Proposed Schemes to undergo a 'Multi-Criteria Analysis' (MCA) under the following criteria.

- Economy.
- Integration.
- Accessibility and Social Inclusion.
- Safety.
- Environment; and
- Physical Activity.

Physical Activity was scoped out of the multi-criteria assessment at this stage. As all route options carried forward, promote physical activity equally it is not considered to be a key differentiator between route options.

Table 5-1 presents a summary of the assessment criteria and sub-criteria used as part of the route options assessment process.

Table 5-1: Assessment Criteria

Assessment Criteria	Assessment Sub-Criteria
Economy	1.a. Capital Cost
	1.b. Journey-time Reliability and Consistency
Integration	2.a. Land Use Integration
	2.b. Residential Population and Employment Catchments
	2.c. Public Transport Network Integration
	2.d. Traffic Network Integration
	2.e. Cyclists and Pedestrian Integration
Accessibility and Social Inclusion	3.a. High Volume Trip Attractors
	3.b. Deprived Geographic Areas
Safety	4. Road Safety
Environment	5.a. Archaeological, Architectural and Cultural Heritage
	5.b. Flora and Fauna
	5.c. Soils and Geology
	5.d. Hydrology
	5.e. Landscape and visual
	5.f. Noise, Vibration and Air Quality
	5.g. Land Use and the Built Environment

(Note: In the previous Feasibility Study and Options Assessment Reports there were two sub-criteria for Safety, but these have been merged to provide a global assessment of Safety for all road users including pedestrians, cyclists, and motorised traffic. Under Environment Architectural Heritage has been included in a combined sub-criterion along with Archaeology and Cultural Heritage, and Air Quality has been combined with Noise and Vibration).

Options were compared based on a five-point scale, ranging from having significant advantages to having significant disadvantages over other route options. Table 5.2 shows the colour coding of the five-point scale, with advantageous routes graded “dark green” and disadvantageous routes graded “red.

Table 5-2: Assessment Ranking

Assessment Ranking	Description
	Significant advantages over the other options
	Some advantages over the other options
	Neutral compared to other options
	Some disadvantages over other options
	Significant disadvantages compared to other options

Where the design has undergone a change in respect of infrastructure provision or route choice, this has been recorded and explained. An MCA has been undertaken which assessed the newly developed and designed solutions against the EPR Option from the ‘Ballymun to City Centre Core Bus Corridor

Options Study – Feasibility and Options Assessment' and the 'Finglas to Phibsborough Bus Corridor – Route Options Assessment'. Where the design has undergone more general updates and enhancements, as expected during design development, these have not been subject to a new MCA.

5.3 Emerging Preferred Route Option Summary –Ballymun to City Centre CBC

5.3.1 EPR Option for Ballymun to City Centre CBC

The Emerging Preferred Route for the Ballymun to City Centre CBC is shown in Figure 5-2 below with three sections defined for consideration in further review.

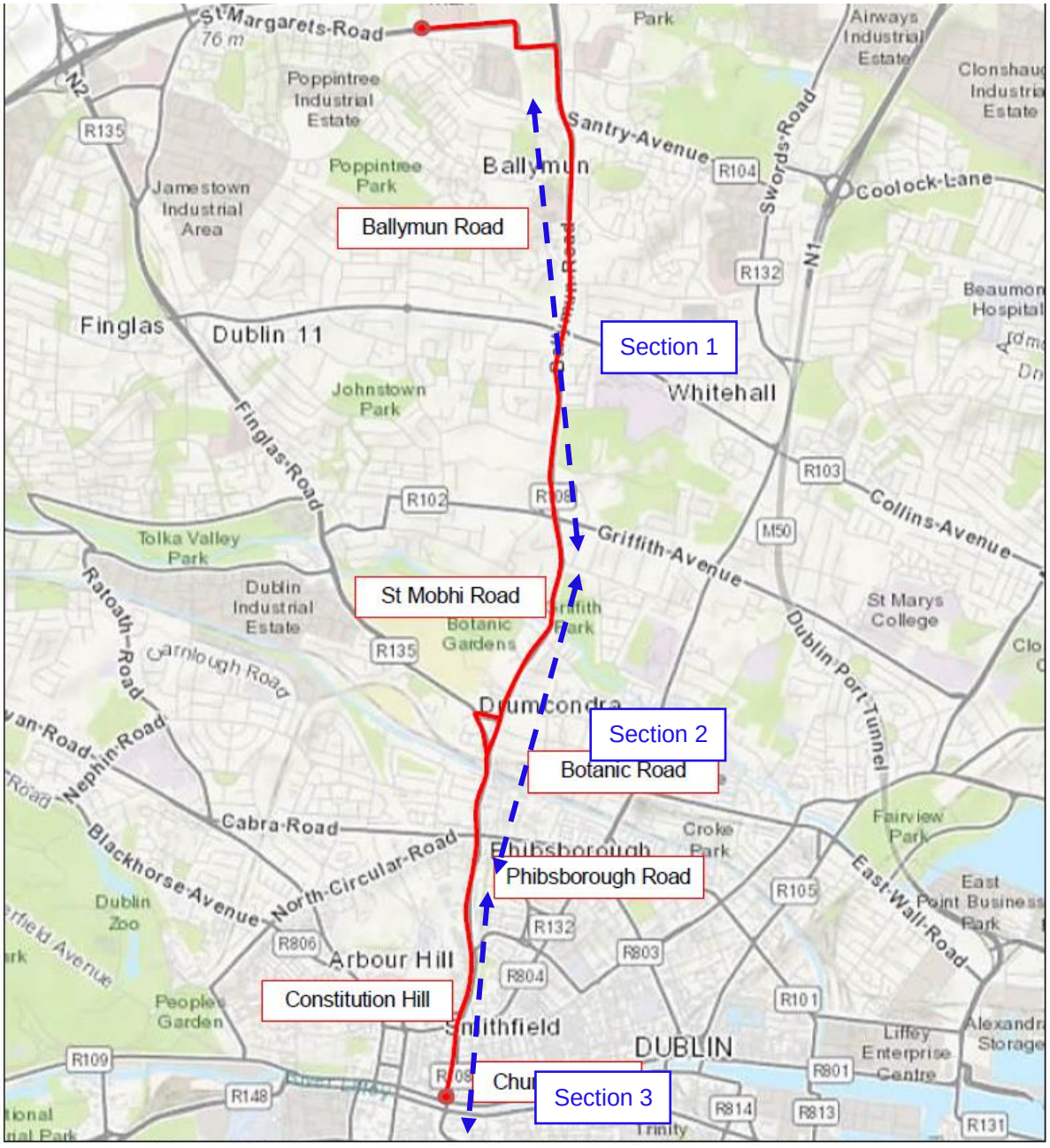

Figure 5-2 –Ballymun to City Centre CBC Emerging Preferred Route [Google Maps]

5.3.2 Ballymun to City Centre CBC Route Options Identified for Review

After the assessment process, it is considered that the options assessment presented in the "Ballymun to City Centre Core Bus Corridor Feasibility Study and Options Assessment Report" has appropriately assessed route options and that the selected corridor offers the most benefits for pedestrians, cyclists and buses, and the extents appropriately consider the infrastructure requirements of the new proposed bus network. However, upon review of the topographical survey and public consultation submissions, a number of issues were identified that could potentially be addressed through the consideration of alternative options along this route section.

Following a thorough review of the Feasibility Study and Options Assessment report, submissions to the non-statutory public consultation and topographical survey subsequently undertaken, a number of areas were identified as requiring further review, and alternative design solutions have therefore been explored in this area in determining a PRO. These are summarized in the following sections. Further details are presented in Chapter 6.

5.3.2.1 Review of Section 1 – St. Margaret's Road to Griffith Avenue

The EPR proposal for this sub-section commenced at the Santry Cross junction at the northern end. Since bus services continue further north along Ballymun Road it was decided in the PRO to extend the core bus corridor another 0.5km further north to the junction of Ballymun Road and St. Margaret's Road, which would benefit the bus services to a greater degree.

Opportunities were identified for improvements or modifications to the design proposals for the following locations:

- On Ballymun Main Street between Shangan Road and Gateway Crescent where existing part-time on-street parking curtails the operational times of the bus lanes and had been proposed to be removed in the EPR.
- On Ballymun Road between Collins Avenue and St. Pappin Road where unauthorised on-street parking close to a primary school tends to block the cycle lane and to impede the bus lane.
- The Griffith Avenue traffic gyratory system where a southbound bus lane is proposed on the eastern side and there is a significant conflict between straight ahead buses and cyclists with a high volume of left-turning general traffic.

5.3.2.2 Review of Section 2 – Griffith Avenue to Phibsborough

Based on the public consultation submissions received, the section from Griffith Avenue and Phibsborough was identified as requiring further review in the following locations and for the following issues and opportunities:

- Along St. Mobhi Road to confirm which of the two options published in the EPR is preferred for the most suitable Bus Priority provisions and to reduce the impact for street trees.
- Alternative options to avoid the removal of a small amount of on-street parking on St. Mobhi Road.
- Mitigation measures to address the impacts on the alternative traffic diversion route at Glasnevin if a bus gate were provided on St. Mobhi Road.
- Options for bus and cycling facilities on Botanic Road and Prospect Road.
- Options for improved cycling facilities at Hart's Corner.

5.3.2.3 Review of Section 3 – Phibsborough to Ormond Quay

No requirement was identified for amendments to this section of the Proposed Scheme on foot of the public consultation feedback. However an opportunity was identified for improvements or modifications to the design proposals for:

- Options for bus priority and cycling facilities along Phibsborough Road.
- Provision for pedestrians at Cross Guns Bridge over the Royal Canal.
- Options at the quiet street cycle route on Royal Canal Bank at the crossing of North Circular Road.
- A quiet street cycle route in the Markets Area from Constitution Hill to Ormond Quay.

5.4 Emerging Preferred Route Option Summary – Finglas to Phibsborough CBC

5.4.1 EPR Option for Finglas to Phibsborough CBC

The Preferred Route Option for this section is shown in Figure 5-3 highlighted in the pink rectangle.

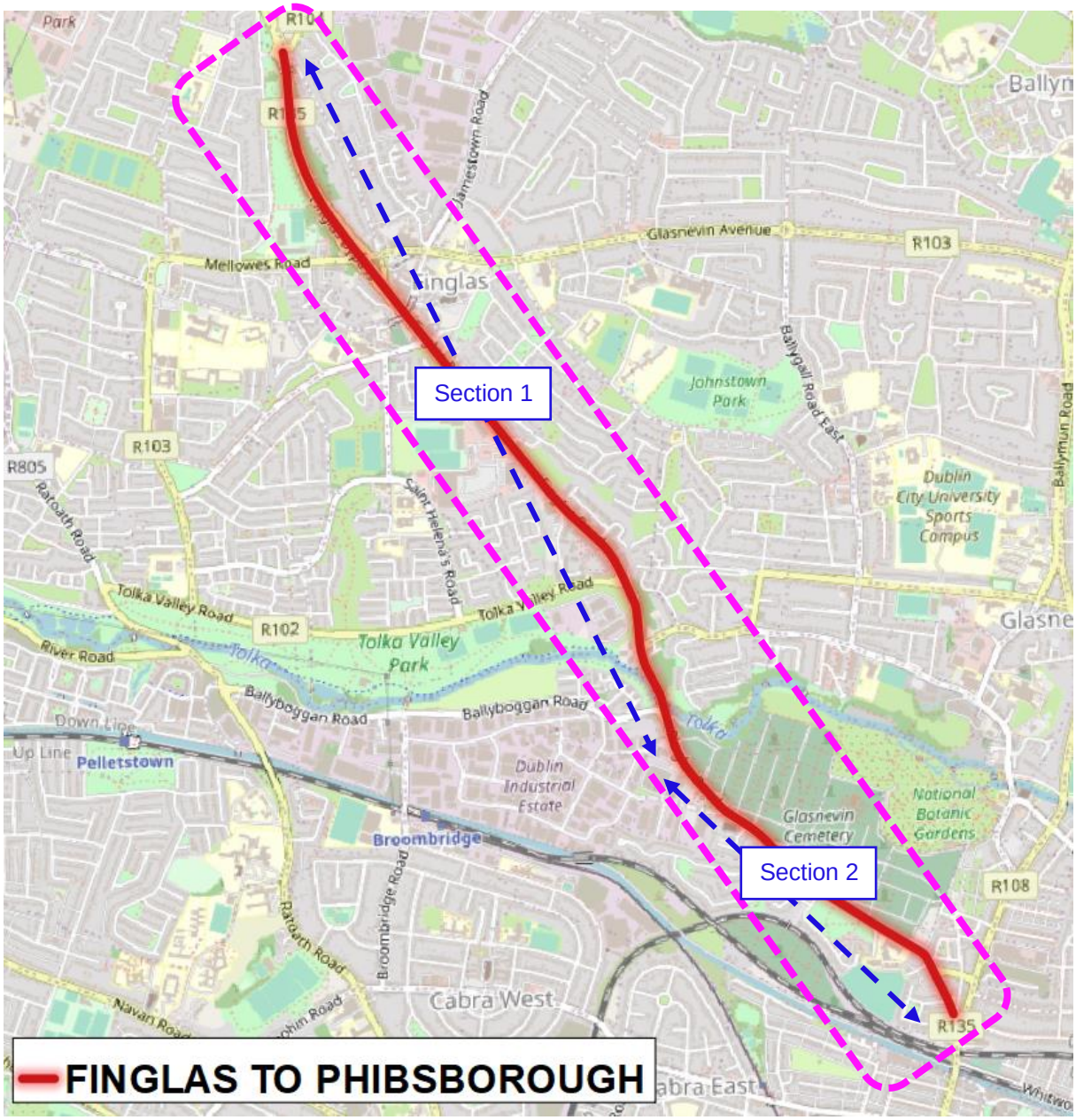

Figure 5-3 – Finglas to Phibsborough CBC Emerging Preferred Route

5.4.2 Finglas to Phibsborough CBC Route Options Identified for Review

After the assessment process, it is considered that the options assessment presented in the "Finglas – Phibsborough Core Bus Corridor Feasibility Study and Options Assessment: Report" has appropriately assessed route options and that the selected corridor offers the most benefits for pedestrians, cyclists and buses, and the extents appropriately consider the infrastructure requirements of the new proposed

bus network. However, upon review of the topographical survey and public consultation submissions, a number of issues were identified that could potentially be addressed through the consideration of alternative options along this route section.

Following a thorough review of the Feasibility Study and Options Assessment report, submissions to the non-statutory public consultation and topographical survey subsequently undertaken, a number of areas were identified as requiring further review, and alternative design solutions have therefore been explored in this area in determining a PRO. These are summarized in the following sections. Further details are presented in Chapter 6.

5.4.2.1 Review of Section 4 – St. Margaret's Road to Slaney Road

Based on the public consultation submissions received, the section from Griffith Avenue and Phibsborough was identified as requiring further review in the following locations and for the following issues and opportunities:

- Provision of a northbound bus lane on Finglas Road between Mellowes Road and the St. Margaret's Road junction.
- Options to avoid the need to remove on-street trees for provision of cycle tacks.
- Extension of the northbound cycle track along Finglas Road from Church Street to Mellowes Road.

5.4.2.2 Review of Section 5 – Slaney Road to Hart's Corner

Based on the public consultation submissions received, the section from Griffith Avenue and Phibsborough was identified as requiring further review in the following locations and for the following issues and opportunities:

- Replacement of the existing on-street parking in Finglas Road opposite Glasnevin Cemetery.
- Options to reduce the need for road widening into the gardens of houses along the southern end Finglas Road approaching Hart's Corner.

5.5 Carbon Considerations for the Route Options

In the case of the Proposed Scheme, carbon arises from the three potential sources namely User Carbon, Capital Carbon and Operational Carbon.

- User Carbon is produced by cars, light and heavy goods vehicles and buses. The majority of the current bus fleet is combustion engine based but a programme to transition the fleet to electric vehicles is in place. The Climate Action Plan 2021 outlines a range of targets for the electrification of private and public service vehicles in the medium term,
- Capital Carbon is produced by road construction and is a necessary investment to reconfigure the roadway infrastructure to facilitate a shift to sustainable modes for the safe, efficient and reliable movement of people. The Proposed Scheme is designed to put the infrastructure in place to facilitate a long-term User Carbon footprint reduction; and
- The Operational Carbon arises from the operations along the route such as junction signals, street lighting and routine maintenance.

The Proposed Scheme will start with an increase in carbon (capital carbon) from the construction activities: a necessary investment to achieve the long-term de-carbonisation outcomes by facilitating the following Proposed Scheme objectives:

- Enhance the capacity and potential of the public transport system by improving bus speeds, reliability, and punctuality through the provision of bus lanes and other measures to provide priority to bus movement over general traffic movements; and
- Support the delivery of an efficient, low carbon and climate resilient public transport service, which supports the achievement of Ireland's emission reduction targets.

The impacts of construction capital carbon were initially considered as part of the route options assessment process. Ultimately the capital carbon elements for the Proposed Scheme will be less than that of the user carbon footprint and as such it was not considered to be a reasonable differentiator for the purposes of route options assessment. Although carbon was not directly assessed for the route options, each route option was assessed using a range of environmental factors including Noise and Air Quality which reflect similar contributory elements (i.e. construction and operational stage impacts) to that for carbon emissions.

Furthermore, the development of the preferred route option supports enhanced bus capacity and public transport potential in line with the objectives, which would contribute to reductions in user carbon and contribute towards the 500,000 additional trips by public transport by 2030 outlined as a target in the Climate Action Plan 2021.

In developing the PRO, consideration was given to the carbon generated by the Proposed Scheme during construction and operation. Many of the changes made to the Proposed Scheme design since the EPR proposal have resulted in minor changes in the construction carbon generated by the Proposed Scheme such as reducing lane widths to 3m, the altering of junction layouts, cycle tracks and footpaths. Additionally, significant design iterations were undertaken to mitigate against traffic re-distribution impacts and consequent impacts on greenhouse gas (GHG) emissions.

The preferred route proposals will improve bus journey times and reliability, which will contribute to achieving reductions in user carbon through an efficient public transport service. This would in turn make the existing bus services more attractive to existing road users and thereby encourage mode change from private car-based transport to more sustainable public transport commuting.

Construction carbon has been considered and assessed as part of the evolving Proposed Scheme design and the preparation of the supporting Environmental Impact Assessment Report (EIAR) documentation.

6. Options Assessment

6.1 Ballymun Section Options Assessment

During 2019 and 2020, a full review was undertaken of the previous design proposals as published for the Emerging Preferred Route. This review was informed by additional technical information and the feedback received from the non-statutory public consultations.

The options assessment for this Section is arranged as follows:

Section 1 – St. Margaret's Road to Griffith Avenue: 3 km long (in pink on Figure 6-1).

Section 2 – Griffith Avenue to Phibsborough (Royal Canal): 1.6 km long (in blue on Figure 6-1).

Section 3 – Phibsborough (Royal Canal) to Ormond Quay: 2.1 km long (in green on Figure 6-1).

Note: The southern extent of Section 2 was moved a short distance north from Doyle's Corner to the Royal Canal so as to include the full length of Phibsborough Road in Section 3 as the issues under consideration are common along the full length of that street.

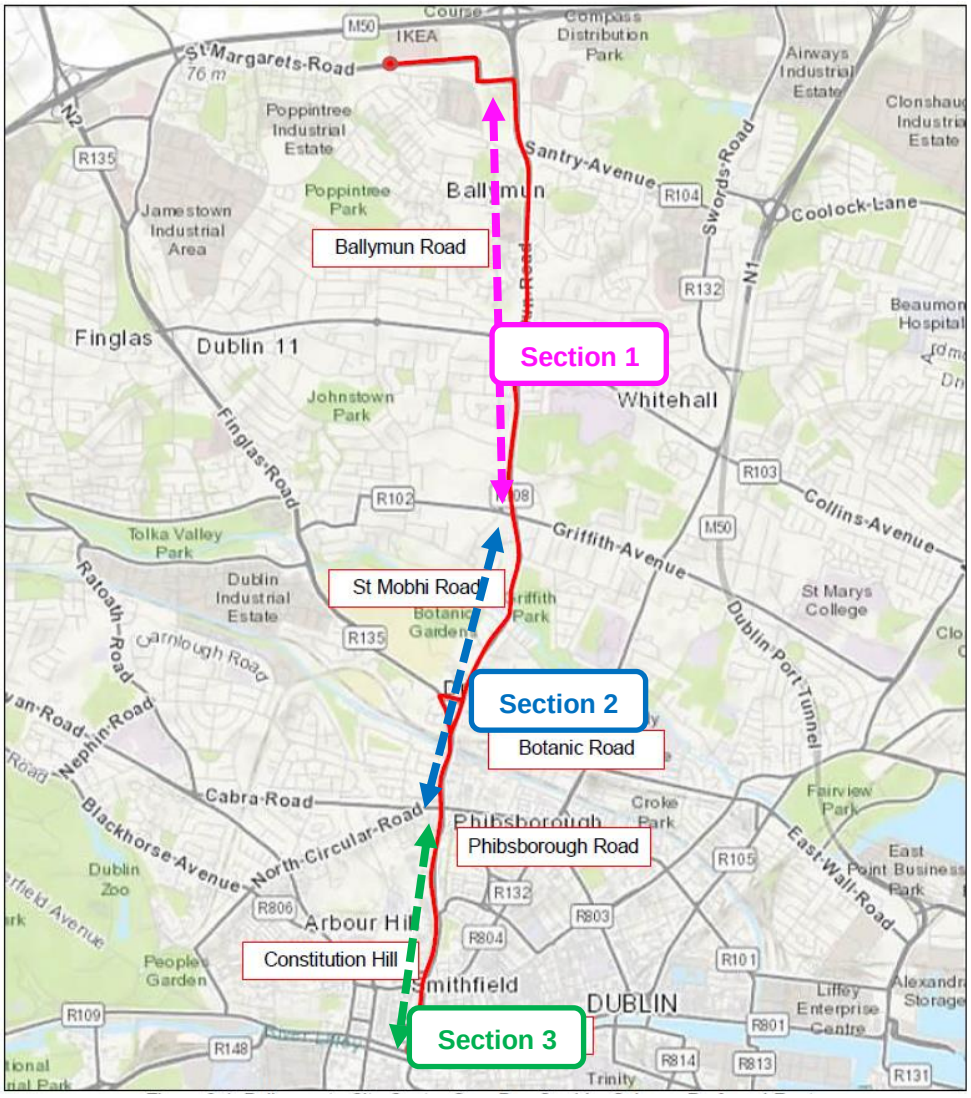

Figure 6-1 – Route Sections for Review

6.1.1 Section 1 – St. Margaret's Road to Griffith Avenue

Opportunities were identified for improvements or modifications to the design proposals for the following sub-sections:

a) Sub-Section1A St. Margaret's Road to Shangan Road

b) Sub-Section 1B: Ballymun Main Street between Shangan Road and Gateway Crescent.

c) Sub-Section 1C: Ballymun Road between Collins Avenue and St. Pappin Road.

d) Sub-Section 1D The Griffith Avenue traffic gyratory system.

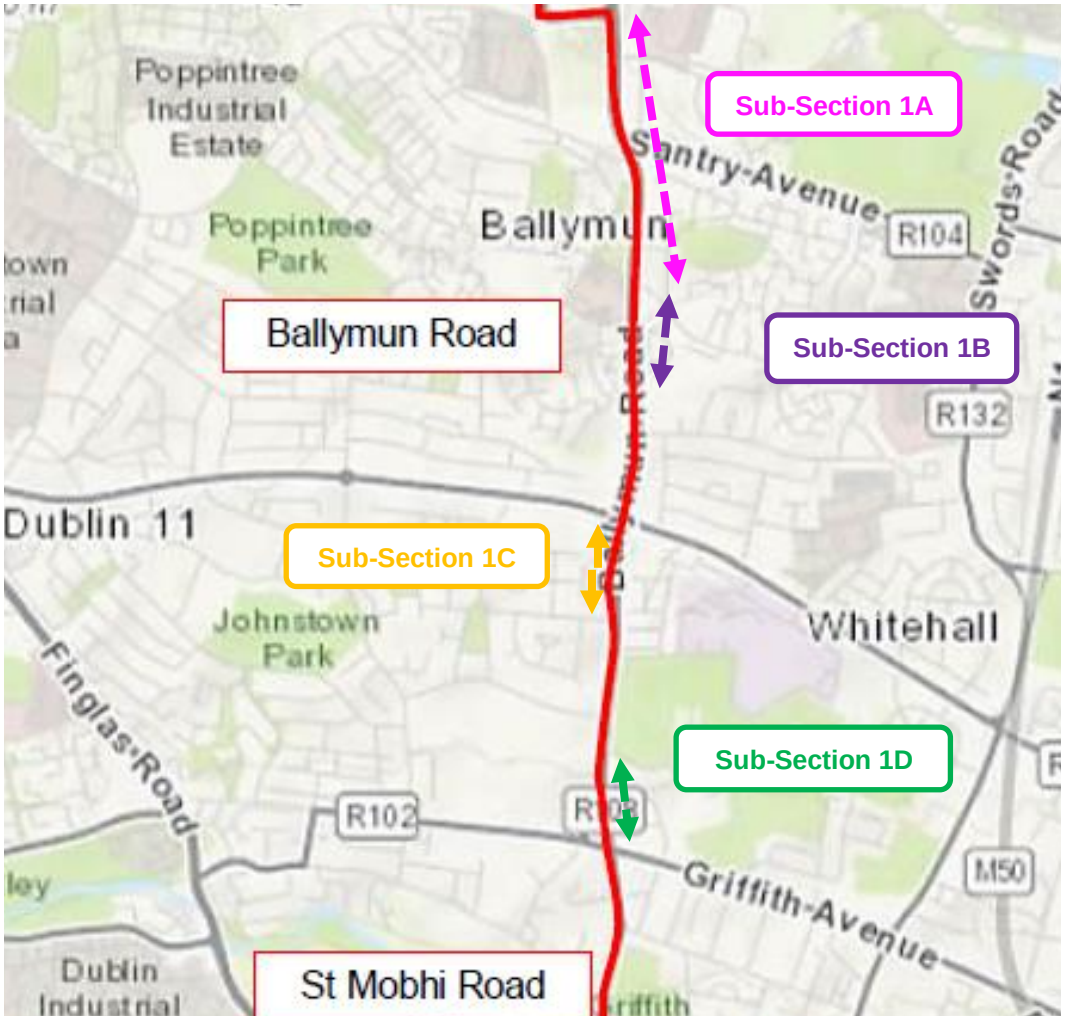

Figure 6-2 – Sub-Sections in Section 1

6.1.1.1 Sub-Section 1A – St. Margaret's Road to Shangan Road

The Study Area Analysis and MCA for the previously proposed feasible route options for Section 1A outlined in the Options and Feasibility Report have been evaluated by the design team and are considered still to be valid.

The EPR proposal for this sub-section has been extended from the Santry Cross junction at the northern end for another 0.5km further north to the junction of Ballymun Road and St. Margaret's Road, which

would benefit the bus services to a greater degree. The main elements of this corridor extension involve conversion of the existing hard shoulders to bus lanes and upgrades at two additional junctions at Northwood Avenue and St. Margaret's Road.

South of Santry Cross the EPR proposal involved retention of the existing bus lane and two lanes of general traffic in both directions. It was proposed to undertake upgrade works to provide segregated cycle tracks and bus stops. No further options were considered in this sub-section.

6.1.1.2 Sub-Section 1B: - Ballymun Main Street between Shangan Road and Gateway Crescent

For Sub-Section 1B the EPR proposal involved retention of the existing bus lane and two lanes of general traffic in both directions. It was proposed to undertake upgrade works to provide segregated cycle tracks and bus stops. To facilitate this layout it was proposed to remove the existing part-time parking spaces located on Ballymun Main Street.

In review of the EPR proposals for this subsection an opportunity was identified to enhance the public realm of Ballymun Main Street and to reduce the area of the street devoted to traffic movements. . Along Ballymun Main Street there is a cluster of frontage activity that generate requirements for parking and loading. Part-time pay and display parking is permitted on the western side, with 17 spaces (including 2 wheelchair spaces at the northern end). The accommodation of the parking is at the expense of limitations for the public transport and cycling facilities on this section. A key objective for the Proposed Scheme is to enhance the capacity and potential of the public transport system by improving bus speeds, reliability and punctuality through the provision of bus lanes and other measures to provide priority to bus movement over general traffic movements, and to enhance the potential for cycling by providing safe infrastructure for cycling segregated from general traffic wherever practicable. To provide continuous full-time bus lanes and cycle tracks along Ballymun Main Street is not compatible with the retention of the existing part-time parking arrangements. In addition, current unregulated parking activity on the western side of the street causes blockage to the bus lane and cycle track.

Figure 6-3 – Frontage and Parking on Ballymun Main Street East

Figure 6-4 – Ballymun Main Street West

A key objective of the Ballymun Regeneration project over the past 3 decades has been to develop a "vibrant" main street at the heart of the town centre. There is a good range of commercial and civic activity focused along the main street.

The EPR proposed section along Ballymun Main Street is 1 cycle lane + 1 bus lane + 2 traffic lanes per direction, with retention of the existing median. This is called Option A in the Options Assessment in Table 6.1.1.1.

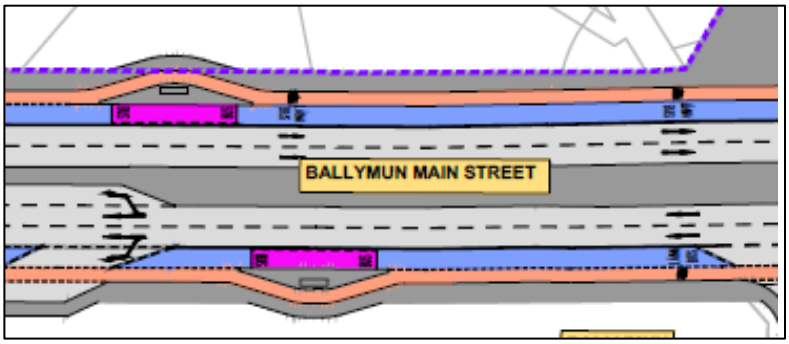

Figure 6-5 – EPR (Option A) Plan layout on Ballymun Main Street

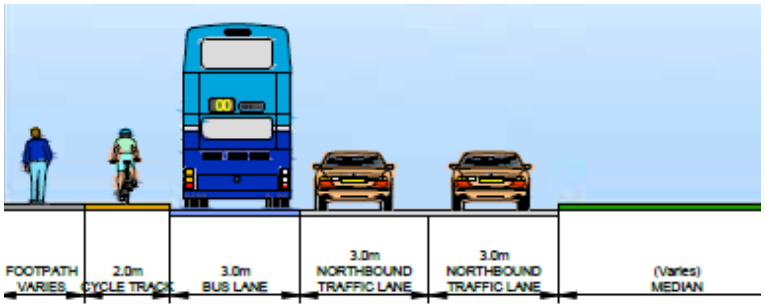

Figure 6-6 – EPR (Option A) Typical Cross-Section on Ballymun Main Street (one carriageway of the two)

The EPR proposals to provide full-time bus lanes and cycle tracks through Ballymun Main Street would entail removal of the existing 17 pay and display parking spaces on the eastern side of the street, and restriction of informal parking at other times on the western side of the street. There is a limited supply of alternative public on-street car parking in Ballymun town centre within 100m of Main Street with 65 spaces in total. Removal of the existing parking on Ballymun Main Street would reduce the available

local supply by 26%. So long as the Proposed Scheme objectives for bus and cycling can be achieved, It would be desirable to also retain the existing on-street parking along Ballymun Main Street, and to increase the number of spaces and the hours of operation to support, and possibly enhance, the continued vibrancy of the town centre. The traffic volume along Ballymun Road does not require two traffic lanes for capacity reasons away from the major junctions. In this context one of the two traffic lanes may be removed between the Shangan Road and Gateway Crescent junctions to accommodate parking bays in Ballymun Main Street without adversely affecting traffic flows while allocating the necessary space for full-time bus lanes and cycle tracks. This Option B for Ballymun Main Street is shown in Figure 6-7.

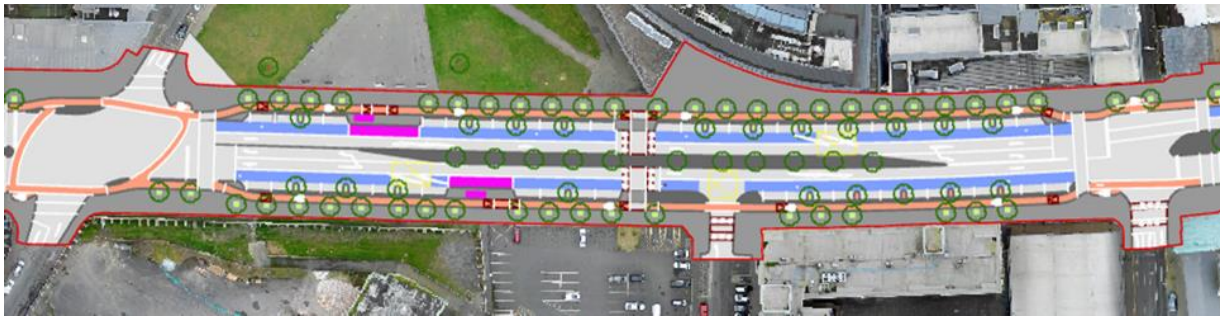

Figure 6-7 – Option B to Reduce One Traffic Lane per Direction and Provide Parking Bays

The cross-section for Option B on Ballymun Main Street is shown in Figure 6-8. Additional street trees can also be provided along the edges of the street between pairs of parking spaces to provide a significant visual enhancement to the urban landscape.

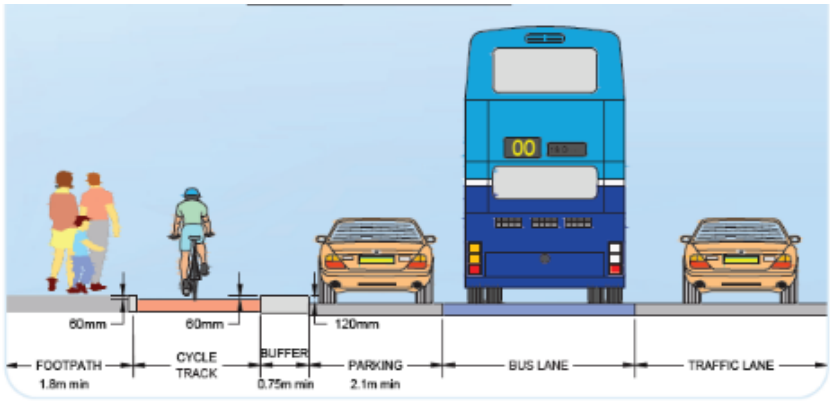

Figure 6-8 – Ballymun Main Street Option B Cross-Section with Parking between Bus Lane and Cycle Track (one side of the street, with the same on the other side of the median island)

In Table 6.1.1.1 following, the alternative option for Ballymun Main Street with the road narrowed to facilitate parking and improved public realm is assessed. In the table:

- Option A: EPR section: 1 cycle lane + 1 bus lane + 2 traffic lanes per direction
- Option B: Proposed section: 1 Cycle lane + 1 Parking lane + 1 Bus lane + 1 Traffic lane

Table 6.1.1.1 – Evaluation of Options for Sub-Section 1B

Ballymun Main Street between Shangan Road and Gateway Crescent

Appraisal Criteria	Option A (EPR) 2 Traffic Lanes	Option B 1 Traffic Lane + Parking
Economy		
Capital Cost		
Journey Time Reliability (Bus)		
Integration		
Integration with Land-Use policy		
Residential Population and Employment Catchments		
Public Transport Network		
Cycle Network		
Traffic Network		
Accessibility & Social Inclusion		
Key Trip Attractors within Catchment		
Deprived Geographic Areas		
Safety		
Environment		
Archaeology & Cultural Heritage		
Flora & Fauna		
Soils & Geology		
Hydrology		
Landscape & Visual		
Air & Noise		
Land Use and the Built Environment		
Preference	**2**	**1**

Option B involves slightly greater cost than Option A for the additional work to provide build-outs into the road to create the parking bays. Both options provide bus lanes and are equal for bus journey reliability. Option A is therefore ranked first for Economy

Under Integration Option B is ranked highest as it provides segregation of cyclists from parking, shorter road crossings for pedestrians, and improvement for the overall vitality of Ballymun town centre in terms of commercial, social and civic activities.

For Accessibility and Social Inclusion and for Safety both options are ranked the same.

Under Environment Option B is ranked first as it would considerably enhance the street space visually by reducing the width of the traffic areas and providing more street trees. The assessment concluded that the preferred option in Sub-Section 1B is Option B to reduce the street to a single traffic lane in each direction and provide additional on-street parking.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in Table 6.1.1.2.

Table 6.1.1.2 – Sub-Section 1B, MCA Summary

Appraisal Criteria	Option A (EPR)	Option B
Economy		
Integration		
Accessibility & Social Inclusion		
Safety		
Environment		

6.1.1.3 Sub-Section 1C – Ballymun Road between Collins Avenue and St. Pappin Road.

Between Collins Avenue and St. Pappin Road in the EPR it was proposed to maintain the current bus lane and two general traffic lanes in both directions, and it was proposed to upgrade the cycle facilities to segregated cycle tracks.

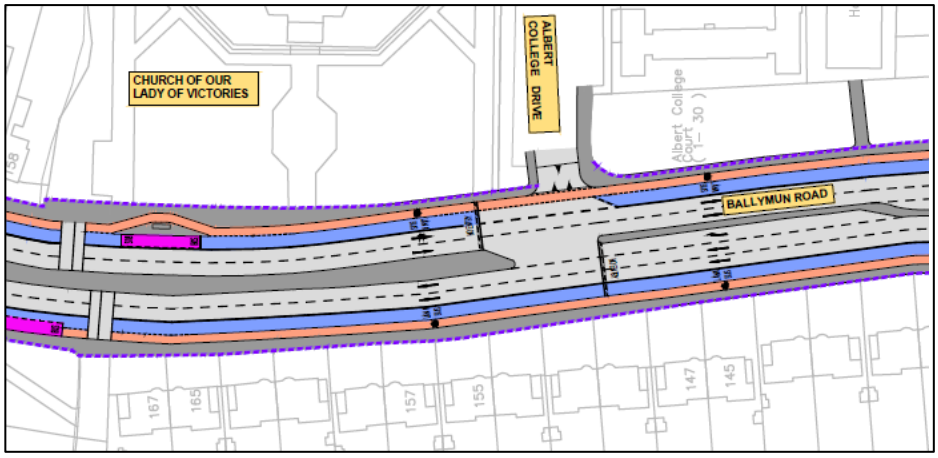

Figure 6-9 – EPR (Option A) Plan layout on Ballymun Road

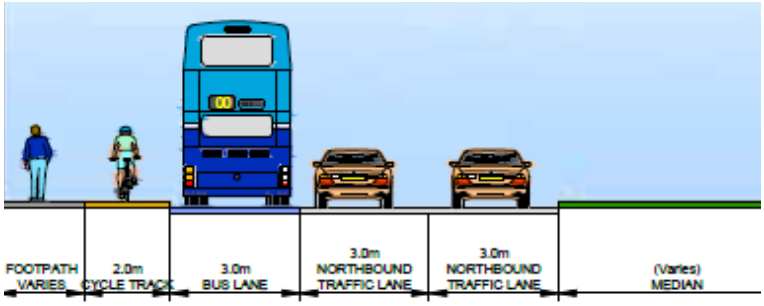

Figure 6-10 – EPR (Option A) Cross-Section on Ballymun Road (Northbound Carriageway)

South of Collins Avenue junction there is parking and stopping activity at various times on the western side of the road associated with Our Lady of Victories National School on the western side, across the road from the church of the same name. There is no vehicular drop-off zone at the school which gives rise to disorganised on-street parking at school collection times, shown as a dashed yellow line on the

aerial photograph below. This blocks the northbound cycle lane over a length of 200m or so, as well as partially encroaching into the bus lane as shown in the following photographs.

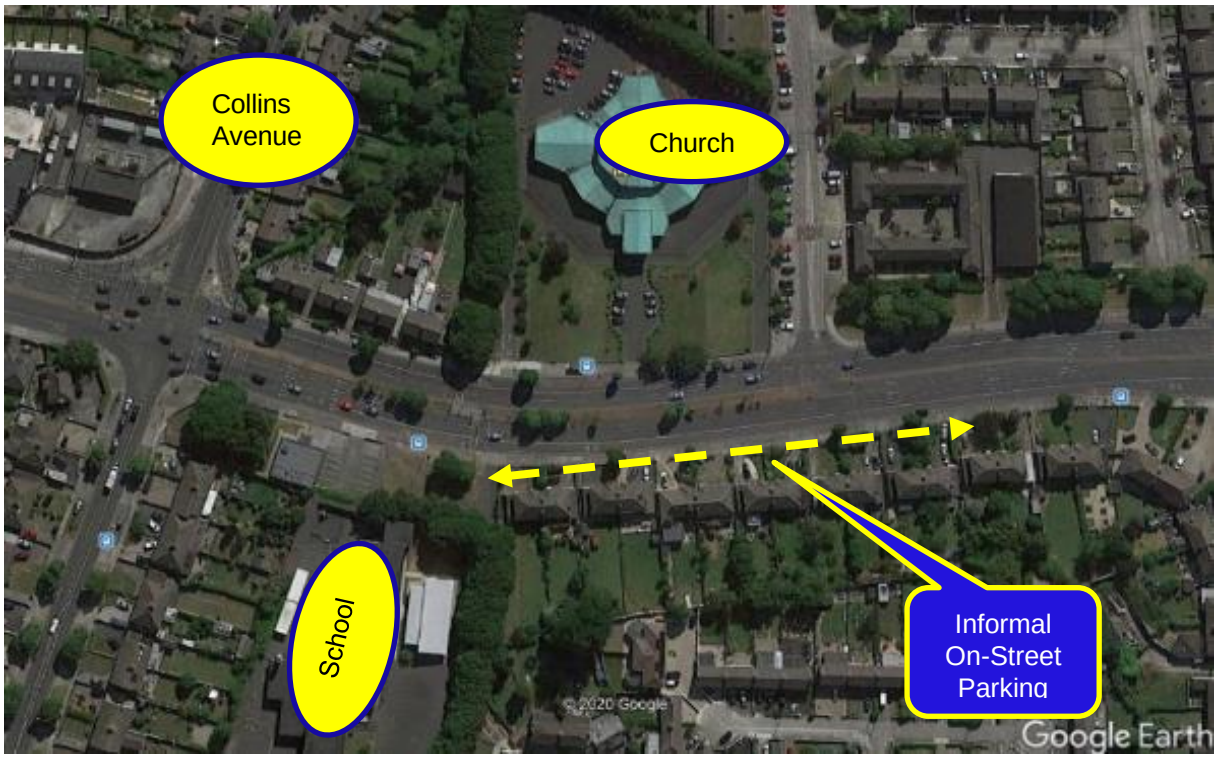

Figure 6-11 – Ballymun Road South of Collins Avenue

There is potential to provide formalised on-street car parking along this section of Ballymun Road if the number of traffic lanes were reduced from 2 to 1 in the northbound direction. This would protect the proposed cycle track and the bus lane from being impeded by parking, and it would resolve current difficulties at the primary school during collection times.

The traffic context in this section is very similar to the previous Section 1B further north and the removal of one of the two northbound traffic lanes on Ballymun Road over a length of 200m north of Saint Pappin Road should not give rise to congestion. The second traffic lane would be retained north of the primary school for the final 100m approach to the junction at Collins Avenue. This Option B is shown in Figures 6-12 and 6-13.

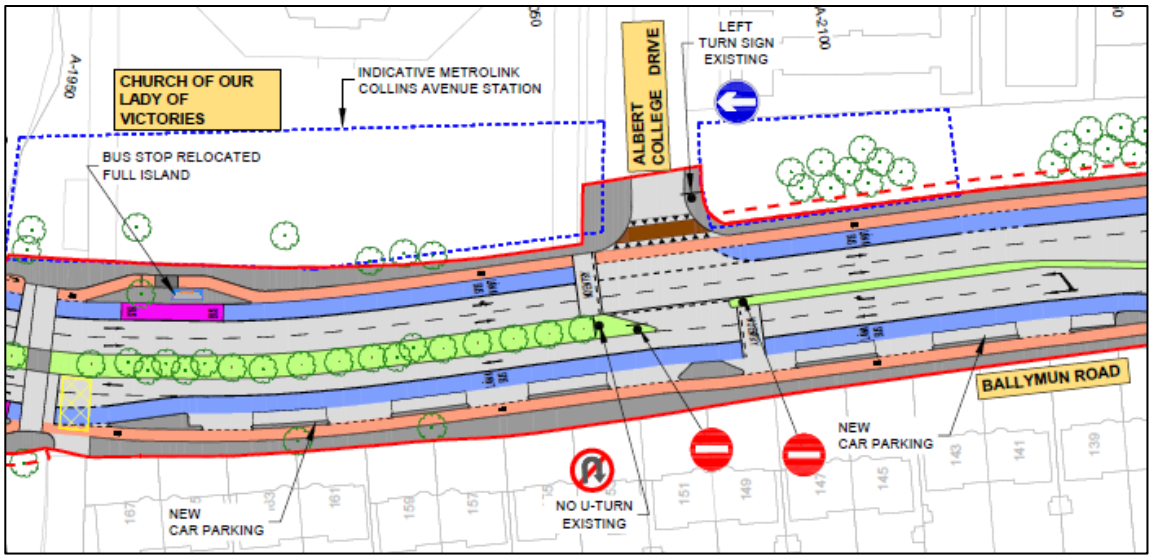

Figure 6-12 – Option B Plan layout on Ballymun Road

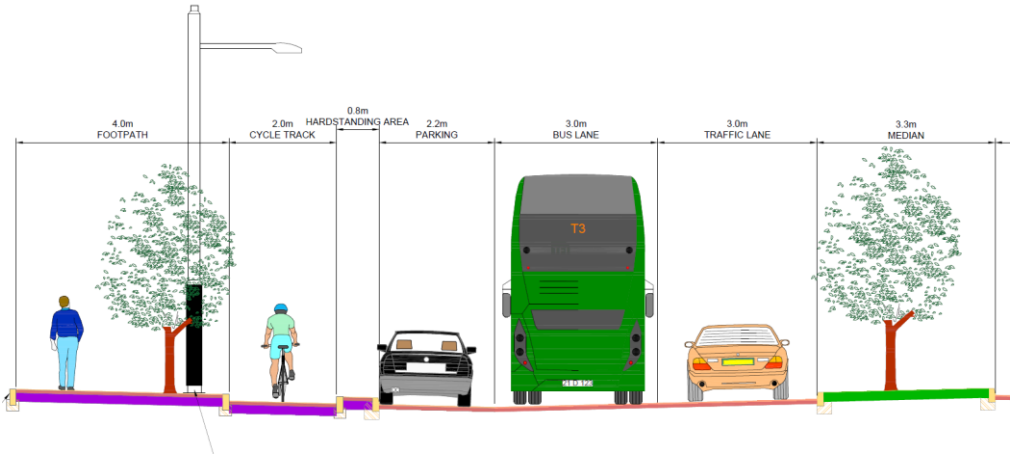

Figure 6-13 – Option B Cross-Section on Ballymun Road (Northbound Carriageway)

The advantages of this refined road layout option are similar to those assessed for the similar proposal in Section 1B further north.

- Option A: EPR section Northbound: 1 cycle lane + 1 bus lane + 2 traffic lanes
- Option B: Proposed section Northbound: 1 cycle lane + 1 Parking lane + 1 bus lane + 1 traffic lane

Table 6.1.1.3 – Evaluation of Options for Sub-Section 1C

Appraisal Criteria	Option A (EPR) 2 Northbound Traffic Lanes	Option B 1 Northbound Traffic Lane + Parking
Economy		
Capital Cost		
Journey Time Reliability (Bus)		

Appraisal Criteria	Option A (EPR) 2 Northbound Traffic Lanes	Option B 1 Northbound Traffic Lane + Parking
Integration		
Integration with Land-Use policy		
Residential Population and Employment Catchments		
Public Transport Network		
Cycle Network		
Traffic Network		
Accessibility & Social Inclusion		
Key Trip Attractors within Catchment		
Deprived Geographic Areas		
Safety		
Environment		
Archaeology & Cultural Heritage		
Flora & Fauna		
Soils & Geology		
Hydrology		
Landscape & Visual		
Air & Noise		
Land Use and the Built Environment		
Preference	**2**	**1**

Option B involves slightly greater cost than Option A, while both options are the same for bus journey time reliability, so Option A is ranked first Economy.

For Accessibility and Social Inclusion Option B is ranked first as it supports the operation of the school.

Under Integration and Safety Option B is ranked highest as it provides segregation of cyclists from parking, and it would benefit the school by responding to the need for some parking near the entrance for parents dropping off or collecting pupils.

Under Environment Option B is ranked first as it would considerably enhance the street space visually by reducing the width of the traffic areas and providing more street trees. The assessment concluded that the preferred option in Sub-Section 1B is Option B to reduce the street to a single traffic lane in the northbound direction and provide additional on-street parking.

Conclusion: The Preferred Route Option will provide for on-street parking over a length of 200m on the western side of Ballymun Road between Saint Pappin Road and Our Lady of Victories National School. The road layout will be reduced from two northbound traffic lanes to one lane in this section.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in Table 6.1.1.4.

Table 6.1.1.4 – Sub-Section 1C MCA Summary

Appraisal Criteria	Option A (EPR)	Option B
Economy		
Integration		
Accessibility & Social Inclusion		
Safety		
Environment		

Figure 6-14 – Ballymun Road at Our Lady of Victories National School (Google)

Figure 6-15 – On-Street Parking on Ballymun Road associated with Our Lady of Victories National School

6.1.1.4 Sub-Section 1D - Griffith Avenue Traffic Gyratory System

In this sub-section of the route the EPR proposed to provide a single bus lane, two general traffic lanes and a segregated cycle track. It was intended to retain the existing trees on this sub-section. On the outbound arm of the one-way traffic system (Ballymun Road), it was proposed to retain the existing number of general traffic lanes and to provide an additional bus lane and segregated cycle track. These additional lanes would be incorporated by realigning the existing kerb lines. On the Griffith Avenue arm of the one-way traffic system it was proposed to maintain the existing general traffic lanes (4 no.) and to introduce a new bus lane and segregated cycle track. These new lanes would require the existing footway and grass verges to be narrowed.

During the PRO assessment process another Option B was developed to remove a significant traffic conflict between southbound left-turning traffic from St. Mobhi Road into Griffith Avenue as this causes problems for bus priority and for cyclists.

Option A at the Griffith Avenue Traffic Gyratory System

The EPR proposed on the St. Mobhi Road southbound approach to the junction with Griffith Avenue a 3-lane one-way road layout with a bus lane, a shared left-turn lane and straight and a right-turn lane as shown in **Error! Reference source not found.**.

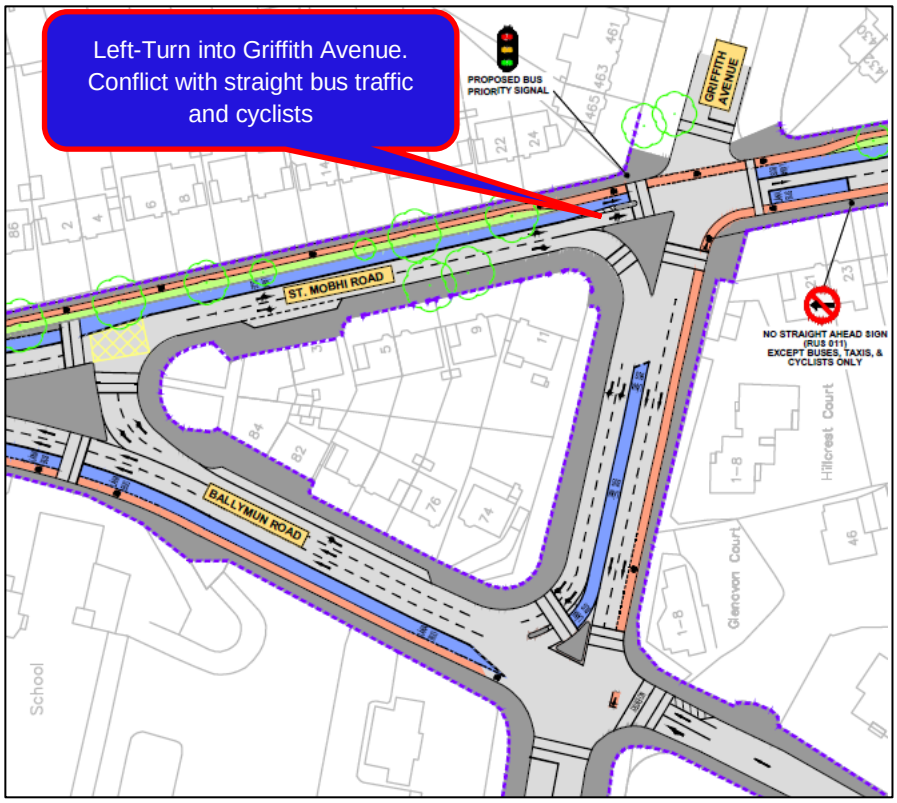

Figure 6-16 – Option A: EPR Road Layout at St. Mobhi Road / Griffith Avenue Junction

The left-turn flow is quite high at this location because of the gyratory system that directs eastbound traffic from Griffith Avenue West around the one-way system to share with traffic from Ballymun Road along the 100m length of St. Mobhi Road. There would be a significant conflict between left-turning traffic and southbound buses and cyclists, which would require separate signal control and would greatly reduce the efficiency of this major junction for all modes of transport. An evaluation of the traffic demands at this location indicated that the removal of one of the three existing traffic lanes would be problematic and would overload the remaining two traffic lanes.

Option B at the Griffith Avenue Traffic Gyratory System

In Option B allocation of one of the 3 existing traffic lanes on St. Mobhi Road to become a bus lane will require a reduction in the general traffic flows to match the reduced capacity of the two remaining traffic lanes. This can be achieved by removing the left-turn lane entirely and reversing the one-way system partially to divert the southbound to east traffic from the Ballymun Road around the western and southern sides of the triangle to be joined by traffic from the west enabled to continue directly eastward along the southern arm. Thus, the left-turn conflict at Griffith Avenue would be removed entirely for the benefit of buses, cyclists and pedestrians. On the Griffith Avenue arm of the traffic gyratory system there would be one westbound straight/left traffic lane instead of two lanes as included in Option A, which is sufficient for the traffic demand. The proposed traffic layout in Option B is shown in Figure 6-17.

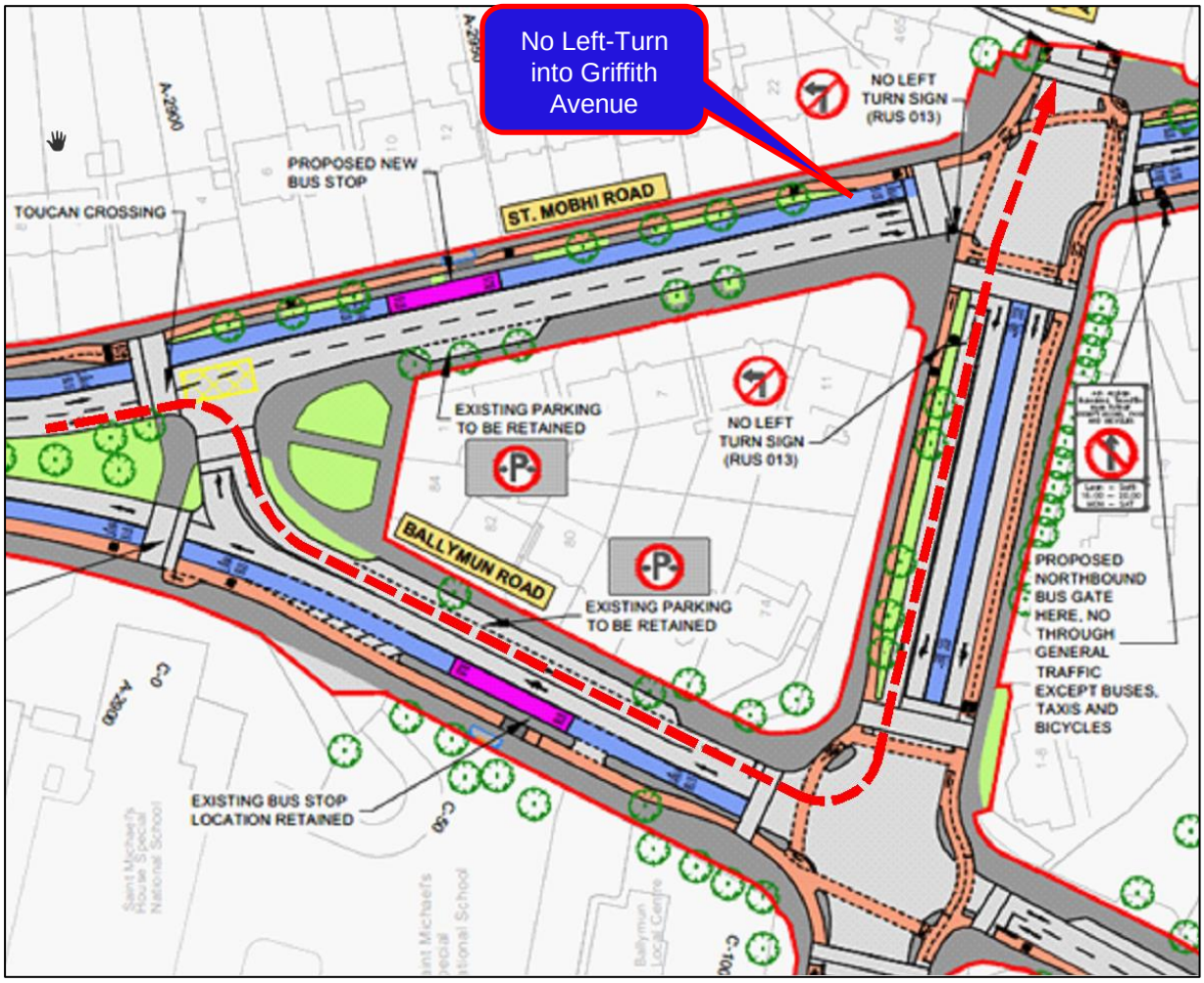

Figure 6-17 – Option B: Road Layout at St. Mobhi Road / Griffith Avenue Junction

A multi-criteria assessment for the two options at the junctions of Ballymun Road and St. Mobhi Road with Griffith Avenue is presented in Table 6.1.1.3 following. In the table:

- Option A: EPR arrangement: Existing traffic system, Southbound traffic turning onto Griffith Ave EB direct turn left from St. Mobhi Road + Bus lane
- Option B: Proposed arrangement: Southbound traffic turning onto Griffith Ave EB diverted through Ballymun Road. Bus and straight traffic to continue along St. Mobhi Road.

Table 6.1.1.5 – Evaluation of Options for Sub-Section 1D: Griffith Avenue Traffic Gyratory System

Appraisal Criteria	Option A (EPR) Existing Traffic System + Bus Lane	Option B Southbound Left-Turn Diverted
Economy		
Capital Cost		
Journey Time Reliability (Bus)		
Integration		
Integration with Land-Use policy		
Residential Population and Employment Catchments		
Public Transport Network		
Cycle Network		
Traffic Network		
Accessibility & Social Inclusion		
Key Trip Attractors within Catchment		
Deprived Geographic Areas		
Safety		
Environment		
Archaeology & Cultural Heritage		
Flora & Fauna		
Soils & Geology		
Hydrology		
Landscape & Visual		
Air & Noise		
Land Use and the Built Environment		
Preference Rank	**2**	**1**

Both options are the same in terms of infrastructure costs, but Option B would provide a much better arrangement for bus operations by removing the major traffic conflict at the junction of St. Mobhi Road southbound with Griffith Avenue eastbound so that longer green signal times would be allocated to southbound bus movements. Option B was therefore ranked best for Economy.

Under Accessibility and Social Inclusion the two options are ranked the same.

Under Integration and Safety Option B is ranked highest as it removes the conflict between left-turning traffic and cyclists which will provide a better overall cycle route network at this key junction.

Under Environment the two options are ranked the same.

The assessment concluded that the preferred option in Sub-Section 1D is Option B to reorganise the one-way traffic system to benefit the proposed bus corridor and cyclists.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in Table 6.1.1.6.

Table 6.1.1.6 – Sub-Section 1D MCA Summary

Appraisal Criteria	Option A (EPR)	Option B
Economy		
Integration		
Accessibility & Social Inclusion		
Safety		
Environment		

The Preferred Route Option will provide a reorganised traffic system at the Griffith Avenue gyratory as follows:

1) Ballymun Road southbound at St. Mobhi Road junction:
    - Left lane for straight ahead traffic
    - Right lane for traffic towards Griffith Avenue eastbound to continue in contra-flow direction along western side of the gyratory traffic system.
2) St. Mobhi Road southbound to Griffith Avenue junction:
    - Bus lane on left (eastern side)
    - No left-turn traffic to Griffith Avenue eastbound.
    - Centre lane for straight ahead traffic
    - Right lane for right-turn traffic towards Griffith Avenue westbound.
3) Ballymun Road North to Griffith Avenue junction:
    - One traffic lane reversed to southbound on eastern side, for left-turn only at junction.
    - 1 northbound traffic lane instead of 2.
    - Short northbound right-turn lane towards St. Mobhi Road for local access.
    - Northbound bus lane.
    - Northbound cycle track.
4) Griffith Avenue Link between Ballymun Road and St. Mobhi Road:
    - 4 existing westbound traffic lanes.
    - Reduce to 2 westbound traffic lanes – one for straight ahead and one for right-turn with bus lane in the middle.
    - New eastbound traffic lane.

6.1.1.5 Conclusions and Preferred Route Option for Section 1

The following key changes have been made to the EPR design in Section 1:

a) Along Ballymun Main Street one of the two traffic lanes on each side will be replaced by on-street parking bays with additional street trees.

b) Along Ballymun Road south of Collins Avenue one of the two traffic lanes on the western side will be replaced by on-street parking bays to serve a local primary school.

c) At the Griffith Avenue traffic gyratory junction the traffic circulation will be modified to introduce two-way movements along the western and southern sides, and there will be an additional bus lane on the eastern side with no left-turn permitted into Griffith Avenue east.

6.1.2 Section 2 - Griffith Avenue to Phibsborough

Several key issues were reassessed for this section based on the concerns raised in the non-statutory public consultations and opportunities were identified for improvements or modifications to the design proposals for the following aspects:

a) Most suitable Bus Priority provisions and the impact for street trees.

b) Traffic diversion route at Glasnevin.

c) Cycling facilities on Botanic Road and at Hart's Corner.

This 1.6 km long section is quite complex with variations in the existing road width and layout and different constraints along 5 discrete sub-sections as shown in Fig 6-18 and as follows:

2A. St. Mobhi Road from Griffith Avenue to the River Tolka Bridge (600m)

2B. St. Mobhi Road from River Tolka Bridge to Botanic Avenue (100m)

2C. St. Mobhi Road from Botanic Avenue to Botanic Road (200m)

2D. Botanic Road from St. Mobhi Road to Prospect Way (400m)

2E. Prospect Road from Prospect Way to Whitworth Road (300m)

Each sub-section is considered separately in the following review and discussion of potential options for consideration.

Figure 6-18 – Sub-Sections in Section 2 [Google Maps]

6.1.2.1 Options for Bus Priority in Section 2 from Griffith Avenue to Phibsborough

During the First Non-Statutory Public Consultation, for the Emerging Preferred Route there were 2 potential options for bus priority and associated traffic management provided for public comment:

- Option A: Bus Priority along St. Mobhi Road and northbound through traffic diverted to Ballymun Road parallel to the west. Some road widening would be required for an improved footpath and cycle track along the eastern side at the sports grounds.
- Option B: Widening along St. Mobhi Road to provide additional bus lanes. More road widening would be required along the full length of the eastern side of the street.

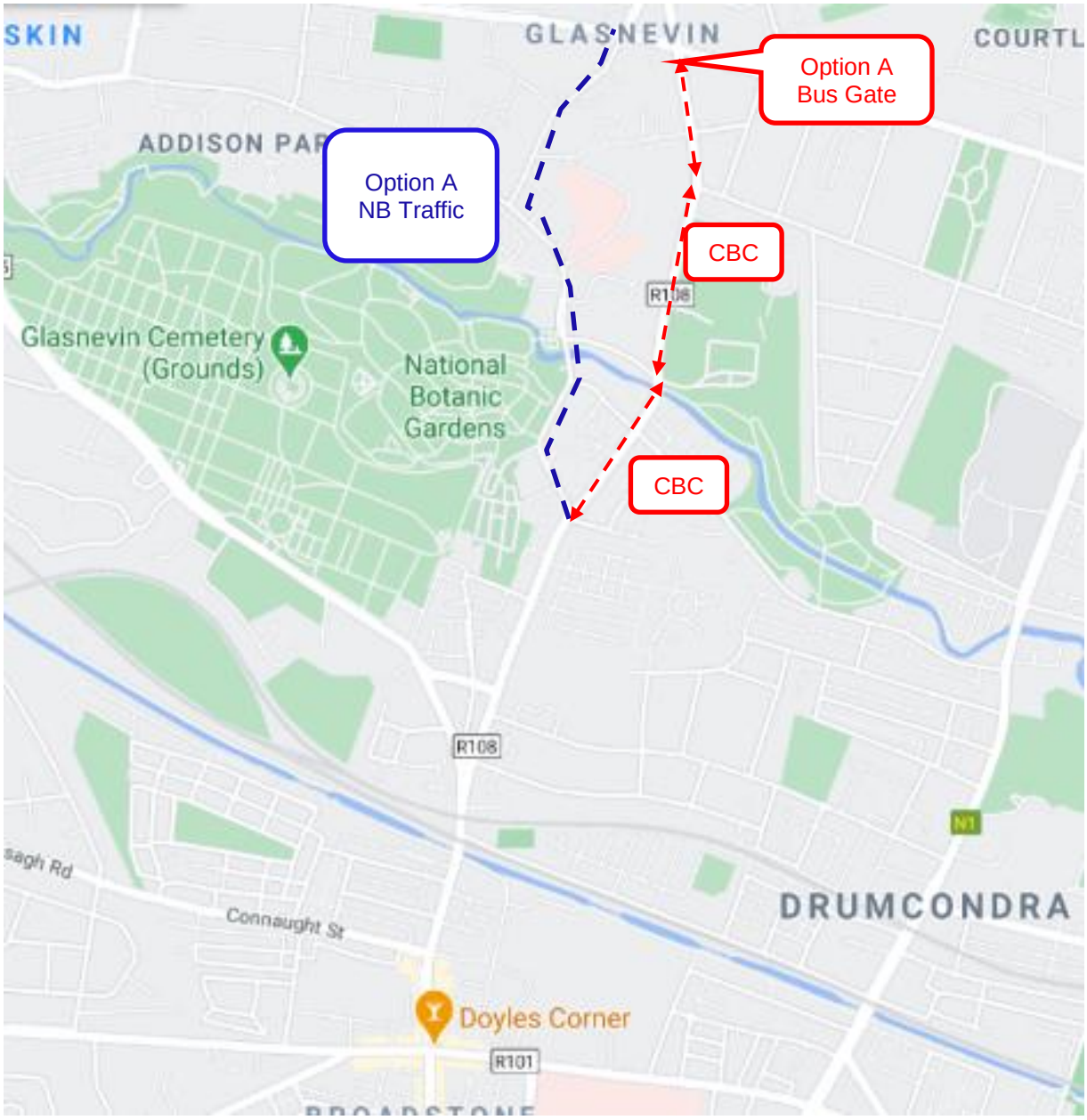

Figure 6-19 – Bus Facility Options in Section 2 [Google Maps]

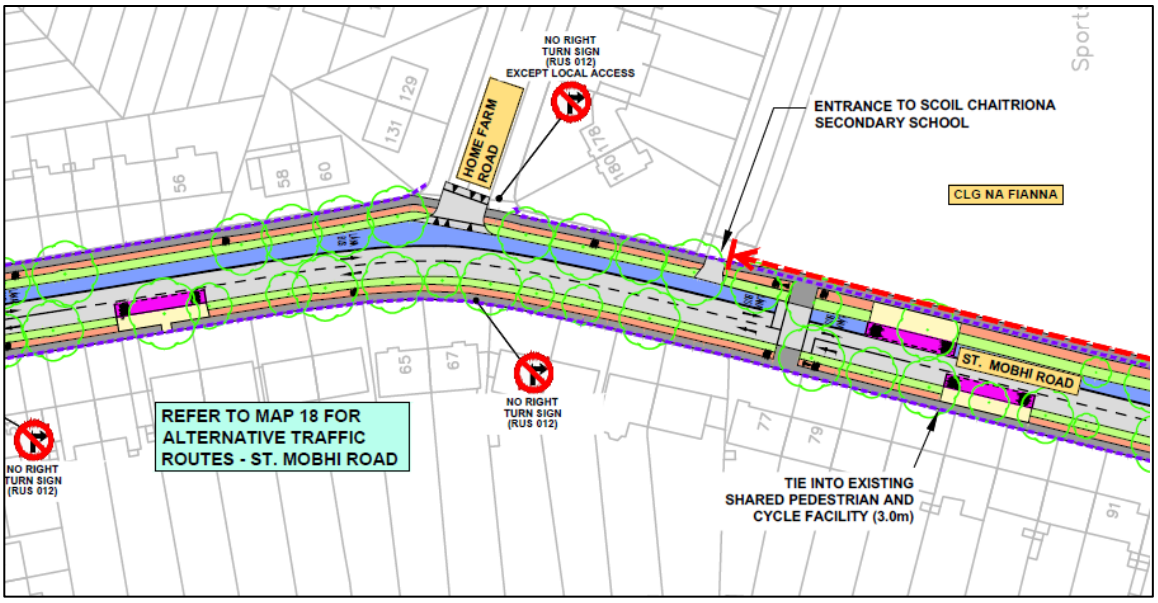

Figure 6-19 – St. Mobhi Road EPR Option A

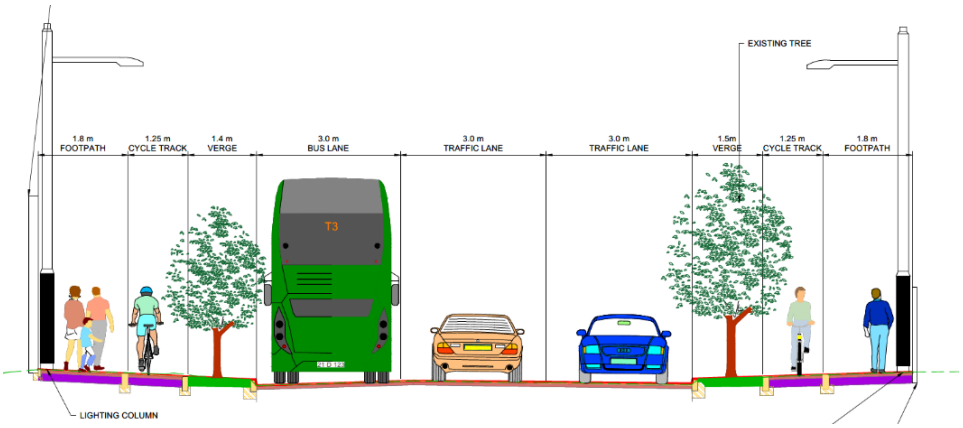

Figure 6-21 – St. Mobhi Road Section EPR Option A

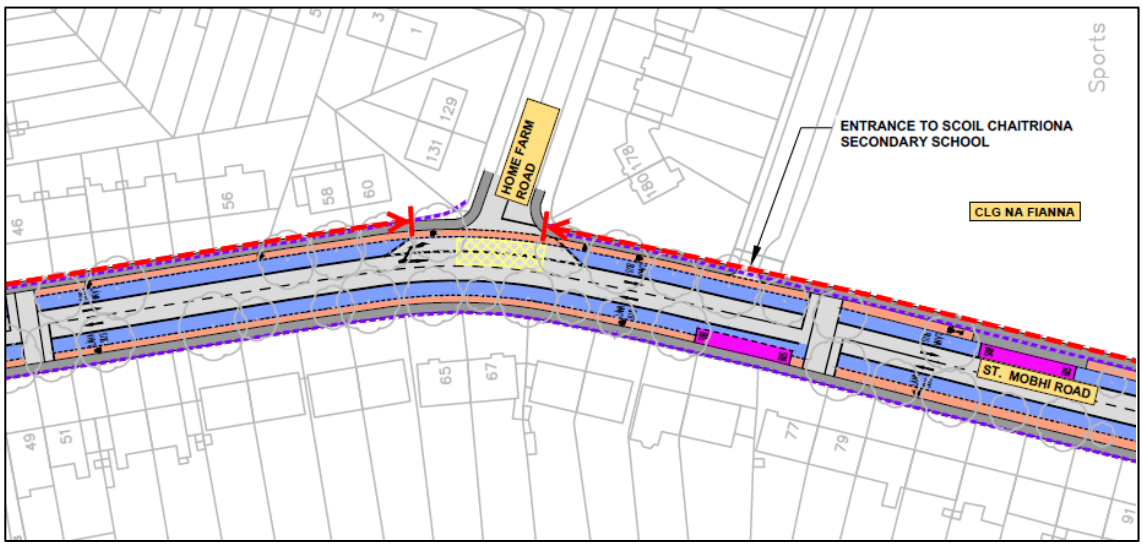

Figure 6-22 – St. Mobhi Road Section EPR Option B

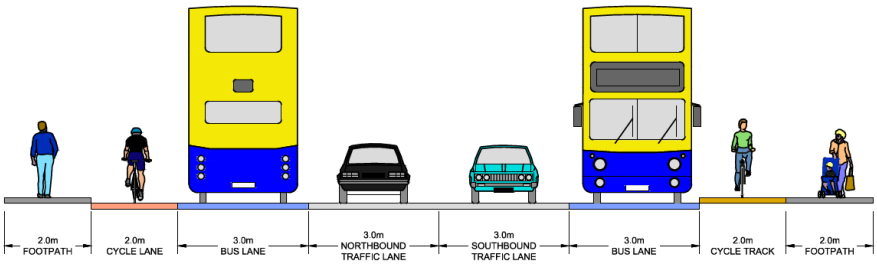

Figure 6-20 – St. Mobhi Road Section EPR Option B

The submissions received in the public consultation process were almost all in favour of Option A where any preference was expressed. There were no objections to the proposal to route through traffic along Ballymun Road instead of St. Mobhi Road. Some submissions sought clarity about the extent and timing of bus priority restrictions on St. Mobhi Road to minimise local access limitations. This issue can be considered in further assessment of the traffic system adjustments that are necessary to ensure appropriate bus priority at peak times. It would generally assist bus operations if northbound through traffic were directed along the Ballymun Road route rather than the St. Mobhi route through the configuration of the Botanic Road / St. Mobhi Road junction to make the through route follow Botanic Road and require a right-turn to enter St. Mobhi Road.

Table 6.1.2.1 – Evaluation of Options for Bus Facilities in Section 2: St. Mobhi Road

Appraisal Criteria	Option A (EPR) Bus Gate at Northern end of St. Mobhi Road	Option B (EPR) Widen St. Mobhi Road for 2 Bus Lanes
Economy		
Capital Cost		
Journey Time Reliability (Bus)		
Integration		
Integration with Land-Use policy		
Residential Population and Employment Catchments		
Public Transport Network		
Cycle Network		
Traffic Network		
Accessibility & Social Inclusion		
Key Trip Attractors within Catchment		
Deprived Geographic Areas		
Safety		
Environment		
Archaeology & Cultural Heritage		
Flora & Fauna		
Soils & Geology		
Hydrology		

Appraisal Criteria	Option A (EPR) Bus Gate at Northern end of St. Mobhi Road	Option B (EPR) Widen St. Mobhi Road for 2 Bus Lanes
Landscape & Visual		
Air & Noise		
Land Use and the Built Environment		
Preference Rank	**1**	**2**

- Option B would involve considerably greater infrastructure costs than Option A, but it would provide slightly greater bus journey reliability. However, as Option A would achieve sufficient bus priority through provision of a northbound bus gate instead of a bus lane, Option A was therefore ranked best for Economy.
- Option A would give rise to longer journeys for some car trips during the operational hours of the bus gate, but there are suitable alternative routes available. Under Integration Option B was therefore ranked ahead of Option A.
- For Accessibility and Social Inclusion and for Safety both options were ranked the same.
- Option A would achieve the required bus priority with much less impact along St. Mobhi Road in terms of loss of mature street trees, which ranked if first under Environment.
- The assessment concluded that the preferred option in Sub-Section 2 is Option A to provide a northbound bus gate rather than widen the road for bus lanes in both directions.
- A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in Table 6.1.2.2.

Table 6.1.2.2 – Sub-Section 2 MCA Summary

Appraisal Criteria	Option A	Option B
Economy		
Integration		
Accessibility & Social Inclusion		
Safety		
Environment		

Preferred Route Option in Section 2 from Griffith Avenue to Phibsborough

A complementary Traffic Management Plan is illustrated in Figure 6-24 below.

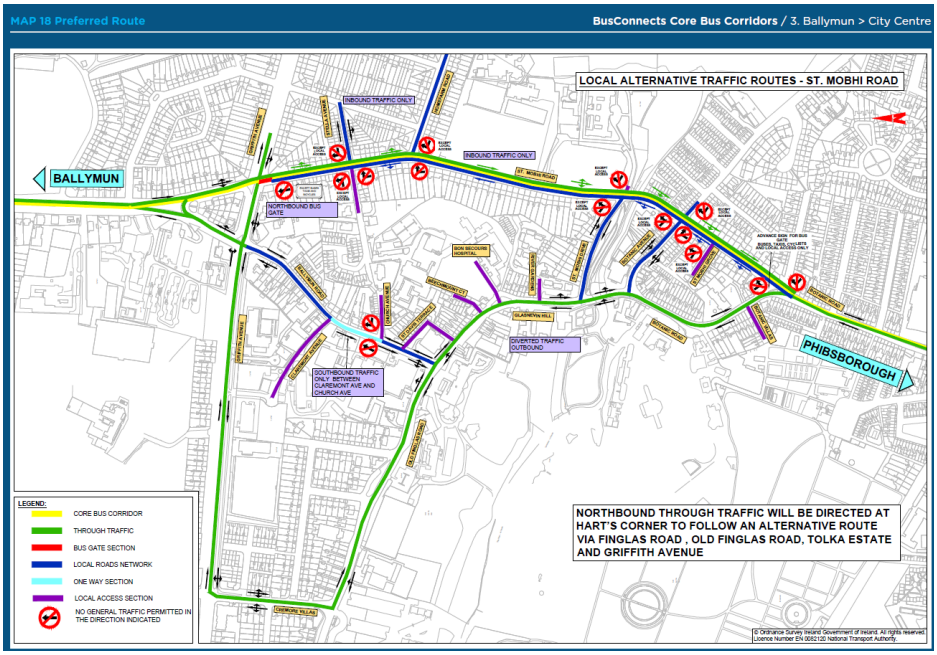

Figure 6-24 – Traffic Management Plan for Preferred Route Option in Section 2

In summary the traffic management proposals are as follows:

a) The proposed bus gate at the northern end of St. Mobhi Road will restrict northbound traffic along St. Mobhi Road to local access only.

b) Northbound through traffic will be diverted to parallel routes to the west at two locations as follows:

- Southern diversion for regional traffic at Hart's Corner onto Finglas Road as shown in Figure 6-25
- Northern diversion for local traffic at the Botanic Road junction with St. Mobhi Road as shown in Figure 6-26.

For traffic diverted along Botanic Road the most direct alternative route would follow Glasnevin Hill and then turn right at the Met Éireann office onto Ballymun Road linking to Griffith Avenue. There is a very narrow section of Ballymun Road between Church Avenue and Claremont Avenue over a length of 80m. The houses on the eastern side of this street do not have driveways, and residents park on the street, which restricts the road width and impedes two-way traffic movements. As the existing traffic volumes on this section of Ballymun Road are quite low, the impedance to two-way movements does not give rise to significant problems. For northbound through traffic that will be diverted from St. Mobhi Road, it would be preferable to direct this traffic to a wider and more suitable alternative route and not along Ballymun Road between Glasnevin Hill and Griffith Avenue. As shown in Figure 6-26 Cremore Villas, 500m further west, is a more suitable alternative route for diverted traffic, and the proposed diversion will use that road instead of Ballymun Road. To complement the diversion route it is proposed that Ballymun Road would be restricted to one-way southbound between Claremont Avenue and Church Avenue.

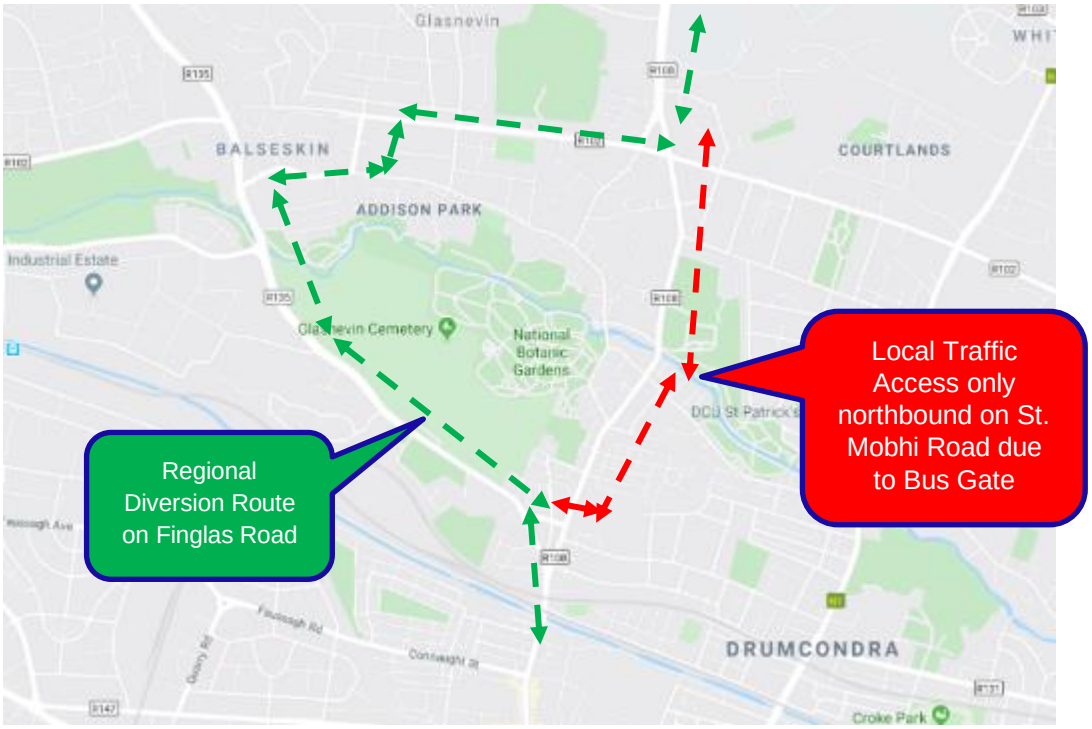

Figure 6-25 – Traffic Diversion to Regional Roads at Ballymun & Finglas Corridors [Google Maps]. Alternative Regional Route when St. Mobhi Road is restricted to Bus Only northbound

The traffic route lengths from Hart's Corner to the junction of Griffith Avenue & Ballymun Road are as follows:

- Direct route length via St. Mobhi Road 1.8 km
- Regional Diversion via Finglas Road: 3.3 km (+1.5 km)
- Local diversion via Glasnevin Hill / Cremore Villas: 2.8 km (+1.0 km)

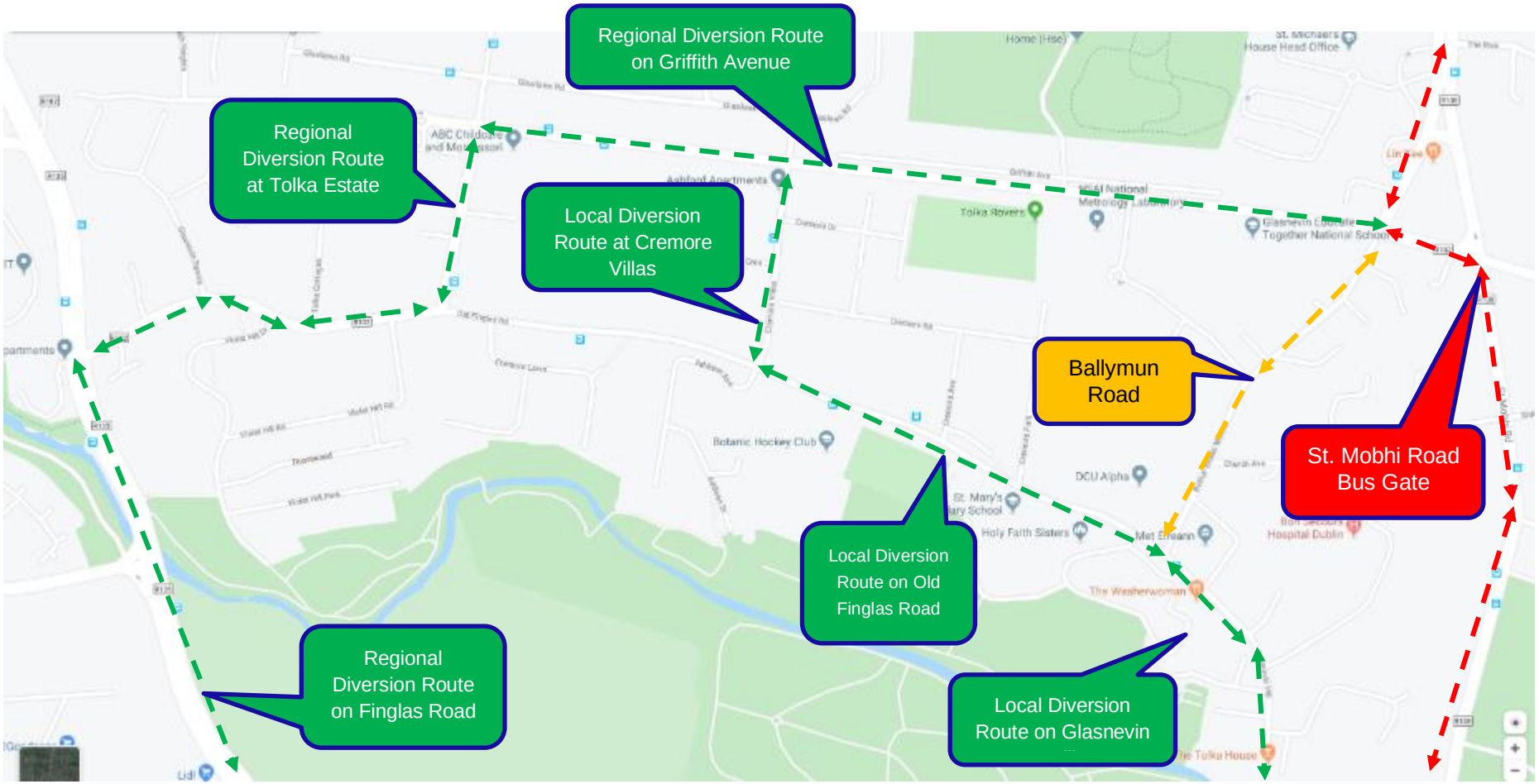

Figure 6-26 – Regional & Local Traffic Diversion Routes towards Ballymun at Glasnevin [Google Maps]

6.1.2.2 Sub-Section 2B St. Mobhi Road - River Tolka Bridge to Botanic Avenue

In this short 100m long section the EPR as shown in Figure 6-21 below proposed to remove the small number of on-street parking spaces on the western side so as to accommodate a segregated cycle track.

Some submissions in the First Non Statutory Public Consultation objected to the loss of the on-street parking spaces located south of the Tolka River crossing where there is a row of houses that have no driveways.

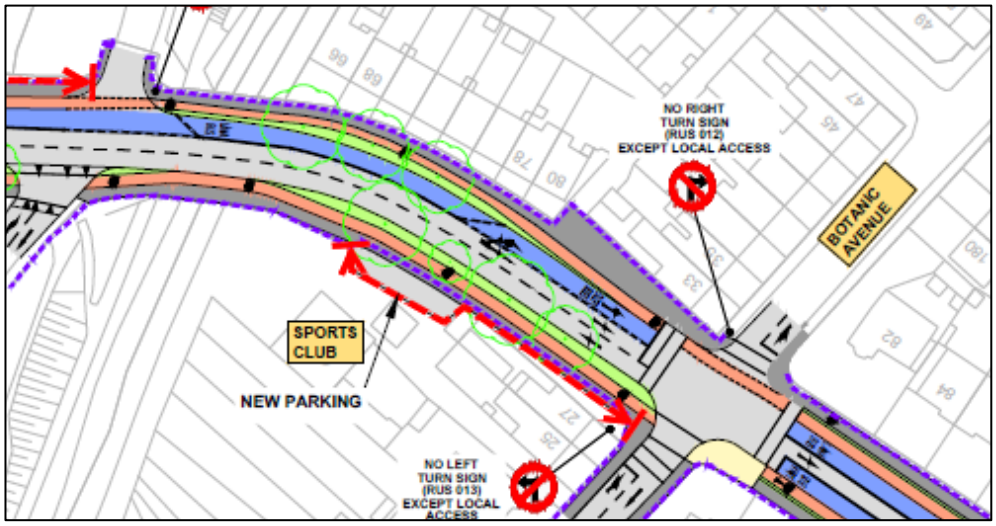

Figure 6-21 – EPR Option A in Sub-Section 2B

Potential Cross-Section Options in Sub-Section 2B:

During the PRO assessment process two further another Options (Option B and C) were developed to provide a southbound cycle track and address the issues of potential impact for on-street parking and trees. Three options were assessed for this Sub-Section

- Option A: Emerging Preferred Route as shown in Figure 6-27.
- Option B: Widen on western side to retain existing parking on eastern side as shown in Figure 6.28.
- Option C: Widen into gardens on the eastern side.

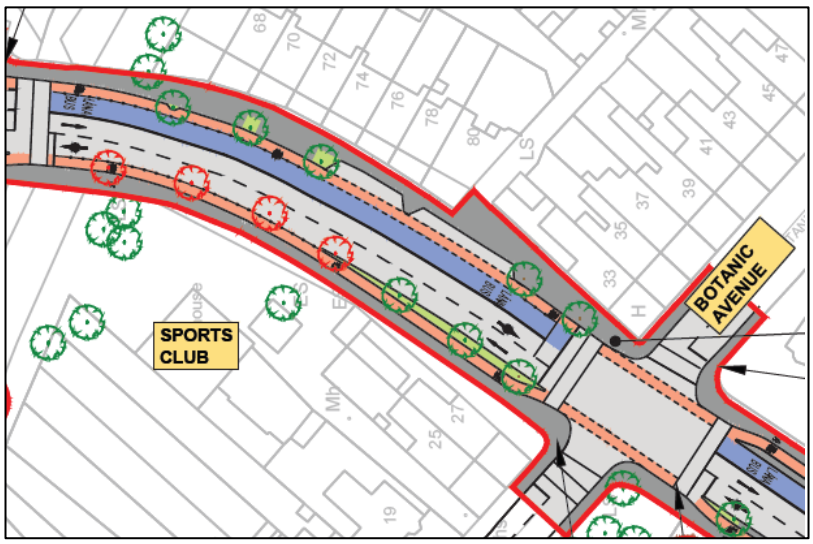

Figure 6-22 – Option B in Sub-Section 2B

A multi-criteria assessment (MCA) presents a comparison between the options as shown in Table 6.1.2.3

Table 6.1.2.3 – Evaluation of Options in Sub-Section 2

St. Mobhi Road from Tolka Bridge to Botanic Avenue

Appraisal Criteria	Option A (EPR) No Parking on Eastern Side	Option B Widen on Western Side	Option C Widen on Eastern Side
Economy			
Capital Cost			
Journey Time Reliability (Bus)			
Integration			
Integration with Land-Use policy			
Residential Population and Employment Catchments			
Public Transport Network			
Cycle Network			
Traffic Network			
Accessibility & Social Inclusion			
Key Trip Attractors within Catchment			
Deprived Geographic Areas			
Safety			
Environment			
Archaeology & Cultural Heritage			
Flora & Fauna			
Soils & Geology			
Hydrology			
Landscape & Visual			
Air & Noise			
Land Use and the Built Environment			
Preference Rank	**2**	**1**	**3**

Option A involves the least infrastructure cost, while all options are the same for bus journey reliability, so Option A is ranked first for Economy.

For Integration Option A would remove the existing on-street parking unlike the other options so it is ranked lower under this heading.

All three options are ranked the same for Accessibility and Social Inclusion and for Safety.

Options A and B would involve loss of 3 or 5 mature street trees respectively, while Option C retains all street trees. On the other hand Option C requires loss of some garden space and moves traffic slightly closer to the fronts of houses. Overall therefore Options A and B were ranked first for Environment.

The assessment concluded that the preferred option in Sub-Section 2B is Option B to widen the road slightly on the western side to provide space for segregated cycle tracks on both sides while retaining the small number of on-street parking spaces on the eastern side.

A summary of the assessment and relative ranking of route options against the five main assessment **criteria is presented in Table 6.1.2.4.**

Table 6.1.2.4 – Sub-Section 2B MCA Summary

Appraisal Criteria	Option A	Option B	Option C
Economy			
Integration			
Accessibility & Social Inclusion			
Safety			
Environment			

6.1.2.3 Sub-Section 2C St. Mobhi Road - Botanic Avenue to Botanic Road: (200m)

As for all of Section 2, during the First Non-Statutory Public Consultation, for the Emerging Preferred Route there were 2 potential options for bus priority and associated traffic management provided for public comment:

- Option A: Bus Priority along St. Mobhi Road and northbound through traffic diverted to Ballymun Road parallel to the west. (Figure 6-29)
- Option B: Widening along St. Mobhi Road to provide additional bus lanes. (Figure 6-30)

In this sub-section however, Option A would provide bus lanes in both directions and only one traffic in the southbound direction. All northbound traffic would be diverted along Botanic Road to the west, and local traffic would then re-join St. Mobhi Road via Botanic Avenue. Segregated cycle tracks would be provided along the road edges and the existing wide footpaths would be retained. This would require removal of all the existing mature street trees.

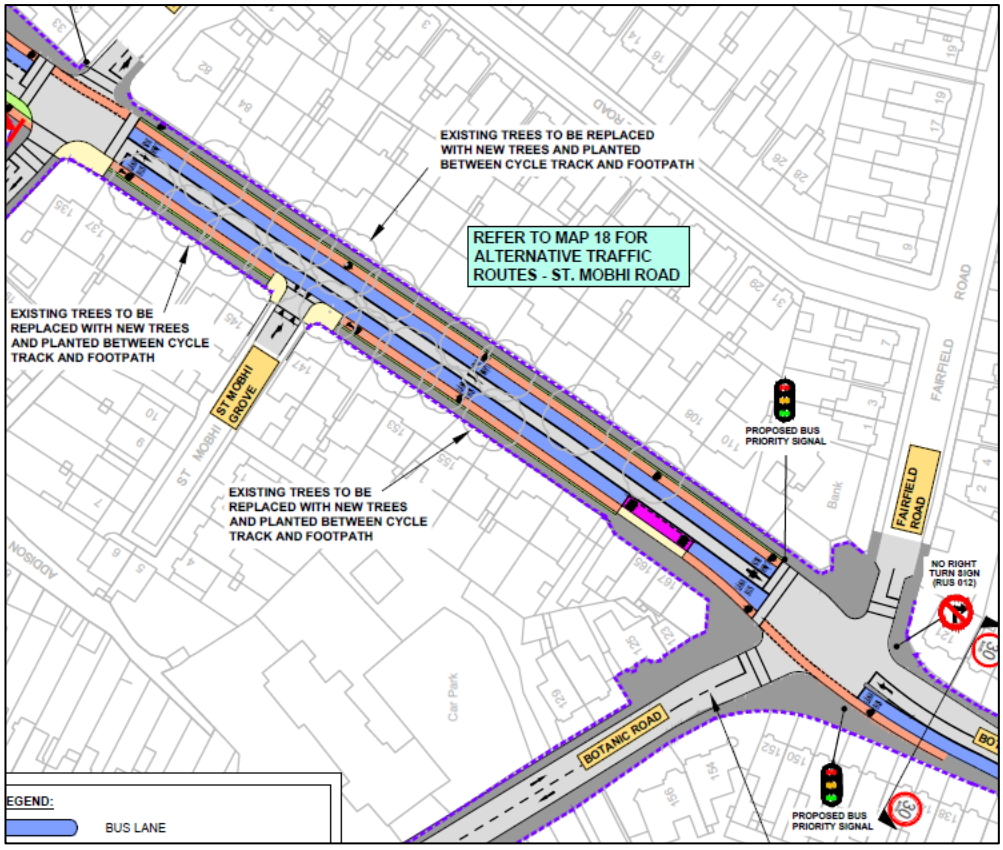

Figure 6-29 – EPR Option A in Sub-Section 2C

Option B in this sub-section would require road widening to accommodate an additional lane for a bus lane and a traffic lane in both directions. Segregated cycle tracks would be provided through narrowing of the wide footpaths. This would require removal of all the existing mature street trees.

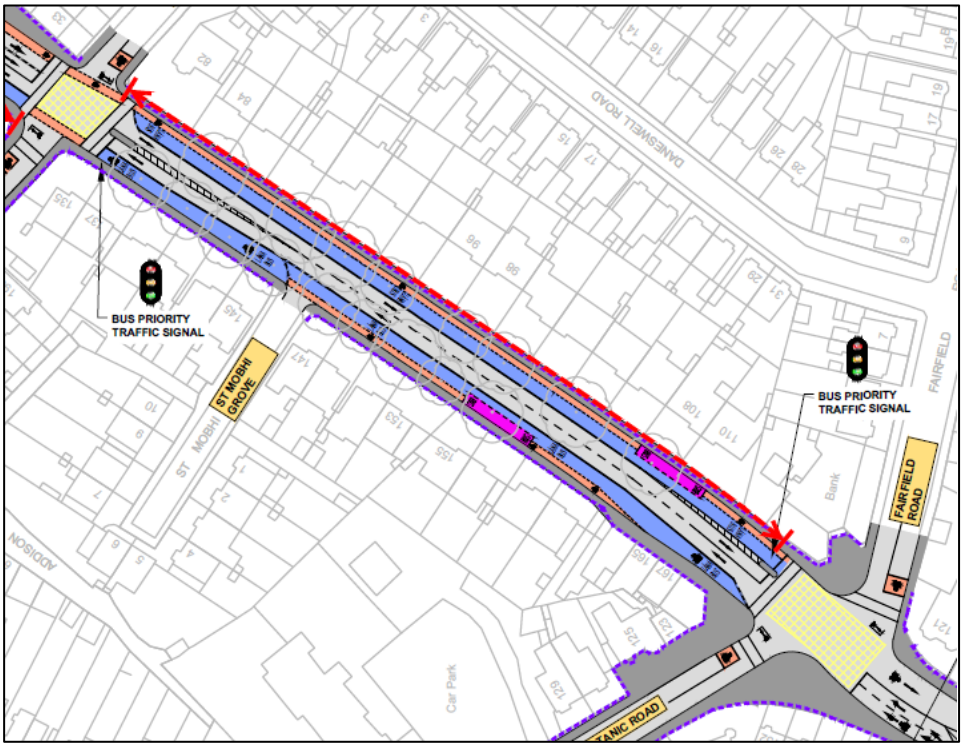

Figure 6-30 – EPR Option B in Sub-Section 2C

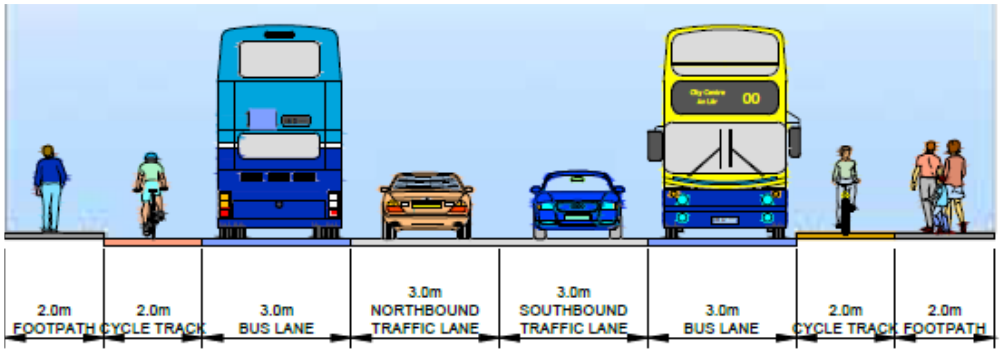

Figure 6-31 – Ballymun Sub Section 2C Typical Cross-section Option B

In both Options A and B for this southern end of St. Mobhi Road all of the existing mature street trees would be removed. Many submissions in the first public consultation objected to this aspect of the options proposed.

Figure 6-32 – St. Mobhi Road in Section 2C – looking south from Botanic Avenue

Figure 6-33 – St. Mobhi Road in Section 2C – looking north on the western side

During the PRO assessment process a third Option C was developed for consideration which would not widen the road and remove the street trees. Instead the proposed cycle tracks would be located behind the street trees and would be reduced to just 1.25m in width, and the wide footpaths would be reduced from 2.6m to 1.9m. The traffic layout would provide one southbound bus lane and one traffic lane in each direction.

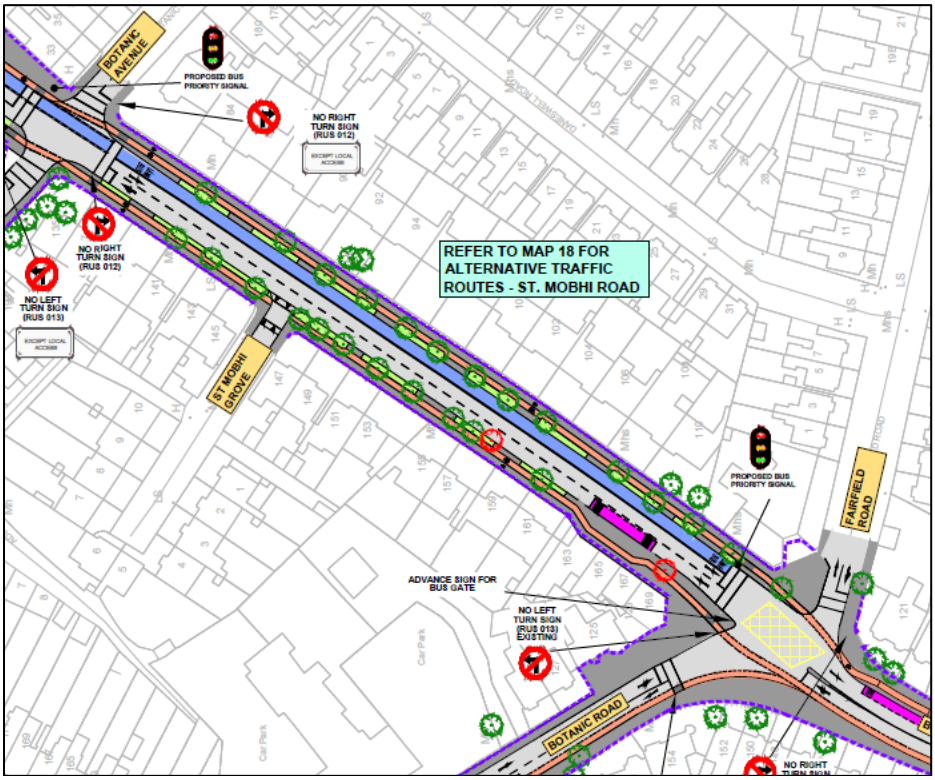

Figure 6-34 – Option C in Sub-Section 2C

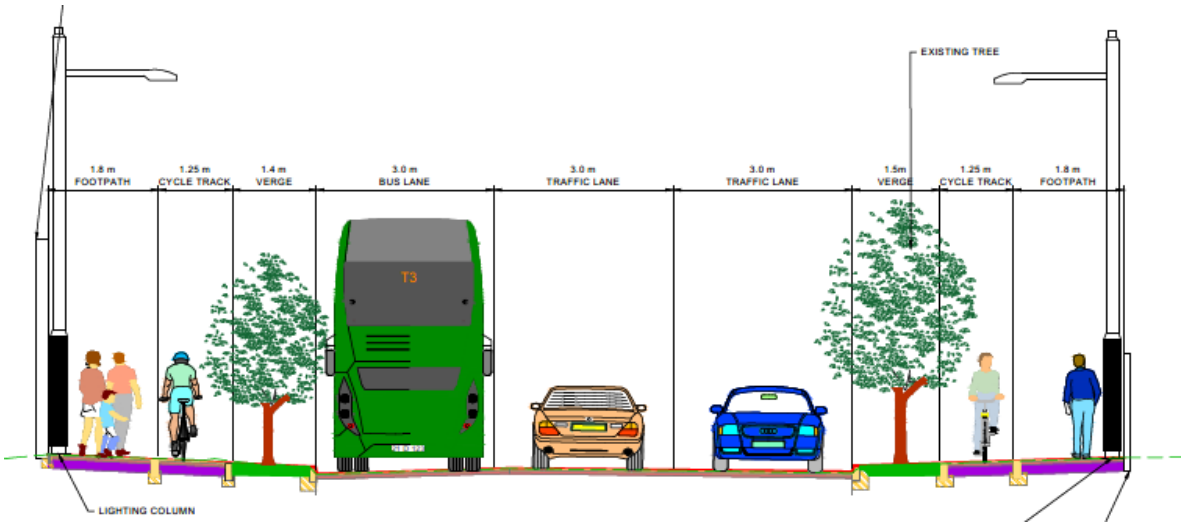

Figure 6-35 – Ballymun Sub Section 2C Typical section Option C

The three Cross-Section Options in Sub-Section 2C are summarised as follows.

Option A

- Bus lanes in both directions.
- One southbound traffic lane.
- 2.0m wide cycle tracks in both directions.
- All existing street trees removed and replaced.
- Existing 2.6m wide footpaths retained.

Option B

- Bus lanes in both directions.
- One traffic lane in both directions.
- 2.0m wide cycle tracks in both directions.
- All existing street trees removed.
- Existing 2.65m wide footpaths narrowed to 2m.
- Widening into gardens of 16 properties.

Option C

- Bus lanes in southbound direction only.
- Northbound Bus Gate at junction of St. Mobhi Road and Griffith Avenue.
- Narrow Cycle tracks in both directions behind the existing trees.
- Footpaths narrowed to 1.8m.
- All existing street trees retained.

A multi-criteria assessment (MCA) presents a comparison between the options as shown in Table 6.1.2.5

Table 6.1.2.5 – Evaluation of Options in Sub-Section 2C - St. Mobhi Road South

Appraisal Criteria	Option A (EPR) 2 Bus Lanes + 1 Traffic Lane	Option B (EPR) 2 Bus Lanes + 2 Traffic Lanes	Option C 1 Bus Lane + 2 Traffic Lanes
Economy			
Capital Cost			
Journey Time Reliability (Bus)			
Integration			
Integration with Land-Use policy			
Residential Population and Employment Catchments			
Public Transport Network			
Cycle Network			
Traffic Network			
Accessibility & Social Inclusion			
Key Trip Attractors within Catchment			
Deprived Geographic Areas			
Safety			
Environment			
Archaeology & Cultural Heritage			
Flora & Fauna			
Soils & Geology			
Hydrology			
Landscape & Visual			
Air & Noise			
Land Use and the Built Environment			
Preference Rank	**2**	**3**	**1**

Option B involves the most infrastructure cost and land acquisition cost. Options A and B are the same for bus journey reliability with bus lanes in both directions, while Option C has less advantage with a bus lane in one direction only and relies instead on the bus gate further north. Option A is ranked first for Economy.

Under Integration Option A is best for cycling as it provides wider cycle tracks, but it involves local traffic access diversion compared to the other options. Options A and C are therefore ranked first for this criterion and Option C is ranked last as it involves the narrowest cycle tracks.

All three options are ranked the same for Accessibility and Social Inclusion and for Safety.

For Environment, a major advantage of Option C would be to retain the existing mature street trees unlike the other options, which will retain the very high quality landscape character of the street, so Option C is ranked first for Environment. Option A is ranked second for landscape as it would provide replacement trees in a narrow verge between the cycle track and footpath. Option B ranks lowest for land-use and built environment as it requires encroachment into 16 gardens unlike the other options.

The assessment concluded that the preferred option in Sub-Section 2C is Option C with a bus lane in one direction and narrow cycle tracks on both sides behind the existing mature trees, which would all be retained.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in Table 6.1.2.6.

Table 6.1.2.6 – Sub-Section 2C MCA Summary

Appraisal Criteria	Option A	Option B	Option C
Economy			
Integration			
Accessibility & Social Inclusion			
Safety			
Environment			

6.1.2.4 Sub-Section 2D - Botanic Road to Prospect Way (400m)

In this sub-section the Emerging Preferred (EPR) proposed reorganisation of the road layout from the existing 2 general traffic lanes with advisory cycle lanes to accommodate a new northbound bus lane with a traffic lane in each direction and no cycle lanes. Signal controlled priority was proposed for southbound buses at the junction of St. Mobhi Road with Botanic Road where there would be no bus lane downstream for 250m. All modes, bus, traffic, and cyclists would share a single southbound lane uphill for 250m from the northern end until the start of a bus lane for the 150m length approaching the Prospect Way junction. Northbound cyclists would share the bus lane in the downhill direction. Submissions received in the public consultations requested segregated cycling facilities along the full length of the corridor.

Two other alternative options were assessed for the PRO:

- Option A: Northbound Bus Lane (EPR) – Figure 3-36.
- Option B: Southbound Bus Lane
- Option C: Cycle Tracks with signal controlled priority for buses in both directions – Figure 3-37.

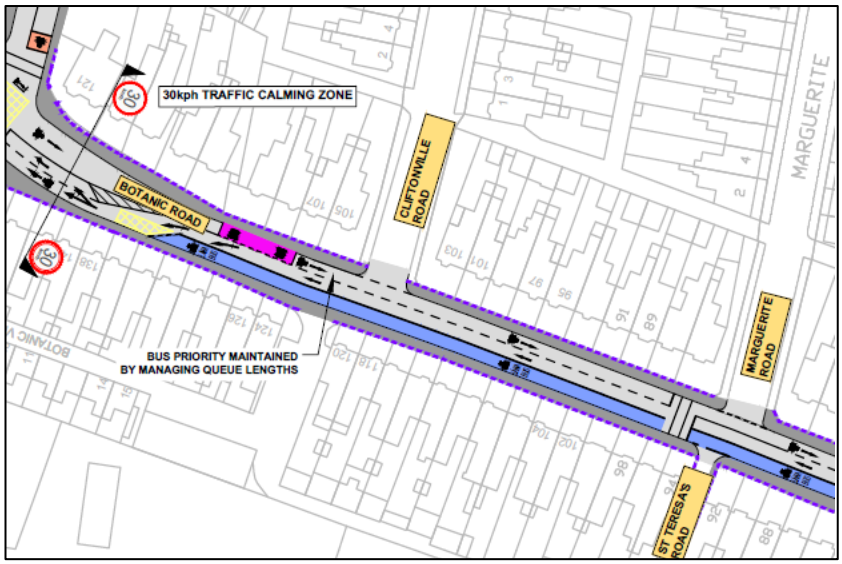

Figure 6-36 – Ballymun Sub Section 2D Option A (Option B similar)

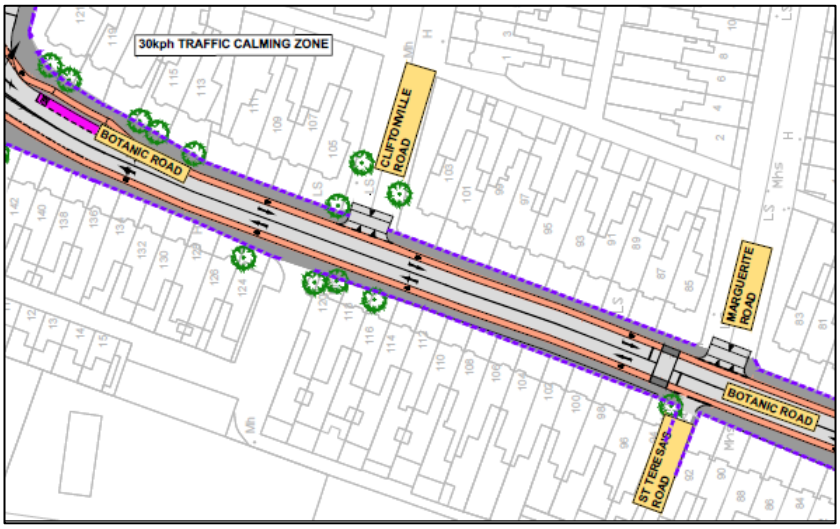

Figure 6-37 – Ballymun Sub Section 2D Option C

A multi-criteria assessment (MCA) presents a comparison between the options as shown in Table 6.1.2.7.

Table 6.1.2.7 – Evaluation of Options in Sub-Section 2D - Botanic Road

Appraisal Criteria	Option A (EPR) Northbound Bus Lane		Option B Southbound Bus Lane	Option C Cycle Tracks
Economy				
Capital Cost				
Journey Time Reliability (Bus)				
Integration				
Integration with Land-Use policy				
Residential Population and Employment Catchments				
Public Transport Network				
Cycle Network				
Traffic Network				
Accessibility & Social Inclusion				
Key Trip Attractors within Catchment				
Deprived Geographic Areas				
Safety				
Environment				
Archaeology & Cultural Heritage				
Flora & Fauna				
Soils & Geology				

Appraisal Criteria	Option A (EPR) Northbound Bus Lane		Option B Southbound Bus Lane	Option C Cycle Tracks
Hydrology				
Landscape & Visual				
Air & Noise				
Land Use and the Built Environment				
Preference Rank	**3**		**2**	**1**

All options are ranked the same for Economy as the costs are similar and they will provide equivalent priority for buses.

Under Integration Option C is ranked first as it provides a more consistent and coherent cycle route network.

All options are ranked the same for Accessibility and Social Inclusion

Option C is ranked first for Safety as it provides full segregation of cyclists from traffic.

All options are ranked the same for Environment.

The assessment concluded that the preferred option in Sub-Section 2D is Option C with no bus lane and signal controlled priority in both directions and segregated cycle tracks on both sides.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in Table 6.1.2.8.

Table 6.1.2.8 – Sub-Section 2D MCA Summary

Appraisal Criteria	Option A	Option B	Option C
Economy			
Integration			
Accessibility & Social Inclusion			
Safety			
Environment			

6.1.2.5 Sub-Section 2E – Botanic Road / Finglas Road / Prospect Way at Hart's Corner and Prospect Road to Whitworth Road

Botanic Road forms the eastern arm, Finglas Road the western arm and Prospect Way the northern arm of a triangular one-way traffic gyratory system at Hart's Corner just north of the Royal Canal at Phibsborough. The Finglas to City Centre Core Bus Corridor joins the Ballymun to City Centre Core Bus Corridor at this location, and they share the Hart's Corner traffic gyratory.

At the Hart's Corner one-way traffic gyratory system the EPR, as shown in Figure 6-38, proposed to retain the existing traffic layout on Prospect Way and Botanic Road with a bus lane and two general traffic lanes. On the western Finglas Road side of the one-way system it was proposed to widen the street to provide a second northbound bus lane from the junction of Dalcassian Downs onwards for 600m where there is no bus lane at present as far as the junction at Claremont Lawns. The Finglas Road side of the Hart's Corner Gyratory would therefore retain the existing arrangement of one

northbound bus lane and one general traffic lane south of Dalcassian Downs, and then widen to two bus lanes and two general traffic lanes approaching the junction at Prospect Way where the road divides for the Ballymun route turning right and the Finglas route continuing straight ahead.

The EPR included proposed one-way cycle tracks eastbound on Prospect Way, southbound on Botanic Road and northbound on Finglas Road from a short distance north of Dalcassian Downs. South of Dalcassian Downs northbound cyclists would share the bus lane, and there would be no separate cycle track south of there as far as the Royal Canal over a distance of 270m.

The provision of the new cycle tracks would have required acquisition of land from the front gardens of 23 houses along the eastern side of Botanic Road. On Finglas Road the proposals for an additional bus lane and a cycle track required acquisition of land from the front gardens of 19 houses along the western side of (as far as St. Vincent's School).

In the public consultations many submissions objected to the proposed impact of the road widening into front gardens. Concerns were also raised about the cycling facilities and the gap in the northbound cycle track.

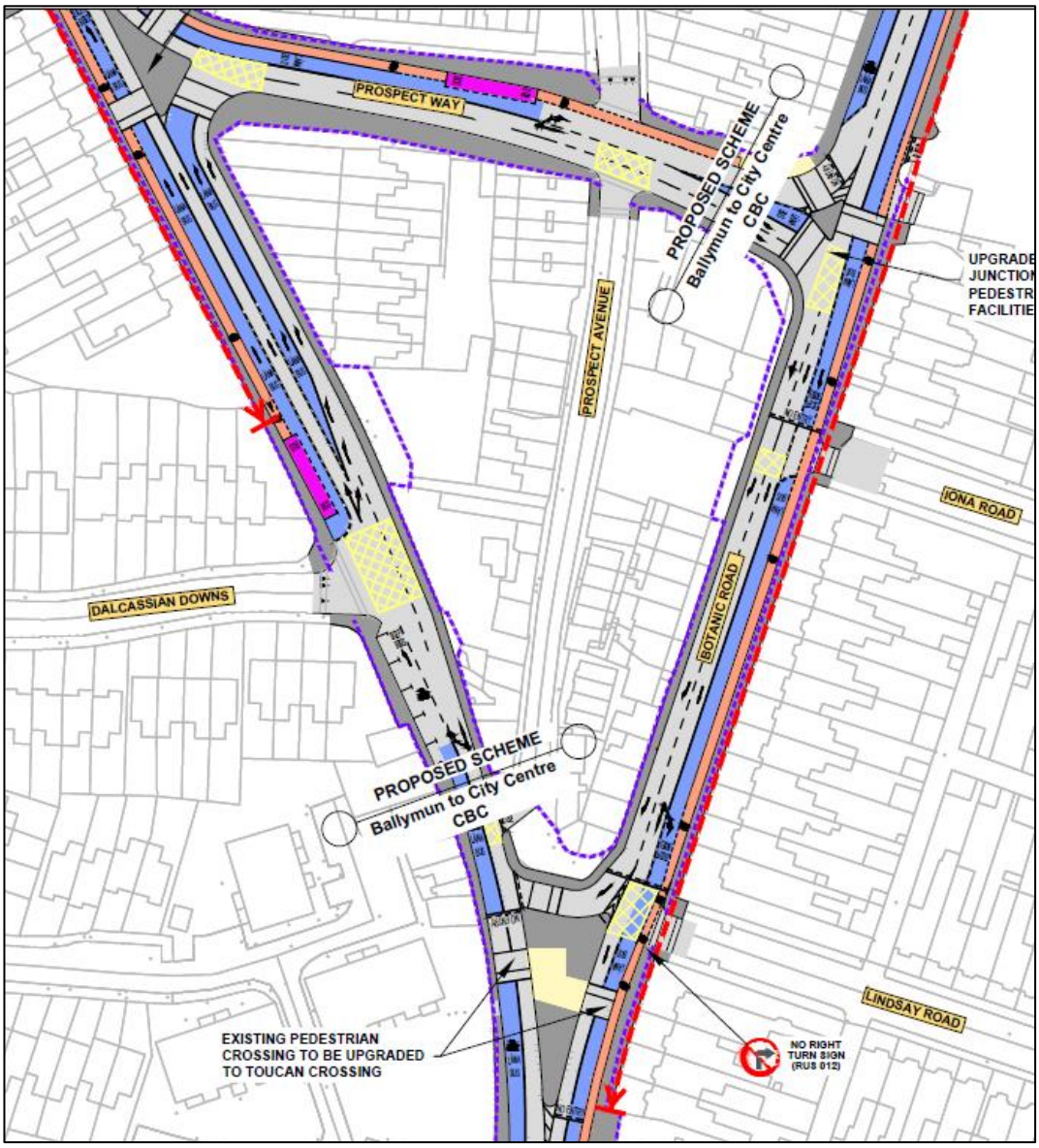

Figure 6-38 – Option A (EPR) at Hart's Corner

For the PRO a review of the cycling facilities at Hart's Corner identified an opportunity to both reduce the need for acquisition of land from front gardens, and to provide two-way cycle tracks on the eastern and northern sides of the traffic gyratory as shown below in Figure 6-40 as Option B which was published in the second non-statutory public consultation in March 2020. On Botanic Road this option would reduce the road layout from two southbound general traffic lanes to one lane beside the bus lane. This arrangement provides a 3m wide space along the eastern side of the street for a two-way cycle track which would avoid the need for acquisition of land from the front gardens of 23 houses. This option would complement the proposed cycle route along Royal Canal Bank on the eastern side of Phibsborough with a continuation northward along the eastern side of Prospect Road on the most direct link to Botanic Road. A two-way link along Prospect Way then connects to the Finglas Road. In this alternative arrangement there would be a continuous segregated cycle route through the Hart's Corner gyratory and there would be no need for cyclists to share the bus lane from the Royal Canal northwards as in Option A. On the Finglas Road side of Hart's Corner the layout in Option B was modified to reduce the need for acquisition of land from the small front gardens of 19 houses on the western side, and instead the road would be widened to a lesser degree with encroachment into 1 garden on the western side and 10 gardens on the eastern side (6 south of Prospect Way and 4 at Bengal Terrace north of Prospect Way), and from St. Vincent's School on the western side of Finglas Road further north.

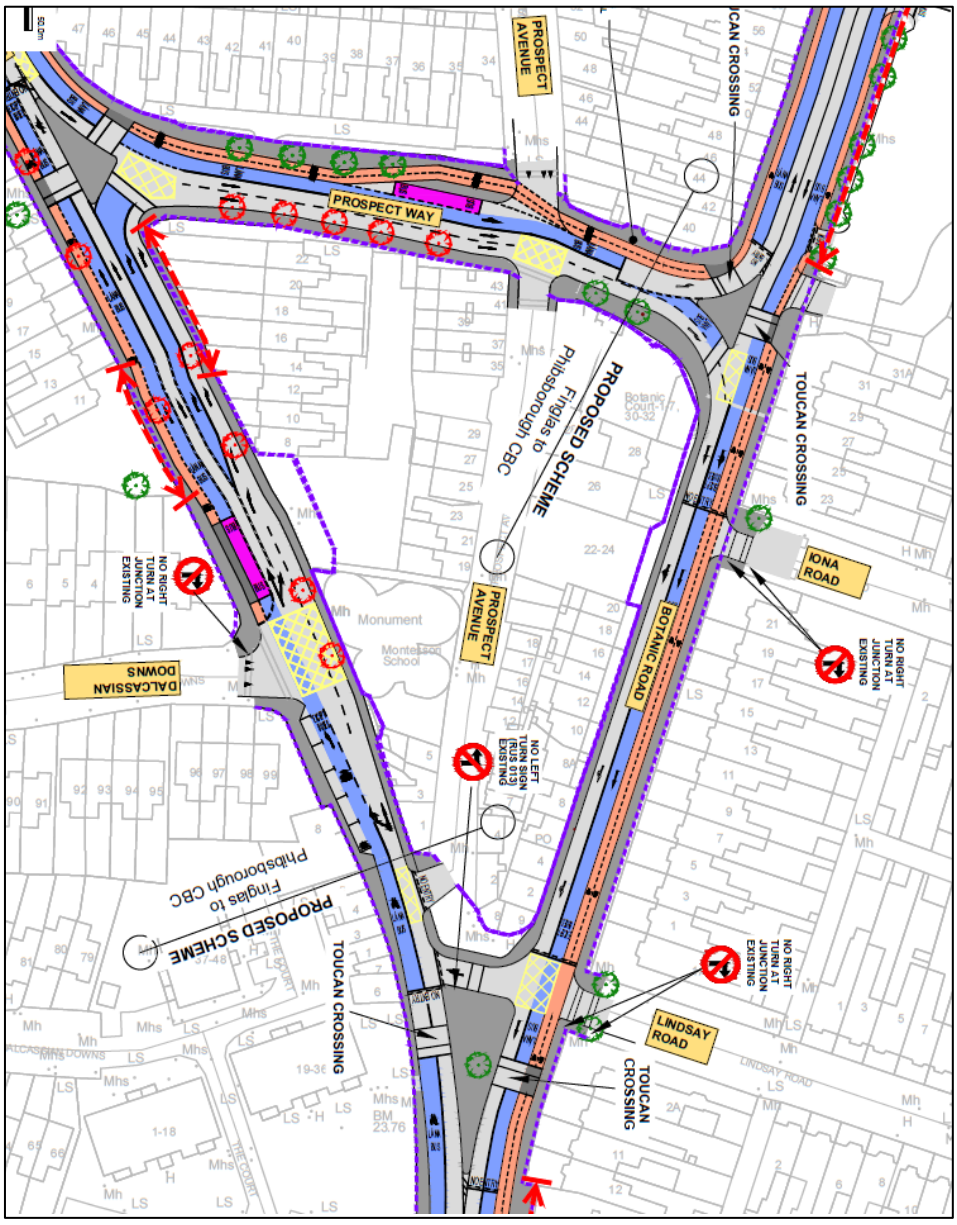

Figure 6-39 – Option B at Hart's Corner

A further Option C was published in the third non-statutory public consultation in November 2020 as shown in Figure 6-40. This option omitted the second northbound bus lane on Finglas Road south of Prospect Way and there would be a 120m long gap in the bus lane towards Finglas between Dalcassian Downs and St. Philomena's Road. Because of the free-flowing traffic conditions on Finglas Road immediately north of Hart's Corner, the short gap in the northbound bus lane would not adversely affect bus operations. In this option the need for any land acquisition for road widening south of Prospect Way was removed, with land required from just 3 houses at Bengal Terrace north of Prospect Way on the eastern side of Finglas Road, and from St. Vincent's School on the western side.

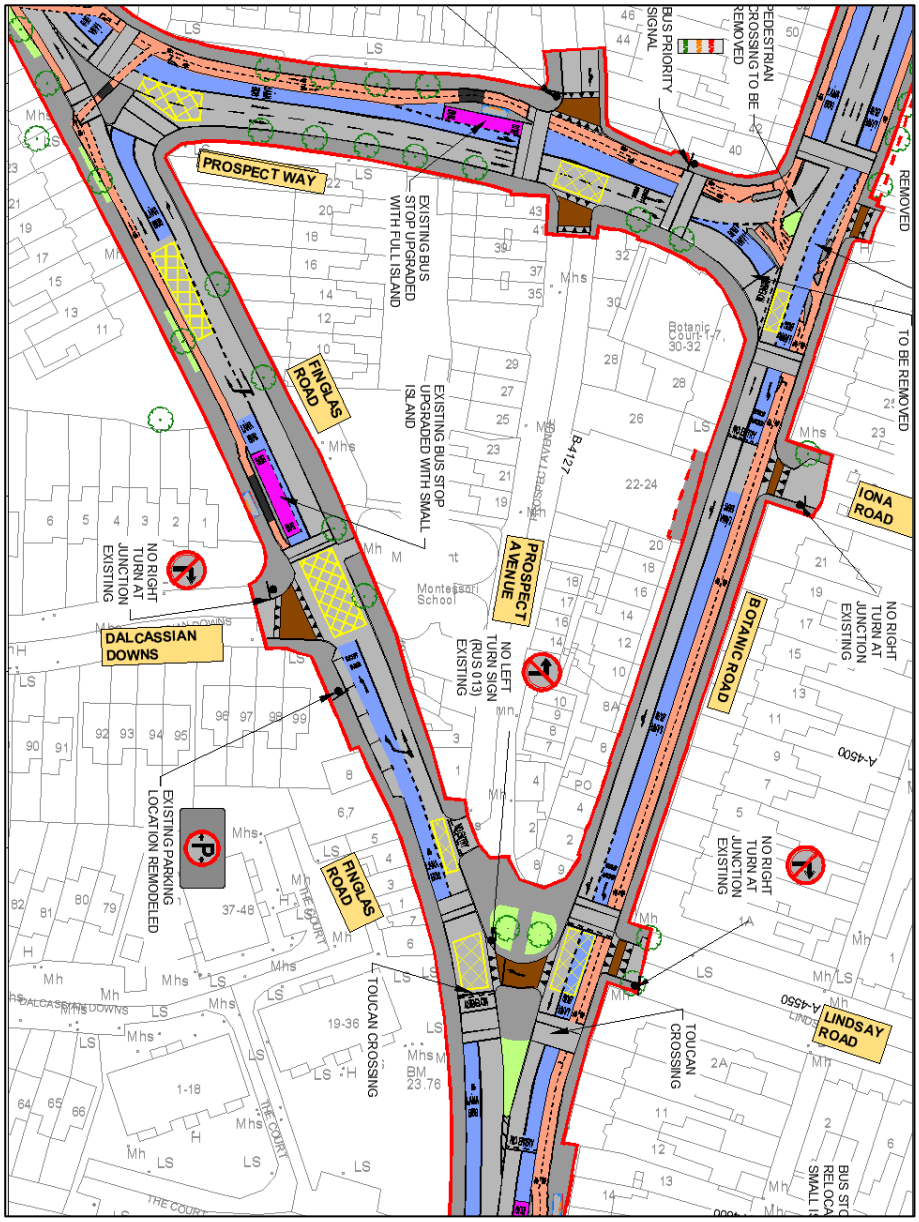

Figure 6-40 – Option C at Hart's Corner

The alternative options at Hart's Corner have been appraised through a multi-criteria assessment as shown in Table 6.1.2.9.

Table 6.1.2.9 – Evaluation of Options at Hart's Corner in Sub-Section 2E

Appraisal Criteria	Option A (EPR) Extensive Widening	Option B Moderate Widening	Option C Limited Widening
Economy			
Capital Cost			
Journey Time Reliability (Bus)			
Integration			
Integration with Land-Use policy			
Residential Population and Employment Catchments			
Public Transport Network			
Cycle Network			
Traffic Network			
Accessibility & Social Inclusion			
Key Trip Attractors within Catchment			
Deprived Geographic Areas			
Safety			
Environment			
Archaeology & Cultural Heritage			
Flora & Fauna			
Soils & Geology			
Hydrology			
Landscape & Visual			
Air & Noise			
Land Use and the Built Environment			
Preference Rank	**3**	**2**	**1**

Option C has many advantages over the other two options, with the exception of bus priority where it would provide a slightly lesser degree of bus priority. Both Options B and C are significantly better than Option A for the cycle network. The main advantage of Option C under the Environment criterion is that it greatly reduces the extent of road widening compared to the other options which limits the impacts for properties and the visual impact for loss of planting in gardens. The options assessment concluded that Option C, at Hart's Corner, is preferred.

Option A involves the most infrastructure cost and land acquisition cost and Option C the least cost and land acquisition. Option C provides a little less bus priority, but this is not significant. Overfall Options B and C are ranked first for Economy.

Under Integration Options B and C are ranked first as they provide a fully continuous segregated cycle route network compared to Option A which requires all northbound cyclists to share the bus lane over a length of 270m.

All options are ranked the same for Accessibility and Social Inclusion.

Options B and C are ranked first Safety as cyclists are fully segregated from traffic.

Option C requires the least amount of widening into gardens and is therefore ranked first for Environment.

The assessment concluded that the preferred option in Sub-Section 2E is Option C.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in Table 6.1.2.10.

Table 6.1.2.10 – Sub-Section 2E MCA Summary

Appraisal Criteria	Option A	Option B	Option C
Economy			
Integration			
Accessibility & Social Inclusion			
Safety			
Environment			

6.1.2.6 Conclusions and Preferred Route Option for Section 2

The following key changes are proposed to the earlier EPR design in Section 2:

a) On St. Mobhi Road at the junction with Griffith Avenue a northbound bus gate will provide priority for buses and general through traffic will be displaced onto other routes to the west.

b) On St. Mobhi Road south of the River Tolka Bridge, the road will be widened on the western side into open green space to enable the provision of segregated cycle tracks.

c) On St. Mobhi Road between Botanic Avenue and Botanic Road a southbound bus lane will be provided, and cycle tracks will be located behind the street trees which will all be retained.

d) On Botanic Road between St. Mobhi Road and Prospect Way segregated cycle tracks will be provided within the narrow road carriageway. Bus priority on this section will be provided through signal controlled priority instead of bus lanes for which the road is too narrow.

e) At Hart's Corner a two-way cycle track will be provided on the eastern side of Prospect Road to avoid the need for northbound cyclists to follow the one-way traffic circulation system around the western and northern side of the triangular gyratory system.

6.1.3 Section 3 – Royal Canal to Ormond Quay (2.1km)

Several key issues were reassessed for this section based on the concerns raised in the non-statutory public consultations and opportunities were identified for improvements or modifications to the design proposals for the following aspects:

a) Provisions for bus priority and cycling facilities along Phibsborough Road and Church Street.

b) Opportunities for alternative cycle routes along quiet streets parallel to the main bus and traffic corridor.

c) Pedestrian facilities at Cross Guns Bridge over the Royal Canal.

d) Options for the pedestrian and cyclist crossing on Royal Canal Bank at North Circular Road.

This 1 km long section is considered in 2 sub-sections as shown in Fig 6-41 and as follows:

Sub-Section 3A from the Royal Canal to Western Way.

Sub-Section 3B from Western Way to Ormond Quay.

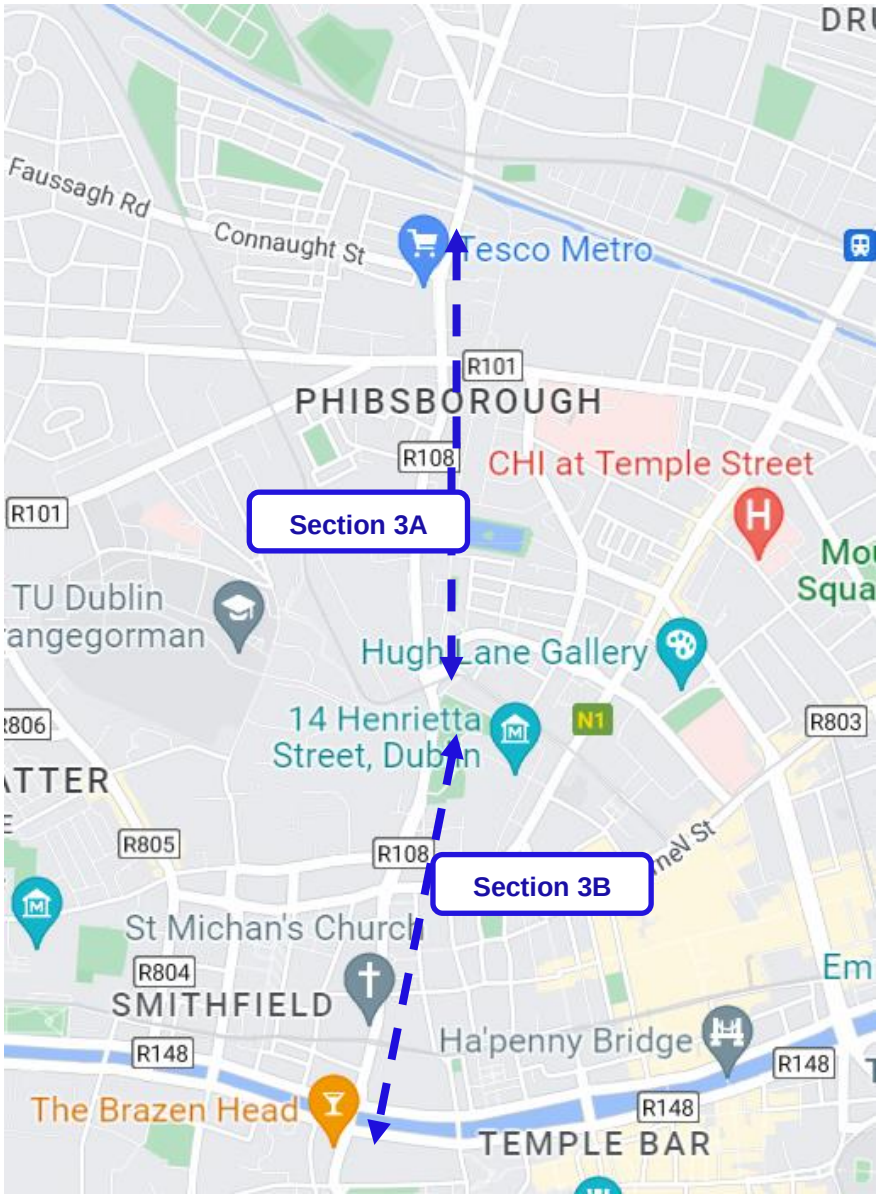

Figure 6-41 – Sub-Sections in Section 3

6.1.3.1 Sub-Section 3A – Options for Bus Priority and Cycling Facilities along Phibsborough Road

In the EPR it was proposed to provide a bus lane and one general traffic lane in both directions generally along the length of Phibsborough Road, apart from a 150m length in the northbound direction south of Doyle's Corner, where the street is only wide enough at one point for 3 lanes, and where the left turn traffic lane approaching the North Circular Road junction was to be retained. The existing street is too narrow to accommodate cycle tracks as well as bus lanes. Instead it was proposed to provide an alternative quiet street cycle route along Royal Canal Bank which runs parallel to Phibsborough Road 100m to the east as shown in Figure 6-42.

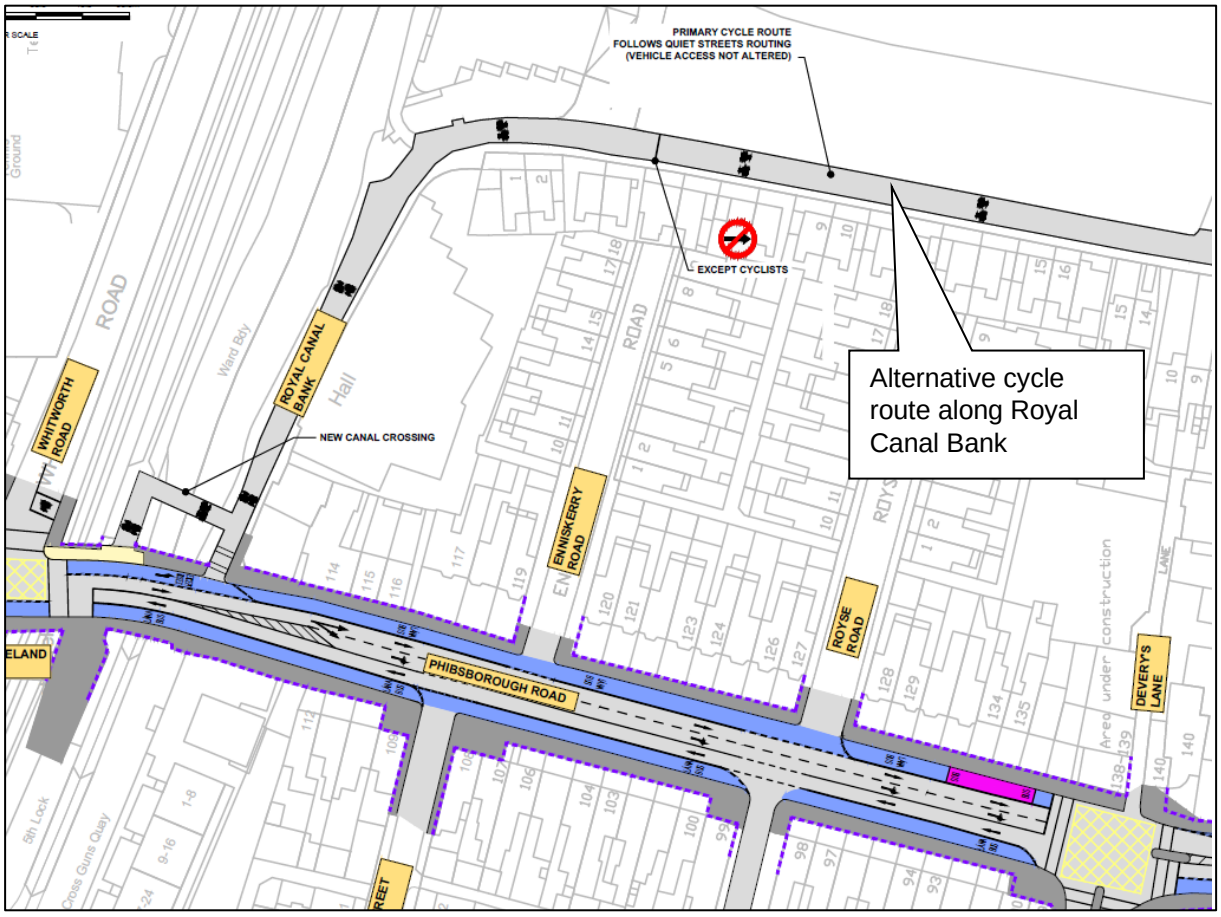

Figure 6-42 – EPR Proposal at Phibsborough

In the public consultations submissions were received seeking cycle tracks along Phibsborough Road, and this possibility was reviewed.

From the Royal Canal southwards over a distance of 1.1km, Phibsborough Road varies in width, and is typically 18m wide in the narrowest section through the junction of Doyle's Corner at North Circular Road. The street is too narrow for the provision of cycle tracks segregated from the bus lanes, for which an overall width of 22m would be necessary. Similar to Botanic Road further north, the choice therefore is between bus lanes in both directions (for 95% of the length) and no cycle tracks along Phibsborough Road, and an alternative parallel route instead (Option A), or a bus lane in one direction only with cycle tracks (Option B). These options were compared in a multi-criteria assessment.

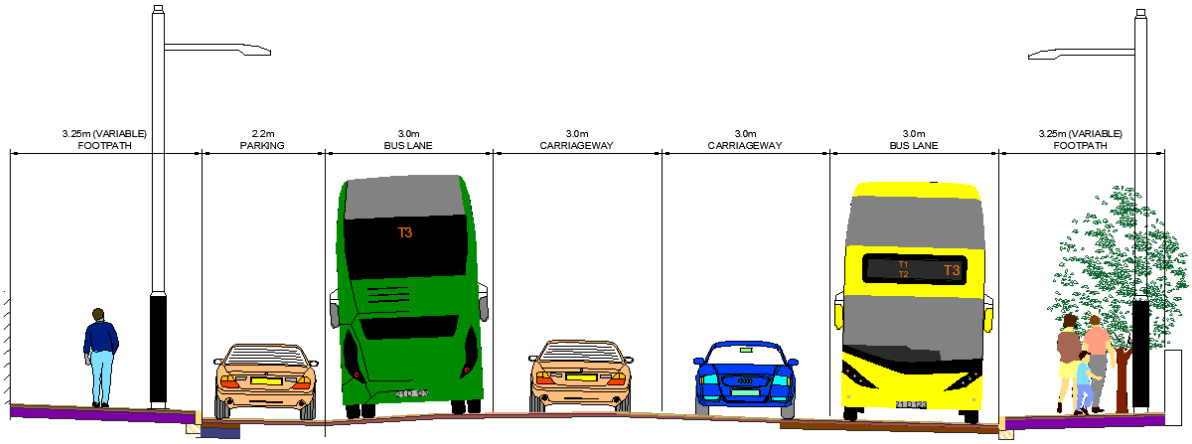

Figure 6-43 – Typical section in Phibsborough Road for Ballymun Sub Section 3A Option A

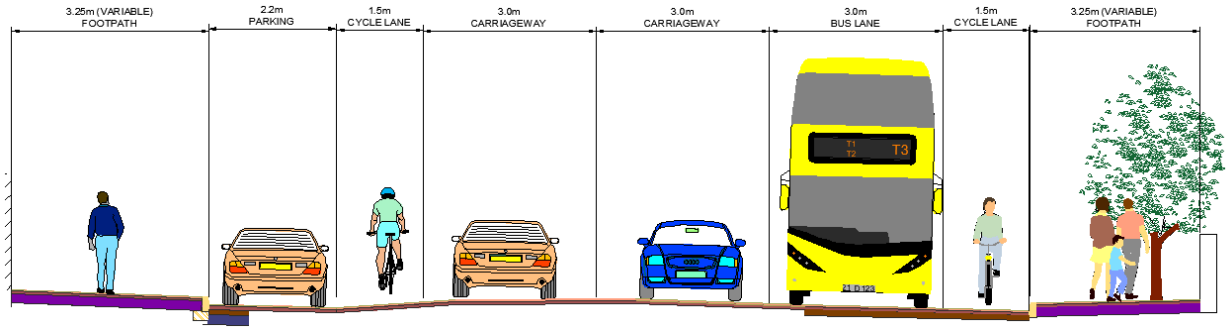

Figure 6-44 – Typical section in Phibsborough Road for Ballymun Sub Section 3A Option B

The alternative options at Hart's Corner have been appraised through a multi-criteria assessment as shown in Table 6.1.3.1.

Table 6.1.3.1 – Evaluation of Options in Sub-Section 3A, - Phibsborough Road

Appraisal Criteria	Option A (EPR) Bus Lanes and Alternative Cycle Route	Option B 1 Bus Lane + 2 Cycle Tracks
Economy		
Capital Cost		
Journey Time Reliability (Bus)		
Integration		
Integration with Land-Use policy		
Residential Population and Employment Catchments		
Public Transport Network		
Cycle Network		
Traffic Network		
Accessibility & Social Inclusion		
Key Trip Attractors within Catchment		
Deprived Geographic Areas		

Appraisal Criteria	Option A (EPR) Bus Lanes and Alternative Cycle Route	Option B 1 Bus Lane + 2 Cycle Tracks
Safety		
Environment		
Archaeology & Cultural Heritage		
Flora & Fauna		
Soils & Geology		
Hydrology		
Landscape & Visual		
Air & Noise		
Land Use and the Built Environment		
Preference Rank	**1**	**2**

The assessment concluded that the preferred option in Sub-Section 3A is Option A with bus lanes in both directions, and a separate cycle route. In the Emerging Preferred Route it was proposed to direct cyclists along a separate cycle route via Royal Canal Bank which runs parallel to Phibsborough Road 100m to the east.

Both options are the same for infrastructure cost and neither involves land acquisition cost. (This is based on an at-grade crossing at North Circular Road for Option A). Option B would provide bus lanes over only 50% of the 1km length in this section, while Option A would provide bus lanes over more than 95% of the length so Option A is ranked first for bus journey reliability. Options A is ranked first for Economy.

All options are ranked the same for Integration.

All options are ranked the same for Accessibility and Social Inclusion.

Option A is ranked first for Safety s it fully segregates cyclists from bus traffic, although there is a nearby alternative quiet street cycle route available.

All options are ranked the same for Environment.

The assessment concluded that the preferred option in Sub-Section 3A Phibsborough Road is Option A with bus lanes in both directions along most of Phibsborough Road and without parallel cycle tracks.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in Table 6.1.3.2.

Table 6.1.3.2 – Sub-Section 3A, Phibsborough Road MCA Summary

Appraisal Criteria	Option A	Option B
Economy		
Integration		
Accessibility & Social Inclusion		
Safety		
Environment		

6.1.3.2 Sub-Section 3A – Cross Gun's Bridge

In the EPR it was proposed to retain the existing road and footpath widths and to provide a bus lane and a traffic lane in each direction on the existing road carriageway. Submissions were received that raised concerns about the narrow footpath on the western side of Cross Guns Bridge, and therefore the options were reviewed for this location.

Phibsborough Road crosses the Royal Canal at Cross Gun's Bridge immediately south of the junction with Whitworth Road. The existing footpath on the western side of the bridge is very narrow at just 1.6m wide which is below the minimum standard, especially for such a busy location. In future it is expected that pedestrian activity across Cross Guns Bridge will increase dramatically when a new combined railway and metro station is opened just north of the bridge to serve the separately proposed DART+ West and Metrolink projects. It is desirable therefore to widen the western footpath on the bridge to at least 3m. There are two options for this:

- Option A (EPR): Widen the western footpath by 1.4m and narrow the eastern footpath, with bus lanes retained in both directions, or
- Option B: Omit the southbound bus lane for a short distance of 40m over the bridge to enable wide footpaths on both sides, and instead to use signal-controlled priority for buses at the Whitworth Road junction.

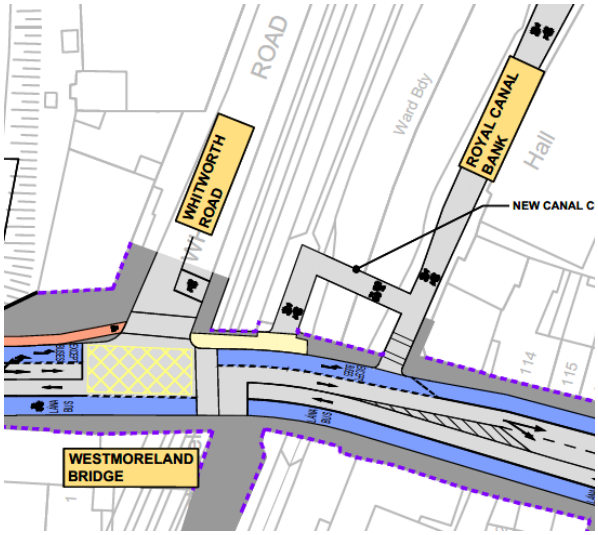

Figure 6-45 – EPR arrangement over Cross Guns Bridge Option A

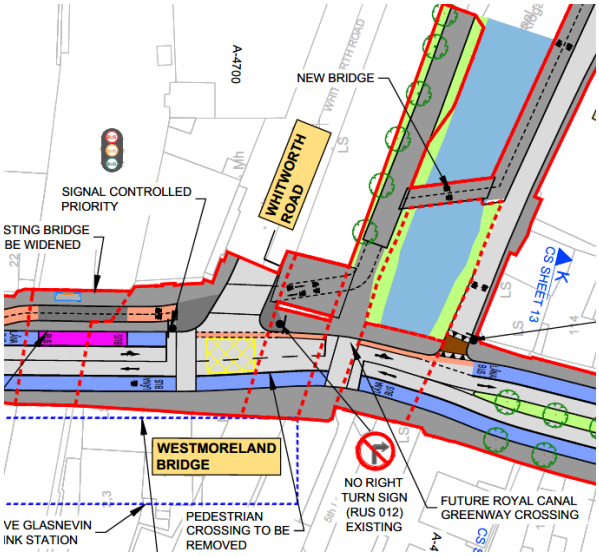

Figure 6-46 – Proposed Scheme arrangement over Cross Guns Bridge Option B

The alternative options at Cross Guns Bridge have been appraised through a multi-criteria assessment as shown in Table 6.2.1.1.

Table 6.2.1.1 – Evaluation of Options in Sub-Section 3 – Cross Guns Bridge

Appraisal Criteria	Option A (EPR) 2 Bus Lanes	Option B Wider Footpaths & 1 Bus Lane
Economy		
Capital Cost		
Journey Time Reliability (Bus)		
Integration		
Integration with Land-Use policy		

Appraisal Criteria	Option A (EPR) 2 Bus Lanes	Option B Wider Footpaths & 1 Bus Lane
Residential Population and Employment Catchments		
Public Transport Network		
Cycle Network		
Traffic Network		
Accessibility & Social Inclusion		
Key Trip Attractors within Catchment		
Deprived Geographic Areas		
Safety		
Environment		
Archaeology & Cultural Heritage		
Flora & Fauna		
Soils & Geology		
Hydrology		
Landscape & Visual		
Air & Noise		
Land Use and the Built Environment		
Preference Rank	**2**	**1**

The difference between the options for infrastructure is insignificant and both provide the same degree of bus journey reliability, so both options are ranked the same for Economy.

All options are ranked the same for Integration, Accessibility and Social Inclusion and Environment.

Option B is ranked first for Safety as it provides a much wider footpath on the western side of Cross Guns Bridge.

The assessment concluded that the preferred option at Cross Guns Bridge is Option B with a northbound bus lane and signal-controlled priority for southbound buses, which will enable a wider footpath on the western side of the bridge.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in Table 6.2.1.2.

Table 6.2.1.2 – Sub-Section 3A at Cross Guns Bridge MCA Summary

Appraisal Criteria	Option A	Option B
Economy		
Integration		
Accessibility & Social Inclusion		
Safety		
Environment		

6.1.3.3 Sub-Section 3A, Royal Canal Bank Cycle Route at North Circular Road

Where the proposed Royal Canal Bank cycle route crosses North Circular Road it was proposed in the EPR to provide an at-grade toucan signal crossing as shown in Figure 6-47. Some requests were received during Public Consultation to provide safer crossing of the cycle route at North Circular Road.

In the draft Preferred Route Option review, the potential for an improved and grade-separated crossing at North Circular Road was identified. Historically there was a stone arch bridge, Blaquiere's Bridge, on North Circular Road where it crossed the former Royal Canal Broadstone Branch Line. The bridge was removed after the canal became disused and was filled in to form what is now the linear park of Royal Canal Bank. At present there is a level difference of approximately 3m between the north-south Royal Canal Bank and the east-west North Circular Road. On the southern side there is no ramp to connect the two streets, with a set of steps on the western side. In the Emerging Preferred Route, cyclists and pedestrians would have been required to climb the 3m level change and then wait for a traffic signal to cross the busy North Circular Road. An alternative option, as shown in Figure 6-48, would be to reinstate a bridge under North Circular Road to enable the north-south cycle route to pass through without the climb and delay of a traffic signal crossing. This option would involve considerably greater cost but would provide a far superior facility for cyclists and pedestrians. It would also reinstate the integrity and continuity of the former canal route and link the southern part of the linear park through to the Phibsborough Library on the northern side. An artist's impression view through the proposed bridge is shown in Figure 6-46 looking northward which shows the library building in the background.

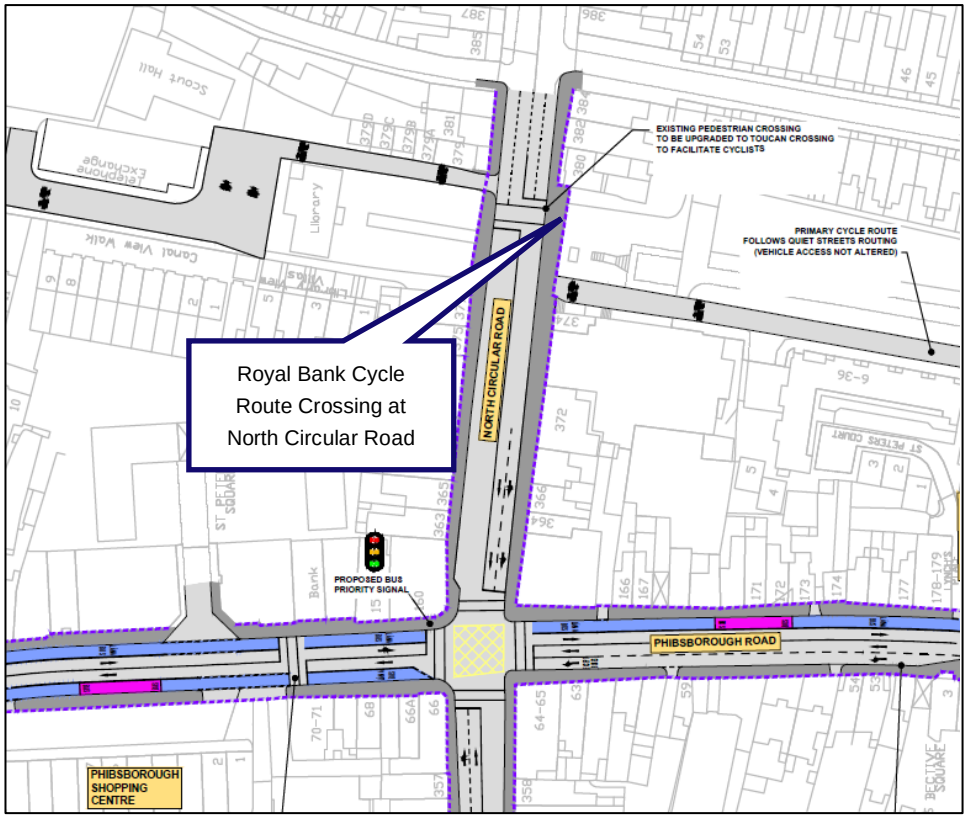

Figure 6-47– Royal Canal Bank Cycle Route Crossing at North Circular Road in the EPR

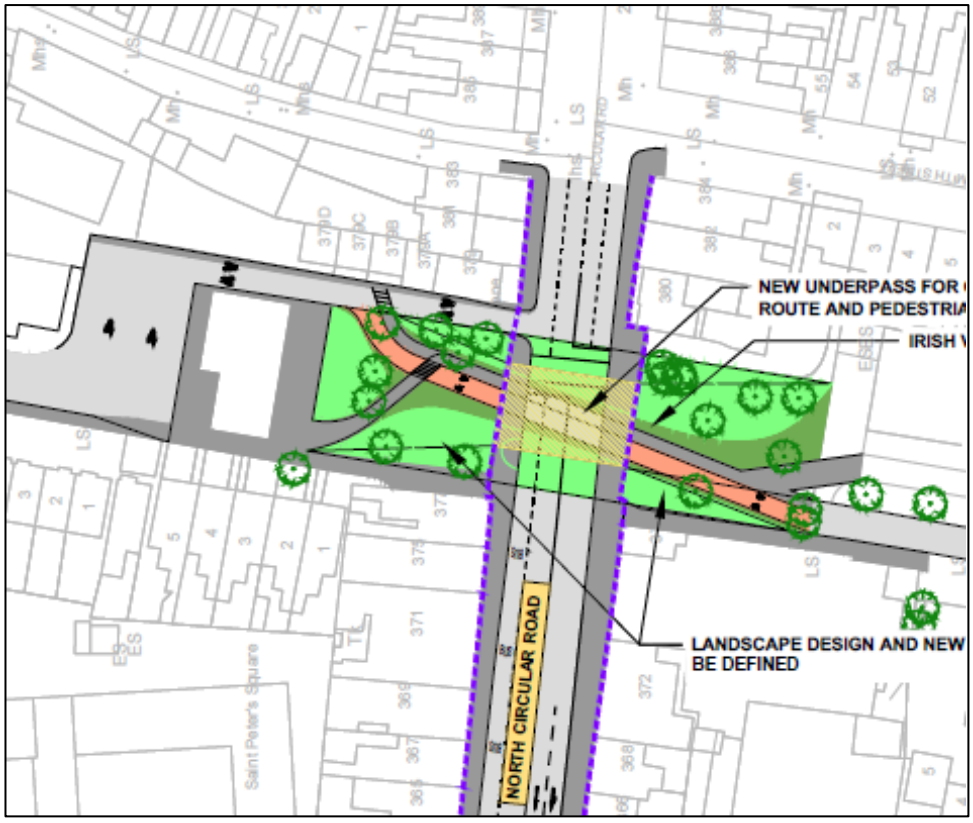

Figure 6-48 – Royal Canal Bank Cycle Route Crossing at North Circular Road: Alternative Option for a Bridge

Figure 6-49 – A view of the potential bridge at Royal Canal Bank Crossing of North Circular Road

The alternative options for the cycle route crossing at North Circular Road on the Royal Canal Bank have been appraised through a multi-criteria assessment as shown in Table 6.1.3.3.

Table 6.1.3.3 – Evaluation of Options for the Crossing of Royal Canal Bank Cycle Route at North Circular Road

Appraisal Criteria	Option A (EPR) Traffic Signals	Option B Bridge
Economy		
Capital Cost		
Journey Time Reliability (Bus)		
Integration		
Integration with Land-Use policy		
Residential Population and Employment Catchments		
Public Transport Network		
Cycle Network		
Traffic Network		
Accessibility & Social Inclusion		
Key Trip Attractors within Catchment		
Deprived Geographic Areas		
Safety		
Environment		
Archaeology & Cultural Heritage		
Flora & Fauna		
Soils & Geology		
Hydrology		
Landscape & Visual		
Air & Noise		
Land Use and the Built Environment		
Preference Rank	**2**	**1**

Option B involves the most infrastructure cost, so Option A is ranked first for Economy.

Under Integration Option A is ranked first as it provides a continuous cycle route that avoids the delay at a signal controlled crossing.

All options are ranked the same for Accessibility and Social Inclusion.

Option B is ranked first for Safety by allowing cyclists and pedestrians to avoid crossing a busy traffic route.

Option B provides continuity of the public park along Royal Canal Bank and reduces community severance and is ranked first for Environment.

The assessment concluded that the preferred option in Sub-Section 3A Options for the crossing of Royal Canal Bank at North Circular Road is Option B with a bridge under the road as well as a signal controlled crossing on the surface.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in Table 6.1.3.4.

Table 6.1.3.4 – Sub-Section 3at North Circular Road MCA Summary

Appraisal Criteria	Option A	Option B
Economy		
Integration		
Accessibility & Social Inclusion		
Safety		
Environment		

6.1.3.4 Sub-Section 3B – Western Way to Ormond Quay (1,000m)

In the EPR the Royal Canal Bank quiet street cycle route re-joined the core bus corridor with a section of two-way cycle track along Western Way to the Broadstone junction at the southern end of Phibsborough Road and Constitution Hill. From there southwards intermittent cycle tracks were proposed along Church Street to Ormond Quay at the end of the route.

Parts of Church Street are too narrow for the provision of both bus lanes and cycle tracks, or even just bus lanes in the two directions. The proposed route will therefore provide intermittent bus lanes in each direction with signal controlled priority at 3 locations along the street. Cyclists will share the bus lanes, and there will be short sections of linking cycle tracks in the sections without bus lanes.

A further option was identified to improve the quality of facilities for cyclists who would prefer not to share bus lanes along Church Street, with an alternative cycle route to the east of Church Street. From the southern corner of the King's Inns Park a quiet-streets cycle route can be directed through the Markets Area along Coleraine Street, Lisburn Street, Linenhall Street, Anne Street North, George's Hill, St. Michan's Street, Ormond Square and Charles Street West. To connect from the proposed Royal Canal Bank cycle route to the Markets cycle route a section of two-way cycle track would be provided along the eastern side of Constitution Hill. This would complete a 2.4km long separate cycle route all the way from the Royal Canal to the River Liffey that avoids the main traffic route as proposed in the *Greater Dublin Area Cycle Network Plan*.

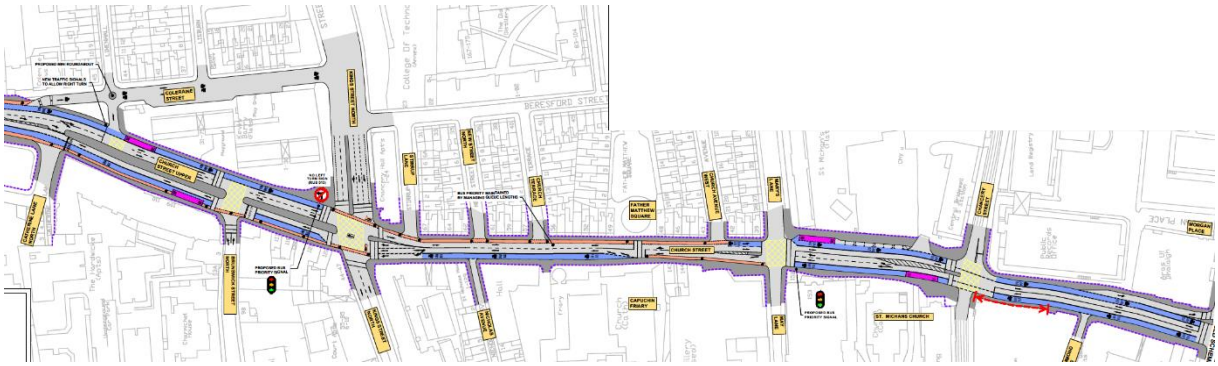

Figure 6-50 – Cycle facilities at Church Street - Option A (EPR)

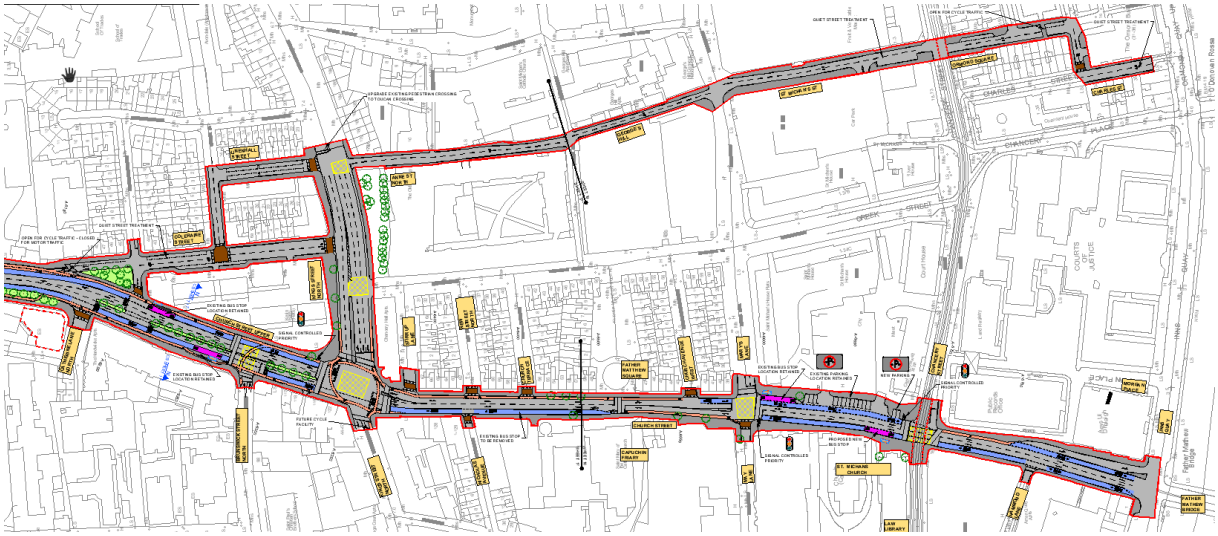

Figure 6-51 – Proposed Scheme, cycleway through Market Area - Option B

The option for an additional cycle route in Sub-Section 3B was appraised through a multi-criteria assessment as shown in Table 6.1.3.5.

Table 6.1.3.5 – Evaluation of Options for Cyclists from Western Way to Ormond Quay

Appraisal Criteria	Option A (EPR) Cycle Route along Church Street	Option B Additional Cycle Route through Markets Area
Economy		
Capital Cost		
Journey Time Reliability (Bus)		
Integration		
Integration with Land-Use policy		
Residential Population and Employment Catchments		
Public Transport Network		
Cycle Network		
Traffic Network		
Accessibility & Social Inclusion		
Key Trip Attractors within Catchment		
Deprived Geographic Areas		
Safety		
Environment		
Archaeology & Cultural Heritage		
Flora & Fauna		
Soils & Geology		
Hydrology		
Landscape & Visual		

Appraisal Criteria	Option A (EPR) Cycle Route along Church Street	Option B Additional Cycle Route through Markets Area
Air & Noise		
Land Use and the Built Environment		
Preference Rank	**2**	**1**

There is no appreciable difference in the infrastructure cost of the options, and both are ranked the same for Economy.

Under Integration Option B is ranked first as it provides an alternative cycle route and an additional network option for cyclists.

All options are ranked the same for Accessibility and Social Inclusion.

All options are ranked the same for Safety.

An advantage of Option B is that it will provide an enhancement to the Markets Area by bringing more cyclists through it, so it is ranked first for land -use under Environment.

The options assessment concluded that Option B is preferred, and this separate cycle route is included in the Preferred Route.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in Table 6.1.3.6.

Table 6.1.3.6 – Sub-Section 3B MCA Summary

Appraisal Criteria	Option A	Option B
Economy		
Integration		
Accessibility & Social Inclusion		
Safety		
Environment		

6.1.3.5 Conclusions and Preferred Route Option for Section 3

The following key changes are proposed to the earlier EPR design in Section 3

a) The southbound bus lane will be omitted over a short distance on Cross Guns Bridge across the Royal Canal with signal-controlled priority instead, which will enable wide footpaths on both sides of the bridge as appropriate to a location of high pedestrian activity.

b) A bridge will be provided to carry North Circular Road over the proposed Royal Canal Bank Cycleway at Phibsborough.

c) An additional quiet street cycle route is proposed through the Markets Area as alternative to the shared use of sections of bus lane by cyclists along Church Street.

6.2 Finglas Section Options Assessment

A review was undertaken of the previous design proposals as published for the Emerging Preferred Route along Finglas Road between St. Margaret's Road and Hart's Corner. This review was informed by additional technical information and the feedback received from the non-statutory public consultations. This section of the Preferred Route Option Report deals with the corridor in 2 sections:

- Section 4: St. Margaret's Road Junction to Slaney Road over 3.0 km.
- Section 5: Slaney Road to Prospect Way (Hart's Corner) over 1.2 km.

6.2.1 Section 4 – St. Margaret's Road to Slaney Road

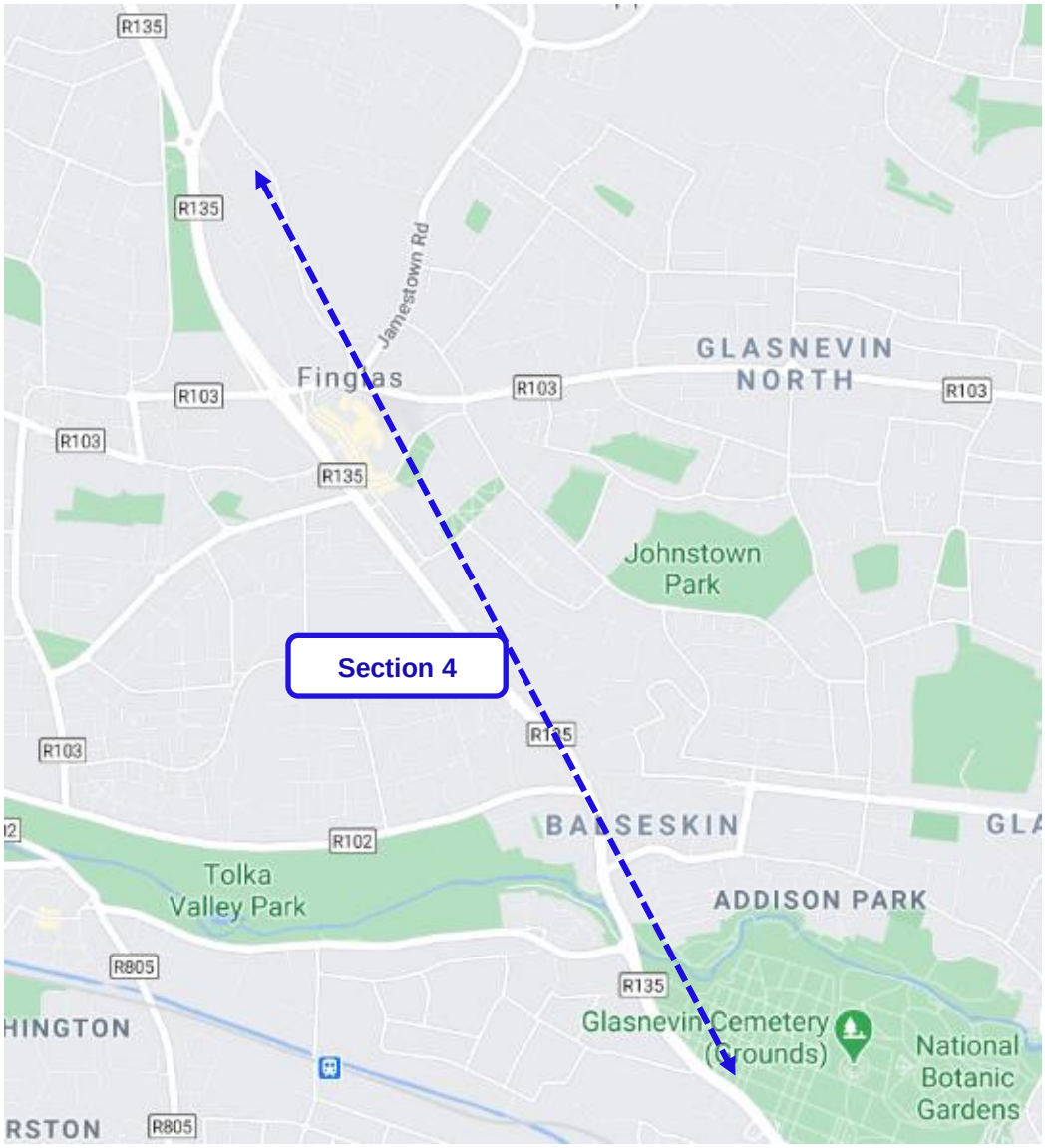

Figure 6-52 – Section 4 for Review of Emerging Preferred Route Option [Google Maps]

Opportunities were identified for improvements or modifications to the design proposals for the following aspects in Section 4:

a) Addition of a northbound Bus Lane north of Mellowes Road

b) Impact on street trees for provision of cycle tracks.

6.2.1.1 Northbound Bus Lane in Section 4 – Finglas Road from Mellowes Road to St. Margaret's Road

In the Emerging Preferred Route Option it was proposed to widen the existing dual carriageway road in the northbound direction to provide a bus lane where there is none at present over a length of 400m from the end of the existing merge ramp at the Mellowes Road junction to the roundabout at the St. Margaret's Road junction.

Figure 6-53 – Existing Road Layout on Finglas Road northbound between Mellowes Road and St. Margaret's Road

The proposed road widening to accommodate a northbound bus lane while maintaining two northbound general traffic lanes would require encroachment into the verge on the western side by up to 3m which would remove some of the existing landscaping along the boundary with Mellowes Park to the west.

Alternative options have been appraised through a multi-criteria assessment as shown in Table 6.2.2.1:

- Option A: EPR design. Road widening to increase the road carriageway footprint.
- Option B: Maintaining the existing road carriageway footprint with the left traffic lane converted to a bus lane. There is a single traffic lane in each direction along the rest of Finglas Road and there is no benefit from retention of two northbound traffic lanes north of Mellowes Road.

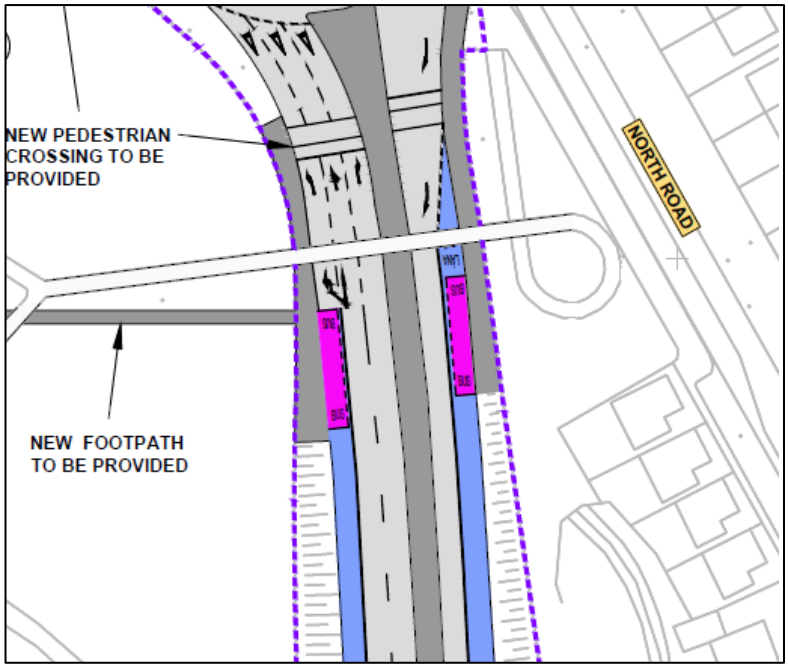

Figure 6-54 – EPR Option A on Finglas Road North Plan - Plan

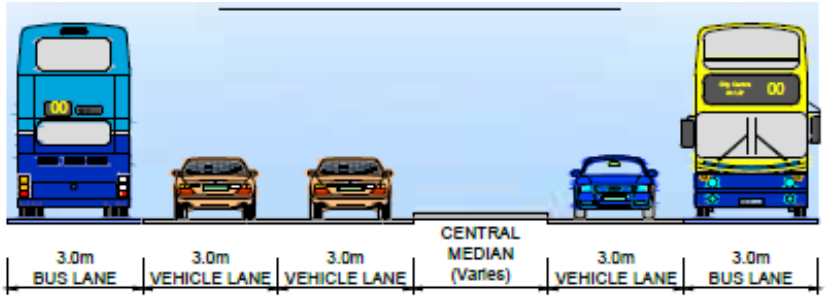

Figure 6-55 – EPR Option A on Finglas Road North – Cross Section

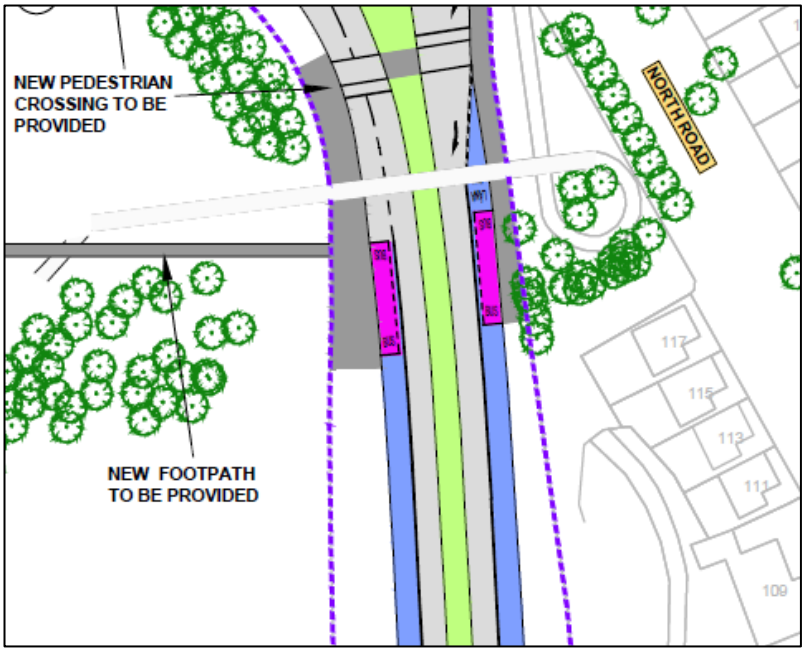

Figure 6-56 – Option B on Finglas Road - North Plan

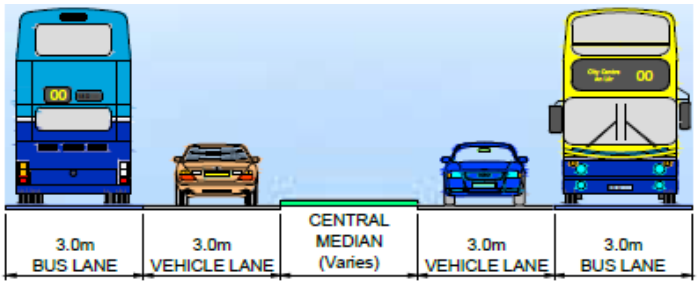

Figure 6-57 – EPR Option A on Finglas Road North – Cross Section

Table 6.2.2.1 – Evaluation of Options for Northbound Bus Lane in Section 4

Option	Option A (EPR) Road Widening	Option B No Road Widening
Economy		
Capital Cost		
Journey Time Reliability (Bus)		
Integration		
Integration with Land-Use policy		
Residential Population and Employment Catchments		
Public Transport Network		
Cycle Network		
Traffic Network		
Accessibility & Social Inclusion		
Key Trip Attractors within Catchment		
Deprived Geographic Areas		
Safety		
Environment		
Flora & Fauna		
Heritage (Architectural and Archaeological)		
Geology, Hydrology Hydrogeology		
Air & Noise		
Landscape & Visual		
Land Use and the Built Environment		
Preference Rank	**2**	**1**

Option A involves the most infrastructure cost, so Option B is ranked first for Economy.

All options are ranked the same for Integration, Accessibility and Social Inclusion, and Safety.

Option A requires the removal of extensive vegetation which ranks it worse for Flora & Fauna, for Hydrology because of the increased paved area and higher drainage flows, and for Landscape and Visual. Option B therefore ranks first for Environment.

The options assessment concluded that Option B is preferable to minimise the impact on the existing environment, and to improve the proposed bus lane facilities by maintaining the existing road carriageway footprint, designating the nearside traffic lane as a new bus lane.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in Table 6.2.2.

Table 6.2.2.2 – Section 4 Northbound Bus Lane Extension MCA Summary

Appraisal Criteria	Option A	Option B
Economy		
Integration		
Accessibility & Social Inclusion		
Safety		
Environment		

6.2.1.2 Cycle Tracks in Section 4 along Finglas Road

The Emerging Preferred Route proposed to provide segregated cycle tracks along the Finglas Road dual carriageway between Wellmount Road and Old Finglas Road over a length of 1.2km by removal of the existing grass verges and trees along the edges of the road as shown in the cross-section below:

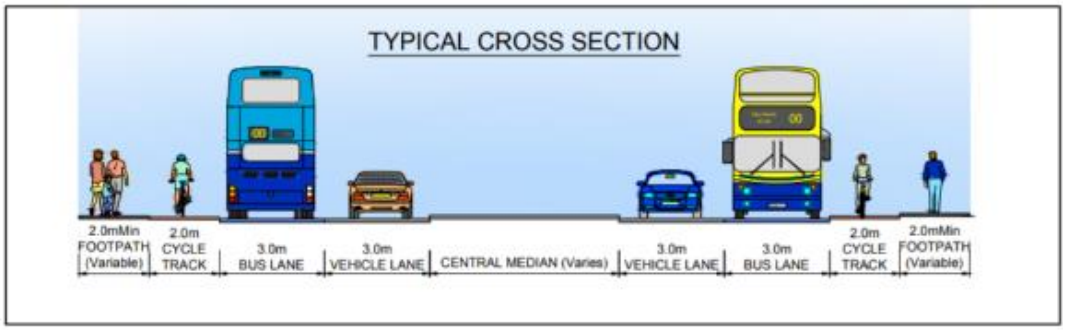

Figure 6-58 – Proposed Road Cross-Section in Section 4 in the Emerging Preferred Route Option

Figure 6-59 – Existing Road Layout in Section 4 on the eastern side

Figure 6-60– Existing Road Layout in Section 4 on the western side

In the review of the Emerging Preferred Route an alternative option was identified by narrowing the existing road carriageway to fit cycle tracks instead of converting the existing grass verges to segregated cycle tracks. The alternative option reduces the encroachment into the grass verges to just 0.5m at the outer edges to fit a 1.5m wide cycle track by narrowing the existing 7.5m wide road carriageway to 6m width as shown in Figure 6-61.

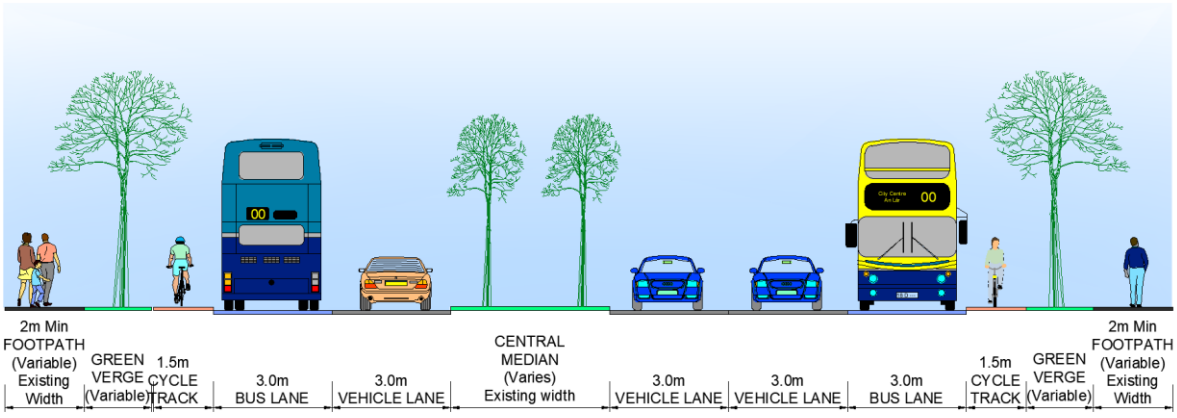

Figure 6-61 – Alternative Proposed Road Cross-Section in Section 4

The alternative options have been appraised through a multi-criteria assessment as shown in Table 6.2.2.3.

Table 6.2.2.3 – Evaluation of Options for Cycle Tracks in Section 4

Option	Option A (EPR) Cycle Tracks on Verges	Option B Cycle Tracks by Road Narrowing
Economy		
Capital Cost		
Journey Time Reliability (Bus)		

Option	Option A (EPR) Cycle Tracks on Verges	Option B Cycle Tracks by Road Narrowing
Integration		
Integration with Land-Use policy		
Residential Population and Employment Catchments		
Public Transport Network		
Cycle Network		
Traffic Network		
Accessibility & Social Inclusion		
Key Trip Attractors within Catchment		
Deprived Geographic Areas		
Safety		
Environment		
Flora & Fauna		
Heritage (Architectural and Archaeological)		
Geology, Hydrology Hydrogeology		
Air & Noise		
Landscape & Visual		
Land Use and the Built Environment		
Preference Rank	**2**	**1**

Both options are ranked the same for Economy, Integration, Accessibility and Social Inclusion, and Safety.

Option A requires the removal of most street trees which would have a major impact for Landscape and visual, as well as moderate impacts for Flora and Fauna, and for Hydrology due to loss of vegetation and increased paved area with associated higher drainage flows. Option B avoids most of these impacts and is ranked first for Environment.

The assessment concluded that the preferred option for cycle racks in Section 4 is Option B with road narrowing to accommodate cycle tracks beside the grass verges and retention of the existing street trees.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in Table 6.2.2.4

Table 6.2.2.4 – Sub-Section 4 Cycle Tracks MCA Summary

Appraisal Criteria	Option A	Option B
Economy		
Integration		
Accessibility & Social Inclusion		
Safety		
Environment		

6.2.1.3 Extension of Northbound Cycle Track to Mellowes Road

An opportunity was found to extend the northbound cycle track by 250m northward from Church Street to Mellowes Road so as to provide a more convenient link from primary radial cycle route 3B to orbital route NO4 (ref. GDA Cycle Network Plan). In the absence of the extension of the northbound cycle track, cyclists wishing to reach the north-western area of Finglas would be likely to continue along the bus lane on the Finglas Road dual carriageway and then take the slip ramp to Mellowes Road at the grade-separated junction on the Finglas Bypass. The road layout can be modified to provide a 2m wide cycle track as shown in Figure 6-62.

For cyclists headed east to Finglas Village, they can cross the Finglas Road dual carriageway at the proposed toucan signal crossing at Church Street, where a gap will be provided through the existing boundary wall on the eastern side for the continuation along Church Street. In the southbound direction cyclists can conveniently link from orbital route NO4 to radial route 3B through Finglas Village Main Street, and then along Church Street to join the start of the southbound cycle track.

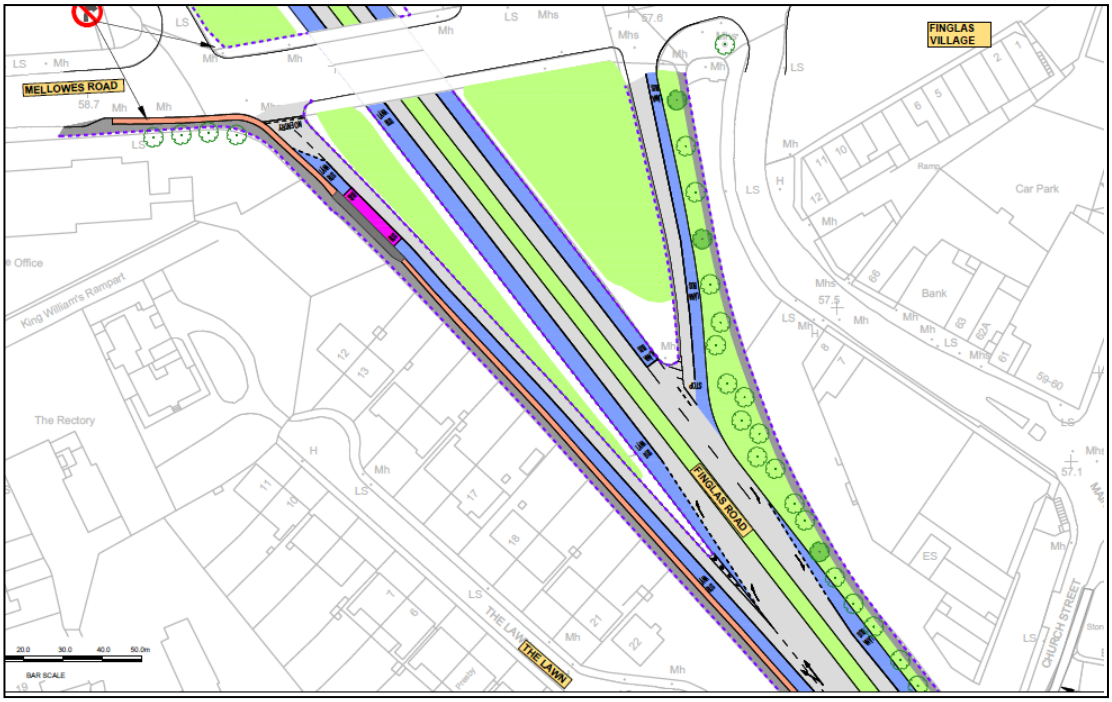

Figure 6-62 – Proposed Extension of the Northbound Cycle Track to Mellowes Road

The alternative options have been appraised through a multi-criteria assessment as shown in Table 6.2.2.5.

Table 6.2.2.5 – Options for the Northbound Cycle Track Link to Mellowes Road in Section 4

Appraisal Criteria	Option A (EPR) Cycle Tracks ends at Church Street	Option B Cycle Track Link to Mellowes Road
Economy		
Capital Cost		
Journey Time Reliability (Bus)		
Integration		
Integration with Land-Use policy		
Residential Population and Employment Catchments		

Appraisal Criteria	Option A (EPR) Cycle Tracks ends at Church Street	Option B Cycle Track Link to Mellowes Road
Public Transport Network		
Cycle Network		
Traffic Network		
Accessibility & Social Inclusion		
Key Trip Attractors within Catchment		
Deprived Geographic Areas		
Safety		
Environment		
Archaeology & Cultural Heritage		
Flora & Fauna		
Soils & Geology		
Hydrology		
Landscape & Visual		
Air & Noise		
Land Use and the Built Environment		
Preference Rank	**2**	**1**

- The difference in capital costs of the two options is insignificant, so both are ranked equal for Economy.
- Option B is ranked highest for Integration because it provides better integration of the Cycle Network by extending the northbound link for Primary Cycle Route 3B on Finglas Road to connect to Orbital Cycle Route N04 on Mellowes Road.
- Both options are ranked the same for Accessibility and Social Inclusion, and Safety.
- The options assessment concluded that Option B is preferable to optimise the provision of cycling facilities along the core bus corridor that is fully integrated with the wider Cycle Network.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in Table 6.2.2.6.

Table 6.2.2.6 – Sub-Section 4 Cycle Tracks MCA Summary

Appraisal Criteria	Option A	Option B
Economy		
Integration		
Accessibility & Social Inclusion		
Safety		
Environment		

6.2.1.4 Conclusions for the Preferred Route Option in Section 4

The Emerging Preferred Route was adjusted to adopt the following changes in the Preferred Route Option:

a) The extension of the northbound bus lane from Mellowes Road to St. Margaret's Rad will be provided by converting the existing left traffic lane instead of road widening.

b) Segregated cycle tracks will be provided on the existing road carriageway instead of on the verges with the existing verges and trees to be retained.

c) The northbound cycle track has been extended by 250m northward from Church Street to Mellowes Road.

6.2.2 Section 5 – Slaney Road to Hart's Corner

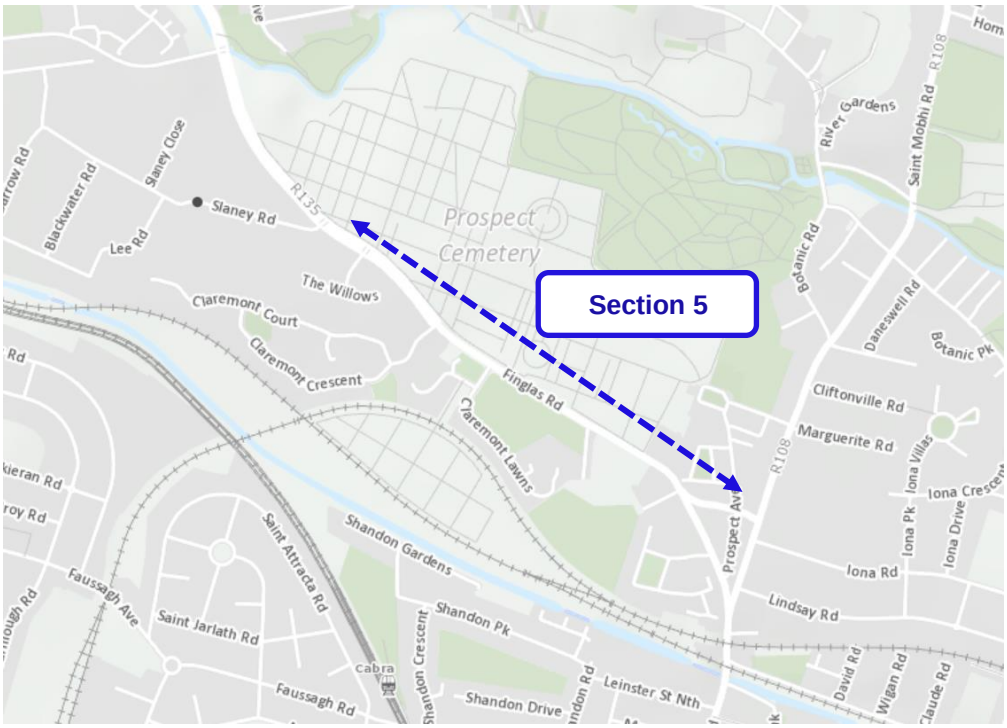

Figure 6-63 – Section 5 for Review of Emerging Preferred Route Option [Google Maps]

Opportunities were identified for improvements or modifications to the design proposals for the following aspects in Section 5:

- Car Parking on Finglas Road at Glasnevin Cemetery.
- Road widening along Finglas Road between Glasnevin Cemetery and Hart's Corner.
- Cycle route at Hart's Corner.

6.2.2.1 Car Park at Finglas Road at Glasnevin Cemetery

In the EPR it was proposed to widen Finglas Road at Glasnevin Cemetery to provide a northbound bus lane and a southbound cycle track where there are none at present. The proposed road layout would consist of a bus lane, a general traffic lane, a cycle track, and a footpath in both directions. The road widening would encroach into the existing perpendicular on-street parking on the southern side of the

road, and this would be replaced with half the number of spaces in a parallel layout as shown in Figure 6-64.

An opportunity was identified for a second option to create a replacement off-road parking facility opposite Glasnevin Cemetery, as shown in Figure 6-65. This would retain the same number of parking spaces as the existing arrangements, rather than lose half the parking as had been previously proposed in the Emerging Preferred Route. The proposed new layout will ensure traffic on Finglas Road, particularly buses, will not be impacted by the manoeuvres required by drivers to parallel park. The increased provision of parking spaces will minimise the extent of overflow parking into Claremont Lawns.

The new parking proposal requires an area of land take at the public park in front of Claremont Lawns north of Towerview Cottages.

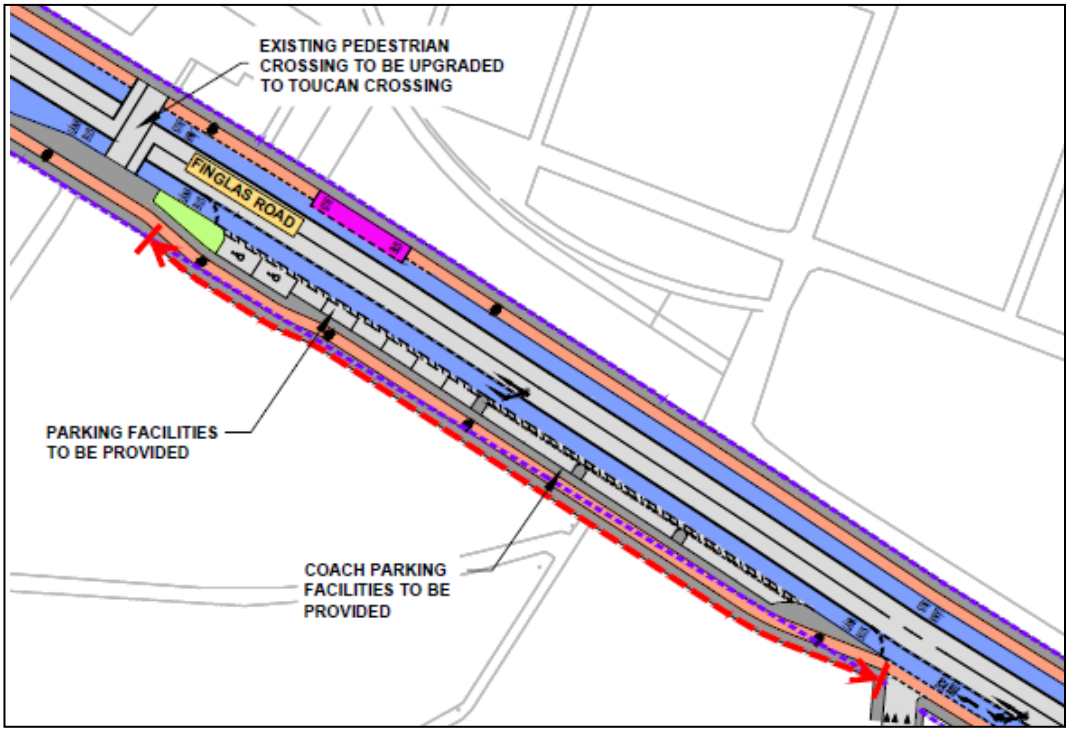

Figure 6-64 – Proposed Reduced Parking Area on Finglas Road at Glasnevin Cemetery in the EPR (Option A)

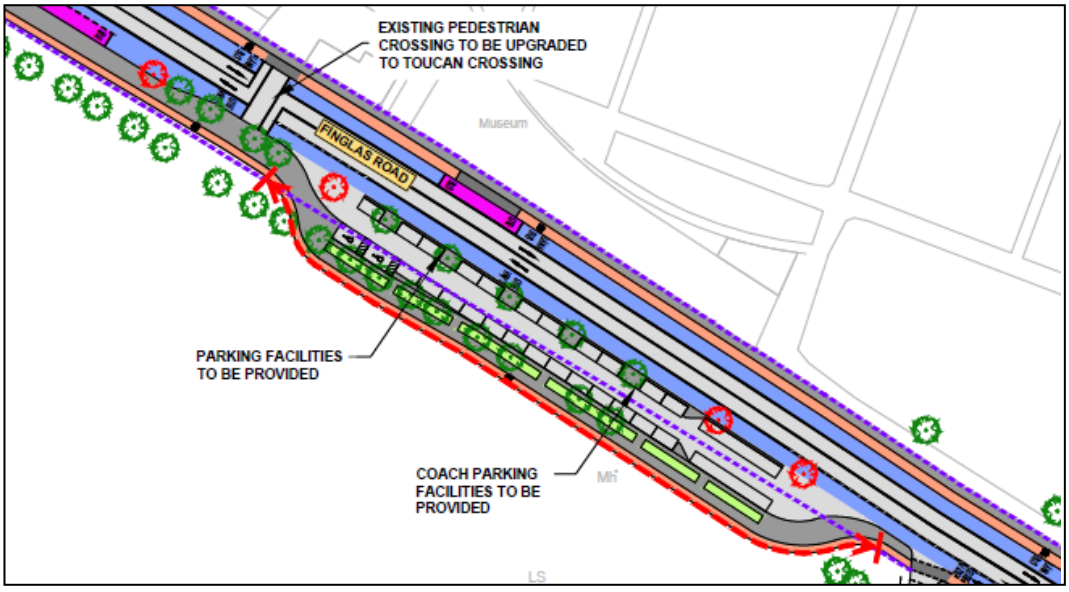

Figure 6-65 – Proposed Larger Car Park on Finglas Road at Glasnevin Cemetery (Option B)

The options for replacement car parking opposite Glasnevin Cemetery in Section 5 was appraised through a multi-criteria assessment as shown in Table 6.2.3.1.

Table 6.2.3.1 – Evaluation of Options for Car Parking Opposite Glasnevin Cemetery in Section 5

Appraisal Criteria	Option A (EPR) Reduced on-road car parking	Option B Full replacement car park
Economy		
Capital Cost		
Journey Time Reliability (Bus)		
Integration		
Integration with Land-Use policy		
Residential Population and Employment Catchments		
Public Transport Network		
Cycle Network		
Traffic Network		
Accessibility & Social Inclusion		
Key Trip Attractors within Catchment		
Deprived Geographic Areas		
Safety		
Environment		
Archaeology & Cultural Heritage		
Flora & Fauna		
Soils & Geology		
Hydrology		
Landscape & Visual		
Air & Noise		
Land Use and the Built Environment		
Preference Rank	**2**	**1**

- Option B involves slightly more infrastructure cost but is better for bus journey reliability by fully segregating the parking area from the bus lane, so both options are ranked equal for Economy.
- For Integration both options are ranked the same.
- For Accessibility and Social Inclusion Option B is ranked first as it better supports the operation of Glasnevin Cemetery by fully retaining the existing parking capacity which will reduce the risk of spill-over parking into the adjoining residential area at Claremont Lawns.
- By fully segregating the parking area from the bus lane Option A is ranked second for Safety as this will involve for parking vehicle movements across a long length of bus lane, compared with a single entry and exit point for the off-line car park in Option B.
- Option B requires removal of some green open space and is ranked second for Environment in terms of impacts for Flora and Fauna through loss of vegetation, for Hydrology due to increased paved area with associated higher drainage flows, and for Landscape and Visual due to a minor loss of part of the large green space at Claremont Lawns.

- The assessment concluded that the preferred option in Section 5 is Option B with a replacement segregated parking area on the western side of Finglas Road opposite Glasnevin Cemetery.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in Table 6.2.3.2.

Table 6.2.3.2 – Section 5 Parking at Glasnevin Cemetery MCA Summary

Appraisal Criteria	Option A	Option B
Economy		
Integration		
Accessibility & Social Inclusion		
Safety		
Environment		

6.2.2.2 Road Widening on Finglas Road South

In the EPR it was proposed to widen the southern end of Finglas Road between Glasnevin Cemetery and Prospect Way to provide a northbound bus lane and a southbound cycle track where there are none at present. The proposed road layout would consist of a bus lane, a general traffic lane, a cycle track, and a footpath in both directions. The road widening would encroach into the ground of St. Vincent's School and gardens of 19 houses on the western side of the street. as shown in Figure 6-66.

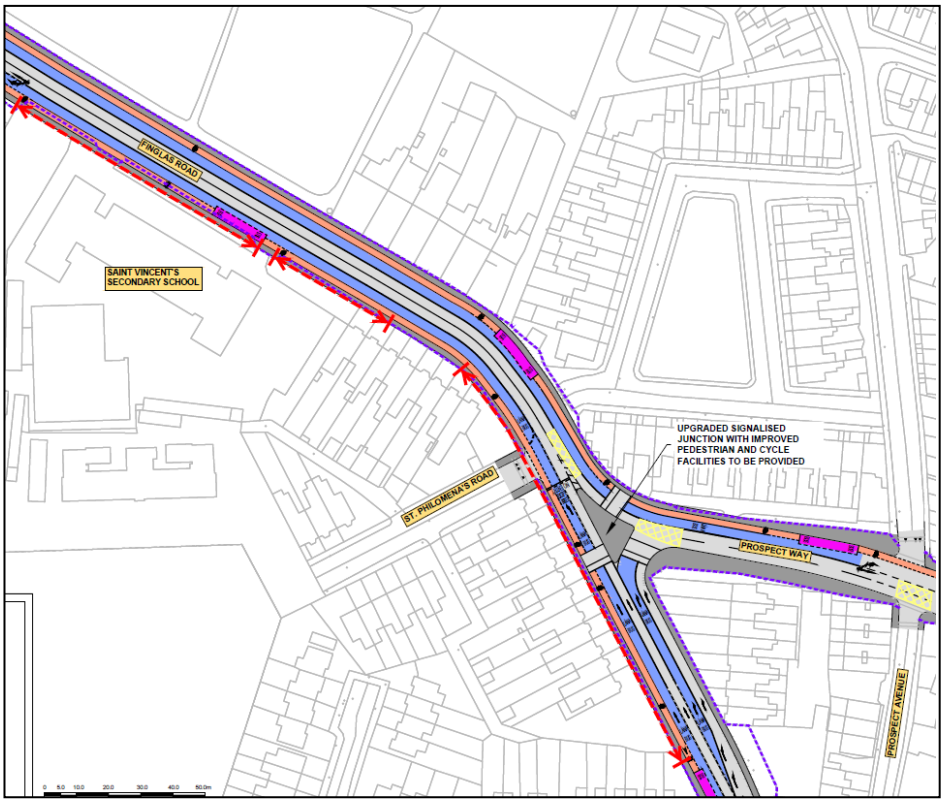

Figure 6-66– Option A (EPR) on Finglas Road South

The road widening impact at properties with already limited access arrangements would have adversely affected parking space within private lands. Air and noise impacts would be slightly greater at the houses that would be closer to the traffic.

A review of the proposed design identified an alternative arrangement with road widening on the eastern side of the street affecting fewer properties (3 houses compared to 19) with larger gardens that could retain off-street parking unaffected. The proposal requires rearrangement of the proposed road, shifting to the east, reducing the width of cycle lanes from 2m to 1.5m, and narrowing of typically 3.2m wide eastern footpath to 2.0m. This alternative proposal is shown in Figure 6-67.

- Option A: EPR design. Wider section and larger land taking on private gardens
- Option B: Proposed option. Design rearrangement to reduce land taking on private lots

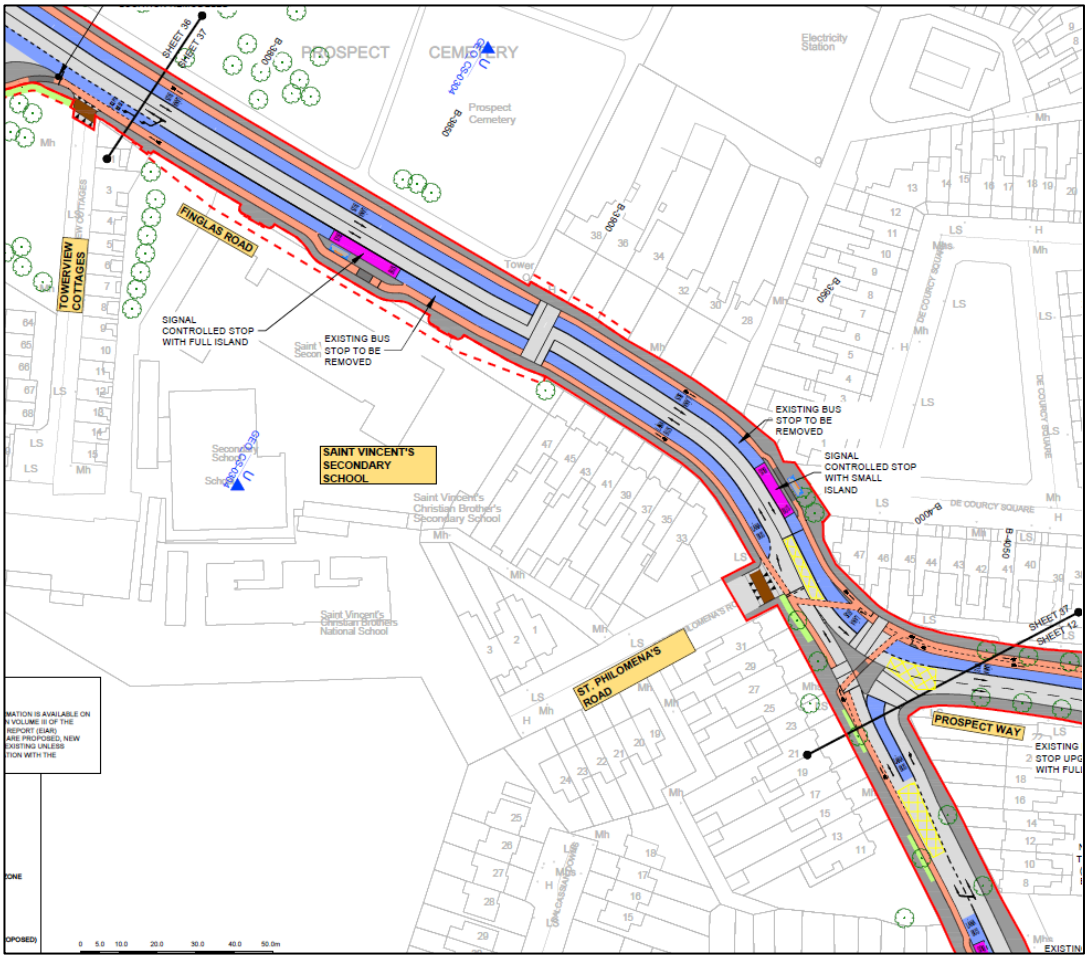

Figure 6-67 – Option B on Finglas Road South

The alternative road widening options for Section 5 have been appraised through a multi-criteria assessment as shown in Table 6.2.3.3.

Table 6.2.3.3 – Evaluation of Options for Road Widening in Section 5 at Finglas Road South

Appraisal Criteria	Option A (EPR) Extensive Widening	Option B Less Road Widening
Economy		
Capital Cost		
Journey Time Reliability (Bus)		
Integration		
Integration with Land-Use policy		
Residential Population and Employment Catchments		
Public Transport Network		
Cycle Network		
Traffic Network		
Accessibility & Social Inclusion		
Key Trip Attractors within Catchment		
Deprived Geographic Areas		
Safety		
Environment		
Archaeology & Cultural Heritage		
Flora & Fauna		
Soils & Geology		
Hydrology		
Landscape & Visual		
Air & Noise		
Land Use and the Built Environment		
Preference Rank	**2**	**1**

Option A involves the most infrastructure cost and land acquisition cost, while both options are equivalent for bus journey reliability, as the short gap in the northbound bus lane in Option B will have little impact for bus operations. Option B is ranked first for Economy.

All options are ranked the same for Integration, Accessibility and Social Inclusion and Safety.

For Environment Option B will greatly reduce the extent of road widening into gardens, which has much less impact for Land Use and Built Environment and for Landscape and Visual through loss of trees and shrubs. In Option A the bus traffic would be closer to the fronts of the houses on the western side of e road which would have a slightly greater impact for Noise and Air Quality. Option B is therefore ranked first for Environment.

The assessment concluded that the preferred option in Section 5 at Finglas Road South is Option B with limited road widening.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in Table 6.2.3.4.

Table 6.2.3.4 – Section 5 Finglas Road South MCA Summary

Appraisal Criteria	Option A	Option B
Economy		
Integration		
Accessibility & Social Inclusion		
Safety		
Environment		

6.2.3 Conclusions and Preferred Route Option for Section 5

The Emerging Preferred Route has been adjusted to adopt the following changes in the Preferred Route Option:

a) Improved parking facilities at Glasnevin Cemetery with full replacement of the existing parking capacity in a new off-line car park instead of reduction by half of the existing on-street parking as included in the EPR.

b) Reduced road widening compared to the EPR with much less land acquisition impacts, particularly at houses with short driveways along the southern end of Finglas Road between Glasnevin Cemetery and Prospect Way.

7. Preferred Route Option

7.1 Introduction

This chapter of the report presents and describes the preferred route option identified and the preferred route option Proposed Scheme design for the Ballymun / Finglas to City Centre Core Bus Corridor. The Preferred Route Option design drawings are included in Appendix A of this report.

7.2 Preferred Route Option Scheme Description

The Ballymun / Finglas to City Centre Core Bus Scheme is shown below in Figure 7-1.

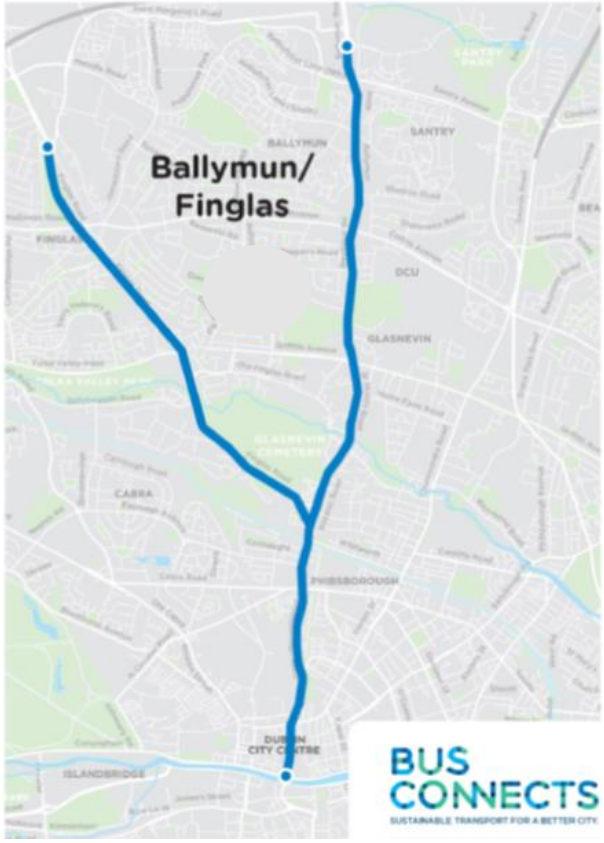

Figure 7-1 – Ballymun to City Centre & Finglas to Phibsborough Core Bus Corridor Scheme

The Preferred Route Option for the Proposed Scheme comprises two main sections: **Ballymun** and **Finglas.**

The **Ballymun Section** commences at the St. Margaret's Road with Ballymun Road junction and is routed southbound all along Ballymun Road to the Griffith Avenue junction. The corridor runs southbound all along St. Mobhi Road to the junction with Botanic Road, and then to Hart's Corner. South of Hart's corner, the corridor runs along Prospect Road and Phibsborough Road, through Phibsborough Village, passing Doyle's Corner down to Western way junction. It then follows southwards via Constitution Hill and Church Street to Arran Quay

For the purpose of scheme description, the **Ballymun Section** is subdivided as follows:

Section 1: Ballymun Road from St. Margaret's Road to Griffith Avenue

Section 2: Griffith Avenue to Phibsborough at the Royal Canal

Section 3: Royal Canal, Phibsborough to Ormond Quay

The **Finglas Section** is located along Finglas Road over a length of 4.2 km and extends from the St. Margaret's Road roundabout at the northern end and continues to Hart's Corner north of Phibsborough, where it connects to the Ballymun to City Centre Core Bus Corridor.

For the purpose of scheme description the Finglas Section is subdivided as follows:

Section 4: Finglas Road from St. Margaret's Road to Slaney Road

Section 5: Finglas Road from Slaney Road to Hart's Corner

7.2.1 Section 1 – Ballymun Road from St. Margaret's Road to Griffith Avenue

The Proposed Scheme in Section 1 extends along Ballymun Road where the road layout will be as follows:

- The Proposed Scheme in this section runs along Ballymun Road, with a typical cross-section of 1 cycle lane `1 bus lane + 2 traffic lanes per direction from the start at St. Margaret's Road to the Shangan Road junction in Ballymun town centre.
- On Ballymun Main Street between the junctions at Shangan Road and Gateway Crescent, the bus lanes will operate full time instead of part time, one traffic lane will be removed in each direction and parking bays will be provided on each side of the street. Segregated cycle tracks will be provided between the parking spaces and the footpaths.
- South of the Collins Avenue / Glasnevin Avenue junction Ballymun Road on the western side between St. Pappin Road and Our Lady of Victories Primary School will be narrowed to a single traffic lane in each direction which will accommodate permanent on-street parking near the school.
- At the junction of Ballymun Road, St. Mobhi Road and Griffith Avenue, the one-way traffic system will be modified for two-way movements on the western and southern arms so that the southbound left-turn from St. Mobhi Road into Griffith Avenue eastbound can be redirected away from the eastern side of the gyratory system.

7.2.2 Section 2 - Griffith Avenue to Phibsborough at the Royal Canal

The Proposed Scheme in Section 2 runs along St. Mobhi Road, Botanic Road and Prospect Road and the road layout will be as follows:

- At St. Mobhi Road, a Northbound Bus gate is proposed at the Griffith Avenue junction, which will assist bus movements by reducing traffic in the shared northbound lane over a length of 1km. Northbound through traffic will be diverted via Finglas Road at Hart's Corner. At local level northbound traffic will divert through Glasnevin village. On St. Mobhi Road the existing cross-section will be retained with two general traffic lanes and a southbound bus lane. The existing green verges with mature trees will be retained and segregated 1.25m cycle tracks will be provided beside the footpaths on both sides. Along the frontage of Na Fianna GAA Club and the Home Farm football pitch land will be acquired to provide a wider footpath and a two-way cycle track where there are many pedestrians and cyclists accessing to the schools and sports clubs. Between the River Tolka and Botanic Avenue the road will be widened on the western side to enable a cycle track to be provided on the eastern side with retention of the existing on-street parking, which will require the removal of five street trees.
- Enhanced cycling facilities are proposed on Glasnevin Hill, and an urban realm improvement is proposed at Glasnevin Village at the junction of Botanic Avenue and Botanic Road. Near the southern end of Ballymun Road the street is too narrow for an increase in two-way traffic and it

will be restricted to southbound one-way traffic, which can also accommodate on-street car parking.

- At Botanic Road, the northern 230m length of the road is narrow and widening is not proposed for bus lanes. Instead Signal Controlled Priority will be provided on the approaches. The existing advisory cycle lanes will be upgraded to segregated cycle tracks.
- At Hart's Corner, the section along Prospect Road in the southbound direction will have one bus lane and one traffic lane. The northbound direction runs via Finglas Road and Prospect Way within the gyratory system. On Prospect Road there will be a two-way cycle track from the Royal Canal along the eastern side to replace one of the two existing traffic lanes, which will enable northbound cyclists to bypass the one-way traffic system at Hart's Corner. This two-way cycle track continues along Prospect Way to complete the bypass for cyclists going in the west direction to Finglas Road. The existing bridge over the Railway at Prospect Road will be widened on the eastern side to accommodate the two-way cycle track.

7.2.3 Section 3 – Royal Canal, Phibsborough to Ormond Quay

The Proposed Scheme in Section 3 runs along Phibsborough Road, Constitution Hill and Church Street.

- One traffic lane and one bus lane per direction is the proposed typical cross-section along Phibsborough Road except in the following sections:
    - In the southbound direction, a short section at Cross Guns Bridge between Whitworth Road and Royal Canal Bank junctions in Phibsborough Road will be provided with Signal Controlled priority, where there will be a gap in the bus lane.
    - In the northbound direction, due to the reduced road width on Phibsborough Road between Phibsborough and St. Peter's Court, section of Signal Controlled priority is proposed.
- At the Whitworth Road junction, before the crossing of the Royal Canal over Cross Guns River, the 2-way cycle track will diverge from the bus corridor and cross over the railway line and the Royal Canal with new structures, to follow in a quiet street cycle route along Royal Canal Bank parallel to Phibsborough Road, as far as Western Way. At North Circular Road an underpass is proposed to provide a direct and convenient crossing for pedestrians and cyclists.
- Road widening is proposed at Phibsborough Shopping Centre to accommodate an additional bus lane in the southbound directions, which will require removal of some of the parking spaces at the front of the property.
- In the northbound direction there will be a short gap in the bus lane on Phibsborough Road at Royal Canal Terrace, close to the junction with Western Way.
- At Constitution Hill the proposed cross-section will consist of a bus lane and one traffic lane per direction, with a segregated two-way cycle track on the eastern side at King's Inns Park, that will provide continuity of the cycle route from Royal Canal Bank and Western Way. On the western side, a northbound cycle track is provided with some minor widening into the landscaped area along the street edge.
- On Church Street Upper the existing road cross-section will be retained, with a bus lane and one traffic lane in both directions and segregated cycle tracks will be added on both sides.
- At Church Street Lower south of the junction with King Street North the street is too narrow in three locations to accommodate bus lanes in both directions and there will be short gaps with upstream signal-controlled priority. Cycle lanes are proposed through these short gaps in the bus lanes.
- An alternative quiet street cycle route will be provided from Constitution Hill at Coleraine Street and onward through the Markets Area to the River Liffey corridor.

7.2.4 Section 4: Finglas Road from St. Margaret's Road to Slaney Road

This section of the Proposed Scheme runs along Finglas Road, starting at the roundabout junction with St. Margaret's Road. The proposed road layout will be as follows:

- The proposed cross-section will provide a bus lane and one traffic lane in each direction.
- The proposed cycle route joins the core bus corridor at Mellowes Road at Finglas Village and does not extend for the northern 750m to St. Margaret's Road. In the Southbound direction, the proposed cycle route starts at Church Street in Finglas Village and extends southwards along Finglas Road to Hart's Corner where it joins the Ballymun Section. In the northbound direction the cycle route extends from Hart's Corner to Mellowes Road on the western side of Finglas Village.
- Segregated cycle tracks will be provided mainly on the existing road carriageway where the traffic and bus lanes will be narrowed with the existing verges and trees to be retained.

7.2.5 Section 5: Finglas Road from Slaney Road to Hart's Corner

The Proposed Scheme in Section 5 runs along Finglas Road from Slaney Road to Hart's Corner, where the southbound traffic diverges to Prospect Way and the Finglas Section connects with Ballymun Section. The proposed road layout will be as follows:

- Continuous bus lanes and one traffic lane with segregated cycle tracks in both directions, for which road widening will be required at the southern end from Glasnevin Cemetery to near the junction at St. Philomena's Road.
- To accommodate road widening the existing parking facilities in front of the Glasnevin Cemetery will be relocated a little westwards into the adjoining public open space at Claremont Lawns north of Towerview Cottages. A narrow strip of land will be acquired from St. Vincent's school and from the gardens of three houses on the eastern side of the street at Bengal Terrace.

7.3 Scheme Changes Summary

The following list highlights the main scheme changes between the published EPR Option and the PRO:

- At Ballymun Main Street the road will be reduced from 2 traffic lanes to 1 lane in each direction to accommodate additional on-street parking so that the bus lanes can operate all day long. New street trees will be provided between parking bays.
- On Ballymun Road between Collins Avenue and St. Pappin Road on the wester, northbound side, the road will be reduced from 2 traffic lanes to 1 lane to accommodate additional on-street parking near the primary school to remove the risk of unauthorised parking in the bus lane. New street trees will be provided between parking bays.
- The one-way traffic gyratory system at the junctions of Ballymun Road / St. Mobhi Road / Griffith Avenue will be changed to introduce two-way movements on two sides of the triangle, which will reduce turning traffic conflicts with buses and cyclists.
- The bus gate option was selected for St. Mobhi Road in the northbound direction to avoid the need for road widening and removal of a large number of mature street trees. This will divert through traffic to other adjoining routes.
- On St. Mobhi Road most existing street trees will be retained through adjustments to the design of the proposed bus priority and cycling facilities.
- Continuous cycling facilities will be provided along the route and cyclists will not require to share bus or traffic lanes as had previously been proposed on Botanic Road and on a part of Finglas

Road at Hart's Corner. In some sections the cycle route will deviate from the bus corridor and will follow quiet streets instead, at Royal Canal Bank and the Markets Area Cycle Route.

- Public realm improvements have been proposed at focal points along the route to benefit the local community including Ballymun Main Street, Glasnevin Village, Hart's Corner, Phibsborough Village and at several other local focal points.
- A bridge will be provided on North Circular Road to enable the Royal Canal Bank cycle route to pass underneath the busy street and to avoid a signal controlled crossing.
- A segregated two-way cycle track on Constitution Hill will connect from Western Way to Coleraine Street which will form a continuous cycle route linking the quiet streets cycle routes along Royal Canal Bank and through the Markets Area.
- A quiet streets cycle route will be provided through the Markets Aarea to enable cyclists to avoid the busy route along Church Street Lower where segregated cycle tracks cannot be provided.
- On the Finglas Road the proposed northbound cycle track has been extended to the Mellowes Road junction.
- Most street trees will be preserved along Finglas Road by narrowing of the road carriageway to accommodate the proposed cycle tracks.
- The existing parking facilities on Finglas Road at Glasnevin Cemetery will be replaced in full in a new off-street parking area.
- Reduced land acquisition impacts will occur along the southern end of Finglas Road, particularly at houses with short driveways.
- A Segregated two-way cycle track on Prospect Way will link from the Finglas Road to Botanic Road and onward along Prospect Road to the Royal Canal Greenway and to the Royal Canal Bank cycle route.
- The overall amount of parking along the corridor will remain the same, although there will be less in some places, and more in other places.
- The layout of all bus stops along the route have been enhanced to the latest design guidance.
- Some bus stop locations have been optimised to allow better connectivity for bus passengers.
- Cycle facilities have been updated to the latest design guidance, including protected arrangements at junctions.

7.4 Route Summary

7.4.1 Infrastructure Provisions

The proposed Ballymun / Finglas to City Centre Core Bus Corridor is 10.9 km long from end to end and will provide the following improvements.

Table 7-1: Bus Priority Comparison

Bus Priority	Existing (km)	Proposed (km)
Inbound Bus Lane	5.6	10.5
Inbound Signal Controlled Priority	0	0.4
Outbound Bus Lane	5.2	9.6
Outbound Signal Controlled Priority	0	0.4

Bus Priority	Existing (km)	Proposed (km)
Outbound Bus Gate section	0	0.9
Total Bus Priority (both directions)	**11.7**	**21.8 (+86%)**
Physical priority	53%	92%
Virtual Bus Priority	0%	8%

Table 7-2: Cycle Facility Comparison

Cycle Facilities	Existing (km)	Proposed (km)
Cycle Tracks – Segregated		
Inbound	3.55	9.99
Outbound	4.05	10.17
Cycle Lanes – Non-segregated		
Inbound	2.64	0
Outbound	2.93	0
Total Cycle Facilities (both directions)	**13.17**	**20.16 (+53%)**

Bus priority measures are proposed at the following locations:

Outbound direction bus priority:

- Signal controlled priority section at Church Street between May's lane and Father Mathew Square 90m length.
- Signal controlled priority section at Phibsborough Road at Royal Canal Terrace 75m length.
- Signal controlled priority section at Phibsborough Road between Phibsborough and St. Peter's Court 75m length.
- Signal controlled priority section at Botanic Road between St. Theresa's Place and St. Mobhi Road 230m length.
- Bus gate section between Botanic Road and Griffith Avenue, along St. Mobhi Road. 1km length.

Inbound direction bus priority:

- Signal controlled priority section at Botanic Road between St. Theresa's Place and St. Mobhi Road 230m length.
- Signal controlled priority section at Phibsborough Road between Whitworth Road and Royal Canal Bank 60m length.
- Signal controlled priority section at Church Street between King Street North and Church Avenue West 200m length.
- Signal controlled priority section at Church Street between Chancery Street and Hammond Lane 65m length.

7.5 Scheme Benefits

7.5.1 Bus Journey Times

Through the provision of increased bus priority infrastructure, the Proposed Scheme would improve both the overall journey times for buses along the route and their journey time reliability. This would help to realise the objectives of the scheme as set out in Section 2.4 of this report.

Bus priority is achieved along the Proposed Scheme mainly through dedicated bus lanes and signal-controlled priority at 7 locations and a northbound bus gate at one location. This will reduce bus journey times and improve reliability by largely removing interaction between bus traffic and general traffic.

7.5.2 Walking & Cycling

The Proposed Scheme will provide considerable benefits for cyclists and pedestrians.

The provision of dedicated cycling infrastructure along the Proposed Scheme, or on parallel routes in some cases, will improve the level of service provided for cyclists along the route, making cycling trips safer and more attractive.

The Proposed Scheme will deliver substantial elements of the GDA Cycle Network Plan, as well as linking with other proposed cycling schemes, contributing towards the development of a comprehensive cycling network for Dublin.

A number of public realm upgrades are proposed at focal points along the route such as Ballymun Main Street, Glasnevin Village and Phibsborough, including widened footpaths, high quality hard and soft landscaping and street furniture would be provided, where practicable, in areas of high activity to contribute towards a safer, more attractive environment of pedestrians. The scheme would also provide improved pedestrian crossing facilities along the route.

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