Inspector's Report

ABP-317679-23

Development	Ringsend to City Centre Core Bus Corridor Scheme.
Location	Ringsend to City Centre, Co. Dublin.
Planning Authority	Dublin City Council North
Applicant(s)	National Transport Authority
Type of Application	Application under Section 51 (2) of the Roads Act 1993 as amended
Observer(s)	Refer to Appendix 1
Prescribed Bodies	Transport Infrastructure Ireland Dublin City Council Department of Housing, Local Government & Heritage
Date of Site Inspections	18th January & 12th March 2024
Inspector	Liam Bowe

Contents

1.0 **Introduction**

1.1. The National Transport Authority has submitted an application to the Board under Section 51 (2) of the Roads Act 1993 as amended. This report sets out an assessment of the application submitted by the National Transport Authority for the development of a sustainable transport scheme which provides for both cycle and bus priority measures over a distance of 4.3km along North Wall Quay, Custom House Quay, City Quay and Sir John Rogerson's Quay. A new public transportation opening bridge (DPTOB) is proposed over the River Dodder (200m long crossing) at its confluence with the River Liffey, which will link the city centre with the Docklands and an onward cycling connection to Ringsend and Irishtown. Works to a number of additional residential roads are included in the proposal to provide a cycle route through Ringsend and Irishtown to Sean Moore Road and these are detailed below.

1.2. The Proposed Scheme is 1 of 12 no. bus corridor schemes within the Dublin area under the Bus Connects programme. This application is accompanied by a Compulsory Purchase Order reference ABP 317735-23. The objectives of the schemes are to:

- Enhance the capacity and potential of the public transport system by improving bus speeds, reliability and punctuality.
- Enhance the potential for cycling by providing safe infrastructure, segregated from general traffic wherever practicable.
- Support the delivery of an efficient, low carbon and climate resilient public transport service, supporting the achievement of Ireland's emission reduction targets.
- Enable compact growth, regeneration opportunities and more effective use of land in Dublin.
- Improve accessibility to jobs, education, and other social and economic opportunities; and
- Ensure that the public realm is carefully considered in the design and development of the transport infrastructure and seek to enhance key urban focal points where appropriate and feasible.

1.3. Pre-application discussions were undertaken by the applicant with the Board in accordance with Section 51A of the Roads Act 1993 as amended, which provides for consultations with An Bord Pleanála before making an application under Section 51. Four Consultation Meetings were held on 21st April 2021, 20th May 2021, 10th June 2021, and 29th June 2021. A determination in relation to whether the project is strategic infrastructure or not is not required under this Act. The pre-application discussions were closed on 12th August 2021.

1.4. The Application is accompanied by an EIAR and a NIS. No Oral Hearing was held in relation to the application as per the Boards Direction dated 6th March 2024.

2.0 Site Location and Description

2.1. The Proposed Scheme submitted under this application will comprise the construction of the Ringsend to City Centre Bus Corridor and has an overall length of approximately 4.3km. The Ringsend to City Centre Core Bus Corridor Scheme is routed along both sides of the River Liffey on Custom House Quay and North Wall Quay on the north side, and on City Quay, Sir John Rogerson's Quay, and Britain Quay on the south side. At the south-eastern end of the River Liffey corridor the Proposed Scheme includes a new public transport opening bridge (DPTOB) over the mouth of the River Dodder from Britain Quay to the East Link Road at Ringsend. A cycle route will continue from the East Link at, Ringsend, via York Road, Pembroke Cottages and Cambridge Park, then through Ringsend Park and along Strand Street and Pembroke Street in Irishtown, terminating at Seán Moore Road.

2.2. The Proposed Scheme commences at the northern end of Tom Clarke/ East Link Bridge and runs west along the North Wall Quay past, and with the option to turn south onto, Samuel Beckett Bridge. It then continues on North Wall Quay and along Custom House Quay to Talbot Memorial Bridge where it continues in a westerly direction beyond the area of the Proposed Scheme or turns south onto Talbot Memorial Bridge and the south quays. There are two sets of historic Scherzer Bridges within this part of the scheme area at George's Dock and the Royal Canal. The Scherzer bridges were built in 1912 to allow water-based traffic to access the Royal Canal and Spencer Docks whilst only delaying road-based traffic for 4 ½ minutes. They are no longer operational due the removal of their diesel engines.

2.3. At the southern end of the Tom Clarke/ East Link Bridge the route travels west via a new public transport bridge over the River Dodder to connect with Britain Quay. The route continues west along Sir John Rogerson's Quay to Samuel Beckett Bridge where the bus corridor can either turn north onto the bridge or continue further west along Sir John Rogerson's Quay. The route then continues west to Talbot Memorial Bridge. At this point, only cyclists and pedestrians can turn north onto Talbot Memorial Bridge with bus journeys continuing west along the quays beyond the area of the Proposed Scheme.

2.4. The eastern part of the Proposed Scheme beyond the proposed public transport bridge within the Ringsend and Irishtown areas is generally focussed on the provision of enhanced, safe cycling infrastructure. This takes the form of a quiet cycle route shared with local traffic from the proposed public transport bridge along York Road and Pigeon House Road to its junction with Seán Moore Road. Similarly, a quiet cycle route is proposed southwards via Pembroke Cottages, Cambridge Road and Cambridge Park. This cycle route then travels through Ringsend Park and continues along a segregated path on Pembroke Street, past its junction with Seán Moore Road to tie into the East Coast Trail. A spur is also provided upon exiting Ringsend Park around the southern perimeter of Irishtown Stadium to link with Bremen Road/ Bremen Avenue. All these roads/ streets/ parks are within the Dublin City Council administrative area.

2.5. The major junctions along the route are as follows:

- R801 Custom House Quay/ R802 Memorial Road/ R802 Talbot Memorial Bridge junction,
- R801 North Wall Quay/ Guild Street/ Samuel Beckett Bridge,
- R105 George's Quay/ R802 Talbot Memorial Bridge/ R813 City Quay/ R802 Moss Street,
- R813 City Quay/ R814 Lombard Street East,
- R813 Sir John Rogerson's Quay/ Samuel Beckett Bridge,
- R813 Sir John Rogerson's Quay/ Sir John Rogerson's Quay/ R183 Cardiff Lane, and

- York Road/ Cambridge Road/ Pigeon House Road.

3.0 **Proposed Development**

3.1. The Proposed Scheme submitted under this application will comprise the construction of the Ringsend to City Centre Bus Corridor which has an overall length of approximately 4.3km (2 x 1.6km along the River Liffey Quays and 1.1km of cycle route through Ringsend and Irishtown to Seán Moore Road) and is routed along the north and south quays of the River Liffey, linking the city centre with the Docklands and an onward cycling connection to Ringsend and Irishtown.

3.2. Key improvements include:

- The number of pedestrian signal crossings will increase by approximately 100% as a result of the Proposed Scheme,
- The proportion of segregated cycle facilities will increase from 58% on the existing corridor to 100% on the Proposed Scheme, and
- The proportion of the route having bus priority measures will increase from 38% on the existing corridor to 89% on the Proposed Scheme.

3.3. Specific works proposed within the development include the following:

- 89% of route with bus priority measures and traffic management.
- 8.6km (total both directions) of cycling infrastructure and facilities.
- Provision of new/ refurbished pedestrian facilities, and footpaths along the scheme and associated ancillary works.
- Provision of a new public transportation opening bridge (DPTOB) over the River Dodder (200m long crossing) at its confluence with the River Liffey.
- Provision of a new two-storey building structure to the west of the DPTOB, adjacent to the River Liffey, to accommodate the relocation of the St. Patrick's Rowing Club and the control room for the DPTOB.
- Provision of new club house and facilities for St. Patrick's Rowing Club.
- Provision of an enhanced 6m wide pedestrian boardwalk at Custom House Quay
- Provision of another boardwalk to the rear of two restaurant buildings on the Campshire at the junction of Excise Walk and R801 North Wall Quay.

- Relocation and renovation of the twin historic George's Dock Scherzer Bridges to each side of the CBC with a wider replacement concrete road bridge for 2 bus lanes and 2 traffic lanes.
- Provision of junction upgrades and associated ancillary works.
- Reconfiguration of existing bus stops resulting in the provision of 20 bus stops within Section 1 (Talbot Memorial Bridge to Tom Clarke East Link Bridge) of the Proposed Scheme (6 no. new and 1 no. relocated).
- Public Realm works including landscaping, planting, street furniture, street lighting, retaining walls, boundary walls, and sustainable urban drainage measures,
- Roads associated earthworks including excavation of material, importation of material, temporary storage of materials.
- Provision of road pavement, signing, lining and ancillary works.
- Construction of accommodation works including boundary treatment and ancillary grading and landscaping works together with all ancillary and consequential works associated there with.

3.4. The Construction Phase for the Proposed Scheme is anticipated to take approximately 30 months to complete. It will be constructed based on individual sectional completions that will individually have shorter durations typically ranging between 9 to 30 months. Various amounts of third-party lands will be required to be compulsorily acquired along the entirety of the route to facilitate the proposed development.

4.0 **Submissions**

4.1. **Prescribed Bodies**

4.1.1. Submissions have been received from 3 no. prescribed bodies which are summarised hereunder. Submissions are generally in support of the proposed development, but a number of issues are raised in relation to the EIAR and NIS submitted. General comments are made in respect of works relating to the safe and efficient operation of the Luas, the safe guarding of Protected Structures and Monuments, and the protection of the River Liffey.

1. Transport Infrastructure Ireland (TII)

- TII acknowledges and supports the BusConnects Project's key part of the Government's policy to improve public transport and address climate change in Dublin and other cities across Ireland.
- TII's submission seeks to address the safety, capacity and strategic function of the national road network and existing Luas.

Summary of potential interaction with the Proposed Scheme

- TII observes that the Proposed Scheme will interact with the light rail network at a single location immediately north of the National Convention Centre on Mayor Street Upper.
- TII consider that it appears that increased traffic movements across the Luas alignment will occur at this part of the Scheme as a result of the new vehicular eastbound lane proposed to be installed on the northern side of Mayor Street Upper and that this will interfere with the efficiency of the Luas service due to degraded signal priority and with the safety of the service due to an increase in conflicting movements.
- TII contend that the rationale for the need for the proposed works/ alterations on Mayor Stret Upper is not set out in the EIAR.
- TII are unable to ascertain the impact of the proposed works on the Mayor Street Upper section of the Luas line from the information submitted.
- TII requests that the proposed works on Mayor Street Upper be excluded from the Proposed Scheme.

2. Dublin City Council (DCC)

- DCC state that the Proposed Scheme is supported by the RSES, Dublin City Development Plan 2022-2028, the North Lotts & Grand Canal SDZ, and the Poolbeg West SDZ.
- DCC consider the proposals to be compatible and consistent with the zoning objectives for the area.
- State that the provision of the Dodder Public Transport Bridge is crucial infrastructure to connect the Poolbeg Peninsula to the city centre and to support development in the area under the Poolbeg West SDZ.

- Includes some specific suggestions for cycle lanes, pedestrian crossings and a road upgrade.
- Requests that a detailed drainage design be agreed with DCC prior to commencement.
- States that pluvial flood risk should be assessed at all locations along the route and that the NTA demonstrate that the proposed development passes the three stages of the SFRA Justification Test.
- States that the project needs to support and be consistent with the 3rd Cycle River Basin Management Plan.
- Request the NTA to liaise with DCC regarding a number of planned flood defence projects along the route.
- A suite of recommended planning conditions is included in Appendix 1 of the submission.

Archaeology Section

- Contend that the Proposed Scheme will have a significant negative impact on the two pairs of Scherzer Rolling Lift Bridges (RPS No.'s 896 and 912) on the North Quays through the loss of original fabric, form, and setting of the structures.
- Notes the EIAR assessment of the impact of the Proposed Scheme on the Scherzer Bridges as 'Negative, Significant and Permanent impact' but does not support the stated post-mitigation impact as being reduced to 'No significant impact'. Highlights that the heritage advice may have been sought/ given after the decision to provide four lanes along the quays.
- Requests the NTA to carry detailed research into revised design options to allow the bridges to remain in situ.
- Comments about the impact of the scheme on the artwork *Free Flow*, although does state that cultural assets are outside the remit of the Archaeology Section.

Conservation Section

- Finds that a thorough study of the receiving environment has been carried out in the EIAR.
- Highly concerned about the negative impact that the development will have on the heart of Dublin's docklands.

- States that the moving of an industrial heritage structure from its original context obliterates the legibility of its intended function and reduces it in significance to no more than visually pleasing furniture i.e., the dismantling and relocation of the two pairs of historic Scherzer Bridges and consequent changes to the quay walls.
- Concerned about the interventions to the quay wall to accommodate a new bridge over the River Dodder (removal of 19m of quay wall) and the removal of a section of the sea wall at St. Patrick's Rowing Club to accommodate the tying in of the existing and proposed cycle and foot paths.
- Highlights that the proposed route will pass through three designated Conservation Areas, namely Liffey Quays, Royal Canal and Grand Canal & Dodder.
- Request that the DPTOB (new bridge) design be enduring and of exceptional quality to ensure that it enhances the Grand Canal & Dodder Conservation Area setting rather than detracting from it.
- Request that where cycle lanes are located in close proximity to protected structures and within Conservation Areas an alternative high quality cycle lane surface is provided in-lieu of red tarmacadam.
- Recommends that a conservation professional be engaged to provide suitable mitigation measures for protected structures/ architectural heritage when the construction compounds are being established.

<u>City Architects Division</u>

- 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.
- Contends that the design needs to be supported by pedestrian counts to ensure that footpaths are of sufficient width to safely accommodate anticipated pedestrian volumes.
- States that all historic fabric and features should be retained and protected.
- States that the inclusion of an overlay of existing survey drawings onto the General Arrangement Drawings would have facilitated a better assessment of the impacts of the proposals.

- Notes the limited information on public realm improvements at a number of locations along the quays and seeks detailed drawings and specifications.
- Seeks clarification as to whether acquired land will be transferred to the local authority.
- Seeks full details of the design of each bus shelter and the siting of utility cabinets/ above-ground utility infrastructure.
- Requests the NTA to engage with electrical charging operators to co-ordinate the roll-out of on-street charging points.
- Wants the extent of hard landscaping to be retained to be agreed in writing with the planning authority.
- Requests that all street furniture and boundary finishes be agreed in writing with the planning authority.
- Seeks confirmation that the original lifting systems for the Scherzer bridges will be maintained intact and that the historic edges of the lifting bridge are maintained or represented by a change in paving material.
- Request a reasoning as to why the Scherzer Bridges at the North Wall Quay/ Royal Canal are to be re-orientated in addition to being relocated.
- Request Conservation Impact statements and Conservation Method statements for the proposed works to the Liffey Quay walls associated with the new pedestrian boardwalks at North Wall Quay and Custom House Quay.
- Seeks details regarding selection and location of artworks along the route under the Percent for Art Strategy.
- Seeks details about traffic signal poles, signage poles and water drinking fountains along the route.
- Seeks clarity about the provision of gantry signage as it is stated in Chapter 4 of the EIAR that no signage will be included in the Proposed Scheme but indicated to be proposed in Volume 3 of the EIAR.
- Requests information on how the Proposed Scheme will interact with other planned infrastructure projects in the vicinity.
- Requests that the design of St. Patricks Rowing Club House building be reviewed to reflect its landmark location and that details of finishes be agreed in writing with the planning authority.

City Parks, Biodiversity & Landscape Division

- Parks are not supportive of the proposal to provide a route through Ringsend Park for commuting cyclists.
- State that the current width of the path (2.3m) would be insufficient for a shared scheme and that the construction of an extra wide combined footpath/ cycle path would likely cause damage to the roots of trees that line the existing path.
- Similarly, the proposed two lane cycle track along Strand Street, Bayview and Beach Road will result in damage to the root zone of existing trees. Suggest that cyclists use the adjacent quiet streets.
- Highlight lack of detail for the proposals on the plans submitted.
- Request that an Arborist and Landscape Architect be retained on-site for the duration of the works.
- Recommend that a Tree Bond be in place for each retained tree.

3. Department of Housing, Local Government & Heritage (DAU)

- The Department has reviewed the EIAR and is broadly in agreement with the findings in relation to Archaeology and Cultural Heritage and recommend a standard condition to be attached to any permission issued.
- The Department's main concern from a nature conservation perspective is the potential adverse effects the proposed development may have on otter during its construction and operational phases, and particularly on otter movements between the Liffey Estuary and Royal and Grand Canals.
- Suggests mitigation measures to be incorporated into an Otter Conservation Plan and a biodiversity enhancement measure by the provision of black guillemot nest boxes (10 no.) as conditions to be attached to any grant of planning permission.

4.2. **NTA Response to Prescribed Bodies**

4.2.1. Response to issues raised by TII

- State that the traffic interactions with the LUAS trams will occur at two existing signalised junctions, at the Convention Centre Car Park Entrance and at Park Lane, which ensures full safety with priority for the LUAS.
- Confirm that the proposed traffic turning restrictions at the major junction of Guild Street, North Wall Quay, and Samuel Beckett Bridge, including a ban of all left-turns apart from northbound, are described in the EIAR and that an assessment of each junction affected by the Proposed Scheme was carried out. Lists the impact at the junction of Mayor Street Upper and Park Lane as Negligible and Not Significant.
- Consider it inappropriate to omit the proposed eastbound traffic lane on Mayor Street from the Proposed Scheme as it is essential to the proposed improvements for pedestrians, cyclists and public transport at the major junction of Guild Street, North Wall Quay, and Samuel Beckett Bridge.

4.2.2. Response to issues raised by DCC

- Acknowledge DCC's support of the Proposed Scheme and the proposed improvements to public transport in support of the shift to sustainable mobility.

Roads Division

- State that the existing road layout along the Ringsend Scheme is unusual compared to most other main routes in Dublin in that the footpaths are already quite wide, with generous space available in particular along the campshires of the River Liffey.
- State that it is also proposed to provide new boardwalk structures cantilevered over the River Liffey at the Docklands Building opposite the CHQ Building on Custom House Quay, and at two pavilion restaurant buildings on North Wall Quay opposite Excise Walk to create a 6m wide pedestrian route along the river edge behind these buildings.

- State that segregation between cyclists and pedestrians is provided to the greatest degree possible as almost all crossing points have traffic signals to enable pedestrians to cross the cycle tracks while cyclists are stopped.
- State that at the southern end of the Samuel Beckett Bridge where there is a spatial constraint the footpath and cycle track area immediately east of the Samuel Beckett Bridge on the campshire of Sir John Rogerson's Quay will be widened substantially by moving the kerb 2m into the road. Contend that this will greatly increase the space available for both pedestrians and cyclists and will improve the effective segregation between the two user groups at this busy location.
- Acknowledge that 9 of 27 loading bays are proposed to be removed on the North Quays but state that the removal of these loading spaces is necessary to enable continuous bus lane priority to be provided towards the eastern end of the route where bus lanes are not present and state that there are alternatives available on the adjoining side streets.
- Confirm their awareness of the long-planned proposal by Dublin City Council for replacement of the Point Roundabout with a traffic signal junction, and state that the design of that separate scheme was not sufficiently defined to be included on the Proposed Scheme drawings.
- Reiterate that no change is proposed to the corner of North Wall Quay and North Wall Avenue.
- State that there is no existing southbound cycle lane at on the west side of the R802 Memorial Road approaching the Talbot Memorial Bridge.
- Contend that in the absence of a design for the Liffey Cycle Scheme on George's Quay it would be premature for the Ringsend CBC Scheme to provide an additional pedestrian crossing at the southern end of Talbot Memorial Bridge.
- State that the pedestrian crossing locations at Lombard Street East are pulled away from the centre of the junction slightly to allow space for separation of turning cyclists from straight-ahead cyclist movements and that this also makes the pedestrian crossing distances slightly shorter.

- State that the Proposed Scheme will resolve the problem of long dwell times for coaches stopping on the North Quays as passengers disembark and unload baggage through provision of layby coach stops so that other bus lane users are not impeded.
- State that the mini roundabout at the York Road/ Cambridge Road/ Pigeon House Road junction is an appropriate form of junction control on a quiet street route that slows traffic suitably for cyclists to share the road with traffic.
- State that a pair of zebra crossings at the Junction of Cambridge Road and Pembroke Cottages is a controlled crossing, and that a zebra crossing is more appropriate than traffic signals on a quiet residential street so that delay is minimised for pedestrians and cyclists who will be able to cross on demand.

Environmental Protection Division

- Confirms that it will liaise with and develop the detailed design of the scheme drainage in collaboration with DCC Drainage Planning, Policy and Development Section and will similarly liaise and collaborate in relation to connections and diversions.
- State that all of the proposed drainage networks have been modelled independently of their length and that the proposed networks are attenuated to existing runoff rates before discharging to the existing network.
- State that where feasible new trees will be planted in tree pits, which will benefit the trees through regular irrigation, as well as managing the discharge of surface water drainage in a sustainable manner.
- State that there are existing trees in the green area between the East Link Road and York Road that are proposed for retention, along with additional new trees, which would need to be removed if a bio-retention system were installed. To avoid the loss of the trees that are an important landscape feature in an area with very few trees, the Proposed Scheme will instead use an over-sized pipe to achieve the desired drainage attenuation.
- State that there are no infiltration trenches in the Proposed Scheme, so associated testing will not be required.

- Highlight all of the discharge points clearly indicated as black arrows on the Surface Water Drainage Drawings in EIAR Volume 3 Figures, Chapter 4 Scheme Description Part 11 Catchment Area Maps.
- State that in order to support the achievement of the legislative obligations, the Proposed Scheme is designed to ensure no deterioration of the status of any waterbody to which it is contiguous with downstream and will not jeopardise the attainment of good ecological and good surface water chemical status.
- Outlines the sensitivities and ecological status as well as the various designations of the receiving waters that are hydrologically connected to the Proposed Scheme
- Acknowledges that there is potential for accidental release of chemicals during the construction phase; however, with the implementation of control and mitigation measures outlined in the SWMP there will be no significant impacts.
- The evidence-based assessment completed comprises an appropriately scoped and comprehensive evaluation of the Proposed Scheme with regard to the WFD, and it concludes that the Proposed Scheme is consistent with the objectives of the WFD.
- Confirms that there will be an increase in impermeable area at the River Dodder Bridge, but the surface water drainage system from the bridge will be piped to discharge into the existing surface water sewer at York Road from where it will flow to the Ringsend Waste Water Treatment plant before discharge to Dublin Bay.
- Confirm that the Proposed Scheme design has been arranged in coordination with the design of the River Liffey Flood Prevention measures by DCC, in particular along the South Quays east of Cardiff Lane.

<u>Archaeology</u>

- Highlights that options for the Scherzer Bridges were considered and determined as outlined in the Preferred Route Option Report, which is synopsised in EIAR Volume 2, Chapter 3 Consideration of Reasonable Alternatives.

- Recognises the two pairs of Scherzer Bridges as distinctive historical landmarks in the Dublin Docklands that symbolise the heritage of the former port activities in this part of Dublin.
- Outlines why the Scherzer Bridges have to be repositioned to achieve the necessary bus lane priority on this major route.
- State that the Scherzer Bridges require restoration works and contend that the Proposed Scheme should therefore be seen to provide a valuable opportunity to safeguard these important heritage features for posterity.
- State that the Proposed Scheme includes very significant proposals to conserve, celebrate and promote the heritage value of the Scherzer Bridges, which would otherwise be very difficult to implement if the bridges were to remain in their current locations carrying heavy traffic loads.
- Outlines the mitigation measures proposed in order to reduce the potential effect of the proposed intervention, the required repair works, and the relocation of the Scherzer Bridges.
- State that the archaeological and architectural heritage assessments of the Proposed Scheme concluded “no significant impact” would result from such works.
- Potential effects on the sea locks (and their setting) at the Royal Canal underneath the Scherzer Bridges are assessed as Negative, Slight and Long-term.
- Potential effects on the quay walls at Britain Quay and Thorncastle Street are assessed as Negative, Slight and Permanent, respectively.
- Notes the submission by DCC in relation to the art work installation ‘Free Flow’ and will undertake measures to safeguard these features in the works so that they are retained and protected.
- Notes the recommendation to appoint a Project Archaeologist as a member of the NTA project team to oversee all archaeological aspects of the project from inception to completion.

- Confirm that works for the proposed boardwalks at the northern quay walls will involve minimal underwater disturbance, except for one short section at the Custom House Quay boardwalk where it will be necessary to install 3 tubular piles into the riverbed to support the boardwalk at the eastern end where it will span over an access gangway to a river jetty. States that underwater investigations have been conducted at this location and nothing of relevance was found but monitoring during construction with supervision forms part of the proposed mitigation.

Conservation Section

- Acknowledge that the DCC Conservation Section submission finds "that a thorough study of the receiving environment has been carried out".
- Note the concerns in relation to the consideration given to the relationship between historic structures and their setting, particularly in respect to the two pairs of Scherzer Bridges that are to be separated.
- Reiterates the considerations, assessments, and conclusions for impacts on the Scherzer Bridges, sea locks and quay walls outlined under Archaeology above.
- Highlight that there is only one location in the Proposed Scheme where an existing modern boundary wall and railing will be disturbed for road widening at the northwestern corner of George's Dock where it is intended to relocate one of the Scherzer Bridges.
- State that to locally modify the cycle track surface by changing the red tarmacadam would be inconsistent, and it would diminish the effectiveness of distinguishing that part of the road visually to increase awareness of vehicle drivers of the need to safeguard the road space allocated to cyclists for safety reasons.
- States that Volume 2 of the EIAR sets out the assessment of potential effects on architectural heritage resulting from the operational phase of the Proposed Scheme, including the location of traffic infrastructure such as signage, traffic poles, utility boxes, etc.

- States that Volume 2 of the EIAR also considers and assesses the location of bus shelters / stops in proximity to Protected Structures and structures on the NIAH and concludes that the potential effects of bus shelters on Protected Structures is considered to be Neutral and Long-term.
- Note the comments in relation to the need for a conservation professional to have sign of the works involved in the preparation and establishment of the construction compounds required for the Proposed Scheme.

City Architect's Division

- State that in just one location near the southeastern corner of the Samuel Beckett Bridge is the existing footpath very narrow at only 1.8m wide adjacent to a narrow cycle track and that this area will be widened by 2m through encroachment into the road, with an additional 1m allocated each to the footpath and cycle track.
- State that NTA will continue to liaise with DCC in regard to public realm improvements in the detailed design stage.
- Confirm that all CPO lands acquired by NTA for purposes of the Proposed Scheme will be transferred to DCC.
- State that high-quality design of the bus stop shelters is widely used across Dublin, and are already in place beside protected structures and in conservation areas along the Proposed Scheme, so there will effectively be no change from the existing situations.
- State that significant efforts have been made during the design process to minimise above-ground utility infrastructure.
- Confirm that it would not be appropriate in such a scheme to address the issue of on-street electrical charging facilities at parking spaces which is a separate matter for the local authority and the electrical supply utilities.
- Sees no justification to replace the footpaths and to upgrade the materials at the northern side of Custom House Quay in front of the IFSC building, and on the southern side of City Quay, where they will not be otherwise disturbed in the Proposed Scheme.

- Confirm that NTA will continue the very positive and constructive liaison with DCC City Architects Department throughout the procurement and construction process including in relation to the final detailing of new street furniture.
- Confirm that the requirements for a Conservation Impact Statement and Method Statement in relation to the proposal to relocate the Scherzer Bridges and the proposed works at the river Liffey quay walls for the boardwalks are outlined in EIAR Volume 2, Chapter 15, Section 15.5.1.1.1, and these are included as a proposed mitigation measures ACH7 and ACH12 in Chapter 22 of the EIAR.
- Confirm that the NTA can liaise further with DCC to explore the possibility of the inclusion of public drinking water fountains in the Proposed Scheme where appropriate.
- State that traffic signal gantry poles are much smaller and visually discreet (similar to lamp posts and other normal street furniture) than gantry signage, and they are commonly used throughout the city, especially on wider streets with four or more traffic lanes so as to ensure that drivers in the centre lanes can properly see the traffic signals.
- Confirm that the NTA is aware of other planned public infrastructure projects in the vicinity, as funding agency for many of them, and where possible the Proposed Scheme has been designed to integrate with those other schemes in so far as they are sufficiently well advanced for this purpose.
- State that the design of the proposed new rowing club building was developed by Sean Harrington Architects and involved extensive liaison with Dublin City Council City Architect's Department.

<u>City Parks, Biodiversity & Landscape Division</u>

- State that the NTA consulted with the Parks Division when developing the proposals for the cycle route through Ringsend and Irishtown and the most direct and attractive cycle route is via Ringsend Park, and this was indicated in the Greater Dublin Area Cycle Network Plan adopted by NTA in 2013 and in the current Cycle Network Plan adopted in 2022.

- Contend that this proposed all-purpose active travel route is entirely compatible with the other park uses, as is clearly evident in the many existing examples at other parks in the city.
- State that a further quiet streets option would not be feasible as the network of quiet local streets in Irishtown, many of which are narrow and one-way, is disjointed and disconnected such that a very indirect route would result if that alternative were adopted.

4.2.3. Response to issues raised by DAU

- Acknowledge the forthcoming changes in the law being brought on by the Archaeological Heritage and Miscellaneous Act 2023 but are satisfied that such changes will not affect the assessment, nor the findings of the archaeology assessment.
- Welcomes the engagement of the Department in relation to the important matters of cultural heritage and nature conservation.
- Confirm that the CEMP will be updated by the NTA prior to finalising the Construction Contract documents for tender, so as to include any additional measures required pursuant to conditions attached to An Bord Pleanála's decision.
- Note the proposed condition to appoint a Project Archaeologist.
- Intend to liaise with the relevant bodies including the Department of Housing, Local Government and Heritage and the Archaeology Section of Dublin City Council in advance of, and during, the subsequent construction stage of the Proposed Scheme.
- State that the EIAR identifies the proposed mitigation measures that will be implemented during the construction phase of the Proposed Scheme to avoid potential effects on otter populations associated with the Wicklow Mountains SAC.
- Confirm that a pre-construction survey will be carried out in accordance with the Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes (NRA, 2006).

- Confirm that an application for a derogation licence will be submitted to the NPWS in Quarter 1, 2024, and undertake not to carry out any works related to the Proposed Scheme in the vicinity of the otter holt near the MV Cill Áirne until such time that a licence is granted/ obtained.
- Recognises the apparent recent decline in the numbers of black guillemots along the stretch of the Liffey Estuary between the Matt Talbot and Tom Clarke (East Link) Bridges and outlines mitigation measures for nesting breeding birds (including black guillemot) prior to the commencement of the construction phase of the Proposed Scheme.
- Confirms its agreement to submit to the planning authority the design and location of the 10 permanent black guillemot and/ or sand martin nest boxes for its written agreement, prior to the commencement of the construction phase for the Proposed Scheme.
- State that the inclusion of the listed SCIs for the recently announced North-West Irish Sea candidate Special Protection Area (cSPA, site code 004236) as part of the Appropriate Assessment would not alter the outcome of the assessment presented in respect of the Proposed Scheme, as the SCI's and potential impacts from within the vicinity of the Proposed Scheme have effectively been captured in the NIS submitted in support of the planning application.

4.3. Third Party Observations

4.3.1. 20 no. third party submissions have been received and are summarised within Appendix 1 of this memo, none of which have requested an Oral Hearing. In relation to the content of the submissions it is of note that many issues raised are common to all of the submissions. For example, 9 no. are concerned about aspects of pedestrian/ cyclist safety, 5 no. are concerned with traffic management during the construction and operation phases, 4 no. raise concerns in relation to the loss of green space and car parking spaces at Strand Street, 2 no. raise concerns about anti-social behaviour in Ringsend Park, and others relate to individual properties or other elements of the scheme. All submissions have been summarised within

Appendix 1 of this report. In the interest of conciseness, I refer the board to this appendix should they wish to examine individual submissions.

4.3.2. In addition to the foregoing the major issues raised in the various third-party submissions to the Board are summarised under broad headings below:

- General concerns with regard to the overall design and layout of the scheme, in particular junction design.
- Co-ordination with other key projects in the area such as the Dodder Greenway, the Coastal Mobility Route, Draft City Centre Traffic Management Plan, the National Demand Management Strategy, and the proposed Liberty Square redevelopment.
- Vibration, noise and air pollution issues during the construction phase.

4.3.3. More specific concerns raised by individual groups along the proposed alignment included the following:

- Concern about shared pedestrian/ cyclist space at the southeast corner of Samuel Beckett Bridge.
- Concern about the curtailment of use of the public plaza at the CHQ building during the construction phase.
- Concerns regarding the use of Pembroke Cottages as a ‘quiet street’.
- Concern about the impact on the operation of the 3Arena during the construction phase.
- Concerned that the height of the proposed St. Patrick’s Rowing Club clubhouse is excessive and will be injurious to the views over the River Liffey.
- Concern that the introduction of a no right turn from North Wall Quay to Commons Street will affect up to 40% of the incoming customers to the Park Rite/ IFSC car park.

4.3.4. It is important to note that third parties were invited to respond to the applicant’s response to their submissions. A total of 8 responses were received. These mainly relate to individual properties and the accessibility of entrances/ routes. One of the

third parties expresses disappointment that the Board is not holding an oral hearing.[1] There are no new issues raised in these responses.

4.3.5. I highlight here that all issues raised are considered in detail under the specific headings within my report hereunder.

4.4. NTA Response to Submissions

4.4.1. The NTA submitted a response to the submissions raised which is summarised hereunder. It is of note that as outlined above a significant number of submissions are similar in nature and are concerned with the same issues and, in the interest of conciseness rather than list every submission and repeat the same response, I will summarise the response based on topic and where there are standalone issues raised, I will refer to the particular submission and summarise the response accordingly.

4.4.2. <u>Response to issues relating to North Quays</u>

- Confirm that the works at the Scherzer Bridges are some of the most complex elements of the Proposed Scheme, and that works to these bridges will be completed in stages over a period of 2 years.
- Highlights the predicted impact of anticipated noise that will arise during the construction process as negative, not significant and temporary at NSL's at distances greater than 15m from the proposed works at the CHQ building.
- Confirm that a 5m wide pedestrian access route will be retained between the eastern edge of the proposed construction compound and the nearest edge of the CHQ building.
- Note that CHQ Dublin Limited are currently seeking planning permission for 'a major Food Hall and Market'.
- Outline six alternative access routes to the Mayor Street Lower area following completion of the scheme.
- Outlines the CPO process once confirmed and the legislative requirements for serving notice to treat on affected landowners.

[1] No Oral Hearing was held in relation to the application as per the Boards Direction dated 6th March 2024.

- Outlines why the Scherzer Bridges have to be repositioned to achieve the necessary bus lane priority on this major route.
- State that the Scherzer Bridges require restoration works and contend that the Proposed Scheme should therefore be seen to provide a valuable opportunity to safeguard these important heritage features for posterity.
- State that the Proposed Scheme includes very significant proposals to conserve, celebrate and promote the heritage value of the Scherzer Bridges, which would otherwise be very difficult to implement if the bridges were to remain in their current locations carrying heavy traffic loads.
- Outlines the mitigation measures proposed in order to reduce the potential effect of the proposed intervention, the required repair works, and the relocation of the Scherzer Bridges.
- Confirm that the cycle facilities along the north quays are being significantly widened where feasible, and gaps in the existing cycle tracks will be removed through provision of a continuous two-way cycle track.
- State that various measures proposed along the route will ensure that a continuous wide pedestrian route is provided, including the addition of two proposed boardwalk sections.
- Highlight one exception on Custom House Quay where the Level of Service for Pedestrians will disimprove from A to B at the Commons Street junction beside the Docklands Building on the campshire where there is no cycle track at present and the footpath will be narrowed a little to accommodate the proposed cycle track.
- State that it is proposed to widen the footpath and cycleway on the southeastern corner of Samuel Beckett Bridge, which will result in a significant interim improvement to pedestrian and cycle conditions on the bridge.
- Confirm that the Proposed Scheme will not interfere with the existing access arrangements at the Hilton Garden Inn, and the set-down/ loading layby will be retained.
- State that the proposed coach layby at No.1 North Wall at the corner of Commons Street is required to accommodate services such as the Aircoach

and Swords Express which would otherwise obstruct the bus lane as their loading times are longer than the normal city buses. State that it is not unusual for a private basement to extend under a public footpath, or even a public road, and that all underground structures (walls and roofs) must be designed to withstand imposed loads for maintenance vehicles and fire tenders.

- State that the Contractor will be required to liaise with affected businesses, including the 3Arena throughout construction, and that the working hours for the proposed development are between 07:00hrs and 23:00hrs on weekdays, and between 08:00hrs and 16:30hrs on Saturdays.
- States that the EIAR sets out the traffic management measures for general and HGV traffic wanting to access the north quays during the construction phase of the Proposed Scheme.
- Contend that the Proposed Scheme will have no impact for deliveries to the 3Arena as access to the 3Arena Loading Bay on North Wall Avenue will be available via East Wall Road and Sheriff Street Upper.
- Demonstrates that a proposed coach stop does not obstruct the access to the 3Arena Service Yard.
- States that the removal of twelve parking spaces adjacent to the eastbound lane of North Wall Quay, to the east of the junction between North Wall Quay and Castleforbes Road, is to enable the provision of a continuous eastbound bus lane and that, due to the surrounding paid off-street parking and the nearby parking spaces along the adjacent North Wall Avenue, the overall impact of this change is considered to have a negative, slight and long-term effect.

4.4.3. <u>Response to issues relating to South Quays</u>

- Confirm that bus priority is proposed westbound only along this section, as eastbound buses will use the north quays as far as Samuel Beckett Bridge and that the existing two-way cycle track on the north side of the road is being retained along the length of the South Quays.
- State that the proposed widening of the pedestrian/ cycle zone on the southeast approach to Samuel Beckett Bridge will lead to a significant

improvement in conditions for pedestrians and cyclists over most of this area, and it will reduce the narrowest section to a very short length. Also state that there is a very short, shared area on the corner of the bridge, which it is not possible to widen without removing the southbound bus lane from the bridge and disturbing the major bridge movement joint that enables the bridge to swing open for river navigation.

4.4.4. Response to issues relating to Dodder Public Transport Bridge

- Outlines how the design of the proposed new rowing club building is considered appropriate for the intended purpose of the replacement building.
- Acknowledges the support within a number of submissions for the provision of the Dodder Public Transport Bridge.

4.4.5. Response to issues relating to Ringsend & Irishtown

- State that the proposed cycling route from York Road via Pembroke Cottages and Cambridge Park through Ringsend Park is identified as a primary route on the Cycle Network Plan for the Greater Dublin Area 2022.
- Confirm that it is not proposed to impose any restriction on access to Cambridge Park/ Pembroke Cottages or Ringsend Park.
- Contend that the formal introduction of cycling in Ringsend Park will bring a greater number of regular users and, consequently, will reduce the instances of anti-social behaviour.
- State that the objective for the proposed cycle route is to form part of the East Coast Trail as envisaged in the Greater Dublin Area Cycle Network Plan with segregation from traffic as much as possible.
- Contend that a quiet streets option would not be feasible as the network of quiet local streets in Irishtown, many of which are narrow and one-way, is disjointed and disconnected such that a very indirect route would result if that alternative were adopted.
- State that the alignment of cycle track at Strand Street has been arranged to follow the street edge of the green verge between Irishtown Stadium and

Kerlogue Road so as to avoid impact for trees, and to limit severance of the green area.

- Provide 2 replacement parking spaces on the eastern side of Strand Street so that there is no net loss of parking for local residents.
- Confirm that the cycle route will pass just to the north of (behind) the Waxies' Dargle monument at a distance of 2m.

4.4.6. Whole Scheme Submissions

- Confirm that the design of the scheme has taken account of the cumulative impacts of the other planned projects in the area, in particular the Dodder Greenway, the Coastal Mobility route, and the Draft City Centre Traffic Plan.
- State that the appointed contractor will be required to maintain regular communication with local communities, businesses and public representatives throughout the construction stage, setting out upcoming works, any service diversions, and any out-of-hours work.
- Lists the loss of habitat that will impact on biodiversity and contends that the loss of these habitats is very small in scale and is unavoidable in the Proposed Scheme.
- Reiterate that the Proposed Scheme will result in a significant residual effect at the county scale on two KERs (loss of tidal river and mudflats at the mouth of the River Dodder).

4.4.7. Dublin Cycling Campaign

- Confirm that 3.0m minimum width for two-way cycle lanes is generally achieved, except in very constrained circumstances where passing buildings on the north quays, where a local absolute minimum of 2.5m is achieved.
- Confirm that the shared path through Ringsend Park is 4.0m wide, which is the maximum that can be achieved, while protecting the existing trees and the functionality of the adjacent sports pitches.
- States that to fully separate pedestrians and cyclists east of the Samuel Beckett Bridge on the campshire of Sir John Rogerson's Quay would require

widening into the road and removal of the existing bus lane which would cause difficulties for the proposed city centre orbital bus route, and for eastbound buses heading for Ringsend.

- Confirm that DCC has separate proposals to improve the Point junction which is not included in the Proposed Ringsend CBC Scheme to avoid overlap of planning proposals.
- Confirm that DCC has separate proposals to provide a new pedestrian and cycling bridge over the River Liffey parallel to and on the western side of the Tom Clarke Bridge.
- State that there is a constraint at Strand Street/ Irishtown Stadium due to a stand of trees in the verge along Strand Street which is avoided by the proposed cycle track alignment.
- Confirm that the Proposed Scheme would require very minor adjustment to interface with the revised road and cycle track layout at the junction of Seán Moore Road and Strand Street, which can be included at the construction stage.
- State that DCC does not propose to reduce the width of the already narrow building on the campshire at Custom House Quay as that would adversely affect the functionality of the building and that the proposed two-way cycle track alongside the northern edge of the building will therefore be restricted in width over a length of 80m past this building.

5.0 **Planning History**

5.1. There are a number of planning applications along the route which includes a number of large residential and commercial developments - a full list is provided by the applicant within Appendix 2 of the Planning Report document submitted with the application. Of relevance to this scheme and including a number referred to by Dublin City Council within their submission on the application are the following:

- ABP-305219R-19: Permission granted for a Strategic Housing Development comprising 548 no. residential units (464 no. apartments, 84 no. shared

accommodation) and associated site works at City Block 2, Spencer Dock, Dublin 1.

- ABP-308827-20: Permission granted for a Strategic Housing Development comprising the demolition of all the structures on the site, 702 no. Build to Rent residential units, creche and associated site works on lands at Castleforbes Business Park, Sheriff Street Upper and East Road, Dublin 1.
- ABP-310299-21: Permission granted for a Strategic Housing Development comprising the demolition all existing buildings, construction of 112 no. apartments and associated site works at Maxol Filling Station and a vacant motor sales/ service garage (formerly Michael Grant Motors), Beach Road, Dublin 4.
- PWSDZ3207/21: Permission granted for a mixed-use development (304 No. apartment units; 144 No. 'Build-To-Rent' apartments (including resident support facilities and resident services and amenities); 90 No. affordable housing apartments; and 62 No. social housing apartments on a site of 15.3 hectares (including some 0.2 hectares of public domain on Sean Moore Road and the junction with Pine Road), focused primarily, but not exclusively, on a net site area of 2.4 hectares (identified as within the A3 Lands) in the Poolbeg West Strategic Development Zone Planning Scheme (April 2019).
- PWSDZ3406/22: Permission granted for a mixed-use development (264 No. apartment units; 55 No. affordable housing apartments; and 37 No. social housing apartments) (referred to as Phase 1B) on the site of 15.06 hectares including lands known as the Former Irish Glass Bottle & Fabrizia Sites, Poolbeg West, Dublin 4, focused primarily, but not exclusively, on a net site area of 0.76 hectares (identified as within the A3 Lands) in the Poolbeg West Strategic Development Zone (SDZ) Planning Scheme (April 2019).

6.0 Policy Context

6.1. European

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

The Smart and Mobility Strategy is part of the EU Green Deal and aims to reduce transport emissions by 90% until 2050. The Commission intends to adopt a comprehensive strategy to meet this target and 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.

6.1.2. European Green Deal (EDG) 2019

The European Commission has adopted a set of proposals such as making transport sustainable for all, to make the EU's climate, energy, transport and taxation **policies fit for reducing net greenhouse gas emissions by at least 55% by 2030**, compared to 1990 levels.

6.1.3. Towards a fair and sustainable Europe 2050: Social and Economic choices in sustainability transitions, 2023.

This foresight study looks at sustainability from a holistic perspective but emphasises the changes that European economic and social systems should make to address sustainability transitions. The EU has committed to sustainability and sustainable development, covering the three dimensions (environmental, social and economic) of sustainability. Transport is identified as an area of opportunity to increase the speed of a cultural shift towards sustainably. The provision of well planned, affordable or free public transport system and bicycle lanes are encouraged.

6.2. National

6.2.1. National Sustainable Mobility Policy, 2022

The purpose of this document is to set out a strategic framework to 2030 for active travel and public transport to support Ireland's overall requirement to achieve a 51% reduction in carbon emissions by the end of this decade.

A key objective of the document is to expand the 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.

6.2.2. National Sustainable Mobility Policy Action Plan 2022-2025

BusConnects is identified as a key project to be delivered within 2025.

6.2.3. Permeability in Existing Urban Areas Best Practice Guide 2015

Among the priorities of the National Transport Authority (NTA) are to encourage the use of more sustainable modes of transport and to ensure that transport considerations are fully addressed as part of land use planning. This guidance demonstrates how best to facilitate demand for walking and cycling in existing built-up areas.

6.2.4. Department of Transport National Sustainable Mobility Policy on 7th April 2022.

The plan, prepared by the Department of Transport, includes actions to improve and expand sustainable mobility options across the country by providing safe, green, accessible and efficient alternatives to car journeys.

- United Nations 2030 Agenda

6.2.5. Smarter Travel – A Sustainable Transport Future: A New Transport Policy for Ireland 2009 – 2020

This is a government document that was prepared in the context of unsustainable transport and travel trends in Ireland. The overall vision set out in this policy document is to achieve a sustainable transport system in Ireland by 2020.

To achieve this the government set out 5 key goals:

(i) to reduce overall travel demand,

(ii) to maximise the efficiency of the transport network,

(iii) to reduce reliance on fossil fuels,

(iv) to reduce transport emissions, and

(v) to improve accessibility to transport.

To achieve these goals and to ensure that we have sustainable travel and transport by 2020, the Government sets targets, which include the following:

- 500,000 more people will take alternative means to commute to work to the extent that the total share of car commuting will drop from 65% to 45%
- Alternatives such as walking, cycling and public transport will be supported and provided to the extent that these will rise to 55% of total commuter journeys to work.

6.2.6. **National Planning Framework Project Ireland 2040**

The National Policy Position establishes the fundamental national objective of achieving transition to a competitive, low carbon, climate resilient and environmentally sustainable economy by 2050,

Managing the challenges of future growth is critical to regional development. A more balanced and sustainable pattern of development, with a greater focus on addressing employment creation, local infrastructure needs and addressing the legacy of rapid growth, must be prioritised. This means that housing development should be primarily based on employment growth, accessibility by sustainable transport modes and quality of life, rather than unsustainable commuting patterns.

<u>National Strategic Outcome 4</u>

- NSO 4 - Dublin and other cities 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 National Development Plan makes provision for investment in public transport and sustainable mobility solutions to progressively put in place a more sustainable alternative. For example, major electric rail public transport infrastructure identified in the Transport Strategy for the Greater Dublin Area to 2035, such as the Metro Link and DART Expansion projects as well as the BusConnects

investment programme, will keep our capital and other key urban areas competitive.

- Deliver the key public transport objectives of the Transport Strategy for the Greater Dublin Area 2016-2035 by investing in projects such as New Metro Link, DART Expansion Programme, BusConnects in Dublin and key bus-based projects in the other cities and towns.

6.2.7. **National Development Plan 2021-2030**

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.

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 all five cities.

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.

Transformed active travel and bus infrastructure and services in all five of Ireland's 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 in all five cities by implementing a network of 'next generation' bus corridors including segregated cycling facilities on the busiest routes to make journeys faster, predictable and reliable.

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 all five cities by 2030.

6.2.8. **National Investment Framework for Transport in Ireland (2021)**

One of the key challenges identified within this document relates to transport and the ability to maintain existing transport infrastructure whilst ensuring resilience of the most strategically important parts of the network. Population projections are expected to increase into the future and a consistent issue identified within the five cities of

Ireland is congestion. Given space constraints, urban congestion will primarily have to be addressed by encouraging modal shift to sustainable modes.

Within the cities, frequent and reliable public transport of sufficient capacity and high-quality active travel infrastructure can incentivise people to travel using sustainable modes rather than by car.

Bus Connects is identified as a project which will alleviate congestion and inefficiencies in the bus service. The revised NDP 2021- 2030 sets out details of a new National Active Travel Programme with funding of €360 million annually for the period from 2021 to 2025. A new National Cycling Strategy is to be developed by the end of 2022 and will map existing cycling infrastructure in both urban and rural areas to inform future planning and project delivery decisions in relation to active travel.

6.2.9. **Design Manual for Urban Roads and Streets (2019)**

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, placed 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 communication and cooperation between design professionals through the promotion of a plan-led multidisciplinary approach to design.

The manual recommends that bus services should 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 speeds) and can consume space that could otherwise be dedicated to placemaking /traffic calming measures.

6.2.10. **Climate Action Plan 2024**

- The Climate Action Plan (CAP24) sets out a roadmap to halve emissions by 2030 and reach net zero by 2050. CAP24 will 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.
- 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 CAP24 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 CAP24 targets and objectives.
- 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. CAP24 includes the previous pathway outlined in CAP23 under the Avoid-Shift-Improve Framework to achieve a net zero decarbonisation pathway for transport. 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.
- 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

published in 2024 with the aim of reducing travel demand and improving sustainable mobility alternatives.

- 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 our 5 cities, 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 CAP24 for the period 2024-2025.

6.3. Regional

6.3.1. Regional Spatial Economic Strategy for the Eastern and Midlands Region

- Chapter 5 Dublin Metropolitan Area Strategic Plan (MASP)
  - The MASP is an integrated land use and transportation strategy for the Dublin Metropolitan Area that sets out a vision for the future growth of the metropolitan area and key growth enablers.
  - Section 5.3 Guiding Principles for the growth of the Dublin Metropolitan Area - Integrated Transport and Land use which seeks 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.
  - 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.

- Section 5.6 Integrated Land use and Transportation-

  Key transport infrastructure investments in the metropolitan area as set out in national policy include:

  - Within the Dublin Metropolitan Area, investment in bus based public transport will be delivered through BusConnects, which aims to overhaul the current bus system in the Dublin metropolitan area, including the introduction of Bus Rapid Transit.
  - Chapter 8 Connectivity
    - Section 8.4 Transport Investment Priorities:
      - Within the Dublin Metropolitan Area, investment in bus infrastructure and services will be delivered through BusConnects.

6.4. **Local**

6.4.1. **Dublin City Development Plan 2022-2028**

- Chapter 8 Sustainable Movement and Transport
  - Table 8.1 Current and target mode share outlines that cycling is expected to increase by 7% by 2028 and bus by 3% in the same timeline.
  - It is stated that the modest increase in public transport mode share anticipates the construction of major public transport infrastructure that is proposed to occur over the lifetime of the plan. The impact of public transport infrastructure projects on mode share is more likely to come into fruition during the lifespan of the following plan.
  - Dublin City Council recognises and welcomes the opportunities for developing public realm around the city and in the urban villages where new public transport proposals are being developed such as Metrolink, BusConnects and the Luas expansion and DART+ project.

- Key strategic transport projects such as the proposed Metrolink, DART+, BusConnects programme and further Luas Line and rail construction and extension will continue the expansion of an integrated public transport system for the Dublin region and have the potential for a transformative impact on travel modes over the coming years. 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.
- SMT22 - Key Sustainable Transport Projects

  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
- Objective SMT02 - Improving the Pedestrian Network

  To improve the pedestrian network and prioritise measures such as the removal of slip lanes, the introduction of tactile paving, ramps, raised tables and kerb dishing at appropriate locations, including pedestrian crossings, street junctions, taxi ranks, bus stops and rail platforms in order to optimise safe accessibility for all users.
- Objective 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 SMT16 - Walking, Cycling and Active Travel

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.

- Objective SMTO27 Road, Street and Bridge Schemes

  To initiate and/or implement the following street/road schemes and bridges within the six year period of the development plan, subject to the availability of funding and environmental requirements and compliance with the 'Principles of Road Development' set out in the NTA Greater Dublin Area Transport Strategy.

  Bridges: Dodder Public Transport Bridge, linked with BusConnects 16 proposals - Map E.

The Proposed Scheme, for the most part, will comprise lands within the existing public road and pedestrian pavement area where there is no specific zoning objective.

Zoning objectives that are affected by the proposed scheme:

- Zone Z1 – Sustainable Residential Neighbourhoods

  To protect, provide and improve residential amenities.

- Zone Z4 – Key Urban Villages/ Urban Villages

  To provide for and improve mixed-services facilities at Point Village and Poolbeg (KUV 12).

- Zone 5 – City Centre

  To consolidate and facilitate the development of the central area, and to identify, reinforce, strengthen and protect its civic design character and dignity.

- Zone Z9 – Recreational amenity and open space

  To preserve, provide and improve recreational amenity and open space and green networks.

- Zone 14 – Strategic Development Zone Areas

  To seek the social, economic and physical development and/or regeneration of an area with mixed-use, of which residential would be the predominant use.

- Zone Z15 – Institutional and Community

  To protect and provide for institutional and community uses.

- Chapter 14 Strategic Development Zone Areas (SDRAs)

  SDRA 6 Docklands has a requirement for facilitating infrastructure, including DART+, Dodder Bridge, BusConnects, Luas Poolbeg, District Heating, and social infrastructure.

  There are two existing development frameworks that relate to the majority of this area, the North Lotts and Grand Canal Dock Planning Scheme and the Poolbeg West Planning Scheme.

6.4.2. **Greater Dublin Area Transport Strategy – 2022-2042**

This strategy replaces the previous GDA Transport Strategy 2016-2035. BusConnects is identified as a major project which is provided for within this strategy. The NTA has invested heavily in the renewal of the bus infrastructure, including bus stopping facilities, Real Time Passenger Information and fleet improvements and has commenced the largest ever investment programme in our bus network under BusConnects Dublin.

The Strategy recognises the government's commitment to sustainable mobility as outlined in NSO 4 of the National Development Plan 2021-2030.

BusConnects is identified as an essential to protecting access to Dublin Airport, ensuring that the Airport will operate in a sustainable fashion in terms of landside transport.

- Measure INT2 – International Gateways

  It is the intention of the NTA, in conjunction with public transport operators, TII, and the local authorities, to serve the international gateways with the landside transport infrastructure and services which will facilitate their sustainable operation. Throughout the lifetime of the strategy, the NTA will continue to work with Dublin Port Company, other port and harbour operators and DAA in respect of Dublin Airport, in monitoring, assessing and delivering these transport requirements.

Major transport interchanges are recognised as an integral part of the bus connects project.

- Measure INT5 – Major Interchanges and Mobility Hubs

It is the intention of the NTA, in conjunction with TII, Irish Rail, local authorities, and landowners to deliver high quality major interchange facilities or Mobility Hubs at appropriate locations served by high capacity public transport services. These will be designed to be as seamless as possible and will incorporate a wide range of facilities as appropriate such as cycle parking, seating, shelter, kiosks selling refreshments plus the provision of travel information in printed and digital formats.

The NTA recognises that the construction of major projects including bus connects will cause disruption and it will seek to minimise such impacts through up-to-date travel information.

- Section 11.4 Cycle Infrastructure Provision and Management
- Section 12.2 Bus
- 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. Increased frequencies on the BusConnects orbital and local services; and 2. Providing bus priority measures at locations on the routes where delays to services are identified
- Section 12.2.4 Zero Emissions Buses

The transition to a zero emissions urban bus fleet for the State operated bus services has begun under BusConnects. Under the BusConnects Dublin programme, the full Dublin Area urban bus fleet will have transitioned to zero or low emission vehicles by 2030 and will have been converted to a full zero emission bus fleet by 2035.

- Measure BUS6 – Higher Capacity Bus Fleet

In the later phases of the Transport Strategy period, it is the intention of the NTA to introduce higher capacity bus vehicles onto select appropriate BusConnects corridors in order to increase passenger carrying capabilities in line with forecast demand.

- 12.2.8 New Bus Stops and Shelters

  Bus shelter provision will be significantly expanded as part of the BusConnects Dublin programme and Connecting Ireland (section 12.2.7).

- 13.8 Road space Reallocation

  In line with transport policies and objectives to reduce car dependency and to favour sustainable modes over the private car, and as a means of achieving reductions in carbon emissions, it is the intention to reallocate roadspace from its current use for general traffic to the exclusive use by walking, cycling and public transport. This approach is applicable generally across the GDA, and in addition to the reallocation proposed under BusConnects.

- Measure Road 13 – Roadspace Reallocation

  The local authorities and the NTA will implement a programme of roadspace reallocation from use by general traffic or as parking to exclusive use by sustainable modes as appropriate, as a means of achieving the following: y Providing sufficient capacity for sustainable modes; y Improving safety for pedestrians and cyclists; and y Encouraging mode shift from the private car and reducing emissions.

6.4.3. **Dublin City Biodiversity Action Plan 2021-2025.**

The Dublin City Biodiversity Action Plan 2021-2025 (DCC Biodiversity Plan) recognises that in addition to legally designated sites there are numerous habitats across the city that have conservation value for biodiversity, including public parks and open spaces, rivers, canals, and embankments. The DCC Biodiversity Plan sets out five themes supported by objectives and actions; these themes are set out below:

- Maintaining Nature in the City.
- Restoring Nature in the City.
- Building for Biodiversity.
- Understanding Biodiversity in the City

- Partnering for Biodiversity.

The objectives of the DCC Biodiversity Plan include:

- Objective 4 – Monitor and conserve legally-protected species within Dublin City, particularly those listed in the annexes of the EU Birds and Habitats Directive,
- Objective 11 – Ensure that measures for biodiversity and nature-based solutions are incorporated into new building projects, retrofit and maintenance works, and
- Objective 12 which promotes net biodiversity gain.

6.4.4. **George's Quay Local Area Plan 2012**

The Proposed Scheme is within the LAP area. This LAP was extended until July 2022.

6.4.5. **North Lotts & Grand Canal Dock SDZ**

The SDZ planning scheme area overlaps with the Proposed Scheme from Lime Street to the Tom Clarke East Link Bridge. The planning scheme for this area is almost complete and has been developed out with a mix of commercial and residential uses. Relevant objectives within the planning scheme are:

Objective CD14 – To promote the development of street infrastructure, walking and cycling routes and public transport routes to enhance connections between residential areas and the community facilities that exist in the wider neighbourhood.

Objective MV3 – To provide additional cycle and pedestrian bridges across the canals and rivers in the SDZ to form part of strategic cycling and walking routes.

Objective MV4 – To create and support a well-designed network of pedestrian infrastructure to promote and facilitate walking and cycling; provide priority for pedestrians and cyclists along key desire lines, developing routes within the Docklands and linking with the surrounding walking and cycling networks in Dublin City.

6.4.6. **Poolbeg West SDZ**

This SDZ is located immediately to the east of the Proposed Scheme at Seán Moore Road. A large portion of the scheme area has no planning permission. The plan for

the scheme area envisages the provision of 3,500 residential units and commercial buildings capable of accommodating 8,000 people. The Concept Plan[2] is outlined in Figure 2.1 of the SDZ where sustainable transport corridors are indicated to facilitate the development of the SDZ planning scheme. A significant constraint identified for the development of the area is the link to/ from the city centre. In this regard, the provision of a bridge over the River Dodder is recognised as a key piece of infrastructure and the achievement of this, although outside of the SDZ planning scheme area, is included as part of an objective in the scheme:

Objective MV2 – To provide improved public transport services to the area including a core bus link to the city centre via the proposed Dodder Bridge, enhanced/ extended bus services along existing routes, and in the longer term, to provide for delivery of Luas to Poolbeg as part of the planned Red Line extension under the National Transport Authority Strategy 2016–2035.

Other relevant objectives include:

Objective MV3 – To actively pursue the delivery of the Dodder (or 'Gut') Bridge to facilitate the full build-out of the Planning Scheme in accordance with the Phasing programme as set out in the Land Use & Phasing Chapter. This bridge shall be designed to facilitate public transport and walking/cycling.

Objective MV6 – To promote the development of an improved cycle network in accordance with the NTA's Cycle Network Plan, and to seek (inter alia) the following cycle connections in co-operation with the National Transport Authority:

- Pigeon House Road to Sir John Rogerson's Quay via proposed Dodder Bridge.
- Bremen Road to Bridge Street (R802) via Ringsend Park.
- Greenway link from Seán Moore Park to the end of Poolbeg peninsula, integrated with the proposed coastal promenade walking/cycling route, the Sutton to Sandycove cycle route, including loops/spurs through the SDZ.

The above shall link to existing and proposed primary routes including the East Coast trail along Beach Road and both the Liffey and Canal Greenways.

[2] poolbeg_west_sdz_planning_document.pdf (dublincity.ie)

6.5. Legislative Context

6.5.1. 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.

6.5.2. 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.

6.6. Natural Heritage Designations

6.6.1. The following Special Areas of Conservation and Special Protection Areas are contained within the zone of Influence for the proposed development:

- North Dublin Bay SAC,
- South Dublin Bay SAC,
- Howth Head SAC,
- Rockabill to Dalkey Island SAC,
- Ireland's Eye SAC
- Lambay Island SAC,
- Baldoyle Bay SAC,
- Malahide Estuary SAC,
- Howth Head Coast SPA,
- Dalkey Islands SPA,
- Rockabill SPA,

- North Bull Island SPA,
- South Dublin Bay and River Tolka Estuary SPA,
- Baldoyle Bay SPA,
- Malahide Estuary SPA,
- Rogerstown Estuary SPA,
- Skerries Islands SPA,
- Ireland's Eye SPA,
- Lambay Island SPA,
- The Murrough SPA, and
- North West Irish Sea SPA.

6.6.2. A Natura Impact Statement (NIS) has been prepared with regard to the foregoing European Sites and has been submitted to the Board in respect of the proposed road development under Part XAB of the Planning and Development Act 2000 (as amended).

6.7. **EIA Screening**

6.7.1. The NTA has submitted to the Board the Environmental Impact Assessment Report (EIAR) prepared in accordance with section 50 of the Roads Act 1993 (as amended) and Directive 2011/92/EU of the European Parliament and Council, 2011 on the assessment of the effects of certain public and private projects on the environment as amended by Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 in respect of the proposed road development.

7.0 **Assessment**

7.1. **Overview**

7.1.1. The proposed development as outlined above is essentially an upgrade to the existing bus priority and cycle facilities along the north and south quays in Dublin city centre between the Tom Clarke East Link Bridge and the Custom House. The Proposed Scheme will provide fully segregated cycle tracks along the entire length of the north and south quays. On the Ringsend cycle route, there will be a mix of shared quiet street, a shared path in Ringsend Park and a segregated cycle track adjacent to Strand Street, Pembroke Street and Beach Road, respectively, in Irishtown. The Proposed Scheme includes a substantial increase in the level of bus priority provided along the north and south quays, including the provision of additional lengths of bus lane resulting in improved journey time reliability.

7.1.2. Throughout the Proposed Scheme cycle facilities will be substantially improved with segregated cycle tracks provided along the links and protected junctions with enhanced signalling for cyclists provided at junctions. Where space for a segregated cycle track is not available on the main corridor, an alternative cycle route via quiet roads is proposed such as at Pembroke Cottages and Cambridge Park in Ringsend.

7.1.3. Currently within the existing alignment of the Proposed Scheme there are cycle tracks on approximately 4.3km (both directions) of the route. This will increase to 8km and the proportion of segregated cycle facilities will increase from 82% on the existing corridor to 93% on the Proposed Scheme. In addition to this, the significant segregation and safety improvements to walking and cycling infrastructure that is a key feature of the Proposed Scheme will further maximise the movement of people travelling sustainably along the corridor.

7.1.4. Pedestrian facilities will also be upgraded, and additional signalised crossings are to be provided. In addition, public realm works will be undertaken at key locations with higher quality materials, planting and street furniture provided to enhance the pedestrian's experience.

7.1.5. This application is accompanied by a separate Compulsory Purchase Order ref: ABP-317735-23 in which it is sought to acquire various sections of lands along the route. The majority of lands to be acquired relate to areas that may affect access/

egress to and from commercial properties during both the construction and operational phases of the Proposed Scheme.

7.1.6. Given the variety of issues raised within the submissions received, I will consider the issues raised on a themed basis within the relevant sections of the report hereunder. All submissions are summarised within Appendix 1 below for ease of reference.

7.1.7. 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, 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, where appropriate.

7.1.8. I have read the entire contents of the file including the EIAR, Planning Report and supporting documentation and the NIS all submitted with the application. I have visited the subject site and its surroundings. I have read in full the observations submitted in respect of the application including the third-party observations, the observations from the Planning Authority and the observations from prescribed bodies. I consider the critical issues in determining the current application and appeal before the Board 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**

7.2. Policy Considerations

National Level

7.2.1. The **Climate Action Plan, 2024** (CAP24), introduces carbon budgets and sectoral emissions ceilings for different sectors of the Irish economy. 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.

7.2.2. 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 CAP24 for the period 2024-2025.

7.2.3. It should be noted, however, that BusConnects was designed under a previous Climate Action Plan and the Avoid-Shift-Improve Framework was new to CAP23 and has been applied again in CAP24. 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.

7.2.4. **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 Ringsend 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.

7.2.5. 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."*

7.2.6. 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.

7.2.7. 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, Galway, Limerick and Waterford by implementing 'next generation' bus corridors (including segregated cycle facilities). This will be enabled through **The National Investment Framework for Transport in Ireland.**

Regional Level

7.2.8. 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.

7.2.9. 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.

7.2.10. 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 Ringsend 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.

7.2.11. 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.

7.2.12. 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.

7.2.13. The 2013 Greater Dublin Area Cycle Network Plan included a primary cycle route along the Proposed Scheme (Cycle Route 5) and intersections with a number of primary cycle routes, including Cycle Route 1, Cycle Route 13 and Cycle Route SO1/N10; and the secondary routes of 1E/N05, 13E/N05, C8 and the Royal Canal and Dodder Greenways. The updated 2022 GDA Cycle Network Plan shows the CBC as a primary orbital cycle route on the north and south quays, and as a primary radial cycle route from Tom Clarke East Link Bridge to Seán Moore Road; York Road is designated as a secondary route from its junction with Tom Clarke East Link Bridge to the northern end of Seán Moore Road. A number of feeder routes intersect with the CBC on the north and south quays and, similarly, secondary, feeder and greenway routes intersect and connect with the primary radial cycle route in Ringsend and Irishtown.

7.2.14. 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., at its junctions with Talbot Memorial Bridge and Samuel Beckett Bridge.

County Wide Policy

7.2.15. The proposed CBC is located wholly within the Dublin City Council administrative area. The current operative plan for this local authority is the Dublin City Development Plan, 2022-2028.

7.2.16. 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.

7.2.17. 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.

7.2.18. 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.

7.2.19. 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.

7.2.20. With respect to transport and sustainable movement under Policy SMT34 – Street and Road Design, Dublin City Council 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

7.2.21. The **George's Quay Local Area Plan 2012** overlaps the Proposed Scheme area along George's Quay and City Quay on the south bank of the River Liffey. Generally, the largest use within the area is employment, weighted more to the western end of the LAP with the eastern area largely residential, forming part of the City Quay/ Pearse Street community. Although the LAP expired in July 2022, the Proposed Scheme would assist in achieving Movement and Access objectives in the LAP, such as the provision of pedestrian priority measures and additional and enhanced

crossing facilities, the use of the campshires as priority pedestrian routes providing connectivity between the city centre/ retail core and the emerging cultural destination of Grand Canal Dock, and the completion of a series of cycle infrastructure improvements for the Georges Quay area.

7.2.22. The **North Lotts & Grand Canal Dock SDZ** planning scheme area overlaps with the Proposed Scheme from Lime Street to the Tom Clarke East Link Bridge. The planning scheme for this area is almost complete and has been developed out with a mix of commercial and residential uses. The Proposed Scheme will help to achieve Objectives CD14, MV3 and MV4 of the planning scheme through the development of street infrastructure, walking and cycling routes and public transport routes to enhance connections between residential areas and the community facilities that exist in the wider neighbourhood; the provision of additional cycle and pedestrian bridges across the canals and rivers in the SDZ to form part of strategic cycling and walking routes; and by providing priority for pedestrians and cyclists along key desire lines, developing routes within the Docklands and linking with the surrounding walking and cycling networks in Dublin City.

7.2.23. The **Poolbeg West SDZ** is located immediately to the east of the Proposed Scheme at Seán Moore Road and a large portion of the scheme area has no planning permission. The plan for the scheme area envisages the provision of 3,500 residential units and commercial buildings capable of accommodating 8,000 people. The Proposed Scheme will help to achieve Objectives MV2, MV3 and MV6 of this planning scheme helping to provide improved public transport services to the area including a core bus link to the city centre via the proposed Dodder Bridge. The delivery of the Dodder Bridge to facilitate the full build-out of the planning scheme in accordance with a phasing programme and will develop a cycling connection from Pigeon House Road to Sir John Rogerson's Quay.

7.2.24. The Proposed Scheme will provide the infrastructure to deliver a modal shift from private car usage to sustainable transport and will facilitate sustainable growth by delivering the transport infrastructure necessary to provide a high quality and more efficient and reliable public transport network.

7.2.25. 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, CO_2 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.

7.3. Need and Justification for the Proposal

7.3.1. It has been demonstrated above that the proposed Ringsend 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 3.2 also outlines the general 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.

Addressing Population Growth and On-Street Congestion

7.3.2. 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.

7.3.3. 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, bus services suffer variations in travel time along the

route of Proposed Scheme. A less reliable bus service requires operators to roll out extra buses to maintain headways to fill gaps created in the timetable.

7.3.4. 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.

7.3.5. 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.

7.3.6. As noted above, the overriding motivation for BusConnects is to reduce CO_2 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 CO_2 emissions are continuing to rise. Any further increases in traffic levels will see an exacerbation of congestion, CO_2 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.

7.3.7. It is estimated that approximately 80% of road/ street space is dedicated to the car. A double-decker bus takes up the equivalent spatial area of three cars but on average carries 60-70 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.

7.3.8. As a result of the Proposed Scheme in opening year (2028), it is anticipated that there will be an increase of 14% and 12% in AM and PM peaks respectively in the number people travelling by bus along this core bus corridor and an increase of 20% and 20% in AM and PM peaks respectively in the number people walking or cycling. In design year (2043), there is forecasted to be an increase of 91% and 176% in the number of people travelling along the Proposed Scheme corridor by sustainable modes during the AM and PM peak hours respectively.

7.3.9. 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 capacity for moving people and would provide 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 969 and 2,514 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.

Land Use and Transport Integration

7.3.10. 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.

7.3.11. A number of significant projects are proposed, have been permitted or are under construction along or adjacent to the CBC. Those that have been permitted, are under construction or are completed include 548 no. residential units at City Block 2, Spencer Dock, 702 no. Build to Rent residential units at Sheriff Street Upper and East Road, 112 no. apartments at Beach Road, 304 No. apartment units on Seán Moore Road and the junction with Pine Road, and 264 No. apartment units on the site known as the Former Irish Glass Bottle & Fabrizia Sites.

7.3.12. 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.

7.3.13. 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 (66 inbound and 68 outbound) along the busiest section of the CBC. 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. If traffic levels were to increase (typical daily variations are in the order of +/- 15%) then the bus priority infrastructure would further protect journey time reliability and resilience in comparison with the Do Minimum scenario.

7.3.14. In addition to greater demand for travel along the CBC, compact growth and higher densities will also require improved design of the 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.

7.3.15. For this pattern of land use and transport integration to be successful, good public realm is necessary. This is addressed further in Section 9.10 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.

7.3.16. Overall, good land use and transport integration complies with the Avoid/ Shift/ Improve hierarchy promoted within CAP24. 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 Ringsend to City Centre CBC and the associated compact growth along the corridor is a good 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.

Improved Connections

7.3.17. 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.

7.3.18. Improved connections as a result of the Proposed Scheme can disproportionately benefit those who are most disadvantaged or socially excluded. There are a number of areas along the length of the CBC that are categorised as disadvantaged as indicated by the Pobal HP Index 2016, including parts of Ringsend, Westland Row parishes, and small pockets closer to the City Centre such as near East Wall – North Strand, Seville Place – North Wall and the Hanover Street East/ Erne Street Lower/ Mark Street/ Lombard Street East area south of City Quay (refer to Figure 11.1 in Volume 3 of the EIAR). It is also noteworthy that access to a car is proportionately lower for people with disabilities compared to the general population.

7.3.19. 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

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.

7.3.20. 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.

7.3.21. 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, most notably in Ringsend and Irishtown. The most vulnerable road users are pedestrians and cyclists who are five to ten times more 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.

7.3.22. 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 runs along the north quays and parallel to the Luas along Mayor Street Upper/ Mayor Street Lower/ George's Dock. Exchange between transport services will be made easier by next generation ticketing and integrated fare structure proposals.

7.3.23. On the whole, the Proposed Scheme will promote a better-connected street environment particularly for the most disadvantaged 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 9.11 below.

7.3.24. 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.

7.4. **Consideration of alternatives**

7.4.1. 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.

7.4.2. The consideration of alternatives within the EIAR submitted with the application and the EIA in Section 9.2 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.

7.4.3. It is stated that the appropriate type of public transport provision in any particular case is predominately determined by the likely quantum of passenger demand along the particular public transport route. With this in mind the applicant considered the option of constructing a light rail service which would cater for a passenger demand of between 3,500 and 7,000 per hour per direction (inbound and outbound journeys). Based on the number of passengers predicted to use the new service, it was considered that there would be insufficient demand to justify a light rail option. The light rail option would also require significantly more land take, necessitating the demolition of properties.

7.4.4. Metro alternative was also considered and as there is a higher capacity requirement for such solutions it was not suitable for this route. In addition, the development of an underground metro would not remove the need for additional infrastructure to serve the residual bus needs of the area covered by the Proposed Scheme. Heavy rail

alternatives carry in excess of 10,000 people each direction each hour and was considered an unsuitable solution.

7.4.5. Demand management in the form of restricting car movement or car access through regulatory signage and access prohibitions, to parking restrictions and fiscal measures (such as tolls, road pricing, congestion charging, fuel/vehicle surcharges and similar) were all considered as alternatives to the proposed scheme. However, it is stated that in the case of Dublin, the existing public transport system does not currently have sufficient capacity to cater for large volumes of additional users, such measures would not work in isolation to address car journeys into and out of the city and would not encourage people onto alternative modes.

7.4.6. Whilst technological alternatives are becoming increasingly advanced, the use of electric vehicles does not address congestion problems and the need for mass transit. The reasonable conclusion is reached that enhanced bus priority and cycle facilities, together with a rail upgrade involving limited construction works are best placed to serve the corridor having regard economic and environmental factors and passenger numbers that each mode would carry.

7.4.7. 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 space constraints, lack of appropriate adjacent linkages to form a coherent end-to-end route, unsuitability of particular routes, the need for significant land take from residential properties and related construction GHG impacts.

7.4.8. 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, CAP24 reaffirms sectoral emissions ceilings that were introduced in CAP23 and together with the Avoid-Shift-Improve framework seek 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. CAP24 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.

7.4.9. Alternative design options/ arrangements for the Scherzer Bridges at George's Dock and at the Royal Canal were also considered as part of the development of the Preferred Route Option. The preferred option was determined to be their careful deconstruction and reconstruction/ relocation to positions either side of the road carriageway at their current locations.

7.4.10. For clarity, the Scherzer Bridges that span George's Dock are proposed to be relocated and a new fixed four-lane road bridge constructed. The Scherzer Bridges will be moved apart and turned 180 degrees where they will accommodate pedestrians and cyclists crossing the entrance channel to the dock. Further to this, the Scherzer Bridges that span the Royal Canal are also proposed to be moved apart, and a new fixed deck four-lane road bridge constructed between them. The decks of the new and repositioned Scherzer Bridges at the Royal Canal will be raised 835mm above the existing ground level, to allow for unimpeded navigation of the canal below. The reinstated bridge structures will accommodate pedestrians and cyclists crossing the canal.

7.4.11. Within the Dublin City Council submission, the Conservation Officer outlines concerns in relation to the approach taken by the NTA in this regard. These concerns relate to the loss of fabric, and the loss of their visual form, setting and prominence. The Conservation Officer disagrees with the assessment in the EIAR that states that with the proposed mitigation the impact of the Proposed Scheme on both pairs of bridges will be reduced from 'Negative, Significant, and Permanent' to 'No significant impact'. Having reviewed all the relevant documentation and carried out a site inspection, it is my opinion that the impact of the Proposed Scheme on both pairs of bridges will be significant in terms of the loss of their visual form, setting and prominence. In terms of loss of fabric, I consider that the careful deconstruction followed by appropriate reparation works will ensure the long-term survival and presence of the bridges on the north quays.

7.4.12. I accept that the consideration of design/ treatment options for both pairs of Scherzer Bridges was a rigorous process, which had regard to the built heritage, environmental considerations and to the project objectives. I therefore generally

concur with the reasons for choosing the preferred design and siting of the Scherzer Bridges as presented in the EIAR. There is no doubt that there will be a significant impact on these protected structures. However, I am satisfied, although both sets of bridges are aesthetically pleasing, and are important historical, engineering and architectural structures, that neither set of bridges now serve a function for the operation of George's Dock, the Royal Canal or a modern city. With this in mind, I consider that the bridges can be retained at locations as close as possible to their original siting and allow the city to grow and operate through the more efficient movement of people, both existing users and future users from residential development in the North Wall and Poolbeg areas, by the provision of modern transport infrastructure.[3]

7.4.13. I note a concern about the impact of 'no right turn' onto Commons Street from North Wall Quay and the impact that this would have on the operation of the 370 no. space IFSC car park. I also note and draw the Board's attention to the alternative routes that will be required by westbound patrons to access the Park Rite-IFSC car park as a result of the introduction of a 'no right turn' from North Wall Quay. In the context of the achievement of the objectives of the Proposed Scheme, I am satisfied that the alternative routes to this car park from East Wall Road, East Wall Bridge and Samuel Beckett Bridge are available and I consider these alternatives to be reasonable.

7.4.14. In their submission, Dublin Cycling Campaign highlight what they consider to be active travel constraints on the south side of Beckett Bridge and, similarly, Ivana Bacik T.D. requests that the NTA consider an alternative solution to the shared pedestrian/ cyclist space at the southeast corner of Samuel Beckett Bridge. I note that the NTA propose to widen the pedestrian/ cycle zone on the southeast approach to the bridge by 2m by removing the median, realigning the roadway to the south and narrowing the lanes as far as practicable. The NTA highlight that there is a very short, shared area on the corner of the bridge, which it is not possible to widen without removing the southbound bus lane from the bridge and disturbing the major bridge movement joint that enables the bridge to swing open for river navigation. As a result of the Proposed Scheme, it is stated in the Pedestrian Infrastructure Assessment that the Level of Service for pedestrians at the southern end of the

[3] Duty to give reasons as established in *Connelly v. An Bord Pleanála* [2018] IESC 31.

Samuel Beckett Bridge will increase from C to B. I accept the explanation of the NTA and the constraints at this location presented by the bridge movement joint at this location.

7.4.15. I also note similar concerns raised in submissions highlighting alternative cycling routes in the Ringsend and Irishtown areas. The NTA state, in their response to the submissions, that a quiet streets option would not be feasible as the network of quiet local streets in Irishtown, many of which are narrow and one-way, is disjointed and disconnected such that a very indirect route would result if that alternative were adopted. They state that the most direct and attractive cycle route is via Ringsend Park and along the side of Strand Street and Pembroke Street in Irishtown, and this was indicated in the Greater Dublin Area Cycle Network Plan adopted by NTA. I am satisfied that the NTA have chosen the most direct and, therefore, most usable option for present and future residents of Ringsend/ Irishtown/ Poolbeg to walk and cycle to/ from the city centre.

7.4.16. In the short term, bicycles and e-bikes/ scooters will be a major part of the necessary modal shift from private car use. 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. In my opinion, if the cycle tracks are designed even with minor constraints the likelihood is that this movement of e-bikes or scooters to general traffic lanes will occur sooner rather than later. The e-bike/ e-moped provisions of regulations associated with the Road Traffic and Roads Act 2023 commenced on 20th May 2024. Under these regulations, the classification of e-scooters as Personal Powered Transporters (PPTs) and e-bikes with a maximum power output of 250W and a motor cut-off speed of 25km/hr is the same as bicycles under Irish law. Consequently, it is imperative that the necessary infrastructure is available, and future proofed, to accommodate and encourage a more sustainable and efficient use of road space for personal transport.

7.4.17. 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 I am satisfied that reasonable alternatives have been adequately assessed as part of developing the

project. The Proposed Scheme should therefore be implemented as planned as a matter of urgency.

7.5. Impacts on street environment

7.5.1. 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, most of the actual works are not of a substantial nature. Most construction activity will affect the surface of the street only with up-standing structures such as bus shelters and signage also proposed. The most significant changes will accrue at the repositioning of both sets of Scherzer bridges on the north quays and the construction of the newly proposed DPTOB linking Sir John Rogerson's Quay to the East Link Road on the south quays. The Proposed Scheme will also alter the way the streets are used on an everyday basis.

7.5.2. 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 (set-down/ deliveries) and private motor vehicles.

7.5.3. Firstly, the Board should note that significant physical changes to the street environment are proposed to occur at each of the junctions (12 no.) along the route of the Proposed Scheme. There are four general junction designs proposed, which are outlined in the Preliminary Design Guidance Booklet (PDGB) submitted with this application. This guidance emanated from the Dutch Design Guide Ontwerpwijzer Fietsverkeer, which discourages partial conflicts between cyclists and vehicles if the volume of turning vehicular traffic exceeds 150 PCUs per hour. Each specific junction design is then based on the number of Passenger Car Units (PCUs) that move through that junction per hour i.e., 0-100, 101-150, or >150.

7.5.4. Only Junction Type 1 is proposed on the Ringsend CBC scheme. In this regard, Junction Type 1 is to be used when volume of left-turning vehicles is greater than 100 PCUs per hour, in an urban setting where no space is available for a dedicated left-turning lane/ pocket. These junctions have dedicated bus lane, vehicle lane and cycle lane, no left turning lane is provided for general traffic. This junction is proposed at Commons Street/ Custom House Quay, Guild Street/ North Wall Quay/

Beckett Bridge, Park Lane/ North Wall Quay, New Wapping St/ North Wall Quay, Castleforbes Road/ North Wall Quay, North Wall Avenue/ North Wall Quay, Lombard Street/ City Quay, Cardiff Lane/ Sir John Rogerson's Quay/ Beckett Bridge, Forbes Street/ Sir John Rogerson's Quay, Blood Stoney Road/ Sir John Rogerson's Quay, Dodder PT Bridge/ East Link Road, and Memorial Road/ Custom House/ Talbot Bridge.

Pedestrians and public realm

7.5.5. 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.

7.5.6. It is important to note that under DMURS, the creation of walkable, cyclable 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 at 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. This 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.

7.5.7. 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 the Scherzer Bridges at the Royal Canal and George's Dock, along the length of the Campshires on the north quays, and at the DPTOB/ York Road area. These improvements should encourage people to stop and linger in these areas. 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.

7.5.8. Works on the north quays will require removal of 124 trees, mainly early mature and semi-mature Lime (*Tilia* species). The Proposed Scheme will provide for the planting of new semi-mature street trees to replace removed trees, where practicable, and for the improvement of the streetscape environment.

7.5.9. The pedestrian environment along the route of the Proposed Scheme will also be significantly improved through the provision of increased pedestrian directness, provision of traffic calming measures, improved accessibility facilities and increased footpath and crossing widths. A Level of Service (LoS) 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. 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. Eight of the 11 impacted junctions are rated at C or lower and the LoS will improve to a A/ B rating at all impacted junctions in the Do Something scenario.

7.5.10. The NTA state that the footpaths are unusually wide along the scheme area, with generous space available in particular along the campshires of the River Liffey, and that the new boardwalk structures cantilevered over the River Liffey at the Docklands Building opposite the CHQ Building on Custom House Quay, and at two pavilion restaurant buildings on North Wall Quay opposite Excise Walk will create a 6m wide pedestrian route along the river edge behind these buildings

7.5.11. I note that pedestrian crossings varying from 2.4m and 4m in width have been incorporated into the Proposed Scheme and that the larger pedestrian crossing widths have been allocated in areas that are expected to accommodate a high number of pedestrians crossing or at locations where both pedestrians and cyclists share a crossing such as at a Toucan Crossing.

7.5.12. The preferred arrangement at junctions is to facilitate pedestrians crossing on all arms of the junction in one movement, including diagonally, whereby the wrap-around pedestrian signal stage will take place at the start of the signal cycle. This is referred to as a wrap-around pedestrian stage within the Preliminary Design Guidance Booklet accompanying the planning application and I consider it represents a significant improvement in terms of pedestrian convenience and directness.

7.5.13. However, the most significant positive impact will be from the provision of the DPTOB and the creation of a new pedestrian link across the mouth of the River Dodder, which will link the employment and entertainment areas on the river's west side with the residential and amenity areas in Ringsend/ Irishtown. Another significant improvement in the pedestrian environment will accrue as a result of the construction of two additional boardwalks at Custom House Quay and North Wall Quay at pinch points adjacent to the River Liffey between Seán O'Casey Bridge and Commons Street and at Excise Walk.

7.5.14. I note the concerns outlined in a number of the submissions about the possible conflict between pedestrians and cyclists within the part of Ringsend Park that will form part of the newly proposed cycle route, whilst the Dublin Cycling campaign supports the widening of the path in Ringsend Park to facilitate the provision of its combined use for pedestrians and cyclists. I am satisfied that this type of use is acceptable and common practice in other parts of the city. This issue of pedestrian/ cyclist conflict is also raised about the southeast side of the junction of Samuel Beckett Bridge and Sir John Rogerson's Quay. On the day of my site inspection, I examined this corner and I note the proposals of the NTA whereby they propose to widen the footpath and cycleway on the southeastern corner of the bridge, which will result in a significant interim improvement to pedestrian and cycle conditions on the bridge. The NTA confirmed this in their response to the submissions. I have reviewed the iteration process for this junction design contained in Appendix A6.1 Junction Design Report and also note that with the proposed works to the junction the LoS improves from a C to a B rating. I consider this to be acceptable.

7.5.15. The residents of Strand Street and their public representatives wish that the green space immediately opposite their houses is retained. I am satisfied that the proposal

will only result in a small reduction in the overall green space at this location and further to the east at the green space associated with Waxies' Dargle monument.

7.5.16. Cllr. Claire Byrne requests interim improvements at the junction with Samuel Beckett Bridge until completion of planned pedestrian/ cycling bridge at Forbes Street/ Blood Stoney Road. I am satisfied that the works proposed at Samuel Beckett Bridge form part of the Proposed Scheme and will be carried out whether the separate project at Forbes Street/ Blood Stoney Road proceeds or not.

7.5.17. It is highlighted in the DCC submission that there is no mention of the modern art installation *Free Flow* consisting of glass cobbles in light features set into the paving on the northern Liffey campshire running from Custom House Quay to the Point Depot. In their response, the NTA confirm that this art installation is located in paved areas on the campshires close to the riverbank where there will be minimal disturbance for the alterations to the street layout in the Proposed Scheme and that they will undertake measures to safeguard these features in the works so that they are retained and protected. I consider this to be an acceptable approach.

7.5.18. The City Architect claims that there is a discrepancy in EIAR Chapter 4, Section 4.6.10 that says, "no new gantry signage is included in the Proposed Scheme", with reference to proposals for traffic signals on gantry poles at various locations in Conservation Areas. The NTA highlights the misunderstanding of terminology where gantry signs are usually large features with elevated frames supporting information panels. In this instance, traffic signal gantry poles are much smaller and visually discreet (similar to lamp posts and other normal street furniture), and they are commonly used throughout the city, especially on wider streets with four or more traffic lanes so as to ensure that drivers in the centre lanes can properly see the traffic signals. I accept the explanation for this misunderstanding.

7.5.19. The City Architect also seeks details on the design on a number of items including public realm improvements at a number of locations along the quays, bus shelters and the siting of utility cabinets/ above-ground utility infrastructure, the extent of hard landscaping, all street furniture and boundary finishes, traffic signal poles, signage poles and water drinking fountains along the route. The NTA confirm that it is their intention to retain all existing good quality paved areas, unless they are necessarily disturbed by the proposed works, and to replace like with like only where necessary.

The NTA will liaise with the City Architects Department in relation to the final detailing of new street furniture and also explore the possibility of inclusion of public drinking water fountains in the Proposed Scheme. Similarly, the NTA will liaise with the City Architects Department regarding selection and location of artworks along the route under the Percent for Art Strategy. I am satisfied that this is an acceptable method of finalising design details on these matters.

7.5.20. Dublin Cycling Campaign urges the NTA to ensure that Universal Design principles are embedded in the scheme. In relation to the accessibility of the Proposed Scheme, the NTA have outlined in their response to the submission that providing accessibility for mobility impaired users is a core element of the Proposed Scheme and the potential impact on people with disabilities has been appropriately considered in both the scheme design and the impact assessment. I am satisfied that this is the case.

Scherzer Bridges

7.5.21. The concerns about the impact of the Proposed Scheme regarding the removal and local relocation of the existing Scherzer Bridges from the road corridor over the Royal Canal and from over the lock into George's Dock, and the construction of new road carriageway bridge crossings over the canal and the entrance to George's Dock are outlined in section 7.4.10 above. The NTA propose the retention and refurbishment of the existing Scherzer Bridges at new positions, as local landmarks which will be set within areas of appropriate high-quality paving. Although the separation and repositioning of the structures negates their historic lifting bridge function on the main carriageway, I am satisfied that the altered high quality urban realm/ landscape will have a positive impact on the pedestrian environment and the visual relationship of the structures with their original siting is largely retained.

7.5.22. There were a number of concerns raised about restricted pedestrian movement in the area of the Scherzer Bridges and the CHQ building. The NTA confirmed in their response to the submission that a 5m wide pedestrian access route will be retained between the eastern edge of the proposed construction compound and the nearest edge of the CHQ building and that interfaces with other projects during the construction phase will take place on a case-by-case basis to ensure that there is coordination between projects, that Construction Access Routes remain

unobstructed by the Proposed Scheme works and that any additional construction traffic mitigation measures required to deal with cumulative impacts are managed appropriately. I am satisfied that access/ egress can be managed at this location in this manner during the construction phase.

Dodder Public Transport Bridge (DPTOB)

7.5.23. A significant change to the pedestrian/ public realm environment will accrue as a result of the construction of the DPTOB across the confluence of the River Liffey and River Dodder from Britain Quay on the west side to Thorncastle Street/ York Road on the east side. Works on the east side will directly impact on the existing open space and associated features and art pieces. Works will also require land reclamation of a section of the River Liffey/ Liffey Estuary, including the construction of retaining structures in front of the existing quay walls, obscuring them from view and burying them permanently, as well as the demolition of the existing St. Patrick's Rowing Club (SPRC) clubhouse and the construction of new facilities.

7.5.24. A high-quality urban realm landscape scheme is proposed at either end of the proposed DPTOB, and especially on open space and around the relocated rowing club facilities at the eastern end of the bridge. The proposed bridge will also incorporate planters for trees and other planting. A new ESB substation will also be provided within this space which will be adequately screened with proposed hedging. At operational stage, the DPTOB, which will open to accommodate movement of higher vessels (to and from Grand Canal Dock), will include for seating and viewing areas, planters for trees and shrubs, and stone paving. The DPTOB will also provide for full pedestrian and cycle connectivity along the south quays and for attractive views of the River Dodder/ Grand Canal Dock and the River Liffey. Facilities at SPRC will be reinstated along the River Liffey, and a small local park amenity will be provided at the eastern end of the DPTOB at York Road/ Thorncastle Street.

7.5.25. I note a concern raised by DCC in their submissions about the elevation treatment and materials for the proposed SPRC building and a further concern about the height of the proposed building by the owners of Portview House on Thorncastle Street. I consider the proposed building to be well designed following good site analysis and I am of the opinion that it will form an interesting, appropriate and easily legible addition to the waterside buildings along the River Liffey. I also note the concerns of

the owners of Portview House but I am satisfied that the proposal forms part of the normal development of a city during which views to and from places/ spaces/ buildings can change over the evolution of the built environment in a city, and that there will be no significant impact on the residential amenities of the occupants of Portview House.

Provision for cyclists

7.5.26. At present, 74% of the route is currently providing segregated cycle tracks. The Proposed Scheme will provide continuous segregated two-way cycle tracks along the length of the north and south quays from Talbot Memorial Bridge to Tom Clarke East Link Bridge (via the DPTOB on the south quays), as well as extending through Ringsend and Irishtown towards the Poolbeg Peninsula. Further to this, the Proposed Scheme will allow the integration of all of the major greenways in the eastern part of the city, thereby making a critical contribution to the realisation of the overall Greater Dublin Area Cycle Network. Having regard to the above, I would be satisfied that the provision of 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 and, I am satisfied that the needs of the 'interested but concerned' cohort (50-60%) of cyclists will be met, as sought by Dublin Cycling Campaign in their submission.

7.5.27. I consider that the most significant improvement for cyclists would be the introduction of the DPTOB. This will create a new cycling link across the mouth of the River Dodder and will greatly enhance cycling connectivity in the area by linking the employment and entertainment areas of the river's west side with the residential and amenity areas to the east. Over the long term, the provision of the DPTOB will be profoundly positive for cyclists using the route.

7.5.28. There is only one junction type proposed throughout the CBC, outlined earlier in this report. 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.

7.5.29. In general, I consider this arrangement represents a significant improvement in safety terms for cyclists at all junctions. 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 junctions with greater caution and less confidence. This is critical from a cyclist safety viewpoint.

7.5.30. I note a number of the submissions have raised concerns about conflict at the proposed junctions between the vulnerable road users (pedestrians and cyclists) and vehicles as well as conflict between pedestrians and cyclists. In this regard, I note concern about the design of the Tom Clarke Bridge junction, the arrangement of the entrance at the Kerlogue Road/ Strand Street entrance to Ringsend Park, and the shared pedestrian/ cyclist path in Ringsend Park.

7.5.31. In relation to the Tom Clarke East Link Bridge and the Point Roundabout, the NTA state that these are outside the red line for the Proposed Scheme and that proposals for this location are being separately progressed by Dublin City Council but are at an earlier stage of development. The NTA also state that they are aware of the long planned proposal by DCC for replacement of the Point Roundabout with a traffic signal junction, but the design of that separate scheme was not sufficiently defined to be included on the Proposed Scheme drawings. Similarly, it is considered to be premature to provide an additional pedestrian crossing at the southern end of Talbot Memorial Bridge as the Liffey Cycle Scheme has not been designed yet.

7.5.32. With respect to the potential for conflict between straight ahead cyclists and left-turning motor vehicles at other junctions, 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.

7.5.33. 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 advantage with the Proposed Scheme preferred junction layout which signalises pedestrian and cyclist conflict.

7.5.34. In relation to the arrangement of the entrance at the Kerlogue Road/ Strand Street entrance to Ringsend Park, the NTA highlight that there is a constraint at this location due to a stand of trees in the verge along Strand Street which is avoided by the proposed cycle track alignment. Further to this, the NTA state that it is also beneficial to provide a bendy alignment on this section of cycle track to control cyclists speeds as there are several interfaces with crossings of entrances, side roads and footpaths between Ringsend Park and Kerlogue Road. I accept this reasoning and I am satisfied that the cycle path arrangement at this location represents a safe solution for pedestrians and cyclists.

7.5.35. BusConnects is essentially a retrofitting project which seeks to reallocate road space for bus priority and active modes of transport. 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 and I consider that the Proposed Scheme represents a substantial improvement in terms of safety and comfort for cyclists.

7.5.36. Therefore, on balance, I am satisfied with the overall level of infrastructural improvements for cyclists along the entirety of the route. The figures presented in the EIAR show that the Proposed Scheme will have beneficial impacts in terms of safety and projected increase in cycling activity along the route. I consider that the

Proposed Scheme will add significantly to more sustainable transport infrastructure within the city.

Conflict at bus stops

7.5.37. 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.

7.5.38. A hierarchy of bus stops is proposed, with inline bus stops (9 no.) being the preferred design, followed by island bus stops (7 no.) and then laybys (4 no.). Inline bus stops are used where there are no cycle tracks provided and users departing the bus exit straight onto the footpath. Island bus stops reduce conflict between cyclists and stopping buses by deflecting cyclists behind the bus stop. Layby bus stops are provided for coaches with a long dwell time, allowing other buses to pass the stopped bus. Bus stops on the campshires where there are two-way cycle tracks along the route of the Proposed Scheme are to be the island design.

7.5.39. The Preliminary Design Guidance Booklet illustrates the bus stop options including measures to mitigate potential cyclist and pedestrian conflicts.[4] 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. The NTA have confirmed that at bus stops, as is the standard arrangement on all the BusConnects Core Bus Corridor schemes, pedestrian priority will apply at the raised ramp crossings between the footpath and the bus stop island.

7.5.40. In my opinion, the signalised crossing of a 2.5m wide two-way 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 between the UCD campus and the

[4] P.23, 11 Bus Stops, Preliminary Design Guidance Booklet for BusConnects Core Bus Corridors

Talbot Hotel. I consider that new island bus stops could be fitted with sockets 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.

7.5.41. I am 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 this is becoming a more important consideration with the increasing use of personal mobility vehicles.

Cycle Lane Width and Kerb Height

7.5.42. I note that there are very extensive lengths of two-way cycle tracks in the Proposed Scheme, and these are typically 3.0m to 3.5m wide and separated from the road by a buffer zone of varying width, which is typically 2m wide. Table 4-2 in the Preliminary Design Report shows that 3.0m minimum width is generally achieved, except in very constrained circumstances where passing buildings on the north quays, where a local absolute minimum of 2.5m is achieved. The NTA state that the shared path through Ringsend Park is 4.0m wide, which is the maximum that can be achieved, while protecting the existing trees and the functionality of the adjacent sports pitches. I note the cross-sections shown in Figure 4, Volume 3, of the submitted EIAR and I am satisfied that these adequately demonstrate the widths of footpaths and cycle lanes. Considering the constraints at a number of locations, I am also satisfied that conflicts between pedestrians and cyclists have been designed out of the Proposed Scheme to the best possible extent.

7.5.43. The desirable minimum width for cycle tracks along the CBC is 2m and the minimum width is 1.5m. The two-way cycle track is reduced to 2.4-3.0m at various locations along the quays with the reasoning[5] associated with maximising the retention of existing trees and features (North Quays), limited space between DCC Offices and the road (North Quays), the existing constraint dictated by a bridge (south quays/ Beckett Bridge), and a constrained area on the south quays.

7.5.44. I am satisfied that the treatment at pinch points is in line with the road user hierarchy as designated within DMURS i.e., the width of the general traffic lanes should reduce

[5] Appendix C: Deviations / Departures / Relaxation from Standards, Preliminary Design Report

first, then the width of the cycle track should be reduced before the width of the pedestrian footpath is reduced.

7.5.45. 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 this to be appropriate.

Traffic Calming

7.5.46. 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 however, cyclists are segregated from the main carriageway for 100% of the route on the quays and directed to quiet streets between the DPTOB and Seán Moore Road.

7.5.47. It is stated in a number of submissions that the residents are concerned about the use of Pembroke Cottages and Cambridge Park as a 'quiet street' and suggest alternative routes in the area. I note that no traffic calming is proposed on these quiet cycling streets nor on Pigeon House Road. On the day of my site inspection, I observed the residential nature of these streets and I consider that this would be a safe environment for cyclists and the associated increase in cycling activity would not impact unduly on existing residents. Quiet Streets are called so due to the low volume of only local general traffic users travelling at low speed and are deemed suitable and safe for cyclists sharing the roadway with the general traffic without the need to construct segregated cycle tracks or painted cycle lanes. The Quiet Street Treatment would involve appropriate advisory signage for both the general road users and cyclists. I am satisfied that traffic calming along these streets is unnecessary because of the low traffic volumes utilising them.

Cycle Parking

7.5.48. Cycle hire scheme stands are located at Custom House Quay (30 no. east of Butt Bridge and 30 no. west of Seán O'Casey Bridge), North Wall Quay (40 no. stands

west of Excise Walk, Park Lane, Slade Street, and North Wall Avenue), George's Quay (20 no. west of Talbot Memorial Bridge), City Quay (20 no. east of Creighton Street), and Sir John Rogerson's Quay (40 no.). It is clear that this part of the city is well catered for in this regard.

7.5.49. The Landscaping General Arrangement drawings shows the locations of the bike racks along the Proposed Scheme corridor. These are limited to seven Sheffield Stands on Sir John Rogerson's Quay, ten stands on North Wall Quay, six stands on the footpath at the Central Bank, eleven stands on the campshire opposite the 3Arena, and seven stands on City Quay. On the day of my site inspection, I also noted a number of stands located on the streets immediately off the Proposed Scheme corridor e.g., at Blood Stoney Road and Forbes Street. I observed a number of bicycles locked to the railings along the quayside which, having reviewed the drawings, confirms what I consider to be a lack of cycle parking along certain sections of the Proposed Scheme.

7.5.50. I consider that cycle parking provision could be increased along the north and south quays. In my opinion, it would be 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. In general, subject to this condition, I am satisfied that the Proposed Scheme will provide for a good level of cycle parking at appropriate locations.

Other Specific Cycling Issues

7.5.51. A number of other specific issues were raised by Dublin Cycling Campaign and others and have been responded to by the NTA. In their response to the submissions, the NTA acknowledge the recently built infrastructure that was completed on Pigeon House Road and the widening of cycle tracks on Custom House Quay.

7.5.52. Cllr. Claire Byrne raised a concern about the co-ordination of the Proposed Scheme with other projects such as the Dodder Greenway and Coastal mobility route. The NTA state that two-way cycling facilities are being proposed along both the north and south quays, in recognition of the critical importance of cycling for modal transfer, and the major intersection of cycling routes at the eastern end of the quays – including the East Coast Trail, the Dodder Cycling Route, the Liffey Cycle Route, and

the proposed Dublin Port Liffey-Tolka link. I am satisfied that the NTA has given due consideration to these other projects and that the Proposed Scheme facilitates links to these projects.

7.5.53. Cllr. Byrne is also concerned that cycling capacity on north quays will be compromised by increasing the main thoroughfare. However, I am satisfied that the addition of two proposed boardwalk sections will improve the pedestrian facilities and, consequently, provide room for the cycling infrastructure to be enhanced also.

7.5.54. Cllr. Byrne also seeks an alternative cycling route on the northside of the wall alongside Pigeon House Road. The NTA state that the proposed route for the cycling route is identified as a primary route on the Cycle Network Plan for the Greater Dublin Area 2022. I am satisfied that the option chosen is plan-led and I consider it to be acceptable.

7.5.55. In conclusion, I consider that the Proposed Scheme will result in significant improvements for cyclists along the CBC, particularly with the provision of the DPTOB and at junctions.

Bus priority and infrastructure

7.5.56. 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

7.5.57. 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.

7.5.58. From the outset, it should be noted that the primary bus routing will be along the north quays, where 100% bus priority is being provided through provision of fully continuous bus lanes. Bus priority will also be provided westbound along the entire length of the south quays, and eastbound along the eastern section of the south quays between the Samuel Beckett Bridge and the Tom Clarke East Link Bridge. Bus priority in the case of the Proposed Scheme falls under two categories i.e., bus lanes 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.

7.5.59. Furthermore, there are key sections of the current bus lanes that are not operational on a 24-hour basis in addition to being shared with both formal and informal parking facilities and cyclists which compromises the reliability and effectiveness of the bus services in these areas.

7.5.60. Dedicated bus lanes will be located along the inner lane between junctions. These lanes will be used by the BusConnects services but will also be available to taxis and coaches. There will be situations where taxis and coaches will have to merge into the general traffic lane in order to make a left turn.

7.5.61. 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.

7.5.62. Bus journey times can be affected in situations where slower moving cyclists are sharing the bus lane, and this will not occur on the route of the Proposed Scheme. The results of the micro-simulation modelling assessment demonstrate that the total bus journey times on all modelled bus services will improve by between 30% and 62% during the AM and PM Peak hours of the 2028 Opening Year and 2043 Design Year.

7.5.63. Overall, I am satisfied with the overall level of priority afforded to buses along the route. 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.

Bus stops

7.5.64. The main bus infrastructure to be installed along Proposed Scheme comprises the bus lanes and bus signals, as described above i.e., infrastructure to enable more efficient and reliable bus movement. There are no Bus Gates proposed as part of the Proposed Scheme. The other main infrastructural provision relates to bus stops. Bus stops are typically spaced at distances of 250m apart in urban centres. Island bus stops, layby 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 urban areas, it is generally acceptable for general traffic to wait behind buses that are stopped at in-line bus stops and the Inline Bus Stop is the most used bus stop type along the Proposed Scheme, particularly on the north quays. The Board should note that bus stop types are described in detail in Section 11 of the PDGB for BusConnects Core Bus Corridors.

7.5.65. All bus stops will have a shelter and seating, and there will be timetable information 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.

7.5.66. 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.

7.5.67. A submission from Amphitheatre Ireland Limited (3Arena) request the relocation of a coach stop so as not to interfere with the service yard area at the front of the 3Arena. The NTA confirm and demonstrate in their response to the submission that the

proposed coach stop does not obstruct the access to the 3Arena service yard. Relocation of a bus/ coach stops 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 including the location of the bus stop at the 3Arena is appropriate and acceptable.

Access to commercial premises

7.5.68. 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 the accompanying/ concurrent report on the CPO application. 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

7.5.69. 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.

7.5.70. 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.

7.5.71. 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 authorities, An Garda Síochána, residents and businesses prior to all road closures and diversions.

7.5.72. The owners/ operators of the 3Arena state in their submission that it is important that the construction of the Bus Connects scheme does not impact the functionality or usability of Point Square via North Wall Avenue. They are concerned that the venue does not appear to have been given adequate specific assessment and consideration in preparing the construction management plans. They have outlined a number of specific requests in their submission in relation to the construction phase of the Proposed Scheme, which includes the scheduling of works, alternative routes and allowing production deliveries to the 3Arena to turn right onto North Wall Avenue.

7.5.73. In their response, the NTA confirm that access to the 3Arena service yards from North Wall Quay and from North Wall Avenue will be maintained throughout construction; working hours for the proposed development are between 07:00hrs and 23:00hrs on weekdays, and between 08:00hrs and 16:30hrs on Saturdays and working areas of the site will be cordoned off by hoarding for the safety of pedestrians and operatives; access to the 3Arena loading bay on North Wall Avenue will be available via East Wall Road and Sheriff Street Upper. Although this response was deemed not to have satisfactorily addressed some of the points made by the 3Arena's planning and engineering consultants, I am satisfied that the specific details of main issue of providing safe access/ egress for patrons of the 3Arena should form an integral part of the CTMP to be agreed with the planning authority prior to commencement of development.

7.5.74. CHQ Dublin Limited claim that the 2-year construction programme will significantly impact on pedestrian and cyclist access to the CHQ Building and the through route between Custom House Quay and public transport facilities to the north of the building and that that the use of the public plaza will be severely curtailed. The NTA highlight the works at the Scherzer Bridges at this location are some of the most complex elements of the Proposed Scheme, hence the need for the works to be carried out in stages over a period of 2 years. Further to this, the NTA state that a 5m

wide pedestrian access route will be retained between the eastern edge of the proposed construction compound and the nearest edge of the CHQ building.

7.5.75. The NTA also confirm that interfaces with other projects, including the proposed Major Food Hall and Market in the CHQ building, during the construction phase of the Proposed Scheme will be set out in the Construction Contract, to ensure that there is coordination between projects, that Construction Access Routes remain unobstructed by the Proposed Scheme works and that any additional construction traffic mitigation measures required to deal with cumulative impacts are managed appropriately. Given the extent of the works at this location and the expressed need for the type of construction compound(s) proposed, it is inevitable that there will be some impacts on patrons/ visitors of the CHQ building. However, with appropriate construction management procedures in place I am satisfied that any impacts will be temporary and can be limited to the greatest degree possible for the 30 month construction period.

7.5.76. OPCO Customs House DAC (owners of the Hilton Garden Inn Hotel on Custom House Quay) state that they must continue to have access to and the use of the area in front of the hotel as a set-down lay-by for the purposes of business continuity and request that the Board impose a condition that facilitates them with full access to and use over this area. The NTA have confirmed in their response that the Proposed Scheme will not interfere with the existing access arrangements at the hotel, and the set-down/ loading layby will be retained. I consider this to be satisfactory.

7.5.77. Custom House Docks Management Ltd. and Custom House Docks Basement Management Ltd. request parking in the Custom House Dock area of the IFSC to be safeguarded. Similarly, Spencer Dock Management Limited (CCD) seek assurances that emergency access, lay-by facility and car park access will be unaffected. The NTA confirm that details regarding temporary access provisions will be discussed with residents and business owners prior to construction starting in the area and that the duration of the works will vary from property to property, but access and egress will be maintained at all times. I am satisfied that standard arrangements within a CTMP will ensure impacts on availability and access to parking are limited during the construction period.

7.5.78. Spencer Dock Management Limited highlight an issue with the operation of the loading bay for Tesco on Mayor Street Upper and request that the 3 no. loading bays on Park Lane be extended during the construction works to assist Tesco Ireland. I consider the signalling issue highlighted on Mayor Street Upper to be an existing operational matter and its consideration under this application process would be inappropriate. I have also reviewed the loading bays on Park Lane and, although outside the scope of this application, consider that they are suitable to provide loading facilities for nearby businesses during the construction and operational phases of the Proposed Scheme.

7.5.79. The NTA acknowledge that 9 of the existing 27 loading bays are proposed to be removed on the North Quays but state that the removal of these loading spaces is necessary to enable continuous bus lane priority to be provided towards the eastern end of the route where bus lanes are not present and that there are alternatives available on the adjoining side streets.

7.5.80. NWQ Devco Limited (owners of City Block 9) state that the submitted drawings do not accurately represent the existing junction arrangement at Commons Street with North Wall Quay and do not take account of the existing building's basement extents and they question the practicality of the NTA acquiring a parcel of land over their basement area. They query the necessity of providing a coach parking bay at their building and are concerned about the structural integrity of their basement wall with coaches parking directly above on-street. They request the Board to impose a condition on any grant of planning permission omitting the proposed coach stop at this location.

7.5.81. The NTA confirm that the junction of Commons Street with North Wall Quay has been designed to accommodate the proposed coach layby in a balanced arrangement to best meet the overall combined objectives of the proposed core bus corridor scheme and in accordance with the requirements of the Preliminary Design Guidance Booklet. The NTA state that it is not unusual for a private basement to extend under a public footpath, or even a public road, and that this is common across Dublin, especially in the older Georgian and Victorian areas. They further state that all underground structures (walls and roofs) must be designed to withstand imposed loads for maintenance vehicles and fire tenders. They confirm that the proposed coach layby is required to accommodate services such as the Aircoach and Swords

Express which would otherwise obstruct the bus lane as their loading times are longer than the normal city buses. Given that there is an existing loading bay at this location, I am satisfied that the existing retaining wall beside the public road would have been designed to withstand vehicle loads and that the provision of a coach layby in lieu of the loading bay will present no significant change at this location and is, therefore, considered acceptable.

7.5.82. 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 2019f) 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.

7.5.83. Overall, I am satisfied that any impact during construction will therefore only be temporary, affecting commercial premises along the route for a relatively short period of time.

Operational Phase

7.5.84. The main objections from businesses along the Proposed Scheme relate to impacts during the operational phase, particularly on the north quays. Custom House Docks Management Ltd. and Custom House Docks Basement Management Ltd. are concerned about the impact of 'no right turn' onto Commons Street from North Wall Quay would have on the 370 no. space IFSC car park. Park Rite and the IFSC Car Park contend that that the proposal incorporating a ban on the right turn from North Wall Quay to Commons Street will affect up to 40% of the incoming customers to their car park and they request that the existing right turn onto Commons Street is retained.

7.5.85. The NTA outline the consideration given to the removal of the right-hand turn from North Wall Quay onto Commons Street within the Preferred Route Option Report. They highlight that there are six existing access points to this area and, within the

Preliminary Design Report[6], also highlight alternative access routes (6 no.) to the Mayor Street Lower area following completion of the Proposed Scheme. I have reviewed the access routes impacting westbound traffic on the North Wall Quay and note that three of the six options will remain per the pre-scheme scenario. I consider the other three options to be reasonable and both note and agree with the NTA's observation that for two of these routes (from East Wall Road and East Wall Bridge) it is most likely that traffic uses this route already to avoid congestion at the Scherzer Bridges at Spencer Dock.

7.5.86. Consequently, it is likely that traffic that will be most affected on one route only will be crossing Samuel Beckett Bridge and, in order to access the Mayor Street area, should continue north to turn left onto Sheriff Street Upper, continue onto Seville Place, before turning left onto Oriel Street, which would have the effect of increasing the journey distance by 550m. I am satisfied that the impact on traffic accessing this area will not be significant and that there will be gains in terms of achieving the objectives of the Proposed Scheme along the bus corridor by implementing a 'no right turn' onto Commons Street from North Wall Quay.

7.5.87. Spencer Dock Management Ltd. request that consideration be given to the widening of the Park Lane approach to the North Wall Quay to facilitate left and right turning vehicles queuing side-by-side. I note that this would necessitate works outside of the Proposed Scheme area and such a proposal does not form part of the proposed works. They also seek confirmation that Coach/ Taxi Lay-by shown on the NTA Drawings is for the controlled set-down of visitors to the CCD. I am satisfied that the General Arrangement Drawing (Sheet No.03 of 12 refers) presents the proposals for this area and clearly annotates the coach/ taxi set down area immediately outside of the CCD and a coach stop opposite.

7.5.88. Waterside Block 9 Developments Ltd. are concerned that the removal of two existing disabled-accessible car parking spaces at this location on the North Wall Quay would have a detrimental effect on the accessibility of the City Block 9 site unless equivalent alternative facilities are provided. The NTA reiterate that due to the surrounding paid off-street parking (at Euro Car Parks Convention Centre and Euro Car Parks Point Square) and the nearby 20 parking spaces along the adjacent North

[6] Section 12.1.2 Traffic Diversion Routes, Chapter 12, Preliminary Design Report (Supplementary Information)

Wall Avenue, the overall impact of this change is considered to be slight. On the day of my site inspection, I noted the available parking on North Wall Avenue, including an accessible space and I am satisfied these spaces are sufficiently proximate for people who wish to visit the area by private car.

7.5.89. TII note in their submission that the Proposed Scheme will interact with the light rail network immediately north of the Convention Centre (CCD) on Mayor Street Upper. They contend that increased traffic movements across the Luas alignment will occur at this part of the Scheme as a result of the new vehicular eastbound lane proposed to be installed on the northern side of Mayor Street Upper and that this will interfere with the efficiency of the Luas service due to degraded signal priority and with the safety of the service due to an increase in conflicting movements. TII contend that the rationale for the need for the proposed works/ alterations on Mayor Stret Upper is not set out in the EIAR and that they are unable to ascertain the impact of the proposed works on Mayor Street Upper on Luas from the information submitted. Consequently, TII requests that the proposed works on Mayor Street Upper be excluded from the Proposed Scheme.

7.5.90. In response to this, the NTA state the traffic interactions with the LUAS trams will occur at two existing signalised junctions, at the CCD car park entrance and at Park Lane, which ensures full safety with priority for the LUAS. They also state that there will be a small volume of additional traffic crossing the tram tracks from the car parks on the southern side of Mayor Street when the right-turn exit is permitted and, as these are some of the quietest junctions along the LUAS Red Line, there will be no impact for tram priority or safety.

7.5.91. The NTA are clear that the EIAR has fully assessed and described the proposal and identifies the impacts on the junctions along Mayor Street as either Not Significant or Imperceptible. The NTA contend that it would be inappropriate to omit the proposed eastbound traffic lane on Mayor Street from the Proposed Scheme as they are essential to the proposed improvements for pedestrians, cyclists and public transport at the major junction of Guild Street, North Wall Quay, and Samuel Beckett Bridge. Having reviewed the information available in Volume 2, Chapter 6 Traffic and Transport and Volume 3, Figures 6.9 – 6.12 of the EIAR, I am satisfied that the changes in traffic volumes would have little or no environmental impact and,

therefore, would not be likely to give rise to safety issues for the operation of the LUAS at the two existing signalised junctions onto Mayor Street Upper.

7.5.92. On the whole, I recognise that the streetscape is being radically altered and businesses along CBC are amongst those who are likely to 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 cannot assume ownership of public space to the front of their properties 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.

Private cars

7.5.93. DMURS sets out street/ road user priorities for designers to consider. Pedestrians should be afforded the higher priority, followed by cyclists 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.

7.5.94. I note that the level of access for private motor vehicles has been largely retained along the CBC. Consequently, I consider 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, particularly with the emergence of e-bikes and e-scooters, are just as attractive.

7.5.95. There are arguments both for and against the removal of parking along the CBC within submissions. The control and limitation of car parking is a measure that can be successful in encouraging modal shift to sustainable modes. Overall, there will 80 parking spaces removed from the north and south quays as a result of the Proposed Scheme. Given the location of the proposed development within an urban highly accessible area and that spaces are to be lost to facilitate enhanced walking, cycling and bus infrastructure, I am satisfied that the loss of spaces is justified. The Proposed Scheme will also formalise the parking arrangements at these locations to improve the environment, particularly for pedestrians and cyclists. Further to this, the availability of equivalent types of parking along adjacent streets within 200m of these locations (and typically within 100m) will limit the overall impact of this loss of parking. 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.

7.5.96. Mary O'Hanlon, Angela Nicholson and other residents of Strand Street, Chapel Avenue and Seaview in the Irishtown contend that the removal of 8 no. parking spaces and replacement with 2 no. spaces on Strand Street is unfair and unbalanced and that offering spaces at Strasbourg Terrace is considered too remote for the residents. Rose Phipps states that two spaces on Strand Street are essential to the livelihoods of two families. The NTA confirm that a minor encroachment into the road at the bend on Strand Street will impact on existing on-street informal parking, so 2 no. replacement parking spaces are proposed on the eastern side of the road so that there is no net loss of parking for residents. On the day of my site inspection, I noted the location of the existing accessible bay, the proposed location for 2 no. replacement spaces and the presence of two commercial vans on Strand Street. I note that it will be required to remove a small portion of the grassed area to provide the 2 no. proposed spaces. Otherwise, I am satisfied that informal parking will remain for residents at this location and formal parking can be availed of in close proximity at Strasbourg Terrace.

7.5.97. The City Architect in DCC requests the NTA engage with electrical charging operators to co-ordinate the roll-out of on-street charging points. However, the NTA

are clear in their response to this and state that the Proposed Scheme is intended to provide enhanced facilities for public transport and active travel and that it would not be appropriate in such a scheme to address the issue of on-street electrical charging facilities at parking spaces which is a separate matter for the local authority and the electrical supply utilities. I agree with the NTA on this issue in that their remit relates to public transport enhancement and not infrastructure for E.V.s.

7.5.98. As noted earlier in this report, two accessible parking bays are proposed to be removed from North Wall Quay. In the context of a significantly improved public transport service and benefits throughout the Proposed Scheme in terms of facilities for people with disabilities, such as tactile paving, increased kerb height at bus stops and improved public realm and footpaths, I consider that loss of two accessible spaces to be acceptable. 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, which ensures accessibility to services for all.

7.5.99. 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.

7.5.100. In general, in a 'Do Nothing' scenario the streetscape would continue to be based around the movement and parking requirements of private cars instead of people. 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. I consider that the proposed bus, cycle and pedestrian infrastructure will be of a quality to encourage a modal shift away from the private car and this should satisfy what is essentially the main of objective of the BusConnects programme. Given the urgency of climate change, I consider that the Proposed Scheme as presented will go a long way towards the promotion of compact growth and sustainable movement.

7.6. **Impact on residential amenity**

7.6.1. 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.

7.6.2. The most significant impact on residential amenity will be the construction works associated with the Proposed Scheme. A number of residents and their public representatives raise concerns about the impact of noise and vibration levels during the construction period and seek timely and regular communications to be issued to residents about works. In this regard, I would refer the Board to the EIAR section of this report in which such impacts are robustly examined and whereby it is concluded that no significant impacts in relation to either factor is expected to arise. The Proposed Scheme is expected to have a long-term positive impact on noise and air quality as the introduction of a fully electric fleet and the overall reduction of vehicular traffic travelling along the route will significantly improve the current situation in terms of these emissions.

7.6.3. I am satisfied therefore that no significant long-term impacts are expected in relation to noise and air quality along the Proposed Scheme that would impact residential amenity to such a degree as to warrant a refusal.

Loss of privacy

7.6.4. Further to this, a number of residents are concerned about the use of the proposed cycle lane in Ringsend Park insofar as 24-hour access may give rise to anti-social behaviour. A resident is also concerned about increased noise during the operational phase on Strand Street. Similarly, a number of residents are concerned about the use of Pembroke Cottages and Cambridge Park as a ‘quiet street’ and its consequent impact on privacy and residential amenity.

7.6.5. I consider that the houses on Strand Street, Pembroke Cottages and Cambridge Park are located in an urban area which is heavily trafficked by pedestrians and

vehicles. There is always some degree of view from the public road to terraced houses. I am satisfied that individual properties along the route will remain adequately set back from the public footpath so as not to significantly impact on the privacy of residents beyond what would be considered acceptable in such an urban environment.

7.6.6. The improvement of permeability and access to sustainable modes of transport and increasing active travel is supported at all policy levels and is recognised as international best practice. It is a key goal of the European Nations 2030 Agenda to build resilient infrastructure, promote inclusion and sustainable industrialisation and foster innovation and to make cities and human settlements inclusive, safe, resilient, and sustainable. Similarly, the Sustainable and Smart Mobility Strategy 2020 (EU Commission 2020), seeks to increase the modal shares of collective transport, walking and cycling, as well as automated, connected and multimodal mobility which will significantly lower pollution and congestion from transport, especially in cities and improve the health and well-being of people. This document contends that cities are and should therefore remain at the forefront of the transition towards greater sustainability.

7.6.7. 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. I am therefore satisfied that the proposed works including the reallocation of road space would not impact the privacy of residents to such a level as to warrant a refusal of the Proposed Scheme.

7.7. **Ecological impacts**

7.7.1. The ecological impacts of the Proposed Scheme are addressed in the Biodiversity section of the EIA in Section 9.6 below. In addition, the Appropriate Assessment in Section 8 addresses the effects of the proposal on European Sites. Potential impacts on biodiversity could occur from the construction of the DPTOB, the removal and reinstatement of the Scherzer Bridges, the construction of boardwalks, vegetation

and tree removal, construction and earthworks, drainage and additional silt/ pollutant release into the drainage network, lighting during construction and operation, noise, vibration, and invasive species.

7.7.2. 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.

7.7.3. The main issues raised in the submissions from the statutory consultees include the potential adverse effects the proposed development may have on otter during its construction and operational phases, and particularly on otter movements between the Liffey Estuary and Royal and Grand Canals; the impact that the construction of an extra wide combined footpath/ cycle path would likely cause damage to the roots of trees that line the existing path in Ringsend Park and along Strand Street, Bayview and Beach Road, and suggests that cyclists use the adjacent quiet streets; and the lack of detail for the proposals on the plans submitted. The DAU suggests a condition with mitigation measures to be incorporated into an Otter Conservation Plan and a biodiversity enhancement measure by the provision of black guillemot nest boxes (10 no.). DCC request that an Arborist and Landscape Architect be retained on-site for the duration of the works and recommend that a Tree Bond be in place for each retained tree.

7.7.4. The NTA state that they consulted with the Parks Division of DCC when developing the proposals for the cycle route through Ringsend and Irishtown and the most direct and attractive cycle route is via Ringsend Park, and this was indicated in the Greater Dublin Area Cycle Network Plan adopted by NTA in 2013 and in the current Cycle Network Plan adopted in 2022. They contend that this proposed all-purpose active travel route is entirely compatible with the other park uses, as is clearly evident in the many existing examples at other parks in the city. The NTA consider that a further quiet streets option would not be feasible in Irishtown as the network of quiet local streets, many of which are narrow and one-way, is disjointed and disconnected such

that a very indirect route would result if that alternative were adopted. I am satisfied that the NTA route selection process was well considered and is in accordance with both the GDACNP and the Cycle Network Plan, whilst minimising impacts on trees/ vegetation in Ringsend Park and Irishtown.

7.7.5. The proposed DPTOB will have two piers in the waterbody (constructed within a cofferdam) but should not result in loss or indeed fragmentation of otter territory as otter will still be able to use the majority of the aquatic environment around the bridge for commuting and foraging purposes. I am satisfied that habitat loss arising from the Proposed Scheme would not constitute a significant decline in the extent of available otter habitat and will not affect the local otter population's ability to maintain itself.

7.7.6. In response to the DAU submission, the NTA confirm that a pre-construction survey will be carried out in accordance with the Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes (NRA, 2006) and undertake not to carry out any works related to the Proposed Scheme in the vicinity of the otter holt near the MV Cill Áirne until such time that a derogation licence is granted / obtained. The NTA recognises the apparent recent decline in the numbers of black guillemots along the stretch of the Liffey Estuary between the Matt Talbot and Tom Clarke (East Link) Bridges and outlines mitigation measures for nesting breeding birds (including black guillemot) prior to the commencement of the construction phase of the Proposed Scheme.

7.7.7. The proposed DPTOB and boardwalk structures will permanently remove potential habitat for birds that nest within crevices in the quay walls (i.e. black guillemot and sand martin). Black guillemots are known to breed within the study area of the Proposed Scheme and the wider area of Dublin Port. The Proposed Scheme will result in the direct loss of foraging habitat as a result of estuary reclamation to facilitate the proposed DPTOB. The area subject to direct habitat loss forms a relatively small part of larger expanses of similar habitat types in the wider locality of Dublin Port. Notwithstanding this, the NTA confirms its agreement to submit to the planning authority the design and location of the 10 permanent black guillemot and/ or sand martin nest boxes for its written agreement, prior to the commencement of the construction phase for the Proposed Scheme. I consider these measures to be acceptable on the basis that they will provide adequate compensatory measures for the species.

7.7.8. Similarly, structural works involves with the demolition of the SPRC clubhouse, construction of the proposed DPTOB the installation of pedestrian boardwalk at DCC Docklands Offices at Custom House Quay and the Scherzer Bridges adjacent to the Royal Canal are located adjacent to water bodies. This has the potential to result in significant negative effects on water quality at a local geographical scale and consequently affect aquatic and wetland habitats in the receiving environment. However, the NTA have proposed mitigation measures (discussed in Section 8 below) and confirm that the CEMP will be updated prior to construction works so as to avoid contaminants being transferred to hydrologically connected water bodies including the Liffey Estuary Upper, the Grand Canal pNHA, and to the downstream coastal environment of Dublin Bay. I also consider these measures to be acceptable.

7.7.9. One of the main issues raised in submissions relating to biodiversity concerns the loss of trees and vegetation. A Tree Schedule in the Arboricultural report submitted as part of the EIAR (A17.1 Aboricultural Impact Assessment, Chapter 17, EIAR Volume 4 (Part 4) refers). The proposal will require the removal of 135 individual trees, which includes the removal of 123 early mature or semi-mature lime trees from along the north quays, and twelve other early-mature or mature trees from Ringsend Park and the existing amenity area at York Road/ Tom Clarke East Link Bridge. The trees to be removed will be compensated for through the planting of street trees. These are illustrated on the Landscape General Arrangement drawings accompanying the application. The new planting will comprise of:

- 133 street trees,
- 211m^2 of proposed ornamental planting, and
- 1,709m^2 of proposed amenity grass planting.

7.7.10. I consider that any clearance of trees and shrubs during the main bird breeding season from March to August inclusive should be avoided and I recommend that, if the Board is minded to approve the Proposed Scheme, that a condition be attached to any grant of permission requiring this.

7.7.11. 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.

7.8. Impacts on Built Heritage

7.8.1. Impacts on built heritage are addressed in detail under Section 9.9 of the EIA covering cultural heritage and the landscape. All of the scheme area is located to the east of Dublin City Centre, which will run through part the historic city of Dublin, represented by Custom House Quay and North Wall Quay on the north side of the River Liffey, and by City Quay and Sir John Rogerson's Quay on the south side. This area forms part of the former industrial docklands, which was developed following a land reclamation scheme initiated in the late 17th century, with the construction of warehouses and stores beginning in earnest following the building of the Custom House (DCC RPS 2096) a century later.

7.8.2. The majority of the built heritage along the quays is 19th century and largely consists of warehouses such as those surviving at Custom House Quay (CHQ) (DCC RPS 2094), 82 North Wall Quay (DCC RPS 5842), 2 Sir John Rogerson's Quay (DCC RPS 7543) and the Tropical Fruit Company (DCC RPS 7548), depots such as the former CIE Goods Depot (DCC RPS 5836) and shipping offices, B&I Steam Packet Offices (DCC RPS 7547), all of which are of industrial as well as architectural heritage interest. The Custom House (DCC RPS 2096) which is of International Importance lies to the west of the Proposed Scheme.

7.8.3. There are also features associated with the quays including the quay walls, camp-shire warehouses and machinery, the Royal Canal Scherzer Bridges (DCC RPS 912), George's Dock Scherzer Bridges (DCC RPS 896), the Diving Bell (DCC RPS 7542) and embedded rails on North Wall Quay and Sir John Rogerson's Quay, the Royal and Grand Canals, and the railways, including the Railway Station building on North Wall Quay (DCC RPS 5836), the former British Rail Hotel (DCC RPS 5838), and the Point Depot (DCC RPS 5843).

7.8.4. Examples of 20th century artisan dwellings survive in Ringsend and Irishtown, including Pembroke Cottages and the cottages on Pigeon House Road which were

built by the Pembroke Estate, and the more substantial two storey dwellings on Cambridge Avenue, St Patrick's Villas, St Brendan's Terrace, Strasburg Terrace and Chapel Avenue.

7.8.5. The Liffey Quays Conservation Area follows the River Liffey along the north and south quays. This Conservation Area intersects with two others: the Royal Canal Conservation Area and the Dodder Valley and Grand Canal Conservation Areas at the mouth of the River Dodder where they converge.

7.8.6. Street furniture of note within the scheme area includes nineteenth and early twentieth century lamp posts, granite kerbing, a vent pipe and statues of Matt Talbot and The Linesman.

7.8.7. Notwithstanding this, and as noted above, the Proposed Scheme does not contain many up-standing structures 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 the modal shift to active forms of travel, will allow for greater appreciation of the surrounding built heritage. 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 the EIAR.

7.8.8. However, the two sets of Scherzer Bridges on the north quays are up-standing features of particular note, as are the proposed works to them in terms of rehabilitation and re-siting. In the DCC submission, both the Archaeology Section and Conservation Section comment on the proposed works to the two sets of bridges. The Archaeologist contends that the Proposed Scheme will have a significant negative impact on the two pairs of Scherzer Rolling Lift Bridges (RPS No.'s 896 and 912) through the loss of original fabric, form, and setting of the structures. The Archaeologist notes the EIAR assessment of the impact of the Proposed Scheme on the Scherzer Bridges as 'Negative, Significant and Permanent impact' but does not support the stated post-mitigation impact as being reduced to 'No significant impact' and requests the NTA to carry detailed research into revised design options to allow the bridges to remain in situ. The Conservation Officer states that the dismantling and relocation of the two pairs of historic Scherzer Bridges from its original context obliterates the legibility of its intended function and reduces it in

significance to no more than visually pleasing furniture. Further to this, the City Architect requests a reasoning as to why the Scherzer Bridges at the North Wall Quay/ Royal Canal are to be re-orientated in addition to being relocated.

7.8.9. The NTA highlight all of the public transport services that currently suffer significant delay on this main artery linking the city centre to Dublin Port, the ferry terminals and Dublin Airport via the M50 Tunnel, mainly caused by the narrowing of the road to a single traffic lane through each of the two Scherzer Bridge pinch-points. They contend that the retention of the Scherzer Bridges in their current positions would represent an untenable constraint on the delivery of the Schemes Objectives for improved public transport journey time and reliability through continuous bus lane priority. The NTA state clearly that the Scherzer Bridges have to be repositioned to achieve the necessary bus lane priority on this major route.

7.8.10. In relation to the nature of the restoration works, repositioning and reorientation the NTA state that the Scherzer Bridges require restoration works to ensure their long-term survival and that the required preservation works cannot be undertaken on site. I agree with the contention of the NTA that the Proposed Scheme represents a valuable opportunity to safeguard these important heritage features for posterity. However, I also agree with DCC's Archaeologist in stating that the post-mitigation impact on these protected structures as a result of the Proposed Scheme is greater than stated in the EIAR as 'No significant impact'.

7.8.11. I have had particular regard for DCC's Conservation Officer's and Archaeologist's views in relation to the sets of Scherzer Bridges but, from the evidence before me, I am satisfied that neither set of bridges serve any navigational function for the operation of George's Dock or the Royal Canal, similar to Spencer Bridge on Sheriff Street Upper. I also note the comments of the Department of Housing, Local Government and Heritage where they state that they are in broad agreement with the findings set out in the EIAR in relation to archaeology and cultural heritage.

7.8.12. Although re-positioning the sets of bridges undoubtedly severs the legibility of their intended functions, I am of the opinion that their restoration and associated repositioning would ensure their continued essential presence on the quays, add significantly to the public realm and facilitate the provision of public transport

infrastructure that enables the planned development and the changing nature of this part of the city.

7.8.13. The City Architect requests Conservation Impact statements and Conservation Method statements for the proposed works to the Liffey Quay walls associated with the new pedestrian boardwalks at North Wall Quay and Custom House Quay. Similarly, the Conservation Officer is concerned about the interventions to the quay wall to accommodate a new bridge over the River Dodder (removal of 19m of quay wall) and the removal of a section of the sea wall at St. Patrick's Rowing Club to accommodate the tying in of the existing and proposed cycle and foot paths. The NTA confirm that the requirements for a Conservation Impact Statement and Method Statement are outlined in EIAR, and these are included as a proposed mitigation measure ACH7 and ACH12 in Chapter 22 of the EIAR. I consider this to be acceptable.

7.8.14. The City Archaeologist also comments about the impact of the Proposed Scheme on the artwork *Free Flow* on the north quays. The NTA confirm that the *Free Flow* public artwork will be incorporated into the landscape and urban realm design of the Proposed Scheme as necessary, ensuring that they are reinstated in their original positions in so far as possible. I also consider this to be acceptable.

7.8.15. The Conservation Officer requests all NIAH Structures in proximity to construction works are adequately protected and all proximate works are supervised by a conservation professional. The NTA confirms that an architectural heritage specialist will oversee the recording, protection and monitoring of various heritage assets/ features as well as sensitive fabric prior to, and for the duration of the construction phase of the Proposed Scheme. There are also instances of historic paving, kerbing and lamp posts along the CBC that will be recorded, labelled, and reinstated in proximity to their pre-existing positions and the works will be overseen by a suitably qualified conservation professional.

7.8.16. Section 16.5.2.2 of Chapter 16 provides detail on the impact assessment on 'Other Structures of Built Heritage Interest' such as Conservation Areas and the Royal Canal Sea Lock at Guild Street during the Construction Phase. Reinstatement/ recording will be undertaken under the supervision of an appropriate architectural

heritage specialist. I consider these measures to be satisfactory for the protection of heritage features.

7.8.17. The Conservation Officer requests that the DPTOB (new bridge) design be enduring and of exceptional quality to ensure that it enhances the Grand Canal & Dodder Conservation Area setting rather than detracting from it. The NTA notes these comments in relation to the architectural design of the DPTOB and its influence on the potential enhancement of the Dodder and Grand Canal Conservation Area. Having reviewed the drawings[7] and photomontages[8] for the DPTOB submitted with this application, I consider that the proposed bridge will form an interesting and contemporary addition to the street scene at this location, as well as a critical piece of sustainable transport infrastructure for the development of the city.

7.8.18. Finally, the Conservation Officer requests that where cycle lanes are located in close proximity to protected structures and within Conservation Areas an alternative high quality cycle lane surface is provided in-lieu of red tarmacadam. The NTA questions the benefit that would derive from such superficial arrangements on the main arterial streets and roads in the Proposed Scheme and states that to locally modify the cycle track surface would be inconsistent. I agree with this and consider that altering the colour of the tarmacadam at certain locations would have the unwanted impact of confusing vehicle drivers and, consequently, have the effect of reducing the safety of cyclists.

7.8.19. In general, I consider that the Proposed Scheme can be developed without incurring significant impacts on individual heritage structures along the CBC. I do , however, consider that the impact on two sets of Scherzer Bridges and their setting on the north quays will be significant but, for the reasons outlined above, I am satisfied the level of impact is worth accepting for the benefit of necessary, functioning and future-proofed public transport infrastructure in the interests of the common good for the development of this part of a changing city through planned land use. 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

[7] Appendix B18 Bridges and Major Retaining Structures, PDR, Supplementary Information
[8] R_View 10 Proposed, R_View 12a Proposed, R_View 12 Proposed, & R_View 13 Proposed, Chapter 17 Landscape (Townscape) & Visual, Appendix 17.2, Volume 3, EIAR

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.

7.8.20. I am therefore satisfied that the proposed CBC will have an acceptable impact on the built heritage of the corridor and immediate area.

7.9. **Consultation**

7.9.1. A number of submissions on the Proposed Scheme contend that the consultation process has been inadequate. It is also highlighted by Ivana Bacik T.D. that some residents may have to pay multiple €50 fees to the Board in order to participate in the public consultation process on this and other BusConnects schemes.

7.9.2. One of the observers expressed disappointment that an oral hearing was not being undertaken. 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.

7.9.3. A total of 8 submissions were received on the NTA's responses to the issues raised by objectors and within submissions.

7.9.4. 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, printed brochures, public information events, community forums, resident group meetings, 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.

7.9.5. Details of the consultation entered into by the applicant with Dublin City Council and other prescribed bodies as part of the preparation of the project are set out in Section 1.7 of the EIAR and the Public Consultation Report 2018-2022 which is a separate document.

7.9.6. In relation to the statutory process, I note the applicant erected 73 site notices along the proposed route, advertised the scheme within the relevant newspapers as required and engaged with third parties who have engaged with the process through their submissions to the Board. 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.

7.9.7. Concerns have also been raised in relation to the level of clarity provided within the documents in relation to the description of the proposed works. I have reviewed the documentation, plans and particulars submitted with the application in detail and note that the documents provided leave no ambiguity to the specifics of the Proposed Scheme extents in terms of its route, design, implementation and all mitigation measures proposed.

7.9.8. Thus, having regard to the documentation submitted in terms of public notices, advertisement and details of non-statutory consultations and engagement with third parties, 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.

7.9.9. 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.

7.10. Other issues raised in Submissions

7.10.1. This final section of the planning assessment addresses any other specific issues that were raised in submissions or that remain outstanding.

Security of Utilities

7.10.2. A number of third parties and a statutory consultee raise a concern in their submissions about the impacts on utility infrastructure servicing the area and buildings and request certainty that infrastructure and utilities would not be affected during the construction phase. Spencer Dock Management Limited also request that services associated with the proposed District Heating System be installed during the construction of the BusConnects project.

7.10.3. The NTA confirms that it will liaise with and develop the detailed design of the scheme drainage in collaboration with DCC and will similarly liaise and collaborate in relation to connections and diversions. I note that the applicant proposes various protection measures for utilities during construction e.g., warning signs and markings indicating the location of utility infrastructure, safe digging techniques in the vicinity of known utilities, and in certain circumstances where possible, isolation of the section of infrastructure during works in the immediate vicinity. The Board should note that all mitigation measures for the protection of existing utility infrastructure are set out in Chapter 19 of the CEMP. I consider it unrealistic to request a public transport provider to install or facilitate the installation of a district-wide heating system during the construction of its own project primarily due to the difficulty that would be presented in coordinating logistics and the consequent impact that this would have on the delivery of the BusConnects scheme.

7.10.4. Having regard to the above, I am satisfied that the Proposed Scheme will not have a significant impact on existing infrastructure during the construction phase and where impacts accrue that these will be limited to set hours per day and notification will be given to all impacted properties.

Noise and Air Quality

7.10.5. Noise and air quality impacts are examined in detail within the EIAR section of this report hereunder, I refer the Board to the EIAR in this regard. It is clear from the EIAR assessment that no significant impacts are expected to arise in relation to

either noise or air quality. Positive benefits are expected due to the introduction of electric buses and the reduction in vehicular traffic along the route. Based on the foregoing I am therefore satisfied that no significant impacts will arise in relation to noise and air that would impact residents in any significant manner.

Drainage

7.10.6. DCC request that a detailed drainage design be agreed prior to commencement and states that pluvial flood risk should be assessed at all locations along the route and that the NTA demonstrate that the proposed development passes the three stages of the SFRA Justification Test. DCC also states that the project needs to support and be consistent with the 3rd Cycle River Basin Management Plan and requests the NTA to liaise with DCC regarding a number of planned flood defence projects along the route.

7.10.7. I am satisfied that the Flood Risk Assessment includes the 'Development Management Justification Test', and concludes that 'less vulnerable development' such as local transport infrastructure satisfies the requirements of the Justification Test. In relation to pluvial flood risk, it should be noted that all of the proposed networks have been modelled independently of their length. The proposed networks are attenuated to existing runoff rates before discharging to the existing network. The implementation of SuDS (including bioswales, permeable paving and tree pits) will mitigate against potential pluvial flooding. Therefore, the risk of pluvial flooding is considered low and no further assessment was required. No impacts are expected to arise in relation to flooding.

7.10.8. In relation to compliance with the Water Framework Directive, it is concluded within the submitted report[9] that all water bodies within the Study Area have been assessed for direct impacts and that the Proposed Scheme will not compromise the achievement of the objectives of the WFD for any water body in the Study Area. In addition, the Proposed Scheme has been assessed for the potential for cumulative impacts with other Proposed Developments within 1km of the Study Area. The assessment also concludes that in combination with other Proposed Developments the Proposed Scheme will not compromise the achievement of the objectives of the WFD for any water body. On this basis, I am satisfied that the Proposed Scheme will

[9] Water Framework Directive (WFD) Compliance Assessment, Appendix A13.1, Volume 4, EIAR

not cause a deterioration in status in any water body, and that there are no cumulative impacts with other schemes. Therefore, it can be concluded that the Proposed Scheme complies with the WFD.

7.11. Suggested conditions by Prescribed Bodies

7.11.1. Throughout this report, I have referenced the requests of prescribed bodies for the inclusion of certain conditions on any grant of planning permission. In order to provide a level of clarity about these requested conditions, I will list and comment upon them hereunder.

7.11.2. The Department (DAU) reviewed the EIAR and is broadly in agreement with the findings in relation to Archaeology and Nature Conservation and they recommend a number of conditions be attached to any permission issued. The DAU recommend a standard archaeology condition and, in relation to nature conservation, recommend conditions to include an Otter Conservation Plan and agreement regarding the design/ location of the proposed permanent black guillemot nest boxes (10 no.). This is a reasonable request and I recommend that, if the Board is minded to grant permission for the Proposed Scheme, such conditions be attached.

7.11.3. DCC provide a list of recommendations/ conditions in Appendix 1 attached to their submission. These comprise of separate recommended conditions from each section, namely Roads Division (24 no.), Public Lighting Division (4 no.), Environmental Protection Division (9 no.), Air & Noise Pollution Control Unit (1 no.), Archaeologist (3 no.), Conservation Officer (9 no.), City Architect (16 no.), and Parks Division (4 no.).

7.11.4. The Roads Division requests an extensive suite of conditions regarding handover, existing condition record, final design details of surface and signal infrastructure, pedestrian priority, buffer strips, parking bays, signage/ road markings, reinstatement works, and construction works. I am satisfied that the final design details can be agreed by a standard condition and that construction works would be appropriately managed by a CEMP, to be agreed with the planning authority.

7.11.5. The Public Lighting Division seek conditions relating to work practices, care with heritage poles, and the use of temporary lights. I am satisfied that standard

conditions in relation to construction (CEMP) and proposed heritage protection are sufficient in this regard and no additional conditions are necessary.

7.11.6. The Environmental Protection Division set out conditions in relation to drainage, SuDS, nature-based solutions, water quality, flood risk, and details of completed works. I am satisfied that the Proposed Scheme, subject to standard conditions, has generally addressed the issues through the NTA's planning and design process. I recommend including a standard drainage condition where final design details are to be agreed with the planning authority.

7.11.7. The City Archaeologist seeks conditions in relation to industrial heritage, the *Free Flow* art installation, and archaeology. I am satisfied that the heritage and art aspects of the Proposed Scheme are adequately protected within the suite of measures to be carried out and included in the details of the EIAR and confirmed in the response to the submissions by the NTA. The request for an archaeological condition is reasonable and necessary, so as to recommend that a condition be attached to a grant of permission, if the Board are minded to do so. I have included a standard condition in Section 12 of this report below.

7.11.8. The Conservation Officer requests that all works that affect architectural heritage across the scheme area are designed and supervised by an expert in architectural conservation. This is also a reasonable request and I recommend that, if the Board is minded to grant permission for the Proposed Scheme, such a condition be attached.

7.11.9. The City Architect seeks details regarding footpath width, detailed drawings of public realm improvements, land acquisition, bus shelter design, siting of utility cabinets, on-street parking for electrical cars, palette of materials/ street furniture, boundary treatments, Conservation Impact & Method Statements, Per Cent for Art Scheme, traffic signals/ signage, water drinking fountains, gantry signage, interactions with other projects, and the elevational treatment of the new SPRC building. I recommend that, if the Board is minded to grant permission for the Proposed Scheme, such conditions be attached requiring details of finishes to surfaces, signage, street furniture, and SPRC building. Otherwise, I am satisfied that the remaining recommendations/ conditions have been addressed in the NTA's response to the submission, and as articulated under the various headings earlier in this report.

7.11.10. Parks Division seeks agreement for all soft landscape proposals, that an Arborist and Landscape Architect be on site for the duration of the works, a tree bond be agreed, and details for tree pits. I am satisfied that works to trees are clearly set out in the Arboricultural report submitted as part of the EIAR (A17.1 Aboricultural Impact Assessment, Chapter 17, EIAR Volume 4 (Part 4) refers). I do recommend that a condition requiring an Arborist and Landscape Architect be on site for the duration of the works, if the Board are minded to do so.

8.0 Appropriate Assessment

8.1. Article 6(3) of the Habitats Directive

8.1.1. The requirements of Article 6(3) as related to appropriate assessment of a project under part XAB are considered fully in this section. The areas addressed in this section are as follows:

- The Natura Impact Statement
- Screening for appropriate assessment
- Appropriate assessment of implications of the proposed development on the integrity of each European site.

8.2. The Natura Impact Statement and Supplemental Information

8.2.1. The application is accompanied by an AA Screening report and an NIS (2023) which describes the proposed development, the project area and the surrounding area. The construction management plan is also a key document in terms of the implementation of mitigation measures.

8.2.2. All ecology and Appropriate Assessment related documents have been prepared by staff ecologists from Scott Cawley and informed by desk study including reference material from the NPWS website and data base and by field surveys.

8.2.3. A description of all baseline surveys is outlined within Section 4.6 of the NIS. The following is a list of surveys undertaken:

- Habitats, Flora and Fauna surveys (which included Otter) – June to August 2018, and confirmatory survey was carried out in August 2020. A further survey was carried out in February 2021.

- The suitability of water features and associated foraging, roosting, and nesting habitats, located within or directly adjacent to the Proposed Scheme, were assessed for Kingfisher potential in September 2020. This was reconfirmed in a February 2021 resurvey.
- Breeding Bird surveys - April to June 2018 and April to July 2019, and vantage point surveys – April/May to June 2018, April/May to July 2019 and May to August 2021 and April to August 2022.
- Wintering Bird surveys - February to March 2020, October to April 2021 and October 2022 to March 2023. Vantage Point surveys were also carried out at the proposed Dodder Bridge - March and April 2018, March and April 2019, November 2020 to April 2021, October 2021 to April 2022, and October 2022 to March 2023.
- A desk study identified three suitable sites along or adjacent to the Proposed Scheme with potential for wintering birds that would be subject to direct habitat loss.
- The subtidal and intertidal habitats in the vicinity of the Proposed Scheme were surveyed in 2020 and again in 2022.
- A desk study identified all hydrological crossing points and one waterbody that may be subject to significant disturbance. The identified sites are at the proposed DPTOB, Tom Clarke East Link Bridge and the two proposed boardwalks structures at North Wall Quay and Custom House Quay.

8.2.4. The receiving environment is described in line with standard methodology (Fossitt 2000) and results of the field surveys are presented in NIS Section 5 and considered further in my assessment below.

8.2.5. No records of any Annex II plant species were recorded within the footprint of the Proposed Scheme during field surveys.

8.2.6. There were no areas of non-native invasive plant species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 identified within, or in close proximity to, the Proposed Scheme during field surveys.

8.2.7. Signs of otter, an Annex II species, were recorded at three sites where water bodies may be subject to significant disturbance as a consequence of the Proposed Scheme. Records of otter were also returned from a recent otter survey where a holt was recorded behind a floating pontoon serving the MV Cill Airne along North Wall Quay.

8.2.8. Details on the water quality of each watercourse, as sourced from the Environmental Protection Agency (EPA), and the distances from the Proposed Scheme are provided in Table 12 of the NIS.

8.2.9. The Proposed Scheme will connect to the existing surface water drainage system and three watercourses: the Liffey Estuary Lower, the River Dodder_050 and the Royal Canal, before ultimately draining to Dublin Bay. The water bodies in the study area for the purposes of the assessment are Liffey Estuary Upper, Liffey Estuary Lower, River Dodder (Dodder_50), Grand Canal, Royal Canal and Dublin Bay.

8.2.10. There are nine European sites that are hydrologically connected to the Proposed Scheme, via three watercourses (the Liffey Estuary Lower, the River Dodder and the Royal Canal). These European sites are: North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA, Howth Head SAC, Rockabill to Dalkey Island SAC, South Dublin Bay and River Tolka SPA, Howth Head Coast SPA, Dalkey Island SPA, and North West Irish Sea cSPA.

8.2.11. There are fourteen SPAs designated for SCI species that are known to forage and/ or roost at inland sites across Dublin City and/ or utilise Dublin Bay. These are South Dublin Bay and River Tolka SPA, North Bull Island SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Rockabill SPA, Ireland's Eye SPA, Wicklow Mountains SPA, Howth Head Coast SPA, Lambay Island SPA, Malahide Estuary SPA, The Murrough SPA and North West Irish Sea cSPA.

8.2.12. There are two European sites containing marine mammals which are known to frequent Dublin Bay and the Liffey Estuary Lower. These are Rockabill to Dalkey Island SAC and Lambay Island SAC.

8.2.13. There is one European site located upstream of the Proposed Scheme that is within the ZoI, this is Wicklow Mountains SAC, and is designated for otter.

8.2.14. **It is important to note at this juncture that the Proposed Scheme does not overlap with any European site. The nearest European Sites to the Proposed Scheme are South Dublin Bay and Tolka Estuary SPA and South Dublin Bay SAC, both located approximately 500m southeast of the Proposed Scheme.**

8.2.15. The scientific assessment to inform AA is presented in sections 5 -7 of the NIS and in the documentation submitted to the Board as part of the application. The conservation objectives of the various qualifying interest features and special conservation interest species are listed. Impact pathways are identified and the assessment of likely significant effects which could give rise to adverse effects on site integrity presented in Tables 5-43.

8.2.16. Mitigation measures are presented from section 7.1.4 of the NIS onwards under each site heading and detailed in full in the Construction Environmental Management Plan (CEMP), which includes an Invasive Species Management plan. An assessment of potential in-combination effects is presented in Section 9 of the NIS.

8.2.17. The NIS together with supplemental information concludes that, following an examination, analysis and evaluation of the relevant information, including the nature of the predicted effects from the proposed development, and mitigation measures to avoid such effects, that the proposed development will not adversely affect the integrity of any European site, either alone or in combination with other plans and projects.

8.3. Adequacy of information submitted by the applicant

8.3.1. Having reviewed the NIS and supplemental information that accompanies the application, I am satisfied that there is adequate information to undertake Screening and Appropriate Assessment of the proposed development on lands routed along the north and south quays of the River Liffey, linking the city centre with the Docklands and an onward cycling connection to Ringsend and Irishtown, all in Dublin City Council administrative area.

8.3.2. I am satisfied that all possible European Sites that could in anyway be affected have been considered by the Applicant.

8.3.3. I am satisfied that all ecological survey work and reporting has been undertaken and prepared by competent experts in line with best practice and scientific methods. Information on the competencies and professional memberships of the Ecological

team are provided in the NIS. I am also satisfied that all potential impact mechanisms have been considered and appropriately assessed within the NIS document.

8.4. Screening for Appropriate Assessment

8.4.1. The first test of Article 6(3) is to establish if the proposed development could result in likely significant effects to a European site, in which case the development is 'screened in' for further detailed assessment - appropriate assessment (stage 2).

8.4.2. The screening assessment undertaken on behalf of the applicant concluded that the potential for significant effects could not be ruled out for **19 no. European Sites** within the Dublin area in view of the conservation objectives of those sites and thus the proposed development must proceed to (stage 2) Appropriate Assessment, and an NIS prepared to inform this stage.

8.4.3. I note that in determining the potential significant effects of the proposed development, the applicant took account of the potential for *ex-situ* effects for foraging birds and mammals such as Otter. The desk study identified three sites along or adjacent to the Proposed Scheme with potential for wintering birds that would be subject to direct habitat loss, namely an area of amenity grassland adjacent to St. Patrick's Rowing Club and Tom Clarke East Link Bridge, playing pitches and grass area within Ringsend Park and a grassy verge within Irishtown Stadium and grass area with trees between the stadium and Bremen Avenue. It is of note that a precautionary approach has been taken in including SAC and SPA sites in the wider area in the screening exercise. Given that bird species can travel up to 20km from designated sites the applicant has included sites at some remove from the proposed development site.

8.4.4. Similarly, a precautionary approach has been taken in relation to SCIs associated with SACs in the wider area. Potential impacts and effects considered are presented in **Table 1**.

Table 1. Summary of European Sites for which the likelihood of significant effects cannot be ruled out (*based on applicant's assessment with consideration added for North West Irish Sea SPA).*

Potential impacts and zone of influence of effects	European sites within Zone of Influence
Habitat loss and Fragmentation: No European sites are at risk of direct habitat loss impacts. There is no potential for loss of *ex-situ* inland feeding sites used by SCI bird species.	**No** There are no European sites at risk of direct or *ex-situ* habitat loss effects.
Habitat degradation/effects on QI/SCI species as a result of hydrological impacts: Habitats and species downstream of the Proposed Scheme and the associated surface water drainage discharge points, and downstream of off-site wastewater treatment plants	**Yes** There are European sites at risk of hydrological effects associated with the Proposed Scheme: Malahide Estuary SPA, North Dublin Bay SAC, South Dublin Bay SAC, South Dublin Bay and River Tolka SPA, North Bull Island SPA, Baldoyle Bay SPA, Howth Head SAC, Rockabill to Dalkey Island SAC, Ireland's Eye SPA, Lambay Island SAC, Lambay Island SPA, Skerries Islands SPA, Dalkey Islands SPA, Rogerstown SPA, Rockabill SPA, The Murrough SPA, Wicklow Mountains SAC and North West Irish Sea SPA.
Habitat degradation as a result of hydrogeological impacts: Groundwater-dependant habitats, and the species those habitats support, in the local area that lie downgradient of the Proposed Scheme.	**No** There are no European sites at risk of hydrogeological effects associated with the Proposed Scheme.
Habitat degradation as a result of introducing/spreading non-native invasive species: Habitat areas within, adjacent to, and potentially downstream of the Proposed Scheme	**Yes** There are European sites at risk of the introduction/ spreading of non-native invasive species as a result of the Proposed Scheme: North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, and North West Irish Sea SPA.
Habitat degradation as a result of air quality impacts: Potentially up to 50m from the Proposed Scheme boundary and 500m from the Construction Compound at Construction phase, and up to 200 metres at Operation Phase	**No** There are no European sites at risk of air quality impacts associated with the Proposed Scheme.

Disturbance and displacement impacts: Potentially up to several hundred metres from the Proposed Scheme, dependent upon the predicted levels of noise, vibration and visual disturbance associated with the Proposed Scheme, taking into account the sensitivity of the qualifying interest species to disturbance effects	**Yes** There are no European sites within the potential zone of influence of disturbance effects associated with the construction or operation of the Proposed Scheme. However, there are *ex-situ* inland feeding sites which may be utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for: Wicklow Mountains SAC, Rockabill to Dalkey Island SAC, Wicklow Mountains SPA, Malahide Estuary SPA, Dalkey Islands SPA Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA, The Murrough SPA, and North West Irish Sea SPA.
Direct injury/mortality impacts: Potential for the proposed DPTOB to present a collision risk to mobile SCI species which are present in the area, during the construction and operational phases.	**Yes** There are no European sites within the disturbance ZoI of the Proposed Scheme, however SCI species are known to forage, loaf and/or roost within this ZoI, potentially presenting a collision risk, and includes: North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, Rockabill SPA, Dalkey Islands SPA, The Murrough SPA, Wicklow Mountains SPA, Wicklow Mountains SAC, and North West Irish Sea SPA.

8.5. Screening Determination (recommendation)

Having regard to the information presented in the AA Screening Report, NIS, submissions, 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, I concur with the applicant's screening determination that there is potential for significant effects on the following European sites:

- North Dublin Bay SAC,
- South Dublin Bay SAC,
- Howth Head SAC,
- Rockabill to Dalkey Island SAC,
- Lambay Island SAC,
- Wicklow Mountains SAC,
- Howth Head Coast SPA,
- Dalkey Islands SPA,
- Rockabill SPA,
- North Bull Island SPA,
- South Dublin Bay and River Tolka Estuary SPA,
- Baldoyle Bay SPA,
- Malahide Estuary SPA,
- Rogerstown Estuary SPA,
- Skerries Islands SPA,
- Ireland's Eye SPA,
- Lambay Island SPA, and
- The Murrough SPA, and
- Wicklow Mountains SPA.

8.5.1. Given the hydrological connections and proximity of the proposed works to *ex-situ* feeding sites associated with the Qualifying Interests of the European sites listed above, and the potential relationship with all European sites within the zone of influence, and their conservation objectives, it is reasonable to conclude that there is a potential for impacts to arise in relation to a number of issues which relate to habitat degradation, disturbance and displacement. As screening is considered a pre-assessment stage, further analysis is required to determine the significance of such impacts and to apply any mitigation measures to exclude adverse effects. Therefore, North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Rockabill to Dalkey Island SAC, Lambay Island SAC, Wicklow Mountains 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, The Murrough SPA and Wicklow Mountains SPA are brought forward for inclusion in the AA. Having regard to the North-West Irish Sea cSPA, I note that this was not considered by the applicant as it had not been designated at the time of application, however, having regard to the nature of the relevant SCI species and nature of the Proposed Scheme I have also concluded that there is potential for impacts to arise on the cSPA, and I have therefore carried it through for further consideration in Stage II.

8.6. **Appropriate Assessment (recommendation)**

8.6.1. The following is an objective assessment of the implications of the proposal on the relevant conservation objectives of the European sites based on the scientific information provided by the applicant and taking into account expert opinion and submissions on nature conservation. It is based on an examination of all relevant documentation and submissions, analysis and evaluation of potential impacts, findings conclusions. A final determination will be made by the Board.

8.6.2. All aspects of the project which could result in significant effects are assessed and mitigation measures designed to avoid or reduce any adverse effects on site integrity are examined and evaluated for effectiveness. 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. Dublin
- EC (2018) Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC
- EC (2021) Assessment of plans and projects in relation to Natura 2000 sites. Methodological guidance on Article 6(3) and 6(4) of the Habitats Directive 92/43/EC.

8.7. **Relevant European sites:**

8.7.1. In the absence of mitigation or further detailed analysis, the potential for significant effects could not be excluded for:

- North Dublin Bay SAC,
- South Dublin Bay SAC,
- Howth Head SAC,
- Rockabill to Dalkey Island SAC,
- Lambay Island SAC,
- Wicklow Mountains SAC,
- Howth Head Coast SPA,
- Dalkey Islands SPA,
- Rockabill SPA,
- North Bull Island SPA,
- South Dublin Bay and River Tolka Estuary SPA,
- Baldoyle Bay SPA,
- Malahide Estuary SPA,
- Rogerstown Estuary SPA,
- Skerries Islands SPA,
- Ireland’s Eye SPA,

- Lambay Island SPA, and
- The Murrough SPA,
- Wicklow Mountains SPA, and
- North West Irish Sea cSPA.

8.7.2. A description of the sites and their Conservation Objectives and Qualifying Interests/ Special Conservation Interests, including relevant attributes and targets for these sites, are set out in the NIS Section 7 - Assessment of Potential Effects on European Sites.

8.7.3. I have also examined the Conservation Objectives Supporting Documents for these sites, available through the NPWS website (www.npws.ie).

8.7.4. Tables 2-8 below summarise the information considered for the Appropriate Assessment and site integrity test. I have taken this information from that provided by the applicant within the NIS. I expand on certain issues further in my report.

Table 2: AA summary matrix for North Dublin Bay SAC

North Dublin Bay SAC [000206] **Detailed Conservation Objectives available:** ConservationObjectives.rdl (npws.ie)			
Summary of Appropriate Assessment			
Special Conservation Interest (SCI)	**Conservation Objectives** **Targets and attributes (summary- inserted)**	**Potential adverse effects**	**Mitigation measures**
Mudflats and sandflats not covered by seawater at low tide	To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in North Dublin Bay SAC. Maintain the extent of the Mytilus edulis-dominated community. Conserve the high quality of the Mytilus edulis-dominated community, subject to natural processes. Conserve the communities of fine sand to sandy mud with Pygospio elegans and Crangon crangon community complex; Fine sand with Spio martinensis	The release of contaminated surface water run-off or an accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay.	Detailed pollution control measures to protect water quality are outlined within section 7.1.4.1 and include but are not limited to the use of silt fences, silt curtains, settlement lagoons and filter materials. Provision of exclusion zones and barriers (e.g. silt fences)

	community complex in a natural condition.		between earthworks, stockpiles and temporary surfaces to prevent sediment washing into the existing drainage systems and hence the downstream receiving water environment. Provision of temporary construction surface drainage and sediment control measures to be in place before earthworks commence. Fuels to be stored in bunded areas, and management of construction related traffic. Implementation of SUDs when complete to control run off during the operation of the scheme. The pouring of concrete in relation to works to the Scherzer Bridges at the Royal Canal and Georges Dock will take place in dry weather only. Silt fences or similar will be installed to prevent overland flow into the canal or the Liffey Estuary Lower. The installation of coffer dams for the construction of the DPTOB and sheet piling
Annual vegetation of drift lines	Restore the favourable conservation condition of Annual vegetation of drift lines in North Dublin Bay SAC in relation to habitat area, distribution, structure, and composition. Maintain the natural circulation of sediment and organic matter, without any physical obstructions. Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession. Maintain presence of sea rocket (Cakile maritima), sea sandwort (Honckenya peploides), prickly saltwort (Salsola kali) and oraches (Atriplex spp.)		
Salicornia and other annuals colonising mud and sand	Restore the favourable conservation condition in relation to habitat area, distribution, structure, and composition. Maintain the range of coastal habitats and no significant expansion of common cordgrass.		
Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	To maintain the favourable conservation condition in relation to habitat area, extent/vegetation structure of habitat and physical structure /distribution		
Mediterranean salt meadows (Juncetalia maritimi)			
Embryonic shifting dunes	To restore the favourable conservation condition in relation to habitat area, distribution, physical structure,		

Shifting dunes along the shoreline with Ammophila arenaria (white dunes)	vegetation structure and composition.		for the reclaimed land. Once dewatered internally, these allow the construction to be undertaken in a dry area and minimise the potential for contaminants entering the water body. Sheeting will be attached below the area of works to catch any debris for works to the quay wall required to secure the boardwalk to the DCC building at Custom House Quay.
Fixed coastal dunes with herbaceous vegetation (grey dunes)			
Humid dune slacks			
Petalophyllum ralfsii (Petalwort)	To maintain the favourable conservation condition in relation to distribution of population, population size, habitat area, hydrological conditions, and vegetation structure.	The introduction and/or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat.	See the mitigation measures described in Section 7.1.4.2 to prevent the introduction and/or spread of invasive species which includes the carrying out of preconstruction surveys and the implementation of an Invasive Species management plan.
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 Liffey Estuary Lower and existing surface water pipes which drain directly into 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, pre confirmatory surveys will be carried out in order to avoid or adequately treat or remove invasive plants prior to construction being 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 3: AA summary matrix for South Dublin Bay SAC

South Dublin Bay SAC [000210] **Detailed Conservation Objectives available:** ConservationObjectives.rdl (npws.ie)			
Summary of Appropriate Assessment			
Qualifying Interest feature	**Conservation Objectives** **Targets and attributes (summary- inserted)**	**Potential adverse effects**	**Mitigation measures**
Mudflats and sandflats not covered by seawater at low tide	Maintain favourable conservation condition in relation to habitat area, community extent/vegetation structure/distribution including Zostera dominated community and fine sands with Angulus tenuis	The release of contaminated surface water run-off or an accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay.	Detailed pollution control measures to protect water quality are outlined within section 7.1.4.1 and include but are not limited to the use of silt fences, silt curtains, settlement lagoons and filter materials. Provision of exclusion zones and barriers (e.g. silt fences) between earthworks, stockpiles and temporary
Annual vegetation of drift lines	Restore favourable conservation condition in relation to habitat area, distribution, physical structure, vegetation structure and composition		

Salicornia and other annuals colonising mud and sand	Restore favourable conservation condition in relation to habitat area, distribution, physical structure, vegetation structure and composition		surfaces to prevent sediment washing into the existing drainage systems and hence the downstream receiving water environment. Provision of temporary construction surface drainage and sediment control measures to be in place before earthworks commence. Fuels to be stored in bunded areas, and management of construction related traffic. Implementation of SUDs when complete to control run off during the operation of the scheme. The pouring of concrete in relation to works to the Scherzer Bridges at the Royal Canal and Georges Dock will take place in dry weather only. Silt fences or similar will be installed to prevent overland flow into the canal or the Liffey Estuary Lower. The installation of coffer dams for the construction of the DPTOB and sheet piling for the reclaimed land. Once dewatered internally, these allow the construction to be undertaken in a
Embryonic shifting dunes	To restore the favourable conservation condition in relation to habitat area, distribution, physical structure, vegetation structure and composition.		

			dry area and minimise the potential for contaminants entering the water body. Sheeting will be attached below the area of works to catch any debris for works to the quay wall required to secure the boardwalk to the DCC building at Custom House Quay.
		Spread of invasive could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat.	See the mitigation measures described in Section 7.1.4.2 to prevent the introduction and/or spread of invasive species which includes the carrying out of preconstruction surveys and the implementation of an Invasive Species management plan.

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 Liffey Estuary Lower and existing surface water pipes which drain directly into 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, pre confirmatory surveys will be carried out in order to avoid or adequately treat or remove invasive plants prior to construction being 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: AA summary matrix for Howth Head SAC

Howth Head SAC [000202] **Detailed Conservation Objectives available:** ConservationObjectives.rdl (npws.ie)			
Summary of Appropriate Assessment			
Special Conservation Interest (SCI)	**Conservation Objectives Targets and attributes (summary- inserted)**	**Potential adverse effects**	**Mitigation measures**
Vegetated sea cliffs of the Atlantic and Baltic coasts	To maintain favourable conservation condition in relation to habitat length, distribution, physical structure, vegetation structure and composition.	An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either along or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area/distribution of intertidal/coastal habitats.	Detailed pollution control measures to protect water quality are outlined within section 7.1.4.1 and include but are not limited to the use of silt fences, silt curtains, settlement lagoons and filter materials. Provision of exclusion zones and barriers (e.g., silt fences) between earthworks, stockpiles and temporary surfaces to prevent sediment washing into the existing drainage systems and hence the downstream receiving water environment. Provision of temporary construction surface drainage and sediment control measures to be in place before earthworks commence.

			Fuels to be stored in bunded areas, management of construction related traffic etc. Implementation of SUDs when complete to control run off during the operation of the scheme.
European dry heaths	To maintain favourable conservation condition in relation to habitat area, distribution, ecosystem function, diversity, and vegetation composition.	No. Terrestrial habitats above the high tide line are not at risk of effects from water pollution in Dublin Bay.	None

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. No habitat loss will occur. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Liffey Estuary Lower and existing surface water pipes which drain directly into 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 5: AA summary matrix for Rockabill to Dalkey Island SAC

Rockabill to Dalkey Island SAC [003000] **Detailed Conservation Objectives available:** ConservationObjectives.rdl (npws.ie)			
Summary of Appropriate Assessment			
Qualifying Interest feature	**Conservation Objectives** **Targets and attributes (summary- inserted)**	**Potential adverse effects**	**Mitigation measures**
Reefs	To maintain favourable conservation condition in relation to habitat area, distribution and community structure.	An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either along or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area/distribution of intertidal/coastal habitats.	Detailed pollution control measures to protect water quality are outlined within section 7.1.4.1 and include but are not limited to the use of silt fences, silt curtains, settlement lagoons and filter materials. Provision of exclusion zones and barriers (e.g., silt fences) between earthworks, stockpiles and temporary surfaces to prevent sediment washing into the existing drainage systems and hence the downstream receiving water environment. Provision of temporary construction surface drainage and sediment control measures to be in place before earthworks commence. Fuels to be stored in
Harbour porpoise *Phocoena phocoena*	To maintain favourable conservation condition in relation to access to suitable habitat and prevention of disturbance by human activity.	An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either along or cumulatively with other pollution sources, could potentially affect the quality of the intertidal /marine habitats which support harbour porpoise and fish prey species.	

			bunded areas, management of construction related traffic etc. Implementation of SUDs when complete to control run off during the operation of the scheme.
		The construction methodology for the proposed DPTOB and the proposed boardwalks involves noisy activities in the aquatic environment such as piling and noise from additional vessels associated with the Construction Phase and the potential for the Proposed Scheme to result in disturbance / displacement impacts on marine mammal populations.	The mitigation measures described in Section 7.3.5.2 to specifically manage the risk to marine mammals from man-made sound. In waters up to 200m deep, the MMO shall conduct pre-start-up constant effort monitoring at least 30 minutes before the sound-producing activity is due to commence. Sound-producing activity shall not commence until at least 30 minutes have elapsed with no marine mammals detected within the Monitored Zone by the MMO.
Overall conclusion: Integrity test The applicant determined that following the implementation of mitigation measures 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. No habitat loss will occur. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Lower Liffey			

Estuary and existing surface water pipes which drain directly into Dublin Bay. No increase in existing runoff rates will occur and appropriate treatment will ensure runoff quality. Noise impacts on marine mammals will be managed by Pre-Start Monitoring and a subsequent Ramp-up Procedure (where appropriate following Pre-Start Monitoring) will be undertaken.

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 6: AA Summary matrix for Lambay Island SAC

Lambay Island SAC [000204] **Detailed Conservation Objectives available:** ConservationObjectives.rdl (npws.ie)			
Summary of Appropriate Assessment			
Qualifying Interest feature	**Conservation Objectives Targets and attributes (summary- inserted)**	**Potential adverse effects**	**Mitigation measures**
Reefs	To maintain favourable conservation condition in relation to habitat area, distribution, community complex and subtidal reef community complex in natural condition.	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.	None
Vegetated sea cliffs of the Atlantic and Baltic coast	To maintain favourable conservation condition in relation to 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	As Above	
Halichoerus grypus (Grey Seal)	No restriction of species range by artificial barriers to site use; breeding, moulting and resting haul-out sites maintained in natural condition; and human activities should occur at levels that do not adversely affect the population of species at the site.	Pollution event could potentially affect the quality of the intertidal /marine habitats which support grey seal and harbour seal. Noise, vibration and increased additional vessels associated with the construction phase of the Proposed Scheme could lead	Detailed pollution control measures to protect water quality are outlined within section 7.1.4.1 and include but are not limited to the use of silt fences, silt curtains, settlement lagoons and filter materials.

		to TTS and behavioural disturbance in marine mammals.	Provision of exclusion zones and barriers (e.g., silt fences) between earthworks, stockpiles and temporary surfaces to prevent sediment washing into the existing drainage systems and hence the downstream receiving water environment. Provision of temporary construction surface drainage and sediment control measures to be in place before earthworks commence. Fuels to be stored in bunded areas, management of construction related traffic etc. Implementation of SUDs when complete to control run off during the operation of the scheme. The mitigation measures described in Section 7.3.5.2 to manage the risk to marine mammals from man-made sound. In waters up to 200m deep, the MMO shall conduct pre-start-up constant effort monitoring at least 30 minutes before the sound-producing activity is due to commence. Sound-producing
Phoca vitulina (Harbour Seal)	No restriction of species range by artificial barriers to site use; breeding, moulting and resting haul-out sites maintained in natural condition; and human activities should occur at levels that do not adversely affect the population of species at the site.	As Above	

			activity shall not commence until at least 30 minutes have elapsed with no marine mammals detected within the Monitored Zone by the MMO.

Overall conclusion: Integrity test
The applicant determined that following the implementation of mitigation measures 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 Lambay Island SAC. No habitat loss will occur. Adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the Liffey Estuary Lower and existing surface water pipes which drain directly into Dublin Bay. No increase in existing runoff rates will occur and appropriate treatment will ensure runoff quality. Noise impacts on marine mammals will be managed by Pre-Start Monitoring and a subsequent Ramp-up Procedure (where appropriate following Pre-Start Monitoring) will be undertaken.

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 Lambay Island SAC.

Table 7: AA summary matrix for Wicklow Mountains SAC

Wicklow Mountains SAC [002122] **Detailed Conservation Objectives available:** ConservationObjectives.rdl (npws.ie)			
Summary of Appropriate Assessment			
Qualifying Interest feature	**Conservation Objectives Targets and attributes (summary-inserted)**	**Potential adverse effects**	**Mitigation measures**
Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea Natural dystrophic lakes and ponds Northern Atlantic wet heaths with *Erica tetralix* European dry heaths Alpine and Boreal heaths Calaminarian grasslands of the Violetalia calaminariae Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)* Blanket bogs (* if active bog) Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) Calcareous rocky slopes with chasmophytic vegetation	To maintain favourable conservation condition in relation to habitat area and community distribution; Maintain soil nutrient status within natural range; maintain variety of vegetation communities; maintain adequate open ground; and maintain diversity and populations of metallophyte bryophytes.	Qualifying Interest habitats for which this SAC has been designated are not at risk of effects arising from the Proposed Scheme as the SAC is located upstream of the Proposed Scheme.	None

Siliceous rocky slopes with chasmophytic vegetation Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles			
Otter Lutra lutra	To maintain the favourable conservation condition of Otter	Potential loss of forage territory and / or boulder lined foreshore that might be used temporarily by otter that form part of the upstream SAC population. As the Proposed Scheme is hydrologically connected to the Dodder_050, there is potential for impacts to occur on otter populations (a mobile species) associated with the Wicklow Mountains SAC. A temporary and / or permanent increase in noise, vibration and / or human activity levels during the construction and / or operation of the Proposed Scheme could result in the disturbance to and / or displacement of QI otter populations present in the vicinity of the Proposed Scheme. Potential for injury / mortality of otter due to in-stream disturbance associated with the construction of the proposed DPTOB and reclamation of estuarine territory, during the Construction phase of the Proposed Scheme.	Confirmatory pre-construction check of all suitable otter habitat will be completed within 12 months prior to any construction works commencing. Night working within / directly adjacent to watercourses where otter are known to commute will preferably not be undertaken. Where night-working adjacent to watercourses known to support otter, is required, owing to practical considerations of traffic restrictions etc., the advice of a suitably qualified ecologist must be sought and a derogation licence if necessary will be sought from the NPWS permitting such works. Security lighting at the Construction Compounds or in active works areas in close proximity to watercourses with known otter activity will be designed in conjunction with a suitably qualified ecologist to minimise light spill. Excavations will also be covered at night, where practicable, and any deep excavations which must be left

			open will have appropriate egress ramps in place to allow mammals to safely exit should they fall in. Fencing requirements as per the Guidelines for the Treatment of Otters Prior to the Construction of National Road Schemes (NRA, 2006) will be erected around the Construction Compound and other working areas which are in close proximity to significant watercourses and have suitable roaming territory for otter.

Overall conclusion: Integrity test

The applicant determined that following the implementation of mitigation measures 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 Wicklow Mountains SAC. No habitat loss will occur. Adverse effects to the otter population from loss of habitat, noise disturbance, lighting and excavations can be effectively prevented by pre-construction check of all suitable otter habitat and by mitigation measures ensuring the protection of the Otter.

Based on the information provided, I am satisfied that adverse effects can be excluded for Wicklow Mountains SAC site in view of conservation objectives of the site.

The proposed development would not delay or prevent the attainment of the Conservation objectives of the Wicklow Mountains SAC.

Table 8: AA Summary matrix for North Bull Island SPA, Baldoyle Bay SPA, Malahide Estuary SPA, Dalkey Islands SPA, Howth Head Coast SPA, South Dublin Bay and River Tolka Estuary SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Rockabill SPA, Ireland's Eye SPA, Lambay Island SPA, The Murrough SPA, Wicklow Mountains SPA [004040] and North West Irish Sea cSPA [004236].

North Bull Island SPA [004006], Baldoyle Bay SPA [004016], Malahide Estuary SPA [004025], Dalkey Islands SPA [004172], Howth Head Coast SPA [004113], South Dublin Bay and River Tolka Estuary SPA [004024], Rogerstown Estuary SPA [004015], Skerries Islands SPA [004122], Rockabill SPA [004014], Ireland's Eye SPA [004117], Lambay Island SPA [004069], The Murrough SPA [004186], Wicklow Mountains SPA [004040] and North West Irish Sea cSPA [004236]. **Maintain or restore favourable conservation conditions** **Detailed Conservation Objectives available:** https://www.npws.ie		
North Bull Island SPA [004006] Light-bellied Brent Goose (Branta bernicla hrota), Shelduck (Tadorna tadorna), Teal (Anas crecca), Pintail (Anas acuta), Shoveler (Anas clypeata), Oystercatcher (Haematopus ostralegus), Golden Plover (Pluvialis apricaria), Grey Plover (Pluvialis squatarola), Knot (Calidris canutus), Sanderling (Calidris alba), Dunlin (Calidris alpina), Black-tailed Godwit (Limosa limosa), Bar-tailed Godwit (Limosa lapponica), Curlew (Numenius arquata), Redshank (Tringa totanus), Turnstone (Arenaria interpres), Black-headed Gull (Chroicocephalus ridibundus), Wetland and Waterbirds.		
Summary of Appropriate Assessment		
Conservation Objectives **Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures**
To maintain the favourable conservation condition of species and wetland habitat. Long term population trend stable or increasing No significant decrease in distribution range, timing or intensity of use of areas by all the above-named species other than occurring from natural patterns of variation. The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 1,713 hectares, other than that occurring from natural patterns of variation.	An accidental pollution event during construction could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality the of intertidal/coastal habitats that support the special conservation interest bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations.	Detailed pollution control measures to protect water quality are outlined within section 7.1.4.1 and include but are not limited to the use of silt fences, silt curtains, settlement lagoons and filter materials. Provision of exclusion zones and barriers (e.g., silt fences) between earthworks, stockpiles and temporary surfaces to prevent sediment washing into the existing drainage systems and hence the downstream receiving water environment. Provision of temporary construction surface drainage and sediment control measures to be in place before earthworks commence. Fuels to be stored in bunded areas, management of construction related traffic etc. Implementation of SUDs when complete to control run off during the operation of the scheme.

	The introduction and/or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. This in turn could affect the use of habitat areas by birds and have long-term effects on the SPA populations.	See the mitigation measures described in Section 7.1.4.2 to prevent the introduction and/or spread of invasive species which includes the carrying out of preconstruction surveys and the implementation of an Invasive Species management plan,
Baldoyle Bay SPA [004016] Light-bellied Brent Goose, Shelduck, Ringed Plover, Golden Plover, Grey Plover, Bar-tailed Godwit, and Wetland and Waterbirds.		
Summary of Appropriate assessment		
Conservation Objectives **Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures**
To maintain the favourable conservation condition of species and wetland habitat. Long term population trend stable or increasing. No significant decrease in range, timing or intensity of use of areas by wintering waterbirds. The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 263ha, other than that occurring from natural patterns of variation.	An accidental pollution event during construction or operation could affect surface water. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality the of intertidal / coastal habitats that support the special conservation interest bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations.	Detailed pollution control measures to protect water quality are outlined within section 7.1.4.1 and include but are not limited to the use of silt fences, silt curtains, settlement lagoons and filter materials. Provision of exclusion zones and barriers (e.g., silt fences) between earthworks, stockpiles and temporary surfaces to prevent sediment washing into the existing drainage systems and hence the downstream receiving water environment. Provision of temporary construction surface drainage and sediment control measures to be in place before earthworks commence. Fuels to be stored in bunded areas, management of construction related traffic etc. Implementation of SUDs when complete to control run off during the operation of the scheme.

Dalkey Island SPA [004172] Roseate Tern, Common Tern, Artic Tern		
Summary of Appropriate assessment		
Conservation Objectives **Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures**
To maintain or restore the favourable conservation condition of the bird species.	As above. Significant construction related disturbance could result in the reduced breeding success of this SCI bird species and abandonment of nest sites (e.g. if terns were to re-establish the previously destroyed Grand Canal nest site). This has the potential to reduce the breeding population abundance (number of apparently occupies nests) or alter distribution of breeding colonies associated with this SPA.	As above. The relevant mitigation measure described in Section 7.4.4.4 to avoid any potential disturbance related impacts on this SCI bird species during construction.
Howth Head Coast SPA [004113] Kittiwake Rissa tridactyla		
Summary of Appropriate assessment		
Conservation Objectives **Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures**
To maintain or restore the favourable conservation condition of the Kittiwake.	An accidental pollution event during construction or operation could affect surface water. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality the of intertidal / coastal habitats that support the special conservation interest bird species of the SPA. This could potentially affect the use of habitat areas by birds	Detailed pollution control measures to protect water quality are outlined within section 7.1.4.1 and include but are not limited to the use of silt fences, silt curtains, settlement lagoons and filter materials. Provision of exclusion zones and barriers (e.g., silt fences) between earthworks, stockpiles and temporary surfaces to prevent sediment washing into the existing drainage systems and hence the downstream receiving water environment. Provision of temporary construction surface drainage and sediment control measures to be in place before earthworks commence.

	and have long-term effects on the SPA populations.	Fuels to be stored in bunded areas, management of construction related traffic etc. Implementation of SUDs when complete to control run off during the operation of the scheme.
South Dublin Bay and River Tolka Estuary SPA [004024] Light-bellied Brent Goose (Branta bernicla hrota), Oystercatcher (Haematopus ostralegus), Ringed Plover (Charadrius hiaticula), Grey Plover* (Pluvialis squatarola), Knot (Calidris canutus), Sanderling (Calidris alba), Dunlin (Calidris alpina), Bar-tailed Godwit (Limosa lapponica), Redshank (Tringa totanus), Black-headed Gull (Chroicocephalus ridibundus), Roseate Tern (Sterna dougallii), Common Tern (Sterna hirundo), Arctic Tern (Sterna paradisaea), Wetland and Waterbirds. *Grey Plover (Pluvialis squatarola)] is proposed for removal from the list of SCI's for the site so no site specific conservation objective is included for the species		
Summary of Appropriate assessment		
Conservation Objectives **Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures**
To maintain the favourable conservation condition of species and wetland habitat. Long term population trends stable or increasing. Distribution - no significant decrease in range, timing or intensity of use of areas by wintering waterbirds No decline in roosting or breeding colonies. Human activities should occur at levels that do not adversely affect breeding or roosting sites. The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 2,192 hectares, other than that occurring from natural patterns of variation.	An accidental pollution event of sufficient magnitude could affect the quality the of intertidal/coastal habitats that support the special conservation interest bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations. The introduction of invasive species could result in the degradation of habitat supporting the SCI.	Detailed pollution control measures to protect water quality are outlined within section 7.1.4.1 and include but are not limited to: the use of silt fences, silt curtains, settlement lagoons and filter materials. Provision of exclusion zones and barriers (e.g., silt fences) between earthworks, stockpiles and temporary surfaces to prevent sediment washing into the existing drainage systems and hence the downstream receiving water environment. Provision of temporary construction surface drainage and sediment control measures to be in place before earthworks commence. Fuels to be stored in bunded areas, management of construction related traffic etc. Implementation of SUDs when complete to control run off during the operation of the scheme. See the mitigation measures described in Section 7.1.4.2 to prevent the introduction and/or spread of invasive species which includes the carrying out of preconstruction surveys and the

		implementation of an Invasive Species management plan.
Ireland's Eye SPA [004117] Cormorant Phalacrocorax carbo, Herring Gull Larus argentatus, Kittiwake Rissa tridactyla, Guillemot Uria aalge, Razorbill Alca torda.		
Summary of Appropriate assessment		
Conservation Objectives **Targets and attributes** **(summary)**	**Potential adverse effects**	**Mitigation measures**
To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.	An accidental pollution event of sufficient magnitude could affect the quality the of intertidal/coastal habitats that support the special conservation interest bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations.	As Above
Malahide Estuary SPA [004025] Great Crested Grebe Podiceps cristatus, Light-bellied Brent Goose Branta bernicla hrota, Shelduck Tadorna tadorna, Pintail Anas acuta, Goldeneye Bucephala clangula, Red-breasted Merganser Mergus serrator, Oystercatcher Haematopus ostralegus, Golden Plover Pluvialis apricaria, Grey Plover Pluvialis squatarola, Knot Calidris canutus, Dunlin Calidris alpina, Black-tailed Godwit Limosa limosa, Bar-tailed Godwit Limosa lapponica Redshank Tringa tetanus, Wetland and Waterbirds		
Summary of Appropriate Assessment		
Conservation Objectives **Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures**
To maintain the favourable conservation condition of species and wetland habitat. Long term population trend stable or increasing. No significant decrease in range, timing or intensity of use of areas. The permanent area occupied by the wetland habitat should be stable and not significantly	As above	As Above

less than the area of 765 hectares, other than that occurring from natural patterns of variation.		
Rogerstown Estuary SPA [004015] Greylag Goose Anser answer, Brent Goose Branta bernicla hrota, Shelduck Tadorna tadorna, Shoveler Anas clypeata, Oystercatcher Haematopus ostralegus, Ringed Plover Charadrius hiaticula, Grey Plover Pluvialis squatarola, Knot Calidris canutus, Dunlin Calidris alpina, Black-tailed Godwit Limosa limosa, Redshank Tringa tetanus, Wetlands and Waterbirds.		
Summary of Appropriate Assessment		
Conservation Objectives **Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures**
To maintain the favourable conservation condition of species and wetland habitat. Long term population trend stable or increasing No significant decrease in range, timing or intensity of use of areas. The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 646 hectares, other than that occurring from natural patterns of variation.	As Above	As Above
Skerries Islands SPA [004122] Cormorant Phalacrocorax carbo, Shag Phalacrocorax aristotelis, Brent Goose Branta bernicla hrota, Purple Sandpiper Calidris maritima, Turnstone Arenaria interpres, Herring Gull Larus argentatu		
Summary of Appropriate Assessment		
Conservation Objectives **Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures**
To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.	As Above	As Above

Lambay Island SPA [004069] Fulmar Fulmarus glacialis, Cormorant Phalacrocorax carbo, Shag Phalacrocorax aristotelis, Greylag Goose Anser answer, Lesser Black-backed Gull Larus fuscus, Herring Gull Larus argentatus, Kittiwake Rissa tridactyla, Guillemot Uria aalge, Razorbill Alca torda, Puffin Fratercula arctica		
Summary of Appropriate Assessment		
Conservation Objectives **Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures**
As Above	As Above	As Above
Rockabill SPA [004014] Purple Sandpiper Calidris maritima, Roseate Tern Sterna dougallii, Common Tern Sterna hirundo, Arctic Tern Sterna paradisaea		
Conservation Objectives **Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures**
To maintain the favourable conservation condition of bird species listed as Special Conservation Interests for this SPA. Long term pop trend stable or increasing No significant decrease in range, timing or intensity of use of areas Human activities should occur at levels that do not adversely affect the breeding roseate tern population, the Common Tern population or the Artic Tern population – there should be no significant decline in these populations.	An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either along or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality and suitability of roosting sites within the SPA. Significant construction related disturbance could result in the reduced breeding success of this SCI bird species and abandonment of nest sites (e.g. if terns were to re-establish the previously destroyed Grand Canal nest site). This has the potential to reduce the breeding population abundance (number of apparently occupies nests) or alter distribution of breeding colonies associated with this SPA.	As Above in relation to water quality protection. The relevant mitigation measure described in Section 7.4.4.4 to avoid any potential disturbance related impacts on this SCI bird species during construction.

The Murrough SPA [004186] Red-throated, Diver Gavia stellata, Greylag Goose Anser answer, Light Bellied Brent Goose Branta bernicla hrota, Wigeon Anas Penelope, Teal Anas crecca, Little Tern Sterna albifrons, Wetland and Waterbirds, Black-headed Gull Chroicocephalus ridibundus, Herring Gull Larus argentatus		
Conservation Objectives Targets and attributes (summary)	**Potential adverse effects**	**Mitigation measures**
To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. To maintain or restore the favourable conservation condition of the wetland habitat at The Murrough SPA as a resource for the regularly occurring migratory waterbirds that utilise it.	Similar concerns relating to water quality and the impact to habitats upon which the SCIs rely, as outlined in previous tables.	As outlined in previous tables in relation to protection of water quality.
Wicklow Mountains SPA [004040] Merlin (Falco columbarius) and Peregrine (Falco peregrinus)		
Summary of Appropriate Assessment		
Conservation Objectives Targets and attributes (summary)	**Potential adverse effects**	**Mitigation measures**
To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. Note: There are no targets and attributes developed to date for these species on this site.	No potential for impacts to occur on any SCI bird species population of Wicklow Mountains SPA, in light of their conservation objectives, as a consequence of the disturbance and / or displacement due to increased levels of disturbance arising from the Proposed Scheme.	None.
North West Irish Sea cSPA [004236] Red-throated Diver (Gavia stellata), Great Northern Diver (Gavia immer), Fulmar (Fulmarus glacialis), Manx Shearwater (Puffinus puffinus), Cormorant (Phalacrocorax carbo), Shag (Phalacrocorax aristotelis), Common Scoter (Melanitta nigra), Little Gull (Larus minutus), Black-headed Gull (Chroicocephalus ridibundus), Common Gull (Larus canus), Lesser Black-backed Gull (Larus fuscus), Herring Gull (Larus argentatus), Great Black-backed Gull (Larus marinus), Kittiwake (Rissa tridactyla), Roseate Tern (Sterna dougallii), Common Tern (Sterna hirundo), Arctic Tern (Sterna paradisaea), Little Tern (Sterna albifrons), Guillemot (Uria aalge), Razorbill (Alca torda), Puffin (Fratercula arctica)		

Summary of Appropriate Assessment		
Conservation Objectives Targets and attributes (summary)	**Potential adverse effects**	**Mitigation measures**
To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.	An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either along or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality and suitability of roosting sites within the SPA.	Detailed pollution control measures to protect water quality are outlined within section 7.1.4.1 and include but are not limited to: the use of silt fences, silt curtains, settlement lagoons and filter materials. Provision of exclusion zones and barriers (e.g., silt fences) between earthworks, stockpiles and temporary surfaces to prevent sediment washing into the existing drainage systems and hence the downstream receiving water environment. Provision of temporary construction surface drainage and sediment control measures to be in place before earthworks commence. Fuels to be stored in bunded areas, management of construction related traffic etc. Implementation of SUDs when complete to control run off during the operation of the scheme.

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 these European sites in view of the conservation objectives of those sites.

Based on the information provided, I am satisfied that adverse effects can be excluded for these SPA sites 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 Liffey Estuary Lower and existing surface water pipes which drain directly into 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, pre confirmatory surveys will be carried out in order to avoid or adequately treat or remove invasive plants prior to construction being carried out in accordance with an Invasive Species Management Plan.

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 these SPA sites in Dublin Bay and beyond.

8.8. Potential for Adverse effects

8.8.1. As outlined above the potential for adverse effects relates to the changes to water quality arising from pollution and sedimentation of watercourses arising at various locations and associated with various operations during the construction of the development and the deterioration of habitats and/ or sedimentation arising from the spread of invasive plant species.

8.8.2. It is important to reiterate at this juncture that no works will take place within the boundary of any Natura 2000 site and as such the potential for direct effects does not arise.

8.8.3. In addition to the foregoing, I also consider it important to examine the potential for impacts to arise in relation to noise and vibration disturbance arising from construction works and in relation to air quality deterioration arising from both construction works and the operational phase of the development.

8.9. Noise & Vibration Disturbance

8.9.1. Potential Adverse effects in relation to noise disturbance and vibration have been examined by the applicant within the NIS. Noise and vibration from piling, demolition, dredging and any additional works to reclaim the Liffey Estuary Lower, will have the potential to result in the reduced breeding success of birds breeding in the vicinity of the works and abandonment of current nesting sites. Similarly, noisy works associated with the construction of the Proposed Scheme include piling associated with the proposed boardwalks and the proposed DPTOB, construction of boardwalks, removal and reinstallation of the Scherzer Bridges, and the demolition of the existing SPRC building. However, the potential loss of displacing breeding terns from the Grand Canal Dock nesting site for the duration for the construction phase of the proposed DPTOB is not considered to significantly affect the conservation objective attributes and targets supporting the conservation condition of SCI species of the South Dublin Bay and River Tolka Estuary SPA.

8.9.2. I note that the Proposed Scheme is located in a different catchment to the Wicklow Mountains SAC which is the nearest designated SAC to the proposed scheme for which Otter is a QI. However, surveys for the Proposed Scheme noted evidence of otter activity in a number of areas including sections of watercourse intersected by the Proposed Scheme. It is, therefore, considered that the Proposed Scheme is

within the potential home range of male otter associated with the Wicklow Mountains SAC.

8.9.3. Construction activities associated with the Scherzer bridges are within 150m of a holt. Although currently inactive, there is potential for otter populations to re-establish territory here prior to the Construction Phase of the Proposed Scheme. In order to mitigate possible impacts, a pre-construction check of all suitable otter habitat will be completed within 12 months prior to any construction works commencing and night working within/ directly adjacent to watercourses where otter are known to commute will preferably not be undertaken. Consequently, it is not likely that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of Wicklow Mountains SAC.

8.10. Air Quality Deterioration

8.10.1. In addition to the foregoing, consideration was given to the potential for adverse effects to occur in relation to habitat degradation as a result of air quality. I note that it is stated within the NIS that the unmitigated ZoI for air quality effects arising from the Proposed Scheme has the potential to extend 50m from the Proposed Scheme boundary, and 500m from construction compounds during the construction phase, and up to 200m the Proposed Scheme boundary during the operational phase. There are no European sites present within these distances.

8.11. Habitat Loss and Fragmentation

8.11.1. As mentioned previously above, the applicant identified three *ex-situ* locations which were utilised and traversed by Bird Species listed as SCIs of South Dublin Bay and River Tolka SPA, North Bull Island SPA, Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA and The Murrough SPA. I also include the North West Irish Sea cSPA in this group. Species include light-bellied brent goose, golden plover, oystercatcher, lapwing, curlew, black-headed gull, lesser black-backed gull, and herring gull.

8.11.2. The Proposed Scheme will result in the loss of approximately 10m^2 of existing amenity grassland to facilitate the Dodder Bridge and associated land reclamation and the removal of approximately 153m^2 area of suitable wintering bird habitat near Irishtown Stadium to facilitate the widening of the existing path. Similarly, the reclamation of land to facilitate the Proposed Scheme will result in the removal of

3,950m^2 estuarine habitat suitable to support herring gull, black-headed gull, lesser black-backed gull, cormorant, light-bellied brent goose, curlew, redshank and common tern.

8.11.3. The loss of estuarine habitat (approximately 3,950m^2) occurs alongside Tom Clarke East Link Bridge. This will result in the potential loss of forage territory and/ or boulder lined foreshore that might be used temporarily by otter that form part of the upstream SAC population. However, given the relatively small area of land reclamation and the extent of fisheries resource known from the Liffey Estuary Lower, it is not likely that the reclamation of land to facilitate the construction of the Proposed Scheme will result in significant loss of otter foraging habitat.

8.12. Habitat degradation/ effects on QI/SCI species as a result of hydrological impacts

8.12.1. The Proposed Scheme is hydrologically connected to Dublin Bay via the Liffey Estuary Lower. Surface waters will also drain to Dublin Bay via existing drainage across the Proposed Scheme. Dublin Bay contains the following European sites: Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Ireland's Eye SPA, North Dublin Bay SPA, Howth Head SPA, South Dublin Bay and River Tolka Estuary SPA, Malahide Estuary SPA, Rogerstown SPA, Baldoyle Bay SPA, Dalkey Islands SPA, Murrough SPA, North West Irish Sea SPA, marine mammals associated with Rockabill to Dalkey Island SAC and Lambay Island SAC and the otter population associated with the Wicklow Mountains SAC.

8.12.2. 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.

8.12.3. Therefore, a reduction in water quality (either alone or in combination with other pressures on water quality) could result in the degradation of sensitive habitats

present within Dublin Bay. As a worst-case scenario, there is potential to affect mobile SCI bird species that commute, forage and loaf in Dublin Bay. It could also negatively affect the quantity and quality of prey available to SCI bird species. These potential impacts could occur to such a degree that they would result in significant effects which could have implications for the conservation objectives of Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Ireland's Eye SPA, North Dublin Bay SPA, Howth Head SPA, South Dublin Bay and River Tolka Estuary SPA, Malahide Estuary SPA, Rogerstown SPA, Baldoyle Bay SPA, Dalkey Islands SPA, Murrough SPA, North West Irish Sea SPA marine mammals associated with Rockabill to Dalkey Island SAC and Lambay Island SAC and the otter population associated with the Wicklow Mountains SAC.

8.13. **Habitat degradation as a result of introducing/ spreading Non-Native invasive species**

8.13.1. It is noted that no non-native invasive plant species listed on the Third Schedule of the (Birds and Natural Habitats) Regulations were recorded within, or in close proximity to, the Proposed Scheme. However, a desk study did provide evidence of invasive species in the vicinity of the Proposed Scheme. There is potential for these species to spread or be introduced, during construction and/ or routine maintenance/ management works, to terrestrial habitat areas in European sites downstream in Dublin Bay, which includes: North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA.

8.13.2. However, it is considered unlikely that invasive species could spread to European sites which are located a significant distance from the outfall locations of the Liffey Estuary Lower, such as Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC and Dalkey Islands SPA.

8.14. **In-combination Effects**

8.14.1. In-combination effects are examined within section 9 of the NIS submitted. The proposed works were considered in combination with all plans and/ or projects with the potential to impact upon the European sites outlined above. Such plans and projects included any national, regional and local land use plans or any existing or proposed projects that could potentially affect the ecological environment within the ZoI of the Proposed Scheme and are listed in Table 45 of the NIS submitted. Each

plan and project have been individually considered for any potential in combination effects, these considerations are detailed in Table 46 of the NIS submitted.

8.14.2. In relation to the potential for in-combination effects with regard to other significant infrastructure projects in and around the city such as Metrolink, all such projects have been considered in the context of in combination effects and it is important to note that projects such as Metrolink must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in 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 the Metrolink and other such projects will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.

8.14.3. The in-combination assessment within Section 9.1 of the NIS submitted has concluded that there is no potential for adverse effects on the integrity of any European sites including those within its ZoI, to arise as a consequence of the Proposed Scheme in-combination with any other plans or projects.

8.14.4. Mitigation measures detailed in Section 7 of the NIS and summarised within Table 9 below will ensure that no adverse effects on European sites integrity will arise from the implementation of the Proposed Scheme.

8.14.5. The implementation of, and adherence to, the policies and objectives of the relevant plans set out in Section 9.2 of the NIS will ensure the protection of European sites across all identified potential impact pathways and will include the requirement for any future project to undergo Screening for Appropriate Assessment and/or Appropriate Assessment, as appropriate.

8.14.6. As the Proposed Scheme will not affect the integrity of European sites within the ZoI of the Proposed Scheme, and given the protection afforded to European sites under the overarching land use plans, I am satisfied that there will be no adverse effects on the integrity of any European sites to arise as a consequence of the Proposed Scheme acting in-combination with any other plans or projects.

8.14.7. Overall, I am satisfied that the NIS and supplementary information provided as part of the application has examined the potential for all impact mechanisms in terms of the conservation objectives of the North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Rockabill to Dalkey Island SAC, Lambay Island SAC, Wicklow Mountains 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, Wicklow Mountains SPA, Lambay Island SPA, The Murrough SPA and North West Irish Sea cSPA. 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.

8.15. Mitigation Measures and Monitoring

8.15.1. A summary of mitigation measures is presented in the tables above. Full details are provided in the NIS, Construction Environmental Management Plan and Invasive Species Management Plan and summarised below. I consider that all measures proposed are implementable and will be effective in their stated aims. Furthermore, an Ecological Clerk of Works will be employed to ensure that measures are implemented as prescribed. A summary of mitigation measures is presented in Table 9 below.

Table 9: Summary of Mitigation Measures to avoid adverse effects on European Sites

Measures to protect surface water quality and groundwater quality during construction:	Use of silt traps, silt fences, bunds for run off to collect in, good construction practice in relation to concrete use and wash out on site. The use of bunded areas, secured areas for hazardous materials, fuels, lubricants and use of spill kits. The use of on-site treatment for surface water runoff, use of settlement tanks/ponds and management of same. Monitoring of water bodies.

	Provision of temporary construction surface drainage and sediment control measures to be in place before earthworks commence. Fuels to be stored in bunded areas, and management of construction related traffic.
Measures to protect surface water quality during operation:	Sustainable urban drainage systems (SUDS) including bioretention areas and filtration drains water butts and permeable paving.
Measures to eradicate/control the spread of non-native invasive species	Preconstruction survey, implementation of an Invasive species management plan and post construction monitoring programme.
Measures to protect birds/ mammals from direct injury/ mortality	Preconstruction otter survey; night working within/ directly adjacent to watercourses where otter are known to commute will preferably not be undertaken; open excavations will be covered when not in use and backfilled as soon as practicable; and excavations will also be covered at night, where practicable, and any deep excavations which must be left open will have appropriate egress ramps in place.

8.16. **Appropriate Assessment Conclusion: Integrity Test**

8.16.1. In screening the need for Appropriate Assessment, it was determined that the proposal to develop a multimodal sustainable transport route had the potential to result in significant effects on North Dublin Bay SAC, South Dublin Bay SAC, Howth

Head SAC, Rockabill to Dalkey Island SAC, Lambay Island SAC, Wicklow Mountains 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, Wicklow Mountains SPA, Lambay Island SPA, The Murrough SPA, and North West Irish Sea SPA, and that Appropriate Assessment was required in view of the conservation objectives of those sites.

8.16.2. Following a detailed examination and evaluation of the NIS all associated material submitted with the application as relevant to the Appropriate Assessment process and taking into account submissions of third parties, I am satisfied that based on the design of the proposed development, combined with the proposed mitigation measures, adverse effects on the integrity of North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Rockabill to Dalkey Island SAC, Lambay Island SAC, Wicklow Mountains 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, Wicklow Mountains SPA, Lambay Island SPA, The Murrough SPA, and North West Irish Sea cSPA can be excluded with confidence in view of the conservation objectives of those sites.

8.16.3. My conclusion is based on the following:

- Detailed assessment of all aspects of the proposed development that could result in significant effects or adverse effects on European Sites within a zone of influence of the development site.
- Consideration of the conservation objectives and conservation status of qualifying interest species and habitats.
- A full assessment of risks to special conservation interest bird species and qualifying interest habitats and species.
- Application of mitigation measures designed to avoid adverse effects on site integrity and likely effectiveness of same.

8.16.4. The proposed development would not undermine the favourable conservation condition of any qualifying interest feature or delay the attainment of favourable

conservation condition for any species or habitat qualifying interest for these European sites.

9.0 Environmental Impact Assessment

9.1. Introduction

9.1.1. The application is accompanied by an Environmental Impact Assessment Report (EIAR) which was prepared by an environmental team led by Jacobs on behalf of the applicant. The application documentation, in my opinion, has been prepared by competent and appropriate individuals in accordance with the relevant national and EU legislation. This EIA section of the report should, where appropriate, be read in conjunction with the relevant parts of the Planning Assessment above.

9.1.2. The application falls within the scope of the amending 2014 EIA Directive (Directive 2014/52/EU) on the basis that the application was lodged after the last date for transposition in May 2017. The application also falls within the scope of the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018, as the application was lodged after these regulations come into effect on 1st September 2018.

9.1.3. The impact of the proposed development is addressed under all relevant headings with respect to the environmental factors listed in Article 3(1) of the 2014 EIA Directive. The EIAR sets out a case regarding the need for the development (Section 2.0). The EIAR provides detail with regard to the consideration of alternatives in Section 3. An overview of the main interactions is provided at Section 21.3. Details of the consultation entered into by the applicant with Dublin City Council and other prescribed bodies as part of the preparation of the project are also set out in Section 1.7 of the EIAR and the Public Consultation Report 2018-2022 which is a separate document.

9.1.4. Article 3 (2) of the Directive requires the consideration of the effects deriving from the vulnerability of the project to risks of major accidents and / or disasters that are relevant to the project concerned. The potential for ‘unplanned events’ is addressed in Chapter 20.

9.1.5. The potential for ‘flooding’ is considered in Chapter 13 Water. I consider that the requirement to consider these factors under Article 3(2) is met.

9.1.6. In terms of the content and scope of the EIAR, the information contained in the EIAR generally complies with article 94 of the Planning and Development Regulations 2001, as amended, all studies informing the EIAR are up to date and recently acquired. Additional pre-construction surveys will be required in order to provide up to date information in relation to invasive species, mammals, bats and birds, however such issues can be adequately dealt with by condition.

9.1.7. It is important to note at the outset that the proposed development under consideration within this application does not cross international boundaries.

9.2. **Alternatives**

9.2.1. The consideration of Alternatives is documented within Chapter 3 of the EIAR submitted. I note that alternatives were considered at three levels, strategic alternatives, route alternatives and design alternatives.

9.2.2. It is stated that the appropriate type of public transport provision in any particular case is predominately determined by the likely quantum of passenger demand along the particular public transport route. With this in mind the applicant considered the option of constructing a light rail service which would cater for a passenger demand of between 3,500 and 7,000 per hour per direction (inbound and outbound journeys). Based on the number of passengers predicted to use the new service, it was considered that there would be insufficient demand to justify a light rail option. The light rail option would also require significantly more land take, necessitating the demolition of properties.

9.2.3. Metro alternative was also considered and as there is a higher capacity requirement for such solutions it was not suitable for this route. In addition, the development of an underground metro would not remove the need for additional infrastructure to serve the residual bus needs of the area covered by the Proposed Scheme.

9.2.4. Heavy rail alternatives carry in excess of 10,000 people each direction each hour and was considered an unsuitable solution.

9.2.5. Demand management in the form of restricting car movement or car access through regulatory signage and access prohibitions, to parking restrictions and fiscal

measures (such as tolls, road pricing, congestion charging, fuel/vehicle surcharges and similar) were all considered as alternatives to the proposed scheme. However, it is stated that in the case of Dublin, the existing public transport system does not currently have sufficient capacity to cater for large volumes of additional users, such measures would not work in isolation to address car journeys into and out of the city and would not encourage people onto alternative modes.

9.2.6. Whilst technological alternatives are becoming increasingly advanced, the use of electric vehicles does not address congestion problems and the need for mass transit.

Route Alternatives

9.2.7. The applicant outlines within section 3.3 of the EIAR that alternative route options have been considered throughout the design development in response to consultations held with the public. The route selection process is outlined in section 3.3.1 of the EIAR, I note that a 'spider's web' of route options were considered, and a sifting process ensued. These route options were then 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.

9.2.8. 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. Each emerging route was considered in relation to a number of criteria such as economy, safety, integration, accessibility and social inclusion and environment.

9.2.9. I am satisfied that the applicant has carried out an extensive, detailed and robust assessment of all reasonable options for the Proposed Scheme. I draw the Board's attention to Chapter 3 of the EIAR in which the applicant comprehensively details all alternative considered and the detailed assessment and consideration of the final four routes and the emergence of the preferred route.

9.3. Population and Human Health

9.3.1. Chapters 10 and 11 of the EIAR consider the impacts to population and human health as a result of the proposed development. I note from the EIAR that impacts to population were considered under two sub-assessments i.e., Community Assessment and Economic Assessment. The study area was informed by the CSO parish boundaries and are listed within section 10.2.1.1. of the EIAR. The economic study area is defined as individual businesses within the identified community areas that could be potentially impacted by the development as a result of displaced traffic.

9.3.2. Human health is considered in the context of the overall health status of the population within the study area, social inequalities, as this can be a determinant of health, and the overall exposure of the population in the study area to environmental impacts, such as the level of exposure to certain pollutants.

9.3.3. It is important to note at this juncture that impacts to communities arising from traffic, air quality, noise and vibration and visual and landscape are considered within the relevant sections of the EIAR submitted and with the planning assessment above and in the interest of conciseness will not be repeated hereunder. This Section of my report should therefore be read in conjunction with the relevant sections mentioned.

9.3.4. Issues raised in this context within the submissions received, relate to accessibility to properties both residential and commercial. Private residents are concerned about the functionality of their properties in terms of access, noise and loss of privacy. Concerns are also raised in relation to anti-social behaviour and the loss of amenity space in particular at Strand Street in Irishtown.

Baseline conditions

9.3.5. In terms of relevant baseline data, the Proposed Scheme is located along an existing heavily trafficked route along the north and south quays, which is also bounded by residential and commercial development. Of particular note in relation to baseline conditions along the route is current exceedances of both daytime and night-time noise levels in excess of that recommended by the WHO. The applicant considers that the Proposed Scheme will improve the current situation in this regard as the proposed route will be operated by electric buses thus significantly reducing noise generation from these large vehicles. The proposal also seeks to reduce the number of private vehicles travelling along the route and therefore further reduce noise emissions for residents.

Potential Impacts

9.3.6. Overall construction impacts relating to construction noise, dust, traffic disruption will be temporary and short term in terms of the magnitude of affect and are largely mitigated without any residual effects. Table 11 below provides a summary of the effects I have noted from these chapters in relation to population and heath, it outlines the magnitude of these effects and mitigation measures where proposed. I will reiterate for the benefit of the Board that such impacts are examined in detail within the relevant sections hereunder. However, it is important to note at this juncture that no significant off-site health risks are expected as a result of the construction or operation of the development. Temporary disturbances, given the nature of the works, will not extend in the long-term post construction. I am satisfied that such impacts will not result in significant effects and can adequately be dealt with by way of mitigation.

9.3.7. Thus, having regard to the information provided within the EIAR and the submissions received, I consider the disruption to traffic as a result of both the construction of the development and the operation of the development to be the greatest impact to population and human health.

Mitigation Measures

9.3.8. I note in this regard that the applicant proposes to implement traffic management plans and protective measures to ensure that pedestrians and cyclists are provided with safe routes during the construction phase, and I further note that measures are proposed to facilitate deliveries to commercial premises both during construction and once the development is operational. Whilst such measures are not a perfect solution for all concerned, on balance I am satisfied that the applicant has adequately addressed the issue of traffic disruption by way of accommodation works during the operational phase of the development and mitigation during construction and whilst I acknowledge that the inconvenience created by these diversions will cause annoyance to road users at certain times, it is for a limited period of time and the effect to population and human health is not a significant long term effect.

9.3.9. I acknowledge that permanent diversion of traffic to other routes as a result of the development will have a negative, moderate and long-term effect due to increases in

traffic on some of the surrounding road network, but it is anticipated that the improved access to a new multimodal route will reduce overall car dependence and therefore reduce the number of cars accessing the surrounding road network.

9.3.10. I note that cumulative effects in relation to surrounding permitted and planned development have also been considered within the EIAR and I agree with the conclusions of the EIAR that no significant impacts are expected to arise in this regard.

Conclusion

9.3.11. I have considered all of the written submissions made in relation to population and human health and the relevant contents of the file including the EIAR. I am satisfied that the potential for impacts on population and human health can be avoided, managed and/ or mitigated by measures that form part of the Proposed Scheme, by the proposed mitigation measures and with suitable conditions. I am therefore satisfied that the potential for direct or indirect impacts on population and human health can be ruled out. I am also satisfied that cumulative effects, in the context of existing and permitted development in the surrounding area and other existing and proposed development in the vicinity of the site, are not likely to arise.

Table 11 Population and Human Health – Summary of potential & residual effects

Potential impacts	Magnitude of Impact	Mitigation	Residual Impact
Traffic disruption	Negative, Slight and Temporary to Short-Term.	Implementation of a traffic management plan. (See S. 6.5 & Ap. A5.1 CEMP)	**None**
Traffic collisions	Negative, Moderate and temporary to Short-Term.	As Above and implementation of measures to protect cyclists and pedestrians.	**None**

Permanent traffic diversion – impact to individuals and businesses	Negative, moderate and long-term	As Above and improved pedestrian and multi modal routes may encourage less car use.	Positive, Slight in the Long-term
Dust generation	Not significant and short term	Implementation of dust management measures.	**None**
Construction Noise – sleep disturbance	Negative, Moderate and Temporary	See Section 9.5 and Ap. A5.1 CEMP)	Negative, moderate to significant and temporary.
Operational Noise	Neutral, Imperceptible and Long-term	None	**None**
Other environmental hazards – water pollution, flooding, contamination. **(Construction & operational phases)**	Neutral	Measures to protect water quality and prevention of leaks and spills of hydrocarbons	**None**
Health impacts	Positive and Significant in the Long-Term.		**None**
Health inequalities	Positive, Moderate and Long-term	People will have better access to health services	Positive, Moderate and Long-term
Air impacts	Positive, Slight and Long-term – reduction in vehicles and electrification of bus fleet.	None	Positive, Slight and Long-term

9.4. Air Quality and Climate

9.4.1. Chapter 7 and 8 of the EIAR submitted address the potential for impacts to arise in relation to Air Quality and Climate.

Baseline Conditions

Air Quality

9.4.2. The key pollutants considered relevant to the proposed development are identified as:

- Nitrogen Dioxide (NO_2)

- Particulate Matter PM_{10} and $PM_{2.5}$
- Greenhouse gases - Carbon Dioxide (CO_2)

9.4.3. The EIAR submitted outlines, within table 7.2, the upper limits for the above pollutants and within 7.2.2, 7.2.2.2 and 7.2.2.3, the relevant international and domestic legislation and policy pertaining to same. Baseline air quality is examined within section 7.3.2 of the EIAR, and baseline climate conditions are examined in section 8.4. Emissions are expected to arise in relation to both the construction and operation phases of the proposed development and will be examined in the context of the proposed mitigation measures hereunder.

9.4.4. For the purposes of the EIAR, the Proposed Scheme is examined in three sections to reflect the construction phases of the development. I note that Sections may be completed simultaneously and combined in certain areas.

- Section 1: Talbot Memorial Bridge to Tom Clarke East Link Bridge:
    - Section 1a: Talbot Bridge to Beckett Bridge: North Quays;
    - Section 1b: Talbot Bridge to Beckett Bridge: South Quays;
    - Section 1c: Beckett Bridge to Tom Clarke East Link Bridge: North Quays; and
    - Section 1d: Beckett Bridge to Tom Clarke East Link Bridge: South Quays.
- Section 2: River Dodder Public Transport Bridge (DPTOB).
- Section 3: Tom Clarke East Link Bridge to Seán Moore Road.

Potential Construction Impacts

9.4.5. In terms of effects, it is considered that demolition, earthworks, construction and track out activities will give rise to dust. I note that the applicant has had regard to IAQM guidance in relation to the identification of the magnitude of effects which are defined in the said guidance document. The magnitude of dust emissions is defined in relation to each specific activity, as follows:

9.4.6. Demolition - Medium impact as the relocation of the Scherzer Bridges and ancillary structures at George's Dock and the Royal Canal/ Spencer Dock, and St. Patrick's

Rowing Club and ancillary structures as the total building volume is likely to be 20,000m^3 to 50,000m^3 and there is low potential for dust release as the rowing club will be demolished from the roof downwards in small sections. The magnitude of effects from this activity to human health and ecological receptors is medium.

9.4.7. Earthworks - Medium impact as the area is between 2,500m^2 and 10,000m^2 and there may be 5 to 10 heavy earth moving vehicles active at any one time. The magnitude of effects from this activity to human health and ecological receptors is medium.

9.4.8. Construction works – The Scherzer Bridges are being rebuilt and restored, the DPTOB and pedestrian boardwalks at Custom House Quay and the junction of Excise Walk and North Wall Quay are being constructed as part of the works, with a building volume of 25,000m^3 to 100,000m^3. The magnitude of effects to ecological receptors and human health arising from construction works is medium.

9.4.9. Trackout movements – medium impact, such activities may comprise between 10 and 50 HDV (heavy duty vehicles) outward movements in any one day during peak construction activity with surface material with a low potential for dust release. The magnitude of effects to human health is considered to be medium and medium in relation to ecological receptors.

9.4.10. Construction traffic – 9 public roads are identified as required construction access routes where construction traffic will be permitted to travel along. An additional 488 HDV vehicles per day associated with construction traffic along each road including construction deliveries and earthworks material haulage are added to the base traffic volumes. I note the estimated construction traffic volumes are based on the peak construction period volumes and are therefore a worst-case assumption. The applicant considers that the scheme will be constructed in phases and the corridor of the Proposed Scheme will be used for a large bulk of construction delivery vehicles along its route.

9.4.11. The potential air quality impacts associated with additional construction traffic is examined in relation to NO_2, PM_{10}, and $PM_{2.5}$. Modelled receptors are outlined in the tables within Appendix A7.1 of the EIAR. Most impacted receptors are outlined in table 7.25 and 7.26 of the EIAR and refer to receptors with non-negligible impacts. Overall, it is stated within the EIAR that impacts relating to construction traffic pre

mitigation are expected to be neutral and short term. I note that all pollutants modelled are within the upper-level thresholds permitted.

Mitigation

9.4.12. Mitigation measures proposed during the construction phase of the development relate to the suppression of dust during the construction phase. Such measures include road sweeping, water misting or spraying during dusty activities, use of tarpaulins when transporting materials and use of site hoardings of 2.4 metres high at the Construction Compounds. Significant residual impacts are not expected to arise.

Potential Operational impacts

9.4.13. Operational impacts for the proposed route are stated to be positive with a reduction in emissions of all pollutants modelled. The majority of these reductions result from a predicted modal shift, with decreased car usage and a cleaner and more efficiently routed bus fleet. I note that NO_2 levels are expected to generally decrease during the operational phase in the design year of 2028 but to be negligible by design year 2043. It is stated that this is due to advancements in engine technology and the addition of a higher percentage of electric vehicles to the fleet. The overall impacts associated with the Operational Phase of the development are stated as neutral and long-term. I bring to the attention of the Board that predictions reported are based on conservative assumptions regarding background pollutant concentrations and the improvement in vehicle emission rates. I note that 2019 background pollutant concentrations have been used to represent 2028 and are likely be lower by the opening year than in 2019. The applicant states that older fleet projections were used in the absence of a fleet that incorporates the effects of 2021 Climate Action Plan measures – a larger proportion of electric vehicles is planned by the opening year than has been modelled. It is stated that total concentrations (and magnitude of change) are likely to be lower than those reported. I consider this to be reasonable assumption of future emissions.

9.4.14. It is of note that impact to ecological receptors in the form of NO_x deposits are stated as negative, slight and long term, I refer the Board to table 7.28 and 7.29 in which change in NO_x deposition relative to identified receptors (such as the Grand Canal pNHA, and Royal Canal pNHA) are outlined. I am satisfied that the deposition levels

will be below the permitted critical load and that in all cases no significant impacts will arise.

Mitigation for Operational phase

9.4.15. No mitigation is proposed in relation to the operational phase of the Proposed Scheme and no residual impacts are expected.

9.4.16. I have considered the potential for cumulative impacts to arise in relation air quality and having regard to the information submitted and given the lack of any significant impacts associated with either the construction phase of the development or the operational phase of the proposal, I am satisfied that proposed development would not give rise to significant cumulative impacts in relation to air quality.

9.4.17. I further acknowledge that a number of submissions raised concerns regarding increases in air pollution as a result of the development. Particular concerns were raised in relation to the removal of trees/ green areas. Whilst I acknowledge the concerns of third parties, the information provided in this regard is clear, robust and detailed and I am satisfied that based on the information provided, notwithstanding the concerns raised within submissions, significant impacts will not occur in relation to air pollution.

Climate

9.4.18. It is important to note at the outset when considering the proposed development in the context of climate that BusConnects is identified within the Climate Action Plan 2024 (CAP24) as a key project that will contribute to the reduction in GHG within Irelands cities. The CAP24 supports the reallocation of road space to public transport and active travel and seeks to advance the bus connects programme in all 5 cities, over the coming years.

9.4.19. Impacts to climate are considered within section 8 of the EIAR and are considered in the context of GHG emissions relating to land use change and construction, traffic related emissions and operational related emissions. Recent weather patterns and extreme weather events reported by Met Eireann, have been considered in the context of climate change locally.

Potential Construction Impacts

9.4.20. It is important to note at the outset that the key phases of the GHG generation are the embodied carbon of the construction materials and the construction activities, which, when combined, account for over 90% of all carbon emissions.

9.4.21. The applicant states that the Proposed Scheme is estimated to result in total Construction Phase CO_{2eq}[10] emissions of 12,771 tonnes embodied CO_{2eq} for materials over a 30-month period, equivalent to an annualised total of 0.008% of Ireland's non-ETS 2020 target and 0.047% of the 2030 Transport Emission Ceiling. The potential impact to climate due to embodied carbon emissions during the Construction Phase, prior to mitigation, will be negative, minor and short term.

9.4.22. In terms of identifying the magnitude of effect arising from the construction phase of the development, I note that in the absence of the agreed CAP24 Sectoral Emission Ceilings any increase in GHG had to be considered significant. As such the applicant has stated impacts arising from the construction phase of the development are negative, minor and short term.

9.4.23. Thus, whilst I acknowledge the justification in relation to the stated magnitude of effects to climate arising from the construction phase of the development, I am satisfied that having examined the carbon emission equivalent of the proposal in the context of the Sectoral Emission Ceilings set out in CAP24, that the proposed development would not give rise to any significant climate impacts and has been adequately assessed within the EIAR in this regard.

Potential Operational Impacts

9.4.24. With regard to the operational phase of the development is it important to note that climate is heavily influenced by GHG emissions and transport emissions are a significant factor in the level of GHGs released into the atmosphere. I draw the Boards attention to section 8.4.3 of the EIAR in which it is stated that private cars accounted for 73.7% of all road trips in 2019 whilst public transport accounted for 6.5% which I note is an increase of 3% from the previous year. It is stated within the EIAR submitted that transport is the second highest emitter of GHG nationally and currently accounts for 17.8% of the national GHG output, with cars accounting for 57.4% of total transport GHG emissions. I draw the Boards attention to CAP24 in

[10] Carbon Dioxide Equivalent

which updated figures are provided in this regard, latest figures state that transport is responsible for 17.1% of the national GHG output. Transport emissions over both 2021 and 2022 have seen increases in emissions of approx. 6% per annum with the ending of pandemic restrictions and the return to pre-Covid levels of economic activity.[11]

9.4.25. Whilst transport emissions associated with the construction phase will increase slightly, it is important to consider the overall impact of the development during both the construction and operational phase. The proposed development is expected to be in use for 60 years and will support the delivery of an efficient, low carbon and climate resilient public transport service, which supports the achievement of Ireland's emission reduction targets. It is stated that the proposal has the potential to reduce GHG emissions equivalent to the removal of approximately 969 and 2,514 car trips per weekday from the road network in 2028 and 2043 respectively. This represents a significant contribution towards the national target of reducing car emissions and car use by 2030 as set out in table 15.5 of CAP24.

9.4.26. In relation to impacts to sequestered carbon I note that some grassland will temporarily be removed to facilitate two of the four Construction Compounds. This will be negligible and not be a significant impact.

9.4.27. In summary of the foregoing, the applicant has stated that the magnitude of effects arising from the operation of the development will be positive, minor and permanent. I note no mitigation is required in relation to the operation or maintenance of the proposed development and no residual impacts arise.

9.4.28. Having regard to the information submitted and the requirements outlined within CAP24, I am satisfied that all impacts in relation to climate have been robustly assessed and the applicant has considered all aspects of the development in a detailed manner within both sections 7 and 8 of the EIAR and has provided extensive information in support of the analysis submitted within the relevant appendices to this document. I also satisfied that the proposal is supported by CAP24.

[11] P.229, Climate Action Plan 2024

9.4.29. It is important to state at this juncture that in considering the impact on climate I have had regard to the Climate Action and Low Carbon Development (Amendment) Act 2021 which requires Ireland to achieve a 51% reduction in emissions by 2030 (relative to 2018 levels) and a 20% reduction by 2025.

Conclusion

9.4.30. In conclusion, I have considered all of the written submissions made in relation to air quality and climate and the relevant contents of the file including the EIAR. I am satisfied that the potential for direct or indirect impacts on air quality and climate can be avoided, managed and/ or mitigated by measures that form part of the Proposed Scheme, by the proposed mitigation measures and with suitable conditions. I am therefore satisfied that the potential for direct or indirect impacts on air quality and climate can be ruled out I am also satisfied that cumulative effects, in the context of existing and permitted development in the surrounding area and other existing and proposed development in the vicinity of the site, are not likely to arise, given that overall risks subject to mitigation being implemented are predicted as being negligible.

Table 12 Air Quality & Climate – Summary of potential & residual effects

Potential impacts	Magnitude of Impact	Mitigation	Residual Impact
Dust Generation during construction.	Negative, not significant and short term	Cleaning of roads, watering of stockpiles, covering trucks, site hoarding 2.4 in height.	Not significant
Overall construction phase traffic impacts to air quality in vicinity of scheme. (Impacts to human health)	Neutral and short term	None	Not significant

Construction traffic impacts to air quality within areas taking diverted traffic.	Neutral and short term	None	Not significant
Embodied Carbon	Negative, Significant and Short-Term	Reduce use of materials such as concrete and fuels and reuse materials where practicable	Negative, Minor and Short-Term
Impacts arising from operation and maintenance	Positive and long term	None	None

9.5. Noise and Vibration

9.5.1. Chapter 9 of the EIAR examines the potential for impacts to arise in relation to noise and vibration. It is important to note at the outset that a number of third party submission have raised concerns in relation to noise and the potential for operational noise to impact residential amenity. I will therefore examine the potential for such impacts to arise hereunder within this section of the EIAR.

Baseline Conditions

9.5.2. In order to establish baseline conditions, the applicant utilised Traffic Noise level monitoring data which is recorded and mapped by the EPA. The applicant also carried out independent noise surveys in the form of attended and unattended surveys at various locations along the route. An unattended survey (one week duration) was carried out at one location during March 2020 to supplement the attended survey locations and the desktop baseline noise study. Attended surveys were undertaken at 9 locations during February to March 2020 and June, August and September 2020. I refer the Board to Section 1.3 of Appendix A9.1 of the EIAR which outlines specific survey dates and times for each location and results. Tables 9.19 to 9.21 of the EIAR outline the overall survey results in relation to each location.

9.5.3. Baseline data results identify road traffic as the dominant noise experienced along the route during both daytime and night-time hours. I note traffic noise levels

reported along the North Wall Quay range between 62dB to 69dB between distances of 5 metres and 10 metres. The level of noise experienced at a specific location depends on distance from the road and boundary treatment present. I note that the highest noise levels were recorded at a point east of the R801 North Wall Quay/ Castleforbes Road junction, which has an average daytime noise level of 71dB L_{den}. Overall, noise levels are high and generally exceed the upper limits for ambient noise levels for daytime and night-time hours.

9.5.4. I note that noise surveys were carried during COVID restrictions. The applicant has addressed the potential impact to baseline data gathered at this time and has reviewed long term noise monitoring locations based on long term noise monitoring data provided by DCC. Review of the DCC noise monitoring data has indicated that the overall difference in average noise levels between June and October of 2019 and 2020 are between 1dB to 2dB lower. It is stated that noise levels are likely to be 0.4dB to 1.5dB lower during the 2020 survey periods when compared to the same months during 2019 due to COVID-19 travel restrictions. This difference in levels is negligible in the overall context of describing the prevailing baseline noise environment.

9.5.5. Vibration surveys were also conducted at various locations and results indicate that vibration levels associated with a heavily trafficked urban – suburban road with a mix of fleet inclusive of dedicated bus lane result in negligible vibration levels at the edge of the road both in terms of human perception and building response.

Potential impacts of noise and vibration

9.5.6. Noise generation will arise in relation to construction works and the operation of plant during this time and will also relate to the increase in buses utilising the route during operation. There is also a potential for noise disturbance to arise in areas which cater for diverted traffic both during construction and permanently during the operation of the development.

9.5.7. The applicant has examined all sources of noise associated with the construction and operation of the development. The EIAR examines each construction activity at specific locations and considers the impact in terms of a range of distances at noise sensitive locations, I draw the Board's attention to tables 9.24 – 9.44 in which each construction activity is outlined in terms of noise emissions relative to the distance

from NSLs. In the absence of mitigation, it is clear from the tables submitted that noise exceedances will occur in relation to all activities at the closest distances to NSLs and at some other distances to varying degrees of intensity. The magnitude of impacts therefore range between Negative, Moderate, Not Significant, Significant to Very Significant, on a temporary basis and over the short term during the daytime, weekend and evening periods in the absence of noise mitigation.

9.5.8. Construction traffic has also been modelled and it is expected that 320 HGV movements (160 vehicles) will occur over a peak construction day. Modelling has been carried out at numerous locations outlined in section 9.4.3.4 of the EIAR which will not be repeated hereunder. Modelling results during the assessed construction year 2024, indicate that New Wapping Street and Mayor Street Upper will experience the highest potential noise impacts.

9.5.9. Such impacts arise as a result of traffic management measures and related redistributed traffic temporarily onto this road. The change in traffic noise is defined as moderate with traffic noise level calculated at the closest NSLs along these two roads categorised as medium. The overall impact is determined to be negative, moderate and temporary. I draw the boards attention to table 13 below in which impacts in relation to all other roads considered within 1km radius of the development are outlined and range between positive, imperceptible and temporary impact to negative, slight to moderate and temporary.

9.5.10. Potential impacts arising from vibration are associated with the widening and upgrading of existing footpaths and kerbs. Such activities require earthmoving, excavation and compaction which are identified within the TII guidance for the treatment of Noise and Vibration in national road schemes as having potential to generate significant amounts of vibration.

9.5.11. I note from the information submitted that the magnitude of effects associated with this activity is stated as negative, slight to moderate and temporary effects at distances of 10m from the activity. Beyond 50m from this type of activity, impacts are stated to be reduced to not significant to slight and temporary. For all other works, vibration impacts will be below those associated with perceptible vibration and will be imperceptible to not significant and temporary.

9.5.12. I further note that the applicant states that all construction works are orders of magnitude below limits values associated with any form or cosmetic or structural damage for structurally sound or protected or historical buildings or structures. Based on the information submitted I am satisfied that a robust and detailed assessment of vibration has been carried out by the applicant and that a no significant effects arise from the proposed works.

Mitigation Measures

9.5.13. Mitigation measures are included within the Construction Management Plan and are discussed in Section 9.5 of the EIAR. As outlined above and within the summary table below it is clear that the largest magnitude of effects arises at distances of 15 metres from the proposed works and relate to construction related activities whereby concrete is to be removed and replaced and road widening is to be carried out. Other significant impacts arise during evening and weekend hours whereby the upper limit for ambient noise is lower.

9.5.14. Thus, whilst mitigation is proposed in relation to all construction related works, of particular note are the measures relating to general road works, road widening and diversion, works relating to quiet streets, site compounds and boundary treatment. I note in this regard that machinery will be fitted with acoustic exhausts and within enclosure panels which will reduce noise by 10dB. Mufflers will be fitted to pneumatic concrete breakers and tools, noisy items will be placed away from NSLs and sensitive boundaries. Compressors will be sounded by acoustic lagging or enclosed within the acoustic enclosure. Screens will be used to dampen noise near NSLs when breakers or drill bits are used. Such measures can also reduce noise levels by up to 10dB.

9.5.15. Works will be carried out largely within daytime hours, however it will be necessary to carry out some works infrequently during night-time hours. The applicant states that cumulative noise impacts will be carefully considered and avoided in order to protect NSLs. It is intended that construction activities will be scheduled in a manner that reflects the location of the site and the nature of neighbouring properties.

9.5.16. The type of works and the duration will be communicated to residents at all times so that residents are aware of the type of work to be carried out and can plan accordingly. Noise monitoring will ensure that any exceedances are addressed

without delay. Similarly works which may give rise to vibration will only be carried out during daytime hours and monitoring will ensure exceedance of upper limits do not arise.

9.5.17. Overall mitigation measures are expected to reduce noise levels by 10dB. The prevailing daytime baseline noise level is assumed as 65dB $L_{Aeq,12\ hr}$ and the evening baseline noise level as 63dB $L_{Aeq,4hr}$. The highest predicted construction noise levels are between 67 to 73 dB $L_{Aeq,T}$ at the closest properties impacted by the most intrusive works. The higher impacts will be at those properties where the prevailing baseline is below the specific predicted construction works noise levels. No significant effects are expected during daytime hours post mitigation. Significant residual effects only remain in relation to night-time and weekend hours whereby upper limit thresholds are lower at these times.

9.5.18. Overall, it is expected that in most instances noise generated by works will assimilate into the existing background noise levels and will not give rise to significant impacts. In addition, as the proposed development is a linear route works will move continuously therefore being temporary in nature at any location along the route.

Residual Impacts

9.5.19. Significant residual impacts remain during night-time and evening hours in relation to the majority of scheduled works within 20m of the works and in relation to road widening/ utility diversion works within 10m of the works.

9.5.20. In this regard I note that the applicant has had regard to the DMRB Noise and Vibration (UKHA 2020) in cases of moderate to major magnitude of impacts, the duration of works determines the overall significance rating. As part of the mitigation measures, the durations advised in the DMRB Noise and Vibration (UKHA 2020) will be followed, where feasible, to reduce overall significance of effects (i.e., scheduling works to occur for periods of less than ten days/nights over 15 consecutive day/ night periods and less than 40 days over six consecutive months where significant effects are identified). Once the CNL and duration of works is considered in line with the DMRB Noise and Vibration (UKHA 2020) all key Construction Phase residual noise levels are not considered to be significant.

9.5.21. As outlined above significant impacts do not arise in relation to vibrations and as such significant residual impacts will not occur. In addition, the magnitude of effects

arising from the operation of the development is positive to negative and slight, mitigation measures are therefore not proposed in relation to the operational phase of the development. During the proposed Opening Year (2028), the NTA forecast is for 94% of the city bus fleet to be electric vehicles (EVs) or hybrid electric vehicles (HEVs). For the Design Year (2043), the city bus fleet is forecast to be 100% electric.

Conclusion

9.5.22. I have considered all of the written submissions made in relation to noise and vibration and the relevant contents of the file including the EIAR. I am satisfied that the potential for direct or indirect impacts on noise and vibration can be avoided, managed and/ or mitigated by measures that form part of the Proposed Scheme, by the proposed mitigation measures and with suitable conditions. I am therefore satisfied that the potential for direct or indirect impacts in relation to Noise and Vibration can be ruled out I am also satisfied that cumulative effects, in the context of existing and permitted in the surrounding area and other existing and proposed development in the vicinity of the site, are not likely to arise.

Table 13 Noise & Vibration – Summary of potential & residual effects

Potential impacts	Magnitude of Impact	Mitigation	Residual Impact
General road works and urban realm landscaping	Daytime - Negative, moderate to significant, and temporary Evening and weekend - significant to very significant, and temporary.	Yes. Refer to Section 9.5.1.1 for the range of noise mitigation measures which will be adopted at specific working areas to reduce noise impacts at NSLs. Particular emphasis is given to localised screening around high noise level plant items.	Daytime - based on distance to works - negative, moderate to significant and temporary. Evening and weekend - Negative, moderate to significant and temporary to Negative, not significant and temporary.
Road widening and utility diversion works	Daytime – Ranges relate to distance from works and range	Yes. Refer to Section 9.5.1.1 for the range of	Daytime - based on distance to works - negative, slight to

	between negative, not significant to very significant, and temporary. Evening and weekend - Negative, not significant to very significant, and temporary during the evening and weekend periods.	noise mitigation measures which will be adopted at specific working areas to reduce noise impacts at NSLs.	moderate and temporary. Evening and weekend - based on distance to works - Negative, moderate to significant, very significant and temporary.
Pier and DPTOB	Daytime – Ranges relate to distance from works and range between negative, very significant to profound and temporary. Evening and weekend - Negative, very significant to profound and temporary during the evening and weekend periods.	Yes. As above.	Daytime - Negative, Significant to Very Significant and Temporary at NSLs within 25m from the proposed sheet pile, demolition of the existing SPRC house and DPTOB approach works. Evening and weekend - Negative, Very Significant to Profound and Temporary at NSLs within 15m from the proposed sheet pile and demolition of the existing SPRC house.
SPRC House	Daytime – Ranges relate to distance from works and range between negative, very significant to profound and temporary.	Yes. As above.	Daytime - Negative, Not Significant and Temporary at NSLs at distances greater than 15m from the proposed works. Evening and weekend - Negative, Not

	Evening and weekend - Negative, very significant to profound and temporary during the evening and weekend periods.		Significant and Temporary at NSLs at distances greater than 25m from the proposed works.
New Junction to East Link Toll Road	Daytime – Ranges relate to distance from works and range between negative, significant to very significant and temporary. Evening and weekend - Negative, significant to very significant and temporary during the evening and weekend periods.	Yes. As above.	As above.
Quiet Street treatment – Tom Clarke East Link Bridge to R131 Sean Moore Road	Daytime period - at nearest distance - negative, significant to very significant, and temporary Evening & weekend – at nearest distance- negative, significant to very significant, and temporary.	Yes. As above.	Daytime - at nearest distance: negative, slight to moderate and temporary. Evening & weekend - at nearest distance: negative, slight to moderate and temporary.
Construction site compounds	Daytime – Negative, not significant and temporary at NSLs at distances greater than 10m from all construction site compounds.	Yes. As above. The Construction Compounds are in close proximity to NSLs and a strict noise control policy	Daytime - Negative, not significant and temporary. Night-time – Negative, not significant and temporary.

	Potential exceedance of daytime construction noise criteria (Negative, Moderate to Not Significant to Very Significant) without noise mitigation at George's Dock, Royal Canal, and DPTOB compounds. <u>Night-time & weekend</u> - Negative, not significant and temporary at NSLs at distances greater than 40m from all construction site compounds. Potential exceedance of evening & weekend construction noise criteria (Negative, Moderate to Not Significant to Very Significant) without noise mitigation at George's Dock, Royal Canal, and DPTOB compounds.	relating to materials handling will be applied. Noisy items of plant will be sited away from noise sensitive boundaries.	
Bored piling	<u>Daytime Hours</u> – Range based on distance is negative, moderate to very significant, and temporary at varying distances.	Yes. Refer to Section 9.5.1.1 for the range of noise mitigation measures which will be adopted at specific working areas to	<u>Daytime</u> – Within 15m: Negative, slight to moderate and temporary. <u>Night-time</u> – Within 15m: Negative, moderate to significant and temporary.

	Evening and weekend periods – Range based on distance is negative, significant, to very significant, and temporary at varying distances.	reduce noise impacts at NSLs.	
Construction vibration from general road works and construction activities	Negative, imperceptible to not significant and temporary.	A clear communication programme will be established by the NTA to inform adjacent building occupants in advance of any potential intrusive works which may give rise to vibration levels likely to result in significant effects. Activities capable of generating significant vibration effects with respect to human response (as per Table 9.12) will be restricted to daytime hours only. Appropriate vibration isolation shall be applied to plant (such as resilient mounts to pumps and generators), where required and where feasible.	Negative, imperceptible to not significant and temporary.

Vibration in relation to groundbreaking activities	Negative, slight to moderate, temporary effects.	Yes. As above.	Negative, imperceptible to not significant and temporary.
New Wapping Street	Moderate	No	Negative, moderate and temporary.
Mayor Street Upper	As above		Negative, moderate and temporary.
All other roads in study area of 1km	Positive, imperceptible and temporary impact to negative, slight to moderate and temporary.	No	Negative, Imperceptible to Slight, to Moderate and Temporary
Operational Phase			
Opening Year (2028) traffic noise – Proposed Scheme	Direct, Positive, Imperceptible and Short to Medium-Term Impact to a Direct, Negative, Not Significant to Slight to Moderate and Short to Medium-Term	No	Direct, Positive, Imperceptible and Short to Medium-Term Impact to a Direct, Negative, Not Significant to Slight to Moderate and Short to Medium-Term
Opening Year (2028) traffic noise - surrounding road network	Indirect, Imperceptible to Slight and Short to Medium-term to Indirect, Negative, Slight to Moderate, Short to Medium-Term	No	Indirect, Imperceptible to Slight and Short to Medium-term to Indirect, Negative, Slight to Moderate, Short to Medium-Term
Design Year (2043) traffic noise – Proposed Scheme	Direct Positive, Imperceptible and Long-Term to Indirect, Negative, Slight and Long-Term	No	Direct Positive, Imperceptible and Long-Term to Indirect, Negative, Slight and Long-Term
Design Year (2043) traffic noise –	Indirect, Positive, Imperceptible and long-term Impact to	No	Indirect, Positive, Imperceptible and long-term Impact to

surrounding road network	Indirect, Negative, Slight to Moderate and Long-Term Impact		Indirect, Negative, Slight to Moderate and Long-Term Impact
Operational Phase Vibration	Neutral, imperceptible, long-term	No	Neutral, imperceptible, long-term
Bus stops – existing location	Neutral, imperceptible, long-term	No	Neutral, imperceptible, long-term
Bus stops – new locations	Neutral, not significant, long-term	No	Neutral, not significant, long-term

9.6. Biodiversity

9.6.1. Chapter 12 of the EIAR submitted examines the potential for impacts to arise in relation to biodiversity. This element of the development will focus on biodiversity in general within the site and its surrounds.

Baseline Conditions

9.6.2. The lands within and adjacent to the development site are comprised of semi-natural calcareous grassland, hedgerows, tree lines and woodlands, which support a range of species and act as ecological links/ corridors across the wider landscape; parks and public green spaces, such as Ringsend Park, Seán Moore Park, and private gardens, that support a variety of species; the Liffey Estuary Lower which is noted as being highly significant regional salmonid catchment for species of Atlantic salmon *Salmo salar* and brown trout *Salmo trutta* and also supports, brook lamprey *Lampetra planeri*, river lamprey *Lampetra fluviatilis*, white-clawed crayfish *Austropotamobius pallipes*, and an active otter *lutra lutra* population; and the Royal Canal at its terminus at the Liffey Estuary Lower. The Proposed Scheme is dominated by commercial buildings and artificial surfaces with pockets of amenity grassland within the Irishtown and Ringsend areas.

9.6.3. The ZoI of the Proposed Scheme in relation to terrestrial habitats is generally limited to the footprint of the Proposed Scheme, and the immediate environs. The applicant acknowledges within the EIAR that Hydrological and Air Quality impacts can cause effects to biodiversity at significant distances from the development boundaries. The

potential for significant effects is therefore considered within a wider zone of influence for these two issues.

9.6.4. Air quality ZoI is set depending on the activity i.e., 50m from the Proposed Scheme, 500m from construction compounds during construction phases and 200m from the Proposed Scheme boundary or local road networks experiencing a change in AADT (Annual Average Daily Traffic) flows greater than 1,000 during the Operational Phase.

9.6.5. The ZoI for aquatic plant and animal species includes all estuarine habitats located downstream of where the Proposed Scheme will drain to the proposed crossing points (these are outlined in Table 12.4 of the EIAR) and the marine environment of Dublin Bay.

9.6.6. The ZoI for impacts to aquatic fauna species, such as Atlantic salmon *Salmo salmar* and lamprey species *Lampetra spp*, is limited to those water courses that will be crossed by the Proposed Scheme or water bodies to which runoff from the Proposed Scheme could drain to during construction and operation.

9.6.7. ZoI for other species are as follows:

- Pygmy shrew – c.100m from Proposed Scheme boundary.
- Otters, badgers, stoat, and hedgehogs – extends to greater distances and breeding sites as far as c.150m from boundary of scheme.
- Bat roost – c.200m but can be adjusted depending on species. Habitat severance could extend for several kilometres.
- Breeding birds – *ex-situ* impacts up to c.300m.
- Amphibian species – direct habitat loss/ severance and indirect impacts to water quality in wetland habitats.
- Common lizard – direct habitat loss/ severance and disturbance/ displacement effects in the immediate vicinity during construction.

9.6.8. Overall, it is clear that the determination of the zone of influence differs depending on the construction and operational activity.

9.6.9. It is important to note at this juncture that the proposed development does not fall within the boundary of any European sites, Ramsar Sites, designated NHAs, Nature

reserves or Biosphere Reserves. The nearest European site is South Dublin Bay and River Tolka Estuary SPA which is located c.500m south-east of the Proposed Scheme. All European Sites within the zone of influence of the Proposed Scheme are outlined and examined within the Appropriate Assessment Section of this report and will not be repeated hereunder.

9.6.10. The closest nationally designated sites to the Proposed Scheme are the Grand Canal pNHA, which is crossed by the Proposed Scheme at Spencer Dock, and Dublin Bay pNHA, which is located c.500m south-east of the Proposed Scheme. All NHAs/ pNHAs within both the ZoI and the wider vicinity of the Proposed Scheme are listed within Table 12.6 of section 12.3.4.2 of the EIAR. All other sites such as designated RAMSAR sites and Special Amenity Area Orders are recognised and considered in the context of the proposed development within the EIAR.

9.6.11. In order to establish biodiversity baseline conditions, the applicant carried out numerous walkovers of the site and carried out detailed mammal, bird, bat, reptile and amphibian surveys of the route and the surrounding areas between 2018 and 2022 with an updated wintering bird survey carried out in 2023. Details of all surveys are outlined in section 12.2.3.2 of the EIAR. As mentioned above habitats and species encountered are typical of that within developed urban environments of significance to the proposed development and I note that surveys and desk top studies did not record any evidence of the following within the development boundary of the Proposed Scheme: badger, common lizard, common frog or smooth newt. There are no records of invertebrates such as white clawed crayfish, freshwater molluscs or marsh fritillary in the study area.

9.6.12. Notwithstanding the foregoing it is proposed to carry out preconstruction confirmatory surveys for badgers in order to ensure that they are not affected by the proposed construction works. The implementation of SuDs will ensure the avoidance of habitat degradation for mammals that utilise river banks. Such measures will also prevent additional sediment release to the river and other surrounding watercourses therefore protecting aquatic species from dis-improvements in water quality.

Potential Impacts in relation to bats

9.6.13. Bat surveys were carried out across three seasons (autumn, spring and summer) and at three transects within the footprint of the Proposed Scheme (see details in

section 12.3.8.1 of EIAR). The transects were: CBC0016BT001 (Tom Clarke East Link Bridge), CBC0016BT002 (Ringsend Park), and CBC0016BT003 (Poolbeg Yacht Club). The existing St. Patrick's Rowing Club (SPRC) building is proposed for demolition as part of the Proposed Scheme and a bat suitability assessment of the building was carried out. It was not considered that the building had potential roosting features that would warrant dedicated surveys to identify roosts. The following species were recorded at the three transects:

- Leisler's bat *Nyctalus leisleri*
- Common pipistrelle bat *Pipistrellus*
- Soprano pipistrelle bat *Pipistrellus pygmaeus*
- Unidentified Pipistrelle Species

9.6.14. Leisler's bat was recorded along two of the three transects surveyed between 2018 and 2020. A total of 81 recordings of Leisler's bat were identified at these locations between 2018 and 2020. No potential roost site for Leisler's bat was recorded during the surveys for the Proposed Scheme. The desk study found that Leisler's bat is known to occur in the wider study area and utilise foraging habitat within the greater Dublin area.

9.6.15. Common pipistrelle was recorded along two transects of the three transects surveyed between 2018 and 2020. Common pipistrelle bat activity was highest at Ringsend Park and horticultural lands adjacent to Pigeon House Road, the Grand Canal Basin, and the confluence between the River Dodder and the Liffey Estuary Lower.[12] A total of 43 recordings of common pipistrelle bat were identified in these locations between 2018 and 2020. No roost site for Common pipistrelle was recorded during the surveys for the Proposed Scheme. The desk study found that common pipistrelle bats are known to occur across the Proposed Scheme.

9.6.16. Soprano pipistrelle was also recorded along one of the three transects surveyed between 2018 and 2020. A total of 9 recordings of soprano pipistrelle bat were identified. No roost sites for common pipistrelle bat were recorded during any of the

[12] Please refer to Sheet Number 1 of 2, Drawing File Name: BCIDE-JAC-ENV_BD-0016_XX_00-DR-GG-0401, 12.6.1 Bat Survey Results: Bat Activity Survey Results, Volume 3, EIAR

surveys for the Proposed Scheme. The desk study found that soprano pipistrelle bats are known to occur across the Proposed Scheme.

9.6.17. One unidentified Pipistrelle Species was recorded along CBC0016BT003 (Pigeon House Road) during Summer 2020.

9.6.18. There were no trees identified as having potential roosting features (PRFs) suitable to support roosting bats within the Proposed Scheme.

9.6.19. An additional potential impact to bats arises from the introduction of artificial lighting within suitable habitat may result in avoidance behaviour by bats and could prevent bats from accessing foraging areas or roosts and/ or result in bats taking more circuitous routes to get to foraging areas and hence potentially depleting energy reserves and result in abandonment of nearby roosts. Given the urban setting of these proposed site compounds, it is considered that bats in the area would be habituated to some level of artificial lighting and the impact of increased artificial lighting at construction compounds is considered to be significant at the local level only.

9.6.20. It is stated that construction works will typically be undertaken during normal daylight working hours, and therefore the requirement for lighting to accommodate construction works during night-time, in many areas where existing light levels are low, will be limited.

Mitigation in relation to Bats

9.6.21. Mitigation measures proposed include pre-construction surveys and the use of low lux directional lighting. Although it is not considered that the SPRC building is suitable for roosting bats, mitigation is proposed as a precautionary measure that the structure will be surveyed immediately prior to demolition by a suitably qualified ecologist engaged by the appointed contractor to assess whether bats are present.

9.6.22. Overall, given the limited level of bat activity within the vicinity of the proposed works, the absence of any roost sites and the mitigation measures proposed above, I am satisfied that the proposed development will not result in any bat mortality. I also note that works will be carried out during daytime hours and will therefore not result in disturbance to emergence patterns in the area.

Potential Impacts in relation to birds

9.6.23. It is important to note that the applicant has examined the potential for impacts to arise in relation to overwintering bird species within the Appropriate Assessment section of this report and as such in the interest of conciseness these details will not be repeated hereunder, and accordingly this section of the report should be read in conjunction with the Appropriate Assessment above in relation to over wintering bird species. Nonetheless, it is important to note that the applicant has examined records of all overwintering birds relevant to the Proposed Scheme and has identified *ex-situ* feed grounds within 300m of the Proposed Scheme boundary. These sites have been surveyed as detailed within the AA above and no impacts of significance are expected to arise in relation to these bird species at these locations.

9.6.24. Habitats for other common birds that are affected by the development form part of larger expanses of similar habitat types and mosaics in the wider locality. Parks and greenspaces form a vital resource for breeding birds within an urban setting. These areas of suitable breeding bird nesting and/ or foraging habitat are available in the wider locality of the Proposed Scheme. Impacts to birds in this regard are not expected to be significant.

9.6.25. Habitat loss in the general sense will arise along the full route and will occur in the form of permanent land take of edge habitats adjacent to the existing road network, or as temporary land take to facilitate construction activities. Disturbance effects on breeding birds will most likely be of greater impact at the Custom House Quay and North Wall boardwalks and at the quay walls surrounding the proposed DPTOB, than along the remainder of the Proposed Scheme. At these locations, should any signs of breeding birds be detected within the works area, works in that area will have to cease immediately and will not be able to recommence until either the end of the breeding bird season or until all breeding birds are no longer using the area for breeding purposes (e.g., the young have fledged and have left the nest). Overall, considering the habitat types to be lost, their extents and the surrounding habitats beyond the Proposed Scheme boundary, the potential impacts will not result in a significant effect at any local geographic scale.

Potential Impact in relation to Aquatic species

9.6.26. Habitat degradation in relation to surface water quality has also been examined in detail within the Appropriate Assessment and Water Section of this report and

subject to mitigation and the implementation of SuDs measures no significant impacts to water quality or aquatic species are expected.

Potential Impacts in relation to Plant species

9.6.27. No protected plant species listed on the Flora (Protection) Order, 2022 were recorded within the footprint of the Proposed Scheme during field surveys. The desk study returned records of a total of six species listed on the Flora (Protection) Order 2022 across the wider study area and are listed in Appendix A12.2 in Volume 4 of the EIAR. However, there is no potential for impacts on rare/ protected species, as a result of the operation of the Proposed Scheme.

Invasive Plant Species

9.6.28. There were no non-native invasive plant species listed on the Third Schedule of the Birds and Habitats Regulations identified along the Proposed Scheme. The desk study returned several records of Himalayan balsam Impatiens glandulifera along the River Dodder at Irishtown and Japanese knotweed Reynoutria japonica at Irishtown Nature Park. There is no potential for these species to spread or be introduced, during construction and/ or routine maintenance/ management works, to terrestrial habitat areas in European sites downstream.

9.6.29. Notwithstanding this, an Invasive Species Management Plan has been prepared to outline the strategy that will be adopted during the Construction Phase of the Proposed Scheme in order to manage and prevent the spread of the non-native invasive plant species. This approach is common practice and known to be effective in the management of invasive species. I am therefore satisfied that the proposed development will not give rise to the spread of invasive species within or outside of the site boundaries.

Potential Impacts Operational Phase

9.6.30. There are no significant effects expected during the operational phase of the development in relation to biodiversity. Measures such as the implementation of SuDs, directional lighting to protect bats and monitoring and management plan for invasive plant species will prevent any impacts of significance from arising.

Residual Impacts

9.6.31. The Board should note the summary of likely significant post-mitigation impacts for both the construction and operational phases of the Proposed Scheme are contained in Tables 12.17 and 12.18 of section 12.6 in the EIAR. In this regard, I draw the Board's attention to the assessment that residual impacts are for the most part expected not to be significant.

9.6.32. However, I note in relation to habitat loss, mortality risk, disturbance/ displacement all other breeding bird species (non-SCI) are expected to be impacted by a likely significant effect at the local geographic scale. I accept that the removal of vegetation and levels of disturbance can be identified has having a significant effect, but I consider the limited level of removal (with a replanting scheme) and the confinement of disturbance to a local level would result in insignificant overall impacts on bird species.

9.6.33. Marine mammals (otter and seal) have been recorded commuting and foraging within the Liffey Estuary Lower, in the vicinity of the Proposed Scheme. Direct impacts on marine mammals may potentially occur during pilling and estuary reclamation if marine mammals are very close to the proposed construction site. A suite of mitigation measures that will be implemented during construction and operation of the Proposed Scheme to avoid the potential impacts on marine mammals have been adapted from the Marine Mammal Risk Assessment (IWDG 2020). No evidence of other protected mammals was recorded during surveys. Given the above and having regard to the mitigation measures proposed to ensure no significant effects arise in this regard, I am satisfied that that effects of the scheme to biodiversity will not be significant.

9.6.34. Therefore, having regard to the foregoing and having considered the written submissions made in relation to biodiversity and the relevant contents of the file including the EIAR, I am satisfied that the potential for impacts on biodiversity can be avoided, managed and/ or mitigated by measures that form part of the Proposed Scheme, by the proposed mitigation measures and with suitable conditions. I am therefore satisfied that the potential for direct or indirect significant impacts on biodiversity can be ruled out. I am also satisfied that cumulative effects, in the

context of existing and permitted development in the surrounding area and other existing and proposed development in the vicinity of the site, are not likely to arise.

Table 14 Biodiversity - Summary of potential & residual effects

Potential impacts	Magnitude of Impact	Mitigation	Residual Impact
Construction Phase on European sites	Likely significant effect at the international geographic scale.	Refer to Section 9.5.1 for the range of mitigation measures which will be adopted at specific working areas to reduce impacts on biodiversity.	None of significance.
Construction Phase on Local biodiversity	Likely significant effect at the national and local importance.	As above.	Likely significant effect at the county geographic scale.
Operational Phase on European Sites	Likely significant effect at the international geographic scale	Implementation of SUDs measures and attenuation.	None of significance.
Operational phase on Local biodiversity	Potential for likely significant effect at the local and county geographic scale	Implementation of SUDs measures and attenuation. Directional lighting, and monitoring and management of invasive plant species.	None of significance to likely significant effect at the local geographic scale.

9.7. **Water**

9.7.1. Section 13 of the EIAR submitted examines the potential for impacts to arise in relation to hydrology. As mentioned above, the proposed route will follow the eastern parts of the north and south quays in Dublin City centre and lies within Hydrometric Area (HA) 09 (Liffey and Dublin Bay) and is within the River Liffey catchment. Relevant water body status is outlined within table 13.7 of the EIAR. It is of note from this table that the known status of most of the waterbodies encountered along the route range between moderate and good. No SuDs were identified within the existing drainage environment along the route.

Baseline Conditions

9.7.2. The waterbodies examined for the purpose of EIA for the proposed scheme include the following:

- Liffey Estuary Upper,
- Liffey Estuary Lower,
- the Royal Canal,
- the Dodder_050, and
- Dublin Bay.

9.7.3. The existing drainage system drains to a combined sewer with stormwater overflows to Liffey Estuary Lower. The catchments are associated with sections of the Proposed Scheme as follows:

- Section 1 – Talbot Memorial Bridge to Tom Clarke East Link Bridge; and
- Section 2 – Tom Clarke East Link Bridge to Seán Moore Road.

9.7.4. The Proposed Scheme will run parallel to Liffey Estuary Lower on both banks of the water body, crossing it twice at Samuel Beckett Bridge and at the DPTOB. The Proposed Scheme will cross over the entry channel of the Royal Canal where it meets the Liffey Estuary Lower at Spencer Dock. The Proposed Scheme does not cross the Grand Canal (Basin) however it is in the Study Area, at approximately 130m south of the DPTOB at its closest point at the east end of Hanover Quay. The Proposed Scheme does not cross the Dodder_050; its confluence with the Liffey Estuary Lower is approximately 150m upstream of the Proposed Scheme. The Liffey

Estuary Lower drains directly into Dublin Bay. The Proposed Scheme does not cross the Liffey Estuary Upper as the Liffey Estuary Upper is situated upstream, but there is the potential for water quality impacts on the Liffey Estuary Lower to be passed upstream on a flood tide and potentially impact the Liffey Estuary Upper.

9.7.5. I draw the Board's attention to Appendix 13.1 of the EIAR which contains a Water Framework Assessment report. It is concluded within this report that the Proposed Scheme will not compromise progress towards achieving GES or cause a deterioration of the overall GEP of any of the water bodies that are in scope. The WFD also requires consideration of how a new scheme might impact on other water bodies and other EU legislation. The following assessment will examine the potential for the proposed development to impact waterbodies within the study area. The Board should note that an Appropriate Assessment has been carried out as outlined above and considers the impact to other EU legislation accordingly.

Potential Construction Impacts

9.7.6. The potential for impacts to arise in relation to these water bodies is summarised hereunder and the magnitude of any effects stated. The Board should note that the effects listed hereunder relate to the construction phase of the development and that operational effects will be considered separately.

- **Liffey Estuary Upper** – proposed works along the south and north quays include in-channel working to provide for the construction of the proposed pedestrian boardwalks at Custom House Quay and at the junction of Excise Walk and North Wall Quay, as well as the intrusive works near to the water body at the George's Dock and Royal Canal Scherzer Bridges could impact the Liffey Estuary Lower and, due to incoming tide, alter water chemistry and add sedimentation. The construction of the DPTOB also has the potential to result in impacts on this water body, 1.5km downstream of the Liffey Estuary Upper's most downstream extents, with potential for significant sediment releases to be carried upstream on an incoming tide.

  Magnitude of effects: **Imperceptible to moderate significance.**

- **Liffey Estuary Lower** – potential for impacts such as increased runoff and sediment loading to the water body arising from carriageway and bridge upgrades, and associated works from Talbot Memorial Bridge to Tom Clarke

East Link Bridge along the north quays and from junction upgrades and associated works at Talbot Memorial Bridge to Tom Clarke East Link Bridge along the south quays involve reconstruction of the carriageway, adjustments to paving and footpaths, and lighting and services adjustments; piling at the proposed Custom House Quay boardwalk has potential for impacts as it can lead to the remobilisation of sediment from the bed of the estuary, which may also contain contaminants from historical industrial discharges in addition to hydrocarbons from runoff of local roads; potential for grout and silt/ dust from the quay wall to enter the water body from the pedestrian boardwalk at the junction of Excise Quay and North Wall Quay; the pouring of concrete could impact the water body if there is any concrete washout over land at the Scherzer Bridges at George's Dock and the Royal Canal; Construction Compounds at George's Dock Scherzer Bridges and at Royal Canal Scherzer Bridges have the potential to impact upon the Liffey Estuary Lower in the event of a spill of hydrocarbons or other noxious materials. Major works are proposed to construct the new DPTOB bridge between Sir John Rogerson's Quay and Thorncastle Street/ York Road with potential for increased sediment loading in estuary water from silty water runoff (as soil is stripped to the east) and as the cofferdams and area behind the sheet piling are dewatered; the remobilisation of historically contaminated sediment from the estuary bed; hydrocarbon contamination from machinery working within the cofferdam and on barges; concrete contamination of the water body; and potential for contamination because of silty water runoff as soil is stripped and contamination as a result of accidental spillages from the secondary Construction Compound (R3A/R3B) located on the western side of the Dodder along Sir John Rogerson's Quay.

Magnitude of effects: **Slight to profound significance.**

- **Royal Canal Main Line** – potential for increased sediment and concrete in runoff overland because of the proposed works to the Scherzer Bridges; spillages at Construction Compound R2 have the potential to impact upon this water body as it is within 10m at its closest point.

  Magnitude of effects: **Slight to moderate significance.**

- **Dodder_50** – the construction of the DPTOB has potential to directly impact the Dodder_050 water quality and potential conveyance on an incoming tide; similar impacts to those on Liffey Estuary Lower as outlined above (excluding the scouring associated with the coffer dams and sheet-piling).

  Magnitude of effects: **Imperceptible to moderate significance.**

- **Dublin Bay** – potential for indirect impacts on it from the Liffey Estuary Lower, water quality impacts would be diluted due to the distance from the proposed works (approximately 4km).

  Magnitude of effects: **Imperceptible significance.**

Potential Operational impacts

9.7.7. The potential impacts for the Operational Phase are related to water quality and hydromorphology only. The magnitude of effects to the waterbodies listed above is of imperceptible significance. The Board should note that it is proposed to incorporate SUDs measures (attenuation tanks and swales) into the Proposed Scheme along the entirety of its length.

- **Liffey Estuary Upper** – no hydrological connection from the Proposed Scheme to the Liffey Estuary Upper during the Operational Phase, therefore there are no impacts from that source.

  Magnitude of effects: **Imperceptible significance.**

- **Liffey Estuary Lower** – overall increase in impermeable area as a result of the DPTOB and the widening of the existing path along the western boundary of Ringsend Park to facilitate a pedestrian and cycle path, both in catchments discharging to the Liffey Estuary.

  Magnitude of effects: **Imperceptible significance.**

- **Royal Canal Main Line** – no hydrological connection from Proposed Scheme to the Royal Canal Main Line and, therefore, there are no impacts.

  Magnitude of effects: **None.**

- **Dodder_50** – no hydrological connection from Proposed Scheme to the Dodder_50 and, therefore, there are no impacts.

Magnitude of effects: **None.**

- **Dublin Bay** – no hydrological connection from Proposed Scheme to the Dublin Bay and, therefore, there are no impacts.

  Magnitude of effects: **None.**

9.7.8. It is important to acknowledge that there will be additional traffic flows on diverted routes both during the construction and operation of the phases of the Proposed Scheme. I have considered such changes and agree with the conclusions in this regard that the proposed development would result in an imperceptible impact to the water environment within these areas and will therefore not give rise to significant environmental effects.

9.7.9. Overall, I have considered the submissions and the contents of the application in relation to water and I am satisfied having regard to the existing baseline environment and proposed mitigation measures that there will be no significant residual impacts on the hydrological environment within or connected to the Proposed Scheme.

Flooding

9.7.10. The applicant has carried out a flood risk assessment for the proposed scheme, which is appended to the EIAR. It is important to note at the outset that a stage 2 FRA was not required as the development is in an area of low risk. The following is a summary of the potential for flooding along the scheme and the overall impact of the development in relation to each flood type.

9.7.11. **Pluvial Flooding** – There is a risk of pluvial flooding along the entire length of the proposed route. The Proposed Scheme will result in the creation of additional impermeable surfaces for local sections of road widening but SuDS measures have been included to ensure that there is no change in existing runoff rates as a consequence of the scheme. This will ensure no increase in the risk of pluvial flooding as a result of the Proposed Scheme.

9.7.12. **Fluvial Flooding** – The Proposed Scheme requires minimal changes to land cover and will likely have a negligible impact on the existing fluvial flood regime. The Proposed Scheme will not have adverse impacts or impede access to a

watercourse, floodplain or flood protection and management facilities and will be flood resilient in design.

9.7.13. The Proposed Scheme will not affect any of the existing bridges on the River Liffey and the works at both the DPTOB bridge crossing and Rowing Club facility (reclaimed land) will not result in any significant effect either on the hydrodynamics or the morphology of the Liffey and Dodder channels.

9.7.14. **Climate Change** – There will be an increased risk of fluvial flooding to the Proposed Scheme as a consequence of climate change, however the Proposed Scheme will not exacerbate the impacts of climate change on the risk of fluvial flooding.

Conclusion

9.7.15. With regard to the foregoing, I have reviewed the drainage implications of the proposed development and note that the drainage design will ensure no net increase in surface water flow discharges. New surface water sewers are designed to provide attenuation for return period of up to 30 years where possible and the introduction of SuDs measures along the route will contribute to the management of fluvial flooding risk through the provision of surface water storage capacity in the network. The overall impacts in relation to flooding and water quality are positive along the route of the Proposed Scheme.

9.7.16. Mitigation measures proposed to control sediments, restrict storage of fuels to bunded areas and restrict the method of concrete use near to water bodies will ensure that accidental sediment and hydrocarbon release to waterbodies does not arise. The Proposed Scheme is expected to have an overall positive impact on water quality and is therefore in compliance with the requirements of the Water Framework Directive in that it will not cause a deterioration in status in any waterbody or prevent any waterbody from achieving good status.

9.7.17. I considered all of the written submissions made in relation to Water and the relevant contents of the file including the EIAR. I am satisfied that the potential for impacts on water can be avoided, managed and/ or mitigated by measures that form part of the Proposed Scheme, by the proposed mitigation measures and with suitable conditions. I am therefore satisfied that the potential for direct or indirect impacts on water can be ruled out. I am also satisfied that cumulative effects, in the context of

existing and permitted development in the surrounding area and other existing and proposed development in the vicinity of the site, are not likely to arise.

Table 15 Water - Summary of potential & residual effects

Potential impacts	Magnitude of Impact	Mitigation	Residual Impact
Increased surface water run-off. Increased sediment in run off. Anthropogenic sources (fuel etc). Increased scouring of watercourse. Concrete washings. Remobilisation of contaminants.	Imperceptible - Profound	A Surface Water Management Plan (SWMP) has been prepared (see CEMP) - Construction Compounds management including the storage of fuels and materials; control of sediment; use of concrete; management of vehicles and plant including refuelling and wheel wash facilities; and monitoring. The pouring of concrete will take place in dry weather only. Silt fences or similar will be installed to prevent overland flow into the canal or the Liffey Estuary Lower.	Short term during construction and imperceptible. Permanent during operational phase and imperceptible/ beneficial.

		Coffer dams will be used to construct the DPTOB and area behind the sheet piling will be dewatered via silt-buster tanks (or similar) and discharged directly to the estuary. All surface water drains in the vicinity of the Construction Compounds on either side of the DPTOB will be identified and either stopped up or bunded on the side closest to both Construction Compounds.	

9.8. Land, Soils, Geology and Hydrogeology

9.8.1. Section 14 of the EIAR submitted addresses lands, soils, geology and hydrogeology.

Baseline Conditions

9.8.2. The land uses in the region are mainly comprised of urban developments including but not limited to: industrial, commercial, residential and recreational. Moving away from the City Centre there are also marine uses along the route. Geomorphology and topography are examined within the EIAR in order to give context to any potential changes to land, soils, geology, and hydrogeology that could influence the importance of a feature and the magnitude of any impacts.

9.8.3. The Proposed Scheme is predominantly underlain by made ground over alluvial/ estuarine sediments over glacial till over limestone bedrock. The topography of the Proposed Scheme is approximately 0mOD throughout.

9.8.4. The majority of the soils expected to be encountered within the study area are made ground comprising varying forms of hard standing materials including road pavements and footpaths. The soils encountered within the study area are classed as topsoil and made ground. Subsoils comprise made ground, with localised pockets of alluvium, marine beach sands, till derived from limestones, and gravels derived from limestones.

9.8.5. The underlying bedrock of the study area is predominantly comprised of the Lucan Formation, a dark Carboniferous limestone and shale. There are no karst features identified within the study area.

9.8.6. Given the urban setting of the proposed development it was considered prudent to examine the potential for contaminated lands to be present within the route of the scheme. A number of sites were identified which included uses such as petrol stations and printing works along the route, all are outlined within table 14.24 of the EIAR.

Potential Construction Impacts

9.8.7. It must be stated at the outset that no significant impacts are expected to arise in relation to land, soil, geology and hydrogeology. Impacts are expected to occur in relation to the following:

- **Loss or damage of topsoil** – materials on site to be spilled resulting in the pollution of the topsoil; materials that are stockpiled incorrectly can be exposed to erosion and weathering which reduces the quality of the resource; permanent damage of topsoil through waterlogging, sealing, washout of fines and erosion; and excavation and disposal of topsoil instead of its reuse or reinstatement.

  Magnitude of effects: **Slight.**

- **Excavation of potentially contaminated ground** – exposure of locations of contamination and excavation of contaminated soil may potentially lead to a risk to the surrounding environment.

Magnitude of effects: **Slight.**

- **Loss of future quarry or pit reserve** – there are no notable existing or historic quarries within the study area of the Proposed Scheme.

  Magnitude of effects: **Imperceptible.**

- **Loss or damage of proportion of aquifer** – minimal excavation into the limestone rock as part of the Proposed Scheme; potential pollutants from routine run-off during construction or mobilisation of pollution from the disturbance of contaminated ground during construction activities (particularly excavations) have the potential to alter the groundwater quality temporarily.

  Magnitude of effects: **Moderate.**

- **Change to groundwater regime** – localised pumping of excavations could lead to change in groundwater levels, but this will be limited.

  Magnitude of effects: **Imperceptible.**

Potential Operational Impacts

9.8.8. The Operational Phase has the potential to lead to occasional accidental leakage of oil, petrol or diesel, allowing contamination of the surrounding environment. The magnitude of the impact is considered **negligible** and the significance of the impact would be **imperceptible** on any of the land, soils, geology and hydrogeology.

9.8.9. Standard mitigation measures are proposed in relation to the protection of soils, geology and geomorphology during construction and are outlined in section 14.5 of the EIAR and the CEMP accompanying the application. No mitigation measures are deemed necessary for the operational phase of the development. Consequently, subject to the implementation of construction mitigation, no residual effects are expected.

9.8.10. Cumulative impacts have been considered in this regard and given the nature of the proposed works are considered to be unlikely.

Conclusion

9.8.11. I have considered all of the written submissions made in relation to lands, soils, geology and hydrogeology and the relevant contents of the file including the EIAR. I am satisfied that the potential for impacts on lands, soil, geology and hydrogeology

can be avoided, managed and/ or mitigated by measures that form part of the Proposed Scheme, by the proposed mitigation measures and with suitable conditions. I am therefore satisfied that the potential for direct or indirect impacts on lands, soils, geology and hydrogeology can be ruled out. I am also satisfied that cumulative effects, in the context of existing and permitted development in the surrounding area and other existing and proposed development in the vicinity of the site, are not likely to arise.

Table 16 Land, Soils, geology & hydrogeology - Summary of potential & residual effects

Potential impacts	Magnitude of Impact	Mitigation	Residual Impact
Loss or damage of topsoil	Slight	Excavated topsoil will be stockpiled by the appointed contractor using appropriate methods to minimise the effects of weathering. Care will be taken in reworking this material to minimise dust generation, groundwater infiltration and the generation of runoff. All topsoil or subsoil shall be assessed for re-use within the Proposed Scheme.	Imperceptible

Excavation of potentially contaminated ground	Slight	Licenced contractor will remove and dispose at licenced facility if encountered. Dewatering in such areas will be carried out in manner that reduces mobilisation of contaminants.	Imperceptible
Loss of future quarry or pit reserve	Imperceptible	None	Imperceptible
Loss or damage of proportion of aquifer	Moderate	Ensure that all areas where liquids (including fuel) are stored, or cleaning is carried out, are in designated impermeable areas that are isolated from the surrounding area and within a secondary containment system. The location of any fuel storage facilities shall be considered in the design of the Construction Compound.	Slight to Imperceptible

Change to groundwater regime	Imperceptible	All concrete mixing and batching activities will be located in areas away from watercourses and drains. Prevention of leaks and spills of hydrocarbons and other chemicals.	Imperceptible

9.9. Archaeology, Cultural Heritage and Architectural Heritage

9.9.1. Sections 15 and 16 of the EIAR submitted examines the potential for impacts to arise in relation to Archaeology, Cultural Heritage and Architectural Heritage.

Baseline Conditions - Archaeology & Cultural Heritage

9.9.2. In terms of baseline conditions with regard to monuments, archaeology and cultural heritage I refer the board to Section 15.3 of the EIAR in which the historical baseline conditions are outlined. It is clear from the information submitted that the area surrounding the proposed route has been a hive of activity for centuries and is rich in archaeology and cultural heritage.

9.9.3. For the purpose of this assessment, the scheme has been divided into three distinct sections i.e., Talbot Memorial Bridge to Tom Clarke East Link Bridge, Dodder Public Transport Opening Bridge (DPTOB) and Tom Clarke East Link Bridge to Seán Moore Road.

9.9.4. The Talbot Memorial Bridge to Tom Clarke East Link Bridge section is located within the RMP ZAP for the Historic City of Dublin (RMP DU018- 020). The Historic City of Dublin encompasses six recorded archaeological sites, these all relate to the industrial and maritime nature of the area namely, the quays, including City Quay (DU018-020479), Custom House Quay, North Wall Quay and North Wall Ext. (DU018-020564), Sir John Rogerson's Quay (DU018-020201) and George's Quay (DU018-020458), sea wall (site of) (DU018- 020505) and the site of a glass house (DU018-020152).

9.9.5. This section of the Proposed Scheme also forms part of the industrial docklands, which was developed following a land reclamation scheme initiated in the late 17th century, and there are 14 industrial heritage sites listed, including the two sets of Scherzer Bridges. Memorials and features within this section which contribute to the historic sense of place are listed in Table 15.6 of the EIAR, including the Famine Memorial and the statue of Matt Talbot.

9.9.6. The DTPOB section of the Proposed Scheme also includes the ZAP for the Historic City of Dublin (DU018-020) and the ZAP for the line of the sea wall (DU018-066). The quays on either side of the River Dodder have also been identified as industrial heritage interest. Memorials and features which contribute to the historic sense of place are listed in Table 15.11 of the EIAR and include St. Patrick's Rowing Club, a maritime memorial and a decorative metal buoy.

9.9.7. There are two recorded historic settlement clusters at the eastern end of the Tom Clarke East Link Bridge to Seán Moore Road section of the Proposed Scheme, Ringsend (RMP DU018-053) and Irishtown (RMP DU018-054). The South Wall of the quays is also a recorded monument (RMP DU018-066). The Syphon House (DCIHR 18-12-151) off Pigeon House Road at the entrance of Ringsend Park is the only industrial heritage site listed in this section of the Proposed Scheme. There are two cultural heritage sites along this section of the Proposed Scheme, namely a sculpture on the R131 and Ringsend/ Irishtown Park.

Potential Impacts in relation to Archaeology & Cultural Heritage

9.9.8. Potential impacts to archaeology and cultural heritage relate to the construction phase of the proposed development. In order to minimise and avoid such impacts it is proposed to carry out monitoring of any excavation or groundbreaking works. This will ensure that in the event such material is encountered it is preserved and recorded appropriately.

9.9.9. Features of a cultural heritage interest that are required to be removed on a temporary basis or for a short-term period, will be removed under archaeological supervision and in accordance with a method statement in consultation with the NTA and the relevant statutory authorities. This will protect the heritage asset from any adverse impacts and ensure that it is stored safely at an agreed location prior to its reinstatement.

9.9.10. In order for the proposed interventions, repair works, and relocation of the Scherzer Bridges at George's Dock, Custom House Quay and the Royal Canal/ Spencer Dock, North Wall Quay be carried out, groundbreaking and reduction works will occur at both locations, with works taking place within the ZAP for the Historic City of Dublin (DU018-020) and along the archaeologically recorded quay (DU018-0200564). The Scherzer Bridges have a high sensitivity value, and the magnitude of the impact is considered to be high as there is a significant potential to reveal remnants of former swivel bridges or features of an industrial heritage interest associated with the bridges.

9.9.11. The operational phase of the proposed development will not give rise to impacts to archaeology, recorded monuments or cultural heritage as a whole.

Baseline Conditions - Architectural Heritage

9.9.12. The majority of the built heritage along the quays is 19th century and largely consists of warehouses such as those surviving at Custom House Quay (i.e. CHQ) (DCC RPS 2094), 82 North Wall Quay (DCC RPS 5842), No. 2 Sir John Rogerson's Quay (DCC RPS 7543) and the Tropical Fruit Company (DCC RPS 7548), depots such as the former CIE Goods Depot (DCC RPS 5836) and shipping offices, B&I Steam Packet Offices (DCC RPS 7547), all of which are of industrial as well as architectural heritage interest.

9.9.13. There are also features associated with the quays including the quay walls, camp-shire warehouses and machinery, the Royal Canal Scherzer Bridges (DCC RPS 912), George's Dock Scherzer Bridges (DCC RPS 896), and the Diving Bell (DCC RPS 7542), and the Point Depot (DCC RPS 5843).

9.9.14. In relation to Architectural heritage there are 30 Protected Structures, or groups of Protected Structures (RPS sites) within the study area of the Proposed Scheme. The locations the Protected Structures are shown on Figure 16.1, Volume 3 of the EIAR. There are no ACA's located within the area of the Proposed Scheme, but the majority of the scheme area is located within a Conservation Area (CA).

9.9.15. Conservation Areas are areas which, while not to be confused with ACAs, do afford some protection to the architectural heritage under the Dublin City Development Plan 2022 to 2028. The Proposed Scheme traverses through three CAs:

- The Liffey Quays CA which follows the River Liffey along the north and south quays, and includes North Wall Quay, Custom House Quay, George's Quay, City Quay, Sir John Rogerson's Quay and Britain Quay.
- The Royal Canal CA which follows the course of the Royal Canal and intersects with the Liffey Quays CA on North Wall Quay.
- The Dodder Valley and Grand Canal CAs which follows the course of the Dodder River and the Grand Canal and converge with the Liffey Quays Conservation Area between Britain Quay and Ringsend.

9.9.16. A further 17 structures of architectural heritage interest were identified through field inspections and are listed in Table 16.11 of the EIAR. These include Pembroke Cottages, cottages on Pigeon House Road and Ringsend Park, houses on Chapel Avenue, and houses at Bayview on Pembroke Street.

9.9.17. A total of 33 lamp posts were identified as being of architectural heritage significance, 31 Straight-Stem Scotch Standards were identified between Samuel Beckett Bridge and Talbot Memorial Bridge and 2 historic bases were identified on the east side of Talbot Memorial Bridge. Paving and surface treatments of architectural heritage value were identified at six locations and are listed in Table 16.14 of the EIAR.

Potential Impacts in relation to Architectural Heritage

9.9.18. Potential direct impacts are anticipated where the Proposed Scheme requires alteration to sensitive fabric including alterations to historic quay walls, alterations to docks and locks for the construction of new bridges and boardwalks; the repositioning of the existing Scherzer Bridges; alteration of the historic sea wall; and the repositioning of items of historic street furniture and surface treatments to accommodate new cycle and pedestrian routes. Where historic fabric is required to be removed, repositioned or irreversibly altered, it is anticipated that the duration of impact will be permanent.

9.9.19. There is also potential for damage of sensitive fabric during construction and indirect visual impacts are anticipated where construction phase activities will adversely impact on the setting of protected structures/ sites. Both indirect physical and indirect

visual impacts are during the Construction Phase and these are described in Table 16.15 of the EIAR.

9.9.20. Direct Construction Phase impacts are anticipated, affecting seven of the identified Protected Structures. The most significant impacts will accrue to the two sets of Scherzer Bridges. The Scherzer Bridges, which span George's Dock (DCC RPS 896), will be relocated and a new fixed four-lane road bridge will be constructed. The Scherzer Bridges (DCC RPS 912) spanning the Royal Canal will be moved apart, and a new fixed deck four-lane road bridge will be constructed between them. The applicant states that the two sets of bridges are not suited to the current heavy traffic loads which are putting them at risk of damage and that relocation and reorientation from their original positions will reduce the risk of damage from traffic. The potential Construction Phase impact of the relocation of the Scherzer Bridges at George's Dock is considered to be Negative, Moderate and Permanent and at the Royal Canal is considered to be Negative, Moderate and Permanent.

9.9.21. I draw the Board's attention to DCC's comments in this regard where they state that that the moving of an industrial heritage structure from its original context obliterates the legibility of its intended function and reduces it in significance to no more than visually pleasing furniture i.e., the dismantling and relocation of the two pairs of historic Scherzer Bridges and consequent changes to the quay walls. I agree with the tenant of these comments. However, I am also satisfied that neither set of bridges serve the purpose for which they were originally intended when constructed in the early part of the 20th century i.e., to provide access for boats/ barges to George's Dock and the Royal Canal waterways. Therefore, I consider that their existing presence in this part of the city is both aesthetic and a marker of the industrial/ maritime heritage associated with Dublin port. I am satisfied that both sets of bridges would serve these purposes in a meaningful, and probably longer term, manner if relocated in proximity to their original positions in order to facilitate the Proposed Scheme.

9.9.22. Furthermore, remediation works overseen by an architectural heritage specialist will be carried out on the bridges and their ancillary structures. Pre-construction surveying, condition assessments and recording of the structures prior to their careful dismantling is to be undertaken by an appropriate architectural heritage specialist engaged by the appointed contractor and this is to inform the repair,

interpretation and subsequent reassembly of the Scherzer Bridges. I am satisfied that the proposed works to be carried out on both sets of bridges would serve to ensure their long-term presence on the city streetscape and I consider that this would reduce the impact to Negative, Significant and Permanent.

9.9.23. The relocation and reorientation of the George's Dock Scherzer Bridges and the construction of a new bridge will also have an impact on the quay walls to the lock at George's Dock (DCC RPS 3173). Similarly, a new pedestrian boardwalk proposed immediately adjoining the former DCC Docklands offices between Sean O'Casey Bridge and just east of Commons Street will require alterations of the existing quay wall such as insertion of steel beams, fixed plates and the provision of mini-pile foundations. On Britain Quay (DCC RPS 8808), the proposed DPTOB over the mouth of the River Dodder will require alteration of the quay wall and a short section of the sea wall (DU018-066), visible at the very end of Thorncastle Street will be directly impacted as a result of the proposed DPTOB.

9.9.24. Sixteen further locations were identified where a protected structure shares a boundary with the Proposed Scheme, or fronts directly onto it, and three identified protected structures (the Diving Bell, 103 Ringsend Park and 70 Pigeon House Road (DCC RPS 7542, DCC RPS 7376 and DCC RPS 6782) will not be directly impacted by the Proposed Scheme. There is potential for damage of sensitive fabric during construction, the magnitude of which is considered Medium. The predicted impact of the construction works on the identified Protected Structures will be Indirect, Negative, Moderate and Temporary.

9.9.25. The magnitude of effects to the setting of the Liffey Quays CA are expected to be Indirect, Negative, Significant and Temporary. Within the CA, historic street surfaces will be directly impacted, and the 7 no. protected structures or groups of protected structures, and one group of lamp posts may be impacted indirectly during construction.

9.9.26. The Royal Canal CA intersects with the Proposed Scheme at the Sea Lock at the junction of Guild Street and North Wall Quay. Two features were identified which will be directly impacted during the Construction Phase, namely the Royal Canal Scherzer Bridges and the Royal Canal Sea Lock.

9.9.27. The Dodder Valley and Grand Canal Conservation Areas are of Medium Sensitivity. They converge at Grand Canal Dock and meet the Liffey Quays Conservation Area between Britain Quay and Ringsend. It is anticipated that direct and indirect Construction Phase impacts could accrue to the sea and quay walls on York Road in this CA.

9.9.28. 9 no. NIAH structures or groups of NIAH structures were identified in the study area and there is potential for damage of sensitive fabric associated with these structures during construction. The predicted impact of the construction works on the identified NIAH Structures will be Indirect Negative, Moderate and Temporary. One location, the famine memorial (NIAH 50010002), was identified where a direct impact on the fabric of a NIAH structure is anticipated during the Construction Phase where it will be temporarily removed to safe storage in order to protect it during the Construction Phase before being reinstated. The potential Construction Phase impact will be Negative, Significant and Temporary.

9.9.29. Twelve of the lamps which line Custom House and North Wall Quays require slight repositioning to accommodate altered carriage and cycle track widths and there is potential for damage to the lamp posts during their removal, transportation, storage and reinstatement.

9.9.30. Direct Construction Phase impacts on paving and surface treatments which are associated with protected structures are anticipated at three locations, namely narrow granite kerbs at the Royal Canal Scherzer Bridges, historic surfaces and embedded rail tracks along North Wall Quay and along Sir John Rogerson’s Quay.

9.9.31. Overall general impacts to architectural heritage arise in relation to the alterations to the public realm including the provision of new trees, and the removal of trees which may impact on the settings of sensitive features and sites. The proposed development will improve the overall streetscape along the proposed route and whilst I acknowledge that the removal of trees at specific locations may impact the setting or character of a particular structure, I am satisfied that on balance the overall scheme will be a vast improvement to the character and setting of not only protected structures referred to above but to buildings which, although not protected, provide a historical reference to the past.

9.9.32. During the Operational Phase, new road carriageway bridges at George's Dock, the Royal Canal and over the River Dodder will have a visual impact on the settings of sensitive features and sites as well as alterations to bus stop locations and to the urban realm, including the existence of new trees and the removal of older trees. It is anticipated that the proposed new trees along the quayside of North Wall Quay will have a positive impact on the settings of the protected structures that front onto it.

9.9.33. New pedestrian boardwalks are proposed, one immediately adjoining the former DCC Docklands offices and the second at the junction of North Wall Quay and Excise Walk, to accommodate pedestrian movement around buildings and have been designed to avoid impacts to the historic fabric in as much as is possible, but they will partially obscure the quays from view during the Operational Phase. It is anticipated that the proposed bus shelters along the quay side will have a neutral impact on the protected structures.

9.9.34. The potential Operational Phase impact on the Liffey Quays, Royal Canal, and Dodder Valley and Grand Canal CAs will be Negative, Moderate and Long-Term due to alterations that include the relocation of the Scherzer Bridges, the proposed boardwalks at Custom House Quay and North Wall Quay, the construction of a bridge over the canal, and the construction of the DPTOB across the mouth of the River Dodder.

9.9.35. I draw the Board's attention to table 17 hereunder in which all of the potential impacts, and the magnitude of same are summarised for ease of reference.

Mitigation

9.9.36. As outlined above, the applicant is to employ an Architectural Heritage Specialist to monitor works and to record all materials during removal and replacement. In particular, an architectural heritage specialist will oversee the protection, labelling, safe storage, repair and reinstatement of the Scherzer bridges, the affected kerbs, winches, and historic masonry. The works to the existing quay walls at George's Dock and side walls of the Royal Canal will be carried out in the same manner and in accordance with the methodology provided in Appendix A.16.3 Methodology for Works Affecting Sensitive and Historic Fabric in Volume 4 of the EIAR.

9.9.37. Mitigation has been embedded in the Proposed Scheme design through the proposal to raise the deck of the DPTOB, minimising the disruption required to the historic

fabric. However, a short section of the quay wall (approximately 19m) will be removed to accommodate the bridge structure. The architectural heritage specialist will oversee the recording of the existing masonry in position prior to the works (at low tide) and protection of the surrounding fabric. The affected masonry will then be salvaged for use within the proposed landscaping design.

9.9.38. Mitigation for the protection of identified features within the Liffey Quays, Royal Canal, and Dodder Valley and Grand Canal CAs is provided on a feature specific basis.

9.9.39. An architectural heritage specialist will oversee the recording of the famine memorial (NIAH 50010002) in position prior to the works, the labelling of the affected fabric prior to its careful dismantling and removal to safe storage, and their reinstatement in their existing positions subsequent to the works.

9.9.40. Works to lamp posts, paving and surface treatments will also be overseen by an architectural specialist and will also be carried out by the appointed contractor in accordance with the methodology provided in Appendix A.16.3 Methodology for Works Affecting Sensitive and Historic Fabric in Volume 4 of the EIAR.

9.9.41. An archaeologist will also be employed during the proposed works to monitor all ground works at locations where archaeological material is known or suspected to be present. The Archaeologist will record and preserve material as appropriate and will determine measures for the protection of materials or features during the work period.

Conclusion

9.9.42. I have considered all of the written submissions made in relation to Archaeology, Cultural Heritage and Architectural heritage and the relevant contents of the file including the EIAR. I am satisfied that the potential for impacts on Archaeology, Cultural Heritage and Architectural heritage can be avoided, managed and/ or mitigated by measures that form part of the Proposed Scheme, by the proposed mitigation measures and with suitable conditions. I am therefore satisfied that the potential for direct or indirect impacts on Archaeology, Cultural Heritage and Architectural heritage can be ruled out. I am also satisfied that cumulative effects, in the context of existing and permitted development in the surrounding area and other

existing and proposed development in the vicinity of the site including the proposed the other bus connects routes are not likely to arise.

Table 17 Archaeology, Cultural Heritage and Architectural heritage – Summary of potential and residual effects.

Potential impacts	**Magnitude of Impact**	**Mitigation**	Residual Impact
Works to Scherzer Bridges, which span George's Dock (DCC RPS 896)	Negative, Profound and Permanent	Yes. Recording, labelling and reinstating at different location. To be undertaken by an architectural heritage specialist	Negative, Significant and Permanent
Works to Scherzer Bridges (DCC RPS 912) spanning the Royal Canal at Guild Street	Negative, Profound and Permanent	As above	Negative, Significant and Permanent
Construction of DPTOB over the mouth of the River Dodder	Negative, Moderate and Permanent	Yes. Recording, labelling to be undertaken by an architectural heritage specialist.	Negative, Slight and Permanent
Boardwalks at Custom House Quay (DCC RPS 8829) and North Wall Quay (DU018-020564)	Negative, Moderate and Long-Term	Yes. Recording, labelling to be undertaken by an architectural heritage specialist.	Negative, Slight and Permanent

Works within Liffey Quays, Royal Canal, and Dodder Valley and Grand Canal CAs	Negative, Moderate and Permanent	Yes. As above.	Negative, Slight and Permanent
Lamp posts, street furniture and historic paving	Negative, Moderate and Temporary	As Above	Negative, Slight and Temporary
Other Structures of Architectural Heritage Interest (all Sections)	Negative, Moderate and Temporary	As above	Negative, Not Significant and Temporary

9.10. Landscape, Townscape & Visual

9.10.1. Section 17 of the EIAR submitted examines the potential for impacts to arise in relation to landscape, townscape and visual impact. It is of note that visual impacts in relation to the Proposed Scheme have been examined in the context of the project design and the public realm within the assessment section of this report. Such matters will not be repeated hereunder and this section of the EIAR should be read in conjunction with the aforementioned. It is important to mention at the outset that likely significant adverse effects will arise but are short term and temporary in nature, with the exception of the construction of the DPTOB across the confluence of the River Liffey and River Dodder, removal and local relocation of the existing Scherzer Bridges from the road corridor over the Royal Canal and from over the lock into George's Dock, construction of a new section of boardwalk along Custom House Quay and along the quays adjacent to the junction of Excise Walk and North Wall Quay. All other impacts are considered to be of moderate magnitude.

Baseline Conditions

9.10.2. The establishment of baseline conditions was carried out based on initial desk studies, supported by full route walkovers and augmented by further specific site reviews. The Proposed Scheme includes a wide variety of inner-city, former docklands, coastal and port-related areas, and mixed-use zonings in the Irishtown and Ringsend areas.

9.10.3. For the purpose of the visual and townscape assessment the proposed route has been divided into three sections as follows:

- Talbot Memorial Bridge to Tom Clarke East Link Bridge,
- Dodder Public Transport Opening Bridge (DPTOB), and
- Tom Clarke East Link Bridge to Seán Moore Road.

Baseline conditions for each of the above sections are outlined in table 17.6 of the EIAR.

9.10.4. In brief, the Talbot Memorial Bridge to Tom Clarke East Link Bridge section is dominated by the extent of the historic dockland arrangement along the riverside quays with modern and emerging development defining a new urban corridor. There are high quality riverside quays at the campshires with stone paving, feature sections of rail sidings, tree planting, occasional café outlets, including on-boat options, and various art installations. There are views east and west along the River Liffey/ campshires and bridges. There are selections of buildings along North Wall Quay, Custom House Quay, City Quay, Sir John Rogerson's Quay and Britain Quay that are protected structures along this section of the Proposed Scheme and the impact to same has been examined within the relevant section of this report above and will not be repeated hereunder save to state that such structures are present within this section of the scheme.

9.10.5. The DPTOB section is characterised by amenity uses surrounded by modern mixed-use development of commercial and residential uses fronting onto the river confluence. There are areas of public open space to both sides of the River Dodder with open water comprising the majority of the area. There are views east and west along the River Liffey/ campshires and bridges. There are no protected views and there are no tree preservation orders in this area. There are a small number of protected structures along this section.

9.10.6. The Tom Clarke East Link Bridge to Seán Moore Road section of the route is comprised of open water/ port-edge coastal areas, backed by established residential dockland suburbs. These houses are typically of one or two-storey terraced and semi-detached traditional properties, framing attractive narrow streets with small or no front gardens that have developed along the port/ coast edge and enclose a large

suburban parkland area (Ringsend Park). There are no protected views and there are no tree preservation orders in this area but there are views across coastal/ port section of River Liffey to Dublin Port with active commercial and cruise shipping uses. There are a small number of protected structures along this section.

Potential Impacts

9.10.7. The potential for impacts arises within both the construction and operational phase of the development. Within section 17.4.1 of the EIAR, the applicant has listed the key characteristics of the proposed development which are of particular relevance to the townscape and visual assessment. Such characteristics relate to proposed works at specific locations such as the provision of new junction layouts, lighting, drainage, road markings, land take for the widening of surfaces, removal of trees and landscaping, establishment/ use of temporary construction compounds, and provision of additional areas for SuDS. The proposed construction compounds will be the most dominant change to the landscape and street scape during the construction phase of the development.

9.10.8. It is also important note that the applicant has provided photomontages of the scheme (please refer to Figure 17.2 in Volume 3 of the EIAR) which I have had regard to in the assessment of effects to landscape, townscape and the visual aspects of the proposed development. These demonstrate that the overriding visual changes to the proposed route relate to the relocation of the two sets of Scherzer Bridges, the construction of new boardwalks along the north quays, and the construction of a new bridge over the River Dodder (DPTOB).

9.10.9. In the interest of conciseness, I will examine the potential impacts relevant to each of the three sections of the scheme individually hereunder. However certain construction activities are common to all sections and will have a certain level of visual impact. The presence of construction machinery, fencing and hoardings and general construction activities associated with the diversion of services and widening and resurfacing of road space will all have a visual impact, albeit temporarily. Such activities cannot be mitigated and are not considered to be significant given the temporary nature of the works.

Talbot Memorial Bridge to Tom Clarke East Link Bridge

9.10.10. The baseline environment of this section is of high/ very high sensitivity. The majority of works within this section of the route will occur within the existing road corridor and will involve minimal demolition, excavation and construction works of sections of kerbs, road carriageways, sections of footpaths, campshires, junctions, surfacing, drainage features and utilities. The most visible works will involve the relocation of the two sets of Scherzer Bridges and the construction of boardwalks on the north quay walls. Changes within this section of the route will not alter the overall townscape character but will alter the character of the streetscape and will be medium/ high in nature. The magnitude of effects arising from the development is therefore stated as being Negative, Moderate/ Significant, and Temporary/ Short-Term. It is of note that the operation of the scheme will not result in significant negative visual effects within this section of the route.

9.10.11. The full extent of the north and south quays, including the confluence of the River Liffey and River Dodder, is designated within the Liffey Quays CA. The Proposed Scheme will involve substantial works within the conservation areas, most notably, the relocation of both sets of Scherzer Bridges at George's Dock and the Royal Canal, and the construction of the DPTOB across the confluence of the River Liffey and River Dodder. However, the Board should note that these are not Architectural Conservation Areas and as such consideration of same is in the context of the overall setting of this location. The magnitude of effects arising from the development for the Liffey Quays CA is therefore stated as being Negative, Very Significant and Temporary/ Short-Term.

9.10.12. There will be direct impacts on a number of protected structures, which are of very high sensitivity. These include the Scherzer Bridges and lock walls at George's Dock and the Royal Canal, Custom House Quay, North Wall Quay and Sir John Rogerson's Quay, and the seawalls at Britain Quay, Thorncastle Street and York Road. The magnitude of effects on these protected structures is therefore stated as being Negative, Very Significant and Temporary/ Short-Term.

9.10.13. Protected views are limited to views east and west along the River Liffey/ Campshires. The proposed works will have direct impacts on the corridor of the quays, but these will not detract from the expansive nature of the cityscape in these

views. The magnitude of effects on these protected views is assessed as being Negative, Moderate and Temporary/ Short-Term.

9.10.14. Construction of the Proposed Scheme will require land acquisition of landscape areas from the campshires, the confluence of the River Dodder and River Liffey, SPRC and floating jetty, and Trinity College Dublin (Stack B Building). The Proposed Scheme will also result in visual impacts for other areas / properties located along, fronting and viewing the Proposed Scheme. The visual effect on the townscape/ streetscape is considered to be Negative, Significant and Short-Term in nature. Impacts that arise from the general disturbance, demolition, excavation and construction works associated with the DPTOB and general public road corridor/ amenities along the Proposed Scheme are assessed to be Negative, Moderate/ Significant and Short-Term.

DPTOB

9.10.15. The baseline townscape is of high sensitivity. The Construction Phase involves substantial works associated with the construction of the DPTOB across the confluence of the River Liffey and River Dodder, which include land reclamation, demolition (and reconstruction) of the clubhouse serving SPRC. The magnitude of change in the baseline environment is very high and, consequently, the magnitude of effects arising from the development on the townscape/ streetscape is therefore stated as being Negative, Very Significant, and Temporary/ Short-Term.

Tom Clarke East Link Bridge to Sean Moore Road

9.10.16. The baseline townscape is of medium/ high sensitivity. The proposed works in this section of the scheme involve modest changes in excavation and construction works to sections of kerbs, road carriageways, footpaths, junctions, surfaces, drainage features, and includes the minor loss of trees. The magnitude of change in the baseline environment is medium and the magnitude of effects arising from the development on the townscape/ streetscape is therefore assessed to be Negative, Moderate and Temporary/ Short-Term.

Whole Scheme

9.10.17. The Proposed Scheme will require the removal of 135 trees from specific locations along the Proposed Scheme (123 early mature/ semi mature lime tress

along the north quays and 12 early mature/ mature trees from Ringsend Park). The magnitude of change is assessed as medium/ high. The magnitude of effects in relation to the removal and replanting of trees and vegetation will be Negative, Moderate/ Significant and Short-Term.

9.10.18. Construction changes will occur over a period of 2 ½ years and as such as mentioned above are for a short period of time. Impacts will therefore not be significant in the long term.

9.10.19. The operational phase of the development will result in impacts to the physical and visual character of the corridor of the existing roads/ streets; changes in the location and presentation of the Scherzer Bridges; introduction of the pedestrian boardwalks to North Wall Quay; Introduction of the DPTOB across the confluence of the River Liffey and River Dodder; modifications in areas of amenities, tree plantings, properties, boundaries; and changes in traffic, pedestrian and cycle movements. These changes may be considered part and parcel of ongoing or regular changes that may be expected to occur, and do occur, from time to time in any urban streetscape environment.

9.10.20. The proposed development as mentioned above will result in many positive benefits to landscape and the streetscape through the provision of additional planting and improved surfaces and layouts of public circulation areas, pavements, cycle lanes and open spaces.

Mitigation

9.10.21. In order to reduce the magnitude of effects to landscape, streetscape and townscape, it is proposed to protect trees and vegetation that is to be retained during construction through the use of protective fencing and to install services using appropriate techniques such trenchless/ broken trench/ continuous trench using air spade/ thrust boring, as required to protect tree roots and soil. Where properties are subject to permanent and/ or temporary acquisition, an inventory of boundary details and accesses, planting, paving, and other features that may be disturbed or removed will be prepared by the appointed contractor prior to the commencement of construction works. Access to amenities and public open spaces including the campshires, Ringsend Park, and areas of open space at Irishtown Stadium and

Seán Moore Road shall be maintained. All works will be carried out in accordance with a CEMP.

9.10.22. No mitigation or monitoring is proposed for the operational phase of the development.

Residual Impacts

9.10.23. Whilst mitigation will achieve a reduced impact and protect trees and vegetation to be retained, it will not eradicate the impacts listed above. The removal of mature trees cannot be mitigated and as such significant Construction Phase impacts at a local level remain unchanged in the post-mitigation and monitoring scenario. Operational phase impacts will improve with time as vegetation matures and will therefore not be significant. In conclusion, therefore, significant long-term impacts to landscape and visual amenity do not arise in relation to the Proposed Scheme only in so far as positive effects along the campshires and open space at York Road/ Tom Clarke East Link Bridge, as the Proposed Scheme provides for improvements in the urban realm.

Conclusion

9.10.24. I have considered all of the written submissions made in relation to Landscape, Streetscape and Visual and the relevant contents of the file including the EIAR. I am satisfied that the potential long-term impacts on Landscape, Streetscape and Visual can be avoided, managed and/ or mitigated by measures that form part of the Proposed Scheme, by the proposed mitigation measures and with suitable conditions. I am therefore satisfied that the potential for direct or indirect long-term impacts on Landscape, Streetscape and Visual can be ruled out. I am also satisfied that cumulative effects, in the context of existing and permitted development in the surrounding area and other existing and proposed development in the vicinity of the site including the other proposed BusConnects routes are not likely to arise.

Table 18 Landscape & Visual Summary of potential and residual effects.

Potential impacts	Magnitude of Impact	Mitigation	Residual Impact
Construction phase impacts			
Talbot Memorial Bridge to Tom Clarke East Link Bridge	Negative, Moderate / Significant and Temporary / Short-Term	Protect trees to lessen effects. Prepare an inventory of boundary details and accesses, planting, paving, and other features. Construction works will be managed by the preparation of a CEMP.	Negative, Moderate / Significant and Temporary / Short-Term
DPTOB	Negative, Very Significant and Temporary / Short-Term	As above	Negative, Very Significant and Temporary / Short-Term
Tom Clarke East Link Bridge to Sean Moore Road	Negative, Moderate and Temporary / Short-Term	As above and maintain access to amenities and public open spaces.	Negative, Moderate, and Temporary / Short-Term
Operational Phase			
Talbot Memorial Bridge to Tom Clarke East Link Bridge	Neutral, Moderate and Short -Term	None	Neutral, Slight / Moderate and Long-Term
DPTOB	Neutral, Very Significant and Short-Term	None	Neutral, Significant and Long-Term

Tom Clarke East Link Bridge to Sean Moore Road	Neutral, Slight and Short-Term	None	Neutral, Imperceptible / Slight and Long-Term

9.11. Roads and Traffic

9.11.1. Section 6 of the EIAR examines the impact of the Proposed Scheme on traffic. For the purpose of assessment, the proposed route has been considered under three sections i.e., Talbot Memorial Bridge to Tom Clarke East Link Bridge, Dodder Public Transport Opening Bridge (DPTOB), and Tom Clarke East Link Bridge to Sean Moore Road.

Baseline Conditions

9.11.2. Overall cycling infrastructure provision on the corridor in its entirety consists of 58%. cycle priority outbound (35% advisory cycle lane), with 23% inbound (26% advisory cycle lane). Along the North Quays, cycling infrastructure provision on the corridor consists of 88% cycle priority outbound and 75% inbound. Along the South Quays, cycling infrastructure provision on the corridor consists of 88% cycle priority outbound and 56% cycle priority inbound. There is limited current provision to the east of the River Dodder.

9.11.3. Bus services along the Proposed Scheme currently operate within a constrained and congested environment, with 19% priority outbound and 19% priority inbound on the corridor. Any increases in traffic levels will exacerbate bus time deviations. The following part of this report will outline the baseline conditions in relation to the relevant sections mentioned above.

Talbot Memorial Bridge to Tom Clarke East Link Bridge

9.11.4. This section consists of 350m of R801 Custom House Quay, 1.25km of R801 North Wall Quay, 350m of R813 City Quay, 1km of Sir John Rogerson's Quay (part of which covers the R813 regional road), as well as the R802 Talbot Memorial Bridge and Samuel Beckett Bridge that cross over the River Liffey. The Scherzer Bridges are a key feature of this section currently creating a width constraint along the North Quay between Talbot Memorial Bridge and Seán O'Casey Bridge.

9.11.5. Pedestrian facilities and street lighting are present on both sides of the Custom House Quay, North Wall Quay, City Quay, Sir John Rogerson's Quay, Talbot Memorial Bridge and Samuel Beckett Bridge. There are signalised crossing facilities at Talbot Memorial Bridge/ Memorial Road/ Custom House Quay junction, Custom House Quay adjacent to Seán O'Casey Bridge, North Wall Quay/ Custom House Quay/ Commons Street junction, across North Wall Quay adjacent to Excise Walk, North Wall Quay/ Samuel Beckett Bridge/ Guild Street junction, North Wall Quay/ Park Lane junction, North Wall Quay/ New Wapping Street New junction, North Wall Quay/ North Wall Avenue junction, Sir John Rogerson's Quay/ Forbes Street junction, Sir John Rogerson's Quay/ Cardiff Lane junction, Sir John Rogerson's Quay/ Samuel Beckett Bridge junction, City Quay/ Lombard Street East junction, and City Quay/ Talbot Memorial Bridge/ George's Quay/ Moss Street junction.

9.11.6. To the north of River Liffey, a westbound cycle track, of variable width is located adjacent to the westbound carriageway between Talbot Memorial Bridge and Samuel Beckett Bridge but this cycle track discontinues at three locations. East of Samuel Beckett Bridge, a predominately c.2.3m wide two-way cycle track adjacent to the westbound carriageway is provided up to Tom Clarke Bridge. An eastbound cycle lane, of varying widths, is also located to the north of River Liffey between Talbot Memorial Bridge and Park Lane but this discontinues in places e.g., at the Scherzer Bridges. To the south of River Liffey, a bi-directional cycle track of approximately 3.0m wide is located adjacent to the eastbound carriageway between Talbot Memorial Bridge and Forbes Street. There are cycle tracks situated on both sides of Talbot Memorial Bridge and Samuel Beckett Bridge. Cycle parking is provided at Sir John Rogerson's Quay in the form of six Sheffield Sands i.e., parking for twelve bicycles. There is designated cycle hire at 8 locations along this section of the route, primarily on the campshire to the north of the River Liffey.

9.11.7. Bus lanes are provided at section 1 along this part of the route in both directions to the north of the River Liffey. There is currently no bus priority infrastructure along this section of the Proposed Scheme to the south of River Liffey. This section of the route contains 10 no. bus stops, four inbound and six outbound, with none from the carriageway. Shelters are provided at none of the stops and real-time bus information is provided at only one of the stops. The applicant has provided details of bus journeys and frequency within table 6.6 of the EIAR.

9.11.8. The speed limit along this section is 50kph. The number of traffic lanes varies but, typically, the carriageway generally comprises two traffic lanes in each direction (of which one is a bus lane) to the north of the River Liffey. The carriageway narrows at the Scherzer Bridges to one lane in each direction. The carriageway width varies between 5.0m and 13.0m.

9.11.9. Junctions along this section of the route north of the River Liffey include:

- Custom House Quay/ Memorial Road/ Talbot Memorial Bridge four-arm signalised junction, and
- North Wall Quay/ Guild Street/ Samuel Beckett Bridge four-arm signalised junction, and

9.11.10. The speed limit on this section south of the River Liffey is also 50kph. The number of traffic lanes varies but, typically, the carriageway generally comprises a two lane two-way carriageway, however a short section between Samuel Beckett Bridge and Lime Street is a one-way westbound only carriageway. The carriageway width varies between 6.0m and 8.0m, save for the short one way section where a width is reduced to approximately 3.2m for very a short length.

9.11.11. Junctions along this section of the route south of the River Liffey include:

- George's Quay/ Talbot Memorial Bridge/ City Quay/ Moss Street four-arm junction,
- City Quay/ Lombard Street East Junction three-arm signalised junction,
- Sir John Rogerson's Quay/ Samuel Beckett Bridge three-arm junction, and
- Sir John Rogerson's Quay/ Sir John Rogerson's Quay/ Cardiff Lane three-arm signalised junction.

9.11.12. There is a mixture of lay-by, taxi rank, designated paid, informal, accessible, loading and permit parking spaces/ bays directly along this section of the route.

DPTOB

9.11.13. There is currently no road bridge at this location and therefore no baseline environment to report in relation to walking, cycling, bus services, general traffic and parking/ loading facilities.

Tom Clarke East Link Bridge to Seán Moore Road

9.11.14. This part of the route passes through the residential area between Tom Clarke East Link Bridge and Seán Moore Road. This Section consists of 340m of York Road, 720m of Pigeon House Road, 140m of Pembroke Cottages, 60m of Cambridge Park, 400m route through Ringsend Park, 200m cycle route adjacent to Strand Street and Bayview, and 80m of Beach Road.

9.11.15. Pedestrian facilities and street lighting are present next to St Patrick's Rowing Club and link the footpaths of Tom Clarke East Link Bridge and York Road. There is a c.1.8m footpath along the southern side of York Road and Pigeon House Road that extends to the junction with Seán Moore Road. There is no footpath on the northern side of York Road and Pigeon House Road. There is a footpath along the western side of Pembroke Cottages (west), and a footpath along the both sides of Pembroke Cottages (east). Cambridge Park has footpaths, c.2.3m wide, on both sides of the carriageway. There is a footpath of between 1.8m and 2.5m wide available within Ringsend Park and a c.2m wide footpath that links from here to Seán Moore Road. There is one controlled pedestrian crossing along this section of the route with some uncontrolled crossings also. The full details of all these crossings are included in Appendix A6.5.1 (Pedestrian Impact Assessment) in Volume 4 of the EIAR.

9.11.16. There is currently limited dedicated cycle infrastructure along this section of the Proposed Scheme between Tom Clarke East Link Bridge and Seán Moore Road. Generally, cyclists share carriageway space with general traffic. Within Ringsend Park (between Cambridge Park and Irishtown Stadium) and between Irishtown Stadium and Bremen Road, an informal shared cyclist/ pedestrian path is available. There is no designated cycle hire along this section of the route and no cycle parking.

9.11.17. There are currently no dedicated bus facilities along this section of the Proposed Scheme.

9.11.18. The speed limit along this section is 30kph. York Road is a two-way carriageway and consists of one lane in each direction. Pigeon House Road is a two-way carriageway with a width of approximately 4.8m. There are two roads adjacent to one other both known as Pembroke Cottages. The easternmost of the two roads

is a one-way northbound carriageway with a width of approximately 6.5m with on-street parking on both sides. The westernmost is a two-way carriageway that is a cul de sac with pedestrian/ cycle access/ egress from the north via York Road.

9.11.19. Junctions along this section of the route include:

- York Road/ Cambridge Road/ Pigeon House Road three-arm mini roundabout,
- York Road/ Pembroke Cottages three-arm priority junction, and
- Cambridge Road/ Pembroke Cottages (eastern)/ Cambridge Park four-arm uncontrolled staggered junction.

9.11.20. There are 237 existing adjacent parking spaces located within this section of the Proposed Scheme.

Potential Impacts

9.11.21. For the purpose of the assessment of potential impacts the applicant has also considered the proposed route in three sections (six sub-sections) as above. I will consider potential impacts in relation to individual modes i.e., walking, cycling, bus and private car with reference to the relevant section and in relation to both the construction and operational phases of the development.

Construction phase

9.11.22. In relation to the full Proposed Scheme, construction traffic management measures are set out in Volume 2, Chapter 5 Construction, section 5.8 of the EIAR and within the CTMP set out in section 5.2 of the CEMP contained within Appendix VIII of the NIS. Holistically, the duration of the construction phase for the overall Proposed Scheme is estimated at approximately 30 months. Construction activities in individual sections will have shorter durations but, in order to achieve the overall programme duration, it will be necessary to work on more than one section/ sub-section at any one time.

9.11.23. I note that the maximum number of HGVs in operation across the Proposed Scheme during peak haulage activities is expected to be 24 vehicles, per Table 5.6 of the CTMP. Therein, the applicant has identified haul routes as follows:

- M1,

- Dublin Port Tunnel, and
- M50 Motorway.

9.11.24. Given the length and varying nature of each subsection it is proposed to establish four construction compounds for the duration of the works. These are:

- Construction Compound SW1: North Wall Quay, at George's Dock,
- Construction Compound SW2: North Wall Quay, at Spencer Dock,
- Construction Compound SW3a/ 3b: End of Sir John Rogerson's Quay, and
- Construction Compound SW4: Southwest of Tom Clarke East Link Bridge.

9.11.25. Traffic flows on all routes and at site compounds and works areas will be managed by the construction traffic management plan and the magnitude of impacts arising from these movements is stated as Negative, Moderate and Temporary. No further analysis is therefore carried out in this regard by the applicant, given the levels are significantly below the thresholds set out in TII's Guidelines for Traffic and Transport Assessments.

9.11.26. Disruptions to pedestrian and cycle movement will also occur on a temporary basis as works proceed, however alternative routes and access will be provided as required. Similarly bus stops may require temporary relocation and bus lanes may be temporarily closed, but access to bus stops will be retained in order ensure continuity in the service.

9.11.27. It is anticipated there will be 20 to 30 personnel directly employed across the Proposed Scheme, rising to 50 personnel at peak construction. Limited car parking will be allowed at the Construction Compounds as the use of vehicle-sharing, public transport, cycling and walking will be encouraged. Consequently, impacts arising from construction staff traffic are not expected to be significant.

9.11.28. Overall, the magnitude of impacts associated with the construction of the Proposed Scheme range are considered to be Negative, Moderate and Temporary.

Operational Phase

9.11.29. In terms of the operational impacts, I note that the assessment of impacts relates to the functionality of the infrastructure to be provided. The applicant has developed a set of criteria for each mode which are outlined in tables 6.13 and 6.16

for pedestrians and cyclists respectively. Similarly, bus infrastructure is examined in relation to both the frequency of service to be provided and the infrastructure provided such as shelter, seating, accessible kerbs and indented drop off areas.

9.11.30. In relation to parking the applicant has clearly outlined the number of spaces to be lost at each location which is set out hereunder and has provided a justification for such losses and in some cases has provided alternative solutions. The applicant has also examined parking and loading requirements for businesses in the area. Some residents have raised concerns within the third-party submissions in relation to the loss of on-street parking. Such issues have been examined within the assessment part of this report above and will not be repeated hereunder - this section of the EIAR should therefore be read in conjunction with the assessment section of this report. It is important to note however that no significant effects are expected to arise in this regard and the applicant has demonstrated that adequate car parking has been retained at on-street locations (as detailed below) and no loss of parking for private residences (as detailed within the assessment section above).

Pedestrian Infrastructure

9.11.31. It is important to note at the outset that all impacts on pedestrian facilities within the three sections of the Proposed Scheme are expected to be positive and long term. This is as a result of the proposed improvements to the existing pedestrian facilities in the form of the introduction of the Dodder Public Transport Bridge creating a new pedestrian link across the mouth of the River Dodder, additional crossing locations, increased pedestrian directness, provision of traffic calming measures to reduce vehicle speeds, improved accessibility and increased footpath and crossing widths. I note that all facilities have been designed in accordance with the principles of DMURS and the National Disability Authority (NDA) 'Building for Everyone: A Universal Design Approach' (NDA 2020) with regards to catering for all users, including those with disabilities. For ease of reference, details of junctions and relative effects are outlined in tables 6.19 and 6.24 of the EIAR.

Cycle Infrastructure

9.11.32. Cycle infrastructure impacts are also considered to be positive and long term in terms of magnitude of effects. A number of submissions raised concerns in relation to junction layouts, cycle lane widths, treatment of cycle lanes at bus stops

and the turning movements provided for cyclists at junctions. Similar to the foregoing, all issues have been examined in detail within the assessment section of this report and will not be repeated hereunder. I am satisfied that the design approach to this infrastructure has been adequately justified by the applicant and I am satisfied that no significant negative impacts will arise in this regard. The use of dedicated cycle lanes, quiet roads in the Ringsend/ Irishtown areas and the segregation of general traffic will provide for a significantly enhanced experience for cyclists over that currently available. I am satisfied that the applicants have examined the potential for impacts to arise in relation to the proposed cycle infrastructure and have examined all reasonable alternatives in this regard also.

Bus Infrastructure

9.11.33. It is proposed that there will be a total of 13 bus stops (excluding coach stops) along Sections 1 and 2 of the Proposed Scheme. The layout of new bus stops is considered to better serve the existing and future catchment and be closer to existing and new pedestrian crossing facilities for improved convenience. The magnitude of effects arising from the operation of the proposed new bus stops is expected to be positive and very significant.

9.11.34. Similar to the foregoing infrastructure, issues have been raised in relation to the relocation of some bus stops, and the provision of shelters. See assessment section above for detailed assessment of bus shelter accessibility.

9.11.35. Based on the information submitted and the NTA responses to the concerns raised as outlined within the assessment section of this report, I am satisfied that the applicant has adequately justified the proposed alterations to bus stops. I also note that all bus stops will have accessible kerbs and real time information and all will also have shelters which is currently not the case at any of the stops. Overall, the accessibility and reliability of the bus service will be significantly improved to that available currently. Such improvements will have a positive and long-term impact for patrons.

Parking

9.11.36. As mentioned above, significant concerns have been raised by third parties in relation to the removal of on-street car parking along the route of the Proposed

Scheme. Each section of parking to be removed has been examined individually as follows:

Section 1 – Talbot Memorial Bridge to Tom Clarke East Link Bridge

- 2 loading bays located adjacent to the eastbound lane of North Wall Quay, outside the Citibank Holdings Ireland Limited office proposed to be removed to enable the provision of a new eastbound indented bus stop.

  Magnitude of effects: **Negative, Slight and Long-term.**

- 5 taxi rank spaces adjacent to the eastbound lane of North Wall Quay, to the west of Park Lane, are to be removed to enable the provision of a continuous eastbound bus lane, as well as an in-lane bus stop.

  Magnitude of effects: **Negative, Moderate and Long-term.**

- 7 designated paid parking spaces adjacent to the eastbound lane of North Wall Quay, immediately east of the junction between North Wall Quay and Park Lane to be removed to enable the provision of a continuous eastbound bus lane. Off-street parking available within 300m at the Euro Car Parks Convention Centre.

  Magnitude of effects: **Negative, Slight and Long-term.**

- 5 loading bays located adjacent to North Wall Quay, outside Home Building Finance Ireland, are to be removed to enable the provision of continuous bus lanes in both directions.

  Magnitude of effects: **Negative, Moderate and Long-term.**

- 9 informal parking spaces adjacent to the eastbound lane of North Wall Quay, to the west of the junction between North Wall Quay and Castleforbes Road are to be removed to enable the provision of a continuous eastbound bus lane. Off-street parking available at the Euro Car Parks Convention Centre and Euro Car Parks Point Square.

  Magnitude of effects: **Negative, Slight and Long-term.**

- 12 parking spaces (eight designated paid parking spaces, two disabled permit parking spaces and two loading bays) adjacent to the eastbound lane of North Wall Quay, to the east of the junction between North Wall Quay are to be

removed to enable the provision of a continuous eastbound bus lane. Off-street parking available at the Euro Car Parks Convention Centre and Euro Car Parks Point Square, and on-street parking along North Wall Avenue.

Magnitude of effects: **Negative, Slight and Long-term.**

- 3 informal parking spaces adjacent to the westbound lane of North Wall Quay, to the west of the North Wall Avenue junction are to be removed to enable the provision of a continuous westbound bus lane. Surrounding paid off-street parking and on-street parking along the adjacent North Wall Avenue.

  Magnitude of effects: **Negative, Slight and Long-term.**

- 3 taxi rank spaces and 14 designated paid parking spaces adjacent to the westbound lane of Sir John Rogerson's Quay, between the adjacent Cardiff Lane and Forbes Street are to be removed. Available parking on the adjacent Cardiff Lane and Forbes Street.

  Magnitude of effects: **Negative, Slight and Long-term.**

- 8 designated paid parking spaces adjacent to the westbound lane of Sir John Rogerson's Quay, immediately east of the junction between Sir John Rogerson's Quay and Forbes Street are to be removed. Available parking on adjacent roads such as Forbes Street and Blood Stoney Road.

  Magnitude of effects: **Negative, Slight and Long-term.**

- 5 designated paid parking spaces and 1 disabled parking bay adjacent to the westbound lane of Sir John Rogerson's Quay, between Blood Stoney Road and Asgard Road, of which two paid parking spaces are to be removed. Available of parking on adjacent roads such as Blood Stoney Road.

  Magnitude of effects: **Negative, Slight and Long-term.**

- 14 designated paid parking spaces adjacent to the westbound lane of Sir John Rogerson's Quay, between Blood Stoney Road and Britain Quay of which 7 are to be removed. Available parking on adjacent roads such as Blood Stoney Road and on Benson Street.

  Magnitude of effects: **Negative, Slight and Long-term.**

- 4 designated paid parking spaces adjacent to the westbound lane of Sir John Rogerson's Quay, immediately west of the junction between Sir John Rogerson's Quay and Benson Street are to be removed. Available parking 80m to the west, as well as parking on Benson Street.

  Magnitude of effects: **Negative, Slight and Long-term.**

- 8 permit parking spaces adjacent to the westbound lane of Sir John Rogerson's Quay, to the east of the junction between Sir John Rogerson's Quay and Benson Street are to be removed. Alternative parking available on Benson Street.

  Magnitude of effects: **Negative, Moderate and Long-term.**

Section 2 – Dodder Public Transport Opening Bridge (DPTOB)

- No impact on existing parking and loading.

Section 3 – Tom Clarke East Link Bridge to Sean Moore Road

- The Proposed Scheme is expected to have little impact on the existing parking and loading facilities along this section of the Proposed Scheme. There are approximately 237 current parking spaces within this Section 3 of the Proposed Scheme and, under the proposals, two informal parking spaces will be removed whilst one additional disabled permit bay and two additional designated parking bays are proposed.

  Magnitude of effects: **Imperceptible and Long-term.**

9.11.37. Overall, there will 88 parking spaces removed as a result of the Proposed Scheme. Given the location of the proposed development within an urban highly accessible area and that spaces are to be lost to facilitate enhanced walking, cycling and bus infrastructure, I am satisfied that the loss of spaces is justified. The Proposed Scheme will also formalise the parking arrangements at these locations to improve the environment, particularly for pedestrians and cyclists. Further to this, the availability of equivalent types of parking along adjacent streets and off-street will limit the overall impact of this loss of parking, which is considered to have a Negative, Slight and Long-term effect. I am satisfied that no significant effects arise in this regard.

Summary of Infrastructure to be provided

9.11.38. I draw the Board's attention to section 6.4.6.2.4 of the EIAR which provides a summary of Corridor-Wide Infrastructure Works. In short, the Proposed Scheme will increase controlled pedestrian crossings from 37 to 50 i.e., a 35% increase.

9.11.39. Total cycle facilities (segregated and non-segregated) will increase by 69%. The proportion of the corridor with segregated facilities (including quiet street treatment) will increase from 82% to 93%.

9.11.40. With regard to buses, the Proposed Scheme will provide 1.6km inbound and 1.6km outbound of bus lanes along the North Quay, which is an increase from 0.6km inbound and 0.5km outbound. Along the South Quay, the Proposed Scheme will provide 0.75km and 0.25km of inbound and outbound bus lanes respectively. In addition, the Proposed Scheme will provide 0.85km inbound and 0.65km outbound of bus signal-controlled priority throughout the whole length of the scheme. In conjunction with signal-controlled bus priority, the Proposed Scheme will provide an increase of 89% in total of bus priority measures in both directions.

9.11.41. In terms of the modelled benefits of the Proposed Scheme, I draw the Board's attention to section 6.4.6.3.1 of the EIAR in which the movement of people is assessed. Modelling examines the potential for modal shift in the years 2028 and 2043 in relation to the AM and PM peak times. The most significant shift inbound is seen in a 14% increase in people travelling via bus. In the year 2028 during the AM peak it is predicted that walking and cycling will see an increase of 20%. Private car use for the same year is predicted to decrease by 17%. The PM peak for the same year is predicted to have a similar modal shift with a 12% increase in the number of people travelling via bus and an increase of 20% of people walking and cycling outbound. The number of people using private car for their outbound journeys will see a reduction of 31%.

9.11.42. Modelled modal shifts for the year 2043 see a significant increase in people walking and cycling with a 86% increase in the AM peak hour and an 98% increase in the PM peak hour and a greater uptake of public transport with an additional 90 passengers in the AM per peak hour of 2043 and an additional 800 passengers in the PM per peak hour of 2043 year.

9.11.43. The overall magnitude of the forgoing modelled changes is **Positive, Significant and Long-term**. The provision of the new DPTOB (public transport, walking and cycle only) provides significant benefits in terms of people movement by sustainable modes on the southern quays. It is clear from the information provided that the proposed development will be a significant piece of infrastructure that will assist in the reduction of GHG in Dublin City and will have a significantly positive impact on the sustainability of the city.

9.11.44. It is clear that the improvements proposed will create the conditions for a modal shift to more sustainable modes of travel. Improved bus times and scheduling, travel information and accessibility to the bus infrastructure are positive changes that are supported at both a national and local level in terms of policy.

9.11.45. It must be clarified that the initial modelling for the years 2028 and 2043 were based on current metrics for population, traffic levels, etc. I note that the applicant has resilience tested the Proposed Scheme in relation to population and traffic growth. The results of which demonstrate that the Proposed Scheme will have adequate capacity to cope with such changes without impacting the reliability of the service.

General traffic impacts

9.11.46. Given the improvements to bus priority, walking and cycling as a result of the Proposed Scheme, there will likely be an overall reduction in operational capacity for general traffic along the direct study area. This may in turn result in some level of redistribution of general traffic away from the main corridor onto the surrounding road network. The surrounding road network including junctions has therefore been examined in detail within the EIAR and this has been carried out in accordance with TII's Traffic and Transport Assessment Guidelines.

9.11.47. The Board should note that the assessment of the Transport Modelling (please refer to Appendix A6.1, Sub Appendix – Transport Modelling Report within Volume 4 (Part 1) of the EIAR) is contained within section 6.4.6.3.8 of the EIAR.

9.11.48. The assessment shows that during the 2028 Opening Year in the 'Do Minimum' versus 'Do Something' scenarios that there is a slight reduction of at least -100 in general traffic flows along the direct study area during the AM Peak Hour. Similarly, there is a slight to significant reduction of between -143 and -523 in

general traffic flows along the direct study area during the PM Peak Hour. This represents an anticipated impact on general traffic as **Positive, Slight to Significant and Long-Term**.

9.11.49. The assessment also shows that during the 2028 Opening Year that there is a slight to significant traffic reduction within the indirect study area during the AM Peak Hour which varies between –100 and -358 in combined flows along the surrounding road links. There is also a slight to significant traffic reduction within the indirect study area during the PM Peak Hour which varies between –115 and -246 in combined flows along the surrounding road links. For both AM and PM, these reductions in general traffic flows have been determined as an overall **Positive, Slight and Long-Term** on the indirect study area.

9.11.50. The Board should note that in both the AM and PM peak hour, traffic flows at national roads junctions are expected to be below the 5% threshold for assessment.

9.11.51. An analysis was also carried out on local and regional road junctions in the AM and PM for the 2028 Opening Year in the 'Do Minimum' versus 'Do Something' scenarios. I note that the majority of local and regional road junctions during both the AM and PM Peak Hours of the 2028 Opening Year are operating with a maximum V / C[13] ratio of below 85% during both scenarios and that the impact of the Proposed Scheme is negligible at the majority of these road junctions. Tables 6.49 and 6.50 of the EIAR highlights that there are no junctions in both the AM and PM Peak Hours for the 2028 Opening Year where the V / C ratio exceeds 100% in the Do Something scenario. A **Negative, Moderate and Long-Term** effect will only accrue to 1 of the 25 assessed junctions in the AM and a **Negative, Slight and Long-Term** effect will only accrue to 1 of the 21 assessed junctions in the PM.

9.11.52. The results of the analysis are similar for the impacts on local and regional road junctions in the AM and PM for the 2043 Design Year in the 'Do Minimum' versus 'Do Something' scenarios. The results show that the Proposed Scheme will have a negligible impact on the majority of assessed local/ regional road links within the indirect area. A **Not Significant and Long-Term** effect is expected at 21 of the 25 assessed junctions and an **Imperceptible** effect at the other 4 junctions in the

[13] Volume over Capacity Ratio

AM. Similarly, a **Not Significant and Long-Term** effect is expected at 16 of the 21 assessed junctions and an **Imperceptible** effect at the other 5 junctions in the PM.

9.11.53. The redistribution of traffic during the 2028 AM and PM Peak Hours and during 2043 AM and PM Peak Hours raises no impacts assessed as significant or greater impact. Generally, traffic congestion that is outlined in the impact assessment is acceptable with regard to the urban location of the area and, consequently, the anticipated impact on general traffic during the Operational Phase will be **Negative, Slight and Long-Term**.

9.11.54. This impact is considered acceptable in line with the scheme objectives and the considerable improvements for sustainable modes in the direct study area, with the consequential reduction in capacity for general traffic leading to some level of traffic redistribution. Given that the redistributed traffic will not lead to a significant deterioration of the operational capacity on the surrounding road network, no additional mitigation measures, beyond what is included already in the design, have been considered to alleviate the impact outside of the direct study area.

Mitigation

9.11.55. Construction related mitigation will be included within the CEMP. Implementation of the CEMP will ensure disruption and nuisance are kept to a minimum during the Construction Phase. The CEMP has regard to the guidance contained in the TII Guidelines for the Creation, Implementation and Maintenance of an Environmental Operating Plan, and the handbook published by Construction Industry Research and Information Association (CIRIA) in the UK, Environmental Good Practice on Site Guide, 4th Edition (CIRIA 2015).

9.11.56. A detailed Construction Traffic Management Plan will be prepared and included in the CEMP, and subsequently implemented, by the appointed contractor prior to construction, including Temporary Traffic Management arrangements prepared in accordance with Department of Transport's 'Traffic Signs Manual, Chapter 8 Temporary Traffic Measures and Signs for Roadworks'. The CTMP will be consulted upon with the road authority and will include measures to minimise the impacts associated with the Construction Phase upon the peak periods of the day.

9.11.57. No mitigation measures are proposed for the operation of the proposed scheme. Residual impacts remain as stated above and will not be significant.

9.11.58. I considered all of the written submissions made in relation to traffic and transport, and the relevant contents of the file including the EIAR. I am satisfied that the potential for impacts on traffic and transport can be avoided, managed and/ or mitigated by measures that form part of the Proposed Scheme, by the proposed mitigation measures and with suitable conditions. I am therefore satisfied that the potential for direct or indirect impacts on traffic and transport can be ruled out. I am also satisfied that cumulative effects, in the context of existing and permitted development in the surrounding area and other existing and proposed development in the vicinity of the site, are not likely to arise.

Table 19 Traffic & Transport – Summary of potential and residual effects.

Potential impacts	Magnitude of Impact	Mitigation	Residual Impact
Construction phase impacts road network operation	Negative, Slight to Moderate and Temporary	Traffic Management Plans	Negative, Moderate and Temporary
Operational Phase			
Pedestrian Infrastructure	Positive, Slight and Long-term	None	Positive, Slight and Long-term
Cycling Infrastructure	Positive, Profound and Long-term	None	Positive, Profound and Long-term
Bus Infrastructure	Positive, Imperceptible to Profound and Long-term	None	Positive, Imperceptible to Profound and Long-term
Parking and Loading	Negative, Imperceptible to moderate and Long-term	None	Negative, Imperceptible to moderate and Long-term
People Movement	Positive, Significant and Long-term	None	Positive, Significant and Long-term

Bus Network Performance Indicators	Positive, Very Significant and Long-term	None	Positive, Very Significant and Long-term
General Traffic Network Performance Indicators	Negative, Moderate to Imperceptible and Long-term	None	Negative, Moderate to Imperceptible and Long-term

9.12. Material Assets & Waste

9.12.1. Section 18 & 19 of the EIAR examines the potential for impacts to arise in relation to waste and material assets. The study area regarding major infrastructure and utilities comprises all areas within the Proposed Scheme, including both permanent and temporary land take boundaries. The study area for waste has been carried out on a regional basis an encompasses Dublin and the Eastern-Midlands.

Material Assets

9.12.2. All major infrastructure and utilities which may be impacted by the Proposed Scheme have been assessed, including:

- District heating,
- Electricity,
- Water / Wastewater,
- Surface Water Drainage,
- Gas, and
- Telecommunications.

9.12.3. The applicant has identified several utilities in place along and crossing the Proposed Scheme roads, the majority of which are buried within and along the roadways. These utilities include:

- ESB electricity lines (high, medium, and low voltage) and associated infrastructure,
- Gas Networks Ireland gas mains (high, medium, and low pressure) and associated infrastructure,

- Irish Water potable water mains and associated infrastructure,
- Irish Water sewer lines (foul and combined sewers) and associated infrastructure,
- Local Authority surface water drainage network and associated infrastructure,
- Eir, Enet and Virgin Media telecommunications lines and associated infrastructure,
- Local Authority traffic signal ducting, and
- District heating (Currently unused district heating lines east of the mouth of the River Dodder).

9.12.4. It is important to note at the outset that significant effects are not likely to arise in relation to the proposed development during either the construction phase or operational phase of the development.

9.12.5. Impacts on existing infrastructure and utilities may occur in order to accommodate changes to junction layouts or changes to carriageway widths. Where protection of utilities in place is not an option, this will involve realignment, upgrade, or replacement of this infrastructure as part of works within those areas.

9.12.6. I note from the information submitted that the proposed development would require the diversion of medium and low voltage underground and overhead lines, watermains, gas mains and telecommunication ducts and chambers. These diversions will result in temporary and short-term interruptions to services in the vicinity of the proposed works.

9.12.7. The magnitude of effects arising from infrastructure diversions will result in the worst-case potential impact of **Negative, Moderate and Temporary**. Impacts relating to each individual infrastructure element is outlined in Table 19.10 of the EIAR. Impacts arising to such infrastructure during the operational phase of the development relate to the use of electricity to power new traffic lights and street lighting. Overall effects are expected to be **Negative, Imperceptible to Not Significant and Long-Term** in this regard.

9.12.8. In considering the impacts to material assets, I note that the applicant has also considered the impact of the development on imported materials, such as concrete

and aggregate. No significant effects are expected in relation to imported materials during either phase of the development.

Waste

9.12.9. Construction waste, including demolition and excavation waste, will be the main type of waste generated as a result of the Proposed Scheme. Waste licenced facilities within the area have been identified and will be used according to the waste management plan which will be submitted to the City Council.

9.12.10. It is important to note at the outset that impacts arising from waste are not deemed to be significant.

9.12.11. It is the intention of the applicant to monitor, manage, reduce and reuse waste where possible. Waste will be appropriately segregated. It is anticipated that up to 3,900 tonnes of recycled or reused material could be incorporated into the Proposed Scheme. All monitoring and auditing of waste will form part of the mitigation measures to reduce waste arising from the development in compliance with Article 27 of the Waste Directive Regulations.

9.12.12. Where practicable and appropriate, and if in reusable condition, materials to be reused include street and roadside infrastructure such as bus stops, lighting poles, traffic signals, manhole access covers and signs.

9.12.13. I have examined the waste estimates provided by the applicant and note the following in relation to construction waste:

- Estimates of demolition waste are outlined in table 18.8 of the EIAR and result in a total predicted amount of 180 tonnes which equates to 0.002% of the demolition waste in the Eastern Midlands Waste Region.

  Magnitude of effects: **Adverse, Not Significant and Short-Term.**

- Excavation waste is outlined in table 18.9 of the EIAR and a total surplus material of 18,000 tonnes is expected to be generated from the development which is equivalent to 0.17% of the demolition waste management baseline in the Eastern Midlands Waste Region.

  Magnitude of effects: **Adverse, Slight and Short-Term.**

- Waste also relates to waste construction materials which has been quantified by the applicant within table 18.10, whereby it is expected that 5-15% of materials used will be wasted. Such levels of waste are standard in construction and as such are not expected to give rise to significant impacts in the regional context.

  Magnitude of effects: **Adverse, Imperceptible and Short-Term.**

9.12.14. Operational waste may arise as a result of carriageway maintenance which will be undertaken at regular intervals, or as necessary. This will primarily consist of bituminous mixtures due to maintenance of carriageway pavement. It is envisaged that bituminous mixtures will be reused within new carriageway construction as far as practicable and in accordance with all applicable legislation. It is important to note that the quantity of bituminous mixtures generated over the assumed lifetime of the Proposed Scheme (60 years), will increase by approximately 794 tonnes due to an overall widening of the carriageway. Therefore, there will be a decrease in maintenance needs during operation of the Proposed Scheme. The magnitude of effects during the operation will therefore be **Adverse, Not Significant and Long-Term**.

9.12.15. Given the limited percentage of waste to be generated from the site it is reasonable to state that cumulative effects arising from development along the route will not arise in this instance.

Conclusion

9.12.16. I considered all of the written submissions made in relation to Waste & Material Assets and the relevant contents of the file including the EIAR. I am satisfied that the potential for impacts on Waste & Material Assets can be avoided, managed and/ or mitigated by measures that form part of the Proposed Scheme, by the proposed mitigation measures and with suitable conditions. I am therefore satisfied that the potential for direct or indirect impacts on Waste & Material Assets can be ruled out. I am also satisfied that cumulative effects, in the context of existing and permitted development in the surrounding area and other existing and proposed development in the vicinity of the site, are not likely to arise.

Table 20 Material Assets & Waste – Summary of potential and residual effects

Potential impacts	Magnitude of Impact	Mitigation	Residual Impact
Construction Phase			
Demolition waste	Adverse, Not Significant and Short-Term	Monitoring, auditing, and reusing waste	Adverse, Not Significant and Short-Term
Excavation waste	Adverse, Slight and Short-Term	As above	Adverse, Slight and Short-Term
Construction waste	Adverse, Imperceptible and Short-Term	As above	Adverse, Imperceptible and Short-Term
Municipal waste	Adverse, Imperceptible and Short-Term	As above	Adverse, Imperceptible and Short-Term
• **District Heating** • **Electricity** • **Water / Wastewater** • **Surface Water Drainage** • **Gas** • **Telecommunications**	Ranges between: No significant impact & Negative, Slight to Moderate, and Short-Term (for Royal Canal, Electricity, Water, Wastewater, District Heating, & Telecommunications)	Notification and liaison with utility providers.	Ranges between: No significant impact to Negative, Slight to Moderate, and Short-Term
Operational Phase			
C&D waste	Adverse, Not Significant and Long-Term	Reuse waste	Adverse, Not Significant and Long term
Municipal waste	Neutral and Long-Term		Neutral and Long-Term

• **District Heating** • **Electricity** • **Water / Wastewater** • **Surface Water Drainage** • **Gas** • **Telecommunications**	Ranges between: No significant impact & Negative, Imperceptible, and Long-Term (for Electricity & Telecommunications)	Notification and liaison with utility providers.	Ranges between: No significant impact to Negative, Imperceptible, Moderate, and Temporary

9.13. Risk of Major Accidents and/ or Disasters

9.13.1. An assessment of the risk of major accidents or disasters is outlined in section 20 of the EIAR. In terms of potential risks, it is of note that the proposed development gives rise to no operational phase risks in relation to major accidents or disasters and will therefore not be considered further.

9.13.2. The applicant has identified potential impact of major accidents and/ or disasters from the Proposed Scheme during the construction phase. These include:

- Risk of gas explosion due to the strike of a gas mains during excavation works,
- Contact with/ damage to pressurised heating district pipes and high-pressure gas mains (Liffey Services Tunnel) between York Road and North Wall Quay,
- Risk of collapse of structures during construction of the proposed Dodder Public Transport Opening Bridge over the confluence of the River Dodder and River Liffey in the vicinity of Grand Canal Dock,
- Pollution event leading to environmental damage to watercourses or groundwater, particularly associated with the potential release of silt to the aquatic environment, and
- Risk of spread of invasive species during construction works, particularly during site clearance works.

9.13.3. The design of the Proposed Scheme has been developed in compliance with the relevant design standards which include provisions to reduce the likelihood of risk

events occurring (e.g., structures have been designed to avoid the risk of collapse, drainage systems have been designed to cater for increased rainfall events, etc.). A CEMP has been prepared and is included as Appendix A5.1 in Volume 4 of this EIAR.

Conclusion

I considered all of the written submissions made in relation to Major Accidents or Disasters and the relevant contents of the file including the EIAR. I am satisfied that the potential for impacts from Major Accidents or Disasters can be avoided, managed and/ or mitigated by measures that form part of the Proposed Scheme, by the proposed mitigation measures and with suitable conditions. I am therefore satisfied that the potential for direct or indirect impacts from Major Accidents or Disasters can be ruled out. I am also satisfied that cumulative effects, in the context of existing and permitted development in the surrounding area and other existing and proposed development in the vicinity of the site, are not likely to arise.

Table 20 Risk of Major Accidents or Disasters – Summary of potential and residual effects.

Potential impacts during Construction Phase	Pre-Mitigation Risk	Mitigation	Post Mitigation Consequence & Risk
Risk of gas explosion.	Medium	See Section 9.5 and Ap. A5.1 CEMP)	Serious & Low
Contact with/ damage to pressurised heating district pipes.	Medium	As above	Serious & Low
Risk of collapse of structures during construction of the proposed DPTOB.	Medium	As above	Serious & Low
Pollution event leading to environmental	Medium	As above	Serious & Low

damage to watercourses or groundwater.			
Risk of spread of invasive species.	Medium	As above	Serious & Low

9.14. Interactions between the Factors and Cumulative Impacts

9.14.1. Section 21 of the EIAR considers the potential for cumulative impacts to arise and the potential for interactions between factors to occur. Cumulative impacts are considered in the context of other permitted and planned development in the area as well as the remaining 11 other BusConnects routes, MetroLink, DART + West projects in the context of the foregoing sections of the EIAR. The NTA recognises the potential for cumulative impacts between the Dart + West project and the Proposed Scheme to occur should the construction phase of these key elements coincide. Consequently, the NTA intend to programme the construction of the Proposed Scheme so as to ensure that the works on the north and south quays (excluding the construction of the DPTOB), do not coincide with the DART+ West works at Sheriff Street Bridge. Development also considered in the context of cumulative development include but are not limited to the following:

- Dart Underground
- Dublin Port Masterplan 2040: Works include construction of new quays and jetties, remediation of contamination on the bed of the basin, capital dredging to deepen the basin, infilling of the Basin at some berth locations and construction of a new river berth with a double tiered Ro-Ro ramp and deepening of fairway and approach to Dublin port.
- Ardee Bypass: 6km single carriageway.
- N2 Slane Bypass: 3.4km long bypass that runs from the east of Slane to the existing N2 at a location 500m north of McGruder's crossroads.
- M11 Capacity Enhancement (Phase 1 & Phase 2) including Glen of the Downs tunnel.

- Blanchardstown Regional Drainage Scheme.
- North Dublin sewage plant (pipeline).
- Water Supply Project – Eastern and Midlands Region.
- Greater Dublin Drainage Project.
- Automated people mover (APM) Dublin Airport.
- Eastern Bypass project.
- O'Devaney Gardens Regeneration Programme: Development consists of 1,047 residential units across ten blocks up to 14 storeys tall.
- Belcamp Hall Residential Development: Residential development consisting of 2,718 residential units (2,233 no. apartments, 485 no. houses), 2 no. creches and all associated site works.
- Luas Cross City extension: Additional 30km of Luas Lines running to Lucan, Bray, Poolbeg and Finglas.
- Southern Port Access Route: A new public road which links from the national road network at the Dublin Tunnel to serve the south port lands and adjoining areas.

9.14.2. The applicant has also had regard to the relevant plans for the area and I am satisfied that a robust and detailed assessment of the potential for cumulative impacts to arise has been carried out.

9.14.3. It is important to note at the outset that for the large part no significant cumulative impacts are expected.

Water, soils, geology and hydrogeology

9.14.4. Water, soils, geology and hydrogeology are examined as a group of receptors for the purpose of the consideration of cumulative effects. The proposed projects will result in the loss of a not significant quantity of soil and geology, but the cumulative loss is still considered small on a local scale. Standard mitigation measures as outlined within the relevant sections above will avoid significant impacts from arising in relation to such factors and therefore no significant effects are expected. Similarly, mitigation measures to avoid such impacts also form part of the permitted schemes

and I am therefore satisfied that significant cumulative impacts will not arise in this regard.

Traffic

9.14.5. In the consideration of cumulative traffic impacts the applicant in the first instance considered the cumulative impact of all 12 schemes and a modelling exercise of a worst-case scenario was carried out. The results would give rise to significant traffic displacement across the Dublin area with significant impacts occurring on local residential roads as the carrying capacity of arterial routes is designed to cater for such volumes in traffic.

9.14.6. In order to prevent such significant impacts from arising the applicant has stated that a number of routes will not be constructed concurrently with adjacent schemes to limit potential for significant adverse traffic, air quality and noise issues during the construction stage, and the Proposed Scheme is not affected by any of the other routes. However, the NTA will ensure that the works on the north and south quays (excluding the construction of the DPTOB) that form part of the Proposed Scheme do not coincide with the DART+ West works at Sheriff Street Bridge.

9.14.7. There may be a requirement for some localised temporary lane closures for short durations of the day or night but access for general traffic to existing residential and commercial units immediately adjacent to the Proposed Scheme will be accommodated throughout the Construction Phase as well as access for emergency vehicles. It is for these reasons that significant cumulative traffic impacts are not expected. Similarly, significant cumulative traffic impacts do not arise in relation to other developments in the area of the Proposed Scheme or in relation to the operation of the scheme.

Dust, Air Pollution and Climate

9.14.8. An appraisal has been carried out to assess the cumulative risk to sensitive receptors as a result of dust soiling and the health impacts and ecology impacts due to the construction phase of the Proposed Scheme. The other planning applications and projects within 500 metres of the Proposed Scheme outlined in Figure 21.2 in Volume 3 of the EIAR were considered in this regard.

9.14.9. Mitigation measures to prevent dust are to be implemented as outlined within the relevant section above and as such no significant dust impacts are expected to arise in relation to the Proposed Scheme. Given that such mitigation is standard practice in relation to construction and excavation works it is reasonable to state that significant cumulative dust emissions are not expected to arise in relation to other development within the area. Such mitigation measures are included within the permitted schemes referred to and I am therefore satisfied given the limited nature of the proposed works and the measures proposed within it to avoid dust emissions, that no significant impacts will arise.

9.14.10. In terms of pollutants, I note that the applicant has outlined the cumulative construction phase impacts in terms of a percentage of the regional output in Table 21.4 of the EIAR and given the relatively small percentage of pollutants that the scheme will give rise to in this context, no significant cumulative impacts are expected.

9.14.11. Cumulative impacts in relation to climate are also considered within the EIAR in a national context. The impacts to climate have been quantified within the Air Quality and Climate Section of this EIAR above and will not be repeated hereunder, however it is important to note that impacts arising from the operation of the development are positive and the proposal will result in a reduction of carbon emissions over the life of the scheme. I am satisfied that the proposed development as a whole will ultimately have a positive impact on climate and I am, therefore, also satisfied that significant long term adverse cumulative impacts will not arise.

Noise & Vibration

9.14.12. Cumulative impacts in relation to noise and vibration have been examined in the context of the proposed 12 routes and the developments listed in Figure 21.2 in Volume 3 of the EIAR. Within this there were 49 other projects identified with the 300m ZoI of the Proposed Scheme which includes 38 DCC planning applications, 4 Irish Water projects and 7 other major projects (including MetroLink, Greater Dublin Drainage and the Greater Dublin Area Cycle Network Plan). Due to the distance between the Proposed Scheme and other Core Bus Corridor schemes cumulative impacts in relation to the other proposed routes are not expected. Such impacts are expected to be Neutral, Imperceptible and Long Term. Other major infrastructure

projects could directly interface with the construction of the Proposed Scheme. To prevent such impacts from arising it is proposed to liaise with the contractors of other projects, to ensure that there is coordination between projects and no significant cumulative impacts arise.

Biodiversity

9.14.13. Cumulative impacts to biodiversity relate to habitat loss, disturbance and loss of foraging and habitat fragmentation. It is important to note given the location of the Proposed Scheme and the on-going urban development trends across Dublin, there is likely to be continued habitat loss and fragmentation in the area. The applicant however has had regard to the environmental protective policies of the relevant development plan for the scheme and the scheme is compliant with same.

9.14.14. I have already concluded within in-combination assessment carried out under the Appropriate Assessment in Section 8 of this planning report that there is no potential for adverse effects on the integrity of any European sites, to arise as a consequence of the Proposed Scheme in combination with any other plans or projects. I note that impacts on biodiversity will be no higher than the already predicted significant residual effects at the local geographic scale for the Proposed Scheme alone.

9.14.15. Disturbance or displacement impacts to mammals during construction will be temporary or short-term and are not likely to have long-term population level effects, or cumulatively with any future projects that might be proposed.

Archaeology and Built Heritage

9.14.16. I note that archaeological investigations will take place in order to identify any below-ground remains that may be present. This is true of all permitted significant infrastructure in the area and no significant cumulative effect on below-grounds remains is anticipated. In terms of built heritage, no significant effects are expected, and mitigation measures will ensure the appropriate protection of features such as such as paving and surface treatments or the arch in George's Dock.

Landscape and Visual

9.14.17. It is stated within the EIAR that there will be potential for localised significant temporary/ short-term cumulative construction effects for the Proposed Scheme

during construction in conjunction with other Major Projects[14] (Poolbeg LUAS, Poolbeg SDZ roads development, Greater Dublin Area Cycle Network Plan, Dublin Southern Port Access Route) where concurrent construction of schemes have the potential to overlap. Effects would be reduced or negligible if the construction of these schemes does not overlap.

9.14.18. For the remaining shortlisted projects, should the construction periods either overlap or follow on within a short timeframe with the Proposed Scheme, there is potential for localised, moderate, temporary in-combination indirect townscape/ visual effects to occur. Effects would also be reduced or negligible if the construction of these schemes does not overlap and, in most cases, the potential impacts are likely to be localised and contained, due to enclosing effect of the surrounding built form.

9.14.19. Having regard to the very detailed information provided by the applicant in relation to cumulative effects, I am satisfied that no significant cumulative effects arise in this instance.

Interactions

9.14.20. I have considered the interrelationships between factors and whether these may as a whole affect the environment, even though the effects may be acceptable when considered on an individual basis.

9.14.21. I consider that there is potential for population and human health to interact with all of the other factors (biodiversity, water, air and climate, noise, landscape and visual, cultural heritage and material assets – traffic). The details of all other interrelationships are set out in Section 21 of the EIAR which I have considered.

9.14.22. The proposed construction phase of the development has the most potential to interact with human health and biodiversity in relation to water contamination. Spills to waterbodies of hydrocarbons, concrete wash or other chemicals can have a direct effect on human health and biodiversity. It is important to note therefore that residual impacts to water were expected to be imperceptible and as such there is no

[14] Table 21.2.8 Stage 3 and 4: Landscape (Townscape) and Visual, Appendix A21.2 Stage 4 Specialist Assessments, Volume 4, EIAR

likely significant interaction between Water and Human Health or Water and Biodiversity from this Proposed Scheme during construction.

9.14.23. Similarly, human health and biodiversity can interact with air quality, noise and vibration and traffic. No significant impacts are expected in this regard and I am satisfied on the basis of the information provided that there is no likely significant interaction between these factors and human health.

9.14.24. I am satisfied that the proposals for the other 11 Core Bus Corridor schemes and the Proposed Scheme are complementary and could have a cumulative beneficial effect by encouraging active travel and increased use of public transport through offering a choice of routes. Due to the substantial size of overall population with the opportunity to benefit from the proposals, the effect is assessed as Positive, Very Significant and Long-Term for health.

9.14.25. Interactions between soils and water will arise but as mentioned above due to mitigation will not give rise to significant interaction. Similarly, interactions between water and traffic and transport can occur, however, all changes in traffic flows would occur within the same drainage catchments and so there would be no significant impacts from this interaction.

9.14.26. Interactions also occur between Landscape (Townscape) & Visual, Architectural Heritage, Archaeology and Cultural Heritage. The Construction Phase will have impacts on a number of local features of heritage value, e.g., Protected Structures and Conservation Areas. Excavations may interact with archaeology, but this would be restricted to the construction phase of the development. Having regard to the mitigation measures proposed by the applicant in this regard I am satisfied that significant interactions will not arise.

9.14.27. Having regard to the foregoing I am satisfied that effects as a result of interactions, indirect and cumulative effects can be avoided, managed and/ or mitigated for the most part by the measures which form part of the proposed development, the proposed mitigation measures detailed in the EIAR, and with suitable conditions.

9.15. Reasoned Conclusion

9.15.1. Having regard to the examination of environmental information contained above, to the EIAR and supplementary information provided by the applicant and the submissions from the planning authorities, prescribed bodies, and observers 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, and will be mitigated as follows:

- Negative impacts on **human health and population** arising from construction include noise, traffic and dust disturbance to residents of neighbouring dwellings are low to moderate. Adequate mitigation measures are proposed to ensure that these impacts are not significant and include adequate mitigation for operational noise.
- Benefits/ positive impacts on the **Air and Climate** will arise from the operation of the proposed development and will have a significant positive effect on human health and population. This benefit will accrue due to the displacement of CO_2 from the atmosphere arising from a modal shift to cycling/ walking and an increased use of public transport, which will be electrified and the reduction of cars on the route. Negative impacts during construction relate to the embodied carbon of construction materials which will have a negative significant impact but for the short term, any increase in carbon is considered significant, however the construction phase represents a significantly small percentage of the sectoral emission ceilings outlined in CAP24 for the 2021-2025 carbon budget period, the proposed development represents 0.047% of the transport emission ceiling for the period.
- Negative impacts on **Water** could arise as a result of accidental spillages of chemicals, hydrocarbons or other contaminants entering watercourses, the sea or groundwater via piling activities during the construction phase of the development. These impacts will be mitigated by measures outlined within the application and can therefore be ruled out.
- Negative impacts on **biodiversity** relate to the removal of habitat in the form of trees with roosting potential for bats. Such impacts are not considered significant and can adequately be mitigated for within the scheme. New trees

will be planted in the vicinity to bolster existing treelines. Significant impacts are therefore not expected in this regard. The avoidance of trees with roosting potential for bats and the maintenance of commuting corridors, as well as pre-construction bat surveys will ensure significant impacts to bats are avoided as much as possible. Pre-construction surveys will ensure that no mammals, birds or invasive species are present within the works areas. Adequate mitigation measures are proposed to ensure the protection of such mammals and birds encountered and to prevent the spread of invasive species. Significant impacts to biodiversity can therefore be ruled out.

- **Noise and Dust** impacts arise during the construction phase from construction activities. These impacts will be mitigated through adherence to best practice construction measures in relation to dust and the use of noise abatement at sensitive locations. Significant noise impacts arise in relation to construction noise during night-time and weekend hours when thresholds are lower. Works will generally be carried out in daytime hours causing no significant effects. In the event that works are required during night-time or weekend hours, liaison with residents in this regard and the use of noise abatement will reduce the level of impacts. Noise disturbance from the operation of the development can be ruled out, electric bus fleet and less cars will have a positive impact on operational noise. Significant impacts arising from noise and dust disturbance during the construction, operational and decommissioning stages can therefore be ruled out.
- Negative **traffic** impacts arise during the construction phase of the development, these impacts will be mitigated through the implementation of a traffic management plan and a construction management plan. Whilst some localised impacts arising from road/ lane closures may arise, significant impacts arising from traffic can be ruled out.

9.15.2. The EIAR has considered the main significant direct and indirect effects of the proposed development on the environment would be primarily mitigated by environmental management measures, as appropriate. Thus, having regard to the foregoing assessment, I am, therefore, satisfied that the proposed development would not have any unacceptable direct or indirect effects on the environment.

9.15.3. The EIAR has considered that the main significant direct and indirect and cumulative effects of the proposed development on the receiving environment. Following mitigation, no residual significant long-term negative impacts on the environment or sensitive receptors would occur. 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 project on the environment, taking into account current knowledge and methods of assessment. Overall, I am satisfied that the information contained in the EIAR complies with the provisions of Article 3, 5 and Annex (IV) of EU Directive 2014/52/EU.

10.0 Recommendation

I recommend that permission is granted subject to the following conditions.

11.0 Reasons and Considerations

In coming to its decision, the Board had regard to the following:

European legislation, including of particular relevance:

- Directive 92/43/EEC (Habitats Directive) and Directive 79/409/EEC as amended by 2009/147/EC (Birds Directives) which set the requirements for Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union, and
- Sustainable and Smart Mobility Strategy 2020 (EU Commission 2020).

National and regional planning and related policy, including:

- the Climate Action Plan 2024,
- the National Development Plan 2021-2030,
- Project Ireland 2040 National Planning Framework,
- the Greater Dublin Area Transport Strategy 2022-2042,
- Smarter Travel – A Sustainable Transport Future: A New Transport Policy for Ireland 2009 – 2020,
- Department of Transport National Sustainable Mobility Policy, 2022,

- Design Manual for Urban Roads and Streets, 2019,
- Cycle Design Manual (NTA & DoT 2023), and
- Other relevant guidance documents.

Regional and local level policy, including:

- Regional Spatial Economic Strategy for the Eastern and Midlands Region

Local planning policy, including:

- Dublin City Development Plan 2022-2028,
- Dublin City Biodiversity Action Plan 2021-2025,
- other relevant guidance documents,
- the nature, scale and design of the proposed development as set out in the planning application and the pattern of development in the vicinity,
- the entirety of the documentation submitted by the National Transport Authority (applicant) in support of the proposed development, including the Environmental Impact Assessment Report and the Natura Impact Statement, and the range of mitigation and monitoring measures proposed,
- the submissions made to An Bord Pleanála in connection with the planning 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.

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 Stage 1:

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, Rockabill to Dalkey Island SAC, Lambay Island SAC, Wicklow Mountains 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, Wicklow Mountains SPA, Lambay Island SPA, The Murrough SPA and North West Irish Sea cSPA are the European sites for which there is a likelihood of significant effects.

Appropriate Assessment Stage 2:

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 European Sites, 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 European Sites,

i. Mitigation measures which are included as part of the current proposal,
ii. Conservation Objectives 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 Site's 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; and
- 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 for EIA

The Board considered that the Environmental Impact Assessment Report, supported by the documentation submitted by the applicant, 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.

The main significant effects, both positive and negative, are:

- Negative impacts on **human health and population** arising from construction include noise, traffic and dust disturbance to residents of neighbouring dwellings. All of these impacts are low to moderate. Adequate mitigation

measures are proposed to ensure that these impacts are not significant and include adequate mitigation for operational noise.

- Benefits/ positive impacts on the **Air and Climate**, the operation of the proposed development will have a significant positive effect on human health and population due to the displacement of CO_2 from the atmosphere arising from a modal shift to cycling/ walking and an increased use of public transport, which will be electrified and the reduction of cars on the route. Negative impacts during construction relate to the embodied carbon of construction materials which will have a negative significant impact but for the short term, any increase in carbon is considered significant, however the construction phase represents a significantly small percentage of the sectoral emission ceilings outlined in CAP24 for the 2021-2025 carbon budget period, the proposed development represents 0.047% of the transport emission ceiling for the period.
- Negative impacts on **Water** could arise as a result of accidental spillages of chemicals, hydrocarbons or other contaminants entering watercourses, the sea or groundwater via piling activities during the construction phase of the development. These impacts will be mitigated by measures outlined within the application and can therefore be ruled out.
- Negative impacts on **biodiversity** relate to the removal of habitat in the form of trees. Such impacts are not considered significant and can adequately be mitigated for within the scheme. The avoidance of trees with roosting potential for bats and the maintenance of commuting corridors, as well as preconstruction bat surveys will ensure significant impacts to bats are avoided. Preconstruction surveys will ensure that no mammals, birds or invasive species are present within the works areas. Adequate mitigation measures are proposed to ensure the protection of such mammals and birds encountered and to prevent the spread of invasive species. Significant impacts to biodiversity can therefore be ruled out.
- **Noise and Dust** impacts arise during the construction phase from construction activities. These impacts will be mitigated through adherence to best practice construction measures in relation to dust and the use of noise abatement at sensitive locations. Significant noise impacts arise in relation to

construction noise during night-time and weekend hours when thresholds are lower. Works will generally be carried out in daytime hours causing no significant effects. In the event that works are required during night-time or weekend hours, liaison with residents in this regard and the use of noise abatement will reduce the level of impacts. Noise disturbance from the operation of the development can be ruled out, electric bus fleet and less cars will have a positive impact on operational noise. Significant impacts arising from noise and dust disturbance during the construction, operational and decommissioning stages can therefore be ruled out.

- Negative **traffic** impacts arise during the construction phase of the development, these impacts will be mitigated through the implementation of a traffic management plan and a construction management plan. Whilst some localised impacts arising from road closures may arise, significant impacts arising from traffic can be ruled out.
- The EIAR has considered the main significant direct and indirect effects of the proposed development on the environment would be primarily mitigated by environmental management measures, as appropriate.
- The EIAR has considered that the main significant direct and indirect and cumulative effects of the proposed development on the receiving environment. Following mitigation, no residual significant long-term negative impacts on the environment or sensitive receptors would occur.

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.

Proper Planning and Sustainable Development

The proposed road development would deliver a key component of the National Transport Authority's BusConnects programme with the stated aim to improve bus services across the country. It would also provide safer infrastructure for pedestrians

and cyclists and would deliver sustainable connectivity and integration with other transport services. The public realm along the bus corridor would also be improved.

The Board considered that the proposed road development, subject to compliance with the conditions set out below, would be in accordance with national, regional and local planning policies, including multiple policies and objectives set out in the Dublin City Development Plan 2022-2028 and having regard to all relevant provisions, including zoning objectives, at or adjoining the overall scheme area. It is further considered that the need, justification and purpose of the proposed road development has been adequately demonstrated, that it is acceptable in terms of its likely effects on the environment and that an approval for the proposed road development would be consistent with national climate ambitions and with the relevant provisions of the Climate Action Plan 2024 through the delivery of an efficient, low carbon and climate resilient public transport service, which supports the achievement of Ireland's emission reduction targets. The proposed road development would, therefore, be in accordance with the proper planning and sustainable development of the area.

12.0 **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.

2. a) All mitigation and environmental commitments identified in the Natura Impact Statement shall be implemented in full as part of the proposed development.

   b) All mitigation, environmental commitments and monitoring measures identified in the EIAR shall be implemented in full as part of the proposed development.

   Reason: In the interest of development control, public information, and clarity.

3. In accordance with the Environmental Impact Assessment Report, a suitably experienced and qualified ecologist will be appointed by the contractor. The ecologist will advise the contractor on ecological matters during construction, communicate all matters in a timely manner to the developer (National Transport Authority) and statutory authorities as appropriate, acquire any licences/ consents required to conduct the work, and supervise and direct the ecological measures associated with the permitted scheme. Where appropriate, monitoring shall be undertaken by specialists. Monitoring schedules shall be included in Site Specific Habitats Protection and Re-instatement Method Statements.

   Reason: In the interest of environmental protection.

4. Prior to commencement of development, the developer shall submit for the written agreement of the planning authority an Otter Conservation Plan to include measures to maintain the presence of otter in the vicinity of the proposed development project and particularly preserve routes for the movement of otter in

the course of works on this project and subsequently between the River Liffey Estuary and Spencer Dock and the Royal Canal Basin and between the Liffey-Dodder confluence and the Grand Canal Basin. The plan shall also set out measures to minimise disturbance to otter breeding and resting places during the projects construction phase and include the provision of artificial holts to form new refuges for this species to compensate for the increased human disturbance of otter likely during the developments operational phase, and set out a program for the monitoring by otter specialists of the presence of otter in nearby sections of the River Liffey, the River Dodder, the Royal Canal and the Grand Canal Basin before, during and after the proposed works.

Reason: In the interest of the conservation of the otter, which is subject to a system of strict protection under the Habitats Directive (92/43/EEC) and is a QI species for the Wicklow Mountains SAC.

5. Prior to commencement of development, the developer shall submit for the written agreement of the planning authority the design and location of permanent guillemot nest boxes to be installed in its vicinity. These proposals shall include the installation of at least ten such nest boxes in the north wall of the Liffey quays downstream of the proposed Custom House Quay Boardwalk.

   Reason: In the interest of enhancing local biodiversity by providing nest sites for the black guillemot.

6. Prior to commencement of development, the developer shall agree in writing with the planning authority the details of the type of finishes/ materials for the proposed St. Patrick's Rowing Club building.

   Reason: In the interest of visual amenity.

7. Prior to commencement of development, the finalised location and type of cycle parking stands throughout the scheme shall be agreed in writing with the planning authority.

   Reason: In the interest of facilitating convenient and adequate bicycle parking.

8. Prior to commencement of development, the developer shall agree in writing with the planning authority details of the precise design and layout of pedestrian crossing facilities over cycle tracks at island bus stops on a case-by-case basis which shall be informed by the Cycle Design Manual (National Transport Authority, September 2023).

   Reason: In the interest of pedestrian and cyclist safety.

9. Prior to the commencement of any works associated with the development hereby permitted, the developer shall submit a Construction Traffic Management Plan and a Construction Stage Mobility Management Plan for the construction phase of the development for the written agreement of the planning authority. The Construction Stage Mobility Management Plan shall promote the use of public transport, cycling and walking by personnel accessing and working on the construction site. The agreed Construction Traffic Management Plan and Construction Stage Mobility Management Plan shall be implemented in full during the course of construction of the development.

   Reason: In the interest of traffic safety and promoting sustainable travel during the construction period.

10. In accordance with the Environmental Impact Assessment Report, all works to Protected Structures, and Structures of Cultural heritage interest shall be monitored and recorded by an Architectural Conservation Specialist, Re-instatement Method Statements shall be submitted to the planning authority to be held on file. The Architectural Conservation Specialist shall ensure adequate protection of the retained and historic fabric during the proposed works and across all preparatory and construction phases. Any features of new architectural heritage shall be made known to the Conservation Section of Dublin City Council as soon as is practicably possible.

    Reason: In the interest of environmental protection.

11. Noise monitoring shall be carried out during the construction phase of the proposed road development by the developer to ensure that construction noise threshold levels (L_{Aeq}, period) shall not exceed the levels set out in Table 9.7 (Construction Noise Threshold (CNT) levels for the Proposed Scheme) of Chapter 9 (Noise and Vibration) of the Environmental Impact Assessment Report. During the construction phase, noise monitoring shall be carried out at representative noise sensitive locations to be agreed with the planning authority as the work progresses along the scheme to evaluate and inform the requirement and/ or implementation of noise management measures. Noise monitoring shall be conducted in accordance with ISO 1996–1 (ISO 2016) and ISO 1996–2 (ISO 2017).
    Reason: In the interest of management of construction noise and protection of adjoining amenities.

12. 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 interests of environmental protection and public health.

13. Any new or improved surface water outfalls shall be constructed in a manner which protects riparian habitat and does not result in excessive erosion of such habitat.
    Reason: In the interest of habitat protection.

14. Prior to commencement of development, the developer, and/ or any agent acting on its behalf, shall prepare in consultation with the relevant statutory agencies, an updated 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.

The updated CEMP shall also include details of intended construction practice for the development, including hours of working, compound/ works area lighting, noise management measures and surface water management proposals.

The construction of the development shall be constructed in accordance with the updated CEMP.

Reason: In the interests of protecting the environment, the landscape, the integrity of European Sites and sensitive receptors and in the interest of public health.

15. The developer shall monitor queuing time/ delays at each works location and record traffic flows on the local road network at locations to be agreed with the planning authority. Such monitoring information shall be provided in a report to the planning authority on a weekly basis.

    Reason: In the interest of orderly development.

16. Prior to the replacement of trees, hedging and planting which is to be removed the National Transport Authority shall liaise with the relevant landowner with regard to the species, size and location of all replacement vegetation. The National Transport Authority shall also employ the services of an appropriately qualitied arboriculturist and Landscape Architect for the full duration of the proposed works to ensure landscaping and tree works are implemented appropriately.

    Reason: In the interests of visual and residential amenity.

17. Tree protection measures for all existing trees shall be put in place prior to the commencement of development or phases of development.

    Reason: In the interest of the protection of biodiversity.

18. All details of soft landscaping shall be submitted to the planning authority prior to implementation.

    Reason: In the interest of orderly development.

19. Comprehensive details of the proposed public lighting system to serve the Proposed Scheme shall be submitted to and agreed in writing with the planning authority, prior to commencement of development.
Reason: In the interests of public safety and visual amenity.

20. The developer shall facilitate the preservation, recording and protection of archaeological materials or features that may exist within the site. In this regard, the developer shall –
a) employ a suitably qualified archaeologist who shall monitor all site investigations and other excavation works, and
b) provide arrangements, acceptable to the planning authority, for the recording and for the removal of any archaeological material which the authority considers appropriate to remove. In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination.

All archaeological pre-construction investigations shall be carried out in accordance with the details specified within the Environmental Impact Assessment Report submitted with the application.

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.

21. Prior to the commencement of development, the applicant shall submit an Invasive Species Management Plan to the planning 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 interests of nature conservation and mitigating ecological damage associated with the development.

22. (a) 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 Transport Infrastructure Ireland Guidelines for the Treatment of Bats During the Construction of National Road Schemes.

    (b) No ground clearance shall be undertaken and no vegetation shall be cleared from the 1st day of March to 31st day of August, unless otherwise agreed with the planning authority.

    Reason: In the interest of protection of local biodiversity.

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

Liam Bowe
Senior Planning Inspector

6th June 2024

Appendix 1 - Submissions

1. Amphitheatre Ireland Ltd. (3Arena)
    - States that it is important that the construction of the Bus Connects scheme does not impact the functionality or usability of Point Square via North Wall Avenue.
    - Concerned that the venue does not appear to have been given adequate specific assessment and consideration in preparing the construction management plans (details set out in the Waterman Moylan Consulting Engineers report accompanying this submission).
    - Highlights the emphasis contained in planning policy within the Dublin City Development Plan 2022-2028 and North Lotts & Grand Canal SDZ on maintaining the operational benefits that the 3Arena provides for the Docklands and the City.
    - Recommend a number of considerations:
        - Two-way traffic be maintained on North Wall Avenue.
        - Classify Sherriff Street Upper and North Wall Avenue as HGV Designated Routes to facilitate production deliveries between the 3Arena and Dublin Port.
        - Consultation with 3Arena for scheduling of construction works.
        - Cessation of construction works at 9pm.
        - Access to the 3Arena at all times during construction works for delivery trucks, waste collection freighters and contractors.
        - Access when required by the Event Diary for articulated trucks to the northwest corner of the 3Arena during construction works for 48 hours before and 24 hours after an event.
        - Any alternative routes providing access to the 3Arena during construction works should be safe, suitable, and adequate to cater for traffic and pedestrians.
        - Access when required by the Event Diary for a 3m wide pedestrian route for the full length of North Wall Quay and Custom House Quay during construction works for 12 hours before and 6 hours after an event.

- Extend exceptions to ‘no right turn’ onto North Wall Avenue to include access for production deliveries to the 3Arena.
- Relocation of the existing bus stop (7623) and proposed bus stop at the existing car park on the south side of North Wall Quay so as not to interfere with the service yard at the front of the 3Arena.

2. Angela Nicholson & Others
    - Contend that the removal of 8 no. parking spaces and replacement with 2 no. spaces on Strand Street is unfair and unbalanced.
    - Offering spaces at Strasbourg Terrace is considered too remote for the residents.
    - Removal of a grassed area to provide the 2 no. proposed spaces is not indicated on the drawings.
    - Contend that the provision of a 2.5/ 3m wide cycle route within an existing carriageway 5m in width will cause congestion.
    - Contend that the proposed layout of the cycle route is cumbersome.

3. Bernadette O’Connor
    - Concerned about the two-way cycle track going through Pembroke Cottages, other streets in the area and Ringsend Park as she contends that existing cyclists’ behaviour is poor.

4. Carol Reynolds
    - Proposes an alternative cycle lane that would travel down Thorncastle Street (parallel to Pembroke Cottages), then onto to Cambridge Road and enter Ringsend Park via the existing gate on Cambridge Road.

5. CHQ Dublin Limited
    - Objects to the lands being temporarily acquired (Plot 1003(4).2c) and permanently acquired (Plot 1003(1).1c) for use as a construction compound.
    - Does not object in principle to the BusConnects proposals linking Ringsend to Dublin city centre but objects to the temporary acquisition of Plot 1003(4).2c for 2 years as this will significantly impact on pedestrian and

cyclist access to the CHQ Building and the through route between Custom House Quay and public transport facilities to the north of the building.

- Contend that the use of the public plaza will be severely curtailed.
- Unclear whether the CPO of the lands will result in the NTA assuming responsibility for an existing surface water culvert that runs through the plots.

6. Cllr. Claire Byrne
    - States that there does not seem to be good co-ordination with other key projects in the area such as the Dodder Greenway, the Coastal Mobility Route, Draft City Centre Traffic Management Plan, the National Demand Management Strategy, and the proposed Liberty Square redevelopment.
    - Concerned about the proposals to move the two Scherzer bridges to provide additional lanes to accommodate private vehicles.
    - Contends that walking and cycling capacity on the North Quays will be compromised by increasing the main thoroughfare from three to four lanes, contrary to DMURS.
    - Requests interim improvements at the junction with Samuel Beckett Bridge until completion of planned pedestrian/ cycling bridge at Forbes Street/ Blood Stoney Road.
    - Welcomes the proposal for the Dodder Public Transport Opening Bridge.
    - States that questions remain about the preferred cycling route through Ringsend Park with loss of green space and conflict with pedestrians, particularly elderly people.
    - Suggests alternative cycling routes on the grass verge on the northside of the wall that runs alongside the R131 Pigeon House Road; and through Thorncastle Street to connect with the Dodder Greenway and community facilities.

7. Custom House Docks Management Ltd. and Custom House Docks Basement Management Ltd.
    - Highlight their support for the Ringsend to City Centre Core Bus Connects project.

- Concerned that the successful operation of accesses/ egresses to and from the parking areas in Custom House Dock area of the IFSC is safeguarded during the Board's assessment of the application, as well as during the construction and operation stages of the project.
- Seek confirmation from the NTA whether the temporary acquisition of land will be for 24 months or longer and also seeks details of finishes to be installed on lands to be returned.
- Concerned about the impact of 'no right turn' onto Commons Street from North Wall Quay would have on the 370 no. space IFSC car park.
- Require certainty that infrastructure and utilities would not be affected during the construction phase.
- Request a binding condition for the applicant to proceed with the development in a timely fashion.

8. Dublin Cycling Campaign
    - Supportive of the Proposed Scheme on transport, environmental and health grounds.
    - Consider that there are too few cross-sections provided and several areas where designs should be improved for cyclists.
    - State that the Proposed Scheme needs to ensure that the needs of the 'interested but concerned' cohort (50-60%) of cyclists are met.
    - Urges the NTA to ensure that Universal Design principles are embedded in the scheme.
    - Support a number of modified elements of the Proposed Scheme as a result of the consultation process to date, including the new bridge across the Dodder, the relocation of the redundant Scherzer bridges, and the cycle route through Ringsend Park.
    - Wishes to have the following considered at detailed design stage:
        - Minimum width of 3 metres for two-way cycle tracks.
        - Clarity on implementation of the 30kph zones.
        - Highlights active travel constraints on the south side of Beckett Bridge, conflict between cyclists and motorists on Tom Clarke Bridge,

and the awkward arrangement for cyclists at the Kerlogue Road/ Strand Street entrance to Ringsend Park.
    - Note some recently built cycling infrastructure that is not reflected on the submitted drawings and seek tie-in with these, namely Seán Moore Road junction, the proposed 'quiet road' on the Pigeon House Road, and the widening of cycle tracks on Custom House Quay at the Docklands Centre building.
- Requests alterations in the form of:
    - Removal of the shared space on the south side of Beckett Bridge, and
    - Clarity on two-way cycle and shared 'greenway' track widths.

9. Hibernia Real Estate Group Limited
    - Stated owners of 50 City Quay, 1-11 Sir John Rogerson's Quay, Portview House, and Portview Apartments. Also, stated owners of properties on Windmill Lane, Britain Quay and Hanover Quay.
    - Welcomes the BusConnects project in terms of sustainable public transport and public realm improvements.
    - Concerned that the height of the proposed St. Patrick's Rowing Club clubhouse is excessive and will be injurious to their uninterrupted views over the River Liffey from Portview House on Thorncastle Street. Request the Board to reduce the height of the roof pitch by a suitable planning condition on any grant of permission.

10. Ivana Bacik T.D.
    - Expresses her support for the Proposed Scheme but also wishes to raise some concerns and observations that have been expressed by local residents about particular parts of the scheme.
    - Particularly welcomes the proposal for a bridge across the River Dodder that will allow pedestrians and cyclists continue to travel continuously on a segregated route.
    - Requests that the NTA consider an alternative solution to the shared pedestrian/ cyclist space at the southeast corner of Samuel Beckett Bridge.

- Raises the issues of impact on access and parking in the Cambridge Park/ Pembroke Cottages and Ringsend Park area.
- Requests that construction works take place during daytime hours in order to minimise disruption to the local communities, and that timely and regular communications about the works are issued to residents.
- Requests that impact on biodiversity be minimised and that existing tree cover along the route be preserved.
- Highlights that some residents may have to pay multiple fees to the Board in order to participate in the public consultation process on this and other BusConnects schemes - includes a press release dated 26th May 2023 outlining her concern about the fee of €50 that is required for her constituents to make a submission/ participate in the public consultation associated with the BusConnects project.

11. Joseph Taylor
    - Objects to the proposed cycle lane in Ringsend Park.
    - Contends that the implications of opening the park to 24 hour access could give rise to anti-social behaviour and a fall in the quality of life for local residents.

12. Mary O'Hanlon
    - Objects to the removal of car parking spaces and the green area on Strand Street.
    - States that the disabled car space at this location is no longer needed.
    - Concerned that the use of Ringsend Park on a 24 hour basis will result in anti-social behaviour.
    - Suggests alternative routes for the proposed cycle lanes.

13. Mary O'Neill, Ringsend & Irishtown Tidy Towns & Environment Committee
    - Believes that there are alternative cycling routes that would bypass Strand Street and cause less disruption to Strand Street and the green area on it.
    - Contend that noise levels on Strand Street will increase as a result of the Proposed Scheme.

- Contend that removing/ reducing the green open space on Strand Street will have a negative health outcome for people living on the street and will reduce their opportunities for social interaction.
- State that the fourteen trees located in the green open space on Strand Street need to remain in place in the interests of biodiversity and the health and well-being of residents.
- Contend that the introduction of a hard surface cycle route in place of an open green space contradicts RSES policy on sustainable drainage techniques.
- Highlight policy in the RSES for placemaking and green infrastructure.
- Suggests a number of alternatives for cycle paths in the area.

14. NWQ Devco Limited
    - Stated owner of 1 North Wall Quay (8-storey office building).
    - State that the submitted drawings do not accurately represent the existing junction arrangement at Commons Street with North Wall Quay and do not take account of the existing building's basement extents.
    - Question the practicality of the NTA acquiring a parcel of land over their basement area.
    - Query the necessity of providing a coach parking bay at their building.
    - Concerned about the structural integrity of their basement wall with coaches parking directly above on-street.
    - Request the Board to impose a condition on any grant of planning permission omitting the proposed coach stop at this location.

15. OPCO Customs House DAC
    - Confirm that they are not objecting to the CPO but state that they must continue to have access to and the use of the area in front of the hotel as a set-down lay-by for the purposes of business continuity.
    - Request that the Board impose a condition that facilitates them with full access to and use over this area.

16. Park Rite and IFSC Car Park
    - States that the proposal incorporating a ban on the right turn from North Wall Quay to Commons Street will affect up to 40% of the incoming customers to their car park.
    - Concerned about the possible impact on the financial viability of the car park as a result of this right turn ban.
    - Highlights that the car park is ideally located on the edge of the study area for the Draft Dublin City Centre Transport Plan 2023 to provide car parking for incoming drivers.
    - Requests that the existing right turn onto Commons Street is retained.

17. Rose Phipps & others
    - Acknowledge the importance of improved cycling infrastructure but believe that there are alternatives that bypass Bayview/ Pembroke Street/ Strand Street entirely.
    - Suggest a number of alternatives for cycle paths in the area.
    - Contend that removing/ reducing the green open space on Strand Street would adversely impact the health and well-being of residents and disrupt the natural habitat of wildlife.
    - State that two of the six car parking spaces to be removed from Strand Street are essential to the livelihoods of two families.
    - Contend that the short Irishtown aspect of the proposal requires more careful consideration.

18. Sheena Burke
    - Contends that removing/ reducing the green open space on Strand Street would adversely impact the health and well-being of residents and disrupt the natural habitat of wildlife.
    - Contends that the introduction of a hard surface cycle route in place of an open green space contradicts RSES policy on sustainable drainage techniques.
    - Highlights policy in the RSES for placemaking and green infrastructure.

- Concerned about the level of construction vibration that would be caused to her home.
- States that two of the six car parking spaces to be removed from Strand Street are essential to the livelihoods of two families.
- Suggests a number of alternatives for cycle paths in the area.

19. Spencer Dock Management Limited
    - Confirm their support for the Ringsend to City Centre Core Bus Connects Project.
    - Concerned that the CPO does not clarify or describe the full nature of the works that results in the requirement to acquire the lands.
    - Seek confirmation from the NTA about the duration of the temporary acquisition of land.
    - Seeks details of finishes to be installed on areas at the end of the temporary or permanent acquisition.
    - Highlight the location of the Emergency Access Routes associated with the Convention Centre Dublin (CCD) and the need for access at all times.
    - Seek confirmation that Coach/ Taxi Lay-by shown on the NTA Drawings is for the controlled set-down of visitors to the CCD.
    - Request the NTA to address an existing design deficiency in the vicinity of the CCD ramp signals.
    - Request that services associated with the proposed District Heating System be installed during the construction of the Bus Connects project.
    - Request that the 3 no. loading bays on Park Lane be extended during the construction works to assist Tesco Ireland.
    - Seek confirmation that pedestrian/ vehicular access and egress to both the south of the CCD and the ramped car park is maintained during the works.
    - Seek confirmation regarding the timeline for the finalisation of the CPO and the payment of any compensation.
    - Request that consideration be given to the widening of the Park Lane approach to the North Wall Quay to facilitate left and right turning vehicles queuing side-by-side.

- Seek reconfirmation and definition for the nature and reasons for labelling of ‘Temporary’ and ‘Permanent’ on the various CPO Notifications.
- Concerned about the impact of ‘no right turn’ onto Commons Street from North Wall Quay would have on the area.
- Concerned about traffic disruption, noise, dust, and emissions during the construction phase.
- Require certainty that infrastructure and utilities would not be affected during the construction phase.
- Request a binding condition for the applicant to proceed with the development in a timely fashion.

20. Waterside Block 9 Developments Ltd.
    - Welcomes the implementation of improved public transport infrastructure on North Wall Quay but concerned that the removal of two existing disabled-accessible car parking spaces at this location would have a detrimental effect on the accessibility of the City Block 9 site unless equivalent alternative facilities are provided.
    - States that the Disability Access Certificate granted for the building under construction on the site makes specific reference to these existing disabled-accessible car parking spaces.
    - Requests that any final permission granted for the Proposed Scheme includes a condition that at least 2 no. replacement disabled-accessible car parking spaces are provided as well as a general passenger set-down/ collection area adjacent to City Block 9.