



An
Bord
Pleanála

Inspector's Report

ABP-314056-22/

ABP-314091-22

Development	Liffey Valley to City Centre Core Bus Corridor Scheme which has an overall length of approximately 9.2km.	
Location	Fonthill Road to High Street all in the County of Dublin	
Applicant(s)	National Transport Authority	
Planning Authorities	South Dublin County Council and Dublin City Council	
Type of Application	Section 51(2) of the Roads Act, 1993 and associated CPO	
Prescribed Bodies	<ol style="list-style-type: none">1. Department of Housing, Local Government and Heritage2. Inland Fisheries Ireland3. Land Development Agency4. South Dublin County Council5. Dublin City Council	
Observers	<ol style="list-style-type: none">1. Our Lady of the Assumption Parish2. Karen Maguire3. Kathleen O'Reilly4. Maria Bennett	<ol style="list-style-type: none">13. Lauren Tuite14. Kevin Baker15. Dublin Cycling Campaign16. Jean Early

	5. Aidan Quigley	17. Helen Conlon
	6. Marbelsand Holding Ltd.	18. Rita & George Ray and others
	7. Brendan Heneghan	19. Helen Iland
	8. Dublin Commuter Coalition	20. Noel Corr
	9. Gallagher Family and others	21. General Paints Group
	10. Kilmainham Inchicore Network	22. Máire Devine & Aengus O'Snodaigh
	11. Patrick Brien	23. Nigel & Emer Buchalter
	12. St. James's Hospital	24. Liam Willoughby
		25. Tesco Ireland Ltd.
Objectors to CPO	1. Sky Property Management Ltd.	13. Petrogas Group Ltd.
	2. Dublin City Council	14. Intrust Properties Ltd.
	3. Cormac Byrne & Tracey Staunton (2 no.)	15. Seamus Keating
	4. Patrick Troy	16. Paula McFarland
	5. HES, Cherry Orchard Hospital	17. St. James's Hospital
	6. Gallagher & Maguire families	18. Susan Collins
	7. Grange Cross Medical	19. Our Lady of the Assumption Parish
	8. Sons of the Devine Providence	20. Stephen Byrne
	9. Haven Pharmacy	21. Eoin Feeney
	10. Marie Moloney	22. Patrick Brien
		23. Tesco Ireland

11. Conor Igoe & Christine
Kilcoyne

12. Siobhan Hennessey

Date of Site Inspection 31st November 2022

Inspector Donal Donnelly

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1.0 Introduction

- 1.1. Approval is sought from the Board by the National Transport Authority (NTA) for two applications relating to the development of Liffey Valley to City Centre Core Bus Corridor (CBC) scheme. This scheme is one of 12 CBC schemes forming part of the BusConnects programme, which seeks to redesign the bus network in Dublin by building new bus corridors and cycle lanes.
- 1.2. Firstly, an order has been made by the NTA that, if confirmed by the Board, will authorise the authority to acquire compulsorily lands for the proposed development and to extinguish private rights of way. The temporary acquisition of lands is also required for the purpose of construction works. The lands to be acquired are along the alignment of the CBC.
- 1.3. The second application made pursuant to Section 51(2) of the Roads Act, 1993 (as amended) seeks approval for the same CBC scheme for which an Environmental Impact Assessment Report has been submitted along with documentation in support of the application.
- 1.4. A total of 24 objections to the CPO were lodged with the Board and observations on the Section 51(2) application were received from five prescribed bodies and 25 observers.
- 1.5. The applicant entered into pre-application discussions with the Board under Section 51A of the Roads Act, 1993 (as amended) on 21st April 2021, 20th May 2021, 10th June 2021 and the 29th June 2021. Following a request from the applicant, pre-application consultations were formally closed by the Board on 12th August 2021.

2.0 Legal Requirements

- 2.1. Under Section 51(2) of the Roads Act, 1993 (as amended by Section 9(1)(e)(i) of the Roads Act, 2007), a road authority shall apply to the Board for the approval of a proposed road development and shall submit to the Board an Environmental Impact Assessment Report (EIAR) in respect of the development. The proposed road development shall not be carried out unless the Board has approved it or approved it

with modifications. The Board shall ensure that it has, or have access as necessary to, sufficient expertise to examine the EIAR.

- 2.2. Before approval of the proposed road development, consideration must be given to the EIAR, any additional information, any submissions made in relation to the likely effects on the environment of the proposed road development, and the report and any recommendation of the person conducting any inquiry. Taking into account the preceding, the Board shall reach a reasoned conclusion on the significant effects of the proposed road development on the environment.
- 2.3. Where any application for approval under this section relates to a proposed road development and a compulsory purchase order submitted for confirmation, a decision on such approval and confirmation of such compulsory purchase order shall be made at the same time.
- 2.4. Under Section 44(1)(c) of the Dublin Transport Authority Act, 2000 (as amended), the National Transport Authority (NTA) may acquire and facilitate the development of land adjacent to any public transport infrastructure where such acquisition and development contribute to the economic viability of the said infrastructure whether by agreement or by means of a compulsory purchase order made by the Authority in accordance with Part XIV of the Act of 2000.
- 2.5. Under Section 213(2)(a) of Part XIV of the Planning and Development Act, 2000 (as amended), a local authority may, for the purposes of performing any of its functions (whether conferred by or under this Act, or any other enactment passed before or after the passing of this Act), including giving effect to or facilitating the implementation of its development plan, acquire land, permanently or temporarily, by agreement or compulsorily.
- 2.6. Compulsory Purchase Orders are made pursuant to the powers conferred on the local authority by section 76 of the Housing Act, 1966, and the Third Schedule thereto, as extended by section 10 of the Local Government (No. 2) Act, 1960, (as substituted by section 86 of the Housing Act 1966), as amended by section 6 and the Second Schedule to the Roads Act, 1993, and as amended by the Planning and Development Act, 2000 (as amended). Orders are served on owners, lessees and

occupiers in accordance with Article 4(b) of the Third Schedule to the Housing Act, 1966.

3.0 Site Location and Description

- 3.1.1. The proposed Liffey Valley to City Centre Core Bus Corridor (proposed scheme) is located through the Palmerstown West/ Clondalkin-Moorefield Electoral Divisions in the South Dublin County Council administrative area, and through the Cherry Orchard A/ Palmerstown Village, Carna/ Drumfinn, Kylemore, Decies/ Chapelizod, Kilmainham A/B/C, Inchicore A, Ushers A/B/C/F and Merchants Quay A/B Electoral Divisions in Dublin City Council.
- 3.1.2. The proposed scheme extends over a distance of 9.2km from the new Liffey Valley Shopping Centre bus interchange at its western end to High Street in the city centre to the east. The proposed scheme will travel over distributor roads from the shopping centre before continuing over the M50 and alongside residential areas on both sides of the road at Palmers Drive and Coldcut Park. The proposed scheme then passes Cherry Orchard Hospital and Cherry Orchard Industrial estate and through residential areas to the west of Ballyfermot. The route continues through Ballyfermot civic centre, then past school grounds and Markievicz Park, a pitch and putt course and GAA pitch along the R833.
- 3.1.3. As the route approaches the city, it passes by more historic housing at Inchicore. Green space adjoining this section includes Grattan Crescent Park, which is bounded by the Camac River. The proposed scheme crosses the Camac River at Golden Bridge on Emmet Road and then continues past a mix of road-fronting residential and commercial development, as well as Inchicore College of Further Education. To the east of South Circular Road, the proposed scheme enters Old Kilmainham and Mount Brown then passes St. James's Hospital. Along James's Street, Thomas Street and High Street, the character of the area is defined by city centre streetscapes.
- 3.1.4. Overall, the proposed scheme is located in a highly urbanised environment with a mix of uses along either side consisting of major retail, open space, residential, community and institutional, enterprise and employment, district centre, residential

conservation areas, neighbourhood centres and city centre. The proposed scheme also passes a strategic development and regeneration area at Inchicore, conservation areas and protected structures, Records of Monuments and Places and the Thomas Street Architectural Conservation Area. Lands within the site boundary comprise of road and street surfaces, footpaths, cycleways, public amenity areas, grassy verges and green spaces.

4.0 Proposed Development

4.1. The Scheme

- 4.1.1. The Liffey Valley to City Centre Core Bus Corridor Scheme seeks to provide better infrastructure for walking, cycling and public transport to encourage these modes as attractive alternatives to car-based journeys. Roadway space is designed to facilitate improvements to the efficiency of the transport network with a focus on the movement of people rather than vehicles.
- 4.1.2. The Liffey Valley to City Centre CBC scheme has an overall length of 9.2km and will include an increase in the proportion of the route with bus priority measures from 22% at present to 100% of the route. The number of pedestrian signal crossings will increase by 44% from 71 to 102 and the proportion of segregated cycle facilities will increase from 12% on the existing corridor to 68%. Landscaping and public realm enhancements are provided along the CBC at key nodes with a focus on upgrading paving materials, extension of planting, decluttering, SuDS and general placemaking.
- 4.1.3. The proposed scheme is described in sections from west to east as follows:
- a) **Section 1 - Liffey Valley to Le Fanu Road:** It is proposed provide continuous bus lanes and cycle tracks in each direction between Fonthill Road and the junction with Coldcut Road by widening into the central median, modifying existing junctions and utilising existing greenspace beside the road. The existing roundabouts will be developed into signalised junctions and signalled controlled bus priority is proposed at the bridge over the M50. Single bus lanes and general traffic lanes will be maintained between the bridge and the

junction with Ballyfermot Road and this junction will be modified to improve facilities for pedestrians and cyclists. Limited land take will be required at Cherry Orchard Industrial Estate, Cherry Orchard Hospital, the entrance to Cherry Orchard Filling Station and the junction with Le Fanu Road to maintain bus lanes, general traffic lanes and cycle tracks. Ballyfermot Road and parallel access roads will be amalgamated, and urban realm works, additional tree planting and parallel parking are proposed.

- b) **Section 2- Le Fanu Road to Sarsfield Road:** City bound traffic will be diverted north onto Le Fanu Road and Ballyfermot Road will be restricted to one bus lane in both directions and an outbound traffic lane from Kylemore junction. Cycle tracks in both directions are proposed along this section of Ballyfermot Road. The existing roundabout at Kylemore Road will be upgraded to a signalised junction and new green spaces and parking are proposed around the junction. A bus lane, general traffic lane and cycle track in both directions are proposed between Kylemore Road and Markievicz Park and this will require limited land take from St. Raphael's and St. Gabriel's Primary School and the former De la Salle National School/ Mount La Salle. Inbound signalled controlled bus priority is proposed, and this will require limited land take at Markievicz Park, Steeples Estate and a private frontage between O'Hogan Road and St. Lawrence's Road, Longmeadows Pitch & Putt and private frontages between First Avenue and St. Mary's Avenue West. O'Hogan Road will also be closed off. It is proposed to extend the proposed cycle track to tie into the Lucan to City Centre Core Bus Corridor Scheme.
- c) **Section 3 – Sarsfield Road to City Centre:** Memorial Road will be changed from one-way to two-way for general traffic and cycle tracks will be provided in both directions. Bus lanes in both directions are proposed on Grattan Crescent along with a one-way southbound general traffic lane. The existing footway will be widened, and a new crossing will be installed at Grattan Crescent Park. Two-way general traffic access will be retained at Inchicore Works. East of St. Vincent Street, bus lanes and general traffic lanes will be provided on Emmet Road in both directions, and this will require the removal of some on-street parking. A staggered AM/ PM bus gate proposed along Old

Kilmainham/ Mount Brown will prevent through-traffic but will not impact on access to the Children's Hospital, St. James's Adult Hospital or the local area. Continuous cycle tracks, bus lanes where possible and general traffic in both directions are proposed along James's Street and Thomas Street. A new junction layout is proposed, and priority will be amended at Cornmarket junction from High Street/ Thomas Street to High Street / Bridge Street Upper.

- 4.1.4. Traffic lane widths will follow guidance outlined in DMURS with the preferred width being 3m. The desirable minimum width for cycle tracks is 2m and the minimum width is 1.5m. For footpaths, the desirable minimum width is 2m, with an absolute minimum of 1.2m at pinch points. A reduction of the general traffic lane width to 2.75m would be permitted where there are constraints.
- 4.1.5. Pedestrian crossings throughout the proposed scheme vary in width from 2.4m and 4m. Larger crossing widths are situated at locations with a higher number of pedestrians or at toucan crossings. Where possible, crossings will allow a single direct movement. The footpath will be ramped down or raised tables will be provided at minor junctions and tactile paving will be installed at traffic signal push buttons. Junctions have been designed to maximise the number of people moving through each junction and to prioritise sustainable modes.
- 4.1.6. The proposed scheme includes 12.8km of segregated cycle tracks and 5.4km of unsegregated cycle lanes. Cycle tracks are provided at grade at James's Street and Thomas Street in order to maintain existing kerb lines as the route approaches the city centre. Elsewhere the cycle track will be separated by a kerb 60mm high on the near side and 120mm high on the carriageway/ bus lane side. The use of cycle lanes (mandatory and advisory) will be limited mainly to side roads. A quiet street cycle route is proposed via Echlin Street to avoid Luas tracks. Bike racks will generally be provided at island bus stops and key locations.
- 4.1.7. Bus priority infrastructure will include bus lanes; signal-controlled priority (M50 bridge, between Markievicz Park and St. Lawrence's Road, westbound on Emmet Road at St. Vincent Street West, and multiple locations along James's Street and Thomas Street); and bus gates (New Children's Hospital outbound and St. James's Hospital entrance inbound). A bus stop assessment has been carried out and stops

are typically spaced at distances of 400m apart in suburban areas and 250m apart in urban centres. Island bus stops, shared landing area bus stops and inline bus stops are proposed along the CBC.

- 4.1.8. The construction period will last approximately 30 months. The main construction activities will involve site preparation and clearance works, road and street upgrades, and construction site decommissioning, including the removal of all construction facilities and equipment. Three construction compounds are proposed at Fonthill Road, Coldcut Road and Con Colbert Road/ Liffey Gaels Park.
- 4.1.9. The construction of the proposed scheme will require the acquisition of land at three residential properties, 18 commercial properties, one school, two hospitals and local authority property.

4.2. Main Objectives

- 4.2.1. The main objectives of the Liffey Valley to City Centre CBC as set out in the planning report accompanying the planning application and CPO 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 movements 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 transport infrastructure and seek to enhance key urban focal points where appropriate and feasible.

4.3. The Need for the Proposed Development

- 4.3.1. At present, the reliability and effectiveness of existing bus and cycle infrastructure on key radial traffic routes into and out of Dublin city centre is compromised by a lack of bus lanes and segregated cycle tracks. Furthermore, existing bus lanes are not always operational on a 24 hour basis and are often shared with parking and cyclists. Along the proposed scheme, 22% of the route currently has bus lanes and 12% has segregated cycle tracks. There are also several uncontrolled crossings along the proposed route and the walking experience is generally sub-optimal, with narrow footpaths, poor pedestrian desire lines and long waiting times at crossings.
- 4.3.2. As far as possible, continuous bus priority along core bus corridors is required to address these deficiencies and to support an effective and reliable bus service with lower journey times that will increase its attractiveness and result in a modal shift from private car use. A high-quality pedestrian environment along the route of the proposed scheme is also necessary to improve accessibility to jobs and education, and to create other social and economic opportunities. An increase in the provision of segregated cycle tracks and improved arrangements for cyclists at junctions will also help to improve the safety and attractiveness of this mode of transport and in the overall promotion of active travel.
- 4.3.3. BusConnects is identified as a component of a Strategic Investment Priority which has been determined as central to the delivery of the National Planning Framework. The proposed scheme is also consistent will all levels national, regional and local policy relating to climate action and sustainable transport provision.

4.4. Route Selection

- 4.4.1. The proposed scheme forms part of the Core Bus Network identified within the GDA Transport Strategy, which is characterised by high passenger volumes, frequent services, and significant trip attractors. The NTA carried out future travel forecasts

and assessments of existing and future land use and traffic patterns along eight transport corridors. The proposed scheme aligns with part of Corridor C in the GDA Transport Strategy. Other strategic alternatives considered were BRT, light rail, metro, heavy rail, demand management and technological alternatives.

- 4.4.2. Route alternatives were considered during the design development of the proposed scheme that were informed by public consultation and survey data. Route options were evaluated under economy, safety, integration, accessibility, social inclusion and environment. Initial route options were set out and the emerging preferred route was identified. A draft preferred route option was developed, and this was updated following public consultation. The preferred route option was then finalised. Alternative cycle route options were also considered as part of the process.
- 4.4.3. Design alternatives included various amendments to address issues raised by residents, community groups, businesses, elected representatives, and stakeholders. For example, an original proposal for cyclists to share the bus lane between Le Fanu Road and Colepark Road was amended by prohibiting city bound traffic from Ballyfermot village, and by doing so, allowing fully segregated cycling facilities in both directions. The design was also refined to reduce impacts on Markievicz Park and adjacent residential properties by providing signal-controlled priority in lieu of a bus lane for inbound buses. The process saw the removal of a lane of traffic from Grattan Crescent to allow for the retention of existing mature trees.
- 4.4.4. The conclusion is reached that enhanced bus priority and cycle facilities, together with the proposed Lucan to city centre Luas, are best placed to serve the corridor having regard economic and environmental factors and passenger numbers that each mode would carry.

4.5. Preliminary Design Guidance Booklet for BusConnect Core Bus Corridors

- 4.5.1. This booklet provides guidance for various design teams involved in the CBC project to ensure a consistent design approach, focusing on engineering geometry and CBC operation. The booklet complements existing guidance relating to design of urban

streets, bus facilities, cycle facilities and public realm and provides typical corridor scenarios and layouts.

- 4.5.2. The booklet includes cross sectional information and geometry for traffic lanes, headroom, cycle tracks, cycle facility segregation, cycle track material, pedestrian crossing distances, refuge islands and parking/ loading bays. A hierarchy of signalised junction layout options are set out, with the preferred layout being the protected junction for cyclists, which helps to reduce conflicts between cyclists and left-turning motorists. This provides physical kerb build-outs to protect the cyclist through the junction. Right turning cyclists will manoeuvre around the junction in two stages and any uncontrolled conflict between pedestrians and cyclists is removed. Alternative on-road cycle lane junctions may be considered where space is constrained. Details are also included on staging and phasing, priority junction layouts and signal controlled bus priority measures. A key feature of the design of any bus corridor is traffic signalling and the priority afforded to buses.
- 4.5.3. A hierarchy for bus stop options starts with the island bus stop, followed by the shared bus stop landing zone, and then layby bus stops. The preferred island bus stop features the deflection of cyclists behind the stop and the inclusion of a pedestrian priority crossing onto the bus stop area. Visually impaired pedestrians may call on part time signals within this arrangement, where necessary. Intelligent transport systems (ITS) may include real time passenger information (RTPI) at bus stops, variable message signage and CCTV.
- 4.5.4. Signage throughout the proposed scheme will be in accordance with the Traffic Signs Manual. Additional signage will be required including the use of a mini-yield with a flashing amber left turn arrow to warn turning motorists to yield to cyclists. New bespoke signage is also proposed for where a ban on left turns from the bus lane is proposed. Taxis, other buses and coaches using the bus lane will be required to make a left turn with the general traffic lane in this scenario. Finally, advice is contained in the booklet on lighting, utilities, drainage, pavement and landscape/ public realm design.

5.0 Policy Context

5.1. Sustainable and Smart Mobility Strategy 2020 (EU Commission 2020)

5.1.1. The Smart and Mobility Strategy is part of the EU Green Deal which aims to reduce transport emissions by 90% until 2050. The Commission intends to adopt a comprehensive strategy to meet this target, and to ensure that the EU transport sector is fit for a clean, digital and modern economy. Objectives include:

- Increasing the uptake of zero-emission vehicles.
- Making sustainable alternative solutions available to the public & businesses.
- Supporting digitalisation & automation.
- Improving connectivity & access.

5.2. Climate Action Plan 2023

5.2.1. The Climate Action Plan (CAP23) sets out a roadmap to halve emissions by 2030 and reach net zero by 2050. CAP23 will also be the first to implement carbon budgets and sectoral emissions ceilings that were introduced under the Climate Action and Low Carbon Development (Amendment) Act, 2021. Sector emission ceilings were approved by Government in July 2022 for the electricity, transport, built environment – residential, built environment – commercial, industry, agricultural and other (F-gases, waste & petroleum refining) sectors. Finalisation of the emissions ceiling for the Land Use, Land Use Change and Forestry (LULUCF) sector has been deferred for up to 18 months from July 2022.

5.2.2. Citizen engagement and a strengthened social contract between the Government and the Irish people will be required around climate action. Some sectors and communities will be impacted more than others. A just transition is embedded in CAP23 to equip people with the skills to benefit from change and to acknowledge that costs need to be shared. Large investment will be necessary through public and private sectors to meet CAP23 targets and objectives.

5.2.3. The electricity sector will help to decarbonise the transport, heating and industry sectors and will face a huge challenge to meet requirements under its own sectoral

emissions ceiling. For transport, CAP23 reframes the previous pathway outlined in CAP21 under the Avoid-Shift-Improve Framework to achieve a net zero decarbonisation pathway. This is a hierarchical framework which prioritises actions to reduce or **avoid** the need to travel; **shift** to more environmentally friendly modes; and **improve** the energy efficiency of vehicle technology.

- 5.2.4. Road space reallocation is a measure outlined under both 'avoid' and 'shift' to promote active travel and modal shift to public transport. It is recognised that road space reallocation can redirect valuable space from on-street car-parking and public urban roadways to public transport and active travel infrastructure (such as efficient bus lanes, and more spacious footpaths and segregated cycle-lanes), whilst also leading to significant and wide-scale improvements in our urban environments. A National Demand Management Strategy will be developed in 2023 with the aim of reducing travel demand and improving sustainable mobility alternatives.
- 5.2.5. The major public transport infrastructure programme set out in the NDP rebalances the share of capital expenditure in favour of new public transport schemes over road projects. BusConnects in each of the five cities in the State, the DART+ Programme and Metrolink will continue to be progressed through public consultations and the planning systems. BusConnects is a key action under the major public transport infrastructure programme to deliver abatement in transport emissions, as outlined in CAP23 for the period 2023-2025.

5.3. National Planning Framework, 2018

- 5.3.1. The National Planning Framework provides policies, actions and investment to deliver 10 National Strategic Outcomes and priorities of the National Development Plan. These include compact growth, enhanced regional accessibility, sustainable mobility and transition to a low carbon and climate resilient society. Compact growth can be delivered by improving 'liveability' and quality of life, enabling greater densities and ensuring transition to more sustainable modes of travel.
- 5.3.2. It is recognised with respect to sustainable mobility that Dublin and major urban areas are too heavily dependent on road and private, mainly car-based transport, with the result that our roads are becoming more and more congested. The NPF will

therefore encourage the expansion of attractive public transport alternatives to car transport to reduce congestion and emissions and enable the transport sector to cater for the demands associated with longer term population and employment growth in a sustainable manner. The development of a comprehensive network of safe cycling routes in metropolitan areas will also be sought to address travel needs.

5.4. National Development Plan, 2021-2030

- 5.4.1. The NDP Review contains a range of investments and measures which will be implemented over the coming years to facilitate the transition to sustainable mobility. These measures include significant expansions to public transport options, including capacity enhancements on current assets and the creation of new public transport links through programmes such as MetroLink.
- 5.4.2. Over the next 10 years, approximately €360 million per annum will be invested in walking and cycling infrastructure in cities, towns and villages across the country. The NDP recognises BusConnects as one of the Major Regional Investments for the Eastern and Midland Region and this scheme is identified as a Strategic Investment Priority within Dublin, Cork, Limerick, Galway and Waterford cities.
- 5.4.3. Transformed active travel and bus infrastructure and services in major cities is fundamental to achieving the overarching target of 500,000 additional active travel and public transport journeys by 2030. BusConnects will overhaul the current bus system by implementing a network of 'next generation' bus corridors with segregated cycling facilities on the busiest routes to make journeys faster, predictable and reliable.
- 5.4.4. Over the lifetime of this NDP, there will be significant progress made on delivering BusConnects with the construction of Core Bus Corridors expected to be substantially complete in major cities by 2030.

5.5. National Investment Framework for Transport in Ireland

- 5.5.1. This is the strategic framework for future investment decision making in land transport to enable the National Planning Framework and to support climate change. The four investment priorities under the NIFTI are decarbonisation, protection and

renewal, mobility of people and goods in urban areas, and enhanced regional and rural connectivity. These investment priorities are supplemented by modal and intervention hierarchies which encourage the use of active travel and public transport ahead of solutions reliant on private transport. Maintenance/ optimisation of existing assets, e.g., demand management, is preferred to extensive enhancements or outright new infrastructure.

5.5.2. The Framework refers to the enhancement of urban mobility through BusConnects and the challenges facing the network at present compounded by rising passenger numbers and congestion in recent years. It is stated that BusConnects will alleviate these issues over a ten-year period through a number of deliverables.

5.6. National Sustainable Mobility Policy

5.6.1. This Policy sets out a strategic framework to 2030 for active travel and public transport journeys to help Ireland meet its climate obligations. An Action Plan for sustainable mobility to 2025 is included, which aims to provide safe, green, accessible and efficient alternatives to car journeys. Action 23 is the commencement of delivery of BusConnects Core Bus Corridor infrastructure works.

5.6.2. Safe and green mobility is supported in the Policy by:

- Continuing to protect and maintain the safety of existing walking, cycling and public transport networks and ensuring that new sustainable mobility infrastructure meets the highest safety standards.
- Developing pedestrian enhancement plans and cycle network plans to guide investment in new active travel infrastructure and retrofitting of existing infrastructure.
- Expanding bus capacity and services through the BusConnects Programmes in the five cities of Cork, Dublin, Galway, Limerick and Waterford; improved town bus services; and the Connecting Ireland programme in rural areas.
- Rebalancing transport movement in metropolitan areas and other urban centres away from the private car and towards active travel and public transport.

5.7. Eastern & Midlands Regional Spatial & Economic Strategy, 2019-2031

- 5.7.1. The RSES provides a spatial strategy, economic strategy, metropolitan plan, investment framework and climate action strategy to support the implementation of Project Ireland 2040 and the economic policies and objectives of the Government by providing a long-term strategic planning and economic framework for the development of the Region.
- 5.7.2. This strategy sets out 16 Regional Strategic Outcomes aligned to the three key principles of healthy placemaking, economic opportunity and climate action. These RSOs include sustainable settlement patterns, creative places, integrated transport and land use, building climate resilience, a global city region and enhanced regional connectivity.
- 5.7.3. The Strategy includes the Dublin Metropolitan Area Strategic Plan (MASP), which is an integrated land use and transportation strategy that sets out guiding principles for the sustainable development of the Dublin Metropolitan Area. In terms of Integrated Transport and Land use, the aim is to focus growth along existing and proposed high quality public transport corridors and nodes on the expanding public transport network and to support the delivery and integration of 'BusConnects', DART expansion and LUAS extension programmes, and Metro Link, while maintaining the capacity and safety of strategic transport networks. The following Regional Policy Objectives are relevant to the proposed scheme:
- MASP Sustainable Transport RPO 5.2: Support the delivery of key sustainable transport projects including Metrolink, DART and LUAS expansion programmes, BusConnects and the Greater Dublin Metropolitan Cycle Network and ensure that future development maximises the efficiency and protects the strategic capacity of the metropolitan area transport network, existing and planned.
 - RPO 5.3: Future development in the Dublin Metropolitan Area shall be planned and designed in a manner that facilitates sustainable travel patterns, with a particular focus on increasing the share of active modes (walking and cycling) and public transport use, and creating a safe attractive street environment for pedestrians and cyclists.

- 5.7.4. Connectivity is addressed in Chapter 8 of the Strategy where it is recognised that there is a need to ensure alternatives to the car in the design of streets and public spaces, with prioritisation of cycling and walking as active transport modes. Furthermore, it is stated that the success of transport planning in meeting society's needs requires close integration of transport investment and land use planning, to guide the direction of future development within the Region.
- 5.7.5. Transport investment priorities are set out in Section 8.4. Within the Dublin Metropolitan Area, investment in bus infrastructure and services will be delivered through BusConnects.

5.8. Transport Strategy for the Greater Dublin Area 2022-2042

- 5.8.1. The 2022-2042 Strategy replaces the previous 2016-2035 Strategy by setting out a framework for investment in transport infrastructure and services for the GDA up to 2042. The Transport Strategy recognises a wide range of challenges for transport underpinned by climate change; the Covid 19 pandemic; servicing the legacy development patterns; revitalising city and town centres; transforming the urban environment; ensuring universal access; serving rural development; improving health and equality; fostering economic development; and delivering transport schemes.
- 5.8.2. The overall aim of the Transport Strategy is *“to provide a sustainable, accessible and effective transport system for the Greater Dublin Area which meets the region’s climate change requirements, serves the needs of urban and rural communities, and supports the regional economy.”* The four objectives to deliver this aim are an enhanced natural and built environment; connected communities and better quality of life; a strong sustainable economy; and an inclusive transport system.
- 5.8.3. Chapters 10, 11 and 12 of the Transport Strategy address walking, accessibility and the public realm; cycling and personal mobility vehicles; and public transport respectively, and these sections relate both directly and indirectly to the proposed BusConnects programme.
- 5.8.4. Chapter 12 sets out the strategy for an overall public transport system for the region, central to which is the delivery of a comprehensive bus network, based on enhanced level of service and much greater on-street priority. BusConnects Dublin was

launched in 2017 comprising proposals for Core Bus Corridors, a new bus service network, next generation ticketing, new bus livery, new bus stops and shelters, low/zero emissions bus fleet, new park & ride interchanges, and a revised fare structure. The proposed Liffey Valley to City Centre CBC scheme is one of 12 radial schemes being brought forward under this programme to facilitate faster and more reliable bus journeys on the busiest bus corridors in the Dublin region. Key elements of the Cycle Network Plan will also be delivered along these corridors. The following measures in the Transport Strategy relate to the roll out of BusConnects:

- Measure BUS1 – Core Bus Corridor Programme: Subject to receipt of statutory consents, it is the intention of the NTA to implement the 12 Core Bus Corridors as set out in the BusConnects Dublin programme.
- Measure BUS2 – Additional Radial Core Bus Corridors: It is the intention of the NTA to evaluate the need for, and deliver, additional priority on radial corridors.
- Measure BUS3 – Orbital and Local Bus Routes: It is the intention of the NTA to provide significant improvements to orbital and local bus services in the following ways:
 1. Increase frequencies on the BusConnects orbital and local bus services; and
 2. Providing bus priority measures at locations on the routes where delays to services are identified.

5.8.5. A new Dublin area bus service network will be arranged on the basis on spines radiating from the city centre, orbitals around the city, other city bound routes, local routes, peak only services and express routes. Periodic review will take place to implement appropriate additions or adjustments to the overall bus system.

5.8.6. With respect to walking, accessibility and the public realm, it is recognised in the Transport Strategy that better urban design and placemaking will encourage more people to walk, cycle or use public transport. Specific measures are outlined to incorporate a high standard of urban design and placemaking into major public transport infrastructure schemes and walking and cycling projects, taking account of architectural heritage (PLAN14 and PLAN15). In addition, Measure PLAN16 seeks

the reallocation of road space to prioritise walking, cycling and public transport use and the placemaking functions of the urban street network. Other specific measures relating to walking, accessibility and public realm include Measure WALK2 – Improved Footpaths; Measure WALK4 – Improved Junctions; Measure WALK6 – Crossing Points; Measure WALK8 – Traffic-Free Streets and Pedestrianisation; and Measure WALK9 – Disabled People.

- 5.8.7. In terms of cycling and personalised mobility vehicles, it is the intention of the NTA and the local authorities to deliver a safe, comprehensive, attractive and legible cycle network in accordance with the updated Greater Dublin Area Cycle Network, which is published alongside the Transport Strategy (Measure CYC1 – GDA Cycle Network). It is noted that some of the cycle provision included in BusConnects schemes examines the appropriateness of emerging international approaches to design standards. As the number of cyclists grows, the requirement to ensure that cyclists can travel unimpeded along their entire journey becomes critical and this needs to be reflected in how cycle infrastructure is managed and in the associated management of traffic, loading and parking. This is reflected in the Transport Strategy through Measure CYC2 – Cycle Infrastructure Design; Measure CYC3 – Extended Hours of Operation of Cycle Infrastructure; and Measure CYC4 – Maintenance of Cycle Infrastructure. Other measures are set out in the Transport Strategy relating to bike sharing; bikes on public transport; and emerging personal mobility modes. Additional measures are included in support of cycling and other personal mobility modes such as cycle bus schemes for school children, public charging and parking for e-bikes and e-scooters.
- 5.8.8. Chapter 17 provides the outcomes and how the Strategy contributes to an enhanced natural and built environment (consolidated development, public realm and placemaking, reduced impacts of traffic, improved air quality and noise levels); how the Strategy leads to more connected communities and better quality of life (enhanced community interaction, high quality public transport coverage); how the Strategy contributes to a strong and sustainable economy; and how the Strategy fosters an inclusive transport system (equality, health and access to jobs).

5.9. GDA Transport Strategy – Integrated Implementation Plan 2019-2024

- 5.9.1. Section 13(1) of the Dublin Transport Authority Act, 2008 requires the NTA to prepare an integrated implementation plan covering a 6 year period to include an infrastructure investment programme and actions to ensure the effective integration of public transport infrastructure over the period of the plan. It is intended as part of this plan to progress the development of Core Bus Corridors to achieve continuous priority for bus movement. Approximately 230km of one-way bus lanes will be delivered on radial corridors, with half this amount to be delivered over the period of the plan. It is also an objective of this plan to put in place a programme to improve the quality of roadside facilities for bus services to include a full roll-out of new bus stop poles, flags and information panels.

5.10. Greater Dublin Area Cycle Network Plan, 2013

- 5.10.1. This plan consists of a consists of the urban network, inter-urban network and green route network for each of the seven local authority areas comprising the Greater Dublin Area (GDA). The key goal of the Cycle Network Plan was to ensure that a cycling culture is developed to an extent that by 2020, 10% of all journeys will be by bike via a high quality and extensive cycle route network. A higher cycling modal share in urban areas is required to compensate for rural areas.
- 5.10.2. Two primary cycle routes are identified along the proposed scheme (Cycle Routes 7 & 7A). There are also a number of secondary cycle routes along the proposed scheme, including S02, S04, 8C1, 7D.
- 5.10.3. The updated Greater Dublin Area Cycle Network is published along with the Greater Dublin Area Transport Strategy, 2022-2042. It is stated in the Strategy that *“while the 2013 Plan has provided a robust framework for such investment to date, evolutions in cycle policy, design guidance and urban form since its publication have prompted an update of the network. This review has ensured that the network proposed is fit for purpose, and takes account of the needs of the full spectrum of users and trip types. The revised GDA Cycle Network forms part of the Transport Strategy and is published in full alongside this report.”*

5.11. Cycle Design Manual, September 2023

- 5.11.1. The 2011 National Cycle Manual is now replaced by this new Cycle Design Manual, which draws on the experience of cycle infrastructure development over the past decade and international best practice to help deliver safe cycle facilities for people of all ages and abilities. The Manual is intended as a live document that will be updated to reflect emerging best practice.
- 5.11.2. Chapter 2 of the Manual sets out the five main requirements (safety, coherence, directness, comfort and attractiveness), that designs should fulfil to cater for existing cyclists and to attract new cyclists to the network. Key design principles include a network approach, segregation and inclusive mobility. It is advised that promoters of cycle facilities should cycle. Information is also provided on the types of cycle vehicles, cycle links, appropriate facilities and width calculations.
- 5.11.3. Chapter 3 of the Manual addresses cycle network planning, as well as the planning of cycling in private developments and public infrastructure projects. Designing for cycling is covered in Chapter 4, with guidance provided on the following:
- Geometric requirements (design speed, sight distance, visibility splays, horizontal and vertical alignments, surface crossfall, clearance and headroom),
 - Cycle links (segregated cycle facilities, standard and stepped cycle tracks, protected cycle lanes, two-way cycle tracks, greenways and shared active travel facilities, cycle lanes, cycling in mixed traffic, contraflow cycling, parking and loading on links, bus stops, transitions, pedestrian crossings at cycle tracks),
 - Priority junctions,
 - Signal-controlled junctions (including protected junctions),
 - Crossings,
 - Roundabouts.
- 5.11.4. Details relating to implementation and maintenance, including public lighting and signage/ wayfinding, are provided in Chapter 5, and Chapter 6 sets out the various design principles on cycle parking. Finally, typical layouts for cycle infrastructure are included in the appendix.

5.11.5. The Manual makes a single reference to BusConnects under protected junctions, where it is noted that a small number of these junctions have been implemented in Ireland and many more are currently being planned under active travel schemes around the country and on BusConnects corridors in Dublin and regional cities. The Manual anticipates that the continued rollout of protected junctions will improve junction consistency and coherence on the cycle network.

5.12. Design Manual for Urban Roads and Streets, 2019

5.12.1. This Manual provides guidance on how to approach the design of urban streets in a more balanced way. To encourage more sustainable travel patterns and safer streets, the Manual states that designers must place the pedestrian at the top of the user hierarchy, followed by cyclists and public transport, with the private car at the bottom of the hierarchy. The following key design principles are set out to guide a more place-based/ integrated approach to road and street design:

- To support the creation of integrated street networks which promote higher levels of permeability and legibility for all users, and in particular more sustainable forms of transport.
- The promotion of multi-functional, place-based streets that balance the needs of all users within a self-regulating environment.
- The quality of the street is measured by the quality of the pedestrian environment.
- Greater communication and co-operation between design professionals through the promotion of a plan-led, multidisciplinary approach to design.

5.12.2. The Manual recommends that bus services should primarily be directed along arterial and link streets and that selective bus detection technology should be considered that prioritises buses. It is noted that under-used or unnecessary lanes can serve only to increase the width of carriageways (encouraging greater vehicle speeds) and can consume space that could otherwise be dedicated to placemaking/traffic-calming measures.

5.13. South Dublin County Development Plan, 2022-2028

5.13.1. This plan includes a vision for the County's growing communities, places, housing, jobs, sustainable transport and the delivery of services in a manner which promotes climate action and efficient patterns of land use. Sustainable movement is covered under Chapter 7 of this plan where the aim is to increase the number of people walking, cycling and using public transport and to reduce the need for car journeys, resulting in a more active and healthy community, a more attractive public realm, safer streets, less congestion, reduced carbon emissions, better air quality, quieter neighbourhoods and a positive climate impact.

5.13.2. It is an overarching transport and movement policy (SM1) to “...*promote ease of movement within, and access to South Dublin County, by integrating sustainable land-use planning with a high-quality sustainable transport and movement network for people and goods.*” The following objectives are also listed under this policy:

SM1 Objective 1: To achieve and monitor a transition to more sustainable travel modes including walking, cycling and public transport over the lifetime of the County Development Plan, in line with the County mode share targets of 15% Walk; 10% Cycle; 20% Bus; 5% Rail; and 50% Private (Car / Van / HGV / Motorcycle).

SM1 Objective 3: To support the delivery of key sustainable transport projects including DART and Luas expansion programmes, BusConnects and the Greater Dublin Metropolitan Cycle Network in accordance with RPO 5.2 of the RSES / MASP.

SM1 Objective 4: To ensure that future development is planned and designed in a manner that facilitates sustainable travel patterns, with a particular focus on increasing the share of active modes (walking and cycling) and public transport use and creating a safe and attractive street environment for pedestrians and cyclists, in accordance with RPO 5.3 of the RSES / MASP.

5.13.3. *Cycle South Dublin* is also a programme of works aimed at providing a well-connected, well designed and safe walking and cycling network. A further separate

phase of works to facilitate cycling will be delivered by the NTA associated with the BusConnects project.

- 5.13.4. South Dublin County Council's policy on walking and cycling (SM2) seeks to... *“re-balance movement priorities towards sustainable modes of travel by prioritising the development of walking and cycling facilities and encouraging a shift to active travel for people of all ages and abilities, in line with the County targets.”* The following relevant objectives are also listed under this policy:

SM2 Objective 4: To ensure that connectivity for pedestrians and cyclists is maximised and walking and cycling distances are reduced in existing built-up areas, by removing barriers to movement and providing active travel facilities in order to increase access to local shops, schools, public transport services and other amenities through filtered permeability, while also taking account of existing patterns of anti-social behaviour in the removal of such barriers with due consideration of consultation with local residents where need is evident or expressed.

SM2 Objective 5: To ensure that all streets and street networks are designed in accordance with the principles, approaches and standards contained in the Design Manual for Urban Roads and Streets (2013; updated 2019) so that the movement of pedestrians and cyclists is prioritised within a safe and comfortable environment for a wide range of ages, abilities and journey types.

SM2 Objective 9: To work with the NTA to review the feasibility of implementing additional cycling facilities within the major urban and recreational areas of the County.

SM2 Objective 16: To ensure that all streets and street networks are designed in accordance with the principles, approaches and standards contained in the National Disability Inclusion Strategy (NDIS) 2017-2022.

SM2 Objective 17: To support bike parking provision at villages, centres, parks and any other areas of interest, as well as near public transport nodes to support multi-modal transport options.

5.13.5. Approximately 17% of trips originating in South Dublin County are by public transport and the target is to increase this to 20% over the lifetime of the plan. It is recognised that transition to public transport will be aided by BusConnects.

5.13.6. South Dublin County Council's policy (SM3) on public transport – general seeks to “...promote a significant shift from car-based travel to public transport in line with County targets and facilitate the sustainable development of the County by supporting and guiding national agencies in delivering major improvements to the public transport network.” The following relevant objectives are also listed under this policy:

SM3 Objective 2: To facilitate and secure the implementation of major public transport projects as identified within the NTA's Transport Strategy for the Greater Dublin Area (2016-2035) as updated to 2042, or any superseding document, including BusConnects, the DART expansion programme along the Kildare route, the opening of the new rail station at Kishogue and the Luas to Lucan.

SM3 Objective 3: To ensure that future development is planned in such a manner as to facilitate a significant shift to public transport use through pursuing compact growth policies, consolidating development around existing and planned public transport routes and interchanges, and maximising access to existing and planned public transport services throughout the network.

SM3 Objective 4: To optimise accessibility to public transport, increase catchment and maximise permeability through the creation of new and upgrading of existing walking and cycling routes linking to public transport stops.

SM3 Objective 5: To facilitate an interlinked network that maximises the efficiency of existing services, reduces overall journey times and facilitates easy exchanges between modes and routes.

SM3 Objective 9: To ensure that all new public transport corridors are designed to enhance the County's green infrastructure network by ensuring adequate replacement and additional planting of native species and

pollinators and to ensure that SuDS approaches are used to deal with surface water run-off.

SM3 Objective 10: To work with the relevant transport agencies to ensure that all public transport proposals have regard to pertaining environmental conditions and sensitivities including biodiversity, protected species and designated sites and incorporate appropriate avoidance and mitigation measures as part of any environmental assessments.

SM3 Objective 11: To facilitate the delivery of the BusConnects Core Bus Corridors and seek additional bus corridor and orbital routes to serve the County by securing and maintaining any required route reservations and to ensure the BusConnects Corridors do not adversely affect the village life and livelihoods of any of our County Villages.

SM3 Objective 18: To liaise with bus service providers where new bus stop infrastructure is proposed in order to ensure facilities such as shelters and bins are included, where appropriate.

SM3 Objective 24: To support and facilitate the development of multi-modal transport interchanges at Tallaght Town Centre and Liffey Valley.

5.13.7. There is an appreciation in the plan that the design of streets has a major influence on quality of life and that streets should not just be corridors for traffic, but rather should be places in which people want to live and spend time.

5.13.8. Policy SM5: Street and Road Design seeks to “...ensure that streets and roads within the County are designed to balance the needs of all road users and promote placemaking, sustainable movement and road safety providing a street environment that prioritises active travel and public transport.” The following objectives under this policy are of relevance:

SM5 Objective 1: To ensure that all streets and street networks are designed to passively calm traffic through the creation of a self-regulating street environment that promotes active travel modes and public transport.

SM5 Objective 2: To design new streets and roads within urban areas in accordance with the principles, approaches and standards contained within the Design Manual for Urban Roads and Streets (2013; updated 2019).

SM5 Objective 5: To design new roads and streets to incorporate green infrastructure elements such as planting of native trees, hedgerows and pollinator species in medians and on roadside verges, as appropriate to the location.

5.14. Dublin City Development Plan, 2022-2028

- 5.14.1. The main strategic approach of this plan is to develop a city that is low carbon, sustainable and climate resilient. Under Chapter 8: Sustainable Movement and Transport, it is highlighted that the sustainable and efficient movement of people and goods is crucial for the success and vitality of the city, along with the need to move away from private car and fossil-fuel-based mobility to reduce the negative impacts of transport and climate change.
- 5.14.2. It is an objective (SMTO1 – Transition to More Sustainable Travel Modes) *“to achieve and monitor a transition to more sustainable travel modes including walking, cycling and public transport over the lifetime of the development plan, in line with the city mode share targets of 26% walking/cycling/micro mobility; 57% public transport (bus/rail/Luas); and 17% private (car/van/HGV/motorcycle).”*
- 5.14.3. Table 8.1 sets out current and target mode share, with cycling expected to increase by 7% and bus by 3% by 2028. It is stated that the impact of public transport infrastructure projects on mode share is more likely to come into fruition during the lifespan of the following plan. Key strategic transport projects have the potential for a transformative impact on travel modes over the coming years and Dublin City Council actively supports all measures being implemented or proposed by other transport agencies to enhance capacity on existing lines/services and provide new infrastructure.
- 5.14.4. In this regard, Policy SMT22 – Key Sustainable Transport Projects seeks *“to support the expeditious delivery of key sustainable transport projects so as to provide an integrated public transport network with efficient interchange between transport*

modes, serving the existing and future needs of the city and region and to support the integration of existing public transport infrastructure with other transport modes. In particular the following projects subject to environmental requirements and appropriate planning consents being obtained:

- *DART +*
- *Metrolink from Charlemount to Swords*
- *BusConnects Core Bus Corridor projects*
- *Delivery of Luas to Finglas*
- *Progress and delivery of Luas to Poolbeg and Lucan.”*

5.14.5. Dublin City Council notes the importance of reducing car dominance and that encouraging walking, cycling and use of public transport as a sustainable travel mode requires improving the attractiveness of the environment and public realm within the city and urban villages. It is recognised that there are opportunities for developing public realm around the city and in the urban villages where new public transport proposals are being developed. The following policies are relevant in this regard:

Policy SMT12 – Pedestrians and Public Realm: To enhance the attractiveness and liveability of the city through the continued reallocation of space to pedestrians and public realm to provide a safe and comfortable street environment for pedestrians of all ages and abilities.

Policy SMT13 – Urban Villages and the 15-Minute City: To support the role of the urban villages in contributing to the 15-minute city through improvement of connectivity in particular for active travel and facilitating the delivery of public transport infrastructure and services, and public realm enhancement.

Policy SMT14 City Centre Road Space: To manage city centre road-space to best address the needs of pedestrians and cyclists, public transport, shared modes and the private car, in particular, where there are intersections between DART, Luas and Metrolink and with the existing and proposed bus network.

- 5.14.6. The Development Plan acknowledges that kerbside space is being continually reduced in favour of transport infrastructure and public realm improvements, and as such, there is very limited capacity on street to meet the servicing requirements of developments. Policy SMT15 – ‘Last-Mile’ Delivery seeks to “...*achieve a significant reduction in the number of motorised delivery vehicles in the City through supporting and promoting the use of the ‘last-mile’ delivery through the development of micro hubs and distribution centres.*”
- 5.14.7. Figure 8-2 - Strategic Pedestrian and Related Connections illustrates James Street, Thomas Street and High Street as secondary streets leading to the civic spine of the city. To the west of James’s Street, the road is shown as a historic approach. In terms of walking, cycling and active travel, it is a policy of Dublin City Council (SMT16) “*to prioritise the development of safe and connected walking and cycling facilities and prioritise a shift to active travel for people of all ages and abilities, in line with the city’s mode share targets.*” With respect to integration of active travel with public transport, Policy SMT19 seeks “*to work with the relevant transport providers, agencies and stakeholders to facilitate the integration of active travel (walking/cycling etc.) with public transport, ensuring ease of access for all.*”
- 5.14.8. Other transport policies of relevance to the proposed scheme include the following:
- SMT25 – On-Street Parking: To manage on-street car parking to serve the needs of the city alongside the needs of residents, visitors, businesses, kerbside activity and accessible parking requirements, and to facilitate the re-organisation and loss of spaces to serve sustainable development targets such as in relation to, sustainable transport provision, greening initiatives, sustainable urban drainage, access to new developments, or public realm improvements.*
- SMT33 – Design Manual for Urban Roads and Streets: To design new streets and roads within urban areas in accordance with the principles, approaches and standards contained within the Design Manual for Urban Roads and Streets (DMURS) and to carry out upgrade works to existing road and street networks in accordance with these standards where feasible.*

SMT34 – Street and Road Design: To ensure that streets and roads within the city are designed to balance the needs and protect the safety of all road users and promote place making, sustainable movement and road safety providing a street environment that prioritises active travel and public transport whilst ensuring the needs of commercial servicing is accommodated.

- 5.14.9. Kilmainham Inchicore Development Strategy (KIDS) is a non-statutory strategy funded by the Urban Regeneration and Development Fund (URDF) which identifies a number of potential projects including the enhancement of Kilmainham and Inchicore villages, the Camac River Greenway and a Greening Strategy. It is stated that the implementation of the KIDS will improve connections between Kilmainham and Inchicore villages, strengthen the quality of the public realm and enhance the landscape character of the area which in turn will act as a catalyst for the urban regeneration of the area. It is an objective of Dublin City Council (CSO13) “to seek funding under Call 3 of the URDF for the planning, detailed design and construction of the Kilmainham and Inchicore Development Strategy projects.”
- 5.14.10. The proposed scheme passes within or alongside a number of Strategic Development and Regeneration Areas: SDRA 7 – Heuston and Environs, SDRA 9 - Emmet Road, SDRA 14 – St. James Medical Campus & Environs, SDRA 15 – Liberties and Newmarket Square.
- 5.14.11. The proposed scheme passes through Recorded Monument DU018-020 (Historic City), and includes works within the architectural conservation areas (ACAs) of Grattan Crescent Park Conservation Area and Thomas Street and Environs ACA.

5.15. Parkwest Cherry Orchard Local Area Plan, 2019

- 5.15.1. The Local Area Plan boundary adjoins the proposed scheme at Cherry Orchard Hospital and extends south to the Grand Canal. The LAP identifies primary link streets secondary link streets and locations where the green infrastructure network will connect with the Core Bus Corridor.
- 5.15.2. It is an objective of the LAP (MO1) “to seek the development of new north-south roadway linking Ballyfermot Rd and Cherry Orchard Green.” This road will form part of a new strategic vehicular route sought to increase permeability throughout the

area, linking Ballyfermot Road to the train station (to the rear of Cherry Orchard hospital); and allowing a future connection over the railway line in the vicinity of the old train station at the intersection of Cherry Orchard Parade and Avenue. The green infrastructure network will also connect with the Core Bus Corridor at the junction with Ballyfermot Road.

5.16. City Edge Project

- 5.16.1. This initiative seeks to create a new urban quarter within the Naas Road, Ballymount and Park West areas with the potential for 40,000 new homes and 75,000 jobs. The quarter is bound to the north by the Kildare railway line, which is a short distance to the south of the proposed CBC. Kylemore Road will act as one of the main links to the quarter and to the proposed Kylemore rail station and interchange.

5.17. Natural Heritage Designations

- 5.17.1. The closest European sites to the proposed core bus corridor are the South Dublin Bay SAC and the South Dublin Bay and River Tolka Estuary SPA (4km respectively).
- 5.17.2. The Grand Canal pNHA is situated south of the proposed core bus corridor at a distance of approximately 340m. The Liffey Valley pNHA is approximately 850m north of the corridor.
- 5.17.3. The table below sets out all the designated sites within 10km of the proposed core bus corridor:

Site Name	Site Code	Distance (nearest point to proposed development)
Liffey Valley pNHA	000128	850m north
Santry Demesne pNHA	000178	6.4km north
Dolphins, Dublin Docks pNHA	000201	5km east
North Dublin Bay pNHA	000206	6.3km east
South Dublin Bay pNHA	000210	4km east

Dodder Valley pNHA	000991	5.7km south
Boosterstown Marsh pNHA	001205	5.9km south-east
Glenasmole Valley pNHA	001209	9.3km south
Lugmore Glen pNHA	001212	8.4km south
Rye Water Valley / Carton pNHA	001398	6.5km west
Fitzsimon's Wood pNHA	001753	8.5km south-east
Royal Canal pNHA	002103	2.2km north
Grand Canal pNHA	002104	340m south
Rye Water Valley / Carton SAC	001398	6.5km west
North Dublin Bay SAC	000206	6.3km east
South Dublin Bay SAC	000210	4km east
Glenasmole Valley SAC	001209	9.3km south
North Bull Island SPA	004006	6.3km north-east
South Dublin Bay and River Tolka Estuary SPA	004024	4km east
North-West Irish Sea cSPA	004236	8.1km east

6.0 Planning History

- 6.1. The planning report accompanying the application lists the following six applications of note located adjacent the proposed scheme:

South Dublin County Council Reg. Ref: SD19A/0320 (ABP-306251-19)

- 6.2. The Board granted a 5-year permission for development consisting of a new bus interchange facility with associated set down area, street furniture, passenger waiting shelters, signage and lighting. The facility adjoins the proposed core bus corridor to the west.

- 6.3. The development includes the undertaking of infrastructure and landscaping works at the existing car park north of the Liffey Valley Shopping Centre, along the ring road (Ascaill na Life) and the main access road from the Fonthill Road (Bóthar na Life). These works will include road infrastructure changes, access improvements, the reconfiguration of the car park, general soft and hard landscaping works, inclusion of enhanced bus facilities including the new bus interchange, new pedestrian infrastructure, new cycling infrastructure, bus lay-by facilities and a bus driver welfare facility. The proposed development will also include the undertaking of all ancillary site services and site development works at the Liffey Valley Shopping Centre, Fonthill Road, Clondalkin, Dublin. The area within the site boundary is circa 16.3 hectares.
- 6.4. Permission was granted for amendment to above application (SD21A/0291) to include new bus shelters, toucan crossings, the replacement of bus laybys with bus islands and removal of a left slip lane.

An Bord Pleanála Ref: PA0043

- 6.5. Permission approved in 2016 for the National Paediatric Hospital, Innovation Centre and Family Accommodation Unit at St James' Hospital Campus and satellite centres at Tallaght and Connolly.
- 6.6. The development at the 8.7 hectare St. James's site includes the following:
- 473 bed children's hospital.
 - 53 bed family accommodation unit.
 - A two-level underground car park.
 - Public realm improvements to: the existing St James's campus spine road and the demolition of 2 no. buildings and relocation of parking to accommodate same; the linear park at the Rialto Luas stop and the public steps between Mount Brown and Cameron Square.
 - Improvements to the road junction at the existing campus entrance on St James's Street and a new campus entrance piazza from Brookfield Road / South Circular Road, with minor improvements to these roads.

- A new vehicular entrance from Mount Brown.

6.7. This development adjoins the core bus corridor to the south at Mount Brown/ James's Street.

An Bord Pleanála Ref: ABP-312430-22

6.8. Permission refused for demolition of existing building, construction of 144 no. apartments and associated site works at Units 64 and 65, Cherry Orchard Industrial Estate and Kennelsfort Road Upper, Palmerstown, Dublin 10. This site is located approximately 140m north of the proposed CBC.

6.9. There is now a live LRD appeal on site (An Bord Pleanála-317668-23) for 127 apartments and 3 no. incubator units that is yet to be decided.

An Bord Pleanála Ref: ABP-307092-20

6.10. Application granted for 250 no. build to rent apartments on lands at Palmerstown Retail Park. *(Note: this application is adjacent the Lucan to City Centre CBC approximately 1km north of the Liffey Valley to City Centre CBC).*

An Bord Pleanála Ref: ABP-307087-20

6.11. Pre-application consultation in relation to 933 no. apartments and childcare facility at De la Salle lands (protected structure), Ballyfermot Road, Dublin 10.

6.12. Permission was subsequently granted under ABP-313320-22 for the demolition of the former national school, existing buildings on site, the rear return of the protected structure, construction of 927 no. apartments (839 no. permitted), creche and all associated site works.

6.13. The site is located to the west of Ballyfermot and adjoining the CBC to the north.

An Bord Pleanála Ref: ABP-311591-21

6.14. Permission granted for 399 no. build to rent apartments and associated site works at Heuston South Quarter, St. John's Road West/ Military Road, Kilmainham, Dublin 8. *(Note: this application is adjacent the Lucan to City Centre CBC approximately 300m north of the Liffey Valley to City Centre CBC and c. 500m via Bow Lane West).*

Other Significant Applications/ Appeals to ABP in proximity to CBC (c. 100m)

6.15. Significant applications/ appeals to the Board along the alignment of the CBC and extending a distance of 100m back on both sides were extracted from the Board's mapviewer. The following is a non-exhaustive list of cases that can be used by the Board for the purposes of gauging the nature and extent of development proposed along the CBC.

Reference	Location	Development	Development Type	Decision
ABP-300386-17	99, 101, 103, 105, 107, 109 & 111 Emmet Road	19 apartments and 1 no. office unit	Mixed development	Refuse
ABP-300972-18	23-25, Old Kilmainham Road	26 apartments	Residential	Grant
ABP-301258-18	Thomas St/ Hanbury Lane	Use of permitted student accommodation (257 bedspaces) as tourist accommodation during holidays	Residential	Appeal withdrawn
ABP-303646-19	Vicar St/ Molyneux Yard	185 bed hotel, creative art studio & bar	Mixed development	Grant
ABP-304886-19	2 Blackditch Road, Dublin 10	32 apartments, social club and community centre	Mixed development	Refuse
ABP-306642-20	1-3 Thomas Court, Dublin 8	47 bed hotel	Hotel	Refuse
ABP-306814-20	Kearn's Place/ Old Kilmainham	80 bed hotel	Hotel	Refuse
ABP-307159-20	Grand Canal Place/ Echlin St. Dublin 8	11 bed hotel	Hotel	Refuse

ABP-307839-20	Molyneaux Yard/ Engine Alley, Dublin 8	261 bed hotel	Hotel	Appeal withdrawn
ABP-307950-20	Grand Canal Harbour, Dublin 8	Amendments to previous permission comprising 596 residential units.	Residential	Appeal withdrawn
ABP-308838-20	180, 182, 183 &184 James's St.	148 bed hotel	Hotel	Grant
ABP-308871-20	Former Steelworks, James's St./ Basin View	189 BTR apartments	Residential	Grant
ABP-309208-21	134 James's Street, Dublin 8	Change of use to 20 bed hotel	Hotel	Grant
ABP-309738-21	40 Old Kilmainham, Dublin 8	74 apartments and GF commercial unit	Mixed development	Refuse
ABP-309795-21	72-74 Kilmainham, Dublin 8	62 BTR shared units & GF commercial	Mixed development	Grant
ABP-310074-21	726 S. Circular Rd, Dublin 8	23 dwellings	Residential	Refuse
ABP-310119-21	Liffey Valley Centre	Mixed leisure, entertainment & retail extension around public plaza & pedestrian friendly street.	Mixed development	Grant
ABP-312072-21	Former Fodhla Printing Works site, Brookfield Road, Kilmainham	79 BTR apartments	Residential	Appeal withdrawn
ABP-314791-22	Emmet Road, Inchicore, Dublin 8	578 residential units, library, creche, retail, restaurants and open space	Mixed development	

ABP-314942-22	Lucan to City Centre	BusConnects CBC	Road transport	Decision pending
ABP-316119-23	Co. Dublin & Co. Kildare	DART+ South West	Rail transport	Decision pending
ABP-316828-23	Tallaght/ Clondalkin to City Centre	BusConnect CBC	Road transport	Decision pending

Other Significant Planning Application to Local Authorities

- 6.16. The following significant planning applications along the route of the CBC were granted by the local authority or have yet to be decided:

Dublin City Council Reg. Ref: 4588/22

- 6.17. Permission granted on 2nd August 2023 to Marbelsand Holdings (on behalf of Ballymore) at the Guinness Brewery site (4.58 ha) to the south of James's Street for a mixed-use development across 15 no. plots including 2 no. new hotels (Plots 4 & 5), 5 no. new commercial office buildings (Plots 1,3, 6/7, 9 &15), 6 no. new residential buildings (Plot 2, 8 & 11-14) (including for some Build To Rent in Plot 2) containing a total of 336 no. units , a Markethall (Plot 10), a Foodhall (Plot 9), retail/café/restaurant/public house/bar uses (inc. licensed premises), community and cultural spaces and extensive new public realm and squares with a total above ground gross floor area of c.126,941 sq.m (GFA excl. below ground areas, basement, and service yard in Plot 9).
- 6.18. The proposed development includes for both the demolition of existing structures (c.48,678 sq.m), primarily existing office and former industrial buildings, and the retention of key conservation features including existing protected structures and existing site walls. The development includes for the refurbishment and extension of a number of protected structures.

LDA Digital Hub Campus

- 6.19. The Land Development Agency has published the final masterplan for the regeneration of a 3.7 hectare site located to the north and south of Thomas Street and to the east of the Guinness lands. The purpose of the masterplan is to identify

opportunities and plan for the provision of new homes while delivering sustainable urban regeneration that realises tangible social, economic, environmental and community benefits for The Liberties.

- 6.20. It is stated that public space is at the heart of the new masterplan, with homes centred around private courtyards and having access to roof terraces. Public spaces will link to each other through pedestrian streets forming a network with the existing street pattern. A new north-south route will be created through the masterplan lands and it is recognised that the masterplan must draw people into it in order to be integrated and successful.

7.0 Submissions from Prescribed/ Public Bodies on the Proposed Scheme

7.1. Department of Housing, Local Government and Heritage

- 7.1.1. The Department submit the following heritage related comments on the proposed Core Bus Corridor Scheme:

- *Nature conservation* – On certain sections habitat supporting trees and shrubs likely to be used by birds for nesting will be permanently lost. Significant loss will be compensated through planting of 354 street trees and 220m of hedgerow and this will provide new nesting habitat for birds.
- Any clearance of trees and shrubs during the main bird breeding season from March to August inclusive could result in direct destruction of bird nests, eggs and nestlings and should be avoided.
- Notes the comprehensive range of measures to avoid mobilisation of sedimentary material during the construction of the bus corridor, including silt fencing, storage and refuelling in bunded areas and careful use and management of cement.
- Department accepts the conclusion of the NIS *“that following an examination, analysis and evaluation of the relevant information, including in particular the nature of the predicted impacts from the Proposed Scheme and the effective implementation of the mitigation measures proposed that the Proposed Scheme*

will not adversely affect (either directly or indirectly) the integrity of any European site, either alone or in combination with other plans or projects, and there is no reasonable scientific doubt in relation to this conclusion.”

- Department recommends that planning permission is granted subject to conditions relating to the clearance of woody vegetation outside the main bird breeding season and the submission of a finalised CEMP incorporating mitigation measures to avoid mobilisation of pollutants during construction into surface water runoff.

7.2. Inland Fisheries Ireland

7.2.1. The following observations have been received from IFI:

- Camac River recognised as a salmonid system under significant ecological pressure as a result of its largely urban situation. Lengths of the river at surface support self-sustaining populations of brown trout, freshwater crayfish and lamprey.
- Liffey supports a regionally significant population of Atlantic salmon and serves as a natural linkage for Salmon, Sea trout and eels. Dublin city area and the Liffey have recorded eel and river lamprey.
- Pollution from poor on-site construction practices could have significant impacts on flora and fauna of this surface water system – comprehensive and integrated approach for achieving river protection during construction and operation should be implemented through environmental construction management planning.
- All works to be completed in line with Construction Management Plan which ensures good construction practices with mitigation measures to deal with potential adverse impacts.
- Ground preparation and associated construction works have significant potential for release of sediments and pollutants into surrounding watercourses. Any dewatering during excavation must be treated with filtration over land or into attenuation area.

- Use of concrete/ cement should be strictly controlled and monitored, particularly where batching/ casting is planned locally.
- Surface water management (SuDS) should not in any way result in a deterioration of water quality or habitat in natural river/ stream channels or any receiving waterbody. Hard surfaces should be impermeable and allow no seepage of oil or other harmful liquids.
- Environmental protection measures are the responsibility of the developer and shall be subject to the Local Government (Water Pollution) Act 1977 (as amended) and the Fisheries (Consolidation) Act, 1959 (as amended).

7.3. Land Development Agency

7.3.1. The following observations have been received from the LDA:

- Welcomes the proposed bus corridor scheme which will contribute to improved public transport availability and efficiency and provide quality cycling infrastructure and public realm improvements.
- LDA currently preparing masterplan for digital hub lands to north and south of Thomas Street for residential led mixed-use development – development of Thomas Street will have a significant impact in achieving the masterplan vision for the creation of a new walkable and vibrant urban quarter.
- Thomas Street is quite vehicular dominated and there are high levels of dereliction and inactive street frontages – these are challenges that need to be addressed to support a more pedestrian friendly environment and to enhance quality of life and vitality.
- Bus corridor interventions will support and contribute to the proposed new linkages to be delivered as part of the Digital Hub Masterplan and particularly the new north-south connection.
- Notes adjacent Guinness quarter plans (Reg. Ref: 4588/22) and the opportunities these projects present for a joined-up approach to the regeneration of the Liberties.

- Requests that further consideration is afforded to the opportunities for enhancing permeability for pedestrians and cyclists across the Thomas Street – existing pedestrian crossing east of Crane Street is retained but this presents a missed opportunity to further consider how this crossing can be improved, both from a safety perspective and with regard to the prominence the crossing will play between two large redevelopment schemes.
- Requests that consideration be given to opportunities to enhance permeability and accessibility for pedestrians – could include a condition requiring that detailed design of the crossing point on Thomas Street to be agreed with LDA prior to commencement of construction.
- Welcome opportunity to further engage and collaborate with the applicant to ensure the success of BusConnects and the optimum development of these state owned lands to deliver high quality housing and urban regeneration with the Liberties.

7.4. South Dublin County Council, Land Use Transportation Department

7.4.1. The following observations have been received from SDCC:

- Section from Liffey Valley to Le Fanu Road is within the SDCC local authority area and observations are focused on this part of the scheme.
- Broadly happy with the proposal and consider that it aligns with the policies of the County Development Plan (2022-2018). Comments are mainly focused on construction management controls and minor design details.
- *Active Travel Section comments:*
- General Arrangement Drawing 0003 – by having a pedestrian crossing and cycle track on both sides, the pedestrian crossing is 4m longer than necessary. Cyclops junction would reduce the pedestrian crossing distance and would allow for turning cyclists to continue without traffic signals. Left-turning vehicles and straight-ahead cyclists will be in conflicts.
- General Arrangement Drawing 0004 – footpath and cycle track could be installed inside the green strip to provide horizontal segregation. Cycle track should narrow

away from bus lane and not towards it. No means for cyclist wishing to continue to Fonthill Road to join the general traffic lane. Left turn onto 2-way cycle track is more than 90° – suggest 2-way and footpath adjusted to improve this angle.

- General Arrangement Drawing 0005 – horizontal separation could be provided for. There would be space between existing and new trees to provide horizontal separation for pedestrians and cyclists. Crossing should not be staggered and footpath and cycle track should be set back from the road edge. Materials should show pedestrians and cyclists have entered a shared space.
- General Arrangement Drawing 0006 – cycle track should not deviate towards bus lane (both sides). Straight through cyclists will be stopped on road signals. Questions if 4-lane crossing is 2-stage but the other side (5 lanes) is single stage.
- General Arrangement Drawing 0007 – cycle track could be routed away from the road edge and questions whether toucan crossing will be a raised crossing similar to Chainage B 1500mm and B1850m.
- General Arrangement Drawing 0008 – same notes as previous junctions. Corner radii at minor junctions look larger than desirable.
- *Planning Department Comments:*
- Sets out Development Plan policy context (see section 5.13)
- Key consideration is Liffey Valley Shopping Centre and ensuring the proposed scheme and detailed design is cognisant of permitted development.
- Proposed scheme considered to have a cumulative positive impact on surrounding area with junction upgrades proposed on R113, to the west, on foot of NTA funding.
- Sheet 13 Kylemore Road – proposed scheme to consider and link with future transport hub located to the south, on Kildare rail line, proposed as part of the City Edge Framework Plan.
- General Arrangement Drawing 0003 – Welcome reference to Reg. Ref: SD19A/0320 (ABP-306251-19) and notes that amendments were permitted under

SD21A/0291. Clarification sought on whether existing planting on central reservation and on side of road will be retained/ enhanced.

- General Arrangement Drawing 0004 – possible relocation of pedestrian crossing at Tesco. Pedestrian links to Tesco and retail area to the south may be broken. Cycle lane appears to only continue east on Fonthill Road on the southern carriageway.
- General Arrangement Drawing 0005 – further section and elevation details required for retaining wall.
- General Arrangement Drawing 0006 – Potential for cycle track to connect to existing residential estates to the south should be examined.
- General Arrangement Drawing 0007 – Ensure location of bus stops does not negatively impact potential access to Cherry Orchard Industrial Estate Regeneration Area – proposal for major vehicle access north of proposed stop. Good connection required from Kennelsfort Road Upper – proposed crossing and cycle link welcomed but cycle upgrades should extend further to connect to Chapelizod Bypass.
- General Arrangement Drawing 008 – cycle lane connections should continue north into existing industrial estate.
- *Roads Maintenance Section comments:*
- Requests that no kerb integrated drainage is used in the scheme because they are difficult to keep clean, are prone to cracking and are difficult to replace at isolated sections.
- Coloured bound surfacing is increasingly hard to procure in small quantities for maintenance – asks that these products are not used or used sparingly.
- *Traffic & Transportation comments:*
- Proposals support GDA Transport Strategy, many of the sustainable movement policies of the new Development Plan and will help us move towards Climate Action Plan targets.

- It is important that the timing of the proposed works does not clash with any other planned construction works. Important that detailed construction traffic management plans are agreed prior to the phase of work within SDCC.
- Construction traffic shall be managed in accordance with detailed elements set out in submission (method statement and construction management plan that shall include details on vehicle cleansing/ wheel washing facilities, on-site parking, dust suppression measures, access arrangements, measures for protection of watercourses, etc.). Plan should also be informed by Project Construction Waste and Demolition Management Plan
- Ensure that the development does not impinge on the delivery of the proposed Lucan Luas extension.
- *Economic Development comments:*
- In favour of the project and will assist the developer with any relevant land agreements and access permissions.
- More detailed discussion on the plots of land identified for inclusion in the scheme is required.

7.5. Dublin City Council

7.5.1. The following observations have been received from DCC:

- Applicant is requested to consider whether increased greening proposals can be provided at the junction at Cherry Orchard Hospital identified in the Parkwest Cherry Orchard Local Area Plan as a strategic vehicular route.
- Enhancement of Kilmainham Village under KIDS - recommended that the applicant examine whether the proposed layouts can incorporate increased footpath widths at the landing point of the potential Camac Greenway on South Circular Road.
- Enhancement of Inchicore Village under KIDS have yet to be designed up – notes that reduction in vehicular routes through the village may provide scope for public realm enhancements and proposed CBC will need to be incorporated into same.

- A key route of the proposed Military Quarter under KIDS will be Old Kilmainham/ Emmet Road – considered that subject application does not provide for an improvement in the walking or cycling environment on this key route and applicant examine whether cycling and walking provision can be maximised.
- Old Kilmainham Road/Mount Brown/James’s Street is identified as a greening, cycle and pedestrian corridor in the Strategic Development and Regeneration Area 7 – Heuston and Environs. The proposed arrangement for Old Kilmainham does not provide for any greening or improved cycle and pedestrian connections and it is considered that the applicant should be requested to examine whether the proposed development could provide for the provision of greening measures and an improvement in the cycle and pedestrian connections.
- SDRA 9 – Emmet Road: Proposed design for Emmet Road does not provide for any greening or improved cycle and pedestrian connections. Recommended that applicant examine whether this issue can be addressed as part of the proposed design.
- Principle of quicker and more frequent bus service is welcomed in light of the proposed increase in population from the regeneration scheme on the St. Michael’s Estate lands.
- Raised crossing is suggested at the junction of St. Vincent Street West and Emmet Road.
- Maintaining the existing bus stop in front of St Michael’s Church means that future patrons of the Emmet Road site will still have a bus stop within a reasonable walking distance.
- SDRA 14 – St. James’s Medical Campus & Environs: Appears that the proposed development does not provide for any significant changes in terms of public realm improvements at the St. James’s Street gateway.
- SDRA 15 – Liberties and Newmarket Square: Thomas Street/High Street identified as a greening, cycle and pedestrian corridor/core pedestrian spine – proposed design does not appear to provide for any greening or improved

pedestrian connections, having regard to footpath widths. Applicant requested to examine.

Planning Policy:

- In terms of regional policy, the proposed scheme is supported by the RSES and will contribute and support continued improved integration of transport with land use planning. Delivery of improved high-capacity Core Bus Corridors will enable and support residential and economic development opportunities.
- Proposed scheme has been considered with regard to Core Strategy and the policies and objectives of the (then) current Dublin City Development Plan and in particular the dual aspirations of delivering necessary transport infrastructure to facilitate compact growth while also protecting Natura designated sites.
- Content of EIAR point generally to the development having negligible impact on the existing environment.
- Dublin City Council considers that the submitted NIS is generally satisfactory in terms of identifying the relevant European sites and potential adverse impacts on the integrity of these sites in view of their conservation objectives.
- Overall, it is considered that the proposals would be compatible and consistent with the zoning objectives for the area.
- Dublin City Council satisfied that elements of the proposed development falling within the Council boundary would not have any excessive or undue impact on the amenities of the area. Loss of front gardens/ boundaries must be balanced against the overall benefits of the proposed development. Proposal will create attractive, functional and accessible places for people alongside core bus and cycle facilities.

Forward Planning Section:

- Submit that improvement of public transport and cycling will allow for higher density development, thereby creating a more sustainable interaction between land-use and transport.

- Proposed Scheme will help to achieve the strategic objectives envisaged in the forthcoming Dublin City Development Plan 2022-2028 pertaining to: compact and sustainable urban growth; sustainable mobility and permeability; and placemaking, while significantly contributing towards climate action.
- Important that the Core Bus Corridor adequately addresses conservation impacts along the route as well as the potential to improve green infrastructure and pedestrian and cycle connectivity.

Environment and Transportation Department:

- Recognises that bus is the most important mode of public transport in Dublin and commitment by NTA to increase the level of priority to buses is very much welcomed.
- Separated and segregated cycleways will provide better and safer cycling environment for all ages and abilities and will allow buses to proceed without delay.
- CBC must be managed such that DCC traffic control system is constantly managing requests for priority and has the necessary information to determine what level of priority is appropriate in order to maintain an even headway on the corridor.
- Digital infrastructure along with the proposed civil infrastructure are both required for the corridor to meet its objectives. Enhanced data from next generation Automatic Vehicle Location system and next generation bus priority system will play a key role in how the corridor is dynamically managed to ensure that bus journey times and headways are met.
- Loss of parking and loading bays to provide required levels of priority for buses and safe cycling facilities means that deliveries to local businesses will need to be addressed in the day to day management of the scheme. New delivery times, use of different vehicles and off-line locations will have to be explored to provide a correct balance.

- Use of bus gates will be challenging and will require careful installation and monitoring. Changes to traffic flows on Mount Brown and surrounding areas will also have to be carefully managed.
- Roads Division generally supportive of the scheme and its intention to improve bus and cycling provision.
- Proposed schemes, including the Liffey Valley scheme, could be improved by making greater provision for pedestrians by ensuring sufficient and appropriate footpath widths based on pedestrian flows (min. 2m) and by ensuring pedestrian priority.
- Grade or physical separation between cycling facilities and footpaths is recommended and cycle tracks through footpaths and pedestrianised zones should be avoided. Condition recommended to ensure priority for pedestrians through signage and other appropriate measures.
- Cornmarket was reconstructed as a high quality public realm scheme in 2008 after consultation and consideration of a wide range of legitimate needs - revised scheme layout would decommission the Cornmarket Environmental Improvement Works scheme entirely and would require challenging detailed design that will require costly compromises, major archaeological works, major utility diversion works, and challenging traffic management during construction, all while de-prioritising cyclists and buses by diverting them from their east-west desire line.
- Existing primary route for buses through the Cornmarket junction is east-west from Thomas St. onto High St., which is a major entry point into the city – revised arrangement appears to de-prioritise cyclists and buses. Very steep gradients on Bridge Street Upper will make deflection of the proposed scheme route even more onerous on inbound cyclists and buses and the more convoluted the cycling route is, the more non-compliance. Recommend keeping CBC closer to the existing or Round 1 alignment. Bridge Street should be the minor arm of any T junction.
- Left-turning general traffic from Cornmarket onto Bridge Street Upper will no longer have a slip lane, nor use of the bus lane, and would regularly block through

traffic into the city on this urban arterial route, while waiting to make the manoeuvre.

- Possibility of conflict with cyclists choosing to join general west to east traffic through the junction in order to avoid being deflected down a steep gradient.
- Unclear what is proposed for the large pedestrian areas proposed to the south and west of Cornmarket junction – area to the south will remain in shade for most of the day. Public realm improvement to north of junction would benefit from greater sunlight and would flow into St. Audeon's Park. Would also allow for Bridge Street to become the minor arm of the junction. Also, revised cycle track alignment north of Cornmarket appears to reduce the existing footpath width.
- Proposed development must comply with the Greater Dublin Regional Code of Practice for Drainage Work Version 6.0 and shall incorporate Sustainable Drainage Systems in the management of surface water. The detailed drainage design shall be agreed in writing with DCC Drainage Planning, Policy and Development prior to commencement of development and the NTA shall confirm that development has been designed to minimise flood risk, with the three stages of the SFRA Justification Test being passed, particularly for tidal and fluvial flooding.
- There is an opportunity for a nature-based solutions at junction of Kylemore road and Ballyfermot Road (B2875) which has not been shown in the drawings. Has consideration been given to soft landscaping as opposed to tank / pond provided as shown on Ballyfermot Road (B3200)? Clarification on other drainage matters sought at detailed design stage.
- All surface water that discharges from the curtilages of the Liffey Valley to City Centre CBC proposal into existing or proposed waterbodies should be intercepted and treated, using nature-based solutions wherever possible.

Archaeology Section:

- This area of Dublin is considered to be of high archaeological potential because of the lack of Georgian redevelopment - potential is particularly high along the stretch of road from James's Street to Christ Church Place.

- Parts of Cornmarket and High Street were subject to archaeological investigations during the road widening works of the later twentieth century - expected that other sites and features survive below the existing road carriageway, along the line of the original streets.
- It is possible that the original tram lines survive below the existing road surface along Emmet Road to High Street. Monitoring in 2013 QBC works exposed over 200 archaeological features dating to between the 12th & 20th centuries, including medieval street surface 300mm below the surface on James's Street.
- Report concurs with the findings of the archaeological assessment in the EIAR and supports the mitigation measures proposed in it. Recommends the appointment of a project archaeologist to oversee the delivery of the archaeological strategy.

Conservation:

- Relevant Development Plan policies and provisions should be taken into account in the consideration of all proposed routes and their impacts on the architectural and built heritage of the city.
- Proposed works should take into account any areas that contain historic stone setts and paving/ kerbing and take all practicable measures to avoid loss of or damage to historic materials and features.
- Recommends that all mature and historic trees across the BusConnects proposal and in particular those in close proximity to Protected Structures and within ACAs, Conservation Areas and areas zoned Z2 and Z8 are retained and protected as far as practically possible – where there is unavoidable loss, these trees shall be replaced with new semi mature trees.
- Have regard to Architectural Heritage Protection Guidelines when considering proposals affecting boundary features and the Department of Culture, Heritage and the Gaeltacht – Technical Advice Series on Paving – the conservation of historic ground surfaces and iron.

- Comprehensive assessment on architectural heritage, streetscape and the urban environment submitted as part of the EIAR and the proposed mitigation measures across the scheme is generally welcomed.
- Landscape (Townscape) & Visual Impact Assessment is welcomed.
- Photomontages provided in Figure 17.2 are limited and do not sufficiently assess the effects of the proposed route on views and visual amenity in relation to a number of sensitive historic areas - only two photomontages have been provided for the east end of the scheme between High Street and James's Street.
- Proposed new cantilever signal poles should have been shown on the General Arrangement drawings and also included in the photomontages along Ballyfermot Road.
- Some elements of architectural heritage have not been correctly represented or have been incorrectly labelled in the text documents and/or on the supporting mapping.
- Substantial land acquisition along the northern side of Ballyfermot Road will affect the protected gate piers of the former De La Salle National School (RPS 8784) and the associated boundary wall – mitigation measures should be extended to include removal and reinstatement of gate piers.
- Loss of the existing mature tree line will have a direct impact on the setting of De La Salle National Schools (RPS 8774) in the short-term.
- Removal of bus stop will have a positive impact on the setting of the protected structure (RPS7476) on Grattan Crescent.
- Bus stops/shelters are located in close proximity to other protected structures along the route, and this will negatively impact on their character and amenity. Design of new shelters should be carefully considered especially at St. Catherine's Church and St. Audeon's Roman Catholic Church.
- There may be indirect impacts as a result of the proposed works during public realm improvements at the Obelisk, drinking fountain, sundial and bollards (RPS 4054) on the island at the junction of James's Street and Bow Street.

- All protected structures in close proximity to construction works are to be adequately protected and all proximate works are to be supervised by a conservation professional.
- Proposed new bus shelter and associated land acquisition and cantilever signal pole will impact negatively on the setting of complex of NIAH 'Regionally' rated structures at entrance to Cherry Orchard Hospital. Recommends that carefully considered method statements are provided to ensure that the setting of these 'Regionally' rated structures and hospital complex (NIAH 50080367) are not further eroded and negatively impacted.
- Upgrading of the existing roundabout at the Ballyfermot/Kylemore Road junction to a signalled junction will impact on the character and setting of the Church of Our Lady of the Assumption (NIAH 50080370) by introducing visual clutter – signage and semaphores should be kept to a minimum and proposal should be reconsidered.
- Potential for the post box (NIAH 50080371) outside the Ballyfermot Resource Centre and (NIAH 50080384) on Emmet Road to be damaged during its relocation.
- Amendments to the entrances to Guinness Brewery should be carefully considered.
- NIAH structures/sites in close proximity to construction works should be adequately protected and all proximate works to be supervised by a conservation profession.
- Structures on the Dublin City Industrial Heritage Record Survey should be protected to ensure there is no indirect impact as a result of construction works. There are also other unprotected structures that contribute positively to the architectural heritage and streetscape character, such as railings, unprotected houses, boundary walls, boundary markers, statues, gate piers, trees, etc. and proposals should be put in place for their protection/ replacement.
- Location and design of new infrastructure, signage and bus stops/shelters shall be carefully considered with the aim of minimising potential negative visual impacts,

to support the reduction of clutter and to improve legibility of the historic streetscapes and adjacent heritage structures of Architectural Conservation Areas.

- Measures may be required to protect lamp posts, cobbles/setts/ surfaces, street furniture, etc.
- Requests that alternative high quality cycle lane surface is provided in-lieu of red tarmacadam in close proximity to protected structures and with ACAs generally.
- Careful consideration should be given to location, form and materials of proposed bus stops, including treatment of kerbing where historic stone paving and kerbing exists in situ.

City Architect's Department:

- Welcomes in principle the objectives of the proposed scheme to support integrated sustainable transport use through infrastructure improvements for active travel and the provision of enhanced bus priority measures.
- Limited information is provided to facilitate proper assessment of the proposed public realm improvements.
- Improvements could be proposed outside Saint Catherine's Church where the cycle track slip lane to Bridgefoot Street could be removed to improve the setting of the church and provide increased space for pedestrians.
- Improvements could be proposed outside the National College of Art and Design, and the Church of Saints Augustine and John the Baptist by relocating the start of the bus lane further east past the junction with John's Street West.
- Bus shelter locations are indicated on the drawings but limited information provided on their design and whether there is sufficient capacity on the footpaths to accommodate them – advertisements should generally not be permitted on bus shelters in ACAs or Special Planning Control Schemes.
- Consideration should be given to the siting of utility cabinets and above-ground utility infrastructure and the palette of materials. Confirmation sought regarding the palette of street furniture across the BusConnects programme.

- Fabric in the existing boundaries should be assessed for their architectural conservation value and cultural value and whether the fabric is suitable for repair and re-use for sustainability reasons.
- Strategy for the resurfacing of private landings and retention/replacement of newly resurfaced areas of public footpath should be devised so a consistent paving palette is used throughout the proposed scheme.
- Existing welcome to village signage should be retained as part of the proposed scheme.
- NTA should apply the Per Cent for Art Scheme as part of the development of each of the Bus Connects Core Bus Corridor, whereby 1% of the cost of any publicly funded capital, infrastructural and building development can be allocated to the commissioning of a work of art.

Parks Department:

- Agreement on taking in charge of landscape components of the proposals and amendments to planting proposals may be required.
- Landscape components of the proposals will require contract maintenance for a minimum of 3 years following completion of works.
- Tree planting proposals welcomed; however, constraints of overhead and underground services other constraints, such as planting close to existing boundaries should be realistically assessed. Clarity required on the proposed quantity of compensatory street tree planting in comparison to the proposed removal of existing street trees. Tree protection measures shall be put in place for all existing trees.

Conclusion:

- Proposed scheme will provide an upgraded and expanded bus network and quality of service together with better quality cycling and pedestrian facilities, which will promote a modal shift and ultimately contribute to the creation of a greener and more sustainable city.

- Planning Authority requests that the scheme be approved subject to conditions relating to the handing over of the corridor to the NTA and its contractors and handing back to the Council; consultation with Council departments; traffic management equipment; a loading and unloading strategy; existing condition record; agreement of final design details; reinstatement; construction period; public lighting; drainage; noise and air quality control; archaeology; conservation; local public realm improvement schemes, design, materials and boundary treatments; side road entry treatment; signage; public art; taking in charge; landscape maintenance and tree protection.

8.0 Submissions/ Observations on the Proposed Development

8.1. A total of 25 submissions on the proposal were received from third parties. The main points raised in each submission are summarised as follows:

8.1.1. Our Lady of the Assumption Parish, Kylemore Road

- Proposed plan changes the nature of the space to the front of the church and will impact hugely on the health and safety of those accessing the church, many of whom are vulnerable, elderly or have a disability.
- Replacing roundabout with signalised junction will create traffic chaos, long tailbacks and delays – roundabout is one of the defining, physical features of Ballyfermot and should remain as such.

8.1.2. Karen Maguire, 7 Palmers Drive, Palmerstown

- Welcomes the introduction of good quality public transport with additional benefits for pedestrians and cyclists.
- Requires confirmation of proposals regarding the existing boundary wall at Palmers Walk – families in the area have long had the safeguard of a wall.
- Concerned that the scheme will have an impact on noise in the area – due attention should be given to mitigation measures to ensure quality of life is not negatively impacted.

- There is a proposed loss of trees along route which are important for carbon sequestering – would like to see better detail on environmental mitigation for this heavily engineered project.
- There are limited bike parking proposals at all bus stops.

8.1.3. Kathleen O'Reilly, 12 Palmers Road, Palmerstown

- Same submission as above.

8.1.4. Maria Bennett, 17 Palmers Court, Palmerstown

- Same submission as above.

8.1.5. Aidan Quigley, Apt. 1, Bank House, Cornmarket

- Concerned about air pollution from passing buses; noise pollution from construction work, buses at stops and people congregating at the bus stop; privacy concerns from passengers on double decker buses; safety concerns from people congregating at the bus stop; increased potential for bike theft; and reduction of available on-street parking.

8.1.6. Marbelsand Holdings Limited (on behalf of Ballymore)

- Have submitted a planning application (Reg. Ref: 4588/22) for a mixed use zero carbon district within 12 acres of currently disused brewery lands at St. James's Gate that will include 336 homes, culture and community spaces, designation market and foodhall, hotel accommodation, office and retail space and cycle parking for over 1,500 spaces.
- Welcomes improvement of accessibility of area by bus and cycle infrastructure which will provide a safe and attractive route to the site.
- Provision of bus gate to the west along St. James's Street will lower traffic volumes in peak hours passing the site, improving the characteristics of the road, reducing noise and air pollution.

- The following relatively minor changes are needed to the proposed BusConnects layout to better take account of the St. James's Gate development masterplan proposals:
 - Footpath width in front of James's Gate proposed pedestrian entrance is less than the desired 2m. St. James's Gate will no longer be a vehicular entrance and will become the main pedestrian entrance, with up to 1,300 people per hour at peak times passing through. Visitors will also congregate and the gate itself is a landmark. Alternative configuration submitted.
 - Provision of a layby for the proposed hotel have not been addressed in the latest proposal – informal set-down will occur if no layby is provided. Potential layby location submitted.
 - Existing bus stop location is very close to the proposed primary entrance to the hotel (at present the front of the building is unused) – bus stop relocation is suggested, and it is considered that this will not detract from the quality of service associated with BusConnects.
 - Rearrangement and relocation of Dublin Bikes station is required to facilitate a new pedestrian entrance in the north-western corner of the site.

8.1.7. **Brendan Heneghan, 88 Parkmore Drive**

- In favour of 06:00 and 20:00 bus gate timings but there is zero justification for any ban at 06:00 to 10:00 on Sunday. Other bans on Saturday and Sunday should not be permitted. Asks whether PM ban is required at all.
- Should be a specific condition of planning consent that the hours of operation of the bus gate cannot be extended without seeking further planning approval.
- Claim in brochures that the current journey time is up to 65 minutes and that bus journey time can be reduced to 30 to 35 minutes is inconsistent with tables on Pages 96 & 96 "Traffic and Transport". Time savings for outbound buses are an average of 3 minutes and it begs the question of any measures being needed outbound. Inbound bus time savings are still much less than what is claimed.

- Surprised at modest time savings where the upgrade to the bus corridor is very significant. Need to weigh up whether the minimal time savings justify the substantial inconvenience to many people by this corridor.
- Buses coming regularly and having capacity are more important factors than time savings.
- Difficult to believe about limited construction related problems when compared to North Strand being closed for a single cycle lane.
- Consultation process has been inadequate for a project of this complexity and not consistent with the many provisions of Aarhus and Kazakhstan. Further period of consultation is warranted along with a public hearing.
- Proposal to tie into the Lucan to City Centre CBC Scheme was discarded despite the fact that this would take Ballyfermot and Palmerstown commuters to town more directly. Areas to the city side of this point are close to Luas or walkable/ bicycle distance from town.

8.1.8. **Dublin Commuter Coalition, Abbeyfield, Killester**

- Established in 2018 as a voluntary advocacy group for public transport users, cyclists and pedestrians in Dublin and surrounding counties.
- Support the BusConnects Core Bus Corridors project – has potential to be catalyst for greater usage of public transport and active travel along the route but requires significant changes and oral hearing is requested to discuss.
- Success of bus and cycle lanes, bus gate, bus priority lights and turn bans relies on legal usage of road by drivers – there is no provision for enforcement cameras.
- Bus lanes between High Street and James Street/ Bow Lane West have operational hours of 07:00-19:00 Monday to Sunday – bus journeys through the inner city will still be affected by traffic congestion well after 7pm. Bus lanes should be 24 hours.
- ‘Dublin-style’ junctions do not follow international best practice – design poses a great risk of left-turning driver crashing into cyclists and has larger crossing

distances for pedestrians. NTA should use Dutch-style junctions or Cyclops junctions throughout the project.

- Sarsfield Road/ Landen Road and Sarsfield Road/ St. Lawrence's junction provide no protection for cyclists – should be redesigned to provide full segregation.
- There are examples of 2-stage pedestrian crossings (Sarsfield Road/ Landen Road and James's Street/ St. James), which drastically increase the time required for pedestrians to navigate junctions and crossings. DMURS states that designers should omit staggered crossings in favour of direct/ single phase crossings that allow pedestrians to cross in a single direct movement.
- Many 3 and 4-way junctions are missing pedestrian crossings entirely on one or more arms, meaning that pedestrians may have to wait for 3 lights or more (Sarsfield Road/ St. Lawrence Road, James's Street/ St. James's, James's Street/ Echlin Street, James's Street/ Watling Street, Thomas Street/ Bridgefoot Street, Thomas Street/ Meath Street). DMURS states that designers should provide crossings on all arms of a junction.
- Narrow islands at bus stops place cyclists in conflict with boarding and alighting bus passengers. Ask that bus stops at 13 locations be redesigned to provide adequate separation between buses, pedestrians, bus passengers and cyclists for everyone's safety.
- Section 6.3 – Traffic & Transport is missing a total of 62 existing bike parking spaces from several locations within the redline boundary. Chapter 4 does not state where bike parking will be located within the proposed scheme. Removal of 20 bike parking spaces on Emmet Road would leave a 700m stretch with no bike parking at restaurants, retail, church, community and other amenities and dense residential. Removal of these facilities is contrary to Objective MTO14 of the Development Plan.
- Objects to widening of existing 4 lane Fonthill Road at Liffey Valley Shopping Centre to maintain 2 general lanes of traffic in each direction.

- Support proposed contraflow bus lanes on Ballyfermot Road between Le Fanu Road and Kylemore Road, and on Grattan Crescent between Sarsfield Road and Inchicore Terrace, with full bus priority at all times.
- Proposed scheme on Emmet Road has narrow footpaths and no safe cycling infrastructure, while there is provision for almost 100 on-street parking spaces – unsuitable for busy commercial and residential road.
- Prioritisation of car parking above pedestrians is incompatible with DMURS. CPO has resulted in narrow footpaths with pedestrian pinch points that do not currently exist outside the pedestrian entrance to Inchicore College and Small Change. Propose that 5 parking spaces outside the pedestrian entrance to Inchicore College and 3 between Small Change and Flowerpop be omitted.
- Despite bus gates at Mount Brown and James’s Street, Traffic & Transport section states that traffic flow on Emmet Road will only reduce modestly from 1307 to 917 PCUs in AM peak – this is a direct result of car-dominated design of Emmet Road.
- Support installation of bus gates on Mount Brown and James’s Street but they provide little benefit for bus passengers or cyclists due to extremely limited operating hours. Majority of bus journeys are made outside operational hours of bus gates. Given complete lack of cycling infrastructure between Inchicore and St. James’s, bus gates play vital role in reducing traffic to make cycling safer along this section. Bus gates should be 24 hour.

8.1.9. **Gallagher family and others 71 Ballyfermot Road**

- Object to proposed restriction of existing public right of way at the corner of O’Hogan Road and Ballyfermot Road.
- Notice outlining the proposed restriction appears to use an outdated map – do not have confidence that due diligence has been applied.
- Proposed restriction removes the primary access point to Ballyfermot Road for many residential properties and would result in a large increase in traffic at other points.

- Proposed restriction removes a key access point to the area for emergency services.
- Existing bus stop and park are already well known sites for anti-social behaviour - new bus stop would result in further anti-social behaviour, loitering and dumping.
- No indication that existing pedestrian crossing will be retained – pedestrian access opposite would be restricted.

8.1.10. **Kilmainham Inchicore Network, c/o Eamon Devoy, Eblana House**

- Current plans can better deliver an enhanced, reliable, efficient and sustainable public transport system without, for example, substantial reduction in green space and tree removal, and without undermining the urban village of Inchicore.
- BusConnects could contribute to the regeneration of Inchicore in a positive and meaningful way through availing of opportunities to improve public realm. Additional landscape planning and tree planting needs to be along the corridors, particularly where bus lanes are proposed (Emmet Road, Inchicore). Lessons can be learned from Kilmainham civic space in prioritising pedestrians, diverting non-essential traffic, widening paths and encouraging human interaction. Suggests the removal of some car parking and replacement with trees along northside of Emmet Road.
- All cycle lanes should be segregated.
- Any proposed developments at design stage need to be considered in order to ensure that the increase in population is factored in.
- Thorough traffic flow analysis will need to be carried out to predict and plan for changes and the impacts of diversion of traffic onto adjacent roads.
- Speed limits need to be clearly indicated on maps and the newly designated 30kph zones in residential areas need to be considered.
- Ensure safe sufficient pedestrian crossing access across Sarsfield Road into Liffey Gaels GAA Club Grounds.

- No indication that consideration has been given to Dart+ South West proposal to widen the railway line bridge over Sarsfield Road.
- Detail on pedestrian crossing at N4/N6 Memorial Road is missing.
- Welcome adjustment to maintain trees at Grattan Crescent. Improved public realm to include retaining wide paths, develop new pedestrian crossing and traffic calming measures. Remove bus stop on west side as there is a bus stop less than 50m away on Sarsfield Road.
- Another pedestrian crossing is needed between Inchicore National School and Grattan Crescent Park.
- Welcome adjustment to plans for one-way system for motorists (continuity of one-way traffic along Inchicore Road heading west) and bus lanes.
- Need for addition of toucan crossing at 147 Emmet Road – busy junction at entrance to St. Patrick’s Athletic FC and with numerous retail and café premises.
- Pedestrian crossing at Myra Close and 105 Emmet Road should be maintained.
- Need to consider flood zone areas and flood alleviation through SuDS intervention at Luby Road/ Emmet Road. Reduce run-off to Calmac River at this section.
- Review Luas crossing at Suir Road – allow better traffic flow through this junction such that backups at Old Kilmainham/ SCR junction are relieved.
- Questions the future traffic and parking implications of the westbound bus gate at Old Kilmainham.
- No dedicated cycle lane adjacent to the Luas on James’s Street – abrupt end to cycle track and narrowness of the section of road given to cyclists needs to be addressed. Questions if there is a proposed cycle route through St. James’s Hospital.
- Completion of Grand Canal Cycleway, Camac Greenway and cycleway down Vincent Street West are necessary in tandem with the bus corridor to allow better, safe and improved cycle network travel across Kilmainham and Inchicore.

- Impact of suggested no right turns at Sarsfield Road and Emmet Road as well as the bus gate at Old Kilmainham have knock on effects on other roads.
- Proposed works should have minimum disruption on people, their property and the wider community.
- EIAR Appendix A16.1-A16.3 page 25 incorrectly describes railway bridge over Camac River.

8.1.11. **Patrick Brien, 24 Mount Alton, Knocklyon**

- Owner of No. 81 The Steeples, which is the nearest in the apartment complex to the proposed development. Acquisition will seriously reduce the amenity space and value of the objector's apartment.

8.1.12. **Chairperson, St. James's Hospital, James Street**

- Note that NTA propose to permanently acquire part of the lands forming part of the access to the St. James's Hospital Energy Centre and to temporarily acquire part of the lands used as an access point for construction traffic for the National Children's Hospital.
- Access to energy centre is required on a 24 hour basis and hospital requires that access gate is not compromised or disrupted at any time during the construction or operation of the proposed development.
- Access for construction traffic to the National Children's Hospital development from Mount Brown should not be impeded for the duration of construction or operation.
- Security railing improvement should be considered as part of the development, in particular in the area abutting Mount Brown where grass and tree verge separate the footpath and hospital party wall.
- Public footpath on the southern side of Mount Brown should be retained and maintained as part of the development.
- EIA prepared for National Children's Hospital provides for restrictions on through traffic from the St. James's Street entrance to South Circular Road entrance and

vice versa. Account should be taken of new arrangements following construction of children's hospital meaning that existing traffic transiting from James's Street to South Circular Road and vice versa will no longer be available.

8.1.13. **Lauren Tuite, 122 Emmet Road**

- Requests an oral hearing.
- D8 Development is a social enterprise that brings life back to empty buildings – lobby for equitable use of public space and prioritisation of vulnerable road users.
- Submission considers the proposal at 120-124 Emmet Road and the broader failure to provide walking and cycling infrastructure on Emmet Road.
- Footpath narrowing at 120-124 Emmet Road, removal of bike parking and installation of car parking spaces would have a detrimental impact on the 3 businesses operating at this location. Location is also a stop on the Richmond Barracks to Kilmainham walking tour and permission has been received for a new commercial unit at 1st floor level to be used for yoga and wellness classes.
- Cycle parking to be removed is relied upon by businesses for storage of cargo bikes. Condition of planning permission at 122/124 Emmet Road was the installation of 2 more Sheffield stands within space marked for CPO.
- Proposed footpath narrowing is contrary to current transport policies and strategies underpinning BusConnects. Halving the number of parking spaces at this location would be an acceptable compromise, with one space reserved for blue badge holders.
- Proposal for Emmet Road/ Inchicore fails to provide basic and meaningful improvements for walking, cycling and public realm. Continuous footpaths are not provided at any on the intersections with minor roads.
- Proposed shared bus and cycle lanes for Emmet Road is unacceptable – currently cyclists use the wide footpath rather than using the bus lane on Emmet Road and narrowing of footpath will make the mixing of pedestrians and cyclists even more dangerous. Number of car parking lanes and spaces should be reduced.

- Introduction of one-way system on Grattan Crescent means there will be more room for people, safer crossing infrastructure and preservation of historic tree canopy. Sacrificing public realm and advances in regenerating the historic street by residents and businesses to facilitate parking and high speed private motor traffic is contrary to these goals.

8.1.14. **Kevin Baker, Woodfield Terrace, Sarsfield Road**

- Supports the project subject to two minor modifications on Emmet Road and one minor modification to protect and reuse granite kerbs on Sarsfield Road.
- Supports the project because it will maintain vehicular access to observer's house and results in improved walking, cycling and public transport; improved landscaping on Grattan Crescent; reduced traffic, noise and air pollution; and better junction design for pedestrians and cyclists.
- Commends the NTA for working with neighbours to find workable compromise on Grattan Crescent.
- Concerned how proposals will impact on businesses on Emmet Road because of loss of cycle parking and adequate footpath areas to accommodate road widening and parking. Requests adequate cycle parking along Emmet Road instead of the many car parking spaces proposed.
- There is a lack of greenery provided along Emmet Road – questions if NTA can remove some of the proposed car parking and plant trees or rain gardens instead.

8.1.15. **Dublin Cycling Campaign, Tailor's Hall**

- Supportive of the proposed scheme and encourages the Board to approve the scheme with minor modifications.
- Supports the scheme due to improve bus journey times; the continuous cycle routes from Liffey Valley to Chapelizod Bypass and from James's Hospital to High Street; separating people cycling from buses at bus stops; through-traffic reduction in Ballyfermot, Inchicore and Mount Brown; closure of O'Hogan Road junction; and reduction of Cornmarket junction to make it more people friendly.

- Junctions at Fonthill Road and Coldcut Road are not suitable for people cycling for areas with large volumes of turning traffic or areas with large numbers of HGVs – people cycling and turning motor traffic move at the same time in Junction Types 1-3, whereas in Junction Type 4 people cycling have a separate light signal to motor traffic which entirely eliminates any conflict. Request that junctions design be alter to Junction Type 4.
- Junction of Chapelizod/ Kylemore/ Le Fanu Road is not any of the approved junction designs in the NTA's National Cycle Manual (2013) or the BusConnects Preliminary Design Manual 2022. Northbound cycle track on Kylemore Road ends. Requests that the junction be modified to standard junction design such as 'Advance Stacking Location: Single Lane' from NCM page 77.
- Concerned at loss of cycle parking outside commercial areas along Emmet Road – 700m stretch from Spa Road to Inchicore Library will have no cycle parking. Requests that three car parking spaces along Emmet Road outside commercial areas be converted to cycle parking.
- No traffic calming proposed on quiet cycling streets at Echlin Street, Grand Canal Place, Basin View and Newington Lane – requests traffic calming elements to ensure a self-regulating street in accordance with DMURS.
- At two locations cross sections show cycle tracks of 1m with high kerbs on both sides (cross sections O-O Ballyfermot and ZZ Thomas Street) – minimum acceptable width for kerb protected cycle track is 1.5m, otherwise certain types of cycle will be excluded, including those used by people with disabilities. Request condition that all cycle tracks are of adequate width.
- High Street includes space for multiple general traffic lanes but provides sub-standard width cycle tracks. Accepts the need to narrow cycle tracks in some areas where space is limited but High Street is one of the widest streets along the corridor. Request that 2nd general traffic lane is removed.

8.1.16. **Jean Early, McDowell Avenue, Mount Brown**

- Active member of Dublin 8 Residents Alliance Group.

- Introduction of some elements of BusConnects will seriously impact on the amenity of the Ceannt Fort estate, which has a rich historical heritage.
- One vehicular access to estate of 202 dwellings is in the middle of the proposed bus gates – no alternative routes or impact on existing routes were considered. Proposal will add miles onto people’s journey if they want to enter the city in the morning.
- Buses arrive full with passengers from earlier stops and don’t stop so residents most impacted by BusConnects won’t benefit from it.
- St. James’s Hospital (SJH) staff will be unaware that they cannot turn left after work – turning right is difficult because of Luas tracks. Internal hospital road will only be for buses, taxis and ambulances once the construction of the new children’s hospital is completed.
- Questions if car recognition plates could be used for Ceannt Fort residents to pass through bus gates.
- EIS for new children’s hospital (PL29N.PA0043) claims that additional lane at St. James’s Hospital junction was necessary due to volumes of traffic predicted – 140 cars per hour would be using this exit to turn left in addition to bumper to bumper traffic heading out of town. BusConnects will make this situation worse by preventing a left turn in the evenings. Questions how two different planning applications can co-existing for the same site and same busy junction.
- Westbound bus gate at new entrance to children’s hospital bus gate involves the removal of trees outside St. James’s Hospital Energy Centre for construction of a new slip road – these trees were to be retained under PL29N.PA0043.
- Traffic numbers used for the planning application are not a true reflection as they were recorded during the lockdown. Calculations are flawed as they do not reference the fact that the road through St. James’s Hospital is due to be closed.
- Sheet 24 or 28 is flawed as no bus gate is located or referenced at St. James’s Hospital entrance. Westbound bus gate shown on sheet 23 of 28.

- 13 car parking spaces on James's Street/ Bow Lane West along with 22 spaces on Thomas Street/ High Street, including 2 of the 3 disabled spaces – 1 disabled space for this street is unrealistic.
- Dublin City Development Plan 2022-2028 lists Ceannt Fort as a Priority Architectural Conservation Area to be progressed to an ACA over the development plan period – this is not recognised in the EIAR.
- Statement in EIAR that operation of the bus gates will be subject to ongoing review raises concerns that will revert back to 24 hour use as originally proposed.
- Biggest item of concern for participants at Mobility Management team meeting for the two hospitals in June was the proposed bus gate, which at the time was to be located at Mount Brown – not informed that eastbound bus gate was to move to SJH entrance which creates a worse impact. Request that bus gate is omitted from the scheme.

8.1.17. **Helen Conlon, O'Reilly Avenue**

- Bus gate will prevent residents of Ceannt Fort from taking a right turn between 6am and 10am and a left turn between 4pm and 8pm. Also prevents direct access to homes depending on route taken.
- There is a no right hand turn allowed onto Military Road from St. John's Road West and Bow Lane does not allow a right hand turn towards Mount Brown. Kilmainham Lane is a two way route and is already under considerable pressure from heavy traffic – will likely turn this route into a one-way system.
- Requests an oral hearing.

8.1.18. **Heather Iland, O'Reilly Avenue**

- Concerned with potential impacts on Ceannt Fort as above.

8.1.19. **Rita & George Ray and others, O'Reilly Avenue**

- Welcome idea of a bus corridor but objects to stretch of road along Mount Brown as it will limit access to homes.

- Residents could voice their concerns at an oral hearing.

8.1.20. Noel Corr, Palmers Lawn

- Reduction in tree coverage and widening of Coldcut Road will damage amenity, increase traffic noise and pollution and allow anti-social behaviour on the Coldcut Road side of the boundary with Palmers Lawn.
- 24 hour bus services will increase the traffic volumes on Coldcut Road at night, creating additional noise – remediation measures needed to reduce noise impact, e.g. high sound barriers on Coldcut Road.
- Proposed water run-off area is too close to existing 2-storey homes and the construction phase will be highly invasive for users of the open green space, especially children. Questions if run-off area can be located the western side of the M50.
- Overall, the proposed development is wholly excessive and inappropriate and will negatively impact on the residents of Palmers Lawn.

8.1.21. General Paints Group, c/o Hughes Planning & Development Consultants

- Observer owns MRCB Paints and Papers which is located at No's. 10-13 Cornmarket – there is a long-standing parking bay for 5 no. spaces including 1 no. accessible space to the front. These will be omitted and 3 no. spaces (1 no. accessible space), will be provided and this presents direct impacts to the commercial viability of our client's business.
- Acknowledges the general retention of parking spaces within the wider vicinity on St. Augustine Street, Francis Street and Lad Alley; however, spaces to the front of observer's business are of intrinsic importance to the success of this commercial operation as they provide convenient vehicular parking for bulky goods purchase.
- Policy MT14 of the Development Plan seeks *“to minimise loss of on-street car parking, whilst recognizing that some loss of spaces is required for, or in relation to, sustainable transport provision, access to new developments, or public realm improvements”* and Policy MT14 aims *“to discourage commuter parking and to*

ensure adequate but not excessive parking provision for short-term shopping, business and leisure uses.” Proposal will not result in the retention of an adequate number of vehicular parking spaces to provide for short term shopping.

- Alternative design options are submitted for the Board to consider, i.e. extension of proposed loading bay to provide 2 no. additional parking space or dual purpose loading bay to allow for general parking outside core loading hours.
- Submission includes letter of support from Diacon of Estate House, the landlord of No. 10-13 Cornmarket. Proposal has a direct knock-on effect in terms of the marketability and attractiveness of No. 11-13 Cornmarket for would-be commercial tenants.

8.1.22. **Máire Devine & Aengus O’Snodaigh TD**

- Community prepared to play its part to reduce emissions through safer and better public transport and cycling infrastructure.
- Many of the proposals contradict the conditions of the National Children’s Hospital planning permission. Observers ask that the following point be taken into account:
 - Several thousand staff/ patients/ visitors traverse the SJH campus daily – impact on them is given minimal consideration.
 - Trees at Mount Brown were to be retained (PL29N.PA0043).
 - Audit of traffic volumes is inadequate as it was collated during lockdown.
 - Application fails to acknowledge that through road at SJH will close to traffic next year.
 - Single access to SJH will be chaotic and will endanger rapid access for “blue light” services.
 - Concern for residents of Ceannt Fort that bus gate could revert to 24 hours.
 - Forcing all traffic exiting SJH to turn right will prove unsustainable – much of the traffic has no interest in turning cityward and will end up turning down Bow Lane or Echlin Street.

- At least 35% of those attending healthcare are elderly or/and disabled and are unable to use public transport. It is proposed to remove all but one disabled parking space along St. James's Street and Thomas Street. Provision of these spaces must be increased.
- Sheet 24 of 28 does not reference the bus gate at SJH entrance.
- Requests that an oral hearing be provided for.

8.1.23. **Nigel & Emer Buchalter, McDowell Avenue**

- Extra journey time because of the impact of the bus gates on Ceannt Fort will be an inconvenience and will cause an increase in petrol consumption and CO₂ emissions.
- Terrible decision to enforce a no right turn at Ceannt Fort on those who are unable to walk, cycle or use public transport. There should be an exemption for people in the area from the bus gate.

8.1.24. **Liam Willoughby, Donnellan Avenue**

- Supportive of overall intention of the scheme and promotion of sustainable methods of transport but has concerns regarding the effects on Ceannt Fort and the bus gates for similar reasons to those outlined above.

8.1.25. **Tesco Ireland Limited, c/o Avison Young**

- Retail sector makes a major contribution to the city and suburbs by increasing vitality and viability of its urban settlements and acting as an economic anchor, creating significant employment and indirect economic and social activity.
- Observer welcomes the proposed investment in public transport, active travel and the urban environment. BusConnects will greatly improve the way in which Dublin functions from an economic, social and environmental perspective.
- There are three Tesco stores along the route at Liffey Valley, Ballyfermot Road and Thomas Street. Proposed amendments to internal road network of Liffey

Valley Shopping Centre, and in particular the upgrade of roundabout to signalised junction, is welcomed.

- Change of Ballyfermot Road to one-way will have an impact on customer, service and delivery vehicles and the local community. Customers will have to take a more circuitous route, and HGVs will use Le Fanu Road which is primarily residential with speed ramps and dual sided on-street parking.
- NTA should provide Autotrack analysis to demonstrate that HGVs will be able to safely access the supermarket car park from Ballyfermot Road following the proposed changes.
- Existing loading bay outside Tesco Express store on Thomas Street is to be removed under the current proposal and alternative loading bay is 110m to the west of the store. This is a significant cage pull, and where loading bays are shared, delivery drivers will have to loop around the area several times before space becomes available, or in some cases, postpone delivery.
- NTA has failed to demonstrate that the limited loading bay provision on Thomas Street is sufficient to meet the needs of adjacent retail and commercial premises – existing loading bay to front of 51-52 should be retained.
- Deliveries will have to cross the cycle lane and this is a safety concern to both cyclist and staff unloading.
- Unclear from documentation if there will be any segregation of the cycle track in terms of a kerb and if this will this be dropped to facilitate deliveries.

8.2. NTA Responses to Submissions/ Observations

8.2.1. The National Transport Authority responded to the issues raised in submissions and this is summarised below. Composite responses are made where the same issue is raised in a number of submissions and/ or objections to the CPO.

8.2.2. Response to issues relating to Ceannt Fort/ Mount Brown/ James's Street

- Revised bus gate arrangement following non-statutory public consultation will allow access at all times to Ceannt Fort, the Children's Hospital, adult hospital

and the local area from all directions. Traffic leaving these locations will be required to turn left in AM peak and turn right in PM peak to avoid the bus gate.

- Existing bus services along Mount Brown suffer from poor journey time reliability, particularly at peak times, and there are no bus lanes along this section. Proposed G-Spine along Mount Brown will provide 16 buses per hour in both directions. Proposed scheme will attract c. 400 additional passengers in AM peak in 2028 at Mount Brown which further highlights the need for bus priority measures (bus gate).
- Specialist consultant undertook an Accessibility Audit of the existing environment along the corridor to describe the key accessibility features and potential barriers to people with disability.
- Traffic modelling has determined that the impact of the reduction in general traffic flows along the proposed scheme will be positive, moderate and long-term. Assessment process was undertaken of junctions along road links that will see an increase in traffic flows – shows the majority operating within capacity for all assessed years in ‘do minimum’ and ‘do something’ scenarios. Future committed transport schemes have been included in modelling scenario, including ban on traffic travelling through St. James’s Hospital.
- EIAR has considered the potential climate impacts (both positive and negative) associated with the construction and operational phases of the Proposed Scheme - proposed scheme has the potential to reduce GHG emissions equivalent to the removal of approximately 15,100 and 15,700 car trips per weekday from the road network in 2028 and 2043 respectively.
- Traffic in the area will be monitored to ensure bus priority along Mount Brown is maintained - exact operational hours may need to be refined as traffic patterns change over time. Ability of local residents to travel through bus gates using automatic number plate recognition would not be feasible to operate, maintain or police.
- *Implications of bus gates for St. James’s Hospital:* Access to hospital campus via sustainable modes will be greatly improved and access by private vehicle

will still be possible at all times from all directions. Alternative routes will be required when exiting the hospital when bus gates are operational and additional signage will be erected advising of same.

- *Implications of new children's hospital planning application:* Proposed scheme is designed to be compatible with consented planning permissions along the route, including the new Children's Hospital. Proposed closure of St. James's Hospital for through traffic has been captured as part of the modelling exercise. Proposed closure and bus gates will reduce existing traffic congestion.
- Local arrangements on a case by case basis will be made during construction to maintain continued access to homes and businesses.
- *Ceannt Fort's ACA status:* Potential construction phase impact on Ceannt Fort is assessed in EIAR as NIAH structures as negative, slight and temporary. Proposed bus shelter at this location will have little impact on the setting of the adjoining housing scheme during operational phase.
- *Awareness of the proposed bus gate:* Three rounds of consultation were held and a number of consultation tools were used, including one to one meetings, dedicated website, individual brochures, public information events, community forms, digital channels, press and radio, outdoor advertising and infographics.
- *Current bus capacity issues:* One of the objectives of the proposed scheme is to enhance the capacity and potential of the public transport system by improving bus speeds, reliability and punctuality through the provision of bus lanes and other measures to provide priority to bus movement over general traffic movements.
- G1 and G2 routes along Mount Brown / James's Street Lane are proposed to operate with 15 minute intervals between buses. This equates to 8 inbound and 8 outbound buses per hour along this section.
- *Parking loss at James's Street/ Thomas Street:* Proposed scheme will see an overall retention of 1,838 spaces compared to a loss of 102 spaces. Significant improvements to walking, cycling and bus facilities encouraging use of sustainable modes will reduce demand for private parking. On-site parking is

available at St. James's Hospital for patients and visitors and loss of single disabled space at Cornmarket is considered negligible.

- *Consideration of alternative routes/ options:* Residential, employment and student enrolment densities local to the proposed scheme were considered and route options assessment work was undertaken that included initial sift analysis in Stage 1 and an indicative scheme for each route option was considered in Stage 2. Multi-criteria analysis was carried out in line with the 'Common Appraisal Framework for Transport Projects and Programmes' (DTTAS, 2016). The 5 main assessment criteria were economy, integration, accessibility and social inclusion, safety and environment. Since emerging preferred route option, the proposed scheme has gone through further design iterations.
- *Tree loss:* Partial tree removal is proposed at bus gate on Mount Brown and additional trees are proposed to mitigate this loss. There will be 179 trees lost along the route and 1,262m² of woodland area removed. Replanting will be a net increase of 354 additional semi-mature trees and 504m² of woodland along the proposed scheme.
- *Accuracy of traffic data:* Traffic data was collected in November / December 2019 and February 2020, prior to the Government Covid announcement on 12th March 2020 - considered that the traffic assessment contained in the EIAR, and the traffic data upon which it is based, represents a reasonable basis for the assessment.
- *Alleged errors in drawings:* Bus lane markings and the necessary vehicle restrictions associated with the proposed bus gate are displayed on General Arrangement drawings.

8.2.3. **Response to issues relating to James Street/ Thomas Street/ Cornmarket**

- *Ballymore Group:* NTA notes that the requests made by Ballymore Group are not required in order to achieve the scheme objectives along this section of the corridor; however, NTA will continue to work with developers subject to the conclusion of their planning process.

- Proposed hotel entrance adjacent to existing bus stop and it is not proposed to change this arrangement – principle of vehicle and pedestrian access to/ egress the site is unchanged by the proposed scheme.
- Proposal in submission to widen footpath between Watling Street and Crane Street are not considered to materially impact on the Core Bus Corridor – NTA will continue to work with developers subject to the conclusion of their planning process.
- Bus stop locations were reviewed at each stage of the design process with a view to ensuring that the objectives of the proposed scheme were met - it is proposed to retain the current stop at the existing location. Any proposal to amend the location of the Dublin Bikes station is a matter for Dublin City Council.
- *Aidan Quigley*: Air dispersion modelling assessment has found that the proposed scheme will be neutral overall in the study area. Operational phase will decrease both urban bus and car emissions.
- Proposed bus stops at Cornmarket will be retained at their current locations. Noise impacts associated with bus stops will be neutral to positive taking account of expected transition to electric or hybrid buses. Once the various mitigation measures are put in place, noise impacts will be generally negative, not significant to slight, temporary during all key construction phases.
- New infrastructure will provide better, safer and more visible bus stops whilst also improving the wider public realm infrastructure through investments such as improved street lighting. This will act as a direct deterrent to criminal activity and encourage people onto the streets into the evening.
- Overall public realm improvements may lead to an increase in value of both residential and retail property prices, especially in the community centres along the corridors.
- *Land Development Agency*: Pedestrian facilities are improved along this section of the proposed scheme - NTA notes that the requests made by Land

Development Agency are not required in order to achieve the scheme objectives but will continue to engage with the relevant parties.

- *General Paints Group* – High quality urban realm is proposed at Cornmarket junction - as a whole, the proposed scheme will deliver positive impacts in terms of accessibility to community facilities and commercial businesses for pedestrians, cyclists and bus users during the operational phase. Proposed scheme is also expected to benefit individuals and businesses whose workers live along the corridor. Furthermore, traders typically over-estimate the importance of cars and it is anticipated that the proposed scheme will have a positive impact on businesses in the Cornmarket area. There are over 50 alternative parking spaces within 100m of this location.
- Alternative parking layouts displayed in the submission are not considered to be appropriate / in keeping with the scheme objectives - they will detract from the urban realm improvements. The proposal for time plating of the loading bay is not considered compatible as other business along the scheme, with varying delivery time requirements, will utilise the loading bays throughout the day.

8.2.4. Response to issues relating to Palmers Lawn/ Palmers Drive/ Palmers Court/ Palmers Walk

- *Clarification on proposed boundary works:* Boundaries will be replaced on a like for like basis.
- *Increase in noise, pollution and vibration:* Traffic noise impacts have fully considered any physical changes along the proposed scheme with potential to alter traffic noise levels.
- Construction noise impacts will generally be negative, not significant to slight and temporary. Operational noise impacts will be neutral to positive due to reduction in traffic volumes and transition to electric vehicles.
- *Tree loss:* Following construction of new wall at Palmers Walk which will require tree removal, new native hedgerow and trees are proposed. Substantial tree planting throughout the scheme will see a net increase.

- Proposed scheme has the potential to reduce GHG emissions equivalent to the removal of approximately 15,100 and 15,700 car trips per weekday from the road network in 2028 and 2043 respectively.
- *Cycle parking:* Bike racks will generally be provided at island bus stops and key additional locations. 417 cycle spaces are currently provided, and this will increase to 1,017 spaces throughout the proposed scheme.
- *Potential for increase in anti-social behaviour:* Proposed scheme will provide better, safer and more visible bus stops whilst also improving the wider public realm infrastructure through investments such as improved street lighting. Increase in pedestrians and cyclists will improve passive supervision.
- *Drainage attenuation measure:* dry detention basin will be dry for the majority of the year and will only collect water during a major storm event.

8.2.5. **Response to issues relating to Sarsfield Road/ Grattan Crescent/ Emmet Road**

- *Cycle parking removal:* New cycle parking is proposed along Emmet Road which will substantially increase the cycle parking along this section of the Proposed Scheme. NTA has had to balance a number of often-competing factors.
- *Street trees/ planters:* New street trees are proposed where footways are wide enough and below-ground services allow.
- *Footpath treatment:* Footpath widths on Emmet Road will have to be reduced in some locations to facilitate bus priority and provide allocated residential parking that has been relocated or reduced. Footpath will not be reduced to less than 2m.
- Level of Service assessment for pedestrians will increase at Grattan Crescent / Emmet Road / Tyrconnell Road junction, Emmet Road / Spa Road junction, Emmet Road / St Vincent's Street West junction, Emmet Road / Myra Close junction, Emmet Road / Turvey Avenue / Luby Road junction and at the two pelican crossings. Raised tables are also proposed at minor junctions.

- *Cycle infrastructure:* Removal of a general traffic lane along Emmet Road was considered as part of the Liffey Valley to Christchurch Core Bus Corridor Options Study but was ruled out.
- Proposed Scheme is to be delivered in constrained urban environments, and the delivery of a segregated cycle track may not always be practicable - majority of Emmet Road is not included within the Primary or Secondary Cycle Network – alternative route along Sarsfield Road and Inchicore Road.
- *Fit with policy:* Application documentation demonstrates that the proposed new bus stops on Emmet Road and relocation and removal of parking facilities is consistent with, and supports elements of, international policy, EU law and policy, national policy, regional policy and local policy.
- *Lighting proposals:* Existing lighting columns along Emmet Road are proposed to be set back and replaced with new lighting columns.
- *Paving:* It is proposed to retain the existing surface along the majority of Sarsfield Road (Woodfield Terrance) and Inchicore Road. Existing granite kerbs to be incorporated where possible.

8.2.6. Response to issues relating to Other Specific Locations

- ***Response to Tesco Ireland:*** NTA notes that the proposed amendments to the internal road network of Liffey Valley Shopping Centre, and specifically the proposal to upgrade the existing roundabout to a signalised junction, are welcomed.
- Access to Ballyfermot store is available by alternative routes, other than Le Fanu Road if desired by the HGV driver. Road Safety Audit does not identify any issue with access to this store. Swept path analysis shown for HGV turning from Ballymore Road into supermarket car park.
- Retention of existing loading bays on Thomas Street would reduce the quality of service for buses. There are a number of side streets that may accommodate deliveries (Meath Street). Road Safety Audit does not highlight any safety issues with the proposed arrangement.

- Dedicated loading bay on Thomas Street will be provided with chamfered kerbs with a maximum height of 60mm, which will facilitate trolleys, pallet trucks, etc.
- ***Response to Kilmainham Inchicore Network:*** Supports one-way system at Inchicore Road and bus lanes and adjusted plans to maintain trees at Grattan Crescent.
- It is an objective of the proposed scheme to ensure that the public realm is carefully considered in the design and development of the transport infrastructure - consists of replacing footway surfaces appropriate to the location, native planting, new street trees, areas of wildflower grass verges and replacement hedgerows.
- There will be enhancements to specific urban realm hot spots at Ballyfermot Retail Centre, the Ballyfermot roundabout, Grattan Crescent, the James St./ Bow Lane West junction (Obelisk Fountain) and Cornmarket junction.
- Proposed scheme is designed in line with the objective to ensure that the public realm is carefully considered in the design and development of transport infrastructure and seeks to enhance key urban focal points where appropriate and feasible.
- Where roadway widths cannot facilitate cyclists without significant impact on bus priority, alternative cycle routes are to be explored for short distances away from the CBC bus route (Preliminary Design Guidance Booklet). Constraints at James's Street resulted in a quiet street route option along Newington Lane, Basin View, St James's Avenue, Grand Canal Place and Echlin Street.
- There are currently 12% segregated cycle facilities or Quiet Street Treatment along the CBC and there will be 72% as a result of the proposed scheme.
- Level of Service assessment highlights improvements for pedestrians at location of Liffey Gaels Sports Grounds, the junction of Con Colbert Road/ Memorial Road, the Sarsfield Road / Inchicore Road / Grattan Crescent junction, and at St. Patrick's Athletic FC.
- Bus stop 2642 on Grattan Crescent was removed to improve the spacing between stops.

- Traffic and transport assessments were carried out for ‘do nothing’, ‘do minimum’ and ‘do something’ scenarios and modelled using the NTA’s East Regional Model, which assumes partial implementation of the GDA Strategy in opening year (2028). Includes tie-ins with the GDA Cycle Network Plan.
- Traffic modelling identifies increases and decreases in traffic flows due to reallocation and rebalancing of road space in favour of sustainable modes. Roads within direct study area are anticipated to experience a reduction in general traffic flows in AM and PM peaks. Some roads will experience additional traffic volumes of over 100 combined flows but not Kilmainham Lane, Echlin Street and James’s Walk. Redistributed traffic will not lead to a significant deterioration of the operational capacity on the surrounding road network.
- The proposed scheme provided three rounds of non-statutory consultation and the EIAR considered the potential community and economic impacts on population associated with construction and operational phases.
- SuDS measures will ensure no change in existing runoff rates, both within the existing drainage network or to any receiving waterbodies (including the Camac River). Proposed scheme will not result in any change to the existing risk of fluvial flooding.
- Proposed scheme will introduce a reduced speed limit from 50km/h to 30km/h from the South Circular Road junction to the city centre. This has been proposed due to width constraints, cyclists will be required to share the carriageway with buses, general traffic and trams through this section.
- Wrong description of a railway bridge in EIAR now corrected.

8.2.7. **Response to issues relating to Whole Scheme**

- ***Response to Inland Fisheries Ireland:*** EIAR summaries the potential construction phase impacts on the WFD water bodies in the study area (Camac River & Liffey Estuary).

- No increase in impermeable area draining to the Camac_040 and therefore no impacts. Liffey Estuary Upper has no direct hydrological connection from the proposed scheme.
- Surface Water Management Plan details control and management measures for avoiding, preventing, or reducing any significant adverse impacts on the surface water environment during the construction phase of the proposed scheme. CEMP lists guidance documents that must be taken into account when preparing SWMP – includes “Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters (Inland Fisheries Board (IFB) 2016)”
- ***Response to South Dublin County Council:*** The terms ‘Dublin-style’ junction, ‘Dutch-style’ junction and ‘CYCLOPS’ junction do not form part of the proposed scheme application description.
- Preliminary Design Guidance Booklet categorises junctions into four broad types and it is a core aim to “enhance the potential for cycling by providing safe infrastructure for cycling, segregated from general traffic wherever practicable.” Junctions have been developed from international best practice for a local Irish context.
- There are specific measures to reduce left-turning vehicle speeds and to improve physical safety and safety awareness aspects at junctions – includes kerb build-outs.
- Two-way cycle track on eastern side of Fonthill Road roundabout has been designed to tie-in legacy cycle track.
- Direct single crossing movement not proposed at Fonthill Road/ Coldcut Road junction due to distance between footways (>19m). Cycle track is designed within local constraints to ensure access to adjacent properties and to minimise intergreen time, (amount of time between the end of a green phase and the start of another green phase).

- At Coldcut Road / Cloverhill Road junction and Ballyfermot Road / Cherry Orchard Hospital junctions, cyclists (travelling eastbound) will only be held on red during the pedestrian phase.
- Junction corner radii have been designed in line with the principles of DMURS and have been minimised and informed by swept path analysis.
- NTA recognises the benefits green buffers can bring along cycle tracks but these may not be suitable at all locations.
- There is no existing cycle infrastructure on Coldcut Road to east of Coldcut Road/ Fonthill Road junction to tie into.
- Cycle lanes narrow on approaches to bus stops to promote lower speeds.
- Proposed scheme has been designed to tie-in with new Liffey Valley bus interchange facility. No application yet for Cherry Orchard Industrial Estate Regeneration Area. No space to relocate bus stops at this location. Any future developments which come online will need to propose any infrastructure required for their planning application.
- New and updated crossings between Tesco and Curry's on Fonthill Road will enhance connectivity and tie-in with legacy facilities. Proposed scheme does not have the remit to improve pedestrian and cyclist facilities at surrounding areas.
- There will be improvements to streetscape character in some areas, particularly at Fonthill Road with increased tree planting and provision of a biodiverse swale.
- Intention is to use narrow drainage gullies which will reduce risk of damage or cracking during the operational phase. Grating profile is safer for cyclists and is outside the wheel track.
- All shared space areas on the proposed scheme will have visual aids and tactile paving – no safety issues were highlighted in Road Safety Audit. Red surfacing proposed on cycle lanes.

- Construction Traffic Management Plan has been prepared to facilitate the assessment of the potential impacts on traffic and transport along the proposed scheme. Liffey Valley bus Interchange and road improvements works and Luas line to Lucan will not clash with the proposed scheme.
- ***Response to Department of Housing, Local Government and Heritage:*** Disturbance and displacement of birds during the breeding season within areas of construction is likely to have very little significant effects. Where possible, vegetation will not be removed between 1st March and 31st August.
- CEMP will be detailed in a manner to effectively implement all the applicable mitigation measures identified in this EIAR. NTA will continue to liaise with relevant bodies including the Department and Councils.
- ***Response to Dublin Cycling Campaign:*** NTA welcomes support for the proposed scheme for reasons including improved bus journey times, continuous cycle routes from Liffey Valley to Chapelizod Bypass and from James's Hospital to High Street, the separation measures between bus stop and cycle tracks, through traffic reductions in Ballyfermot, Inchicore and Mount Brown, the closure of O'Hogan Road Junction and the reduction in junction size at Cornmarket.
- Heavy turning volumes, HGV movements (difficulty with blind spots), high speed environments etc. have been considered during the design of junctions as part of the proposed scheme. Appropriate signage proposed to reinforce the requirement for motorists to yield to straight ahead cyclists in such locations. High incidence of HGVs not expected at junctions along the Fonthill Road and Coldcut Road and pedestrian volumes expected to be high.
- Typical protected junction offers significant safety improvements over traditional junction layout – protection kerb provides tighter turning radius and right turning cyclists cross the side arm and turn right in a controlled manner. Traffic signal arrangement removes any uncontrolled pedestrian-cyclist conflict and there is a raised and protected cycle lane approaching the junction. Sight lines for left-turning traffic are also improved.

- Northbound cycling provision ends at Chapelizod / Kylemore Road / Le Fanu Road junction where it ties into the existing layout.
- Bike racks will generally be provided at island bus stops and key additional locations – new cycle parking along Emmet Road will substantially increase cycle parking availability in this location.
- Existing streetscape along Echlin Street, Grand Canal Place, Basin View and Newington Lane lends itself to the principles of self-regulating streets as set out in DMURS to encourage lower driving speeds.
- Delivery of a 2.0m+ wide cycle track not always practicable and widths have been reduced to typically 1.8m or 1.5m in these cases. Cargo, handcycle, bike trailers, etc. are typically less than 1m.
- The number of traffic lanes has been reduced to facilitate the provision of continuous segregated cycle tracks along James's Street and Thomas Street. Level of Service will be improved to a B rating from the existing C rating between St. Augustine Street to High Street.
- ***Response to Dublin Commuter Coalition:*** NTA welcomes the support from the advocacy group for the proposed scheme.
- NTA is exploring proposals for bus lane enforcement as set out under Measure INT20 – Enforcement of Road Traffic Laws of the Draft Greater Dublin Area Transport Strategy 2022-2042. Advanced bus detection systems will activate green signals for authorised vehicles only.
- Bus gate operational hours were reduced following public consultation to allow access at all times from all directions to Ceannt Fort, the Children's hospital, the adult hospital and the local area. Traffic management measures will be monitored to ensure bus priority along Mount Brown is maintained and the exact operational hours may need to be refined.
- Ambition of the Preliminary Design Guidance Booklet was to take the benefits of the traditional junction layout from the National Cycle Manual and supplement this with a range of measures aimed at increasing protection for cyclists and reducing uncontrolled conflict with pedestrians.

- Protected junction is proposed to be retrofitted into all existing junctions, taking into consideration the best practice from international settings including the Netherlands – ‘Dutch-style’ junction allows for a potential un-signalised conflict between pedestrians and cyclists and this was a concern for disability groups. Dutch style junctions can result in a reduced level of service for pedestrians with at least 3 crossing movements (2 no. cycle tracks and 1 no. carriageway) to cross a side road. Landing area for pedestrians needs to be suitably sized.
- Concept of allowing both cyclists and general traffic to proceed together in the same direction is not uncommon and the same traffic signals arrangement also caters for left-turning traffic. Introduction of separate signal phases will increase delay for cyclists at junctions.
- Proposed arrangement will promote the sustainable mode hierarchy for cyclists at junctions over vehicles turning left – left-turning vehicle traffic volumes are estimated to be less than the 150PCU threshold and similarly low HGV volumes are estimated. Signage and a three to five second early start for cyclists is typically provided.
- Assessment of the existing arrangement compared to the proposed scheme at Sarsfield Road/ Landen Road and Sarsfield Road/ St. Lawrence’s junction increases from D to B Level of Service rating. Preferred priority junction arrangement for the CBC project consists of a single-direction, with-flow cycle track continuing with priority across the front of the side road on a raised entry treatment.
- Proposed scheme will increase the number of controlled pedestrian crossings from 36 in the existing to 52 and there will be an increase in the number of raised table crossings on side roads from 9 in the existing to 31.
- It is proposed to retain the existing pedestrian crossing on the eastern arm of the James Street / St. James’s junction as it is deemed to cater for the existing desire line at the local bus stops, Luas stops and St James’ hospital. Also proposed to upgrade existing crossing at the James’s Street/ Echlin Street junction which caters for the existing desire lines whilst providing a raised table on the minor arm.

- Narrow footpath and entrance to the Guinness site constrains the ability to provide a signalised pedestrian crossing to James's Street/ Watling Street.
- Width constraints restrict the provision of a signalised pedestrian crossing on the western arm of the Thomas Street/ Bridgefoot Street junction.
- Signalised pedestrian crossings on the southern and western arms of Thomas Street/ Meath Street junction are retained and there is an existing pedestrian crossing 60m east.
- Island bus stops are the preferred option on the CBC project where space constraints allow. Where space constraints don't allow, a shared bus stop landing zone may be considered whereby cyclists ramp up to footpath level and continue through the stop. Cycle track will be narrowed on approach to bus stop and yellow bar markings and tactile paving will be provided.
- Cycle parking – as above (increased provision of 148%).
- Fonthill Road widening is for new cycle tracks, new bus lanes and dedicated turning lanes, to maximise the number of people moving through each junction and to prioritise these sustainable modes of travel.
- Removal of parking on Emmet Road –Junction of Grattan Crescent/ Sarsfield Road/ Inchicore Road will be upgraded to provide better walking and cycling facilities and bike rack provision will be increased.
- ***Response to Brendan Heneghan:*** Bus gate at St. James's Hospital – as above response regarding refinement of bus gate hours to reduce impacts on the surrounding area.
- Information brochures presented certain facts including current bus journey time of up to 65 minutes; BusConnects journey time of 30-35 minutes; and without BusConnects journey time of 80+ minutes. This route estimation extends further west and east of proposed CBC. Within modelled micro-simulation for all inbound scenarios, AM and PM peaks for 2028 and 2043, the time saving between the Do Something and Do Minimum scenarios ranged from 20-26% (9-10% outbound).

- Modal-shift from car to other sustainable modes is the key objective of the proposed scheme. Time saving is only one of many objectives and benefits.
- 2028 AM Peak Hour people-movement assessment shows that there is an increase of 58% in the number of people travelling by bus, an increase of 45% in people walking or cycling, and a reduction of 53% in the number of people travelling by car along the route of the proposed scheme.
- Construction phase - roads and streets along the Proposed Scheme, will remain open to general traffic wherever practicable. Operational phase modifications to general traffic will be implemented at the start of the construction phase.
- Consultation process - statutory process makes available for public review all of the applicable information set out in the legislation and permitting the making of submissions in relation to the proposals to An Bord Pleanála. Request for an oral hearing will be a matter for the Board to decide.

8.2.8. **Response to Submission from Dublin City Council**

12.3.2.1. The NTA responded to the submission from DCC with the following comments of note:

- Dedicated DCC BusConnects Liaison Office has facilitated the exchange of information and engagement with other departments and sections within DCC regarding the design of the proposed scheme.
- NTA notes that DCC confirmed its support for the proposed scheme and its satisfaction with the EIAR, NIS, zoning, strategic objectives and the creation of a more sustainable interaction between land-use and transport. General satisfaction from other departments.
- No significant residual cumulative impacts are considered likely from any planning history schemes identified, in cumulation with the Liffey Valley to City Centre scheme. NTA will work with the local authority to ensure the construction of schemes are compatible.
- Strategic Vehicular Route and Green infrastructure Network junction with Ballyfermot Road in the Parkwest Cherry Orchard LAP – strategic importance of

this junction has been considered with the proposed design and access is not precluded. Junction will be upgraded, and appropriate enhancement opportunities will be considered along the route.

- Proposed scheme is supported within the draft and adopted Dublin City Development Plans - BusConnects is an important consideration, and its development is part of the shaping of emerging policy for the city.
- Enhancement of Kilmainham village and landing point of potential Camac Greenway on South Circular Road – Camac River is outlined within the GDA Cycle Network Plan and tie-ins will be provided with this Plan.
- Public realm enhancement of Inchicore village – there will be a number of enhancements to specific key public spaces including at Grattan Crescent and opposite Inchicore College.
- Military Quarter – it will be necessary to reduce footpath widths (not less than 2m).in some locations in order to facilitate bus priority and in some cases relocated parking and loading. Level of Service assessment indicates improvement for pedestrians in this area.
- Majority of Emmet Road is not included within the primary or secondary cycle network - Primary cycle route 7A provides an alternative route along Sarsfield Road, Inchicore Road and Bow Lane.
- Junction of Grattan Crescent / Sarsfield Road / Inchicore Road will be upgraded as part of the proposed scheme to provide better walking and cycling facilities.
- Removal of general traffic lane would not provide sufficient space required to implement protected cycle lanes in both directions along Emmet Road.
- Landscape and urban realm proposals are derived from analysis of the existing urban realm which allowed the designers to consider appropriate enhancement opportunities. There will be improvement of key public spaces at Ballyfermot Retail Centre, the Ballyfermot roundabout, Grattan Crescent, the James St/ Bow Lane West junction (Obelisk Fountain) and Cornmarket junction.

- Local bus gates at Mount Brown will reduce through traffic creating an environment more conducive to cycling and there will be an overall improvement to the quality of pedestrian infrastructure along the eastern section of the proposed scheme.
- DCC notes that there are no significant public realm improvements proposed at St James's Street gateway – generic response from applicant and reference to James St/ Bow Lane West junction (Obelisk Fountain). Access to hospital campus via sustainable modes will be greatly improved following the implementation of the proposed scheme.
- Additional greening and improvements to cycling and pedestrian facilities around Thomas Street and the High Street – generic response and reference to Cornmarket Junction improvements.
- Design at St. Vincent's St. West will increase Level of Service for pedestrians from a D to a B rating.
- Proposed scheme was tested with an additional 10 buses per hour at the busiest section – results indicate a high level of journey reliability and highlights the benefit the proposed infrastructure improvements can provide in protecting bus journey time reliability and consistency, as passenger demand continues to grow into the future.
- Reuse of as much of the existing public realm as possible - no kerb realignments proposed along the majority of James's Street and Thomas Street.
- Junction redesign at Cornmarket/ High Street seeks to improve public transport, cycling and walking facilities – proposal will create additional space for the pedestrian environment and facilitate a further public realm improvement scheme at this junction. Alignment on Thomas Street was altered to avoid impacting the mature trees and to provide more public realm opportunities. Junction has been the subject of various rounds of iterative design and Junction Type 2 was chosen on the basis that the bus gate at Mount Brown will reduce the traffic flows along Thomas Street. Level of Service at the Cornmarket junction increases from an E rating to an A rating for pedestrians. For cyclists,

the Level of Service along R810 Thomas Street (St Augustine Street to High Street) increases from a C rating to a B rating. Overall, there is a notable positive change to the character and visual amenity resulting from the creation of a high quality pedestrianised area with new street trees to the south side of Cornmarket junction.

- Pedestrian priority – 44% increase in controlled pedestrian crossings and 213% increase in raised table crossings on side roads.
- Proposal for pedestrian/ cyclist conflict as bus stops – visually impaired pedestrians may call for a fixed green signal to access bus stop island area.
- Kerbside loading on Thomas Street – NTA has balanced the need to provide parking and loading with the objectives of the proposed scheme to provide high quality public transport, cycling and walking facilities.
- National Children’s Hospital – proposed scheme designed to be compatible. Two exit lanes will be retained on the St. James’s Hospital arm of the junction. Provision has been made for permitted developments along the corridor.
- Proposed scheme is within the existing road boundary at Cherry Orchard Hospital.
- Retention of existing bus stop outside Ballyfermot Primary Care Centre – Proposed stops are adequately spaced and relocated bus stop provided a similar distance to the centre (Bus Stop Review Methodology included in Appendix H).
- Ramped crossings (instead of speed cushions) were agreed at Community Forum in place of chicanes to reduce vehicle speeds.
- Removal of parallel roads on Ballyfermot Road required to create space for segregated bus and cycle infrastructure. Loss of parking will be negligible/ slight.
- Commercial units at junction of Ballyfermot Road & Le Fanu Road – removal of 9 parking spaces creates space for segregated bus and cycle infrastructure. Land acquisition deemed necessary.

- Closure of O'Hogan Road – creates opportunity for small-scale local intervention featuring good quality concrete paving, a proposed tree, ornamental planting and a curved feature bench. There is sufficient space for turning vehicles at the road closure.
- There is no impact on access or egress to St Laurence's Glen due to the relocation of the bus stop.
- The NTA have engaged with the United Tyres and are aware of the future proposals to redevelop this site into a residential development. There is no impact to access or parking at the Sarsfield Service Station and commercial properties on the south side of Sarsfield Road. Local access arrangements will be made on a case by case basis.
- Pedestrian crossing moved to east side of the junction of Con Colbert Road and Memorial Road to be on the same side as bus stops. Level of Service for pedestrians improved at this junction from E to B.
- Road Safety Audits do not highlight any issue with perpendicular parking.
- Minimum lane widths have been adopted throughout the majority of the proposed scheme – cross section constrained at Old Kilmainham and no footpath widening proposed. However, speed limit will be reduced to 30km/h.
- Redevelopment in the vicinity of Echlin Street will be short term and therefore not impacting the long term benefits the proposed scheme offers.
- NTA outlined under Reg. Ref: 4588/22 that any changes to the bus stop location and / or the introduction of drop-off or lay-by facilities on this corridor would not be supported.
- Proposed changes to loading bay and accessible space at Cornmarket is considered negligible.
- Proposed scheme has been planned and assessed taking on board DCC Public Lighting Department inputs.
- Proposed Scheme designed to ensure no deterioration of the status of any downstream waterbody and will not jeopardise the attainment of good ecological

and good surface water chemical status. Preference given to SuDS solutions where practicable.

- The flood risk associated with the proposed scheme is dealt with within the Flood Risk Assessment included in EIAR Volume 4 Appendices.
- Provision will be made for archaeological monitoring and the NTA will liaise with DCC in regard to archival processes.
- NTA disagrees that the number of photomontages is limited and are not sufficient to assess the impacts of the proposed scheme. Photomontages have been selected to show changes in the areas of the greatest/significant change.
- Incorrect labelling acknowledged and not considered to be material issue.
- There is comprehensive mitigation in the EIAR to address potential impact on lamp posts where they need to be repositioned.
- *Protected structures and their setting* – works will be carried out in accordance with “Methodology for Works Affecting Sensitive and Historic Fabric” in Volume 4 of this EIAR.
- Compensatory tree planting will take place in the grounds of De La Salle National School and it is proposed to reinstate / provide new street planting along Ballyfermot Road to replace removed trees.
- Mitigation for surfaces will include retention of the various kerb stones, cellar hatches and cellar lights in-situ, and their integration into the proposed new paving design.
- Comprehensive review of existing bus stops along the route has been carried out and is documented in Appendix H of the Preliminary Design Report. There is an option of a shelter with a narrow roof configuration with and without half end panels.
- Buildings and other non-protected structures – importance of protecting these structures is recognised by the NTA. Reinstatement/ recording will be undertaken under the supervision of appropriate architectural heritage specialist.

- Upgrade of roundabout at Ballyfermot Road/ Kylemore Road – proposal will complement the setting of the church. Semaphores and signage will be kept to a minimum. Statue will be relocated to front of church and granite boundary markers will be reinstated.
- Mitigation to offset the risk of damage to structures on the Dublin City Industrial Heritage Record Survey will include recording, protection and monitoring of the structures or boundaries prior to, and for the duration of the construction phase. Where appropriate, licensed archaeological excavation, in full or in part, of any identified archaeological remains (preservation by record) or preservation in situ will be undertaken.
- Other unprotected structures that contribute positively to the architectural heritage and streetscape character – railings reinstated on new lines, replacement on a like for like basis, reuse of materials where possible, protection from damage during construction, retention of existing trees/ replacement trees, etc.
- *Architectural Conservation Areas* – 2 no. bus shelters proposed in Thomas Street ACA will have a slight negative impact.
- Signage and proposed urban realm works have been kept to a minimum to reduce potential direct and indirect negative impacts on conservation areas.
- *Potential impacts on historic paving and kerbing, historic street furniture and lamp standards and other features* – NTA recognises the importance of protecting these and note that mitigation measures have been considered in “Methodology for Works Affecting Sensitive and Historic Fabric” in Volume 4 of this EIAR.
- Mitigation has been prescribed for paving and other historic surface treatments.
- Final details of boundary walls, gates, driveways and grassed areas where affected, will be agreed between the directly impacted landowners and the NTA.
- Use of red coloured asphalt, or red coloured epoxy resin has been specified for all cycle tracks across the BusConnects Infrastructure Works to ensure legibility

and conspicuity of the proposed cycle tracks and to ensure safety for vulnerable road users.

- Significant efforts have been made during the design process to minimise above-ground utility infrastructure - where such infrastructure is necessary, it has been sited in appropriate locations, and rationalised where practicable.
- City Architect's Department response - landscape and urban realm proposals are derived from analysis of the existing urban realm which allowed the designers to consider appropriate enhancement opportunities, including upgraded paving, planting, decluttering and general placemaking.
- Magnitude of impact of bus shelters in proximity to buildings of architectural significance is low.
- Significant efforts have been made during the design process to minimise above-ground utility infrastructure where practicable.
- Heritage features to be retained are noted on drawings and mitigation measures for architectural heritage features are detailed in the EIAR Appendices: "Methodology for Works Affecting Sensitive and Historic Fabric".
- NTA will liaise with DCC throughout the procurement and construction process including in relation to the final detailing of new street furniture.
- Private landings have not been included within the red line boundary unless necessary to deliver the proposed scheme.
- It is the intention of the proposed scheme to retain "welcome to" signage.
- NTA satisfied that the proposed scheme has been planned and assessed taking on board DCC Arts Officer's comments.
- Parks Department – NTA satisfied that the proposed scheme has been planned and assessed taking on board the DCC Parks, Biodiversity and Landscape Division comments.
- 179 trees lost and 1,262m² of woodland area removed. There will be a net increase of 354 additional semi-mature trees and 504m² of woodland area.

New street trees are proposed where footways are wide enough and below-ground services allow.

- Proposed Condition on handover of corridor – NTA will engage and collaborate on construction arrangements, road maintenance arrangements during construction and the standard to which the proposed scheme will be completed prior to transfer back to DCC, together with record retention, all in full accordance with the EIAR. These matters can be addressed in the absence of any approval condition.
- Proposed Condition on maintenance costs - proposed scheme upon its completion reverts to the status of a public road under the management of the relevant local authority. NTA retains responsibility for bus fleet, bus stops and bus shelters, and maintenance of these elements falls within its remit. Appropriate maintenance regime can be addressed in the absence of any approval condition.
- Proposed condition on consultation during detailed design – NTA intend to continue collaboration in advance of, and during, the subsequent construction stage. These matters can be addressed in the absence of any approval condition.
- NTA satisfied that matters relating to traffic management equipment and a loading and servicing strategy for Thomas Street/ James's Street, together with the Roads Division inputs can be successfully addressed between DCC and the NTA, in the absence of any approval condition.
- Proposed scheme has been planned and assessed taking on board the DCC Environmental Protection Division inputs regarding criteria and processes as these matters were the subject of extensive liaison throughout the design development process.
- NTA will liaise with DCC in regard to archival processes.
- EIAR references measures relating to conservation and in particular the proposed approach to safeguarding architectural interest of affected architectural heritage; best conservation practice, specifications, and method

statements; engagement of an architectural heritage specialist; and proposed protection measures.

- NTA is satisfied that the proposed scheme has been planned and assessed taking on board the DCC City Architect's Department comments as these matters were the subject of extensive liaison throughout the design development process.

8.2.9. Response to general issues raised in CPO submissions

8.2.9.1. Four submissions were received on the proposed scheme from parties who also objected to the CPO. The NTA's response to the issues raised pertaining to the proposed scheme (rather than individual land acquisitions – see below) are summarised as follows:

- **Response to Our Lady of the Assumption Parish:** Upgrades at roundabout to signalised junction will result in increase of pedestrian Level of Service from a C rating to an A rating. Proposal will also include high quality urban realm scheme with community spaces and parking and access to the church will be reconfigured.
- Increased congestion – R833 anticipated to experience a reduction in general traffic flows in AM and PM peaks. Junctions experiencing an increase in traffic volumes will be able to accommodate these changes.
- **Response to Patrick Brien:** Reinstatement of property frontage at The Steeples including boundary walls, gates, railings, driveway, footpath and landscaping will be on a like for like basis.
- **Response to St. James's Hospital:** Access to energy centre and National Children's Hospital - details regarding temporary access provisions will be discussed with homes and businesses prior to construction starting in the area.
- Access to hospital campus via sustainable modes will be greatly improved following the implementation of the proposed scheme and access by private vehicles to the New Children's Hospital will still be possible at all times from all

directions - traffic leaving the Children's hospital car park from the Mount Brown exit during the AM peak will be required to turn left to avoid the bus gate.

- Proposed closure of the St James's Hospital campus for through traffic being implemented separately by the hospital has been captured as part of the traffic modelling exercise – closure and bus gate will reduce congestion in the area.
- Potential for anti-social behaviour will not change as a result of the proposed new boundary treatment - boundary walls being replaced on a like for like basis.
- ***Response to Gallagher family and others:*** General Arrangement drawings are displayed on Ordnance Survey mapping which is regularly updated.
- Closure of O'Hogan Road is required to maintain bus priority following the priority signalling – access to O'Hogan Road is maintained via Garryowen Road and Decies Road.
- Case study demonstrates that improved facilities will have a positive impact on residential amenity, rather than leading to an increase in crime and anti-social behaviour.
- It is proposed to provide a new Toucan crossing approximately 550m to the west of O'Hogan Road and a new Toucan crossing approximately 500m to the east of O'Hogan Road to cater for desire lines associated with bus stops and public space.

8.3. Responses from those who made Submissions/ Observations

8.3.1. Following the Board's decision not to hold an oral hearing on this case, the NTA's responses were circulated and comments were invited. A total of eight responses were received, which can be summarised as follows:

8.3.2. Response from Brendan Heneghan

- NTA seem to agree with nothing in any submission but instead seem to use the report to bolster their case on points they know are contentious. This approach is wholly unhelpful to the Board in resolving the relatively limited number of substantive issues that are problematic in a planning and environmental sense.

- Bus gate hours of operation should not be changed without a further application to the Board – hours of operation of bus gates are a critical issue for all other traffic and in particular locals.
- Time given for responses is inadequate and this undermines the right of the public to comment.
- Board should disregard extra justifications put forward by the NTA in its response.

8.3.3. **Response from Dublin Cycling Campaign**

- There are no island bus stops along Emmet Road where cycle parking can be provided.
- 28 cycle parking spaces are being removed from Emmet Road without alternatives at No's 122 and 139 and at Inchicore Library.
- Increases in cycle parking along other sections of the corridor do not make up for removal of cycle parking along Emmet Road.
- 2 or 3 of the proposed 93 car parking spaces should be converted to cycle parking.
- Section 16.39 of the Dublin City Development Plan aims for cycle parking within 50m of local amenities and the NTA's National Cycle Manual states that cycle parking should be near locations including shops.
- There are locations where the cycle track is below 1.5m in width with kerbs and lighting columns further constraining the effective width.
- Narrow cycle lanes will be inaccessible to some types of cycles, especially cargo bikes which are 85cm wide and wobble room of 25cm is required.
- There is a high likelihood that disabled cyclists or cargo bikes will get stuck in a narrow cycle track.
- 1.5m width required or the potential for wide cycles to overrun the footpath by removing kerbs.

8.3.4. **Response from Kilmainham Inchicore Network**

- BusConnects could, with care, contribute to the regeneration of Inchicore by improving public realm along the route.
- Net gain of 5 trees between Map 18 and 26 needs to be substantially increased, especially along Emmet Road.
- There are numerous recently installed bike stands along Emmet Road – request that these are retained at detailed design stage.
- Request that all cycle lanes are segregated at detailed design stage.
- Any newly approved plans need to be considered at detailed design stage to ensure the increase in population is factored in.
- 30kph zones need to be considered in residential areas.
- Pathway under railway bridge needs to be upgraded.
- Pedestrian crossing on eastern and southern sides of Con Colbert Road/ Memorial Road does not take into account the desire lines of pedestrians crossing on the western side.
- Co-ordinated approach necessary to allow public realm improvement works in Inchicore village.
- Not realistic that cyclist will take detour along Echlin Street – designated cycle track needs to be provided on James’s Street.

8.3.5. **Response from Lauren Tuite**

- There is little detail about where cycle parking will be provided at a local level.
- NTA proposes to remove 14 bike spaces at the junction of Spa Road and Emmet Road, 8 spaces outside McDowell’s pub and 10 spaces outside Flower Pop – 4 spaces due to be installed outside Flower Pop under planning permission at 122/124 Emmet Road can no longer be installed. Loss of bike parking would be detrimental to the village and contrary to the objectives of the proposed scheme.
- Halving the number of parking spaces outside 120-124 Emmet Road would be an acceptable compromise to avoid narrowing the footpath and retention of bike parking.

8.3.6. Response from Noel Corr

- Widening of road and reduction of tree coverage on Coldcut Road will damage amenity, and increase traffic noise, pollution and anti-social behaviour for residents of Palmers Lawn. These problems will be exacerbated by 24 hour bus route – remediation measures required, e.g. sound barriers.
- Extent of CPO for dry detention basin is excessive. Works area in the middle of a housing estate presents a very serious health and safety hazard. What is the NTA's plan for the land when construction is finished? Proposed water run off is also far too close to existing 2-storey homes.

8.3.7. Response from Our Lady of the Assumption Parish

- Objects again to removal of Ballyfermot Roundabout.
- Piece of land outside church facilitates access for thousands of pedestrians, some vehicular traffic of disabled users and funeral vehicles and proposal will change the nature of this space and will impact on the health and safety of those accessing the church and on other users of this space.
- Roundabout works and facilitates an enormous amount of traffic – signalised junction will create traffic chaos and associated dangers.

8.3.8. Response from St. James's Hospital

- Access to energy centre required on 24 hour basis and this cannot be disrupted during construction or operation. Includes access by large vehicles.
- Access for construction traffic to the National Children's Hospital site should not be impeded, or when the entrance is being used on a full time basis.
- Security railing improvements abutting Mount Brown should be considered as part of the proposed scheme.
- Public footpath on southern side of Mount Brown should be retained and maintained as part of the proposed scheme.

- Account should be taken of traffic restrictions through the hospital site following completion of the National Children’s Hospital.

8.3.9. **Response from Tesco Ireland**

- Concerns are in regard to health and safety of pedestrians and the occupational health and safety of delivery/ handling staff owing to loading bay at distance of 120m from premises.
- There will be a significant cage pull/ push on a narrow busy street, with the need to cross the Meath Street junction and obstacles such as planting, seating, cycle parking, etc.
- There are concerns regarding cyclist and staff safety due to the location of the cycle lane inside the loading bay – recommends that buffer zone should be wide enough to accommodate 846mm wide cage, wherever possible.

9.0 **Compulsory Purchase Order**

9.1. **Documentation Submitted**

9.2. The road authority (National Transport Authority) is seeking confirmation of the Liffey Valley to City Centre Core Bus Corridor Compulsory Purchase Order 2022, which was signed and sealed on 12th July 2022.

9.2.1. The following documentation was submitted to the Board:

- The “Liffey Valley to City Centre Core Bus Corridor Scheme Compulsory Purchase Order 2022” including the following schedules:
 - Schedule Part I: Lands being permanently acquired.
 - Schedule Part II: Lands being temporarily acquired.
 - Schedule Part III (Section A): Description of public rights of way to be extinguished.
 - Schedule Part III (Section B): Description of public rights of way to be restricted or otherwise interfered with.

- Schedule Part IV (Section A): Description of private rights to be acquired.
 - Schedule Part IV (Section B): Description of private rights to be restricted or otherwise interfered with.
 - Schedule Part IV (Section C): Description of private rights to be temporarily restricted or otherwise interfered with.
- Official Seal
 - Deposit maps – Lands to be Compulsorily Acquired
 - Newspaper notices pursuant to Article 4(a) of the Third Schedule to Housing Act 1966 (as amended).
 - Copy of the type and form of notice sent to all Owners, Lessees and Occupiers of land referred to in the CPO and a list of all those to whom notices have been sent by registered post.
 - Copy of site notices erected at specific locations along the CBC as shown on an enclosed map.

9.2.2. The first part of the schedule to the CPO lists 60 plots of land permanently affected for the CPO and the second part lists 49 plots that will be temporarily affected during construction works. Public rights of way will be restricted or otherwise interfered with at the junction of Ballyfermot Road and Kylemore Road, O'Hogan Road and at Cornmarket. There are no public rights of way to be extinguished. Private rights of way are to be acquired at eight locations and private rights are to be restricted or otherwise interfered with at one location. Finally, private rights of way will be temporarily restricted or otherwise interfered with at seven locations.

9.2.3. The lands described in the schedule are lands other than land consisting of a house or houses unfit for human habitation and not capable of being rendered fit for human habitation at reasonable expense.

9.3. Objections to CPO

9.4. A total of 24 submissions were received by the Board in relation to the Liffey Valley to City Centre Core Bus Corridor Scheme Compulsory Purchase Order 2022.

Summaries of 22 no. of these submissions are included hereunder. The remaining submission from Tesco Ireland is the same as that summarised under Section 8 above.

9.4.1. The Steeples - Sky Property Management Limited, {Plots 1030(1).1d, 1030(2).1d, 1030(3).2d & 1030(4).2d}

- Act on behalf of the Steeples Residents Management Company comprising 99 residential units, 33 of which will overlook or sit close to the boundary wall to be directly affected by road widening plan.
- The Steeples is screened and protected from the Ballyfermot Road by a wall and railing and a tree line offering privacy and protection from traffic noise and pollution.
- CPO will move this wall closer to the affected units and impact directly on the quality of life of those living along this boundary.
- Proposed development in the adjoining Pieta House lands will impact as the access will be near Plot 1020(2).1D the subject of permanent CPO and likely location of a bus shelter.
- Units directly affected may lose value and increased noise levels with both vehicular and pedestrian traffic will impact on quality of life of dwellings, in particular those at first floor level.
- Need to retain a tree line will become even more necessary and lessens any opportunity for increasing light into these dwellings on account of the potential loss of privacy.

9.4.2. Dublin City Council, Housing and Community Services Department, {Plots 1040(1).1h and 1040(2).2h}

- Title research indicates that Plot 1040(1).1h is held in freehold by the Sons of the Devine Providence.

- Title research indicated that Plot 1040(2).2h is registered to Dublin City County as freehold owners (Folio DN198496K) subject to and with the benefit of a lease held by the Sons of the Devine Providence.
- Council recognises the importance of the scheme in serving the needs of the community and improving public transport provisions in the city.
- Dublin City Council and the Sons of the Devine Providence are progressing a significant housing development on Sarsfield lands – lands no longer include the indicative site of a temporary compound and the Council welcome this.
- Temporary CPO still represents a challenge in delivering much needed housing on site in a timely manner.
- Understood that temporary CPO is required for a retaining wall. If CPO is granted, the Council requests a number of conditions relating to engagement with the NTA, and the timing, design and provision of the retaining wall.

9.4.3. Cormac Byrne & Tracey Staunton, 73 Emmet Road {1046(1).1e}

- Object to the CPO of the land in front of their driveway between 73 & 75 Emmet Road.
- Driveway provides only access to their land to the rear of 75 Emmet Road.
- Replacing existing yellow box with parking spaces would make it impossible to get their car, campervan, boat or trailer in or out.

9.4.4. Patrick Troy, 3 St. Lawrence Court {1032(1).1d and 1032(2).2d}

- Legal owner of apartment at this address and is concerned that CPO will devalue property.
- Bus corridor will impede entrance to underground car park and restrict views.
- Bus stop will encourage public congregation, litter, noise and anti-social behaviour.
- Reduction in common areas serving the apartments will devalue the properties.

- Compensation may go to company who developed the apartments who have yet to transfer full ownership to the management company.
- All apartment owners and management company have not been informed of the CPO.

9.4.5. HSE, Cherry Orchard Hospital, c/o Tom Phillips and Associates {1022(1).1i and 1022(2).2i}

- Supports proposed enhanced bus priority measures and improvements to pedestrian and cyclist infrastructure.
- Area of land within Cherry Orchard Hospital which the NTA wishes to acquire, has been set aside by HSE for a proposed Enhanced Community Care (ECC) development. HSE has concerns with the proposal, particularly at the north-eastern corner of the campus.
- ECC development will be 3-storeys in height and 3,000 sq.m. in area and will be of similar size and massing to the existing Ballyfermot Primary Care Facility. Development will be used for chronic disease management.
- Proposed ECC development forms part of an 'Enhanced Community Care Programme' for Cherry Orchard Hospital and comes under the Government's Sláintecare Plan – will therefore accord with the Z15 zoning objective and policy objective QHSN50.
- Appears area set aside for SuDS measures may affect the development and construction of the proposed ECC.
- It is intended that the front façade of the ECC building will match the established building line of Ballyfermot Primary Care Centre and other adjacent hospital buildings. It is also intended to have enhanced landscaping along the boundary.
- Setting back of proposed building would have significant implications for the design, layout and configuration with impacts on privacy, overshadowing, permeability, access and parking.
- Consulting engineers consider that proposed SuDS measures could have implications on site access, both during and post construction, and there is

potential for area to be inundated during heavy rainfall with increased flood risk. Proposed drainage system should be designed and detailed so as not to preclude any future development in the north-east part of the hospital site.

- Should SuDS area need to be utilised during construction of ECC development, HSE request that the NTA would not unreasonably restrict access over this area and provide consent if required.

9.4.6. **Gallagher & Maguire Families, 71 Ballyfermot Road**

- Object to proposed restriction of existing public right of way at the corner of O'Hogan Road and Ballyfermot Road.
- Notice outlining the proposed restriction appears to use an outdated map – do not have confidence that due diligence has been applied.
- Proposed restriction removes the primary access point to Ballyfermot Road for many residential properties and would result in a large increase in traffic at other points.
- Proposed restriction removes a key access point to the area for emergency services.
- Existing bus stop and park are already well known sites for anti-social behaviour - new bus stop would result in further anti-social behaviour, loitering and dumping.
- No indication that existing pedestrian crossing will be retained – pedestrian access opposite would be restricted.

9.4.7. **Grange Cross Medical, Grange Cross {1023(2),2c, 1023(1).1c}**

- Practice currently serves over 2000 patients and sick, elderly and disabled patients must have access to doorstep parking.
- Lack of parking availability would decrease potential to attract necessary professionals to the area. Doorstep access to doctor's car also necessary to enable ease of home visits.
- There is requirement for both taxi and ambulance access to the premises.

- Outdoor car parking needed for vaccination purposes.
- There will be 5 lanes of busy traffic within feet of the door to the medical centre, impacting on safe access for users of the facility.
- No communication as to how the facility will be safely accessed during construction.

9.4.8. Sons of the Devine Providence, c/o Sudway & Company Limited Chartered Surveyors, Rathfarham {1040(2).2h, 1040(1).ih}

- Sons of the Devine Providence are the sole owners of 1040(1).ih, Schedule 1. Sons of the Devine Providence have long leasehold interest in Schedule 2 lands.
- Unclear what the temporary take of 1040(2)2h would have on joint social housing development with Dublin City Council.
- No timelines, boundary treatment details, retaining wall details and fill levels and materials.
- Request that connection points for any redirected services be left available at locations to be agreed on site.
- Reserve the right to attend and be represented at any oral hearing and for cost to be paid by NTA.

9.4.9. Haven Pharmacy, Grange Gross {1023(1).1c (permanent), 1023(2).2c (temporary)}

- Objects to acquisition of both plots as patients and customers will be inconvenienced in accessing Haven Pharmacy and this will impact on trade.
- Removal of car parking will impede deliveries, access for elderly and staff access. Pharmacy has enjoyed parking outside the premises for 52 years and assume that would grant some right of possession.
- Business will be disrupted during the c. 9 month construction period.

9.4.10. **Marie Moloney, College Grove, Castleknock {1023(1).1c, 1023(2).2c}**

- Objects to CPO affecting parking outside Moloney's Pharmacy now Haven Pharmacy at Grange Cross.
- There already is a bus lane in situ and there is no reason to take away existing parking.

9.4.11. **Cormac Byrne & Tracey Staunton, 73 Emmet Road {1046(1).1e} (Second Submission)**

- Recognise that providing additional parking is an important part of the scheme, and that the insertion of perpendicular parking to replace current parallel parking will require footpath to be moved closer to houses.
- Don't object to purchase of land for the parking, or for an additional 2m for proposed footpath – any remaining land should stay with the property. NTA is attempting to take more land than is required.

9.4.12. **Conor Igoe & Christine Kilcoyne, 75 Emmet Road {1046(1).1e}**

- Footpath in proposed plan is staggered between numbers 57 & 81 – suggest a more appropriate layout would be to give houses from 69 to 79 a similar front area to those at 81 & 83 and 39 to 57 (area enclosed by railing between footpath and front of building). Would provide continuity of streetscape and a more favourable appearance.

9.4.13. **Siobhan Hennessey Apt.1 St. Lawrence Court, c/o Thomas J. O'Halloran Solicitors, Tralee {1032(1).1d, 1032(2).2d}**

- Proposed temporary acquisition of above plots will affect the entrance to the apartment building and render it inaccessible to vehicles.

9.4.14. **Petrogas Group Ltd., Applegreen Service Station, Ballyfermot Road {1018(1).1c, 1018(2).2c}**

- Proposed CPO will severely impact on the operation of the site during and after the works.

- During works (temporary acquisition) carwash will need to close; 2 pumps will close; access to and from site will be impacted; fuel deliveries will be impacted; hazardous zone around pumps and forecourt canopy will be impacted; unknown impacts on sewerage and services; and fuel display will need to be relocated.
- After works (permanent acquisition) car wash will be permanently impacted; traffic management will be impacted; sewer and services will be potentially impacted; and fuel display sign will be impacted and may result in a planning process together with the canopy and other signage.

9.4.15. Intrust Properties Limited, c/o BMA Planning, Dundrum {1003(1).2c, 1003(2).1c, 1003(3).2c, 1007(1).1c, 1007(2).2c and 1007(3).2e

- Plot 1003(1).2c (Temporary) – concerns regarding proposed junction upgrade works on the basis that it has potential to disrupt and inconvenience tenants and customers accessing The Retail Park, Liffey Valley. Would welcome a method statement detailing how uninterrupted vehicular access will be maintained.
- Plot 1002(2).1c (Permanent) and Plot 1003(3).2c (Temporary) – generally supportive of enhancing sustainable transport options in the vicinity of the retail park but would welcome engagement with NTA as to how proposed bus stop would tie into existing pedestrian routes serving the scheme.
- Plot 1007(1).1c – objects as these lands comprise a developable area and permanent acquisition for drainage infrastructure would render them undevelopable.
- Plot 1007(2).2c – would welcome engagement with the NTA on any amendments/alterations to the existing boundary treatment at this location.

9.4.16. Seamus Keating, 6 St. Lawrence Court, Ballyfermot {1032(1).1d, 1032(2).2d

- NTA has failed to consult with the management company for the apartments.
- Altering front boundary would bring heavy and noisy traffic closer to the bedrooms and sitting rooms. Gardens and common areas are integral to the homeowners.

- Homeowners at the front of the building would require new windows to exclude noise.
- Any placement of bus stop close to property would bring associated antisocial behaviour.
- Plans would create danger to residents' cars entering and exiting underground car park.
- There is a large electrical services box in the proposed area to be purchased.
- CPO is not in keeping with the spirit of the legislation or the common good.
- 0.4m and 0.3m of respective plots required can be gained evenly from both sides of Ballyfermot Road without NTA breaching any homeowners' constitutional rights over their property.

9.4.17. Paula McFarland 3/3a Meadowview, c/o Sudway & Company Chartered Surveyors {1043(1).1c, 1043(2).2c

- Order should be amended to reflect that objector is freehold owner of the property including shared interest in car park.
- Part of car parking which is critical to objector's hair salon business will be removed.
- Unclear what will be maintained in use during temporary acquisition and no details on type of wall to be provided along back edge of new footpath.
- Given lack of details and timelines for the construction of the project, objection is lodged to CPO until such detail is made available.
- Objector reserves the right to attend or be represented at any oral hearing and that reasonable costs shall be paid.

9.4.18. Chairperson, St. James's Hospital, James Street {1047(1).1i, 1047(2).2i

- Note that NTA propose to permanently acquire part of the lands forming part of the access to the St. James's Hospital Energy Centre and to temporarily acquire

part of the lands used as an access point for construction traffic for the National Children's Hospital.

- Access to energy centre is required on a 24 hour basis and hospital requires that access gate is not compromised or disrupted at any time during the construction or operation of the proposed development.
- Access for construction traffic to the National Children's Hospital development from Mount Brown should not be impeded for the duration of construction or operation.
- Security railing improvement should be considered as part of the development, in particular in the area abutting Mount Brown where grass and tree verge separate the footpath and hospital party wall.
- Public footpath on the southern side of Mount Brown should be retained and maintained as part of the development.
- EIA prepared for National Children's Hospital provides for restrictions on through traffic from the St. James's Street entrance to South Circular Road entrance and vice versa. Account should be taken of new arrangements following construction of children's hospital meaning that existing relief for traffic transiting from James's Street to South Circular Road and vice versa will no longer be available.

9.4.19. Susan Collins, 27 St. Lawrence Glen {1035(3).2d}

- Objects to temporary acquisition of lands belonging to St. Lawrence Glen apartments as it will prevent emergency access and will mean that 30+ cars will have no alternative parking.
- A number of residents are immobile and required disabled vehicle access, which will be blocked by the acquisition.
- Temporary acquisition will result in destruction of a wall and removal of trees, which provide screening for a number of apartments, specifically no. 27.

9.4.20. Our Lady of the Assumption Parish, 197 Kylemore Road {1026(1).1e}

- Piece of land concerned facilitates entry and exit of thousands of pedestrians, and some vehicular traffic of disabled users and funeral services – proposed plan to change the nature of this space will impact on health and safety of church goers.
- Objects to removal of roundabout and proposal for signalised junction – roundabout manages the flow of a large amount of traffic and signalised junction will create traffic chaos.

9.4.21. Stephen Byrne, 5 Ballyfermot Road {1034(2).2d, 1033(2).2c, 1034(1).1d, 1033(1.)1c}

- Entire space to the front is the forecourt for United Tyres and nearly 90% of their work is carried out within this space.
- Proposed temporary acquisition would leave business unable to work and may have to cease trading. Space is also used for loading/ unloading.
- Proposed permanent acquisition will affect ability to operate by curtailing manoeuvrability of vehicles.
- Proposal will have serious consequences for future plans to develop the site.

9.4.22. Eoin Freaney, 30 St. Lawrence's Glen {1035(3).2d}

- Entrance to apartments needs to be kept clear – makes no sense that main and only entrance to apartments should be acquired by NTA.

9.4.23. Patrick Brien, 24 Mount Alton, Knocklyon {1030(1).1d, 1030(2).1d, 1030(3),2d & 1030(4).2d}

- Owner of No. 81 The Steeples, which is the nearest in the apartment complex to the proposed development. Acquisition will seriously reduce the amenity space and value of the objector's apartment.

9.5. NTA Response to CPO Submissions

9.5.1. The NTA submitted the following responses to issues raised in CPO submissions:

9.5.2. Response to Objections from The Steeples

Sky Property Management Limited

- Traffic Noise Impact Summary assesses impact as imperceptible/ not significant for construction phase, at opening year (2028) and design year (2043).
- Noise and Vibration chapter of EIAR calculates a direct, positive, slight, short to medium term impact to negative, slight to moderate, short to medium term impact for 2028 as a result of a reduction in overall traffic volumes through incorporation of bus priority signal and junctions, restricted turning movements from private vehicles and incorporation of dedicated bus lanes, cycle lanes and paths.
- Overall significance of ratings would be lower for 2043 due to habituation to traffic noise over time and reduced traffic volumes from modal shift to public transport, as well as transition towards electric vehicles.
- Construction works will be carried out during normal working hours, where reasonably practical to do so, and in consultation with local residents. Noise mitigation and monitoring measures will also be implemented, e.g., specific noise control measures, scheduling to avoid significant cumulative noise levels, noise monitoring, etc.
- This section of the bus corridor has been assessed as negligible in terms of air quality impacts.
- Reinstatement of property frontage including boundary walls, gates, railings, driveway, footpath and landscaping will be on a like for like basis and detailed works accommodation plans will be prepared.
- Some trees in proximity to the setback boundary wall will be replaced as illustrated in the Landscape (Townscape) & Visual section of the EIAR.
- CPO is required to deliver what has been determined to be most appropriate design configuration to meet the scheme objectives – cross section and subsequent land acquisition at this location have been deemed necessary to facilitate the optimum scheme.

- If CPO is confirmed by the Board, Notice to Treat will be served and each landowner will be required to submit a claim for compensation.

Patrick Brien

- Boundary relocation, loss of amenity space and devaluation of property – response as above.

9.5.3. **Response to Objections from Sarsfield Road (Longmeadow Park)**

Dublin City Council

- NTA notes the comments relating to site ownership.
- NTA aware of plans for housing development and will continue to engage with the relevant local authorities. Any future developments will need to propose any infrastructure for their application.
- Detail of proposed retaining wall in the Structures and Preliminary Design Report – this will be constructed in advance of the proposed housing and NTA will work with local authority to ensure both schemes are compatible.

Sons of the Devine Providence

- Issues of ownership and retaining wall as above.
- Entire scheme duration is expected to be 30 months – location addressed in objection is proposed to be constructed in Q3 and Q4 in year 2.
- Request for an oral hearing will be a matter for the Board to decide.

9.5.4. **Response to Objections from Emmet Road (69-79)**

Cormac Byrne & Tracey Staunton (73-75)

- Gap has been provided in perpendicular parking to ensure access to this property is maintained.
- Excessive land acquisition – design at this location is in keeping with DMURS, which recommends the use of verges where perpendicular parking is provided to

improve safety. Land take also necessary to facilitate urban realm enhancement, including green areas and tree planting.

Conor Igoe & Christine Kilcoyne (69-79)

- To provide a safe design, parking has been reconfigured to avoid vehicles having to cross the footway.
- Provision of buffering or a railing is not considered to be compatible with the scheme design or objectives as it would narrow the footpath at this location.

9.5.5. **Response to Objections from St. Lawrence's Court**

Patrick Troy

- Access to car park – local arrangement will be made on a case by case basis to maintain continued access to homes and businesses affected by works.
- Design of proposed scheme at this location complies with visibility requirements set out in DMURS and Safety Audits did not highlight any safety issues.
- Bus stop location – no bus stop is proposed outside this property.
- Devaluation of property – conclusion reached in EIAR is that in overall terms the public realm improvements planned by the NTA may lead to an increase in value of both residential and retail property prices.
- If CPO is confirmed by the Board, Notice to Treat will be served and each landowner will be required to submit a claim for compensation.
- Ownership of common areas – all owners as per Land Registry are set out in CPO schedule, site notices were erected and newspaper notices published. Information packs were sent out to all recorded interested parties and extensive public consultation and stakeholder engagement was undertaken. NTA notes the comments regarding transfer of ownership from the developer to the management company.

Siobhan Hennessy

- Access to car park – as above.

Seamus Keating

- Access to car park – as above.
- Bus stop location – as above.
- Public notification – as above.
- Loss of recreational areas – option was considered where land would be acquired from both sides of the road, but this option would have resulted in a large impact to properties to the south of the road.
- ESB substation – where there are interfaces with existing utility infrastructure, protection in place or diversion as necessary is proposed to prevent long-term interruption to the provision of the affected services.

9.5.6. Response to Objections from Grange Cross

Grange Cross Medical

- Loss of parking – there are approximately 55 parking spaces on side streets within 100m of this location and 14 pay and display spaces to the south. Removal of nine parking spaces is considered negative, slight and long term.
- Parking Survey Report notes that retaining the existing layout would result in reduced quality of service for buses, cyclists and motorised vehicles which would undermine the overall scheme objectives.
- Emergency access – access will be maintained for emergency vehicles along the proposed scheme throughout the construction phase. General traffic redistribution is not anticipated to be a significant issue during construction and emergency vehicles will be permitted to use bus lanes during the operational phase.
- Space is maintained outside the medical centre behind the proposed footway which could be used by an emergency vehicle.
- Impact on business operations - if CPO is confirmed by the Board, Notice to Treat will be served and each landowner will be required to submit a claim for compensation.

- Pedestrian safety – where footpaths are affected by construction, a safe route will be provided past the works area and due consideration will be given to measures for accessible users.
- Health & Safety Plan will be formulated to ensure all works are undertaken in a safe manner.
- During the operational phase, the footpath to be provided at this location is a minimum of 2m – design of footpath and placement of street furniture will ensure the design is safe for pedestrians of all abilities.

Marie Moloney

- Loss of parking – as above.

Haven Pharmacy

- Loss of parking – as above.
- Access for emergency services – as above.
- Ownership clarification – NTA notes comments.
- Length of works – Location addressed in the objection is within Cherry Orchard Service Station to Le Fanu Road, which is proposed to be constructed from Q4 in year 2 to Q3 in year 3.

9.5.7. **Response to Objections from St. Lawrence's Glen**

Susan Collins

- Access during construction - road closures and diversions will need to be carried out during the construction phase taking into consideration the impact on road users, residents, businesses, etc., and in consultation with the local authority and An Garda Siochana.
- Access will be maintained for emergency vehicles along the proposed scheme throughout the construction phase.
- Removal of trees (noise screening) - Traffic Noise Impact Summary assesses impact as imperceptible/ not significant for construction phase and at opening year

(2028). For the design year (2043), the impact is assessed as imperceptible/positive.

- Overall significance of ratings would be lower for 2043 due to habituation to traffic noise over time and reduced traffic volumes from modal shift to public transport, as well as transition towards electric vehicles.
- Construction works will be carried out during normal working hours, where reasonably practical to do so, and in consultation with local residents. Noise mitigation and monitoring measures will also be implemented, e.g., specific noise control measures, scheduling to avoid significant cumulative noise levels, noise monitoring, etc.

Eoin Freeney

- Access during construction – as above.
- Design of the proposed scheme at this location complies with the visibility requirements set out in DMURS. Safety Audits undertaken for the proposed scheme did not highlight any safety issues.

9.5.8. **Response to Objections from Dispersed Locations**

HSE, (Cherry Orchard Hospital)

- Scheme conflict with proposed site development - following engagement with the HSE in 2021, the NTA amended the design of the attenuation area to avoid impacting the site of the proposed Enhanced Community Care (ECC) facility.
- Entire area identified for temporary acquisition will not be required for the duration of the works.
- NTA will continue to engage with the HSE regarding the development of the ECC facility to ensure both schemes are compatible.
- Access to the construction site of the ECC will not be precluded by the proposed scheme.

- Flooding of attenuation features - Flood Risk Assessment concluded that there is no potential flood risk impacts on the surrounding areas as a result of the development.
- Reinstatement of boundary wall and railing – approach for new boundary treatment works along the corridor is replacement on a ‘like for like’ basis in terms of material selection and general aesthetics unless otherwise noted on the drawings.
- Final details of boundary walls, gates, driveways and grassed areas where affected, will be agreed between the directly impacted landowners and the NTA.

Gallagher & Maguire Family (O’Hogan Road)

- Outdated mapping - up-to-date and detailed topographical survey of all areas within the proposed site boundary has been undertaken to inform the design.
- Restriction of access - access to O’Hogan Road, including for emergency vehicles, is maintained via Garryowen Road and Decies Road.
- Streets surrounding O’Hogan Road are identified as experiencing an increase of over 100 2-way flows in passenger car units and have been assessed for the significance of effects in relation to traffic flow changes.
- Bus stop location – proposed scheme will provide better, safer and more visible bus stops whilst also improving the wider public realm infrastructure through investments such as improved street lighting. Improved facilities will have a positive impact on residential amenity, rather than leading to an increase in crime and anti-social behaviour.
- The NTA document: Permeability in Existing Urban Areas Best Practice Guide 2015 states that passive surveillance makes a place safer and people meeting each other creates a sense of community, which is often cited as a key requirement in addressing many anti-social problems in Irish urban areas.
- Removal of pedestrian crossing – Signalised pedestrian crossing is to be relocated to cater for desire lines associated with the proposed bus stops and public space.

Petrogas Group Ltd (Applegreen Service Station)

- Impact on business and operations - if CPO is confirmed by the Board, Notice to Treat will be served and each landowner will be required to submit a claim for compensation.
- Local arrangements will be made on a case-by-case basis to maintain continued access to homes and businesses affected by the works, at all times, where practicable.

Industrial Properties Company Limited by Guarantee (Liffey Valley Retail Park)

- Access during construction - local arrangements will be made on a case-by-case basis to maintain continued access to homes and businesses affected by the works, at all times, where practicable.
- Conflict with future development - if CPO is confirmed by the Board, Notice to Treat will be served and each landowner will be required to submit a claim for compensation.

Paula McFarland (3/ 3A Meadowview)

- NTA acknowledge the statement regarding ownership – Mr. O'Reilly is included in schedule to CPO as one of the owners of folio DN80106L.
- Loss of parking - 2 spaces at 3/3A Meadowview would be impacted by the relocation of the boundary wall. No impact to the perpendicular parking at the front of the commercial property is anticipated.
- Parking Survey Report notes that retaining the existing layout would result in reduced quality of service for buses, cyclists, and motorised vehicle traffic which would undermine the overall scheme objectives.
- Access during construction - local arrangements will be made on a case-by-case basis to maintain continued access to homes and businesses affected by the works, at all times, where practicable.
- Boundary wall - approach to undertaking the new boundary treatment works along the corridor is replacement on a 'like for like' basis. Boundary wall will be reinstated at this location to limit conflict points between vehicles and pedestrians.

- NTA notes the request for an Oral Hearing will be a matter for An Bord Pleanála to decide.

St. James's Hospital (Mount Brown and James Street)

- Access to Energy Centre and National Children's Hospital – local arrangements will be made on a case-by-case basis to maintain continued access to homes and businesses affected by the works, at all times, where practicable.
- Access to hospital campus via sustainable modes will be greatly improved and access by private vehicle will still be possible at all times from all directions.
- The proposed closure of the St James's Hospital campus for through traffic and implementation of the bus gate will see a reduction in traffic congestion in the vicinity of the hospital. Traffic along James's Street will be reduced by over 50% with bus gate in place.
- Antisocial behaviour and boundary treatment – boundary wall will be reconstructed on a like for like basis. Potential for antisocial behaviour will not change as a result of the new boundary.
- St. James's Hospital traffic alterations – proposed scheme will enable and deliver efficient, safe, and integrated sustainable transport movement along the corridor. Traffic modelling identifies potential decreases and increases in traffic flows on some road links in the study area as a result of the proposed scheme – future committed transport scheme, such as the ban of traffic travelling through St. James's Hospital/ New Children's Hospital sites, have been included in modelling scenarios.

Our Lady of the Assumption Parish (Ballyfermot Roundabout)

- NTA notes the comment regarding ownership.
- Upgrades at this junction, including direct signalised crossings on all arms, are anticipated to result in an increase in the Pedestrian Level of Service from a C rating to an A rating.
- Access to church – at present, vehicular traffic, pedestrian and cyclist access to the church is facilitated directly off the roundabout. Vehicle access will be

maintained and relocated approximately 30m north. 8 no. car parking spaces will be reconfigured to facilitate upgrades.

- Increased congestion – roads within the direct study area are anticipated to experience a reduction in general traffic flows in AM and PM peak hours. Various links within the indirect study area will also experience a reduction in traffic flows.
- Road links that will experience an increase in 2-way flows of more than 100 passenger car units have volume/ capacity ratios below 85% for all assessed years in do minimum and do something scenarios.

Stephen Byrne (5 Ballyfermot Road)

- If CPO is confirmed by the Board, Notice to Treat will be served and each landowner will be required to submit a claim for compensation.
- Local arrangements will be made on a case-by-case basis to maintain continued access to homes and businesses affected by the works, at all times, where practicable.

Tesco Ireland Limited

- NTA notes support for upgrades to network surrounding Liffey Valley Shopping Centre.

9.6. NTA Response to Individual Submissions of the Proposed Scheme

- 9.6.1. The NTA also referred to individual submissions in respect of the proposed scheme from residents of Palmers Lawn/ Palmers Drive/ Palmers Court/ Palmers Walk; Our Lady of the Assumption Parish; Patrick Brien; Inland Fisheries Ireland; St. James's Hospital; South Dublin County Council; Department of Housing, Local Government and Heritage; Ballymore Group; residents of Sarsfield Road/ Grattan Crescent/ Emmet Road; Dublin Cycling Campaign; Aidan Quigley; residents of Ceannt Fort/ Mount Brown/ James's Street; Tesco Ireland; Land Development Agency; Dublin Commuter Coalition; General Paints Group; Brendan Heneghan; Máire Devine & Aengus O'Snodaigh TD; Kilmainham Inchicore Network; and the Gallagher Family

and Others. Reference is made to other sections of the NTA's document where these individual submissions are responded to.

9.7. Response to NTA Submission from Objectors

9.8. Following the Board's decision not to hold an oral hearing on this case, the NTA's responses were circulated, and comments were invited from objectors to the CPO. A total of seven responses were received, summarised as follows:

9.8.1. Response from Paula McFarland

- Section 217 of the Planning and Development Act makes no reference to the holding of an oral hearing or the Board having the powers to decide not to hold an oral hearing.
- Not holding a hearing is a curtailment of objector's rights when one considers that their property is being compulsorily purchased.
- There is no detailed design available in respect of the objector's property and the fact that there will be no oral hearing precludes the design team from being tested by the objector in relation to the responses of in the letter of 26th October 2022.
- Unacceptable that the objectors were not copied with the NTA responses sooner so that the objector could have engaged with the NTA in relation to how the design affects their property.
- Until a proper detailed design is proposed and submitted, neither the Board nor the objector has a full understanding of what is going to happen when the proposed scheme is constructed and should therefore be rejected by the Board.

9.8.2. Response from Petrogas Group Ltd.

- Proposed CPO will severely impact on the operation of the site both during and after the works.
- During the works the car wash and two pumps will need to close; access to and from the site and fuel deliveries will be impacted; the hazardous zone around the

pump island and forecourt canopy will be impacted; there are unknown impacts on sewerage and services; and the fuel display will need to be relocated.

- After the works the car wash will be permanently impacted making it un-operational; traffic management will be impacted; sewer and services may be potentially impacted; and fuel display sign will be impacted and may result in a planning process together with the canopy and other signage.
- Accompanying independent review carried out by engineering consultants on behalf of the objector finds a significant and detrimental impact on the site – CPO will terminally impact the business and will likely lead to this site having to close down due to being un-operational.

9.8.3. **Response from St. James's Hospital**

- Access to energy centre required on 24 hour basis and this cannot be disrupted during construction or operation. Includes access by large vehicles.
- Access for construction traffic to the National Children's Hospital site should not be impeded, or when the entrance is being used on a full time basis.
- Security railing improvements abutting Mount Brown should be considered as part of the proposed scheme.
- Public footpath on southern side of Mount Brown should be retained and maintained as part of the proposed scheme.
- Account should be taken of traffic restrictions through the hospital site following completion of the National Children's Hospital.

9.8.4. **Response from Stephen Byrne**

- Objects again to CPO on business premises United Tyres, No. 5 Ballyfermot Road.
- 95% of objector's business is operated from the front of the premises which is subject to the CPO. Cars are jacked up outside and wheels are brought inside for tyres to be fitted.

- CPO will effectively close the objector's business.
- There is what is effectively a greenfield site yards up the road from the objector's premises that would suit the applicant's needs and give them all the space they require.

9.8.5. **Response from Tesco Ireland**

- Concerns are in regard to health and safety of pedestrians and the occupational health and safety of delivery/ handling staff owing to loading bay at distance of 120m from premises.
- There will be a significant cage pull/ push on a narrow busy street, with the need to cross the Meath Street junction and obstacles such as planting, seating, cycle parking, etc.
- There are concerns regarding cyclist and staff safety due to the location of the cycle lane inside the loading bay – recommends that buffer zone should be wide enough to accommodate 846mm wide cage, wherever possible.

9.8.6. **Response from the Sons of the Divine Providence**

- Same response as Paula McFarland above.

9.8.7. **Response from Our Lady of the Assumption Parish**

- There remains uncertainty as to whether ownership of the area subject to the CPO is in the portfolio of Dublin City Council or the St. Lawrence O'Toole Diocesan Trust or if shared where the boundaries are.
- Objects again to removal of Ballyfermot Roundabout.
- Piece of land outside church facilitates access for thousands of pedestrians, some vehicular traffic of disabled users and funeral vehicles, and proposal will change the nature of this space and will impact on the health and safety of those accessing the church and on other users of this space.
- Roundabout works and facilitates an enormous amount of traffic – signalised junction will create traffic chaos and associated dangers.

10.0 Assessment

10.1. Having regard to the requirements of the Planning and Development Act, 2000 (as amended), this assessment is divided into three main parts, the planning assessment, environmental impact assessment and appropriate assessment. In each assessment, where necessary, reference is made to issues raised by all parties. There is an inevitable overlap between the assessments, for example, with matters raised falling within both the planning assessment and the environmental impact assessment. In the interest of brevity, matters are not repeated but such overlaps are indicated in subsequent sections of the report.

11.0 Planning Assessment

11.1. In my opinion, the main issues to be addressed under this assessment are as follows:

- **Policy considerations**
- **Need and justification for the proposal**
 - Addressing Population Growth and On-Street Congestion
 - Land Use and Transport Integration
 - Improved Connections
- **Consideration of alternatives**
- **Impacts on street environment**
 - Pedestrians and public realm
 - Provision for cyclists
 - Bus priority and infrastructure
 - Access to commercial premises
 - Private cars
- **Impact on residential amenity**

- **Ecological impacts**
- **Impacts on built heritage**
- **Consultation**
- **Other issues raised in submissions**
- **Environmental Impact Assessment**
- **Appropriate Assessment**
- **Compulsory Purchase Order**
- **Overall Conclusion**

11.2. Policy Considerations

National Level

- 11.2.1. The **Climate Action Plan, 2023** (CAP23), introduces carbon budgets and sectoral emissions ceilings for different sectors. The Avoid-Shift-Improve Framework is outlined to achieve a net zero decarbonisation pathway for the transport sector, whereby actions are prioritised to *avoid* the need to travel; *shift* to more environmentally friendly modes; and to *improve* the energy efficiency of vehicle technology.
- 11.2.2. The proposed BusConnects programme includes road space reallocation, which is a measure outlined under both ‘avoid’ and ‘shift’ to promote active travel and modal shift to public transport. Road space reallocation can discourage car use, with valuable street space being redirected from on-street parking and public urban roadways to bus lanes, segregated cycle tracks, more spacious footpaths, and public realm improvements. BusConnects is also seen as a key action under the major public transport infrastructure programme to deliver abatement in transport emissions, as outlined in CAP23 for the period 2023-2025.
- 11.2.3. It should be noted, however, that BusConnects was designed under a previous Climate Action Plan and the Avoid-Shift-Improve Framework is new to CAP23. Whilst road space reallocation forms one of the main components of the proposed scheme, the assessment hereunder will, amongst other aspects of the assessment,

seek to establish if such reallocation goes far enough to achieve a proper balance in the use of road space, in compliance with all levels of policy.

- 11.2.4. **The National Planning Framework** outlines a set of goals expressed as ten National Strategic Outcomes (NSO) to deliver shared benefits for communities across the country. Of most relevance to the proposed Liffey Valley to City Centre Core Bus Corridor is National Strategic Outcome - Sustainable Mobility, which recognises the need to move away from combustion engine driven transport systems. This will be achieved through the expansion of public transport alternatives to car transport, thereby reducing congestion and emissions, and catering for the demands associated with longer term population and employment growth.
- 11.2.5. The proposed scheme will also help to deliver other NSO's relating to compact growth and transition to a low carbon and climate resilient society. The proposed scheme can therefore be viewed as a wider integrated land use and transportation plan that sets out to fulfil the National Strategic Outcomes and National Policy Objectives of the NFP. Of particular relevance are, National Policy Objective 27, which aims to *“ensure the integration of safe and convenient alternatives to the car into the design of our communities, by prioritising walking and cycling accessibility to both existing and proposed developments, and integrating physical activity facilities for all ages”*; and National Planning Objective 54, which targets a *“reduction in carbon footprint by integrating climate action into the planning system in support of national targets for climate policy mitigation and adaptation objectives, as well as targets for greenhouse gas emissions reductions.”*
- 11.2.6. National Policy Objective 35 seeks to *“increase residential density in settlements, through a range of measures including reductions in vacancy, re-use of existing buildings, infill development schemes, area or site-based regeneration and increased building heights.”* As can be seen in the following section, this objective is being implemented along the core bus corridor through the large volume of higher density development. High density development and high quality public transport accords with NPO64 through integrated land use and spatial planning that supports public transport, walking and cycling.

- 11.2.7. The **National Development Plan** makes provision for investment in public transport and sustainable mobility solutions, with BusConnects being recognised as one of the Major Regional Investments for the Eastern and Midlands Region. It is stated that BusConnects will overhaul the current bus system in Dublin, Cork, Limerick and Waterford by implementing 'next generation' bus corridors including segregated cycle routes. This will be enabled through **The National Investment Framework for Transport in Ireland**.

Regional Level

- 11.2.8. The **Eastern & Midlands Regional Spatial & Economic Strategy** (RSES) provides an investment framework and climate action strategy to support the implementation of Project Ireland 2040 (National Planning Framework and National Development Plan) at a regional level. The Strategy includes the Dublin Metropolitan Area Strategic Plan (MASP), which is an integrated land use and transportation strategy that sets out guiding principles for the sustainable development of the Dublin Metropolitan Area. This plan seeks to focus growth along existing and proposed high quality public transport corridors in the interests of transport and land use integration and to support the delivery of BusConnects and other major transport programmes.
- 11.2.9. RSES also states that the future development in the Dublin Metropolitan Area shall be planned and designed in a manner that facilitates sustainable travel patterns, with a particular focus on increasing the share of active modes (walking and cycling), in addition to public transport use, and the creation of a safe attractive street environment for pedestrians and cyclists. This is reflected in the BusConnects programme whereby streets and public spaces are being redesigned to prioritise active transport modes and bus transport as alternatives to the car.
- 11.2.10. BusConnects forms a key part of the overall aim of the **Transport Strategy for the Greater Dublin Area, 2022-2042** to provide a sustainable, accessible and effective transport system for the Greater Dublin Area which meets the region's climate change requirements, serves the needs of urban and rural communities, and supports the regional economy. The proposed Liffey Valley to City Centre CBC scheme is one of 12 radial schemes being brought forward under this programme to

facilitate faster and more reliable bus journeys on the busiest bus corridors in the Dublin region.

- 11.2.11. BusConnects accords with the specific measures outlined in the Strategy to incorporate a high standard of urban design and placemaking into major public transport infrastructure schemes and walking and cycling projects, taking account of architectural heritage (PLAN14 and PLAN15). The reallocation of road space to prioritise walking, cycling and public transport use and the placemaking functions of the urban street network (PLAN16) also form key considerations within the BusConnects network design.
- 11.2.12. The updated **Greater Dublin Area Cycle Network Plan** is published alongside the Transport Strategy. Cycle facilities proposed under BusConnects will contribute towards the intention of the NTA and local authorities to deliver a safe, comprehensive, attractive and legible cycle network in accordance with the updated Greater Dublin Area Cycle Network.
- 11.2.13. The 2013 Greater Dublin Area Cycle Network Plan included two primary cycle routes along the proposed scheme (Cycle Routes 7 & 7A) and a number of secondary cycle routes, including S02, S04, 8C1, 7D. The updated 2022 GDA Cycle Network Plan shows the CBC as a secondary cycle route from its commencement at the Liffey Valley Shopping Centre to James's Street. The remainder of James's Street east of the junction with Echlin Street and through to the end of the CBC at High Street is designated as a primary radial route. A number of feeder routes intersect with the CBC at Coldcut Road, Blackditch Road, Clifden Road, Drumfinn Road, Le Fanu Road, Lally Road, Luby Road and Basin Street. Greenways are shown to intersect the CBC at Coldcut Road, Cleggan Park and South Circular Road. There are a number of intersections with other secondary routes at Cloverhill Road, Kennelsfort Road Upper, Con Colbert Road, St. Vincent's Street West, Bulfin Road, South Circular Road, Herberton Road and Bow Street West.
- 11.2.14. The proposed scheme will help to deliver the Cycle Network through installation of cycle tracks and safer junctions, many of which are located at intersections with other routes in the network, e.g. Ballyfermot Roundabout conversion to a signalised junction at the intersection of a secondary route and primary orbital route.

County Wide Policy

- 11.2.15. The proposed CBC extends through South Dublin County Council and Dublin City Council. The current operative plans for these local authorities are the South Dublin County Development Plan 2022-2028 and the Dublin City Development Plan, 2022-2028.
- 11.2.16. The **South Dublin County Development Plan, 2022-2028** provides a vision for the County's growing communities, places, housing, jobs and sustainable transport, and for the delivery of services in a manner which promotes climate action and efficient patterns of land use. The main strategic approach of the Dublin City Development Plan is to develop a city that is low carbon, sustainable and climate resilient. At a high level, the BusConnect programme is fundamental to the achievement of Development Plan core aims relating to climate resilience, land use change and sustainable movement.
- 11.2.17. Under the Sustainable Movement chapter of the South Dublin Development Plan, the aim is to increase the number of people walking, cycling and using public transport, and to reduce the need for car journeys, resulting in a more active and healthy community, a more attractive public realm, safer streets, less congestion, reduced carbon emissions, better air quality, quieter neighbourhoods and a positive climate impact. The overarching policy (SM1) is to *"...promote ease of movement within, and access to South Dublin County, by integrating sustainable land-use planning with a high-quality sustainable transport and movement network for people and goods."* This policy will be supported through the delivery of BusConnects and the Greater Dublin Area Cycle Network, and as noted above, the recent amount of high density development proposals along the CBC (see Section 6). It is apparent that the BusConnects proposal is encouraging development in proximity to the route through integrated land use planning and public transport provision.
- 11.2.18. South Dublin County Council's policy (SM3) on public transport generally seeks to *"...promote a significant shift from car-based travel to public transport in line with County targets and facilitate the sustainable development of the County by supporting and guiding national agencies in delivering major improvements to the public transport network."* BusConnects is one of the major public transport projects

that will fulfil this policy. Objective 3 under this policy seeks to ensure that future development in the County will be planned to facilitate a significant shift to public transport through compact growth policies and the consolidation of development around existing and planned public transport routes and interchanges. As highlighted, compact growth proposals are being fulfilled along the route of CBC. These proposals would have been partly justified on the basis of being located on a CBC and therefore the proposed scheme is essential to serve such proposals.

- 11.2.19. There is also an emphasis in the South Dublin Development Plan on the promotion of attractive street environments and active travel by creating places where people want to live and spend time and by removing barriers to movement. Policy SM5: Street and Road Design seeks to *“...ensure that streets and roads within the County are designed to balance the needs of all road users and promote placemaking, sustainable movement and road safety providing a street environment that prioritises active travel and public transport.”* This policy will also be supported by the increased volumes of people that will be living or visiting hotels, shops, etc. along the CBC.
- 11.2.20. The movement of people along the CBC by active travel modes (walking and cycling) is promoted in the South Dublin County Development Plan and facilitated through the BusConnects programme, in particular through the provision of safer junctions for pedestrians and cyclists to cross. There will also be improved footpaths and an increased provision of cycle tracks. South Dublin County Council’s policy on walking and cycling (SM2) seeks to... *“re-balance movement priorities towards sustainable modes of travel by prioritising the development of walking and cycling facilities and encouraging a shift to active travel for people of all ages and abilities, in line with the County targets.”*
- 11.2.21. Finally, BusConnects, if designed properly and in accordance with DMURS can facilitate objective (SM5 Objective 1) *“to ensure that all streets and street networks are designed to passively calm traffic through the creation of a self-regulating street environment that promotes active travel modes and public transport.”*
- 11.2.22. The Sustainable Movement and Transport chapter of **Dublin City Development Plan, 2022-2028** highlights that the sustainable and efficient movement of people

and goods is crucial for the success and vitality of the city, along with the need to move away from private car and fossil-fuel-based mobility to reduce the negative impacts of transport and climate change.

- 11.2.23. It is acknowledged that the impact of public transport infrastructure projects, such as BusConnects, on mode share is more likely to come into fruition during the lifespan of the following Development Plan. Notwithstanding this, Dublin City Council under Policy SMT22 – Key Sustainable Transport Projects supports the delivery of an integrated public transport network serving existing and future needs of the city.
- 11.2.24. Improvements to the environment and public realm will be necessary to encourage walking, cycling and public transport use and the opportunities are recognised for developing public realm when new public transport proposals are being developed. This will be implemented through the BusConnects programme facilitating active travel and public transport improvements and associated public realm improvements. Placemaking will occur as a result of the Liffey Valley to City Centre CBC, most notably at Ballyfermot Roundabout and Cornmarket. These measures will comply with Policy SMT12 – Pedestrians and Public Realm, which aims *“to enhance the attractiveness and liveability of the city through the continued reallocation of space to pedestrians and public realm to provide a safe and comfortable street environment for pedestrians of all ages and abilities.”*
- 11.2.25. The integration of active travel with public transport will comply with Policy SMT19 which seeks *“to work with the relevant transport providers, agencies and stakeholders to facilitate the integration of active travel (walking/cycling etc.) with public transport, ensuring ease of access for all.”* Dublin City Council has actively engaged with the NTA during the consultation process. Furthermore, the Board has received submissions from both local authorities and the points raised will be considered in this assessment. Other issues are raised within submissions relating to on-street parking and deliveries and these are addressed in the BusConnects programme in accordance with Policy SMT25.
- 11.2.26. The overall aim of Dublin City Council with respect to transport and sustainable movement is a key objective of the BusConnects programme and this can be summarised under Policy SMT34 – Street and Road Design, which seeks *“to ensure*

that streets and roads within the city are designed to balance the needs and protect the safety of all road users and promote place making, sustainable movement and road safety providing a street environment that prioritises active travel and public transport whilst ensuring the needs of commercial servicing is accommodated.”

Local context

- 11.2.27. The **Parkwest Cherry Orchard Local Area Plan** boundary adjoins the proposed scheme at Cherry Orchard Hospital. It is an objective of this plan to seek the development of a new north-south roadway linking Ballyfermot Road and Cherry Orchard Green, together with the connection of the green infrastructure network to the CBC at the junction with Ballyfermot Road.
- 11.2.28. The applicant was requested by Dublin City Council to consider whether increased greening proposals can be provided at the junction at Cherry Orchard Hospital identified in the Parkwest Cherry Orchard Local Area Plan as a strategic vehicular route. In response, the NTA stated that the strategic importance of this junction has been considered within the proposed design and access is not precluded. The junction will be upgraded, and appropriate enhancement opportunities will be considered along the route. It would appear from the proposed CBC drawings that the proposed junction is fully compatible with the access arrangements to the Local Area Plan lands. The proposed junction allows for full vehicular access as well as safe crossings on all arms for pedestrians and cyclists.
- 11.2.29. The **City Edge Project** is located a short distance to the south of the proposed CBC. This new urban quarter will contain the proposed Kylemore rail station and interchange. Kylemore Road is designated as a primary orbital route in the GDA Cycle Network Plan and the replacement signalised junction at Ballyfermot Roundabout will improve arrangements for active modes along Kylemore Road to the south of this junction.
- 11.2.30. The non-statutory **Kilmainham Inchicore Development Strategy (KIDS)** identifies a number of potential enhancement measures for Kilmainham and Inchicore villages, as well as the Camac River Greenway and a Greening Strategy. The proposed CBC scheme will complement this strategy by strengthening the quality of the public realm and enhancing the landscape character of the area.

- 11.2.31. In line with the commitments outlined above to facilitate transport and land use, the proposed CBC passes a number of Strategic Development and Regeneration Areas at Emmet Road (SDRA 9) and St. James Medical Campus & Environs (SDRA 14). SDRA 7 – Heuston and Environs and SDRA 15 – Liberties and Newmarket Square are also nearby.
- 11.2.32. Overall, the proposed BusConnects programme remains an integral and pivotal part of the requirement to tackle climate change and to enable a meaningful shift within the transport sector to active and sustainable transport modes. I would be satisfied that the proposed development is acceptable in principle and follows the consistent message within all levels of policy that there must be a transition to a low carbon and climate resilient society. This requires a reduction in car dependency to contribute towards lower energy consumption, CO₂ levels and pollutant emissions. Sustainable mobility, compact growth and land use and transportation integration are essential for the creation of sustainable communities that minimise private car use, prioritise cycling, walking and public transport and promote the efficient use of land. I am therefore satisfied that the proposed development is in accordance with the policy objectives set out in various plans and documentation referred to above.

11.3. Need and Justification for the Proposal

- 11.3.1. It has been demonstrated above that the proposed Liffey Valley to City Centre CBC scheme is needed and justified in terms of overarching policy considerations on climate change and a necessary shift to sustainable transport modes to reduce greenhouse gas emissions in the transport sector. Section 4.3 also outlines the need for the proposed scheme in terms of existing deficiencies in the bus, cycle and pedestrian network. The section hereunder addresses more specific ways that the proposed scheme is needed and justified to tackle on-street congestion; encourage land use and transport integration; and improve connections, particularly for disadvantaged groups.

11.3.1. Addressing Population Growth and On-Street Congestion

- 11.3.1.1. Significant on-street traffic congestion occurs throughout the Greater Dublin Area from private car dependence. Road network congestion causes delay, with

associated economic impacts and frustration for motorists. Other quality of life issues caused by traffic congestion include pollution, noise, adverse impacts on the street environment, road dominance, community severance and pedestrian/ cyclist safety and comfort issues.

- 11.3.1.2. Congestion also has direct impacts on bus service reliability. Bottlenecks are formed along sections that do not have bus priority and this affects journey times, particularly at peak hours. At present, Automatic Vehicle Location (AVL) data indicates that bus services suffer variations in travel time of up to 12 minutes along the route of proposed scheme. A less reliable bus service requires operators to roll out extra buses to maintain headways and this can lead to a clustering of buses and imbalanced bus operations on the network.
- 11.3.1.3. According to the National Planning Framework, 2018, the population of the Greater Dublin Area is forecast to increase by 25% by 2040 and this growth will have associated travel demands, placing added pressure on the transport system. The EIAR compares the effects of do-nothing, do-minimum and do-something scenarios in future years. The do-nothing scenario represents the current traffic and transport conditions without the proposed scheme and other GDA Strategy projects in place. The do-minimum scenario for opening year (2028) and design year (2043) represents the likely conditions without the proposed scheme in place but allowing for all other GDA Strategy schemes to be implemented (other BusConnects elements, Dart+, Luas green line capacity enhancement, GDA Cycle Network Plan for 2028, and for 2043 assumes full implementation of GDA Strategy including MetroLink, Dart+ Tunnel, and Luas extensions to Lucan, Finglas and Bray). Finally, the do-something scenario represents the conditions with everything in place.
- 11.3.1.4. A people movement assessment was undertaken for the EIAR using outputs from the NTA Eastern Regional Model (ERM) and Local Area Model (LAM) and comparing the 'do minimum' and 'do something' peak hours for 2028 and 2043. Population growth has been derived by linear interpolation between 2016 Census data and the NPF 2040 population growth forecast. It is envisaged that the population will grow by 11% up to 2028 and by 25% by 2043. Employment growth is also forecasted to grow by 22% by 2028 and 49% by 2043, with an assumed growth in goods vehicle of 45% and 77% respectively up to the same years.

- 11.3.1.5. As noted above, the overriding motivation for BusConnects is to reduce CO₂ emissions and this is critical from a global climatic perspective. At the local and shorter-term level, the issue of congestion is more obvious, and both congestion and CO₂ emissions are continuing to rise. Any further increases in traffic levels will see an exacerbation of congestion, CO₂ emissions and of all of the associated issues highlighted above. Private car dependence will worsen unless there is intervention to optimise road space and prioritise the movement of people over the movement of vehicles.
- 11.3.1.6. It is estimated that approximately 80% of road/ street space is dedicated to the car. A car travelling at 50kph requires 70 times more space than a pedestrian or cyclist. A double-decker bus takes up the equivalent spatial area of three cars but typically carries 50-100 times the number of passengers. The prioritisation of buses over cars and the creation of more space for pedestrians and cyclists will allow for increased people movement capacity along the core bus corridor. This is vital given the existing congestion and the forecasted growth in population, jobs and goods vehicle numbers by 2040.
- 11.3.1.7. As a result of the proposed scheme in opening year (2028), there will be an increase of 54% and 52% in AM and PM peaks respectively in the number people travelling by sustainable transport modes along this core bus corridor. In design year (2043), there is forecasted to be an increase of 74% and 92% in the number of people travelling along the proposed scheme corridor by sustainable modes during the AM and PM peak hours respectively. In an inbound direction at AM peak, there will be an increase of 58% in the number of people travelling by bus between 2028 and 2043; an increase of 45% in the number of people walking or cycling; and a reduction of 53% in the number of people travelling by car along the core bus corridor.
- 11.3.1.8. Having regard to the above, the proposed scheme is of critical importance to the transport network in Dublin to facilitate the actual movement of people and this can only be achieved through a realistic modal shift from the private car to sustainable modes. The proposed scheme allows for increased people moving capacity and the best chance to avoid gridlock in future years as the population grows and the demand for travel increases. The proposed scheme also has the potential to reduce

Ireland's greenhouse gas emissions, equivalent to the removal of approximately 105,500 and 102,200 car trips per weekday from the road network in 2028 and 2043 respectively. The proposed scheme will therefore make a significant contribution to carbon reduction, the easing of congestion and the creation of more sustainable travel patterns for the growing population.

11.3.2. Land Use and Transport Integration

- 11.3.2.1. One of the main objectives of the proposed scheme is to 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. The ability to move greater numbers of people along the core bus corridor also presents the opportunity to increase the volumes of people living, working and staying along the corridor.
- 11.3.2.2. A number of significant projects are proposed, have been permitted or are under construction along the CBC. Those that have been permitted, are under construction or are completed include the Liffey Valley Shopping Centre Transport Interchange, the National Children's Hospital; 839 apartments at the De la Salle lands; 257 student bedspaces off Thomas Street; a 185 bed hotel at Vicar Street; a 261 bed hotel at Molyneaux Yard; 596 apartments at Grand Canal Harbour; a 148 bed hotel at James's Street; 189 apartments at James's Street/ Basin View; 62 shared residential units at Kilmainham; and 79 apartments at Kilmainham. Planned projects include the mixed-use development at St. Michael's Estate incorporating 578 residential units, and the LDA Digital Campus masterplan lands (3.7 hectares). The mixed-use development at the Guinness Brewery site (336 residential units, hotels, office buildings, market hall, retail, restaurants, community and cultural space), has recently received planning permission.
- 11.3.2.3. It is crucial that BusConnects is implemented to serve the compact growth that is occurring along the length of the corridor so that walking, cycling and public transport emerge as the preferred modes of travel in the interests of sustainable city living, efficient use of road-space, and environmental impacts. Sustainable travel patterns should be easier to achieve if the new population along the corridor has high quality active travel and public transport infrastructure in place. New residents or users of

the CBC may be less habituated to the private car and can utilise active modes and public transport without having to perform a modal shift. It should also be re-emphasised that many of the larger scale developments along the corridor would have been planned and permitted on the basis of the proposed core bus corridor scheme.

- 11.3.2.4. Public transport works better on higher density corridors because there is critical mass to maintain services throughout night and day. The concern would be that buses might become overloaded. However, service frequency was assessed in the micro-simulation model with a 10 bus per hour increase (total 38) along the busiest section of the CBC St. James's Hospital. The model showed that there will be a high level of journey time reliability in the Do Something scenario. This shows that bus journey time reliability and consistency will be maintained as passenger demand continues to grow. There will also be added advantages of increased patronage on the core bus corridor helping to reduce crime and negative social impacts.
- 11.3.2.5. In addition to greater demand for travel along the CBC, compact growth and higher densities will also require improved public realm both in terms of quality and quantity. There is an opportunity for the proposed CBC and associated compact growth to actually discourage travel, by providing for critical mass as noted, and leading to the provision of better services and facilities for everyday living and the creation of local jobs within walking distance. This could also have the effect of decreasing travel distances as a greater number of destinations along the CBC begin to emerge and the need to travel further east into the city centre or further west to Liffey Valley Shopping Centre diminishes.
- 11.3.2.6. For this pattern of land use and transport integration to be successful, good public realm is necessary. This is addressed further in Section 11.5.3 below. Well-designed public spaces with a high presence of people and services can help to change the way we view streets/ roads as corridors for transporting people, towards places where people interact with each other, and with the natural and built environment.
- 11.3.2.7. Overall, good land use and transport integration complies with the Avoid/ Shift/ Improve hierarchy promoted within CAP23. The need to travel is minimised; modal

shift to public transport and active travel is encouraged due to better services and infrastructure that will be widely used; and bus electrification becomes more practical as the fleet expands. In general, the Liffey Valley to City Centre CBC and the associated compact growth along the corridor is an excellent example of land use and transport integration taking place in a planned and retrofitted manner that will be hugely beneficial to existing and future residents and users of the corridor.

11.3.3. **Improved Connections**

- 11.3.3.1. It is a key objective of the proposed scheme to 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.
- 11.3.3.2. Improved connections as a result of the proposed scheme can disproportionately benefit those who are most disadvantaged or socially excluded. There are several areas along the length of the CBC that are categorised as extremely disadvantaged or very disadvantaged as indicated by the Pobal HP Index 2016. Approximately half of the CBC to its southern side is categorised as disadvantaged. It is also noteworthy that access to a car is proportionately lower for people with disabilities compared to the general population.
- 11.3.3.3. The proposed scheme will allow for the provision of high quality bus transport along the CBC, thereby providing better connections to those on low incomes or those with disabilities without access to car transport. Households along the route will also benefit from improved access to a wider range of job opportunities, which can result in wealth increase and improved mental and physical wellbeing. The proposed scheme will improve access to services across the city and encourage activity and footfall to support new businesses and services.
- 11.3.3.4. The CBC provides access to a large number of healthcare facilities, including Cherry Orchard Hospital, St. James's Hospital, St. Patrick's University Hospital, and Ballyfermot and Palmerstown Primary Care and Mental Health Centre. The new Children's Hospital will also be located along the CBC at St. James's Hospital. Improvements to bus journey times and reliability would make public transport

access to health facilities more feasible, particularly where there is limited parking such as St. James's Hospital. Bus lanes and bus priority can also be used by ambulances and other emergency services.

- 11.3.3.5. The Building for Everyone – A Universal Design Approach (Centre for Excellence in Universal Design 2020 guidelines have been followed in the design of the proposed scheme. This will make the urban environment easier and safer for people with visual impairment and mobility difficulties, as well as parents with pushchairs. Tactile paving and dropped kerbing will be installed throughout and buses will be wheelchair accessible.
- 11.3.3.6. It is likely that young and elderly people will benefit from more reliable bus services and a safer pedestrian and cycling environment. Independent mobility for children can grow as road safety improves and this can increase social interaction and exercise. It should be noted that there are a number of schools and colleges along the CBC. The most vulnerable road users are pedestrians and cyclists who are five to 10 times at risk of injury per kilometre than a motorist in a car-dominated environment (Elvik 2009). One of the main advantages of the proposed scheme will be the actual reduction of general traffic, thus making the corridor safer, more accessible and usable for vulnerable road users and those with no access to a car.
- 11.3.3.7. The other main benefit of the proposed scheme in terms of improved connections is better integration between transport services and facilities. Multi modal journeys will be facilitated through provision of cycle parking at bus stops and a general increase in cycle parking will encourage walking along with cycling. The proposed scheme will integrate with the new Liffey Valley Bus Interchange at its western end. The Interchange will be a new hub for bus services connecting south and west Dublin, north Kildare and the city centre. The proposed scheme will also integrate with Luas at St. James Hospital and with the Lucan to City Centre CBC at Con Colbert Road. Exchange between transport services will be made easier by next generation ticketing and integrated fare structure proposals. There may also be opportunities for park and ride along the CBC.
- 11.3.4. On the whole, the proposed scheme will promote a better-connected street environment particularly for the most disadvantage and vulnerable road users.

Perhaps the most obvious benefit in terms of improved connections will relate directly to the pedestrian environment, which is addressed further in Section 11.5.3 below.

- 11.3.5. In overall conclusion for this section, the obvious need and justification for the proposed scheme has been clearly demonstrated from a population growth and congestion perspective, and in the interests of land use and transport integration. The proposed scheme is also essential to bring about improved connections, particularly for non-car users, the disadvantaged and vulnerable road users. As noted above, there is also a clear justification for the proposed scheme throughout all levels of Government policy.

11.4. Consideration of alternatives

- 11.4.1. In my opinion, the consideration of alternatives is critical to future proof the proposed scheme. As outlined above, congestion occurs at present throughout the road network and the proposed scheme will reallocate road space to increase capacity for people movement. Car dominance will be reduced but access by private car will be retained for the most part.
- 11.4.2. The consideration of alternatives within the EIAR submitted with the application and the EIA in Section 12.3 considers a range of alternatives at three levels comprising strategic alternatives, route alternatives and design alternatives. The strategic alternatives considered are Bus Rapid Transit (BRT), light rail, metro, heavy rail, demand management and technological alternatives. The reasonable conclusion is reached that enhanced bus priority and cycle facilities, together with the Lucan to city centre Luas are best placed to serve the corridor having regard economic and environmental factors and passenger numbers that each mode would carry. The route selection stage examined the road network along the corridor using a “spiders web” approach to select the most desirable roads for the corridor. Design alternatives were examined during the different phases of public consultation where certain details, such as impact on mature trees, provision of segregated cycle lanes along certain sections and bus gate operation were refined.

- 11.4.3. Notwithstanding the above, my concern with respect to the consideration of alternatives in particular is that the proposed scheme fails to provide continuous segregated cycle tracks serving both sides of the road. Cyclists take up little room, yet only 68% of the route in both directions has segregated cycle tracks. There are no segregated cycle tracks along Sarsfield Road, Grattan Crescent, Emmet Road, Old Kilmainham, Mount Brown and parts of James's Street.
- 11.4.4. It appears to me that the proposed scheme maintains existing general traffic flows as much as possible. It is noteworthy that the proposed scheme was designed a number of years ago and events relating to climate change have become more prominent and urgent. Moreover, CAP23 has introduced sectoral emissions ceilings and the Avoid-Shift-Improve framework to achieve a net zero decarbonisation pathway for transport. Road space reallocation is a measure under both 'avoid' and 'shift' to promote active travel and modal shift to public transport. CAP23 recognises that road space reallocation can redirect valuable space from on-street car-parking and public urban roadways to public transport and active travel infrastructure (such as efficient bus lanes, and more spacious footpaths and segregated cycle-lanes), whilst also leading to significant and wide-scale improvements in our urban environments.
- 11.4.5. In my opinion, more effort could have been afforded to continuous segregated cycle infrastructure and wider footpaths along the CBC at the expense of car parking and 2-way traffic lanes. In particular, Inchicore Road, Kilmainham Lane and Bow Lane West run parallel to the CBC and there may be potential for one-way general traffic on this route with the CBC accommodating one-way traffic in the opposite direction. The reallocated general traffic lane could then be used to free up pinch points along the CBC for a higher standard of bus lane, cycle track, wider footpaths, shorter pedestrian crossing distances and improved public realm. This is particularly the case along Emmet Road where there is good potential for on-street pedestrian activity. This point is highlighted in a number of submissions.
- 11.4.6. I accept that it may be impractical for cycle routes to be continuously segregated and even the highest quality greenways tend to have short sections that are shared with general traffic. The concern with the proposed scheme, however, is that there is a continuous section of the CBC of approximately 2.75km with no cycle tracks or even

cycle lanes. Furthermore, 2-way traffic occurs along most of this section apart from the Grattan Crescent and when the bus gates are in operation at Mount Brown.

- 11.4.7. Having regard to this shortcoming, the Board may wish to consider seeking further information from the applicant to explore the possibility of increasing road space reallocation. It may be the case, following traffic modelling of the routes, that a one-way arrangement for general traffic along the CBC and parallel roads may not be feasible. However, I do not see that this has been demonstrated. Moreover, road space relocation now seems to be a more prominent measure within CAP23 for tackling transport sector emissions ceilings compared to when the proposed scheme was designed before the adoption of CAP23.
- 11.4.8. Notwithstanding the above, and as noted at the beginning of this section, the proposed scheme needs to be future proofed and fit for purpose as the transport system adapts to climate change. Bicycles and personal mobility vehicles will be a major part of the necessary modal shift from private car use. There can be a considerable variation in speeds achieved by different bicycle and scooter types to an extent that general traffic lanes could naturally become dominated by faster moving e-bikes or scooters because the space may not be available on conventional cycle tracks to achieve the desired speed.
- 11.4.9. For this reason, I consider a wait and see approach could be taken to wide scale general traffic removal or introduction of one-way systems along this corridor. It makes little sense for general traffic lanes along the main city spines to be congested with e-cars mostly carrying a single passenger in future years when a similar speed can be achieved on a personal mobility vehicle taking up a fraction of road space. There is also the matter of battery production and the question as to whether the required resources are justifiable for an e-car when an e-bike is just as suitable for similar city journeys. The alternative to this approach may be cycle dual carriageways for faster and slower moving cyclists but this appears not to have been explored in any significant detail in the alternatives considered.
- 11.4.10. There are elements of the proposed scheme whereby alternative proposals have been suggested in submissions. The issue of public realm improvements along Emmet Road is raised. In my opinion, some improvements can occur in parallel with

the proposed scheme when the St. Michael's Estate and greenway proposals are developed. However, I would agree with a number of submissions that there might be greater scope to incorporate better infrastructure for pedestrians and cyclists along the Emmet Road section of the proposed scheme.

- 11.4.11. An alternative for the redesign of the Cornmarket junction is put forward by Dublin City Council. This is assessed further in the Cultural Heritage and the Landscape section of the EIA. I acknowledge that the placement of the junction at Cornmarket is not optimal in terms of capturing sunlight for pedestrian spaces. However, the proposed layout allows for each of the arms of the junction to have more of an equal status, with Thomas Street becoming the minor arm and the busiest in terms of pedestrian activity. Having examined the layout, it is my considered opinion that this junction should be designed as proposed to have a traffic calming effect rather than maintaining priority between Thomas Street and High Street. This is achieved better in the proposed design rather than the alternative put forward by the Council. In addition, pedestrian and cyclist desire lines will be easy to read in the proposed arrangement and an increase in pedestrian comfort and activity may have beneficial impacts for businesses and the significant heritage assets surrounding this junction. This is expanded further in Section 12.4.7.
- 11.4.12. Along High Street, two lanes of eastbound general traffic will be maintained and there will be a double general traffic lane westbound approach to Cornmarket junction. In my opinion, there is a missed opportunity in urban design and public realm terms to redefine High Street, particularly along its northern side, by removing a traffic lane. High Street is an historic streetscape lined with significant architectural heritage that is not truly appreciated because of traffic congestion and the severance caused by wide traffic lanes. I also note that there was concern expressed in submissions regarding cycle track width along High Street.
- 11.4.13. Notwithstanding, I consider that the proposals from High Street are an improvement on the current situation. There may be scope for removing a traffic lane along this street in the future. However, I am limited to assessing the scheme that is before me and in this regard, I consider it to be acceptable when compared to the existing layout.

11.4.14. Overall, I conclude that that the proposed scheme was designed at a point in time and I consider that attitudes have since changed and will continue change rapidly as climate change awareness increases. I have concluded above that the proposed scheme will help to reduce transport related emissions and should therefore be implemented as planned as a matter of urgency.

11.5. Impacts on street environment:

11.5.1. The proposed scheme will give rise to significant changes in the way that the street environment is experienced along the route of the CBC. However, the actual works are not of a substantial nature. Most construction activity will affect the surface of the street only; few up-standing structures are proposed with the exception of bus shelters and signage. The proposed scheme will nonetheless radically alter the way the street is used on an everyday basis.

11.5.2. This section examines the impacts of the proposed scheme on the street environment by reference to each of the main affected users, i.e., pedestrians, cyclists, bus users, commercial premises (deliveries) and private motor vehicles.

11.5.3. Pedestrians and public realm

11.5.3.1. As noted above, some of the main objectives of the scheme are to relieve congestion, reallocate road space and improve conditions for the increasing amounts of people that will be using street space as continued compact growth emerges along the CBC. It is widely held that 80% of road space is allocated to the private car, with public transport, cyclists and pedestrians sharing the other 20% of space. The proposed scheme, therefore, needs to be designed to address the conflicts between the road/ street users competing for space. It is an aim of the proposed scheme to ensure that the urban realm is carefully considered in the design and development of the transport infrastructure and to seek the enhancement of key urban focal points where appropriate and feasible.

11.5.3.2. It is important to note that under DMURS, the creation of walkable, cycleable and public transport orientated communities will require designers to re-examine the way streets are designed in order to meet the needs of all users. Pedestrians must be

placed the top of the street user hierarchy, followed by cyclists and public transport. The car is placed at the bottom of the hierarchy, but it is recognised that this may be the only option for many users for medium to longer distance journeys. It is highlighted again that the key issue is one of balance, and the needs of the car should no longer take priority over the needs of other users or the value of place. The balanced approach is to be achieved through the four key principles of integrated and connected networks, multi-functional place-based streets, a pedestrian focus and a multi-disciplinary approach.

11.5.3.3. A transport project of this nature focuses purely on the efficient movement of people along the corridor by public transport and bicycle. By extension, the CBC becomes more of a movement corridor at the expense of developing good quality places for people to stop along the street. It should be noted, however, that the proposed scheme includes public realm improvements at Cornmarket, the obelisk fountain junction, Grattan Crescent, Ballyfermot roundabout and Ballyfermot village. These improvements should encourage people to stop and linger in these areas. I would recommend a programme of additional traffic calming measures along the sections of the CBC that do not have segregated cycle facilities (see below), and this should also have the effect of improving the pedestrian environment at these locations. A further assessment of the proposed public realm improvements on the local townscape is included in the Cultural Heritage and the Landscape section of the EIA below.

11.5.3.4. The pedestrian environment along the route of the proposed scheme will also be significantly improved through the provision of additional crossing locations, increased pedestrian directness, provision of traffic calming measures, improved accessibility facilities and increased footpath and crossing widths. There will be a 44% increase in controlled pedestrian crossings and a 213% increase in in raised table crossings on side roads. Minimum footpaths widths of 2m will be provided along the proposed scheme.

11.5.3.5. A Level of Service assessment concludes that there will be a positive long-term impact on the quality of pedestrian infrastructure, with most junctions improving to an A or B rating. Along the busiest section from Sarsfield Road to the city centre, 12 of the 21 impacted junctions currently have low D /E/ F ratings and this will improve to

an A/ B/ C rating at all impacted junctions (A/ B at 17 of 21 impacted junctions). The LoS rating is applied to each junction for both 'do minimum' and 'do something' scenarios based on indicators such as footpath and crossing widths, accessibility, promotion of lower vehicular speeds, directness and signalisation.

- 11.5.3.6. One of the greatest improvements in Dublin City in recent years has been the amendment of the pedestrian phase at junctions so that pedestrians can cross all arms of the junction in one movement, including diagonally. This is referred to as a wrap-around pedestrian stage within the Preliminary Design Guidance Booklet accompanying the planning application. This is the preferred arrangement at junctions within the proposed scheme whereby the wrap-around pedestrian signal stage will take place at the start of the signal cycle. This represents a significant improvement in terms of pedestrian convenience and directness.
- 11.5.3.7. A number of specific issues have been raised in submissions relating to the pedestrian environment and these are addressed hereunder. The most common issue concerns the public realm and the lack of greening proposals along Emmet Road in Inchicore, the St. James's gateway, and along Thomas Street/ High Street.
- 11.5.3.8. In my opinion, this is an example of the movement corridor taking precedence over the public realm. I agree with the points raised in submissions that more effort could have been put into landscaping and urban design along the corridor. I acknowledge that there are comprehensive proposals along parts of the corridor as illustrated in the Landscaping – General Arrangement drawings. However, these drawings also show that little or no works are taking place for pedestrians along Old Kilmainham and Mount Brown and on sections of James's Street and Thomas Street. As noted above, and in the Section 11.33.4 hereunder, I consider that traffic calming measures are required for the sections of the CBC with no segregated bicycle facilities and these measures should benefit pedestrians and the public realm. Such measures are required for the purposes of achieving proper multi-functional place-based streets along Emmet Road and into Old Kilmainham and Mount Brown, as well as James's Street and Thomas Street.
- 11.5.3.9. It is highlighted in Section 4.1.1 of DMURS that the issue of speed is key to the successful implementation of responsive design solutions, particularly with regard to

pedestrian and cyclist safety, comfort and convenience. A 30 kph speed limit is proposed to the east of the South Circular Road junction and to the west the speed limit will be 50 kph. The design speed is the maximum speed at which it is envisaged/ intended that most vehicles will travel under normal conditions and the intended speed limit should be aligned with the design speed. I note that sections of the CBC may fail to achieve the design speed due to lack of traffic calming and this is of particular concern along Emmet Road, Old Kilmainham, Mount Brown and James's Street.

- 11.5.3.10. Self-regulating streets can successfully balance the functional needs of different users, enhance the sense of place and manage speed in a manner that does not rely on extensive regulatory controls and physically intrusive measures for enforcement. Measures that could be applied to regulate streets include frequent crossing points, horizontal and vertical deflections, narrow carriageways, minimisation of signage and road markings, reduced visibility splays, on-street parking, tighter corner radii and shared surfacing. A greater sense of enclosure can also have a traffic calming effect. The planting of street trees could therefore be used as a retrospective traffic calming measure.
- 11.5.3.11. I recommend that the applicant undertakes a traffic calming strategy along Sarsfield Road, Grattan Terrace, Emmet Road, Old Kilmainham, Mount Brown incorporating measures for self-regulation and the promotion of public realm and place value. A Street Design Audit of these sections should then be carried out in accordance with DMURS Advice Note 4 and agreed with the planning authorities as a condition of any grant of planning permission.
- 11.5.3.12. In my opinion, this strategy and audit will help to address the outstanding concerns raised in submissions relating to public realm, greening proposals and materials. The applicant should investigate the potential for a raised crossing at the junction of Emmet Road and St. Vincent's Street West. General traffic lane widths of 2.75m should be considered along Emmet Road to remove pedestrian pinch points. Corner radii should be re-examined at all minor junctions to ensure compliance within DMURS. Other measures should be included so that road space allocation is strictly in accordance with the design speed.

- 11.5.3.13. Submissions were received from the proposed developers of the St. James's Gate development masterplan requesting a widened footpath at St. James's Gate and the provision of a layby for the proposed hotel development. It is also requested that the bus stop and Dublin Bikes station be relocated. The applicant responded by stating that it will continue to work with developers subject to the conclusion of their planning process. Similarly, the applicant will continue to engage with the Land Development Agency with respect to the development masterplan on Thomas Street.
- 11.5.3.14. A number of other amendments were requested in submissions to include another pedestrian crossing on Grattan Crescent between the national school and Grattan Crescent Park and a toucan crossing on Emmet Road. I consider that the toucan crossing on Emmet Road is not necessary as there is a raised table at that location and there are no actual cycle facilities. It would appear that the crossing on Grattan Crescent, as proposed, is located at the entrance to the park. A direct single crossing movement is not proposed at the Fonthill Road/ Coldcut Road junction due to the distance between footway (>19m), and at other locations outside of the proposed scheme boundary, the applicant does not have the remit to improve pedestrian and cyclist facilities within surrounding areas outside the boundary of the application area.

11.5.4. **Provision for cyclists**

Lack of facilities

- 11.5.4.1. As noted above, it is my considered opinion that a shortcoming of the proposed scheme is the absence of segregated cycle tracks along a 2.75km stretch between Sarsfield Road and James's Street. A possible solution to this could be the replacement of general traffic lanes with cycle tracks and the utilisation of parallel roads for opposing traffic. However, this would require comprehensive redesign of the proposed scheme at a time when its roll out is becoming increasingly urgent due to rising emissions and congestion. There is also the issue, if the proposed scheme was redesigned, of the permitted and planned compact growth along the CBC taking place well in advance of the BusConnect programme. New residents and users of the corridor may then become habituated to private car use if the proposed scheme is not developed in good time for people to form sustainable travel patterns.

Therefore, on balance, and notwithstanding my concerns regarding the lack of segregated cycle lanes along sections of the route between Sarsfield Road and James Street, I would consider it preferable to approve the scheme as proposed having regard to the urgency of implementing more sustainable transport infrastructure within the city. Conditions for cyclists can be improved through recommended traffic calming measures and sections of the proposed scheme can be revisited at a later date in order to enhance cycling infrastructure along sections of the route.

- 11.5.4.2. Having regard to the above, I would be satisfied that the provision of 68% segregated cycle tracks is satisfactory for the purposes of providing a good level of service for cyclists and for attracting a reasonable modal shift onto active modes subject to appropriate traffic calming measures along the stretches of road without dedicated cycle infrastructure. Furthermore, the safety of vulnerable road users will also be greatly improved through traffic reduction. Traffic reduction on roads can have the effects of increasing traffic speeds and this should be addressed through the appropriate calming measures. I also highlighted above the potential in future for general traffic lanes to be utilised by faster moving personal mobility bikes and scooters.

Junctions

- 11.5.4.3. Perhaps the most significant improvement for cyclists is at junctions. Most accidents involving cyclists occur at junctions and the proposed scheme will include the replacement of roundabouts with new signalised junctions. There are existing roundabouts at Fonthill Road and Ballyfermot Road that will be replaced with standard BusConnects signalised junctions. The Cornmarket junction will be replaced with a simplified arrangement that will be easier for all users.
- 11.5.4.4. There are a number of different junction types proposed throughout the CBC. The protected junction for cyclists is the preferred option, which provides kerb build-outs to protect cyclists travelling through the junction. Kerbed corner islands force left-turning motorists into a wider turn and the cycle lane is set slightly to the left so that the cyclist and motorist see each other at more of a right angle. The corner islands create a protected ring for cyclists navigating the junction, including those turning

right. Essentially, the cyclist can make a right turn at the junction without leaving a cycle lane. The traffic signal arrangement removes any uncontrolled conflict between cyclists and pedestrians and also between a cyclist crossing the arm and an approaching right turning motorist. The cycle tracks approaching the junction are ramped down and protected by a buffer and the cycle stop line sits in front of the bus lane stop line.

- 11.5.4.5. In general, I consider this arrangement represents a significant improvement in safety terms for cyclists at all junctions, and in particular, at Ballyfermot Roundabout and Cornmarket junction. I acknowledge that all junctions are different and certain flexibility will be necessary in cases. However, the protected junction provides a relatively consistent approach throughout the BusConnects programme and a degree of certainty for the most vulnerable users. Flashing left turn arrows, coloured surface treatment, tighter kerb radii and narrower lanes will encourage motorists to proceed through junction with greater caution and less confidence. This is critical from a cyclist safety viewpoint.
- 11.5.4.6. A number of observers on the proposed scheme refer to the potential for the provision of 'Dutch Style' or 'Cyclops' junctions. South Dublin County Council consider that a 'Cyclops' junction type may be appropriate on Fonthill Road to allow for shorter pedestrian crossing distances and for left-turning cyclists to continue without traffic lights. It is also contended that the proposed arrangement puts left-turning motorists in conflict with straight ahead cyclists.
- 11.5.4.7. In response, the NTA referred to the Preliminary Design Guidance Booklet for the proposed scheme, which categorises junctions into four broad types that have been developed for a local Irish context. I note that the preferred protected junction as outlined above is already operating at a number of locations in the Dublin. The first protected junction was installed at Balbutcher Lane in Ballymun and Dublin City Council intend to roll out a number of these junctions around the city. A protected junction of similar design but of more of a 'Dutch' style approach has opened recently at the junction of Drummartin Link Road and Lower Kilmacud Road.
- 11.5.4.8. Essentially, the main difference between the preferred protected junctions and 'Dutch' style junctions is the crossing distances for pedestrians. Owing to the setting

back of the cycle lane to provide greater horizontal segregation, a waiting space is provided at the edge of the road at the junction for pedestrians within the 'Dutch' design. Pedestrians therefore cross the cycle lane first in a priority arrangement before waiting on the pedestrian light. In the proposed preferred design, the cycle lane is segregated by a narrower raised kerb. This means that pedestrians must cross the cycle lane and carriageway in one movement over a longer distance as there is no waiting space at the edge of the road. The proposed scheme also requires a cyclist stop line before the pedestrian crossing when the 'Dutch' design allows the cyclist to continue through the pedestrian priority crossing over the cycle lane up to a stop line for straight-ahead and right-turning cyclists. The 'Dutch' design therefore permits unsignalised left-turning movements. Straight ahead cycle movements within the proposed scheme will take place concurrently or slightly in advance of left-turning motor vehicle manoeuvres when straight ahead cyclist/ left-turning motorist movement are in separate phases within the 'Dutch' design.

- 11.5.4.9. There are similarities between the preferred proposed scheme junction design and the 'Dutch' style design. Most notably, both junction designs separate pedestrian, cyclist and motor traffic. Furthermore, both types have protective corner islands, which will force the motorist to make wider and therefore slower left turns around a tighter radius. It is noteworthy, however, that the 'Dutch' style design has larger corner islands, and this gives more space for cyclists waiting at the stop line. The other main similarity, as noted above, is that cyclists can proceed through the junction without leaving a cycle lane. I consider this to be one of the most important safety features over the often-seen arrangement whereby right turning cyclists are expected to utilise an advanced cycle stop line to make the right turn manoeuvre at a junction.
- 11.5.4.10. In weighing up the proposed scheme preferred junction layout against the 'Dutch' style layout, I consider that there are pros and cons with both. The 'Dutch' style design has shorter pedestrian crossing distances and there is no straight-ahead cyclist/ left-turning motorist conflict. The degree of separation for cyclists and motorists on the approach to the junction is greater and more space is available for straight ahead and right turning cyclists waiting at the stop line. Left-turning cyclists will not encounter signals. In my opinion, the 'Dutch' style layout is superior to the

proposed scheme preferred junction layout from a cycle safety and comfort perspective.

- 11.5.4.11. Notwithstanding this, I note that the aim of the NTA's Preliminary Design Guidance Booklet is to take the benefits of the traditional junction layout from the National Cycle Manual and supplement this with a range of measures aimed at increasing protection for cyclists and reducing uncontrolled conflict with pedestrians. In this regard, it is noted that 'Dutch-style' junctions allow for potential un-signalised conflict between pedestrians and cyclists, and this was a concern for disability groups. The NTA also point out that Dutch-style junctions can result in a reduced level of service for pedestrians with at least 3 crossing movements (2 no. cycle tracks and 1 no. carriageway) to cross a side road.
- 11.5.4.12. Along with the potential for cyclist and motorised vehicle conflict, the potential for pedestrian and cyclist conflict should be a pertinent consideration in the assessment of the proposed scheme, particularly with the emergence of faster moving personal mobility vehicles. For this reason, there may be some advantages with the proposed scheme preferred junction layout which signals pedestrian and cyclist conflict. There is little in the way of an established culture of cyclist and pedestrian interaction in this country. BusConnects is essentially a retrofitting project which seeks to reallocate road space for bus priority and active modes. Care must therefore be taken to address conflicts between active modes within the reallocated space. It may be the case that, even with road space reallocation, space for active modes will still be limited and therefore kerb separation and the preferred protected junction may only be feasible. Added to this, is the need for a consistent design approach for all modes when introducing radically altered junction layouts. I would therefore be reluctant to recommend different designs such as the 'Dutch' style or 'Cyclops' for different junctions depending on geometry. As with the lack of cycle tracks/ lanes along sections of the route, a redesign of all junctions at this stage may be impractical and would unduly delay the scheme. Furthermore, I am limited to assessing the merits of the scheme before me and I consider that it represents a substantial improvement in terms of safety and comfort for cyclists.
- 11.5.4.13. With respect to the potential for conflict between straight ahead cyclists and left-turning motor vehicles, measures will be put in place to increase the visibility and

awareness of cyclists to motorists. Cyclists will be given an advanced green light after which motorists can turn left during a flashing amber phase. Signage will be installed to instruct motorists to yield to cyclists continuing straight ahead. The junction layout will also encourage motorists and cyclists to meet at more of a right angle to one another. I consider that these measures are satisfactory and will help to alleviate the risk of left turn collisions. There is also the possibility of installing flashing LED strips or elephant's feet markings along the cycle lane to further warn motorists of straight-ahead cyclists. This measure can be facilitated by way of condition should the Board consider it appropriate.

Conflict at bus stops

- 11.5.4.14. The proposed scheme will significantly improve the safety of cyclists passing bus stops by deflecting the cycle track behind the stop. This will negate the need for cyclists to either wait behind the bus at the stop or to continue around the outside of the stopped bus. This inevitably means that conflict at the bus stop will then occur between pedestrians and cyclists.
- 11.5.4.15. A hierarchy of bus stops is proposed, with island stops being the preferred design, followed by a shared bus stop landing zone and then laybys. All bus stops where there are cycle tracks along the proposed scheme appear to be the island or landing zone design. There is concern within submissions that the narrow island bus stops place cyclists in conflict with boarding and alighting bus passengers. In response, the NTA note that island bus stops are preferred and the shared bus stop landing zone will be installed where there are space constraints.
- 11.5.4.16. The Preliminary Design Guidance Booklet illustrates the bus stop options including measures to mitigate potential cyclist and pedestrian conflicts. This includes the narrowing of the cycle track as it approaches the bus stop, yellow bar markings, ramps, tactile paving and LED warning studs. A cycle signal with pedestrian push button unit is proposed for the preferred island bus stop arrangement.
- 11.5.4.17. In my opinion, the signalised crossing of a 1.5m wide cycle track seems excessive. Signal poles will lead to clutter at the bus stop and there is the risk that signals will not be adhered to by both cyclists and pedestrians. I consider that zebra crossing road markings would suffice at bus stops. Notwithstanding this, it appears that

signalised crossings at bus stops are preferred by disability groups. I have seen island bus stops without signalised crossings over the cycle lane in other parts of Dublin, e.g. along the Stillorgan dual carriageway. I have also seen new island bus stops with sockets installed in the event that signals need to be fitted. I recommend that a condition is attached to any grant of permission stating that the applicant shall consider the installation of signals at bus stops on a case by case basis.

- 11.5.4.18. I would otherwise be satisfied with the design of proposed bus stops from a cyclist and pedestrian safety perspective. The deflected cycle lane will have the effect of slowing cyclists down, and as noted above, this is becoming a more important consideration with increased faster moving personal mobility vehicles.

Cycle Lane Width and Kerb Height

- 11.5.4.19. The desirable minimum width for cycle tracks along the CBC is 2m and the minimum width is 1.5m. It is stated in a submission that there are two locations where cycle tracks of 1m are proposed (cross sections O-O Ballyfermot and Z-Z Thomas Street). It is also highlighted that space is provided along High Street for multiple traffic lanes but there are substandard width cycle tracks. It is requested that the second general traffic lane is removed along High Street.
- 11.5.4.20. I stated above it is my considered opinion that the removal of the northern traffic lane along High Street may have been preferable to reduce traffic dominance along this historic street. However, I have concluded that proposals for High Street are an improvement over the current situation and I am limited to assessing the scheme before me. I do consider it appropriate to attach a condition to any grant or permission reaffirming that cycle tracks shall not be narrower than 1.5m. It should be noted that the treatment at pinch points shall be in line with the road user hierarchy as designated within DMURS, i.e., the width of the general traffic lanes should reduce first, then the width of the cycle track should be reduced before the width of the pedestrian footpath is reduced. The recommended condition should refer to DMURS and a preference for 2m wide cycle lanes where there is scope to reduce general traffic lanes to 2.75m.
- 11.5.4.21. In my opinion kerb heights along cycle tracks are an important factor for eliminating illegal parking, particularly where a general traffic lane adjoins the cycle track. A low

kerb height makes illegal parking or pulling up onto the cycle lane more tempting to motorists. The Preliminary Design Guidance Booklet proposes a kerb height of 60mm between the cycle track and roadway. I consider that a condition should be attached to any grant of permission requiring this minimum kerb height to be permanently maintained along cycle tracks.

Traffic Calming

- 11.5.4.22. I have indicated above that the lack of cycle facilities along certain sections of the CBC could be mitigated by traffic calming. It will be helpful that the speed limit reduces to 30kph to the east of the South Circular Road junction. However, there will be a 50kph speed limit along sections of the CBC that have no dedicated cycle facilities to the west of this junction.
- 11.5.4.23. As noted above, DMURS refers to self-regulation where the idea is that speed is controlled by place. A number of psychological and physical measures are set out that influence driver speed, enhance place and manage movement. Some of these measures are already in place and others could be introduced to control speed. There are sections of road that are relatively long and straight with good forward visibility that can encourage speeding, and this will compromise the safety and comfort of cyclists who will be sharing the road. As stated, I consider that if the Board be minded to grant permission for the proposed development, a condition should be attached requiring the applicant to put in place detailed traffic calming measures commensurate with the intended 30kph and 50kph speed limits along the sections of the proposed scheme where there are no dedicated cycle facilities. It is particularly important that traffic is calmed along Emmet Road. I refer to the recently released NTA document “Rapid Build Active Travel Facilities” (February 2023), which I consider the applicant should have regard to in order to increase traffic calming along these sections of the proposed scheme. This may include build-outs, chicanes, ramps, raised tables, etc. to reduce traffic speeds and volumes and to accommodate pedestrians and mixed cycling and traffic environments.
- 11.5.4.24. It is stated in a submission that no traffic calming is proposed on the quiet cycling streets at Echlin Street, Grand Canal Place, Basin View and Newington Lane. I

would be satisfied that traffic calming along these streets is unnecessary because of the low traffic volumes utilising them.

Cycle Parking

- 11.5.4.25. The landscaping general arrangement drawings shows the locations of proposed bike racks along the proposed scheme corridor at the junction with Drumfinn Road, Le Fanu Road, Ballyfermot village, Ballyfermot Church of Our Lady of the Assumption, Grattan Crescent, Emmet Road, the Obelisk Fountain junction, James's Street (east of Echlin Street), Thomas Street (east of Meath Street), and Cornmarket Junction (3 no. locations)
- 11.5.4.26. It was noted in submissions that there is a lack of cycle parking along certain sections of the proposed scheme, in particular at Emmet Road, where a 700m section between Spa Road and Inchicore Library will have no cycle parking. In response, the NTA noted bike racks will generally be provided at island bus stops and key additional locations. In total, 417 cycle spaces are currently provided and this will increase to 1,017 spaces throughout the proposed scheme. It is also noted that new cycle parking along Emmet Road will substantially increase availability in this location.
- 11.5.4.27. In general, I would be satisfied that the proposed scheme will provide for a good level of cycle parking at appropriate locations. It should also be noted that many of the large-scale developments proposed along the CBC will contain substantial cycle parking provision, including 1,500 spaces at brewery site. I agree, however, that cycle parking provision could be increased along Emmet Road. No island bus stops are proposed along this section and proposed cycle racks are shown at only one location between Spa Road and St. Vincent's Street West. I consider that cycle parking should be left in place at three locations along Emmet Road at No's. 122, 139 and at Inchicore Library. In my opinion, it is also reasonable for the applicant to outline cycle parking provision in detail as a condition of any grant of planning permission to ensure that areas of most activity are properly provided for.

Other Specific Cycling Issues

- 11.5.4.28. A number of other specific issues were raised by the local authorities and responded to by the NTA. South Dublin County Council consider that there is potential at a

number of locations for cycle tracks to be placed inside a green strip (Fonthill Road and Coldcut Road). It is also submitted that the left turn for cyclists on Fonthill Road to the 2-way cycle track is too tight and there is potential for cycle track connection to the south along Coldcut Road.

- 11.5.4.29. I would be in agreement that a green buffer strip between cycle tracks and the roadway is preferable. However, this would require more structural work and it may be more difficult to integrate the cycle track back into the junction.
- 11.5.4.30. With respect to integration with existing cycle facilities, I note the NTA's response that the proposed scheme is designed to tie-in with legacy facilities. Furthermore, I agree that the proposed scheme does not have the remit to improve pedestrian and cyclist facilities at surrounding areas. It is nonetheless hoped that superior cycle facilities along the CBC will encourage better connections to surrounding areas, including adjoining housing estates that are currently segregated from the main road. Again, this is outside the remit of the proposed scheme.
- 11.5.4.31. South Dublin County Council consider that there is no need to stagger the crossing at the junction of Coldcut Road/ Fonthill Road. In response, the NTA point out that a direct single crossing movement is not proposed at Fonthill Road/ Coldcut Road junction due to distance between footways (>19m). I consider this to be a reasonable approach in this case.
- 11.5.4.32. At the junction of Cloverhill Road and Coldcut Road, South Dublin County Council note that straight ahead cyclists will be held at signals. In response, the NTA note that cyclists (travelling eastbound) will only be held on red during the pedestrian phase at Coldcut Road / Cloverhill Road junction and Ballyfermot Road / Cherry Orchard Hospital junctions. As noted above, the preferred protected junction type includes a separation of pedestrians and cyclists at junctions.
- 11.5.4.33. Dublin City Council point out the lack of cycle facilities along Old Kilmainham/ Emmet Road. It is also suggested that there should be grade or physical separation between cycle tracks and footpaths. In response, the NTA highlight that local bus gates at Mount Brown will reduce through traffic, which will create an environment more conducive to cycling and there will be an overall improvement to the quality of pedestrian infrastructure along the eastern section of the proposed scheme. As

noted above, I consider that traffic calming measures should be applied where no segregated cycle tracks are proposed. The Preliminary Design Guidance Booklet provides cross sections showing grade separation between footpaths, cycle tracks and the roadway. Along certain sections of James's Street and Thomas Street, no kerb realignments are proposed as it is intended to reuse as much of the public realm as possible. I consider this to be a satisfactory approach in the historic streetscapes of the city centre.

- 11.5.4.34. As noted above, the absence of segregated cycle lanes along Mount Brown and James's Street is less than ideal. The design alternatives along this section of the scheme are more difficult to address owing to the interaction with the Luas. It is also reasonable to expect considerable levels of vehicular access to the hospitals. As noted, some benefit in terms of cycle safety will occur from the reduction in traffic through implementation of the bus gates. I note the presence of the westbound bus stop to be retained on James's Street outside the William Stokes Post Graduate Centre, School of Nursing. The cycle lane terminates at the location of the bus stop. I consider that there is sufficient space for an island bus stop or shared landing zone bus stop at this location. This could form part of the traffic calming measures recommended by condition and appropriate for the 30 kph speed limit proposed for this stretch of road.
- 11.5.4.35. I note the new Children's Hospital service and basement access at Mount Brown contains a left turn slip road arrangement. DMURS advises that left turn slips should be omitted, as they generally provide little extra effective vehicular capacity but are highly disruptive for pedestrians and cyclists. I recommend the attachment of a condition to any grant of permission requiring that all junctions are designed in compliance with DMURS.
- 11.5.4.36. In conclusion to this subsection, I consider that the proposed scheme will result in significant improvements for cyclists along the CBC, particularly at junctions. There are, however, significant lengths that are devoid of any cycle infrastructure and I consider that appropriate traffic calming measures should be conditioned to facilitate a safer environment for cyclists, particularly along these sections.

11.5.5. **Bus priority and infrastructure**

11.5.5.1. BusConnects is first and foremost a comprehensive programme of bus priority installation and associated infrastructure along the Core Bus Corridors of Dublin City. The main purpose of the programme is to improve public transport in the main urban areas by redesigning the bus network; building new bus corridors and cycle lanes; implementing new simpler fare structure, ticketing and cashless payment systems; introducing new bus livery, bus stops, shelters and park & ride sites; and transitioning to a new zero emissions bus fleet. This section of the assessment addresses the elements of BusConnects bus programme which fall under the proposed scheme, i.e., building of the new bus corridors, bus stops and shelters.

Bus Priority

11.5.5.2. It is an aim of the proposed scheme 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.

11.5.5.3. From the outset, it should be noted that the proposed scheme will see the proportion of its 9.2km route increase from the present 22% with bus priority measures to 100% of the route. Bus priority in the case of the proposed scheme falls under three categories, i.e., bus lanes, bus gates and traffic signalling. Continuous bus lanes are the preferred means of achieving bus priority and most of the proposed scheme will have bus lanes on both sides of the road. However, there will be sections that will rely on signalled controlled priority and the use of bus gates. Buses will also be afforded priority at regular junctions.

11.5.5.4. Dedicated bus lanes will be located along the inner lane between junctions. These lanes will be used by the BusConnects services along the CBC but will also be available to taxis, coaches and bicycles. There will be situations where taxis and coaches will have to merge into the general traffic lane in order to make a left turn. The bus lane will either operate on a 24 hour basis or as indicated by signage. All inbound and outbound bus lanes east of the obelisk fountain junction at James's Street/ Thomas Street will operate from 07:00 – 19:00 Monday to Sunday. All bus lanes to the west of this junction will operate on a 24 hour basis.

- 11.5.5.5. Singal controlled priority will allow buses to get ahead of general traffic on single lane road sections. This typically happens where space restraints do not allow for a separate bus lane and the carriageway has to be shared with general traffic over short distances. Buses will receive a green light and general traffic will stay stopped at the signal, and when the bus passes, general traffic will be allowed to proceed. Such an arrangement is proposed at the bridge over the M50 in both directions over a distance of approximately 125m. Singal controlled priority for buses will also occur along Ballyfermot Road for approximately 380m eastbound up to the junction of St. Lawrence's Road; on Emmet Road westbound from the junction with St. Vincent's Street West; and on sections of Thomas Street and James's Street.
- 11.5.5.6. Buses may also be afforded priority at normal junctions, particularly where there is left-turning general traffic. Cyclists and buses travelling straight ahead through a junction will receive a short early start stage so that they can advance before general traffic. Buses travelling straight through the junction in dedicated bus lanes and left-turning traffic from adjacent shared straight/left-turn lanes should not usually be permitted to run together; buses will receive a green light when the general traffic has a red light.
- 11.5.5.7. A bus gate is a short length of road that is exclusive to buses, taxis, cyclists and emergency vehicles. General traffic is directed by signage to divert in other directions. Signage may also indicate the hours of operation of the bus gate. Bus gates are proposed on Mount Brown between the proposed entrance to the National Children's Hospital and the main entrance to St. James's Hospital. In an inbound direction, the bus gate at the main St. James's Hospital entrance will prevent general traffic from continuing onwards to Thomas Street and into the city centre between the hours of 06:00 and 10:00 Monday to Sunday. General traffic travelling this far eastbound between these times will have to take a right turn into St. James's Hospital. Consequently, general traffic egressing St. James's Hospital will not be permitted to make a right turn between these times. In line with the westbound bus gate, no left turn egress is allowed from this access between 16:00 and 20:00 hours Monday to Sunday. The bus gate at the proposed National Children's Hospital entrance will prevent general traffic from continuing further west at this location between 16:00 and 20:00 Monday to Sunday. Westbound general traffic can only

turn left into the National Children's Hospital during these hours. No right turn egress is permitted from this access between 06:00 and 10:00 Monday to Sunday in line with the inbound bus gate operational hours.

- 11.5.5.8. A number of submissions refer to the operational hours of the proposed bus gates, both in terms of the limitations the bus gates will place on access and whether the hours of operation go far enough. Bus gate arrangements were revised following non-statutory public consultation to allow access at all times to Ceannt Fort, the Children's Hospital, adult hospital and the local area from all directions. The NTA submit that traffic management measures will be monitored to ensure bus priority along Mount Brown is maintained and the exact operational hours may need to be refined. It was stated in a submission that a specific condition of planning consent should be that the hours of operation of the bus gate cannot be extended without seeking further planning approval.
- 11.5.5.9. I would be of the initial view that the success of the proposed scheme depends on the level of bus priority reaching 100%. However, there will be no bus priority along this section when the bus gates are not operational, and this may impact on the bus services during these times. In addition, an increase in general traffic levels out of bus gate hours could have adverse effects on pedestrians and cyclists along this section of the CBC. There may be a valid argument, therefore, that the bus gates should operate 24 hours a day in order to properly achieve the objectives of the proposed scheme.
- 11.5.5.10. Notwithstanding this, I consider that there are exceptional circumstances at certain locations. In particular, the new National Children's Hospital will open in the near future, and it is reasonable to expect a certain level of vehicular access to this facility, and also at St. James's Hospital. I agree that this section of road should be closely monitored, and bus gate operational hours increased if considered necessary. I would be satisfied that this can take place without recourse to the Board. The success of the proposed scheme depends on this section of road operating without congestion, and I consider that the NTA should be able to respond to any problems that may arise as quickly as possible. I would also be satisfied that the proposed bus gate operational hours do not place any undue burden on existing residents and businesses along this stretch of corridor. Any minor inconvenience

occurring from traffic diversion will be outweighed by the benefits of the proposed scheme with respect to improved access by active and sustainable modes. In addition, inconvenience for general traffic is an expected and necessary consequence of the requirement to promote modal shift and sustainable movement.

- 11.5.5.11. In general, I would be satisfied with the overall level of priority afforded to buses along the route. Ideally, bus lanes in both directions are preferred but there are on-street limitations where this cannot occur. Adequate means of bus priority should be achieved on these sections so that bus services do not experience undue delay. The figures presented in the EIAR show that the proposed scheme will have beneficial impacts in terms of time savings and reliability for bus services. It has also been shown that there is the scope to increase the number of bus services on the route without compromising reliability.
- 11.5.5.12. Bus journey times can be affected in situations where slower moving cyclists are sharing the bus lane. However, this only occurs along Grattan Crescent and a short section along James's Street. Buses will also share the general traffic lane with cyclists along Emmet Road, Old Kilmainham and Mount Brown. I have recommended above that traffic calming measures should be included along these sections. Traffic calming should be designed so that the movement of buses is not adversely affected. It is stated in DMURS that when carrying out traffic calming works on existing streets, the first priority should be to narrow carriageways where they exceed the standards listed (3 - 3.25m for bus lanes). This will calm traffic and free up space to widen footpaths, insert cycle lanes/ tracks, provide bus lanes, street trees and on-street parking (all of which will contribute to traffic calming).
- 11.5.5.13. There are opportunities to narrow carriageways and improve conditions for pedestrians and cyclists along Emmet Road, Old Kilmainham and Mount Brown without impacting on bus services. Along Ballyfermot Road, there are existing examples where the cycle lane is diverted on the inside of a chicane island and this type of measure could be installed on a rapid build basis where cyclists are sharing the general traffic lane with buses. A degree of traffic calming can also occur where on-carriageway bus stops are proposed along these sections of the corridor. Every effort should be made as part of any conditioned traffic calming measures to divert bicycles on the inside of any bus island at stops.

11.5.5.14. I note that there does not appear to be any signalised bus priority shown at Con Colbert Road turning right into Sarsfield Road. This junction forms part of the G-Spine route and I consider that bus priority is important at this location given the layout of the junction. I consider that this can be resolved by way of condition.

Bus stops

11.5.5.15. The main bus infrastructure to be installed along proposed scheme comprises the bus lanes, bus signals and bus gates, as described above, i.e., infrastructure to enable bus movement. The other main infrastructural provision relates to bus stops. Bus stops are typically spaced at distances of 400m apart in suburban areas and 250m apart in urban centres. Island bus stops, shared landing area bus stops and inline bus stops are proposed along the CBC. Island bus stops are the preferred layout and these contain an island with shelter for bus passengers with a deflected cycle track continuing behind. In the shared landing zone arrangement, cyclists are ramped up to the footpath level where they continue through the bus stop. In urban areas, it is generally acceptable for general traffic to wait behind buses that are stopped at in-line bus stops. Bus stop types are described and assessed under Section 11.5.4.14 to 11.5.4.18 from a cyclist and pedestrian safety perspective.

11.5.5.16. The island bus stop is the preferred layout, and where space is more limited in urban areas, a shared bus stop landing zone is proposed. In particularly constrained locations, a cantilever bus shelter can be provided adjacent to the carriageway to maintain access to frontages at the back of the footpath. All bus stops will have a shelter where possible and there will be CCTV and Real Time Passenger Information (RTPI). All stops will have 160mm kerbs for ease of access for wheelchairs and buggies. Appropriate tactile kerbing will be provided to ensure that visually impaired users are aware of crossing and access points. Push button signals to cross cycle lanes are also proposed.

11.5.5.17. There is concern with the narrow width of landing space for boarding and alighting passengers at certain bus stops and the potential for conflicts with passing cyclists. As noted above, measures will be included to slow cyclists down on the approaches to bus stops. Narrow landing areas will be used where space is limited, and pedestrians and cyclists are likely to be more conscious of each other in these

situations. I consider that the benefits of all of the proposed bus stops types outweigh existing arrangements from an overall safety perspective.

- 11.5.5.18. Concern is also expressed in some submissions that bus stops may attract anti-social behaviour. On the contrary, I would be of the opinion that the increased numbers of people using bus services and waiting at bus stops will provide “eyes on the street” type surveillance and this will have the effect of reducing anti-social behaviour. It should also be noted that the provision of CCTV will be increased at bus stops.
- 11.5.5.19. In general, I consider that bus stop design, together with increased frequency of service and improved journey times, will represent the main improvements to the bus user experience under the BusConnects programme. The new bus stop infrastructure will be superior to existing infrastructure in terms of comfort, visibility, access, safety and information. Seating and shelters will provide added comfort for waiting passengers and wait times can be minimised through RTPI on screen at the stop and from mobile phone applications. Stops will generally be more visible and shelters can contain additional information such as bus timetables and route maps.
- 11.5.5.20. On the whole, it can be concluded that while the proposed bus infrastructure may not be perfect, and that due to the nature of the existing limited corridor width and pinch points within the built environment, there are still locations where delay or conflicts may occur. However, this is not a BRT system, which requires continuous unbroken physical lane infrastructure. Core Bus Corridors are proposed to a consistent standard that will provide an integrated bus system.
- 11.5.5.21. Finally, the issue of bus lane enforcement camera was raised in submissions. This is outside the scope of the proposed scheme, being an enforcement measure under which the Board has no jurisdiction. However, I note that NTA is exploring proposals for bus lane enforcement as set out under Measure INT20 – Enforcement of Road Traffic Laws of the Draft Greater Dublin Area Transport Strategy 2022-2042.
- 11.5.5.22. A number of submissions suggest the relocation of certain bus stops; however, bus stops located in areas of activity/ access and are more or less evenly spaced in accordance with recommended standards. Relocation of a bus stop may also have knock-on impacts on the location of other stops. Having assessed their location and

siting along the overall route, I am satisfied that the placing of bus stops is appropriate and acceptable.

11.5.6. **Access to commercial premises**

11.5.6.1. Access to commercial premises is a recurring issue within submissions from businesses and other organisations located along the CBC. The compulsory purchase of land will also affect the operation of certain businesses along the route, and this is addressed in further detail in Section 14 below. This section addresses the issues raised regarding access arrangements during the construction and operational phases of the proposed scheme for deliveries, customers and staff members.

Construction Phase

11.5.6.2. Clearly, a scheme of this nature will cause disruption and inconvenience for adjoining businesses during the construction phase. The street is the main point of access and the construction phase is likely to last approximately 30 months. The main construction activities will involve site preparation and clearance works, road and street upgrades, and construction site decommissioning, including the removal of all construction facilities and equipment. Impacts will include temporary traffic diversions or lane restrictions and disruption to footways, cycleways and other areas.

11.5.6.3. Access will be maintained to adjacent businesses, residences and community facilities during the construction period. In addition, the proposed scheme will be constructed in sections and therefore businesses within each section will not be directly impacted for the full 30 months of the construction phase. A Construction Environmental Management Plan (CEMP) will be prepared for the proposed scheme, and this will contain mitigation measures to ensure that disruption and nuisance are kept to a minimum.

11.5.6.4. A Construction Traffic Management Plan (CTMP) forming part of the CEMP will identify opportunities for the maximum movement of people during the construction phase with access being maintained for emergency vehicles. Temporary traffic management measures will be included to minimise the impacts during peak periods and safe routes past works areas will be provided for pedestrians and cyclists. The

NTA will liaise with local authority, An Garda Síochána and residents and businesses prior to all road closures and diversions.

11.5.6.5. In general, I consider that the construction works can be adequately managed so that significant effects on the street environment are minimised. Impacts on businesses are an inevitable consequence during construction and it is incumbent on the applicant to minimise these impacts to the greatest extent possible. I note that all temporary traffic measures to facilitate the works will be undertaken in accordance with Department of Transport's 'Traffic Signs Manual, Chapter 8 Temporary Traffic Measures and Signs for Roadworks' (DTTAS 2019a) and associated guidance. Furthermore, general traffic redistribution is not expected to be a significant issue during construction, and emergency access will be maintained for emergency vehicles along the proposed scheme throughout the construction phase. This is particularly important given the presence of substantial health facilities along the CBC.

11.5.6.6. Any impact during construction will therefore only be temporary, affecting commercial premises along the route for a relatively short period of time.

Operational Phase

11.5.6.7. The main objections from businesses along the proposed scheme relates to impacts during the operation phase. Tesco Ireland is concerned that delivery arrangements to its store on Thomas Street will be unduly affected owing the proposed removal of a loading bay from outside the shop. It is stated that the replacement loading bay will be 120m from the shop and this is too far to pull/ push a delivery cage. Tesco also submitted that the change of Ballyfermot Road to one-way will impact on customer, service and delivery vehicles. It is requested that Autotrack analysis is carried out to demonstrate that HGVs can access the supermarket car park from Ballyfermot Road.

11.5.6.8. In response, the NTA confirmed that the Road Safety Audit does not identify any issue with HGVs accessing the Ballyfermot Road and a swept path analysis is shown for HGV turning from Ballymore Road into supermarket car park. I would be in agreement with the NTA that the retention of the loading bay on Thomas Street outside Tesco would adversely impact on the quality of service for buses along this

location. The proposed scheme loading bay design will facilitate the movement of trolleys from the kerbside over the cycle lane and it should be noted that there is a loading bay on Meath Street a shorter distance from the store. It is likely that over time, businesses in the area will become aware of each other's delivery arrangements and will share loading bays on an informal basis.

- 11.5.6.9. Other businesses/ facilities that object to the potential impacts of the proposed scheme on their operation include MRCB Paints and Papers at Cornmarket, United Tyres on Ballyfermot Road, St. James's Hospital, the National Children's Hospital and Grange Cross Medical/ Haven Pharmacy and Cherry Orchard Service Station. Issues raised United Tyres and Cherry Orchard Service Station relate more to CPO matters which are addressed in Section 14 below. The objections from Grange Cross Medical/ Haven Pharmacy were also submitted under the concurrent CPO application.
- 11.5.6.10. With respect to the impact on the paints business at Cornmarket, the submission primarily relates to the loss of car parking to the front on Cornmarket. It is requested in the submission that the loading bay that is proposed at this location be extended to provide 2 no. additional parking spaces or a dual purpose loading bay to allow for general parking outside core loading hours. In my opinion, there is no justification for retaining parking at this location when there is ample parking in surrounding streets. The Cornmarket junction is prime public street space and car parking essentially privatises a part of this space, which forms one of the main entrance points to the city. The proposed scheme introduces public realm improvements at this location, which I do not consider should be undermined by car parking. I would hold a similar view where it is argued that car parking should be retained outside businesses. This is a Core Bus Corridor and main thoroughfare, and car parking should be placed at the bottom of the hierarchy as far as street space allocation is concerned.
- 11.5.6.11. A number of other issues have been raised along the CBC concerning vehicular access. It is requested that a layby be provided for a proposed hotel at the proposed St. James's Gate masterplan development, and that the footpath is widened to facilitate the anticipated increase in pedestrian traffic at this area. A submission from St. James's Hospital highlights that 24 hour access to its energy centre is required and the proposed scheme should not impede this access. I consider that these are

issues that can be addressed between the applicant and the parties on an ongoing basis. The NTA has indicated that it will continue to liaise with relevant bodies and will work with developers subject to the conclusion of their planning process.

- 11.5.6.12. As noted above, the bus gate operation allows access to St. James's Hospital and the National Children's Hospital during the operational phase, with some minor restrictions egressing these sites. All committed development has been included in traffic modelling, including the ban on traffic travelling through St. James's Hospital. The proposed scheme has also been designed to be compatible with consented planning application along the CBC, including the National Children's Hospital. Local access arrangements can be made on a case by case basis during construction, including the St. James's Hospital energy centre.
- 11.5.6.13. On the whole, I recognise that the streetscape is being radically altered and businesses along CBC are amongst those who are likely to be the most affected by the proposals. Businesses are critical to street life and must be facilitated as best as possible through construction and operational stages. Notwithstanding this, businesses can't assume ownership of public space to the front and there is no right to on-street parking. Furthermore, delivery arrangements should be facilitated without impacting on the operation of bus services. In my opinion, adequate loading bays are proposed to serve the CBC and businesses should be expected more often to load from nearby side streets to avoid disruption on the main thoroughfare. On balance, whilst businesses and other facilities along the CBC will experience a general reduction of vehicular access for parking and deliveries, this will be outweighed by the benefits to these businesses and facilities from an improved public realm and better footpaths, as well as improved public transport access.
- 11.5.6.14. I note that Dublin City Council has recommended the attachment of a condition to any grant of permission that the NTA, in conjunction with the Council, shall develop and implement a co-ordinated loading and servicing strategy for businesses and traders located on and within the immediate vicinity of the Thomas Street and James's Street corridor. In my opinion, the Board should attach such a condition if it is minded to approve the proposed scheme.

11.5.7. Private cars

- 11.5.7.1. DMURS sets out street/ road user priorities for designers to consider. Pedestrians should be afforded the higher priority, followed by cycles and then public transport. Private motor vehicles should be placed at the bottom of the user hierarchy. However, this should not be interpreted as an anti-car stance. It is recognised that people will always be attracted to cars where they are a convenient and flexible option and for many users, it is the only viable option for medium to longer distance journeys.
- 11.5.7.2. I have indicated above that it is my considered opinion that the proposed scheme could go further in reducing the role of the private car in the overall transport hierarchy. I consider that road space reallocation could have been increased and I have given the examples of the potential for the removal of a traffic lane on High Street and a possible one-way system along Emmet Road, Old Kilmainham, Mount Brown and part of James's Street. I have discounted these options on the basis that they would represent a radical change and I am limited to assessing the scheme before me. Given the urgency of climate change, I have concluded that the proposed scheme as presented will go a long way towards the promotion of compact growth and sustainable movement. I have put forward the recommendation that a programme of traffic calming measures along certain sections should instead be installed to slow traffic and improve pedestrian and cyclist safety.
- 11.5.7.3. In my opinion, traffic calming is all the more important in this case given that the level of access for private motor vehicles has been largely retained along the CBC. My concern is that the attraction of the car will remain because the proposed scheme may not inconvenience drivers to an extent that modal shift becomes a realistic option. I acknowledge that the private car may be the only viable option for some for medium to longer distance journeys. However, CSO figures show that more than half of travellers use the car for journeys under 2km. If drivers are limited to a realistic speed limit of 30 kph and 50 kph they may begin to realise that alternative modes, particular with the emergence of personal mobility vehicles, are just as attractive.

- 11.5.7.4. There are arguments both for and against the removal of parking along the CBC within submissions. There are also submissions stating that more car parking could be removed. Control and limitation of car parking is a measure that can be successful in encouraging modal shift to sustainable modes. Along the section of the proposed scheme between Liffey Valley Shopping Centre and Le Fanu Road, there will be a reduction in parking from 1,866 to 1,809 spaces. Most of these spaces are on side streets (1,680) where there will be no change. The section of the proposed scheme from Le Fanu Road to Sarsfield Road will experience a reduction in parking from 881 to 867 spaces. Again, the majority of these spaces are on side streets (690) where there will be no change. On the section of the proposed scheme from Sarsfield Road to the city centre, car parking will reduce from 1,915 spaces to 1,805 spaces, of which 1,580 spaces are on side streets which remain unchanged.
- 11.5.7.5. The overall reduction in car parking will not be substantial; however, the total reduction of 173 spaces will occur on the CBC itself. On the one hand, those wishing for car parking levels to be maintained will not therefore be greatly inconvenienced. On the other hand, those wishing for a car parking reduction will see the effects of this on the corridor itself. I envisage some further reduction of car parking on the route from the recommended traffic calming measures and the reinstatement of cycle parking along Emmet Road. It can be concluded that the significant improvements to walking, cycling and bus facilities encouraging use of sustainable modes will reduce demand for private parking.
- 11.5.7.6. A number of other specific issues have been raised in submission relating to private car use. Residents object to the closure of O'Hogan Road to general traffic; however, this is necessary to maintain bus priority following priority signalling. I note also that there is alternative access to O'Hogan Road via Garryowen Road and Decies Road. The closure of this road will present the opportunity for a small scale local intervention featuring good quality concrete paving, a proposed tree, ornamental planting and a curved feature bench. Thus, the benefits of this closure substantially outweigh the disadvantages to motorists.
- 11.5.7.7. It is submitted that there is insufficient disabled parking along the CBC. I note, however, that on the busiest section of the route between Sarsfield Road and the city centre there will only be the loss of a single disabled space at Cornmarket. I

acknowledge that the removal of general parking spaces may also inconvenience people with disabilities at certain location throughout the CBC, e.g. Grange Cross and Ballyfermot Church of the Assumption. Again, the benefits of the proposed scheme vastly outweigh the inconvenience and it should be noted that facilities for people with disabilities, such as tactile paving, increased kerb height at bus stops and improved public realm and footpaths will be of benefit. The Building for Everyone – A Universal Design Approach (Centre for Excellence in Universal Design 2020) guidelines have been followed in the design of the proposed scheme.

11.5.7.8. It is stated in a number of submissions that 30kph zone should be considered in residential areas. Residential areas are mostly on adjoining side streets and this is outside the scope of the study. A 30kph speed limit will be in place to the east of the South Circular Road junction and to the west the speed limit will be 50kph. I agree that there are locations along this section that would benefit from a reduced speed limit. However, I consider that appropriate traffic calming as recommended to encourage motorists to actually drive at or below the speed limit should be taken as a first step.

11.5.7.9. Questions are raised within submissions regarding the traffic modelling carried out for the proposed scheme. It is submitted that traffic numbers recorded during lockdown are flawed and are not a true reflection. It is also asserted that calculations do not reference the fact that the road through St. James's Hospital is due to be closed. As noted above, all committed development has been included in traffic modelling, including the ban on traffic travelling through St. James's Hospital. The Transport Impact Assessment appended to the EIAR focuses on the movement of people rather than the movement of vehicles and I have concluded in the EIA that the assessment approach is robust and appropriate for modelling the future impacts of the proposed scheme. I consider that the information presented in the EIAR and associated appendices gives a good representation of existing and future people movement scenarios along the corridor for the opening year and into the future.

11.5.7.10. In general, I consider that the impacts on private car users have been kept to a minimum and this is perhaps indicative of the time when the proposed scheme was designed. Notwithstanding, I do not consider that the lack of curtailment of the private car in no way represents grounds for refusing the proposed scheme. The

proposed bus, cycle and pedestrian infrastructure supplemented by traffic calming, should be of a quality to encourage a modal shift away from the private car and this should satisfy what is essentially the main objective of the BusConnects programme.

11.6. Impact on residential amenity

- 11.6.1. A scheme of this nature has the potential to impact on residential amenity, most notably through its construction phase. The effects of noise, air quality and construction traffic are assessed in the EIA and appropriate mitigation measures are put forward to minimise impacts on population and human health. It is concluded that the overall impact of the proposed scheme will be adverse and short term during the construction phase and generally positive during the operational phase. Benefits to residential amenity will occur from improved air quality and noise standards, and from a reduction in community severance.
- 11.6.2. Clearly, the most significant impact on residential amenity will be the permanent acquisition of residential land for the operation of the proposed scheme and temporary acquisition of residential land during construction. The proposal will therefore impact on the affected landowners. In addition, the proposed scheme will impact on existing access arrangements along the CBC.
- 11.6.3. Four residential properties will be affected by temporary land take to accommodate construction activity and the same four residential properties will be affected by permanent acquisition. St Laurence's Glen Apartment Block, The Steeples Apartment, 3/3a Ballyfermot Road and St Laurence's Court will lose a small proportion of land. At The Steeples, works will include the removal of a boundary wall and tree planting. St. Lawrence Court will be affected by works within the car park area and a landscaped area within St. Lawrence Glen will be impacted. Lands to the front along the road will be acquired at No. 3/3a Ballyfermot Road.
- 11.6.4. Objections to the CPO element of the proposed scheme have been submitted on the basis of residential amenity impacts. Objections have been made by the management company for The Steeples, which comprises 99 apartments, 33 of which overlook or sit close to the boundary wall directly affected by the road

widening plan. It is submitted that The Steeples is screened and protected from Ballyfermot Road by a wall, railing and tree line, which offers privacy and protection from traffic noise and pollution. Road widening will move the boundary wall closer to the affected units and impact directly on the quality of life for those residents facing the boundary. The owner of an apartment in the nearest apartment complex to the proposed scheme submits that the acquisition will seriously reduce the amenity space and value of the objector's apartment.

- 11.6.5. The land to be permanently acquired at The Steeples includes a narrow strip to the front of Block E approximately 40m in length and amounting to a total area of 23.8 sq.m, as well as an area of 38.2 sq.m. to the south of Block F. Temporary acquisitions are required behind these areas amounting to 147.9 sq.m. and 70 sq.m. respectively.
- 11.6.6. The response from the NTA to The Steeples objection highlights that the traffic noise impact summary assesses an imperceptible/ not significant impact for the construction phase and a slight positive impact in 2028 from an overall reduction in traffic volumes. It is submitted that construction works will be carried out during normal working hours where it is practical to do so, and noise monitoring will be carried out. The NTA also confirms that reinstatement of property frontage including boundary walls, gates, railings, driveway, footpath and landscaping will be on a like for like basis and detailed works accommodation plans will be prepared. This is illustrated in Photomontage 15 accompanying the Landscape and Visual Assessment chapter of the EIAR.
- 11.6.7. I consider that the proposed road widening at The Steeples will not give rise to significant impacts on adjoining residential amenity during the operational phase of the proposed scheme. The impacts that will occur, such as loss of privacy and the potential for increased noise from removal of mature trees will be offset by a reduction in traffic and the replanting of landscaping along the boundary as part of the reinstatement works. The loss of land and the setting back of the boundary is addressed further in the CPO section of this report.
- 11.6.8. Objections relating to residential amenity impacts have also been submitted by residents of St. Lawrence Court, which is situated to a short distance to the north-

east of The Steeples on the same side of the road. The lands to be permanently acquired at this location comprise a narrow 13.8 sq.m. strip along the frontage of the property which measures approximately 40m. Temporary acquisition behind this strip is also required over an area of 112.3 sq.m. Objections relate mainly to the proposed acquisition potentially impeding access to an underground car park and to the perceived impacts associated with a nearby bus stop.

- 11.6.9. As noted elsewhere in this report, I consider that the presence of a bus stop will contribute to street safety by introducing more passive surveillance. However, no bus stops are proposed in the vicinity of St. Lawrence Court. The NTA confirm that local arrangements will be made on a case by case basis to maintain continued access to homes and businesses affected by works. The issue of property devaluation is a matter for the arbitration process.
- 11.6.10. I would also be of the opinion that the proposed works during construction and operational phases will not affect the amenity of local residents to a significant degree at St. Lawrence Court. Mitigation measures will be implemented during the construction phase and the actual permanent loss of land in this case will not result in a diminution of amenity value or recreational space enjoyed by residents of the complex.
- 11.6.11. The St. Lawrence Glen residential development is located a short distance to the north-east of St. Lawrence Court. Lands to be permanently acquired at this location comprise a 66.4 sq.m. area next to the junction of St. Lawrence Road and Ballyfermot Road. Two separate parcels of 70.3 sq.m. and 35 sq.m. are to be temporarily acquired at this complex.
- 11.6.12. There are residential amenity related objections to the CPO for reasons concerning access, boundary destruction and removal of trees. The NTA confirm that road closures and diversions that will need to be carried out during the construction phase will take into consideration the impact on road users, residents, businesses, etc., and will be in consultation with the local authority and An Garda Síochána. Access will be maintained for emergency vehicles along the proposed scheme throughout the construction phase. As noted, boundaries will be reinstated on a like for like basis.

- 11.6.13. The temporary acquisition to the west will directly affect the main vehicular access to the property. The applicant should be expected to consult closely with residents on the nature of this acquisition and how access can be maintained. I note that the other parcels to be permanently and temporarily acquired to the east of the property are set well away from the apartment building itself and in proximity to the road junction. Thus, I consider that any impacts on the amenity at this location on the complex will be minimal.
- 11.6.14. The final residential area that will be subject to the CPO process is at No. 3 and 3a Ballyfermot Road, which adjoins St. Lawrence Glen to the west. An area of 5.5 sq.m. will be permanently acquired, and private rights will have to be temporarily restricted or otherwise interfered with. An area of 39 sq.m. behind the narrow strip to the front will also be temporarily acquired. I note that no objections have been received in relation to this CPO. The area in question is concreted over and there will be no significant loss of amenity to the property. Some inconvenience to access may occur during construction and the area to be permanently acquired will not have substantial effects of parking and access arrangements to the front of the property given its limited scale.
- 11.6.15. As noted, the Compulsory Purchase Order is assessed further under Section 14 below under the four criteria of Development Plan compliance; community need; suitability of land to meet that need; and alternatives. From a residential amenity perspective, however, I consider that the lands to be temporarily and permanently acquired will have no significant impact on the residents of the properties in question.
- 11.6.16. A number of other residential amenity concerns were raised in relation to Palmers Lawn/ Palmers Drive/ Palmers Court/ Palmers Walk to the west of the proposed scheme and to the north of Coldcut Road. There are concerns regarding boundary walls, loss of trees, noise and privacy. It is also considered that the proposed run-off area is too close to existing homes and will adversely impact on the green space, and that the works area in a housing estate will be a health and safety hazard.
- 11.6.17. As stated above, boundaries will be replaced on a like for like basis and it is illustrated on the landscaping drawings that new tree planting is proposed along the boundary with Palmers Lawn to replace losses and to repair the edge of the

woodland area. New hedgerow and trees are also proposed along Palmers Court and Palmers Lawn. New fencing and boundary details and gateways are also illustrated on application drawings.

- 11.6.18. It is confirmed by the applicant that the new SuDs area at Palmers Lawn will be a dry detention basin that will be dry for the majority of the year and will only collect water during a major storm event. The area will be planted with species rich grassland to enhance biodiversity. On balance, I consider that this proposal will offer amenity benefits to the local area.
- 11.6.19. In general, I consider that the boundary proposals along this section of Coldcut Road are satisfactory, and once established, will afford local residents a similar protection from the noise, privacy and security impacts from the main road. Notwithstanding this, I would be of the view that there are opportunities for pedestrian/ cyclist connections through to the CBC and these have not been established. I accept, however, that this may be outside the scope of the proposed scheme and the hope would be that these linkages emerge over time.
- 11.6.20. A number of other issues were raised along other sections of the proposed CBC regarding impacts on residential amenity. Most notably, a number of submissions were made by residents of Ceannt Fort in relation to access and the proposed bus gates. As noted above, the proposed bus gate arrangements allow access at all times to Ceannt Fort and any traffic diversion will be outweighed by the benefits of the scheme.
- 11.6.21. Another resident of Cornmarket had issues with air pollution from passing buses; privacy concerns from passengers on double decker buses; and increased potential for bike theft. It is likely that emissions from buses will reduce with the rollout of hybrid then fully electric fleet over the coming years. The number of passing buses is likely to increase but I do not consider this to be a privacy issue and there will only be short and fleeting glimpses from passengers in the upper floors of buses towards upper floor windows. Bike theft is an issue that may be improved with more “eyes on the street”. Ultimately, the proposed scheme is unlikely to result in any increase in crime and anti-social behaviour.

11.6.22. On balance, I consider that the proposed scheme will have positive impacts on residential amenity through the general improvement to the street environment. Residential areas along the CBC will then become healthier and better places to live. This substantially outweighs the negative impacts of the proposed scheme which will mostly be short term and concentrated in the construction phase. Over time, as landscaping matures, any adverse impacts during the operational phase will become less perceptible.

11.7. Ecological impacts

11.7.1. The ecological impacts of the proposed scheme are addressed in the Biodiversity section of the EIA in Section 12.4.5 below. In addition, the Appropriate Assessment in Section 13 addresses the effects of the proposal on European Sites. Potential impacts on biodiversity could occur from vegetation and tree removal; construction and earthworks; drainage and additional silt/ pollutant release into drainage network; lighting during construction and operation; noise and vibration; and invasive species.

11.7.2. However, it is concluded in the EIA that, subject to conditions, no significant direct, indirect or cumulative adverse effects on water quality, habitats and species are likely to arise. Mitigation measures will be put in place to protect the ecological integrity of the site during the construction phase. It has also been ascertained in the Appropriate Assessment that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of any European site in the zone of influence, in view of these sites' Conservation Objectives.

11.7.3. The main issues raised in submissions relating to biodiversity concerns the loss of trees and vegetation. However, this will be compensated through the planting of 354 street trees and 504m of hedgerow. These are illustrated on the landscaping drawings accompanying the application. As required by the Department of Housing, Local Government and Heritage, any clearance of trees and shrubs during the main bird breeding season from March to August inclusive should be avoided. It is also recommended by the Department that a finalised CEMP should be submitted incorporating mitigation measures to avoid mobilisation of pollutants during construction into surface water runoff. This will be confirmed by way of condition.

- 11.7.4. Inland Fisheries Ireland note that the Camac River is recognised as a salmonid system under significant ecological pressure largely as a result of urban siltation. Lengths of the river support self-sustaining populations of brown trout, freshwater crayfish and lamprey. In addition, the River Liffey supports a regionally significant population of Atlantic salmon and serves as a natural linkage for Salmon, Sea trout and eels. As requested by IFI, the proposed development will include a comprehensive and integrated approach for achieving river protection during construction and operation, implemented through environmental construction management planning.
- 11.7.5. Overall, the impact of the proposed scheme on certain aspects of biodiversity is unavoidable. However, the proposed works will mostly occur within the existing built-up area and therefore any species would be habituated to human disturbance. Additional planting will compensate for vegetation removal, which will take place outside the bird nesting season. Measures will also be put in place to avoid mobilisation of sedimentary material during construction and to prevent the spread of invasive species. There will be beneficial impacts on surface water quality due to the inclusion of SuDS measures.

11.8. Impacts on Built Heritage

- 11.8.1. Impacts on built heritage are addressed in detail under Section 12.4.10 of the EIA covering cultural heritage and the landscape. The proposed scheme continues through the medieval core of the city and there is significant architectural heritage, particularly at its eastern end through the Thomas Street Architectural Conservation Area and along High Street where there is a high concentration of national monuments.
- 11.8.2. Notwithstanding this, and as noted above, the proposed scheme does not contain many up-standing structures as such, apart from signage and bus shelters, and therefore most construction activity will affect the surface of the street only. Surface works, and in particular improvements to the public realm and traffic calming, will allow for greater appreciation of the surrounding built heritage, particularly to the east of the proposed scheme around Cornmarket and in the historic city. Mitigation measures will nonetheless be implemented to protect adjoining heritage features.

Works will be carried out in accordance with “Methodology for Works Affecting Sensitive and Historic Fabric” set out in Volume 4 of this EIAR.

- 11.8.3. Dublin City Council highlight that bus stops/shelters are located in close proximity to protected structures along the route, and this could negatively impact on their character and amenity. It is recommended that the design of new shelters should be carefully considered especially at St. Catherine’s Church and St. Audeon’s Roman Catholic Church. In my opinion, a condition can be attached to any grant of planning permission stating that the final design of bus stops should be agreed between the applicant and local authorities prior to commencement of development. Dublin City Council recommends that advertisements should generally not be submitted on bus shelters within ACAs.
- 11.8.4. Dublin City Council also recommends that the proposed works should take into account any areas that contain historic stone setts and paving/ kerbing and all practicable measures should be taken to avoid loss of or damage to historic materials and features. In response, the NTA note that no kerb realignments are proposed along the majority of James’s Street and Thomas Street. Mitigation for surfaces will include retention of the various kerb stones, cellar hatches and cellar lights in-situ, and their integration into the proposed new paving design. Reinstatement/ recording will be undertaken under the supervision of appropriate architectural heritage specialist. I consider these measures to be satisfactory for the protection of heritage features.
- 11.8.5. There is potential for temporary land-take, and setback of the existing boundaries along Ballyfermot Road, to negatively impact on the curtilage of the former De La Salle School. Mitigation will consist of the recording of the entrance piers/ boundaries, labelling and safe storage before reinstatement on new lines. There are also instances of historic post boxes and lamp posts along the CBC that will be recorded, labelled and reinstated in proximity to their pre-existing positions. The Marian statue at Ballyfermot Roundabout will also be recorded, labelled and reinstated at a different position closer to the church.
- 11.8.6. In general, I consider that the proposed scheme can be developed without incurring significant impacts on individual heritage structures along the CBC. In a wider

sense, the proposed scheme will also present the opportunity to enhance the setting of the significant architectural heritage along the route. A better overall appreciation of the heritage value of the entire corridor will be gained through increased active travel, public transport usage and public realm improvements. High traffic volumes have the effect of dominating the streetscape to the detriment of the people on the street and their appreciation of heritage features. Reduced traffic volumes will allow people to view the streetscape in quieter and safer surroundings. It should also be noted that motorists on a street are focused primarily on the road in front of them. Fewer people in cars will also mean fewer people passing through unable to view their surroundings.

- 11.8.7. I am therefore satisfied that the proposed CBC will have a limited and acceptable impact on the built heritage of the corridor and immediate area.

11.9. Consultation

- 11.9.1. A submission on the proposed scheme contends that the consultation process has been inadequate for a project of this complexity and is not consistent with the many provisions of the Aarhus Convention and Kazakhstan Advice¹. It is submitted that a further period of consultation is warranted along with the holding of an oral hearing.
- 11.9.2. Following my recommendation, the Board decided that the holding of an oral hearing was not required in this case. It was decided that there is sufficient written evidence on file to enable an assessment of issues raised. The Board also decided to invite further submissions on the NTA's response to submissions received pursuant to Section 217B of the Planning and Development Act 2000, (as amended). It should be noted that the holding of hearings is a discretionary function of the Board.
- 11.9.3. A total of 15 submissions were received on the NTA's responses to the issues raised by objectors and within submissions. From a consultation perspective, there were objections to the time given for responses (four weeks), as well as the decision itself not to hold an oral hearing. It is considered by certain parties that no detailed design

¹ Advice relating to the holding of public hearings through video conferencing during the pandemic.

is available of the objector's property to be acquired and there will be no opportunity to engage with the NTA.

- 11.9.4. From the outset, it should be noted that three rounds of non-statutory consultation were held, and a number of consultation tools were used, including one to one meetings, a dedicated website, individual brochures, public information events, community forums, digital channels, press and radio, outdoor advertising and infographics. Design alternatives were examined during the different phases of public consultation and route alternatives were considered during the design development of the proposed scheme and informed by public consultation and survey data. The NTA intend to continue collaboration in advance of, and during, the subsequent construction stage. Construction works will therefore be carried in consultation with local residents.
- 11.9.5. The statutory process has made available for public review all application information as set out in legislation, as well as allowing for submissions in relation to the proposals to the Board. All owners as per Land Registry are set out in the CPO schedule, and site notices were erected and newspaper notices published. Information packs were also sent out to all recorded interested parties.
- 11.9.6. Overall, I am satisfied that extensive public consultation and stakeholder engagement was undertaken. The applicant has clearly engaged with all third parties, residents, businesses, community groups and other organisations and has amended the scheme accordingly where it has been feasible to do so and in response to concerns raised. I am also satisfied with the level of clarity provided within application and statutory consultation documentation. I am therefore satisfied that the applicant has complied with the requirements of the Aarhus Convention in its relevance to the statutory process and note that such requirements are not relative to any non-statutory consultation which is carried out at the discretion of the applicant. It is of further note that the Kazakhstan Advice is not relevant to any non-statutory public consultation and relates to the holding of public hearings within the statutory process. As noted, such hearings provided for under the Planning and Development Act 2000 (as amended) are at the discretion of the Board.

11.10. Other issues raised in Submissions

- 11.10.1. This final section of the planning assessment addresses any other specific issues that were raised in submissions or that remain outstanding.
- 11.10.2. A number of submissions question why the BusConnects type junctions have not been used at other locations, such as the junction of Landen Road/ Sarsfield Road, Emmet Road/ South Circular Road, or north of Kylemore Road. Reference is made in submissions to a number of other junctions that do not fall within the scope of the proposed scheme.
- 11.10.3. There will be a short section of westbound signal-controlled priority for buses at the Landen Road junction. There is also the option of cyclists using the toucan crossing for right turn movements at this junction. A wrap-around phase will allow pedestrians to cross all arms. It is also stated that there will be a raised crossing on the minor arm with reduced corner radii and lane widths to encourage slow vehicular speeds. Overall, this junction will improve from an existing D rating to a B rating and I consider this to be satisfactory.
- 11.10.4. At the Emmet Road/ South Circular Road/ Old Kilmainham junction, it is proposed to introduce advanced cycle stop lines at Emmet Road and Old Kilmainham. Broadly speaking, however, this junction will remain much the same as the existing. However, the junction will be modified for bus infrastructure. I would be in agreement that this junction would benefit from improved facilities, especially for cyclists. I note that there are no toucan crossing and I do not consider that advanced cycle stop lines are satisfactory means for making right turn manoeuvres off/ onto the CBC. I recommend that a condition is attached to any grant of permission requiring that cycling facilities at this junction are upgraded.
- 11.10.5. It is submitted that many 3 and 4-way junctions are missing pedestrian crossings entirely on one or more arms, meaning that pedestrians may have to wait for three lights or more (Sarsfield Road/ St. Lawrence Road, James's Street/ St. James's, James's Street/ Echlin Street, James's Street/ Watling Street, Thomas Street/ Bridgefoot Street, Thomas Street/ Meath Street). I recommend that a condition is attached to any grant of permission stating that all junctions along the CBC shall be in compliance with the requirement of DMURS.

- 11.10.6. A submission from Our Lady of the Assumption Church questions the need for the proposals at Ballyfermot roundabout. The proposal to upgrade Ballyfermot roundabout to a signalised junction will be a significant improvement for pedestrians and cyclists in particular.
- 11.10.7. Issues raised relating to the timing of construction works, drainage arrangements, taking in charge, materials and surfacing and retaining walls can be agreed by way of condition.

12.0 Environmental Impact Assessment

12.1. Introduction

- 12.1.1. Section 50(1)(a) of the Roads Act, 1993 sets out the forms of road development that require the preparation of an EIAR. This includes the construction of a motorway, busway or service area and any prescribed type of proposed road development consisting of the construction of a proposed public road or the improvement of an existing public road.
- 12.1.2. Article 8 of the Roads Regulations, 1994 sets out the prescribed types of proposed road for the above purposes and includes the construction of a new road of four or more lanes, or the realignment or widening of an existing road so as to provide four or more lanes, where such new, realigned or widened road would be eight kilometres or more in length in a rural area, or 500 metres or more in length in an urban area, or the construction of a new bridge or tunnel which would be 100 metres or more in length.
- 12.1.3. It is considered by the applicant that the proposed scheme meets the threshold set out in Article 8 in that it includes such a realignment and / or widening of an existing road of four or more lanes, and more than 500 metres in length in an urban area. An Environmental Impact Assessment Report (EIAR) has therefore been prepared on behalf of National Transport Authority for the proposed Liffey Valley to City Centre Core Bus Corridor Scheme dated June 2022.
- 12.1.4. Directive 2014/52/EU amending the 2011 EIA Directive was transposed into Irish legislation on 1st September 2018 under the European Union (Planning and

Development) (Environmental Impact Assessment) Regulations, 2018. This application for approval was received by the Board on 8th July 2022 and is assessed under the provisions of the new Directive.

12.1.5. An examination has been carried out of the information presented by the applicant, including the EIAR, and the submissions made during the course of the application for approval. A summary of the results of the submissions by the Planning Authority, prescribed bodies and other observers has been set out in other sections of this report. The main issues raised specific to EIA can be summarised as follows:

- Positive long term impacts on population and human health through facilitation of improved pedestrian and cyclist safety, faster and more reliable bus services, reduced traffic congestion, improved air quality and noise reduction, improved road/ street safety, more social interaction and positive accessibility and amenity impacts for community areas.
- Adverse long-term impacts on population and human health from the temporary and permanent acquisition of land.
- Adverse impacts on biodiversity from unavoidable removal of habitat.
- Positive long term impacts on climate through removal of approximately 15,700 and 15,100 car trips per weekday from the road network in 2028 and 2043 respectively and associated reduction in CO₂ emissions.
- Positive impacts on traffic and transport by maximising the capacity of the proposed scheme to move more people by sustainable modes, whilst also providing for necessary general traffic.

12.1.6. These issues are addressed below under the relevant headings, and as appropriate in the reasoned conclusion and recommendation including conditions. I am satisfied that the EIAR has been prepared by competent experts to ensure its completeness and quality, and that the information contained in the EIAR and supplementary information provided by the applicant, adequately identifies and describes the direct and indirect effects of the proposed development on the environment, and therefore complies with article 94 of the Planning and Development Regulations 2000, as

amended. I am also satisfied that all the information is up to date for the purposes of EIA.

12.2. EIAR Content and Structure

- 12.2.1. The EIAR is presented in four volumes comprising Volume 1: The Non-Technical Summary; Volume 2: The Main Environmental Impact Assessment Report; Volume 3: Figures and Volume 4: Appendices. In general, I consider that the content and scope of the EIAR is acceptable and in compliance with the EIAR Directive and the Planning and Development Regulations, 2001 (as amended).
- 12.2.2. The non-technical summary gives a concise synopsis of the EIAR and is written in language that can be easily understood. I am satisfied that the EIAR adequately describes the proposed development to include information on the site, its design and its size. The applicant has also carried out an assessment of reasonable alternatives relevant to the proposed development and its specific characteristics. A baseline scenario with and without the proposed development is assessed and a description of the factors likely to be significantly affected by the proposed development are set out, together with any direct, indirect, secondary, cumulative, transboundary, and short-long term effects of the proposed development. A description of forecasting methods including any difficulties encountered and the main uncertainties, as well as measures envisaged to avoid, prevent, reduce or offset significant adverse effects and any monitoring arrangements are included for both construction and operational phases. The vulnerability to risk of major accidents is also described, along with any measures to prevent or mitigate the significant adverse effects on the environment. Details of consultations are included and there is an adequate list of experts who contributed to the EIAR.
- 12.2.3. Overall, I am satisfied that the information provided is reasonable and sufficient to allow the Board to reach a reasoned conclusion on the significant effects of the proposed development on the environment, taking into account current knowledge and methods of assessment.

12.3. Reasonable alternatives

- 12.3.1. The EIAR must include a description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, as well as an indication of the main reasons for the options chosen, taking into account the effects of the project on the environment.
- 12.3.2. Chapter 3 of the EIAR considers a range of alternatives at three levels comprising strategic alternatives, particularly with regard to the GDA Transport Strategy, route alternatives and then design alternatives, incorporating detailed local level design development.
- 12.3.3. At a strategic level, the EIAR considers the BRT, light rail, metro, heavy rail, demand management and technological alternatives. All the Core Bus Corridor infrastructure works will be developed to provide a BRT level of service. BRT corridors were investigated within a feasibility study in 2012; however, the level of differentiation between BRT corridors and Core Bus Corridors would be limited and it was decided that all corridors should be developed to a consistent standard in the interests of coherency and the provision of a unified integrated bus system. In addition, BRT requires continuous unbroken physical lane infrastructure, and this would involve significantly more land take and demolition. Bus priority can instead be achieved on Core Bus Corridors through signal-controlled priority at pinch points.
- 12.3.4. The light rail alternative would generally be appropriate to cater for demand of 3,000 to 7,000 passengers per hour in each direction and bus-based transport would cater for up to 4,000 passengers per hour in each direction. A Luas line between Lucan and the city centre is proposed along this corridor that will be supplemented by the proposed high-quality bus-based system based on the likely public transport passenger demand level across the region from the NTA's transport model and other studies.
- 12.3.5. Metro systems are generally designed for peak hour passenger numbers exceeding 7,000 passengers per hour in each direction. This solution would not be economically or environmentally justified along this corridor based on likely passenger use and construction impacts. Furthermore, it is considered that metro would require residual bus and cycle infrastructure along the route of the proposed

scheme. Heavy rail was discounted as it is usually designed to carry in excess of 10,000 passengers per hour per direction and would also require significant property acquisition and building demolition. The proposed Liffey Valley to City Centre Core Bus Corridor would supplement the Dart+ programme involving the expansion of the DART system on both the Maynooth / Sligo and Kildare line to provide fast, high frequency services to Maynooth, M3 Parkway, and Hazelhatch.

- 12.3.6. A demand management alternative which discourages travel by car can take many forms such as restriction of car movement, parking restrictions or fiscal measures to an extent that alternative modes become more attractive. However, it is noted in the EIAR that the existing public transport system in Dublin does not have sufficient capacity to cater for large volumes of additional users. The BusConnects programme, together with other programmes (Dart+, Luas & Metro), will significantly increase capacity and allow for the introduction of major demand management measures. The provision of greatly enhanced cycle infrastructure will also cater for greater cycling numbers which can also assist with demand management measures; however, demand management measures would not obviate the need to develop such infrastructure along the proposed scheme, nor the need to develop additional bus infrastructure.
- 12.3.7. In terms of technological alternatives, it is highlighted that congestion is not reducing despite the advancements in road-user technology. The shift to electric buses will reduce noise and air-quality impacts and longer distance cycling is increasing in attractiveness due to electric bikes. This alternative will only be limited to a few if cycling infrastructure is not improved. The need to improve the overall bus system will also remain and there is no evidence that technological advancements will replace the need for mass transit.
- 12.3.8. Route alternatives were examined during the iterative design of the proposed scheme that was informed by feedback from public consultation. Environmental aspects were also considered during the development of the preferred route option. The Feasibility and Options Report identified an Emerging Preferred Route which went out to public consultation. Route options for three main sections of the route were compared against one another using a detailed multi-criteria analysis in accordance with “Common Appraisal Framework for Transport Projects and

Programmes” (Department of Transport). This stage of the assessment also considered engineering constraints, high-level environmental constraints and an analysis of population and employment catchments.

- 12.3.9. A more detailed qualitative and quantitative second stage assessment took place under assessment criteria that included economy, integration, accessibility and social inclusion, safety, environment and physical activity. Different options were assessed for each of the three sections along the route (Liffey Valley Shopping Centre to Le Fanu Road, Le Fanu Road to Sarsfield Road, and Sarsfield Road to City Centre). Two options were explored for the first section, four were considered for the middle section and 10 for the eastern section and these were compared under each environmental aspect. During the Emerging Preferred Route stage, identification of alternative cycle routes separate to the Core Bus Corridor Emerging Preferred Route were not considered appropriate.
- 12.3.10. Public consultation on the Emerging Preferred Route took place and feedback was considered in the further development of the scheme to inform a draft Preferred Route Option. The starting point of Section 1 was changed to tie in with the Liffey Valley Shopping Centre Bus Interchange and new traffic calming proposals were incorporated along Ballyfermot Road. Parallel access roads were removed along Ballyfermot Road and new parallel parking was added between Cloiginn Park and Drumfinn Road. The option of widening the existing bridge or constructing a new bridge over the M50 was considered but not progressed as an option.
- 12.3.11. Within Section 2, two options were considered to provide cycle facilities between Le Fanu Road and Colepark Road and one was chosen that provides full physical bus priority and continuous cycle tracks, and which minimises impact on properties along Ballyfermot Road. Other parts of Section 2 were amended to reduce the impact on Markievicz Park (signalled controlled priority in lieu of bus lane) and to provide urban realm improvements on Ballyfermot Road between Clifden Road and Kylemore Road. The option of retaining the existing Ballyfermot Road/ Kylemore Road roundabout was ruled out as it did not provide the same level of bus priority, walking and cycling facilities.

- 12.3.12. Concerns were raised regarding the impact of the proposal on existing mature trees on Grattan Crescent (Section 3) and two alternative options were considered. The chosen option retains the trees and provides full physical bus priority, and the proposed one-way system ties in with local traffic management in the area.
- 12.3.13. Other amendments for consultation included the removal of a right turn ban from Emmet Road to Grattan Crescent; addition of two pedestrian crossings along Mount Brown and Old Kilmainham; redesign of the Cornmarket junction; and relocation and/or redesign of bus stops. Consideration was given to providing segregated cycle tracks along Old Kilmainham, Mount Brown and James's Street. However, this was discounted as buses needed to travel in both directions and on-street car parking cannot be easily relocated to side streets. Footpaths would be reduced to 1.8m and the cycle track would be 1.5m. Given these constraints, an alternative cycle route is proposed along Inchicore Road, Kilmainham Lane and Bow Lane.
- 12.3.14. The draft Preferred Route Option was published and a number of changes were made to the design, which were relatively small in scale. Two roundabouts on Fonthill Road were redesigned to signalised junctions and the scheme was refined at Coldcut Park to remove land take requirements. Continuous cycle tracks are now proposed along James's Street, Thomas Street and High Street and an offline cycle route is proposed via Echlin Street that avoids the Luas tracks.
- 12.3.15. A third round of public consultation took place and further amendments to the scheme were made to include the relocation of the eastbound bus gate to the St. James's Street entrance of the hospital campus and shortening of the length of the westbound bus gate. Operational hours were also altered so that eastbound gate operates in AM and the westbound in PM. A short section of westbound bus lane was removed in favour of signal-controlled priority at Landen Road and the area outside Ballyfermot church was enhanced and vehicular access is retained. Improvements were made to cycling provision at the junctions along Sarsfield Road, Grattan Crescent and Inchicore Road to provide better connection with the 7A primary cycle route (Inchicore Road, Kilmainham Lane and Bow Lane). Finally, alignments were refined along Thomas Street approaching Cornmarket and west of Cloiginn Park to lessen impact on existing trees.

- 12.3.16. The 'do nothing' alternative examined in the EIAR concludes that there would be a likely exacerbation of the problems arising from discontinuity of bus lanes such as delayed buses and unreliable journey times. At present, the Liffey Valley to City Centre route has bus lanes on approximately 20% and 25% outbound and inbound respectively and there is significant sharing with cyclists and parking lanes. It is considered that poor journey time reliability would severely impact on the attractiveness of public transport as an alternative to private car use. The 'do nothing' alternative would also do little to encourage active travel with insufficient levels of provision of safe and segregated cycle tracks and limited improvements to the pedestrian environment, particularly affecting those with mobility and visual impairment.
- 12.3.17. The consideration of alternatives focuses firstly on the different types of public transport that could potentially serve the Liffey Valley to City Centre corridor. The reasonable conclusion is reached that enhanced bus priority and cycle facilities, together with the proposed Lucan to city centre Luas, are best placed to serve the corridor having regard economic and environmental factors and passenger numbers that each mode would carry. The route selection stage examined the road network along the corridor using a "spiders web" approach to select the most desirable roads for the corridor. Finally, the scheme was refined following a number of rounds of public consultation.
- 12.3.18. Notwithstanding the iterative approach to selecting the preferred route, it would appear that the selection process focuses on the route that buses and bicycles themselves will take. It is unclear the extent to which general traffic will be adversely impacted by the proposed Core Bus Corridor and the suitability of other roads within the "spiders web" to accommodate redirected general traffic off the CBC. In particular, it is noted that Inchicore Road, Kilmainham Lane and Bow Lane West run parallel to the CBC and there may be potential for one-way general traffic on this route with the CBC accommodating one-way traffic in the opposite direction. This would free up space at pinch points along the CBC for a higher standard of bus lane, cycle track and for shorter pedestrian crossing distances.
- 12.3.19. It should be noted that Inchicore Road, Kilmainham Lane and Bow Lane failed under the Route Option Sifting exercise for the bus corridor itself. It is stated within the Bus

Corridor Options Study Feasibility Report that the possibility of upgrading adjacent roads to cater for diverted traffic was considered; however, Bow Lane West and Kilmainham Lane are narrow with poor horizontal and vertical alignments, and it would be difficult to widen these roads. This does not, however, consider a one-way arrangement for general traffic along this road.

- 12.3.20. In general, all reasonable alternatives that are relevant to the design of the project and its specific characteristics as presented are clearly set out in the EIAR. The main reasons for the chosen options and the development of the design process are included, together with the background to the statutory planning process. Notwithstanding my consideration that potential one-way systems of general traffic could have been somewhat explored further, I would therefore be satisfied that this section of the EIAR is sufficient to comply with the provisions of Article 94 and Paragraph 1(d) of Schedule 6 of the Planning and Development Regulations, 2001 (as amended).

12.4. Likely significant effects on the environment

- 12.4.1. This section of the EIA **identifies, describes and assesses** the potential direct and indirect effects of the project under each of the individual factors of the environment (population and human health; biodiversity; land, soil, water, air and climate; material assets, cultural heritage and the landscape; and the interactions between these factors).
- 12.4.2. The EIAR uses a different ordering of chapter headings (Traffic & Transport; Air Quality; Climate; Noise & Vibration; Population; Human Health; Biodiversity; Water; Land, Soils, Geology & Hydrogeology; Archaeology & Cultural Heritage; Architectural Heritage; Landscape (Townscape) & Visual; Waste & Resources; Material Assets; and cumulative impacts and interactions between these factors). These are used to inform the EIA. Baseline characteristics, cumulative information and an evaluation of impacts on each sensitive aspect are set out, together with mitigation measures and residual impacts.

12.4.3. Population and Human Health

- 12.4.3.1. Chapters 10 and 11 of the EIAR consider the potential community and economic impacts on the human population and the potential human health impacts (physical, mental and social) associated with the construction and operational phases of the proposed core bus corridor scheme. The potential impacts of the proposal on population and human health arising from other environmental factors are also addressed under the relevant chapters.
- 12.4.3.2. The methodology presents the study area and appraisal method for the assessment of impacts on local population, communities and businesses. The community assessment addresses community amenity and community land use and accessibility within the Rowlagh – Quarryvale, Palmerstown, Ballyfermot Upper, Chapelizod, Ballyfermot, Inchicore (Mary Immaculate), Inchicore (St Michael's), James's Street, Meath Street and Merchants Quay and Francis Street areas. An economic assessment of the impact on individual commercial businesses along the proposed scheme through these areas is also considered.
- 12.4.3.3. The aim of the human health assessment is to identify the wider determinants of health that would likely be affected by the proposed scheme and how these impacts are associated with health outcomes. The risk to human health from environmental hazards (e.g. noise, air pollution, water, etc.) is also addressed. The study area for health covers an area of approximately 500m on each side of the proposed scheme. Review of relevant guidelines, policy and legislation and data collection and collation also form part of the assessment methodology for population and human health. Baseline data was obtained from other EIAR chapters (population, air quality, noise and vibration and traffic and transport).
- 12.4.3.4. The appraisal method for the assessment of impacts on population in terms of community amenity considers how people perceive their communities or how they use community facilities and recreational resources as a result of the proposed scheme. The community amenity assessment also considers indirect impacts from air quality, visual, traffic and transport and noise and vibration impacts. Community land use arising from the proposed scheme includes land and assets such as public rights-of-way and residential land (gardens, paths and driveways). Community

accessibility relates to the ability of users to access community facilities, recreational resources and residences.

- 12.4.3.5. The appraisal method for the economic assessment (commercial amenity) is informed by a schedule of commercial businesses along the core bus corridor. Air quality, noise and vibration and traffic can affect businesses, and their sensitivity can be impacted if they support vulnerable people or if they rely on the visual landscape to attract trade. Land take from commercial properties/ land and designated parking is also considered, as well as the ability of users and customers to access commercial businesses during construction and operational phases.
- 12.4.3.6. The appraisal method for the assessment of impacts on human health includes an understanding of population health profiles and determinants of health; identification of potential impacts, literature review; and assessment of impacts. The assessment takes into account the health status of the population; social inequalities; likely level of exposure to a health risk; likely size of population affected; level of evidence in scientific literature for an association between an environmental impact and health outcomes; and existing health policy and priorities. Potential adverse impacts on mental health are also considered, e.g. anxiety, annoyance and psychological impacts.
- 12.4.3.7. The baseline assessment notes that the community areas along the proposed scheme have an approximate population of 71,000. The main community receptors include Liffey Valley Shopping Centre, Ballyfermot Community Civic Centre, Cherry Orchard Hospital, Sarsfield Medical Centre, St. Michael's, St. Raphael's and St. Gabriel's primary schools, Inchicore College of Further Education and St. James's Hospital.
- 12.4.3.8. Of the 31,700 commuters across the study area, approximately 24% travel by public transport and 30% travel by car/ van. Walking/ cycling accounts for 24% of travel across the study area and this ranges from 10% in Palmerstown to 52% in Francis Street. There is also a greater percentage of public transport access points within the Meath Street and Merchants Quay area closer to the city centre.
- 12.4.3.9. The economic baseline lists over 300 businesses along the proposed scheme and a total of 3,280 within the study area. The largest number of commercial receptors are

within the Meath Street and Merchants Quay area. Additional baseline data on footfall, modes of transport to commercial hubs and expenditure by mode of transport are also appended to the EIAR. Approximately 33,400 (47%) of the study area are in employment and 15% of the working age are unemployed. Key employment centres are Liffey Valley Retail Park, Cherry Orchard Industrial Estate, Ballyfermot village, St. James's Hospital and Guinness Brewery. There is also a number of tourist employers in proximity to the city centre. The Guinness Storehouse is the top tourist attraction in Ireland.

12.4.3.10. In terms of key baseline health issues, it is noted that Dublin has a better health profile and lower mortality rates than the average for the State. Levels of air pollution are almost entirely within EU limits for NO₂ and PM but there is a higher exposure to excessive traffic noise along the proposed scheme, particularly at night-time. Overall, there is widespread exposure to noise levels that exceed levels set out in the Environmental Noise Guidelines for the European Region (WHO 2018).

12.4.3.11. Walking and cycling rates in the study area are relatively high within 4km of the city centre and car dependency increases further out to the west of the proposed scheme. More active modes have associated health benefits. Areas of higher deprivation in the study area, which suffer worse health outcomes may be disproportionately affected by impacts from the proposed scheme (either adversely or beneficially). It is noted that fewer people with a disability in Dublin have access to a car compared to the general population.

Characteristics of the proposed development

12.4.3.12. The proposed Core Bus Corridor scheme extends over 9.2km between Liffey Valley Shopping Centre and the High Street in the City Centre. The purpose of the proposed scheme is to provide enhanced infrastructure to prioritise bus transport and provision for bicycles.

12.4.3.13. Characteristics of the proposed scheme that are of relevance to population and human health during the construction phase include temporary traffic diversions or lane restrictions; noise and vibration and dust and air quality impacts; temporary land acquisition; disruption to footways, cycleways and other areas; and occasional

interruption of services such as water and power. There will be 250 to 270 rising to 300 workers on the scheme at peak construction.

- 12.4.3.14. Operational characteristics of the proposed development affecting population and human health may include improved bus journey times; traffic diversions; enhanced cycle and pedestrian facilities; urban realm improvements; reduced on-street parking; and small areas of land acquisition.

Potential Impact of the Proposed Development

- 12.4.3.15. The potential impacts of the proposed development on population and human health are summarised as follows:

- *Do nothing scenario* – Scheme would not be implemented and therefore no changes to pedestrian, cycling and bus amenity and access and no change to land use. Streetscape would continue to be based around the private car and traffic would potentially worsen as population and travel demand grows leading to increased sedentary lifestyles and associated health effects.

Construction Phase:

- *Community and health assessment* - impacts arise from a combination of traffic, air quality, noise and visual impacts.
- Noise and vibration impact from general road works, road widening and utility diversions and boundary wall construction at educational receptors and at Cherry Orchard Hospital. Bus gate construction noise impacts at other hospitals.
- At least one lane of traffic in both directions will be maintained at Cherry Orchard Hospital during construction. Access will be maintained to all hospitals and healthcare facilities.
- Risk of missing appointments to health services is low and additional time for journeys for non-emergency appointments can be planned for in advance.
- Construction works may affect specialist mental healthcare services and individuals suffering from anxiety, depression and other mental health conditions who are more sensitive to impacts.

- Disruption to emergency services at St. James's from the proposed scheme is considered unlikely.
- There would be a mixture of adverse and beneficial impacts on NO₂ during the construction phase, largely to do with the redistribution of general traffic. There will be low impacts from dust with suppression methods in place and the prevention of dust infiltration into patient care areas.
- Noise levels will be temporarily increased during construction – time limits will be in place and potential noise impacts will be temporary, and therefore unlikely to be attributable to a change in health status for the general resident population.
- Negative landscape (townscape) & visual impacts along the proposed scheme experienced by community receptors.
- Combination of impacts on community facilities spread evenly along the proposed scheme including hospitals/ care centres, churches, schools/ colleges, parks, community centres, clubs and library.
- Temporary land take impacts on four residential properties and six community facilities (two schools, St. James's Hospital, Ballyfermot Resource Centre, Cherry Orchard Hospital and Liffey Gaels Park). May cause annoyance, stress and frustration.
- Some level of disruption for pedestrians, cyclists and bus users and their ability to access community facilities along the proposed scheme. However, the impact of disrupting cycle routes during construction is unlikely to be measurably different from the baseline situation.
- Temporary traffic management measures which may impact accessibility for private vehicles to parking provision and community facilities along certain parts of the proposed scheme particularly where road closures or diversions are required. Overall access will not be prohibited. Additional construction traffic flows will impact on general traffic and community areas.
- Population most exposed to temporary traffic congestion would be regular commuters, who in the main would be able to adapt their routes to avoid areas of

local congestion. Unlikely that congestion associated with construction works would contrast notably from the baseline situation.

- *Economic assessment:* Traffic, air quality, noise and visual impacts affecting the amenity of commercial businesses to operate successfully.
- 14 commercial receptors will be impacted by temporary land take including Cherry Orchard Service Station and adjacent businesses and Long Meadows Pitch and Putt.

Operational Phase:

- *Community assessment and health impacts:* Positive impacts on community facilities from a reduction in general traffic along the proposed scheme and negative impact on surrounding areas from redistributed traffic. Associated impacts in terms of air quality, noise and vibration and landscape (townscape) and visual.
- Visual disturbance from permanent land acquisition at Cherry Orchard Hospital.
- Negative impact on amenity of Ballymun Utd. Sports and Social Club from redistributed traffic along Le Fanu Road.
- Four residential properties and five community facilities require permanent land take as a result of the proposed scheme. St Laurence's Glen Apartment Block, The Steeples Apartment, 3/3a Ballyfermot Road and St Laurence's Court will lose a small proportion of land. St Gabriel's School, St Michael's School, Ballyfermot Resource Centre, Cherry Orchard Hospital and St James's Hospital will also lose a small amount of land that has no impact on the use of the facilities.
- There will be permanent beneficial impacts in terms of accessibility for pedestrians, cyclists and bus users, leading to improved access to community facilities. Community areas will experience positive impacts and areas where there is redistributed traffic will experience negative impacts.
- Private vehicles - redistributed traffic assessment did not identify any individual significant impacts at junctions during the operational phase. No impact on

private vehicle access during inter-peak periods at the Mount Brown and St. James's Street bus gates.

- Negative impact on parking and loading where this will be suspended/ altered along the proposed scheme.
- Implementation of new cycle lanes has been associated with improved cardiovascular health and improved weight management and walking to and from public transport contributes to daily transport related physical activity – provision of new sustainable transport infrastructure promotes an increase in active commuting. School children may be particular beneficiaries of this new infrastructure due to the presence of schools.
- Slight beneficial impacts along the scheme in terms of air quality and noise improvements. 97% of modelled receptors would not experience a perceptible change in noise levels.
- No impact on night-time traffic noise is anticipated from the proposed scheme and daytime annoyance is considered a less serious health effect than self-reported sleep disturbance.
- Improvements to the pedestrian environment along the bus corridor and transition to public transport from private vehicles will give people more time to interact. Improvements to street environment and reduced severance may also support for social interaction.
- Improvement in bus journey times will bring health benefits such as reduced stress, less exposure to pollutants and times savings allowing for health promoting activities.
- Small number of residents would be impacted by the traffic flow modifications and have their journeys by car lengthened, resulting in annoyance and frustration.
- Public transport would become a much more convenient choice for travelling to healthcare services. Bus priority would also provide more efficient and reliable routes for emergency services.

- Proposed development may help to reduce health inequalities by improving access to employment for those dependent on public transport. Urban environment would be easier for visually impaired, wheelchair users and people with mobility difficulties, parents with young children and pushchair users. This would help to reduce health inequalities in terms of accessibility. Accessibility and road safety would also improve for young people. Walking and cycling would become safer overall and there would be benefits for active travellers due to reduced injuries from vehicle collisions.
- Approximately 17% of car parking along the proposed scheme will be lost but alternative parking is available on nearby side streets. This may cause inconvenience for a minority of disabled people.
- Increased bus usage may increase the risk of communicable diseases. However, better air quality due to use of public transport as opposed to private cars has potential to benefit respiratory health.
- *Economic assessment:* Positive residual impacts on commercial amenity on businesses along the scheme and negative impact on businesses on the surrounding road network (air quality, noise and vibration, landscape (townscape) & visual and traffic).
- 14 commercial receptors require permanent land take as a result of the proposed scheme.
- People movement would significantly increase along the proposed scheme and therefore all businesses will benefit from the increase in passing trade to some extent.
- Improved access to businesses for pedestrians, cyclists and bus users. Private vehicle accessibility will be reduced from the introduction of the bus gates. There will be positive impacts on private vehicles along the route and negative impacts on the surrounding network. No significant impacts on parking were identified along the proposed scheme within the Traffic & Transport assessment.
- Business viability on individual receptors – bus gates expected to reduce access to commercial businesses from passing trade along this stretch of road; however,

most businesses along Mount Brown are not reliant on passing trade. Mount Brown Service Station may be negatively impacted but only on during peak times.

- Business viability unlikely to be affected along Grattan Terrace as the majority of businesses are located to the south of Inchicore Terrace South, where the road retains two-way access. Road in front of businesses on Ballyfermot Road is already one-way.

Mitigation measures

12.4.3.16. The following mitigation measures are outlined for impacts to population and human health:

- Design minimises negative population impacts by improving safety for cyclists with additional road closures; minimising cycle track widths to reduce land take from residential properties; modifying junction layouts to protect cyclists and altering layout and signal timings of major junctions to minimise traffic redistribution into side roads.
- Measures in Construction Traffic Management Plan to provide safe access for pedestrians and to help protect cyclists against an increased risk of collision with vehicles in areas of works and traffic management.
- Appointed contractor will ensure that access is provided to all hospitals and emergency vehicles along all routes and accesses. Liaison will take place with St. James's Hospital.
- The appointed contractor will put in place a Communications Plan in accordance with NTA requirements to include timely communication to the local community on the planned work activities.
- Potential impacts on population and human health are mitigated by the measures outlined below under air quality & climate, noise & vibration and traffic & transportation.

Residual impacts

12.4.3.17. No significant residual impacts on human health are predicted during the construction phase. During the operational phase, residual impacts of a positive

nature are assessed as likely, i.e. increased physical activity, improved pedestrian and cyclist safety, and better public transport journey times and reliability and overall providing a more equitable transport experience. The residual impacts on population are the same as the potential effects.

Conclusions on population and human health

- 12.4.3.18. The population along the proposed scheme is approximately 71,000 and the main community receptors are Liffey Valley Shopping Centre, Ballyfermot Community Civic Centre, Cherry Orchard Hospital, Sarsfield Medical Centre, St. Michael's, St. Raphael's and St. Gabriel's primary schools, Inchicore College of Further Education and St. James's Hospital. The economic baseline lists over 300 businesses along the proposed scheme and a total of 3,280 within the study area. Approximately 33,400 (47%) of the study area are in employment and 15% of the working age are unemployed. Key employment centres are Liffey Valley Retail Park, Cherry Orchard Industrial Estate, Ballyfermot village, St. James's Hospital and Guinness Brewery. There is also a number of tourist employers in proximity to the city centre.
- 12.4.3.19. The overall impact of the proposal is considered to be adverse and short term on population and human health during the construction phase and generally of positive effect during the operational phase. The main benefits to the local population will be improved pedestrian and cyclist safety, faster and more reliable bus services, reduced traffic congestion and positive accessibility and amenity impacts for community areas. The proposal will give rise to health benefits through increased activity, improved air quality and noise reduction, more social interaction, reduced community severance and car dominance, and improved road/ street safety.
- 12.4.3.20. The proposal requires the permanent acquisition of land for the operation of the proposed core bus corridor and temporary acquisition for construction. Four residential, six community facilities and 14 commercial receptors will be affected by temporary land take to accommodate construction activity. Four residential properties, five community facilities and 14 commercial properties will be affected by permanent acquisition. The 14 commercial receptors are the same as those experiencing temporary land take. There will also be impacts associated with access during construction for residents and users. Operational phase access, both positive

and negative, will occur due to improved sustainable transport access for residential, customers and works and negatively through reduction/ relocation/ redistribution in parking, general traffic access and loading arrangements.

- 12.4.3.21. Mitigation works along the affected locations will include the reconstruction of boundary walls and fences on a like for like basis and access will be maintained during construction and operational phases. If the CPO is confirmed by the Board, Notice to Treat will be served and each landowner will be required to submit a claim for compensation. A Construction Traffic Management Plan will contain measures to maintain safe access for pedestrians and cyclists and access to all hospitals will be maintained. A communications plan will also be put in place to inform the local community of planned work activities. Impacts on population and human health are also mitigated by the measures outlined under the air quality & climate, noise & vibration and traffic & transportation sections.
- 12.4.3.22. Under a 'do nothing' scenario, the streetscape would continue to be based around the private car and traffic would potentially worsen as population and travel demand grows, leading to increased sedentary lifestyles and associated health effects. In the longer term, increased car usage and ownership will contribute towards increased, CO₂ emissions. High quality public transport and pedestrian/ cyclist facilities can encourage the use of sustainable movement, thereby negating the CO₂ impacts of car production and usage. The proposal will also increase overall transport capacity along the core bus corridor to accommodate an increasing population.
- 12.4.3.23. Overall, and notwithstanding the various items raised by third parties in respect of issues relating to population and human health, it is considered that there will be no significant adverse impacts of population and human health during the construction or operational phases of the proposed development. I am satisfied that the impacts identified would be avoided, managed or mitigated by measures forming part of the proposed development, proposed mitigation measures and measures within suitable conditions, and that no significant direct, indirect or cumulative adverse effects on population and human health are likely to arise. The longer-term benefits of the proposed development will substantially outweigh any adverse impact which are likely to occur in the short term.

12.4.4. Biodiversity

- 12.4.4.1. Chapter 12 of the EIAR presents the output of the biodiversity assessment of the proposed scheme during construction and operational phases on key ecological receptors (KERs). Ecological receptors for which surveys were carried out include habitats; rare and/ or protected flora; fauna species (badger, otter, other protected mammal species, amphibians and reptiles); bats; and wintering birds. Habitat, mammal reptile and amphibian surveys were conducted from June to August 2018 and in August 2020, with an additional mammal survey taking place in October 2020. Wintering bird surveys occurred from November 2020 to February 2021 and from November 2021 to March 2022. There were bat surveys in 2018, 2019, 2020 and 2021.
- 12.4.4.2. A desk study was undertaken which included a review of existing information on the ecological environment and consultation with relevant statutory bodies. The desk study also identified suitable bat foraging/ commuting routes; potential suitable inland feeding and/or roosting sites for wintering birds; and all hydrological crossing points.
- 12.4.4.3. All designated areas within the zone of influence of the proposed scheme are considered to be KERs. The Appropriate Assessment Screening Report identified that the proposed scheme has the potential to adversely affect the integrity of 18 European Sites. The nearest European Site, South Dublin Bay and River Tolka Estuary SPA, is located approximately 3.3km from the proposed scheme. Nine European sites are hydrologically connected to the proposed scheme.
- 12.4.4.4. A total of 16 pNHA are also included as KERs. Habitats and species of local importance (higher value) or higher are considered to be KERs. The closest pNHA to the proposed scheme is the Grand Canal pNHA which is located approximately 385m to the south. There are also RAMSAR sites in proximity to the proposed scheme, as well as UNESCO Dublin Bay Biosphere.
- 12.4.4.5. Habitats along the CBC are dominated by buildings and artificial surfaces, residential estates, dry meadows and grassy verges, scrub and treelines. There is amenity grassland, scattered trees and parkland at Markievicz Park and Grattan Crescent Park and freshwater habitat such as the Camac_040 crossing. Lower biodiversity value habitats associated with residential, commercial or industrial development,

roads and highly managed amenity areas and are not considered as KERs. No protected plants listed on the Flora (Protection) Order, 2015 were identified during field surveys. Japanese knotweed was observed at four locations along the corridor.

- 12.4.4.6. Different species of bat were recorded throughout the corridor. Two trees with potential to support roosting bats were identified. No evidence of badger, otter or other protected mammal species was discovered during the multi-disciplinary surveys; however, otter are known to occur across the wider study area along the River Liffey, the River Camac and the Grand Canal. The otter population in the vicinity of the proposed scheme is considered to be distinct to that of the Wicklow Mountains SAC.
- 12.4.4.7. No dedicated breeding bird surveys were carried out. The desk study returned a total of 67 breeding bird species across the study area, which included 54 Special Conservation Interest species, 26 species listed under Annex I of the Birds Directive, and an additional 33 Red Listed and 55 Amber Listed species. However, most of the records along the proposed scheme comprise bird species common to suburban habitat and these species are likely to use lands within the footprint of the proposed scheme for breeding. Red listed breeding birds of conservation concern adjacent to the proposed scheme include kestrel, snipe, swift, grey wagtail and meadow pipit.
- 12.4.4.8. Wintering bird survey were carried out for the proposed scheme at three locations. Herring gull, black-headed gull and common gull were the species of conservation concern recorded and light-bellied Brent goose droppings were noted at Liffey Gaels GAA pitches. Wintering bird activity was recorded as being low across all visits. A total of 38 wintering bird species were returned from the desk study, which included 54 SCI species, 26 species listed under Annex I of the Birds Directive, and an additional 33 Red Listed and 55 Amber Listed species. There is one known inland wintering feeding site for geese at Le Fanu Park. Red listed wintering birds of conservation concern adjacent to the proposed scheme include pochard, redshank and snipe.
- 12.4.4.9. The desk study returned records of Atlantic salmon on the River Camac and Lower Liffey Estuary. Records for common frog and smooth newt were also returned within 1km of the proposed scheme. The River Camac is reported to contain juvenile

lamprey, European Eel and White Clawed Crayfish upstream. The desktop study returned records for 19 other invertebrate species.

Characteristics of the proposed development

- 12.4.4.10. The main characteristic of the proposed scheme pertaining to biodiversity impacts are site preparation and clearance; removal of boundaries and other demolition works; trees and vegetation and treatment of non-native invasive plant species; excavations and drainage adjustments; road widening, pavement reconstruction and kerbing; installation of new bus stops and junction modification; reinstatement works; and landscaping and tree planting.
- 12.4.4.11. The proposed scheme is located within the River Liffey catchment. The watercourses relevant to the proposed scheme are the Liffey_180, Liffey_190, Camac_040, Poddle_010, the Grand Canal Main Line and Liffey Estuary Upper (from National War Memorial Garden to approximately 40m upstream of Talbot Memorial Bridge). The drainage system for the proposed scheme will discharge into the Liffey_180 and Liffey_190, and ultimately to Dublin Bay.

Potential Impact of the Proposed Development

- 12.3.2.2. The potential impacts of the proposed development on population and human health are summarised as follows:

- *Do nothing scenario* – Scheme would not be implemented and therefore no changes to flora and fauna of the area.
- Current biodiversity trends would continue in areas zoned for development, adding to pressures on waterbodies and habitat fragmentation.

Construction phase:

- Proposed scheme will result in the temporary loss of one inland site with suitable to support breeding gull and wintering bird species, i.e. Liffey Gaels GAA Club grounds. Likely to be used infrequently by SCI bird species.
- Associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream and impact on Dublin Bay, where European sites are located. Reduction in water quality could result in degradation

of sensitive habitats and SCI bird species and QI mammals which rely upon them. Habitat degradation has the potential to result in a significant negative impact at a national scale in the case of the aquatic / wetland Annex I habitats.

- There is potential for invasive species to spread or be introduced, during construction, to terrestrial habitat areas in European sites downstream in Dublin Bay. Introduction of non-native invasive plant species to designated areas for nature conservation or areas of Annex I habitat have the potential to result in a significant negative effect.
- Potential for the proposed scheme to result in disturbance / displacement impacts on SCI populations associated with European sites.
- Loss of habitats of Local Importance (Higher Value) as a result of the proposed scheme - includes areas of (mixed) broadleaved woodland (WD1), scattered trees and parkland (WD5), hedgerow (WL1) and treeline (WL2) habitats.
- No potential for rare and protected plant species loss or degradation.
- Proposed scheme will not result in any direct impact to the two trees on site with bat roosting potential.
- Proposed scheme will result in loss of habitats used for foraging by all bat species – not considered significant considering the extent of loss and the location adjacent to artificially lit roads. Limited potential for proposed scheme to act as a barrier to flight paths for bat species as there will be no major changes to existing habitat along the route.
- Installation of temporary working and site compound lighting may cause indirect disturbance to bat flight patterns - bats in the area are not deemed to be present in high numbers and would be habituated to some level of artificial lighting.
- Construction may result in the permanent loss of 2.7ha (hectares) of suitable foraging / commuting habitat for badgers. Construction compounds will also result in the temporary loss of 0.98 hectares of scrub and amenity grassland habitat. Areas of habitat removal unlikely to be significant foraging habitat.

- Lighting associated with the construction phase could result in a negative effect on badgers, albeit temporary in nature and significant at the local level.
- Habitat degradation as a result of effects on surface water quality during construction phase has the potential to affect the conservation status of otter.
- Construction works have the potential to (at least temporarily) displace commuting or foraging otter.
- Disturbance and displacement to otter can occur as a result of artificial lighting – majority of scheme corridor is already artificially lit and construction compounds are removed from any watercourses. Otter can also tolerate high levels of human presence.
- Construction phase of the proposed development could result in contamination of receiving water bodies, which could result in negative impacts on marine mammals either directly or indirectly.
- It is concluded in the NIS that the proposed scheme would not affect the breeding colonies or have any long-term effects on local breeding bird populations.
- Proposed scheme will result in the loss of breeding bird nesting and foraging habitat within the development footprint; however, habitats suitable to support breeding birds are limited and treelines and hedgerows are highly disturbed. There are also larger expanses of similar habitat to that which will be lost and none of the habitat areas are unique to the locality.
- If vegetation clearance works were to be undertaken during the bird breeding season, it is possible that nest sites holding eggs or chicks will be destroyed and birds killed. Disturbance/ displacement of breeding birds is also likely during construction.
- Any contamination of receiving water bodies could have consequent effects on breeding birds either directly or indirectly. Any such pollution event is considered unlikely.
- It is concluded in the NIS that the proposed scheme would not affect the wintering bird colonies or have any long-term effects on local wintering populations.

- Potential impacts on wintering birds may arise from temporary loss of suitable GA2 habitat at Liffey Gaels construction compound – impact not deemed to be significant due to the relatively low frequency of occurrence of SCI bird species on lands; relatively low peak flocks recorded on the lands; and the availability of large areas of suitable foraging and/or roosting habitat for these SCI bird species in the wider locality.
- Temporary increase in noise, vibration and human activity levels during construction and operational phases of the proposed scheme could result in the disturbance to and/or displacement of wintering bird species present within the footprint and/or the vicinity.
- Disturbance effects for general construction activities would not be expected to extend beyond a distance of approximately 300m. None of the construction activities would be expected to result in any more than a moderate level of disturbance effect on wintering birds at distances beyond 150m.
- In the unlikely event that wintering birds are displaced during construction, they will likely be displaced to suitable sites in the surrounding environment - disturbance or displacement effects will not affect the conservation status of any wintering bird species.
- Habitat degradation as a result of effects on surface water quality during construction has the potential to affect the amphibian species' conservation status and result in a likely significant negative effect, at a local geographic scale.
- Construction phase could potentially result in contamination of receiving water bodies, with a consequent effect on fish species either directly or indirectly.
- Proposed scheme could potentially result in contamination of receiving water bodies, with a consequent effect on fish species either directly or indirectly.
- Habitat degradation as a result of effects on surface water quality during construction has the potential to affect the conservation status of affected fish species (Atlantic salmon, brown trout, lamprey, eel, and other fish species).

Operational phase:

- Release of contaminated surface water runoff and/or an accidental spillage or pollution event into any surface water features during operation has the potential to affect water quality in the receiving aquatic environment.
- Reduction in water quality could result in the downstream environment including sensitive habitat within European sites which in turn could negatively affect the QI habitat and/ or species and SCI bird species that rely upon these habitats. It could also affect QI mammal species and the quantity and quality of prey available to SCI and QI populations.
- There is potential for invasive species to spread or be introduced, during routine maintenance / management works.
- Proposed scheme has the potential to affect biodiversity in a broader sense than the QIs / SCIs of European sites – there are pNHAs and NHAs located within the boundaries of European sites and are designated for similar reasons.
- Proposed scheme will result in a beneficial imperceptible impact on surface water quality in receiving water bodies due to the inclusion of SuDS measures which will reduce the volume of surface water runoff and concentrations of harmful compounds.
- Effects of displacement as a result of increased artificial lighting along existing road networks are not considered to be significant.
- Proposed scheme will not increase the habitat severance/ barrier effect or mortality risk for otter, badger and other mammals – proposed scheme is already focused on existing infrastructure and species would already be habituated to disturbance. Habitat degradation as a consequence of operational effects on surface water is not likely.
- Operational phase could potentially result in contamination of receiving water bodies and this could have significant effects on marine mammals either directly or indirectly. However, drainage design incorporates pollution control measures.
- Increase in noise levels from improved bus frequency as well as increased human presence, may have a negative effect on bird abundance and occurrence. However, breeding bird are likely to be already habituated to noise disturbance.

- Operational phase could result in contamination of water bodies, resulting in negative effects on breeding birds either directly (toxicity) or indirectly (affecting food supply or supporting habitat); however, drainage design incorporates pollution control measures,
- Proposed scheme has the potential to disturb/ displace wintering bird species through increased noise, human activity and visual disturbance; however, most wintering bird species are likely to habituate to the increased traffic flows and human presence.
- There are no known major wintering bird feeding sites occur within the footprint of the proposed scheme or immediately adjacent to it.
- Operational phase could potentially result in contamination of receiving water bodies resulting in significant effects on wintering birds, fish and amphibians both directly and indirectly; however, proposed scheme incorporates appropriate drainage control measures.

Mitigation measures

12.4.4.12. The following mitigation measures are outlined for biodiversity:

- Where deemed necessary a suitably experienced and qualified ecologist will be employed during construction.
- Measures outlined in the NIS to protect surface water quality during construction and to prevent the spread of invasive species to downstream European sites would also apply to NHAs/ pNHAs with coinciding boundaries. CEMP also includes a full suite of mitigation measures to protect surface water during construction and to prevent the spread of invasive species.
- Vegetation including habitats of Local Importance (Higher Value) will be retained where practicable.
- Proposed planting will include 354 street trees, 220m of hedgerow, 5,092 sq.m. of species rich grasslands, 1,971 sq.m. of ornamental planting and 1,958 sq.m. of amenity grasslands.

- Surface Water Management Plan has been prepared, which details control and management measures for avoiding, preventing, or reducing any significant adverse impacts on the surface water during construction. This will include measures relating to the storage of fuels/ materials, control of sediment, use of concrete, management of vehicles and plant and monitoring. CEMP includes an Environmental Incident Response Plan, which will apply for the management of any incidents that may occur.
- Construction management of the site will take account of the recommendations of the CIRIA guidance Control of Water Pollution from Construction Sites –Guidance for consultants and contractors (Masters-Williams et al. 2001). Measures will also be implemented to minimise the risk of spills and contamination of soils and water.
- Implementation of a Non-Native Invasive Species Management Plan for newly established non-native invasive species.
- Mitigation measures will be implemented for two trees that contain possible roost features for bats, e.g. fencing off or wrapping with hessian sacking; no parking/ storage within root protection area; implementation of mitigation within Arboricultural Impact Assessment; and no additional lighting within 5m of possible roost feature. Habitats of importance to bats will be retained where possible and additional planting may provide additional foraging habitat.
- Lighting at the construction compound and active work areas in proximity to known bat activity will be designed to minimise light spill. Measures will be incorporated to reduce light spill.
- Confirmatory pre-construction checks of all suitable badger habitat and deep excavations will be covered at night.
- SWMP will avoid, prevent or reduce impacts to surface water impacting on otter, other marine mammals and breeding and wintering birds. Pre-construction checks will also be carried out for otter.
- Where practicable, vegetation will not be removed between 1st March and 31st August to avoid direct impact on nesting birds. Where nests are found, vegetation clearance will not commence until birds have fledged. Noise mitigation measures

will be implemented to reduce noise disturbance and habitat of importance will be retained where possible. New planting is likely to provide additional foraging habitat.

- Construction compound at Liffey Gaels will be established outside of the wintering bird season, where practicable, and hoarding will be in place prior to arrival of wintering birds. Lighting shall not be excessively tall.
- Pre-construction survey will be carried out for amphibians, if necessary, and mitigation will be undertaken before works recommence.
- Mitigation for the operational phase has been built into the design of the proposed scheme – this will include SuDS measures improving the environmental quality of discharges.
- Local Authority will implement maintenance and management regime for drainage, non-native invasive plants, etc.

Residual impacts

- 12.4.4.13. Following implementation of mitigation measures, the proposed scheme will not result in any significant residual effects on key ecological receptors during construction or operational phases.

Conclusions on Biodiversity

- 12.4.4.14. The main habitats along the Core Bus Corridor are mixed broadleaf woodland, hedgerows, treelines, scrub, flower beds and borders, grassland, and buildings and artificial surfaces. No protected species were identified along the route and there was no evidence of badgers, otter and amphibians/ reptiles. Japanese knotweed was recorded at St. Lawrence's Road and on Sarsfield Road. Five bat species and a total of 67 breeding bird species and 38 wintering bird species were also noted.
- 12.4.4.15. The overall impact of the proposal on certain aspects of biodiversity, such as the removal of habitat, is unavoidable. The proposed works, for the most part, will take place within the existing built-up area and largely along existing roads and streets. Any species in the surroundings would, therefore, be habituated to a certain level of human disturbance. Vegetation removal will in part be compensated by additional planting, and in this regard, the Department notes the significant loss will be

compensated through planting of 354 street trees and 220m of hedgerow and this will provide new nesting habitat for birds.

- 12.4.4.16. There are no designated sites in proximity to the site and no potential for measurable effects on any downstream designated sites. Notwithstanding this, a comprehensive range of measures will be implemented through the CEMP to avoid mobilisation of sedimentary material during the construction, e.g. silt fencing, storage and refuelling in bunded areas and careful use and management of cement. Changes to the existing drainage regime will be minimal and there will be beneficial impacts on surface water quality due to the inclusion of SuDS measures which will reduce the volume of surface water runoff and concentrations of harmful compounds.
- 12.4.4.17. The proposed scheme will result in the temporary loss of one inland site which is suitable to support breeding gull and wintering bird species, i.e. Liffey Gaels GAA club grounds. Wintering bird activity was recorded as being low and therefore the site is likely to be used infrequently by SCI bird species. The construction compound at Liffey Gaels will be established outside of the wintering bird season, where practicable, and hoarding will be in place prior to arrival of wintering birds. In addition, lighting at the compound shall not be excessively tall.
- 12.4.4.18. Mitigation measures will be implemented for two trees that contain possible roost features for bats, e.g. fencing off and no additional lighting within 5m of the possible roost features. Habitats of importance to bats will be retained where possible and the additional planting may also provide foraging habitat for bats.
- 12.4.4.19. There is potential for invasive species to spread or be introduced during construction. Measures will be put in place to prevent the spread of invasive species to downstream national or internationally designated sites. Where pre-construction invasive species re-survey confirms the presence of previously identified non-native invasive species, or those newly established, an Invasive Species Management Plan will ensure that control measures are properly implemented.
- 12.4.4.20. Overall, and notwithstanding the various items raised by third parties in respect of issues relating to ecology and biodiversity, I consider that the EIAR has adequately assessed the impact of the proposed development on biodiversity both individually and cumulatively. I am satisfied that with proper implementation of mitigation and

best practice measures, together with implementation of environmental commitments under the Construction and Environmental Management Plan, no significant direct, indirect or cumulative adverse effects on water quality, habitats and species are likely to arise. The Department recommends that planning permission is granted subject to conditions relating to the clearance of woody vegetation outside the main bird breeding season and the submission of a finalised CEMP incorporating mitigation measures to avoid mobilisation of pollutants during construction into surface water runoff. I consider that a condition should be attached to any grant of permission reflecting same.

12.4.5. **Land, Soil, Water, Air and Climate**

- 12.4.5.1. This assessment deals separately with the above environmental factors as they appear in the EIAR. Chapter 14 of the EIAR addresses land, soils, geology and hydrogeology and Chapter 13 deals with water. Air quality and climate are covered in Chapters 7 and 8 respectively and noise and vibration are included within Chapter 9.
- 12.4.5.2. Data collection and collation for land, soils, geology and hydrogeology was compiled from publicly available datasets (OSi, Teagasc, GSi, EPA, NPWS, National Monuments Service, etc.) ground investigations, design information and walkover surveys (21st January 2020 and 9th July 2021). A conceptual site model was developed to describe ground conditions throughout the study area of the proposed scheme.
- 12.4.5.3. The baseline assessment includes a regional and site specific overview of topography and geomorphology, soils (Teagasc Classification), subsoils (GSI Quaternary Classification), regional bedrock geology, regional aquifer type, classification and vulnerability, regional recharge, regional groundwater abstractions, groundwater quality and levels, regional hydro-ecology designated sites, regional geological heritage, current and historic land use, subsoil deposits, karst, soft and/ or unstable ground, contaminated land and mineral/ aggregate resources.
- 12.4.5.4. The land, soils, geology and hydrogeology features with high importance includes topsoil at Colepark Drive, Markievicz Park and widespread within green areas;

crushed rock aggregate potential to the west and south-west of Liffey Valley and Markievicz Park; granular aggregate potential at Colepark Drive and the War Memorial Garden; wells within the Guinness Brewery complex; and Dublin City Walls and the River Poddle (County Geological Sites). Other features of medium importance include potential sources of contamination (petrol stations, graveyard, railway works, historic landfill, etc); an asbestos truck watermain; and locally important aquifers.

- 12.4.5.5. The Conceptual Site Model shows that the proposed scheme is mostly underlain by made ground over alluvium (at water crossings) over glacial till over limestone bedrock. The environment across the study area is classified as one which corresponds to a passive geological / hydrogeological environment – examples include areas of thick low permeability subsoils, areas underlain by poor aquifers, recharge areas, and historically stable geological environments.
- 12.4.5.6. A desk study and field survey for water identified the waterbodies relevant to the proposed scheme as being the Liffey_180, Liffey_190, Camac_040, Poddle_010, Grand Canal Main Line (Liffey and Dublin Bay) and Liffey Estuary Upper. The WFD status of these waterbodies ranges from at risk to good ecological potential. The surface water drainage system along the proposed scheme discharges to all of these waterbodies apart from Poddle_010 and Liffey Estuary Upper. In the northern part of the proposed scheme, surface water drains to a combined sewer and onto Ringsend Wastewater Treatment Plant. A Flood Risk Assessment determined that the proposed scheme is located in Flood Zones A and B, where the probability of flooding from rivers and the sea is high and moderate respectively. Climate change will result in an increased risk of flooding.
- 12.4.5.7. The air quality assessment includes a baseline air monitoring study, together with a review of applicable standards and guidelines. Site-specific baseline monitoring was undertaken at monthly intervals from November 2019 to June 2020. Predictive calculations are carried out on likely construction phase air quality impacts and potential impacts associated with traffic alterations during the operational phase. Highly sensitive air quality receptors include residential properties, hospitals, schools and residential care homes. Commercial and workplace properties are generally viewed as being of medium sensitivity. The assessment in the EIAR considers both

compliance with the EU limit and meeting the WHO Air Quality Guidelines value for different pollutants. Potential changes in regional air emissions due to traffic impacts of the proposed scheme have been assessed using the National Transport Authority (NTA) Environmental Appraisal Tool (2015).

12.4.5.8. Baseline noise and vibration surveys have determined that the main source of noise in the study area is road traffic. These surveys align closely with the desk study of published noise data. Predictive calculations and impacts assessments were carried out on likely construction noise at noise sensitive receptors, as well as noise impacts associated with traffic alterations from the operational phase of the proposed scheme. Examples of noise sensitive locations include residential dwellings, schools and other educational establishments, hospitals and nursing homes, hotels and other short-term accommodation buildings, buildings of religious sensitivity, recreational and noise sensitive amenity areas and offices. The appraisal method for assessment of impacts during construction addresses potential significance based on both noise change and fixed noise limits. The operational phase appraisal of impact focuses on the changes on traffic noise. There is no noticeable source of vibration in the surrounding environment and low levels of vibration have been measured in similar environments.

12.4.5.9. Potential construction stage activities that are assessed in relation to climate include utility diversions, road resurfacing and road realignments and construction access routes. During the operational phase, factors that are taken into account for the climate assessment are predicted changes in traffic flows, reallocation of road space, and vulnerability to climate change. Alternative scenarios are analysed in order to consider the potential for further carbon reduction from higher bus frequencies and offline traffic signal optimisation. The TII Carbon Assessment Tool was used to assess construction phase embodied carbon emissions. Land use change, including felling and planting of trees, is also quantified, as well as traffic related emissions. The baseline assessment noted that private cars are the largest source of GHG emissions in the transport sector accounting for 57.4% of total transport emissions in Ireland, with heavy duty vehicle and buses accounting for 27.1%. Transport accounted for 20.3% of GHG emission in 2019.

Characteristics of the proposed development

- 12.4.5.10. The proposed Liffey Valley Core Bus Corridor will include site preparation and clearance works and road and street upgrades, followed by removal of all construction facilities and equipment upon completion of works.
- 12.4.5.11. Activities during site preparation and clearance works that may impact on land, soil, water, air and climate include temporary or permanent land acquisition, archaeological and ground investigations and demolition works. During the road and street upgrade works, topsoil and subsoil excavation will take place, as well as general construction works and associated noise and dust impacts from demolition, earthworks, construction and track out. The proposal will also entail adjustment and upgrades to drainage, landscaping and boundary treatments.
- 12.4.5.12. BusConnects is a key part of the Government's policy to improve public transport and to address climate change by moving people from cars to sustainable transport. It will also be a measure of BusConnects to transition to a fleet of low and zero emissions buses, which will contribute to cleaner air and noise reduction. Once operational, there will be a likely reduction in traffic on the core bus corridor and an increase on alternative routes, with associated impacts on noise, air quality and drainage.
- 12.4.5.13. The SuDS hierarchy is employed for the drainage design of the proposed scheme whereby the preference is run-off using source control solutions (e.g. pervious surfacing), followed by site controls (e.g. bioretention/ infiltration basins) and finally regional controls (e.g. attenuation ponds or tanks). There will be no increase or a reduction in impermeable areas along parts of the proposed scheme, where measures will be used to allow a level of treatment/ attenuation.

Potential impact of the proposed development on Land, Soils, Geology & Hydrogeology

- 12.3.2.3. The potential impacts of the proposed development on land, soils, geology and hydrogeology are summarised as follows:
- *Do nothing scenario* – Scheme would not be implemented and there would be no resulting impacts on land, soils, geology and hydrogeology.

Construction Phase:

- Loss or damage of topsoil through pollution, incorrect stockpiling, waterlogging and disposal instead of reuse.
- Excavation of potentially contaminated ground.
- Loss of future quarry or pit reserves.
- Loss or damage of proportion of Geological Heritage Area.
- Loss or damage / contamination of parts of an aquifer from run-off during construction or mobilisation of pollution from the disturbance of contaminated ground.
- Change to groundwater flows.

Operational phase:

- Potential for occasional accidental leakage of oil, petrol or diesel, allowing contamination to surrounding environment. This would occur in any case in the do nothing scenario.

Mitigation measures for land, soils, geology and hydrogeology:

- Topsoils will be stockpiled and assessed for re-use.
- Ground suspected of contamination will be tested and any dewatering shall minimise mobilisation of contaminants.
- Good construction management practices to minimise the risk of transmission of hazardous materials as well as pollution of adjacent watercourses and groundwater.
- No additional mitigation for land, soil, geology and hydrogeology considered necessary for the operational phase.

Residual Impacts on land, soils, geology and hydrogeology:

- No significant residual impacts on land, soils, geology and hydrogeology as a result of the proposed scheme.

Potential impact of the proposed development on Water

12.3.2.4. The potential impacts of the proposed development on Water are summarised as follows:

- *Do nothing:* It is absence of the proposed scheme, the surface water environment in the area should improve, particularly in relation to water quality due to investment under the Draft River Basin Management Plan.

Construction Phase:

- Water quality in four of six waterbodies could potentially be impacted by surface water run-off containing sediments/ spillages.
- Potential to disrupt local drainage networks if diversion is required for construction works.
- Potential surface water impacts during the operational phase associated with areas of impermeability.
- Potential impacts on hydromorphology due to sediment increased loading and changes to morphological features.
- The main receptor that could potentially be significantly impacted include the Liffey_090 – surface water drainage system outfalls to this waterbody from the compound at Liffey Gaels Park.
- There will be moderate impacts on the Liffey_180 and Liffey_190 waterbodies from works consisting of widening, cycle track construction, junction improvements and retaining walls.

Operational Phase:

- There will be an increase in impermeable area during draining to the Liffey_180 and Liffey_190 waterbodies; however, increased treatment of water quality through use of SuDS will have beneficial impact.
- Potential for displaced traffic on side roads which discharge to a different water bod, leading to a change in pollutant loadings; however, sections of road where increase AADT is more than 10,000 drain to the same catchment as the existing.

- No increase in the risk of pluvial flooding due to SuDS measures. Justification Test concluded that the proposed scheme is compatible with the existing level of flood risk.

Mitigation measures for Water:

- Surface Water management Plan provided within CEMP, which details control and mitigation measures for avoiding, preventing or reducing and significant adverse impacts on surface water environment.
- Site specific measures are proposed to avoid or reduce negative impacts related to the construction compound on the Con Colbert Road (Liffey Gaels). CEMP also include an Environmental Incident Response Plan.
- Proposed scheme will ensure no net increase in surface water runoff rates to any connected waterbodies, using a combination of sustainable drainage systems, which also reduce the potential risks to water quality from routine road contaminants.
- During the operational phase, sustainable drainage systems will be maintained by local authorities and will be subject to management procedures.

Residual Impacts for Water:

- Following mitigation, there will be imperceptible residual impacts on water as a result of the construction phase of the proposed scheme.
- Operational phase will see imperceptible beneficial residual impacts from increased treatment of water quality through the use of SuDS.
- Proposed development will not cause a deterioration in status in any waterbody and will not prevent them from achieving Good Ecological Status or cause a deterioration of Good Ecological Potential.

Potential impact of the proposed development on Air Quality

12.3.2.5. The potential impacts of the proposed development on Air Quality are summarised as follows:

- Site clearance and preparation, landscaping, road and junction construction works have the potential to generate dust and gaseous air emissions on site.

- Construction dust - There will be a larger magnitude of dust emissions during earthworks due to the construction site area and the presence of 5 to 10 earth moving vehicles. Small magnitude during construction as no buildings are being constructed. Dust magnitude for trackout (transport of dust/ dirt) is classified as medium.
- Construction traffic – comparison between ambient air concentrations for 2024 do minimum and 2024 Do Something was carried out. Assessment of modelled receptors show that impacts associated with construction phase traffic emissions are neutral and short-term.
- Key ecological receptors include the Grand Canal pNHA and Liffey Valley pNHA – there will be slight ecological impacts associated with construction phase traffic emissions and during the operational phase.
- Regional air quality – proposed scheme will result in increases in emissions of all pollutants modelled, mostly from redistribution of vehicles onto other longer routes during construction. Changes are neutral during construction and within the traffic model tool margin of variability. During operational phase, proposed scheme will be beneficial overall in opening year and there will be small increases in pollutants in 2043 (increases in emissions from LGVs & HGVs offset reduction from more electric cars).
- Slightly beneficial impacts in terms of NO₂ emissions at 35 receptors and moderate at two receptors during the operational phase. Neutral overall impacts associated with operational phase traffic emissions re-mitigation (predictions are conservative and do not take account of larger proportion of electric vehicles planning for opening year).

Mitigation Measures for Air Quality:

- Dust mitigation measures such as cleaning of roads, care with handling of materials, covering of trucks, and erection of hoarding.
- No specific construction phase mitigation or monitoring measures required for construction traffic.

- Generally neutral impact on air quality during operational phase and therefore no mitigation required.

Residual Impacts on Air Quality:

- With implementation of construction dust mitigation measures, there will be no significant residual impacts.
- No substantial or moderate adverse effects and therefore no significant residual impacts.

Potential impact of the proposed development on Noise & Vibration

12.3.2.6. The potential impacts of the proposed development on noise and vibration are summarised as follows:

- Construction phase noise and vibration impacts from general road works (reconfiguration, resurfacing, widening).
- Nature of proposed works are transient, e.g. use of breakers, excavators and planers where noise limits are exceeded will occur for intermittent periods at any one time as works progress along the route.
- Noise impact from other ancillary works including urban realm improvements, landscaping, boundary treatments, retaining walls, emergency work, etc.
- There will be slight traffic noise impacts due to the negligible to low volume of additional traffic along the road network during the construction phase. No significant impacts as a result of traffic redistribution during construction.
- Operational phase impacts from changes to traffic noise levels along the proposed scheme (from traffic flow data). There will be increased bus fleet and an associated reduction in private traffic.
- Overall reduction in exposure to traffic noise across the city through increased bus and bicycle journeys and journeys on foot.
- Addition or relocation of bus stops – noise source relating to engines idling, accelerating/ decelerating, air brakes, etc. Prevailing road environment is already dominated by road traffic and HEVs will eliminate ICE noise.

- Long term changes in traffic noise will be slight positive along the proposed scheme and there will be very small changes in traffic noise as a result on traffic distribution during daytime periods only.
- No vibration sensitive processes have been identified along the proposed scheme.
- Vibration levels of passing bus are below the normal range of perceptible human response to vibration and would not pose any significant impact.
- In 2043, Oranmore Road will experience a 5.2 dB increase above do minimum; however, this is significantly below the undesirable high noise threshold.
- Calculated traffic noise levels are for ICEs for all fleet – potential to be lower as a result of conversion from ICEs to EVs and HEVs.

Mitigation Measures for Noise & Vibration:

- Appropriate use of acoustic enclosures or screens.
- Monitoring of vibration at identified sensitive buildings.
- Construction activities will be required to operate below recommended vibration criteria.
- Contractor will put in place the most appropriate noise control measures depending on the level of noise reduction required at individual working areas.
- Other noise mitigation measures will include selection of quiet plant, noise control at source, screening, hours of work restrictions, liaison with public and monitoring.

Residual Impacts for Noise & Vibration

- Implementation of appropriate noise control measures will ensure that noise impact is controlled within acceptable limit values. Vibration impacts will also be mitigated to acceptable levels during construction.
- Once operational, there will be a reduction in traffic volumes in opening years and design year (2043) – a reduction in traffic noise will be experienced where the highest traffic noise levels are. There are no significant operational phase vibration impacts.

Potential impact of the proposed development on Climate

12.3.2.7. The potential impacts of the proposed development on Climate are summarised as follows:

- Construction phase GHG emissions of approximately 5,473 tonnes embedded CO₂eq for materials over the approximate 30-month construction period.
- Proposed scheme will enable further reductions in car mode share with corresponding transfer to public transport, walking and cycling, which in turn will lead to further reduction in GHG emissions.
- Proposed scheme can accommodate higher levels of bus frequency whilst maintaining journey time reductions and reliability – this can facilitate further significant transfer from private car. There will also be future growth in cycling and demand management measures could be applied to meet climate emissions targets.
- Proposal has the potential to remove c. 15,700 and 15,100 car trips weekday from the road network in 2028 and 2043 respectively – represents significant contribution towards the national target of 500,000 additional trips by walking, cycling and public transport per day by 2030.
- LGVs and HGVs are estimated to contribute the majority of CO₂ emissions in 2043, reflecting the technical challenges in converting particularly the HGV fleet to electric vehicles. However, goods emissions are not an area that the proposed scheme can address.
- Proposed development will enable connectivity and integration with other public transport services leading to more people availing of public transport.
- Potential for changes to long-term seasonal averages for flood risk and extreme weather events as a result of climate change is not considered to be as significant by construction year.
- No increase in the maintenance phase GHG emissions as there is no overall increase in road widening.

- Likelihood of flooding and high temperatures during operation is assessed to be of high likelihood and with a minor/ negligible effect.
- Further reductions in transport CO₂eq. emissions where traffic signal re-optimise in response to changes in traffic flow.
- Overall, the proposed scheme will make a significant contribution to reduction in carbon emissions.

Mitigation & Monitoring Measures for Climate

- Replacement, where feasible, of concrete containing Portland cement with concrete containing ground granulated blast furnace slag.
- Where practicable, materials will be reused within the extent of the proposed scheme or sourced locally.

Residual Impacts for Climate

- Embodied carbon emissions associated with the Construction Phase of the Proposed Scheme will be short-term and temporary in nature and mitigation measures will have the effect of reducing carbon emissions.
- Proposed scheme supports the delivery of an efficient, low carbon and climate resilient public transport service, which supports the achievement of Ireland's emission reduction targets.

Conclusions on land, soil, geology and hydrogeology; water; air and climate; and noise and vibration

- 12.3.2.8. The land, soils, geology and hydrogeology features with high importance along the corridor include topsoil, crushed rock and granular aggregate potential, wells, the city walls and the River Poddle (County Geological Sites). Waterbodies relevant to the proposed scheme include the Liffey_180, Liffey_190, Camac_040, Poddle_010, Grand Canal Main Line (Liffey and Dublin Bay) and Liffey Estuary Upper.
- 12.3.2.9. Highly sensitive air quality and noise receptors include residential properties, hospitals, schools and residential care homes. Factors taken into account for the climate assessment are predicted changes in traffic flows, reallocation of road space, and vulnerability to climate change. Private cars are the largest source of GHG

emissions in the transport sector and this sector accounted for 20.3% of total GHG emissions in 2019.

- 12.3.2.10. The proposed development will include temporary or permanent land acquisition, site preparation and clearance works, excavations, and general construction works with associated noise and dust impacts. The proposal will also entail adjustment and upgrades to drainage, landscaping and boundary treatments.
- 12.3.2.11. The main impacts of the proposed scheme on land, soils, geology and hydrogeology are likely to occur during the construction phase from loss or damage of topsoil, excavation of potentially contaminated ground and contamination of parts of an aquifer. A range of mitigation measures are required, particularly during construction stage, that will be implemented through the CEMP. This includes measures for dust suppression, noise, surface water protection and handling of soil. During the operational phase, the SuDS hierarchy is employed for the drainage design of the proposed scheme. Drainage infrastructure will be maintained by the local authorities and subject to their management procedures.
- 12.3.2.12. There is potential for water quality impacts at four of the six waterbodies from surface water runoff containing fine sediments and accidental spillages/ leakages. There is also the potential to disrupt local drainage networks if diversion is required to allow construction works to take place. The main receptor that could potentially be significantly impacted is the Liffey_090 surface water drainage system, which outfalls to this waterbody from the compound at Liffey Gaels Park. Mitigation measures for surface water management contained within the CEMP include an environmental incident response plan; control of runoff of fine sediments; management of materials / fuels; management of concrete; and the management of vehicles and plant. Site specific measures are proposed at the construction compound at Liffey Gaels GAA Grounds. During the operational phase, the design of the proposed scheme will ensure that there will be no net increase in surface water runoff rates to any of the connected waterbodies. Sustainable drainage systems in the form of filter drains and bioretention systems will also reduce the potential risks to water quality from routine road contaminants.

- 12.3.2.13. The construction phase of the proposed scheme will give rise to dust emission and noise impacts. Construction dust emissions will be minimised with implementation of appropriate mitigation measures. There is potential for air quality and noise impacts during the operational phase from changes to traffic flows. However, these will be minimal and outweighed by car traffic reductions along the CBC and associated noise and pollution reductions.
- 12.3.2.14. The proposed scheme is estimated to result in total construction phase greenhouse gas emissions of approximately 5,473 tonnes embedded CO₂eq for materials over the approximate 30-month construction period. During the operational phase, the proposed scheme has the potential to remove approximately 15,700 and 15,100 car trips per weekday from the road network in 2028 and 2043 respectively.
- 12.3.2.15. The overall impact of the proposed scheme, and one of its main purposes, is to bring about a reduction in CO₂ emissions and therefore contribute positively to climate change. Private cars were responsible for 63% of road transport emissions in 2019. Notwithstanding the various items raised by third parties in respect of issues concerning land, soil, geology, hydrogeology, noise, vibration water and climate, I consider that the proposed scheme will provide a realistic alternative to the private car, thereby encouraging more people to travel by sustainable modes. This is adequately addressed and demonstrated in the EIAR submitted with the application.

12.4.6. **Material Assets**

- 12.4.6.1. Material assets can be taken to mean built services and infrastructure, including traffic, which in effect consumes transport infrastructure. This assessment addresses these environmental factors separately as they appear in the EIAR, i.e., Traffic and Transport, Waste and Resources and Material Assets (general).

Material Assets (Traffic & Transport)

- 12.4.6.2. The traffic and transport assessment of the proposed development is set out in Chapter 6 of the EIAR. This chapter assesses the proposed physical changes to transport networks (pedestrian, cycling and bus infrastructure, and parking & loading), as well as the carrying out of a modelling-based assessment for people movement, bus performance indicators and general traffic. The Transport Impact

Assessment appended to the EIAR focuses on the movement of people rather than the movement of vehicles, with the emphasis on maximising the capacity of the proposed scheme to move more people by sustainable modes whilst providing for the necessary movement of general traffic.

- 12.4.6.3. The design for the proposed scheme went through an iterative approach with mitigation embedded into the design process. This included physical changes and adjustments to traffic signals. The iterative design of the proposed scheme is supported by a multi-tiered modelling framework. Tier 1 consists of the NTA's East Regional Model at the strategic level, and Tier 2 is a Local Area Model at a more refined level, which provides information such as road network speed data, traffic redistribution impacts and traffic flow information. Tier 3 is a micro-simulation model at corridor level to support the ongoing development of junction designs and traffic signal control strategies and to provide bus journey time information. At Tier 4 level, local models have been developed for each junction, informed by the above modelling tiers, and based on people movement prioritisation.
- 12.4.6.4. Scenarios are presented for 'do nothing' (baseline without proposed scheme and other GDA Strategy projects), 'do minimum' (2028 & 2043 without proposed scheme and with other transport schemes) and 'do something' (2024, 2028 & 2043 with proposed scheme and other transport schemes). A Level of Service (LoS) impact assessment compares the 'do minimum' and 'do something' scenarios.
- 12.4.6.5. The area within the boundary of the proposed scheme is the direct study area and the indirect study area consists of the area of influence that the proposed scheme has on changing traffic volumes above a defined threshold with reference to Transport Infrastructure Ireland's (TII) Traffic and Transport Assessment Guidelines (May 2014). Two sets of sensitivity rating have been applied to direct and indirect study areas. High sensitivities within the direct study area might include sections that are in the vicinity of community and are currently experiencing congestion for pedestrians, cyclists, buses or general traffic. Within the indirect study area, high sensitivities include local and minor roads, with higher capacity roads becoming less sensitive.

- 12.4.6.6. Data collection included site surveys to determine the provision for the movement of pedestrians, cyclists and vehicles; the location of, and facilities at, bus stops; and existing parking and loading facilities. Mapping data also clarified the functional class of each road and points of interest. Quantitative assessment data was collected from the NTA Traffic Count Database, TII counters and bus canal and M50 cordon counts. Traffic surveys comprising junction turning counts and automatic traffic counts, were also undertaken in November 2019 and February 2020 (Pre-COVID). Bus journey time data was provided by the NTA, and 'TomTom' road journey time data was used to validate the LAM and micro-simulation models.
- 12.4.6.7. The EIAR describes the baseline traffic and transport conditions for each of the three sections of the proposed scheme (Section 1: Liffey Valley to Le Fanu Road; Section 2: Le Fanu Road to Sarsfield Road; and Section 3: Sarsfield Road to City Centre). It is stated that across the corridor at present, 15% of the inbound route contains segregated cycle tracks and a further 32% of the route has non-segregated cycle lanes. Outbound, the equivalent figures are 9% and 28% respectively. There are bus lanes along 25% on the route inbound and 21% outbound. According to Automatic Vehicle Location data, the current standard of deviation for bus journey times along the corridor is 12 minutes. Unprioritised sections of the route can result in bunching of buses.
- 12.4.6.8. The detailed baseline assessment of each section includes a description of each junction and whether or not pedestrian crossing facilities are available. Cycle lanes and tracks are detailed and if bus lanes are shared by cyclists and their hours of operation. Cycle parking stand locations are also set out along with cycle hire facilities. The survey of bus priority measures includes the locations and lengths of bus lanes, bus stops with/ without Real Time Passenger Information (RTPI), shelters and seating. Bus service frequency is also provided. General traffic arrangements are outlined along the corridor, and this includes details on speed limits, number of lanes and widths, junction details, traffic calming measures, turn prohibitions, one-way streets, parking/ loading provision, etc.

Characteristics of the proposed development

- 12.4.6.9. The proposed Liffey Valley to City Centre Core Bus Corridor Scheme is one of 12 schemes to be delivered under the BusConnects infrastructure works programme, which seeks to greatly improve bus services in Dublin. The proposed Liffey Valley to City Centre scheme will extend between the new bus interchange facility at Liffey Valley Shopping Centre to High Street in the city centre via Ballyfermot, Inchicore, Old Kilmainham, St. James's Street and Thomas Street.
- 12.4.6.10. Bus priority measures such as bus lanes, bus gates and signalled controlled priority, are proposed along the entire route. Bus stops will be enhanced to include islands, shared landing areas, shelters, CCTV and information displays. The proposed scheme will also involve significant amendments to pedestrian and cycle facilities and traffic management. Safe cycle infrastructure will be provided that is segregated from general traffic wherever possible. Junctions will be upgraded to ensure a high level of comfort and priority for sustainable modes and to maximise the number of people moving through. Urban realm improvements, including widened footpaths, high quality hard and soft landscaping and street furniture will be provided in areas of high activity to improve the environment for pedestrians.
- 12.4.6.11. Over the 9.2km extent of the proposed scheme, bus priority measures will be implemented over 100% of the route compared to the existing 22%; the proportion of segregated (including quiet street treatment) cycle facilities will increase from the existing 12% to 72%; and the number of signalised pedestrian crossings will increase from 71 as present to 103 under the proposed scheme.
- 12.4.6.12. The main characteristics of the proposed development affecting general traffic will be the replacement of roundabouts with signalised junctions; an overall reduction in car parking provision of 175 spaces; reduction of 13 loading bays, two disabled spaces and seven taxi rank spaces converted to part time; removal of eastbound general traffic lane on Ballyfermot Road between La Fanu Road and Kylemore Junction; closure of the junction of O'Hogan Road and Ballyfermot Road; amendment of Memorial Road from one-way to two-way; removal of northbound general traffic on Grattan Crescent; provision of bus gates on Old Kilmainham/ Mount Brown and St. James's Street operating eastbound in the AM and westbound in the PM; and

rearrangement of priority at the Cornmarket junction from High Street / Thomas Street to High Street / Bridge Street Upper.

- 12.4.6.13. The primary objective of the Proposed Scheme is to facilitate a modal shift from car dependency through the provision of walking, cycle, and bus infrastructure enhancements thereby contributing to an efficient, integrated transport system and facilitating a shift to a low carbon and climate resilient city.

Potential impact of the proposed development on Traffic and Transport

- 12.4.6.14. The potential impacts of the proposed development on traffic and transport during construction and operational phases are summarised as follows:

- *Do nothing scenario* – Streetscape would continue to be based around private cars instead of people. Congestion would increase in line with travel demand growth.
- *Do minimum scenario* – Includes other BusConnects elements, Dart+, Luas green line capacity enhancement, GDA Cycle Network Plan for 2028, and for 2043 assumes full implementation of GDA Strategy including MetroLink, Dart+ Tunnel, and Luas extensions to Lucan, Finglas and Bray.
- Do minimum transport demand forecasting accounts for 11% population growth to 2028 and 25% by 2043; 22% employment growth to 2028 and 49% to 2043; and 45% and 77% increase in goods traffic for 2028 and 2043 respectively.
- GDA Strategy has the effect of limiting growth in car demand into the future and proposed scheme will play a key role in this. Total trip demand will increase in the future, but a greater share of the demand will be by sustainable modes.
- There are no specific demand management measures included in the Do Minimum scenario in the 2028 Opening year, other than constraining parking availability in Dublin at existing levels. For 2043, demand management measures are included in the Do Minimum in line with the target to achieve a maximum 45% car driver commuter mode share.
- *Do something scenario (construction)* – Proposed scheme estimated to take 30 months to complete.

- Three construction compounds identified at Fonthill Road, Coldcut Road and Sarsfield Road - CTMP shall include measures for managing traffic accessing and egressing the compounds.
- Haulage of material on site expected to be minimal - exporting and delivery of materials will use dedicated construction access routes. Use of the local road network will be minimised and M50 and N4 will be utilised, along with regional roads.
- Temporary diversions and road closures may be required where a safe distance cannot be maintained to undertake works necessary to complete the proposed scheme.
- Pedestrian diversions and temporary surface footpaths will be used to facilitate pedestrian movements around work areas and access to local amenities may be temporarily altered.
- Cyclists may be temporarily impacted by construction activities along the proposed scheme corridor.
- Existing public transport routes will be maintained throughout the duration of the construction phase and bus services will be prioritised over general traffic. Temporary closure of sections of existing dedicated bus lanes may be required to facilitate the construction of new bus priority infrastructure and some existing bus stop locations may need to be temporarily relocated.
- Parking and loading locations may be temporarily impacted by construction activities.
- Significant impacts due to general traffic redistribution away from the direct study area are not anticipated during the construction phase.
- Total of 14 no. 2-way truck movements are expected in a typical hour during peak haulage activity of the proposed scheme. Total 2-way traffic flows (PCUs) during AM and PM peaks is 74. These limits are comfortably below thresholds.

- *Do something scenario (operational)* – qualitative (walking, cycling, bus infrastructure and parking / loading) and quantitative (bus journey times / reliability, general traffic and people movement).

Qualitative:

- Key infrastructural changes to pedestrian facilities include minimum footpath widths of 2m; upgrade of roundabouts to protected junctions; raised tables across sides streets; upgrading of pelican crossings to toucan crossings; new raised table crossings; reduction of pedestrian/ vehicle interaction; traffic calming.
- Key infrastructural changes to cycling infrastructure includes provision of cycle tracks, cycle lane width of 2m, upgrade of roundabouts to protected junctions; changes to signalised junctions to feature continuous cycle lanes across all arms of the junction or green signal priority for cyclists; upgrading of pelican crossings to toucan crossings; new toucan crossings; routing of cycle tracks behind on-street parking; provision of cycle bypasses at bus stops; and quiet streets.
- Key infrastructural changes to bus infrastructure include new bus stop layouts to better serve catchments and be closer to pedestrian crossing facilities; provision of RTP1, timetables, shelters, seating and accessible kerbs at all bus stops; and bus priority (bus lanes / bus gates / signal-controlled priority) provided along most of the corridor.
- Changes to parking and loading will take place to include reduction in residential parking spaces, pay and displace commercial spaces, relocation of disabled parking, removal of permit parking, reduction in loading bays, conversion of taxi ranks and reduction of informal parking.
- Proposed scheme will have a positive long-term impact on the quality of pedestrian infrastructure between Liffey Valley Shopping Centre and Ballyfermot Road/ Le Fanu Road junction (Section 1). LoS during the Do Minimum scenario ranges between B and E, with 11 of the 20 impacted junctions along this section given low D / E ratings – this will improve to an A/B rating at all impacted junctions in the Do Something scenario.

- Proposed scheme will have a positive long-term impact on the cycling environment between Liffey Valley and Le Fanu Road. LoS improves to A along most of Section 1, as a result of well-separated cycle lanes in both directions traversing priority junctions and continuing through signalised junctions with protected treatments.
- Proposed scheme improves the quality of existing bus infrastructure along Section 1, which will have a highly positive impact for bus users.
- Proposed scheme will result in the loss of 57 parking spaces along Section 1; however, 1,809 spaces will be retained.
- Proposed scheme will have a similar positive long-term impact on the quality of pedestrian infrastructure between Le Fanu Road and Sarsfield Road (Section 2). LoS during the Do Minimum scenario ranges between B and F, with 10 of the 14 impacted junctions along this section given low D/ E/ F ratings – this will improve to an A/B rating at all impacted junctions in the Do Something scenario.
- Proposed scheme will have a positive long-term impact on the cycling environment be along Section 2. LoS improves from an overall D to an overall C. Three of five sections improve from D to B LoS rating, as a result of the provision of well-separated cycle lanes in both directions which traverse priority junctions and continue through signalised junction with protected treatment. There are no changes to cycling infrastructure along R833 Sarsfield Road, between Con Colbert Road and Inchicore Road due to width constraints associated with the Sarsfield Road Bridge.
- Proposed scheme improves the quality of existing bus infrastructure along Section 2, which will have a highly positive impact for bus users.
- Proposed scheme will result in the loss of 14 parking spaces along Section 2; however, 867 spaces will be retained.
- Proposed scheme will have a positive long-term impact on the quality of pedestrian infrastructure between Sarsfield Road to City Centre (Section 3). LoS during the Do Minimum scenario ranges between B and F, with 12 of the 21 impacted junctions along this section given low D /E/ F ratings – this will improve

to an A/ B/ C rating at all impacted junctions in the Do Something scenario (A/ B at 17 of 21 impacted junctions).

- Proposed scheme will have a positive long-term impact on the cycling environment along Section 3. LoS improves from an overall D to an overall C. Three locations see no change in the LoS rating; however, local bus gates will greatly reduce through traffic creating an environment more conducive to cycling.
- Proposed scheme improves the quality of existing bus infrastructure along Section 3, which will have a highly positive impact for bus users.
- Proposed scheme will result in the loss of 102 parking spaces along Section 3; however, 1,838 spaces will be retained.

Quantitative:

- Models shows the difference between Do Minimum and Do Something in 2028 AM inbound peak along corridor of -53% general traffic (modal split 19%), and an increase of 58% public transport (modal split 58%), 45% combined cycling/ walking (modal split 23%).
- For PM peak outbound the modal split for general traffic changes from 38% to 14%; for public transport from 46% to 64%; and for walking/ cycling from 16% to 22% in 2028.
- For AM peak inbound the modal split for general traffic changes from 57% to 26%; for public transport from 19% to 42%; and for walking/ cycling from 24% to 32% in 2043.
- For PM peak outbound the modal split for general traffic changes from 54% to 21%; for public transport from 23% to 52%; and for walking/ cycling from 23% to 28% in 2043.
- *Assessment of people movement* by bus shows an approximate 200 to 400 additional users along most of the corridor in the 2028 AM and PM peaks when comparing do minimum to do something.
- 2043 overall patronage numbers are slightly lower than 2028 due to the Lucan Luas scheme, which is due to be in place; however, increase in bus passengers

remains high with approximately 150 to 300 additional users on the corridor compared to do minimum in AM peak and 250 to 400 in PM peak.

- In 2028, there will be a 5.4% increase in people boarding bus routes which may use any part of the proposed scheme during AM peak and a 5.1% increase during PM peak. The equivalent figures for 2043 are 7% in the AM (990 passengers) and 7.6% in the PM peak (880 passengers).
- Proposed scheme will deliver significant improvements in people movement by sustainable modes along the proposed scheme corridor, particularly by bus, with a reduction in car mode share.
- Average inbound bus journey times for the G2 service reduces from 36.5 for do minimum to 27.1 for do something (-26%) during 2028 AM peak and from 33.2 to 26.6 minutes for PM peak (-20%).
- For 2043, average bus journey times reduce from 36.1 to 27 minutes (AM) and from 33.9 to 25.4 minutes (PM).
- Average outbound bus journey times for the G2 service reduces from 29.5 minutes for do minimum to 26.9 minutes for do something (-9%) during 2028 AM peak and from 30 to 27 minutes for PM peak (-10%).
- For 2043, average bus journey times reduce from 29.9 to 26.9 minutes (AM) and from 29.9 to 27.1 minutes (PM).
- There is a larger range of journey times for the do minimum scenarios in both 2028 and 2043 compared to do something – indicates a lower level of reliability with do minimum scenario. Proposed scheme is expected to deliver bus journey time savings on a number of critical sections inbound and moderate savings outbound.
- Modelling shows that the proposed scheme will reduce total bus journey times by up to 20% in 2028 and 2043.
- Service frequency assessed in micro-simulation model with 10 buses per hour increase (total 38) along the busiest section at St. James's Hospital – high level of journey time reliability is maintained in do something scenarios but less so in do

minimum scenario. Highlights benefit that the proposed scheme can provide in protecting bus journey time reliability and consistency, as passenger demand continues to grow.

- *General traffic* - there will be an overall reduction in operational capacity for general traffic along the direct study area given the proposed changes to the road layout and the rebalancing of priority to walking, cycling and bus. Will result in trip redistribution.
- Local Area Model indicates that during the 2028 scenario, the general traffic flow reductions along the direct study area vary between -145 and -1,333 during the AM Peak Hour. In general, the reductions in traffic flows increase the closer to the city centre (-1333 on High Street). There are no increases in general traffic flows along the direct study area.
- There are also reductions in traffic flow along certain road links within the indirect study area during the AM peak (2028), varying between -104 (New Street South) and -1,168 (Bridge Street Upper).
- Additional traffic on the key road links within the indirect study area varies between 103 & 482 and 100 & 480 combined flows during the AM and PM peaks respectively (2028). Further junction capacity assessment undertaken along these road links to determine whether there is reserve capacity to facilitate the uplift in traffic. Redistributed traffic will have less than the National Roads 5% threshold impact on turning flows in the AM and PM peaks (2018).
- Local Area Model indicates that during the 2028 scenario, the general traffic flow reductions along the direct study area vary between -249 and -1,048 during the PM Peak Hour. There are no increases in general traffic flows along the direct study area.
- There are also reductions in traffic flow along certain road links within the indirect study area during the PM peak (2028), varying between -100 (Newland Road) and -1,102 (Bridge Street Upper).
- Junction analysis demonstrates that the majority of junctions are operating with a maximum Volume / Capacity ratio of below 85% during the AM peak (2028) -

proposed scheme will have a negligible impact on the majority of assessed local / regional road links within the indirect study area.

- AM capacity issues noted at Ninth Lock Road / Station Road, Naas Road / Killeen Road and Chapelizod Road / Main Street, Chapelizod Road / Conyngham Road / South Circular Road, Chapelizod Bypass / Kennelsfort Road Lower / Kennelsfort Road Upper, and Chapelizod Bypass / Memorial Road in do minimum and do something scenarios. Wormwood Gate / Lower Bridge Street / Cook Street / Upper Bridge Street - these junctions either have low sensitivity, would operate at 100% with or without the proposed scheme or would have slight or moderate long term negative impact.
- PM capacity issues noted at St Lomans Road / Fonthill Road / Fonthill Road North, Thomas Omer Way / Ninth Lock Road, New Nangor Road / Woodford Walk, Chapelizod Bypass / Kennelsfort Road Lower / Kennelsfort Road Upper, Chapelizod Bypass / Lucan Road / The Oval, Chapelizod Bypass / The Memorial, Naas Road / Davitt Road, Conyngham Street / Infirmary Road / Parkgate Street, High Street / Winetavern Street / Christchurch Place / Nicholas Street. These junctions either have low sensitivity, would operate at 100% with or without the proposed scheme or would have slight or moderate long term negative impact.
- Junction analysis demonstrates that the majority of junctions are operating with a maximum Volume / Capacity ratio of below 85% during the AM and PM peaks (2043). AM and PM capacity issues also noted at some junctions for the 2043 scenario some of which would occur in both do minimum and do something scenarios. Positive effects are seen as some of these junctions in 2043.
- DMURS recognises that a certain level of traffic congestion is an inevitable feature within urban networks and that junctions may have to operate at saturation levels for short periods of time during the peak hours of the day.
- Nighttime traffic redistribution analysis shows that junctions do not experience flows in excess of capacity.

Mitigation measures

- Construction Environmental Management Plan (CEMP) contains mitigation measures that will ensure that disruption and nuisance are kept to a minimum during the construction phase. Construction Traffic Management Plan (CTMP) will form part of the CEMP to facilitate and identify opportunities for the maximum movement of people during the construction phase (pedestrians; cyclists; public transport; and general traffic in that order), with access being maintained for emergency vehicles.
- The CTMP will include temporary traffic management arrangements and measures to minimise the impacts associated with the construction phase on peak periods. Where footpaths and cycle tracks are affected by construction, a safe route will be provided past the works area. All temporary traffic measures to facilitate the works will be undertaken in accordance with Department of Transport's 'Traffic Signs Manual, Chapter 8 Temporary Traffic Measures and Signs for Roadworks' (DTTAS 2019a) and associated guidance.
- The NTA will liaise with local authority, An Garda Síochána and residents and businesses prior to all road closures and diversions.
- Construction Stage Mobility Management Plan (CSMMP) will be prepared to actively encourage personnel to travel to the site by sustainable means.
- Proposed scheme will result in a positive impact for walking, cycle, bus and people movement and therefore mitigation is not required for these modes.
- Mitigation for impacts to general traffic, parking and loading have been incorporated into the proposed scheme. Given that the redistributed traffic will not lead to a significant deterioration of the operational capacity on the surrounding road network, no further mitigation measures have been considered.

Residual impacts

- 12.4.6.15. With implementation of mitigation measures, the residual impacts associated with the impacts of the proposed scheme remain the same.

Conclusions on traffic and transport

- 12.4.6.16. The Liffey Valley to City Centre Core Bus Corridor Scheme seeks to provide walking, cycling and bus infrastructure along a 9.2km route between Liffey Valley Shopping Centre and High Street in the city centre and passing through Ballyfermot, Inchicore, Old Kilmainham, James's Street and Thomas Street. The primary objective of the proposed scheme is to facilitate a modal shift from car dependency through the enhancement of infrastructure for sustainable modes, thereby contributing to an efficient, integrated transport system within a low carbon and climate resilient city.
- 12.4.6.17. The route of the proposed Core Bus Corridor continues from west to east along the R833, R839 and R810. At present, 15% of the inbound route contains segregated cycle tracks and a further 32% of the route has non-segregated cycle lanes. Outbound, the equivalent figures are 9% and 28% respectively. There are bus lanes along 25% of the route inbound and 21% outbound. According to Automatic Vehicle Location data, the current standard of deviation for bus journey times along the corridor is 12 minutes.
- 12.4.6.18. Bus priority measures in the form of bus lanes, bus gates, and signal-controlled priority, will be implemented over 100% of the route. Bus stops will be enhanced to include islands, shared landing areas, shelters, CCTV and information displays. Safe cycle infrastructure will be provided that is segregated from general traffic wherever possible and junctions will be upgraded to ensure a high level of comfort, priority and capacity for sustainable modes. The proportion of segregated (including quiet street treatment) cycle facilities will increase from the existing 12% to 72%, and the number of signalised pedestrian crossings will increase from 71 to 103 under the proposed scheme. Urban realm improvements, including widened footpaths, high quality hard and soft landscaping and street furniture will be provided in areas of high activity. The main characteristics of the proposed development affecting general traffic will be the replacement of roundabouts with signalised junctions; reduced car parking provision; removal of traffic lanes/ access; and priority rearrangement.
- 12.4.6.19. The assessment of traffic and transport in the EIAR comprises an assessment of the proposed physical changes (qualitative) and a modelling-based assessment (quantitative). The design of the proposed scheme and its impact is assessed using

a multi-tiered modelling approach comprising of strategic macro-modelling, local area simulation and local junction modelling. The focus is on maximising the capacity of the proposed scheme to move more people by sustainable modes, whilst also providing for necessary general traffic. Scenarios are presented for 'do nothing' (baseline without proposed scheme and other GDA Strategy projects), 'do minimum' (2028 & 2043 without proposed scheme and with other transport schemes) and 'do something' (2024, 2028 & 2043 with proposed scheme and other transport schemes). A Level of Service (LoS) impact assessment compares the 'do minimum' and 'do something' scenarios. Bus performance indicators illustrate the changes to projected journey times and reliability for buses.

- 12.4.6.20. Notwithstanding the various items raised by third parties in respect of issues relating to traffic, I consider the assessment approach to be robust and appropriate for modelling the future impacts of the proposed scheme. The information presented in the EIAR and associated appendices gives a good representation of existing and future people movement scenarios along the corridor for the opening year and into the future. Provision is made for realistic modal shifts that are commensurate with the overall aims and objectives of the BusConnects programme. The direct and indirect impacts on general traffic are presented in terms of the corridor itself and the degree of traffic redistribution. Physical changes to the quality of pedestrian, cycling, bus infrastructure and parking/ loading are also assessed.
- 12.4.6.21. A certain amount of disruption on all movement modes can be expected during the construction phase of the proposed scheme. Measures will be included in the CEMP to mitigate these impacts. Temporary traffic arrangements will be implemented through a Construction Traffic Management Plan (CTMP), and a Construction Stage Mobility Management Plan (CSMMP) will also be prepared to actively encourage personnel to travel to the site by sustainable means. It is expected that the construction phase will last c. 30 months and during this period, access will be maintained to adjacent businesses, residences and community facilities.
- 12.4.6.22. The operational phase of the proposed scheme will see an overall increase in the total number of people travelling along the corridor. This is significant and demonstrates that modal shift is essential to avoid further saturation and congestion from the existing private vehicle modal share projected into the future. It is

envisaged that the population will grow by 11% up to 2028 and 25% by 2043 (above 2016 census data levels) and employment levels will also increase 22% by 2028 and 49% by 2043, (NTA Reference Case Planning Sheets 2028, 2043).

- 12.4.6.23. The operational phase will also see indirect impacts from traffic using alternatives routes and volume to capacity rates of 100% at certain junctions. It is recognised in DMURS, however, that a certain level of traffic congestion is an inevitable feature within urban networks and that junctions may have to operate at saturation levels for short periods of time during the peak hours of the day. The proposed scheme will also see the loss of approximately 175 parking spaces along the corridor and this is not considered to be significant given the availability of alternative spaces in the indirect study area.
- 12.4.6.24. It is noted in the EIAR that the GDA Strategy seeks to achieve a 45% car commuter modal share by 2043 across the GDA. The number of commuters by car in 2042 is forecast in the recently released 2022-2024 GDA Transport Strategy to be 252,500 (50.4%) by sustainable modes and 248,500 by car (49.6%). Clearly, the main adverse effects pertaining to transport associated with the proposed development relate to those using the private car and this has been assessed in the EIAR as not significant. In my opinion, the extent of modal shift depends on the quality of sustainable infrastructure provided. People will assess the time it takes to undertake a journey and will most often take the quickest method. It is easier to compare journey modes now with various mobile phone mapping applications giving reasonably accurate predictions on journey times for different modes. In short, people will continue to use private vehicle unless they experience inconvenience and delay through congestion, indirect journeys or lack of parking.
- 12.4.6.25. The success of modal shift from private car to sustainable modes also depends on the quality of pedestrian, cycling and bus infrastructure. The qualitative assessment looks at Level of Service comparisons for 'do minimum' and 'do something' scenarios for pedestrians, cyclists and bus users. There will be significant improvements in terms of Level of Service for pedestrians and cyclists. This will include improved crossing facilities, safer junctions, traffic calming and better segregation. Bus infrastructural improvements will include RTPI, timetable information, shelters, seating and accessible kerbs at all stops. As noted, bus

priority will be in place along all of the route and these measures will improve the user experience. Overall, sustainable transport modes will be better placed to attract modal shift from the private car.

12.4.6.26. The figures outlined for the do minimum and 'do something' scenarios for 2028 and 2043 demonstrate that there will be an increase in the number of people travelling along the corridor by sustainable modes of 54% and 52% during the 2028 AM and PM Peak respectively, and by 74% and 92% in AM and PM Peak Hours respectively during the 2043 scenario. Total bus journey times on all modelled bus services will improve by between 13% and 20% during the AM and PM peak hours in 2028 and 2043. Bus reliability will also improve with lower ranges of journey times and resilience testing showing that 10 additional bus per direction per hour can be added without jeopardising journey time reliability.

12.4.6.27. In general, the proposed scheme will give rise to largely positive benefits in terms of traffic and transport. As the population grows, it is critical that walking, cycling and public transport usage are brought forward as the efficient modes of travel in terms of use of road-space and environmental impacts. Some essential travel will continue to be made by cars and goods vehicles and the proposed scheme maintains access throughout the route including hospitals, businesses, local services and dwellings.

Material Assets (Waste and Resources)

12.4.6.28. Chapter 18 of the EIAR considers the potential waste and resources generated by the construction and operational phases of the proposed scheme. Surplus wastes will arise from demolition, site clearance, excavation and construction activities and there will be wastes from ongoing road maintenance during the operational phase.

12.4.6.29. The potential impacts of the proposed scheme are described in the EIAR in terms of the generated waste and by-products and comparing this to the current waste and by-product management baseline in Ireland. A desk study of current practices was carried out and data was gathered on types and quantities of waste and by-product generation from the proposed scheme. The proposed scheme was reviewed in the context of the waste hierarchy, the quantity of waste requiring disposal, surplus materials and waste infrastructure capacity. The available C&D waste and by-product capacity in EMWR for 2020 is approximately 10.7 million tonnes.

Characteristics of the proposed development

- 12.4.6.30. Key characteristics of the proposed Liffey Valley to City Centre Core Bus Corridor Scheme relevant to waste and resources during the construction phase will include the construction of cycleways, footpaths, road widening and urban realm improvements; removal of trees, kerbs, walls, fences, gates and retaining walls; modification of roundabouts to signalised junctions; installation of new street furniture; minor utility diversions/ protections; and excavation works.
- 12.4.6.31. During the operational phase, surplus waste materials will result from maintenance activities. This is qualified as the area requiring maintenance above the baseline, i.e. the existing road would continue to require maintenance.

Potential impact of the proposed development on Waste & Resources

- 12.4.6.32. The potential impacts of the proposed development on waste and resources are summarised as follows:
- *Do nothing scenario* – ongoing maintenance of existing roads would continue to result in waste generation.
 - *Construction phase* – demolition including waste generated from the removal of features above-ground, such as kerbs, traffic signs and bus stops and excavation including waste generated from the excavation of below-ground material, such as soil and stones and bituminous containing material, etc. All material will be considered for reuse within the proposed scheme or other construction projects.
 - Organic waste generated from shrub, tree or garden clearance – recovery and recycling of such wastes will be maximised.
 - Small quantities of general municipal waste will be generated by construction workers – recovery and recycling of such wastes will be maximised.
 - Approximate demolition waste generated by the proposed development will be 1,700 tonnes of concrete, bricks, tiles and similar; 450 tonnes of metals; and 80 tonnes of segregated wood, glass and plastic – equivalent to 0.02% of the C&D waste management baseline in the EMWR.

- Approximately excavation wastes generated by the proposed scheme will be 81,000 tonnes of soil and stone; 8,000 tonnes of concrete, bricks, tiles and similar; and 12,000 tonnes of bituminous mixtures - equivalent to 0.95% of the C&D waste management baseline for the EMWR.
- The estimated quantities of major construction materials required by the proposed scheme are 32,000 tonnes of bituminous mixtures; 47,000 tonnes of recycled aggregate; 12,000 tonnes of concrete; and 32 tonnes of structural steel.
- Most likely type and quantity of general construction waste will be surplus concrete and unusable or damaged pipe segments - Quantities of these materials are estimated to be small (5% to 15% of construction material delivered).
- *Operational phase* - quantity of bituminous mixtures generated over the assumed lifetime of the proposed scheme (60 years) will decrease compared to the do-nothing scenario by approximately 11,500 tonnes due to an overall narrowing of the carriageway.

Mitigation measures for Waste and Resources

- 12.4.6.33. A Construction and Demolition Resource and Waste Management Plan (CDRWMP) has been prepared and this will be implemented, and this document will outline how waste arising during the Construction and Demolition Phase of the proposed scheme will be managed in a way that ensures compliance with the provisions of the Waste Management Act 1996, as amended. Best practice measures and efficient use of material resources will be carried out to minimise the amount of waste produced (or otherwise increase its value as a resource) and to reduce, as far as possible, the amount of waste that is disposed to landfill.
- 12.4.6.34. The appointed contractor will have regard to the principles of the waste hierarchy, in line with the Waste Framework Directive (prevention, reuse; recycling, recovery and disposal). Demolition wastes, such as metals, electronics, etc. will be reused, recycled disposed of in the appropriate manner.
- 12.4.6.35. Specific measures to be implemented during construction will include the temporary stockpiling for reuse, and specification of recycled aggregates and reclaimed bituminous mixtures where practicable. It is estimated that 3,500 tonnes of bitumen

(surface / binder / base) will be recycled on the proposed scheme; 18,500 tonnes of sub-base material under footpaths and roads will be reused; and 11,000 tonnes of granular capping material from road widening will be reused on the proposed scheme.

Residual Impacts

- 12.4.6.36. No significant residual impacts for the construction or operational phases of the proposed scheme.

Material Assets (General)

- 12.4.6.37. Chapter 19 of the EIAR considers material assets in terms of built services and infrastructure. Other material assets are addressed under the roads and traffic and waste management sections above. This section focuses on major infrastructure and utilities and imported material, excluding materials covered under Waste & Resources above. Major infrastructure includes canals, railway lines and Luas lines interacting with the proposed development. The impact on utilities is assessed in terms of diversion and changes as part of the development design and the requirement for connection. With respect to imported construction materials, this section considers concrete granular fill / aggregate, asphalt, and structural steel. Existing quantities of material imported as part of road maintenance activities are low.

- 12.4.6.38. The proposed scheme will cross over the M50 and over/ under railway lines accommodating all routes west from Heuston Station. The proposed scheme will also share a section the Luas Red Line between St. James's Hospital and Bow Lane. Major utilities within the study area, along or crossing the proposed scheme include low to high voltage electricity lines; low to high pressure gas network infrastructure; Irish Water mains water and sewer lines; surface water sewer network; traffic signals ducting; and underground telecommunications cables.

Characteristics of the Proposed Development

- 12.4.6.39. The proposed development will require excavation works that may impact on underground infrastructure and utilities. Realignment, upgrade or replacement of utilities infrastructure will be carried where protection is not an option.

12.4.6.40. Some utilities may be required for the operational phase of the proposed scheme mainly in the form of electricity connection for new street lighting, junction signalling and RTPI. Surface water drainage will also require some amendment.

Potential impact of the proposed development on Material Assets

12.4.6.41. The potential impacts of the proposed development on material assets are summarised as follows:

- *Do nothing scenario* – there would be a neutral impact on infrastructure and utilities and no requirement to import material for the construction of the proposed scheme.
- *Construction phase*: Main impacts will arise from the requirement to divert utilities.
- No works proposed to bridges which will affect the operation of the M50 or railway lines.
- Proposed scheme will be constructed to avoid any impacts on the operation of the Luas - carriageway in the vicinity of the Luas is not being amended.
- Power for construction compounds will be supplied through connections into the electricity network, or via generators.
- There may be local interruptions arising from the diversion of electricity infrastructure for a set number of hours per day.
- Construction compounds will be connected to local mains water supply or water tankers and local foul/ combined sewers or on-site tanks. Temporary welfare facilities will be used, where required.
- Temporary local interruptions to water supply may occur generally for a set number of hours per day.
- Sustainable Drainage System (SuDS) measures will be installed where there is an increase in impermeable area (swales, attenuation ponds, filter drains / perforated pipes, underground attenuation, tree pits and sealed drainage systems to control the flow of surface water).

- Some interfaces between the existing gas infrastructure and telecommunications and the proposed scheme will require diversion – any interruptions will generally only occur on a set number of hours per day.
- Estimate of materials to be imported – 32,000 tonnes of asphalt; 47,000 tonnes of recycled aggregate; 12,000 tonnes of concrete; and 32 tonnes of structural steel. These quantities represent a very small proportion of the Irish quantities manufactured per year. All materials required for the construction phase are generally readily available.
- *Operational phase*: No significant change to the interaction between road traffic and Luas traffic, with interfaces to continue to be controlled by traffic signals.
- Electricity required to power street lighting, junction signalling and RTPI displays. Telecommunications will be required for traffic signal controllers and RTPI.
- Larger surface area arising from new/ widened carriageways, cycle infrastructure and footpaths will result in additional surface water runoff.
- Most of the imported material required for maintenance of the proposed scheme would have already been required for existing roadways.

Mitigation measures for Material Assets

- 12.4.6.42. The appointed contractor will ensure that protection is in place for diversions to prevent long term interruption of services. Confirmatory surveys will be undertaken and protection measures during construction will include warning signs and markings indicating the location of utility infrastructure, safe digging techniques, and isolation of sections of infrastructure during works in the immediate vicinity. Consultation with utility providers will be ongoing and prior notification of any disruption will be given to affected properties.
- 12.4.6.43. Where possible, materials will be sourced locally, and the quantities of such materials will be minimised. Materials will be managed using ‘just in time’ principles to prevent over-ordering and waste. No specific mitigation measures are required during the operational phase of the proposed scheme.

Residual impacts for material assets

- 12.4.6.44. No significant negative residual impacts are envisaged from the construction or operational phases.

Conclusions on material assets

- 12.4.6.45. It is likely that the main impacts of the proposed Liffey Valley Core Bus Corridor on the above material assets relating to waste and resources, utilities and infrastructure will occur during the construction phase. This will require full preparation and implementation of relevant construction phase plans to minimise construction related impacts and disturbance to properties and utility providers. Sustainable waste and resource management principles will be applied under the Circular Economy Model, and this will ensure that waste is minimised. Overall, I am satisfied it is likely that the proposal will not have a significant impact on these material assets following implementation of mitigation measures.

12.4.7. Cultural heritage and the landscape

- 12.4.7.1. These environmental factors are addressed in Chapter 15 – “Archaeological and Cultural Heritage”, Chapter 16 – Architectural Heritage, and Chapter 17 – Landscape (Townscape) and Visual.
- 12.4.7.2. Archaeological, cultural heritage and architectural heritage assessments included desk-based reviews and field surveys. The eastern part of the proposed scheme is located in the old medieval part of Dublin and there are key archaeological sites at St Audoen’s Church, a standing section of the medieval city wall at Lamb Alley, and Christchurch Cathedral. National monuments in the vicinity of the proposed scheme are Kilmainham Gaol, St. Audoen’s Church, Christ Church Cathedral and the walls, towers and gates of the Viking and medieval city defences. The proposed scheme continues through the Historic City of Dublin, which is designated as a Zone of Archaeological Potential. Previous archaeological investigations carried out between James’s Street to High Street have revealed evidence of activity from the early medieval period onwards. The 2013 investigations for a QBC recorded the survival of significant amounts of medieval remains.

12.4.7.3. The development of Cherry Orchard and Ballyfermot dates from the mid-20th Century onwards and this included the construction of religious and institutional buildings in the early 1950s. Inchicore expanded in the 19th century following the establishment of Richmond Barracks and the Great Southern & Western Railway. Inchicore village consists of predominantly two storey 19th century terraced shops, banks and public houses. There are buildings of industrial and scientific interest in Kilmainham, and James's Street forms part of the main thoroughfare into the city from the west side of the walled town. James's Street contains many 18th and 19th century terraced houses, including those associated with the Guinness Brewery. The Thomas Street and Environs Architectural Conservation Area includes Cornmarket and High Street at the eastern end of the proposed scheme, which was the main thoroughfare in medieval Dublin. The proposed scheme also traverses seven conservation areas with the Dublin City Council area.

12.4.7.4. The townscape along the route changes from a major retail park in the west to two storey residential estates with minor open spaces. Outer city residential suburbs are then located along the road corridor as it moves eastwards. The proposed scheme then progresses through Ballyfermot civic centre and is lined with green areas associated with institutional lands to the east of Ballyfermot. The inner-city suburbs then transition to the historic core of the city.

Characteristics of the proposed development

12.4.7.5. The proposed development requires ground-breaking works that will include excavations and ground disturbance; pavement construction, repairs and reconstruction works; and resurfacing works. The overall amendment and adaptation of the existing road network and junctions will take place, together with verges, tree planting and boundaries. Temporary and permanent land acquisition will be required and construction compounds will be established. The key characteristics of the proposed scheme during the operational phase are changes to traffic movements and streetscape elements including improvements to urban realm.

Potential impact of the proposed development on Archaeological & Cultural Heritage

12.4.7.6. The potential impacts of the proposed development on archaeological and cultural heritage during construction and operational phases are summarised as follows:

- *Do nothing scenario* – no adverse impacts to any of the known or as yet undiscovered subsurface archaeology.
- There will be a slight impact from the relocation of the statue of the Virgin Mary at the Ballyfermot Road/ Kylemore Road Roundabout.
- Temporary negative impact on the setting of St. Audeon’s Church and Christ Church during construction.
- Ground breaking works will impact on any surviving below ground sections of the City Defences. Setting of upstanding section of the city wall will be impacted during construction.
- Ground breaking works will impact on any unknown archaeological sites or features in the Historic City of Dublin Zone of Archaeological Potential – high potential for discovery of further Viking and medieval remains.
- There are numerous RMP / SMR sites both within and close to the proposed scheme, the majority of which are located between James’s Street and Christ Church Place and ground breaking works may impact on these.
- No operational phase impacts on archaeological & cultural heritage.

Mitigation measures for archaeological and cultural heritage

- Archaeological monitoring will be carried out under licence.
- Survey and recording will be carried out in advance of any construction works on any cellar, coal cellar and/or basement.
- Appointed contractor will make provision to allow for archaeological monitoring, inspection and excavation works that may arise on the site during construction.
- Once the presence of archaeologically significant material is established, full archaeological recording of such material is recommended in accordance with the licensing requirements. If it is not possible for the construction works to avoid the material, full excavation of the archaeologically significant material will be recommended.

- Adequate funds to cover excavation, post-excavation analysis, and any testing or conservation work required will be made available.
- All construction traffic and the management of materials will be restricted to ensure no damage to a site of archaeological interest.
- Statue will be removed to protect it from any adverse impacts and will be re-erected as part of the public realm works to the front of the church.
- Archaeological consent required from the Minister of HLGH for ground-breaking works at national monuments.
- Archaeological monitoring under licence will take place, where any preparatory ground-breaking or ground reduction works are required in the ZAP, at RMP/ SMR sites and at non-designated archaeological sites along James's Street and Thomas Street, and along the route of the former tramline from Emmet Road to High Street.

Residual impacts for archaeological and cultural heritage

- 12.4.7.7. It is considered that no significant residual impact with respect to archaeological and cultural heritage will occur with the adoption and implementation of the mitigation strategy. There will be positive impacts on upstanding national monuments following improvements to the public realm.

Potential impact of the proposed development on Architectural Heritage

- 12.4.7.8. The potential impacts of the proposed development on architectural heritage during construction and operational phases are summarised as follows:

- *Do nothing scenario* – no adverse impacts to any of the known or as yet undiscovered subsurface archaeology.
- *Construction phase* – Direct impacts to boundary walls and entrance gates of protected structures and other architectural heritage features.
- Direct impacts to street furniture due to land acquisition, construction works to pavements, changes to footpath layout and landscaping works.
- Indirect impacts from potential damage to sensitive structures and protected structures.

- Temporary land-take, and setback of the existing boundaries along Ballyfermot Road, which will negatively impact on the curtilage of the former De La Salle school.
- Potential for indirect physical construction phase impacts at St. Patrick's Hospital, Stephen's Lane; Saint Catherine's Church, Thomas Street; Guinness power station; Church of Saint Augustine and Saint John; City Wall, Cornmarket; Saint Audoen's Church of Ireland Church and associated park; Saint Audoen's Roman Catholic Church, High Street; Christchurch Cathedral; and Taylor's Hall, High Street.
- Visual impacts on the setting of protected structures or buildings or structures of architectural heritage interest, historic streetscapes and views during construction.
- Potential for high impact magnitude on Statue of the Virgin Mary, Ballyfermot Road, post boxes (1 location), and lamp posts (5 locations).
- Potential to damage of features of Thomas Street ACA during construction. There is also potential for damage during construction of conservation areas that the proposed scheme passes through.
- Visual changes on architectural heritage resources (including from the proposed locations of bus shelters), as well as impacts on the setting of these resources due to traffic changes during the operational phase.
- Potential for damage of historic paving and surface treatments during construction.
- During operational phase, there are potential impacts from alterations to bus stop locations, particularly where new shelters are proposed, proposed new cantilever signal poles and alterations to public realm.
- Proposed improvements to public realm and reduction in vehicular traffic will generally have a positive effect on the historic environment and historic streetscapes along the proposed scheme.
- Impacts during operation on protected structures, ACA and conservation areas, NIAH structures and other structures will be low or negligible. New bus stops are

proposed in proximity to Taylor's Hall and within the ACA, which contains structures of national importance and high sensitivity.

Mitigation Measures for Architectural Heritage

12.3.2.16. The following landscape mitigation measures are outlined in the EIAR:

- Mitigation at De La Salle school and St Raphael's, St Gabriel's and St Michael's National School will consist of recording of the entrance piers/ boundaries and investigative / opening up works, labelling prior to their careful removal to safe storage, and their reinstatement on new lines, which faithfully reinstate the existing details, and the relationships between the entrances and the historic buildings.
- Mitigation to offset the risk of damage to the nine protected structures of national importance, 92 no. protected structures of regional importance, Thomas Street ACA, conservation areas, NIAH structures, designated landscapes and other structures will include recording, protection and monitoring of the adjoining structures or boundaries prior to, and for the duration of construction.
- Overseeing of protective measures and monitoring is to be undertaken by an appropriate architectural heritage specialist.
- Mitigation for post box on Ballyfermot Road consists of the recording of the post box in position prior to the works, the labelling of the affected fabric prior to its careful removal to safe storage, and its reinstatement in a new position in close proximity (within 20m) of its existing position. Other post boxes mitigation will consist of the recording, protection and monitoring prior to and during construction.
- Mitigation for five affected lamp posts of regional importance consists of the recording of the lamp posts in position prior to the works, the labelling of the affected fabric prior to its careful removal to safe storage, and their reinstatement in new positions in close proximity (within 2m) of their existing positions. Other affected lamp posts and items of street furniture will be recorded, protected and monitored during construction.

- Marian Statue at the junction of Ballyfermot Road and Kylemore Road will be recorded in position prior to the works and labelling of the affected fabric will take place prior to its careful removal to safe storage, and reinstatement.
- Mitigation for six historic surface treatments of regional importance and other historic surfaces will include retention of the various kerb stones, cellar hatches and cellar lights in-situ, and their integration into the proposed new paving design. Additional mitigation will be to record, protect and monitor the kerb stones, cellar hatches and cellar lights for the duration of construction.

Residual architectural heritage impacts

12.4.7.9. Following implementation of mitigation, there will be no significant residual impacts on architectural heritage as a result of the construction or operational phases.

Potential impact of the proposed development on Landscape (Townscape) & Visual

12.4.7.10. The potential impacts of the proposed development on landscape (townscape) and visual during construction and operational phases are summarised as follows:

- *Do nothing scenario* – Road corridor would continue to experience pressure for reallocation of carriageway space and associated traffic movements.
- Site mobilisation and establishment, fencing and hoarding of construction compounds and works areas, including within private areas/ gardens.
- Site demolition, including removal of boundaries, kerbs, verges, surfaces, landscape areas, trees and plantings.
- Site activity and visual disturbance from general construction works and the operation of construction machinery.
- Construction works involving diversion of existing underground / overground services and utilities, provision of new services and utilities, drainage features and connections etc.
- Construction of new carriageways, kerbings, footpaths and cycleways, bus stops and signage, reinstatement of boundaries / provision of new boundaries and landscape reinstatement.
- Decommissioning of works areas and construction compounds.

- Temporary and/ or permanent land acquisition for several properties and removal and reinstatement of boundaries. Acquisition is required at residential properties at The Steeples (removal of boundary wall and tree planting); St. Lawrence Court (works within car park area); and St. Lawrence Glen (landscaped area).
- Acquisition during construction including a plot at Fonthill Road, Irishtown, Liffey Valley Retail Park; plot at Liffey Valley Tesco; B&Q Warehouse, Liffey Valley Retail Park; verge adjacent to Coldcut Club; ground at Coldcut Road; ground at Eir Exchange; ground at Whitethorn Crescent; units 83-86, 76, L40, 42, 43, 26, 27, Pat the Baker Cherry Orchard Industrial Estate; Cherry Orchard Hospital; ground adjacent to Lidl; Applegreen, Cherry Orchard Service Station, Ballyfermot Road; First Stop Tyres, Cherry Orchard Service Station, Ballyfermot Road; car park at 336-338, Ballyfermot Road; St. Raphael's, St. Gabriel's, St. Michaels Primary Schools & Ballyfermot Resource Centre, Ballyfermot Road; former De La Salle National School, Ballyfermot Road; former Mount Le Salle, Ballyfermot Road; Markievicz Park; Bump and grind coffee, Ballyfermot Road; Nos. 3, 3A, 5 and 5A Ballyfermot Road (First Stop Tyre); Longmeadows Pitch and Putt, Sarsfield Road, Ballyfermot; ground at Longmeadows Sarsfield Road, Ballyfermot; car park to front of Ruby Finnegan's 1/1a, First Avenue; Meadow View, Nos. 1 to 4 Sarsfield Road; ground at Liffey Gales GAA; and plot at National Children's Hospital, Mount Brown. Most of these plots will also be acquired permanently during the operational phase.
- Most notable tree loss will be the tree belt on the boundary of Palmers residential estate, on the boundary of St. Gabriel's National School / Ballyfermot Family Resource Centre / De La Salle / Mount La Salle, at the junction of Ballyfermot Road / Kylemore Road and at St James's Hospital.
- Impacts on townscape and for properties overlooking the proposed scheme are expected to be significant during construction.
- Operational phase impacts will include alterations to the corridor of the existing road/ street; changes in traffic, pedestrian and cyclist movement; modifications of areas of private property/ gardens/ boundaries; and adjustments to other areas/ boundaries.

- There will be notable localised improvements to the streetscape during the operational phase through redesign of urban realm, new planting, paving, street furniture, SuDS, etc.

Mitigation Measures for Landscape (Townscape) and Visual:

- Trees and vegetation to be retained within and adjoining the works area will be protected and works within the root protection area will follow project specific arboricultural methodology.
- Trees will be removed in accordance with best arboricultural practices.
- New planting and paving will be provided where it is removed from temporary land take areas. New street trees will be planted to improve the streetscape environment.
- All impacted property boundaries will be reinstated to their original condition in accordance with a prepared inventory.
- Appropriate measures will be put in place for the protection of trees and features and for continued access where properties are subject to permanent and / or temporary acquisition.
- No mitigation or monitoring measures are proposed for the operational phase - proposed scheme will become established and increasingly integrated within its landscape (townscape) setting and potential negative operational effects will be reduced.

Residual Impacts for Landscape (Townscape) and Visual:

- Mitigation measures will ensure adequate protection of features not identified for permanent removal during construction.
- Not possible to mitigate against impacts resulting from the removal of mature trees and therefore construction phase effects remain unchanged in the post mitigation and monitoring scenario.
- Residual impacts will remain during the operational phase where there is acquisition of property and loss of trees, particularly along the section between Le Fanu Road and Sarsfield Road.

- There will be positive long term effects for all townscape and visual character along the proposed scheme.

Conclusions on cultural heritage and the landscape

- 12.3.2.17. Cultural heritage and the landscape are addressed separately in the EIAR under archaeological and cultural heritage, architectural heritage, and landscape (townscape) and visual.
- 12.4.7.11. The main issues pertaining to these environmental factors are the potential impact on archaeology having regard to the route of the proposed scheme through the medieval core of Dublin city; the potential impact on architectural heritage, particularly at the eastern end of the proposed scheme through Thomas Street ACA; the visual impact on townscape during the construction phase; and the removal of trees and the acquisition of local residential and commercial property to facilitate the proposed scheme.
- 12.4.7.12. Concerns were raised within submissions regarding loss of trees and boundaries; construction related problems; footpath widths; and the potential for greater public realm improvements/ greening measures at Inchicore, Emmet Road, Old Kilmainham, St. James's Street gateway, and along Thomas Street/ High Street. The City Architect's Department submits that limited information is provided to facilitate proper assessment of the proposed public realm improvements. The Environment and Transportation Department note that Cornmarket was reconstructed as a high-quality public realm scheme in 2008 and this work would be decommissioned as a result of the proposed scheme. It is also highlighted that the pedestrian area proposed to the south of Cornmarket junction will remain in shade for most of the day and that the retention of Bridge Street as the minor arm of this junction would allow for public realm improvement to north of junction, which in turn would benefit from greater sunlight and pedestrian flow into St. Audeon's Park.
- 12.4.7.13. The applicant responded to these concerns by highlighting that there will be a number of enhancements to specific key public spaces, including those at Ballyfermot Retail Centre, the Ballyfermot roundabout, Grattan Crescent, the James St/ Bow Lane West junction (Obelisk Fountain) and Cornmarket junction. It is noted that the Cornmarket junction redesign will create additional space for the pedestrian

environment and will facilitate further public realm improvements at the junction. The alignment on Thomas Street avoids impacting on mature trees, and overall, it is considered by the applicant that there will be a notable positive change to the character and visual amenity of the area resulting from the creation of a high quality pedestrianised area with new street trees to the south side of Cornmarket junction. The Level of Service for pedestrians will increase from an E to an A rating at this junction. Overall, it will be necessary to reduce footpath widths in some other locations in order to facilitate bus priority; however, in general the Level of Service for pedestrians will increase throughout the proposed scheme.

- 12.4.7.14. Improvement to the pedestrian environment can be measured in terms of Level of Service for pedestrians. Improvements to the pedestrian Level of Service will also have positive outcomes for the quality of townscape, as the degree of comfort for pedestrians increases with enhancements to the public realm. One of the main objectives of the proposed scheme is to increase active transport and this will result in wider footpaths, new surfaces, planting, reduced car parking, narrower carriageways and lower vehicle speeds and an overall reduction of traffic dominance. All these factors give rise to townscape upgrades and a greater appreciation of the surrounding built heritage, particularly to the east of the proposed scheme in the historic city.
- 12.4.7.15. Further west, works such as the closure of O'Hogan Road presents the opportunity for small-scale local intervention featuring good quality concrete paving, a proposed tree, ornamental planting and seating. The reconfiguring of Ballyfermot Roundabout to a signalised junction will complement the setting of the church and create usable and accessible public realm. As noted by the applicant, landscape and urban realm proposals are derived from analysis of the existing urban realm which allowed the designers to consider appropriate enhancement opportunities, including upgraded paving, planting, decluttering and general placemaking.
- 12.4.7.16. Notwithstanding this, the proposed scheme is designed primarily as a movement corridor, and improvements to public realm may be a secondary consideration in the achieving the scheme's goals. In the case of the Cornmarket junction, I would be in agreement with the local authority that the placement of the junction is not optimal in terms of capturing sunlight for pedestrian spaces. The proposed space to the south

of the junction would be overshadowed much of the time, with the proposed meeting point of the three arms of the junction at a location beside the park entrance that receiving better access to sunlight. Relocation of the junction further south would allow for the creation of the public space beside the entrance to St. Audeon's Park. The junction reconfigured this way would also allow for Bridge Street to become the minor arm of the 3-arm junction.

- 12.4.7.17. I would be less concerned about the order of priority of the arms of the junction. The proposed layout allows for each of the arms to have more of an equal status, and if anything, Thomas Street becomes the minor arm. This is appropriate, in my view, for the busiest arm in terms of pedestrian activity. I would be of the opinion that the junction should be designed to have a traffic calming effect rather than maintaining priority between Thomas Street and High Street.
- 12.4.7.18. Key aspects for good public spaces include limitation of traffic, good resting opportunities, passive surveillance, active edges, variety of use, landscaping, good access and pedestrian desire lines, comfort from the elements, views of people and space, and adequate facilities such as bins, bollards, cycle parking, etc. Proper consideration of these factors can help to provide places that are attractive for people to linger.
- 12.4.7.19. Notwithstanding the above, I consider that the proposed design represents a significant improvement with respect to these considerations at the Cornmarket junction, which at present is very poorly configured. It is recognised that the alternative layout put forward by Dublin City Council will allow for a greater amount of pedestrian space to have a sunny aspect. However, the new space to the north of junction will not be severed by a traffic lane, as is the case at present, and this will help to create a more usable and attractive space than the current layout. Pedestrian and cyclist desire lines will be easy to read, and the tree covered public area to the south can offer shelter from the elements. This may also improve the attractiveness of the businesses to the south of the junction fronting onto this proposed space, as well as the setting of the upstanding section of the City Walls and of Back Lane as a pedestrian route.

- 12.4.7.20. Overall, from a landscape (townscape) perspective, the proposed scheme will give rise to significant improvements that will impact positively on architectural heritage. Mitigation measures will be put in place to protect adjoining heritage features. Works will be carried out in accordance with “Methodology for Works Affecting Sensitive and Historic Fabric” in Volume 4 of this EIAR. Two new bus stops are proposed within the Thomas Street ACA. There is an option of a shelter with a narrow roof configuration with and without half end panels, which may be more appropriate at this location. Dublin City Council recommends that advertisements should generally not be submitted on bus shelters within ACAs. It is also submitted that limited information has been provided on bus stop design and whether there is sufficient capacity on footpaths to accommodate them. I would be of the opinion that the final design of bus stops should be agreed between the applicant and Council’s prior to commencement of development.
- 12.4.7.21. There is the potential for surface works to impact on underlying archaeology and appropriate mitigation will be required having regard to the sensitivities of the route and its location within a Zone of Archaeological Potential (ZAP). Provision will be made for archaeological monitoring and the NTA will liaise with DCC in regard to archival processes. Archaeological monitoring under licence will take place, where any preparatory ground-breaking or ground reduction works are required in the ZAP, at RMP/ SMR sites and at non-designated archaeological sites along James’s Street and Thomas Street, and along the route of the former tramline from Emmet Road to High Street.
- 12.4.7.22. Land acquisition is a necessary consequence of the proposed Core Bus Corridor. The total area of land to be permanently acquired is 11.19 hectares, of which 0.76 hectare is within Dublin City Council ownership and 0.61 hectare is within South Dublin County Council ownership. An additional 2.37 hectares will be temporarily acquired, which includes 1.22 hectares currently in DCC ownership and 0.26 hectares in SDCC ownership. It would appear that this land is necessary for the construction and operational phases of the proposed development. The affected land is mostly in commercial, recreational or residential use and in many cases is incidental in nature. The impact of land take will be mitigated through provision of new accesses, replacement boundaries and monetary compensation. Final details

of boundary walls, gates, driveways and grassed areas where affected, will be agreed between the directly impacted landowners and the NTA. As noted by Dublin City Council, the loss of gardens/ boundaries must be balanced against the overall benefits of the proposed development.

- 12.4.7.23. Loss of trees is another inevitable consequence of the proposed scheme that will have impacts on landscape (townscape). A total of 179 trees will be lost and 1,262m² of woodland area will be removed. However, there will be a net increase of 354 additional semi-mature trees and 504m² of woodland area. New street trees are proposed where footways are wide enough and below-ground services allow.
- 12.4.7.24. In conclusion, I am satisfied that with proper implementation of mitigation measures and best practice measures, together with implementation of environmental commitments under the Construction Environmental Management Plan, no significant direct, indirect or cumulative adverse effects on cultural heritage and the landscape/ townscape are likely to arise.

12.5. Vulnerability of the project to major accident and/ or natural disasters

- 12.5.1. Chapter 20 of the EIAR assesses the vulnerability of the proposed scheme to risks of major accidents and/ or disasters. A risk assessment was carried out to identify any major accidents and / or disasters that the proposed scheme is vulnerable to, and to assess the likely impacts of such incidents in relation to environmental, social and economic receptors.
- 12.5.2. Medium level risks identified for the construction phase included the risk of gas explosion from striking underground gas mains; the risk of pollution from the release of fine sediments to a watercourse or groundwater; and the risk of spread of non-native invasive species. The nearest Seveso sites to the proposed scheme are BOC Gases Ireland Ltd, Bluebell Industrial Site; Iarnród Éireann Maintenance Works, Inchicore; Irish Distillers Ltd, Robinhood Road, Clondalkin; and Kayfoam Woolfson, Bluebell Industrial Site. The proposed scheme does not fall within the consultation zone for any of these sites. No significant issues were identified as likely to occur during the operational phase.

- 12.5.3. Appropriate mitigation measures will be implemented during the construction phase that will reduce the level of risk for impacts or environmental effects to non significant levels. The proposed scheme has been designed to reduce the likelihood of risk events occurring and plans and procedures will be developed to effectively manage and minimise risk. In this regard, the CEMP will address Construction and Demolition Resource and Waste Management, Construction Traffic Management, Non-Native Invasive Species Management, Surface Water Management and Environmental Incident Response.
- 12.5.4. I am satisfied that given the nature of the proposed development, and the mitigation measures proposed, together with the low probability of a major accident/ natural disaster, it is not likely that significant effects on the environment would arise in this regard.

12.6. Environmental Interactions & Cumulative Impacts

- 12.6.1. Chapter 21 of the EIAR addresses the likely significant interactions between environmental factors and the cumulative effects that may arise from these interactions and from other approved projects in the area.

Cumulative Impacts

- 12.6.2. From the outset, it should be noted that a number of cases outlined as planning history in Section 6 above are not listed in Appendix A21.1 of the EIAR, which sets out the record of Stages 1 & 2 of the Cumulative Effects Assessment. Notwithstanding this, I have considered all the cases listed in the planning history section above for the purposes of cumulative assessment in the EIA.
- 12.6.3. Cumulative effects are classed as traffic related and non-traffic related. Types of projects that were considered for cumulative effects included local planning applications, strategic housing developments, strategic infrastructure developments, Greater Dublin Area Park & Ride Projects, Irish Water projects, other major projects, and the 11 other Core Bus Corridor Schemes. This list was narrowed down having regard to the status of planning applications, the likelihood of temporal overlap between the proposed scheme and the other projects, and whether the nature and

scale of the other projects are likely to significantly contribute to the effects of the proposed scheme.

- 12.6.4. It is assumed that other projects, including other CBC schemes, would be under construction at the same time or sequentially to present a worst-case scenario. For the operational phase, it is assumed that all 12 CBCs are in place and all projects shortlisted for assessment have been completed.
- 12.6.5. A combined worst-case scenario where all 12 CBCs schemes and other major scheme would be constructed at the same time was modelled within the Local Area Model. The model determined that there would be significant traffic displacement across Dublin. Significant adverse impacts would be experienced where there is large cumulative increase on local roads. A revised construction scenario was developed whereby CBC schemes will not be constructed concurrently with adjacent CBC schemes due to modelled impacts of traffic congestion and associated air quality and noise impacts. The Liffey Valley to City Centre CBC will not therefore be constructed concurrently with the Lucan and Blanchardstown schemes.
- 12.6.6. The operational phase 'do minimum' scenarios are modelled for 2028 and 2043 and are compared to the 'do something' scenarios with all CBCs in place. The 2043 Do Minimum scenario assumes the full implementation of the GDA Strategy schemes, including MetroLink, DART+ Tunnel, and Luas line extensions to Lucan, Finglas and Bray. These schemes were applied, along with the forecasted increased travel demand from general development, within the model to capture projected traffic growth from reasonably foreseeable development in both 2028 and 2043. The DART+ South West project is planned within the proposed scheme study area but it is anticipated that the proposed scheme would be completed first. It is proposed to coordinate other major infrastructure projects along the route with the proposed scheme works and therefore no likely significant cumulative traffic and transport effects are predicted.
- 12.6.7. Following mitigation, no significant cumulative construction dust impacts and local air quality impacts are likely from the concurrent construction of other CBC schemes, other projects and the proposed scheme. Construction dust mitigation is standard practice for all projects of this nature and scale. There will also be no significant

ecological impacts or regional air quality impacts associated with cumulative construction traffic emissions.

- 12.6.8. In terms of construction embodied carbon, the proposed scheme, cumulatively with other CBC schemes, is estimated to result in the equivalent of an annualised total of 0.14% of Ireland's non-ETS 2020 target. Emissions increases from construction traffic will occur mostly from redistribution of vehicles onto other longer routes. Mitigation measures for the construction phase will include the use of concrete containing ground granulated blast furnace slag, minimisation of wastage, reuse of materials and local sourcing.
- 12.6.9. Mitigation measures and the separation distance from other schemes will mean that there are no significant cumulative impacts for construction noise and vibration. A small number of roads will experience an increase in noise greater than 3dB from redistributed traffic during construction. However, this will be temporary in nature. There is potential for cumulative impact on land take, amenity and human health with a number of adjacent projects. These would also be of short duration.
- 12.6.10. Any cumulative losses of habitat, bats, birds, terrestrial mammals in combination with other projects are not likely to increase the impact significance above the residual local geographic scale. Other projects requiring the preparation of EIAR and AA Screening/ NIS will be bound by the environmental commitments therein, if granted planning approval. Overarching land use plans also have environmental protective policies for existing surface water and groundwater network.
- 12.6.11. The magnitude of habitat loss could be increased at Liffey Gaels Park if the use of the construction compound was extended to serve the proposed Lucan to City Centre scheme. This could potentially result in the loss of a potential winter bird foraging site for a minimum of 54 consecutive months. However, there is a low frequency of occurrence of wintering bird species at this site and there is a large availability of alternative habitat.
- 12.6.12. Impacts from the proposed scheme will be negligible on the water environment following implementation of the Surface Water Management Plan (SWMP) measures. It can be assumed that other projects will implement good practice measures in construction and so cumulative impacts are assessed to be of

imperceptible significance. There are also no likely significant impacts in combination with other proposed projects on land, soils, geology and hydrogeology.

- 12.6.13. Cumulative effects for waste have been considered on a regional basis. The proposed scheme, together with the 11 other CBC schemes and other regional projects such as Metrolink, DART Underground, Slane Bypass, the Greater Dublin Drainage Project and O'Devaney Gardens Regeneration Programme, will require off-site capacity for recovery, recycling, treatment and disposal of waste to landfill. The Dublin region, however, is well served by licensed capacity.
- 12.6.14. Finally for the construction phase, no significant cumulative impacts will occur on archaeology and cultural heritage, architectural heritage, landscape (townscape) and visual or material assets.
- 12.6.15. Operational phase cumulative impacts are also assessed for each of the environmental factors contained in the EIAR. Total transport demand will continue to increase in line with population and employment growth. With the 12 CBC schemes in place, a greater share of transport will be conducted by sustainable modes and there will be constraints to increased private car traffic. In 2043, it is estimated that there will be an 11% increase in public transport trips, a 4% decrease in general traffic trips and a 15% increase in cycling trips in the morning peak hour and a 9% increase in public transport, 5% decrease in general traffic and a 13% increase in cycling trips each day (7am-7pm). General traffic will reduce further due to Metrolink, Luas extensions and DART+ in tandem with the road capacity reduction measures as part of the proposed scheme. When all schemes are operational, it will have the effect of constraining the opportunity for traffic to displace to adjoining roads.
- 12.6.16. An air quality impact assessment was carried out for cumulative road traffic emissions with the 12 CBC schemes in operation. Little change in air quality is generated by the proposed scheme cumulatively with all CBCs in operation. Any increase in emissions is likely to reverse over time with the roll out of more electric vehicles. There will be no significant air pollution cumulative impacts on key ecological receptors during the operational phase.

- 12.6.17. A do minimum and cumulative 'do something' GHG emissions comparison for total car and bus in 2028 predicts a decrease of 27% CO₂eq. In the design year (2043), there is a predicted 25% decrease in carbon emissions from all vehicles. Cumulative increases of 4.8% and 5.3% in the opening year and design years respectively are predicted for redistributed traffic. Other factors considered in terms of climate impact are the potential for increased bus frequency, future growth in cycling and demand management. It should be noted that the planning consent is for the infrastructural improvements associated with providing bus priority and the Core Bus Corridor schemes have been designed to cater for much higher levels of cycling uptake. The overall CBC programme has the potential to reduce GHG emissions equivalent to the removal of approximately 105,500 and 102,200 car trips per weekday from the road network in 2028 and 2043 respectively, which represents a significant contribution towards the 20% reduction in total car kms by 2030 as set out in CAP23.
- 12.6.18. Higher noise levels will be experienced at certain roads outside the proposed scheme due to traffic redistribution during the opening year when assessed cumulatively. Noise impacts will be lower in the design year (2043) due to lower traffic volumes across the network and the roll out of electric fleet.
- 12.6.19. Eleven projects were assessed along the CBC for cumulative impacts on population (land take and amenity). No impacts of a significant nature were identified. The human health assessment identified 30 projects and three major projects (Lucan Luas, Dart+ and the Greater Dublin Area Cycle Network Plan) with the potential for cumulative impacts. These major projects, in combination with the CBC network, would have significant positive impacts by providing better connection for the population, particularly those with limited access to cars. Overall, human health will also be improved through wider active travel options and greater journey time reliability would have beneficial impacts in terms of improved mental health.
- 12.6.20. The potential for impacts on biodiversity during the operational phase of the proposed scheme is limited. There will also be no cumulative operational impacts on the water environment owing to the implementation of SuDS measures. In addition, no cumulative impacts with other projects are likely on land, soils, geology and hydrogeology. No residual impacts on archaeological and cultural heritage would occur as a result of the operational phase of the proposed scheme.

- 12.6.21. A number of projects were identified along the CBC with potential to contribute to cumulative impacts on architectural heritage. However, the proposed scheme will have minimal impact on these proposals. No cumulative effects are expected with other projects in terms of built form and changes to townscape.
- 12.6.22. Cumulative operational waste may arise from carriageway maintenance but not to a significant degree. There will be imperceptible operational phase impacts on electricity and telecommunications.

Interactions

- 12.6.23. Table 21.29 of the EIAR provides a matrix of interactions between environmental factors during the construction and operational phases of the proposed development. Significant interactions occur between population, human health, air quality, noise and vibration and traffic and transport. The interaction between traffic and transport and climate is one of the main motivations for the proposed scheme. The reduction in operational phase traffic and the shift from private motorised transport to active modes and public transport will help to reduce GHG emissions and associated impacts on climate.
- 12.6.24. Traffic and health interaction will occur during construction where access may be disrupted leading to stress. Short diversions may therefore be required. Exposure to pollution and environmental hazards from construction works through contamination of water, soil or air may pose risks to human health. Disruption to local drainage may present an increase of flood risk with associated impacts on human health. These impacts are likely to be imperceptible and therefore no significant interaction will occur. Other potential health interactions could occur from disruptions to utilities and traffic emissions of air pollution and noise in both construction and operational phases.
- 12.6.25. The operational phase will give rise positive interactions by way of health improvements through safer provision for active travel. Improvements to the public realm can influence the wellbeing of people when they are spending time in these places and engaging in more social interaction, with associated beneficial health outcomes. Overall, the main beneficial interactions of the proposed scheme on human health will outweigh the adverse effects. Many of the adverse interactions

will take place during the construction phase of the proposed scheme and will therefore be short term. Mitigation measures are set out in each of the relevant chapters and can also be applicable to other environmental factors.

12.6.26. Other interactions of a more minor nature could occur between biodiversity and traffic and transport from mortality risk; land, soils, geology and hydrogeology and water; material assets (imported materials) and waste and resources; climate and material assets (imported materials and waste generated); climate and traffic and transport; landscape (townscape) and visual; and townscape and architectural heritage.

12.6.27. In general, I would be satisfied with the methodology provided within the EIAR for interactions and cumulative assessment. Construction stage interactions will mostly be short term and mitigation for one environmental factor can be applicable to other environmental factors. The subject development is assessed with all the other BusConnect CBC schemes in the Greater Dublin Area, together with other major transport proposals and any other relevant projects along the CBC. Overall, this provides for a robust and complete assessment of the proposed scheme by itself and any cumulative interactions with projects and activities in the area. I am therefore satisfied that sufficient information has been acquired to fully inform the cumulative assessment of the proposed development and other relevant projects and activities.

12.7. Reasoned Conclusion

12.7.1. Having regard to the examination of environmental information contained above, and in particular to the EIAR and supplementary information provided by the developer, and the submissions from third parties and from prescribed bodies in the course of the application, it is considered that the main significant direct and indirect effects of the proposed development on the environment are as follows:

- Positive long term impacts on **population and human health** through facilitation of improved pedestrian and cyclist safety, faster and more reliable bus services, reduced traffic congestion, improved air quality and noise reduction, improved

road/ street safety, more social interaction and positive accessibility and amenity impacts for community areas.

- Adverse short-term impacts on **population and human health** from the construction phase in terms of access restrictions, noise, vibration, dust, contaminated material, traffic and visual impact. This will be adequately mitigated through compliance with the CEMP and measures outlined in the Land, Soils, Water, Air and Climate and Material Assets sections of the EIAR.
- Adverse long-term impacts on **population and human health** from the temporary and permanent acquisition of land. This will be adequately mitigated through provision of new accesses, replacement boundaries and monetary compensation.
- Adverse impacts on **biodiversity** from unavoidable removal of habitat. Vegetation removal will be compensated by additional planting to include 354 street trees and 220m of hedgerow, which will provide new nesting habitat for birds. Mitigation measures will be implemented for two trees that contain possible roost features for bats.
- Potential adverse impacts on **biodiversity** from the spread of invasive species during construction. This will be adequately mitigated through implementation of an Invasive Species Management Plan.
- Potential adverse impacts on **land, soils, geology and hydrogeology** from loss or damage of topsoil, excavation of potentially contaminated ground and contamination of parts of an aquifer during the construction phase. These impacts will be adequately mitigated through compliance with the CEMP.
- Potential for **water** quality impacts from surface water runoff during construction containing fine sediments, accidental spillages/ leakages and disruption of local drainage networks. Adequate mitigation measures for surface water management are contained within the CEMP.
- Potential for impacts to **air quality** from dust and noise emissions from construction works. These will be minimised with implementation of appropriate mitigation measures.

- Potential for positive long term impacts on **climate** through removal of approximately 15,700 and 15,100 car trips per weekday from the road network in 2028 and 2043 respectively and associated reduction in CO₂ emissions.
- Positive impacts on **traffic and transport** by maximising the capacity of the proposed scheme to move more people by sustainable modes, whilst also providing for necessary general traffic.
- Potential adverse impacts on **cultural heritage** due to construction works impacting on underlying archaeology and on the Thomas Street Architectural Conservation Area. Mitigation measures will be put in place to protect/ record/ monitor underlying archaeology and adjoining heritage features.
- Positive impacts on **landscape (townscape)** from the creation of a high quality pedestrianised areas at Cornmarket, Ballyfermot Retail Centre, the Ballyfermot roundabout, Grattan Crescent, the James St/ Bow Lane West junction (Obelisk Fountain), together with wider footpaths, new surfaces, planting, reduced car parking, narrower carriageways, lower vehicle speeds and an overall reduction of traffic dominance.

13.0 **Appropriate Assessment**

13.1. The areas addressed in this section are as follows:

- Compliance with Articles 6(3) of the EU Habitats Directive
- Geographical Scope and Main Characteristics
- Screening the need for Appropriate Assessment
- The Natura Impact Statement and associated documents
- Appropriate Assessment of implications of the proposed development on each European Site

13.2. Compliance with Articles 6(3) of the EU Habitats Directive: The Habitats Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the

site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site.

- 13.2.1. The proposed development comprising the development of the BusConnects Liffey Valley to City Centre Core Bus Corridor is not directly connected with or necessary to the management of any European site and is therefore subject to the provisions of Article 6(3).

13.3. Geographical Scope and Main Characteristics

- 13.3.1. The Liffey Valley to City Centre Core Bus Corridor (proposed scheme) extends over a distance of 9.2km from the new Liffey Valley Shopping Centre bus interchange at its western end to High Street in the city centre to the east. The proposed scheme will travel along distributor roads from the shopping centre before continuing over the M50 and alongside residential areas on both sides of the road at Palmers Drive and Coldcut Park. The proposed scheme then passes Cherry Orchard Hospital and Cherry Orchard Industrial estate and through residential areas to the west of Ballyfermot. The route continues through Ballyfermot civic centre, then past school grounds and Markievicz Park, a pitch and putt course and GAA pitch along the R833.
- 13.3.2. As the route approaches the city, it passes by more historic housing at Inchicore. Green space adjoining this section includes Grattan Crescent Park, which is bounded by the Camac River. The proposed scheme crosses the Camac River at Golden Bridge on Emmet Road and then continues past a mix of road fronting residential and commercial development, as well as Inchicore College of Further Education. To the east of South Circular Road, the proposed scheme enters Old Kilmainham and Mount Brown then passes St. James's Hospital. Along James's Street, Thomas Street and High Street, the character of the area is defined by city centre streetscapes.

- 13.3.3. The proposed scheme is therefore located in a highly urbanised environment. Habitats present along the core bus corridor include flower beds and borders (BC4); stone walls and other stonework (BL1); buildings and artificial surfaces (BL3); tidal rivers (CW2); exposed sand, gravel or till (ED1); spoil and bare ground (ED2); recolonising bare ground (ED3); depositing / lowland rivers (FW2); amenity grassland (improved) (GA2); dry meadows and grassy verges (GS2); residential; (mixed) broadleaved woodland (WD1); scattered trees and parkland (WD5); hedgerows (WL1); treelines (WL2); scrub (WS1); and ornamental / non-native shrub (WS3).
- 13.3.4. Three surface water catchments are present along the proposed scheme, where surface water drains to the Quarryvale Stream (Liffey_180), the River Liffey (Liffey_180 & Liffey_190) and, to Liffey_190, Camac_040 and Ringsend WWTP, via a combined sewer. There is no direct hydrological connection from the proposed scheme to the Liffey Estuary Upper, which corresponds with the Annex I habitat Estuaries [1130]. The proposed scheme traverses the Dublin groundwater body.
- 13.3.5. The nearest European Site to the proposed scheme is the South Dublin Bay and River Tolka Estuary SPA, which is approximately 3.4km to the north-east. The South Dublin Bay SAC is approximately 4km to the east. Both of these European Sites are hydrologically connected to the proposed scheme at distances of 5.6km and 6.5km respectively.
- 13.3.6. The main characteristics of the construction phase of the proposed scheme are site preparation and clearance; removal of boundaries, pavements, lighting columns, bus stops, and signage; protection and/ or diversion of underground services; road widening, pavement reconstruction and kerb realignments; reconfiguration of traffic lanes; installation of new bus stops; junction / roundabout modification; boundary reinstatement and construction of retaining walls; relocation of and/or installation of lighting columns and signage; landscaping and tree planting; and reinstatement of temporary land acquisitions.
- 13.3.7. The proposed scheme will discharge drainage to the Liffey_180 and Liffey_190; and to the Camac_040 and Ringsend WwTP. There will be 10% net increases in impermeable area draining to both the Liffey_180 and Liffey_190 and no increase in

permeable area draining to the Ringsend WwTP. Drainage of newly paved areas will include SuDS measures to treat and attenuate any additional runoff.

- 13.3.8. Three construction compounds are proposed at Fonthill Road, Coldcut Road and on Con Colbert Road within Liffey Gaels GAA grounds. The duration of construction works is expected to be 30 months.
- 13.3.9. The main characteristics of the proposed scheme during the operational phase will changes to movement patterns and modes of transport along the corridor; enhancement of public realm and increase usage, the presence of additional lighting, and routine maintenance.

13.4. Screening the need for Appropriate Assessment

- 13.4.1. The first test of Article 6(3) is to establish if the proposed development could result in likely significant effects to a European site. This is considered stage 1 of the appropriate assessment process i.e., *screening*. The screening stage is intended to be a preliminary examination. If the possibility of significant effects cannot be excluded on the basis of objective information, without extensive investigation or the application of mitigation, a plan or project should be considered to have a likely significant effect and Appropriate Assessment carried out.
- 13.4.2. Having regard to the information and submissions available, the nature, size and location of the proposed development and its likely direct, indirect and cumulative effects, the source pathway receptor principle and sensitivities of the ecological receptors, the European Sites set out in Table 1 below are considered relevant to include for the purposes of initial screening for the requirement for Stage 2 appropriate assessment on the basis of likely significant effects. A 15km study area from all elements of the proposed core bus corridor is applied for this purpose. Additional sites within Dublin Bay that are hydrologically connected to the proposed scheme site also included for initial screening. A total of 29 European Sites are included (15 SACs & 14 SPAs) for initial screening.
- 13.4.3. European sites considered for Stage 1 screening:

European site (SAC/SPA)	Site code	Distance to Proposed Development	Connections (source, pathway, receptor)	Considered further in Screening (Y/N)
Wicklow Mountains SAC	002122	11.3km	No potential connections	N
Rye Water Valley/ Carton SAC	001398	6.5km	No potential connections	N
Malahide Estuary SAC	000205	13.9km	No potential connections	N
Rockabill to Dalkey Islands SAC	003000	12.1km	Possible connections	Y
North Dublin Bay SAC	000206	6.3km	Possible connections	Y
South Dublin Bay SAC	000210	4km	Possible connections	Y
Glenasmole Valley SAC	001209	9.3km	No potential connections	N
Baldoyle Bay SAC	000199	11.2km	No potential connections	N
Howth Head SAC	000202	12km	Possible connections	Y
Rye Water Valley / Carton SAC	001398	6.5km	No potential connections	N
Wicklow Mountains SAC	002122	11.3km	No potential connections	N
Malahide Estuary SAC	000205	13.9km	No potential connections	N
Ireland's Eye SAC	002193	15.2km	No potential connections	N
Rogerstown Estuary SAC	000208	18km	No potential connections	N
Lambay Island SAC	000204	22.6km	Possible connections	Y
South Dublin Bay and River Tolka Estuary SPA	004024	3.3km	Possible connections	Y
North Bull Island SPA	004006	6.3km	Possible connections	Y
Baldoyle Bay SPA	004016	11.4km	Possible connections	Y
Malahide Estuary SPA	004025	13.9km	Possible connections	Y

European site (SAC/SPA)	Site code	Distance to Proposed Development	Connections (source, pathway, receptor)	Considered further in Screening (Y/N)
Wicklow Mountains SPA	004040	11.3km	No potential connections	N
Howth Head Coast SPA	004113	14.6km	Possible connections	Y
Ireland's Eye SPA	004117	15.2km	Possible connections	Y
Dalkey Islands SPA	004172	13.8km	Possible connections	Y
Rogerstown Estuary SPA	004015	18.3km	Possible connections	Y
The Murrough SPA	004186	30.5km	Possible connections	Y
Lambay Island SPA	004069	22.4km	Possible connections	Y
Rockabill SPA	004014	28.5km	Possible connections	Y
Skerries Islands SPA	004122	27.9km	Possible connections	Y
North-West Irish Sea cSPA	004236	8.1km	Possible connections	Y

Table 1 – Summary Table of European Sites considered in Screening for

Appropriate Assessment

- 13.4.4. The applicants AA Screening Report concluded that there is potential for effects on the qualifying interests of the North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Howth Head Coast SPA, Dalkey Islands SPA, Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Rockabill SPA and The Murrough SPA. The North-West Irish Sea cSPA has been designated since the preparation of the NIS.
- 13.4.5. There are 10 European sites located in Dublin Bay that are hydrologically connected to the proposed scheme and 15 SPAs designated for species known to forage and/or roost at inland sites across Dublin city. Rockabill to Dalkey Island SAC and Lambay Island SAC are also designated for mobile QI species known to utilise the

Dublin Bay and the Liffey Estuary Lower. The significance of the effects on these European Sites is therefore uncertain.

13.4.6. Hydrological, invasive species and disturbance and displacement impacts associated with the proposed scheme have the potential to have significant effects on European Sites. There is also the potential for other plans or projects to act in combination with the proposed scheme to give rise to significant effects on European Sites such as habitat fragmentation (ex-situ habitat losses); habitat degradation (reduction in water quality or introduction of non-native invasive species); and disturbance/ displacement impacts (ex-situ inland feeding sites). Therefore, it is considered that the proposed development should progress to the second stage of the appropriate assessment process and the preparation of an NIS.

13.4.7. Having reviewed the documents, submissions and correspondence from the NPWS, I am satisfied that the information allows for a complete examination and identification of any potential significant effects of the development, alone, or in combination with other plans and projects on European sites. Based on my examination of the AA Screening Report and other supporting information, the NPWS website, aerial and satellite imagery, the scale of the proposed development and likely effects, separation distances and functional relationships between the proposed scheme and the European sites, their conservation objectives, and taken in conjunction with my assessment of the subject site and the surrounding area, I conclude that a Stage 2 Appropriate Assessment is required for the following European Sites in view of the conservation objectives of these sites:

- North Dublin Bay SAC,
- South Dublin Bay SAC,
- Howth Head SAC,
- Rockabill to Dalkey Island SAC,
- Lambay Island SAC,
- North Bull Island SPA,
- South Dublin Bay and River Tolka Estuary SPA,

- Howth Head Coast SPA,
- Dalkey Islands SPA,
- Malahide Estuary SPA,
- Baldoyle Bay SPA,
- Rogerstown Estuary SPA,
- Skerries Islands SPA,
- Lambay Island SPA,
- Ireland's Eye SPA,
- Rockabill SPA and
- The Murrough SPA.
- North-West Irish Sea cSPA

13.4.8. Table 2 below provides a screening summary matrix where there is a possibility of significant effects from the proposed core bus corridor scheme, or where the possibility of significant effects cannot be excluded without further detailed assessment.

Site name	Is there a possibility of significant effects in view of the conservation objectives of the site?		
Qualifying Interest feature	General impact categories presented		
	Habitat loss/ modification	Water quality and water dependent habitats (pollution)	Disturbance/ displacement barrier effects
<p>North Dublin Bay SAC</p> <p><i>Qualifying Interests:</i></p> <p>Mudflats and sandflats not covered by seawater at low tide [1140]</p> <p>Annual vegetation of drift lines [1210]</p> <p>Salicornia and other annuals colonising mud and sand [1310]</p> <p>Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>) [1330]</p> <p>Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</p> <p>Embryonic shifting dunes [2110]</p> <p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]</p> <p>Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]</p> <p>Humid dune slacks [2190]</p>		<p>Downstream habitats and species at risk of hydrological effects from proposed scheme and associated surface water drainage discharge.</p> <p>Risk associated with the proposed scheme to downstream European Site from spread/ introduction of non-native invasive species.</p>	

Petalophyllum ralfsii (Petalwort) [1395]			
South Dublin Bay SAC <i>Qualifying Interests:</i> Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Embryonic shifting dunes [2110]		Downstream habitats and species at risk of hydrological effects from proposed scheme and associated surface water drainage discharge. Risk associated with the proposed scheme to downstream European Site from spread/ introduction of non-native invasive species.	
Howth Head SAC <i>Qualifying Interests:</i> Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030]		Downstream habitats and species at risk of hydrological effects from proposed scheme and associated surface water drainage discharge.	
Rockabill to Dalkey Island SAC <i>Qualifying Interests:</i> Reefs [1170] Phocoena phocoena (Harbour Porpoise) [1351]		Downstream habitats and species at risk of hydrological effects from proposed scheme and associated surface water drainage discharge.	
Lambay Island SAC <i>Qualifying Interests:</i> Reefs [1170]		Downstream habitats and species at risk of hydrological effects from proposed scheme and associated surface water drainage discharge.	

<p>Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]</p> <p>Halichoerus grypus (Grey Seal) [1364]</p> <p>Phoca vitulina (Harbour Seal) [1365]</p>			
<p>North Bull Island SPA</p> <p><i>Qualifying Interests:</i></p> <p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</p> <p>Shelduck (<i>Tadorna tadorna</i>) [A048]</p> <p>Teal (<i>Anas crecca</i>) [A052]</p> <p>Pintail (<i>Anas acuta</i>) [A054]</p> <p>Shoveler (<i>Anas clypeata</i>) [A056]</p> <p>Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</p> <p>Golden Plover (<i>Pluvialis apricaria</i>) [A140]</p> <p>Grey Plover (<i>Pluvialis squatarola</i>) [A141]</p> <p>Knot (<i>Calidris canutus</i>) [A143]</p> <p>Sanderling (<i>Calidris alba</i>) [A144]</p> <p>Dunlin (<i>Calidris alpina</i>) [A149]</p> <p>Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</p> <p>Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</p> <p>Curlew (<i>Numenius arquata</i>) [A160]</p>	<p>Potential for loss of ex situ inland feeding sites used by SCI wintering bird species for the duration of the construction works.</p>	<p>Downstream habitats and species at risk of hydrological effects from proposed scheme and associated surface water drainage discharge.</p> <p>Risk associated with the proposed scheme to downstream European Site from spread/ introduction of non-native invasive species.</p>	<p>Potential disturbance of SCI wintering bird species utilising ex situ inland feeding sites.</p>

<p>Redshank (<i>Tringa totanus</i>) [A162]</p> <p>Turnstone (<i>Arenaria interpres</i>) [A169]</p> <p>Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]</p> <p>Wetland and Waterbirds [A999]</p>			
<p>South Dublin Bay and River Tolka Estuary SPA</p> <p><i>Qualifying Interests:</i></p> <p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</p> <p>Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</p> <p>Ringed Plover (<i>Charadrius hiaticula</i>) [A137]</p> <p>Grey Plover (<i>Pluvialis squatarola</i>) [A141]</p> <p>Knot (<i>Calidris canutus</i>) [A143]</p> <p>Sanderling (<i>Calidris alba</i>) [A144]</p> <p>Dunlin (<i>Calidris alpina</i>) [A149]</p> <p>Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</p> <p>Redshank (<i>Tringa totanus</i>) [A162]</p> <p>Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]</p> <p>Roseate Tern (<i>Sterna dougallii</i>) [A192]</p>	<p>Potential for loss of ex situ inland feeding sites used by SCI wintering bird species for the duration of the construction works.</p>	<p>Downstream habitats and species at risk of hydrological effects from proposed scheme and associated surface water drainage discharge.</p> <p>Risk associated with the proposed scheme to downstream European Site from spread/ introduction of non-native invasive species.</p>	<p>Potential disturbance of SCI wintering bird species utilising ex situ inland feeding sites.</p>

<p>Common Tern (<i>Sterna hirundo</i>) [A193]</p> <p>Arctic Tern (<i>Sterna paradisaea</i>) [A194]</p> <p>Wetland and Waterbirds [A999]</p>			
<p>Howth Head Coast SPA</p> <p><i>Qualifying Interests:</i></p> <p>Kittiwake (<i>Rissa tridactyla</i>) [A188]</p>		<p>Downstream habitats and species at risk of hydrological effects from proposed scheme and associated surface water drainage discharge.</p>	
<p>Dalkey Islands SPA</p> <p><i>Qualifying Interests:</i></p> <p>Roseate Tern (<i>Sterna dougallii</i>) [A192]</p> <p>Common Tern (<i>Sterna hirundo</i>) [A193]</p> <p>Arctic Tern (<i>Sterna paradisaea</i>) [A194]</p>		<p>Downstream habitats and species at risk of hydrological effects from proposed scheme and associated surface water drainage discharge.</p>	
<p>Malahide Estuary SPA</p> <p><i>Qualifying Interests:</i></p> <p>Great Crested Grebe (<i>Podiceps cristatus</i>) [A005]</p> <p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</p> <p>Shelduck (<i>Tadorna tadorna</i>) [A048]</p> <p>Pintail (<i>Anas acuta</i>) [A054]</p> <p>Goldeneye (<i>Bucephala clangula</i>) [A067]</p> <p>Red-breasted Merganser (<i>Mergus serrator</i>) [A069]</p>	<p>Potential for loss of ex situ inland feeding sites used by SCI wintering bird species for the duration of the construction works.</p>	<p>Downstream habitats and species at risk of hydrological effects from proposed scheme and associated surface water drainage discharge.</p>	<p>Potential disturbance of SCI wintering bird species utilising ex situ inland feeding sites.</p>

<p>Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</p> <p>Golden Plover (<i>Pluvialis apricaria</i>) [A140]</p> <p>Grey Plover (<i>Pluvialis squatarola</i>) [A141]</p> <p>Knot (<i>Calidris canutus</i>) [A143]</p> <p>Dunlin (<i>Calidris alpina</i>) [A149]</p> <p>Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</p> <p>Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</p> <p>Redshank (<i>Tringa totanus</i>) [A162]</p> <p>Wetland and Waterbirds [A999]</p>			
<p>Baldoyle Bay SPA</p> <p><i>Qualifying Interests:</i></p> <p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</p> <p>Shelduck (<i>Tadorna tadorna</i>) [A048]</p> <p>Ringed Plover (<i>Charadrius hiaticula</i>) [A137]</p> <p>Golden Plover (<i>Pluvialis apricaria</i>) [A140]</p> <p>Grey Plover (<i>Pluvialis squatarola</i>) [A141]</p> <p>Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</p> <p>Wetland and Waterbirds [A999]</p>	<p>Potential for loss of ex situ inland feeding sites used by SCI wintering bird species for the duration of the construction works.</p>	<p>Downstream habitats and species at risk of hydrological effects from proposed scheme and associated surface water drainage discharge.</p>	<p>Potential disturbance of SCI wintering bird species utilising ex situ inland feeding sites.</p>

<p>Rogerstown Estuary SPA</p> <p><i>Qualifying Interests:</i></p> <p>Greylag Goose (<i>Anser anser</i>) [A043]</p> <p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</p> <p>Shelduck (<i>Tadorna tadorna</i>) [A048]</p> <p>Shoveler (<i>Anas clypeata</i>) [A056]</p> <p>Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</p> <p>Ringed Plover (<i>Charadrius hiaticula</i>) [A137]</p> <p>Grey Plover (<i>Pluvialis squatarola</i>) [A141]</p> <p>Knot (<i>Calidris canutus</i>) [A143]</p> <p>Dunlin (<i>Calidris alpina</i>) [A149]</p> <p>Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</p> <p>Redshank (<i>Tringa totanus</i>) [A162]</p> <p>Wetland and Waterbirds [A999]</p>	<p>Potential for loss of ex situ inland feeding sites used by SCI wintering bird species for the duration of the construction works.</p>	<p>Downstream habitats and species at risk of hydrological effects from proposed scheme and associated surface water drainage discharge.</p>	<p>Potential disturbance of SCI wintering bird species utilising ex situ inland feeding sites.</p>
<p>Skerries Islands SPA</p> <p><i>Qualifying Interests:</i></p> <p>Cormorant (<i>Phalacrocorax carbo</i>) [A017]</p> <p>Shag (<i>Phalacrocorax aristotelis</i>) [A018]</p> <p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</p>	<p>Potential for loss of ex situ inland feeding sites used by SCI wintering bird species for the duration of the construction works.</p>	<p>Downstream habitats and species at risk of hydrological effects from proposed scheme and associated surface water drainage discharge.</p>	<p>Potential disturbance of SCI wintering bird species utilising ex situ inland feeding sites.</p>

<p>Purple Sandpiper (<i>Calidris maritima</i>) [A148] Turnstone (<i>Arenaria interpres</i>) [A169] Herring Gull (<i>Larus argentatus</i>) [A184]</p>			
<p>Lambay Island SPA <i>Qualifying Interests:</i> Fulmar (<i>Fulmarus glacialis</i>) [A009] Cormorant (<i>Phalacrocorax carbo</i>) [A017] Shag (<i>Phalacrocorax aristotelis</i>) [A018] Greylag Goose (<i>Anser anser</i>) [A043] Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183] Herring Gull (<i>Larus argentatus</i>) [A184] Kittiwake (<i>Rissa tridactyla</i>) [A188] Guillemot (<i>Uria aalge</i>) [A199] Razorbill (<i>Alca torda</i>) [A200] Puffin (<i>Fratercula arctica</i>) [A204]</p>	<p>Potential for loss of ex situ inland feeding sites used by SCI wintering bird species for the duration of the construction works.</p>	<p>Downstream habitats and species at risk of hydrological effects from proposed scheme and associated surface water drainage discharge.</p>	<p>Potential disturbance of SCI wintering bird species utilising ex situ inland feeding sites.</p>
<p>Ireland's Eye SPA <i>Qualifying Interests:</i> Cormorant (<i>Phalacrocorax carbo</i>) [A017] Herring Gull (<i>Larus argentatus</i>) [A184] Kittiwake (<i>Rissa tridactyla</i>) [A188]</p>	<p>Potential for loss of ex situ inland feeding sites used by SCI wintering bird species for the duration of the construction works.</p>	<p>Downstream habitats and species at risk of hydrological effects from proposed scheme and associated surface water drainage discharge.</p>	<p>Potential disturbance of SCI wintering bird species utilising ex situ inland feeding sites.</p>

Guillemot (<i>Uria aalge</i>) [A199] Razorbill (<i>Alca torda</i>) [A200]			
Rockabill SPA <i>Qualifying Interests:</i> Purple Sandpiper (<i>Calidris maritima</i>) [A148] Roseate Tern (<i>Sterna dougallii</i>) [A192] Common Tern (<i>Sterna hirundo</i>) [A193] Arctic Tern (<i>Sterna paradisaea</i>) [A194]		Downstream habitats and species at risk of hydrological effects from proposed scheme and associated surface water drainage discharge.	Potential disturbance of SCI wintering bird species utilising ex situ inland feeding sites.
The Murrough SPA <i>Qualifying Interests:</i> Red-throated Diver (<i>Gavia stellata</i>) [A001] Greylag Goose (<i>Anser anser</i>) [A043] Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Wigeon (<i>Anas penelope</i>) [A050] Teal (<i>Anas crecca</i>) [A052] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Herring Gull (<i>Larus argentatus</i>) [A184] Little Tern (<i>Sterna albifrons</i>) [A195] Wetland and Waterbirds [A999]	Potential for loss of ex situ inland feeding sites used by SCI wintering bird species for the duration of the construction works.	Downstream habitats and species at risk of hydrological effects from proposed scheme and associated surface water drainage discharge.	Potential disturbance of SCI wintering bird species utilising ex situ inland feeding sites.

<p>North-West Irish Sea cSPA</p> <p>Common Scoter (<i>Melanitta nigra</i>) [A065]</p> <p>Red-throated Diver (<i>Gavia stellata</i>) [A001]</p> <p>Great Northern Diver (<i>Gavia immer</i>) [A003]</p> <p>Fulmar (<i>Fulmarus glacialis</i>) [A009]</p> <p>Manx Shearwater (<i>Puffinus puffinus</i>) [A013]</p> <p>Shag (<i>Phalacrocorax aristotelis</i>) [A018]</p> <p>Cormorant (<i>Phalacrocorax carbo</i>) [A017]</p> <p>Little Gull (<i>Larus minutus</i>) [A177]</p> <p>Kittiwake (<i>Rissa tridactyla</i>) [A188]</p> <p>Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]</p> <p>Common Gull (<i>Larus canus</i>) [A182]</p> <p>Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183]</p> <p>Herring Gull (<i>Larus argentatus</i>) [A184]</p> <p>Great Black-backed Gull (<i>Larus marinus</i>) [A187]</p> <p>Little Tern (<i>Sterna albifrons</i>) [A195]</p> <p>Roseate Tern (<i>Sterna dougallii</i>) [A192]</p> <p>Common Tern (<i>Sterna hirundo</i>) [A193]</p> <p>Arctic Tern (<i>Sterna paradisaea</i>) [A194]</p>	<p>Potential for loss of ex situ inland feeding sites used by SCI wintering bird species for the duration of the construction works.</p>	<p>Downstream habitats and species at risk of hydrological effects from proposed scheme and associated surface water drainage discharge.</p>	<p>Potential disturbance of SCI wintering bird species utilising ex situ inland feeding sites.</p>
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Puffin (<i>Fratercula arctica</i>) [A204]			
Razorbill (<i>Alca torda</i>) [A200]			
Guillemot (<i>Uria aalge</i>) [A199]			

Table 2 Screening summary matrix: European Sites for which there is a possibility of significant effects (or where the possibility of significant effects cannot be excluded without further detailed assessment)

- 13.4.9. The remaining sites can be screened out from further assessment because of the scale of the proposed works, the nature of the Conservation Objectives, Qualifying and Special Conservation Interests, the separation distances and the lack of a substantive ecological linkage, hydrologically or otherwise, between the proposed works and the European sites.
- 13.4.10. The proposed core bus corridor scheme does not overlap with any European Site and there is no potential to cause direct habitat loss, fragmentation or disturbance in any of the Special Areas of Conservation screened out within the study area due to the location of the works outside of any such European Sites. Indirect terrestrial or aquatic habitat loss or degradation will not occur in all sites screened out due to the absence of hydrological connectivity and/ or the separation distance between construction works, or any operational stage work.
- 13.4.11. There is also no potential for indirect/ ex-situ disturbance or displacement of animal species as the qualifying interests in certain SACs (Glasamole Valley SAC, Baldoyle Bay SAC, Malahide Estuary SAC, Ireland's Eye SAC and Rogerstown Estuary SAC) relate to habitats/ plant species only. The proposed scheme has the potential to result in habitat degradation of the qualifying /special conservation interest species of any European site as the result of hydrogeological impacts. However, there is substantial distance to these sites, and they are located outside of Dublin Bay, which is hydrologically connected to the proposed scheme site. There is potential for hydrological impacts on European Sites within Dublin Bay leading to degradation of sensitive habitat, which in turn would negatively affect the SCI bird species that rely upon these habitats as foraging and / or roosting habitat. It could also negatively affect the quantity and quality of prey available to SCI bird species. These European Site have therefore been screen in.
- 13.4.12. The other European Sites that have been screened out at the Rye Water Valley/ Carton SAC, Wicklow Mountain SAC and Wicklow Mountains SPA. The Rye Water Valley/ Carton SAC is located upstream of the proposed scheme site and the Rye Water is a tributary of the River Liffey. There is no hydrological or mobile species connection with the proposed scheme site, and it does not extend to any groundwater dependent terrestrial ecosystems linked to European sites.

- 13.4.13. Significant effects on the Wicklow Mountains SAC are not possible due to the distance from and lack of connections to the habitat/ species for which this site is designated. This SAC is located in a different sub-catchment and as such, otter within the footprint of the proposed scheme are not connected to this SAC population. With respect to the Wicklow Mountains SPA, there is no possibility of effects due to the significant distance between the proposed development site and the SPA. The QI species are Merlin and peregrine and they are associated with the upland habitats of the Wicklow Mountains SPA.
- 13.4.14. It is not considered likely that invasive species could spread to European sites which are located a significant distance from the outfall locations and separated by a large marine waterbody. Furthermore, it is noted that impacts on marine mammals are unlikely as the terminus of the proposed scheme is located approximately 167m south of the Liffey Estuary Upper, at High Street in a highly urbanised environment and where water levels can drop diurnally reducing the likelihood of marine mammals venturing this far up-river.
- 13.4.15. It is therefore reasonable to conclude that on the basis of the information on the file, which I consider adequate in order to issue a screening determination, that the proposed development, individually or in combination with other plans or projects would not be likely to have a significant effect on Glasamole Valley SAC (001209), Baldoyle Bay SAC (000199), Rye Water Valley/ Carton SAC (001398), Wicklow Mountains SAC (002122), Malahide Estuary SAC (000205), Ireland's Eye SAC (002193), Rogerstown Estuary SAC (000208) and Wicklow Mountains SPA (004040) in view of the sites' conservation objectives and a Stage 2 Appropriate Assessment for these sites is not therefore required. I am therefore satisfied that no additional sites other than those assessed in the NIS need to be brought forward for Appropriate Assessment.
- 13.4.16. Having carried out Screening for Appropriate Assessment of the project, it has been concluded that the project individually, or in combination with other plans or projects, could have a significant effect on European Site No's.003000, 000206, 000210, 000202, 000204, 004024, 004006, 004016, 004025, 004113, 004117, 004172, 004015, 004186, 004069, 004014, 004122 and 004236 in view of the sites' Conservation Objectives, and Appropriate Assessment is therefore required.

13.5. The Natura Impact Statement and Associated Documents

- 13.5.1. The application was accompanied by an Appropriate Assessment Screening Report and Natura Impact Statement dated June 2022 and submitted to the Board on 8th July 2022. The NIS examines the effects of the proposed Liffey Valley to City Centre Core Bus Corridor scheme alone, and in-combination with other projects and activities, on the integrity of European Sites in respect of their conservation objectives and their structure and function. The NIS Appendices include (I) the general arrangement drawings for the scheme, (II) desk study (III) the Construction Environmental Management Plan (CEMP), (IV) proposed surface water drainage works drawings, (V) and a Water Framework Directive Assessment.
- 13.5.2. In general, I am satisfied that the Appropriate Assessment Screening Report and Natura Impact Statement submitted with the planning application adequately describes the proposed scheme, the project site and the surrounding area. The Stage 1 Screening Assessment concluded that a Stage 2 Appropriate Assessment (NIS) was required. The Appropriate Assessment Screening Report and NIS outlined the methodology used for assessing potential impacts on the habitats and species within the European Sites that have the potential to be affected by the proposed development. It predicted the potential impacts for the site and its conservation objectives, suggested mitigation measures, assessed in-combination effects and identified any residual effects on the European site and its conservation objectives.
- 13.5.3. The Appropriate Assessment Screening Report and NIS were informed by the following studies, surveys and consultations:
- Desk Study:
 - Online data from NPWS on European Sites include conservation objectives documents.
 - Online data records from National Biodiversity Data Centre.
 - OSi orthophotography.
 - Records of rare and / or protected species held by NPWS.

- Habitat and species GIS datasets provided by the NPWS, including Article 12 and Article 17 data.
 - Records from the Botanical Society of Britain and Ireland.
 - Information contained within the *Flora of County Dublin*.
 - Environmental information from the EPA.
 - Information on the status of EU protected habitats and species in Ireland.
 - NIS for proposed residential development at St. Paul's College.
 - Ecological surveys for EIAR.
 - Information on the location, nature and design of the proposed scheme.
- Consultations:
 - Department of Housing, Local Government and Heritage (30th July 2019)
- Baseline surveys:
 - Habitats and flora surveys undertaken between June and August 2018 and confirmatory and additional surveys in August 2020 and mapped in accordance with Best Practice Guidance for Habitat Survey and Mapping.
 - Desk study to identify all hydrological crossing points (no instream works proposed).
 - Fauna surveys including surveys for the presence or signs of terrestrial, mobile Annex II species and surveys for Special Conservation Interest bird species.
 - Otter surveys undertaken between June and August 2018, and in August 2020.
 - Desk study to identify suitable inland feeding and/ or roosting sites for winter birds and habitat suitability assessment carried out in October

2020. Field survey of suitable sites twice a month, between the months of October 2020 to March 2021, and October 2021 to March 2022.

- Identification of birds with reference to Collins Bird Guide (Svensson, 2010) and record using the British Trust for Ornithology (BTO) species codes.

13.5.4. The NIS concluded that, following an examination, analysis and evaluation of the relevant information, including in particular the nature of the predicted impacts from the proposed scheme and the effective implementation of the mitigation measures proposed, that the proposed scheme will not adversely affect (either directly or indirectly) the integrity of any European site, either alone or in combination with other plans or projects, and there is no reasonable scientific doubt in relation to this conclusion.

13.5.5. Having reviewed the NIS and the supporting documentation, I am satisfied that it provides adequate information in respect of the baseline conditions, clearly identifies the potential impacts, and uses best scientific information and knowledge. Details of mitigation measures are provided, and they are summarised in the NIS. I am satisfied that the information allows for a complete assessment of any adverse effects of the development, on the conservation objectives of the following European sites alone, or in combination with other plans and projects:

- North Dublin Bay SAC,
- South Dublin Bay SAC,
- Howth Head SAC,
- Rockabill to Dalkey Island SAC,
- Lambay Island SAC,
- North Bull Island SPA,
- South Dublin Bay and River Tolka Estuary SPA,
- Howth Head Coast SPA,
- Dalkey Islands SPA,

- Malahide Estuary SPA,
- Baldoyle Bay SPA,
- Rogerstown Estuary SPA,
- Skerries Islands SPA,
- Lambay Island SPA,
- Ireland's Eye SPA,
- Rockabill SPA
- The Murrough SPA

13.6. Appropriate Assessment of implications of the proposed development on each European Site

13.6.1. The following is an assessment of the implications of the project on the relevant conservation objectives of the European sites using the best available scientific knowledge in the field. All aspects of the project which could result in significant effects are identified and mitigation measures designed to avoid or reduce any adverse effects are examined and assessed.

13.6.2. I have relied on the following guidance:

- DoEHLG (2009). Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, National Parks and Wildlife Service.
- EC (2002) Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EC
- EC (2018) Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC
- EC (2011) Guidelines on the implementation of the Birds and Habitats Directives in Estuaries and coastal zones

13.6.3. **Relevant European Sites:** The following sites are subject to appropriate assessment.

- North Dublin Bay SAC,
- South Dublin Bay SAC,
- Howth Head SAC,
- Rockabill to Dalkey Island SAC,
- Lambay Island SAC,
- North Bull Island SPA,
- South Dublin Bay and River Tolka Estuary SPA,
- Howth Head Coast SPA,
- Dalkey Islands SPA,
- Malahide Estuary SPA,
- Baldoyle Bay SPA,
- Rogerstown Estuary SPA,
- Skerries Islands SPA,
- Lambay Island SPA,
- Ireland's Eye SPA,
- Rockabill SPA
- The Murrough SPA
- North-West Irish Sea cSPA

13.6.4. A description of these site and their Conservation Objectives and Qualifying Interests, including any relevant attributes and targets for the site, is set out in the NIS and outlined in Table 3 below. I have also examined the Natura 2000 data forms as relevant and the Conservation Objectives supporting documents for this site available through the NPWS website (www.npws.ie).

13.6.5. **Aspects of the proposed development:** The main aspects of the proposed development that could adversely affect the conservation objectives of European sites include:

- Indirect habitat loss and fragmentation as a consequence of habitat damage degradation from a reduction in water quality and/ or change to hydrological regime.
- Reduction in water quality resulting in degradation of sensitive habitat present within European sites, which in turn could negatively affect SCI bird species relying on these habitats for foraging/ roosting.
- Habitat degradation as a result of introduction/ spreading of non-native invasive species to downstream European sites.
- Disturbance and displacement impacts on SCI bird species known to forage and/ or roost at inland sites, such as playing pitches.

13.6.6. **Tables 3 to 21** summarise the appropriate assessment and site integrity test. The conservation objectives, targets and attributes as relevant to the identified potential significant effects are examined and assessed in relation to the aspects of the proposal (alone and in combination with other plans and projects). Mitigation measures are examined, and clear, precise and definitive conclusions reached in terms of adverse effects on the integrity of European sites.

13.6.7. Supplemental to the summary tables, key issues that arose through consultation and through my examination and assessment of the NIS and further information request are expanded upon in the text below.

Table 3

South Dublin Bay SAC (Site code: 000210)

Key Issues:

- **Habitat degradation as a result of hydrological impacts**
- **Habitat degradation as a result of introducing / spreading non-native invasive species.**

Conservation Objectives: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000210.pdf

		Summary of Appropriate Assessment			
Conservation Objective	Targets & Attributes (as relevant)	Potential adverse effects	Mitigation Measures	In-combination effects of Plans & Programmes/ Major Projects	Can adverse effects on site integrity be excluded?
To maintain the favourable conservation condition of the following:	The favourable conservation status of a species is achieved when:	- Habitat degradation / effects on QI / SCI species as a result of hydrological impacts through release of contaminated surface water run-off and/or accidental spillage or pollution event into any surface water features during construction and operation. Effects	- CEMP sets out the mechanism by which environmental protection is to be achieved during the construction phase of the proposed road development - includes Construction Traffic Management Plan; Invasive Species Management Plan; Surface Water	No in combination effect: - Plans subject to AA prior to adoption and contain policies and objectives to ensure protection of European Sites. - Proposed major projects and proposed development along the route, will be subject to	Yes - Due to mitigation measures, best practice measures and implementation of monitoring scheme, no adverse effects water quality or the designated conservation interests of the
Mudflats and sandflats not covered by seawater at low tide [1140]	Stable or increasing habitat area; maintenance of extent/ conservation of high quality of <i>Zostera</i> -dominated community and conserve its high quality; and conserve the community type in a natural condition of fine				

	sands with <i>Angulus tenuis</i> community complex.	of reduction in water quality could extend a significant distance downstream.	Management Plan; Construction and Demolition Resource and Waste Management Plan; and Environmental Incident Response Plan.	planning consent, including AA screening and NIS as required, and it will be necessary to determine that the projects will not result in adverse effects on European Sites.	European sites will occur.
To restore the favourable conservation condition of the following:		- Habitat degradation as a result of introducing / spreading non-native invasive species. There are 4 areas of Japanese Knotweed in close proximity to the proposed scheme and this species could spread during construction/ maintenance or be introduced to terrestrial habitat in downstream European Sites via surface water features.	- Measures to protect surface water quality during construction and operational phases to avoid potential impacts on downstream European Sites.	- Lack of physical overlap with most major projects.	- Water Framework Directive Assessment for proposed scheme confirmed that it will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and that the proposed scheme complies with all requirements of the WFD.
Annual vegetation of drift lines [1210]	Increasing habitat area; no decline in habitat distribution; maintain appropriate physical structure (functionality and sediment supply/ presence/ absence of physical barriers/ maintain natural circulation or sediment and organic matter); maintain range of coastal habitat; maintain presence of species-poor communities with typical species; and appropriate levels of negative indicator species.		- Measures to protect surface water during construction and to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, procedures for contaminated materials, etc.).	- Proposed scheme alone will not adversely affect the integrity of any European sites, and therefore will not act in combination any other major project to have an adverse effect on the integrity of any European sites.	
Salicornia and other annuals colonising mud and sand [1310]	No decline in habitat distribution; stable/ increasing habitat area; maintain/ restore natural circulation of sediments/ organic matter; maintain creek and pan structure and natural tidal regime; maintain range of coastal habitat and structural variation within sward; maintain >90% of areas outside creeks vegetated; maintain presence of listed species poor communities;	- Terrestrial habitats above the high tide line not at risk of effects from water pollution.	- Measures to protect surface water quality during operation, e.g., kerb and gully drainage, carrier drains, tree pits, permeable paving, bio-		

	and no significant expansion of common cordgrass.		retention areas, rain gardens, green roofs filter drains, attenuation areas, pollution control, and maintenance regime for SuDS.		
Embryonic shifting dunes [2110]	Stable/ increasing habitat area; no decline in habitat distribution; maintain appropriate physical structure (functionality and sediment supply); maintain range of coastal habitat; maintain healthy sand couch grass and/ or lyme-grass; maintain presence of species-poor communities with typical species; and appropriate levels of negative indicator species.		- Measures to prevent the spread of non-native invasive species to downstream European Sites, including pre-construction survey, implementation of management plan and monitoring in subsequent years following treatment.		

Overall Conclusion: Integrity test

The applicant determined that following the implementation of mitigation, the construction and operation of this proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European site.

Based on the information provided, I am satisfied that adverse effects can be excluded for South Dublin Bay SAC. No wetland habitat loss will occur. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Camac_040, Liffey_180, Liffey_190, the Liffey Estuary Upper and the Liffey Estuary Lower, and the Ringsend WWTP all of which drain to Dublin Bay. No increase in existing runoff rates will occur and appropriate treatment will ensure runoff quality.

The spread of invasive species can also be controlled via mitigation measures, including pre-construction surveys, implementation of management plan and monitoring in subsequent years following treatment will be carried out in accordance with the Invasive Species Management Plan appended to the NIS.

Based on the information submitted, surveys carried out analysis provided I am satisfied that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of the South Dublin Bay SAC.

Table 4

North Dublin Bay SAC (Site code: 000206)

Key Issues:

- **Habitat degradation as a result of hydrological impacts**
- **Habitat degradation as a result of introducing / spreading non-native invasive species.**

Conservation Objectives: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000206.pdf

		Summary of Appropriate Assessment			
Conservation Objective	Targets & Attributes (as relevant)	Potential adverse effects	Mitigation Measures	In-combination effects of Plans & Programmes/ Major Projects	Can adverse effects on site integrity be excluded?
To maintain the favourable conservation condition of the following:	The favourable conservation status of a species is achieved when:	- Habitat degradation / effects on QI / SCI species as a result of hydrological impacts through release of contaminated surface water run-off and/or accidental spillage or pollution event into any surface water features during construction and operation. Effects of reduction in water quality could extend a	- CEMP sets out the mechanism by which environmental protection is to be achieved during the construction phase of the proposed road development - includes Construction Traffic Management Plan; Invasive Species Management Plan; Surface Water Management Plan; Construction and	No in combination effect: - Plans subject to AA prior to adoption and contain policies and objectives to ensure protection of European Sites. - Proposed major projects and proposed development along the route, will be subject to planning consent, including AA screening	Yes - Due to mitigation measures, best practice measures and implementation of monitoring scheme, no adverse effects water quality or the designated conservation interests of the European sites will occur.
Mudflats and sandflats not covered by seawater at low tide [1140]	Stable or increasing habitat area; maintenance of extent/ conservation of high quality of <i>Mytilus edulis</i> -dominated community and conserve its high quality; and conserve the community type in a natural condition of fine sand to sandy mud with <i>Pygospio elegans</i> ,				

	<i>Crangon crangon</i> and <i>Spio martinensis</i> community complex.	significant distance downstream.	Demolition Resource and Waste Management Plan; and Environmental Incident Response Plan.	and NIS as required, and it will be necessary to determine that the projects will not result in adverse effects on European Sites.	- Water Framework Directive Assessment for proposed scheme confirmed that it will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and that the proposed scheme complies with all requirements of the WFD.
Atlantic Salt Meadows (Glauco-Puccinellietalia maritima) [1330]	No decline in habitat distribution; stable/ increasing habitat area; maintain/ restore natural circulation of sediments/ organic matter; maintain creek and pan structure and natural tidal regime; maintain range of coastal habitat and structural variation within sward; maintain >90% of areas outside creeks vegetated; maintain range of sub-communities with typical species; and no significant expansion of common cordgrass.	- Habitat degradation as a result of introducing / spreading non-native invasive species. There are 4 areas of Japanese Knotweed in close proximity to the proposed scheme and this species could spread during construction/ maintenance or be introduced to terrestrial habitat in downstream European Sites via surface water features.	- Measures to protect surface water quality during construction and operational phases to avoid potential impacts on downstream European Sites. - Measures to protect surface water during construction and to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, procedures for contaminated materials, etc.). - Measures to protect surface water quality during operation, e.g., kerb and gully drainage, carrier drains, tree pits, permeable paving, bio-retention areas, rain gardens, green roofs filter drains, attenuation areas, pollution control, and	- Lack of physical overlap with most major projects. - Proposed scheme alone will not adversely affect the integrity of any European sites, and therefore will not act in combination any other major project to have an adverse effect on the integrity of any European sites.	
Mediterranean salt meadows (Juncetalia maritima) [1410]	Stable/ increasing habitat area; no decline in habitat distribution; maintain appropriate physical structure (sediment supply); maintain creek and pan structure; maintain natural tidal regime; maintain range of coastal habitat; maintain structural variation in sward; maintain more than 90% of the area outside of creeks vegetated; maintain range of sub-communities with typical species; and no expansion of common cordgrass.	- Terrestrial habitats above the high tide line not at risk of effects from water pollution.			
Fixed coastal dunes with herbaceous	Stable/ increasing habitat area; no decline in habitat distribution;				

vegetation (grey dunes) [2130]	maintain appropriate physical structure (functionality and sediment supply); maintain range of coastal habitat; appropriate bare ground; maintain range of sub-communities with typical species; maintain structural variation in sward; appropriate levels of negative indicator species; and appropriate levels of scrub/ trees.		maintenance regime for SuDS. - Measures to prevent the spread of non-native invasive species to downstream European Sites, including pre-construction survey, implementation of management plan and monitoring in subsequent years following treatment.		
Petalwort <i>Petalophyllum ralfsii</i> [1395]	No decline in population distribution, spread and size; no decline in suitable habitat; maintain hydrological conditions; and maintain low vegetation structure with high percentage of bryophytes and bare ground.				
To restore the favourable conservation condition of the following:					
Annual vegetation of drift lines [1210]	Stable/ increasing habitat area; no decline in habitat distribution; maintain appropriate physical structure (functionality and sediment supply); maintain range of coastal habitat; maintain presence of species-poor communities with typical species; and appropriate levels of negative indicator species.				

Salicornia and other annuals colonising mud and sand [1310]	No decline in habitat distribution; stable/ increasing habitat area; maintain/ restore natural circulation of sediments/ organic matter; maintain creek and pan structure and natural tidal regime; maintain range of coastal habitat and structural variation within sward; maintain >90% of areas outside creeks vegetated; maintain presence of listed species poor communities; and no significant expansion of common cordgrass.				
Embryonic shifting dunes [2110]	Stable/ increasing habitat area; no decline in habitat distribution; maintain appropriate physical structure (functionality and sediment supply); maintain range of coastal habitat; maintain healthy sand couch grass and/ or lyme-grass; maintain presence of species-poor communities with typical species; and appropriate levels of negative indicator species.				
Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120]	Stable/ increasing habitat area; no decline in habitat distribution; maintain appropriate physical structure (functionality and sediment supply); maintain range of coastal habitat; maintain healthy marram grass and/ or lyme-grass; maintain presence of species-poor				

	communities dominated by marram grass; and appropriate levels of negative indicator species.				
Fixed Coastal Dunes with herbaceous vegetation (grey dunes) [2130]	No decline in habitat distribution; stable/ increasing habitat area; maintain/ restore natural circulation of sediments/ organic matter; maintain range of coastal habitat; bare ground should not exceed 10% of fixed dune habitat; maintain structural variation within sward; maintain range of sub-communities with typical species; negative indicator species to represent less than 5% cover; and no more than 5% shrub/ tree cover or under control.				
Humid dune slacks [2190]	Increasing habitat area; no decline in habitat distribution; maintain appropriate physical structure (functionality and sediment supply); maintain hydrological regime; maintain range of coastal habitat; appropriate bare ground; maintain range of sub-communities with typical species; maintain structural variation in sward; appropriate levels of creeping willow and negative indicator species; and				

	appropriate levels of scrub/ trees.				
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Overall Conclusion: Integrity test

The applicant determined that following the implementation of mitigation, the construction and operation of this proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European site.

Based on the information provided, I am satisfied that adverse effects can be excluded for North Dublin Bay SAC. No wetland habitat loss will occur. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Camac_040, Liffey_180, Liffey_190, the Liffey Estuary Upper and the Liffey Estuary Lower, and the Ringsend WWTP all of which drain to Dublin Bay. No increase in existing runoff rates will occur and appropriate treatment will ensure runoff quality.

The spread of invasive species can also be controlled via mitigation measures, including pre-construction surveys, implementation of management plan and monitoring in subsequent years following treatment will be carried out in accordance with the Invasive Species Management Plan appended to the NIS.

Based on the information submitted, surveys carried out analysis provided I am satisfied that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of the North Dublin Bay SAC.

Table 5

Howth Head SAC (Site code: 000202)

Key Issues:

- **Habitat degradation as a result of hydrological impacts**

Conservation Objectives: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000202.pdf

		Summary of Appropriate Assessment	
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Conservation Objective	Targets & Attributes (as relevant)	Potential adverse effects	Mitigation Measures	In-combination effects of Plans & Programmes/ Major Projects	Can adverse effects on site integrity be excluded?
To maintain the favourable conservation condition of the following:	The favourable conservation status of a species is achieved when:	- Habitat degradation as a result of hydrological impacts through release of sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and operation. Effects of reduction in water quality could extend a significant distance downstream and could affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats.	- CEMP sets out the mechanism by which environmental protection is to be achieved during the construction phase of the proposed road development - includes Construction Traffic Management Plan; Invasive Species Management Plan; Surface Water Management Plan; Construction and Demolition Resource and Waste Management Plan; and Environmental Incident Response Plan. - Measures to protect surface water quality during construction and operational phases to avoid potential impacts on downstream European Sites. - Measures to protect surface water during construction and to mitigate against the	No in combination effect: - Plans subject to AA prior to adoption and contain policies and objectives to ensure protection of European Sites. - Proposed major projects and proposed developments along the route, will be subject to planning consent, including AA screening and NIS as required, and it will be necessary to determine that the projects will not result in adverse effects on European Sites. - Lack of physical overlap with most major projects. - Proposed scheme alone will not adversely affect the integrity of any European sites, and	Yes With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the conservation objectives, or favourable conservation condition of the QI habitats of this SAC and will not therefore affect its integrity.
Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	Stable habitat length; no decline in habitat distribution; no alteration to natural functioning of geomorphological and hydrological processes; maintain range of sea cliff habitat zonations; maintain structural variation within sward; maintain range of Irish Sea Cliff Survey species; negative indicator species less than 5%; and cover of bracken and woody species on grassland/heath less than 10% and 20% respectively.				
European dry heaths [4030]	Habitat area stable/ increasing; no decline in habitat distribution; maintain soil nutrient status and variety of vegetation communities; at least 3 lichen and bryophytes present; at least 2 positive indicator species (50% cover for siliceous dry heath and 50-75% for	- Terrestrial habitats above the high tide line are not at risk of effects from water pollution.			

	<p>calcareous dry health); proportion of dwarf shrub less than 50%; negative indicator species less than 1% and cover of non-native species less than 1%; cover of native trees and scrubs less than 20%; cover of soft rush and bracken less than 10%; senescent ling cover less than 50%; appropriate signs of browsing; no signs of burning in sensitive areas; appropriate growth phases of ling; cover of disturbed bare ground less than 10%; and no decline or rare species associated with the habitat.</p>		<p>release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, procedures for contaminated materials, etc.). - Measures to protect surface water quality during operation, e.g., kerb and gully drainage, carrier drains, tree pits, permeable paving, bio-retention areas, rain gardens, green roofs filter drains, attenuation areas, pollution control, and maintenance regime for SuDS.</p>	<p>therefore will not act in combination any other major project to have an adverse effect on the integrity of any European sites.</p>	
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Overall Conclusion: Integrity test

The applicant determined that following the implementation of mitigation, the construction and operation of this proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European site.

Based on the information provided, I am satisfied that adverse effects can be excluded for Howth Head SAC. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Camac_040, Liffey_180, Liffey_190, the Liffey Estuary Upper and the Liffey Estuary Lower, and the Ringsend WWTP all of which drain to Dublin Bay. No increase in existing runoff rates will occur and appropriate treatment will ensure runoff quality.

Based on the information submitted, surveys carried out analysis provided I am satisfied that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of the Howth Head SAC.

Table 6

Rockabill to Dalkey Island SAC (Site code: 003000)

Key Issues:

- **Habitat degradation/ effects on QI/SCI species as a result of hydrological impacts**

Conservation Objectives: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO003000.pdf

		Summary of Appropriate Assessment			
Conservation Objective	Targets & Attributes (as relevant)	Potential adverse effects	Mitigation Measures	In-combination effects of Plans & Programmes/ Major Projects	Can adverse effects on site integrity be excluded?
To maintain the favourable conservation condition of the following:	The favourable conservation status of a species is achieved when:	- Habitat degradation as a result of hydrological impacts through release of sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and	- CEMP sets out the mechanism by which environmental protection is to be achieved during the construction phase of the proposed road development - includes Construction Traffic Management Plan;	No in combination effect: - Plans subject to AA prior to adoption and contain policies and objectives to ensure protection of European Sites.	Yes With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the conservation
Reefs [1170]	Stable or increasing habitat area and habitat distribution; and conserve intertidal reef community complex and subtidal				

	reef community complex in natural condition.	operation. Effects of reduction in water quality could extend a significant distance downstream and could affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats.	Invasive Species Management Plan; Surface Water Management Plan; Construction and Demolition Resource and Waste Management Plan; and Environmental Incident Response Plan.	- Proposed major projects and proposed developments along the route, will be subject to planning consent, including AA screening and NIS as required, and it will be necessary to determine that the projects will not result in adverse effects on European Sites.	objectives, or favourable conservation condition of the QI habitats or species of this SAC and will not therefore affect its integrity.
Harbour porpoise <i>Phocoena phocoena</i> [1351]	No restriction of species range by artificial barriers to site use; and human activities should occur at levels that do not adversely affect the species at the site.	- Pollution event could potentially affect the quality of the intertidal /marine habitats which support harbour porpoise and fish prey species.	- Measures to protect surface water quality during construction and operational phases to avoid potential impacts on downstream European Sites. - Measures to protect surface water during construction and to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, procedures for contaminated materials, etc.). - Measures to protect surface water quality during operation, e.g., kerb and gully drainage, carrier drains, tree pits, permeable paving, bio-	- Lack of physical overlap with most major projects. - Proposed scheme alone will not adversely affect the integrity of any European sites, and therefore will not act in combination any other major project to have an adverse effect on the integrity of any European sites.	

			retention areas, rain gardens, green roofs filter drains, attenuation areas, pollution control, and maintenance regime for SuDS.		
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Overall Conclusion: Integrity test

The applicant determined that following the implementation of mitigation, the construction and operation of this proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European site.

Based on the information provided, I am satisfied that adverse effects can be excluded for Rockabill to Dalkey Island SAC. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Camac_040, Liffey_180, Liffey_190, the Liffey Estuary Upper and the Liffey Estuary Lower, and the Ringsend WWTP all of which drain to Dublin Bay. No increase in existing runoff rates will occur and appropriate treatment will ensure runoff quality.

Based on the information submitted, surveys carried out analysis provided I am satisfied that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of the Rockabill to Dalkey Island SAC.

Table 7

Lambay Island SAC (Site code: 000204)

Key Issues:

- **Habitat degradation / effects on IQ/ SCI species as a result of hydrological impacts**

Conservation Objectives: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000204.pdf

		Summary of Appropriate Assessment			
Conservation Objective	Targets & Attributes (as relevant)	Potential adverse effects	Mitigation Measures	In-combination effects of Plans & Programmes/ Major Projects	Can adverse effects on site integrity be excluded?
To maintain the favourable conservation condition of the following:	The favourable conservation status of a species is achieved when:	- No pathway for impacts to occur on any habitats associated with this SAC as it is located a significant distance from the proposed scheme on the far side of the Howth peninsula and separated by a large marine waterbody.	- CEMP sets out the mechanism by which environmental protection is to be achieved during the construction phase of the proposed road development - includes Construction Traffic Management Plan; Invasive Species Management Plan; Surface Water Management Plan; Construction and Demolition Resource and Waste Management Plan; and Environmental Incident Response Plan.	No in combination effect: - Plans subject to AA prior to adoption and contain policies and objectives to ensure protection of European Sites. - Proposed major projects and proposed developments along the route, will be subject to planning consent, including AA screening and NIS as required, and it will be necessary to determine that the projects will not result in adverse effects on European Sites. - Lack of physical overlap with most major projects. - Proposed scheme alone will not	Yes With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the conservation objectives, or favourable conservation condition of the QI habitats or species of this SAC and will not therefore affect its integrity.
Reefs [1170]	Stable or increasing habitat area and habitat distribution; and conserve intertidal reef community complex and subtidal reef community complex in natural condition.				
Vegetated sea cliffs of the Atlantic and Baltic coast [1230]	Stable habitat length; no decline in habitat distribution; no alteration to natural functioning of geomorphological and hydrological processes; maintain range of sea cliff habitat zonations; maintain structural variation within sward; maintain range of Irish Sea Cliff Survey species; negative indicator species less than 5%; and cover of bracken and woody species on grassland/heath less than 10% and 20% respectively.	- Pollution event could potentially affect the quality of the intertidal /marine habitats which support grey seal and harbour seal.	- Measures to protect surface water quality during construction and operational phases to avoid potential impacts on downstream European Sites.		

Halichoerus grypus (Grey Seal) [1364]	No restriction of species range by artificial barriers to site use; breeding and moult and resting haul-out sites maintained in natural condition; and human activities should occur at levels that do not adversely affect the species at the site.		- Measures to protect surface water during construction and to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, procedures for contaminated materials, etc.).	adversely affect the integrity of any European sites, and therefore will not act in combination any other major project to have an adverse effect on the integrity of any European sites.	
Phoca vitulina (Harbour Seal) [1365]	No restriction of species range by artificial barriers to site use; breeding and moult and resting haul-out sites maintained in natural condition; and human activities should occur at levels that do not adversely affect the species at the site.		- Measures to protect surface water quality during operation, e.g., kerb and gully drainage, carrier drains, tree pits, permeable paving, bio-retention areas, rain gardens, green roofs filter drains, attenuation areas, pollution control, and maintenance regime for SuDS.		

Overall Conclusion: Integrity test

The applicant determined that following the implementation of mitigation, the construction and operation of this proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European site.

Based on the information provided, I am satisfied that adverse effects can be excluded for Lambey Island SAC. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Camac_040, Liffey_180, Liffey_190, the Liffey Estuary Upper

and the Liffey Estuary Lower, and the Ringsend WWTP all of which drain to Dublin Bay. No increase in existing runoff rates will occur and appropriate treatment will ensure runoff quality.

Based on the information submitted, surveys carried out analysis provided I am satisfied that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of the Lambey Island SAC.

Table 8

North Bull Island SPA (Site code: 004006)

Key Issues:

- **Loss of ex situ feeding sites.**
- **Habitat degradation/ effects on QI/SCI species as a result of hydrological impacts.**
- **Habitat degradation as a result of introducing/ spreading non-native invasive species.**
- **Disturbance and displacement impacts.**

Conservation Objectives: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004006.pdf

		Summary of Appropriate Assessment			
Conservation Objective	Targets & Attributes (as relevant)	Potential adverse effects	Mitigation Measures	In-combination effects of Plans &	Can adverse effects on site

				Programmes/ Major Projects	integrity be excluded?
To maintain the favourable conservation condition of the following:	The favourable conservation status of a species is achieved when:				
Light-bellied Brent Goose <i>Branta bernicla hrota</i> [A046]	Long-term population stable or increasing; and no significant decrease in range, timing or intensity of use of area.	<p>- Habitat degradation as a result of hydrological impacts through release of sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and operation. Effects of reduction in water quality could extend a significant distance downstream and could affect the quality of intertidal/ coastal habitat that support SCI bird species.</p> <p>- Habitat degradation as a result of introducing / spreading non-native invasive species. There are 4 areas of Japanese Knotweed in close proximity to the</p>	<p>- CEMP sets out the mechanism by which environmental protection is to be achieved during the construction phase of the proposed road development - includes Construction Traffic Management Plan; Invasive Species Management Plan; Surface Water Management Plan; Construction and Demolition Resource and Waste Management Plan; and Environmental Incident Response Plan.</p> <p>- Measures to protect surface water quality during construction and operational phases to avoid potential impacts on downstream European Sites.</p> <p>- Measures to protect surface water during</p>	<p>No in combination effect:</p> <p>- Plans subject to AA prior to adoption and contain policies and objectives to ensure protection of European Sites.</p> <p>- Proposed major projects and proposed developments along the route, will be subject to planning consent, including AA screening and NIS as required, and it will be necessary to determine that the projects will not result in adverse effects on European Sites.</p> <p>- Lack of physical overlap with most major projects.</p> <p>- Proposed scheme alone will not</p>	<p>Yes</p> <p>With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the Special Conservation Interests of the SPA and will not therefore affect its integrity.</p>
Shelduck <i>Tadorna tadorna</i> [A048]	As above				
Teal <i>Anas crecca</i> [A052]	As above				
Pintail <i>Anas acuta</i> [A054]	As above				
Shoveler <i>Anas clypeata</i> [A056]	As above				
Oystercatcher <i>Haematopus ostralegus</i> [A130]	As above				
Golden Plover <i>Pluvialis apricaria</i> [A140]	As above				
Grey Plover <i>Pluvialis squatarol</i> [A141]	As above				
Knot <i>Calidris canutus</i> [A143]	As above				
Sanderling <i>Calidris alba</i> [A144]	As above				
Dunlin <i>Calidris alpina alpin</i> [A149]	As above				
Black-tailed Godwit <i>Limosa limosa</i> [A157]	As above				

Curlew <i>Numenius arquata</i> [A160]	As above	proposed scheme and this species could spread during construction/ maintenance and result in degradation of existing habitat, in particular coastal habitat not permanently or regularly inundated by seawater. - Temporary and permanent loss of suitable GA2 habitat.	construction and to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, procedures for contaminated materials, etc.). - Measures to protect surface water quality during operation, e.g., kerb and gully drainage, carrier drains, tree pits, permeable paving, bio-retention areas, rain gardens, green roofs filter drains, attenuation areas, pollution control, and maintenance regime for SuDS. - Measures to prevent the spread of non-native invasive species to downstream European Sites, including pre-construction survey, implementation of management plan and monitoring in subsequent years following treatment.	adversely affect the integrity of any European sites, and therefore will not act in combination any other major project to have an adverse effect on the integrity of any European sites.	
Redshank <i>Tringa tetanus</i> [A162]	As above				
Turnstone <i>Arenaria interpres</i> [A169]	As above				
Black-headed Gull <i>Chroicocephalus ridibundus</i> [A179]	As above				
Wetlands [A999]	Permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 1,713 hectare.	- As above.			

			- Restore habitat after temporary loss.		
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Overall Conclusion: Integrity test

The applicant determined that following detailed assessment of potential impacts and the implementation of mitigation, the construction and operation of this proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European Site in view of its conservation objectives.

Based on the information provided, I am satisfied that adverse effects can be excluded for SPA sites that are remote from the proposed development site and that no effects of any significance will occur.

No habitat loss within the European designated sites will occur. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Camac_040, Liffey_180, Liffey_190, the Liffey Estuary Upper and the Liffey Estuary Lower, and the Ringsend WWTP all of which drain to Dublin Bay. No increase in existing runoff rates will occur and appropriate treatment will ensure runoff quality.

The spread of invasive species can also be controlled via mitigation measures, including pre-construction surveys, implementation of management plan and monitoring in subsequent years following treatment will be carried out in accordance with the Invasive Species Management Plan appended to the NIS.

Ex-situ foraging/ roosting habitat for SCI species within the footprint of proposed scheme at construction compound at Liffey Gaels Park and foraging/ roosting within disturbance ZoI at Ballyfermot/ Le Fanu Park. No potential impacts as a result of disturbance/ displacement due to the very small numbers of SCI species recorded at Liffey Gaels Park and the likelihood that other suitable sites are used on a similar or more regular basis; noise produced as a result of construction activities would not provoke more than a moderate effect/ level of response from bird at Ballyfermot/ Le Fanu Park; the availability of large areas of suitable foraging/ roosting habitat in the wider locality, including closer to the SPA; and the likelihood that disturbance levels will return to baseline conditions as a result of the lands becoming available again following construction. Land take in the proposed works area is temporary in nature and will be returned to GA2 habitat during the operational phase of the proposed scheme.

Therefore, based on the information submitted, surveys carried out and analysis provided I am satisfied that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of any of this SPA site in Dublin Bay and beyond.

Table 9

South Dublin Bay and River Tolka Estuary SPA (Site code: 004024)

Key Issues:

- Loss of ex situ feeding sites.
- Habitat degradation/ effects on QI/SCI species as a result of hydrological impacts.
- Habitat degradation as a result of introducing/ spreading non-native invasive species.
- Disturbance and displacement impacts.

Conservation Objectives: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004024.pdf

		Summary of Appropriate Assessment			
Conservation Objective	Targets & Attributes (as relevant)	Potential adverse effects	Mitigation Measures	In-combination effects of Plans & Programmes/ Major Projects	Can adverse effects on site integrity be excluded?
To maintain the favourable conservation condition of the following:	The favourable conservation status of a species is achieved when:				
Light-bellied Brent Goose <i>Branta bernicla hrota</i> [A046]	Long-term population stable or increasing; and no significant	- Habitat degradation as a result of hydrological impacts	- CEMP sets out the mechanism by which environmental protection	No in combination effect:	Yes

	decrease in range, timing or intensity of use of area.	through release of sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and operation. Effects of reduction in water quality could extend a significant distance downstream and could affect the quality of intertidal/ coastal habitat that support SCI bird species.	is to be achieved during the construction phase of the proposed road development - includes Construction Traffic Management Plan; Invasive Species Management Plan; Surface Water Management Plan; Construction and Demolition Resource and Waste Management Plan; and Environmental Incident Response Plan.	- Plans subject to AA prior to adoption and contain policies and objectives to ensure protection of European Sites. - Proposed major projects and proposed developments along the route, will be subject to planning consent, including AA screening and NIS as required, and it will be necessary to determine that the projects will not result in adverse effects on European Sites. - Lack of physical overlap with most major projects. - Proposed scheme alone will not adversely affect the integrity of any European sites, and therefore will not act in combination any other major project to have an adverse effect on the integrity of any European sites.	With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the Special Conservation Interests of the SPA and will not therefore affect its integrity.
Oystercatcher <i>Haematopus ostralegus</i> [A130]	As above				
Ringed Plover <i>Charadrius hiaticula</i> [A137]	As above				
Grey Plover <i>Pluvialis squatarol</i> [A141]	Proposed for removal				
Knot <i>Calidris canutus</i> [A143]	Long-term population stable or increasing; and no significant decrease in range, timing or intensity of use of area.				
Sanderling <i>Calidris alba</i> [A144]	As above	- Habitat degradation as a result of introducing / spreading non-native invasive species. There are 4 areas of Japanese Knotweed in close proximity to the proposed scheme and this species could spread during construction/ maintenance and result in degradation of existing habitat, in particular coastal habitat not permanently or	- Measures to protect surface water quality during construction and operational phases to avoid potential impacts on downstream European Sites.		
Dunlin <i>Calidris alpina alpin</i> [A149]	As above				
Bar-tailed Godwit <i>Limosa limosa</i> [A157]	As above				
Redshank <i>Tringa tetanus</i> [A162]	As above				
Black-headed Gull <i>Chroicocephalus ridibundus</i> [A179]	As above				
Roseate Tern <i>Sterna dougallii</i> [A192]	No significant decline of breeding population, productivity rate, passage population, breeding colonies, roosting areas, available prey biomass and barrier to connectivity; and human activities should occur at levels that do not adversely		- Measures to protect surface water during construction and to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, procedures for		

	breeding and numbers among the post-breeding aggregation.	regularly inundated by seawater.	contaminated materials, etc.).		
Common Tern <i>Sterna hirundo</i> [A193]	No significant decline of breeding population, productivity rate, passage population, breeding colonies, roosting areas, available prey biomass and barrier to connectivity; and human activities should occur at levels that do not adversely breeding and numbers among the post-breeding aggregation.	- Temporary and permanent loss of suitable GA2 habitat.	- Measures to protect surface water quality during operation, e.g., kerb and gully drainage, carrier drains, tree pits, permeable paving, bio-retention areas, rain gardens, green roofs filter drains, attenuation areas, pollution control, and maintenance regime for SuDS.		
Arctic Tern <i>Sterna paradisaea</i> [A194]	No significant decline of passage population, roosting areas, available prey biomass and barrier to connectivity; and human activities should occur at levels that do not adversely affect numbers among the post-breeding aggregation.		- Measures to prevent the spread of non-native invasive species to downstream European Sites, including pre-construction survey, implementation of management plan and monitoring in subsequent years following treatment.		
Wetlands and Waterbirds [A999]	Permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 2,192 hectare.		- Restore habitat after temporary loss.		

Overall Conclusion: Integrity test

The applicant determined that following detailed assessment of potential impacts and the implementation of mitigation, the construction and operation of this proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European Site in view of its conservation objectives.

Based on the information provided, I am satisfied that adverse effects can be excluded for SPA sites that are remote from the proposed development site and that no effects of any significance will occur.

No habitat loss within the European designated sites will occur. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Camac_040, Liffey_180, Liffey_190, the Liffey Estuary Upper and the Liffey Estuary Lower, and the Ringsend WWTP all of which drain to Dublin Bay. No increase in existing runoff rates will occur and appropriate treatment will ensure runoff quality.

The spread of invasive species can also be controlled via mitigation measures, including pre-construction surveys, implementation of management plan and monitoring in subsequent years following treatment will be carried out in accordance with the Invasive Species Management Plan appended to the NIS.

Ex-situ foraging/ roosting habitat for SCI species within the footprint of proposed scheme at construction compound at Liffey Gaels Park and foraging/ roosting within disturbance ZOI at Ballyfermot/ Le Fanu Park. No potential impacts as a result of disturbance/ displacement due to the very small numbers of SCI species recorded at Liffey Gaels Park and the likelihood that other suitable sites are used on a similar or more regular basis; noise produced as a result of construction activities would not provoke more than a moderate effect/ level of response from bird at Ballyfermot/ Le Fanu Park; the availability of large areas of suitable foraging/ roosting habitat in the wider locality, including closer to the SPA; and the likelihood that disturbance levels will return to baseline conditions as a result of the lands becoming available again following construction. Land take in the proposed works area is temporary in nature and will be returned to GA2 habitat during the operational phase of the proposed scheme.

Therefore, based on the information submitted, surveys carried out and analysis provided I am satisfied that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of any of this SPA site in Dublin Bay and beyond.

Table 11

Howth Head Coast SPA (Site code: 004113)

Key Issues:

- **Habitat degradation/ effects on QI/SCI species as a result of hydrological impacts.**

Conservation Objectives: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004113.pdf

		Summary of Appropriate Assessment			
Conservation Objective	Targets & Attributes (as relevant)	Potential adverse effects	Mitigation Measures	In-combination effects of Plans & Programmes/ Major Projects	Can adverse effects on site integrity be excluded?
To maintain or restore the favourable conservation condition of the following:	The favourable conservation status of a species is achieved when:	- Habitat degradation/ effects on QI/ SCI species as a result of hydrological impacts through release of sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and operation. Effects of reduction in water quality could extend a significant distance downstream and could result in degradation of sensitive habitat, which in turn would negatively affect SCI bird species utilising these habitat and the quantity and quality of their prey.	- CEMP sets out the mechanism by which environmental protection is to be achieved during the construction phase of the proposed road development - includes Construction Traffic Management Plan; Invasive Species Management Plan; Surface Water Management Plan; Construction and Demolition Resource and Waste Management Plan; and Environmental Incident Response Plan. - Measures to protect surface water quality during construction and operational phases to avoid potential impacts on downstream European Sites.	No in combination effect: - Plans subject to AA prior to adoption and contain policies and objectives to ensure protection of European Sites. - Proposed major projects and proposed developments along the route, will be subject to planning consent, including AA screening and NIS as required, and it will be necessary to determine that the projects will not result in adverse effects on European Sites. - Lack of physical overlap with most major projects. - Proposed scheme alone will not	Yes With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the Special Conservation Interests of the SPA and will not therefore affect its integrity.
Kittiwake <i>Rissa tridactyla</i> [A188]	No significant decline in breeding population abundance, productivity rate, distribution and available prey biomass; no significant increase in barriers to connectivity and disturbance at breeding sites.				

			<ul style="list-style-type: none"> - Measures to protect surface water during construction and to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, procedures for contaminated materials, etc.). - Measures to protect surface water quality during operation, e.g., kerb and gully drainage, carrier drains, tree pits, permeable paving, bio-retention areas, rain gardens, green roofs filter drains, attenuation areas, pollution control, and maintenance regime for SuDS. 	adversely affect the integrity of any European sites, and therefore will not act in combination any other major project to have an adverse effect on the integrity of any European sites.	
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Overall Conclusion: Integrity test

The applicant determined that following the implementation of mitigation, the construction and operation of this proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European site.

Based on the information provided, I am satisfied that adverse effects can be excluded for the Howth Head Coast SPA. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Camac_040, Liffey_180, Liffey_190, the Liffey Estuary Upper

and the Liffey Estuary Lower, and the Ringsend WWTP all of which drain to Dublin Bay. No increase in existing runoff rates will occur and appropriate treatment will ensure runoff quality.

Based on the information submitted, surveys carried out analysis provided I am satisfied that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of the Howth Head Coast SPA.

Table 12

Dalkey Islands SPA (Site code: 004172)

Key Issues:

- **Habitat degradation/ effects on QI/SCI species as a result of hydrological impacts.**

Conservation Objectives: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004172.pdf

		Summary of Appropriate Assessment			
Conservation Objective	Targets & Attributes (as relevant)	Potential adverse effects	Mitigation Measures	In-combination effects of Plans & Programmes/ Major Projects	Can adverse effects on site integrity be excluded?
To maintain or restore the favourable conservation condition of the following:	The favourable conservation status of a species is achieved when:	- Habitat degradation/ effects on QI/ SCI species as a result of hydrological impacts through release of	- CEMP sets out the mechanism by which environmental protection is to be achieved during the construction phase of	No in combination effect: - Plans subject to AA prior to adoption and contain policies and	Yes With the effective implementation of mitigation measures,

Roseate Tern <i>Sterna dougallii</i> [A192]	No significant decline of passage population, roosting areas, available prey biomass and barrier to connectivity; and human activities should occur at levels that do not adversely affect numbers among the post-breeding aggregation.	sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and operation. Effects of reduction in water quality could extend a significant distance downstream and could affect the quantity and quality of prey fish species and the quality and suitability of roosting sites.	the proposed road development - includes Construction Traffic Management Plan; Invasive Species Management Plan; Surface Water Management Plan; Construction and Demolition Resource and Waste Management Plan; and Environmental Incident Response Plan.	objectives to ensure protection of European Sites. - Proposed major projects and proposed developments along the route, will be subject to planning consent, including AA screening and NIS as required, and it will be necessary to determine that the projects will not result in adverse effects on European Sites. - Lack of physical overlap with most major projects. - Proposed scheme alone will not adversely affect the integrity of any European sites, and therefore will not act in combination any other major project to have an adverse effect on the integrity of any European sites.	the proposed scheme will not have any adverse effect on the Special Conservation Interests of the SPA and will not therefore affect its integrity.
Common Tern <i>Sterna hirundo</i> [A193]	No significant decline of breeding population, productivity rate, passage population, breeding colonies, roosting areas, available prey biomass and barrier to connectivity; and human activities should occur at levels that do not adversely affect breeding and numbers among the post-breeding aggregation.		- Measures to protect surface water quality during construction and operational phases to avoid potential impacts on downstream European Sites.		
Arctic Tern <i>Sterna paradisaea</i> [A194]	No significant decline of passage population, roosting areas, available prey biomass and barrier to connectivity; and human activities should occur at levels that do not adversely affect numbers among the post-breeding aggregation.		- Measures to protect surface water during construction and to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, procedures for contaminated materials, etc.). - Measures to protect surface water quality		

			during operation, e.g., kerb and gully drainage, carrier drains, tree pits, permeable paving, bio- retention areas, rain gardens, green roofs filter drains, attenuation areas, pollution control, and maintenance regime for SuDS.		
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Overall Conclusion: Integrity test

The applicant determined that following the implementation of mitigation, the construction and operation of this proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European site.

Based on the information provided, I am satisfied that adverse effects can be excluded for the Dalkey Islands SPA. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Camac_040, Liffey_180, Liffey_190, the Liffey Estuary Upper and the Liffey Estuary Lower, and the Ringsend WWTP all of which drain to Dublin Bay. No increase in existing runoff rates will occur and appropriate treatment will ensure runoff quality.

Based on the information submitted, surveys carried out analysis provided I am satisfied that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of the Dalkey Islands SPA.

Table 13

Malahide Estuary SPA (Site code: 004025)

Key Issues:

- Loss of ex situ feeding sites.
- Habitat degradation/ effects on QI/SCI species as a result of hydrological impacts.
- Disturbance and displacement impacts.

Conservation Objectives: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004025.pdf

		Summary of Appropriate Assessment			
Conservation Objective	Targets & Attributes (as relevant)	Potential adverse effects	Mitigation Measures	In-combination effects of Plans & Programmes/ Major Projects	Can adverse effects on site integrity be excluded?
To maintain the favourable conservation condition of the following:	The favourable conservation status of a species is achieved when:				
[A005] Great Crested Grebe <i>Podiceps cristatus</i> [A046] Brent Goose <i>Branta bernicla hrota</i> [A048] Shelduck <i>Tadorna tadorna</i>	Long term population trend stable or increasing; and no significant decrease in the range, timing or intensity of use of areas by all listed species other than occurring from natural patterns of variation.	- Habitat degradation/ effects on SCI species as a result of hydrological impacts through release of sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and operation. Effects of	- CEMP sets out the mechanism by which environmental protection is to be achieved during the construction phase of the proposed road development - includes Construction Traffic Management Plan; Invasive Species Management Plan;	No in combination effect: - Plans subject to AA prior to adoption and contain policies and objectives to ensure protection of European Sites. - Proposed major projects and proposed developments along	Yes With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the Special Conservation Interests of the SPA

<p>[A054] Pintail <i>Anas acuta</i></p> <p>[A067] Goldeneye <i>Bucephala clangula</i></p> <p>[A069] Red-breasted Merganser <i>Mergus serrator</i></p> <p>[A130] Oystercatcher <i>Haematopus ostralegus</i></p> <p>[A140] Golden Plover <i>Pluvialis apricaria</i></p> <p>[A141] Grey Plover <i>Pluvialis squatarola</i></p> <p>[A143] Knot <i>Calidris canutus</i></p> <p>[A149] Dunlin <i>Calidris alpina alpina</i></p> <p>[A156] Black-tailed Godwit <i>Limosa limosa</i></p> <p>[A157] Bar-tailed Godwit <i>Limosa lapponica</i></p> <p>[A162] Redshank <i>Tringa totanus</i></p>		<p>reduction in water quality could extend a significant distance downstream to Dublin Bay, which SCI species may utilise outside of their core area. The quantity and quality of prey fish species and the quality of intertidal/ coastal habitat that support the SCI species could be affected.</p> <p>- Temporary and permanent loss of suitable GA2 habitat.</p>	<p>Surface Water Management Plan; Construction and Demolition Resource and Waste Management Plan; and Environmental Incident Response Plan.</p> <p>- Measures to protect surface water quality during construction and operational phases to avoid potential impacts on downstream European Sites.</p> <p>- Measures to protect surface water during construction and to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, procedures for contaminated materials, etc.).</p> <p>- Measures to protect surface water quality during operation, e.g., kerb and gully drainage, carrier drains, tree pits, permeable paving, bio-retention areas, rain gardens, green roofs filter</p>	<p>the route, will be subject to planning consent, including AA screening and NIS as required, and it will be necessary to determine that the projects will not result in adverse effects on European Sites.</p> <p>- Lack of physical overlap with most major projects.</p> <p>- Proposed scheme alone will not adversely affect the integrity of any European sites, and therefore will not act in combination any other major project to have an adverse effect on the integrity of any European sites.</p>	<p>and will not therefore affect its integrity.</p>
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			drains, attenuation areas, pollution control, and maintenance regime for SuDS. - Restore habitat after temporary loss.		
Wetlands and Waterbirds [A999]	Permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 765 hectare.	No potential impacts as proposed scheme is not hydrologically connected.	-	-	Yes

Overall Conclusion: Integrity test

The applicant determined that following detailed assessment of potential impacts and the implementation of mitigation, the construction and operation of this proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European Site in view of its conservation objectives.

Based on the information provided, I am satisfied that adverse effects can be excluded for SPA sites that are remote from the proposed development site and that no effects of any significance will occur.

No habitat loss within the European designated sites will occur. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Camac_040, Liffey_180, Liffey_190, the Liffey Estuary Upper and the Liffey Estuary Lower, and the Ringsend WWTP all of which drain to Dublin Bay. No increase in existing runoff rates will occur and appropriate treatment will ensure runoff quality.

Ex-situ foraging/ roosting habitat for SCI species within the footprint of proposed scheme at construction compound at Liffey Gaels Park and foraging/ roosting within disturbance ZoI at Ballyfermot/ Le Fanu Park. No potential impacts as a result of disturbance/ displacement due to the very small numbers of SCI species recorded at Liffey Gaels Park and the likelihood that other suitable sites are used on a similar or more regular basis; noise produced as a result of construction activities would not provoke more than a moderate effect/ level of response from bird at Ballyfermot/ Le Fanu Park; the availability of large areas of suitable foraging/ roosting habitat in the wider locality, including closer to the SPA; and the likelihood that disturbance levels will return to baseline conditions as a result of the lands becoming available again following construction. Land take in the proposed works area is temporary in nature and will be returned to GA2 habitat during the operational phase of the proposed scheme.

Therefore, based on the information submitted, surveys carried out and analysis provided I am satisfied that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of any of this SPA site.

Table 14

Baldoyle Bay SPA (Site code: 004016)

Key Issues:

- **Habitat loss and fragmentation.**
- **Habitat degradation/ effects on QI/SCI species as a result of hydrological impacts.**
- **Disturbance and displacement impacts.**

Conservation Objectives: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004016.pdf

		Summary of Appropriate Assessment			
Conservation Objective	Targets & Attributes (as relevant)	Potential adverse effects	Mitigation Measures	In-combination effects of Plans & Programmes/ Major Projects	Can adverse effects on site integrity be excluded?
To maintain the favourable conservation	The favourable conservation status of a species is achieved when:				

condition of the following:					
Light-bellied Brent Goose <i>Branta bernicla hrota</i> [A046]	Long-term population stable or increasing; and no significant decrease in range, timing or intensity of use of area.	<p>- Habitat degradation/ effects on SCI species as a result of hydrological impacts through release of sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and operation. Effects of reduction in water quality could extend a significant distance downstream to Dublin Bay, which SCI species may utilise outside of their core area. The quantity and quality of prey fish species and the quality of intertidal/ coastal habitat that support the SCI species could be affected.</p> <p>- Temporary and permanent loss of suitable GA2 habitat.</p>	<p>- CEMP sets out the mechanism by which environmental protection is to be achieved during the construction phase of the proposed road development - includes Construction Traffic Management Plan; Invasive Species Management Plan; Surface Water Management Plan; Construction and Demolition Resource and Waste Management Plan; and Environmental Incident Response Plan.</p> <p>- Measures to protect surface water quality during construction and operational phases to avoid potential impacts on downstream European Sites.</p> <p>- Measures to protect surface water during construction and to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather</p>	<p>No in combination effect:</p> <p>- Plans subject to AA prior to adoption and contain policies and objectives to ensure protection of European Sites.</p> <p>- Proposed major projects and proposed developments along the route, will be subject to planning consent, including AA screening and NIS as required, and it will be necessary to determine that the projects will not result in adverse effects on European Sites.</p> <p>- Lack of physical overlap with most major projects.</p> <p>- Proposed scheme alone will not adversely affect the integrity of any European sites, and therefore will not act in combination any other major project to have an adverse effect on the integrity of any European sites.</p>	<p>Yes</p> <p>With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the Special Conservation Interests of the SPA and will not therefore affect its integrity.</p>
Shelduck <i>Tadorna tadorna</i> [A048]	As above				
Ringed Plover <i>Charadrius hiaticula</i> [A137]	As above				
Golden Plover <i>Pluvialis apricaria</i> [A140]	As above				
[A141] Grey Plover <i>Pluvialis squatarola</i>	As above				
[A157] Bar-tailed Godwit <i>Limosa lapponica</i>	As above				

			<p>monitoring, fuels/ chemical storage, procedures for contaminated materials, etc.).</p> <p>- Measures to protect surface water quality during operation, e.g., kerb and gully drainage, carrier drains, tree pits, permeable paving, bio-retention areas, rain gardens, green roofs filter drains, attenuation areas, pollution control, and maintenance regime for SuDS.</p> <p>Restore habitat after temporary loss.</p>		
Wetlands and Waterbirds [A999]	Permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 263 hectare.	No potential impacts as proposed scheme is not hydrologically connected.	-	-	Yes

Overall Conclusion: Integrity test

The applicant determined that following detailed assessment of potential impacts and the implementation of mitigation, the construction and operation of this proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European Site in view of its conservation objectives.

Based on the information provided, I am satisfied that adverse effects can be excluded for SPA sites that are remote from the proposed development site and that no effects of any significance will occur.

No habitat loss within the European designated sites will occur. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Camac_040, Liffey_180, Liffey_190, the Liffey Estuary Upper and the Liffey Estuary Lower, and the Ringsend WWTP all of which drain to Dublin Bay. No increase in existing runoff rates will occur and appropriate treatment will ensure runoff quality.

Ex-situ foraging/ roosting habitat for SCI species within the footprint of proposed scheme at construction compound at Liffey Gaels Park and foraging/ roosting within disturbance ZoI at Ballyfermot/ Le Fanu Park. No potential impacts as a result of disturbance/ displacement due to the very small numbers of SCI species recorded at Liffey Gaels Park and the likelihood that other suitable sites are used on a similar or more regular basis; noise produced as a result of construction activities would not provoke more than a moderate effect/ level of response from bird at Ballyfermot/ Le Fanu Park; the availability of large areas of suitable foraging/ roosting habitat in the wider locality, including closer to the SPA; and the likelihood that disturbance levels will return to baseline conditions as a result of the lands becoming available again following construction. Land take in the proposed works area is temporary in nature and will be returned to GA2 habitat during the operational phase of the proposed scheme.

Therefore, based on the information submitted, surveys carried out and analysis provided I am satisfied that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of any of this SPA site.

Table 15

Rogerstown Estuary SPA (Site code: 004015)

Key Issues:

- **Habitat loss and fragmentation.**
- **Habitat degradation/ effects on QI/SCI species as a result of hydrological impacts.**

- **Disturbance and displacement impacts.**

Conservation Objectives: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004015.pdf

		Summary of Appropriate Assessment			
Conservation Objective	Targets & Attributes (as relevant)	Potential adverse effects	Mitigation Measures	In-combination effects of Plans & Programmes/ Major Projects	Can adverse effects on site integrity be excluded?
To maintain the favourable conservation condition of the following:	The favourable conservation status of a species is achieved when:				
Greylag Goose (<i>Anser anser</i>) [A043]	Long-term population stable or increasing; and no significant decrease in range, timing or intensity of use of area.	- Habitat degradation/ effects on SCI species as a result of hydrological impacts through release of sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and operation. Effects of reduction in water quality could extend a significant distance	- CEMP sets out the mechanism by which environmental protection is to be achieved during the construction phase of the proposed road development - includes Construction Traffic Management Plan; Invasive Species Management Plan; Surface Water Management Plan; Construction and	No in combination effect: - Plans subject to AA prior to adoption and contain policies and objectives to ensure protection of European Sites. - Proposed major projects and proposed developments along the route, will be subject to planning consent, including AA	Yes With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the Special Conservation Interests of the SPA and will not therefore affect its integrity.
Light-bellied Brent Goose <i>Branta bernicla hrota</i> [A046]	As above				
Shelduck <i>Tadorna tadorna</i> [A048]	As above				
Shoveler <i>Anas clypeata</i> [A056]	As above				

Oystercatcher <i>Haematopus ostralegus</i> [A130]	As above	downstream to Dublin Bay, which SCI species may utilise outside of their core area. The quantity and quality of prey fish species and the quality of intertidal/ coastal habitat that support the SCI species could be affected. - Temporary and permanent loss of suitable GA2 habitat.	Demolition Resource and Waste Management Plan; and Environmental Incident Response Plan. - Measures to protect surface water quality during construction and operational phases to avoid potential impacts on downstream European Sites. - Measures to protect surface water during construction and to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, procedures for contaminated materials, etc.). - Measures to protect surface water quality during operation, e.g., kerb and gully drainage, carrier drains, tree pits, permeable paving, bio-retention areas, rain gardens, green roofs filter drains, attenuation areas, pollution control, and	screening and NIS as required, and it will be necessary to determine that the projects will not result in adverse effects on European Sites. - Lack of physical overlap with most major projects. - Proposed scheme alone will not adversely affect the integrity of any European sites, and therefore will not act in combination any other major project to have an adverse effect on the integrity of any European sites.	
Ringed Plover <i>Charadrius hiaticula</i> [A137]	As above				
Grey Plover <i>Pluvialis squatarol</i> [A141]	As above				
Knot <i>Calidris canutus</i> [A143]	As above				
Dunlin <i>Calidris alpina alpin</i> [A149]	As above				
Black-tailed Godwit <i>Limosa limosa</i> [A157]	As above				
Redshank <i>Tringa tetanus</i> [A162]	As above				

			maintenance regime for SuDS. - Restore habitat after temporary loss.		
Wetlands and Waterbirds [A999]	Permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 646 hectare.	No potential impacts as proposed scheme is not hydrologically connected.	-	-	Yes

Overall Conclusion: Integrity test

The applicant determined that following detailed assessment of potential impacts and the implementation of mitigation, the construction and operation of this proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European Site in view of its conservation objectives.

Based on the information provided, I am satisfied that adverse effects can be excluded for SPA sites that are remote from the proposed development site and that no effects of any significance will occur.

No habitat loss within the European designated sites will occur. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Camac_040, Liffey_180, Liffey_190, the Liffey Estuary Upper and the Liffey Estuary Lower, and the Ringsend WWTP all of which drain to Dublin Bay. No increase in existing runoff rates will occur and appropriate treatment will ensure runoff quality.

Ex-situ foraging/ roosting habitat for SCI species within the footprint of proposed scheme at construction compound at Liffey Gaels Park and foraging/ roosting within disturbance ZoI at Ballyfermot/ Le Fanu Park. No potential impacts as a result of disturbance/ displacement due to the very small numbers of SCI species recorded at Liffey Gaels Park and the likelihood that other suitable sites are used on a similar or more regular basis; noise produced as a result of construction activities would not provoke more than a moderate effect/ level of response from bird at Ballyfermot/ Le Fanu Park; the availability of large areas of suitable foraging/ roosting habitat in the wider locality, including closer to the SPA; and the likelihood that disturbance levels will return to baseline conditions as a result of the lands becoming available again following construction. Land take in the proposed works area is temporary in nature and will be returned to GA2 habitat during the operational phase of the proposed scheme.

Therefore, based on the information submitted, surveys carried out and analysis provided I am satisfied that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of any of this SPA site.

Table 16

Skerries Islands SPA (Site code: 004122)

Key Issues:

- **Habitat loss and fragmentation.**
- **Habitat degradation/ effects on QI/SCI species as a result of hydrological impacts.**
- **Disturbance and displacement impacts.**

Conservation Objectives: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004122.pdf

		Summary of Appropriate Assessment			
Conservation Objective	Targets & Attributes (as relevant)	Potential adverse effects	Mitigation Measures	In-combination effects of Plans & Programmes/ Major Projects	Can adverse effects on site integrity be excluded?
To maintain or restore the favourable conservation	The favourable conservation status of a species is achieved when:				

condition of the following:					
Cormorant <i>Phalacrocorax carbo</i> [A017]	Long-term population stable or increasing; and no significant decrease in range, timing or intensity of use of area, (no-site specific conservations objectives document – based on Rogerstown Estuary SPA).	- Habitat degradation/ effects on SCI species as a result of hydrological impacts through release of sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and operation. Effects of reduction in water quality could extend a significant distance downstream to Dublin Bay, which SCI species may utilise outside of their core area. The quantity and quality of prey fish species and the quality of intertidal/ coastal habitat that support the SCI species could be affected. - Temporary and permanent loss of suitable GA2 habitat.	- CEMP sets out the mechanism by which environmental protection is to be achieved during the construction phase of the proposed road development - includes Construction Traffic Management Plan; Invasive Species Management Plan; Surface Water Management Plan; Construction and Demolition Resource and Waste Management Plan; and Environmental Incident Response Plan. - Measures to protect surface water quality during construction and operational phases to avoid potential impacts on downstream European Sites. - Measures to protect surface water during construction and to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather	No in combination effect: - Plans subject to AA prior to adoption and contain policies and objectives to ensure protection of European Sites. - Proposed major projects and proposed developments along the route, will be subject to planning consent, including AA screening and NIS as required, and it will be necessary to determine that the projects will not result in adverse effects on European Sites. - Lack of physical overlap with most major projects. - Proposed scheme alone will not adversely affect the integrity of any European sites, and therefore will not act in combination any other major project to have an adverse effect on the integrity of any European sites.	Yes With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the Special Conservation Interests of the SPA and will not therefore affect its integrity.
Shag <i>Phalacrocorax aristotelis</i> [A018]					
Light-bellied Brent Goose <i>Branta bernicla hrota</i> [A046]					
Purple Sandpiper (<i>Calidris maritima</i>) [A148]					
Turnstone (<i>Arenaria interpres</i>) [A169]					
Herring Gull (<i>Larus argentatus</i>) [A184]					

			<p>monitoring, fuels/ chemical storage, procedures for contaminated materials, etc.).</p> <ul style="list-style-type: none"> - Measures to protect surface water quality during operation, e.g., kerb and gully drainage, carrier drains, tree pits, permeable paving, bio-retention areas, rain gardens, green roofs filter drains, attenuation areas, pollution control, and maintenance regime for SuDS. - Restore habitat after temporary loss. 		
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Overall Conclusion: Integrity test

The applicant determined that following detailed assessment of potential impacts and the implementation of mitigation, the construction and operation of this proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European Site in view of its conservation objectives.

Based on the information provided, I am satisfied that adverse effects can be excluded for SPA sites that are remote from the proposed development site and that no effects of any significance will occur.

No habitat loss within the European designated sites will occur. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Camac_040, Liffey_180, Liffey_190, the Liffey Estuary Upper and the Liffey Estuary Lower, and the Ringsend WWTP all of which drain to Dublin Bay. No increase in existing runoff rates will occur and appropriate treatment will ensure runoff quality.

Ex-situ foraging/ roosting habitat for SCI species within the footprint of proposed scheme at construction compound at Liffey Gaels Park and foraging/ roosting within disturbance ZoI at Ballyfermot/ Le Fanu Park. No potential impacts as a result of disturbance/ displacement due to the very small numbers of SCI species recorded

at Liffey Gaels Park and the likelihood that other suitable sites are used on a similar or more regular basis; noise produced as a result of construction activities would not provoke more than a moderate effect/ level of response from bird at Ballyfermot/ Le Fanu Park; the availability of large areas of suitable foraging/ roosting habitat in the wider locality, including closer to the SPA; and the likelihood that disturbance levels will return to baseline conditions as a result of the lands becoming available again following construction. Land take in the proposed works area is temporary in nature and will be returned to GA2 habitat during the operational phase of the proposed scheme.

Therefore, based on the information submitted, surveys carried out and analysis provided I am satisfied that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of any of this SPA site.

Table 17

Lambay Island SPA (Site code: 004069)

Key Issues:

- **Habitat loss and fragmentation.**
- **Habitat degradation/ effects on QI/SCI species as a result of hydrological impacts.**
- **Disturbance and displacement impacts.**

Conservation Objectives: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004069.pdf

		Summary of Appropriate Assessment	
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Conservation Objective	Targets & Attributes (as relevant)	Potential adverse effects	Mitigation Measures	In-combination effects of Plans & Programmes/ Major Projects	Can adverse effects on site integrity be excluded?
To maintain or restore the favourable conservation condition of the following:	The favourable conservation status of a species is achieved when:				
Fulmar <i>Fulmarus glacialis</i> [A009]	Long-term population stable or increasing; and no significant decrease in range, timing or intensity of use of area, (no-site specific conservations objectives document – based on Rogerstown Estuary SPA).	- Habitat degradation/ effects on SCI species as a result of hydrological impacts through release of sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and operation. Effects of reduction in water quality could extend a significant distance downstream to Dublin Bay, which SCI species may utilise outside of their core area. The quantity and quality of prey fish species and the quality of intertidal/ coastal habitat that support the	- CEMP sets out the mechanism by which environmental protection is to be achieved during the construction phase of the proposed road development - includes Construction Traffic Management Plan; Invasive Species Management Plan; Surface Water Management Plan; Construction and Demolition Resource and Waste Management Plan; and Environmental Incident Response Plan. - Measures to protect surface water quality during construction and operational phases to avoid potential impacts on	No in combination effect: - Plans subject to AA prior to adoption and contain policies and objectives to ensure protection of European Sites. - Proposed major projects and proposed developments along the route, will be subject to planning consent, including AA screening and NIS as required, and it will be necessary to determine that the projects will not result in adverse effects on European Sites.	Yes With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the Special Conservation Interests of the SPA and will not therefore affect its integrity.
Cormorant <i>Phalacrocorax carbo</i> [A017]					
Shag <i>Phalacrocorax aristotelis</i> [A018]					
Greylag Goose <i>Anser anser</i> [A043]					
Lesser Black-backed Gull <i>Larus fuscus</i> [A183]					
Herring Gull <i>Larus argentatus</i> [A184]					
Kittiwake <i>Rissa tridactyla</i> [A188]					
Guillemot <i>Uria aalge</i> [A199]					

Razorbill <i>Alca torda</i> [A200]		SCI species could be affected.	downstream European Sites.	- Lack of physical overlap with most major projects.	
Puffin <i>Fratercula arctica</i> [A204]		- Temporary and permanent loss of suitable GA2 habitat.	<p>- Measures to protect surface water during construction and to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, procedures for contaminated materials, etc.).</p> <p>- Measures to protect surface water quality during operation, e.g., kerb and gully drainage, carrier drains, tree pits, permeable paving, bio-retention areas, rain gardens, green roofs filter drains, attenuation areas, pollution control, and maintenance regime for SuDS.</p> <p>- Restore habitat after temporary loss.</p>	- Proposed scheme alone will not adversely affect the integrity of any European sites, and therefore will not act in combination any other major project to have an adverse effect on the integrity of any European sites.	

Overall Conclusion: Integrity test

The applicant determined that following detailed assessment of potential impacts and the implementation of mitigation, the construction and operation of this proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European Site in view of its conservation objectives.

Based on the information provided, I am satisfied that adverse effects can be excluded for SPA sites that are remote from the proposed development site and that no effects of any significance will occur.

No habitat loss within the European designated sites will occur. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Camac_040, Liffey_180, Liffey_190, the Liffey Estuary Upper and the Liffey Estuary Lower, and the Ringsend WWTP all of which drain to Dublin Bay. No increase in existing runoff rates will occur and appropriate treatment will ensure runoff quality.

Ex-situ foraging/ roosting habitat for SCI species within the footprint of proposed scheme at construction compound at Liffey Gaels Park and foraging/ roosting within disturbance ZoI at Ballyfermot/ Le Fanu Park. No potential impacts as a result of disturbance/ displacement due to the very small numbers of SCI species recorded at Liffey Gaels Park and the likelihood that other suitable sites are used on a similar or more regular basis; noise produced as a result of construction activities would not provoke more than a moderate effect/ level of response from bird at Ballyfermot/ Le Fanu Park; the availability of large areas of suitable foraging/ roosting habitat in the wider locality, including closer to the SPA; and the likelihood that disturbance levels will return to baseline conditions as a result of the lands becoming available again following construction. Land take in the proposed works area is temporary in nature and will be returned to GA2 habitat during the operational phase of the proposed scheme.

Therefore, based on the information submitted, surveys carried out and analysis provided I am satisfied that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of any of this SPA site.

Table 18

Ireland's Eye SPA (Site code: 004117)

Key Issues:

- **Habitat loss and fragmentation.**

- **Habitat degradation/ effects on QI/SCI species as a result of hydrological impacts.**

- **Disturbance and displacement impacts.**

Conservation Objectives: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004117.pdf

		Summary of Appropriate Assessment			
Conservation Objective	Targets & Attributes (as relevant)	Potential adverse effects	Mitigation Measures	In-combination effects of Plans & Programmes/ Major Projects	Can adverse effects on site integrity be excluded?
To maintain or restore the favourable conservation condition of the following:	The favourable conservation status of a species is achieved when:				
Cormorant <i>Phalacrocorax carbo</i> [A017]	Long-term population stable or increasing; and no significant decrease in range, timing or intensity of use of area, (no-site specific conservations objectives document – based on Rogerstown Estuary SPA).	- Habitat degradation/ effects on SCI species as a result of hydrological impacts through release of sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and operation. Effects of reduction in water	- CEMP sets out the mechanism by which environmental protection is to be achieved during the construction phase of the proposed road development - includes Construction Traffic Management Plan; Invasive Species Management Plan; Surface Water	No in combination effect: - Plans subject to AA prior to adoption and contain policies and objectives to ensure protection of European Sites. - Proposed major projects and proposed developments along the route, will be	Yes With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the Special Conservation Interests of the SPA
Herring Gull <i>Larus argentatus</i> [A184]					
Kittiwake <i>Rissa tridactyla</i> [A188]					
Guillemot <i>Uria aalge</i> [A199]					

<p>Razorbill <i>Alca torda</i> [A200]</p>		<p>quality could extend a significant distance downstream to Dublin Bay, which SCI species may utilise outside of their core area. The quantity and quality of prey fish species and the quality of intertidal/ coastal habitat that support the SCI species could be affected.</p> <p>- Temporary and permanent loss of suitable GA2 habitat.</p>	<p>Management Plan; Construction and Demolition Resource and Waste Management Plan; and Environmental Incident Response Plan.</p> <p>- Measures to protect surface water quality during construction and operational phases to avoid potential impacts on downstream European Sites.</p> <p>- Measures to protect surface water during construction and to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, procedures for contaminated materials, etc.).</p> <p>- Measures to protect surface water quality during operation, e.g., kerb and gully drainage, carrier drains, tree pits, permeable paving, bio-retention areas, rain gardens, green roofs filter drains, attenuation areas,</p>	<p>subject to planning consent, including AA screening and NIS as required, and it will be necessary to determine that the projects will not result in adverse effects on European Sites.</p> <p>- Lack of physical overlap with most major projects.</p> <p>- Proposed scheme alone will not adversely affect the integrity of any European sites, and therefore will not act in combination any other major project to have an adverse effect on the integrity of any European sites.</p>	<p>and will not therefore affect its integrity.</p>
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			<p>pollution control, and maintenance regime for SuDS.</p> <p>- Restore habitat after temporary loss.</p>		
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Overall Conclusion: Integrity test

The applicant determined that following detailed assessment of potential impacts and the implementation of mitigation, the construction and operation of this proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European Site in view of its conservation objectives.

Based on the information provided, I am satisfied that adverse effects can be excluded for SPA sites that are remote from the proposed development site and that no effects of any significance will occur.

No habitat loss within the European designated sites will occur. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Camac_040, Liffey_180, Liffey_190, the Liffey Estuary Upper and the Liffey Estuary Lower, and the Ringsend WWTP all of which drain to Dublin Bay. No increase in existing runoff rates will occur and appropriate treatment will ensure runoff quality.

Ex-situ foraging/ roosting habitat for SCI species within the footprint of proposed scheme at construction compound at Liffey Gaels Park and foraging/ roosting within disturbance ZoI at Ballyfermot/ Le Fanu Park. No potential impacts as a result of disturbance/ displacement due to the very small numbers of SCI species recorded at Liffey Gaels Park and the likelihood that other suitable sites are used on a similar or more regular basis; noise produced as a result of construction activities would not provoke more than a moderate effect/ level of response from bird at Ballyfermot/ Le Fanu Park; the availability of large areas of suitable foraging/ roosting habitat in the wider locality, including closer to the SPA; and the likelihood that disturbance levels will return to baseline conditions as a result of the lands becoming available again following construction. Land take in the proposed works area is temporary in nature and will be returned to GA2 habitat during the operational phase of the proposed scheme.

Therefore, based on the information submitted, surveys carried out and analysis provided I am satisfied that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of any of this SPA site.

Table 19

Rockabill SPA (Site code: 004014)

Key Issues:

- **Habitat degradation/ effects on QI/SCI species as a result of hydrological impacts.**

Conservation Objectives: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004014.pdf

		Summary of Appropriate Assessment			
Conservation Objective	Targets & Attributes (as relevant)	Potential adverse effects	Mitigation Measures	In-combination effects of Plans & Programmes/ Major Projects	Can adverse effects on site integrity be excluded?
To maintain or restore the favourable conservation condition of the following:	The favourable conservation status of a species is achieved when:				
Purple Sandpiper <i>Calidris maritima</i> [A148]	Long-term population stable or increasing; and no significant decrease in range, timing or intensity of use of area.	No pathway for impact as this species is located on the far side of Howth Peninsula, separated by a large marine waterbody.			Yes With the effective implementation of mitigation measures, the proposed scheme will not have

Roseate Tern <i>Sterna dougallii</i> [A192]	No significant decline of passage population, roosting areas, available prey biomass and barrier to connectivity; and human activities should occur at levels that do not adversely affect numbers among the post-breeding aggregation.	- Habitat degradation/ effects on QI/ SCI species as a result of hydrological impacts through accidental pollution event during construction/ operation that affect SCI species through direct contact with pollutants and/ or decline in quantity or quality of prey fish species.	- CEMP sets out the mechanism by which environmental protection is to be achieved during the construction phase of the proposed road development - includes Construction Traffic Management Plan; Invasive Species Management Plan; Surface Water Management Plan; Construction and Demolition Resource and Waste Management Plan; and Environmental Incident Response Plan. - Measures to protect surface water quality during construction and operational phases to avoid potential impacts on downstream European Sites. - Measures to protect surface water during construction and to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage,	No in combination effect: - Plans subject to AA prior to adoption and contain policies and objectives to ensure protection of European Sites. - Proposed major projects and proposed developments along the route, will be subject to planning consent, including AA screening and NIS as required, and it will be necessary to determine that the projects will not result in adverse effects on European Sites. - Lack of physical overlap with most major projects. - Proposed scheme alone will not adversely affect the integrity of any European sites, and therefore will not act in combination any other major project to have an adverse effect on the integrity of any European sites.	any adverse effect on the Special Conservation Interests of the SPA and will not therefore affect its integrity.
Common Tern <i>Sterna hirundo</i> [A193]	No significant decline of breeding population, productivity rate, passage population, breeding colonies, roosting areas, available prey biomass and barrier to connectivity; and human activities should occur at levels that do not adversely affect breeding and numbers among the post-breeding aggregation.				
Arctic Tern <i>Sterna paradisaea</i> [A194]	No significant decline of breeding population, productivity rate, passage population, breeding colonies, roosting areas, available prey biomass and barrier to connectivity; and human activities should occur at levels that do not adversely affect breeding and numbers among the post-breeding aggregation.				

			<p>procedures for contaminated materials, etc.).</p> <ul style="list-style-type: none"> - Measures to protect surface water quality during operation, e.g., kerb and gully drainage, carrier drains, tree pits, permeable paving, bio-retention areas, rain gardens, green roofs filter drains, attenuation areas, pollution control, and maintenance regime for SuDS. 		
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Overall Conclusion: Integrity test

The applicant determined that following the implementation of mitigation, the construction and operation of this proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European site.

Based on the information provided, I am satisfied that adverse effects can be excluded for Rockabill SPA. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Camac_040, Liffey_180, Liffey_190, the Liffey Estuary Upper and the Liffey Estuary Lower, and the Ringsend WWTP all of which drain to Dublin Bay. No increase in existing runoff rates will occur and appropriate treatment will ensure runoff quality.

Based on the information submitted, surveys carried out analysis provided I am satisfied that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of the Rockabill SPA.

Table 20

The Murrough SPA (Site code: 004186)

Key Issues:

- **Habitat loss and fragmentation.**
- **Habitat degradation/ effects on QI/SCI species as a result of hydrological impacts.**
- **Disturbance and displacement impacts.**

Conservation Objectives: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004186.pdf

		Summary of Appropriate Assessment			
Conservation Objective	Targets & Attributes (as relevant)	Potential adverse effects	Mitigation Measures	In-combination effects of Plans & Programmes/ Major Projects	Can adverse effects on site integrity be excluded?
To maintain or restore the favourable conservation condition of the following:	The favourable conservation status of a species is achieved when:				
Red-throated Diver <i>Gavia stellata</i> [A001]	Long-term population stable or increasing; and no significant	- Habitat degradation/ effects on SCI species	- CEMP sets out the mechanism by which	No in combination effect:	Yes

Greylag Goose (<i>Anser anser</i>) [A043]	decrease in the numbers or range of areas used by waterbird species, (no site-specific conservation objectives for this SPA – attributes, measures and targets based on The Raven SPA).	as a result of hydrological impacts through release of sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and operation. Effects of reduction in water quality could extend a significant distance downstream to Dublin Bay, which SCI species may utilise outside of their core area. The quantity and quality of prey fish species and the quality of intertidal/ coastal habitat that support the SCI species could be affected.	environmental protection is to be achieved during the construction phase of the proposed road development - includes Construction Traffic Management Plan; Invasive Species Management Plan; Surface Water Management Plan; Construction and Demolition Resource and Waste Management Plan; and Environmental Incident Response Plan.	<ul style="list-style-type: none"> - Plans subject to AA prior to adoption and contain policies and objectives to ensure protection of European Sites. - Proposed major projects and proposed developments along the route, will be subject to planning consent, including AA screening and NIS as required, and it will be necessary to determine that the projects will not result in adverse effects on European Sites. - Lack of physical overlap with most major projects. - Proposed scheme alone will not adversely affect the integrity of any European sites, and therefore will not act in combination any other major project to have an adverse effect on the integrity of any European sites. 	With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the Special Conservation Interests of the SPA and will not therefore affect its integrity.
Light-bellied Brent Goose <i>Branta bernicla hrota</i> [A046]					
Wigeon <i>Anas Penelope</i> [A050]					
Teal <i>Anas crecca</i> [A052]					
Black-headed Gull <i>Chroicocephalus ridibundus</i> [A179]					
Herring Gull (<i>Larus argentatus</i>) [A184]					
Little Tern <i>Sterna albifrons</i> [A195]					

			<p>contaminated materials, etc.).</p> <ul style="list-style-type: none"> - Measures to protect surface water quality during operation, e.g., kerb and gully drainage, carrier drains, tree pits, permeable paving, bio-retention areas, rain gardens, green roofs filter drains, attenuation areas, pollution control, and maintenance regime for SuDS. - Restore habitat after temporary loss. 		
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Overall Conclusion: Integrity test

The applicant determined that following detailed assessment of potential impacts and the implementation of mitigation, the construction and operation of this proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European Site in view of its conservation objectives.

Based on the information provided, I am satisfied that adverse effects can be excluded for SPA sites that are remote from the proposed development site and that no effects of any significance will occur.

No habitat loss within the European designated sites will occur. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Camac_040, Liffey_180, Liffey_190, the Liffey Estuary Upper and the Liffey Estuary Lower, and the Ringsend WWTP all of which drain to Dublin Bay. No increase in existing runoff rates will occur and appropriate treatment will ensure runoff quality.

Ex-situ foraging/ roosting habitat for SCI species within the footprint of proposed scheme at construction compound at Liffey Gaels Park and foraging/ roosting within disturbance ZoI at Ballyfermot/ Le Fanu Park. No potential impacts as a result of disturbance/ displacement due to the very small numbers of SCI species recorded at Liffey Gaels Park and the likelihood that other suitable sites are used on a similar or more regular basis; noise produced as a result of construction activities would not provoke more than a moderate effect/ level of response from bird at Ballyfermot/ Le Fanu Park; the availability of large areas of suitable foraging/ roosting habitat in the wider locality, including closer to the SPA; and the likelihood that disturbance levels will return to baseline conditions as a result of the lands becoming available

again following construction. Land take in the proposed works area is temporary in nature and will be returned to GA2 habitat during the operational phase of the proposed scheme.

Therefore, based on the information submitted, surveys carried out and analysis provided I am satisfied that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of any of this SPA site.

Table 21

North-West Irish Sea cSPA (Site code: 004236)

Key Issues:

- **Habitat loss and fragmentation.**
- **Habitat degradation/ effects on QI/SCI species as a result of hydrological impacts.**
- **Disturbance and displacement impacts.**

		Summary of Appropriate Assessment			
Conservation Objective	Targets & Attributes (as relevant)	Potential adverse effects	Mitigation Measures	In-combination effects of Plans & Programmes/ Major Projects	Can adverse effects on site integrity be excluded?
To maintain or restore the favourable conservation	The favourable conservation status of a species is achieved when:				

condition of the following:					
Common Scoter (Melanitta nigra) [A065]	No significant decline, stable or increasing population trends, sufficient number of locations, area and availability of suitable habitat to support the population, sufficient number of locations, area of suitable habitat and available forage biomass to support population target, intensity, frequency, timing and duration of disturbance, barriers not significantly impacting populations access to the SPA or other ecologically important sites outside the SPA.	- Habitat degradation as a result of hydrological impacts through release of sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and operation. Effects of reduction in water quality could extend a significant distance downstream and could affect the quality of intertidal/ coastal habitat that support SCI bird species. - Temporary and permanent loss of suitable GA2 habitat.	- CEMP sets out the mechanism by which environmental protection is to be achieved during the construction phase of the proposed road development - includes Construction Traffic Management Plan; Invasive Species Management Plan; Surface Water Management Plan; Construction and Demolition Resource and Waste Management Plan; and Environmental Incident Response Plan. - Measures to protect surface water quality during construction and operational phases to avoid potential impacts on downstream European Sites. - Measures to protect surface water during construction and to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion	No in combination effect: - Plans subject to AA prior to adoption and contain policies and objectives to ensure protection of European Sites. - Proposed major projects and proposed developments along the route, will be subject to planning consent, including AA screening and NIS as required, and it will be necessary to determine that the projects will not result in adverse effects on European Sites. - Lack of physical overlap with most major projects. - Proposed scheme alone will not adversely affect the integrity of any European sites, and therefore will not act in combination any other major project to have an adverse effect on	Yes With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the Special Conservation Interests of the cSPA and will not therefore affect its integrity.
Red-throated Diver (Gavia stellata) [A001]					
Great Northern Diver (Gavia immer) [A003]					
Fulmar (Fulmarus glacialis) [A009]					
Manx Shearwater (Puffinus puffinus) [A013]					
Shag (Phalacrocorax aristotelis) [A018]					
Cormorant (Phalacrocorax carbo) [A017]					
Little Gull (Larus minutus) [A177]					
Kittiwake (Rissa tridactyla) [A188]					
Black-headed Gull <i>Chroicocephalus ridibundus</i> [A179]					
Common Gull (Larus canus) [A182]					

Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183]			<p>zones, weather monitoring, fuels/ chemical storage, procedures for contaminated materials, etc.).</p> <p>- Measures to protect surface water quality during operation, e.g., kerb and gully drainage, carrier drains, tree pits, permeable paving, bio-retention areas, rain gardens, green roofs filter drains, attenuation areas, pollution control, and maintenance regime for SuDS.</p> <p>- Restore habitat after temporary loss.</p>	<p>the integrity of any European sites.</p>	
Herring Gull (<i>Larus argentatus</i>) [A184]					
Great Black-backed Gull (<i>Larus marinus</i>) [A187]					
Little Tern <i>Sterna albifrons</i> [A195]					
Roseate Tern (<i>Sterna dougallii</i>) [A192]					
Common Tern (<i>Sterna hirundo</i>) [A193]					
Arctic Tern (<i>Sterna paradisaea</i>) [A194]					
Puffin (<i>Fratercula arctica</i>) [A204]					
Razorbill (<i>Alca torda</i>) [A200]					
Guillemot (<i>Uria aalge</i>) [A199]					

Overall Conclusion: Integrity test

The applicant determined that following detailed assessment of potential impacts and the implementation of mitigation, the construction and operation of this proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European Site in view of its conservation objectives.

Based on the information provided, I am satisfied that adverse effects can be excluded for cSPA sites that are remote from the proposed development site and that no effects of any significance will occur.

No habitat loss within the European designated sites will occur. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Camac_040, Liffey_180, Liffey_190, the Liffey Estuary Upper and the Liffey Estuary Lower, and the Ringsend WWTP all of which drain to Dublin Bay. No increase in existing runoff rates will occur and appropriate treatment will ensure runoff quality.

The spread of invasive species can also be controlled via mitigation measures, including pre-construction surveys, implementation of management plan and monitoring in subsequent years following treatment will be carried out in accordance with the Invasive Species Management Plan appended to the NIS.

Ex-situ foraging/ roosting habitat for SCI species within the footprint of proposed scheme at construction compound at Liffey Gaels Park and foraging/ roosting within disturbance ZoI at Ballyfermot/ Le Fanu Park. No potential impacts as a result of disturbance/ displacement due to the very small numbers of SCI species recorded at Liffey Gaels Park and the likelihood that other suitable sites are used on a similar or more regular basis; noise produced as a result of construction activities would not provoke more than a moderate effect/ level of response from bird at Ballyfermot/ Le Fanu Park; the availability of large areas of suitable foraging/ roosting habitat in the wider locality, including closer to the SPA; and the likelihood that disturbance levels will return to baseline conditions as a result of the lands becoming available again following construction. Land take in the proposed works area is temporary in nature and will be returned to GA2 habitat during the operational phase of the proposed scheme.

Therefore, based on the information submitted, surveys carried out and analysis provided I am satisfied that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of any of this SPA site in Dublin Bay and beyond.

13.7. Potential for Adverse Effects

- 13.7.1. As noted in the tables above, there is potential for adverse effects from indirect habitat loss and fragmentation as a consequence of habitat damage degradation from a reduction in water quality and/ or change to hydrological regime; reduction in water quality resulting in degradation of sensitive habitat present within European sites, which in turn could negatively affect SCI bird species relying on these habitats for foraging/ roosting; habitat degradation as a result of introduction/ spreading of non-native invasive species to downstream European sites; and disturbance and displacement impacts on SCI bird species known to forage and/ or roost at inland sites, such as playing pitches.

Habitat Loss and Fragmentation

- 13.7.2. The applicant identified one ex-situ location which was utilised and traversed by bird species listed as SCIs of Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North West Irish Sea cSPA and The Murrough SPA. These species include light bellied brent goose, golden plover, oystercatcher, curlew, black-headed gull, black-tailed godwit and herring gull.
- 13.7.3. There is one area of suitable foraging/ roosting habitat within the footprint and adjacent to the proposed scheme at Liffey Gaels Park. The proposed scheme will result in the temporary loss of 0.442ha of GA2 habitat suitable to support breeding gull and wintering bird species at the proposed construction compound at this location.
- 13.7.4. Surveys have indicated that small and infrequent numbers of SCI bird species were recorded at this site during the 2020/21 and 2021/22 winter bird season. This suggests that these species are likely to use other suitable sites on a similar or more regular basis. There are large areas of suitable foraging/ roosting habitat in the wider locality, and similar public amenity grasslands and playing pitches closer to SPAs. The temporary loss of this site will not therefore result in any likely significant effect on the conservation status of these species or undermine the conservation

objectives of any SPAs in the vicinity which are designated for these species. In addition, land take at the proposed construction compound is temporary in nature and will be returned to GA2 habitat during the operational phase of the proposed scheme.

Habitat degradation/effects on QI/SCI species as a result of hydrological impacts

- 13.7.5. The proposed scheme crosses two watercourses: the Camac_040 and Poddle_010, and is hydrologically connected to the Camac_040, Liffey_180, Liffey_190, the Liffey Estuary Upper and the Liffey Estuary Lower, and the Ringsend WWTP, all of which drain to Dublin Bay. The potential for degradation effects on QI/ SCI species as a result of hydrological impacts could occur to such a degree that they result in significant effects which could have implications for the conservation objectives of North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Rockabill to Dalkey Island SAC, Lambay Island SAC, Howth Head Coast SPA, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Baldoyle Bay SPA, Dalkey Islands SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Rockabill SPA, Ireland's Eye SPA, Lambay Island SPA, North West Irish Sea cSPA, and The Murrough SPA.
- 13.7.6. The release of contaminated surface water runoff and/or an accidental spillage or pollution event into any surface water features during construction, or operation, has the potential to affect water quality in the receiving aquatic environment. Such a pollution event may include the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids and the accidental spillage and/or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. Any reduction in water quality could therefore result in degradation of sensitive habitat downstream and affect mobile SCI bird species that commute, forage and loaf in Dublin Bay, as well as their prey.
- 13.7.7. Notwithstanding this, the proposed mitigation measures will ensure that the proposed scheme will not significantly impact on the maintenance of hydrological conditions. Measures to protect surface/ groundwater during construction and

operation of the proposed scheme will include the use of on-site treatment for surface water runoff, bunded areas, SuDS and good construction practices throughout. Full details of mitigation are provided in the NIS, Construction Management Plan and Invasive Species Management Plan.

Habitat degradation as a result of introducing/ spreading non-native invasive species

- 13.7.8. Four areas of Japanese Knotweed have been identified within, or in close proximity to the proposed scheme. This species could potentially spread or be introduced to downstream terrestrial habitats within European Sites via surface water during construction or routine maintenance. This could potentially result in degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. Non-native invasive species may outcompete other native species, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat, which could undermine the conservation objectives of the European Sites.
- 13.7.9. As noted above, the proposed scheme crosses two watercourses: the Camac_040 and the Poddle_010; and is hydrologically connected to the Camac_040, Liffey_180, Liffey_190, the Liffey Estuary Upper and the Liffey Estuary Lower, and the Ringsend WWTP, all of which drain to Dublin Bay. There is potential for the proposed scheme to result in significant effects which could have implications for the conservation objectives of North Dublin Bay SAC, South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA as a result of invasive species spread.
- 13.7.10. Measures to prevent the spread of non-native invasive species to downstream European Sites will consist of a confirmatory pre-construction invasive species survey to confirm the absence/ extent of invasive species within the proposed scheme footprint. A Non-Native Invasive Species Management Plan will be implemented where an infestation is identified within the proposed scheme footprint. The ISMP will describe in detail the infestations and, where possible, calculate the volume of infested soil to be excavated. The ISMP will be implemented in accordance with relevant guidance and by a suitably qualified and licenced specialist. Monitoring after control measures have been implemented and again in the subsequent years following treatment will take place, and any re-growth will be

treated as required. During the operational phase, the local authorities will implement a management regime to cover non-native invasive species.

Disturbance and displacement Impacts

- 13.7.11. The proposed scheme could give rise to disturbance and displacement impacts on SCI bird species known to forage and/ or roost at inland sites. This could occur from a temporary/ permanent increase in noise, vibration and/ or human activity levels during the construction and/ or operation phase. It should be noted, however, that noise levels associated with general construction activities would attenuate to close to background levels at a distance of 300m and beyond.
- 13.7.12. The proposed construction compound at Liffey Gaels Park contains suitable foraging/ roosting habitat for SCI bird species. There is also an area of suitable foraging/ roosting habitat available for SCI bird species within the disturbance Zol of the proposed scheme at Ballyfermot / Le Fanu Park located 150m from the proposed scheme. It is possible that SCI bird species associated with the Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North West Irish Sea cSPA and The Murrough SPA, utilise these and other suitable lands in the wider area.
- 13.7.13. Construction phase noise disturbance may be in or above the levels that could provoke a response from birds. However, surveys have shown very small numbers of SCI species recorded at Liffey Gaels Park and there is availability of large areas of suitable foraging/ roosting habitat in the wider locality, including closer to the SPA. Noise produced as a result of construction activities would not provoke more than a moderate effect/ level of response from birds at Ballyfermot/ Le Fanu Park and increased disturbance resulting in the temporary displacement will likely return to baseline conditions when the lands become available again. It is therefore reasonable to conclude that SCI bird species will not be subject to any substantial and long-term change and would be considered habituated to existing activities in the urban / suburban transport corridor.

13.8. In-Combination Effects

- 13.8.1. The NIS considers the proposed works in combination with all plans and/or projects with the potential to impact upon the European sites above. This includes any national, regional and local land use plans and existing or proposed projects in place at the time of lodgement of the proposed scheme that could potentially affect the ecological environment within the Zol of the proposed scheme. The plans/ projects that are considered are listed in Table 33 of the NIS. Each plan/ project is individually considered for any potential in-combination effects in Table 34 of the NIS. The other BusConnects schemes in Dublin are also considered for this purpose.
- 13.8.2. Since the submission of the application to the Board, the Dublin City Development Plan, 2022-2028 has been adopted. However, no new issues arise within the new development plan that would have a materially different impact upon the cumulative impacts assessed by the applicant under the previous development plan. A number of other individual projects/ developments in the immediate vicinity of the proposed scheme are also planned and are considered for the purposes of in-combination assessment. These are listed under planning history in Section 6 above and I have considered these for the purposes of in-combination assessment.
- 13.8.3. Considering the environmental protection policies included within the relevant land use plans and projects, the range of mitigation measures included for the proposed scheme to avoid significant impacts, and that alone the proposed scheme will not adversely affect the integrity of any European sites, I am satisfied that all other plans and projects will not act in combination with the proposed scheme to have an adverse effect on the integrity of any European sites.
- 13.8.4. The NIS concludes that effects on the integrity of all European Sites within the Zol of the proposed scheme are not expected to occur as a result of the project and, as such, there are no pathways for the proposed scheme to act in-combination with other plans and projects. This analysis was complete and robust in terms of plans and projects and no likely significant impacts arose taking into account of any residual impacts from the proposed development. Based on my analysis of the NIS,

the NPWS data and scientific evidence provided, adverse effects to the integrity of the European Site within the Zol of the proposed scheme will not arise.

13.8.5. The potential for adverse effects due to in-combination effects with other projects and activities was excluded based on the following:

- The potential for adverse effects can be effectively ameliorated by both design-based and applied mitigation measures related to surface water quality and spread of invasive species.
- The proposed scheme itself will not lead to adverse impacts on the Qualifying Interests/ Special Conservation Interest species of the European Sites within the Zol of the proposed scheme and therefore in-combination impacts will not arise.
- All other plans/ projects, including those in the immediate vicinity of the proposed scheme, have been considered in the context of in combination effects and must comply with all applicable planning and environmental approval requirements and be in accordance with the environmental protection objectives and policies of the relevant land use plans. There are no planned or ongoing projects that could act in combination with the proposed development to have adverse effects on the integrity of a European Site. Planned or ongoing projects in the immediate vicinity of the proposed development will
- The Department of Housing, Local Government and Heritage accepts the conclusion of the NIS that following mitigation the proposed scheme will not adversely affect the integrity of any European site, either alone or in combination with other plans or projects.

13.9. Appropriate Assessment Conclusions

13.9.1. Having carried out screening for appropriate assessment of the proposed Liffey Valley to City Centre Core Bus Corridor Scheme, it was concluded that it may result in significant effects on North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island

SPA, Ireland's Eye SPA, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Dalkey Islands SPA, The Murrrough SPA, North West Irish Sea cSPA, Rockabill to Dalkey Island SAC and Lambay Island SAC. Consequently, an appropriate assessment was required of the implications of the project on the qualifying features of these sites in light of their conservation objectives.

13.9.2. Following an appropriate assessment, it has been ascertained that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of these European sites, or any other European site, in view of the sites' Conservation Objectives. No reasonable scientific doubt remains as to the absence of such effects.

13.9.3. This conclusion is based on:

- A full and detailed assessment of all aspects of the proposed project including proposed mitigation measures and ecological monitoring in relation to the Conservation Objectives of North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Ireland's Eye SPA, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Dalkey Islands SPA, The Murrrough SPA, North West Irish Sea cSPA, Rockabill to Dalkey Island SAC and Lambay Island SAC.
- Detailed assessment of all aspects of the proposed development that could result in significant effects on European Sites within a zone of influence of the proposed scheme.
- Application of mitigation measures designed to avoid adverse effects on site integrity and likely effectiveness of same.
- Detailed assessment of in combination effects with other plans and projects including historical projects, current proposals and future plans.
- No reasonable scientific doubt as to the absence of adverse effects on the integrity of North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island

SPA, Ireland's Eye SPA, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Dalkey Islands SPA, The Murrough SPA, North West Irish Sea cSPA, Rockabill to Dalkey Island SAC and Lambay Island SAC.

14.0 Compulsory Purchase Order

14.1. For the Board to confirm the subject CPO, it must be satisfied that the NTA has demonstrated that the CPO is clearly justified by the "common good". Case law² has determined that, in order to satisfy the common good, the following minimum criteria are required.

- The works to be carried out should accord or at least not be in material contravention of the policy and objectives contained in the statutory development plan relating to the area.
- There is a community need that is to be met by the acquisition of the lands in question.
- The project proposed and the associated acquisition of lands is suitable to meet the community need.
- Any alternative method of meeting the community need have been considered but are not demonstrably preferable.
- The extent of land-take should have due regard to the issue of proportionality.

14.2. The Board should note that a number of these issues have been raised in preceding sections of this assessment which should therefore be read in conjunction with the CPO assessment.

14.3. Development Plan compliance

14.3.1. The proposed Liffey Valley to City Centre Core Bus Corridor continues through areas administered by South Dublin County Council and Dublin City Council. The policy

² See also Mc Dermott and Woulfe 'Compulsory Purchase and Compensation in Ireland: Law and Practice' (1992).

context for the South Dublin County Development Plan 2022-2028 and the Dublin City Development Plan 2022-2028 are set out in Sections 5.13 and 5.14 of this report respectively.

- 14.3.2. Section 5 above details the consistent message within all levels of policy at EU, national and regional level, and reflected at local level within the South Dublin County Development Plan 2022-2028 and the Dublin City Development Plan 2022-2028, that there must be a transition to a low carbon and climate resilient society, and that active and sustainable mobility must be encouraged to reduce congestion and emissions.
- 14.3.3. The main objectives of the proposed scheme include the delivery of an efficient, low carbon and climate resilient public transport service, which supports the achievement of Ireland's emission reduction targets, as well as the enhancement of the potential for cycling by providing safe infrastructure for cycling, segregated from general traffic wherever practicable.
- 14.3.4. These scheme objectives fully accord with the aims of the current South Dublin County Development to increase the number of people walking, cycling and using public transport and to reduce the need for car journeys, resulting in a more active and healthy community, a more attractive public realm, safer streets, less congestion, reduced carbon emissions, better air quality, quieter neighbourhoods and a positive climate impact. Furthermore, it is highlighted in the current Dublin City Development Plan that the sustainable and efficient movement of people and goods is crucial for the success and vitality of the city, along with the need to move away from private car and fossil-fuel-based mobility to reduce the negative impacts of transport and climate change.
- 14.3.5. Having regard to the above, I am satisfied that the proposed scheme is justified and in overwhelmingly in accordance with the overriding development plan policy position as set out within the policy section of this report above.

14.4. Community Need

- 14.4.1. The proposed scheme is being developed in response to the need for a sustainable, reliable form of public transport, and a safe and comfortable active transport network

along the main radial routes of Dublin city. Sustainable transport infrastructure is known to assist in creating better communities and places to live and work, while also stimulating economic development and enhanced health and well-being when delivered effectively. In this context, it can be reasonably argued that a community need is being fulfilled with the implementation of this project.

- 14.4.2. Critically, there needs to be improved scope to avoid travel altogether or to shift away from private car use to more sustainable means. The existing means of travel must also be improved in terms of emissions. Improvement could mean a reduction in vehicle size, e.g., a personal electric vehicle instead of an electric car. The effect of these avoid-shift-improve measures will be less on-street congestion and the ability of the transport corridor to move more people safely, comfortably and reliably.
- 14.4.3. An essential requirement of the avoid-shift-improve framework is road space reallocation. As noted above, a car travelling at 50kph requires 70 times more space than a pedestrian or cyclist. A double-deck bus takes up the equivalent spatial area of three cars but typically carries 50-100 times the number of passengers. What we have at present on our streets is approximately 80% of surface space being dedicated to the car, and essentially privatised. Road space reallocation will result in a greater sharing with other modes and increased public use of the streets. The more public space usage of our roads and streets, the more community benefits this will have through increased comfort and interaction between people. Other benefits to the community include reduced severance from traffic dominated streets; better accessibility to community facilities; passive surveillance making places safer; people meeting each other and creating a sense of community; better air quality and reduced noise; and improved public realm.
- 14.4.4. The community benefits of the proposed scheme are set out above. However, the issue of community need becomes more apparent when population growth forecasts are factored in. According to the National Planning Framework, 2018, the population of the Greater Dublin Area is forecast to increase by 25% by 2040. Significant congestion already occurs throughout the GDA from private car dependence and intervention is therefore required to optimise road space and prioritise the movement of people over the movement of vehicles. The proposed scheme allows for

increased people moving capacity and the best chance to avoid gridlock in future years as the population grows and the demand for travel increases. Section 11.3.1 of this report addresses population growth and on-street congestion and what it means for the future use of the street. The importance of the street as a place rather than a movement corridor is also emphasised in Section 11.5.

- 14.4.5. Overall, the proposed scheme will deliver essential physical infrastructure necessary to sustain the projected population growth along the area of the core bus corridor. It will also provide more accessible and reliable public transport to the most disadvantaged and vulnerable in society and will facilitate safer and more comfortable active travel. It is clear that there is an obvious community need and justification for the proposed scheme from a population growth and congestion perspective; through the provision of the necessary connections and opportunities for all sections of the local community; and in terms of the wider community benefits that the proposed scheme will bring.

14.5. Suitability of land to meet community need

- 14.5.1. It is proposed to permanently acquire land along the road corridor and additional land will be temporarily acquired for construction works. At present the land is mostly in private amenity, recreational, commercial and community use. No habitable dwellings will be permanently acquired. The Board should note that the scheme for the most part will comprise lands within the existing public road and pedestrian area where there is no specific zoning objective.
- 14.5.2. The extent of the land that would be acquired under the order is determined by the specifications of the proposed core bus corridor layout and associated construction works. I would be in agreement that the land-take for the proposed CPO along the corridor is necessary and proportional to ensure the delivery of the proposed scheme to appropriate standards as designed.
- 14.5.3. The proposed scheme passes through the Thomas Street ACA; however, it is considered that the proposed works are compatible with the objectives of this designation and will not prevent or negatively impact the achievement of same. Zonings pertaining to the lands include the following:

- Major Retail Centre (SDCC)
- Open Space
- Residential
- Enterprise/ Residential-led Regeneration
- Enterprise and Employment
- Community and Social Infrastructure (DCC)
- Sustainable Residential Neighbourhoods
- Key Urban Villages / Urban Villages
- Amenity / Open Space Lands / Green Network

14.5.4. I note that the secondary elements of the proposed scheme, such as bus shelters and RTPI poles fall within the definition of Public Service Installations as defined within Appendix 21 of the Dublin City Development Plan, or possibly as Public Service as defined within the South Dublin County Development Plan. I am satisfied that these elements of the proposed works, along with the proposed reallocation of road space and the provision of active travel infrastructure, are compatible with the zoning objectives of both Development Plans.

14.5.5. Due to the restricted width of the existing carriageway along certain sections, the proposed scheme encroaches minimally onto third party lands to allow for provision of the proposed CBC infrastructure. Areas of land will be temporarily acquired mainly alongside and on the third-party side of the lands to be permanently acquired. Land acquisition typically comprises of narrow roadside strips. Areas of land at Fonthill Road, Coldcut Road and Con Colbert Road/ Liffey Gaels Park will be temporality acquired to accommodate construction compounds and will be landscaped and returned to their original use once construction is complete.

14.5.6. The CPO and Schedule and corresponding deposit map booklet clearly identify all lands that are being acquired on both a permanent and temporary basis, as well as locations where public and private rights of ways are being extinguished, acquired, restricted or otherwise interfered with.

14.5.7. Overall given the current use of lands and the minimal additional lands to be acquired which lie directly adjacent to the existing carriageway and footpath, I am satisfied that the lands to be acquired are suitable and appropriate for such use and for the community need.

14.6. Alternatives

- 14.6.1. An assessment of reasonable alternatives is set out in Section 12.3 of the EIA considers a range of alternatives at three levels comprising strategic alternatives, route alternatives and design alternatives. It is concluded that all reasonable alternatives that are relevant to the design of the project and its specific characteristics as presented are clearly set out in the EIAR. The main reasons for the chosen options and the development of the design process are included, together with the background to the statutory planning process.
- 14.6.2. Route alternatives were considered against environmental considerations such as soils and geology, flora and fauna, potential archaeological, architectural and cultural heritage impacts and impacts to roadside amenity such as existing trees. Other constraints relating to these routes such as land availability and the extent of third-party lands to be acquired were also considered and the route selections reduced and modified accordingly. For example, to reduce the impact on Markievicz Park and the adjacent residential properties, the design was refined to provide signal-controlled priority in lieu of a bus lane for inbound buses on Ballyfermot Road between Markievicz Park and St Laurence's Road. The impact on the apartments at St. Lawrence Glen was also reduced by this design change. The route options assessment considered the potential of the CBC infrastructure to impact on land use character through land-take, severance or reduction of viability which prevents or reduces it from being used for its intended use.
- 14.6.3. Having regard to the information submitted, it is clear that the applicant has considered a significant number of options for the proposed scheme and has been responsive to consultations held and concerns raised by the public. The process undertaken by the applicant has been a robust assessment of alternative options

having regard to environmental considerations and the stated project objectives, which are considered to be reasonable.

- 14.6.4. A consideration of alternatives is also included within the planning assessment of this report at Section 11.4. While it is accepted that alternatives were robustly and comprehensively explored, nevertheless some main concerns remain that the proposed scheme fails to provide continuous segregated cycle tracks serving both sides of the road, and a one-way traffic arrangement could have been explored further so that road space could have been further reallocated to sustainable modes. However, I have concluded that the proposed scheme will help to reduce transport related emissions and should therefore be implemented as planned as a matter of urgency.

14.7. Proportionality of Land Take

- 14.7.1. I consider that the land to be acquired permanently for the operation of the proposed scheme, and temporarily for the construction phase, is modest and proportionate, and is required in the context of meeting an identified community need. The land take ensures that as far as practically possible, geometric design standards to facilitate bus lanes, cycle paths, pedestrian movement and general traffic movement are adhered to, and that such land take is commensurate with the requirements to implement the project to a sufficient design standard.

14.8. CPO Issues common to multiple Objectors

- 14.9. Concerns were raised in relation to a number of common issues which are examined hereunder. The Board should note that concerns relating to planning matters such as noise, air and visual and residential amenity impacts are dealt with in the EIAR under Section 12 and planning assessment under Section 11 of this report.

Property Values

- 14.10. Residents and businesses are concerned that the proposed scheme will devalue their properties. In general, I note the NTA's response that in overall terms the public realm improvements may lead to an increase in value of both residential and retail property prices, especially in the community centres along the corridors, with evidence that

investing in public realm creates places that are more desirable for people and business to locate in. This may have the effect of increasing the value of properties in the area rather than devaluing it, as suggested in some of the submissions.

Impact on Parking and Access

14.11. The NTA have confirmed that access to properties will be maintained during the construction phase of the proposed scheme and the manner in which residents and businesses access their properties at present will remain largely unchanged once the scheme is operational.

Engagement in the process

14.11.1. Third parties raised concerns and expressed dissatisfaction in relation to the level of engagement by the NTA with the process. I have reviewed the file in relation to engagement with landowners and note that the NTA has complied with its statutory obligations in this regard. Landowners have been properly notified and the process advertised accordingly. I am therefore fully satisfied in relation to the NTA's compliance with the relevant legislation in this regard.

14.11.2. I note that the appointed contractor will ensure dialogue between property owners and the NTA with respect to any accommodation works to be carried out. In response to concerns raised on the detailed design of replacement boundaries, the Board should note that such matters are appropriately dealt with as part of the detailed accommodation works plans in consultation with impacted landowners upon confirmation of CPO.

14.11.3. A number of objectors question the existing ownership of the lands to be acquired. This issue is noted by the NTA and it is confirmed that the information was gathered as part of the Title Research, which is set out in the CPO schedule.

14.12. Other CPO Issues from Individual Submissions

Dublin City Council, Housing and Community Services Department

14.12.1. It is stated in this objection that Dublin City Council and the Sons of the Devine Providence are progressing a significant housing development and the CPO presents challenges in delivering this development. The Council requests a number of

conditions relating to engagement with the NTA, and the timing, design and provision of a retaining wall.

14.12.2. In response, the NTA refer to the retaining wall details set out in the Structures Preliminary Design Report included as Appendix J of the Preliminary Design Report. Project timelines affecting this section of road are set out and it is confirmed that detailed accommodation works plans will be prepared in consultation with landowners in line with any formal agreements and in accordance with any embedded mitigations identified in the EIAR or conditions/modifications from An Bord Pleanála in relation to the proposed scheme application.

14.12.3. I would be satisfied that these matters will be appropriately dealt with as part of the detailed accommodation works plans in consultation with impacted landowners upon confirmation of CPO. I am also satisfied that the quantum of lands to be acquired is proportionate and not excessive and will not impact the functionality of land when developed.

Residents of 73 and 75 Emmet Road

14.12.4. Concerns have been raised in relation to access and excess land acquisition. Matters relating to access are addressed above. Access will be maintained to adjacent businesses, residences and community facilities during the construction and operational periods.

14.12.5. With respect to the amount of land to be acquired at this location and boundary treatment, it is confirmed by the NTA that this is necessary to facilitate urban realm enhancement through the creation of green areas and additional tree planting. I consider that the applicant has provided sufficient detail to justify the need and extent of the CPO and access arrangements at this location.

HSE, Cherry Orchard Hospital

14.12.6. It is stated in this objection that the area of land within Cherry Orchard Hospital which the NTA, wishes to acquire, has been set aside by HSE for a proposed Enhanced Community Care (ECC) development. It is intended that the front façade of the ECC building will match the established building line of Ballyfermot Primary Care Centre and other adjacent hospital buildings. It is also intended to have

enhanced landscaping along the boundary. The objector considers that any setting back of the ECC building and proposed SuDS measures would have significant implications for the development of the site.

- 14.12.7. In response, the NTA confirms that it has engaged with the HSE to coordinate the design of the attenuation area and the proposed ECC facility. It is submitted that the proposed scheme has been designed to avoid any impact on the ECC. The NTA confirm that the entire area identified for temporary acquisition will not be required for the duration of the works and access to the ECC construction site will not be precluded.
- 14.12.8. As noted above, new boundary treatment works along the corridor will be replaced on a 'like for like' basis and final details of boundary walls, gates and driveways will be agreed between the affected landowners and NTA during the accommodation works negotiations.
- 14.12.9. The Flood Risk Assessment concluded that there are no potential flood risk impacts on the surrounding areas as a result of the development.
- 14.12.10. I consider that the applicant has provided sufficient detail to justify the extent of the CPO and access arrangements in the vicinity of the objector's property in the event that the Board decides to approve the scheme as proposed.

Grange Cross Medical/ Haven Pharmacy

- 14.12.11. A number of objections were received in relation to the loss of parking and access for emergency vehicles at this location. In response, the NTA note that the removal of nine spaces on the northern side of Ballyfermot Road at the junction of Le Fanu Road enables the creation of space for segregated bus and cycle infrastructure. There is ample alternative parking in the immediate area, and on balance, I agree that the retention of the existing layout would unduly undermine the overall scheme objectives. It should be noted that emergency vehicles are allowed to use bus lanes and space is maintained outside the medical centre behind the proposed footway that could be used by an emergency vehicle.

Applegreen Service Station, Ballyfermot Road

- 14.12.12. It is submitted by the objector that the proposed CPO will severely impact on the operation of the site during and after the proposed works. During the works, the car wash and two pumps will need to close; access to and from the site and fuel deliveries will be impacted; the hazardous zone around the pump island and forecourt canopy will be impacted; there are unknown impacts on sewerage and services; and the fuel display will need to be relocated.
- 14.12.13. After the works, the car wash will be permanently impacted making it un-operational; traffic management will be impacted; sewer and services may be potentially impacted; and the fuel display sign will be impacted and may result in a planning process together with the canopy and other signage.
- 14.12.14. An accompanying independent review carried out by engineering consultants on behalf of the objector finds a significant and detrimental impact on the site. It is considered that the CPO will terminally impact the business and will likely lead to this site having to close down due to being un-operational.
- 14.12.15. In response to the original submission, the NTA submit that the CPO has been carefully considered and is only included where deemed absolutely necessary to meet the scheme objectives and to construct the scheme with permanent and temporary acquisitions. It is also stated that if the CPO is confirmed, a Notice to Treat will be served and the landowner will be required to submit a claim for compensation. As part of this process, the NTA will pay the reasonable costs (as part of the claim) for the landowner to engage its agent / valuer in preparing, negotiating and advising on compensation. The NTA also confirm that access to the property will be maintained at all times.
- 14.12.16. Having reviewed the information submitted by the NTA and the objector, and having inspected the lands, I am satisfied that the width and extent of the proposed permanent and temporary land acquisitions are necessary and proportionate in the context of meeting the identified community need at this location. The issue of compensation for loss of land and other issues such as the devaluation of property is a matter for arbitration.

Intrust Properties Limited, Liffey Valley Retail Park

14.12.17. The objector has concerns regarding the potential of the proposed works to disrupt and inconvenience tenants and customers accessing the retail park. There are also objections to the permanent acquisition of drainage infrastructure that would render the lands undevelopable.

14.12.18. In the NTA's response, it is confirmed that local arrangements will be made on a case-by-case basis to maintain continued access to businesses affected by the works, at all times, where practicable. Temporary access arrangements will be discussed with businesses prior to works commencing.

14.12.19. The NTA refer to the Notice to Treat procedure in the event that the CPO is confirmed, whereby the landowner will submit a claim for compensation. In this case, I am also satisfied that the proposed permanent and temporary land acquisitions are necessary and proportionate, and in addition, the issue of compensation for loss of land and other issues such as the devaluation of property is a matter for arbitration.

3/3a Meadowview

14.12.20. The objector at this location has concerns regarding ownership, loss of parking, access during construction and boundary treatment. All these matters are generally addressed throughout the report.

14.12.21. With respect to ownership, the information was gathered as part of the NTA's Title Research and is set out in the CPO schedule. There is ample alternative parking throughout the CBC and access will be maintained during construction. Reinstatement of boundaries will be carried out on a like for like basis.

St. James's Hospital

14.12.22. The objector at this location has concerns regarding access and boundaries, which are generally addressed throughout the report. As noted, access will be maintained during construction and boundaries will be reinstated on a like for like basis.

United Tyres

- 14.12.23. It is submitted that 95% of the objector's businesses is operated from the front of the premises and the CPO will effectively close the business.
- 14.12.24. The NTA refer to the Notice to Treat procedure in the event that the CPO is confirmed, whereby the landowner will submit a claim for compensation. In this case, I am also satisfied that the proposed permanent and temporary land acquisitions are necessary and proportionate, and in addition, the issue of compensation for loss of land and other issues such as the devaluation of property is a matter for arbitration.

14.13. CPO Conclusions

- 14.13.1. I am satisfied that the process and procedures undertaken by the NTA in seeking confirmation of the CPO have been fair and reasonable, that the NTA has demonstrated the need for the lands and that all the lands being acquired are both necessary and suitable to facilitate the provision of the Liffey Valley to City Centre Core Bus Corridor Scheme.
- 14.13.2. Having regard to the constitutional and Convention protection afforded to property rights, I consider that the acquisition of lands and restriction/ interference with public rights of way, and the acquisition/ restriction of private rights of way as set out in the compulsory purchase order and on the deposited maps pursues, and is rationally connected to, a legitimate objective in the public interest, namely the development of the Liffey Valley to City Centre Core Bus Corridor scheme.
- 14.13.3. I am also satisfied that the acquiring authority has demonstrated that the means chosen to achieve that objective impair the property rights of affected landowners as little as possible; in this respect, I have considered alternative means of achieving the objective referred to in submissions to the Board, and am satisfied that the acquiring authority has established that none of the alternatives are such as to render the means chosen and the CPO made by the acquiring authority unreasonable or disproportionate.

14.13.4. The effects of the CPO on the rights of affected landowners are proportionate to the objective being pursued. I am further satisfied that the proposed acquisition of lands and restriction/ interference with public rights of way, and the acquisition/ restriction of private rights of way would be consistent with the policies and objectives of the South Dublin County Development Plan 2022-2028 and the Dublin City Development Plan 2022-2028. Accordingly, I am satisfied that that the confirmation of the CPO is clearly justified by the exigencies of the common good.

15.0 Overall Conclusion

- 15.1.1. There is a consistent message throughout all levels of policy that there must be a transition to a low carbon and climate resilient society. This requires a reduction in car dependency to contribute towards lower energy consumption, CO₂ levels and pollutant emissions. Sustainable mobility, compact growth and land use and transportation integration are essential for the creation of sustainable communities that minimise private car use, prioritise cycling, walking and public transport and promote the efficient use of land.
- 15.1.2. This message is reflected in the Climate Action Plan 2023, which sets out a hierarchical framework to achieve a net zero decarbonisation pathway for transport by prioritising actions to reduce or **avoid** the need to travel; **shift** to more environmentally friendly modes; and **improve** the energy efficiency of vehicle technology. Road space reallocation is a measure outlined under both 'avoid' and 'shift' which seeks to promote active travel and modal shift to public transport.
- 15.1.3. BusConnects is essentially a programme of road space reallocation, which seeks to rebalance the way our streets are used to provide better infrastructure for walking, cycling and public transport and to encourage these modes as attractive alternatives to car-based journeys. Roadway space is designed to facilitate improvements to the efficiency of the sustainable transport network with a focus on the movement of people rather than vehicles.
- 15.1.4. The Liffey Valley to City Centre Core Bus Corridor extends 9.2km through the west of Dublin city from the new Liffey Valley bus interchange facility at the shopping

centre through Ballyfermot, Inchicore, Kilmainham, James's Street, Thomas Street and onto High Street. The proposed scheme will provide 100% bus priority inbound and outbound, as well as segregated cycle tracks along 68% of the route. Footpaths and pedestrian crossing facilities will be improved throughout, and public realm enhancements are proposed at Ballyfermot roundabout, the obelisk junction on James's Street and at Cornmarket.

- 15.1.5. One of the most significant features to be introduced throughout the BusConnects network is the protected junction. This junction type provides kerb build-outs to protect cyclists travelling through the junction and the signal arrangement removes any uncontrolled conflict between pedestrians and cyclists. Cyclists can traverse the junction in any direction without leaving the cycle lane and left-turning motorists are forced into a wider turn so that the cyclist and motorist see each other at more of a right angle. Protected junctions will replace roundabouts at a number of locations, most notably at Kylemore Road/ Ballyfermot Road.
- 15.1.6. Notwithstanding the significant improvements that will be brought about by the proposed scheme, I reiterate that shortcomings in conditions for sustainable transport users at High Street, and along Emmet Road, Old Kilmainham, Mount Brown and onto James's Street exist, where cycle infrastructure in particular is substandard and incomplete. I have outlined that road space reallocation could have been increased through the removal of a traffic lane on High Street and a possible one-way system along Emmet Road, Old Kilmainham, Mount Brown and part of James's Street. This option, with opposing general traffic travelling along Inchicore Road, Kilmainham Lane and Bow Lane West, was not considered by the applicant as an alternative and would have resulted in additional space for segregated cycle infrastructure and public realm improvements. I believe that an opportunity has also been lost to redefine High Street as a pedestrian friendly historic gateway into the city centre aligned with significant heritage features.
- 15.1.7. Having regard to these factors, the Board may wish to consider seeking further information from the applicant to increase road space reallocation and to limit general traffic further. The fact that two-way general traffic has been retained along these sections of roadway, and throughout most of this core bus corridor, indicates

to me that the proposed scheme may have gone further to accentuate modal shift from the private car to bus transport/ active travel. Had the proposed scheme been designed at the present time, when climate change is becoming increasingly apparent, rather than a number of years ago, it may have been more radical in tackling car dominance.

- 15.1.8. The applicant may wish to consider revisiting the issues raised in my assessment regarding the layout at Emmet Street, Old Kilmainham, Mount Brown, James's Street and High Street after the proposed scheme is implemented and monitored. However, on balance, I have concluded that the overall benefits of the proposed scheme considerably outweigh the negatives. I am limited to assessing the designed scheme that is before me and I consider it acceptable from a sustainable transport perspective. Given the urgency of climate change, I have concluded that the proposed scheme as presented, together with the permitted higher density development along this corridor, will go a long way towards the promotion of compact growth and sustainable movement. There is also the argument that an improved sustainable transport corridor and public realm should be in place before the significant quantum of proposed/ permitted compact growth occurs along the core bus corridor. I have put forward the recommendation that a programme of traffic calming measures should instead be installed to slow traffic to the design speed and to improve pedestrian and cyclist safety along the sections where there are no dedicated cycle facilities.
- 15.1.9. My overall conclusion is that the application for the proposed scheme should be approved, and the CPO should be confirmed. I have assessed the impacts of the proposed scheme on properties aligning the route that will be most affected and my conclusion is that there is a community need that is to be met by the acquisition of the parcels of land in question; the parcels of land to be acquired are suitable and proportionate to meet that community need; alternative methods of meeting community need have been considered but are not demonstrably preferable; and works to be carried out accord with or at least are not in material contravention of the provisions of the statutory Development Plans.

16.0 Recommendation

16.1. I recommend that the application under Section 51(2) of the Roads Act, 1993 (as amended) for the Liffey Valley to City Centre Core Bus Corridor should be **approved** for the reasons and considerations as set out in Schedule 1 and consequently that the CPO is **confirmed** (Schedule 2).

Schedule 1

Reasons and Considerations

In coming to its decision, the Board had regard to the following:

a) EU legislation including in particular:

- The relevant provisions of **EU Directive 2014/52/EU** amending **Directive 2011/92/EU (EIA Directive)** on the assessment of the effects of certain public and private projects on the environment,
- **Directive 92/43/EEC (Habitats Directive) and Directive 79/409/EEC as amended by 2009/147/EC (Birds Directives)** which set out the requirements for Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union.

b) National Policy and Guidance including in particular:

- **Project Ireland 2040 encompassing the National Planning Framework and the National Development Plan.**
- **Climate Action Plan, 2023**
- **The Design Manual for Urban Roads and Streets, 2019.**

c) Regional Policy including in particular:

- **The Transport Strategy for the Greater Dublin Area 2022-2042.**
- **Eastern & Midlands Regional Spatial & Economic Strategy, 2019-2031.**

d) Local Planning Policy including in particular:

- **The Dublin City Development Plan 2022-2028**
- **The South Dublin County Development Plan 2022-2028**

e) Other relevant guidance documents

f) The following matters:

- the nature, scale and design of the proposed works as set out in the application for approval and the pattern of development in the vicinity,
- the documentation and submissions of the National Transport Authority (applicant), including the environmental impact assessment report and associated documentation submitted with the application, and the range of mitigation and monitoring measures proposed,
- the submissions and observations made to An Bord Pleanála in connection with the application,
- the likely consequences for the environment and the proper planning and sustainable development of the area in which it is proposed to carry out the proposed development and the likely significant effects of the proposed development on European sites, and
- the report and recommendation of the inspector including the examination, analysis and evaluation undertaken in relation to appropriate assessment and environmental impact assessment.

Proper Planning and Sustainable Development

It is considered that the proposed development would accord with European, national, regional and local planning and that it is acceptable in respect of its likely effects on the environment and its likely consequences for the proper planning and sustainable development of the area.

Appropriate Assessment

The Board agreed with and adopted the screening assessment and conclusion carried out in the inspector's report that the North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Ireland's Eye SPA, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Dalkey Islands SPA, The Murrough SPA, North West Irish Sea cSPA, Rockabill to Dalkey Island SAC and Lambay Island SAC are the European sites for which there is a likelihood of significant effects.

The Board considered the Natura Impact Statement and all other relevant submissions and carried out an appropriate assessment of the implications of the proposal for the North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Ireland's Eye SPA, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Dalkey Islands SPA, The Murrough SPA, North West Irish Sea cSPA, Rockabill to Dalkey Island SAC and Lambay Island SAC, in view of the Sites' Conservation Objectives. The Board considered that the information before it was adequate to allow the carrying out of an appropriate assessment.

In completing the assessment, the Board considered, in particular, the likely direct and indirect impacts arising from the proposal both individually or in combination with other plans or projects, specifically upon the North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Ireland's Eye SPA, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Dalkey Islands SPA, The Murrough SPA, North West Irish Sea cSPA, Rockabill to Dalkey Island SAC and Lambay Island SAC

- i. Mitigation measures which are included as part of the current proposal,
- ii. Conservation Objective for these European Sites, and
- iii. Views of prescribed bodies in this regard.

In completing the appropriate assessment, the Board accepted and adopted the appropriate assessment carried out in the Inspector's report in respect of the potential effects of the proposed development on the integrity of the aforementioned European Sites, having regard to the sites' conservation objectives.

In overall conclusion, the Board was satisfied that the proposed development, by itself or in combination with other plans or projects, would not adversely affect the integrity of the European Sites, in view of the sites' conservation objectives.

Environment Impact Assessment

The Board completed an environmental impact assessment of the proposed development, taking into account:

- the nature, scale, location, and extent of the proposed development;
- the Environmental Impact Assessment Report and associated documentation submitted with the application;
- the submissions received during the course of the application;
- the Inspector's report;

The Board considered that the Environmental Impact Assessment Report, supported by the documentation submitted by the applicant, adequately considers alternatives to the proposed development and identifies and describes adequately the direct, indirect, secondary and cumulative effects of the proposed development on the environment. The Board agreed with the examination, set out in the Inspector's report, of the information contained in the Environmental Impact Assessment Report and associated documentation submitted by the applicant and submissions made in the course of the planning application.

Reasoned Conclusion of the Significant Effects

The Board considered that the Environmental Impact Assessment Report, supported by the documentation submitted by the applicant during the course of the application, provided information which is reasonable and sufficient to allow the Board to reach a reasoned conclusion on the significant effects of the proposed development on the

environment, taking into account current knowledge and methods of assessment. The Board is satisfied that the information contained in the Environmental Impact Assessment Report is up to date and complies with the provisions of EU Directive 2014/52/EU amending Directive 2011/92/EU. The Board considered that the main significant direct and indirect effects of the proposed development on the environment are those arising from the impacts listed below.

Positive long term impacts on **population and human health** through facilitation of improved access and provision of enabling infrastructure for development of new residential communities.

- Positive long term impacts on **population and human health** through facilitation of improved pedestrian and cyclist safety, faster and more reliable bus services, reduced traffic congestion, improved air quality and noise reduction, improved road/ street safety, more social interaction and positive accessibility and amenity impacts for community areas.
- Adverse short-term impacts on **population and human health** from the construction phase in terms of access restrictions, noise, vibration, dust, contaminated material, traffic and visual impact. This will be adequately mitigated through compliance with the CEMP and measures outlined in the Land, Soils, Water, Air and Climate and Material Assets sections of the EIAR.
- Adverse long-term impacts on **population and human health** from the temporary and permanent acquisition of land. This will be adequately mitigated through provision of new accesses, replacement boundaries and monetary compensation.
- Adverse impacts on **biodiversity** from unavoidable removal of habitat. Vegetation removal will be compensated by additional planting to include 354 street trees and 220m of hedgerow, which will provide new nesting habitat for birds. Mitigation measures will be implemented for two trees that contain possible roost features for bats.
- Potential adverse impacts on **biodiversity** from the spread of invasive species during construction. This will be adequately mitigated through implementation of an Invasive Species Management Plan.

- Potential adverse impacts on **land, soils, geology and hydrogeology** from loss or damage of topsoil, excavation of potentially contaminated ground and contamination of parts of an aquifer during the construction phase. These impacts will be adequately mitigated through compliance with the CEMP.
- Potential for **water** quality impacts from surface water runoff during construction containing fine sediments, accidental spillages/ leakages and disruption of local drainage networks. Adequate mitigation measures for surface water management are contained within the CEMP.
- Potential for impacts to **air quality** from dust and noise emissions from construction works. These will be minimised with implementation of appropriate mitigation measures.
- Potential for positive long term impacts on **climate** through removal of approximately 15,700 and 15,100 car trips per weekday from the road network in 2028 and 2043 respectively and associated reduction in CO2 emissions.
- Positive impacts on **traffic and transport** by maximising the capacity of the proposed scheme to move more people by sustainable modes, whilst also providing for necessary general traffic.
- Potential adverse impacts on **cultural heritage** due to construction works impacting on underlying archaeology and on the Thomas Street Architectural Conservation Area. Mitigation measures will be put in place to protect/ record/ monitor underlying archaeology and adjoining heritage features.
- Positive impacts on **landscape (townscape)** from the creation of a high quality pedestrianised areas at Cornmarket, Ballyfermot Retail Centre, the Ballyfermot roundabout, Grattan Crescent, the James St/ Bow Lane West junction (Obelisk Fountain), together with wider footpaths, new surfaces, planting, reduced car parking, narrower carriageways, lower vehicle speeds and an overall reduction of traffic dominance.

Having regard to the above, the Board is satisfied that the proposed development would not have any unacceptable direct or indirect effects on the environment. The Board is satisfied that the reasoned conclusion is up to date at the time of making

the decision and that the information contained in the EIAR complies with the provisions of Article 3, 5 and Annex (IV) of EU Directive 2014/52/EU.

Conditions

1. The proposed development shall be carried out and completed in accordance with the plans and particulars lodged with the application, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the proposed development shall be carried out in accordance with the agreed particulars.

Reason: In the interest of clarity and the proper planning and sustainable development of the area and to ensure the protection of the environment.

2. The mitigation and monitoring measures outlined in the plans and particulars relating to the proposed development, including those set out in Natura Impact Statement and Environmental Impact Assessment Report, shall be implemented in full or as may be required in order to comply with the following conditions. Prior to the commencement of development, details of a time schedule for implementation of mitigation measures and associated monitoring shall be prepared by submitted to the planning authorities for written agreement.

Reason: In the interest of protecting the environment, the protection of European Sites and in the interest of public health.

3. The proposed development shall be amended as follows:
 - (a) A detailed traffic calming and public realm improvement strategy for the sections of the proposed scheme without dedicated cycle tracks/ lanes (Sarsfield Road to James's Street) appropriate for a maximum speed limit of 30kph/ 50kph shall be designed and implemented throughout.

- (b) A Street Design Audit of the traffic calming and public realm improvement works shall then be carried out in accordance with DMURS Advice Note 4.
- (c) Traffic calming and public realm improvement works shall be carried out, as necessary, in accordance with the NTA document “Rapid Build Active Travel Facilities” (February 2023).
- (d) All junctions shall be designed in accordance with the detailed standards set out in DMURS, including the access to the New Children’s Hospital from Mount Brown.
- (e) Pinch points shall be in line with the road user hierarchy as designated within DMURS, i.e., the width of the general traffic lanes should reduce first, then the width of the cycle track should be reduced before the width of the pedestrian footpath is reduced. Footpaths and cycle lanes shall not be reduced below 2m where there is scope to reduce the adjoining general traffic lane to 2.75m.
- (f) All cycle tracks shall have a minimum width of 1.5m excluding kerb width.
- (g) The junction of South Circular Road/ Emmet Road and Old Kilmainham shall be redesigned with improved crossing facilities for cyclists. Advanced cycle stop lines are not permitted at this location.
- (h) Signalised bus priority shall be implemented for right turning buses from Con Colbert Road onto Sarsfield Road.
- (i) Flashing LED strips and/ or “elephant’s feet” road markings shall be installed at all protected junctions as additional warning for left turning motorists.
- (j) Existing cycle racks on Emmet Road shall be retained at the same or a proximate location. Finalised cycle parking racks/ stands throughout the proposed scheme shall be agreed in writing with the Planning Authorities prior to commencement of development.

Revised drawings showing compliance with these requirements shall be submitted to the planning authorities for written agreement before commencement of development.

Reason: In the interests of bus priority and pedestrian and cyclist safety and convenience.

4. Proposed kerb height differentials between footpaths, cycle tracks and bus lanes shall be retained in perpetuity.

Reason: In the interest of maintaining the proper functionality of the scheme.

5. Prior to commencement of development, the applicant shall submit a loading and servicing strategy for businesses and traders located along the Thomas Street and James's Street section of the core bus corridor for the written agreement of the planning authority.

Reason: In the interest of maintaining the proper functionality of the scheme.

6. Prior to commencement of development, the applicant shall agree in writing with the planning authorities the design and layout of pedestrian crossing facilities over cycle tracks at island bus stops on a on a case-by-case basis in accordance with the new Cycle Design Manual, (September 2023).

Reason: In the interests of pedestrian and cyclist safety and convenience.

7. Prior to the commencement of development, the developer, and/or any agent acting on its behalf, shall prepare in consultation with the relevant statutory agencies, a Construction Environmental Management Plan (CEMP), incorporating all mitigation measures indicated in the Natura Impact Statement and Environmental Impact Assessment Report and a demonstration of proposals to adhere to best practice and protocols.

Reason: In the interest of protecting the environment, the landscape, European Sites, and sensitive receptors and in the interest of public health.

8. Prior to the commencement of development, details of measures to protect fisheries and water quality of the river systems shall be outlined and placed on file. Full regard shall be had to Inland Fisheries Ireland's published

guidelines for construction works near waterways (Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters, 2016).

A programme of water quality monitoring shall be prepared in consultation with the contractor, the local authority and relevant statutory agencies and the programme shall be implemented thereafter.

Reason: In the interest of the protecting of receiving water quality, fisheries and aquatic habitats

9. The construction of the development shall be managed in accordance with a Construction Management Plan, which shall be agreed in writing with the planning authorities. This plan shall provide details of intended construction practices for the development, including:

- (a) Location of the site and materials compound(s) including area(s) identified for the storage of construction refuse;
- (b) Location of areas for construction site offices and staff facilities;
- (c) Details of lighting, site security fencing and hoardings;
- (d) Details of the timing and routing of construction traffic to and from the construction site;
- (e) Measures to prevent the spillage or deposit of clay, rubble or other debris on the public road network;
- (f) Alternative arrangements to be put in place for pedestrians, cyclists and vehicles in the case of the closure of any public road or footpath during the course of site development works;
- (g) Details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels;
- (h) Containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained.
- (i) Off-site disposal of construction/demolition waste and details of how it is proposed to manage excavated soil;

- (j) Means to ensure that surface water run-off is controlled such that no silt or other pollutants enter local surface water sewers or drains.
- (k) Consultation with the respective Regional Waste Management Planning Office regarding development of the final plans.

A record of daily checks that the works are being undertaken in accordance with the Construction Management Plan shall be kept for inspection by the planning authority.

Reason: In the interest of amenities, public health and safety.

- 10. The developer and/or any agent acting on its behalf shall ensure that all plant and machinery used during the works should be thoroughly cleaned and washed before delivery to the site to prevent the spread of hazardous invasive species and pathogens.

Reason: To ensure the protection of the local environment and European sites.

- 11. Water supply and drainage arrangements, including the attenuation and disposal of surface water, shall comply with the requirements of the planning authority for such works in respect of both the construction and operation phases of the proposed development.

Reason: In the interest of environmental protection and public health.

- 12. A suitably qualified ecologist shall be retained by the local authority to oversee the site set up and construction of the proposed development and implementation of mitigation measures relating to ecology set out in Natura Impact Statement and Environmental Impact Assessment Report. The ecologist shall be present during site construction works. Upon completion of works, an ecological report of the site works shall be prepared by the appointed ecologist and agreed in writing with the planning authority.

Reason: In the interest of nature conservation and the protection of terrestrial and aquatic biodiversity.

13. Prior to the commencement of development at each section of the proposed works, pre-construction surveys shall be carried out to determine the presence of protected mammal, bird or bat species.

Reason: In the interest of environmental protection.

14. Trees to be felled shall be examined prior to felling and demolition to determine the presence of bat roosts. Any clearance works shall be in accordance with the TII Guidelines for the Treatment of Bats during the construction of National Road Schemes.

Reason: In the interest of wildlife protection.

15. No ground clearance shall be undertaken and no vegetation shall be cleared during the bird breeding season, unless otherwise agreed with the planning authorities.

Reason: In the interest of wildlife protection.

16. Prior to the commencement of development, the development and/or any agent acting on its behalf shall submit an Invasive Species Management Plan to the local authority, which includes details of a pre- construction survey to be carried out. The plan shall include full details of the eradication of such invasive species from the development site prior to construction or if discovered during construction as soon as is practicably possible.

Reason: In the interest of nature conservation and mitigating ecological damage associated with the development.

17. All works at or near protected structures, and other structures of cultural, historic or architectural heritage interest shall be monitored and recorded by an Architectural Heritage Specialist during the course of construction works. Re-instatement Method Statements and the final design of bus stops within Architectural Conservation Areas shall be submitted to the planning authorities for written agreement.

Reason: In order to protect the architectural heritage of the corridor and immediate surroundings.

18. The developer and/or any agent acting on its behalf shall facilitate the preservation, recording, protection or removal of archaeological materials or features that may exist within the site. A suitably qualified archaeologist shall be appointed by the local authority to oversee the site set-up and construction of the proposed development and the archaeologist shall be present on site during construction works. Should archaeological material be found, the archaeologist may have work stopped and the developer shall carry out the necessary mitigation/ recording. The Planning Authority and Department shall be furnished with a report describing results of monitoring.

Reason: In order to conserve the archaeological heritage of the site and to secure the preservation and protection of any remains that may exist within the site.

19. Prior to commencement of development, a comprehensive agreement shall be put in place and agreed in writing between the NTA and the local authorities on the procedures for the handing over and handing back of the core bus corridor and taking in charge arrangements.

Reason: In the interests of orderly development.

Schedule 2

Decision

Confirm the Compulsory Purchase Order without modification, based on the reasons and considerations set out below:

Reasons and Consideration

Having considered the objections made to the Compulsory Purchase Order, the report and recommendation of the Inspector, the purpose for which the lands are to be acquired as set out in the Compulsory Purchase Order, which is the development of the Liffey Valley to City Centre Core Bus Corridor scheme, and having regard to the following:

- (a) The constitutional and Convention protection afforded to property rights,
- (b) The substandard infrastructure for bus users and active transport provided for along the existing route,
- (c) The strategic nature of the scheme in the context of reducing carbon emissions and climate change,
- (d) The community need, and public interest served and overall benefits, including benefits to a range of road users to be achieved from use of the acquired lands,
- (e) The design response, which has been appropriately tailored to the identified need,
- (f) The suitability of the lands and the necessity of their acquisition to facilitate the provision of the Liffey Valley to City Centre Core Bus Corridor scheme,
- (g) The provisions of the Dublin City Development Plan 2022-2028 and the South Dublin County Development Plan 2022-2028,
- (h) The submissions made to the Board, and

It is considered that, the acquisition by the NTA of the lands in question, the restriction/ interference with public rights of way, and the acquisition/ restriction of

private rights of way, on a temporary and permeant basis as set out in the compulsory purchase order and on the deposited maps, are necessary for the purpose stated, which is a legitimate objective being pursued in the public interest, and that the CPO and its effects on the property rights of affected landowners are proportionate to that objective and justified by the exigencies of the common good.

In reaching this conclusion, the Board agrees with and adopts the analysis contained in the Inspector's report into the objections.

Donal Donnelly

Senior Planning Inspector

16th November 2023