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Tallaght
to Terenure

Draft Preferred Route Options Report

November 2020

BUS CONNECTS

SUSTAINABLE TRANSPORT FOR A BETTER CITY.

Project Ireland 2040
Building Ireland's Future

Contents

Appendices

Glossary of Technical Terms

Signal Controlled Bus Priority - Signal Controlled Bus 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.

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.

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.

Virtual Bus Priority – This refers to cases where physical bus priority (i.e. bus lanes) is not provided, and instead, bus priority is provided within the general traffic lane through the use of signal controlled priority or bus gates to control the movements of general traffic.

Quiet Street Treatment – Where CBC roadway widths cannot facilitate cyclists without significant impact on bus priority, alternative cycle routes are explored for short distances away from the CBC 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.

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 CBC Infrastructure Works.

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.

Executive Summary

Introduction

The purpose of this report is to present an overview of the draft Preferred Route Option (PRO) for the 'Tallaght to Terenure' Core Bus Corridor (CBC) as well as describing the options assessed, and changes made to the scheme since the public consultation in early 2019.

The aim of delivering the Tallaght to Terenure 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 Tallaght to Terenure Core Bus Corridor commences on the R137 Tallaght Road, east of the M50 junction 11 interchange. From here, the CBC is routed via the R137 along Tallaght Road and Templeogue Road, through Templeogue Village, to Terenure Cross, where it joins the Rathfarnham Core Bus Corridor.

Where substantial revisions have been made to the design since the publication of the Emerging Preferred Route (EPR) Option in January 2019, options have been assessed using a Multi-Criteria Assessment (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 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.

The following list highlights the material scheme changes between the published EPR Option and the draft PRO.

- It is proposed to convert Wellington Lane Roundabout to a signalised junction with kerb protection for cyclists.
- No physical interventions are now proposed within Templeogue Village as part of the CBC works. Bus priority signals are to be provided both east and west of Templeogue Village to manage bus priority through the village. BusConnects scheme proposals are intended to tie into the permitted South Dublin County Council Part VIII Templeogue Village Project at Templeogue Tennis Club and at Hollingsworth Cycles.
- Quiet street treatment to Rathdown Crescent is proposed to tie into the proposed quiet street treatment on Rathdown Park as part of the Rathfarnham to City Centre Core Bus Corridor proposals.

1 Introduction and Background

1.1 Introduction

The BusConnects Dublin - Core Bus Corridors Infrastructure Works (herein after called the CBC Infrastructure Works) involves the development of continuous bus priority infrastructure and improved pedestrian & cycling facilities on sixteen radial core corridors in the Greater Dublin Area, across the local authority jurisdictions of Dublin City Council, South Dublin County Council, Dún Laoghaire-Rathdown County Council, Fingal County Council, and Wicklow County Council. Overall the CBC Infrastructure Works encompasses the delivery of approximately 230km of dedicated bus lanes and 200kms of cycle tracks along 16 of the busiest corridors in Dublin.

The Transport Strategy for the Greater Dublin Area 2016 – 2035 sets out a network of the bus corridors forming the "Core Bus Network" for the Dublin region. Sixteen indicative radial core bus corridors were initially identified for redevelopment. This is shown in **Figure 1.1** below (extract from Transport Strategy for the Greater Dublin Area 2016-2035).

Figure 1.1: 2035 Core Bus Network – Radial Corridors

These corridors had dedicated bus lanes along only less than one third of their lengths which meant that for most of the journey, buses and cyclists were competing for space with general traffic and were negatively affected by the increasing levels of congestion. This resulted in delayed buses and unreliable journey times for passengers. Following the completion of feasibility and options

studies, the sixteen radial corridors are being progressed, as the following 16 Core Bus Corridors:

- Clongriffin to City Centre Core Bus Corridor;
- Swords to City Centre Core Bus Corridor;
- Ballymun to City Centre Core Bus Corridor;
- Finglas to Phibsborough 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;
- Clondalkin to Drimnagh Core Bus Corridor;
- Greenhills to City Centre Core Bus Corridor;
- Tallaght to Terenure Core Bus Corridor;
- Kimmage to City Centre Core Bus Corridor;
- Rathfarnham to City Centre Core Bus Corridor;
- Bray to City Centre Core Bus Corridor;
- UCD Ballsbridge to City Centre Core Bus Corridor;
- Blackrock to Merrion Core Bus Corridor; and
- Ringsend to City Centre Core Bus Corridor

1.2 Background

The aim of the CBC Infrastructure Works is to provide enhanced walking, cycling and bus infrastructure on key access corridors in the Dublin region, which will enable and deliver efficient, safe, and integrated sustainable transport movement along these corridors.

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.

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 CBC network across Dublin. The 'Tallaght to Terenure CBC' is identified in this document as forming part of the radial Core Bus Network, designated as 'Route 10'. The BusConnects radial CBC network is shown in **Figure 1.2**.

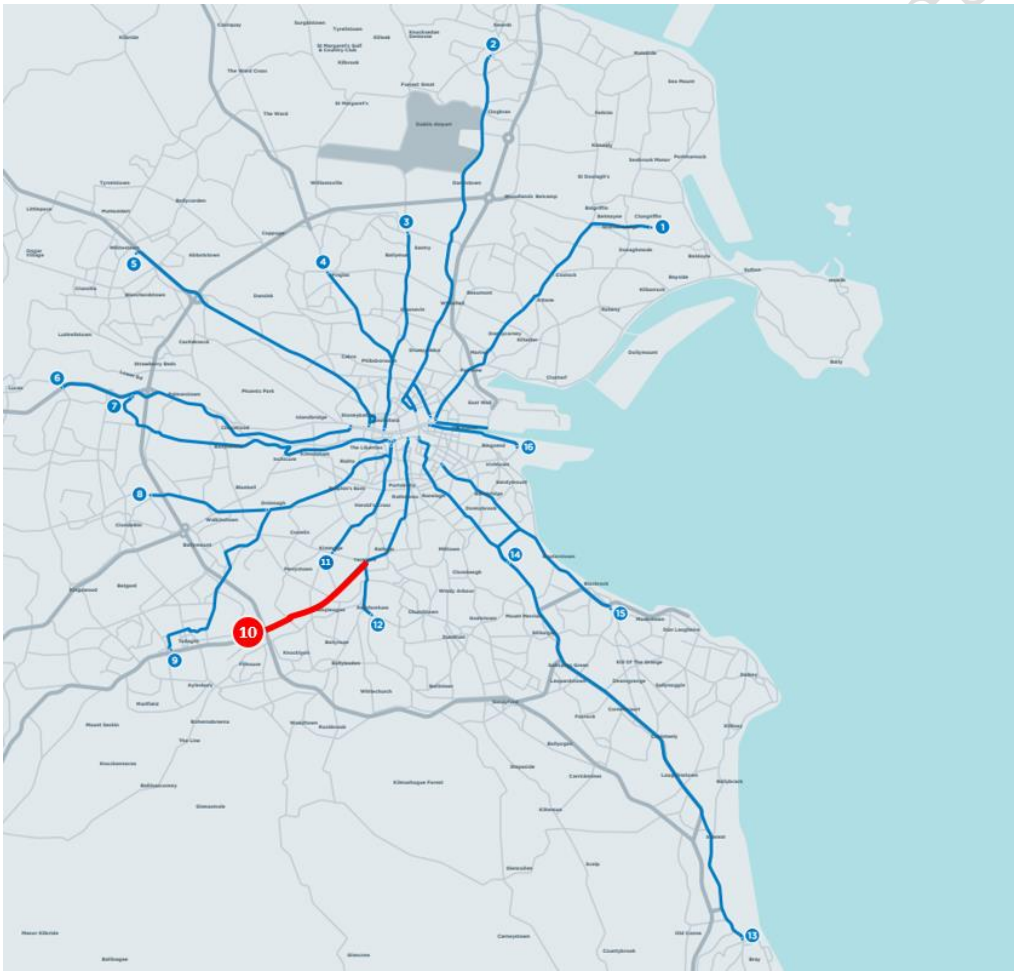


Figure 1.2: BusConnects Radial CBC Network (the CBC highlighted)

Following this, a public consultation for the sixteen radial core bus corridors took place on a phased basis from November 2018 until May 2019. As part of this process the 'Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report' was published, which identified feasible options along the corridor, assessed these options and arrived at an EPR Option. Submissions were invited from the public to provide comment on the EPR Option proposals and to inform subsequent design stages. A second round of public

consultation commenced on 4th March 2020 and ran until the 17th of April 2020 when submissions were once again invited from the public on the draft PRO.

A comprehensive review of feedback received during both consultations has been undertaken. Based on this review, as well as availability of new information (e.g. topographical survey), alternative options have been considered in a number of areas along the Tallaght to Terenure route which seek to address issues of concern to the public, as well as general refinements to the scheme to reduce the overall impact of the proposals, while still achieving the objectives of the scheme.

This report presents a summary of the issues raised in the public consultation and details the alternative options considered, and assessment of same, in order to identify a draft Preferred Route Option (PRO).

1.3 Approach for this Report

This 'Draft Preferred Route Option Report' has been prepared for the Tallaght to Terenure CBC (the CBC), which will build on the 'Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report'. This report, along with its associated appendices as published, is included in Appendix C.

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

- Updated topographical survey information;
- Output from engagement and consultation activities on the Emerging Preferred Route, and draft Preferred Route Option Proposals;
- Clarifications to the previous assessment in the 'Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report';
- Further design development and options assessment; and
- Change in the extent of the scheme.

1.4 Report Structure

The structure for the remainder of this report is set out as follows:

- Chapter 2: Planning and Policy Context – This chapter outlines the general background information to the CBC Infrastructure Works. It also outlines the policy context in which the CBC was developed and presents the concept of the CBC network as outlined in the Transport Strategy for the Greater Dublin Area 2016-2035 (NTA 2015) and the CBC Infrastructure Works;
- Chapter 3: Background and Public Consultation – This chapter outlines the summary of the non-statutory public consultation process;
- Chapter 4: The Study Area – In this chapter, the study area for the CBC is detailed. The integration of the scheme with existing and planned transport networks is considered, along with considerations of the scheme for other road users;
- Chapter 5: Review of the Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report – This chapter is a summary of the options assessment that was previously carried out in each section of the 'Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report'. 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: Option Assessment – This chapter subsequently updates the previous options assessment work undertaken in light of the additional considerations set out in Chapter 5;
- Chapter 7: Draft Preferred Route Option – This chapter gives the overall conclusions of the options assessment process and describes the draft PRO proposal.
- Chapter 8: Next Steps – This chapter details the "next steps" in the delivery of the CBC.

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 CBC.

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

The CBC Infrastructure Works has evolved from and is a key component of the 'Transport Strategy for the Greater Dublin Area 2016-2035' (the 'GDA Transport Strategy'), the purpose of which is *"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"*.

The strategy identifies a "Core Bus Network", representing the most important bus routes within the Greater Dublin Area, generally characterised by high passenger volumes, frequent services and significant trip attractors along the routes. The identified core network comprises sixteen radial bus corridors, three orbital bus corridors and six regional bus corridors. This core bus network is shown in **Figure 2.1**.

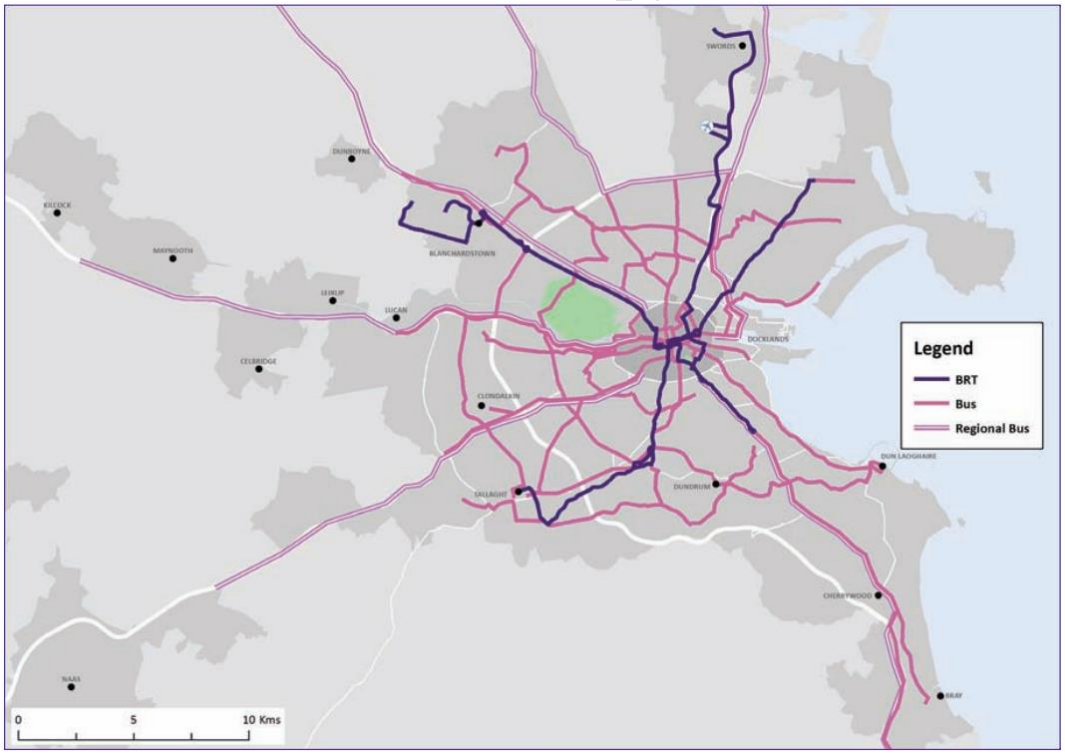


Figure 2.1: GDA Transport Strategy Overall Core Bus Network

The GDA Transport Strategy states that it is intended to provide continuous bus priority, as far as is practicable, along the core bus routes.

This will result in 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.

The Tallaght to Terenure CBC (the CBC) is identified as enabling element as part of the CBC Infrastructure Works.

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 (Route 9A) and secondary (Route 9B) cycle routes identified along the CBC. During the earlier assessment process which identified the EPR Option, 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

Dublin City Council Development Plan (2016 – 2022)

The current Development Plan for Dublin City Council (DCC) came into effect on 21st 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.

South Dublin County Council Development Plan (2016 – 2022)

The current Development Plan for South Dublin County Council (SDCC) came into effect on 12th June 2016 and generally seeks to *'ensure an integrated strategy for transport and mobility that enhances access and movement within and through the County, while promoting change, in favour of sustainable modes.'*

The SDCC 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 sustainable transport options, whilst maintaining the effectiveness of the County's road network.

In terms of transport infrastructure, the following Policies and Objectives have been identified in the County Development Plan which support the proposed development:

Table 2.3: SDCC Development Plan Overarching Objectives aligned with the proposed development

Transport and Mobility Policy 1 - Overarching	
TM1 Objective 1	To support and guide national agencies in delivering major improvements to the transport network.
TM1 Objective 2	To spatially arrange activities around, and improve access to, existing and planned public transport infrastructure and services.
TM1 Objective 3	To focus on improvements to the local road and street network that will better utilise existing road space and encourage a transition towards more sustainable modes of transport, while also ensuring sufficient road capacity exists for the residual proportion of the trips which will continue to be taken by private vehicle.
TM1 Objective 5	To balance the needs of road users and the local community with the need to support the development of a sustainable transportation network.
TM1 Objective 6	To support the delivery of sufficient public transport and road capacity to facilitate sustainable new development in the County.

The Development Plan outlines the policy of SDCC 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.

Table 2.4: SDCC Development Plan Objectives for Public Transport aligned with the proposed development

Transport and Mobility Policy 2 - Public Transport	
TM2 Objective 1	To secure the implementation of major public transport projects as identified within the relevant public transport strategies and plans for the Greater Dublin Area....
TM2 Objective 2	To establish future public transport routes that will support the County's medium to long term development, in particular orbital routes
TM2 Objective 3	To generate additional demand for public transport services through integrated land use planning and maximising access to existing and planned public transport services throughout the network
TM2 Objective 4	To create an interlinked network that maximises the efficiency of existing services, reduces overall journey times and facilitates easy exchanges between modes and/or routes

These objectives result in SDCC identifying a number of actions outlined below:

- *Work with the NTA to secure the extension and expansion of the Core Bus Network and other bus services to serve new areas of employment, housing and tourism potential, whilst also improving the efficiency and frequency of services within more established areas.*
- *Identify opportunities for multi-modal interchange and transport hubs at key locations (such as Centres, cross cutting infrastructure) to increase the efficiency and flow of public transport services.*

The development plan identifies the need to re-balance movement priorities towards more sustainable modes of transportation by prioritising the development of walking and cycling facilities within a safe and traffic calmed street environment.

Table 2.5: SDCC Development Plan Objectives for walking and cycling aligned with the proposed development

Transport and Mobility Policy 3 Walking and Cycling	
TM3 Objective 1	To create a comprehensive and legible County-wide network of cycling and walking routes that link communities to key destinations, amenities and leisure activities with reference to the policies and objectives contained in Chapter 9 (Heritage, Conservation and Landscape) particularly those that relate to Public Rights of Way and Permissive Access Routes
TM3 Objective 3	To ensure that all streets and street networks are designed to prioritise the movement of pedestrians and cyclists within a safe and comfortable environment for a wide range of ages, abilities and journey types.

2.4 The Aim of the Bus Connects Core Bus Corridor Infrastructure Works

The aim of the CBC Infrastructure Works is to provide enhanced walking, cycling and bus infrastructure on key access corridors in the Dublin region, which will enable and deliver efficient, safe, and integrated sustainable transport movement along these corridors. This is fundamental to addressing the congestion issues in the Dublin region with the population due to grow by 25% by 2040, bringing it to almost 1.55m.

Across Dublin, 67% of public transport journeys each day are made by bus, carrying three and four times the number of passengers that travel on the Luas or Dart and commuter rail. The popularity of cycling to work has also increased in popularity, up by 43% since 2011. Through the development of continuous bus priority and segregated cycle lanes the CBC can meet the growing demand for fast, reliable, punctual and convenient bus journeys in and out of the city centre, and safe cycling facilities for this growing numbers of cyclists.

2.5 The Core Bus Corridor Objectives

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 Summary

3.1 Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report and Emerging Preferred Route

In early 2016, the NTA initiated plans to develop the network of CBCs identified in GDA Transport Strategy. As part of this body of work, the 'Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report' (May 2018) was 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 CBC.

3.2 First Non-Statutory Public Consultation – Emerging Preferred Route

The first non-statutory public consultation on the BusConnects CBCs took place on a phased basis. The first phase of consultation occurred from 14th November 2018 to 29th March 2019. The second phase ran from 23rd January 2019 to the 30th April 2019 and the final phase ran from 26th February 2019 until the 31st May 2019. The Tallaght to Terenure CBC EPR Option formed part of the second phase of consultation, which closed on the 30th of April 2019. The Information Brochure published as part of this consultation is included in Appendix D.

There were 387 submissions received relating to the Tallaght to Terenure CBC. These submissions ranged from individual submissions by residents, commuters and local representatives, to detailed proposals from public bodies, various associations and private sector businesses.

A brief summary of the feedback received on the Tallaght to Terenure 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. Traffic Issues Associated with Proposed Traffic Management Measures;
    1a. Traffic Congestion / Increase in Traffic Volumes as a Result of Rerouted Traffic; and
    1b. Safety.
2. Loss of Access to Local Amenities;
3. Loss of Parking;
4. Alternative Solutions;
5. Impact on Road Users who 'Have to Drive';
6. Removal of Bus Stop;

7. Rationalisation of Bus Services;
8. Removal of Trees;
9. Inadequacies in Consultation Process;
10. Cyclist Safety / Inadequate Provision for Cyclists;
11. Proposed land Acquisition; and
12. Devaluation of Property.

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

3.3 Development of Draft Preferred Route Option

Following the first non-statutory public consultation, a review was undertaken of the 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 landowners.

As part of this review, several 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.

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

The draft PRO was published in March 2020 and a second round of public consultation commenced on 4th March 2020 to the 17th of April 2020.

Due to Covid 19 restrictions being imposed by Government in mid-March the planned Public Information Events were impacted. Consequently there were 27 submissions received relating to the Tallaght to Terenure CBC (compared to 387 submissions following the First Public Consultation). These submissions ranged from individual submissions by residents, commuters and local representatives, to detailed proposals from various associations and private sector businesses.

A brief summary of the feedback received on Tallaght to Terenure 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. Traffic Issues Associated with Proposed Traffic Management Measures;

2. Pedestrian Safety;
3. Cyclist Safety;
4. Supportive of Scheme;
5. Loss of Access to Local Amenities;
6. Inadequacies in Consultation Process;
7. Proposed Land Acquisition;
8. Increased Air and Noise Pollution;
9. Removal of Bus Stop;
10. Need for Scheme;
11. Removal of Trees; and
12. Alternative Solutions.

The issues raised during the second public consultation have been considered in the further development of the draft PRO.

Subsequently it was determined by NTA that a third non-statutory public consultation would be conducted prior to finalising the PRO.

4 The Study Area

4.1 Introduction

The overall study area for this assessment is the same as that identified in the 'Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report', see **Figure 4.1**.

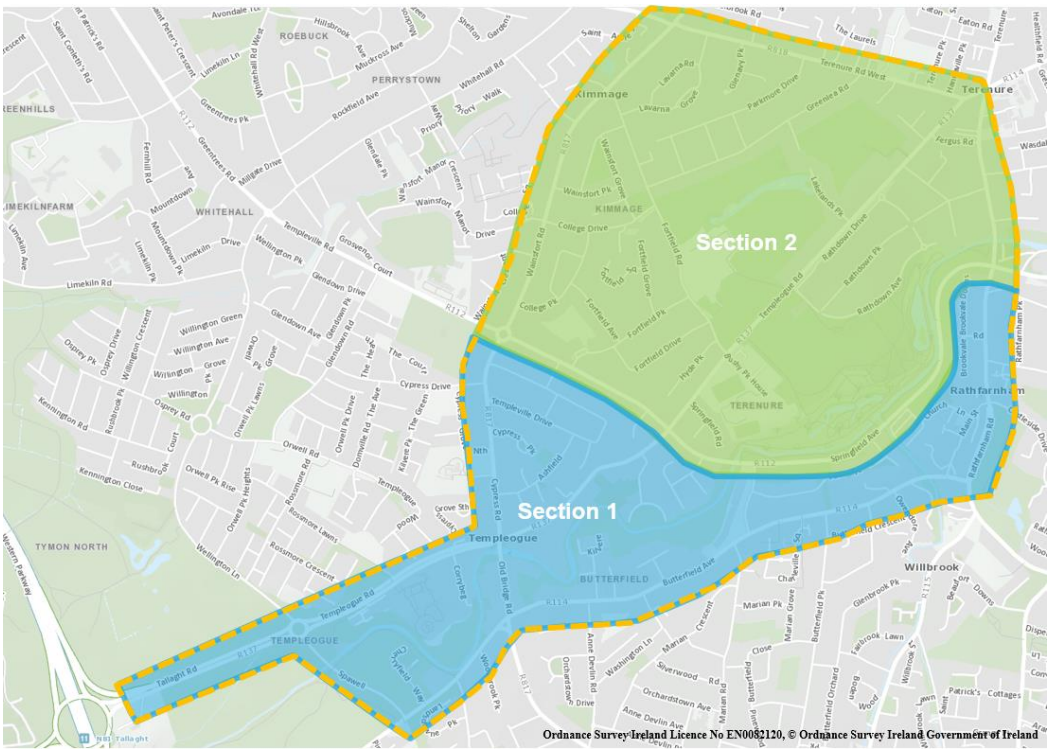


Figure 4.1: Study Area and Section Breakdown

(Reproduced from Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report and updated)

Arising from the transport policy context, the study area extends beyond the immediate alignment of existing bus corridors ensuring all practical opportunities to deliver the necessary service requirements are fully explored and any supplementary traffic measures as required can be identified. The study area also considers the presence of other existing/proposed corridors which will increase the opportunities to transfer between modes and services.

4.2 Study Area Sections

4.2.1 Section 1

Section 1 consists of the R137 Templeogue Road between the N81/M50 interchange and the Springfield Ave/Templeville Road corridor. This section of the study area includes Templeogue Village.

This section of the scheme also includes sections of Cypress Grove Road and Butterfield Avenue, and is bounded to the east by Rathfarnham Road.

4.2.2 Section 2

Section 2 consists of the R137 Templeogue Road between the Springfield Ave/Templeville Road corridor and Terenure Road West. This section of the study area also includes sections of Butterfield Avenue, Wainsfort Road, Springfield Avenue and Rathfarnham Road.

4.3 Physical Constraints and Opportunities

There are a number of potential constraints, both natural (i.e. the existing natural environment) and physical (the built environment), which constrain route options for the proposed scheme within the defined study area including:

- Street trees and other natural features along the route;
- The existing urban and sub-urban roads and street network;
- Bridges at identified natural constraints (e.g. across the River Dodder);
- Availability of land in urban and suburban areas;
- Templeogue Village;
- The available width along Templeogue Road between Cypress Grove Road and Templeogue Village;
- The available width along Templeogue Road between Fortfield Road and Terenure Road West; and
- The built form in close proximity to the carriageway on Terenure Road West at Terenure Cross.

There are also a number of potential opportunities, which could potentially enhance the proposed scheme within the defined study area including:

- The natural amenity of the River Dodder, and the opportunity for integration with the proposed Dodder Greenway Scheme.
- The opportunity for the provision of enhanced public realm within the various villages and urban centres within the study area including Templeogue and Terenure.

4.4 Integration with Existing and Proposed Public Transport Network

One of the key objectives of the proposed CBC 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 with this in mind and, in so far as possible, seek to provide for improved existing or new interchange opportunities with other transport services including:

- Potential for interchange with existing 54a route at the R137 Tallaght Road;
- Potential for interchange with existing 65b, 49 and 15 routes at the R137 Templeogue Road; and
- Potential for interchange with existing 15a, 17 and 16 routes at Terenure Cross.

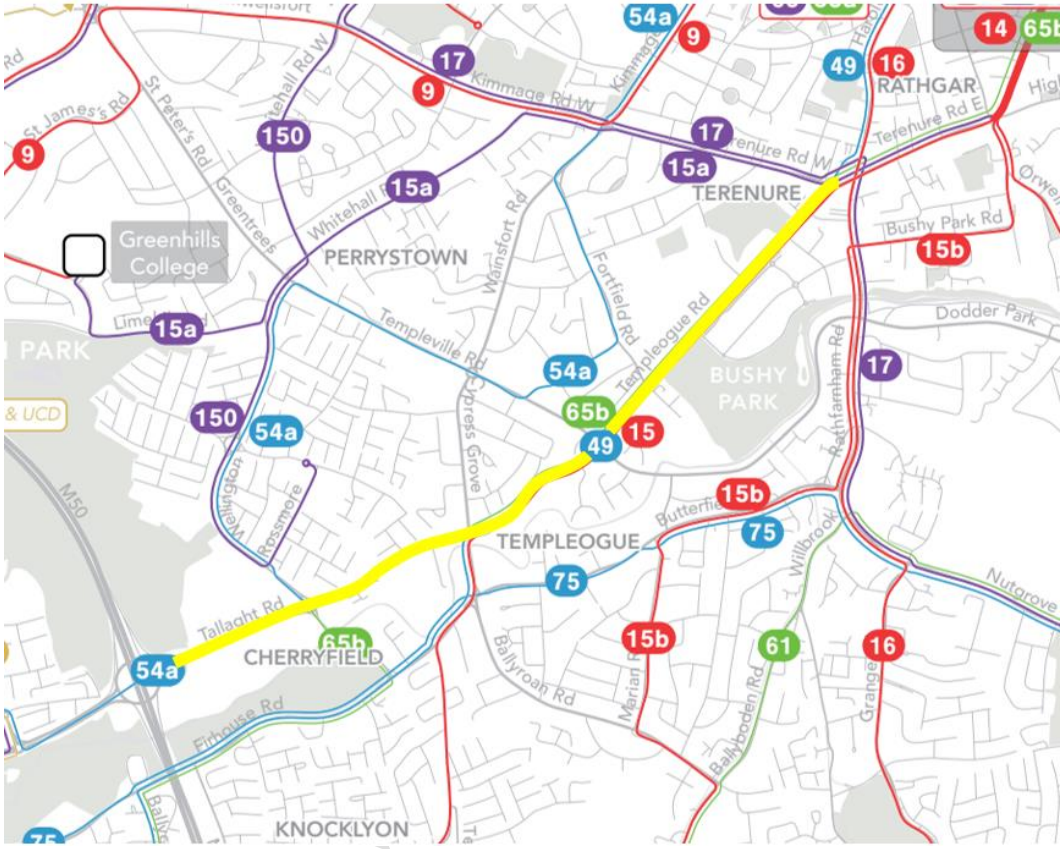


Figure 4.2: Existing Public Transport Services

(the CBC highlighted yellow)

- Potential for interchange with the proposed 82 and F2 routes from the New Dubiln Area Bus Network at Wellington Lane;
- Potential for interchange with the proposed F1 route from New Dublin Area Bus Network at Cypress Grove Road;
- Potential for interchange with the proposed S4, 74 and 85 routes from the New Dubiln Area Bus Network at Terenure Road West.

Figure 4.3, extracted from the BusConnects Network Redesign maps, highlights the potential for interchange with other proposed bus routes along the CBC.

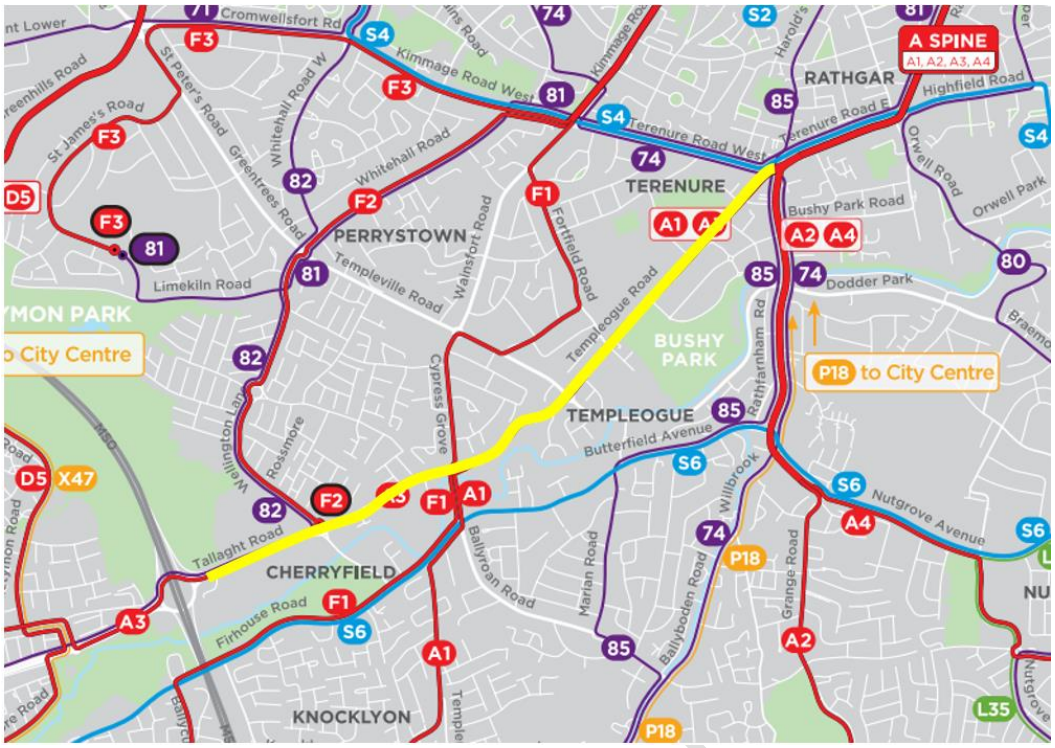


Figure 4.3: Extract from New Dublin Area Bus Network Maps

(the CBC highlighted yellow)

4.5 Integration with Other Road Users

A key objective of the proposed scheme is to improve pedestrian and cyclist facilities along the route. For cyclists, segregated facilities should be provided where practical to do so.

Figure 4.4, extracted from the GDA Cycle Network plan, highlights the CBC in the context of the planned cycle network. The GDA Cycle Network Plan proposes a network of cycle links throughout the Greater Dublin Area, categorised as follows:

- **Primary Routes:** Main cycle arteries that cross the urban area and carry most cycle traffic.
- **Secondary Routes:** Link between principal cycle routes and local zones.
- **Feeder Routes:** Cycle routes within local zones and/or connections from zones to the network levels above.
- **Inter Urban Routes:** Links the towns and city across rural areas and includes the elements of the National Cycle Network within the GDA.
- **Green Route Network:** Cycle routes developed predominately for tourist, recreational and leisure purposes but may also carry elements of the utility cycle route network above. Many National Cycle Routes will be of this type.

Specifically, Primary Cycle Route 9A and Secondary Route 9B from the Greater Dublin Area Cycle Network Plan run along or are intercepted by the CBC, with their provision considered at all stages of the options assessment process.

The interaction of the CBC with other schemes progressing through the planning and design process has also been considered, specifically the Wellington Lane Cycle Scheme, the Templeogue Village Project and the Dodder Greenway Scheme.

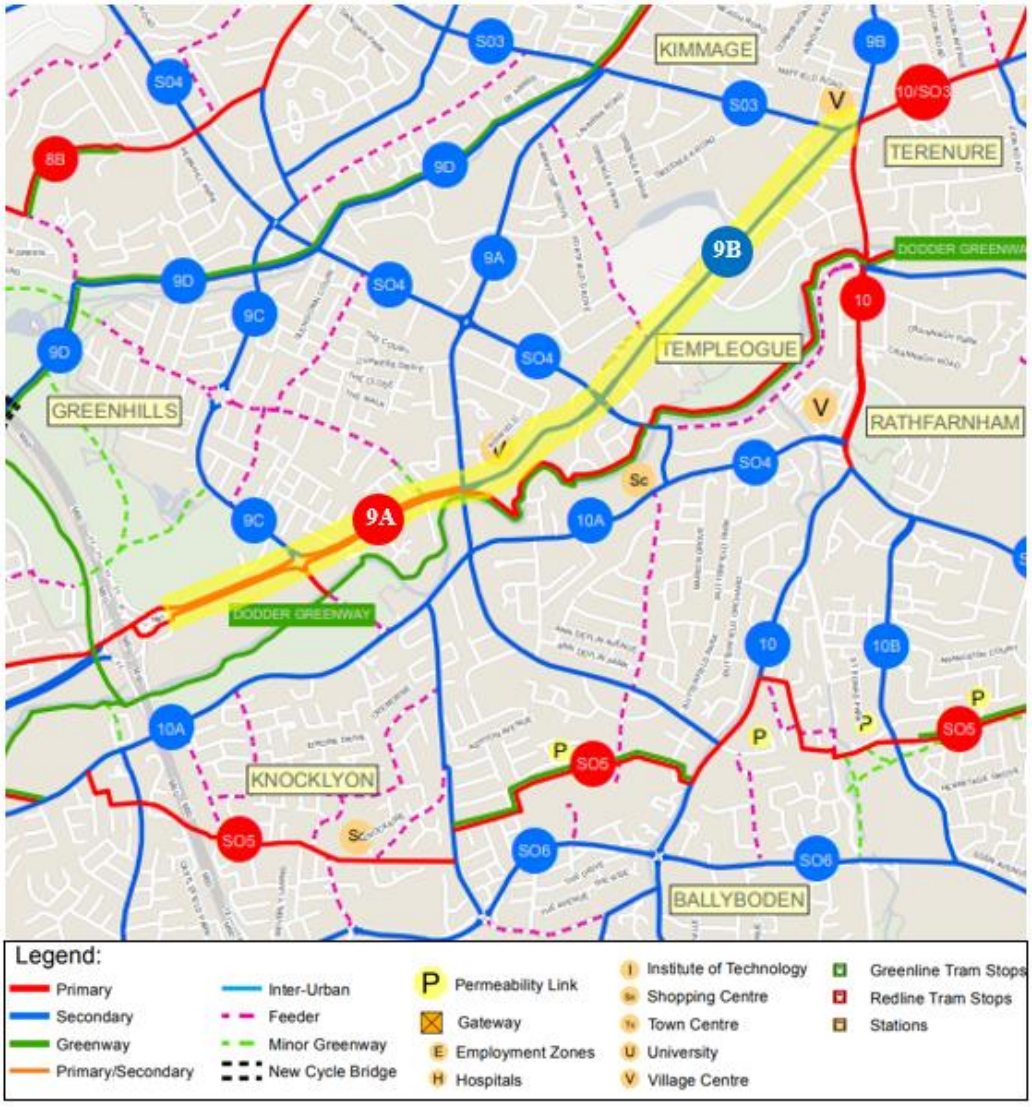


Figure 4.4 Extract from GDA Cycle Network Plan

(the CBC highlighted yellow)

5 Review of the Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report

5.1 Introduction

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's publication, a number of issues were identified which had the potential to 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 'Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report'.

The 'Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report' utilised a two-stage assessment process to determine the EPR Option, comprising:

- An initial 'Stage 1' high-level route options assessment or 'sifting' process which appraised routes in terms of ability to achieve scheme objectives and whether they could be practically delivered; and
- Routes which passed this initial stage were taken forward to a more detailed Stage 2 assessment.

At the start of the Stage 1 assessment, an initial 'spiders web' of potential route options that could accommodate a CBC was identified for each study area section. **Figure 5.1** is an extract from the 'Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report', illustrating the 'spiders web' of potential routes considered in the Stage 1 assessment.

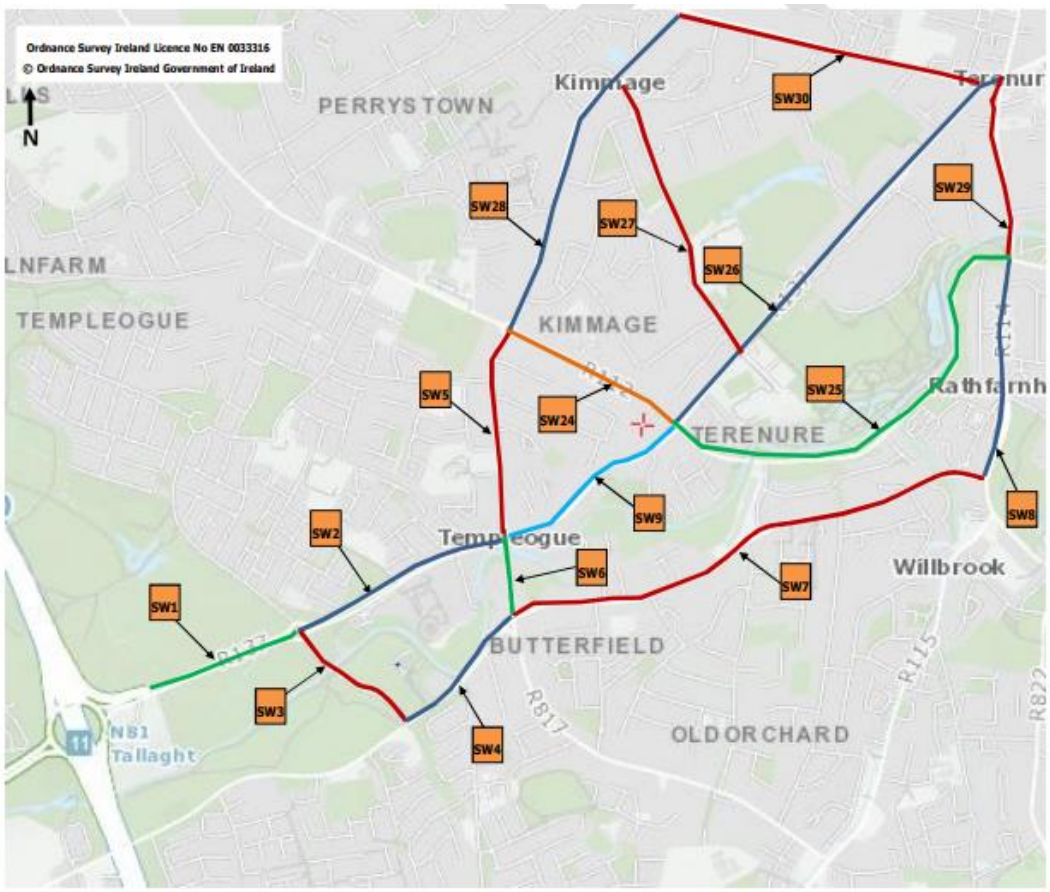


Figure 5.1: Spiders Web of Route Options extracted from the 'Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report'

The following extract from the 'Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report' report describes the two stage process used to determine the EPR Option:

"*At the start of the Stage 1 assessment, an initial 'spiders web' of potential route options that could accommodate a CBC was identified for each study area section… This was narrowed down using a high level qualitative method based on professional judgement and a general appreciation for existing physical conditions/constraints within the study area. This exercise examined and assessed technically feasible route options, based upon the distinct project specific objectives. In addition to being assessed on their individual merits, routes were also assessed relative to each other enabling some routes to be ruled out if more suitable alternatives existed.*

This stage 1 assessment focused on engineering constraints together with a desktop study, identifying high-level environmental constraints and an analysis of population catchments.

The Stage 2 assessment comprised a more detailed qualitative and quantitative assessment, using criteria established to compare route options. The first step in the Stage 2 assessment was to combine shorter route options which passed the Stage 1 assessment, to form longer end-to-end routes within each study area section.

Following this, an initial indicative scheme for each route option was determined based on the specific constraints along the route [e.g. bus lane in each direction with cycle lanes (where appropriate), bus lane in each direction, bus lane in one direction only etc.]. In particular constrained locations, a number of variant scheme options were considered and assessed as necessary.

The indicative scheme for each route option was then progressed to a 'Multi-Criteria Analysis (MCA) which evaluated the route options under the following main assessment criteria:

- *Economy;*
- *Integration;*
- *Accessibility and Social Inclusion;*
- *Safety; and*
- *Environment."*

A number of locations along the EPR Option were identified where there was potential to revisit scheme proposals to address issues raised in the public consultation or identified through a review of additional information. For each area identified, additional options were developed and if considered feasible, would be assessed through a Multi-Criteria Assessment (MCA) in a similar manner to Stage 2 of the EPR Option assessment process. All new options were assessed against the EPR Option.

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

The methodology for the assessment of new options explored at this stage is the same as outlined in the Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report. A summary of the main criteria and sub criteria used in the options assessment process is presented in **Table 5.1**.

Table 5.1: Assessment Criteria

Assessment Criteria	Assessment Sub-Criteria
1. Economy	1.a. Capital Cost
	1.b. Transport Reliability and Quality (Journey Time)
2. Integration	2.a. Land Use Integration
	2.b. Residential Population and Employment Catchments
	2.c. Transport Network Integration
	2.d. Cycle Network Integration
	2.e. Traffic Network Integration
3. Accessibility & Social Inclusion	3.a. Key Trip Attractors (Education/Health/Commercial/Employment)
	3.b. Deprived Geographic Areas

Assessment Criteria	Assessment Sub-Criteria
4. Safety	4.a. Road Safety
	4.b. Pedestrian Safety
5. Environment	5.a. Archaeology and Cultural Heritage
	5.b. Architectural Heritage
	5.c. Flora & Fauna
	5.d. Soils and Geology
	5.e. Hydrology
	5.f. Landscape and Visual
	5.g Air Quality
	5.h. Noise & Vibration
	5.i. Land Use Character

In keeping with the assessment undertaken in the 'Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report', Physical Activity has been scoped out of the multi-criteria assessment at this stage as all options are considered to promote physical activity equally and it is, therefore, not considered to be a key differentiator between options.

Again, in keeping with the assessment undertaken in the 'Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report', route 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: Route Options Colour Coded Ranking Scale

Colour	Description
	Significant advantages over other options.
	Some advantages over other options.
	Neutral compared to other options.
	Some disadvantages to other options
	Significant disadvantages to other options.

Where the design has undergone a material and fundamental change in respect of infrastructure provision or route choice, this will be recorded and explained. An MCA will be undertaken which will assess the newly developed and designed solutions against the MCAs that were previously assessed as part of the 'Tallaght

to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report' considering the chosen option for the Emerging Preferred Route.

Where the design has undergone more general updates and enhancements as expected during design maturation these will not be subject to a new MCA.

5.3 Section 1: M50 Junction 11 to Springfield Avenue

5.3.1 Section 1 EPR

The EPR previously identified along this section of the CBC is presented in **Figure 5.2**.

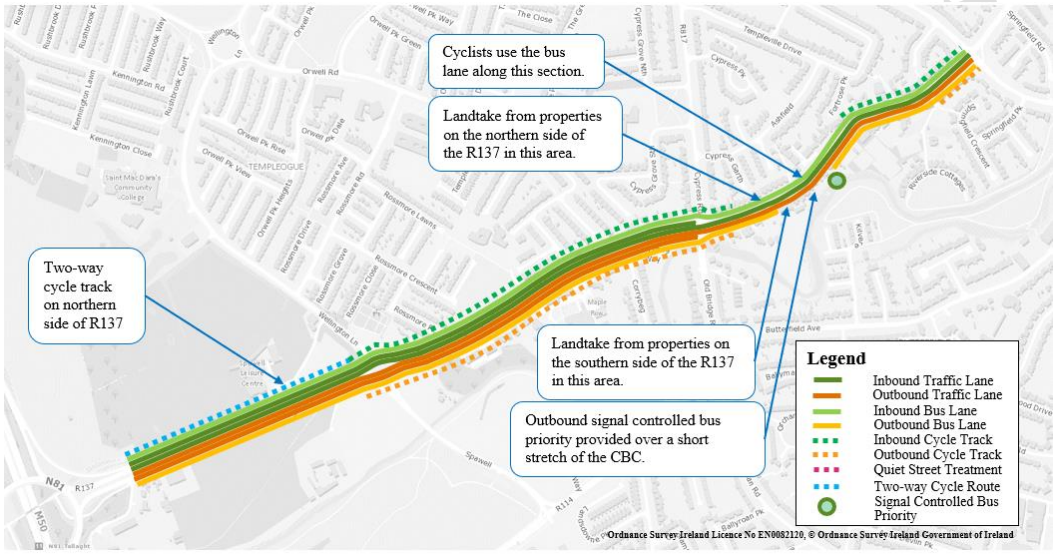


Figure 5.2: Section 1 EPR

The previous MCA undertaken determined that a route along the R137 Templeogue Road was the EPR Option.

Within the 'Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report', the EPR Option proposed full physical bus lane segregation throughout this section of the scheme. This proposal was revised slightly when the EPR Option drawings were published for public consultation after the identification of a constraint in the vicinity of the Ashfield development. This resulted in the removal of a short section of outbound bus lane in this location in the published EPR Option drawings.

Based on the public consultation submissions received and assessment of topographical survey subsequently undertaken along this route section, one area was identified as requiring further review. This is summarised in the following section. The EPR Option remains the preferred option for sections of the scheme not identified for further review.

5.3.2 Areas Identified for Re-examination

5.3.2.1 Templeogue Village

The EPR Option proposal within Templeogue Village required land acquisition within Templeogue Village as well as reducing the available public realm space and impacting on a number of parking spaces within the village. Feedback received from numerous submissions from the public, as well as through public consultation events, highlighted the potential impact of the proposed scheme on local businesses as well as on the character of the village. As such, alternative options for bus priority through this scheme section were explored.

5.4 Section 2: Springfield Avenue to Terenure Road West

5.4.1 Section 2 EPR

The EPR Option previously identified along this section of the CBC is presented in **Figure 5.3**.

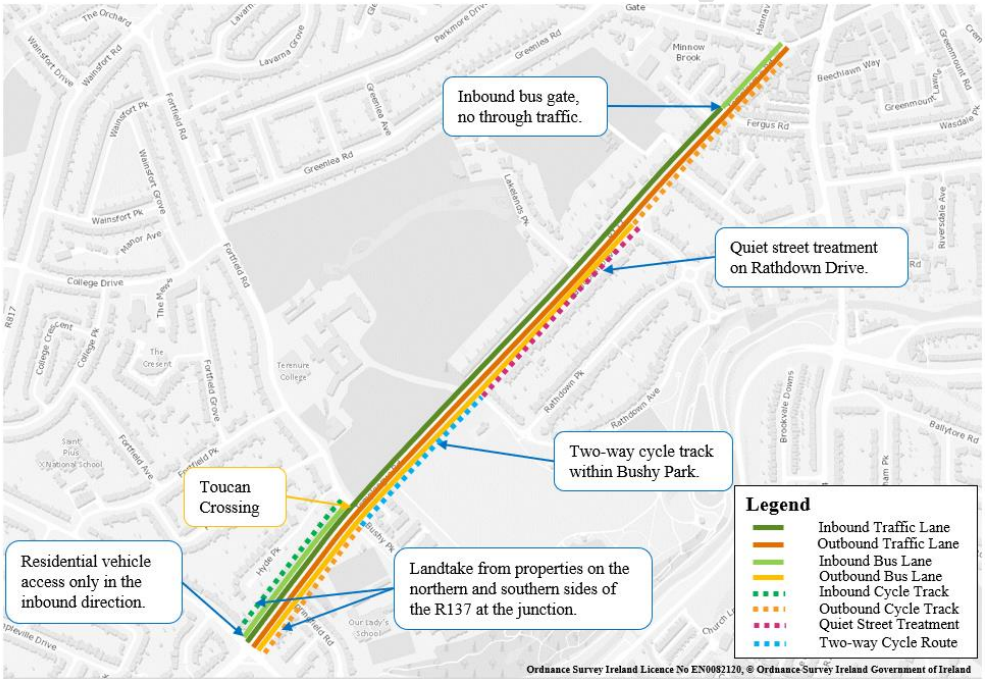


Figure 5.3: Section 2 EPR

The previous MCA undertaken determined that a route along the R137 Templeogue Road was the EPR Option.

It is considered that the options assessment presented in the 'Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report' has appropriately assessed route options and that the selected corridor and scheme best meets the objectives of the scheme in this area. No areas within this section

of the scheme were therefore identified for re-examination and the EPR Option remains the preferred option.

5.5 Summary

A summary of the EPR Option review areas discussed in this chapter and taken forward for detailed options assessment is presented below:

- Alternative options for bus priority through Templeogue Village.

Detail of the options assessment completed is presented in Chapter 6).

6 Option Assessment

6.1 Section 1 Option Assessment: M50 Junction 11 to Springfield Avenue

6.1.1 Introduction

Numerous submissions received as part of the public consultation raised concerns about the impact of road widening through Templeogue Village to provide bus lanes and segregated cycle tracks. For this reason, an alternative scheme option which seeks to reduce this impact has been considered for this this section of the route which have subsequently been brought through a multi criteria assessment to determine the optimum scheme design for this section.

6.1.2 Options Considered

An alternative option for the delivery of the CBC scheme from the M50 junction 11 to Springfield Avenue has been developed. The options considered within this section of the scheme are:

Option TG1: Dedicated bus lanes provided through Templeogue Village. This option is a version of the EPR, refined slightly to reflect issues identified upon review of the topographical survey.

Option TG2: Bus priority traffic signals provided on either side of Templeogue Village, with signal controlled bus priority provided through the village. The scheme would tie into the Templeogue Village Initiative (approved SDCC Part VIII proposal) within Templeogue Village.

6.1.2.1 Alternative Options Considered

A number of other options were also considered in the area but were not carried forward for the reasons briefly outlined below:

- A sub option of the above was also considered between Cypress Grove Avenue and Templeogue Village which sought to minimise the impact on properties on this section. This option proposed curtailing the inbound bus lane at Cypress Grove Avenue, and re-commencing it at the north-eastern side of Templeogue Village. However, it was considered that this distance (~500m) was too much to give guaranteed bus priority through use of bus priority signals. Furthermore, this proposal would provide no facility for cyclists, even through a shared bus/cycle lane, meaning cyclists would have to share with general traffic. As this option provides both poorer facilities for buses and cyclists, it was considered that this option would not be in line with the objectives of the scheme and as such, this option was not considered any further.

- An additional option considered curtailing the inbound bus lane at Cypress Grove Avenue, and re-commencing it at after Ashfield Place. However, while the bus priority signal would be more manageable under this option, no cycle facility would be provided between Cypress Grove Road Avenue and Ashfield Place meaning cyclists would have to share with general traffic. , it was considered that this option would not be in line with the objectives of the scheme and as such, this option was not considered any further.
- A final option was considered which reduced the length of outbound bus lane on approach to Cypress Grove Road from 145m to 75m to minimise impact on properties on the northern side of Templeogue Road in this area. Given the reduced length of bus lane in advance of the stop line, combined with the need to control queuing on approach to this junction both at Ashfield Place and on the north eastern side of Templeogue Village, it was considered that virtual priority for buses would be difficult to achieve at this junction and as such this option was not considered any further.

6.1.2.2 Route Option TG1

Route Description

Route option TG1 is presented in **Figure 6.1**.

Figure 6.1: Route Option TG1

Inbound: This section of the route would commence on the R137 Templeogue Road at the junction with Cypress Grove Road. The CBC route would proceed along Templeogue Road as far as the junction with Springfield Avenue, where this section of the route ends.

Outbound: The outbound route follows the same route as the inbound route.

Stops: A total of two stops would likely be provided in each direction along this route section.

Indicative Scheme Design

Figure 6.2 illustrates the indicative scheme design for this route option. The location of cross-sections and junctions referenced in subsequent sections describing this route option are also illustrated in this figure.

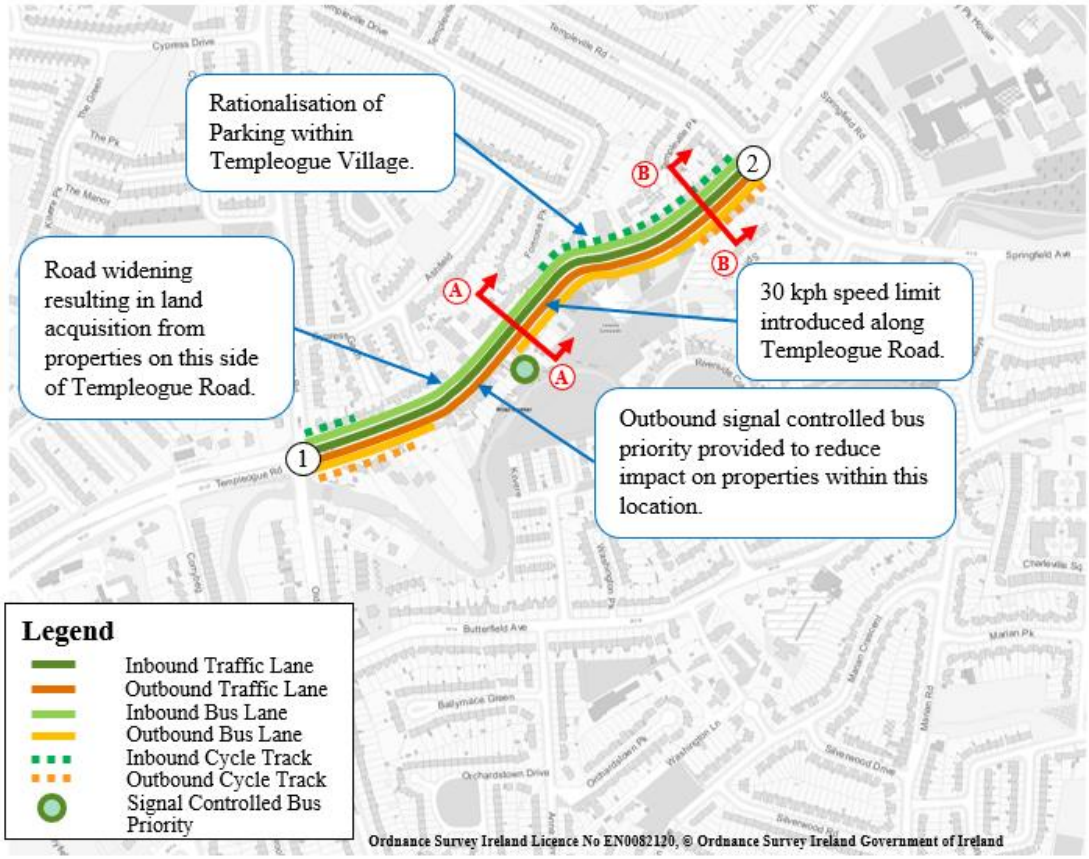


Figure 6.2: Route Option TG1 Indicative Scheme Design

This section of the route commences on Templeogue Road at the junction with Cypress Grove Road. In the immediate vicinity of this junction, inbound and outbound cycle lanes are proposed, however, due to width constraints in the vicinity of the Ashfield Place development, these facilities terminate shortly after the junction.

In the vicinity of the Ashfield Place development, a cross-section consisting of two general traffic lanes and an inbound bus lane is proposed. Inbound cyclists would share the bus lane through this section with a 30 kph speed limit applied. Outbound bus priority would be provided through bus priority traffic signals through this section and cyclists and buses would share the general traffic lane within this section. This cross-section would result in widening into properties on the northern side of Templeogue Road through this section. This proposal represents a change when compared to the published EPR which also proposed a very limited amount of widening into properties on the southern side of the road within this section. On review of more detailed topographical survey, the requirement for land take on the southern side of the road has been designed out.

The proposed cross-section along this section of Templeogue Road is presented in **Figure 6.3**.

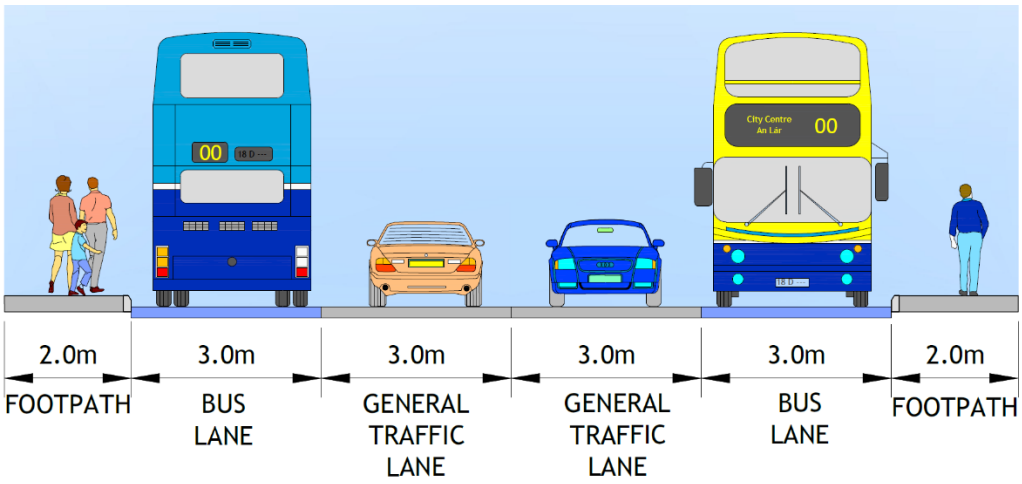


Figure 6.3: Route Option TG1 Cross-Section A-A

An inbound cycle track would develop as the CBC passes through Templeogue Village. Through the village a cross-section consisting of two dedicated bus lanes, two general traffic lanes and an inbound cycle track would be provided. This proposal would require the removal of approximately 10 parking spaces within the village. An outbound cycle track would be provided approximately 95m from the Springfield Avenue junction. The proposed cross-section on approach to this junction is presented in **Figure 6.4**.

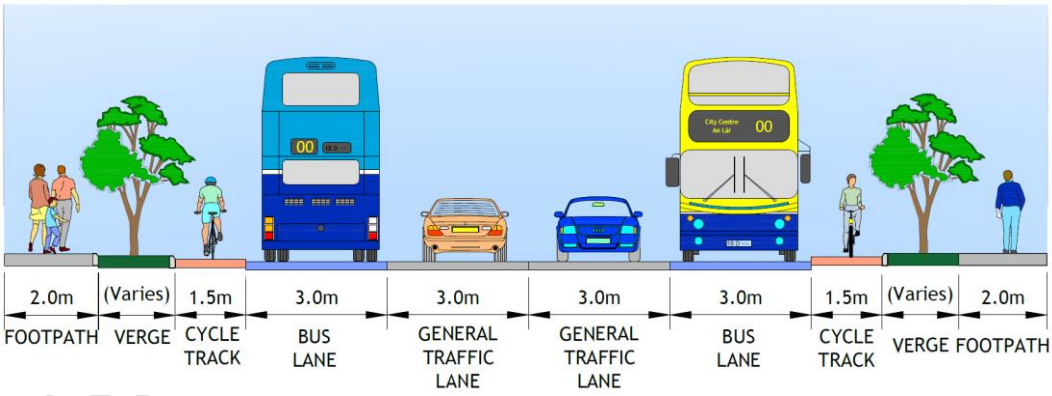


Figure 6.4: Route Option TG1 Cross-Section B-B

In summary, this route option would, subject to confirmation at the scheme design stage, result in the following characteristics:

- Fully segregated bus priority provided throughout this scheme section;
- 2.0m wide cycle tracks in each direction within 100m of the junction with Cypress Grove Road;
- Inbound 2.0m wide cycle track through Templeogue Village, as far as the junction with Springfield Avenue;
- Outbound cycle track terminating approximately 95m from the junction with Springfield Avenue.

Junctions:

There are two signalised junctions along this route option, some of which would require upgrading to facilitate bus priority. The locations of these junctions are presented in **Figure 6.2** and discussed below:

1. **Templeogue Road/Cypress Grove Road:** Adjustments to the junction layout would be required to facilitate the bus lanes and the cycle tracks on approach to the junction. There is also a possible requirement to relocate/provide new signal equipment. The existing turn bans at this junction would be retained.
2. **Templeogue Road/Springfield Avenue:** Adjustments to the junction layout would be required to facilitate the bus lanes and cycle tracks on approach to the junction. There is also a possible requirement to relocate/provide new signal equipment. The traffic slip lanes at this junction would be removed.

6.1.2.3 Route Option TG2

Route Description

Route option TG2 is presented in **Figure 6.5**.

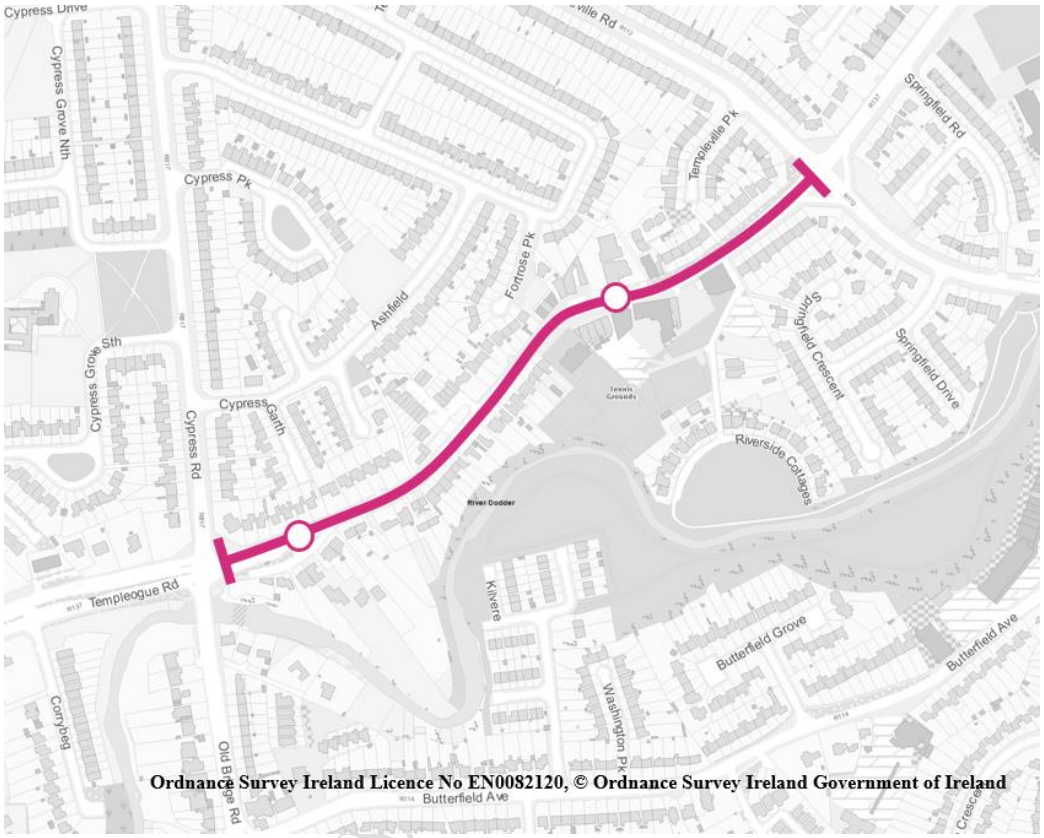


Figure 6.5: Route Option TG2

Inbound: This section of the route would commence on the R137 Templeogue Road at the junction with Cypress Grove Road. The CBC route would proceed along Templeogue Road as far as the junction with Springfield Avenue, where this section of the route ends.

Outbound: The outbound route follows the same route as the inbound route.

Stops: A total of two stops would likely be provided in each direction along this route section.

Indicative Scheme Design

Figure 6.6 illustrates the indicative scheme design for this route option. The location of cross-sections and junctions referenced in subsequent sections describing this route option are also presented in this figure.

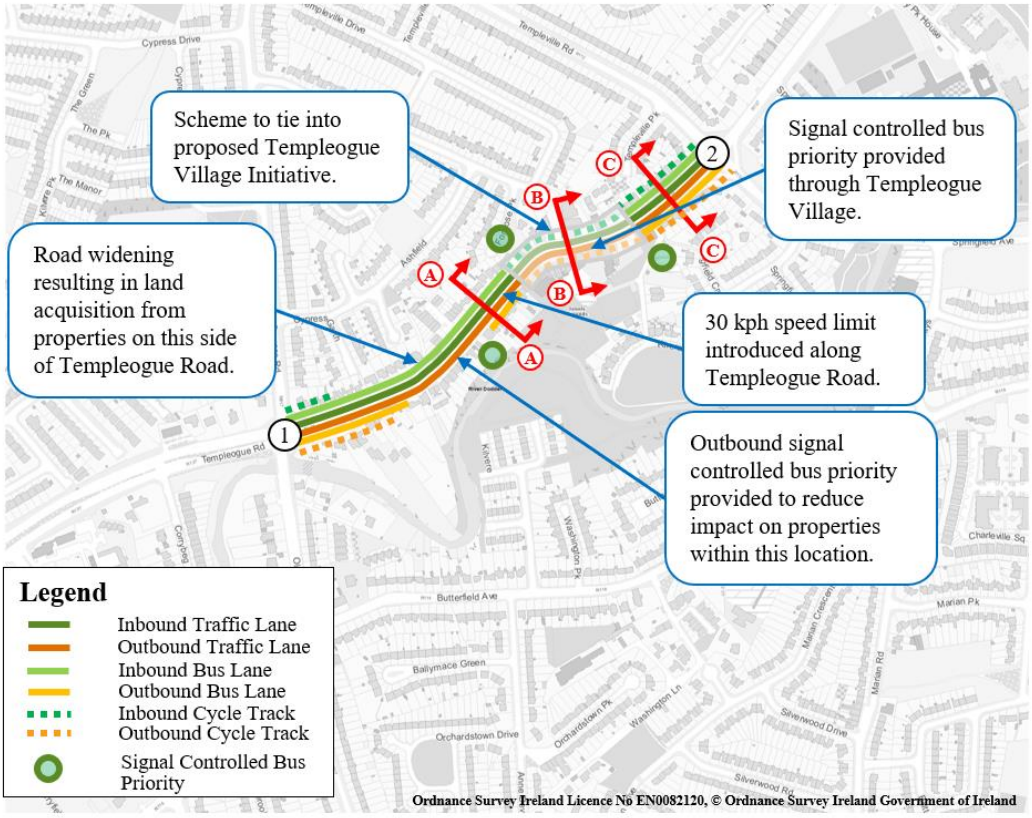


Figure 6.6: Route Option TG2 Indicative Scheme Design

This section of the route commences on Templeogue Road at the junction with Cypress Grove Road. In the immediate vicinity of this junction, inbound and outbound cycle lanes are proposed, however, due to width constraints in the vicinity of the Ashfield Place development, these facilities terminate shortly after the junction.

In the vicinity of the Ashfield Place development, a cross-section consisting of two general traffic lanes and an inbound bus lane is proposed. Inbound cyclists would share the bus lane through this section with a 30 kph speed limit applied. Outbound bus priority would be provided through bus priority traffic signals through this section and cyclists and buses would share the general traffic lane within this section. This cross-section would result in widening into properties on the northern side of Templeogue Road through this section. This proposal represents a change when compared to the published EPR which also proposed a very limited amount of widening into properties on the southern side of the road within this section. On review of more detailed topographical survey, the requirement for land take on the southern side of the road has been designed out. The proposed cross-section along this section of Templeogue Road is presented in **Figure 6.7**.

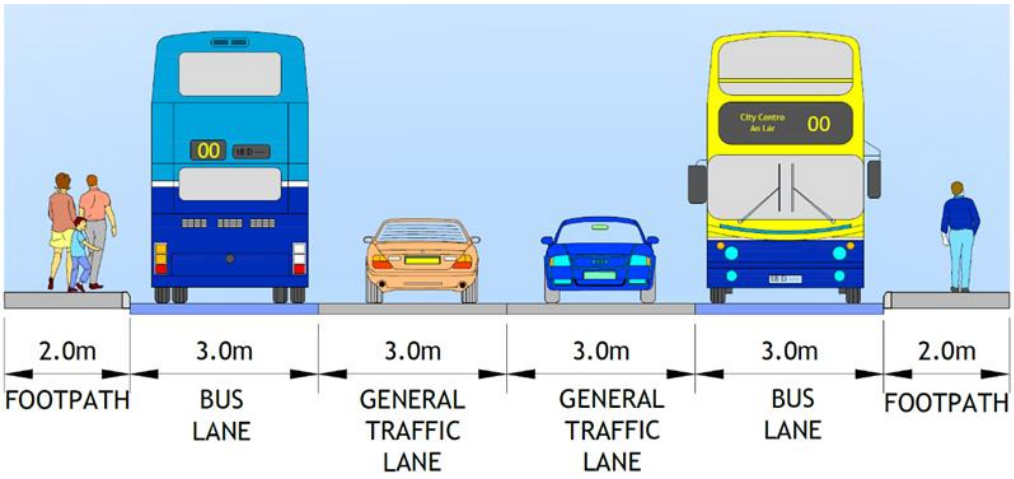


Figure 6.7: Route Option TG2 Cross-Section A-A

The CBC scheme would tie into the proposed Templeogue Village Initiative within Templeogue Village, to be delivered by SDCC. The Templeogue Village Initiative is subject to Part VIII approval and proposes for resurfacing and relining of traffic and cycle lanes through the village as well as improvements to lighting, improved pedestrian crossing facilities in addition to general public realm elements. This proposal would provide a general traffic lane and cycle facilities in each direction through the village with the retention of all existing parking within the village. The cross-section within this section of the scheme is presented in **Figure 6.8**

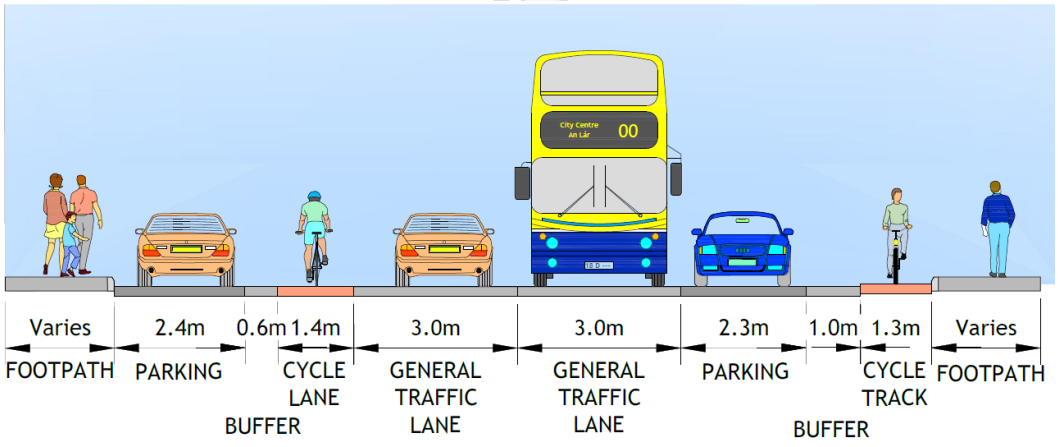


Figure 6.8: Route Option TG2 Cross-Section B-B

Bus priority traffic signals would be provided on either side of Templeogue Village to provide signal controlled bus priority through the village. Inbound and outbound cycle tracks would be provided between Templeogue Village and the Springfield Avenue junction. The cross-section within this section of the scheme is presented in **Figure 6.9**.

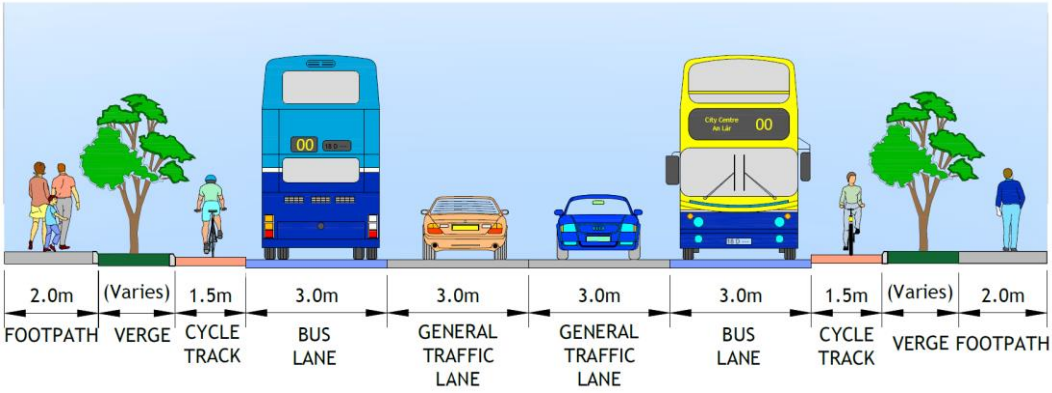


Figure 6.9: Route Option TG2 Cross-Section C-C

In summary, this route option would, subject to confirmation at the scheme design stage, result in the following characteristics:

- Fully segregated bus priority provided throughout this scheme section, with the exception of through Templeogue Village, where the scheme is proposed to tie into the Templeogue Village Initiative;
- 2.0m wide cycle tracks in each direction within 100m of the junction with Cypress Grove Road; and
- 2.0m wide cycle tracks in each direction connecting the Templeogue Village Initiative with the Cypress Grove Road junction.

Junctions:

There are two signalised junctions along this route option, some of which would require upgrading to facilitate bus priority. The locations of these junctions are presented in **Figure 6.6** and discussed below:

1. **Templeogue Road/Cypress Grove Road:** Adjustments to the junction layout would be required to facilitate the bus lanes and the cycle tracks on approach to the junction. There is also a possible requirement to relocate/provide new signal equipment. The existing turn bans at this junction would be retained.
2. **Templeogue Road/Springfield Avenue:** Adjustments to the junction layout would be required to facilitate the bus lanes and cycle tracks on approach to the junction. There is also a possible requirement to relocate/provide new signal equipment. The traffic slip lanes at this junction would be removed.

6.1.3 Section 1 Route Option Assessment

Details of the route options assessment undertaken for the Templeogue Village study area section are presented in Appendix A. The relative ranking of route options against the scheme assessment sub-criteria is summarised in **Table 6.1**.

Table 6.1: Section 1 Route MCA Summary

Appraisal Criteria	Sub-Criteria	Option TG1	Option TG2
1 Economy	1A Capital Cost		
	1B Transport Quality & Reliability		
2 Integration	2A Land Use Policy		
	2B Residential Population and Employment Catchments		
	2C Transport Network Integration		
	2D Cycle Network integration		
	2E Traffic Network Integration		
3 Accessibility & Social Inclusion	3A Key Trip Attractors		
	3B Deprived Geographic Areas		
4 Safety	4A Road Safety		
	4B Pedestrian Safety		
5 Environment	5A Archaeology & Cultural Heritage		
	5B Architectural Heritage		
	5C Flora & Fauna		
	5D Soils, Geology & Hydrogeology		
	5E Landscape & Visual		
	5F Air Quality		
	5G Noise & Vibration		
	5H Land Use Character		

In terms of Capital Cost, Option TG1 is the most expensive option due to the additional land acquisition costs associated with delivering the bus lanes through Templeogue Village.

In terms of Transport Quality and Reliability, Option TG1 performs slightly better due to the fact that full physical bus priority is provided through Templeogue Village.

All options serve the same catchments and as such are ranked equally in relation to land use policy and residential population catchments and employment catchments. Similarly, in terms of transport network integration, as all options follow the same route, the opportunity for interchange with other routes is equal.

In terms of cycle network integration, Option TG2 provides cycle facilities in either direction through Templeogue Village and as such scores slightly better than option TG1 under this criterion.

Option TG1 better accommodates traffic movements through Templeogue Village and as such scores better than option TG2 which proposed the use of bus priority traffic signals to manage bus priority through this section, and thus has the potential to negatively affect traffic movement.

Both options rank equally under accessibility and social inclusion as they all follow the same route.

Similarly, both options rank equally under safety as they all require the same number of turning movements at junctions and footpath widths are the same throughout.

In relation to flora and fauna, both options perform similarly as they both have the same impact on private and street trees.

Option TG1 performs worse under the Landscape and Visual criterion due to the fact that more properties are impacted under this route proposal than under Option TG2. Option TG1 also performs worse under the criteria of Air Quality and Nosie and Vibration due to the fact that additional road widening is proposed within Templeogue Village under this option, when compared to Option TG2. Finally, Option TG1 performs worse under the criterion of Land Use Character due to the fact that the removal of approximately 10 parking spaces within the village is required to facilitate the proposed bus lanes.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in **Table 6.2**.

Table 6.2: Section 1 MCA Criteria Summary

Appraisal Criteria	Option TG1	Option TG2
1 Economy		
2 Integration		
3 Accessibility & Social Inclusion		
4 Safety		
5 Environment		

6.1.4 Section 1 Conclusion and Draft Preferred Option

Based on the assessment undertaken, route Option TG2 offers more benefits over other options.

It performs well under the Integration and Environmental criteria, while ranking equally to Option TG1 under the other criteria. Option TG2 is the draft PRO for the Templeogue Village area for the following reasons:

- It has a lower capital cost than Option TG1;
- It minimises the impact on the village of Templeogue through the use of bus priority traffic signals to provide virtual bus priority over a short distance;
- It provides better facilities for cyclists along GDA Cycle Network Plan secondary route 9B than Option TG1; and
- It minimises the impact on private lands within Templeogue Village.

7 Draft Preferred Route Option

7.1 Introduction

Chapter 6 of this report presented an appraisal of all route options considered for the CBC. Following this appraisal, the draft preferred options have been incorporated into the route from the 'Tallaght to Terenure Core Bus Corridor Feasibility Study and Options Assessment Report' to form an end-to-end draft PRO. This chapter of the report presents and describes the draft preferred route option identified and the draft preferred route option scheme design.

7.2 Draft Preferred Route Description

The draft Preferred Route is presented in **Figure 7.1** below:

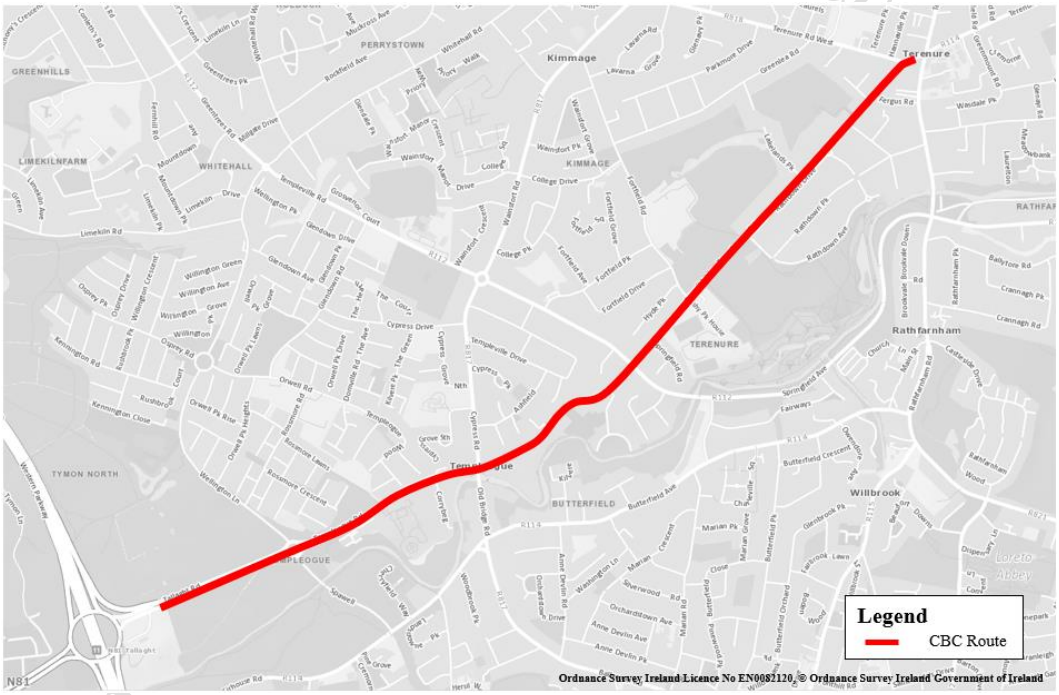


Figure 7.1: CBC Draft Preferred Route Option

The CBC commences on the Tallaght Road, east of the M50 interchange. From here, the CBC is routed via the R137 along Tallaght Road and Templeogue Road, through Templeogue Village, to Terenure Cross, where it joins the Rathfarnham CBC.

7.3 Draft Preferred Route Option Scheme Design Description

7.3.1 Tallaght Road, Templeogue Road to Rathfarnham Road

The proposed CBC commences on the Tallaght Road adjacent to D'Arcy McGee's, east of the M50 interchange.

It is proposed to retain the existing bus lane configuration on the R137. The EPR Option proposed to maintain the cycle track on the outside of the footpath along this section, however it is now proposed to provide the cycle track on the carriageway side of the footpath to better tie in with proposals at the Wellington Lane Roundabout. The EPR Option also proposed to retain the Wellington Lane Roundabout, however as part of the updated design proposal it is now proposed to convert this junction to a signalised junction with kerb protection for cyclists.

Between the Wellington Lane Roundabout and Cypress Grove Road junction, a design revision on the EPR Option provides a cycle track on the carriageway side of the footpath, with existing bus lane provision maintained through this section. At the Cypress Grove Road junction, general through traffic may divert to Old Bridge Road for access to the City Centre via the R114. Significantly enhanced cycle facilities are also provided at this junction with the introduction of kerb protection.

Between the Cypress Grove Road junction and the Ashfield Place development it is proposed to provide bus lanes and traffic lanes in each direction. Dedicated cycle facilities are provided on the approach to the Cypress Grove Road junction, as in the EPR proposals. To improve safety for cyclists, it is proposed to introduce a 30kph speed limit between Cypress Grove Road and Templeogue Village. Outside the Ashfield Place Development, there is insufficient space for a bus lane and a general traffic lane in each direction. Therefore, it is proposed to stop the outbound bus lane for a distance of approximately 80m and use Signal Controlled Priority along this section.

Between Ashfield Place and the Templeogue Tennis Club, it is proposed to provide a bus lane and a general traffic lane in each direction, as in the EPR Option. It is proposed to utilise a limited amount of land-take within this section to achieve the desired cross-section.

Within Templeogue Village, between Templeogue Tennis Club and the Templeville Road junction, it is proposed to manage bus priority through the use of Signal Controlled Priority and tie into South Dublin County Council plans for Templeogue Village.

Accordingly, a single combined traffic lane in each direction is being proposed through the village which is a revision from the previous proposals.

North of Templeogue Village, the full cross section is resumed. It is proposed to utilise a limited amount of land-take within this section to achieve the desired cross-section. Between the village and the Springfield Avenue junction, the design has been developed to minimise the loss of trees – this has been achieved by narrowing the cycle lanes locally.

At the junction with Templeville Road, general inbound through traffic may divert to the R112 and further to the R114. It is proposed to introduce kerb protection at this junction which will significantly improve cycle facilities and cyclist safety. These improvements will involve some limited land take on the northern side of the junction.

Between Templeville Road junction and Fortfield Road it is proposed to provide one bus lane, one general traffic lane and cycle tracks in each direction, as in the EPR Option proposals. However, cycle tracks have been narrowed to 1.5m along this section to significantly reduce tree impacts on the eastern side of the road. The Fortfield Road junction is intended to be upgraded to provide a direct cycle crossing for inbound cyclists to the two-way cycle facility on the eastern side of Templeogue Road north of the junction.

Between Fortfield Road and Terenure Road West, the Templeogue Road width is heavily constrained. On this section of the route, it is proposed to maintain one outbound bus lane, one outbound general traffic lane and one inbound general traffic lane. It was previously proposed to provide a footpath on the eastern side of Templeogue Road, however the topographical survey showed that this is not possible. The alternative proposal is to provide a footpath on the western side of Rathdown Drive which will provide a continuous footpath on the eastern side of Templeogue Road between Terenure and Templeogue.

It is intended to introduce the inbound bus lane for a shorter section north of Olney Grove compared to the EPR Option. Through the introduction of a Bus Gate with a short section of bus lane at the junction of Olney Grove, northbound general traffic on Templeogue Road will not be permitted to access Terenure Road West or Terenure Place during the hours of operation of the Bus Gate. A right turn ban is proposed from Fergus Road to Templeogue Road, and a left turn ban from Olney Grove to Templeogue Road. Some limited land take may be required at this junction to facilitate this configuration. Right turn bans are also proposed from Templeogue Road to Rathdown Park and to Rathdown Avenue. Traffic management measures such as turning restrictions at junctions or road closures will also be considered on adjoining residential streets at suitable locations to prevent through traffic diverting inappropriately. Traffic from Terenure Road West will not be restricted. A Quiet Street Treatment to Rathdown Crescent is intended to tie into the proposed Quiet Street Treatment on Rathdown Park as part of the Rathfarnham to City Centre CBC. This represents a design revision from the EPR Option.

This junction proposal will be facilitated by directing Terenure bound traffic through the following diversion routes:

- R817 Old Bridge Road;
- R114 Butterfield Avenue; and
- R114 Rathfarnham Road.

The proposed CBC ties into the Rathfarnham to City Centre CBC at the Rathfarnham Road / Terenure Road West junction.

7.4 Summary

7.4.1 Infrastructure Provision

The draft Preferred Route is approximately 3.7km long from end to end. The updated concept scheme design drawings show the extent of the infrastructure proposed to deliver this CBC. The bullet points below present the length of existing and proposed bus and cycle priority as a percentage of the overall route length.

- *27*% Existing bus priority (outbound)
- *39*% Existing bus priority (citybound)
- *80*% Proposed bus priority (outbound) (72% physical, 8% virtual)
- *94*% Proposed bus priority (citybound) (54% physical, 40% virtual)
- *52*% Existing cycle priority (outbound) (27% cycle track, 4% mandatory, 21% advisory)
- *70*% Existing cycle priority (citybound) (34% cycle track, 2% mandatory, 34% advisory)
- *93*% Proposed cycle priority (outbound) (73% cycle track, 4% mandatory, 16% offline quiet street treatment)
- *81*% Proposed cycle priority (citybound) (59% cycle track, 6% mandatory, 16% offline quiet street treatment)

Virtual bus priority measures are proposed at the following locations:

- R137 Templeogue Road at the Ashfield Place development (outbound) – Approximately 100m length;
- R137 Templeogue Road within Templeogue Village between Templeogue Tennis Club and Hollingsworth Cycles (inbound and outbound) – Approximately 200m length; and
- R137 Templeogue Road between Fortfield Road and Terenure Road West (inbound) – Approximately 1.2km.

7.4.2 Material Scheme Changes

The following list highlights the material scheme changes between the published EPR Option and the draft PRO.

- It is proposed to convert Wellington Lane Roundabout to a signalised junction with kerb protection for cyclists.
- No physical interventions are now proposed within Templeogue Village as part of the CBC works. Bus priority signals are to be provided both east and west of Templeogue Village to manage bus priority through the village. BusConnects scheme proposals are intended to tie into the permitted South

Dublin County Council Part VIII Templeogue Village Project at Templeogue Tennis Club and at Hollingsworth Cycles.

- Quiet street treatment to Rathdown Crescent is proposed to tie into the proposed quiet street treatment on Rathdown Park as part of the CBC12 – Rathfarnham to City Centre Core Bus Corridor proposals.

In developing the Draft PRO, consideration has been given to the carbon generated by the scheme during construction. Many of the changes made to the scheme design since the EPR proposal have resulted in a change in the construction carbon generated by the scheme. Notable changes include the following:

- No physical interventions are now proposed within Templeogue Village as part of the CBC works. Bus priority signals are to be provided both east and west of Templeogue Village to manage bus priority through the village. BusConnects scheme proposals are intended to tie into the permitted South Dublin County Council Part VIII Templeogue Village Project at Templeogue Tennis Club and at Hollingsworth Cycles.

7.4.3 Scheme Benefits

7.4.3.1 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 can help to realise the objectives of the scheme as set out in Section 2.5 of this report. The facilitation of bus priority along the CBC, through the delivery of dedicated bus lanes and virtual bus priority measures such as bus gates and bus priority traffic signals, is forecast to significantly reduce bus journey times along the CBC. In addition to this, journey reliability is forecast to be significantly improved, by largely removing interaction between bus traffic and general traffic.

7.4.3.2 Walking & Cycling

In addition to the improvements to bus journey time and journey time reliability as discussed in section 7.4.3.1, the proposed scheme will provide significant benefits for cyclists and pedestrians. The provision of dedicated cycling infrastructure along the CBC, will significantly improve the level of service provided for cyclists along the route, making cycling trips safer and more attractive. The scheme will deliver substantial elements of the GDA Cycle Network Plan as outlined in Section 4.5, as well as linking with other proposed cycling schemes, contributing towards the development of a comprehensive cycling network for Dublin.

The scheme will also provide improved facilities for pedestrians along the route. Improved crossing facilities will be provided both at junctions and in mid-block locations. A number of public realm upgrades, including widened footpaths, high quality hard and soft landscaping and street furniture will be provided in areas of high activity to contribute towards a safer, more attractive environment for pedestrians.

8 Next Steps

This report has identified a draft PRO for the bus infrastructure along the CBC for which an updated concept design has been developed.

It has been determined by NTA that a third non-statutory public consultation is to be conducted prior to finalising the PRO. This public consultation is to commence in November 2020, when submissions will once again be invited from the public on the draft PRO.

Following the non-statutory public consultations and subsequent review of the submissions received therein, the Draft PRO designs for the CBC will be further developed to form a Preliminary Design.

This next stage (the development of a Preliminary Design) will further refine and update the concept design along the route. Further account will be taken of likely public transport service levels, particularly the bus service patterns and any changes to the overall bus network which may arise from the separate bus network review process. The proposals will be amended, if and as required, to integrate any resultant changes. The Preliminary Design will define the final practically achievable scheme for the CBC, considering more detailed studies of constraints, impacts and environmental assessment required at a local level.

This Preliminary Design will form the basis of the planning consent process for the scheme, which will require a development consent application to be made directly to An Bord Pleanála, due to the nature and extent of the proposed works.

Appendix A

Section 1 Route Option Assessment MCA Tables

Table A1.1: Templeogue Village MCA

Sub-Criteria	Option TG1 (EPR proposal)	Option TG2 (Templeogue Village Bus Priority Traffic Signals)
1A Capital Cost	***Indicative Scheme Infrastructure Works Costs*** - Segregated Bus lanes provided through Templeogue Village. - Dedicated inbound cycle track provided. - Two traffic lanes provided. ***Land Acquisition Cost*** 749.2 sqm Private Land 21 Properties affected	***Indicative Scheme Infrastructure Works Costs*** - Two all-traffic lanes provided through Templeogue Village. - Dedicated cycle tracks provided in both directions. - Bus priority traffic signals provided on either side of the village. ***Land Acquisition Cost*** 575 sqm Private Land 15 Properties affected
Rank		
1B Transport Quality & Reliability	Journey Time Inbound: 1.9 mins Journey Time Outbound: 1.9 mins Length: 0.67 km No. of Junctions: 0 No. of Pedestrian Crossings: 2 Virtual Bus Priority provided through signalling at Ashfield. Additional delay anticipated due to virtual priority.	Journey Time Inbound: 2.1 mins Journey Time Outbound: 2.1 mins Length: 0.67 km No. of Junctions: 0 No. of Pedestrian Crossings: 2 Virtual Bus Priority provided through signalling within Templeogue Village and at Ashfield. Additional delay anticipated due to virtual priority.
Rank		
2A Land Use Policy	The route offers the potential to connect with lands zoned *"To protect, and enhance the outstanding natural character and amenity of the Liffey Valley, Dodder Valley and Dublin Mountain areas".* The proposed CBC would encourage/support planned development and provide for economic opportunities.	The route offers the potential to connect with lands zoned *"To protect, and enhance the outstanding natural character and amenity of the Liffey Valley, Dodder Valley and Dublin Mountain areas".* The proposed CBC would encourage/support planned development and provide for economic opportunities.
Rank		

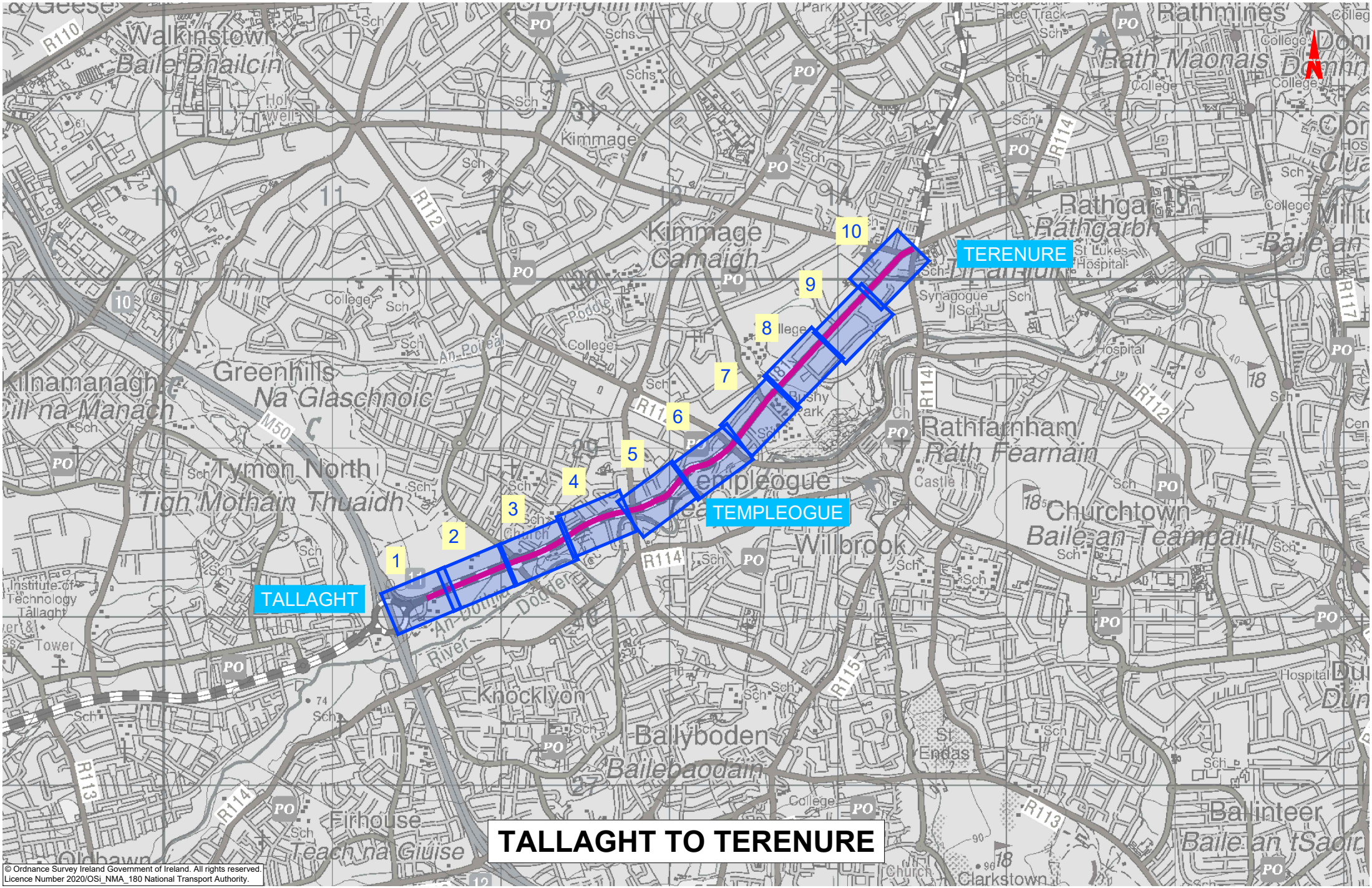
Sub-Criteria	Option TG1 (EPR proposal)	Option TG2 (Templeogue Village Bus Priority Traffic Signals)
2B Residential Population and Employment Catchments	**Residential Population Catchments** - 5-minute walking catchment of approx. 2027 - 10-minute walking catchment of approx. 4909 - 15-minute walking catchment of approx. 12696 **Employment catchments** - 5-minute walking catchment of approx. 359 - 10-minute walking catchment of approx. 1324 - 15-minute walking catchment of approx. 2182	**Residential Population Catchments** - 5-minute walking catchment of approx. 2027 - 10-minute walking catchment of approx. 4909 - 15-minute walking catchment of approx. 12696 **Employment catchments** - 5-minute walking catchment of approx. 359 - 10-minute walking catchment of approx. 1324 - 15-minute walking catchment of approx. 2182
Rank		
2C Transport Network Integration	Potential for interchange with local bus services.	Potential for interchange with local bus services.
Rank		
2D Cycle Network integration	Segregated cycle facilities provided in one direction only through Templeogue Village along Secondary Route 9B from the GDA cycle network plan.	Segregated cycle facilities provided in both directions through Templeogue Village along Secondary Route 9B from the GDA cycle network plan.
Rank		
2E Traffic Network Integration	Current traffic regime maintained within Templeogue Village.	Traffic queued to provide virtual bus priority through Templeogue Village.
Rank		
3A Key Trip Attractors	**Educational Land Use catchments** - 5-minute walking catchment of approx. 822 - 10-minute walking catchment of approx. 2471 - 15-minute walking catchment of approx. 4960 **Retail/leisure/commercial Land Uses** - Templeogue Tennis Club - Templeogue Village	**Educational Land Use catchments** - 5-minute walking catchment of approx. 822 - 10-minute walking catchment of approx. 2471 - 15-minute walking catchment of approx. 4960 **Retail/leisure/commercial Land Uses** - Templeogue Tennis Club - Templeogue Village
Rank		

Sub-Criteria	Option TG1 (EPR proposal)	Option TG2 (Templeogue Village Bus Priority Traffic Signals)
3B Deprived Geographic Areas	Route option serves areas of Marginally Above Average to Affluent means from the Pobal Deprivation Index.	Route option serves areas of Marginally Above Average to Affluent means from the Pobal Deprivation Index.
Rank		
4A Road Safety	No. of junctions: 0 No turn movements required.	No. of junctions: 0 No turn movements required.
Rank		
4B Pedestrian Safety	No. of Pedestrian Crossings: 2 Good pedestrian facility provision.	No. of Pedestrian Crossings: 2 Good pedestrian facility provision.
Rank		
5A Archaeology & Cultural Heritage	No Recorded Monument or site of archaeological and cultural heritage merit was identified within the assessment area.	No Recorded Monument or site of archaeological and cultural heritage merit was identified within the assessment area.
Rank		
5B Architectural Heritage	1 no. protected structure was identified within the assessment area.	1 no. protected structure was identified within the assessment area.
Rank		
5C Flora & Fauna	Requires the removal of **0** trees in public areas and **15** trees in private areas. Total trees impacted: **15**	Requires the removal of **0** trees in public areas and **15** trees in private areas. Total trees impacted: **15**
Rank		
5D Soils, Geology & Hydrology	No appreciable impact	No appreciable impact
Rank		
5E Landscape & Visual	Land acquisition required from **21** properties.	Land acquisition required from **15** properties.
Rank		
5F Air Quality	Increased proximity of vehicles to residential properties due to road widening.	Increased proximity of vehicles to residential properties due to road widening, to a lesser extent than option TG1.
Rank		
5G Noise & Vibration	Increased proximity of vehicles to residential properties due to road widening.	Increased proximity of vehicles to residential properties due to road widening, to a lesser extent than option TG1.

Sub-Criteria	**Option TG1** (EPR proposal)	**Option TG2** (Templeogue Village Bus Priority Traffic Signals)
Rank		
5H Land Use Character	Road widening through the village would impact on the land use character of the village. Removal of **10** parking spaces	The character of Templeogue village would be retained and potentially improved with this option.
Rank		

Appendix B

Updated Concept Scheme Drawings


TALLAGHT
TEMPLEOGUE
TERENURE
1
2
3
4
5
6
7
8
9
10
TALLAGHT TO TERENURE
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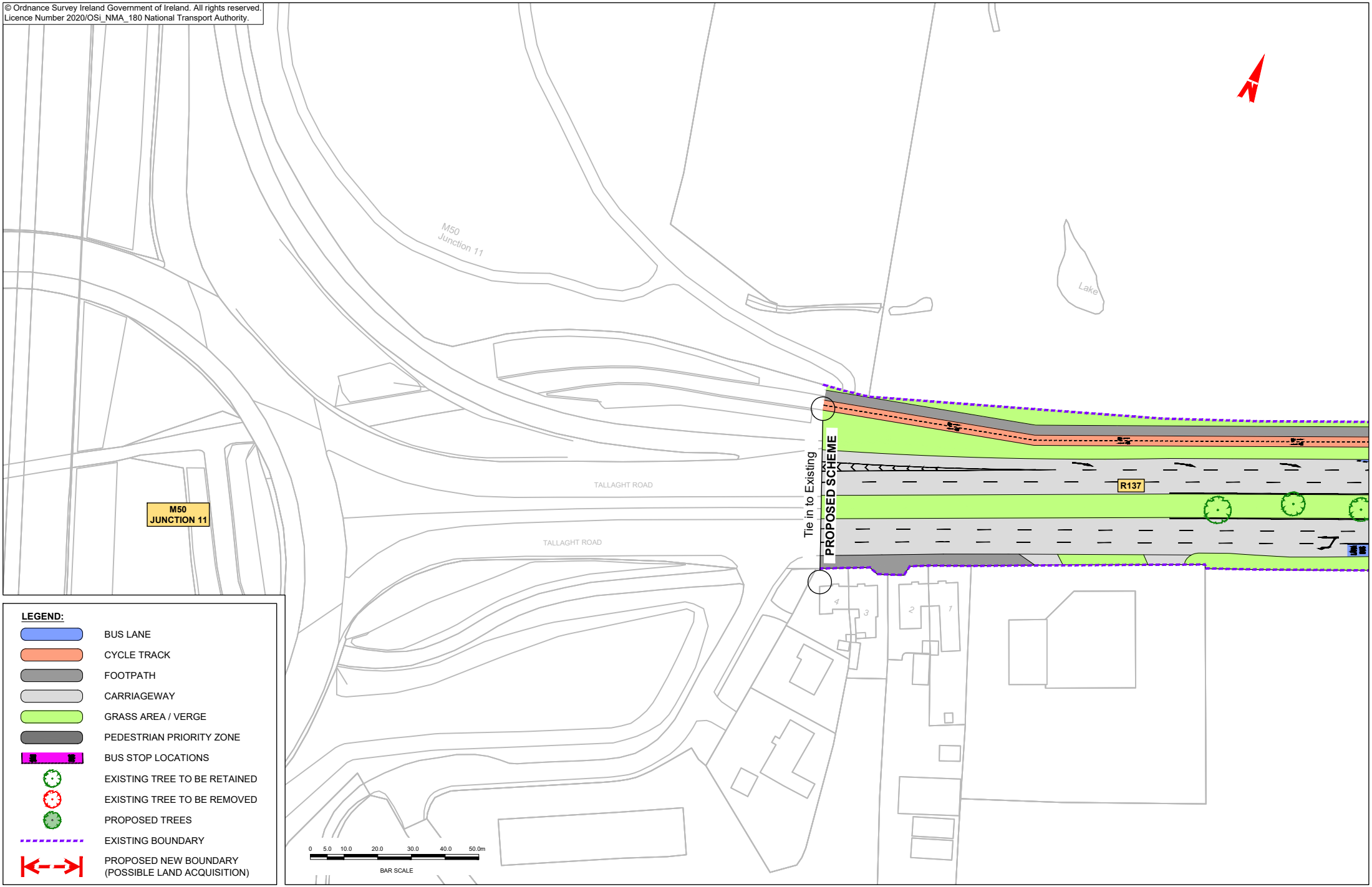
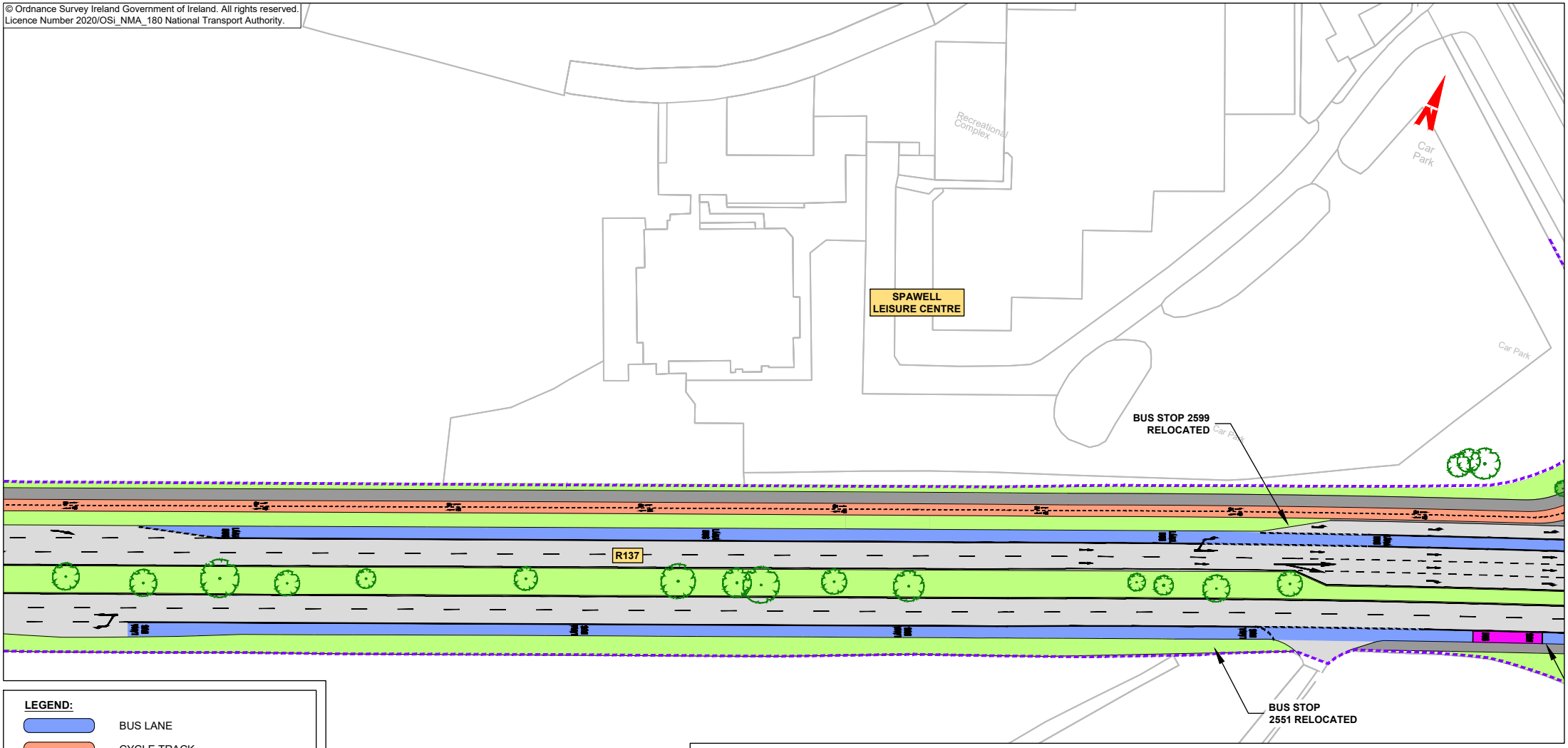


LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- BUS STOP LOCATIONS
- EXISTING TREE TO BE RETAINED
- EXISTING TREE TO BE REMOVED
- PROPOSED TREES
- EXISTING BOUNDARY
- PROPOSED NEW BOUNDARY (POSSIBLE LAND ACQUISITION)



LEGEND:

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- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- BUS STOP LOCATIONS
- EXISTING TREE TO BE RETAINED
- EXISTING TREE TO BE REMOVED
- PROPOSED TREES
- EXISTING BOUNDARY
- PROPOSED NEW BOUNDARY (POSSIBLE LAND ACQUISITION)

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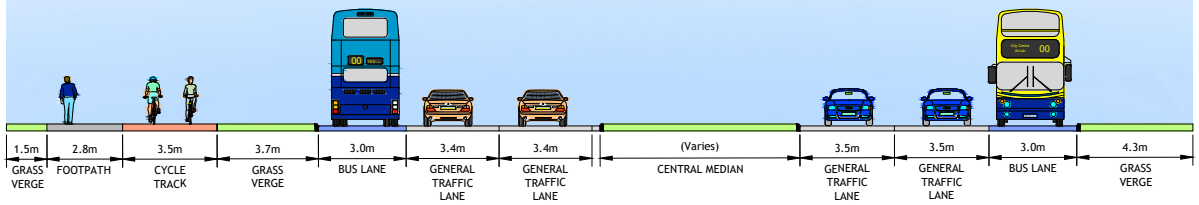
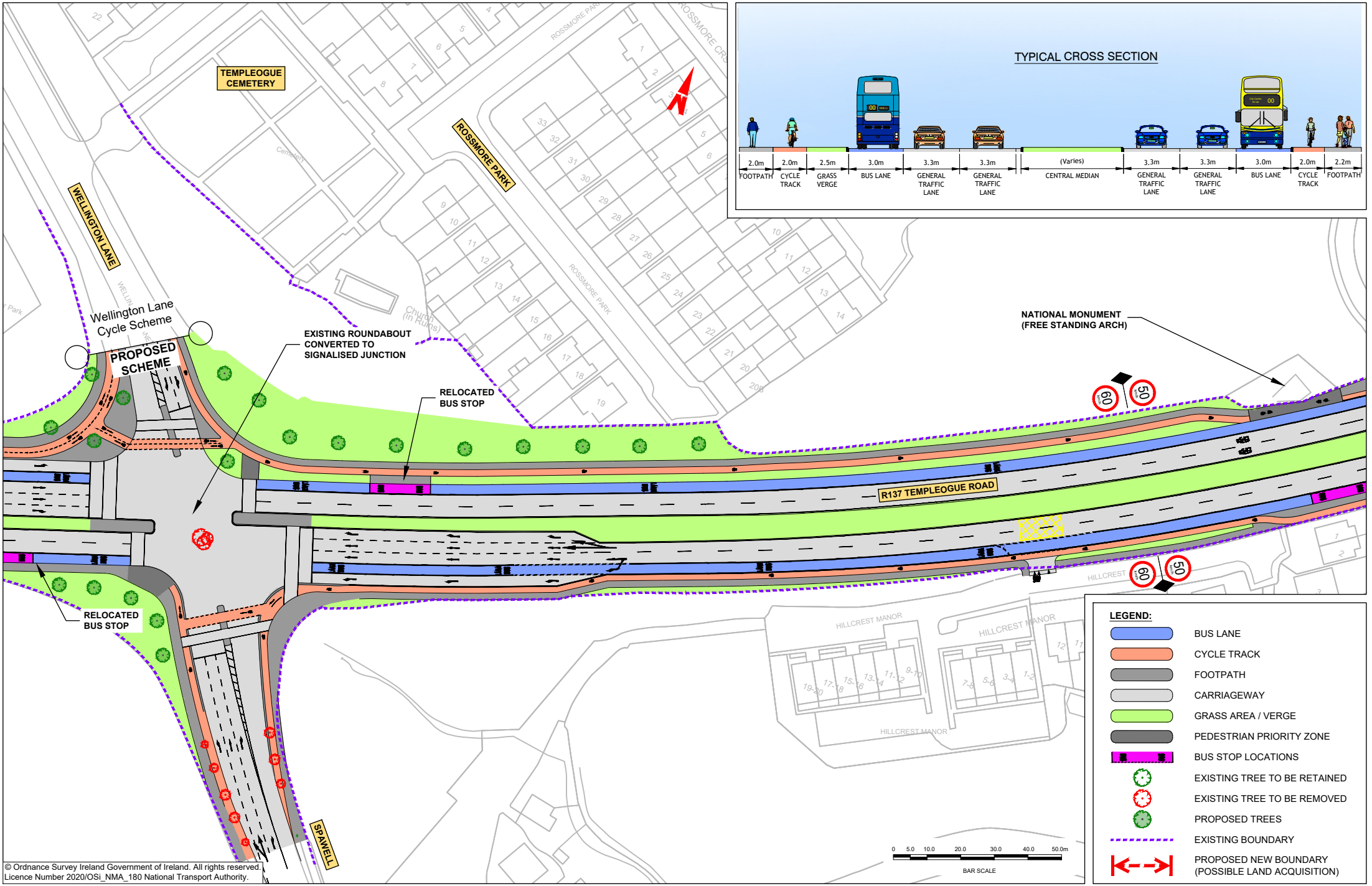
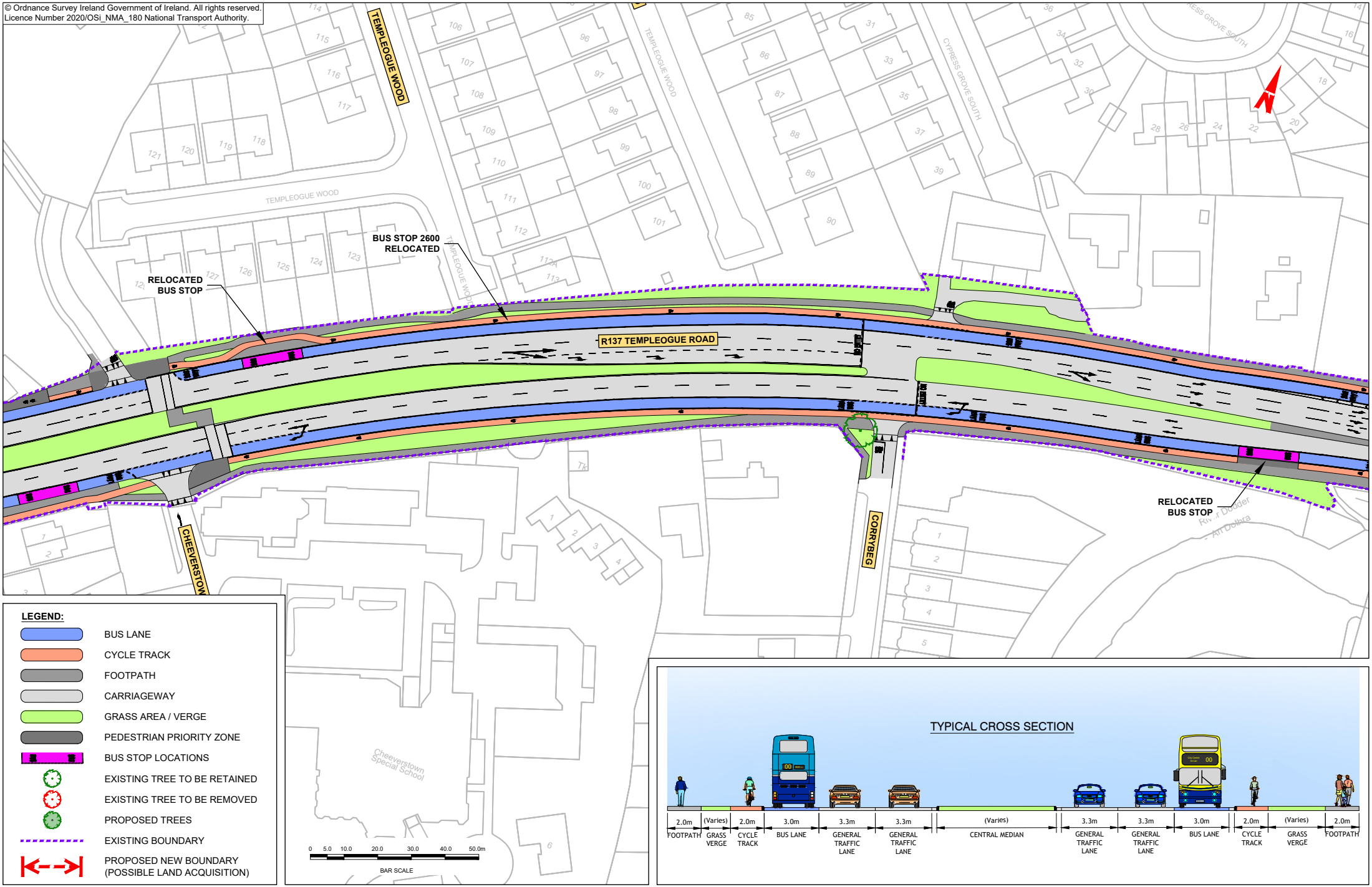
BAR SCALE

TYPICAL CROSS SECTION







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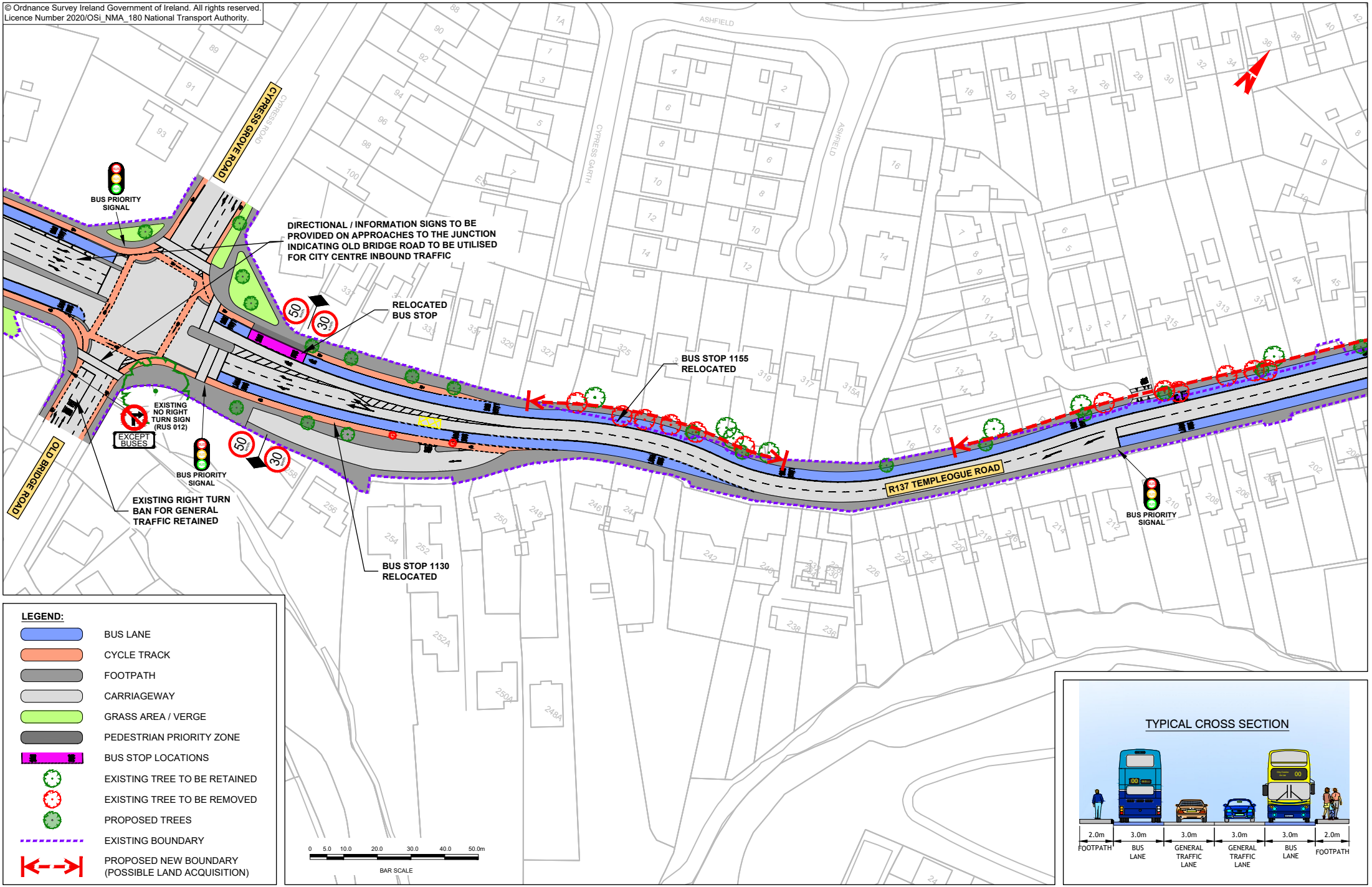
TYPICAL CROSS SECTION



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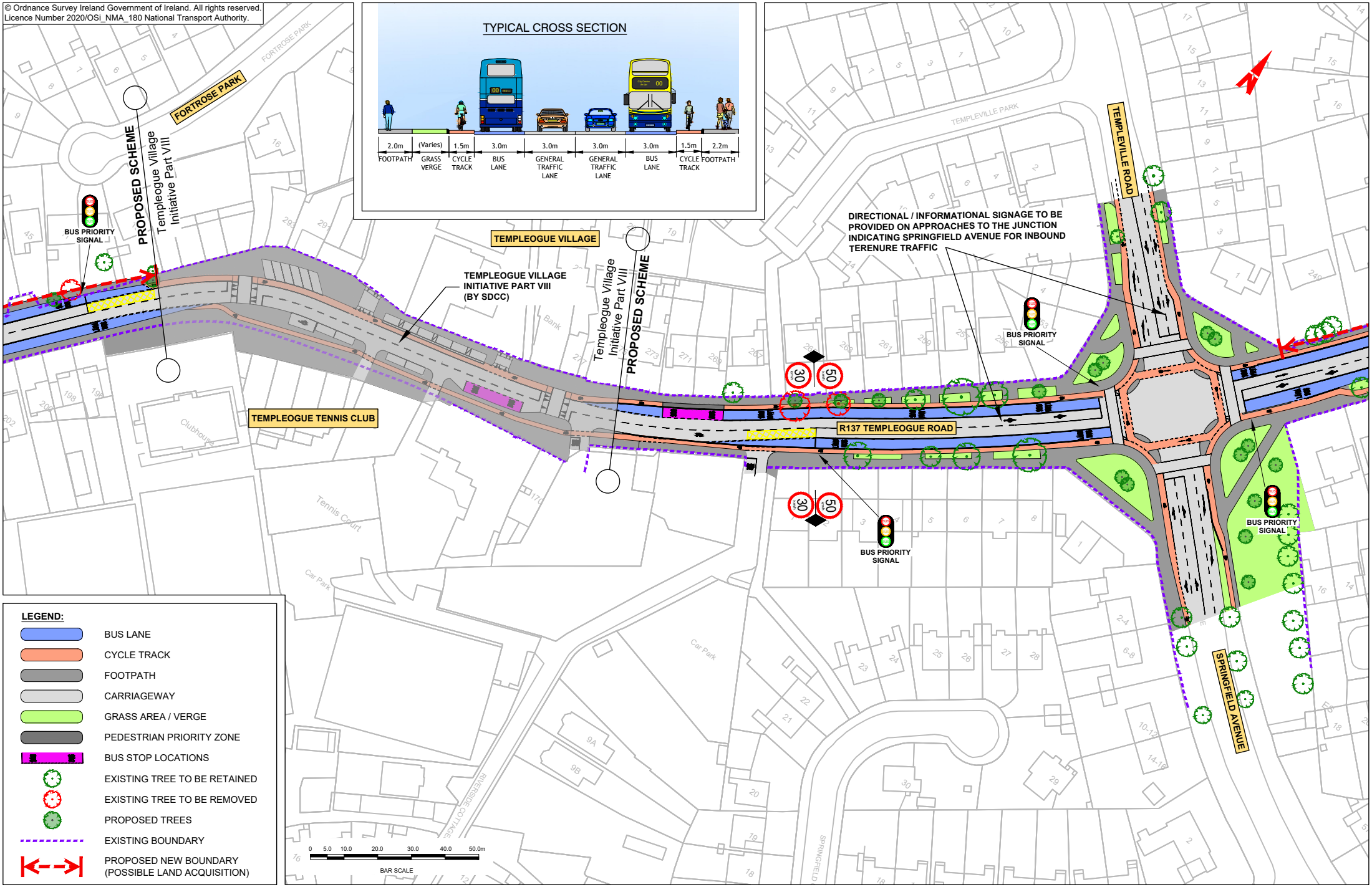
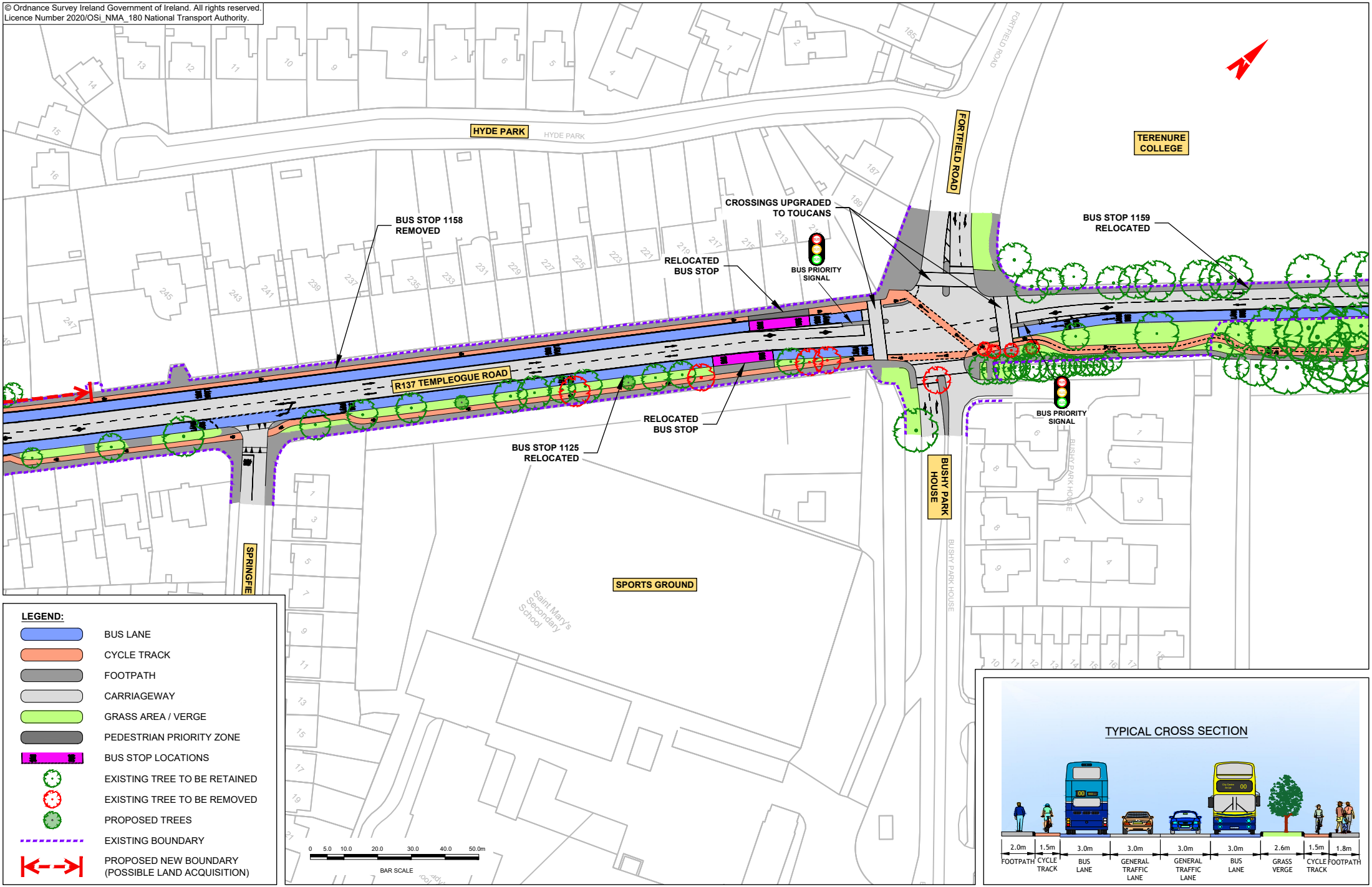
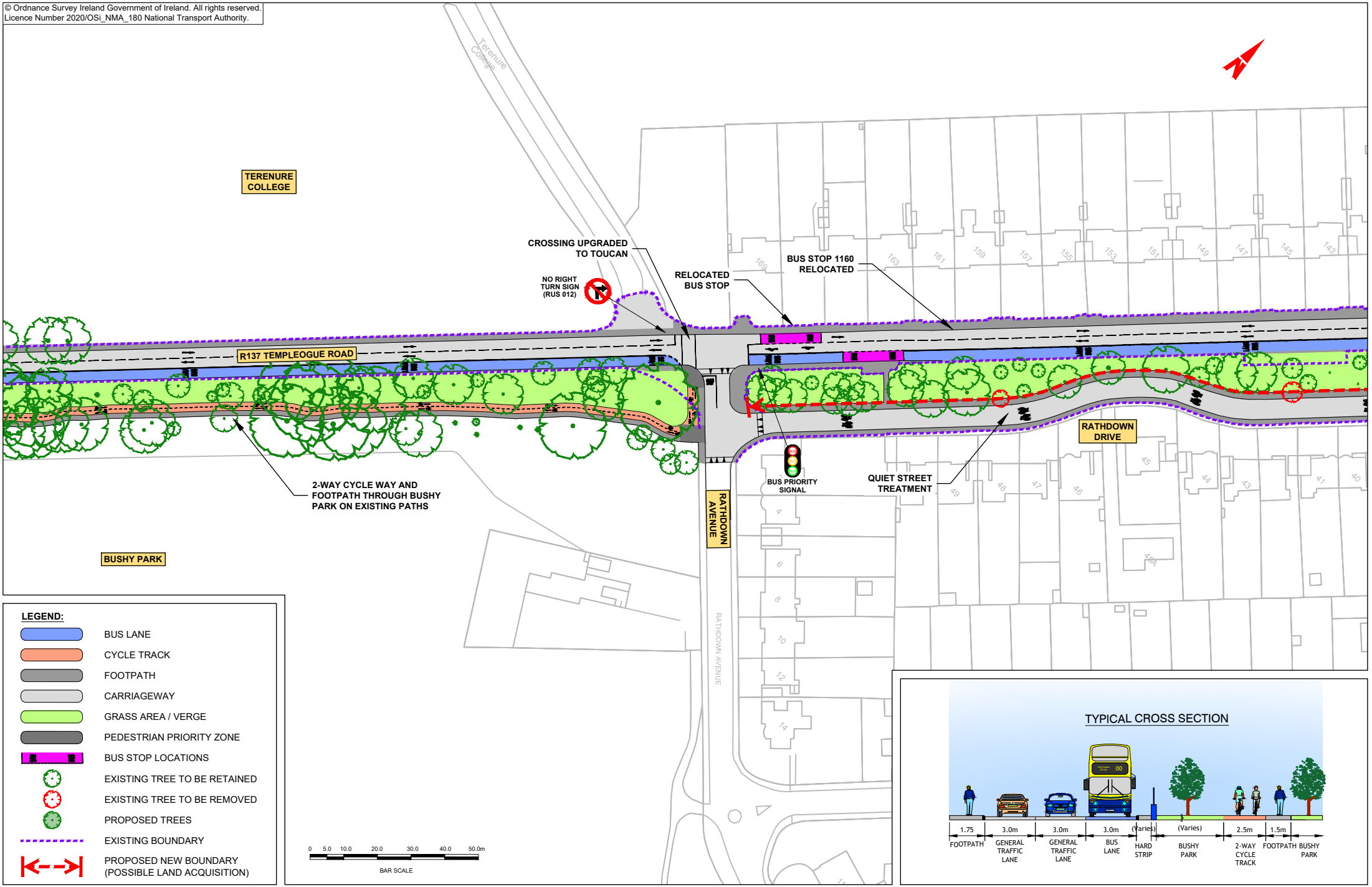
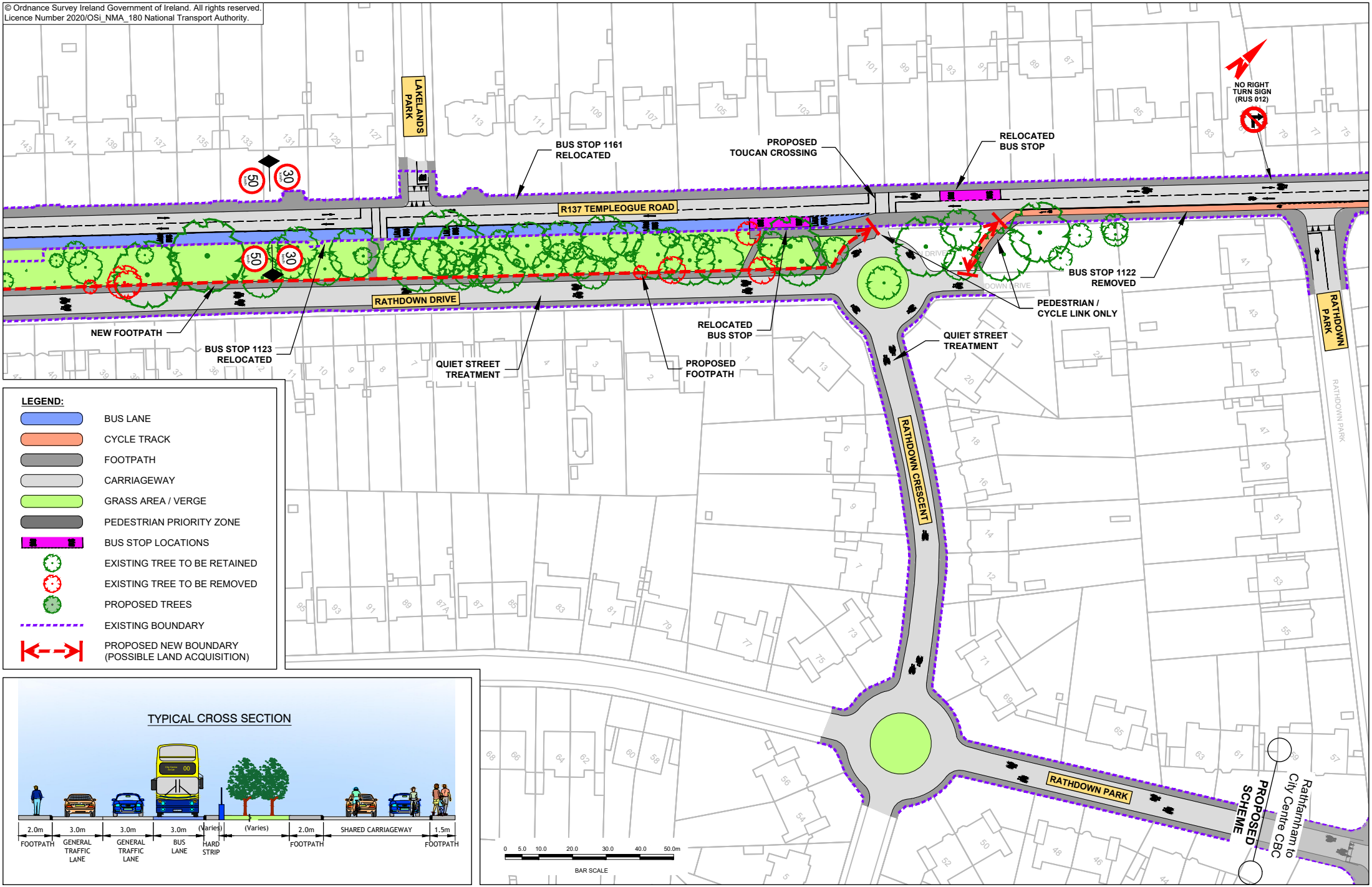
BAR SCALE

TYPICAL CROSS SECTION









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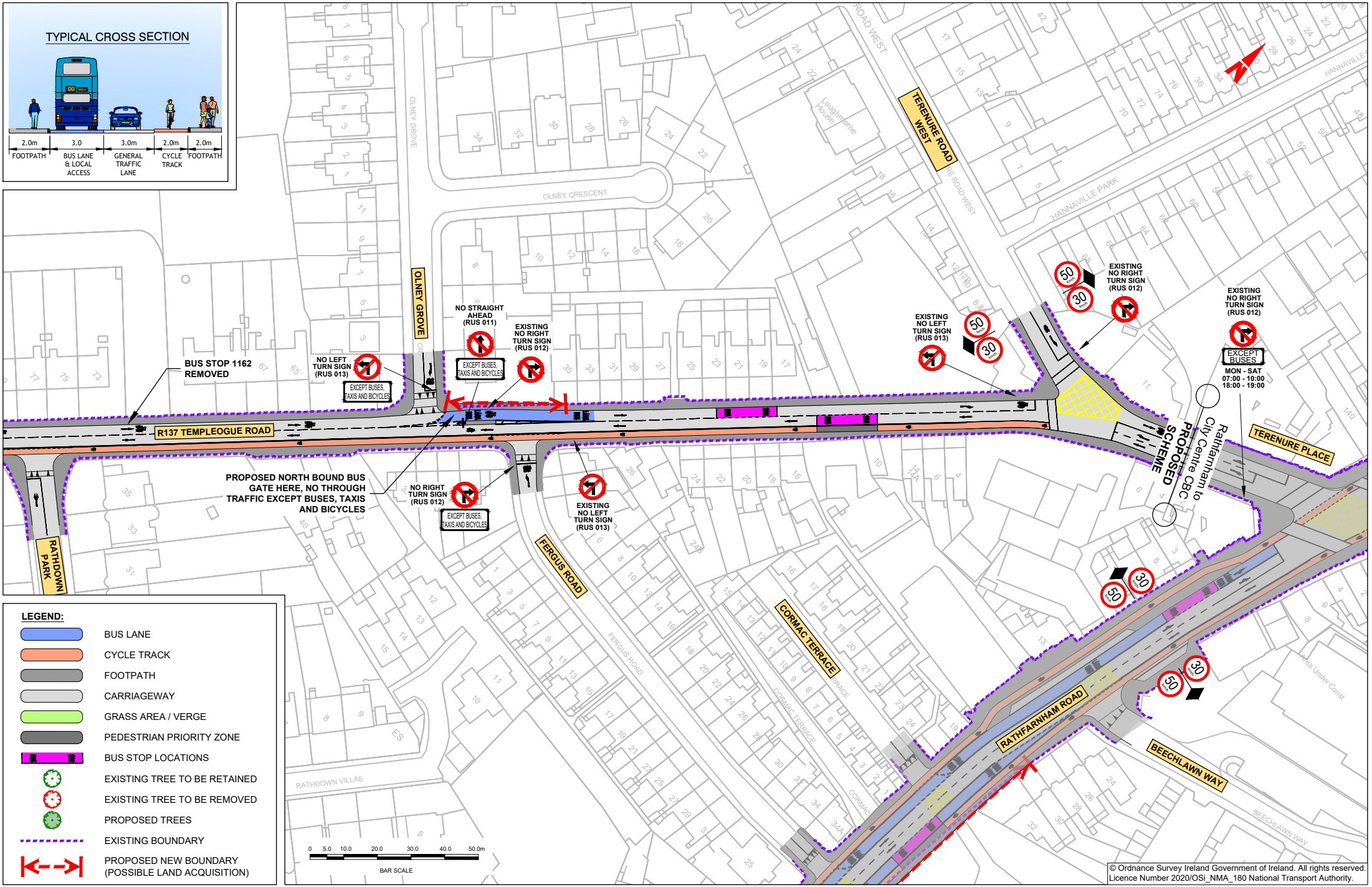


Appendix C

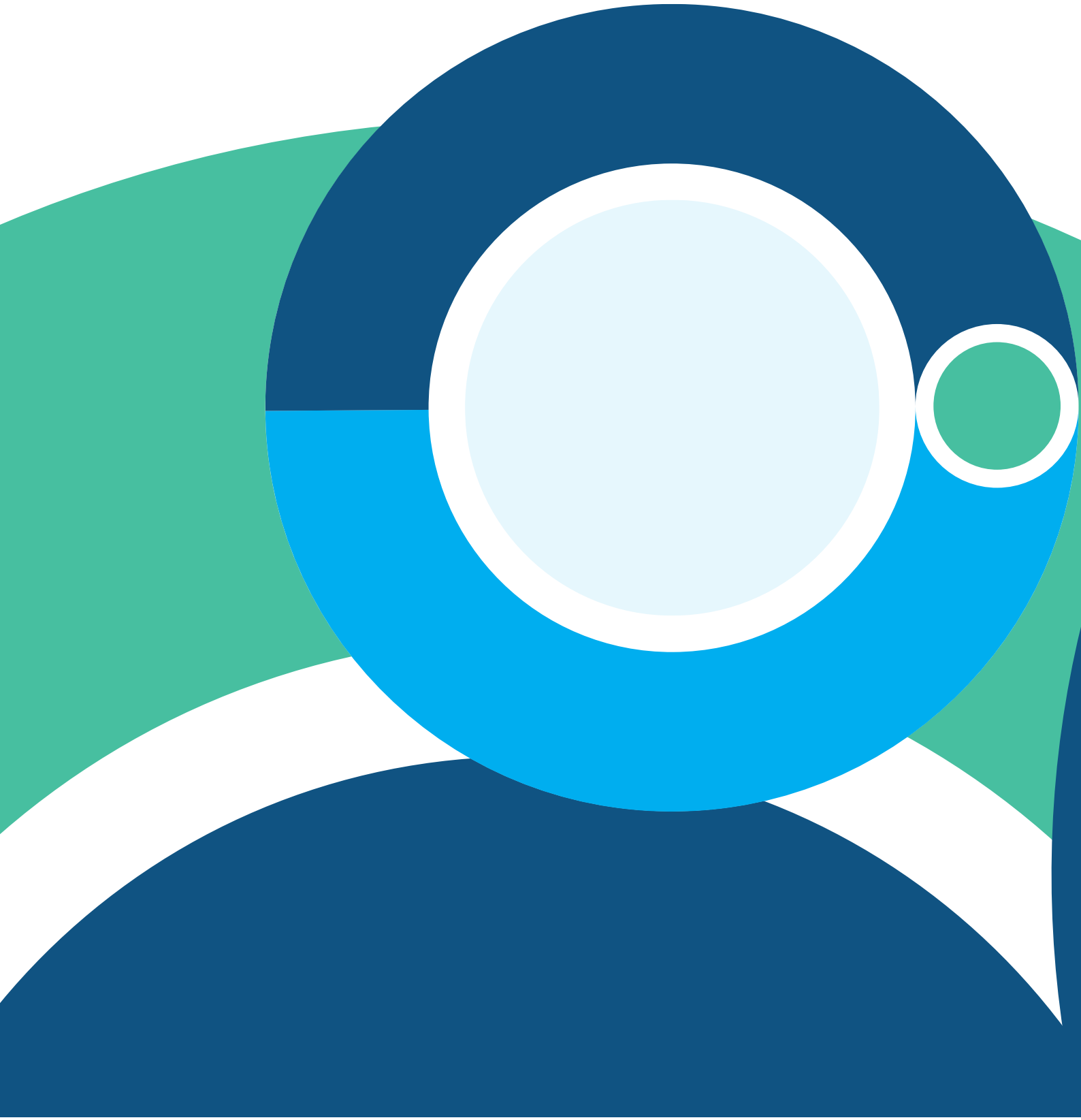
Tallaght to Terenure Core Bus Corridor – CBC Feasibility Study and Options Assessment Report

https://busconnects.ie/initiatives/core-bus-corridor-background-information/technical-documents/

Appendix D

Tallaght to Terenure Core Bus Corridor – Emerging Preferred Route Information Brochure

https://busconnects.ie/media/1451/10-busconnects-cbc-tallaght-to-terenure-040119-fa.pdf



NTA
Údarás Náisiúnta Iompair
National Transport Authority
Harcourt Lane,
Dún Scéine,
Dublin 2.
D02 WT20

Jacobs ARUP SYSTRA