



An
Bord
Pleanála

Inspector's Report ABP 316119-23

Development

Dart+ South West

Location

Between Hazelhatch and Celbridge
Train Station and Glasnevin

Planning Authority

Kildare County Council, South Dublin
County Council & Dublin City Council.

Applicant

Córas Iompair Éireann

Type of Application

Railway Order Application

Observers

See Appendix 1

Dates of Site Inspection

12/10/23, 24/02/24 & 06/03/24

Inspector

Pauline Fitzpatrick

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Abbreviations

AA	Appropriate Assessment
CAF	Common Appraisal Framework
CEMP	Construction and Environmental Management Plan
CIÉ	Córas Iompair Éireann
CLO	Community Liaison Officer
CTMP	Construction Traffic Management Plan
DCC	Dublin City Council
DCIHR	Dublin City Industrial Heritage Record
DMU	Diesel Multiple Unit
DHLGH	Department of Housing, Local Government and Heritage
ECow	Ecological Clerk of Works
EIAR	Environmental Impact Assessment Report
EIA	Environmental Impact Assessment
EMU	Electrical Multiple Unit
EPA	Environmental Protection Agency
GHG	Greenhouse Gas
GDA	Greater Dublin Area
GSI	Geological Survey of Ireland
HGV	Heavy Goods Vehicle
IÉ	Iarnród Éireann
KCC	Kildare County Council
LDA	Land Development Agency
LOC	Location Cases
MCA	Multi Criteria Analysis
NIS	Natura Impact Statement
NIAH	National Inventory of Architectural Heritage

NTA	National Transport Authority
OB	Over Bridges
OHLE	Overhead Line Equipment
RO	Railway Order
RPS	Record of Protected Structures
SEB/SER	Signalling Equipment Buildings/Rooms
SDCC	South Dublin County Council
SDZ	Strategic Development Zone
TII	Transport Infrastructure Ireland
UB	Underbridges
WHO	World Health Organization
ZoI	Zone of Influence

1.0 Introduction

- 1.1. This report relates to an application by Córas Iompair Éireann (CIÉ) for a Railway Order (RO) for the DART + South West (Hazelhatch & Celbridge Station to Heuston Station, and Heuston Station to Glasnevin) rail project, made pursuant to the provisions of Section 37 of the Transport (Railway Infrastructure) Act 2001 (as amended and substituted).
- 1.2. It is proposed to compulsorily acquire certain lands on a permanent or temporary basis in order to implement the proposed development.
- 1.3. As required by section 37(3) of the Act the application is accompanied by a draft RO, a plan of the proposed works and a Book of Reference.

2.0 Project Background

- 2.1. The applicant made a request to enter into pre-application consultation under section 47B of the Transport (Railway Infrastructure) Act 2001, as amended, on 01/12/20 (ABP 308826-20). The Board directed the applicant to serve certain prescribed bodies with a copy of the draft RO and accompanying documents in a Direction dated 06/10/22.
- 2.2. The applicant subsequently lodged a section 37 RO application on the 22/03/23 which is accompanied by an EIAR, NIS, draft RO, related drawings and various technical appendices and associated documents including Schedules, Book of Reference and statutory notices.

3.0 Site Location and Description

3.1. Overview

- 3.1.1. The project corridor extends from Hazelhatch & Celbridge Station to Heuston Station on the Cork Mainline and to Glasnevin Junction via the Phoenix Park Tunnel Branch Line. The total length of the proposed development is approx. 20km; approx. 16km on the Cork Mainline and 4km on the Phoenix Park Tunnel Branch Line.

3.1.2. There are a total of 38 bridges which cross the existing railway line comprising a mix of overbridges (OB) and underbridges (UB).

3.1.3. For ease of reference the project is divided into 4 no. zones (corresponding with those used by the applicant) travelling along the railway corridor from west to east/northeast.

3.2. Zone A – Hazelhatch & Celbridge Station to Park West & Cherry Orchard Station.

3.2.1. This zone commences approx. 750 metres to the west of Hazelhatch & Celbridge Station and extends through the station eastwards under a series of existing bridges to Park West & Cherry Orchard Station. It comprises roughly half of the project in terms of distance (10km). There are ten road overbridges and footbridges which link areas both north and south of the railway line. The rail corridor comprises four tracks.

3.2.2. There are 5 no. stations in this zone commencing at Hazelhatch & Celbridge, followed by Adamstown, Kishoge (currently not operational), Clondalkin/Fonthill and Park West & Cherry Orchard.

3.2.3. The corridor is predominately at grade save for a number of retaining wall structures in the vicinity of Park West & Cherry Orchard Station.

3.2.4. The corridor extends east through a rural, farmed landscape from Hazelhatch & Celbridge Station, the residential areas of Adamstown and west of the R120 (Newcastle Road, also known as 12th Lock Road and Adamstown Road). Continuing eastwards the line travels towards Kishoge Station and onward to Clondalkin/Fonthill Station with residential areas located to the north and farmland to the south of the rail line. This area south of the rail line comprises the Clonburris Strategic Development Zone (SDZ) for which significant development is planned. The landscape changes as the line moves east and becomes more industrial/commercial in nature east of Clondalkin. The line passes under the M50 and onto Park West & Cherry Orchard Station.

3.3. Zone B: Park West & Cherry Orchard Station to Heuston Station

- 3.3.1. East of the M50 motorway, the western end of this section begins at Park West & Cherry Orchard Station and runs east, through an area that is generally characterised by residential properties to the north and industrial properties to the south including Park West. The line passes under a footbridge at Cherry Orchard (linking Cherry Orchard Avenue to Park West Industrial Park). It continues to pass under Le Fanu Road Bridge (OBC7) and Kylemore Road Bridge (OBC5A). The rail corridor is primarily in a cutting. The rail corridor initially comprises 4 tracks which narrow to two tracks at Le Fanu Road Bridge.
- 3.3.2. The lands to the north of the line comprise of existing residential communities including properties along, inter alia, Cherry Orchard Crescent, Cherry Orchard Avenue, Clover Hill Road, Le Fanu Drive, Le Fanu Road, Kylemore Drive and Landen Road. To the south, the line is bounded by Park West Industrial Park. Approx. 350m to the east of Kylemore Road Bridge (OBC5A) the Inchicore Works Depot fronts onto the existing rail line for c.1km along its southern boundary. The complex provides several track infrastructure and related facilities for the maintenance of rolling stock (Intercity trains), and offices for IÉ employees. The railway along this section comprises two main line tracks which are joined by two sidings which are used to access the depot and for train storage. From here, the rail line continues east to pass under what is locally known as Khyber Pass Footbridge (OBC5) which is a private footbridge for IÉ employees to access the Inchicore Depot from Sarsfield Road. The railway in this area currently consists of 3 no. tracks. The rail is at grade.
- 3.3.3. The line travels over Sarsfield Road Bridge (UBC4) and under Memorial Road Bridge (OBC3) where the line begins to run parallel to the Chapelizod Bypass. At this location it comprises of 3 no. tracks in a cutting. While the area to the south of the line at Kilmainham is predominately residential, a more varied mix of land uses is included in the area nearest to the railway line as the city centre is approached. The line then approaches the South Circular Road with two bridges carrying traffic over the railway – South Circular Road Bridge (OBC1A) and St John's Road Bridge (OBC0A). Notable land uses in close proximity to the project in this area include the Irish National War Memorial Park and the Royal Hospital Kilmainham (and its associated gardens), as well as St. John of God Special School. Higher density

residential developments have recently been constructed in the area including Clancy Quay at the former Clancy Barracks to the north of the railway corridor.

3.4. Zone C: Heuston Yard and Station

- 3.4.1. The area extends west to east from St John's Road Bridge (OBC0A) eastwards to include Heuston Station and from the CIÉ boundary along the Chapelizod Bypass northwards to the CIÉ boundary on the banks of the River Liffey.
- 3.4.2. This zone features the main Heuston Station building with an extensive railway yard area located to the west of this building. The station and yard area comprises ancillary buildings, platforms, track areas, car parks and maintenance facilities. It has 9 no. platforms. Platforms 1 to 8 are formed in a block of parallel tracks at the terminus end of the mainlines, and Platform 10 is situated alongside the Down Loop on the Phoenix Park Tunnel Branch Line. To the south of Platform 1, there are multiple sidings, with further sidings around the Valeting Depot and the Wash Road. To the north of Platform 8 there are the Guinness Sidings and the Carriage Sidings. Numerous Points & Crossings (P&C's) provide access to the platforms and train servicing facilities. There are a number of signalling structures controlling all of the passenger services and operational/ service requirements in the station area. There are a number of retaining walls in this area. There is a subway structure (UBC1A), providing access for IÉ personnel to the valeting plant at Heuston Yard. The National Train Control Centre is located between the Guinness sidings and the carriage sidings.
- 3.4.3. The topography of the site is flat, sloping gently to the east towards Heuston Station and north towards the River Liffey, where at the riverbank, there are steepened banks down towards the water's edge. St Johns Road is at an elevated level sloping east towards Heuston Station. The western approach of the railway into Heuston Yard is in cutting and this cutting reduces on entry into the yard.

3.5. Zone D: River Liffey Bridge to Glasnevin Junction

- 3.5.1. Zone D commences on the south bank of the River Liffey (adjacent to the northern boundary of Heuston Yard) and extends north east terminating at Glasnevin Junction. The route extends northwards over the River Liffey via the Liffey Bridge (UBO1) and under Conyngham Road Bridge (OBO2) after which it enters the

existing Phoenix Park Tunnel. The Phoenix Park Tunnel extends 690m under the Phoenix Park. It has historically been used for freight and maintenance and reopened for regular passenger traffic in 2016.

- 3.5.2. The line exits the Phoenix Park Tunnel close to the junction of Cabra Road and Navan Road and continues north under several road bridges. An Garda Síochána headquarters and McKee Barracks are located to the west. The surrounding area is otherwise predominantly residential with supporting local services. From the northern end of the Phoenix Park Tunnel the railway corridor is almost entirely located within steep cuttings. Bridges along this northern section of the line include McKee Barracks Bridge (OBO3), Blackhorse Avenue Road Bridge (OBO4), Old Cabra Road Bridge (OBO5), Cabra Road Bridge (OBO6), Faussagh Road Bridge (OBO7), Royal Canal and LUAS Twin Arch (OBO8), the Maynooth Line Twin Arch (OBO9) and heading east, under the Glasnevin Cemetery Road Bridge (OBO10). At this point, Glasnevin Cemetery is located to the north of the rail corridor with St. Paul's Cemetery located on the inside bend of the existing line to the south. The northern boundary of this section of the line is approx. 10 metres east of Glasnevin Cemetery Road Bridge (OBO10). After this point the line extends to join the Maynooth line and the interface with the proposed DART+ West Project at Glasnevin Junction. The rail corridor along this section comprises two existing tracks.

4.0 Proposed Development

4.1. Overview

- 4.1.1. The Dart + South West project consists of the electrification of the existing Cork Mainline from Hazelhatch & Celbridge Station to Heuston Station, and to Glasnevin Junction via the Phoenix Park Tunnel Branch Line. The project extent ties into the existing track at Glasnevin Junction and interfaces with the DART+ West Project, with the latter continuing to the Dublin Docklands area (Spencer Dock and Grand Canal Dock). The works extend across 3 no. administrative areas including Kildare County Council, South Dublin County Council and Dublin City Council. The total length is approx. 20 km.

- 4.1.2. A key requirement of the DART+ South West Project is to separate Intercity and fast regional services from the future DART service. This allows the potential for the faster Intercity and regional services to overtake future DART services that, due to their higher frequency of stops, would operate at a slower average speed. The last remaining constraint is the area between Park West & Cherry Orchard Station and Heuston Station with the current two and three track alignment. The upgrading of this section of railway to include four tracks will remove this limitation and allow Intercity/regional services and freight services to operate efficiently alongside DART services.
- 4.1.3. The proposed project is seeking to increase train capacity from the current 12 trains per hour per direction to 23 trains per hour per direction and increase passenger capacity from the current peak capacity of approximately 5,000 passengers per hour per direction to approximately 20,000 passengers per hour per direction.
- 4.1.4. The project will require modernisation and modifications to the existing railway line, including general linear and ancillary works (drainage and utility diversions) to facilitate the electrification of the line and the upgrade of the existing network. It will complete four tracking between Park West & Cherry Orchard Station and Heuston Station. In addition, specific elements are required at certain locations along the route such as electrical substations to provide power to the network.
- 4.1.5. In order to maximise the capacity of the system (i.e. by reducing train crossing conflicts) the electrified tracks will be to the north of the Cork mainline tying into the Phoenix Park Tunnel Branch Line. The non-electrified tracks will be to the south tying into the terminating platforms at Heuston Station.
- 4.1.6. In summary the works entail:
- Widening of the railway corridor and completion of four tracking between Park West & Cherry Orchard Station and Heuston Station. In this regard, a continuous four track layout along the Cork Mainline from Hazelhatch to Heuston Station, comprising two Slow electrified lines (northern track) and two Fast non-electrified will be provided,
 - New/additional crossovers (when a train switches from one track to another across points) to accommodate the new operational model,

- Sidings modifications at Inchicore Works, to allow continuity of the operations,
- Track geometry and improvements (within the current corridor's limits) to remove existing speed restrictions,
- Provision of overhead line equipment (OHLE). The DART wide programme will adopt a 1,500V Direct Current (DC) OHLE system. Electrical energy is supplied to the train through contact between the equipment mounted on the top of the train (pantograph) and an electrically live overhead cable. The cable is supported by a series of support structures and steel masts measuring 6m – 8.5 m in height which will be installed at intervals along the line. Typical spacing between OHLE support structures will be between 40m and 50m with a maximum spacing of 63m. Specific solutions for bridges are set out. The live overhead cable is fed electronically from individual substations to be located along the route. The project aims to achieve a minimum contact wire height of 4.4 metres throughout to ensure compliance with the relevant design standards, but some deviation from this standard may be required to match localised conditions. The support structures are generally supported from one side on the track (cantilever) or from both sides (portal) depending on the permanent way layout. Where there are adjacent walls the support structure can be fixed to the wall negating the need for vertical supports (stanchions). Vegetation clearance and management will be required for the safe operation of the OHLE. A setback of greater than 1.5 metres from the rear of the OHLE mast or 1.5 metres from any wire running between masts will be maintained.
- Modifications to bridges to achieve the necessary clearance and safety requirements (minimum parapet height of 1.8 metres). 6 no. bridges will be replaced/upgraded.
- Where bridge reconstructions are necessary associated roadworks will also be required including footpaths or cycle track reinstatement or enhancements.
- Track lowering to achieve the required vertical clearance under bridges to accommodate the OHLE.

- 6 no. traction electrical substations with each substation supplied from two independent 38kV circuits.
- A new DART station is to be provided on lands at Heuston Station.
- Passive provision for future DART stations at Kylemore and Cabra.
- Road and track drainage requirements.
- Security fencing (new and upgraded).
- Retaining walls which will vary in accordance with soil conditions, proximity to buildings and height of required retention.
- Acoustic barriers
- Upgrade of existing signalling system as well as replacing some of the legacy signalling system. This will include the provision of Signalling Equipment Buildings/Rooms (SEB/SER) and Location Cases (LOC) in addition to other technical buildings and cabinets including Signalling Equipment Buildings (SEBs), Principal Supply Points (PSPs) and Auxiliary Supply Points (ASPs).
- Cabling routes and telecommunications system including Telecom Equipment Rooms (TER). TERs are typically located within stations.

4.1.7. The following table provides a summary of the works proposed in each zone.

Table 1: Key activities in each Zone

Location	Activities
Zone A - Hazelhatch & Celbridge Station to Park West & Cherry Orchard Station	<ul style="list-style-type: none"> • Installation of overhead electrification equipment for the 2 new DART lines; • Four new substations to facilitate the new electrified lines; and • A turnback at Hazelhatch & Celbridge Station.
Zone B - Park West & Cherry Orchard Station to Heuston Station	<ul style="list-style-type: none"> • Widening to four tracks between Park West & Cherry Orchard Station and the South Circular Road Junction;

	<ul style="list-style-type: none"> • Installation of retaining walls and anchoring, along sections of the route, where needed; • Installation of overhead electrification equipment for the two new DART lines; • Track modifications and interface works to connect the new track layout to Inchicore Depot; • Five bridge replacements / upgrades to accommodate the widening of the rail corridor required for four tracks; • Construction of a new cut and cover buried portal structure at South Circular Road Bridge (OBC1A) to accommodate the new DART lines; • One new substation to facilitate the new electrified lines; and • New drainage facilities including the installation of new underground attenuation tanks.
Zone C & D - East of St John's Road Bridge (Islandbridge) to Glasnevin Junction	<ul style="list-style-type: none"> • Installation of overhead electrification equipment; • One new substation to facilitate the new electrified lines; • A new dedicated DART station located at Heuston West; • New drainage facilities including the installation of new underground attenuation tank at Heuston West; • Track siding modification (short section of railway track adjacent to the main tracks

	<p>used for stabling of trains) at Heuston Station;</p> <ul style="list-style-type: none"> • Lowering of the tracks along parts of the route to enable the electrification infrastructure to pass through the existing bridges and tunnel with adequate clearance; • Construction, where needed, of new retaining structures to accommodate steepened slopes where the tracks are being lowered and where electrification masts are required; • Soil anchoring / nailing; • A new pump station in the vicinity of McKee Barracks to overcome a low gravity sewer across the line adjacent to Blackhorse Avenue Bridge (OBO4). • Modifications to an existing wet well and pump station to overcome inadequate drainage between the two twin arch structures; and • One bridge replacement / upgrade.
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4.2. Proposed Land Acquisition

- 4.2.1. The lands outside the applicant's ownership that are included within the red line of the application are subject to the proposed RO and compulsory acquisition. The applicant notes in the application form in respect of their legal interest, that the Transport (Railway Infrastructure) Act, 2001 (as amended and substituted) states at section 45 (1) that *"upon the commencement of a RO, the Agency of CIE shall thereupon be authorised to acquire compulsorily any lands or rights in, under or over land or any substratum of land specified in the order and, for that purpose, the RO shall have effect as if it were a compulsory order referred to in section 10(1) of*

the Local Government (No.2) Act, 1960 (inserted by section 86 of the Housing Act 1966”.

4.2.2. The draft RO includes a series of schedules (Book of Reference) identifying the affected lands including the following:

- Schedule 2 (Part 1) - Land which may be acquired
- Schedule 3 - Substratum land which may be acquired
- Schedule 4- Land of which temporary possession may be taken
- Schedule 5 - Land over which public rights of way or other easements may be acquired.
- Schedule 6 - Public rights, including public rights of way which may be extinguished or altered
- Schedule 7 - Public and private rights of way which may be temporarily interrupted
- Schedule 8 - Roads including public roads which may be altered, realigned or closed.

An amended Book of Reference was submitted to the Board on 13th March 2024.

5.0 Local Authority Submissions

5.1. Dublin City Council (DCC)

Introduction

Supportive of the project.

Description of Proposed Development

(see section 4 above)

Relevant Planning History

Applications close to the area of works are provided in Appendix B of the NIS (not exhaustive).

Note: An appendix of recommended conditions is attached to the report.

5.1.1. Assessment

Planning Policy

Relevant policies and objectives of the current Dublin City Development Plan 2022 set out.

Environmental Impact Assessment Report

Notes that EIAR is provided.

Natura Impact Assessment

The NIS is generally satisfactory. There is considered to be sufficient distance from the intended route of the DART+ to SAC and SPA sites with avoidance, design requirements and mitigation measures set out in the NIS so as to ensure that any impacts on the conservation objectives of the sites will be avoided during the construction and operation stages.

Zoning

Notes the zoning objectives of lands along the route.

The secondary elements/structures associated with the project fall within the definition of public service installation as defined in Appendix 15.

Amenity Impacts

Subject to appropriate amenity safeguards, and the application of appropriate conditions, the elements of the development which fall within the DCC boundary would not have any excessive or undue impact on the amenities of the area. Whilst there will be a degree of disruption during construction there is unlikely to be an adverse impact on amenities provided appropriate safeguards are in place.

Strategic Planning

The general arrangement and layout at Kylemore should be future proofed to accommodate a new station having regard to the potential future population associated with the 'City Edge' regeneration project.

Interaction with Other Infrastructure Projects

There are locations where projects overlap and will be required to take cognisance of one another. Coordination of timelines and phasing at the implementation stage will be important.

Environment and Transportation Department

- New Station - There will be a need for a clear and legible pedestrian and cyclist route between the new station and South Circular Road via Clancy Quay. Also, the connection between the station and the main Heuston Station concourse should be an attractive, secure route for pedestrians. A lift at the station is desirable from an accessibility point of view.
- It is important that new/upgraded bridges and infrastructure are not seen in isolation but are futureproofed to take into account other strategic public transport improvements planned such as LUAS extensions, BusConnects and Metrolink.
- At interchange hubs direct connectivity should be provided, where possible, between different modes, particularly between DART mainline stations and LUAS.
- Where possible, direct connectivity should be provided between stations and high density development.
- High quality connections and environments for pedestrians and cyclists in and around stations are an important consideration. Public realm improvements and public lighting, should be considered in line with street/bridge works where possible.
- Footpaths should meet the 2 metre minimum width.
- Where roads are being impacted provision must be made to ensure that the GDA cycle network can be accommodated, and all road bridges designed to provide the necessary width required. Where an overpass or underpass of the railway line is currently substandard in terms of pedestrian or cycling provision the opportunity to rectify the situation should be taken.
- Cycle parking should be provided.

- The cumulative impacts of construction traffic will need to be addressed in a Strategic Citywide Traffic Plan.
- Consideration to be given to public lighting in the detailed design process.

Drainage Planning Section

- Surface water to be managed so that discharge to public sewers is avoided, whenever possible, in line with DCC's Sustainable Drainage Design and Evaluation Guide 2021.
- Given the nature of the development which includes large sections of tracks located in deep cutting the risk of flooding during construction and operational phases will need to be carefully considered.
- A minimum distance of 3 metres (or greater for deep sewers) to be maintained between public sewers and all structures on site.

Conservation and Heritage Division

- The predicted impact on architectural heritage is relatively small.
- The requirements for OHLE are not flexible and there is no practical way of mitigating the impact. Similarly, the raising of parapets on bridges is a safety requirement.
- The recording of structures that are to be demolished can ensure that knowledge of their existence and character is preserved.
- Project impacts to be continuously monitored to inform and mitigate against any adverse impacts on architectural heritage during, rather than after the design process. Whilst elements of the historic railway infrastructure such as some bridge and stone embankment walls are not protected structures or recorded in the NIAH, they are considered to be of heritage significance within the surviving 19th century railway infrastructure of the city.
- The total length of wall to be demolished and rebuilt in the Inchicore Railway works (RPS 8744; BN-37) to be clarified.
- The total extent of historic stone retaining walls which will be removed along the south side of the track to the east of Inchicore is not provided (BH-42).

- Recording, dismantling and relocation of the signal box (RPS 8866: BH-33) at the Inchicore Works to be carried out under the supervision of the Conservation Architect with input from a relevant specialist should signalling equipment survive.
- The impact of the widening of the deck of Sarsfield Road Bridge (BH-43) on the surviving stone abutment walls of the bridge is not sufficiently detailed. Any interventions/repair of the historic abutments and associated retaining walls to be supervised by a conservation professional.
- The impact of lowering the railway track beneath Conyngham Road (BH-81), the Phoenix Park Tunnel (BH-82), the Royal Canal and LUAS Twin Arch Bridge (BH-12) and the Maynooth Line Twin Arch (BH-115) is not fully quantified including whether underpinning to the historic walls is required. Any underpinning works to be fully agreed. It is recommended that historic construction methods of the foundation level of the bridges be recorded.
- The use of painted black metal railing with mesh incorporated into the additional bridge parapet walls is of concern. The design of all interventions to bridge parapets should have input from the Conservation Architect. The proposed raising of the parapets to the bridge at McKee Barracks (BH -105) has the potential to be an adverse visual insertion within the curtilage of the barracks which is a proposed structure (RPS 768).

Archaeology Division

- Although the route, overall, is not subject to statutory protection under section 12 of the National Monuments (Amendment) Act 1994, the experience of other urban rail projects demonstrates that there is highly likely to be an impact on unrecorded archaeology as well as upstanding industrial heritage features listed on the Dublin City Industrial Heritage Record.
- Preference is for the policy of preservation in situ as outlined in section 3.4 of the Framework and Principles for the Protection of the Archaeological Heritage (1999).
- Appointment of project archaeologist recommended.

City Architect's Department

- Locations for emergency vehicle access need to be identified.
- Finishes and materials proposed for surface treatments require clarity.
- Any trees or plants to be removed should be replaced.
- Equal access for all.
- Percent for Art Scheme may apply.
- The proposed new Le Fanu Road bridge should be designed to accommodate pedestrians and cyclists and should be of contemporary design.
- Requirements for bridges at Kylemore Road and Memorial Road including accommodation of pedestrians and cyclists.
- Modifications to bridge parapets need to be carefully detailed to minimise both the visual and physical impact on the industrial heritage fabric.
- The station bridge and ramps at the new Heuston West station provide for a long and convoluted route. Lifts should be provided. The proposed pedestrian transfer route has narrow and non-continuous footpaths. The proposed public right of way along Waterloo Avenue through the Clancy Quay residential area is of critical importance. As the station is proposed to be unstaffed with station access closed during non-operation hours, clarification on how access will be controlled, positions of gate etc. is required.

Air Quality Monitoring and Noise Control Unit

- Noise Management Plan required before any night time works commence.

Housing Department

- Comments re. lands at Park West comparable to those set out in the Land Development Agency's submission summarised below.

5.2. South Dublin County Council (SDCC)

- The proposal is welcomed. It will be an important contributor to the delivery of housing, compact growth, employment, reduction in carbon emissions and facilitating a modal shift.

- The pertinent statutory planning policy documents are the Development Plan (including policy framework for Newcastle), Clonburris SDZ (from 2022 – c.7000-11000 dwellings) and Adamstown SDZ (from 2022 – 5240 dwellings). The non-statutory City Edge Plan (joint with Dublin City Council) would also benefit from Dart+ South West as Park West Station is located close to this area. Up to 2050 a build out of 400,000 dwellings and 75,000 jobs is anticipated.
- Location of substation at Kishoge acceptable in principle.
- Given the level of delivery of both housing and retail/commercial in and around the Adamstown District Centre and station it is important to consider the ongoing levels of construction in the area.
- Existing and proposed utility corridors need to be protected or facilitated. Important that any additional utility links or upgrades across the railway line are constructed prior to the electrification of the route. This will be particularly relevant in the Clonburris SDZ and Ballymount/Naas Road regeneration lands.
- There is need for close co-ordination of works within the Clonburris SDZ where temporary land take coincides with an area on which consent has been secured for housing.
- The future proofing of the design of the Kylemore Road bridge to take the loading of a future LUAS and passive provision for a station are critically important elements for the City Edge Project. Inclusion of Kylemore Station as part of this DART+ South West project recommended.
- It is important that the project links to existing public transport and active travel networks.
- Important that improvements to areas immediately surrounding stations are undertaken to ensure integration with existing and planned transport including walking, cycling, bus and taxi. Local public realm and public transport integration schemes should be progressed at each station.
- Any bridges that require changes to the parapets and walls should be designed in an aesthetically pleasing fashion. Bridges should be ‘future proofed’ to handle the further expansion of cycle and pedestrian paths.
- Project should not preclude future pedestrian and vehicle links across the rail line at Clonburris and as part of the Naas Road regeneration project.

- Substations should be cognisant of pre-existing planning proposals and should be sensitively sited.
- Requirements in terms of traffic management plan, construction waste, working hours, noise surveys.
- Sufficient archaeological, heritage and architectural studies and investigations to be undertaken.
- Impact of additional security fencing on mature trees and significant hedgerows need to be assessed.

Note: The submission includes comments from Water and Environment Section with regard to interface of the project with services at specific locations.

5.3. Kildare County Council (KCC)

The submission which is accompanied by reports from internal departments (appendix 1) can be summarised as follows:

- The proposal is welcomed. It has long been identified as one of the key determinants for growth in north Kildare and across the broader MASP area.
- The additional pressure on access and parking facilities at Hazelhatch & Celbridge station needs to be quantified. The upgrading of the facilities at the station should be included in the project and should include improved access for all road users, additional parking bays, electric charging and cycle parking.
- The provision of a park and ride facility should be investigated.
- If additional parking is not provided and improved access arrangements and active travel measures not put in place, haphazard parking in the vicinity of the station will arise, potentially creating traffic hazard.
- Design details including CEMP to be submitted prior to commencement of development.
- Additional tree planting/screening is required at the lime kiln at Stacumny (protected structure) to lessen the visual impact.
- ECoW to be retained.
- Invasive Species Management programme to be put in place.

- Preconstruction bat and badger surveys.
- Against planting of wildflower mixes.
- Qualified arborist should be engaged. Arboricultural Assessment report required.
- A final drainage and SuDS strategy should be completed prior to commencement.
- Irish Rail should actively engage with the OPW to implement the proposed Hazelhatch Flood Relief Scheme and amend the proposed flood risk mitigation measures accordingly.

Note: Recommended conditions are set out in each of the internal reports.

6.0 Prescribed Bodies

6.1. Geological Survey of Ireland (GSI)

- Use of the Groundwater Viewer is recommended to identify areas of High to Extreme Vulnerability and 'Rock at or near Surface' which can inform appropriate mitigation measures.
- The sources of information available detailed.
- There are no envisaged impacts on the integrity of the County Geological Site in the vicinity of the project at Phoenix Park.
- Should any significant bedrock cuttings be created it is requested that they be designed to remain visible as rock exposure rather than covered with soil and vegetated, in accordance with safety guidelines and engineering constraints.

6.2. Department of Housing, Local Government and Heritage (DHLGH)

6.2.1. Archaeology

- Is broadly in agreement with the findings. Conditions recommended.

6.2.2. Nature Conservation

- Having regard to the precautionary principle oil interceptors or other filtration devices should be installed on the inflows to the proposed attenuation tanks

in Inchicore and Heuston Station and to the Phoenix Park Tunnel drainage system which will outfall to the Liffey. Such an approach should assist in maintaining water quality in the Liffey.

- Mitigation measures for bats set out in the EIAR are generally satisfactory. It is not clear whether any bat roost survey was carried out of the mature trees present at Heuston Station which are to be removed to facilitate the new station. If not, it should be done as soon as possible. Landscaping of this area should also take account of the need to maintain/restore a mature tree belt along the Liffey in this area to minimise light.
- An otter holt has been identified in the vicinity of the works where it runs under the Royal Canal Twin Arch Bridge. Account will have to be had of this holt during works which should be co-ordinated with the works on other transport infrastructure projects planned for this area including Royal Canal Greenway and Dart+ West.
- Clarification as to whether certain orchid and other relatively rare plant species are still present on the Phoenix Park Tunnel Line with provision made for their retention in its landscaping.
- The Department agrees with the All-Ireland Pollinator Plan which advises against the planting of wildflowers outside a garden setting.

6.3. Transport Infrastructure Ireland (TII)

- It is unclear where and how boundary fence line treatments for both a temporary construction compound and a substation compound alongside the M50 at Park West are to be installed.
- Unable to ascertain or evaluate whether national road interactions within the PPP M50 maintained area, and all associated infrastructure assets including lighting, signage, boundary treatments and drainage arrangements have been considered appropriately. Construction management and maintenance to be outlined in sufficient detail prior to a decision being made on the Order.
- CTMP to be submitted prior to commencement of development.
- Access for the construction period and any subsequent monitoring and maintenance in relation to any works proposed, including temporary and permanent signage that affect the national road and associated junctions will require prior consultation.

- Separate structure approvals/permits, and other licences may be required in connection with the proposed works.
- The applicant should be required to outline specific mitigation and monitoring commitments with revisions made to chapter 5 of the EIAR and the proposed CEMP.
- Reference to and demonstration of compliance with TII requirements and publications should be reflected in revised drawings and documentation for both construction and operation phases of the development.
- Matters related to LUAS Electromagnetic Compatibility and Stray Current are not addressed. LUAS does not appear to be considered amongst land uses identified in the EMF study area.
- Subject to resolution of the matters detailed conditions are recommended.

The proposed RO will interact with the national road network schemes carriageways and structures, and the light rail networks tramways, tram stops and associated under and overground services at 3 no. locations: -

At the M50 between Junctions 7 (with the N4) and 9 (with the N7).

- Ownership of lands in RO noted. Occupiers are not recorded.
- The bridge may be subject to temporary possession. As M50 is a PPP, consultations with PPP contractors are required in relation to any works proposed.
- Potential construction and operation stage impacts on the safety, capacity and efficiency of the national road network must be carefully coordinated and managed in consultation with the Network Management section of TII.
- The application does not appear to include depictions or descriptions of the methodology for, or the type of fixings proposed to the underside of the M50 Ronanstown Railway Bridge. TII is not able to assess potential impact from fixings.

At the eastern side of Heuston Station where LUAS Red Line runs and Heuston Tram stop is located.

- In accordance with TII code of practice for engineering works on or near LUAS, works will require a specific construction methodology approach, co-ordinated with TII and the LUAS operator.

At the Royal Canal and LUAS twin Arch bridge under which the rail line travels

- Electrification upgrade of the railway line will occur under the bridge over which LUAS travels and substratum of land to the edge of that bridge and the tramway is indicated to be acquired as part of the scheme. It will have direct, indirect and cumulative impacts on LUAS infrastructure and services.
- The EIAR does not appear to contain any specific mitigation for the protection of LUAS and its associated services during track lowering and retaining structures installation.
- The works will require the preparation of a specific construction methodology approach co-ordinated with TII and LUAS operator.
- The location of existing LUAS underground and overground equipment require adequate clearances from electromagnetic interference (EMI), accessibility and fault scenario perspective. Careful consideration needs to be given to potential failure scenarios of the rail OHLE and/or LUAS OCS at structure OB08 and its vicinity and any associated impacts to the safety of people, staff and infrastructure and any adjacent equipment.
- Any temporary or permanent potential impacts to LUAS infrastructure will require full plans and details.
- Monitoring and appropriate mitigation of potential operational impacts should be identified and recorded as part of the EIAR and Order.
- Works adjacent to or interfacing with LUAS infrastructure to be carried out in accordance with TII's code of engineering practice. There is a requirement to obtain a permit from the LUAS operator.

7.0 Observations/Objections Received

113 submissions have been received from observers/objectors. I have divided the submissions into two groups; the 1st from persons/groups not subject to compulsory acquisition, the 2nd from owner/occupiers subject to temporary and/or permanent acquisition.

7.1. Group 1 – Observations/Objections to Proposed Project

The submissions can be summarised as follows:

7.1.1. Margaret Berigan (83 Kylemore Road)

- Damage to property with potential for subsidence.
- Wall being built over existing wall.
- Tree replanting
- Adverse impact on amenities arising from noise during construction and operational phases. Need for sound proofing.
- Vermin control
- Adverse impact on air quality.
- There should be a station serving the area.
- Compensation required for the disruption.

7.1.2. Sharon Matthews (48 Kylemore Drive)

- Adverse impacts on bats. Assessment was not adequate.
- 2 of the 3 bridges (Kylemore bridge and Le Fanu Bridge) that are proposed to be demolished have not been fully assessed/surveyed for bat roosts. Stating that access was not possible because of health and safety issues is not sufficient.
- Mitigation measures are not sufficient.
- Limited time to make submissions and limited availability of hard copies of the documentation including EIAR.
- No reference made in leaflets to increased diesel train capacity. Restriction should be placed on same. Potential health risks from emissions of NO₂, SO₂ and particulates. Applicant should be required to commission and publish more detailed reports on the impact on local pollution. Monitoring for NO₂, SO₂ and particulates along the tracks should be required in addition to publication of the results.
- Concerns about air quality controls during the construction phase.

- Noise and vibration. Mitigation measures do not take into account individual circumstances. Only those immediately adjoining the works would be considered for relocation. Her family home, within 50 metres, would not be considered.
- No nighttime works should be permitted.
- Traffic management during construction phase and impact on adjoining roads. Kylemore Avenue not suitable to handle the volume of traffic the diversions will cause. Traffic should be kept to more suitable roads.

7.1.3. **Catherine Clarke & Gerard Manly (15 Landen Road)**

- The proposed bridge reconstruction at the Khyber Pass will have an overbearing impact and will reduce their privacy. Recommend that the bridge be removed completely and the route that CIE workers are to use for the duration of the works becomes the new access to Inchicore Works.
- The widening of the Khyber Pass laneway, acquisition of land and removal of boundary wall will adversely impact their property's security.
- Removal of shrubbery and trimming of trees on neighbouring properties will expose their home to Seven Oaks apartment complex which will be overbearing and will reduce their privacy.
- There is currently a strip of unused ground (ref. 18832 T 302B) that is part of the Seven Oaks apartment complex which could be used to facilitate the widening of the Khyber Pass laneway and the repositioning of the footbridge. This option would avoid the removal of the west boundary wall and limit the impact on properties.
- Increased train movements with increased noise and vibration and potential impact on structural integrity of property.
- Impact on quality of life.
- Concerns re. EMF radiation.
- Impact on wildlife.
- No train stop proposed for the area.

7.1.4. **Noel and Anne Fitzgerald (33 Landen Road)**

- Increased noise and vibration with increased train frequency. Impact on foundations and structure of their property.
- Health concerns regarding the OHLE and EMF radiation.
- Impact on biodiversity.
- Vermin control.

7.1.5. **Elvire Callaghan** (67 Landen Road)

- A station at Kylemore Bridge should be conditioned as part of the development.
- Loss of enjoyment of her rear garden.
- Mitigation measures required to protect biodiversity including birds and bats.
- Monitoring of works during and post construction.
- Demolition of protected signal box to rear of 77 Landen Road.
- Safety impact of high voltage wires in close proximity to rear gardens walls needs to be addressed.
- Consideration of alternatives for the four tracking from Park West & Cherry Orchard Station to Heuston including expansion southwards on IÉ lands.
- RO documents are not easily interpreted.
- All residents bounding the proposal should be allowed to make a free observation.

7.1.6. **Janine Cooper** (69 Landen Road)

- A station at Kylemore Bridge should be conditioned as part of the development.
- Loss of enjoyment of her rear garden.
- Noise mitigation should be designed with reference to techniques of sound damping and sound absorption as well as sound screening measures.
- Visual impact and loss of privacy due to overlooking from trains.
- Safety impact of high voltage wires in close proximity to rear gardens walls needs to be addressed.

- The impact of the proposal on her shed is queried. Any auguring for the OHLE mast foundations should not impact on any structure.
- Mitigation measures to protect biodiversity including birds and bats required.
- Vermin control.
- Residents monitoring committee should be established for a period during and post construction.
- Consideration of alternatives for the four tracking from Park West & Cherry Orchard Station to Heuston including expansion southwards on IÉ lands.
- RO documents are not easily interpreted.
- The project design, potentially affecting bordering properties, is not complete and appears open to interpretation.
- All residents bounding the proposal should be allowed to make a free observation.

7.1.7. **Helen Shine** (147 Landen Road)

- Noise disruption during construction phase. Monitoring proposals queried.
- Noise with increased train frequency.
- Long term impacts on structural integrity of her house and land. Query whether there will be consequences in terms of house insurance.
- Impact of the retaining wall construction on back gardens.
- Vermin control.
- Overhead electrical cabling and safety.
- Visual impact on property.
- Inadequate communications.
- All properties backing onto the rail line are potentially impacted and a fee to lodge a submission is unreasonable.

7.1.8. **Residents of Kilmainham Square**

Seeking to:

- ensure no disruption to public access to the building including traffic diversion when upgrading the junction.
- No damage to the building and boundary. Pre and post construction surveys and monitoring required. The ground movement impact, as well as ground borne noise and vibration impact on the building during construction and operation has not been incorporated into the Draft RO.
- That all parts of the site as identified in the submission are subject to Stage 3 assessment and subsequent stages of assessment in liaison with the management company.
- Mitigation measures to maintain noise, vibration and dust to acceptable levels during construction and operational phases.
- Noise and vibration mitigation measures including sound barrier, sliding slabs, partial roofing of the line, compensation measures to upgrade apartment openings facing onto the rail line etc. should be included for this section of the railway. Issues with the applicant's noise assessments detailed in the submission.
- No disruption and/or adverse impact on internet connection as well as fibre optic cables running along the line during construction and operational phases.
- Cumulative impacts with permitted developments to be considered in CEMP.
- Mitigation measures in relation to biodiversity and air quality.
- Precedents to be applied to the risk assessments to ensure utilising best industry practice within implementation of the project.
- Liaison with residents.

7.1.9. **Leonard Hayes and Julien Joly** (110 Kilmainham Square)

- Concern regarding damage to their apartment during construction and operational phases.
- Sound level testing should be carried out in their apartment.
- A sound barrier the full length of the apartment development required.
- Increased train frequency will result in noise and vibration.

- Measures such as a soundproof canopy, a sound and vibration proof barrier on the retaining wall, composite track implementation, anti-vibration mats, anti-vibration blankets, insulating chambers, under sleeper pads, silent track tuned rail dampers etc. should be investigated.
- Community engagement required.

Note: Links and references given to reports on rail noise and vibration.

7.1.10. **Maria Gavin** (Apt. 111 Kilmainham Square)

- Overnight works during construction phase.
- Increased noise and vibration.
- Chemical pollution.
- Disruption to quality of life.

7.1.11. **Kate Joyce** (220 Kilmainham Square)

- Construction phase impacts including noise will have an adverse impact on her property.
- Despite an invitation the applicant did not include lower-level apartments in the noise level assessments. The EIAR has not properly assessed the impact on residents. It should have provided for sampling during a period of night time maintenance works for a realistic comparison and should have included sampling from lower-level apartments.
- The existing night time levels are above recommended WHO guidelines.
- The sampling of 3 apartments for vibration is not reflective of the impact. The statement that there will be no significant vibration during the operational phase is not accepted.
- Currently there is internet disruption as trains pass the building. It is likely this will deteriorate with increased train frequency.
- Insufficient detail provided regarding noise, vibration and air pollution mitigation in both construction and operational phases.

- The possibility of an overhead canopy (tunnel) for the line adjoining Kilmainham Square extending to South Circular Road Bridge should be given consideration.
- Mitigation measures such as sound/vibration proof barrier on the retaining wall along the length of the development, anti-vibration mats, anti-vibration blanket and silent track tuned rail dampers should be incorporated into the detailed design. There is also opportunity for an extended/additional tree barrier on land immediately adjacent to the railway line, along the length of the building.
- Need to ensure that there is no damage to the boundary wall or to Kilmainham Square buildings.
- Air pollution.
- Biodiversity loss. The loss of an existing green embankment could be addressed through the design of a canopy/tunnel above the railway corridor which could be planted.
- Poor public consultation and resident engagement.
- Irish Rail cannot rely on an Owner's Management Company as a form of public consultation. Engagement must be directly with residents.

7.1.12. **Michael Mara** (Apt. 413 Kilmainham Square)

- Adverse impact on amenities during construction phase with noise and disruption. Measures to exclude, minimise or buffer the amount of noise at night time queried.
- The noise and vibration testing are insufficient.
- Vibration is a regular occurrence.
- No information on mitigation of potential damage to the building.
- No details, design or information is available on noise and air pollution mitigation.

7.1.13. Orla Cassin (Apt. 504 Kilmainham Square)

- Increased noise and vibration. The testing undertaken in the complex was inadequate. The impacts have not been properly assessed.
- Insufficient details provided on mitigation measures.
- Consideration should be given to overhead canopy.
- Potential for damage to boundary walls and buildings. Important that a management and cost plan be undertaken.
- Increased air pollution and issues arising with air quality.
- Inadequate public consultation.

7.1.14. Claire Flahavan (Apt 25 The Wellington, Riverpark Apartments, Conyngham Road)

- Impact of noise and vibration during construction and operational phases. No detail provided as to proposed engagement with community in advance of activities.
- Impact on wildlife and ecology. CIE should be required to keep the wildlife habitat along the river intact and to time the works so as to avoid bird nesting seasons.

7.1.15. Residents of Glenbeigh Road

- Have not been consulted about the works.
- The proposal to construct a palisade fence on top of an existing low level masonry boundary wall will have a negative impact on the amenity enjoyed by residents, of what was an unused area of land between the low-level boundary wall and the edge the railway cutting. Irish Rail has long been aware of the use.
- There is no access to the gardens from the road. The laneway has been gated which has served to impact positively on the security of the railway. What little risk remains could be mitigated by some less intrusive means. New works will not achieve a greater level of protection than is already provided by the natural mature tree lined verge and boundary fencing.
- Alternative solution in consultation with residents is recommended.

7.1.16. Deirdre Joyce (36 Glenbeigh Road)

- The railway bank green verge and laneway behind the houses is a vital part of the amenity and culture of the neighbourhood. It has been used by the residents for a long period of time.
- She has not been consulted as part of the consultation process. The provisions of the Aarhus Convention have not been complied with.
- The railway line, itself, and site of the works is significantly below the level of the adjacent land embankment and wall (approx. 50 feet below the high embankment). While it is recognised that CIE is seeking to secure and protect the railway line by the boundary works, it will not achieve a greater level of protection than is already provided by the existing natural mature tree line and boundary fencing provided for by the residents over the years.
- Residents should be consulted on alternatives to the palisade fencing and repairs to the boundary wall as marked on Plan No.16, including choice of boundary materials to be used. State bodies should be demonstrating good design and ecological/green infrastructure when undertaking any works.

7.1.17. Lisa Fitzgerald & Jason Barron (48 Glenbeigh Road)

- Communications have been lacking.
- The residents have had access to the area behind the wall for 70 years.
- The proposal would have a long-term negative impact on the community. The lands have been maintained to the benefit of the community and nature.
- Security is not an issue. The lane way is secured at each end with residents, only, having access.
- If a fence is required, it should be 5 metres from the wall.

7.1.18. Mairead Cullen (56 Glenbeigh Road)

- The residents have had access to the area behind the wall for 70 years.
- The proposal would have a long term, negative impact on the community. The lands have been maintained to the benefit of the community and nature.
- Irish Rail have been long aware of the use of the land.

- Previous residents had an agreement with the railway operators that allowed access for a fee. This might be considered precedent
- Security is not an issue. The laneway is secured at each end with residents, only, having access. This has served to improve the security of the railway.
- If a fence is required, it should be 5 metres from the wall where it would run along the edge of the viaduct cutting.
- It is accepted that some formal agreement with residents might be necessary to protect Irish Rail's interest going forward.

7.1.19. John Blackman (58 Glenbeigh Road)

- The proposal to construct a palisade fence on top of the existing low level masonry boundary wall will have a negative impact on the amenity enjoyed by residents of what was an unused area of land between the low-level boundary wall and the edge of the railway cutting. Irish Rail has long been aware of the use.
- There is no access to the amenity area from the road. The laneway has been gated which has served to impact positively on the security of the railway. What little risk that remains could be mitigated by some less intrusive means.
- It is recommended that the palisade fence is erected 5 metres east of the low-level wall where it will run along the edge of the viaduct cutting without detriment to existing amenity. It is accepted that some formal agreement with residents might be necessary to protect Irish Rail's interests going forward.
- There is anecdotal evidence that lease agreements and nominal rents have previously been agreed between the railway operator and residents of Glenbeigh Road. This might be considered precedent.

7.1.20. Ann Nolan & Others (28, 32, 34, 36 & 38 Bannow Road)

- The compulsory acquisition for the substratum will have a direct impact on their property folios*.
- Communications packs were not satisfactory.

- Documents in information packs are inaccurate and do not include all structures built on properties.
- Building condition surveys should be made available to residents prior to commencement of construction.
- Irish Rail should confirm the time period for which recourse will be available.
- A community forum should be put in place.
- Noise during construction and operational phases. No clarity has been provided on what reduction measures will be implemented.
- Health concerns
- Visual Impact
- Potential for subsidence
- Vermin control measures required.
- Not clear which properties could be affected by flood risk and the mitigation measures to be put in place.
- The station at Carnlough Road should be provided at the same time.

*Not in Book of Reference

7.1.21. **Barbara Carbury** (53 Bannow Road)

- The compulsory acquisition for the substratum will have a direct impact on her ability to build on her site.*
- Communications packs were not satisfactory.
- Documents in information packs are inaccurate. Incorrect address referenced. Do not include all structures built on properties.
- Building condition surveys should be made available to residents prior to commencement of construction.
- Irish Rail should confirm the time period for which recourse will be available.
- A community forum should be put in place.
- Noise during construction and operational phases. No clarity has been provided on what reduction measures will be implemented.

- Dust and health concerns.
- Details required of building works visible from her property.
- Vermin control measures required.
- Not clear which properties could be affected by flood risk and the mitigation measures to be put in place.
- The station at Carnlough Road should be provided at the same time.

*Not in Book of Reference

7.1.22. **James Temple & Others** (287 St. Attracta Road, Cabra)

- Clarification required on station at Carnlough Road. Imperative that it is constructed at the same time.
- Community Forum should be established.
- Vermin control.
- Impact of noise. No clarity as to proposed mitigation measures.

7.1.23. **Cllr. Cieran Perry**

- Communications were insufficient.
- Maps provided are not an accurate reflection of the current built environment.
- Building condition surveys should be made available to residents prior to commencement of construction.
- Irish Rail should confirm the time period for which recourse will be available.
- Details should be provided of the legal effects of having a claim on part of a residential property due to the soil nailing or substratum lands.
- A community forum should be put in place.
- Noise during construction, especially soil nailing, should be completed during specified times.
- Vermin control measures required.

- Not clear which properties could be affected by flood risk and the mitigation measures to be put in place.
- The station at Carnlough Road should be provided at the same time.

7.1.24. Cllr. Hazel de Nortúin and Brid Smith TD

- Welcome the proposed development.
- Absence of plans to provide stations in Inchicore and Ballyfermot.
- What measures are proposed to address noise and air pollution?
- How will the works impact on rear boundary walls, trees, sheds etc. in each individual property?
- Vermin control measures
- Assurances required in respect of length of time of disruption to property.
- If there is possible impact on house insurance policies how should this be dealt with?
- Clarification if there would be a gap between gardens and retaining walls.
- Clarification if sound barriers will be installed.
- Impact of electrical cables on health.
- Impact of construction noise on children with special needs and elderly residents.
- Need for a monitoring committee to be established.

7.1.25. Proinsias Mac Fhlannchadha

- Supportive of the project but it fails to provide benefit for major tracts of Dublin City by not providing for rail stations at Kylemore, Ballyfermot and Cabra. Such stations would be supported by national, regional and local policies.

7.1.26. Land Development Agency (LDA)

- Welcomes the application.

- The LDA and DCC are currently progressing plans for significant residential development on local authority owned lands located at Park West Avenue (sites 4 and 5 in the Park West - Cherry Orchard LAP 2019). A Phase 1 planning application is to be submitted to the Board for 700 dwellings on a large portion of site 4. The remainder of site 4 and site 5 will be progressed for c. 400 homes. Site 4 adjoins the Park West railway station and rail line.
- Request no changes to location of temporary compound with temporary landscaping and high quality hoarding to be provided.
- The LDA seeks to ensure that the location and routing of the proposed temporary access road and cable infrastructure route be co-ordinated between all relevant stakeholders to ensure the DART + and residential led development at site 4 can proceed without conflict.
- The final alignment of the proposed electricity infrastructure routing should follow the proposed road centreline in order to minimise impact on and allow space for additional necessary infrastructures to serve the overall development of site 4.
- Some form of permanent tree and/or landscape planting is recommended either outside or inside the eastern and northeastern boundary fences of the proposed substation to ensure a landscape buffer is provided to site 4. This will ensure a green buffer is provided as sought by the LAP and will mitigate the visual impact of the substation which will, in future, be located opposite the housing and commercial development at site 4. Two options put forward.
- Request that the location, extent, access arrangements and duration of the temporary compound at site 5 are discussed prior to construction.
- Missed opportunity to provide for improved access and sustainable mobility measures to Park West train station. Access to the station is currently very poor.

7.1.27. Dublin Chamber

- Support the proposed development. Such projects are vital to sustaining growth and maintaining Dublin's competitiveness.

- A fast and reliable rail link from the commuter belt in Kildare directly to the city centre at Heuston Station would foster a major modal shift away from cars to public transport.
- This project, in isolation, will have a small impact. Implementation of the full DART + programme alongside MetroLink, BusConnects and the GDA Cycling Network Plan is required.
- It could assist in enabling community transformation by opening up areas to new opportunities. The increased capacity of the DART and its ability to create modal change can act as a catalyst for local regeneration.

7.1.28. Dublin Commuter Coalition

- The new station at Heuston West is welcomed. Stations at both Cabra and Kylemore are included in the GDA Transport Strategy 2022-2042 (Measure RAIL6). Their omission is inexcusable.
- There should be a programme to build the stations in parallel with DART + South West to avoid future disruption to the rail line. The Board is requested to attach a condition requiring their construction before the DART + South West line is operational.
- Lifts are required in the new station to allow for accessibility. Measure INT15 of the GDA Transport Strategy is relevant.
- The applicant should liaise with accessibility groups on the design of all stations to get a greater understanding of the design impact.
- Bike lockers should be included at the new station. Bicycle parking provision could be improved.
- Car parking spaces at the station should be limited to service vehicles and blue badge holders.
- The proposed access from the new station through to Heuston Station Road does not comply with DMURs and needs redesign. A convenient and safe walking and cycling route is required.
- Public access through Clancy Quay is crucial for increasing access to the station from both sides of the river.

- The new station only includes small shelters when a roof the length of the platform would be preferable. There is no retail space meaning that passive surveillance within the station will be limited and commercial revenue, which would support station operation/improvement, are foregone.
- The absence of a pedestrian access from Conyngham Road to Heuston West is a missed opportunity to link the residential and commercial developments along Conyngham Road with high frequency public transport.
- The CIE masterplan for Heuston includes the Liffey Railway Bridge Link as a potential pedestrian/cycle link. Including this as part of the Dart+ South West would expand the catchment population and would not preclude other options being pursued.
- The impediments to higher speeds between Heuston West and Glasnevin, with no stations in between, should be investigated to enable a higher speed and, therefore, higher capacity services.
- It is imperative that passive provision for electrification of the Dublin – Cork line is included as part of this project.
- The reinstatement of the Chapelizod and South Circular Road Bypass to the same road design is a missed opportunity to enhance active travel infrastructure linking Kilmainham and Islandbridge and to improve active travel connectivity to Heuston Station.
- The new pedestrian bridge at Inchicore Works should allow for public access to improve permeability in the area.
- The absence of plans to enhance the amenities at existing stations along the line is a missed opportunity to enhance passenger experience.
- The road design proposed for Kylemore Road and Memorial Road fails to meet the minimum requirements of DMURS.

7.2. Group 2 – Objections to Temporary/Permanent Acquisition of Land

The submissions received by landowners/residents along the proposed rail line are grouped into the 4 no. zones used by the applicant throughout its documentation.

A summary note is provided where land and/or substratum is being acquired or temporary possession of land is proposed. Where provided in the Book of Reference, the purpose of the acquisition is detailed.

Zone A: Hazelhatch & Celbridge Station to Park West & Cherry Orchard Station.

None

Zone B: Park West & Cherry Orchard Station to Heuston Station

Park West

7.2.1. Airscape Ltd. and related entities (lands at Park West Business and Industrial Park).

Note: c. 59, 944 sq.m. for temporary possession - main and satellite compounds, ESB MV Directional Drilling and haul routes.

2142.8 sq.m. substratum to be acquired - retaining wall anchors.

- Concerns that the temporary and permanent acquisition of lands at Park West Business and Industrial Park have the potential to adversely impact the operation and trading capacity of the existing businesses and the implementation of a permitted Strategic Housing Development ABP 312290-21.
- The works to the 38kV overhead powerlines should be co-ordinated between the ESB and CIE to provide a comprehensive proposal for undergrounding.

Kylemore Drive

7.2.2. Tracy Humphreys (49 Kylemore Drive)

Note: 80.3 sq.m. substratum to be acquired – retaining wall anchors

- Queries how far the anchors will extend into her garden and how it would affect her dwelling and shed.
- Noise and vibration during construction and operational phases.

- Lack of train station in Ballyfermot.

7.2.3. Paul O'Brien represented by Joe Mortell (65 Kylemore Drive)

Note: 83.2 sq.m. substratum to be acquired – retaining wall anchors

- The order would severely impact on his ability to realise the assets of Mr. O'Brien either by selling the property or renting it out based on the severe disruption during construction, in addition to constraints to its future extension.

7.2.4. Ciaran & Liona O'Toole (67 Kylemore Drive)

Note: 99.6 sq.m. substratum to be acquired – retaining wall anchors

- The extent of any compulsory purchase should be well defined, and the impact of substratum acquisition made clear. The fact that it would not impact on the future construction of a shed, office, dependent living accommodation should be in the form of a contract.
- An independent professional adviser should be made available to residents.
- Makes recommendations on noise and dust mitigation in addition to security.

7.2.5. Lillian Roe (91 Kylemore Drive)

Note: 112 sq.m. substratum to be acquired – retaining wall anchors

- Damage to property and potential for subsidence.
- Wall being built over existing wall.
- Trees should be replanted.
- Adverse impact on amenities arising from noise and dust during construction and operational phases. Need for sound insulation and compensation.
- Vermin control
- There should be a train station serving the area

7.2.6. Meghan Roe (91 Kylemore Drive)

Note: Acquisition as above

- There should be a train station serving the area.
- Concerns re. impact on back wall.

- The gap between existing and proposed retaining wall should be planted. This could prevent possible dumping.
- Concern that the retaining wall will block light to her property.
- Vermin control.
- Noise and vibration during operational phase and structural implications for her property.
- Assurance required that there would be no impact on structures within the property.
- Implications for house insurance and devaluation of property.
- Compensation required for any potential impacts.

7.2.7. Craig Delaney & Others (93 & 95 Kylemore Drive)

Note: 107.6 sq.m. & 86.3 sq.m. substratum respectively to be acquired – retaining wall anchors.

- Damage to property and potential for subsidence.
- Removal of trees.
- Wall to be constructed relative to existing wall.
- Vermin control.
- Air pollution.
- Increased noise and need for sound insulation.
- Train station for area should be provided.
- Compensation.

Kylemore Road

7.2.8. Patricia and Derel McFarlane (357 Kylemore Road)

Note: 14.2 sq.m. substratum to be acquired – retaining anchors

- Health concerns during construction.
- Hopeful that the trees along the road are not to be felled.
- Increased traffic along the road.

7.2.9. **Maria Manifold Doyle** (359 Kylemore Road)

Note: 115.8 sq.m. substratum to be acquired – retaining anchors

- Impact on structural integrity of property.
- Noise and disruption during construction.
- Access to driveway and privacy to front of housing during works.
- Query how access by service vehicles and trades persons will be impacted.
- Impact of noise and vibration on dog.
- Vermin control.
- Query whether utilities will be lost during construction.
- Dust and dirt during construction.

Kylemore Park North

7.2.10. **Breege, Lorraine and Shirley Lyons** (Unit 4 Kylemore Park North)

Note: 318.1 sq.m. substratum to be acquired – retaining wall anchors

- No detail provided as to what the works mean to their property.
- The area outlined comes in direct contact with the building.
- The substratum land acquisition would make their property unusable and would damage the structure of the building.
- Structural survey required prior to construction.
- The main commercial access is at the rear. If substratum works are carried out within the outlined red marked area it will remove the only access available to the warehouse area at the rear and render the warehouse unusable. As landlords they would be in breach of contract.
- Impact on future development of the site.
- Financial impacts on the business in the premises providing local employment, and financial impacts to them as landlords.

Westlink Industrial Estate/Kylemore Business Park

7.2.11. M7 Real Estate Ireland Ltd. PP. Onyx Ireland 2021 Propco IV Ltd. (Westlink Industrial Estate, Kylemore Road)

Note: 2847.8 sq.m. to be acquired – track, headshunt and retaining walls

3,019 sq.m. temporary possession – satellite compound, track and retaining walls

767.3 sq.m. substratum to be acquired – retaining wall anchors

- The compulsory purchase of Unit 1 would detract from the profile of the park onto Kylemore Road, thus reducing its visibility to passing traffic. Its use as a storage compound would cause further deterioration in the estate road.
- Unit benefits from the highest number of car spaces.
- No reference made to the long term plans for the unit post works. It would need to be ascertained how it will contribute to estate service charge.
- The applicant will be responsible for any enhanced advertising pertaining to occupiers' businesses so as to enhance the profile of the park and the increased costs of security monitoring.
- The proposed compulsory acquisition of ground under units 2-9 could have a negative impact on any potential future redevelopment value.
- It is assumed that the proposal will not cause disturbance as a consequence of vibration or impact the structural integrity of the property.
- Sufficient clearance to be maintained to ensure health and safety.
- Significant traffic congestion will arise during construction which will impact on occupants of the park. Traffic studies carried out in support of the works required.
- More consideration should be given to working hours to minimise the duration of the project.
- Compensation requirements detailed.

7.2.12. Marlet Property Group Ltd. (7 & 8 Kylemore Business Park Jamestown Road)

Note: 582.1sq.m. to be acquired – headshunt and retaining walls.

1926.9 sq.m. temporary possession – track and retaining wall

1097.1 sq.m. substratum to be acquired - pile anchoring,

- Prime GP6 Ltd. is the owner of the properties. Marlet is an associated company of Prime GP6 Ltd.
- The permanent land take will result in the complete sterilisation of the property resulting in the loss of business and any future use/development of the property.
- The proposed substratum acquisition would limit change of use or reconfiguration of the property.
- The proposed temporary possession area is somewhat of a moot point as, although it renders the whole property unusable for the duration of the possession, the property would already be sterilised by the proposed permanent and substratum acquisitions.
- The applicant should be required to review alternative engineering and access solutions.
- In other jurisdictions major works on existing rail infrastructure are accessed along the existing rail corridor, itself, or via long standing access points. For embankment and boundary works engineering solutions should be applied which fit within the lands already in CIE's ownership.

7.2.13. **Vardis Group** (7 & 8 Kylemore Business Park Jamestown Road)

Note: Acquisition as detailed above

- The proposal will result in the closure of the businesses currently operating on the property.
- The land take will result in the complete sterilisation of the property.
- Vehicles would no longer be able to access the property and the buildings thereon and all circulation routes within the property would be permanently closed.
- Whilst temporary possession is proposed the property would already be sterilised by the proposed permanent acquisition.

Landen Road

7.2.14. **Philip & Lilian Dalton** (17 Landen Road)

Note: 10.2 sq.m. to be acquired – bridge structure

5.7 sq.m. temporary possession – construction compound and haul route

- The reconstruction of the Khyber Pass bridge will adversely impact on their privacy and will be overbearing.
- The widening of the Khyber Pass laneway will require the removal of part of a boundary wall and acquisition of part of their property. This will impact on their property's security and amenity and will expose it to Seven Oaks apartments.
- The strip of unused ground within Seven Oaks could be used to facilitate the widening of the Khyber Pass laneway and repositioning of the footbridge. This would avoid the removal of the west boundary wall.

7.2.15. **Daniel Sheehan** (19 Landen Road)

Note: 24.2 sqm. to be acquired – bridge structure

75.2 sq.m. temporary acquisition – construction compound and haul route

- The permanent and temporary acquisition of his garden for the purpose of widening the Khyber Pass will require the removal of trees which will result in complete loss of privacy and will impact on security of his property. The trees currently provide a privacy and security screen both from people using the footbridge and from the Seven Oaks apartment complex.
- There is an area of unused ground (ref. 18832 T 302 8) within Seven Oaks apartment complex which could be used if the footbridge was re-aligned at a skew. Alternatively, one of CIEs proposals was to remove the footbridge completely and staff use another route.

7.2.16. **Pamela Lee** (23 Landen Road)

Note: 15.7 sq.m. to be acquired – bridge structure

83.7 sq.m to be temporarily acquired - construction compound

- The reconstruction of the bridge at Khyber Pass will have a direct impact on her property.
- The bridge should be removed completely and the route that CIE workers are to use for the duration of the works should become the new access.

- Serious health implications for resident with weakened immune system from construction phase.
- Health concerns from electrified lines and EMF radiation.
- Security risk.
- Loss of privacy.
- Increased noise and vibration with increased trains.
- The strip of unused land (ref. 18632 T 302B) that is part of Seven Oaks apartment complex should be used as the building site.

7.2.17. **Emma King** (197 Landen Road)

Note: 51.8 sq.m. substratum to be acquired – soil nailing

- The extent of land to be acquired and what will happen to the boundary wall is unclear. If it is to be replaced there are concerns that the wall height will reduce light into her property.
- The proposed acquisition of substratum would result in a serious devaluation of her property. It creates ambiguity regarding the ownership of the substratum and impact on potential extension of her property.
- Impact on her property from vibration.
- Potential increased risk of flooding and run off during construction.
- Concern about increased noise levels during construction and operational phases. Impact on her husband's creative work and their health and wellbeing.
- Due to proximity to residential areas night-time works should not take place.
- Impacts on biodiversity.
- Impacts arising from closure of local roads and disruption.
- Impacts on health from increased dust and decrease in air quality. The mitigation measures in the EIAR are not sufficient.
- The negative impacts on human health are underplayed in the EIAR.

7.2.18. **Nicole Concannon & Jason Byrne** (221 Landen Road)

Note: 42 sq.m. substratum to be acquired – soil nailing

- Dust and noise during construction and health impacts.
- Concerns about accidental spillages of fuel etc. and contamination with hazardous substances.
- Measures to protect their property from flooding.
- More traffic in area due to traffic diversions.
- Retaining wall will block light to their house and will impact on their shed and dog run.
- Damage to their house
- Devaluation of property.
- Impact on quality of life.
- Vermin control.

7.2.19. **Anne & Anthony Costello** (229 Landen Road)

Note: 58.2 sq.m. substratum to be acquired – soil nailing

- Noise during construction and operational phases.
- Security concerns during construction and operational phases.
- Removal of trees along the boundary would have an adverse visual impact allowing views into their property.
- Disturbance to animals which may migrate closer to their house.
- Adverse impact on property value arising from noise, potential disturbance to structural integrity, overlooking, future development potential and impact on future property sale.
- Sheds to the rear may be disturbed/damaged.
- Adverse impact on quality of life.

7.2.20. **Thomas Moroney** (231 Landen Road)

Note: 45.1 sq.m. substratum to be acquired - soil nailing

- Devaluation of property and potential impact on structural integrity.

- Noise during construction and operational phases.
- Security risks during construction and operational phases.
- The removal of trees will have an adverse visual impact and loss of privacy.
- Adverse impact on quality of life
- Disturbance of wildlife.
- Vermin control

7.2.21. **Teresa Galvin** (233 Landen Road)

Note: 40.6 sq.m. substratum to be acquired - soil nailing

- Devaluation of property.
- Increased noise during construction and operational phases.
- Security issues.
- The removal of the trees along the rear boundary will have an adverse, visual impact and will allow visibility into her property.
- General reduction in quality of life.
- Impact on biodiversity.
- Vermin control.

7.2.22. **Marie Brogan** (245 Landen Road)

Note: 46 sq.m. substratum to be acquired - soil nailing

- Access to rear garden curtailed during construction.
- Adverse impact on residential amenities from noise, dust and disruption during construction phase.
- Increased noise and vibration with increased train frequency
- Security issues posed by gap between her boundary wall and the retaining wall. The gap should be filled.
- Impact on house insurance

- Responsibility for structural issues should they arise.
- Impact on potential to build on her site.
- Derailment and safety risk with increased train frequency.
- Health and safety issues from electrical lines.
- Loss of biodiversity.
- Vermin control.
- Traffic disruption during construction.
- Diversion of utilities.
- A station in Kylemore should be constructed.

7.2.23. Rosemarie Kiernan (Lynch) (251 Landen Road)

Note: 46.9 sq.m. substratum to be acquired - soil nailing

- Impact of retaining wall on light to rear garden.
- Impact of soil anchors and recourse available should damage arise in the future.
- Noise with increased train frequency.
- Vermin control.
- Query whether legal advice will be provided.
- No train station being provided to serve Ballyfermot.

7.2.24. Laura Molson (275 Landen Road)

Note: 44.6 sq.m. substratum to be acquired – soil nailing

- Kylemore Station should be provided.
- The area is underserved by public transport.
- Impact on air quality from increased train frequency.
- Adverse impacts on amenities and health arising from noise and dust during construction phase.

- If there is a gap between the retaining wall and existing wall it should be planted with trees and/or shrubs.
- A pre-construction survey required. Concerns about future damage from increased frequency of trains.
- Devaluation of property.
- Vermin control.

7.2.25. **Adam Harrington** (275 Landen Road)

Note: 44.6 sq.m. substratum to be acquired - soil nailing

- More work required to minimise impact on properties.
- Lack of station serving the Ballyfermot area. No benefit to the community.
- It is unclear whether compulsory acquisition for substratum land rights affects the freehold folio of his property and the implications on buildings and resale.
- Assurance that there is no compulsory acquisition of land rights appears to be contradicted by the documents issued.
- Noise barriers and noise insulation and appearance of same is of critical importance.
- No specifics about whether his property is to be given noise insulation.
- Increase in capacity without noise mitigation would make life intolerable. Noise is already very high.
- It is not clear if the 18 noise locations are representative.
- Height of retaining walls and overshadowing.
- Adverse impacts during construction phase including vermin.
- The alternatives considered are queried.

7.2.26. **Breda Lakes** (291 Landen Road)

Note: 40.1 sq.m. substratum to be acquired – soil nailing

- No clear information on what is being proposed and potential impacts.
- Impact on future rental of property.

- Increase in noise and vibration. The trees along the boundary are to be removed. No commitment to provide a sound barrier.
- Queried whether the latest designs of railway line dampers are being fitted.
- Loss of privacy with removal of trees.
- Health and safety risks from overhead electrical lines and EMF radiation.
- Query the impact of the rods on structural integrity of dwelling. Concern that these rods will increase vibrations.
- Health and safety concerns about the substation.
- Vermin control.

7.2.27. Eliza Palumbo (293 Landen Road)

Note: 38.9 sq.m. substratum to be acquired – soil nailing

- Does not agree to any works around the property.
- The amenity of her garden is impacted by the current frequency of trains.

7.2.28. Alan and Shane O'Callaghan (313 Landen Road)

Note: 54.2 sq.m. substratum to be acquired – soil nailing

- Noise and pollution levels including vermin infestation during the construction phase will have adverse impacts including use of rear gardens.
- Proximity of rail line to dwelling and structural impacts arising from vibration. Anchors being placed underground could affect the foundations of their extension. Potential impacts to garden and shed. House insurance impacts arising.
- Health risk concerns associated with the proximity of the power lines.

7.2.29. Breda and Patrick Curran (409 Landen Road)

Note: 58.8 sq.m. substratum to be acquired – retaining wall anchors

- Adverse impact of noise and disturbance during construction.
- Security concerns regarding the gap of nearly 2 metres between the existing boundary wall and the retaining wall.

- Concerns re. substratum being acquired and works impacting on their property.
- Traffic disturbance arising from taking down of Kylemore Road bridge.
- Health impacts.
- Vermin control.

7.2.30. **Karen Balfe** (413 Landen Road)

Note: 71.3 sq.m. substratum to be acquired - retaining wall anchors

- Impact on light and amenity of her property from the high wall.
- Adverse impacts on residential amenities during the construction phase including noise, dust and vermin.
- Health concerns during the construction phase and increased train frequency during the operational phase.
- Structural impacts to her dwelling.

7.2.31. **Mairead Kirby** (419 Landen Road)

Note: 53.8 sq.m. substratum to be acquired - retaining wall anchors.

- Possible structural damage to dwelling and impact on boundary wall and trees from the proposed retaining wall anchors.
- Impact on future extension to her house and construction in rear garden.
- Impact on house insurance.
- Devaluation of property.
- Health impacts from high voltage electrical cable and substation.
- Noise during construction and operational phases.
- Air pollution.
- Traffic disturbance on Landen Road and Kylemore Road due to construction works.
- Loss of earnings from room rental.
- Vermin control

7.2.32. Catherine Malone (449 Landen Road)

Note: 94.7 sq.m. substratum to be acquired – retaining wall anchors

- Adverse impact of the metal rods on the property's foundations and responsibility should structural issues arise.
- Adverse impacts of construction phase.
- Increased noise and vibration arising from increased frequency of trains. Impact on amenities and structure of dwelling.
- Gap between secant piled wall and rear garden wall will lead to dumping and anti-social behaviour.
- Impact on property deeds and devaluation of property.
- Traffic impacts.
- No station serving the area.

7.2.33. John and Veronica Bolger (453 Landen Road)

Note: 261.1 sq.m. substratum to be acquired – retaining wall anchors

- Will be surrounded on two sides by construction works with supporting rods going from the rear wall to just under the front garden wall. At the rear there will be a secant piled wall with a compound to the side with track access for heavy machinery.
- If there is a gap between the railway wall and new secant piled wall it will become a rat run, area for dumping and a means to access property.
- Noise, dust, nuisance and damage to property during construction.
- Adverse impact on amenities of rear garden.
- Health concerns with proximity of high voltage electric cable.
- Applicant's responsibility for future damage to property including house foundations from vibrations.
- Visual impact.
- Access restrictions during construction.
- Noise from increased train frequency.

- Change to the house deeds, devaluation of property and implications for house insurance.
- No benefit to the community with no station in the area. The station at Kylemore should be constructed at the same time.

Seven Oaks, Sarsfield Road

7.2.34. Seven Oaks Owners' Management Company

Note: 64.2 sq.m. to be acquired within the site - bridge structure.

348.6 sq.m. temporary possession

- The mitigation measures to address noise will not be sufficient. Replacement of windows on every floor will be a minimum requirement.
- If the RO is confirmed it is recommended that compulsory acquisition compensation be directed to the management company's sinking fund.

Note: All the following residents are in the Book of Reference with the acquisition the same as detailed above.

7.2.35. Mary Kinane (Block A, Apt. 32)

- Increased train frequency strengthens the case for noise mitigation.
- Support replacement of windows on every floor.
- Compensation for compulsory acquisition should be directed to Seven Oaks Management Company sinking fund.

7.2.36. Margaret & Kiran Bul (Apt. 33, Block B)

- Queries who will be responsible for the upgrading of the windows.

7.2.37. Eoghan McIlwaine (Apt. 55, Block B)

- Concerns about noise.
- No station serving the area proposed.

7.2.38. Fiona Taylor (Apt. 59, Block B)

- Noise, access and transport disruption during construction.

- Noise and disruption with increased train frequency.
- Loss of access to/and ownership of commonly owned land as a result of compulsory acquisition (temporary and permanent).
- Replacement windows and door should be provided.
- Advance notification of when works are to take place at night should be provided.
- Mitigation measures to address noise to form part of the project.
- Compensation for land that is being acquired.

7.2.39. **Alicia Doyle** (Apt.61. Block C)

- Impact on residential amenity from noise during the construction and operational phases.

7.2.40. **Trevor Woods** (Apt. 66, Block C)

- Noise during construction and operational phases.
- New windows and doors required for sound insulation.
- Protection of trees.
- Query whether new bridge will impact on light to his apartment.
- Compensation queried.

7.2.41. **Sean Smallhome** (Apt. 80 Block C)

- Increased noise during construction and operational phases. Replacement of windows queried.
- Compensation queried.

7.2.42. **Geraldine Doyle & Martin Morrisey** (Apt. 85, Block C)

- The noise mitigation measures will not be sufficient. Replacement windows on each floor will be a minimum requirement.
- Compensation for compulsory acquisition should be directed to the Seven Oaks Management Company sinking fund.

7.2.43. **Gayle O'Brien** (Apt. 109, Block D) (2 videos with submission)

- She has a ground floor apartment. Replacement windows, only, proposed on floors 2 - 4 in blocks facing the works.
- Unacceptable noise during construction and operational phases will make her apartment uninhabitable.

7.2.44. **Deborah Mahony** (Apt. 114, Block D)

- Sound insulation required to address noise.

7.2.45. **Deborah Sullivan** (Apt.117 Block D)

- Need for noise cancelling windows and doors.
- Works at night would disrupt sleep

7.2.46. **Lisa Reid (Magee)** (Apt. 123, Block D)

- Adverse impact from noise. New windows and patio door will be required to reduce noise levels.
- Query how compensation will be dealt with in relation to the communal area being acquired.

7.2.47. **Patrick Walsh** (Apt. 162, Block E)

- Disturbance during construction and maintenance phases would be unacceptable.
- Query re compensation.
- Devaluation of property.

7.2.48. **Barry Kelly** (Apt 165, Block E)

- Concern about the amount of works that will be carried out in the Seven Oaks complex and the land being acquired by the project.
- Noise arising from increase in train frequency.

7.2.49. **Ian Hill** (Apt. 161, Block E)

- Funding should be provided to impacted householders to install noise mitigation measures.

- No station planned for Inchicore. Those impacted by the project cannot avail of its benefits.
- Devaluation of property.
- Need for the project post covid is queried. Working from home culture may invalidate the original business case.

7.2.50. **Karen Lynch** (Apt. 168, Block E)

- Adverse impacts from noise during the construction phase
- Windows and patio doors should be replaced.

7.2.51. **Dan O'Neill** (Apt. 169, Block E)

- Compensation for the installation of triple glazing on balcony and bedroom windows overlooking the track.

7.2.52. **Maeve O'Sullivan** (Apt. 177, Block E)

- Increase in noise from construction works and increased number of trains. It is queried what measures are being taken to reduce noise.

7.2.53. **Aisling Redmond Healy** (Apt. 191, Block F)

- Increased noise pollution and disruption with increased capacity.
- Query whether there would be sound insulation measures for apartments.
- Adverse impacts during construction including vermin.
- Compensation to residents queried.
- Impact on open space.
- Station should be provided.

Lally Road

7.2.54. **Joe Finn** (The Horse Sanctuary) (70, Lally Road)

Note: 3969.9 sq.m. temporary possession

- It is not clear what and for how long the lands will be required.

- No provision has been made for the relocation to an alternative site during the works, nor has any consideration been given as to where the horses will be accommodated while the lands are unavailable.

Sarsfield Road

7.2.55. Dan Ryan Truck Rental Ltd. (79 Sarsfield Road)

Note: 1716 sq.m. to be acquired

2257.1 sq.m. temporary possession

71.5 sqm. substratum to be acquired (22 Woodfield Avenue)

- The scheme will have a severe detrimental effect on the functioning and viability of the business.
- Buildings will be acquired and presumed closed for the duration of the construction phase.
- It is proposed to acquire a substantial area of land which is surplus to railway building requirements. This land is to be handed over for a use other than access purposes. This is considered to be the incorrect use of the compulsory purchase process and violates the landowner's rights.
- The development fails to supply accurate information regarding mitigation measures, design, and availability of the subject site during and/or post construction. It is not possible for the landowner to properly assess the impact and interference with its property and business. To confirm the order without such information would render it intrinsically flawed.

Inchicore

7.2.56. Patrick & Una Manning (6 Murray's Cottages)

Note: 54.6 sq.m. substratum to be acquired - retaining wall anchors

31.3 sq.m. temporary possession

- Concern that the proposed drilling under their property would have an adverse impact on it.

7.2.57. Peter Byrne (7 Murray's Cottages)

Note: 48.5 sq.m. substratum to be acquired - retaining wall anchors

22.2 sq.m. temporary possession - retaining and boundary wall construction

- It is unclear as to the exact nature of the acquisition, what works are to be carried out on his property and timeline for same.
- Given the age of the structure there are concerns for its structural integrity. Little detail has been provided.
- Monitoring and protection of the property during the works queried.
- There is insufficient detail before the Board to grant permission.
- Breach of constitutional rights to quiet enjoyment of his property.

7.2.58. Dermot Foley & Sinead Lanagan (8 Murray's Cottages)

Note: 155.9 sq.m. substratum to be acquired – retaining wall anchors

24 sq.m. temporary possession - retaining and boundary wall construction

- There is insufficient detail to describe the impact on their property.
- The document 'Zone B – Park West to Heuston Station' on pg. 15 (Earthworks Sheet 2) refers to a wayleave crossing their property. It is not clear as to whether this is intended as a wayleave during the limited period when works will occur adjacent to their property or if there are any long-term implications.
- The proposal will devalue their property with possibility of structural issues arising in the long term due to the proposed anchoring system.

7.2.59. Kieva McDermott (8 Woodfield Ave)

Note: 32.1 sq.m. substratum to be acquired - retaining wall anchors

- It is not known what depth the substratum being acquired is.
- Insufficient detail provided on impact to her property.
- The ground anchors could potentially obstruct future development or damage existing structure within her garden.
- Vibration could cause damage to property. Insufficient details given in relation to monitoring.

- No plans to replace the wall to be demolished like for like, which could impact on the heritage of the area.
- Monitoring of noise levels and lack of mitigation during the construction phase.
- Engagement of local community required.
- Details required on scheduling of construction. Works on both sides of the line should be undertaken simultaneously to minimise disruption.
- Increased noise and vibration levels during operational phase and potential damage to structures.
- Loss of biodiversity.

7.2.60. Nuala Goodwin (9 Woodfield Avenue)

Note: 28.1 sq.m. substratum to be acquired - retaining wall anchors

- The depth of the substratum acquisition is not known. Greater detail on impact required.
- Insufficient detail provided on impact on her property.
- Potential future obstruction to development of her property or damage to existing structure within the garden
- Insufficient detail in relation to vibration monitoring.
- Ongoing noise monitoring required.
- Disturbance during construction phase. Need for triple glazed windows and other safeguards.
- Increased noise and vibration during operational phase.
- Engagement with communities during construction phase.
- Lack of detailed conservation plans, particularly in relation to bats using the rear wall.

7.2.61. Cliona Martyn (10 Woodfield Ave)

Note: 31.4 sq.m. substratum to be acquired - retaining wall anchors

- No detail as to depth of substratum to be acquired.

- Impact on her property and potential future development.
- Insufficient detail in relation to vibration monitoring which could cause ongoing damage.
- No plans to replace the boundary wall like for like which could impact on heritage of area.
- Concerns regarding noise monitoring and how the community will be engaged with during the construction phase.
- Further details are required on the scheduling of construction.
- Disturbance both during construction and operational phases. Noise and vibration. Further mitigation is required.
- Biodiversity loss. Bats use the wall as a feeding corridor along the railway tracks.

7.2.62. **Gerard Greene** (12 Woodfield Avenue)

Note: 31.5 sq.m. substratum to be acquired - retaining wall anchors

- The depth of the substratum depth is not known,
- Sufficient detail on the impact is not provided.
- The ground anchors could potentially obstruct future development or damage the existing structure and boundary.
- There is insufficient detail on vibration and impact on properties.
- No plans to replace the wall to be demolished like for like.
- Concerns regarding noise monitoring and how communities will be engaged with during the construction phase.
- Further details are required on scheduling of construction. Works on both sides of the line should occur simultaneously.
- Night time construction will result in significant disturbance. Further mitigation is needed e.g. installation of triple glazing.

- Permanent disturbance with increased frequency in trains and potential damage to structures.
- Biodiversity loss. Lack of detailed conservation plans particularly in relation to bats using the rear of the wall as a feeding corridor.

7.2.63. **Aoife Lalor** (16 Woodfield Ave.)

Note: 31.9 sq.m. substratum to be acquired - retaining wall anchors

- No details of depth of substratum to be acquired.
- Impact of ground anchors on potential future development and damage to existing structure.
- There is insufficient detail in relation to vibration which could cause ongoing or future damage.
- Structural survey required prior to construction.
- No details to replace boundary wall like with like which could impact on the heritage of the area.
- Noise monitoring with lack of mitigation plans. Triple glazed windows and other safeguards required.
- Biodiversity loss and lack of detailed conservation plans.
- Further details required on scheduling of construction.
- Queries whether drainage would be affected.

Zone C: Heuston Yard and Station

None

Zone D: River Liffey Bridge to Glasnevin Junction

Sunnybank, Conyngham Road

7.2.64. **Phoenix Park Property Management CLG**

Note: 15.5 sq.m. to be acquired - OHLE mast requirements

53.1 sq.m. temporary possession – OHLE mast requirements

- Query as to what compensation is being offered

- Query as to process for remediation for damage within the apartment block.
- Query as to noise levels from electrification and whether noise impact assessment is to be undertaken.
- Steps to protect the building's integrity required.
- Query as to whether additional soundproofing is to be provided.

7.2.65. **Pamela Benson** (Apt. 9 Sunnybank, Conyngham Road)

Note: Acquisition as above

- Insufficient detail as to the consequences to her property during construction and in the long term. No details given as to the length of temporary possession and whether property will have to be vacated.
- Structural integrity of buildings close to rail line.
- No details provided on remediation process from damage caused by construction.
- Increased noise and pollution during construction and operational phases.
- Increased risk. The line is currently rarely used.
- Visual impact of electrified lines.
- Compensation not detailed.

7.2.66. **Angela Palmer** (Apt. 10 Sunnybank Conyngham Road)

Note: Acquisition as above

- The temporary acquisition order, construction period and finished project would adversely impact on the rental potential of the property.
- Impact of construction phase on noise, air quality, access, residential amenities and wildlife.

Cabra Road & Cabra Drive

7.2.67. **Flat Management Ltd.** (The Gables, 78 Old Cabra Road)

Note: substratum to be acquired for soil nailing - no area given

- Unopposed if fair compensation paid. Queries re. compensation.

- Drilling of soil anchors should be restricted to normal working hours. Works on both sides of the track should be scheduled to run concurrently.
- The use of steel rod soil anchors queried and whether there are alternative methods.
- Query what locations were soil tested in the vicinity of The Gables.
- Access to independent before and after surveys.
- Query whether other properties on Old Cabra Road are impacted by soil stabilisation proposals.
- Nuisance from noise, vibration, dust, lighting and sleep disturbance during construction and operational phases.
- Monitoring of noise and vibration.
- Provision of temporary off site residential accommodation.
- Acoustic screening is practicable.

7.2.68. **Vasile & Audrey Mindrescu & Thomasina Farrington** (Flat 4 The Gables, 78 Old Cabra Road)

Note: Acquisition as above

- Nuisance from noise, vibration, dust and lighting.
- Sleep disturbance during construction and operational phases.
- Monitoring of noise, vibration and dust.
- Acoustic screening is practicable.

7.2.69. **Joan Giltinan** (3 Cabra Drive)

Note: 44.3 sq.m. substratum to be acquired – soil nailing

- Impact of the substratum compulsory acquisition on her property folio.
- No information on soil nails previously installed and whether compulsory acquisition was required.
- The communications packs are not satisfactory. The documents included are inaccurate and do not include all structures built onto/within properties.

- Building condition surveys should be made available to residents prior to commencement of construction.
- Irish Rail should confirm the time period for which recourse will be available.
- Confirmation that the applicant will complete any remediation works on the boundary walls. Security of properties could be compromised.
- No information provided on the mesh fencing system to be installed.
- A community forum should be put in place.
- Vermin control measures required.
- Noise during construction. Soil nailing should be carried out on both sides of the track simultaneously. No clarity has been provided on what reduction measures will be implemented.
- Not clear which properties could be affected by flood risk and the mitigation measures to be put in place.
- The station at Carnlough Road should be provided at the same time.

7.2.70. Deiric O Broin (4 Cabra Drive)

Note: 36.4 sq.m. substratum to be acquired – soil nailing

- The compulsory acquisition for the substratum will have a direct impact on his property folio and potential to expand.
- The communications packs are not satisfactory. The documents included are inaccurate and do not include all structures built onto/within properties.
- Building condition surveys should be made available to residents prior to commencement of construction.
- Irish Rail should confirm the time period for which recourse will be available.
- Confirmation that Irish Rail will complete any remediation works on the boundary walls of the properties affected.
- Soil nailing should be carried out on both sides of the rail line at the same time.
- A community forum should be put in place.

- Noise during construction and operational phases. No clarity has been provided on what reduction measures will be implemented.
- Health concerns
- Visual Impact
- Potential for subsidence
- Not clear which properties could be affected by flood risk and the mitigation measures to be put in place.
- Vermin control measures required.
- The station at Carnlough Road should be provided at the same time.

Faussagh Avenue

7.2.71. Deirdre Cullen (2 Faussagh Avenue)

Note: 106.5 sq.m. substratum to be acquired – soil nailing

- The compulsory acquisition for the substratum will have a direct impact on her property folio.
- The communications packs are not satisfactory. The documents included are inaccurate and do not include all structures built onto/within properties.
- Building condition surveys should be made available to residents prior to commencement of construction.
- Irish Rail should confirm the time period for which recourse will be available.
- A community forum should be put in place.
- Noise during construction and operational phases. No clarity has been provided on what reduction measures will be implemented.
- Details required on building works and any structures which may be erected in the line of sight of her property
- Potential for subsidence

- Vermin control measures required.
- Not clear which properties could be affected by flood risk and the mitigation measures to be put in place.
- The station at Carnlough Road should be provided at the same time.

7.2.72. **Robert Cullen** (2 Faussagh Avenue)

Note: Acquisition as above

- The compulsory acquisition will have a direct impact on his property folio.
- The communications packs are not satisfactory. The documents included are inaccurate and do not include all structures built onto/within properties.
- Building condition surveys should be made available to residents prior to commencement of construction.
- Irish Rail should confirm the time period for which recourse will be available.
- A community forum should be put in place.
- Noise during construction and operational phases. No clarity has been provided on what reduction measures will be implemented.
- Details required on building works and any structures which may be erected in the line of sight of her property.
- Potential for subsidence.
- Vermin control measures required.
- Not clear which properties could be affected by flood risk and the mitigation measures to be put in place.
- The station at Carnlough Road should be provided at the same time.

7.2.73. **R & D Development Ltd.** (Matts of Cabra, 2A Faussagh Avenue)

Note: 1550.8 sq.m. substratum to be acquired - soil nailing

- The proposal has not had regard to the development capacity of its lands.
- A site-specific solution for soil retaining works should be examined and implemented to ensure minimal interventions on the site. A generic solution is proposed. The use of soil nails will significantly reduce the development

potential of the lands and, therefore, impact on land value. Use of gabions to act as retaining walls is an alternative solution. This would be significantly less intrusive. Gabions can be implemented in a shorter timeframe and have high permeability providing for good drainage. The proposed works represent the worst-case scenario.

- The RO should be conditioned to mitigate the impacts.

Bannow Road

7.2.74. Anne, William & Caroline Cumiskey (44 Bannow Road)

Note: 46.2 sq.m. substratum to be acquired – soil nailing

- The compulsory acquisition for the substratum will have a direct impact on their property folio.
- Impact of construction on occupant with serious medical conditions.
- The communications packs are not satisfactory. The documents included are inaccurate and do not include all structures built onto/within properties.
- Building condition surveys should be made available to residents prior to commencement of construction.
- Irish Rail should confirm the time period for which recourse will be available.
- A community forum should be put in place.
- Noise during construction and operational phases. No clarity has been provided on what reduction measures will be implemented.
- Health concerns.
- Visual Impact.
- Potential for subsidence.
- Vermin control measures required.
- Not clear which properties could be affected by flood risk and the mitigation measures to be put in place.
- The station at Carnlough Road should be provided at the same time.

7.2.75. Jackie & David Donohoe (48 Bannow Road)

Note: 32.5 sq.m. substratum to be acquired– soil nailing

- Communications packs and communications with applicant were not satisfactory.
- Building condition surveys should be made available to residents prior to commencement of construction.
- Irish Rail should confirm the time period for which recourse will be available.
- A community forum should be put in place.
- Noise during construction and operational phases. No clarity has been provided on what reduction measures will be implemented.
- Dust emissions and air quality and impact on health
- Further details required on building works and structures which may be erected in the line of sight of their property.
- Vermin control measures required.
- Not clear which properties could be affected by flood risk and the mitigation measures to be put in place.
- The station at Carnlough Road should be provided at the same time.

7.2.76. Amanda Vaughan (56 Bannow Road)

Note: 65.6 sq.m. substratum to be acquired – soil nailing

- The compulsory acquisition for the substratum will have a direct impact on her property folio, could impact on future potential to extend and ability to top up mortgage. It would depreciate the property value.
- The communications packs are not satisfactory. The documents included are inaccurate and do not include all structures built onto/within properties.
- Lack of public consultation.
- Building condition surveys should be made available to residents prior to commencement of construction. Annual surveys should be conducted for 5 years after completion of works.
- Irish Rail should confirm the time period for which recourse will be available.

- A community forum should be put in place.
- Noise during construction and operational phases. No clarity has been provided on what reduction measures will be implemented.
- Health concerns.
- Visual Impact.
- Potential for subsidence.
- Vermin control measures required.
- Not clear which properties could be affected by flood risk and the mitigation measures to be put in place.
- The station at Carnlough Road should be provided at the same time.

7.2.77. Michelle Moulder (nee Burke) (64 Bannow Road)

Note: 73.4 sq.m. substratum to be acquired - soil nailing

- The compulsory acquisition for the substratum will have a direct impact on her property folio, ability to top up her mortgage and future ability to build on her land without consulting Irish Rail.
- The communications packs are not satisfactory. The documents included are inaccurate and do not include all structures built onto/within properties.
- Building condition surveys should be made available to residents prior to commencement of construction.
- Irish Rail should confirm the time period for which recourse will be available.
- A community forum should be put in place.
- Noise during construction and operational phases. No clarity has been provided on what reduction measures will be implemented. Soil nailing should only be undertaken during weekday working hours.
- Provision of further details regarding the building works and any structures which may be erected in the line of sight of her property.
- Concerns regarding possible subsidence. Her garden currently dips in the centre and any works may lead to further dipping.

- Vermin control measures required.
- Not clear which properties could be affected by flood risk and the mitigation measures to be put in place.
- The station at Carnlough Road should be provided at the same time.

7.2.78. **Frances Moss** (66 Bannow Road)

Note: 79.1 sq.m. substratum to be acquired – soil nailing

- The compulsory acquisition for the substratum will have a direct impact on her property folio.
- The communications packs are not satisfactory. The documents included are inaccurate and do not include all structures built onto/within properties.
- Building condition surveys should be made available to residents prior to commencement of construction.
- Irish Rail to confirm that it will complete any remediation work on the boundary walls that may be damaged during soil nailing. Security of properties could be compromised.
- Irish Rail should confirm the time period for which recourse will be available.
- A community forum should be put in place.
- Noise during construction and operational phases. No clarity has been provided on what reduction measures will be implemented.
- Soil nailing should be undertaken on both sides of the line at the same time.
- Dust emissions and air quality. The locations to be profoundly impacted as referenced in the EIAR are not identified.
- Vermin control measures required.
- Not clear which properties could be affected by flood risk and the mitigation measures to be put in place.
- The station at Carnlough Road should be provided at the same time.

St. Attracta Road

7.2.79. **Nicola Kelly** (245 St. Attracta Road)

Note: 43.9 sq.m. substratum to be acquired – soil nailing

- The compulsory acquisition on the substratum lands will have a direct impact on her property and on her property folio. It will impact her ability to top up her mortgage and future ability to build on her site without first consulting Irish Rail
- Concerned re. acquisition and that the 43.9 sq.m. being acquired appears to be more than is needed. Queries the impact of the rods on her shed.
- Queries whether the boundary of her property will be affected.
- Communications have been insufficient.
- The documents are inaccurate including not showing structures built on sites.
- Property condition surveys should be made available to residents prior to commencement of construction.
- Irish Rail to confirm the period for which recourse will be available on completion of works.
- Community forum should be put in place.
- Impact during construction including noise. No clarity has been provided on noise reduction measures.
- Health impact concerns from the construction and operational phases.
- Visual impact
- Potential for subsidence
- Vermin control. Impact of poison on her dogs.
- Potential for flooding. Which properties are affected and the mitigation measures that will be in place are unclear.
- The station at Carnlough should be constructed at the same time as the Dart + South West.

7.2.80. **William Hyland** (255 St. Attracta Road)

Note: 39.8 sq.m. substratum to be acquired – soil nailing

- The compulsory acquisition on the substratum lands will have a direct impact on his property and on his property folio.
- Communications have been insufficient.
- The documents are inaccurate including not showing structures built on sites.
- Property condition surveys should be made available to residents prior to commencement of construction.
- Community forum should be put in place.
- Irish Rail to confirm the period for which recourse will be available on completion of works.
- Impact during construction including noise. No clarity has been provided on noise reduction measures.
- Health impact concerns from the construction and operational phases.
- Visual impact.
- Potential for subsidence.
- Vermin control.
- Potential for flooding. Which properties are affected and the mitigation measures that will be in place, are unclear.
- The station at Carnlough should be constructed at the same time.

7.2.81. June Fitzgerald (257 St. Attracta Road)

Note: 43 sq.m. substratum to be acquired – soil nailing

- The compulsory acquisition for the substratum will impact on her property.
- No information on soil nails previously installed and whether compulsory acquisition was required.
- Communications packs are not satisfactory and not easily interpreted.
- A community forum should be put in place.
- Noise during construction. No clarity has been provided on what reduction measures will be implemented.

- Health concerns with dust and noise.
- Vermin control measures required.
- Not clear which properties could be affected by flood risk and the mitigation measures to be put in place.
- The station at Carnlough Road should be provided at the same time.

7.2.82. Aine Kelly & James McCarthy (267 St. Attracta Road)

Note: 41.1 sq.m. substratum to be acquired - soil nailing

- The compulsory acquisition on the substratum lands will have a direct impact on her property and will be a registered burden on the Folio.
- Communications have been insufficient.
- Property condition surveys should be made available to residents prior to commencement of construction.
- Irish Rail to confirm the period for which recourse will be available on completion of works.
- Community forum should be put in place.
- Impact during construction phase including noise. No clarity has been provided on noise reduction measures.
- Health impact concerns from the construction and operational phases.
- Vermin control.
- Potential for flooding. Which properties are affected and the mitigation measures that will be in place are unclear.
- The station at Carnlough should be constructed at the same time.

7.2.83. Jacqueline Kelly (275 St. Attracta Road)

Note: 18.4 sq.m. substratum to be acquired – soil nailing

- Concern about the extent of land required. It is queried how her property will be affected by the soil nailing.

- Query as to whether her boundary line will be reduced/affected.
- The compulsory acquisition on the substratum lands will have a direct impact on her property and will have an impact on her property folio. It will impact her ability to top up her mortgage and future ability to build on her site without first consulting Irish Rail
- Communications have been insufficient.
- The documents are inaccurate including not displaying structures built on sites.
- Property condition surveys should be made available to residents prior to commencement of construction.
- Irish Rail to confirm the period for which recourse will be available on completion of works.
- Community forum should be put in place.
- Vermin control and impact of poison on other animals.
- Impact during construction including noise. No clarity has been provided on noise reduction measures.
- Health impact concerns from the construction and operational phases.
- Visual impact
- Potential for subsidence
- Potential for flooding. Which properties are affected and the mitigation measures that will be in place, are unclear.
- The station at Carnlough should be constructed at the same time.

Glasnevin

7.2.84. Dublin Cemeteries Trust

Note: 1180.4 sq.m. temporary possession – compound, works access and road works

Public and private rights of way to be temporarily interrupted - Glasnevin Cemetery Bridge closure for reconstruction.

42.4 sq.m. substratum to be acquired at 1 Claremont Lawns – soil nailing

- The documents provided are inconsistent and do not align with previous discussions regarding car parking spaces required and access for funeral services to St. Paul's section of Glasnevin cemetery.
- Areas identified for works compound are different and need to be agreed (Works Layout Plan No. 17 17.12).
- Clarification required on dimensions of temporary pedestrian bridge to be constructed (Work Layout plan No. 17 (17.10)). It needs to be wide enough to facilitate remains being carried by families to the cemetery.
- Alternative location for car parking to be provided outside the gates to allow attendance at funerals.

7.2.85. Helen Fayne (2 Claremont Lawns, Glasnevin)

Note: 27.7 sq.m. substratum to be acquired – soil nailing

- Concerns as to impact of substratum works and property stability. Need guarantee that instability would never arise.
- Noise and vibration levels during construction phase and adverse impact on residential amenities of her property including use of the garden and impact on working from home.
- An extension in the rear of her garden is rented out and is concerned that the works will impact negatively on its rental potential.
- Negative impacts from construction traffic within the estate and safety issues arising.
- The increased frequency in trains during the operational phase will result in increased noise and nuisance and concerns regarding potential increased vibration on property stability.
- Vermin infestation arising from construction works.
- Devaluation of property.

7.2.86. Kieran Ebbs (4 Claremont Lawns, Glasnevin)

Note: 40.9 sq.m. substratum to be acquired– soil nailing

- The drawing accompanying the compulsory acquisition does not show an extension which is 1 metre from the railway boundary wall. The impact of the works on same is of concern.
- There should be written assurance that surveys of his property occur before and after the construction works and that the surveys be supplied to him. It may take years for problems to arise.
- The location of a construction compound beside St. Paul's cemetery is not optimum and will have major impacts on access, traffic and parking and amenities of adjoining property. An alternative location should be investigated.
- Adverse impacts during the construction phase with reference to operating hours, noise, dust and nuisance.
- Potential for the project to be constructed at the same time as the Finglas/Ballymun Bus Corridor with a compound for same identified at the entrance to Claremount Lawns with similar issues arising.
- Community engagement is required.

7.2.87. Caroline McGrotty (5 Claremont Lawns, Glasnevin)

Note: 40.7 sq.m. substratum to be acquired – soil nailing

- Potential for substratum acquisition to impact future ability to build on her property, will be a registered burden on the folio, and will impact on her ability to top up her mortgage.
- No detail on depth of substratum nor mention of compensation.
- The maps received are not accurate and do not show all existing structures.
- Building condition surveys should be made available to residents prior to commencement of construction.
- Irish Rail should confirm the time period for which recourse will be available.
- A community forum should be put in place.
- Noise during construction and operational phases. No clarity has been provided on what reduction measures will be implemented.

- Health concerns
- Visual Impact
- Potential for subsidence
- Vermin control measures required.
- Not clear which properties could be affected by flood risk and the mitigation measures to be put in place.
- The station at Carnlough Road should be provided at the same time.

8.0 Applicant's Response to Submissions

The Board invited the applicant to make a submission on the observations received. A 2nd request was made following receipt of a further submission on 02/04/24. The 1st response addresses issues that are common to many of the submissions and also provides for a response to each observation. The 2nd response addresses the issues raised in the further individual submission.

8.1. Responses to Local Authorities

8.1.1. Dublin City Council (DCC)

Heuston West Station

- There was significant, negative feedback received following public consultations in relation to the reliability and availability of lifts. A bridge with stairs and ramps is proposed to ensure full, segregated accessibility for pedestrians, vulnerable users and cyclists. Where ramps are technically feasible, it is the preference of CIÉ/IÉ to provide those over provision of lifts. This ensures that the crossing remains open at all times (24/7) and is not subject to interference by mechanical faults (i.e. lift faults). The station is to be unmanned.
- A new access gate will be provided in the existing boundary wall between the proposed Heuston West station and the Clancy Quay development. This will enable CIÉ/IÉ to manage access so as to avoid any undesirable activities or disturbance when the DART service is not in use.

- The main access road (speed limited to 15kph) will be shared use, and the detailed design will provide all necessary directional, information and regulatory signs and line marking for pedestrians and cyclist priority. The proposed pedestrian and cyclist route to the station will be secure and well lit. A public transport connection will also be available via bus between Heuston West and the main station.
- Public lighting will be subject to further development at detailed design stage and DCC will be consulted throughout this process.

Interface with Other Transport Modes

- The preliminary designs have taken account of the published guidance/standards as well as confirmed GDA cycle and Bus Connect routes at the time of RO preparation.
- The Kylemore Road Bridge has been designed to accommodate future LUAS loading. Additionally, the bridge has been designed in such a way that space provision is made for a future station.
- Sarsfield Road and South Circular Road are constrained by existing structures which are not required to be altered for the DART+South West project. The BusConnects design at these locations was not at detailed design, therefore the current DART + design reflects a reconstruction of like for like within the space constraints. Further consultation will take place with DCC and NTA during the detailed design phases to further align with any proposed changes to the carriageway layouts.
- The RO preliminary designs for the bridge reconstructions (excluding Khyber Pass Footbridge & Glasnevin Cemetery Bridge) have all allowed sufficient space to accommodate a 2m footpath and a 2m cycle track. CIÉ/IE will continue to liaise with DCC and NTA in relation to detailed design of road and bridge works in order to optimise road layouts.
- There is no direct interface between DART+ South West and MetroLink. The boundaries between DART+ South West and the DART+ West is at a point before the new MetroLink Station at Glasnevin. As such, the DART+ West is the key project with an interface with MetroLink at the new Glasnevin Station. The Glasnevin Station for the MetroLink provides interchange capability with

CIÉ/IE services on the Maynooth and Kildare lines that serve Connolly Station and Docklands Station.

Park and Ride Facilities

- The NTA's Park & Ride Development Office is currently working with CIÉ/IE to identify strategic locations to develop a Park & Ride Scheme that will connect with the rail system. Proposals to develop Park & Ride will be brought forward independently of the DART+ Programme. Pedestrian and cycle facilities associated with many of the existing stations were provided as part of the original Kildare Route Project. The facilities are consistently under review and are the remit of the CIÉ/IE Station Enhancement Programme.

Cumulative Impacts

- CIÉ/IE is continuing to monitor planning applications in the vicinity of the DART + South West project and is in communication with DCC and LDA in relation to the Park West area.
- The cumulative effects with other existing and/or approved plans and projects during the construction and operational phases have been considered in Chapter 26 of the EIAR.

Substations and Construction Compounds

- Layouts and access arrangements for cable routing, proposed substations and temporary compounds will be subject to further development at detailed design and DCC and the LDA will be consulted throughout this process.
- In the event that housing is delivered in advance of DART works, CIÉ/IE is open to co-operation with LDA and DCC to maintain a high-quality interface with any new residential areas during the DART works.
- The delivery of power to the DART + substations will be a matter for ESB Networks. CIÉ/IE will continue to collaborate as required on this matter during detailed design and construction. A practical construction phasing can be developed that will minimise impacts on LDA projects.
- For technical reasons (including electrical safety, vehicular access, and access for future maintenance and equipment replacement) tree planting

within electricity substation compounds is not possible. The safety and technical requirements also dictate the form of fencing proposed. There are no proposals to adjust the dimensions and position of the proposed substation at Park West. CIÉ/IÉ will liaise with LDA during detailed design in relation to proposed landscaping measures and, where feasible and technically appropriate, suitable measures will be implemented to minimise visual impacts of the substation.

Construction Phase Traffic

- Chapter 6 of the EIAR describes the traffic impacts during the construction phase with the primary focus of the assessment on contributory construction traffic volumes on the existing road network during construction works, in addition to the impact of temporary road closures or temporary junction modifications associated with the bridge reconstructions. A detailed CTMP will be prepared and will be agreed with the respective local authorities prior to the commencement of the construction phase.

Public Lighting

- The design of public lighting will be subject to further development at detailed design stage and DCC will be consulted throughout this process.

Drainage

- A new drainage system is proposed for the area from Park West & Cherry Orchard Station to Heuston in order to meet the increased runoff volumes generated by the new four-tracking layout, as well as attenuation requirements needed to comply with the allowable discharge rates. The new drainage system comprises three independent drainage networks (Network 1, Network 2 and Network 3) based on three outfall locations. As part of the design process three different attenuation solutions were assessed for each network. Having considered environmental and technical aspects, including the restricted space available alongside the operational railway environment, an attenuation tank was identified as the preferred option for each of the drainage networks.

Consultation

- CIÉ/IE is committed to ongoing co-operation with DCC in the delivery of the project and will be happy to participate in a Project Liaison Office arrangement.
- The design of the bridges and other built heritage features will be subject to further development and refinement at detailed design stage.

Conservation and Heritage

- A Conservation Architect will be appointed to oversee and advise on works in proximity to heritage assets. Engagement with the DCC Conservation Office will continue throughout the detailed design and construction phases. A suitably qualified site supervision team will be employed to monitor all construction works jointly with the Conservation Architect where required.
- There will be a profound impact on part of the walls at Inchicore works due to its removal to facilitate four-tracking. This impact will be mitigated through the recording by means of photographs and written description prior to removal, and the resulting new end of the wall is to be repaired in accordance with a method statement to be prepared by a qualified conservation specialist. Following mitigation, the impact will be significant.
- The signal box at Inchicore Works, which is a protected structure (RPS DCC 8866), will be dismantled to facilitate the move from two-tracks to four-tracks. This will result in a profound impact but will be mitigated as far as is possible. The alternative location for the signal box will be agreed with DCC.
- A Project Archaeologist will be engaged to oversee the delivery of the archaeological strategy/mitigation measures outlined in the EIAR.
- A Code of Practice between the Department of Arts, Heritage and the Gaeltacht and CIÉ/IE is in place with respect to archaeology. This code of practice sets out broad guiding principles and specific agreed actions to be undertaken by both organisations in relation to infrastructure projects.

Bridge Works

- The Le Fanu Road Bridge replacement will have stone masonry aesthetic/architectural cladding finishes to the reinforced concrete walls, in keeping with the existing stone masonry boundary walls and bridge

parapets. Where possible the stone from the existing bridge will be reclaimed and reused. DCC Conservation and Heritage Offices will be consulted throughout the detailed design and construction phases.

- The architectural heritage impact assessment recognises that there will be a moderate negative impact associated with the proposed works to the Sarsfield Road Under-Bridge. This impact will be mitigated as far as is possible through the recording by means of photographs and written description prior to alterations.
- There is no requirement for unpinning works at the Royal Canal & LUAS Twin Arch Bridge or the Maynooth Line Twin Arch Bridge. Underpinning works will be required at Conyngham Road Bridge and the Phoenix Park Tunnel. The extent of any underpinning works will be developed at detailed design.
- Parapets are required to meet the necessary safety requirements in terms of height and measures to prevent climbing or walking across the top of them. Where existing railings do not meet the requirement for IP2X, these will be replaced by an agreed IP2X infill. The use of black painted railing with IP2X mesh was selected from a range of design options during design development with input from the Landscape & Visual Specialist in order to fit with the character of the receiving landscape. The parapet railings will continue to be developed in consultation with the DCC Conservation Office during detailed design.
- If the RO is granted, CIÉ/IE will undertake more detailed design on the proposed raising of parapets to the bridge at McKee Barracks and the final design of the bridge at Memorial Road and Glasnevin Cemetery.

Suggested Conditions

- Satisfied that the majority of the proposed conditions are already catered for in the EIAR documentation and CEMP commitments, and that no additional conditions are required in the event of a grant of the draft RO.

8.1.2. South Dublin County Council (SDCC)

Capacity and Future Development.

- Current capacity review studies have concluded that the sizing of the existing stations will be adequate to accommodate forecasted future passenger demand.
- The applicant is aware that the ongoing development, in particular SDZ development, will require further new routes to be developed in the coming years, including new bridge crossings of the rail line. CIÉ/IÉ has procedures in place to review and assess design proposals for such infrastructure, including technical and safety requirements. CIÉ/IÉ will continue to constructively engage with SDCC and developers, as required, to enable the efficient delivery of the necessary infrastructure. The requirements of the CIÉ/IÉ Technical Guidance Document CCE-TMS-310 will need to be adhered to for relevant works.

Rail Stations

- The strategy for the provision of new stations and other rail infrastructure is a matter for the NTA. The GDA Transport Strategy 2022 to 2042 was published by the NTA in January 2023 and commits to the development of a number of new rail stations including at Kylemore Road. These stations are outside of the scope of the DART+ South West project. The design of the project has future proofed its layout to allow the addition of stations at these locations in the future. The NTA has provided funding to CIÉ/IÉ to commence preparation of designs and planning for stations at Kylemore and Cabra.
- The improvement of heavy rail services will fully support the City Edge Project. CIÉ/IÉ will continue to work with the NTA, DCC and SDCC in relation to the project delivery.
- The reopening of Kishoge Station is outside the scope of the DART+ South West project, however, CIÉ/IÉ is currently undertaking upgrade works to the

station to ensure that the station meets current accessibility and systems requirements. It is anticipated that the station will be reopened in Q4 2023.

Park and Ride Facilities

- See response to DCC submission in section 8.1.1 above.

Access

- In terms of the existing access point off Adamstown Avenue (to the disused car park) CIÉ/IE need to permanently acquire the land specified in the RO for the final substation delivery works. However, depending on timing and duration of anticipated SDCC works, there may be an opportunity to coordinate with SDCC to allow for temporary access to facilitate required infrastructure works. It is envisaged dialogue with SDCC will continue on this matter.

Services

- The substation locations were determined following a detailed site selection process and engagement with the relevant local authorities and stakeholders. The proposed sites have taken into account pre-existing planning proposals and are sited to minimise the impact on residential, community and amenity areas.
- ESNB networks will be responsible for the proposed installation of the 38kv electricity supply to each of the substations. Initial connection routes have been identified and are outlined in the application. Any changes to the initial connection routes must be discussed with and agreed by ESNB.
- The presence of various elements of underground and overhead infrastructure which interacts with the proposed DART+ SW project including major gas transmission pipelines are noted. Engagement with relevant stakeholders and asset owners has occurred and will continue as the project progresses.

Kylemore Bridge

- See response to DCC submission in section 8.1.1 above.
- The DART + Tunnel Project is outside of the scope of the DART + South West Project. The DART + Tunnel project still features in the most recent

GDA Transport Strategy (2022-2042) and will be periodically reviewed as to whether it is brought forward based on emerging transport patterns.

Construction

- Due to the nature of the works and the requirement to maintain safe railway operations, certain construction activities will need to be undertaken outside normal working hours.
- During the construction phase, a noise and vibration monitoring programme will be implemented to assess compliance of the construction works with the noise and vibration limits. The selection of monitoring locations (number and location) will be agreed with the relevant local authorities and will be based on the nearest representative noise sensitive locations to the working areas. Full details of the contractor's provision for noise and vibration monitoring and procedures including provisions for publication of monitoring results will be submitted to and agreed by the Planning Authority prior to commencement of work.

Conservation and Biodiversity

- A Project Archaeologist will be engaged prior to construction to oversee the delivery of the archaeological strategy/mitigation measures outlined in the EIAR.
- It is acknowledged that there will be an impact on trees and vegetation to facilitate the project.

Financial Contributions

- The project is exempt from the requirement for a development contribution as per Section 11 of the SDCC Development Contribution Scheme (2021 - 2025).

8.1.3. Kildare County Council

Park and Ride Facilities

- See response to DCC's submission in section 8.1.1 above.
- Ongoing monitoring of the car parking provided at the stations will be undertaken to ensure that demand does not exceed capacity. This will be done in consultation with the NTA to inform any strategic proposals around development of Park & Ride.

Traffic

- The NTA's ERM transport modelling was used to determine the baseline and future operational scenarios for the proposed project, and this allowed an assessment of its impact to be undertaken. The results of the Operational Impact Assessment are set out in Section 6.5.7 of the EIAR. An increase in passenger numbers at each station along the length of the line had been identified. It was concluded that the proposed project would have a very limited impact on the road network in the operational phase.

Conservation and Built Heritage

- The landscape mitigation will be subject to further development and refinement at detailed design stage. The inclusion of additional tree planting/screening in the vicinity of Stacumny Lime Kiln which is a protected structure will be investigated and incorporated into the design if feasible, subject to the required safety and operational requirements.

Biodiversity

- A Project Ecologist (ECoW) is to be retained prior to commencement of construction and an Invasive Alien Species Avoidance and Management Plan shall be prepared.
- An arboriculture survey, impact assessment and tree constraints plan will be prepared and made available in advance of construction and an Arboricultural consultant will be employed.

Drainage

- CIÉ/IE will further develop drainage design in accordance with best practice and appropriate CIÉ/IE and national standards. They will be subject to agreement with KCC should the RO be granted. CIÉ/IE welcomes the opportunity and commits to engaging with the OPW and KCC in relation to the Hazelhatch Flood Relief Scheme.

Suggested Conditions

- Satisfied that the majority of the proposed conditions are already catered for in the EIAR documentation and CEMP commitments, and that no additional conditions are required in the event of a grant of the draft RO.

8.2. Response to Prescribed Bodies

8.2.1. Geological Survey of Ireland

Submission noted. There are no expected areas of significant excavation of bedrock.

8.2.2. Department of Housing, Local Government and Heritage (DHLGH)

- The CEMP will identify the locations of archaeological/cultural heritage constraints close to works and will describe all identified likely archaeological impacts, direct & indirect and all mitigation measures employed to protect the archaeological /cultural heritage environment during all phases of works.
- The final archaeological report will be submitted to the planning authority and the DHLGH upon completion of the archaeological works in compliance with the RO and the conditions of the archaeological licence.
- Oil separation will be provided for in the attenuation tanks at Inchicore and Heuston and in the Phoenix Park Tunnel drainage system. This will be further developed during the detailed design.
- All relevant vegetation and structures proposed to be removed or within the Zol of the project were assessed for bat roosting suitability. This includes the trees at Heuston Station on the banks of the Liffey. These trees were recorded as having negligible suitability for roosting bats. These trees are to be retained.

- No evidence of otter holts or field signs were recorded in the section of the Royal Canal within the zone of influence of the project. The desk study assessment did not record any previously known otter holts within the zone of influence.
- A pre-construction ecology survey will be carried out at least one but no greater than six months in advance of commencing any enabling or advance works. This survey will reassess the Royal Canal area and any additional desk study information regarding the location of an otter holt recorded in connection with the DCC Royal Canal Greenway Project. Any additional mitigation requirements resulting from this can be implemented through the CEMP.
- The 3 no. referenced orchid species (common spotted, fragrant and pyramidal orchid and other relatively rare calcicole plant species) were not recorded in the habitat and botanical assessment of the Phoenix Park Tunnel Branch Line. However, common spotted orchid was recorded in recolonising bare ground in Heuston Station.
- Willing to accept a condition that an alternative to the use of native Irish seed mixes is required.

8.2.3. Transport Infrastructure Ireland (TII)

- The applicant is committed to ongoing technical stakeholder engagement with TII to refine any relevant technical matters to the satisfaction of both parties. Further engagement will continue during the detailed design and construction stage to ensure minimal impact to TII's operations. As discussed during the technical engagement process, the fixing details for the OHLE to the underside of the M50 Ronanstown bridge (OBC10A) will be agreed with TII during the detailed design stage and will be designed in accordance with the relevant TII standards. OHLE fixings to bridges are widely used throughout the rail industry overseas and in Ireland, including the LUAS green line. The installation methodology will be agreed with TII and the M3 PPP contractor. The installation works will be completed from the rail corridor and will have no impact on the traffic operations on the M50.

- It is proposed to raise the parapets of the M50 Ronanstown Bridge (OBC10A) with a proprietary GRP (glass reinforced plastic) parapet extension. The installation methodology will be agreed with TII and the M3 PPP contractor. The main contractor will be required to develop and agree detailed traffic management plans to facilitate the proposed installation work.
- The Park West substation is located to the north of the railway and east of the M50 motorway. This is a brownfield site in the ownership of DCC. Direct road access is via Park West Avenue to the east. The site is located at the base of a steep embankment below the M50. The substation layout will not impact on the existing M50 boundary treatment. In terms of impact to the M50 drainage regime no conflicts have been identified and no diversions are required in this area.
- The CEMP is a working document. Any necessary conditions, modifications, restrictions or requirements emanating from this draft RO and any further detailed design compliance requirements from continued stakeholder engagement will be included. This will include TII Standards (procedural and technical) to be followed for any works that would interact with any TII owned and/or operated infrastructure.
- No construction is taking place to physically impact the LUAS Red line infrastructure at Heuston Station; nor are construction vehicles entering and exiting the Heuston Station Complex expected to affect LUAS operations negatively. Various HGV fixed and articulated vehicles currently enter the existing station access road.
- The works to the twin arch bridge where the railway crosses under and adjacent to LUAS Green line are relatively minor including the installation of OHLE fixings to the bridge soffit and also localised track lowering to ensure the required overhead clearance is achieved. The works will be completed from the rail corridor and will not impact on LUAS operations. Geotechnical investigations works in the area have been completed and the proposed works will not adversely impact the bridge structure.
- Electrical modelling has been carried out. The risk of EMF as a result of the DART+ South West electrification system is sufficiently low, and emissions

are well within the limits prescribed by international legislation. Details of the assessment are included in Chapter 22 of the EIAR.

- The DART+ South West overhead traction power system will be 1,500V DC, rather than an AC overhead system. The risk of induction from the DART is inherently mitigated. The only credible form of induction onto neighbouring systems is as a result of harmonics from the DC system under normal operation. This generates a significantly lower magnitude and, therefore, lower overall risk than would be associated with induction from an AC traction power system. In addition, the risk of induction is further mitigated by the fact that the systems are not parallel to each other at Bridge OBO8.
- The DART+ South West team will continue to develop its Electromagnetic Compatibility assurance during the course of the detailed design stage and will continue to engage with TII to ensure that the appropriate monitoring and mitigation measures, if required, are implemented. The DART+ South West team will provide technical assurance in accordance with best practice, legislation and standards, as well as in compliance with all relevant TII technical requirements.
- The 6 conditions recommended to be attached are noted. As LUAS infrastructure will not be affected 4 are unnecessary. In terms of the other two the CEMP and Construction Traffic Management Plan will be updated taking into account TII requirements as the project advances to detailed design and construction.

8.3. Response to Observations/Objections

The applicant was invited to respond to the observations received on the application. The response divides the submissions into two groups. The first responds to the submissions from person(s)/companies to which a compulsory acquisition notice has been issued. The 2nd responds to the submissions from others. Due to the material overlap between many of the issues raised in the submissions and to avoid undue repetition I summarise the responses based on subject at the outset with the following sections providing a summary of area specific issues and then individual issues raised by observers/objectors. As in

Section 7 above I have separated the latter into observers/objectors subject of compulsory acquisition and those who are not.

8.3.1. **Common & Area Based Issues**

Procedural Issues

- The amount of land required for the project and the works proposed are clearly described in the draft RO. The level of design detail presented in the RO application is appropriate for this stage of the project. It is not anticipated that the amount of land required to facilitate the project will change once the RO is granted.
- The acquisition of the lands sought is necessary for the delivery of the proposed project, which is required in the interest of the common good.
- The timeframe relating to the An Bord Pleanála statutory consultation is governed by the Transport (Railway Infrastructure) Act 2001, as amended, which sets a requirement of at least 6 weeks. Consultation was from March 29th until May 16th, 2023 (7 weeks). Throughout the statutory public consultation phase the project team was available and active in assisting people via the project phone line and email service.
- The observation cost is part of the railway application process (governed inter alia by the Transport (Railway Infrastructure) Act 2001, as amended, and the Planning and Development Act 2000, as amended. The law provides that potentially impacted landowners who are referenced in the draft RO are entitled to make an observation free of charge. Others must include a fee to make an observation. Neither CIÉ/IÉ nor An Bord Pleanála has any discretion on this matter.
- CIÉ/IÉ is bound by legal requirements in relation to the documents contained in the RO application and the notification pack issued to affected landowners / occupiers. This included a non-technical summary of the EIAR.
- Ordnance Survey (OS) mapping was used for the production of drawings and maps. Physical features on the ground may change over time, and for this reason, the OS mapping may not reflect building changes or extensions. Ordnance Survey Ireland (OSI) has a continuous mapping revision

programme. In the event that there are changes to the physical features on the ground, OSI can arrange for OS surveyors to visit properties so that the mapping can be updated and amended. CIÉ/IÉ has not been made aware of any mapping updates that would have a material impact on the RO application.

- Only potentially impacted landowners (affected by land acquisition including substratum land) are referenced in the draft RO as required by the relevant statutory provisions. As such, only where soil anchors extend below the CIÉ/IÉ property boundary and under third party properties are these properties referenced. There is no impact expected on adjoining terraced properties from soil anchors.

Communications

- CIÉ/IÉ has worked hard to communicate widely and clearly with the general public, as described in the PC 1 Report, PC 2 Report and PC 2 Addendum Report submitted with the application. Specific efforts were made to engage with potentially affected landowners and property owners/occupiers along the route. The project design evolved throughout the early design stage. This meant that additional, potentially impacted landowners/occupiers were identified as the project design progressed. CIÉ/IÉ notified potentially impacted landowners / occupiers as soon as the need for land acquisition at their property was identified.
- Property owners' names have been identified via Property Registration Authority of Ireland (PRAI) searches. In some cases, this data was found to be out-of-date which is a matter outside the control of CIÉ/IÉ. The project team has continued to update the property owner database where new information has become available in the course of the engagement process.

Community Liaison Officer (CLO)

- A CLO will be appointed for the duration of the construction works. The CLO will be in place to communicate with the residents and to address any

concerns raised by residents during the construction phase. The CLO will carry out communications activities, such as:

- to provide information to local residents about progress of the project,
- to share noise and vibration monitoring results and explain noise mitigation measures being put in place,
- to inform the local community about works likely to cause significant noise or vibration and/or works planned to take place outside of core working hours,
- mitigation regarding the above issues.
- The CLO will be available at all times during the construction phase if any issues arise.
- CIÉ/IE is open to the possibility of establishing a community forum during the construction phase of the works.

Lack of Stations

See response to SDCC's submission in section 8.1.2. above.

Station Amenities

See response to DCC's submission in section 8.1.1. above.

Vibration - Property Damage

- 3 no. vibration monitoring locations were identified for obtaining representative environmental vibration levels near the proposed development in addition to quantifying vibration levels from existing trains. Attended measurements were undertaken with details recorded for the passage of 20 trains at each location. Reliable estimates have been made using available data.
- No adverse structural impacts are anticipated from the construction works as the vibration from construction activities is below the guide values for cosmetic damage. However, vibration from some construction activities may be perceptible at some residences. Where appropriate, a condition survey

will be carried out before any construction works commence which will be used to assess if any deterioration has occurred.

- Structurally vulnerable buildings or vulnerable structures will need vibration levels to be controlled to a lower threshold to avoid the risk of damage.
- Given the very low threshold of perception of humans to vibration it is not practical to implement vibration limits low enough to avoid any vibration being perceptible. However, good communication to building occupants by the contractor ahead of any vibration-intensive works is best practice to control this impact, as perceptible vibration levels are more tolerable when the source and duration of the works is known.
- During the construction phase, a noise and vibration monitoring programme will be implemented by the appointed contractor to assess compliance of the construction works with the noise and vibration limits set out in Section 14.3.3 of the EIAR. The selection of monitoring locations (number and location) will be agreed with the relevant local authorities and will be based on the nearest representative noise sensitive locations to the working areas.
- A condition survey of properties will be carried out pre and post construction works.
- The cumulative operational vibration was calculated and compared with the guideline levels for daytime and night-time periods. The results are presented in Section 14.6.5 in Chapter 14 of the EIAR. It was determined that no significant vibration will arise from the proposed project during the operational phase.
- CIÉ/IE cannot comment on the policies of individual insurance companies. If the RO is granted, property owners may wish to contact their insurance broker and or insurance company directly to appraise them of the project and any potential impacts to their property.
- CIÉ/IE cannot advise property owners in relation to the statutory limitation periods which apply in property matters given the complexity of the law in this area

Impacts of Substratum Works

- The proposed soil nailing method is well established in Ireland and internationally, including its use on numerous urban train lines and under a variety of building types. Having considered the technical options available, soil nailing is a method that causes relatively little disturbance and environmental impact. Soil stability is achieved without the need for excavation and major soil disturbance, and as a result the risk of settlement or cracking is relatively low. It is considered the preferred approach for ensuring long term stability of the embankments.
- Soil anchors will be a substantial distance below ground level and will get deeper as they advance under the rear gardens/adjoining lands. Installation of soil anchors will be completed from the track side, and it is not envisaged that access to properties would be required for construction. The soil anchors will not be visible in the gardens/adjoining lands.
- No adverse structural impacts to property are anticipated as a result of these works. Where appropriate, a condition survey will be carried out before any construction works commence which will be used to assess if any deterioration has occurred. The condition survey will include the sheds/garages in rear gardens.
- Soils anchors/nailing are unlikely to affect typical domestic extensions or garden structures. CIÉ/IÉ will own the substratum and soil anchors installed underneath the property.
- Soil anchors/nailing do not necessarily preclude development potential in the future. CIÉ/IÉ will need to be consulted to ensure that any development proposals will not interfere with same.
- CIÉ/IÉ cannot provide legal advice on the implications of the acquisition the substratum. If the RO is granted and the substratum is acquired by CIÉ/IÉ, it is considered that any future purchaser of the property should be notified of such.

Property Security

- A CEMP has been prepared as part of the RO application. This plan will be further detailed should the order be granted defining the appropriate security

provisions to be considered during the construction works, including prevention of access to neighbouring properties.

Retaining walls

- The design of the retaining walls and boundary treatments will be finalised during the detailed design stage. The space between a rear boundary wall and a new retaining wall will be securely fenced off and will be maintained by CIÉ/IÉ.

Compensation

- If the RO is granted, compensation will be addressed in accordance with statute and standard compulsory purchase practice and procedure.

Geotechnical Issues

- Trackside Ground Investigation (GI) was conducted along the 20km corridor and site-specific ground investigation, and geotechnical reports were prepared which informed the proposed design. If the RO is granted, ground investigation works for detailed design will be completed and is likely to include additional boreholes and inspection pits/ trial pits.

Visual Impact and Loss of Vegetation

- The loss of vegetation to facilitate the project is acknowledged. The scope for replanting has regard to engineering and safety requirements including separation distances from the OHLE. There are many locations along the project route where there is no scope for replacement planting.
- Planting mitigation and vegetation to be retained is shown in the landscape mitigation, Volume 4, Appendix 15.1 of the EIAR (Drawing No. DP-04-23-DWG-RO-TTA-23838 to DP-04-23-DWG-ROTTA-23854).
- CIÉ/IÉ has a regular maintenance regime which involves the cutting and maintenance of vegetation with due cognisance had to the biodiversity of the areas along the rail corridor and restrictions in relation to bird nesting season.

- There will be changes to some residential views as a result of the introduction of the overhead line equipment.

Noise

- Eighteen noise monitoring locations were used to provide background noise levels. The noise measurements characterised the existing noise levels in the immediate area. The noise measurement was undertaken in the absence of the night-time track maintenance works to obtain a more representative background and ambient noise level for night-time and, as such, a lower baseline noise level has been recorded compared to if night-time track maintenance works were included.
- There is no statutory Irish guidance specifying airborne noise levels from rail operations. In the absence of specific noise limits, reference has been made to guidance documents on environmental noise and precedence from other urban rail projects. It will be a decision for national and local policy makers to adopt the WHO guidelines and propose noise limits. The noise criteria proposed are, therefore, considered appropriate for this assessment.
- In the case of at grade railways the airborne noise typically masks any ground-borne noise component. The DART+ South West Project has one underground section through the Phoenix Park Tunnel, however there are no residential buildings located over this section. Based on the above, ground-borne noise has been scoped out of the noise impact assessment.
- It is acknowledged that short-term increases in noise impacts will occur in certain areas during the construction phase. The extent and nature of the construction noise impacts is dependent on the activity and proximity to noise sensitive locations. The predicted noise impact from the construction activities was assessed against the thresholds of significance for construction noise. A list of activity-specific measures to mitigate the construction noise impacts if the threshold values are exceeded have been included in Section 14.7.1 of the EIAR. There will also be ongoing community liaison channels in place during construction to respond to any specific concerns that arise.

- Due to the importance of the Cork mainline to commuters, it is intended that it will remain operational throughout the construction phase. Where possible works will be undertaken in safe zones during daytime periods. In certain circumstances full possession of the railway (i.e., no trains running) will be required and these will take place during the weekend and night-time. A suite of mitigation measures specifically for night-time works is included in Section 14.7.1 of the EIAR. A Noise Management Plan will be part of the construction stage. Residents living near the rail line will be informed of upcoming works and given advance notice of any disruptive works.
- Construction works such as construction of a retaining wall along the railway will be 'transient' in nature, with equipment moving gradually along the railway line as works proceed.
- Should the RO be granted, the construction programme will be further developed including any changes/improvements in any construction methods/technologies to reduce noise. The need for any additional noise management measures will then be determined and incorporated into the final project design.
- During the operational phase there will be an increase in noise levels at some noise sensitive locations (due to more and longer trains). The introduction of EMUs will not increase the peak noise level experienced at noise sensitive locations, as the new trains are quieter than DMUs.
- Noise sensitive locations have been assessed against the noise mitigation criteria outlined in Section 14.3.3.5 of the EIAR. The outcome of the assessment is presented in Sections 14.6.2 and 14.7.3. For locations where a significant effect is identified, the project will prioritise engineering solutions to address the noise impact within the project boundary, complemented by additional sound attenuation mitigation measures, if necessary.
- The noise assessment concluded that a limited number of properties will experience a residual noise impact as a result of the proposed project. The locations are in the Inchicore/ Kilmainham vicinity.

Vibration – Operational Phase

- The cumulative operational vibration levels are influenced by the number of intermittent events such as trains passing. The cumulative operational vibration was calculated. The results are presented in Section 14.6.5 of the EIAR.

Dust & Air Pollution

- The baseline ambient air quality environment was characterised through a desk study of publicly available published data sources (EPA and local authorities) and baseline ambient monitoring surveys undertaken in the area (relevant monitoring data from other transport projects in the Dublin Area including DART+West, MetroLink and BusConnects). The baseline data results for levels of nitrogen dioxide (NO₂) from EPA continuous monitoring stations show that the concentration at the city centre location represented by St. John's Road near Heuston Station were in exceedance of the limits for 2018/2019. This baseline data informed the air quality assessment.
- An assessment of emissions on the railway line (NO_x, PM_{2.5}) has been conducted which compares the total emissions from the "Do Minimum" and "Do Something" scenarios for the proposed project. Rail emissions are calculated using detailed information on the future service plans (with and without the proposed project) and emissions data for the rail stock. Despite the introduction of electric trains, diesel trains will remain on the line. Section 12.5.2.1 of the EIAR presents the change to rail train numbers from the "Do Minimum" and "Do Something" scenarios. It is proposed to incrementally introduce new services and enhanced timetables in response to growing demand. As such, the proposed level of service for the "Do Something" scenario will be delivered over a period of time and will not come into effect in one timetable change. The air quality assessment concluded that all ambient air pollutants will remain in compliance with the air quality standards and that no specific operational phase mitigation measures are required.
- The impacts on air quality from construction dust, in addition to the redistribution of local road traffic during road closures and from construction traffic, were assessed. Section 12.6.1 of the EIAR details the mitigation measures for the construction phase. The contractor will develop and implement an Air Quality Management Plan, and this will be agreed with the

respective local authorities prior to construction. The plan will include appropriate dust mitigation measures and dust deposition monitoring.

- The assessment concluded that when the dust minimisation measures detailed in the mitigation section of this chapter are implemented, fugitive emissions of dust from the site are not predicted to be significant and pose no nuisance and no human health or ecological risk. Thus, there will be no residual construction phase dust impacts.

Construction Phase Light Pollution

- Site lighting will typically be provided by tower mounted, temporary portable construction floodlights. The floodlights will be cowled and angled downwards to minimise light spillage outside of works areas. Lighting will be provided with the minimum luminosity sufficient for safety and security purposes and will be shut off at night when not in use.

Maintenance Activities

- As outlined in Section 14.5 of the EIAR in the “Do Minimum” scenario the frequency of maintenance activities will be significantly higher than in the “Do Something” scenario. The general improvement of rail infrastructure for this project, once completed, should reduce the need for other ongoing interventions and disturbance. There is however a risk of brief and short term negative significant noise impacts at sensitive locations near the railway line during essential maintenance works. Section 14.7.3 of the EIAR outlines recommended mitigation measures to be implemented during maintenance works.

Public Safety

- The project design is governed by various technical and safety guidelines, which include European, National and CIÉ/IÉ internal standards and specifications. As outlined in Chapter 4 of the EIAR the OHLE has been designed in accordance with a range of codes and standards pertaining to the design of the electrical infrastructure, which ensures public safety. The overhead lines will not encroach on property boundaries.

- The new tracks have been designed to CIÉ/IE and European standards providing for derailment protection and containment. In addition, the project is required to go through a detailed and rigorous safety assurance process, which must comply with CIÉ/IE's safety management systems requirements and the requirements of the Commission for Railway Regulation (CRR).

Electromagnetic Fields (EMF)

- EMF has been addressed in chapter 22 of the EIAR. The European Commission have adopted limits for exposure of the public and occupational exposure within EU Recommendation 1999/519/EC. This EC Recommendation is based on guidelines by the International Commission on Non-Ionising Radiation Protection (ICNIRP). The project has been designed to ensure that public exposure to EMF complies with the recommended guidelines.
- A study of the DC magnetic fields levels that are expected to be generated around the operational railway has been undertaken using recognised modelling techniques. The modelling results illustrated that the safe distance for public exposure is predicted to be within a few centimetres of the energised conductors. Based on this assessment, it is considered that EMF from the project will not cause any health concerns.
- Chapter 23 of the EIAR assesses public understanding of EMF risk and associated mental health outcomes. Proposed mitigation measures include sharing of non-technical information to residents to reduce uncertainty and provide better understanding. With this mitigation measure in place, the residual effect on mental health from public uncertainty or concern about EMF risks is negligible (not significant).

Human Health

- Whilst the potential health effect has a plausible source-pathway-receptor relationship the potential for actual risks to population health from the project is not probable. The adoption of regulatory standards as part of the design and operation of the proposed project would break the source-pathway-receptor linkage. On the basis that a public health effect is not probable,

there could not be a likely significant effect for population health and, therefore, this issue of actual EMF risk is not assessed further. Chapter 22 of the EIAR provides the details of the standards that would be met to ensure health protection.

- The EIA human health assessment uses qualitative analysis following the Institute of Public Health (IPH) 2021 guidance approach. This draws on qualitative and quantitative inputs from other EIAR topic chapters including traffic and transportation, population, air quality, climate, noise and vibration and electromagnetic fields. This is considered the most appropriate methodology for assessing wider determinants of health proportionately, consistently, and transparently. The effects on physical and mental health are discussed within the chapter.
- The assessment has regard to night-time noise impacts and associated health outcomes, such as sleep disturbance. The assessment notes that the scale of change for the majority of residents is small, and for the limited number of residents who are anticipated to temporarily experience a large scale of change, appropriate mitigation measures are proposed in Chapter 14. Following this, the residual effect on population health from both daytime and night-time construction noise is not anticipated to be significant.
- A Noise Management Plan will be part of the construction stage of the project. CIÉ/IE will ensure residents living near the rail line are informed of upcoming works and given advance notice of any disruptive works.
- Construction works would result in temporary and very low-level exposure to air pollutants, which is not of a level sufficient to result in significant population health effects, including effects on health services. These effects are further minimised by following the best practice mitigation measures outlined in Chapter 12.
- Proposed mitigation measures include sharing of non-technical information to residents to reduce uncertainty and provide better understanding of the project. In addition, communication with the local community will be undertaken throughout the duration of the project with the appointment of a dedicated CLO.

Flood Risk

A Site-Specific Flood Risk Assessment (SSFRA) was prepared.

Biodiversity

- Extensive work was undertaken in relation to ecology including the scoping of the most sensitive and important habitat areas, extensive monitoring, and an ecological assessment of the potential impacts of the project.
- As outlined in Section 8.6.2.1.2, a combination of measures for reinstated areas and biodiversity 'stepping stones' will mitigate the loss of habitat and associated potential impacts on bats. As outlined in Section 8.6.2.1.5. of the EIAR, a combination of measures will mitigate the impact to breeding and commuting/foraging birds in this area.
- Any proposed external lighting shall be directional and cowled to avoid the light spill to all relevant ecological features. Construction lighting will avoid night-time illumination of retained and adjoining vegetation during the bird nesting season. All night-time construction operatives will be informed of this requirement by the Project Ecologist or ECoW.
- Mitigation, as outlined in Section 8.6.3.1.2, requires a pre-construction ecology survey to be carried out at least one month in advance, but no greater than six months in advance, of any enabling or advance works.
- The OHLE will not have a significant impact on wildlife (bats and birds).
- The Natura Impact Statement concluded that provided mitigation measures were implemented in full the proposed project, either individually or in combination with other plans or projects, would not adversely affect the integrity of any European sites.

Nuisance (Control of Rats and Vermin)

- A CEMP has been prepared as part of the draft RO application. The CEMP will inform the construction management on site. The contractor will have responsibility for prevention and management of pests and vermin. A pre-construction survey of rodent activity and sanitation will be carried out. Regular inspections for rodent activity will be carried out during construction.

Inspection records will be maintained, and a programme of control will be adjusted to match construction sequencing. If a rodent problem arises it will be addressed.

Built Heritage

- The signal box at Inchicore Works, which is a protected structure (RPS DCC 8866), will be dismantled to facilitate the move from two-tracks to four-tracks, resulting in a profound negative impact. This impact will be mitigated as far as is possible through the recording by means of photographs, written description, and measured drawings. The signal box will be carefully dismantled, stored, and reconstructed in an alternative location to be agreed with DCC.

Construction Environmental Management Plan (CEMP)

- A CEMP has been prepared as part of the draft RO application. The contractor will prepare and develop pollution prevention measures such as procedures relating to storage & containment, fuel management procedures, incident and emergency response procedures including provision of spill kits and other measures.

Utilities

- It is acknowledged that there may potentially be an impact on existing utilities along the route, such as gas, power or water pipes, drainage structures, telecoms equipment, etc, although it is not anticipated that power interruptions will occur. Further engagement with utility providers will be undertaken if a RO is granted. Section 18.6.1 details the mitigation measures that will be implemented during the construction phase to ensure no impact to end users.

Zone B - Area Specific Issues

Traffic – Kylemore Road Bridge and Le Fanu Road Bridge

A key consideration during the construction stage will be to minimise the impact on the local community and traffic network.

- Both Kylemore Road Bridge and Le Fanu Road Bridge will be upgraded as part of the project. If approved, they will provide enhanced facilities for cyclists and pedestrians. A temporary single lane road bridge will be installed to the west of the existing Kylemore Bridge to facilitate northbound traffic during bridge reconstruction. Southbound traffic would be routed through a diversion across Le Fanu Bridge. A temporary pedestrian/cyclist bridge is to be provided to the east. It is proposed that Le Fanu Bridge will be reopened prior to the closure of Kylemore Road Bridge. It is expected that Kylemore Road Bridge will be closed for approximately 9 months.

Khyber Pass Pedestrian Bridge

- A clearly defined appraisal methodology has been used in the selection of the preferred option. The replacement bridge will have a solid 1.8m high parapet and will be fully enclosed with a perforated steel mesh cover which will provide an element of screening.

Security Cameras and Privacy

- In accordance with General Data Protection Regulation (GDPR) the security camera at Inchicore Works is focused on the depot facility and covers the running shed area of the Inchicore Works.

Works within Seven Oaks Apartment Complex, Sarsfield Road

- The temporary land take required (0.035 ha) is to facilitate a temporary construction compound associated with the construction of the Khyber Pass Footbridge. This compound is also required to provide track access to facilitate works along the rail corridor. This land will be re-instated upon completion of the construction works and returned to the owner.
- The permanent acquisition applies to a small strip of land (0.006 ha) adjacent to the existing Khyber Pass Bridge access path, outside the main boundary wall of the Seven Oaks Complex. The existing narrow path will be widened to provide appropriate access to the Khyber Pass footbridge and to enable the necessary future maintenance and inspection activities. The contractor will be responsible for the installation of suitable barriers and fencing during the construction stage to minimise disruption in the area.

Four tracking from Park West to Cherry Orchard

- A clearly defined appraisal methodology has been used in the selection of the Preferred Option for the project. Consistent with other NTA projects, the appraisal methodology applied is based on *Guidelines on a Common Appraisal Framework for Transport Projects and Programmes* (CAF) published by the Department of Transport, Tourism, and Sport (DTTAS). The process comprises of a two-stage approach, as appropriate.
- The alignment included in the RO application represents the preferred approach taking into account technical and environmental considerations, including the residential amenity of houses along Landen Road. Moving the railway and works south away from the residential properties to the north was the key advantage of Option 4 although under “Environment”, impacts were recorded in relation to architectural heritage associated with a Signal Box (Protected Structure) and turret within Inchicore works.

Kilmainham Square and South Circular Road

- A number of residents at Kilmainham Square confirmed they were agreeable for a baseline noise measurement to be undertaken at their property. This information was reviewed and properties that were confirmed to have a balcony and direct line of sight of the railway line were selected for further consideration.
- The measurements considered all noise sources not just rail noise. The noise environment at the Kilmainham Square Apartments is comprised of road traffic noise and rail noise.
- A range of alternative mitigation measures including resilient rail and noise barriers was considered in the noise assessment. The use of resilient rail resulted in a negligible reduction in noise levels. The section of track adjacent to Kilmainham Square is in deep cut. The inclusion of a noise barrier would be of limited benefit especially for the higher floors as there is direct line of sight.
- A tree barrier was not considered as it provides a small amount of attenuation if the foliage is sufficiently dense to completely block the view along the propagation path, however the effectiveness would be limited. In

addition, there is insufficient space available due to technical and safety considerations to have an effective lineside tree/foliage barrier.

- The alignment included in the RO application represents the preferred approach taking into account technical and environmental considerations. A new cut and cover buried portal structure OBC1A is proposed at South Circular Road Bridge. In terms of alternatives the Do-Nothing Option (Option 0) along with eight additional design options (Options 1-8) were considered for this area (see section 3.7.15 of the EIAR). In terms of the Environmental sub-criteria, Option 6 was found to have 'Some Comparable Advantage' over the other options in terms of minimising the potential effect on: air and climate (less effect on traffic during construction); landscape and visual; cultural and architectural heritage; and agricultural and non-agricultural land use factors. Option 6 also has less effect on the housing to the southwest of South Circular Road Bridge (OBC1).
- A combination of measures for reinstated areas and biodiversity 'stepping stones' will mitigate the loss of habitat in this area. A green wall is to be installed on the retaining wall running parallel to Con Colbert Road in addition to a green roof on top of the cut and cover tunnel located West of South Circular Bridge (OBC1A). These measures will assist in reducing biodiversity impacts in the vicinity of Kilmainham Square.

Zone D – Area Specific Issues

Conyngham Road

- The temporary land acquisition at Sunnybank Apartments Conyngham Road is required for the construction of OHLE poles and the running of cables between poles between Liffey Bridge and Conyngham Road. Section 17.7.1.2 of the EIAR states that access will be maintained to all affected properties as much as possible and, if interruption is necessary, the property owner/occupier will be notified in advance, and it will be restored without unreasonable delay. Traffic management measures will be put in place during construction where temporary or minor diversions are required. These measures are detailed in chapter 6 of the EIAR. There will be changes to

some residential views as a result of the introduction of the overhead line equipment.

Phoenix Park Tunnel & Branch Timing of Works

- It is proposed that the Heuston West station construction works will be undertaken during a wider shutdown of the Phoenix Park Tunnel and Phoenix Park Tunnel Branch Line to facilitate the necessary works on the tunnel and the other works along the branch line.
- Soil nailing will be constructed predominantly at the time of the closure of the Phoenix Park Tunnel Branch line. During this time work will be carried out on a number of work fronts simultaneously along the rail corridor to minimise disruption to local communities. Due to the extensive nature of the works, some construction works may continue beyond this closure period, requiring works to be carried out during off peak periods or under safe working arrangements.
- Night-time works are proposed to anchor the existing Phoenix Park Tunnel structure. When nighttime works are required, they will be undertaken in accordance with the mitigation measures included in the EIAR, which aim to reduce impacts as much as possible.

Flood Risk

- The site-specific Flood Risk Assessment for Zone D concluded that no increase in flood level or any increased flooding risk to the adjacent lands and properties are anticipated.
- Mitigation measures are discussed in Section 14.7.1 of the EIAR. A temporary noise curtain/barrier is to be installed at the tunnel entrance. By applying these mitigation measures, the impacts of construction stage noise will be managed.

Noise

- The proposed project results in an overall positive noise impact between Phoenix Park Tunnel and Glasnevin as the number of receptors with predicted noise levels greater than the noise criteria reduces as the DMUs currently travelling along this section will be replaced with EMUs. This

outcome is also predicted for noise sensitive receptors south of the Phoenix Park Tunnel as far as the proposed Heuston West Station. As the proposed project results in an overall positive impact at these noise sensitive locations, no mitigation measures are required. The provision of sound insulation is considered only for the small number of locations where a significant effect is identified.

Glenbeigh Road

- CIÉ/IÉ has become aware that there are sections of a stone masonry boundary wall along with security palisade fence that have been removed, between Blackhorse Avenue and Old Cabra Road and that residents have established amenity areas that encroach into CIÉ/IÉ property. The proposed palisade fencing on top of an existing low masonry boundary wall is located within the existing CIÉ/IÉ property ownership boundary. Security of the electrified railway from both a health and safety perspective is a design requirement of the project. As part of the works it is proposed to construct a 1.2m palisade fence on top of an existing 1.2m high stone masonry boundary wall. While the technical and safety requirements of the project have to be fulfilled, CIÉ/IÉ will engage further with the property owners in the area in order to examine whether there are solutions that can deliver the technical and safety requirements of the project while preserving, in so far as possible, the amenity areas.

Glasnevin Cemetery

- As part of the project the existing Glasnevin Cemetery Road Bridge (OBO10) will be demolished and replaced. Work will be carried out from the railway as much as possible, but a construction compound is still needed for bridge works which needs to be adjacent to the bridge itself. The duration of construction works at this location will be minimised as much as possible. The proposed works at Glasnevin Cemetery Road Bridge will take place over a 4-month period (approx.).

8.3.2. Response to Issues (not addressed above) raised by Persons/Groups not subject of Compulsory acquisition

Land Development Agency (LDA)

- Suitable fencing/hoarding and appropriate security will be provided by the DART + South West contractor at the temporary construction compound at Park West. Further engagement with LDA will continue during the detailed design and construction stage. In the event that housing is delivered in advance of DART works, CIÉ/IE will co-operate with LDA and DCC so as to maintain a high-quality interface with any new residential areas during the DART works.
- The delivery of power to the DART + South West substation will be a matter for ESB Networks.
- It is anticipated that the cable works, and directional drilling will be of a relatively short duration. A practical construction phasing can be developed that will minimise impacts on LDA projects.
- For technical reasons (including electrical safety, vehicular access, and access for future maintenance and equipment replacement) tree planting within the electricity substation compound is not possible. The safety and technical requirements also dictate the form of fencing proposed. There are no proposals to adjust the dimensions and position of the proposed substation. The applicant will liaise with LDA during detailed design in relation to proposed landscaping measures, and where feasible and technically appropriate, suitable measures will be implemented to minimise visual impacts of the substation.

Sharon Matthews (48 Kylemore Drive)

- A comprehensive assessment of biodiversity has been completed in the EIAR. This comprehensive information has been distilled into an accessible non-technical summary of the key information in relation to significant effects and the measures necessary to address them. This has been completed in accordance with best practice.
- The visual assessment of all overbridges and their potential suitability for roosting bats sought to identify the presence of suitable features e.g. cracks/crevices, missing block/brickwork and mortar, gaps at beam junctions. Le Fanu Bridge was deemed not to have potential suitability for roosting bats as a result of the visual assessment. Only features that were

deemed to have potential suitability were subject to emergence/re-entry surveys.

- Based on the bat commuting and foraging habitat suitability of the project footprint and its surrounding landscape, 4 static locations were determined to be adequate for establishing a bat activity baseline. In addition to the 4 static bat detector locations, incidental bat activity data was gathered during the bat roosting confirmation surveys (emergence and re-entry). The combined static and incidental data, and desk study results, provided a suitable bat activity baseline for the completion of the assessment. Static bat detectors were deployed and recorded for a minimum of 68 nights and a maximum of 119 nights between May and September 2021. The occasional static bat detector equipment errors are acknowledged and detailed as limitations in Section 8.3.5.2.1 of the EIAR. The errors were within the expected range for a data collection effort across this timeframe and do not negatively affect the ability to complete an impact assessment. It is deemed to not affect the certainty of predictability of the assessment.
- The limitations in terms of access due to health and safety restrictions was in relation to re-entry bat roost surveys and was applicable only to the Royal Canal and LUAS Twin Arch Bridge (OBO8). Section 8.3.5.2.1 of the EIAR acknowledges that it was not possible to complete full dawn bat roost re-entry surveys due to safety restrictions for access to the live rail. Dawn surveys were completed as far as possible (up to one hour before dawn). Additional dusk bat emergence surveys were completed to compensate for the reduced dawn survey data. This limitation is acknowledged and incorporated into the assessment and is deemed to not affect the certainty or predictability of the assessment.
- As part of the mitigation measures, pre-construction ecology surveys including suitability for roosting bats will be completed in advance of any construction works.
- The proposed mitigation does not preclude the need for additional suitably qualified personnel. The role of the Project Ecologist (Clerk of Works) is identified in the EIAR in recognition of the nature of the sensitivities.

Depending on the sequencing of construction activities there may be a need for multiple suitably qualified and experienced Clerk of Works.

Margaret Berrigan (83 Kylemore Road)

- Due to the nature of the proposed works, vegetation removal will be required. This includes proposals to remove trees at the rear of the property. There are no proposals to remove or replace the existing boundary wall. The property boundary will remain the same.
- A new retaining wall will be constructed along the rail corridor in the vicinity of the property.
- Once mitigation measures are implemented, it is anticipated that operational rail noise levels will be lower compared to the situation without the project in place (EIAR Table 14.70, location R28). A moderate positive impact is predicted. There is no requirement for noise insulation.
- At this location, construction works such as construction of a retaining wall along the railway will be transient in nature, with equipment moving gradually along the railway line as works proceed.

Catherine Clarke (15 Landen Road)

- A noise barrier is proposed along the project boundary in vicinity of this landowner's property (3.5 metres high - No.29, as per Table 14.69). Once mitigation measures are implemented, it is anticipated that operational rail noise levels will be lower compared to the situation without the project in place (EIAR Table 14.70, location R21). A moderate positive impact is predicted.

Noel & Anne Fitzgerald (33 Landen Road)

- A 3.5m high noise barrier is proposed at the rear of the property. Once mitigation measures are implemented, it is anticipated that overall noise levels will be reduced compared to the situation without the project in place. See Table 14.70 of the EIAR (location R21).

Elvire Callaghan (67 Landen Road)

- It is not anticipated that there will be any significant changes to the existing rear property boundaries at this location.

- A noise barrier will be installed to the rear. With the proposed noise mitigation measures in place, the operational rail noise at this location is expected to be lower than the situation without the project in place. See Table 14.70 of the EIAR (location R21). A moderate positive impact is predicted.
- The increased frequency of train services will not result in increased visual access to the property.
- The property is not subject to substratum acquisition. Normal planning procedures would apply to any future development proposals.

Janine Cooper (69 Landen Road)

- It is not anticipated that there will be any significant changes to the existing rear property boundaries at this location.
- A noise barrier will be installed to the rear of the property boundary. Once mitigation measures are implemented, it is anticipated that operational rail noise levels will be lower compared to the situation without the project in place (EIAR Table 14.70, location R21). A moderate positive impact is predicted.
- The property at this location currently experiences passenger train movements. The increased frequency of train services will not increase visual access to the property.

Helen Shine (147 Landen Road)

- It is not anticipated that there will be any significant works to the boundary in this location and a retaining wall is not required. The new OHLE is expected to be visible to the rear of the property.
- At an earlier stage in the project design, it was anticipated that a retaining wall and associated soil anchors would be required at this location. The need for a wall here was removed following more detailed design of geotechnical /structural solutions to minimise the impact on residents. As shown in Property Plan No. 12-2, there will be no land acquisition on this property.

Residents of Kilmainham Square Apartments

- The development at Emmet Road, Inchicore (ref. ABP 314791-22) was granted permission in July 2023, post the lodgement of the draft DART+ South West RO application. CIÉ/IE will continue to monitor planning applications in the vicinity of the DART + South West project and cognisance will be had to the construction programmes when these projects are approved and proceed to construction and operation stage.
- The Kilmainham Square Apartments are not subject to substratum acquisition. Normal planning procedures would apply to any future development proposals.
- Section 14.4.1 of the EIAR provides details on the baseline noise survey. All measurements were undertaken in accordance with ISO 1996 Acoustics – Description and Measurement of Environmental Noise, Part 1 (ISO 1996-1:2016) and Part 2 (ISO 1996-2:2017). The sound level meters were calibrated before and after the survey using a B&K 4132 Class 1 Acoustic Calibrator and the drift in calibration was within acceptable range (as per criterion in BS 4142:2014+A1:2019). Results are presented in Chapter 14 and Appendix 14.1 of the EIAR. The EIAR outlines the methodology including details on pre and post measurement calibration and analysis. It is satisfied that the procedure followed is robust. The Malone O’ Regan (MOR) report states the noise measurements were carried out using a Type 1 sound level meter but no details on the meter and calibrator were provided. It is noted that the baseline surveys as part of the EIAR were measured over a 24-hour period whilst MOR measured over a two-hour period during the daytime period.
- The observation that measured noise levels presented in the EIAR are higher than the rail, only, noise levels predicted is correct. The reason for the difference between the predicted noise level and measured noise levels is due to other noise sources including the constant road traffic noise from the R148 - Chapelizod Bypass.
- The MOR report queried why the VDV levels for VML 6 (Ground floor) presented in Table 14.22 of the EIAR were lower than the predicted VDV at 10m presented in Table 14.68 in the EIAR. Table 14.22 presents the measured vibration levels. The VDV levels presented within this table are the

cumulative VDV levels throughout the survey period. Table 14.68 presents the predicted levels using the methodology set out in Section 14.6.5 of the EIAR. This methodology considers the number of future train movements.

- Any existing issues with broadband/internet connection pre-date the proposed electric traction system for the project.
- The works at this location will be primarily undertaken within the existing rail corridor and to the northern side of the railway and SCR junction. It is not anticipated that the construction works will create any structural concerns for Kilmainham Square. Where appropriate, a condition survey will be carried out before any construction works commence which will be used to assess if any deterioration has occurred.

Claire Flahavan (Apt 25 The Wellington, Riverpark Apartments)

- The hedgerows on the River Liffey bank opposite are to be retained.

Cllr Hazel De Nortúin & Brid Smith TD

- With reference to Landen Road, Kylemore Drive and Cloverhill Road, in all cases a noise barrier or a solid parapet is proposed to the rear of the residential properties. Once mitigation measures are implemented, it is anticipated that operational rail noise levels will be lower at the majority of the properties compared to the situation without the project in place (EIAR Table 14.70, locations R21 - R28). A slight to moderate positive impact is predicted.
- There is no proposal to remove or alter the existing rear garden boundary walls in this area. In some sections, a new retaining wall will be built along the rail corridor within CIE land. The final design of the retaining wall and the boundary treatments will be finalised during the detailed design stage. The space between the rear boundary walls and the new retaining wall will be securely fenced off and will be maintained by CIÉ/IÉ.
- The introduction of additional rail lines for DART services will mean the loss of trees and shrubbery in many locations. Due to space and safety constraints, there is limited opportunity to implement replacement planting at some locations.

Dublin Chamber submission noted.

Dublin Commuter Coalition

- Please refer to response to DCC's submission with respect to lift provision within the proposed Heuston West Station (section 8.1.1 above).
- A new pedestrian and cycle access route is to be provided between the South Circular Road and the new station, via Clancy Quay development. A public right of way is proposed in the RO along the entirety of Waterloo Avenue which is the most direct connecting route.
- The project will significantly improve access to the Heuston Station area in general, by means of the new link from South Circular Road via Clancy Quay. There are emerging proposals for further development in this area as part of a 'Heuston West' project. The said project will include more ambitious public realm improvements and connectivity as part of an overall redevelopment of the area.
- All project works and subsequent line speeds will meet the needs of designed and agreed Train Service Specification 1C. This TSS_1C, and all designs of track, electrification and signalling infrastructure allow an optimisation of passenger services from 2 to 7 trains per hour per direction on the GSWR line. The project design is governed by various technical and safety guidelines, which include European, National and CIÉ/IÉ internal standards and specifications.
- In the absence of certainty on the timeline and feasibility of Dublin to Cork mainline electrification, it was concluded that measures to accommodate future mainline electrification would cause disproportionate impacts by way of disruption to affected persons and property. The project as developed for this RO application opted for a solution that guarantees communities in the area would not be negatively impacted unnecessarily.
- In so far as possible, CIÉ/IÉ has included the enhancement of facilities for pedestrians and cyclists in the interventions proposed along the project. Several meetings were held with DCC and NTA in relation to transport, traffic and project co-ordination while the RO application was being developed. Significant public consultation was also undertaken. In developing the

proposed designs/interventions at South Circular Road, the CIÉ/IÉ team had to consider several technical constraints including requirements of all road users, rail operations and constructability. The solutions were developed following optioneering, public consultation, and engagement with Dublin City Council as well as the NTA. The overall programme for long term transport planning and delivery is a matter for DCC and NTA as opposed to CIÉ/IÉ.

Proinsias Mac Fhlannchadha, Limekiln Lane

- To allow time for project governance approval, and for printing of the DART+ South West RO documentation, the planning report was completed while the GDA Transport Strategy was in draft format. The GDA Transport Strategy 2022-2042 was published on 23 January 2023. It noted, inter alia, that significant progress has been made in the design and planning for the DART+ Programme. It further noted that this application for a RO would be made in 2023. The Dart+ programme is included in the short term (2020 – 2030) strategy phasing of the Transport Strategy. CIÉ/IÉ is therefore satisfied that the project is fully aligned with delivery of the NTA GDA Transport Strategy 2022-2042 as adopted.
- CIÉ/IÉ will continue to work with the NTA, DCC and SDCC in relation to the City Edge Project delivery.

8.3.3. Response to Issues (not addressed above) raised by Persons/Groups subject of Compulsory acquisition

The following are divided into the zone in which the property occurs. To avoid due repetition, as far as practicable, I do not repeat issues which have been addressed above.

Zone A: Hazelhatch & Celbridge Station to Park West & Cherry Orchard Station.

None

Zone B: Park West & Cherry Orchard Station to Heuston Station

Park West

Airscape Ltd (lands at Park West Business and Industrial Park)

- Due to the nature of the proposed works and the installation of the new overhead electrification system, it is necessary to relocate the existing overhead power lines. The compound located to east of Park West Avenue (Temporary property acquisition 18830.T.9 (F)) is required as a launch pit to facilitate directional drilling to divert the existing services under the rail corridor. Temporary land acquisition of an existing gravel road 18830.T.9 (J) is also required to provide access to the above-mentioned compound.
- Temporary Acquisition of the local roads is required to facilitate access to the various worksites along the rail corridor in this area. Works include widening of the rail corridor, track lowering, construction of retaining walls and reconstruction of Le Fanu Bridge.
- A temporary construction compound is required at lands west of Friel Avenue, primarily for piling, excavation and track access works between Cherry Orchard Footbridge (OBC8B) and Le Fanu Road Bridge (OBC7).
- The acquisition of lands north and east of Friel Avenue is required to establish a temporary construction compound which will include site offices, welfare facilities, storage facilities, workshops, and storage of construction plant and equipment required to carry out the works. A new temporary access will be made off Friel Avenue.
- CIÉ/IE will continue to engage with relevant stakeholders, and to liaise with ESB in relation to the proposed undergrounding of 38kV overhead power lines which cross the track at approx. 4+200. ESB networks will be responsible for undertaking this work.

Kylemore Road/Kylemore Drive

Patricia & Derek McFarlane (357 Kylemore Road)

- Vegetation removal is required and at this location there is no scope for replacement planting.

Maria Manifold Doyle (359 Kylemore Road)

- Night-time works proposed in the vicinity of the dwelling include preparation of piling platforms on the north side of the tracks either side of Kylemore Bridge, in addition to works for the new Kylemore Bridge.

- At this location works such as construction of a piling platform will be 'transient' in nature, with equipment moving gradually along the railway line as works proceed. However, works at Kylemore bridge will be relatively static. Given the distance from the activities and the duration of the works, the significance of effect is assessed to be significant to profound. A suite of mitigation measures specifically for night-time works is included in Section 14.7.1 of the EIAR.
- Every effort will be made to reduce the duration of the impact on the access to the property and its driveway, however it is likely that access will be disrupted during the Kylemore Road Bridge reconstruction works. It will be pre-notified to the property owner/occupant, and it will be restored without unreasonable delay. Bridge works are expected to take approximately 9 months to complete (Table 6.26 of the EIAR). The contractor will develop and implement a CTMP. Where access to properties is disrupted, alternative parking provision will be put in place and will be agreed with the affected property owners. Access for deliveries, bin collections, utility providers and tradesmen will be facilitated within the CTMP. This CTMP will be agreed with the respective local authorities prior to construction.
- The contractor will be responsible for the installation of suitable barriers and fencing during the construction stage to minimise disruption.

Tracy Humphreys (49 Kylemore Drive)

- The soil anchors will extend just beneath the rear wall of the house, but at a significant depth.
- No adverse structural impacts to the garden shed or its contents are anticipated as a result of these works. The proposed condition survey will include the shed.
- Piling will occur to the rear of the dwelling during daytime periods and mitigation measures are outlined in Section 14.7.1 of Chapter 14 of the EIAR.
- Night-time works are proposed in the vicinity of the dwelling including preparation of piling platforms on the north side of the tracks in addition to

works at Kylemore Bridge (approximately 150m away) and Le Fanu bridge (approximately 285m away).

- A solid parapet atop of the secant pile wall is proposed along the project boundary at the rear of the property. The operational rail noise at this location is expected to be lower than the situation without the project in place.

Paul O'Brien represented by Joe Mortell (65 Kylemore Drive)

Response to issues raised summarised above.

Ciaran & Liona O'Toole (67 Kylemore Drive)

- During the construction phase there will be a requirement to undertake night-time works at Le Fanu bridge and Kylemore bridge. There will also be a requirement to prepare piling platforms between Ch 12+000 and Ch12+700. Some of this will occur to the rear of the property. At this location, construction works such as construction of a piling platform will be 'transient' in nature, with equipment moving gradually along the railway line as works proceed. Given the duration of the works, the significance of effect is assessed to be significant. A suite of mitigation measures specifically for night-time works is included in Section 14.7.1 of the EIAR.

Lillian Roe & Meghan Roe (91 Kylemore Drive)

- Vegetation removal including tree removal at the rear of the property will be required. Technical and space constraints mean that no mitigation planting is proposed at this location.
- There are no proposals to remove or replace the existing boundary wall. The property boundary will remain the same.
- A new retaining wall will be constructed along the rail corridor in the vicinity of the property. The new wall will be similar in height to the existing boundary and there will not be any significant impact on the level of light in the garden.
- A noise barrier will be installed to the rear of the property boundary. Once mitigation measures are implemented, it is anticipated that operational rail noise levels will be lower compared to the situation without the project in

place (EIAR Table 14.70, location R28). A moderate positive impact is predicted.

Craig Delaney & Others (93 & 95 Kylemore Drive)

- Due to the nature of the proposed works, vegetation removal will be required. This includes proposals to remove trees at the rear of the property. Technical and space constraints mean that no mitigation planting is proposed.
- The boundary at these locations will remain the same.
- A new retaining wall will be constructed along the rail corridor in the vicinity of the property. See section 8.3.1. above
- A noise barrier will be installed to the rear of the property boundary. Once mitigation measures are implemented, it is anticipated that operational rail noise levels will be lower compared to the situation without the project in place (EIAR Table 14.70, location R28). A moderate positive impact is predicted.

Kylemore

Breege, Lorraine and Shirley Lyons (Unit 4 Kylemore Park North)

Response to issues raised summarised above.

Marlet Property Group (Kylemore Business Park and Jamestown Road)

- CIÉ/IÉ plans to submit an update to the Book of Reference to An Bord Pleanála in advance of a decision to address any updated ownership information.
- A clearly defined appraisal methodology has been used in the selection of the preferred option for the proposed project.
- The permanent land acquisition at this location is required to facilitate the widening of the rail corridor. Situated adjacent to CIÉ/IÉ Inchicore Works, this is a technically complex and challenging location. The project team aimed to minimise land acquisition at all times. The proposed acquisitions are necessary for track alignment, construction of retaining walls, and

completion of drainage requirements. There are no alternatives available. New retaining walls are required at this location due to the level difference between the rail corridor and the adjacent land. Boundary walls will be reconstructed on top of the new retaining walls to limit further impact.

- The significance of impact on the property is deemed to be “Significant”, however its use can continue.
- Due to the nature of the proposed works, including the widening of the rail corridor and the construction of localised retaining walls, and drainage works, local access from the southern side of the rail corridor is required.
- Whilst it is acknowledged that the permanent acquisition 18832.P.280(B) involves the acquisition of a strip of land adjacent to the rail corridor reducing the amount of circulation around the properties, the three existing vehicular access points to both properties (7 & 8 Kylemore Business Park) will be maintained. The main building structures will not be impacted by the proposed works. Consequently, the property will not be ‘sterilised’ by the permanent acquisition of land as has been claimed. CIÉ/IE are open to discussing an operational plan at construction stage that would minimise interference with existing business operations.
- Access will be maintained to all affected property as much as possible and if interruption is necessary, it will be pre-notified to the property owner/occupant and it will be restored without unreasonable delay.
- The temporary acquisition of land 18832.T.280(C) is required for the sewer diversion and for demolition of an old boundary wall and its replacement on top of a retaining wall. The assessment identified that the significance of this impact is deemed to be “Slight”. Following the completion of relevant construction works, lands temporarily acquired will be reinstated and returned to the owner. The temporary acquisition will also enable access for construction vehicles and associated equipment required to carry out the works.
- CIE cannot comment on the commercial and lease arrangements between the property owner and tenants.

Vardis Group (Kylemore Business Park and Jamestown Road)

- Comments made in response to Marlet Property Group submission summarised above reiterated.
- CIÉ/IÉ is open to discussing an operational plan at construction stage that would minimise interference with existing business operations.

Onyx Ireland 2021 Propco IV Ltd Representative: M7 Real Estate Ireland Limited PP (Westlink Industrial Park)

- The permanent acquisition of Unit 1 is required to facilitate the widening of the rail corridor and also the reconstruction of Kylemore Bridge.
- Safe emergency access/egress from the properties will be maintained. The contractor will be responsible for preparing a detailed traffic management plans prior to construction.

Landen Road

Philip & Lilian Dalton (17 Landen Road)

Response to issues raised summarised above.

Daniel Sheehan (19 Landen Road)

Response to issues raised summarised above.

Pamela Lee (23 Landen Road)

- A noise barrier will be installed to the rear of the property boundary. Once mitigation measures are implemented, it is anticipated that operational rail noise levels will be lower compared to the situation without the project in place (EIAR Table 14.70, location R21). A moderate positive impact is predicted.

Emma King (197 Landen Road)

- A 3.5 metre high noise barrier will be installed to the rear of the property boundary. Once mitigation measures are implemented, it is anticipated that operational rail noise levels will be lower compared to the situation without the project in place (EIAR Table 14.70, location R24). A slight positive impact is predicted.

- The noise assessment concluded that a limited number of properties will experience a residual noise impact as a result of the proposed project. This property does not fall into one of the four noise sensitive locations identified as having a significant, negative, long term residual effect.
- A reduction in light levels is not envisaged.
- Vegetation removal is required at this location and there is no scope for replacement planting.

Nicole Concannon & Jason Byrne (221 Landen Road)

- A new retaining wall will be constructed along the rail corridor in the vicinity of the property. The final design of the retaining wall and the boundary treatments in this area will be finalised during the detailed design stage. The space between the rear boundary wall and the new retaining wall will be securely fenced off and will be maintained by CIÉ/IÉ.

Anne Mc Elroy & Anthony Costello (229 Landen Road)

- There is insufficient space due to technical and safety reasons to allow for replacement tree planting at this location.
- A noise barrier will be installed to the rear of the property boundary. Once mitigation measures are implemented, it is anticipated that operational rail noise levels will be lower compared to the situation without the project in place (EIAR Table 14.70, location R23). A slight positive impact is predicted.

Thomas Moroney (231 Landen Road)

- There is insufficient space due to technical and safety reasons to allow for replacement tree planting at this location.
- A noise barrier will be installed to the rear of the property boundary. Once mitigation measures are implemented, it is anticipated that operational rail noise levels will be lower compared to the situation without the project in place (EIAR Table 14.70, location R23). A slight positive impact is predicted.

Teresa Galvin (233 Landen Road)

- Vegetation removal is required to facilitate the project and there is no scope to allow for replacement planting at this location.

Marie Brogan (245 Landen Road)

- A 3.5 metre high noise barrier will be installed to the rear of the property boundary. With the proposed noise mitigation measures in place, the operational rail noise at this location is expected to be lower than the situation without the project in place. (EIAR Table 14.70, location R23). A slight positive impact is predicted.
- The current design does not include a retaining wall at this location.

Rosemarie Lynch (251 Landen Road)

- The current design does not include a retaining wall at this location.
- A 3.5 metre high noise barrier will be installed to the rear of the property boundary. Once mitigation measures are implemented, it is anticipated that operational rail noise levels will be lower compared to the situation without the project in place (EIAR Table 14.70, location R23). A slight positive impact is predicted.
- The final design of the acoustic barrier and the boundary treatments in this area will be finalised during the detailed design stage, subject to the grant of the RO. There will be no significant impact on the levels of light in the property.

Laura Molson (275 Landen Road)

- A noise barrier will be installed to the rear of the property boundary. Once mitigation measures are implemented, it is anticipated that operational rail noise levels will be lower compared to the situation without the project in place (EIAR Table 14.70, location R23). A slight positive impact is predicted.
- There is no proposal for a retaining wall at this location. Boundary treatment is expected to remain unchanged.
- There will be some removal of vegetation in order to provide space for the electrified rail lines. There is insufficient space due to technical and safety reasons to allow for replacement tree planting at this location.

Adam Harrington (275 Landen Road)

- There is no retaining wall proposed at this location. An acoustic barrier is proposed to the rear of the property. It will be approximately 2.5m high, similar to the existing boundary wall.

Breda Lakes (291 Landen Road)

- There is insufficient space due to technical and safety reasons to allow for replacement tree planting.
- A noise barrier will be installed to the rear of the property boundary. Once mitigation measures are implemented, it is anticipated that operational rail noise levels will be lower compared to the situation without the project in place (EIAR Table 14.70, location R23). A slight positive impact is predicted.
- The predicted noise level from the proposed substation is less than 11 dB L_{Aeq} at the property. This is substantially below the ambient and background noise levels measured during the surveys. Therefore, it is highly unlikely that substation noise will be perceptible at the property.
- In relation to the proposed electrical substation, the project design is governed by technical and safety guidelines, which include European, National and CIÉ/IÉ internal standards and specifications.
- The property at this location currently experiences passenger train movements. The increased frequency of train services will not result in increased visual access to the property.

Eliza Palumbo (293 Landen Road)

- A noise barrier will be installed to the rear of the property boundary. With the proposed mitigation measures in place, the operational rail noise at this location is expected to be lower than the situation without the project in place. See Table 14.70 of the EIAR (location R23). A slight positive impact is predicted.

Alan & Shane O'Callaghan (313 Landen Road)

- There is insufficient space due to technical and safety reasons to allow for replacement tree planting at this location.

- A noise barrier will be installed to the rear of the property boundary. Once mitigation measures are implemented, it is anticipated that operational rail noise levels will be lower compared to the situation without the project in place (EIAR Table 14.70, location R23). A slight positive impact is predicted.

Breda & Patrick Curran (409 Landen Road)

- A new retaining wall will be constructed along the rail corridor in the vicinity of the property.

Karen Balfe (413 Landen Road)

- The new retaining wall will be similar in height to the existing boundary and there will not be any significant impact on the level of light in the garden.
- A 2.5m high noise barrier atop the new piled wall is proposed along the boundary to the rear of the property. Once mitigation measures are implemented it is anticipated that the change in overall noise levels will not be significant. (EIAR Table 14.70).
- At this location, construction works such as construction of a retaining wall will be transient in nature, with equipment moving gradually along the railway line as works proceed. A suite of mitigation measures specifically for night-time works is included in Section 14.7.1 of the EIAR.

Mairead Kirby (419 Landen Road)

- The dwelling is a significant distance (more than 250 metres) from the proposed substation, which is on the far side of the CIÉ/IE Inchicore Railway Works.
- Due to the nature of the proposed works, tree removal at the rear of the property will be required. Technical and space constraints mean that no mitigation planting is proposed at this location.
- There are no proposals to remove or replace the existing boundary wall. The property boundary will remain the same.
- A 2.5m high noise barrier atop a new piled wall is proposed along the project boundary to the rear of the property. Once mitigation measures are implemented it is anticipated that the change in overall noise levels will be

marginally reduced compared to the situation without the project in place. (EIAR Table 14.70, location R27).

Catherine Malone (449 Landen Road)

- A noise barrier atop of the new piled wall is proposed at the rear of the property. With the proposed noise mitigation measures in place, the operational rail noise at this location is expected to be lower than the situation without the project in place. (EIAR Table 14.70, location R24-R26). A slight positive impact is predicted.
- Piling will occur to the rear of the dwelling during daytime periods and mitigation measures are outlined in Section 14.7.1 of the EIAR. At this location, construction works such as construction of a retaining wall will be transient in nature, with equipment moving gradually along the railway line as works proceed.

John & Veronica Bolger (453 Landen Road)

- At this location, construction of a piling platform will be 'transient' in nature, with equipment moving gradually along the railway line as works proceed. However, works at Kylemore bridge will be relatively static. Given the distance from the activities and the duration of the works, the significance of effect is assessed to be significant to profound. A suite of mitigation measures specifically for night-time works is included in Section 14.7.1 of the EIAR.
- There is insufficient space available due to technical and safety reasons to allow for replacement tree planting at this location.
- A noise barrier atop of the new piled wall is proposed at the rear of the property. With the proposed noise mitigation measures in place, the operational rail noise at this location is expected to be lower than the situation without the project in place. (EIAR Table 14.70, location R24 – R26 and R28). A slight to moderate positive impact is predicted.

Seven Oaks, Sarsfield Road

Note: (Named objectors to acquisition detailed in section 7.2 above)

- If the RO is granted, Statutory Notices will be served on the owners of the common areas, only, and compensation will be addressed in accordance with statute and standard compulsory purchase practice and procedure
- In addition to the general requirement for night-time possessions, two tie in works at Ch 10+800 are proposed which is close to Seven Oaks Apartments. It is also proposed to replace the existing Khyber Pass footbridge with a new bridge including new piers and ramps/stairs. All works can take place in safe zones adjacent to the works until such time as the main bridge span is lifted into place. This main span lift will require night-time possession and it will occur over one night. Given the short duration of the works, the significance of effect is assessed to be moderate.
- When night-time works are required, they will be undertaken in accordance with the mitigation measures included in the EIAR. A Noise Management Plan will be part of the construction stage of the project. CIÉ/IE will ensure residents living near the rail line are informed of upcoming works and given advance notice of any disruptive works.

Lally Road

The Horse Sanctuary (Lally Road)

- Temporary acquisition of land to the east of the horse sanctuary yard is required to enable construction activities in the area including the widening of the rail corridor to accommodate four-tracking along Con Colbert Road. This land will be used as a construction compound and track access for the significant civil engineering works required at this location. Owing to the proximity to busy roads and the operational rail line, there are no alternatives available that would satisfy construction requirements. It is estimated that the compound will be required for approximately four years. No works are proposed to the main yard or the paddock to the west of same. A small construction compound will be located on the green area adjacent to the Sarsfield Rd and Con Colbert Rd junction (DCC registered land).
- While the requirement for an alternative site was not raised during previous engagement, CIÉ/IE is open to further discussion with Mr. Finn in relation to

this issue and property related matters generally, without prejudice to his rights under the compulsory acquisition process.

Sarsfield Road

Dan Ryan Truck Rental Ltd (79 Sarsfield Road)

- The permanent acquisition of land will require the demolition of the main operational building on the site and the significance of this impact is acknowledged to be 'Profound', where the use of the property cannot continue.
- The temporary acquisition of land is required for the main track access between Sarsfield Road to South Circular Road and for the reconstruction of Sarsfield Road abutments and southern deck.
- The new track layout required to accommodate 4 tracks at this location cannot be achieved without permanent land take, and direct impact on the existing building, requiring demolition. Construction of a new railway boundary wall is required which will require significant engineering works and installation of soil anchors. A track access point is required for construction at this location. This land is also necessary for use as a temporary construction compound which will serve adjacent works and also accommodate plant/ equipment working in this general vicinity. Lands surplus to requirements are not included in the draft RO, nor will these lands be put to any use outside that required by the project.
- The proposed acquisition does not represent a disproportionate interference with the landowner's property rights. A property owner may be entitled to make a claim in respect of the acquisition under various headings.

Inchicore/Kilmainham

Patrick & Una Manning (6 Murray's Cottages)

- The work in proximity to this dwelling will include construction of a new retaining wall, which will require drilling and installation of soil anchors beneath the property. The rear garden is of limited depth and, therefore, construction stage noise and vibration impacts will be unavoidable.

- During the construction period a temporary hoarding will be erected in the garden to shield the property from construction activities.

Peter Byrne Representative – Sudway & Company Limited, Chartered Surveyors (7 Murray’s Cottages)

- The work in proximity to this dwelling will include construction of a new retaining wall, which will require drilling and installation of soil anchors beneath the property. The rear garden is of limited depth, and therefore construction stage noise and vibration impacts will be unavoidable.
- There is temporary land acquisition at this location to facilitate the construction of the new retaining wall and reconstruction of the boundary wall. Lands temporarily acquired will be reinstated and returned to the owner. A temporary hoarding will be erected in the garden to shield the property from construction activities.
- The level of design detail presented in the RO application is appropriate for this stage of the project. The schedules to the draft RO submitted with the application clearly set out the extent of the land that will be acquired temporarily and the substratum that will be permanently acquired to facilitate installation of ground anchors. The overall project construction programme and timelines are presented in Chapter 5 of the EIAR. A more detailed programme will be developed by the contractor prior to commencement of construction.

Dermot Foley (8 Murray’s Cottages)

- The temporary acquisition of land is required to facilitate the widening of the rail corridor. This will be used to facilitate plant and equipment which will be used for the construction of the new retaining walls and associated engineering works. The area will be reinstated, and a new boundary wall constructed after completion of the construction works in the area.
- Permanent substratum acquisition of land is required to facilitate the installation of soil anchors under the property. The draft RO does not propose to create a way leave under the property but will enable CIÉ/IÉ to acquire part of the substratum of the property.

- A temporary hoarding will be erected in the garden to shield the property from construction activities.
- The overall programme of 50 months is required given the scale and complexity of the project. Work will not be continuous in the area, but there will be discrete periods of construction activity required. These will be signalled in advance by the CLO.

Kieva McDermott (8 Woodfield Avenue)

- It is not anticipated that the existing property boundary wall will need to be demolished to enable construction of the new retaining wall at this location. The existing boundary wall can be included in the condition survey. In the event of any damage this would be made good.
- The nature of the project and also the requirement to maintain operational train services, imposes constraints and limitations on the construction activities and the sequencing of the works. Due to these constraints works cannot be undertaken on both sides of the railway line simultaneously at this location. There will also be a requirement for some night-time works.

Nuala Goodwin (9 Woodfield Avenue)

- The nature of the project and also the requirement to maintain operational train services, imposes constraints and limitations on the construction activities and the sequencing of the works. Due to these constraints works cannot be undertaken on both sides of the railway line simultaneously at this location. There will also be a requirement for some night-time works.

Clíona Martyn (10 Woodfield Avenue)

- It is not anticipated that the existing property boundary wall will need to be demolished to enable construction of the new retaining wall at this location. The existing boundary wall can be included in the condition survey. In the event of any damage this would be made good.
- The nature of the project and also the requirement to maintain operational train services, imposes constraints and limitations on the construction activities and the sequencing of the works. Due to these constraints works

cannot be undertaken on both sides of the railway line simultaneously at this location. There will also be a requirement for some night-time works.

- A combination of measures for reinstated areas and biodiversity 'stepping stones' will mitigate the loss of habitat and associated potential impacts on bats in this area.

Gerard Greene (12 Woodfield Avenue)

- It is not anticipated that the existing property boundary wall will need to be demolished to enable construction of the new retaining wall at this location. The existing boundary wall can be included in the condition survey. In the event of any damage this would be made good.
- The nature of the project and also the requirement to maintain operational train services, imposes constraints and limitations on the construction activities and the sequencing of the works. Due to these constraints works cannot be undertaken on both sides of the railway line simultaneously at this location. There will also be a requirement for some night-time works.

Aoife Lalor (16 Woodfield Avenue)

- It is not anticipated that the existing property boundary wall will need to be demolished to enable construction of the new retaining wall at this location. The existing boundary wall can be included in the condition survey. In the event of any damage this would be made good.
- The nature of the project and also the requirement to maintain operational train services, imposes constraints and limitations on the construction activities and the sequencing of the works. Due to these constraints works cannot be undertaken on both sides of the railway line simultaneously at this location. There will also be a requirement for some night-time works.

Zone C: Heuston Yard and Station

None

Zone D: River Liffey Bridge to Glasnevin Junction

Sunnybank, Conyngham Road

Phoenix Park Property Management Company CLG

Response to issues raised summarised above.

Pamela Benson (Apt.9)

- There will be changes to some residential views with the introduction of the OHLE.
- The temporary land acquisition is required for the construction of OHLE poles and the running of cables between poles between the Liffey Bridge and Conyngham Road.

Angela Palmer (Apt.10)

- There will be changes to some residential views with the introduction of the OHLE.
- The temporary land acquisition is required for the construction of OHLE poles and the running of cables between poles between the Liffey Bridge and Conyngham Road.

Old Cabra Road

The Gables Flat Management Ltd. (Old Cabra Road)

- Substratum land acquisition is proposed for properties 76 and 79A Old Cabra Road due to proposed soil nailing. Works drawing no.16 refers.

Vasile & Audrey Mindrescu (The Gables, Old Cabra Road)

- The railway line adjacent to this property is in cutting with a boundary wall at the top of the cut. Installation of noise barriers are most effective when located close to the noise source or the receptor location and they block line of sight. However, at this location, line of sight between the construction works and dwelling is blocked due to the existing topography. A noise barrier is not considered necessary.

Cabra Drive

Joan Giltinan (3 Cabra Drive)

Deiric O Broin (4 Cabra Drive)

Response to issues raised summarised above.

Faussagh Avenue

Deirdre Cullen (2 Faussagh Avenue)

Robert Cullen (2 Faussagh Avenue)

Response to issues raised summarised above.

R and D development Ltd. (2A Faussagh Avenue)

- If any future development is proposed at the property, CIÉ/IE will need to be consulted. This does not necessarily preclude development potential in the future, but it does mean that stability of the embankment along the rail corridor would need to be taken into consideration.
- Gabion baskets can, in some instances, be utilised as a retaining structure to a height of up to 1.5 m along the toe of a cutting slope, however gabions do not address the need to stabilise the existing slope. The use of gabions as a solution to retain slopes of greater heights is not technically suitable and, therefore, would not be permitted under CIÉ/IE's technical design standards. The use of soil nails at this location have been identified as the most appropriate solution to stabilise the existing slopes.

Bannow Road

Anne, William & Caroline Comiskey (44 Bannow Road)

Jackie & David Donohoe (48 Bannow Road)

Amanda Vaughan (56 Bannow Road)

Michelle Moulder (nee Burke) (64 Bannow Road)

Frances Moss (66 Bannow Road)

Response to issues raised summarised above.

St. Attracta Road

Nicola Kelly (245 St. Attracta Road)

William Hyland (255 St. Attracta Road)

June Fitzgerald (257 St. Attracta Road)

Aine Kelly & James McCarthy (267 St. Attracta Road)

Response to issues raised summarised above.

Jacqueline Kelly (275 St. Attracta Road)

- The boundary line of her property will not be reduced or affected.

Glasnevin

Dublin Cemeteries Trust

- The project team investigated alternative options at this location, and found that the current proposal, which involves a temporary interruption to vehicular access to St. Paul's, to be the most practical solution.
- Due to the nature of the works, there will be a short-term impact on availability of carparking and impacts on vehicular access. The project design and phasing has been planned to minimise the level and duration of impact.
- A number of parking spaces will be unavailable during bridge works at this location. CIÉ/IÉ will collaborate with Dublin Cemeteries Trust and with DCC to examine alternative parking arrangements during the construction period. The construction stage environmental management plan will address access and parking in more detail.
- The proposed temporary pedestrian bridge will be sufficiently wide to accommodate access for pedestrians (and carrying of remains) during the period of its use.
- The works compound location is dictated by the presence of the bridge and will be positioned largely in the same location as discussed with Dublin Cemeteries Trust. The scale and position of the compound has been optimised to find the most practical solution that enables railway works to be undertaken safely while minimising impacts on cemetery operations.
- CIÉ/IÉ will continue to liaise with Dublin Cemeteries Trust in order to develop an operational plan for the construction phase that minimises impacts to the fullest extent possible and enables a practical and dignified access to the cemetery.

Helen Fayne (2 Claremont Lawns)

- At the closest location the uppermost soil nail will pass approx. 7 metres below the building which is significantly below the influence of standard foundation depths and will not impact the foundations or cause settlement or subsidence.
- The noise levels in the EIAR apply to external locations at the most exposed façade. Construction noise levels inside the dwelling are expected to be significantly lower than the predicted external levels. The predicted noise level will be reduced at this location as the existing topography and the boundary wall at the top of the cutting will provide screening.
- The works associated with Glasnevin Cemetery will be completed in approx. 3 months.
- Traffic accessing the construction compound through the estate road is predicted to be less than 10% change in Average Annual Daily Traffic (AADT).
- Timetabling of services is the responsibility of CIÉ/IÉ in conjunction with the NTA. New services and enhanced timetables are introduced in response to growing demand.
- The vegetation on the slope face of the existing cutting will be removed. The vegetation/trees at the top of the slope will be retained.

Kieran Ebbs (4 Claremont Lawns)

- CIÉ/IÉ acknowledges that the proposed compound at St. Paul's Cemetery will be in close proximity to existing residential development. Traffic analysis undertaken determined that the traffic from construction vehicles accessing the Glasnevin Cemetery compound was predicted to be less than 10% percentage change in Average Annual Daily Traffic. The significance of effect associated with the traffic flow increase is categorised as Slight. Measures to mitigate the traffic and transport impacts from the construction phase are included in Section 6.6.1 of the EIAR. The appointed contractor will develop and implement a CTMP, and this will be agreed with the respective local authorities prior to construction. The CTMP will include measures for minimising traffic delays, disruption and maintain access to

properties. Transport/parking arrangements for construction staff will also be included. In this way, disruption to local residents will be kept to a minimum.

- The potential cumulative effects of the Ballymun/Finglas to City Centre Core Bus Corridor Scheme and the DART+ South West Project have been assessed under Tier 3 “Other Projects” in Section 26.4.3.2 (Table 26.7). As part of the mitigation measures proposed, communications will be maintained between CIÉ/IE and the NTA/TII to reduce the likely significant cumulative effects on the local communities during the construction stages.

Caroline McGrotty (5 Claremont Lawns, Glasnevin)

Response to issues raised summarised above.

9.0 Oral Hearing

The Board considered the documentation on hand and decided to determine the RO application through written procedures. Accordingly, no oral hearing has been held. All parties were informed of this decision and the applicant’s response to the observations/objections received was circulated for comment.

10.0 Further Submissions to Applicant’s Response

19 no. submissions were received and are summarised as follows:

10.1. Airscape Ltd. & related entities

- The concerns as detailed in the original submission remain outstanding.

10.2. Patricia & Derek McFarlane (357 Kylemore Road)

- Disappointed no oral hearing is being held.
- Increased dust, air pollution and traffic
- Their health will suffer.

10.3. Sharon Matthews (48 Kylemore Drive)

- It is not good a proposition to wait until the project has been approved to carry out more ecological survey/assessments of bats.

- She has evidence of bat activity which may indicate they are coming from the railway, close to Kylemore Drive.
- Bat Conservation Ireland should be involved.
- With the passing of the Nature Restoration Law in the European Parliament in February 2024, the government will have to plan on how to protect and restore habitats and biodiversity. There is a huge opportunity here to protect an existing community of bats present around Le Fanu and Kylemore Bridge.
- Restrictions should be imposed on IÉ re. use of diesel units, or it should be required to seek permission if it seeks to increase diesel trains on the line.
- Any resident who is disturbed or vulnerable should be moved for the duration of the works even if they are not right next to the rail tracks.
- Solid processes and procedures must be put in place so that contractors are held to account if they breach conditions or if there are special circumstances that require intervention.
- Kylemore Avenue is not appropriate for traffic diversions. It is beside a playground with speed bumps, whilst parking narrows the street. Kylemore Drive will be used as a shortcut. Detail is being pushed out to the traffic management plan into which locals will have no input.

10.4. Marlet Group

- Note proposed updating of Book of Reference. Response also on behalf of Prime GP6 Ltd.
- Its concerns remain.
- The proposed works will result in the complete loss of business and any future use and development of the property.
- HGVs cannot use the yard and building if the permanent and temporary land take were to proceed. The current uses of the building could not continue.
- The current tenants can and will terminate their leases. It will be impossible to lease the site with a compulsory acquisition pending.
- Some uses may be able to continue but these would be marginal uses unable to fully utilise the site.

- The substratum land take will result in the effective sterilisation of the lands. Development potential would be seriously hindered by the presence of the CIE asset under its property. The site is within the City Edge project. Any future proposal in terms of basement, foundations and substructures and subsequent height the site could deliver will be significantly compromised. Taking into consideration that it can take up to 3 years to get CIE agreement and having regard to the fact that a planning permission is normally for 5 years, the period which would actually be available would be insufficient to complete a development.
- Works in other jurisdictions are carried out without the extensive permanent, temporary or substratum land takes proposed in this instance. Alternative, less invasive engineering solutions have not been explored.

10.5. **Vardis Group**

- The application will result in the complete loss of its business at 7 & 8 Kylemore Business Park. It will have no option but to enact the break clause in its lease and vacate the site.

10.6. **Anne McElroy & Anthony Costello** (229 Landen Road)

- The concerns as outlined in their original submission stand and are reiterated.
- Mitigation does not negate an impact. There are no guarantees in terms of reducing impacts.
- The provision of a community liaison channel is not reassuring as a natural bias towards the project progression would be present.
- The trees to be removed are more appealing, provide privacy and act as a barrier to attenuate sound. Loss of birds. Rail workers and passengers will have a clear view of their home.
- Concerns as to the size and visual impact of the noise barrier.
- The fact that the contractor will be responsible for issues such as site security, vermin etc. suggests that any issues arising must be raised with a 3rd party and not the landowner. The efficacy of such contact is queried.
- Issues of security cameras remain.

- The applicant's response with respect to the soil anchors is unclear. There is no guarantee as to the impacts.
- The development potential of their site will be impacted. Also impact on potential sale.
- Compensation would not account for length of construction works, possible damage and interference to their property, resale value, development potential, views and usability of garden, privacy, security, impact to health and quality of life and future increased train frequency.

10.7. **Thomas Moroney** (231 Landen Road)

- The concerns have not been addressed. The language used in the applicant's response confirm that the concerns are relevant.
- The impact of works prior, during and post completion will have a lasting effect on their property and personal wellbeing, with no compensation discussed.
- The documentation was difficult to understand, and sufficient time was not allowed, notwithstanding the fact that the statutory period was exceeded.
- The concerns regarding noise during construction and operational phases remain. Mitigate does not mean prevent. It infers an effort will be made to reduce impact, not to ensure the status quo is maintained.
- The provision of a community liaison channel does not reassure them as a natural bias toward the project progression would be present.
- The trees to be removed provide for greater visual amenity, privacy and security than a noise barrier. They also act as a barrier to attenuate sound. The rustling of foliage is not a negative source of noise. Tree removal also means loss of birds.
- Workers and rail passengers will have a clear view into their home.
- There are concerns as to the size and visual impact of the noise barrier.
- The fact that the contractor will be responsible for issues such site security, vermin etc. suggests that any issues arising must be raised with a 3rd party and not the landowner. The efficacy of such contact is queried.

- Security cameras and loss of privacy from same.
- It is queried what does substantially underground mean with reference to the soil anchors. There is no guarantee that the works will not have an adverse effect on his property. He will be expected to make his property available for a condition survey.
- There will be impact in terms of feasibility and cost should he wish to build on his property. Given dealings to date it is his opinion that contacting Irish Rail to consult on any future project will be extremely difficult. The anchors will be prohibitive. They will be a further complication should he wish to sell his property.
- His property value, development potential, resale potential, insurability and structural integrity will be under question where currently they are not.
- Compensation for the anchors does not compensate for the length of the construction period, the possible damage and interference to his property, resale value, development potential, view to the rear, usability of the garden and security.

10.8. **Teresa Galvin** (233 Landen Road)

- Her concerns have not been addressed. The language used in the applicant's response confirm that the concerns are relevant.
- The impact of works prior, during and post completion will have a lasting effect on her property and personal wellbeing, with no compensation discussed. Managing mitigation is not sufficient.
- The documentation was difficult to understand, and sufficient time was not allowed notwithstanding the fact that the statutory period was exceeded.
- The concerns regarding noise during construction and operational phases remain. Mitigate does not mean prevent. It infers an effort will be made to reduce impact, not to ensure the status quo is maintained.
- The provision of a community liaison channel does not reassure her as a natural bias toward the project progression would be present.
- The trees to be removed provide for greater visual amenity, privacy and security than a noise barrier. They also act as a barrier to attenuate sound.

The rustling of foliage is not a negative source of noise. Tree removal also means loss of birds.

- Workers and rail passengers will have a clear view into her home.
- There are concerns as to the size and visual impact of the noise barrier.
- The fact that the contractor will be responsible for issues such site security, vermin etc. suggests that any issues arising must be raised with a 3rd party and not the landowner. The efficacy of such contact is queried.
- Security cameras and loss of privacy from same.
- It is queried what does substantially underground mean with reference to the soil anchors. There is no guarantee that the works will not have an adverse effect on her property. She will be expected to make her property available for a condition survey.
- There will be impact in terms of feasibility and cost should she wish to build on her property. Given dealings to date it is her opinion that contacting Irish Rail to consult on any future project will be extremely difficult. The anchors will be prohibitive. They will be a further complication should she wish to sell her property.
- Her property value, development potential, resale potential, insurability and structural integrity will be under question where currently they are not.
- Compensation for the anchors does not compensate for the length of time the works are to be carried out, the possible damage and interference to her property, resale value, development potential, view to the rear, usability of the garden and security.

10.9. Sean Smallhorne (Apt. 80, Block C, Seven Oaks, Sarsfield Road)

- His concerns have not been addressed.
- The increased frequency in trains will increase noise and vibration which will, in time, impact the foundations.
- Increased use of Inchicore Works.
- The impact of the extent and duration of the construction period.

- Assume that measures will be put in place such as triple glazed anti-noise windows and frames.

10.10. Barry Kelly (Apt. 165, Block E, Seven Oaks, Sarsfield Road)

- The response does not address the concerns raised. Mental health will suffer from the duration of the construction period both during the day and night.
- The increase in train frequency will impact every resident in the complex.
- The complex will need triple glazed windows and frames.
- Their home will suffer should anti-vibration measures not be implemented.

10.11. Gerard Greene (12 Woodfield Avenue)

- The depth of substratum is not known.
- The ground anchors could potentially obstruct future development or damage the existing wooden structure at the end of the garden.
- There is insufficient detail in relation to vibration monitoring on properties which could cause ongoing or future damage.
- There are no plans to replace the rear boundary wall with like for like which would be damaging to the heritage of the area.
- Noise monitoring during construction and engagement with the public is queried. Lack of mitigation plans for areas in close proximity to the works including Woodfield Avenue.
- Further information required on scheduling of construction and how it can be sequenced so that both sides of the line could be done simultaneously.
- Noise disturbance during construction and operational phases. Further mitigation required such as installation of triple glazed windows and other safeguards.
- Increased vibration during operational phase and potential damage to property.
- Lack of detailed conservation plans particularly in relation to bats using the rear of the wall as a feeding corridor.

10.12. **Leonard Hayes & Julien Joly** (Apt. 110 Kilmainham Square)

- Their concerns and suggestions have been ignored.
- As a minimum a sound proof canopy or retaining wall must be considered to mitigate against noise and vibration.

10.13. **Kate Joyce** (Apt 220 Kilmainham Square)

- The concerns with respect to noise have not been adequately addressed including rational for testing locations and timeframe chosen.
- Noise levels should be measured when existing night time maintenance works are being undertaken. It is not possible to sleep when such works are being carried out.
- The Kilmainham Square Management Company carried out noise testing. The results are different to the applicants. Refer to submission by Downey Planning Consultants on behalf of the management company.
- Sufficient detail has not been provided regarding design solutions available to mitigate sound and vibration. Alternative options such as railway tunnel should be considered.

10.14. **Residents, Kilmainham Square Apartments**

- Clarity is required regarding site selection for carrying out the noise assessment at the complex, particularly the methodology employed to select two locations at floors 3 and 9, only, despite the significant impact of the railway on 87 units directly facing the railway line. Balconies serving ground floor apartments are situated just 7 metres from the railway track.
- Clarity required on the noise assessment and whether both internal and external impacts have been fully assessed during both construction and operational phases.
- Details of equipment used and calibration of same in the noise surveys provided.
- Further noise surveys were conducted by MOR on 4th to 6th September 2023 (results attached).

- The report submitted on behalf CIÉ/IÉ shows a reduction in rail noise at lower floors. However, measurements by MOR indicate an increase in noise at lower floors. A portion of this is attributable to non-rail sources such as road traffic, however, subjectively the passing of trains was identified as being more acoustically prominent at lower floors.
- The daytime and night time values on the 1st floor are 2dB higher at night and 5dB higher at day than the predicted 3rd floor values by CIÉ/IÉ
- Comparing the baseline monitoring at different heights it is noted that the noise levels are lower at 9th floor than on 1st floor. Accounting for façade correction at 9th floor the measurements are up to 12.8dB lower than the average value presented in the Irish Rail acoustic report.
- Clarity on whether the EIAR considered both average and lowest noise levels during the preparation of the noise baseline. In some cases, the lowest noise levels can be used as a conservative measure to ensure that noise impacts are adequately assessed, especially in sensitive environments or where noise intrusion is a concern. A more conservative approach incorporating both metrics should be used to better understand the range of noise exposure and to facilitate more effective mitigation measures.
- There is a lack of evidence to support the claim that the impact of resilient rail is negligible. There appears to be potential for exploring alternative noise mitigation measures including implementation of continuously welded rails, resilient rail fastenings and low-vibration track systems. Additionally, the use of (partial) noise barriers or canopies constructed from various materials such as transparent panels, absorptive materials or natural elements like earth berms could be considered. Other options include wheel dampers or the use of grinding railway track to achieve smoother surfaces. Integrating innovative noise reducing technologies and adopting combined approaches may further enhance noise mitigation efforts.
- Need to address recently permitted mixed use development of 578 units at Emmet Road from a cumulative impact perspective particularly regarding traffic, noise, vibration and dust (ref. ABP 314791-22)

- Liaison with residents is required to ensure that their concerns and issues are considered.

10.15. Angela Palmer (Apt. 10 Sunnybank, Conyngham Road)

- Financial impact arising from her ability to rent the property both during construction and operational phases.
- Noise and disruption during construction.
- Decline in biodiversity and air quality during construction.
- Road and apartment access during construction.
- Compensation will be sought.

10.16. The Gables Flat Management Ltd.

- It is queried whether steel rod soil anchors have been used to stabilise ground underneath similar properties (traditional brick built pitched roof 2 storey buildings) and whether there are alternative, viable methods that are likely to cause less damage at this location.

10.17. Dublin Cemeteries Trust, Glasnevin Cemetery

- St. Paul's cemetery is located adjacent to the railway bridge. There could be in the region of 12-15 burials weekly with an average of 2 – 3 per day (Monday to Saturday) usually between 10 am and 2pm. Due to circumstances beyond its control the burials cannot be strictly timetabled.
- The draft agreement does not give clarity or comfort on issues highlighted.
- It needs full access and associated car parking to be able to run the burial services in a dignified manner.
- Greater assurance is needed in relation to maintaining safe and accessible pedestrian access to the cemetery via the temporary bridge and that it is wide enough. Confirmation required that IÉ will source and supply the hearse and mourner vehicle for people with limited mobility. A motorised trolley will be required if the bridge cannot be accessed by a hearse.
- Clarification is required on what is meant by stating that closure of the vehicular access can be limited to approx. 3 weeks. Is it intended that it will

just take 3 weeks to replace the bridge and that after a 3 week period a hearse and funeral cars can travel across the new bridge?

- Commitment required as to the precise location of suitable alternative parking available during the construction period.
- Can an alternative location be sought for the construction compound within the large area of green space immediately outside the carpark. Not satisfied that adequate space will be provided for a funeral arriving and space for transferring remains in a safe and dignified manner. 12 spaces with no alternative area identified will lead to delays and traffic chaos and unauthorised parking in adjacent residential streets.
- The holding area for a hearse and associated cars and the management of cars in and out, particularly for more than one service arriving at the same time, will create problems for those trying to use the car park. While a security guard is required to coordinate construction traffic there will need to be a dedicated attendant to manage traffic for those attending funerals. No details have been agreed as to how and who will employ this person.
- Commitment required that noise and disruption including construction deliveries will only take place before 10am or after 2pm. Commitment required that construction activities will not include noise related work throughout the burial services and not just when a funeral cortege may be passing the construction area and pedestrian bridge.
- A noise assessment and mitigation plan including a baseline survey should be provided to it before a decision is made by the Board.
- Clarification required on the repositioning of the entrance/entry barrier to facilitate construction traffic.
- Confirmation required of the precise location and nature of security arrangements for housing equipment.

10.18. Development Applications Unit, Department of Housing, Local Government and Heritage.

Note: the submission repeats sections of its original submission.

Archaeology

- The conditions pertaining to archaeology detailed in its original submission should be attached. The said conditions align with sample conditions C5 and C6 as set out in the OPR Practice Note PN03: Planning Conditions (October 2022) with appropriate site specific additions/adaptations based on the particular characteristics of the development and informed by the findings of the EIAR.

Nature Conservation

- It is unclear whether the applicant is committed to installing an oil separator or other filtration device on the outfall to the Liffey from the proposed modernised drainage system for the Phoenix Park Tunnel. Such installation should be provided in order that any potential pollution to the river which might arise from the operation of an increased number of trains through the tunnel shall be minimised as far as possible so as to avoid adverse effects on aquatic biota.
- Satisfied with details re tree retention and otters.
- It remains the Department's advice that prior to commencement of work that the railway embankments along the Phoenix Park Tunnel Branch in the vicinity of the Royal Canal and St. Attracta Road should be resurveyed at an appropriate time of the year to check if any areas of calcareous grassland still survive in these areas. Any areas, if identified, should be preserved from disturbance during the proposed works and incorporated into the scheme's landscaping.
- In the interests of clarity no 'wildflower' seed mixtures should be used in landscaping. Embankments where vegetation is removed should be allowed to re-vegetate spontaneously from the existing soil seed bank and natural seed dispersal.

10.19. Transport Infrastructure Ireland

- The matters raised in its original submission remain. The applicant's response to its submission has not resulted in enunciated, traceable commitments to mitigation of potential national road and light rail network impacts as identified, which is a concern.

- Having regard to the content of the application, its original submission and the applicant's reiteration of commitments to agree certain matters with TII, including the CEMP, it is recommended that such commitments are formalised to form part of the development permitted under this Order to ensure development proceeds and operates in accordance with relevant national road and light rail technical standards, guidance and codes of practice.

National Roads Network

- Conditions should be considered to form part of the Order in the interests of the protection of the safety, capacity and efficiency of the national road network including:
 1. Works to be in accordance with TII publications. Plans and details on or in the vicinity of the national road network to be submitted and agreed with the local authorities in consultation with TII prior to commencement.
 2. The CEMP to be submitted for written agreement and is to reflect mitigation and monitoring of the national road network.
 3. A construction traffic management plan including access to services to be submitted for written agreement. To demonstrate consultation with the M50 PPP Contractor via TII and relevant road authorities and to include information on traffic management including signage to ensure strategic function of the national road network is protected.

LUAS Technical Considerations

- The applicant's response does not appear to identify that the development includes works under and adjacent to LUAS. There is a requirement to obtain a permit for works including temporary works such as hoardings. Conditions should include:
 1. Plans and details for OCS pole protection and safety distances and/or existing, temporary and subsequent permanent fixings to be agreed prior to commencement.
 2. CEMP to contain a method statement to resolve all LUAS interface issues, and a risk assessment for works associated with the interfaces. It

should contain mitigation measures for unacceptably high risks including electromagnetic interference and vibration and a settlement monitoring regime, if necessary. Method statement to be in accordance with TII's Code of Engineering Practice for works on, near or adjacent to the LUAS light rail system.

3. All works associated with removal, temporary and final installation of LUAS infrastructure to be undertaken outside LUAS operational hours, under system shutdown and overhead conductor system isolation with prior agreement with TII and the LUAS Operator as required.
4. CTMP to include identification of mitigation measures to protect operational LUAS infrastructure.
5. Developer to enter into an access and maintenance agreement with TII. LUAS operator/TII will require 24hr access to LUAS infrastructure.
6. Need to apply for works permit from the LUAS operator.

11.0 Planning History

By reason of the nature of the proposed project the planning history along its length is extensive. I refer the Board to Tables 26.4 to 24.8 of the EIAR and Appendix 4 of the NIS accompanying the application which provide for the larger applications/permissions granted in vicinity to the corridor.

I bring the following to the Board's attention:

ABP 314056-22 - permission granted for the Liffey Valley to City Centre Core Bus Corridor with an overall length of approximately 9.2km commencing at Fonthill Road travelling along Ballyfermot Road, Sarsfield Road, Memorial Road, Inchicore Road, Grattan Crescent, Emmet Road, Old Kilmainham, Mount Brown, James's Street, Thomas Street and High Street.

The project will divert city bound general traffic along Ballyfermot Road between Le Fanu Road and Kylemore Junction via Le Fanu Road and Kylemore Road back to Ballyfermot Road.

ABP 314942-22 – current application with the Board for the Lucan to City Centre Bus Corridor Scheme with an overall length of 9.7km to be routed along the R825

Lucan Road, Chapelizod By-Pass, Con Colbert Road, St. John's Road West, ending at Frank Sherwin Bridge.

At time of writing no decision has been made.

ABP 314232-22 – Dart + West - Dublin City to Maynooth and M3 Parkway Railway Order application currently with the Board. The project will consist of electrification and re-signalling of the existing Great Southern & Western Railway (GSWR) and the Midland Great Western Railway (MGWR) rail lines from Dublin City centre extending west of Maynooth town as far as the proposed depot and to M3 Parkway Station. The route is divided into 6 zones.

Zone A runs east to west from the Loop Line above the River Liffey and Connolly Station to Glasnevin Junction along the GSWR line. The permanent works within Zone A extend to Glasnevin Cemetery and car park.

At the time of writing no decision has been made.

ABP 318607- 23 – Section 175 application for mixed use residential development on a site bounded by Cloverhill Road to the north, Cedar Brook Avenue and Park West Avenue to the east, Park West & Cherry Orchard rail station to the south east, the rail line to the south, and the M50 motorway to the west. The development is to comprise of 708 residential units, supermarket, retail / commercial units, dedicated internal and external community and arts / cultural spaces, a childcare facility with associated outdoor play area, landscaped public open space including community plaza, multipurpose amenity lawn, play space, outdoor fitness trail, multi-use games area (MUGA), playground and all associated site and development works. The application is made by The Land Development Agency on behalf of Dublin City Council. The proposed development represents Phase 1 of the overall planned development for Development Sites 4 and 5 of the Park West - Cherry Orchard LAP lands.

At the time of writing no decision has been made.

I also note that since the lodgement of the application permission was granted by the Board (06/07/23) under ref. **ABP 314791-22** for 578 units, library/community hub, childcare facility, supermarket, 5 retail units, 2 café/restaurants and open space at Emmet Road.

12.0 Policy Context

12.1. European Policy

12.1.1. EU White Paper on Transport: Roadmap to a single European Transport Area – Towards a competitive and resource efficient transport system

This strategy document seeks to develop a transport system that meets the needs and aspirations of people while minimising undesirable impacts. The vision identifies four broad areas, including:

- Growing transport and supporting mobility while reaching a 60% emission reduction target.
- Promoting clean urban transport and commuting.

12.1.2. The European Green Deal

The Green Deal growth strategy sets out the EU's increased ambition on climate action. It identifies the need for a transformation in the economy and key roles for sectors such as transport, buildings, agriculture, and energy production. The Green Deal recognises the role of rail in greening European transport and reaching both the EU targets and the Paris Agreement objectives. Rail is identified as the only mode of transport that is able to achieve economic growth whilst reducing its emission levels.

12.1.3. European Sustainability and Smart Mobility Strategy – Putting European Transport on Track for the Future (2020).

The strategy sets out how EU transport systems can achieve a green and digital transformation. In line with the European Green Deal, the result will be a 90% cut in emissions by 2050, delivered by a smart, competitive, safe, accessible and affordable transport system. In terms of sustainable mobility, pillars for action include:

- make all transport modes more sustainable,
- make sustainable alternatives widely available in a multimodal transport system, including the promotion of rail transport.

- put in place the right incentives to drive the transition.

12.1.4. **Trans-European Transport Network**

The TEN-T policy supports the development of a Europe wide network of railway lines, roads, inland waterways, maritime shipping routes, port, airports and railroad terminals. The overall objective is to close gaps, remove bottlenecks and technical barriers as well as to strengthen social, economic and territorial cohesion in the EU.

The TEN-T policy seeks to achieve the following:

- Improved use of infrastructure,
- Reduced environmental impact of transport,
- Enhanced energy efficiency, and
- Increased safety

DART+ South West is identified as an action under the TEN-T Connecting Europe Facility Programme (CEF) which acknowledges that “upgrading this railway line to four electrified tracks will bridge the missing link by connecting the Cork Line and the Belfast Line through two stations in Dublin (Hazelhatch and Connolly stations).

12.2. **National Policy**

Project Ireland 2040 was launched in February 2018 and comprises the National Planning Framework and the National Development Plan 2018 – 2027.

12.2.1. **National Planning Framework**

The NPF defines 10 no. National Strategic Outcomes (NSO) which represent a shared set of goals for every community across the country.

Of relevance to the DART+ Programme are NSOs 1, 4 and 8.

NSO 1 - Compact Growth seeks to manage the sustainable growth of cities, towns, and villages to create compact and attractive places in which people can live and work.

NSO 4 - In line with Ireland’s Climate Change mitigation plan, we need to progressively electrify our mobility systems moving away from polluting and carbon intensive propulsion systems to new technologies such as electric vehicles and introduction of electric and hybrid traction systems for public transport fleets, such

that by 2040 our cities and towns will enjoy a cleaner, quieter environment free of combustion engine driven transport systems.

- Expand attractive public transport alternatives to car transport to reduce congestion and emissions and enable the transport sector to cater for the demands associated with longer term population and employment growth in a sustainable manner through measures including delivery of the key public transport objectives of the Transport Strategy for the GDA 2016-2035 by investing in projects such as Metro Link, DART Expansion Programme and BusConnects in Dublin.

NSO 8 - The National Climate Policy Position establishes the national objective of achieving transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050.

Key future growth enablers for Dublin include delivering the key rail projects set out in the Transport Strategy for the GDA including the DART expansion.

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

The National Development Plan has been revisited and updated to cover the period 2021-2030.

The transport sector is responsible for 20 per cent of Ireland's GHG emissions and emissions from the sector were growing consistently pre-pandemic, despite the mitigation efforts undertaken. Major progress in decarbonising the sector is, therefore, a prerequisite for achieving Ireland's 2030 climate targets.

The GHG emissions associated with public transport will be addressed by replacing diesel buses with lower emitting alternatives under the BusConnects programme, by expanding the reach of the DART network and by encouraging and incentivising commercial bus services to switch to lower emission alternatives in their fleets.

Chapter 7: Enhanced Regional Accessibility

Public Transport: New Infrastructure

Investment in the DART+ programme will address some of the constraints on the Dublin City Centre rail network and provide for additional services for intercity rail services.

Chapter 9: Sustainable Mobility NSO 4

Strategic Investment Priorities

The DART+ programme will be a cornerstone of rail investment within the lifetime of Project Ireland 2040.

12.2.3. National Investment Framework for Transport in Ireland

The NIFTI published by the Department of Transport in 2021 is a high level strategic framework to support the consideration and prioritisation of future investment in land transport (roads, public transport, walking and cycling) over the next two decades. The purpose of NIFTI is to enable the delivery of Project Ireland 2040 and the ten NSOs by guiding the appropriate investment in Ireland's roads, active travel and public transport infrastructure.

It establishes 4 no. investment priorities: Decarbonisation, Protection and Renewal, Mobility of People and Goods in Urban Areas, and Enhanced Regional and Rural connectivity.

12.2.4. National Sustainable Mobility Policy

The policy published by the Department of Transport in 2022 sets out a strategic framework to 2030 for activity travel and public transport to support Ireland's overall requirement to achieve a 51% reduction in carbon emissions.

Goal 2 aims to reduce emissions by transitioning the bus, rail and small public service vehicle (SPSV) fleet across the country to low/zero emission vehicles in line with available technology. The actions under this goal are aligned with the actions in the Climate Action Plan.

In rail, the key focus is to expand electrification. Under the DART+ programme in the GDA, electric and battery-electric fleet will be purchased to extend DART services to Drogheda in the north, Maynooth and M3 Parkway in the West, Hazelhatch in the Southwest, and to increase services to Greystones in the southeast. This will increase the length of the rail network with electrified services from 50km to 150 km by 2030.

Goal 3 aims to expand the capacity and availability of sustainable mobility in the five cities (Cork, Dublin, Galway, Limerick and Waterford). This will be done through improved walking, cycling, bus and rail infrastructure, improved transport interchange and expanded public transport services.

12.2.5. National Climate Action Plan 2023

At the time of writing the Climate Action Plan 2023 is the operative document.

It sets out the roadmap to deliver on Ireland's climate ambition. It aligns with the legally binding economy-wide carbon budgets and sectoral ceilings that were agreed by Government in July 2022.

It seeks to halve the State's emissions by 2030 and reach net zero no later than 2050. It calls for a significant cut in transport emissions by 2030 in order to meet the sectoral emission ceiling. Fleet electrification, along with the use of biofuels, are seen to provide the greatest share of emissions abatement in the medium term. Table 15.7 of the Plan sets out the Key Actions to deliver abatement in transport for the period 2023-2025. Within this Table and under the heading 'Major Public Transport Infrastructure Programme', the advancement of the DART+ programme is scheduled.

12.3. Regional Policy

12.3.1. Eastern & Midland Regional Assembly Regional Spatial & Economic Strategy 2019-2031

Strategic Connections to the Southern Region

The Dublin to Cork rail corridor is strategically important linking the two largest cities in the State, and part of the EU TEN-T core network, which aims to protect and enhance strategic international connections between Belfast, Dublin and Cork. The Dublin to Cork rail corridor also provides commuter rail services to the Dublin hinterlands. The RSES supports a feasibility study for the provision of highspeed rail links between Dublin and Limerick/Junction Cork and enhanced rail services including the extension of the DART to Celbridge/Hazelhatch in north Kildare.

Chapter 5 - Metropolitan Area Strategic Plan (MASP)

Guiding Principles for the growth of the Dublin Metropolitan Area (including):-

Integrated Transport and Land use – 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.

Strategic development corridors include;

South - West Corridor (Kildare line, DART expansion and LUAS red line). The consolidation of the western suburbs of Clonburris, Kilcarbery and Adamstown, linked to increased capacity and electrified services on the Kildare line, to be delivered by 2027, and at Grangecastle supported by additional bus connections.

Integrated Land use and Transportation

The principles underpinning the development of the MASP include the effective integration of transport planning with spatial planning policies, from regional down to local level and the alignment of associated transport and infrastructure investment priorities. The national policy in metropolitan areas is to increase sustainability through greater alignment of land use and transport. The NTA's Transport Strategy for the GDA (2016) provides a framework for the planning and delivery of transport infrastructure and services in the GDA over the period 2016 - 2035. The alignment of the MASP and the GDA Transport Strategy is key to the coordination of policy making and investment within the Dublin Metropolitan Area.

MASP Sustainable Transport

Objective 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.

Objective 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.

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

- DART Expansion Programme - new infrastructure and electrification of existing lines, including provision of electrified services to Drogheda or

further north on the Northern Line, Celbridge-Hazelhatch or further south on the Kildare Line, Maynooth and M3 Parkway on the Maynooth/Sligo Line, while continuing to provide DART services on the South-Eastern Line as far south as Greystones

- New stations to provide interchanges with bus, LUAS and Metro network including at Kishoge, Heuston West, Cabra, Glasnevin, Pelletstown and Woodbrook.

Chapter 8 Connectivity

Rail Infrastructure RPO 8.8: The RSES supports delivery of the rail projects set out in Table 8.2, subject to the outcome of appropriate environmental assessment and the planning process.

Table 8.2: Rail Projects for the Region -

DART Expansion Programme - new infrastructure and electrification of existing lines, including provision of electrified services to Drogheda or further north on the Northern Line, Celbridge-Hazelhatch or further south on the Kildare Line, Maynooth and M3 Parkway on the Maynooth/ Sligo Line, while continuing to improve DART services on the South-Eastern Line as far south as Greystones.

New stations to provide interchange with bus, LUAS and Metro network including Kishoge, Heuston West, Cabra, Glasnevin, Pelletstown and Woodbrook.

12.3.2. NTA – Greater Dublin Area Transport Strategy 2022 2042

Section 8.6 Transit-Oriented Development (TOD)

The Adamstown and Cherrywood Strategic Development Zones (SDZs) and the forthcoming City Edge Masterplan are based on servicing a major part of the transport demand by LUAS and/or DART.

TOD incorporates the idea that the level of accessibility afforded by such infrastructure and services allows for a higher intensity of development, and in some cases, a higher proportion of uses such as office and retail than would ordinarily be considered outside central areas.

Measure RAIL1 – DART+

The DART+ Programme will be implemented, providing electrified services to Drogheda in the north and Maynooth plus Celbridge in the west, in addition to an enhanced level of service to Greystones. The programme will include additional fleet, aligned with higher passenger demand, and a higher frequency of service on all lines.

Measure RAIL6 – New Rail Stations

The NTA, in conjunction with Irish Rail, will develop new rail stations at Cabra, Glasnevin, Heuston West, Kylemore..... Kishoge station will also open in the short term as development of the Clonburris SDZ is realised. Other stations will be considered where development patterns support such provision.

Measure RAIL7 – Station Upgrades

The NTA, in conjunction with Irish Rail, will upgrade, refurbish and maintain train stations across the GDA to ensure that they are of an appropriate standard and provide a good quality experience for passengers.

12.4. Local Policy

12.4.1. Dublin City Development Plan 2022

The following sections are noted:

Chapter 1 - Strategic Context and Vision

Strategic Principles

c) Sustainable Movement – helping to build an integrated transport network and encouraging the provision of greater choice of public transport and active travel including walking and cycling.

Chapter 2 – Core Strategy

2.4.5 Future Development Areas

Objective CSO2 - To prepare a local statutory plan in conjunction with South Dublin County Council for lands at Kylemore Road/Naas Road and Ballymount lands to enable a co-ordinated and phased development on these lands over the medium to long term.

The Council will continue to implement the LAPs currently in place at the time of adoption of the development plan including Park West - Cherry Orchard. The plan was adopted in October 2019.

Chapter 3: Climate Action

Policy CA3 - Climate Resilient Settlement Patterns, Urban Forms and Mobility

To support the transition to a low carbon, climate resilient city by seeking sustainable settlement patterns, urban forms and mobility in accordance with the National Planning Framework 2018 and the Regional Spatial and Economic Strategy 2019.

Chapter 6: City Economy and Enterprise

The outer city refers to the newly developing areas on the fringe of the city administrative area including Park West & Cherry Orchard. It is envisaged that these large suburban areas will be further integrated into the structure of the city with opportunities for intensification of infill, brownfield and underutilised land fully explored, particularly where it aligns with existing and future public transport infrastructure.

Policy CEE10 The Outer City

To support employment growth in the outer city by encouraging the intensification of infill, brownfield and underutilised land, particularly where it aligns with existing and future public transport infrastructure

Chapter 8: Sustainable Movement and Transport

Policy SMT1 Modal Shift and Compact Growth

To continue to promote modal shift from private car use towards increased use of more sustainable forms of transport such as active mobility and public transport, and to work with the NTA, TII and other transport agencies in progressing an integrated set of transport objectives to achieve compact growth.

Objective SMT01 Transition to More Sustainable Travel Modes

To achieve and monitor a transition to more sustainable travel modes including walking, cycling and public transport over the lifetime of the development plan, in line with the city mode share targets of 26% walking/cycling/micro mobility; 57% public transport (bus/rail/LUAS); and 17% private (car/van/HGV/motorcycle).

Policy SMT3 - Integrated Transport Network

To support and promote the sustainability principles set out in National and Regional documents to ensure the creation of an integrated transport network that services the needs of communities and businesses of Dublin City and the region.

Policy SMT4 Integration of Public Transport Services and Development

To support and encourage intensification and mixed-use development along public transport corridors and to ensure the integration of high quality permeability links and public realm in tandem with the delivery of public transport services, to create attractive, liveable and high quality urban places

Policy 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 +

Policy SMT23 The Rail Network and Freight Transport

1. To work with IÉ/Irish Rail, the NTA, TII and other operators to progress a coordinated approach to improving the rail network, integrated with other public transport modes to ensure maximum public benefit and promoting sustainable transport and improved connectivity.

Objective SMT017 Additional Interchanges and Rail Stations

- (iii) To promote and seek provision of additional stations as part of the DART+ projects in consultation with IÉ/Irish Rail.

Chapter 11: Built Heritage and Archaeology

Policy BHA3 Loss of Protected Structures - The City Council will resist the total or substantial loss of protected structures in all but exceptional circumstances.

Policy BHA5 Demolition of Regional Rated Buildings on NIAH - There is a presumption against the demolition or substantial loss of any building or other structure assigned a 'Regional' rating or higher by the National Inventory of Architectural Heritage (NIAH), unless it is clearly justified in a written conservation assessment that the building has no special interest and is not suitable for addition to the City Council's Record of Protected Structures (RPS); having regard to the provisions of Section 51, Part IV of the Planning and Development Act, 2000 (as amended) and the Architectural Heritage Protection Guidelines for Planning Authorities (2011).

Protected Structures

The Board is advised that there are multiple structures within the Inchicore Works which are on the Record of Protected Structures. RPS Ref. Nos. 8851, 8853 – 8868 & 8744 refer. Of note:

- 8866 – Signal Box
- 8744 – boundary wall of coursed limestone rubble

There are also multiple structures within Heuston Station included in the record RPS Nos.7576 refers.

RPS 879 – Cabra Road Bridge.

Chapter 13: Strategic Development Regeneration Areas

Ref. No.	Site Name	Population Capacity	Area (HA)	Supporting Infrastructure
SDRA 4	Park West & Cherry Orchard	2,500 – 3,100	49	DART+, BusConnects, social infrastructure.
SDRA 7	Heuston and Environs	1,250	14	DART+, BusConnects

12.4.2. South Dublin County Development Plan 2022

Chapter 2 – Core Strategy and Settlement Strategy

CS7 Objective 4: To promote and facilitate development at the Strategic Development Zones at Adamstown and Clonburris, in accordance with their planning scheme and associated phasing requirements, whilst adapting to and facilitating emerging transport service level pattern needs.

Policy QDP15: Strategic Development Zones (SDZS): Continue to implement the approved Planning Schemes for Adamstown and Clonburris SDZs.

QDP15 Objective 1: To support the delivery of the identified infrastructure to facilitate sustainable development in South Dublin's Strategic Development Zones.

QDP16 Objective 2: To support the City Edge Strategic Framework and any future framework for the area in delivering urban growth and regeneration for the County and the wider Region, recognising its significant potential as the largest regeneration area in the country.

Chapter 7 - Sustainable Movement

SM1 Objective 3: To support the delivery of key sustainable transport projects including DART and LUAS expansion programmes, in accordance with RPO 5.2 of the RSES / MASP.

Policy SM3 Public Transport – General: Promote a significant shift from car-based travel to public transport in line with County targets and facilitate the sustainable development of the County by supporting and guiding national agencies in delivering major improvements to the public transport network.

SM3 Objective 1: To achieve and monitor a transition to the County mode share targets of 20% Bus and 5% Rail.

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

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

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

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

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

Section 7.6.2 Rail DART Expansion Programme

The implementation of the DART expansion programme will provide DART+ services as far as Hazelhatch on the Kildare Line, serving the developing Adamstown SDZ lands, the Grange Castle Business Park, the established areas of Clondalkin and the SDZ lands at Clonburris where a community of 23,000 population is planned. The newly built station at Kishoge will open during Phase 1B of the Clonburris SDZ Planning Scheme (1,001-2,000 residential units). The expansion programme will also provide an increased train frequency at Park West in the City Edge area.

Table 7.4 Park and Ride Proposals Park and Ride Proposals

- Adamstown Station (Dublin-Kildare Railway) Temporary facility operating with a permanent facility to be completed as part of the Adamstown District centre development (as identified within the Adamstown SDZ Planning Scheme)
- Kishoge Station (Dublin-Kildare Railway) Park and Ride will come on-stream with the opening of Kishoge Station.

SM3 Objective 21: To support the opening of the Kishoge rail station to align with the delivery of homes within the Clonburris SDZ area, in accordance with the SDZ Planning Scheme phasing.

SM3 Objective 22: To investigate the option of an inter-county rail service stopping at Kishoge Station which would provide access to new employment space at Clonburris and give direct access to the Grange Castle Business Park.

SM3 Objective 23: To support the delivery, in the short to medium term, of measures to enhance the development potential of the City Edge lands including:

- A new train station on the Kildare Line adjacent to Kylemore Road

SM3 Objective 25: To facilitate the provision of Park and Ride facilities in appropriate locations at transport nodes and along strategic transport corridors in accordance with the NTA's Transport Strategy for the GDA 2016-2035, as updated to 2042.

Chapter 9 – Economic Development and Employment

EDE4 Objective 10: To support the City Edge / City Edge Strategic Framework and any future framework for the area in delivering urban growth and regeneration for the County and the wider Region, recognising its significant potential as the largest regeneration area in the country.

12.4.3. Kildare County Development Plan 2023

Objective TM O1 - Support the NTA Draft Transport Strategy for the GDA (2022-2042) and facilitate and secure the implementation of projects identified within the Strategy.

Objective TM O10 - Facilitate and secure the delivery/implementation of the public transport projects that relate to County Kildare as identified within the Integrated Implementation Plan (2019-2024), (or any superseding document), including the DART+ programme (Including DART+ West and DART+ South West), The DART+ projects present an opportunity to improve journey time, reliability, and train frequency.

Policy TM P3 - Promote the sustainable development of the county by supporting and guiding national agencies in delivering major improvements to the public transport network and to encourage a shift from car-based travel to public transport that is accessible for all, regardless of age, physical mobility, or social disadvantage.

Objective TM O41 - Generate additional demand for public transport services by strengthening development around existing and planned high-capacity transport routes and interchanges and by reducing walking and cycling distances through the implementation of local permeability improvements and improving access to public transport as part of road improvement projects where possible.

Objective TM O50 - Facilitate and support the extension of the DART+ line to Kilcock, the extension of the DART+ Southwest line to Naas/Sallins (and promote a future extension to Newbridge and Kildare Town in the next DART + programme / GDA Transport Strategy Review) and the extension of the LUAS network, in co-operation with Irish Rail, the Department of Transport and the NTA.

Target TM T4 - As a minimum, increase the current modal shares of work trips by bus to 13% and train to 14% during the lifetime of this Plan.

13.0 Assessment

- 13.1. The assessment of the proposed development is divided into four parts comprising of the planning assessment (section 14), environmental impact assessment, (section15), appropriate assessment (section16) and compulsory acquisition (section 17). Invariably there is an overlap in the assessments, and I have endeavoured to avoid undue repetition in the interests of conciseness.
- 13.2. My assessment is informed by all of the documentation received with the application for the proposed development, all of the subsequent reports, submissions and observations and the applicant's response to same, as well as information gathered during my site visits of the project corridor.

14.0 Planning Assessment

I consider that the issues arising in this section can be assessed generally under the following headings:

- Procedural and Legal Matters
- Principle of Development and Policy Context
- Noise and Vibration
- Air Quality
- Health and Safety Considerations
- Construction Compounds and Substation
- Bridge Modifications/Replacement
- Phoenix Park Tunnel
- Access and Traffic
- Residential Amenities
- Drainage and Flood Risk
- Biodiversity
- Cultural Heritage
- Train Station Provision
- Heuston Station West Location and Design
- Other Issues

14.1. Procedural and Legal Issues

14.1.1. A significant number of observers are critical of the extent and manner of **public consultations** undertaken by the applicant both prior to the lodgement of the application and at this application stage.

14.1.2. Public consultation was undertaken in 3 stages as presented in PC 1 Report, PC 2 Report and PC 2 Addendum Report which accompany the application (Appendices 1.3 to 1.5 in volume 4 of the EIAR). In addition, technical engagement with a range

of stakeholders including the local authorities was carried out, details of which are provided in Table 1.5 of the EIAR. The applicant's response to the submissions/observations received also details the consultations with individuals/property owners conducted prior to the making of the application.

- 14.1.3. As noted by the applicant the timeframe in which a **submission** on an application can be made to An Bord Pleanála is governed by the Transport (Railway Infrastructure) Act 2001, as amended, which sets a requirement for at least 6 weeks. The period stipulated in the public notices was from March 29th until May 16th, 2023 (7 weeks).
- 14.1.4. The application is accessible to the public by **electronic and hard copy** means with landowners/occupiers subject to compulsory acquisition provided with a specific notification pack. A number of observers raised the issue of the complexity of the said documentation and difficulty in interpretation. In this regard I note that the relevant legislation details the documentation that is required to be contained in the RO application. I also note that the EIAR contains a non-technical summary, as required, and that the project team was available to provide assistance via phone and email.
- 14.1.5. On balance, I consider that the applicant has taken all reasonable steps to engage with the local community and affected landowners. I consider that the engagement has been effective in terms of advising the public of the proposed development and that 3rd parties were not disenfranchised.
- 14.1.6. A number of observers object to the **cost** of making a submission and consider that all individuals impacted by the proposal and not just those named in the draft RO should be able to make such a submission without incurring a cost. The Transport (Railway Infrastructure) Act 2001, as amended and the Planning and Development Act 2000, as amended, stipulate that potentially impacted landowners who are referenced in the draft RO are entitled to make a submission free of charge. Others must include a fee to make an observation. An Bord Pleanála has no discretion on this matter.
- 14.1.7. Observers have noted that in some instances plans accompanying the application do not reflect the current situation on the ground with extensions/structures in rear gardens etc. omitted. The applicant has advised that **Ordnance Survey** (OS) mapping was used for the production of drawings and maps. I accept that such

mapping is time specific and that physical features on the ground may change over time and, for this reason, the OS mapping may not reflect building changes or extensions. Neither the applicant nor the Board have not been made aware of any mapping omissions/updates that would have a material impact on the RO application.

14.2. Principle of Development and Policy Context

14.2.1. The current electrified DART network is circa 50km long, extending from Malahide/Howth to Bray/Greystones. The DART+ Programme is seeking to increase the high capacity and electrified network to 150km to meet current and future demands. This will be achieved by the modernisation of the existing railway corridors to include electrification, re-signalling and certain interventions to remove constraints within the GDA. The programme includes the following:

- DART+ South West (this Project) – circa 16km between Hazelhatch & Celbridge Station to Heuston Station and also circa 4km between Heuston Station to Glasnevin Junction, via the Phoenix Park Tunnel Branch Line (c.20km in total).
- DART+ West – circa 40km from Maynooth & M3 Parkway Stations to the City Centre (subject of current application to the Board under ref. ABP 314232-22).
- DART+ Coastal North – circa 50km from Drogheda to the City Centre.
- DART+ Coastal South – circa 30km from Greystones to the City Centre.

14.2.2. I also note that the DART+ Fleet project entails the purchase of new electrified fleet to serve new and existing routes.

14.2.3. The importance of public transport and the move away from reliance on the private car is clearly acknowledged at a European, national, regional and local level and there is a suite of documents that support and promote the transition to a low carbon and climate resilient society.

14.2.4. At a European level the **Trans-European Transport Network** identifies the DART+ South West as an action under the TEN-T Connecting Europe Facility Programme (CEF) which acknowledges that upgrading this railway line to four electrified tracks

will bridge the missing link by connecting the Cork Line and the Belfast Line through two stations in Dublin (Hazelhatch and Connolly stations).

14.2.5. At a national level the **National Development Plan** notes that the transport sector is responsible for 20 per cent of Ireland's greenhouse gas emissions and emissions from the sector were growing consistently pre-pandemic, despite the mitigation efforts undertaken. Major progress in decarbonising the sector is, therefore, a prerequisite for achieving Ireland's 2030 climate targets. The **National Planning Framework** and **National Development Plan** acknowledge the need to expand attractive public transport alternatives to car transport to reduce congestion and emissions and enable the transport sector to cater for the demands associated with longer term population and employment growth in a sustainable manner through measures including delivery of the key public transport objectives of the Transport Strategy for the GDA. This includes investment in the DART Expansion Programme which is identified as a strategic investment priority and key future growth enabler for Dublin. It will be the cornerstone of rail investment within the lifetime of Project Ireland 2040, and it represents the single biggest investment in the Irish rail network.

14.2.6. The imperative as articulated at national level is distilled in the **RSES for the Eastern and Midlands Region**. Objective RPO 5.2 of the Metropolitan Area Strategic Plan (MASP) seeks to support the delivery of key sustainable transport projects including the DART expansion programme and ensure that future development maximises the efficiency and protects the strategic capacity of the metropolitan area transport network, existing and planned. The strategy identifies the South - West Corridor (Kildare line, DART expansion and LUAS red line) as a strategic development corridor which would allow for the consolidation of the western suburbs of Clonburris, Kilcarbery, Adamstown and Grangecastle (supported by additional bus connections).

14.2.7. The **NTA - GDA Transport Strategy 2022 2042** in Measure Rail1 states that the DART+ Programme will be implemented. It reiterates the fact that the level of accessibility afforded by such infrastructure and services allows for a higher intensity of development. The strategy also identifies locations for new stations including Cabra, Kylemore and Heuston West and states that Kishoge station will open in the short term as development of the Clonburris SDZ is realised.

- 14.2.8. The rail line subject of this RO application traverses three local authorities, Dublin City Council, South Dublin County Council and Kildare County Council. At a **local policy** level all support the rail project and advocate for a transition to more sustainable travel modes and effective integration of land use and transportation recognising the opportunities presented by DART+. **Policy SMT22** of the **Dublin City Development Plan**, **SM1 Objective 3** of the **South Dublin County Development Plan** and **Objective TM O10** of the **Kildare County Development Plan** support the realisation of the DART + South West project
- 14.2.9. In conclusion, and as evidenced from the policy context assessed above, the proposed development is a strategic project aligned with European, national, regional and local objectives to improve sustainable connectivity, support compact growth and reduce the reliance on private vehicle trips, with the consequent reductions in vehicle emissions. The project follows and expands the potential capacity of an existing operational railway and is regarded as acceptable in principle in terms of planning and transportation policy.
- 14.2.10. In response to the Dublin Commuter Coalition's recommendation that passive provision for **electrification of the Dublin – Cork line** should be included as part of this project, the applicant stated that all elements of the route works were reviewed and tested following which it was concluded that in the absence of certainty as to timelines and feasibility, measures to accommodate future mainline electrification would cause disproportionate impacts for the communities in the area. In the absence of reference to such a proposal in current transport policy and lack of certainty as to when, and if, such a project would be realised, I accept this approach and note that the scheme as developed for this RO would not impede any future proposals for such electrification.

14.3. Noise and Vibration

- 14.3.1. A significant number of observations have raised concerns regarding increased noise and vibration during both the construction and operational phases. The submissions are almost exclusively grouped along the eastern and north-eastern length of the corridor namely Ballyfermot, Inchicore, Kilmainham, Conyngham Road, Cabra and Glasnevin.

Noise

- 14.3.2. I refer the Board to section 14 of the EIAR which addresses both construction and operational noise.
- 14.3.3. A series of unattended 24 hour baseline noise measurements were carried out at 18 no. representative locations along the length of the project to characterise the existing noise environment. The locations of the **monitoring locations** are presented in Table 14.19 of the EIAR. As is evident from the results which are presented in Table 14.20 the noise environment is reflective of its largely emerging and established urban setting with both existing rail and road traffic being the dominant sources. All but four locations (NML1, NML2, NML 4 & NML18) had noise levels over 55 dB L_{Aeq} 16hr (day time) and, save for 1 no. location (NML 4), all had noise levels over 45 dB L_{Aeq} 8hr (night time).
- 14.3.4. Of particular note are the following nighttime noise levels recorded.

Table 1

Location	L_{Aeq} , 8hr Monitoring Result
NML3 - rear garden of dwelling along Quarry Road	58
NML 8 – 3 rd floor balcony Kilmainham Square c. 40 metre setback from the track.	59.1 (road noise from Chapelizod By-Pass noted)
NML 9 - 9 th floor balcony Kilmainham Square c. 40 metre setback from the track.	65.4 (road noise from Chapelizod By-Pass noted)
NML 14 - rear garden of dwelling on Kylemore Road	59.9
NML16 – rear garden of dwelling on Barnville Park. Approx. 400m. from M50	57.8
NML 17 - rear garden along Tullyhall Drive in Adamstown. Road between tracks and survey location	58

- 14.3.5. Residents of Kilmainham Square contend that the use of the L_{Aeq} parameter is not appropriate for rail noise and advocate for the L_{den} measure as per **WHO Environmental Noise Guidelines for the European Region 2018** and **European Noise Directive 2002 (as amended 2015)**. In terms of the former, and as noted in the EIAR, the main purpose of the guidelines is to provide recommendations for the protection of human health from exposure to environmental noise originating from various sources including railway noise. They are recommended to serve as the basis for a policy making process in which policy options are considered. The

European Communities (Environmental Noise) Regulations 2018 transposed the aforementioned European Directive, the purpose of which is to avoid, prevent or reduce on a prioritised basis the harmful effects, including annoyance, due to exposure to environmental noise. The regulations address noise mapping and action plan preparation with the noise indicators L_{den} and L_{night} to be used. I note that IÉ is a designated noise mapping body and has produced Strategic Noise Maps.

- 14.3.6. Notwithstanding, there is no **statutory Irish guidance** relating to rail noise levels and the measurement parameters to be used. Therefore, the approach adopted by the applicant in using the $L_{Aeq\ 16hr}$ and $8hr$ measurements, having regard to guidance documents on environmental noise and the approach taken in other urban rail projects, is considered appropriate.
- 14.3.7. The Kilmainham Square residents are also critical of the noise assessment undertaken by the applicant. The 1st submission on behalf of the residents by Downey Chartered Town Planners is accompanied by an Acoustic Assessment Report by Malone O'Regan Engineering (MOR). Results of further noise surveys conducted in September 2023 accompany the 2nd submission with details of the methodology followed including calibration and analysis.
- 14.3.8. The Board is advised that the apartment complex has frontage onto both the railway corridor and the R148 Chapelizod By-Pass with the South Circular Road junction a short distance to the east. The complex is elevated over the railway line which is in cut at this location. It comprises of 228 apartments in 3 no. blocks of which 87 apartments have frontage onto the rail line. Balconies serving ground floor units are setback 7 metres from the railway boundary. At this location the additional tracks are to be constructed to the north of the existing tracks, with the existing tracks in proximity to the complex to be retained in use for the main line. Reconfiguration whereby the electrified lines would be those closest to the apartments is not feasible as the alignment is dictated by the location of the new DART station at Heuston Station West, the position of which is determined by alignment of the Phoenix Park Tunnel Branch Line.
- 14.3.9. Residents are critical of the 3rd and 9th floor monitoring locations used by the applicant (NML8 and NML9) and consider that monitoring should have been undertaken at apartment units located at lower levels. The applicant in response

acknowledged that a number of residents were agreeable for baseline noise measurements to be undertaken at their properties, and properties that were confirmed to have a balcony and direct line of sight of the railway line were selected for further consideration. Whilst noted, this response does not necessarily address why units at lower levels were not included.

- 14.3.10. As noted from the results provided by the applicant the 3rd floor apartment had a daytime level of 64.0 dB L_{Aeq,16hr} and nighttime 59.1 dB L_{Aeq, 8hr}. The 9th floor apartment had higher recorded levels of 69.8 dB L_{Aeq, 16hr} and 65 dB L_{Aeq 8hr}. I note that the figures represent the external noise environment with internal noise levels with windows and doors closed anticipated to be lower. Details of the equipment used and calibration of same are provided and confirmation that the measurements were undertaken in accordance with ISO 1996 Acoustics – Description and Measurement of Environmental Noise, Part 1 (ISO 1996-1:2016) and Part 2 (ISO 1996- 2:2017).
- 14.3.11. Table 4.1 in the MOR report attached to the 2nd submission on behalf of Kilmainham Square residents shows daytime and nighttime values as measured at 1st floor level 5 dB higher during the day and 2 dB higher at night than the 3rd floor values presented by the applicant. This would suggest baseline figures at lower apartments levels more in line with those as recorded at 9th floor level. Whilst I note that the measurements taken by MOR on the 9th floor (as presented in Table 4-1 of the report accompanying the 2nd submission) are up to 12.8dB lower than the average value presented in the IÉ noise assessment they are from a survey undertaken over a short daytime time period (2 ½ hours), only, and would not be directly comparable to the results of the 16 hour survey period used by the applicant.
- 14.3.12. I note and acknowledge the details provided by the Kilmainham Square residents and submit that they, in effect, underscore the conclusion that the apartment complex, by virtue of its prevailing environment, has background noise levels at some of the highest levels recorded along the rail corridor. There is no question that road noise is a prominent feature in the prevailing environment and is, in effect, acknowledged in MOR's 2nd report in which it is noted that during equipment set up and collection the main noise source was road traffic. The report also noted that when a train passed it was the dominant noise source for a few seconds.

14.3.13. I submit that these are the prevailing background levels against which any impacts must be appropriately assessed. On this basis I do not consider that the omission of monitoring locations at lower levels by the applicant to be material deficiency and submit that the monitoring locations chosen are representative of the receiving environment at this location and are acceptable to allow for a proper assessment.

Construction Noise

14.3.14. There is no doubt that the **construction phase** will give rise to material noise impacts at sensitive receptors along the rail line. The EIAR assesses each phase and the nature of the works and equipment to be used. Due regard is also had to traffic noise including that arising from road diversions to accommodate the construction works.

14.3.15. The construction period is anticipated to take in the region of 50 months (c. 4 years) and a construction strategy is detailed in Chapter 5 of the EIAR. At the outset I note that due to the linear nature of the project it is not expected that construction works would be in the vicinity of sensitive receptors for that entire period.

14.3.16. A material consideration in the preparation of the construction strategy is ensuring the Cork mainline remains operational throughout the construction phase. Whilst the preferred scenario is to undertake the works during daytime hours, the importance of the Cork mainline which provides connectivity between the two main cities in the country in addition to providing an important commuter function is accepted and, thus, the need to ensure it remains operational. On this basis I accept that there will be limited scope for the avoidance of both nighttime and weekend work along the route length.

14.3.17. I also note that whilst the carrying out of the works on both sides of the tracks at the same time is the optimum arrangement so as to limit, as far as practicable, the period in which construction works would be close to sensitive receptors, I acknowledge this will be not possible having regard to the constraints within which the applicant will be required to work. With specific regard had to the area between Park West & Cherry Orchard Station and Heuston Station where four tracking is not in place, the works will be phased so that one side of the works over a certain length will be completed in its entirety, including all track works and SET infrastructure before the opposite side can be commenced. All rail operations will

be diverted to the newly widened section to enable works to be continued on the other side.

- 14.3.18. There are no statutory guidelines on noise levels from construction sites, therefore the ABC method as outlined in paragraph E.3.2 of British Standard document **BS 5228 -1: 2009** to determine acceptable noise levels for day, evening and night time work is used. The approach designates a noise sensitive receptor as category A, B or C based on existing ambient noise levels in the absence of construction noise. This then sets a threshold noise value that, if exceeded at the location, indicates a potential significant noise impact associated with construction activities. See Table 2 below. These thresholds apply to residential buildings only. I note that this approach aligns with the approach adopted on other rail projects and is acceptable.

Table 2

Assessment Categories & Threshold Value Period (L_{Aeq})	Noise Threshold Value, in decibels (dB)		
	Category A	Category B	Category C
Night-time (2300-0700)	45	50	55
Evenings and weekends*	55	60	65
Daytime (0700 – 1900) and Saturdays (0700 -1300)	65	70	76

NOTE 1 - A potential significant effect is indicated if the $L_{Aeq,T}$ noise level arising from the site exceeds the threshold level for the category appropriate to the ambient noise level.

NOTE 2 - If the ambient noise level exceeds the Category C threshold values given in the table (i.e. the ambient noise level is higher than the above values), then a potential significant effect is indicated if the total $L_{Aeq,T}$ noise level for the period increases by more than 3 dB due to site noise.

Category A: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are less than these values.

Category B: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are the same as category A values.

Category C: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are higher than category A values.

* 19.00–23.00 weekdays, 13.00–23.00 Saturdays and 07.00–23.00 Sundays

- 14.3.19. An assessment of the above parameters against the background noise levels recorded as set out in Table 14.20 of the EIAR show that the majority of the noise

sensitive properties along the route will fall into Category B during day time and Category C during night time.

- 14.3.20. Each stage and element of the construction phase ranging from site clearance to OHLE installation has been assessed in terms of predicted noise levels at distances ranging from 10 to 100 metres. To provide for the worst case scenario it is assumed that the equipment required for each phase would be operating simultaneously.
- 14.3.21. By reason of the pattern of development and proximity of property to the rail corridor, specifically residential property, each stage of the works to be carried will result in periods of high noise levels with potential for noise levels to be above 70 L_{Aeq} within 25 metres of many activities or where there is line of sight/partial line of sight. Of particular note are the noise levels predicted for the **retaining wall** construction works which can reach up to 80dB and higher for secant piling, trench wall works and soil nailing/wall anchoring. The retaining wall types vary in accordance with soil conditions, proximity to buildings and height of required retention. Of particular note is the section of the rail corridor between Park West & Cherry Orchard Train Station and Heuston Station where four tracking is being provided. Tables 4.9 and 4.10 of the EIAR detail the retaining walls required. They are to be of either king post or secant pile construction and will range in height from 0.8 metres up to 7.2 metres (to the rear of Kylemore Drive). Soil anchoring is required to the walls with additional soil nailing required for the existing wall to the rear of 187 to 315 Landen Road. The existing retaining walls to the rear of Murray's Cottages and Woodfield Avenue are to be replaced, again of king post and secant piled construction, both of which require anchoring. Retaining walls are also required along the Phoenix Park Tunnel Line where track lowering works are proposed. They are to comprise a mix of up to 1.5 metre high king post walls and up to 0.5 metre high gabion walls (retained height at front face) with soil nailing required to provide reinforcement to embankments.
- 14.3.22. The **mitigation measures** detailed for the construction stage will be in accordance with best practice, such as use of noise barriers and adoption of construction methods such as use of two piling rigs simultaneously to reduce the duration of the piling activity associated with retaining wall construction. The mitigation measures are not specific in terms of locational context at this juncture pending the appointment of contractors and programming of construction activity. In addition,

where **nighttime and weekend work** along the corridor is anticipated or where the proposed works may exceed the construction noise criteria, permission will be sought from the relevant planning authority in advance of any works taking place and will require a detailed noise control plan and follow up report. This plan will include (i) a justification for the works being carried out in the manner proposed, (ii) an assessment indicating what alternatives have been considered, (iii) a statement of the noise control measures from B.S. 5228 to be adopted and how Best Practicable Means will be used to control noise, and (iv) an activity specific noise monitoring programme including contact details for persons with the authority to cease working if required by the planning authority. Each follow up report will include details of any complaints received and the action taken to address such complaints. I note that the applicant proposes to inform residents living near the rail line of upcoming works and giving advance notice of any disruptive works.

- 14.3.23. As mitigation I note that the applicant proposes a noise monitoring programme. The selection of monitoring locations (number and location) will be agreed with the relevant local authorities but will be based on the nearest representative noise sensitive locations to the working areas which will progress along the length of the proposed project. Full details of the noise and vibration monitoring and procedures including provisions for publication of monitoring results will be submitted to and approved by the relevant planning authority prior to commencement of work. The CEMP for the project is to detail channels of communication between the contractor the 3 no. local authorities and residents including a system for recording and investigating noise complaints relating to the construction operations.
- 14.3.24. Notwithstanding the proposed approach to construction and mitigation, there is potential for temporary significant to profound effects at the nearest noise sensitive receptors particularly with respect to nighttime works. I refer the Board to section 14.6.1.8 of the EIAR which details the anticipated night-time works. In some instances, plant will be so close that it may not be practical to install a noise barrier. Issues also arise where direct line of sight for residential units in multi storey units remains. The areas of particular note in this regard are those in the vicinity of where four tracking is proposed and where bridges are to be demolished and replaced.
- 14.3.25. Where all reasonable measures have been taken a programme of **temporary rehousing/accommodation** will be implemented as appropriate. As per section

14.3.4.3 of the EIAR the thresholds and criteria for which temporary accommodation would be triggered is in accordance with the provisions of Section E.4 of BS 5228 -1:2009+A1: 2014. Such a measure is not an uncommon scenario where such large scale infrastructural works are proposed within a built-up urban area. Such a scheme is not limited to properties where land or substratum acquisition is proposed and would be applicable to eligible owners/ occupiers where the construction of the proposed project causes, or is expected to cause, a measured or predicted airborne construction noise level that exceeds the stated parameters within the above referenced document (as set out in section 14.3.4.3).

Operational Noise

- 14.3.26. I consider that it is useful to clarify at this juncture that it is the noise effects of the increased frequency of services which the proposed development will bring about which is of concern in this report, rather than existing operational effects.
- 14.3.27. The development, of itself, will facilitate increased capacity along the route with the introduction of electrified rolling stock for the DART Service and service enhancements on existing services. DMUs will continue to operate on the intercity services. Table 3 below sets out the proposed level of service. This increase in rail traffic is anticipated to result in a change in rail noise. DART traffic will increase significantly on the Phoenix Park Tunnel Branch to Glasnevin where there are currently no significant rail movements. In addition, the rail movement will be in closer proximity to dwellings at some locations due to track alignment.

Table 3 - Proposed Service Levels

Service Type	Train Model and Type	Do-Minimum (proposed level of service delivered with existing infrastructure)	Do-Something (with proposed Project)
Dart Commuter	New fleet to comprise of 5 and 10 carriage BEMU or EMU	0	126
Outer Commuter	22000 class DMU	84	72

Intercity	Existing MkIV + 201 locomotive	84	84
Freight		8	8
Empty Trains		5	5
Total		181	295

14.3.28. The Board is directed to Tables 4.22 and 4.23 of the EIAR which set out the hourly breakdown for each scenario. It is noted that IÉ will incrementally introduce new services and enhanced timetables in response to growing demand. As such, the proposed level of service for the 'Do Something' scenario, in effect, will be delivered over a period of time and will not come into effect in one timetable change.

14.3.29. As stated previously there is no statutory Irish guidance specifying airborne noise levels from rail operations. In the absence of specific noise limits, reference has been made to guidance documents on environmental noise and precedent set by other urban rail projects.

14.3.30. The following parameters are to be applied:

Table 4

Operational Rail Noise Criteria	
Daytime (07:00 – 23:00)	Night-time (07:00 – 23:00)
55 dB LAeq,16hr	45 dB LAeq,8hr

14.3.31. As noted above the existing noise environment in many locations exceeds the above criteria with the following table providing a summary of the number of receptors for both the 'Do Minimum' and 'Do Something' scenarios (without mitigation). As noted in the EIAR in the 'Do Minimum' scenario the interventions to the railway corridor and areas outside of CIÉ lands would not be undertaken. DMUs would continue to be used (as no electrification infrastructure exists) whilst the frequency of services and speeds on the line may be altered, as it has been historically, to accommodate the constraints of the two tracks. Maintenance activities would also be required.

Table 5

Receptor Description	L _{Aeq} , 16hr, Daytime			L _{Aeq} , 8hr Night time		
	'Do Minimum',	'Do Something',	Change	'Do Minimum',	'Do Something'	Change
All receptor types	729	863	134	1332	1506	174
Residential	675	807	132	1252	1423	71
Educational & Childcare Facilities	3	4	1	4	4	0
Hotels & Accommodation	0	0	0	1	1	0
Healthcare	0	0	0	0	0	0
Religious	0	0	0	0	0	0
Other	51	52	1	75	78	3

14.3.32. In terms of the noise modelling undertaken for 59 no. noise sensitive locations along the railway corridor (as delineated in the maps in Chapter 14 of Appendix 3A – Technical Figures) it is noted that the proposal will result in a positive noise impact between the Phoenix Park Tunnel and Glasnevin with the number of receptors with predicted noise levels greater than the noise criteria reducing as the DMUs currently travelling along this section are to be replaced with EMUs. However, between Hazelhatch and Heuston Station the project will have a negative noise impact as there will be an increase in the number of commuter trains in addition to the higher average number of carriages per train to provide for increased passenger capacity.

14.3.33. Mitigation measures are deemed to be necessary when the following three conditions are satisfied at designated sensitive receptors:

- the rail noise level of the proposed scheme together with other rail traffic in the vicinity is greater than the operational rail noise criteria;
- the relevant noise level is at least 1dB more than the expected rail noise level without the proposed scheme in place; and
- the contribution to the increase in the relevant noise level from the proposed scheme is at least 1dB.

14.3.34. I refer the Board to Table 14.63 which sets out where mitigation is required.

14.3.35. Mitigation measures proposed include a variety of **noise barrier options** which may take the form of walls, earthen berms and other landscaping features providing the required acoustic screening and meeting all other technical specifications. They are proposed at 30 locations along the corridor (see Table 14.69 of the EIAR) and can be loosely grouped as follows:

Table 6

Location	Barrier ID	Chainage	Height (m)
Between Hazelhatch Road (rear of Railway Cottages and dwellings onto Loughlinstown) and Stacumny Bridge	1 – 11	between Ch 24+856 and Ch 22+245.	2 – 4
Adamstown Avenue in vicinity of Kishoge Station (parts of which as yet not developed)	12-13	between Ch.17+299 and Ch.18+105	2 -2.5
In vicinity of Cloverhill Road/9 th Lock Bridge	14 -15	Between Ch15+340 and CH 15+868	2.5 – 3.2
Between Park West & Cherry Orchard Station and Cherry Orchard Footbridge	16 - 19	Between Ch 13+481 and Ch14+160	2.25 – 3.5
Between Cherry Orchard Avenue and Landen Road	20 - 29	Between Ch10+810 and Ch 13+305	1.5 – 3.5
Between St. John's Road Bridge and River Liffey	30 – 30a	Between Ch 9+090 and Ch9+323	3

14.3.36. The locations of the barriers are delineated on the respective drawings in Appendix 3.

14.3.37. With the mitigation measures in place the 'Do Something' noise levels can be reduced to the equivalent 'Do Minimum' at the majority of locations. However, a number of properties will experience a **residual noise impact** as a result of the proposed project. The residual impacts are examined by assessing the change in rail noise between the 'Do Minimum' and 'Do Something' Scenario with mitigation. I refer the Board to Table 14.70 of the EIAR and the significance rating for the predicted change at the modelled locations. Of note in this regard are the 2nd to 4th

floor units within Seven Oaks Apartment Complex and Floraville off Sarsfield Road which are identified as having a significant, negative, long term residual effect (change is greater than 3dB between the 'Do Minimum' and 'Do Something' scenarios). I also note that units at 6th floor level in Seven Oaks, 3rd floor units at Kilmainham Square and Nos. 1-27 Cherry Orchard Avenue (Location ID R32) would have a moderate residual negative impact.

14.3.38. **Noise insulation**, or the reasonable costs thereof, is to be offered to the residential units in Seven Oaks where a significant residual impact is predicted. It does not extend to units where a moderate residual negative impact is recorded (change is between 1dB and 3dB between the 'Do Minimum' and 'Do Something' scenarios). I note that no other mitigation measures are proposed at the majority of these locations due to the limited benefit which they would provide. The properties in question are on the upper levels of Seven Oaks and also in Kilmainham Square. The applicant in defence of its approach noted the limited efficacy of noise barriers in such scenarios due to the line of sight retained between the sensitive receptors and the rail line. It also stated that the use of resilient rails have limited effectiveness given that the rails are mounted on concrete sleepers in ballast. The Board is advised that the moderate residual noise impact predicted at R32 in the vicinity of 1-27 Cherry Orchard Avenue is consequent to the installation of a noise barrier.

14.3.39. Kilmainham Square residents contend that due consideration was not given to **alternative mitigation measures** along the rail line in proximity to the complex. As noted, resilient rail was considered at this location (and in proximity to Seven Oaks apartments) and was discounted on the basis that as the rails are mounted on concrete sleepers in ballast their effectiveness as a mitigation measure is limited. I also accept that due to the rail line being in cut at its interface with Kilmainham Square the benefits of a noise barrier would be limited for the upper floor units. The fact that it would also be located in very close proximity to the ground floor units, the balconies of which only have a 7 metre setback, is also a consideration in terms of overshadowing and loss of light. The same considerations would be applicable to a tree barrier with the added issues of maintenance for health and safety reasons. In terms of providing a cover to the rail line the applicant refers to the preferred alignment for the South Circular Road Bridge immediately to the east which includes a cut and cover portal structure for the new electrified tracks to the north of

the existing tracks. The portal structure will extend along part of the frontage with Kilmainham Square. As noted, the rail tracks closest to the apartment complex will operate, as existing, namely providing for the existing intercity service.

- 14.3.40. On balance I consider that whilst a number of sensitive receptors will experience a noticeable change in their noise environment as a consequence of the proposed development, this must be balanced against the long established rail line where its use with increased and expanded services which would align with national, regional and local transport policies must reasonably be accepted in principle.

Vibration

- 14.3.41. As with noise a material number of objections to the proposal raise concerns regarding vibration and impacts on properties. Vibration during construction arises from a variety of sources including pile installation, earthmoving equipment including dozers, excavators and trucks. During the operational phase vibration from passing trains is raised as a concern.
- 14.3.42. There is no **statutory Irish guidance** relating to the maximum permissible vibration level that may be generated during the construction phase of a project. In the absence of specific vibration limits, appropriate vibration emission criteria relating to permissible construction vibration levels for a development of this scale may be found in **BS5228-2:2009+A1:2014 Code of Practice of Noise and Vibration Control on Construction and Open Sites Part 2: Vibration.**
- 14.3.43. The threshold of perception for human beings is typically in the Peak Particle Velocity (PPV) range of 0.14 mm/s to 0.3 mm/s. Vibrations above these values can disturb, startle, cause annoyance or interfere with work activities. At higher PPV levels (>15 mm/s) vibrations can lead to concerns about possible structural damage.
- 14.3.44. 3 no. locations were chosen for establishing the baseline vibration environment, namely Adamstown, Con Colbert House (site of data centre) and Kilmainham Square. In terms of the latter VML 6, VML 7 and VML 8 were located on three different floors of the apartment block vertically over the same location. Table 14.22 of the EIAR provides the baseline vibration survey results, the highest recordings being at Con Colbert House at 0.150 and 0.170 PPV mm/s. VML 6 Kilmainham Square (ground floor) recorded 0.130 PPV mm/s. I note that this is

higher than the measurements taken by MOR and presented in its 1st report accompanying the Kilmainham Square residents' submission.

- 14.3.45. Activities during the **construction phase** that will cause vibration include **caisson drilling** for 1 metre diameter piles and drilling for ground anchors and soil nails at different locations along the alignment. Data¹ indicates that vibration up to 1 mm/s can occur at distances up to 21 metres from the source. Whilst the majority of dwellings are greater than 15 metres from proposed caisson pile activity the vibration caused by same may be perceptible at some. The worst case scenario arises at Le Fanu Drive where it is proposed to install ground anchors underneath the residences to provide support for the proposed piled wall to be constructed in proximity. The worst-case vibration levels are predicted to be 2.15 mm/s for caisson piling and 2.17 mm/s for ground anchoring. As per BS 5228-2 these levels will cause complaints in residential environments. The prior notification of such activities and pro-active liaison by the CLO will be of particular importance. It is noted that the levels are not sufficient to cause either cosmetic or structural damage to properties.
- 14.3.46. To ensure vibration levels during construction are controlled and remain at low impact levels the applicant commits to a **vibration monitoring programme**. The selection of monitoring locations (number and location) will be agreed with the relevant local authorities but will be based on the nearest representative noise sensitive locations to the working areas which will progress along the length of the proposed project. Full details of the vibration monitoring and procedures including provisions for publication of monitoring results will be submitted to and approved by the relevant planning authority prior to commencement of work. As noted previously the CEMP for the project is to detail channels of communication between the contractor, the 3 no. local authorities and residents including a system for recording and investigating complaints relating to the construction operations.
- 14.3.47. In addition, the applicant commits to pre and post construction condition surveys for structures along the rail corridor. I submit that the formalisation of such a programme by way of a **property protection scheme** is appropriate in view of the proximity to properties and the concerns expressed by a significant number of

¹ Wiss (1981), Construction Vibrations: State of the Art, Journal of the Geotechnical Engineering Division, ASCE, Vol.107, Issue 2

observers. I note that the reference made to such a scheme in the EIAR at section 17.7.1.7 specifies that it would be applicable to properties affected by substratum acquisition. The applicant's response to the observations received would suggest that the scheme would be widened to properties in the vicinity of the works and not just those subject of acquisition. In this regard I refer the Board to section 2.2.11 of its submission and its response to the submissions from Margaret Berigan Kylemore Road, Mairead Kirby and Janine Cooper Landen Road, by and on behalf of residents in Kilmainham Square, Ann Nolan & Others Bannow Road, Cllr. Cieran Perry and Joan Giltinan Cabra Drive.

14.3.48. I am of the opinion that such a scheme should be open to properties in the vicinity of the works and should not be ringfenced for those subject of compulsory acquisition only. I recommend that this be clarified by way of condition. Such a formalised scheme would provide for a level of certainty and clarity as to the mechanisms to ensure protection of property. The scheme would assess impacts on properties from vibration due to construction works, including pile driving and soil anchoring/nailing and enabling works. Details of the scheme should be submitted to Dublin City Council for written agreement prior to the commencement of development or in default of the matter should be referred to An Bord Pleanála for determination. The scheme should include provisions for the criteria defining the inclusion of properties falling within the scheme's remit, the access and registration system for the scheme, the nature and extent of pre-, intermediate and post-construction surveys/inspections to be undertaken, the categorisation of damage to structures and thresholds for taking actions and the mechanism through which compensation would be provided. In the event that structural damage is noted to any structure falling within the scheme while construction works are in progress and the damage corresponds with a defined category of damage determined to require modification to works, the contractor should be required to cease works at that location and construction methods and/or equipment to be amended so as to avoid further damage.

14.3.49. In terms of the **operational phase** again there is no **statutory Irish guidance** relating to the maximum permissible vibration level that may be generated by a project of this nature. Predictions of operational emissions are based on the use of VDV (vibration dose values) rather than PPV (peak particle velocity), the latter being the standard measure used in respect of construction activity. Use of VDV to

evaluate human exposure to vibration in buildings in residential and other uses is consistent with relevant guidance, including BS6472 -1:2008 Guide to evaluation of human exposure to vibration in buildings - Vibration sources other than blasting. BS6472-1 provides Vibration Dose Value (VDV) ranges (presented in Table 14.8) that are used to estimate the probability of adverse comment which might be expected for human beings exposed to vibration within buildings.

- 14.3.50. The cumulative VDV at residential locations closest to the railway track at Hazelhatch and from properties 10 metres from the track are calculated, the results of which are presented below.

Table 7

BS 6472-1 Rating	In absence of appreciable Existing Level of Vibration		Impact Classification	Significance Rating
	Daytime (0700 – 2300)	Night-time (2300 – 0700)		
VDV level at which adverse comment is not expected	≤ 0.2	≤ 0.1		
Calculated VDV at properties 10 metres from nearest track	0.13	0.08	Negligible	Not Significant
Calculated VDV at properties near Hazelhatch	0.19	0.13	Low	Slight

3.5 metres from nearest track				
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- 14.3.51. There will not be significant vibration arising from the project during the operational phase and no mitigation is required.

Noise and Vibration - Conclusion

- 14.3.52. Whilst best practice and mitigation measures will be employed there is no doubt that there will be periods during construction when there would be significant disturbance by way of noise and vibration for some residents in the vicinity of the railway line. These impacts would be compounded by the fact that works will be required to be undertaken at nighttime. The applicant acknowledges that there will be locations where piling and other construction works would result in significant disturbance impacts that cannot be reasonably alleviated thereby necessitating temporary rehousing.
- 14.3.53. I submit that noise and vibration impacts arising from the construction phase, albeit temporary in duration, are essential for the delivery of the project, are unavoidable, and are a necessary compromise in the realisation of such a strategically important infrastructural project. The role of the CLO will be of particular importance in this regard in keeping residents informed. To ensure noise and vibration levels during construction are controlled and remain at low impact levels, a monitoring programme is to be put in place with the applicant committed to providing pre and post construction condition surveys for structures along the rail corridor. I refer to my recommendation regarding the property protection scheme. I submit that it is imperative that the proposed mitigation measures and actions are seen to be operative from the beginning of the construction phase and that supervision on the ground is responsive.
- 14.3.54. With regard to the operational phase I accept that increased services are likely to increase noise concerns for those living in the immediate vicinity. Mitigation, as far as practicable, is proposed with sound insulation proposed where a significant residual impact is predicted. Having regard to the existing ambient environment, the existing operational nature of the railway and the extent of modelled increase in noise, and subject to the detailed mitigation measures, the overall effect of the project on residential amenity in terms of noise would be acceptable. I would

reiterate the fact that this is an established, operating railway line and its continued use with service improvements which align with national, regional and local transport policies must reasonably be accepted.

14.4. Air Quality

- 14.4.1. Many observers have raised concerns about reduction in air quality arising from construction activity. The potential impacts arise from both generation of dust and vehicle emissions. There is an overlap with health considerations as assessed in section 14.5 below.
- 14.4.2. Chapter 12 of the EIAR addresses air quality. It divides the linear development into areas for the assessment of dust risk and the application of different mitigation measures in respect of demolition, earthworks, construction and track out. An **air quality management plan** is to be prepared and agreed with the respective local authorities prior to construction. It is to include a suite of dust and emissions mitigation measures, applicable to the circumstances of the relevant site. It will also include details of dust monitoring arrangements and monitoring locations in addition to details of the air quality reporting requirements and procedures to be put in place for the air quality reporting to be made available to residents as part of the stakeholder communications plan. Whilst I accept that dust will compound the nuisance element of the construction phase it will be temporary in nature, and I am of the opinion that it would be unreasonable to refuse to grant the RO on such grounds.
- 14.4.3. The Board is advised that the assessment of construction traffic volumes concludes that the effects in terms of vehicle emissions are not likely to be significant.
- 14.4.4. Chapter 12 of the EIAR also assesses the likely significant effects of the operational phase of the project on air quality. An assessment of emissions NO_x, and PM_{2.5} has been conducted. The emissions are calculated using information on the future service plans (with and without the proposed project) and emissions data for the rail stock. In this regard I refer the Board to Table 3 in section 14.3 above which summarises the change to train numbers from the 'Do Minimum' (proposed level of service delivered with existing infrastructure) and 'Do Something' (with proposed project) scenarios. As noted previously the new services and enhanced timetables will be introduced incrementally in response to growing demand. As such, the

proposed level of service for the 'Do Something' scenario with the DART+ South West Project in effect will be delivered over a period of time and will not come into effect in one timetable change. The air quality assessment concluded that all ambient air pollutants will remain in compliance with the ambient air quality standards and that no specific operational phase mitigation measures are required.

- 14.4.5. As noted from Table 3 above there would be no change in the number of diesel trains on the intercity route but there would be a reduction in their use on the Outer Commuter Routes from 84 to 72 representing a 7% decrease on the rail corridor. This is contradicted in the EIAR Non-Technical Summary which states that the proposal will also allow for an increase in diesel units, with a corresponding increase in rail emissions. It goes on to state that properties adjacent to the rail network may experience an increase in exposure from the additional diesel emissions. I submit that where there is such a material disconnect between the summary and main documents that the latter document should take precedence which does not, at any juncture, make reference to such increases and is consistent in its statement that a marginal reduction in diesel units would arise. Such a reduction would have a corresponding slight decrease in rail emissions.
- 14.4.6. I note that Sharon Matthews advocates for a cap/restriction on use of DMUs on the main line so as to protect against a deterioration in air quality. I do not consider that this application is the appropriate forum for such a condition. It is accepted that whilst the proposed development may facilitate greater efficiencies on the mainline allowing for more services entailing DMUs in the foreseeable future, this must be balanced against the transport and climate imperatives which require a modal shift to public transport away from the private car.

14.5. Health and Safety Considerations

- 14.5.1. The Board is advised that there is an overlap with population and human health in section 15.4 of the EIA below and I recommend that the sections be read in tandem.
- 14.5.2. The proposed project will be an electrified Direct Current (DC) rail system and on completion, new electric DART trains will be used on this railway corridor, similar to those currently operating on the Malahide/ Howth to Bray/ Greystones Line.

Observers express concern as to the potential for health impacts arising from **electromagnetic radiation** (EMF).

- 14.5.3. The applicant, in response, states that the project has been designed to ensure that public exposure to EMF complies with the EU Council recommendation on the limitation of exposure of the general public to electromagnetic fields (0Hz-300GHz) 1999/519/EC. A study of the DC magnetic field levels that are expected to be generated around the operational railway has been undertaken using recognised modelling techniques which concludes that levels being emitted from the proposed development would be significantly below the guideline limits. The modelling results illustrated that the safe distance for public exposure is predicted to be within a few centimetres of the energised conductors. Based on this assessment, it is considered that EMF from the project will not cause any health concerns. I note that the proposed project will be provided with a stray current monitoring system at each traction substation which will allow for a continuous monitoring of the rail to earth potential.
- 14.5.4. As identified by the applicant the public understanding and perception of EMF risk is a key consideration. The proposed mitigation measures including sharing of non-technical information to residents will assist in reducing uncertainty and provide for a better understanding of the issue.
- 14.5.5. Health concerns arising from **dust** during the construction phase has also been raised. I note that a sensitivity assessment was undertaken and the assessment of potential dust generation due to construction activities was completed. I refer the Board to section 12.3 of the EIAR and section 14.4 above. It is concluded that when the dust minimisation measures detailed as mitigation are implemented nuisance from dust or impacts on human health would not arise. As noted previously dust monitoring is to be undertaken to ensure the efficacy of the dust mitigation measures.
- 14.5.6. As acknowledged in section 14.3 above **construction noise** will have some significant residual effects at the closest receptors with regard had to the particular concerns of night time works and sleep disruption which could have a negative impact on health and wellbeing. As noted above a temporary rehousing scheme is to be put in place.

14.6. Construction Compounds and Substations

- 14.6.1. The linear nature of the project, the complexities presented by the urban built environment and constrained access, necessitates temporary **construction compounds** to be provided local to the work sites along its length. The construction compounds will be used to support earthworks, enabling works, site clearance, utility diversions work, civil works, the demolition of bridges, OHLE, track installation, signalling and telecoms equipment installation and other ancillary works. The locations were subject to assessment in terms of alternatives, and I refer the Board to chapter 3 of the EIAR. The preferred location of each of the compounds and purpose for same is detailed in chapter 5. Indicative layouts for each have been developed but final layouts will be developed by the contractors at construction stage. Chapter 5 also provides details of the haulage routes proposed to each of the compounds.
- 14.6.2. By the nature of the receiving environment many of the identified compounds are in direct proximity to sensitive receptors. The juxtaposition is particularly noted at Park West and in the vicinity of proposed bridge replacement/works at Le Fanu Road, Kylemore Road, Khyber Pass footbridge, Sarsfield Road and at Glasnevin cemetery.
- 14.6.3. The compounds will be temporary, albeit many will in place for the duration of the works, with some functioning at night requiring lighting to facilitate works. Whilst I acknowledge the impact on residents from the construction compounds both in terms of noise, dust and traffic, will exacerbate the impacts arising from the works along the rail corridor, the need to site the compound facilities in proximity to the works is understood and accepted. The range of mitigation measures proposed to control dust, noise and nuisance likely to arise, in addition to traffic management proposals and adherence to the CEMP provisions, will assist in reducing the impacts arising. I consider that the role of the CLO in ensuring that residents are kept informed of the works and project advancement and that any complaints are recognised and responded to in a meaningful and timely manner will be of particular importance.
- 14.6.4. **6 no. electrical substations** are required along the rail corridor to facilitate the electrification of the line. **4 no.** of the 6 are required to be provided between Hazelhatch & Celbridge Station to Park West & Cherry Orchard Station at locations

at Hazelhatch, Adamstown, Kishoge and Park West. The former two are located on greenfield/brownfield lands in the ownership of CIE. The location at **Kishoge** is on the northern boundary of the railway corridor on a brownfield site within the Clonburris SDZ. The said location, to the west of the future Kishoge urban centre, has been subject of discussions with SDCC. The planning authority in its submission has no objection to the location as detailed.

- 14.6.5. The **Park West substation** is located to the north of the railway and immediately east of the M50. It is a brownfield site in DCC's ownership within a Strategic Development Regeneration Area (SDRA 4). The substation will be located in the south-western most corner of the SDRA. Plans for development of these lands are being progressed by the LDA and DCC with a current section 175 application before the Board under ref. ABP 318607- 23 for a mixed-use residential development to comprise of 708 residential units, retail and community facilities to the west of the substation site. The site subject of the said application represents Phase 1 of the overall planned development for sites 4 and 5 as identified in the Park West - Cherry Orchard LAP 2019. The application site is setback from the proposed substation site with the intervening lands comprising the remainder of site 4 as identified in the said LAP.
- 14.6.6. The LDA in its submission welcomes the Dart + project but recommends that some form of permanent tree line and/or landscaping is recommended either outside or inside the eastern and northeastern boundary fences of the proposed substation to mitigate its visual impact when viewed from future housing and commercial development. I accept that due to technical and safety requirements landscape provision within the compound is not possible and that there are limitations as to what can be provided immediately outside, again for technical and safety reasons. I also accept that safety and technical requirements dictate the form of fencing required. There are means by which to visually soften the immediate context of the substation and I note that the applicant will engage with the LDA at detailed design stage in relation to suitable measures which could be implemented to minimise visual impacts of the substation. Whilst the substation will be opposite future housing and commercial development, subject to adequate setbacks being maintained, such a juxtaposition is not uncommon in urban areas and would not raise any specific health and safety concerns.

- 14.6.7. The applicant has also advised that the proposed substation site is located at the base of the steep embankment below the M50, and its layout will not impact on the existing M50 boundary treatment. It also confirms that in terms of the drainage regime no conflicts have been identified and no diversions are required. Should such a conflict materialise on commencement I consider that it can be adequately addressed so that no impact on the M50 can be ensured. It is acknowledged that the CEMP is a working document and that any necessary conditions, modifications, restrictions or requirements emanating from the RO, if approved, and any further detailed design compliance requirements from continued stakeholder engagement will be included. This will include TII Standards (procedural and technical) to be followed for any works that would interact with any TII owned and/or operated infrastructure.
- 14.6.8. The **5th substation** is to be located within the Inchicore Depot on its western boundary adjacent to the Kylemore Industrial Estate. In view of its location within a working industrial complex separated from the rear of properties on Landen Road to the north by the existing rail line, the proposal would not, of itself, materially impact on the nearest dwellings in terms of noise. The **6th substation** is located within the Heuston Yard area along St. John's Road (R148) on a brownfield site in the ownership of CIE.

14.7. **Bridge Modifications/Replacement**

- 14.7.1. There are a total of **38 bridges** along the rail corridor comprising a mix of overbridges and underbridges. Some of the bridges require interventions ranging from complete replacement to modification and/or track lowering to facilitate the installation of the OHLE system. In this regard I note that IÉ's standard requirement for structural clearance is 5.3m at new bridges and 4.83m at reconstructed bridges, with a minimum contact wire height of 4.4m. In addition, some bridge parapets are required to be raised for health and safety reasons to preclude access to the OHLE. Where existing railings do not meet the requirement for IP2X, these are to be replaced by an agreed IP2X infill that prevents the potential for climbing and the ability to walk along the top surface. Table 5.3 in the EIAR provides a schedule of the proposed bridge interventions.

Bridge Replacement

- 14.7.2. Bridge replacement specifically arises where four tracking is to be provided between Park West & Cherry Orchard Station and Heuston Station. Currently the rail corridor initially comprises of four tracks at Park West & Cherry Orchard Station where it transitions to three tracks and then to two before passing under Le Fanu Road Bridge and then increasing to three at Inchicore Works. Increasing to four tracks requires the realignment of the existing tracks and an increase in the overall railway corridor width. Bridge replacement is also required at Glasnevin Cemetery due to technical deficiencies.
- 14.7.3. **Le Fanu Road Bridge** (OBC7) is a narrow arch structure comprising of stone topped with concrete blocks and anti-climbing wire at each end. It has a span of approx. 9 metres and width of approx. 7.5 metres with no footpath provision. The maximum vertical clearance is 4.452 metres with the clearance varying along the span of the arch structure. It is inadequate in both span length and height for the four track and electrification infrastructure.
- 14.7.4. Of the 9 no. design options considered, all included track widening with variations on track lowering and/or raising road levels to accommodate vertical clearance for electrification. 2 no. options were brought forward for detailed Stage 2 Multi-Criteria Analysis (MCA) and eventually combined into a single option as the preferred option. It entails bridge replacement with a span of approx. 25 metres, increased height of 0.8 metres and track lowering of approx. 0.9 metres. The bridge parapets will be a minimum of 1.8 metres over the bridge transitioning to 1.2 metres after the bridge. Stone masonry aesthetic/architectural cladding finishes will be provided to the reinforced concrete walls with reuse of the stone from the existing bridge where possible. Road departures from standards to tie back into the existing road will be required to limit permanent impact on the dwellings to the north. Drawing Nos. DP-04-23-DWG-RO-TTA-18978 to DP-04-23-DWG-RO-TTA-18977 refer. Lands to the north (open space associated with residential area) and south (industrial lands) of the bridge will be required to be temporarily acquired to allow for construction compounds associated with the works. I refer the Board to photomontage VP07 which represents proposed views of the bridge from the open space immediately to the north.
- 14.7.5. Although the bridge is not a protected structure and is not included in the NIAH the applicant, in its assessment, considers it to be of heritage value, possibly overlooked by the City Council and the NIAH. Whilst I note this assessment I

consider that its demolition is justified in view of the overriding constraints at this location, namely the bridge's inadequate span to accommodate the necessary four tracking and inadequate provision for both vehicles, pedestrians and cyclists. I consider that the proposed design solution is acceptable to allow for the necessary works, whilst limiting the impacts on adjoining properties and open space. It will also provide for segregated pedestrian and cyclist facilities which heretofore were not available although there are currently no active travel scheme designs available in the vicinity with which they would tie into. It is reasonable to anticipate that it will ultimately form part of the delivery of an orderly cycle network by the local authority at some stage in the future.

14.7.6. As mitigation, the applicant proposes to record the bridge by means of photographs, written description and measured drawings to English Heritage Level 3. I note that neither the DHLGH nor DCC have expressed reservations to the demolition. In line with the DCC's submission, I recommend that the bridge finishes be subject to its agreement.

14.7.7. **Kylemore Road Bridge** (OBC5A) is a single carriageway reinforced concrete structure and consists of post-tensioned precast concrete beams on concrete abutments. It has a clear span of 12.65 metres and width of 17.22 metres consisting of a 9.14 metre carriageway and 3.81 metre wide footpaths on each side. It has a vertical clearance of 4.335 metres. It is lacking in both span and height to allow for the necessary works. The bridge is bounded by dwellings to the north and commercial properties to the south. Of the 10 no. design options considered 2 no. were brought forward for detailed Stage 2 MCA. Neither had a comparative advantage or disadvantage and have been combined into a single option as the preferred option providing for bridge replacement with a longer span of approx. 29.5 metres and track lowering of approx. 0.6 metres. It provides for passive provision for the future Kylemore rail station platforms which would be similar in layout to the stations at Adamstown, Clondalkin, Park West and Kishoge, namely a three-platform arrangement. Passive provision for future LUAS loading on the bridge is also provided for. Kylemore road will be raised on the northern side by approx. 0.7 metres and 0.4 metres on the southern side. The bridge parapets will be a minimum of 1.8 metres over the bridge transitioning to 1.2 metres after the bridge. Stone masonry aesthetic/architectural cladding finishes to the reinforced concrete

walls will be provided to complement the existing, with reuse of the stone from the existing bridge where possible.

- 14.7.8. I consider that the proposed bridge proposals to be acceptable and will provide for segregated pedestrian and cyclist facilities, although there are no active travel scheme designs available in the vicinity which they would tie into. It is reasonable to anticipate that it will ultimately form part of the delivery of an orderly cycle network by the local authority at some stage in the future. As above, the bridge finishes should be subject to agreement with the local authority.
- 14.7.9. The **Khyber Pass footbridge** (OBC5) facilitates pedestrian access for staff to the Inchicore Works from Sarsfield Road (R833) to the north. Access to the footbridge is via a lane bounded by Seven Oaks Apartment complex to the east and the rear gardens of dwellings on Landen Road to the west. Access to the footbridge is via a keypad locked steel access gate. No details are provided on the intensity of the use of the bridge by employees.
- 14.7.10. The fully enclosed steel bridge structure with steep stairs each end has insufficient horizontal clearance to allow for 4 no. tracks. The option put forward as the preferred solution, namely a new bridge providing for increased span, entails an access stairs over a reach of approx. 19 metres on the northern end and requires the compulsory acquisition of rear gardens of 4 no. dwellings on Landen Road and the acquisition of open space at the Seven Oaks apartment complex. The acquisition would also allow for the widening of the existing access track. The proposed bridge does not provide for disabled access although it provides for a more accessible arrangement than heretofore exists.
- 14.7.11. I have regard to the alternatives considered. These include (a) a new bridge that would have sufficient vertical and horizontal clearance to meet the requirements for 4-tracking and electrification; (b) retention of the existing bridge and installation of derailment protection blocks to protect the abutments and (c) its permanent removal and implementation of an alternative pedestrian access route via Sarsfield Road and Inchicore Terrace North. I also have regard to the defined appraisal methodology used in the selection of the preferred option. As per the preliminary assessment findings, which are replicated in the applicant's response to the submissions, the retention of the bridge's functionality was the primary concern. I do not consider this to be an adequate reason and I submit that the applicant has

not provided sufficient justification on technical grounds for the bridge replacement, or the community need met by such provision having regard to the project objectives. As advanced in the EIAR I note that the intervention and infringement of 3rd party property rights is to provide for pedestrian facilities for workers at the Inchicore Works, only, and does not provide for a wider public benefit. It will not be open to the public. Whilst the removal of the bridge would require alternative, and possibly longer commuting routes to be used by employees, this does not automatically mean that employees would revert to travelling to work by car. Should the Board concur I recommend that the proposed bridge replacement be omitted from the RO. Its omission does not preclude the delivery of the overall project objectives which, at this location, includes provision of four tracking.

- 14.7.12. **Sarsfield Road Bridge (UBC4)** is an underbridge that carries 3 no. rail tracks over the single carriageway Sarsfield Road below. It is a single span, highly skewed steel rail bridge supported on masonry abutments with steel bearings. Sarsfield Road is in deep cutting that is supported by masonry retaining walls on all 4 no. sides of the bridge. The carriageway is 5m wide (approx.). There is a dedicated bus lane for vehicles travelling in a northerly direction with private vehicles accommodated in a southerly direction only. A yield system is in operation allowing for single line traffic. There are 2 no. footpaths. The footpath on the west side is 1.6m wide and that on the east side is 1m wide. The vertical clearance from Sarsfield Road to bridge soffit is 4.37m. The clear (skewed) span of the structure is 11m (approx.). The bridge has insufficient width to carry an additional track.
- 14.7.13. 4 options were considered with the preferred solution being the replacement of the bridge by two new structures to carry the four tracks. The northern bridge of approx. 15.5 metres will be positioned at the existing abutment location, while the southern bridge of approx. 26.5 metres will be positioned to the south of the existing abutments.
- 14.7.14. Whilst I note that the bridge is recorded as part of the industrial heritage record associated with the Phoenix Park Tunnel Branch Line it is not a protected structure and is not included in the NIAH. The architectural heritage impact assessment recognises that there will be a moderate negative impact associated with the proposed works with DCC, in its submission, stating that the impact of the widening of the deck of Sarsfield Road Bridge on the surviving stone abutment walls of the bridge is not sufficiently detailed.

- 14.7.15. I consider that the proposed solution to be reasonable subject to further detailed design to be agreed with the local authority with any interventions/repair of the historic abutments and associated retaining walls to be supervised by an appropriate conservation professional subject. I note that the applicant proposes to record the bridge by means of photographs and written description prior to works.
- 14.7.16. **Memorial Road Bridge (OBC3)** is a single span structure carrying two lanes of northbound traffic (one way) over the rail corridor. The bridge consists of pre-flexed cast iron concrete encased beams supported on reinforced concrete abutments with metal fencing on top. The clear span of the structure is approx. 12 metres. The bridge carries a 6m (approx.) wide carriageway and 2 no. footpaths of 4m (approx.) width on both sides of the carriageway. There are currently 3 no. tracks beneath the existing structure. The minimum vertical clearance beneath the existing structure is 4.358m (from top of track to bridge soffit). The bridge has insufficient horizontal clearance to construct an additional 4th track and insufficient vertical clearance for OHLE. 6 no. options were assessed with the preferred option including bridge replacement with a wider span of approx. 25.5 metres and track lowering of approx. 0.7 metres of Slow tracks and nominal lowering of Fast tracks. The parapets will be a minimum of 1.8 metres over the bridge transitioning to 1.2 metres after the bridge. Stone masonry aesthetic/architectural cladding finishes to the reinforced concrete walls will be provided to complement the existing with reuse of the stone from the existing bridge where possible. Photomontages VP14 and VP15 refer.
- 14.7.17. I have no objection to the replacement works as detailed and note that due to the location of the bridge in proximity to War Memorial Gardens (opposite side of Con Colbert Road) a Conservation Architect is to be engaged in terms of the final finishes. Any final proposals should be subject to prior local authority agreement.
- 14.7.18. **South Circular Road Bridge (OBC1) & St. John's Road bridge (OBC0A)**. The proximity of the bridges is such that they are considered together in terms of providing a design solution. Together these structures carry road traffic across the rail line and facilitate traffic movements at the junction of South Circular Road (R111), the Chapelizod Bypass (Col Colbert Road – R148) and Chapelizod Bypass (St. John's Road west – R148). This intersection is one of the busiest in Dublin and is highly congested with queues in all directions at peak times.

- 14.7.19. South Circular Road Bridge (OBC1) is a single span structure carrying road traffic over the rail corridor. The bridge carries traffic from east to west on the Chapelizod Bypass (Con Colbert Road – R148) and from south to north on the South Circular Road (R111). The bridge consists of pre flexed cast iron concrete encased beams supported on masonry abutments. The east side of the structure has been widened using splayed, prestressed concrete beams supported on reinforced concrete abutments. The minimum span of the bridge is approximately 12.2m. The skewed width of the structure is approximately 30m. There are currently 3 no. tracks beneath the existing structure. The minimum vertical clearance beneath the existing structure is 4.521m. The abutments of the bridge extension sit on shallow footings. The bridge does not have sufficient horizontal clearance to construct an additional (4th) track with sub-optimal vertical clearance.
- 14.7.20. St. John's Road Bridge (OBC0A) is a 2-span reinforced concrete structure. The bridge carries traffic from west to east on the Chapelizod Bypass (Con Colbert Road – R148) and from north to south on the South Circular Road (R111). The structure consists of precast concrete beams on reinforced concrete abutments and central pier. The total span of the bridge is approximately 48m. The skewed bridge width is approximately 30m. The abutments and pier sit on shallow footings. The square span is approximately 14.7m on the north and approximately 15.7m on the south span. There are three tracks beneath the southern span and one beneath the northern span. The vertical clearance is 4.948m. The existing bridge has sufficient horizontal clearance beneath the north span to place an additional track, but the vertical clearance is sub-optimal.
- 14.7.21. There are constraints on all sides of the two bridges. There is a high masonry wall with residential developments behind to the south. To the north there is a cut slope leading to the Con Colbert dual carriageway road. To the north east there is a large apartment development. To the north west there is a residential care home with the demesne of Royal College of Kilmainham and the Memorial War Garden to the south east. There are also significant utilities traversing the junction.
- 14.7.22. 9 no. design options were assessed with the preferred option being the least expensive option having regard to land take, traffic disruption and capital cost of works. It allows for phasing in localised areas, allowing traffic to continue throughout the construction period with local diversions.

- 14.7.23. The proposed solution at this location is to construct a new cut and cover buried portal structure (OBC1A) to the north of the existing South Circular Road bridge. It will accommodate the 2 no. electrified tracks. The portal box structure would be approx. 120 metres long with a clear span of 10 metres. The structure will facilitate tracks at a lower level to that of the existing tracks to enable the OHLE to pass under the existing road with greater clearance.
- 14.7.24. The major constraint to the cut and cover method is the large piling equipment and support vehicles required to place the piles and remove the soil in such a tight working space. It is envisaged that this work will be done during normal daytime hours using a phased approach. As the track levels will be different between the old and the new tracks, a retaining wall will be required between the fast and slow tracks. Track realignment at St. John's Road Bridge will also be required.
- 14.7.25. I accept that the existing road network and pattern of development at this location poses significant constraints in terms of achieving the project requirements in terms of providing an additional track and electrifying two tracks. I consider that the options considered have been adequately detailed and assessed and I consider that sufficient justification has been provided for the advancement of the preferred option. I address the traffic implications of the proposed works in section 14.9 below.
- 14.7.26. **Glasnevin Cemetery Bridge (OBO10)** is a single span reinforced concrete slab bridge that provides vehicular access to St. Paul's cemetery from the cemetery carpark which is accessed via Claremount Lawns. It has a minimum soffit height of 4.58 metres whilst the parapets over the deck consist of fencing. It is proposed to replace the bridge deck at a higher soffit level. The existing abutments would be retained, and the abutment seats would be raised to accommodate the new deck. The bridge parapets would be upgraded to H4a Containment and 1.8 metre height for pedestrian protection. I refer the Board to photomontages VP28.
- 14.7.27. The reconstruction will require the closure of the existing crossing to the burial sites from the main car park for approx. 3 weeks in the anticipated 4 month construction period. A temporary pedestrian and wheelchair accessible bridge at a location 3-6 metres to the southeast is proposed for the duration. A compound is proposed in the western portion of the carpark to facilitate the works. The applicant is committed to managing the construction stage so that the impact on the cemetery and funeral

proceedings are minimised with the duration of the bridge closure kept to a minimum. I consider the intervention required at this location has been adequately justified and whilst the period of construction works will add to disturbance, I consider that appropriate measures can be put in place to ensure that access to the burial sites from the car park is maintained. I refer the Board to section 17 below where I assess the impact of the proposed development on this site in more detail.

Bridge Alterations/Modifications

- 14.7.28. As noted above a number of bridges require alterations/modifications to allow for the necessary clearance and safety requirements. I refer again to Table 5.3 of the EIAR.
- 14.7.29. Of particular note are the bridges along the section of rail track between Phoenix Park Tunnel and Glasnevin. The main constraint to the electrification of the line is the low clearances of existing overbridges. In addition to vertical clearance, the Royal Canal and LUAS Twin Arch Bridge (OBO8) and Maynooth Line Twin Arch Bridge (OBO9) are masonry arch bridges which have limited passing lateral clearance. Track lowering and upgrading of parapets to meet safety requirements are required in many instances. Of note:
- 14.7.30. **Blackhorse Avenue Bridge (OBO4)** which is on the NIAH is a single span masonry arch bridge with a span of approx. 8,5 metres and minimum soffit height of 5.16 metres. No track intervention is required. The bridge is currently topped by palisade fencing which is to be replaced with an alternative fencing to ensure appropriate safety standards are met. I consider this provides an opportunity to materially improve the visual appearance of the bridge as seen from the road and should be subject to prior agreement with the local authority. I refer the Board to photomontages VP22.
- 14.7.31. **McKee Barracks Bridge (OBO3)** which is on the NIAH is a single span masonry arch bridge that can facilitate the electrification of the line with no structural or track intervention. DCC expresses concern as to the use of black painted railing with IP2X mesh and impact of the interventions on the protected structures within the barracks. The rationale for such railings, namely, to preclude access to OHLE infrastructure, has been provided. I consider that the optimum railing design can be subject to agreement with the local authority. Photomontages VP22b refer.

- 14.7.32. **Cabra Road Bridge** (OBO6) which is a protected structure is a single span bridge with a soffit height of 4.36 metres and will require intervention to allow for electrification. Track lowering is proposed. The bridge is currently topped by metal fencing which is to be replaced to ensure appropriate safety standards. As above, I consider this provides an opportunity to materially improve the visual appearance of the bridge as seen from the road and should be subject to prior agreement with the local authority.
- 14.7.33. **Royal Canal and LUAS Twin Arch Bridge** (OBO8) is twin arch bridge that carries the Royal Canal and two LUAS tracks over the rail line. The minimum soffit height is 4.54 metres. Intervention by means of track lowering with horizontal realignment of the track to obtain compliant lateral clearances is required.
- 14.7.34. **Maynooth Line Twin Arch Bridge** (OBO9) carries two railway tracks for the Maynooth Line over the railway corridor. The minimum soffit height is 4.57 metres. Intervention by way of track lowering is required.
- 14.7.35. In conclusion I consider that the applicant has provided sufficient detail to justify the necessary interventions to the bridges between the Phoenix Park Tunnel and Glasnevin to facilitate the proposed development. In all instances, the bridges are to be retained with interventions required kept to a minimum. I consider that visual and conservation considerations in terms of the railings to be used should be agreed with the local authority prior to commencement of works. The applicant has confirmed that no underpinning of walls is required.

M50 Motorway Bridge

- 14.7.36. TII in its submission considers that the detail provided with regard to the works required at the **M50 Motorway Bridge** (OBC 10A) is insufficient and lacks clarity. As per the details provided in support of the application the applicant has engaged with TII in its preparation. As noted in Section 5.3.1 of the EIAR and repeated by the applicant the fixing details for the OHLE to the underside of the bridge will be agreed with TII during the detailed design stage and will be designed in accordance with the relevant TII standards. The installation methodology will be agreed with both TII and the M3 PPP contractor which will be from the rail corridor thereby not impacting on traffic on the M50. It is proposed to raise the parapets of the bridge with a proprietary GRP (glass reinforced plastic) parapet extension. As above, the installation methodology will be agreed with TII and the M3 PPP contractor, prior to

the installation works commencing. The main project contractor will be required to develop and agree detailed traffic management plans to facilitate the proposed installation work. TII is of the view that the applicant's response does not resolve the matters as raised in its original submission and recommends conditions to be attached to the RO.

- 14.7.37. On balance I consider that the applicant has provided sufficient detail to allow for a proper assessment and that subject to conditions the proposed works associated with the RO would not adversely impact on the M50 or M50 motorway bridge. It is my opinion that the conditions recommended by TII effectively reiterate the applicant's commitments as summarised above but note that they are not included in the schedule of mitigation measures (see Chapter 23 of the EIAR). In the interests of clarity, should the RO be approved, I recommend that conditions be attached requiring compliance with TII requirements including the requirements in terms of the traffic management plan to be prepared.

14.8. Phoenix Park Tunnel

- 14.8.1. The Phoenix Park Tunnel is a brick arch tunnel with brick invert over a distance of approximately 700m. It emerges into Heuston Station Yard to the south and to the rear of North Circular Road to the north.

- 14.8.2. Works are required in the tunnel to facilitate electrification of the line and include:

- Track lowering at the southern portal of the tunnel (approx. 350mm depth), involving modifications to the tunnel invert;
- Installation of a new slab track system which will involve the lowering of the track through the length of the tunnel;
- New tunnel drainage system to be incorporated into the slab track; and
- Installation of the OHLE system including attachments to the tunnel structure.

- 14.8.3. It is proposed that these works will be done under full closure of the tunnel. This means that no trains will operate on this line for approximately 6 months. It is proposed to undertake all of the works on the Phoenix Park Tunnel Branch Line simultaneously.

14.9. Access and Traffic

Road Impacts

- 14.9.1. Having regard to the prevailing environment through which the rail line traverses, notably the existing built up urban area along the eastern and north-eastern sections and the emerging urban environments in the environs of Adamstown and Park West, such a major engineering project which includes works to or replacement of existing bridge structures, will require a significant amount of construction works and traffic necessitating access to and diversions on the surrounding road network thereby disrupting road capacity.
- 14.9.2. Of material consideration are the works required to facilitate the provision of four tracks between Park West & Cherry Orchard Station and Heuston Station. This requires an increase in the overall railway corridor width which has a knock-on impact on over and under bridges along the line. I have detailed the works required to the bridges in section 14.7 above.
- 14.9.3. The demolition and replacement of **Le Fanu Bridge (OBC7)** is anticipated to take in the region of 140 days (see Table 6.26 of the EIAR) and will require a full closure of Le Fanu Road. This will have knock on impacts for roads in the vicinity to allow for diversions and, therefore, will have an impact on traffic distribution with significant impact predicted at a number of junctions with particular note of JTC 2 Kylemore Avenue – Kylemore Road, JTC 3 Kylemore Road – Landen Road and JTC 5 Kylemore Road – Kylemore Road North. The introduction of signals as a temporary measure is proposed at junctions JTC 2 and JTC 5 to improve capacity but it is anticipated that the local road network will be at over capacity. I note that a temporary pedestrian bridge is to be provided on the western side of the existing bridge to facilitate movement during the construction works.
- 14.9.4. **Kylemore Road bridge (OBC5A)**, also to be replaced, will require its partial closure for in the region of 250 days with a temporary northbound vehicular bridge and a separate pedestrian bridge to be provided. Significant impacts at junctions JTC 1 Raheen Park-La Fanu Road – Kylemore Avenue, JTC 4 Le Fanu Road – Kylemore Park North, JTC 5 Kylemore Road – Kylemore Park North and HC1 Ballyfermot Road – Le Fanu Road are predicted. Temporary signals are proposed at JTC 4 and JTC 5 and it is anticipated that the local network will be over capacity.

- 14.9.5. In view of the proximity of the above two bridges and the road network serving the area it is proposed to undertake and complete the works to Le Fanu bridge in advance of Kylemore Road Bridge.
- 14.9.6. The **Memorial Road Bridge (OBC3)** is required to be reconstructed to enable a greater span over the railway and will require full closure over the duration of its construction, estimated to be 14 months. Its closure is anticipated to result in congestion on the road network in the immediate proximity of the bridge with the required diversions predicted to have a significant impact on JTC 8 South Circular Road – Inchicore Road – Kilmainham Lane, JTC 10 Emmet Road – Old Kilmainham – South Circular Road and JTC 11 Grattan Crescent – Tyrconnell Road – Emmet Road. A temporary bridge for vulnerable road users (pedestrians, cyclists and mobility impaired road users) will be provided in advance of the said works to provide access between Inchicore/Kilmainham and Memorial Park and St John of Gods special needs school
- 14.9.7. Of particular complexity is the impact of the construction works in the vicinity of the **South Circular Road Interchange (R111 and R148)**. Due to the importance of the junction full closure is not considered as an option which is accepted. The new cut and cover structure (buried portal) to accommodate the electrified rails is proposed to be constructed in two phases with the layout of the junction being temporarily modified for each phase. In both phases vehicles travelling along the R111 southbound will be diverted through the anti-clockwise loop of the gyratory link (over St. John's Road Bridge (OBC0A0)). A micro simulation VISSIM model was developed to determine the impact of both phases of construction. The model allows for the mapping of a variety of intelligent traffic management systems (or Advanced Traffic Management Systems - ATMS) to stabilize traffic flow and increase traffic safety. The results show that latent demand was high for both phases during AM and PM peak except for the 'Do Something' Scenario Phase 2 (PM peak) with congestion observed to be greater in Phase 1 works compared to Phase 2 works. The outcome is that the proposed construction phase diversions required to build the cut and cover structure will be a significant negative impact with the duration of the works anticipated to be between 15-22 months. Provisions are to be made for vulnerable users at each of the crossings.

- 14.9.8. I note that all the proposed road diversions were subject to a sensitivity analysis and, while motorists will seek alternative routes, the road network in the vicinity of the works will largely be operating at over capacity with congestion inevitable.
- 14.9.9. I consider that the modelling and appraisal of transport effects associated with the construction phase to be appropriate for the reporting of impacts. The most significant factor would be the long duration of the construction traffic activity. I also note observers' concerns as to the impact of the diversions on residential amenities with regard had to the diversions proposed around Le Fanu Bridge and Kylemore Road Bridge in particular. In view of the established residential areas in the vicinity and the road network serving same avoidance of such residential areas is not possible.
- 14.9.10. In terms of the proposed compound at **St. Paul's Cemetery carpark**, access will be from the Finglas Road via the main entrance to the Claremont Estate and will not pass in front of any dwellings. The traffic analysis undertaken calculated that the traffic from construction vehicles accessing the compound would constitute less than 10% change in Average Annual Daily Traffic. The works required to replace the bridge are anticipated to take in the region of 4 months, on completion of which the compound will be removed and the car park reinstated.
- 14.9.11. Unquestionably there will be significant negative impacts during the construction phase from traffic disruption and congestion and these impacts cannot be eliminated. I submit that whilst the impacts are minimised as far as is feasibly possible, they will have to be endured to facilitate the realisation of an important infrastructural project within a built up urban environment. Of itself, the proposed development will have a long term positive impact on transport within the city.

Impact on Public Transport during Construction

- 14.9.12. The importance of keeping the Cork mainline open during the works is noted. Notwithstanding, weekend works and possession of the line to undertake specific works will be required which will disrupt services and inconvenience passengers. In addition, services may be required to operate at lower speeds although this is anticipated to largely occur outside the major AM and PM commuter periods. I also note that there will be inconvenience to existing users of the rail line arising from the need to close Hazelhatch & Celbridge Station for a 54-72 hour period and

also the shutdown of platforms in Heuston Station (platforms 1 to 6 will require 9 days shutdown and platforms 7 and 8 will require a 4 day shutdown).

- 14.9.13. As noted above the Phoenix Park Tunnel Branch Line will be closed for approx. 6 months which will require users to make alternative arrangements.
- 14.9.14. Dublin Bus routes will need to be diverted to facilitate the works associated with bridge replacement and road diversions which will add to journey times. Whilst the inconvenience is regrettable it cannot be avoided. But, as noted, the proposed works will be temporary in duration and on completion the bus routes can revert to the original routes.

Interface with Existing and Proposed Public Transport

- 14.9.15. The applicant has confirmed that no construction is taking place to physically impact the **LUAS Red line** infrastructure at Heuston Station; nor are construction vehicles entering and exiting the Heuston Station Complex expected to affect LUAS operations negatively. Various HGV fixed and articulated vehicles currently enter the existing station access road given that it is a fully operational rail yard.
- 14.9.16. The railway line crosses under and is adjacent to the **LUAS Green line** at the Royal Canal and LUAS twin arch bridge (OBO8). The applicant in response to TII's submission considers that the works proposed are relatively minor including the installation of OHLE fixings to the bridge soffit and localised track lowering to ensure the required overhead clearance is achieved. The works will be completed from the rail corridor and will not impact on LUAS operations. It is stated that geotechnical investigations works in the area have been completed and the proposed works will not adversely impact the bridge structure. In terms of TII's concerns regarding the potential impact on LUAS from electromagnetic compatibility and stray current the applicant states that as the DART+ South West overhead traction power system will be 1,500V DC, rather than an AC overhead system, the risk of induction from the DART is inherently mitigated. Risk of induction is further alleviated due to the lack of parallelism between systems. TII considers the response does not address its concerns and that the conditions as originally cited remain valid. The conditions include the requirement that the CEMP contain a method statement to resolve all LUAS interface issues in addition to a risk assessment.

- 14.9.17. On balance, I consider that the applicant has provided sufficient information at this juncture to allow for a proper assessment of the acceptability of the proposal and that it can be provided without compromising other public transport infrastructure. I consider that the applicant has provided sufficient information to support the view that the proposed development can be facilitated without undue impact on LUAS and that the technical requirements between the parties can be further discussed at detailed design stage. Ongoing liaison will be required between the applicant and TII. Appropriate monitoring and mitigation measures, if required, can be addressed by way of condition.
- 14.9.18. I have had regard to the approved and proposed **Bus Connects** projects in the vicinity of the proposed development, notably the approved Liffey Valley to Dublin City Centre Core Bus Corridor (file ref. ABP-314056-22/ ABP-314091-22) and the proposed Lucan to Dublin City Centre Core Bus Corridor (file ref. 314942-22) which intersect with the subject works at Sarsfield Road, Memorial Bridge, Chapelizod By-Pass and Con Colbert Road.
- 14.9.19. I have had regard to the works as approved and proposed for the said bus corridors and the drawings accompanying same. I can confirm that the road alignments and layouts as delineated on the drawings accompanying this RO application correspond with the plans and drawings accompanying each of the Bus Connects projects with due provision made for pedestrian and cyclists provisions and due regard had to the proposed traffic arrangements including changing Memorial Road from a one way system to provide for two way directional flow with a dedicated right turn slip lane being provided on the eastbound carriageway of the Chapelizod By Pass (R148) to facilitate southbound turn into Memorial Road. I also note that the Lucan Bus Connects scheme proposes the reconfiguration of vehicular and vulnerable user routes through the South Circular Road junction. The proposed works to facilitate the four tracking via a cut and cover portal at this location will not preclude the said reconfigurations.
- 14.9.20. The applicant proposes to reinstate the vehicular arrangements that exist at the time of the works. Thus, should the Bus Connects projects advance earlier than the DART+ South West then the improvements that BusConnects will have implemented at the various locations will be reinstated. Ongoing consultation and liaison with BusConnects is proposed to ensure alignment of the projects.

14.9.21. As noted above the works at Kylemore Road Bridge and Cabra Bridge make passive provision for the proposed **train stations** to be advanced separately. I also note that the Kylemore Road bridge has been future proofed to take the loading of a future **LUAS** which is considered to be an important infrastructural development to facilitate the City Edge project.

14.9.22. There is no direct interface between the DART+ South West project and the **MetroLink** Project. The boundaries between the DART+ South West project and the **DART+ West** Project is at a point before the new MetroLink Station at Glasnevin. As such, the DART+ West project is the key project with an interface with the MetroLink project at the new Glasnevin Station. The Glasnevin Station for the MetroLink Project provides interchange capability with CIÉ/IÉ services on the Maynooth and Kildare lines that serve Connolly Station and Docklands Station.

Park and Ride Facilities

14.9.23. Both Kildare and South Dublin County Councils raised the issues of car parking and pedestrian and cycle facilities at or near existing train stations, notably the submission by the former local authority with regard to Hazelhatch & Celbridge Station. The applicant in response states that such provision is not part of the DART+ Programme. I note that the NTA's Park & Ride Development Office is currently working with CIÉ/IÉ to identify strategic locations to develop a Park & Ride Scheme that will connect with the rail system. Proposals to develop Park & Ride will be brought forward independently of the DART+ Programme.

14.9.24. I also note that pedestrian and cycle facilities associated with many of the existing stations were provided as part of the original Kildare Route Project. The facilities are consistently under review and are the remit of CIÉ/IÉ Station Enhancement Programme.

14.10. Residential Amenities

14.10.1. As a consequence of the receiving environment the majority of the observations pertain to the more built-up areas along the eastern/north-eastern half of the route corresponding with the established residential areas of Ballyfermot, Inchicore, Kilmainham, Cabra and Glasnevin. These areas are, in the main, characterised by mature housing with dwellings in proximity to/backing onto the rail line with

industrial and commercial lands interspersed. More recent apartment schemes are noted in proximity to the rail line in Ballyfermot, Kilmainham and Islandbridge.

- 14.10.2. The majority of observations raise concerns as to the adverse impact on residential amenities during both the construction and operational phases of the proposed development with specific reference to noise and vibration and health considerations which I have addressed above. Impacts on visual amenities, loss of privacy and impact on development potential of properties have also been raised which I will address at this juncture.
- 14.10.3. Many observers have raised concerns in relation to the removal of mature **vegetation/trees** along the corridor and perceived loss of privacy. In addition, the visual impact of retaining walls and acoustic barriers were also raised.
- 14.10.4. Tracts of lands immediately adjoining the rail tracks are characterised by thick vegetation, trees and scrub from which adjoining properties have benefitted from in terms of screening. The removal of boundaries and vegetation along large sections of the track is unavoidable to ensure appropriate clearance to the OHLE for safety reasons. Trees, shrubs etc. are not permitted within 4 metres of the rail line or within 1.5 metres of the catenary poles depending on which is greater. This is in line with Vegetation Clearance Requirements for Electrified Lines, I-ETR-4006. Version 1.0 (IÉ, 2021). I refer the Board to the plans provided in Appendix 15.1 of the EIAR. Planting mitigation and vegetation to be retained is shown in the above referenced plans (Drawing Nod. DP-04-23-DWG-RO-TTA-23838 to DP-04-23-DWG-ROTTA-23854). I note, in particular, the removal of vegetation along the strip of ground proposed to be acquired to the rear of Kylemore Drive and Landen Road and the vegetation removal to the rear of St. Attracta Road which are not being replaced.
- 14.10.5. Whilst I acknowledge that such vegetation removal will remove the sense of enclosure experienced by dwellings, I am satisfied that properties along the route will remain adequately set back from the track boundary. While accepting that there would be an increase in services it is not anticipated that there would be a greater line of sight from trains to properties adjoining the line. The existing line is either level or in cut with existing residential boundaries to be largely maintained. Thus, concerns regarding loss of privacy from passengers is not a material concern.

- 14.10.6. New **retaining walls** are required at various sections along both sides of the rail corridor, and I refer the Board to section 14.3 above. Having regard to the levels of the adjoining properties relative to the rail corridor and the function and positioning of the walls relative to the said property boundaries no visual impacts from same will arise. The applicant has confirmed that the area between such retaining walls and existing boundary walls will be fenced off to prevent access and will be maintained by it. I note that in the case of Murray's Cottages the existing rear boundary walls are to be removed to facilitate the retaining wall construction which is then to be topped with replacement walls.
- 14.10.7. In terms of the section of track from Phoenix Park Tunnel to Glasnevin new retaining walls to accommodate steepened slopes where the tracks are being lowered will be located at the toe of the slopes adjacent to the tracks and will typically consist of gabion basket and king post walls with heights ranging from 0.5 to 1.5 m in height. In view of the line being in cut along this section such walls will have no visual impact.
- 14.10.8. I submit that, in general, the visual amenities of property would not be adversely impacted and where proposed infrastructure such as OHLE and noise barriers will be visible I submit that these must be viewed in the context of the long established railway corridor, which, of itself, dominates the visual environment.
- 14.10.9. Observers express concern as to the negative impact of **soil anchoring/nailing**. The Board is advised that I have addressed the issues of noise and vibration in section 14.3 above.
- 14.10.10. As noted previously soil anchors/nails will be required along the railway corridor to provide for reinforcement both of the proposed retaining walls and the embankments. I submit that the areas most impacted will be those adjoining the rail corridor where four tracking is proposed (north and south). The length of the anchors will vary based on the height of the cutting slope to be retained. There appears to be discrepancies in terms of the length of the soil anchors with chapter 5 referring to anchors of approx.10 to 15 metre in length whilst chapter 4 states that the substratum wall anchors will extend beyond the retaining walls between 8 to 30 m (length) and 1 – 30m (depth) under adjoining properties. Having regard to the drawings accompanying the application and extent of substratum proposed to be acquired I submit that the latter figures to be applicable.

- 14.10.11. With regard to the Phoenix Park Tunnel Branch Line, specifically the section north of the Phoenix Park Tunnel to Glasnevin Junction, additional soil nailing will be installed on the slopes above the new retaining wall locations to complement the existing soil anchors previously installed to provide greater stability of the cutting slopes. The new soil nails and mesh facing system, will extend along the entire slope face and will typically extend 10 to 15m into the slopes, in some sections beyond the CIÉ property boundary and under third party properties.
- 14.10.12. Soil anchoring/nailing will be a substantial distance below ground level and will get deeper as they advance under the adjoining property. Installation will be completed from the track side, and it is not envisaged that access to properties would be required for construction. The soil nails/anchors will not be visible in gardens. Substratum acquisition is proposed to allow for the said works whereby CIÉ/IÉ will own the soil anchors/nails installed underneath the property. The acquisition under the RO, if granted, would only apply to the substratum. If any future development is proposed at the property, CIÉ/IÉ will need to be consulted to ensure that it will not interfere with the soil nail/anchors. This does not necessarily preclude development potential in the future, but it does mean they will have to be taken into consideration. Whilst I note a number of observers express concerns as to engagement with IÉ in securing its agreement to development works this is not a matter for comment in this assessment. Similarly, any infringement on property rights and compensation as a consequence of such works is not a matter for comment in this application.
- 14.10.13. **Site lighting** during the construction phase will be required, notably where night time works is proposed. Site lighting will typically be provided by tower mounted temporary portable construction floodlights. The floodlights will be cowled and angled downwards to minimise light spillage outside of works areas and to surrounding properties. Lighting will be provided with the minimum luminosity sufficient for safety and security purposes and will be shut off at night when not in use or when works cease at the end of the day in order to minimise the effects of light pollution and disturbance to nocturnal species.
- 14.10.14. A number of observers raise concerns about orientation of existing **security cameras** and impact on privacy with specific reference to the Inchicore Works complex. Any extant issue is not a matter for this assessment and is more appropriately raised with IÉ for resolution.

- 14.10.15. The residents of **Glenbeigh Road**, both by way of group and individual submissions, express disappointment as to the proposed boundary treatment in the vicinity of their dwellings. Glenbeigh Road comprises a mature residential area connecting Blackhorse Avenue and Old Cabra Road with the dwellings to the west of the rail line. A lane which provided for rear access to the properties separates them from the embankment to the rail line which is delineated by a wall and fencing. As noted, the laneway is gated precluding access. Over time sections of the said boundary wall and fencing have been removed and the lands developed as amenity areas that encroach onto CIÉ/IE property. The rail line is in cut at this location with a steep embankment. Whilst a number of observers refer to historical agreements for such use of the lands no evidence of same have been provided.
- 14.10.16. Due to the health and safety requirements arising from the electrification of the line appropriate boundary treatment will be required to preclude access. In this instance a 1.2 metre high palisade fence on top of the existing wall is proposed. The applicant is open to engaging with the residents to examine whether there are solutions that can deliver the necessary technical and safety requirements while preserving, in so far as possible, the amenity areas.
- 14.10.17. Having regard to the information before the Board the observers do not appear to own the said lands and, as such, any allowances going forward would be at the behest of the applicant. I consider that this a matter for further discussion between the parties and I do not consider that it is a matter for the RO.

14.11. **Drainage and Flood Risk**

- 14.11.1. The application is accompanied by a **Site Specific Flood Risk Assessment** (SSFRA) in which three areas of flooding along the rail track were identified, namely in the vicinity of the Hazelhatch & Celbridge Station, at Adamstown and between the Royal Canal and LUAS Twin Arch (OBO8) and the Maynooth Line Twin Arch (OBO9) structures.
- 14.11.2. The most significant source of flooding at Hazelhatch is from Hazelhatch and Shinkeen streams which are in the vicinity of **Hazelhatch & Celbridge Station**. The station is in Flood Zone A and Flood Zone B, given that the site boundaries are within the 1 in 100 and 1,000-year flood event extent. The area is also susceptible to pluvial flooding. The upgrading of infrastructure to facilitate the electrification at

Hazelhatch & Celbridge Station will not increase flood risk to the surrounding area. The proposed ground levels will be maintained at the current levels to ensure that displacement of floodwaters does not occur and cause a residual risk to the surrounding areas. As part of the project assessment mitigation measures to address flooding were modelled which showed the potential for increased flood risk to the surrounding area. On this basis no mitigation measures are included with this application. The applicant proposes to engage with the OPW who are currently progressing a flood relief scheme for the wider Hazelhatch area which could reduce flooding to the railway station and its infrastructure.

14.11.3. In terms of **Adamstown** the SSFRA identified this location as liable to flood at a High-End Future Scenario (HEFS) 0.1% AEP event. The upgrading of infrastructure to facilitate the electrification will not increase flood risk to the surrounding area as the proposed ground levels will be maintained at the current levels to ensure that displacement of floodwaters does not occur and cause a residual risk. The hydraulic modelling of potential mitigation measures at Adamstown showed that while they remove flooding from the railway track, depending on the solution employed, it increases (flood embankment) or reduces (culvert upgrade) flooding depths and extents upstream of the railway line. The hydraulic analysis of the existing scenario for the HEFS 0.1% AEP event, identified the approximate depth of flood water on the track as 120mm for an approximate duration of 12 hours. This is within the limits whereby EMU can pass over flooded track in accordance with IÉ's operating procedure. The risk and probability of the HEFS 0.1% AEP occurring is low and the railway is not at risk during the 1% AEP event. On this basis the applicant decided not to implement mitigation measures at this time. To address future flood risk IÉ may have to develop procedures that would ensure operations in Adamstown are managed safely to avoid damage to critical on-board equipment and to mitigate against the risk of a train becoming disabled in a flooded area. Alternatively, they could develop hard mitigation measures to protect the track however, any mitigation measures would need to ensure they do not increase risk on adjoining lands.

14.11.4. There is a history of flooding on the line between the **Royal Canal and LUAS Twin Arch (OBO8) and the Maynooth Line Twin Arch (OBO9)**. The infrastructure in place to address the matter is a pumping station immediately north of the line which drains the excess water from the cutting to an attenuation tank located to the

northwest thereafter infiltrating into the surrounding substratum. With 100mm track lowering required in this area with a further reduction of 200mm to take account of the maximum water level permissible for the EMUs rolling stock, it is proposed that the pump station will be lowered with an increase in the wet well chamber dimensions. This increase in size will provide for the additional volumes collected by the drainage system in order to keep the water levels within operating limits required by the EMU's. Accumulated storm water will be pumped to the existing infiltration basin similar to the existing arrangement. I refer the Board to drawing no. DP-04-23-DWG-RO-TTA-18865, Volume 3A.

- 14.11.5. A number of observers to the proposed development raise concerns that the proposed development would give rise to flooding of adjoining lands. I note that this issue was raised by residents adjoining the rail line north of the Phoenix Park Tunnel which is in cut with the adjoining properties at a height above the tracks. The proposed development would not result in increased flooding risk to adjacent lands and properties. As noted in the SSFRA the area is within Flood Zone C.
- 14.11.6. In terms of the drainage requirements along the rail line a new surface drainage system is proposed for **Zone B** in order to meet the increased runoff volumes generated by the new four-tracking layout, as well as the attenuation requirements needed to comply with the allowable discharge rates. The new drainage system is based on three independent drainage networks (Network 1, Network 2 and Network 3,) with three outfall locations (existing storm sewers). The attenuation systems have been designed to retain storm water volumes up to 1 in 100-year return period plus 30% climate change allowance and are to be located in the existing open areas along the track. In response to the DHLGH's recommendation the applicant commits to the inclusion of oil interceptors on the attenuation tanks.
- 14.11.7. Changes are also proposed to the drainage system serving the **Phoenix Park Tunnel** with the existing collection system (perforated pipe) to be replaced by an in situ concrete channel drain 400mm wide by 500mm deep placed between tracks, to collect any surface water runoff on the track and convey flows from the upstream drainage network up to the existing outfall at the River Liffey. The current catchment area at the tunnel and its portals will not be modified by the proposed track works and therefore, the generated runoff volumes will not increase. There is an existing pond overflow pipe which enters the Phoenix Park Tunnel structure and discharges into the existing track drainage. As part of the slab track works within

the tunnel, a new connection manhole and pipework is proposed within the tunnel. This will then direct the overflow into a channel, located within the structure of the proposed slab track. The channel will transport storm water runoff from the track drainage catchment north of the tunnel and continue to accommodate the existing pond overflow discharge. The proposed minimum depth of the channel will be 500mm, with a maximum depth of 800mm. It is my interpretation of the applicant's response to the DHLGH's submission that it commits to the inclusion of an oil interceptor on the outfall to the River Liffey. I consider that this can be ensured by way of condition.

- 14.11.8. In conclusion, I consider that the applicant by way of the SSFRA and the proposed drainage arrangements, has provided sufficient information that the proposed project can be satisfactorily drained and would not give rise to flood risk elsewhere.

14.12. Biodiversity

- 14.12.1. The Board is advised of section 15.5 in the EIA which addresses biodiversity and the appropriate assessment in section 16 below.
- 14.12.2. The existing environment through which the rail line traverses commences from largely undeveloped agricultural lands to the west through the emerging development areas in the vicinity of Adamstown and Park West to the established built up urban areas which characterise the eastern and north-eastern sections within DCC.
- 14.12.3. A number of observers to the application express concern as to the adverse impact on biodiversity with specific reference to **bats** at certain locations including along the River Liffey where the line crosses via Liffey bridge and at a number of bridges. I note that Sharon Matthews in her submissions raises concerns as to the adequacy of the assessment of the impact on bats and is critical of the extent of survey work undertaken, notably that 2 of the 3 bridges (Kylemore bridge and Le Fanu Bridge) that are proposed to be demolished have not been fully assessed/surveyed for bat roosts.
- 14.12.4. The applicant contests the assertion as to the inadequacy of the survey works undertaken stating that all overbridges were assessed from the rail line for potential suitability for roosting bats and that only features that were deemed to have potential suitability were assessed for emergence/re-entry surveys. 5 no. locations

were surveyed for emergence and re-entry. In addition, 4 static locations were determined to be adequate for establishing a bat activity baseline which was supported by desk study results and the incidental bat activity recorded during the bat roosting confirmation surveys.

- 14.12.5. The applicant acknowledges the constraints in relation to activity transects due to safety restrictions regarding access to the live rail line but that the issue pertains to dawn surveys only. The dawn surveys were completed as far as possible (up to one hour before dawn) with additional dusk bat emergence surveys completed to compensate for the reduced dawn survey data. This limitation was only applicable to the Royal Canal and Luas Twin Arch Bridge (OBO8).
- 14.12.6. In addition to address any potential gaps in the baseline due to lack of entry, assessments of structures and trees within privately owned lands, including back gardens were carried out using binoculars from accessible lands in parallel with the assessment of potentially suitable habitats using satellite imagery. I note that the said limitations are acknowledged and incorporated into the relevant assessment.
- 14.12.7. The applicant has advised that from a visual assessment Le Fanu Bridge was not considered as a suitable location for roosting bats. Ms. Matthews in her 2nd submission does not concur and states that due to the bat activity in the vicinity of Kylemore Drive Le Fanu Bridge is a likely location for bat roosts. Table 8.2 of the EIAR gives a summary of field surveys carried out and I note that bat roosting suitability assessments were carried out in August and November 2020; and April and May 2022 with cognisance had of the Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016). The assessment assessed the overbridges for the presence of suitable features e.g. cracks/crevices, missing block/brickwork and mortar, gaps at beam junctions. I also refer the Board to Appendix 8.1 which provides further detail on the survey work undertaken. Table 1-13 of the appendix details the locations identified as suitable for roosting bats during the Preliminary Ground Level Roost Assessment with Table 1-14 detailing the location of the static detectors. I consider the approach taken by the applicant to be appropriate and note that the applicant proposes to undertake pre-construction ecology surveys and that the survey of the bridge for bats roosts would be included. This is considered to be a reasonable approach and I note that the DHLGH has no objection to same.

- 14.12.8. Residents in Woodfield Avenue express concern as to the loss of the rear boundary wall and impacts on bats that use same for commuting. As confirmed by the applicant the said boundary wall is not proposed for demolition. This is as delineated on drawing no. DP-04-23-DWG-RO-TTA-18898 in Book 3 of the RO Drawings. However, I note that the wall to the rear of Murray's Cottages immediately adjoining Woodfield Avenue is to be demolished and, as such, there would be a break in the corridor. This cannot be avoided.
- 14.12.9. In response to the DHLGH's submission the applicant confirms that the trees along the River Liffey were assessed as being of negligible suitability for roosting bats. They are to be retained and thus would not result in the disruption of a commuting corridor.
- 14.12.10. In terms of the potential for an **otter** holt in the vicinity of the Royal Canal Twin Arch Bridge the visual survey work carried out within the zone of influence of the project did not show evidence of holts or field signs. Notwithstanding, as mitigation, the pre-construction ecology survey will reassess the location and any additional desk study information regarding the location of the otter holt recorded in connection with the Royal Canal Greenway Project with appropriate measures to be incorporated if identified.
- 14.12.11. I submit that whilst fauna present will have habituated to the environment consisting of an operational rail corridor largely within a built-up urban area, construction works will inevitably result in noise, vibration and lighting whereby impacts will arise on species present. These impacts, while potentially significant by way of disturbance, would be short-term and would not be continuous at any one location. Notwithstanding, the impacts cannot be avoided. Best practice construction methods including appropriate placing and cowlings of construction lighting will be employed.
- 14.12.12. Measures proposed by the applicant to mitigate the loss of habitat and associated potential impacts on species, including bats in the vicinity, consist of the provision of biodiversity 'stepping stones' including the green wall to be installed on the retaining wall running parallel to Con Colbert Road, reinstatement and enhancement of habitat at proposed construction compounds north and south of Sarsfield Road underbridge (UBC4), and reinstatement and enhancement of habitat in Inchicore Works. Bat boxes are proposed at Hazelhatch, Inchicore Works and in proximity to

the northern entrance to the Phoenix Park Tunnel. The locations and enhancement measures are provided in Table 8.5. In addition, pre-construction ecology surveys, including suitability for roosting and hibernating bats, will be completed.

14.12.13. As outlined in Section 8.6.2.1.5. of the EIAR, a combination of measures is proposed to mitigate the impact to breeding and commuting/foraging birds in this area including the use of hanging devices on the OHLE on Liffey bridge to mitigation against the potential for collision.

14.12.14. In conclusion I consider that the applicant's mitigation measures are reasonable to minimise effects and that to deliver on a project of this nature some degree of disturbance is unavoidable at the construction phase.

14.13. Cultural Heritage

14.13.1. Having regard to the nature and extent of the proposed works within the railway line corridor I submit that impacts on the built heritage in the wider area is largely restricted save for the works to the bridge structures along its length and within the Inchicore Works site.

14.13.2. Within County Kildare a number of structures at **Hazelhatch & Celbridge Station** are on the record of protected structures (RPS) including the single storey 19th century station building, iron footbridge and station gates. The works required to allow for the electrification of the line, including OHLE, will impact on the setting of these structures but in view of the existing railway line environment, would not be to an extent as to warrant a material concern.

14.13.3. The **lime kiln** at **Stacumny**, also on the County Kildare RPS, immediately abuts the rail line with no screening between. I submit that the OHLE infrastructure and fencing would not have a material impact on its setting over the current position. Having regard to the proximity of the structure to the rail line and safety requirements in terms of clearance of OHLE, options for screening by way of planting are limited. I refer the Board to the unnumbered photomontages accompanying the EIAR.

14.13.4. A number of **bridges** between Hazelhatch & Celbridge train station and Inchicore Works, namely Hazelhatch R405 Road Bridge (OBC25), Finnstown R120 Road Bridge (OBC19), Adamstown Footbridge (OBC16A), Kishoge Road Bridge (OBC14C), Ninth Lock Road bridge (OBC13), whilst listed in the NIAH in 2002,

were subsequently replaced with concrete bridges as part of the move from two tracks to four tracks along this part of the line.

- 14.13.5. I refer the Board to my assessment in section 14.7 above wherein I note that **Le Fanu Bridge** is a masonry-arched bridge dating from the 1840's which the applicant considers to be of merit, but which may have been overlooked by the NIAH and DCC in its RPS. By reason of the requirement to provide for four tracks the bridge span is inadequate, and its removal and replacement is proposed. Subject to its appropriate recording I consider that its demolition to be acceptable to allow for the realisation of this project.
- 14.13.6. There are a number of structures/features within the **Inchicore Works** that are on the Dublin City Council RPS and the Dublin City Industrial Heritage Record (DCIHR). I refer the Board to Table 21.8 of the EIAR. I note that the DCIHR does not have a statutory basis.
- 14.13.7. The alternatives considered for the four tracking and realignment within the Inchicore Works had regard to the said architectural heritage against which other considerations including pattern of existing development including proximity of residential properties and protection of their amenities were balanced. I refer the Board to chapter 3 of the EIAR. The preferred option incorporated into the proposed project requires the demolition of the **signal box** and part of the **limestone rubble boundary wall**, both on the RPS. As noted in the EIAR and with which I agree, the significance of effect would be profound. However, their removal to allow for the realisation of such an infrastructural development of great import in terms of national, regional and local transport policy is considered an acceptable intervention. The structures are to be recorded by means of photographs and written description with the potential for the signal box to be erected at an alternative location. The new end of the wall is to be repaired in accordance with a method statement prepared by a qualified conservation specialist. I recommend that the proposed works should be subject to agreement with DCC in which the extent of the boundary wall to be demolished at Ch 11+200 can be clarified.
- 14.13.8. I note that other structures within the complex are also required to be demolished to facilitate the works and whilst 1 no. (extension to maintenance shed and shunting hut) is included within the DCIHR, it is not included in either the RPS or the NIAH. I

note that the said single-storey structure is a later addition to the maintenance shed.

- 14.13.9. Overall, I consider that the complex of structures and works within Inchicore Works presents as an integral component in the rail line infrastructure and that the proposed works, whilst significant, will not alter this character. I, therefore, consider that the setting of the protected structures to be retained within the complex would not be adversely affected.
- 14.13.10. The new DART station within the **Heuston Station yard** will be at a remove from other buildings including the main concourse which are on RPS. I do not consider that the new station will adversely affect the architectural heritage therein.
- 14.13.11. OHLE is to be attached to **Liffey Bridge** (UBO1) which is on the NIAH. Whilst such interventions will be visible along the River Liffey this would be in the context of its use as a railway crossing.
- 14.13.12. Alterations are required to **McKee Barracks Bridge** (OBO3), **Blackhorse Avenue Bridge** (OBO4) and **Old Cabra Road Bridge** (OBO5) which are on the NIAH and to **Cabra Road Bridge** (OBO6) which is on the RPS. The alterations comprise of insertion of panels to raise the parapets to meet safety requirements and in some instances the attachment of OHLE to the soffit of the bridge. The EIAR determines that this would result in a moderate negative impact to the structures on the NIAH with a significant impact on Cabra Road Bridge, a protected structure. I refer to my assessment in 14.7 above. I consider that such works provides an opportunity to improve the visual appearance of the bridges as viewed from the public road. I submit that whilst altering the setting of the bridges the interventions are considered acceptable subject to the said fencing being agreed with the local authority in consultation with a Conservation Architect.
- 14.13.13. As noted, a Conservation Architect will be appointed to oversee and advise on works in proximity to heritage assets. Condition Surveys will be carried out for engineering, property and conservation purposes; these will include structural surveys prior to works with high levels of vibration and/or in proximity to features of conservation.
- 14.13.14. In overall terms whilst the works required along the rail line to allow for its electrification will have an impact on the setting of the rail line and its architectural

heritage, this impact must be viewed within the context of a working line characterised by rail infrastructure and ancillary facilities.

- 14.13.15. In view of the existence of the line and infrastructure the potential for unidentified **archaeological deposits**, features or finds is not anticipated to be significant. Archaeological monitoring is proposed during construction works and I note the DHLGH recommendations with respect to conditions in this regard.

14.14. Train Station Provision

- 14.14.1. A significant number of observations express disappointment that stations serving communities along the route do not form part of the application specifically at **Kylemore** and **Cabra**. The applicant, in response, states the strategy for the provision of new stations and other rail infrastructure is a matter for the NTA and the said stations are outside the scope of the subject project. In this regard I note the GDA Transport Strategy 2022 to 2042 commits to the development of a number of new rail stations including at Kylemore Road and Cabra.
- 14.14.2. Whilst I acknowledge that the design of the project has been future proofed to allow the addition of stations at these locations and that funding has been provided by the NTA to CIÉ/IE to commence preparation of their designs, it is disappointing that they do not form part of the project. The somewhat incremental approach to the development along the rail line has the potential to extend the duration of disturbance and nuisance for residents in the vicinity. However, it is beyond the remit of the Board in its assessment of this application to require the co-ordination of the said projects by way of condition.
- 14.14.3. I note that CIÉ/IE is currently undertaking upgrading works to **Kishoge** station so as to meet current accessibility and systems requirements. As per information available in the public realm the station is anticipated to open in the summer 2024².
- 14.14.4. Issues for enhancement of **amenities at existing stations** along the line as raised by the Dublin Commuter Coalition is not a matter for comment in this assessment. I note that pedestrian and cycle facilities associated with many of the existing stations were provided as part of the original Kildare Route Project. The facilities

² [IE Projects and Investments - Kishoge](#).

are constantly under review and are the remit of IÉ Station Enhancement Programme.

- 14.14.5. The provision of **Park and Ride facilities**, car parking and pedestrian and cycle facilities at or near **existing train stations** is not part of the development. As noted in section 14.9.23 above the NTA's Park and Ride Development Office is working with IÉ to identify strategic locations to develop a Park and Ride Scheme that will connect with the rail system. Proposals for Park and Ride will be brought forward independently of the DART + programme. Whilst the potential for parking to overspill into areas adjoining existing parking facilities at train stations as raised by both Kildare and South Dublin County Councils is noted the matter is beyond the remit of this assessment.

14.15. Heuston Station West Location and Design

- 14.15.1. A new station is proposed within the Heuston Station complex in the vicinity of existing platform 10. The said platform does not appear to be in regular use and is at a remove from the main Heuston Station concourse. It is proposed that the station construction works will be undertaken during a wider shutdown of the Phoenix Park Tunnel Branch Line and Phoenix Park Tunnel. The station works will be coordinated with the alterations to the track layout and the attenuation tank which are to be installed in the area. The duration for the Heuston West Station works is estimated to be 6 months.
- 14.15.2. The preliminary station design incorporates ramps to allow for pedestrian and cyclist access. The issue of lift access has been raised by a number of parties including DCC and the Dublin Commuter Coalition. The applicant, in response, states that negative feedback during public consultation, in addition to potential for mechanical issues/faults in what will be a largely unmanned station, supports the omission of such a provision. I do not consider this sufficient justification to support its omission and the design as proposed (with ramps) would not provide for the ease of accessibility by passengers with mobility issues. I note that the stations currently open to the public along the route all have lift access (Kishoge is undergoing renovation). I consider that it is appropriate that the design be modified to include a lift. The redesign of the station and provision of a lift can be addressed by way of condition.

- 14.15.3. In response to issues raised by Dublin Commuter Coalition the applicant has advised that the platform coverings are comparable to those provided at other stations with no retail space being provided. Bicycle parking can be appropriately provided in accordance with relevant standards.
- 14.15.4. As part of the proposal a pedestrian and cyclist connection is proposed through Clancy Quay to South Circular Road with a right of way along Waterloo Avenue within the Clancy Quay development delineated on the plans and provided for in the Book of Reference. It will assist in increasing access to the station from both sides of the river as advocated by both DCC and the Dublin Commuter Coalition. Adequate pedestrian and cyclist infrastructure through the Clancy Quay complex can be ensured at detailed design stage.
- 14.15.5. A masterplan has been prepared for the Heuston Station lands in which a number of pedestrian and vehicular connections for improved connectivity are identified. Albeit not a statutory document I note the consideration given to potential vehicular connections including one via Clancy Quay which notes that if this was not possible a 'green' link as a minimum would be provided. The connection proposed as part of this development would align with this intention. I also note that the masterplan proposes an extension to the existing railway bridge at the Phoenix Park Tunnel in addition to providing a second river crossing for pedestrians and cyclists. Whilst the Dublin Commuter Coalition considers the omission of such provisions in this project to be a lost opportunity they can be pursued independently. The proposed development would not hinder their realisation.
- 14.15.6. Both the Dublin Commuter Coalition and DCC reference the need to ensure a convenient and safe walking and cycling route connecting the DART Station to the main Heuston Station concourse. By reason of the existing alignment of the tracks and the project incorporating the Phoenix Park Tunnel Branch Line, this separation is unavoidable. Drawing No. DP-04-23-DWG-RO-TTA-18971 delineates the proposed vehicular and pedestrian connection to the main concourse with the latter to be routed via the car park and covered pedestrian walkway. Further refinement is required to ensure the optimum arrangement for pedestrians and cyclists in accordance with relevant standards and guidance. This can be secured by way of condition. I note that bus transfer between the stations is proposed.

14.16. Other Issues

- 14.16.1. I note that a CLO is to be appointed for the construction period who would interface and provide communications to residents in addition to being a conduit where concerns and issues can be addressed. The recommendation made by a number of observers to the establishment of a **community forum** is reasonable and would provide a further means by which information and assistance could be shared. I note that the applicant is not opposed to establishing such a community forum and I submit that it would form a beneficial addition to the CLO role and could be incorporated into the proposed Community Liaison Plan to be developed prior to commencement of development.
- 14.16.2. The issue of **anti-social behaviour** along the rail line was cited in many submissions with a number expressing concerns about the increased potential arising from the gap between boundary walls and retaining walls being constructed as part of the project. The applicant has confirmed that any gaps will be fenced off to prevent unauthorised access. I do not consider that the proposed works would increase the potential for anti-social behaviour than heretofore exists. Notwithstanding, the development of appropriate security protocols along the line by the applicant and liaison with An Garda Síochána at local level should aid in the minimisation of these concerns.
- 14.16.3. I note that chapter 5 of the EIAR identifies on a zone by zone basis the **utilities** which are anticipated to be impacted by the construction and which require diversion with chapter 18 providing further details including consultations held with service providers. The applicant, in response to concerns raised by observers as to the potential disruption in services, states that any service disruptions to accommodate such works are to be kept to a minimum and that customers would not be adversely impacted. Procedures where residents are informed in advance of such disruptions and how long such disruptions are to last will be of material importance in this regard.
- 14.16.4. A significant number of observers express concern about **vermin** control and impact on amenities of properties adjoining the rail line. Appropriate measures and best practices shall be incorporated into the CEMP. The applicant is committed to a pre-construction survey of rodent activity and sanitation. This will document the level of rodent activity, sanitation problems and actions to be implemented. Once

construction begins, regular inspections for rodent activity are to be carried out. Inspection records will be maintained, and a program of control will be adjusted to match construction sequencing.

- 14.16.5. The Dublin Commuter Coalition recommends that impediments to **higher train speeds** between Heuston West and Glasnevin should be investigated to enable a higher speed and, therefore, higher capacity services. The applicant in response notes that all project works, and subsequent line speeds will meet the needs of designed and agreed Train Service Specification 1C. This TSS_1C and all designs of track, electrification and signalling infrastructure allow an optimisation of passenger services from 2 to 7 trains per hour per direction on the Phoenix Park Tunnel Branch Line. The project design is governed by various technical and safety guidelines, which include European, National and CIÉ/IÉ internal standards and specifications.

14.17. Planning Assessment Conclusion

- 14.17.1. Having regard to the foregoing I consider that the imperative for the proposed project is clearly enunciated in national, regional and local transport and planning policies. It will seek to advance the improvement in sustainable connectivity, support compact growth and reduce the reliance on private vehicle trips, with the consequent reductions in vehicle emissions. The provision of the new DART station within Heuston Station Yard would constitute significant, additional railway infrastructure which would greatly enhance rail services for the city and would make a significant positive contribution to the delivery of enhanced public transport services for the GDA.
- 14.17.2. The construction phase involved to realise such a large infrastructural project within both established and emerging residential communities presents significant challenges, and I note the mitigation measures proposed by the applicant and recommended in my assessment that will be required to limit, as far as practicable, the impacts of the phase. The role of the CLO in ensuring effective communication and the setting out of clear protocols for lodgement of complaints or recording of incidences and how they are to be addressed will of particular importance.
- 14.17.3. I accept that due to the nature of the works proposed, the relatively narrow rail corridor along stretches and the proximity of the established residential areas to

same, material changes to the immediate environment of residential properties will arise including the introduction of OHLE, retaining walls and noise barriers with screening afforded by existing mature vegetation required to be removed. In addition, the noise environment will be altered with the increased train frequency. Whilst the majority of locations following mitigation will have noise levels which would be comparable to the 'Do Minimum' scenario there is a small number of sensitive receptors which will experience a moderate residual negative impact that will not be mitigated. I submit that this must be balanced against the fact that the rail line is long established and where its use with increased and expanded services which would align with national, regional and local transport policies must reasonably be accepted in principle.

15.0 Environmental Impact Assessment

15.1. Introduction

Statutory Provisions

- 15.1.1. This section sets out an environmental impact assessment (EIA) of the proposed development.
- 15.1.2. The Transport (Railway Infrastructure) Act 2001 (as amended by the 2006 Planning and Development (Strategic Infrastructure) Act) provides for the making of an application for a RO to An Bord Pleanála. The European Union (Railway Orders) (Environmental Impact Assessment) (Amendment) Regulations 2021 (S.I. No. 743 of 2021) gives effect to the transposition of the EIA Directive (2011/92/EU as amended by Directive 2014/52/EU).
- 15.1.3. Section 37 of the 2001 Act, as amended, (including by SI 743/2021) requires that the application be accompanied by a report on the likely effects on the environment. Section 42A requires that in carrying out an environmental impact assessment the Board shall, where appropriate, co-ordinate the assessment with any assessment under the Habitats Directive. Section 42B states that the Board shall reach a reasoned conclusion on the significant effects on the environment of the activity to which the application relates.

Content and Structure of EIAR

15.1.4. The EIAR consists of:

- Volume 1 – Non Technical Summary
- Volume 2 – Main Text (Parts 1 to 3)
- Volume 3A – Technical Figures
- Volume 3B – Photomontages
- Volume 4 – Appendices

15.1.5. The EIAR provides a description of the project comprising information on the site, design, size and other relevant features. It identifies, describes, and assesses in an appropriate manner, the direct and indirect significant effects of the project on the following environmental factors: (a) population and human health, (b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC, (c) land, soil, water, air and climate, (d) material assets, cultural heritage and the landscape and it considers the interaction between the factors referred to in points (a) to (d). It provides a description of forecasting methods and evidence used to identify and assess the significant effects on the environment. It also provides a description of measures envisaged to avoid, prevent or reduce and, if possible, offset likely significant adverse effects. The mitigation measures are presented in each chapter and are summarised in Chapter 27 of the EIAR. Where proposed, monitoring arrangements are also outlined. Any **difficulties** which were encountered in compiling the required information are set out under the respective environmental topics and are summarised in section 1.9.

15.1.6. I am satisfied that the information provided in the EIAR is up to date, adequately identifies and describes the direct, indirect and cumulative effects of the proposed development on the environment and complies with article 94 of the Planning and Development Regulations 2001, as amended. I note the details of the project team members set out in section 1.11 in terms of their qualifications and experience. I am satisfied that the EIAR has been presented by **competent experts** to ensure its completeness and quality.

15.1.7. 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. I

am also satisfied that the information contained in the EIAR complies with the provisions of Articles 3, 5 and Annex (IV) of EU Directive 2014/52/EU amending Directive 2011/92/EU and the provisions of the European Union (Railway Orders) (Environmental Impact Assessment) (Amendment) Regulations 2021 (S.I. No. 743 of 2021).

15.1.8. I have carried out an examination of the information presented by the applicant, including the EIAR and the response to the observations/submissions received. A summary of the submissions made by the local authorities, prescribed bodies and observers have been set out in sections 5, 6, 7 and 10 above. The relevant issues arising are addressed below under the relevant headings, and, as appropriate, in the reasoned conclusions and recommendation.

Consultations

15.1.9. Details of the **consultations** entered into by the applicant as part of the preparation of the application and EIAR are set out in section 1.12. I refer the Board to section 14.1 of my planning assessment above. I consider that the applicant has taken all reasonable steps to engage with the local community. As required the application is accompanied by copies of the relevant notices, with the website on which the documentation can be assessed provided. I consider that the engagement has been effective in terms of advising the public of the proposed development and that 3rd parties were not disenfranchised.

Vulnerability to Risk of Major Accidents and/or Disaster

15.1.10. The requirements of Article 3(2) of the Directive include the expected effects deriving from the vulnerability of the project to risks of **major accidents and/or disasters** that are relevant to the project concerned. I refer the Board to Chapter 24. I note that the spatial scope of the study area includes the extent of the rail corridor, as well as any haul routes to and from the proposed project during the construction phase.

15.1.11. There are three Seveso sites in proximity to the existing railway line; one upper tier site and two lower tier sites. They are as follows:

- BOC Gases Ireland Ltd. PO Box 201, Bluebell Industrial Estate, Dublin 12 (Upper Tier);
- IÉ Maintenance Works, Inchicore, Dublin 8 (Lower Tier); and

- Kayfoam Woolfson. Bluebell Industrial Estate, Naas Road, Dublin 12 (Lower Tier).

15.1.12. There are several EPA licensed facilities in proximity to the existing railway line as follows:

- Industrial Emissions facility: Henkel Ireland Operations and Research Limited (Ballyfermot) [EPA Licence: P0078-01];
- Industrial Emissions/ Waste Facility: Thorntons Recycling Centre (Ballyfermot) [EPA Licence: W0044-02];
- Industrial Emissions/ Waste Facility: Greyhound Recycling & Recovery [EPA Licence: W0205-01]; and
- Industrial Emissions facility: Metal Processors Limited [P0401-01].

15.1.13. Tables 24.5 and 24.6 set out a summary of the scoping assessment of potential sources of major accidents and disasters during the construction and operational phases. In summary, scenarios that were considered to be of the highest risk in terms of project vulnerability and its potential to cause such an event include, but are not limited to major road traffic events, events leading to structural collapse/damage, water pollution events, extreme weather flooding events, train derailment events and events leading to building fire/failure. Tables 24.7 and 24.8 provide for an assessment of the risks and detail the mitigation measures by design to reduce risk to as low as reasonably practicable (ALARP). Where mitigation by design was not sufficient to reduce the risk to acceptable levels, secondary mitigation measures are specified.

15.1.14. During the construction phase risk arising from increased vehicular movements (risk likely) and collapse/damage to structures (risk unlikely) are identified as requiring secondary mitigation to achieve ALARP. Ground collapse, risk from fire/explosion, industrial accidents (works near Seveso sites, spillage or long-term seepage of pollutants into a watercourses and fire at Heuston West Station) during the operational phase, although considered unlikely, are identified as requiring secondary mitigation to achieve ALARP. Extreme Weather (Flooding) events are considered likely to also require secondary mitigation.

15.1.15. The said additional secondary measures detailed in Table 24.9 and 24.10 are in line with best practice and include a dedicated **Major Incident Response Plan**

which has been developed to identify the appropriate emergency response plans in event of specific events including flooding. In terms of Seveso Sites works will be confined to the existing railway corridor and are not likely to cause damage to same in the event of an accident. Conversely there is considered to be low risk to the proposed project from accidents/disasters caused by nearby Seveso Sites due to the safety, health and management systems and procedures in place as required under the Control of Major Accident Hazard Regulations. In the event of an accident, the Seveso site will have an emergency response plan registered with the Health and Safety Authority. TII's protocols for the management of major accidents will be followed in an event there is an incident at a nearby Seveso site.

15.1.16. A number of observers raised concerns with respect to **train derailment**. The risk assessment notes that although unlikely, secondary mitigation is required for the operational phase of the project to include appropriate training for operation of the electrified train fleet, a dedicated Major Incident Response Plan in event of an incident and periodic inspections and maintenance (as required) of the railway line in accordance with IÉ Standards. I note that the new tracks have been designed to CIÉ/IÉ and European standards providing for derailment protection and containment with the project required to go through a detailed and rigorous safety assurance process, which must comply with CIÉ/IÉ's safety management systems requirements and also the requirements of the Commission for Railway Regulation (CRR).

15.1.17. I consider that the applicant has adequately identified the likely risks of major accidents and disasters to and from the proposed development and that the screening exercise and the risk assessment undertaken is in line with good practice. I consider that appropriate mitigation measures have been proposed to manage and reduce the identified risks and note that it is proposed to maintain and update the risk assessment throughout the design and construction of the proposed development. In conclusion, I am satisfied that the applicant has addressed the requirements of the EIA Directive with respect to risk of major accidents.

15.2. Reasonable Alternatives

15.2.1. The requirements of **Article 5(1)(d) of the 2014 EIA Directive** have been transposed through section 39(1) of the Transport (Railway Infrastructure) 2001 Act

as inserted by section 49(b) of the Planning and Development (Strategic Infrastructure) Act 2006 and as amended and substituted by the European Union (Railway Orders) (Environmental Impact Assessment) (Amendment) Regulations 2021 (S.I. No. 743 of 2021). It requires inter alia that the EIAR contain the following:

“(v) a description of the reasonable alternatives studied by the applicant which are relevant to the proposed railway works and their specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the railway works on the environment.”

15.2.2. The matter of alternatives is addressed in **Chapter 3** of the EIAR.

15.2.3. The **Multi-Criteria Analysis (MCA)** technique has been applied to inform the option selection process to determine the end to end preferred option for the proposed Project. The MCA was informed by the **Common Appraisal Framework (CAF) for Transport Projects and Programmes** (Department of Transport Tourism and Sport, March 2016 and updated October 2020). The CAF Guidelines require projects to undergo an MCA under 6 no. criteria which include economy, integration, environment, accessibility, safety and physical activity.

15.2.4. The reasonable alternatives considered at option selection stage were framed within the following scenarios for each significant intervention required:

- Do-Nothing scenario wherein the proposed interventions do not go ahead.
- ‘Do Minimum’ scenario wherein the proposed interventions go ahead but only those which can generally be met within the existing rail corridor.
- ‘Do Something’ scenario(s) wherein the proposed interventions go ahead but such interventions are required beyond the existing railway corridor impacting on 3rd party/private lands at some locations.

15.2.5. The preferred option is that option which best provides for the proposed development to go ahead and for the project objectives to be met while also minimising the impacts outside the rail corridor.

15.2.6. I accept that due to the existence of the existing, operational rail line running in a pre-defined corridor the scope of reasonable alternatives is significantly constrained. In this regard, the project can be characterised as one which provides for enhancement of existing railway infrastructure over the 20km length of the

scheme with the installation of electrical and signalling technology and widening of tracks to accommodate four rail lines from Park West & Cherry Orchard Station to Heuston Station.

- 15.2.7. As outlined in chapter 3 several studies have been completed as part of the design development. The electrified lines will be located on the northern section of the rail corridor due to the requirement to provide a DART service connection to the new Heuston West Station and onwards to the city centre via the Phoenix Park Tunnel. This configuration was considered in the DART Expansion Programme Options Assessment (2018).
- 15.2.8. A number of discrete elements extend beyond the boundary of the existing railway. Given this, the alternatives have been drafted to focus on those elements for which alternative options manifest. Examples of such include four-tracking, bridge replacements, options for the location of substations and compounds and drainage. I note that in terms of the new station at Heuston Station the specific requirements in terms of its position relative to the Phoenix Park Tunnel Branch Line restricts alternatives in terms of location. The 5 no. design options considered were largely pertinent to technical and design matters relating to the station's configuration, including access arrangements.
- 15.2.9. Alternatives in respect of many of the linear works (e.g., signalling) and some of the bridge works vary little from an environmental perspective. Alternatives in respect of many of these elements are largely a technical matter and optioneering, where relevant, is presented for information.
- 15.2.10. The scope of options selection is set out in section 3.5 and identifies:
- Civil and OHLE related options (including track and bridges)
 - Substations
 - Track drainage
 - Stations
 - Construction compounds
- 15.2.11. The alternatives considered for each section are assessed with a summary provided in Table 3.3. The configuration included in the RO application is the preferred approach when all factors are taken into account

- 15.2.12. A number of observers queried the alternatives considered for the four tracking requirements alongside the Inchicore Works site. The railway along this section comprises two main line tracks which are joined by two sidings (used to access the depot and for train storage). As outlined in Section 3.7.1.3 of the EIAR the Do-Nothing Option (Option 0) along with four additional design options (Options 1-4) were considered at Stage 1. Two options were brought forward for detailed Stage 2 MCA; the first providing for an additional track to the north towards the boundary with Landen Road; the second providing for an additional track to the south with existing track realignment. Impacts on built heritage, biodiversity, residential amenities and railway facilities within the yard area were material considerations with the latter option (option 4) emerging as the preferred option. The key advantage of Option 4 was the limiting of the impact on the residential properties to the north although under “Environment”, impacts were recorded in relation to architectural heritage associated with a Signal Box (Protected Structure) and turret within Inchicore works. This is the design subject of this application. I note that permanent acquisition of the strip of ground between the existing railway corridor and the rear of properties along Landen Road is proposed. As per the Book of Reference the strip is in the ownership of Dublin City Council.
- 15.2.13. I submit that the consideration of alternatives followed a comprehensive process. It indicates how the proposed development evolved and how it was adjusted to take into consideration environmental effects and matters arising during the consultation process. On balance, therefore, I consider that the requirements in terms of reasonable alternatives have been satisfactorily discharged and the requirements of the EIA Directive in this regard have been met.

15.3. Likely Significant Direct and Indirect Effects

This section of the EIA identifies, describes and assesses the potential direct, indirect and cumulative effects of the project under each of the environmental factors referred to in Article 3 (1) of the Directive. I will address the environmental factors in the following chronology, in line with that set out in the Directive :

- Population and Human Health
- Biodiversity
- Land and Soil

- Water
- Air and Climate
- Material Assets
- Cultural Heritage
- Landscape
- Interrelationship of the above

I then address cumulative impacts

15.4. Population and Human Health

Environmental Impact Assessment Report

15.4.1. I consider that this environmental topic appropriately encompasses the subject issues as raised in the EIAR chapters titled Population and Human Health in addition to noise and vibration.

15.4.2. **Chapter 7** addresses Population and **Chapter 23** addresses Human Health. **Chapter 14** addresses Noise and Vibration with supporting detail provided in **Volume 3A** Technical Figures (chapters 7, 14 and 23) and **Volume 4** Appendices (chapter 14 and 23). Regard is also had to the applicant's submission in response to the observations received.

15.4.3. Other matters which would have a direct bearing on population and human health such as air quality, water, climate, landscape and material assets will be addressed under the corresponding headings below. Invariably there is an overlap and I recommend that they be read in tandem.

15.4.4. In terms of difficulties encountered the applicant advises that health and wellbeing data provided by the Institute of Public Health Community Profile Tool has been unavailable throughout 2022 due to ongoing updates to their database. Available statistics from other sources have been collected and presented. Such limitations do not affect the robustness of the assessment for EIA purposes.

Receiving Environment

15.4.5. The study area for the purposes of the assessment is the project boundary (including compounds and temporary land-take), and a wider area identified as

500m from the track and 1km from existing and proposed railway stations. I refer the Board to Section 3 above which gives a site description of the c.20km linear site.

Population and Health

15.4.6. The health chapter uses study areas to broadly define representative population groups, including in relation to sensitivity, rather than to set boundaries on the extent of potential effects. The description of the whole population, and the populations within the local and wider study area, does not exclude the probability that there will be some individuals or groups of people who do not conform to the overall profile. The majority (55%) of people living with the study area have rated their health as “very good”, which is slightly lower than the national average (59%). The proportion of the population living within the study area who rate their health as “bad” (2%) is slightly higher than the national average (2%). Regarding disability prevalence, there is a slightly higher proportion of the population in the study area with a disability when compared to national figures. Details are provided on mortality and figures and causes of hospital admissions.

Noise and Vibration

15.4.7. There are no national guidelines for the assessment of rail noise, therefore the baseline survey generally follows the methodology for National Roads Schemes. This is considered appropriate given the linear nature of the proposed project.

15.4.8. A baseline noise study was undertaken at 18 no. locations which are detailed in Table 14.19. Table 14.20 provides the monitoring results. 14 no. of the 18 locations exceed the 55dB $L_{Aeq,16\text{ hr}}$ (daytime) ranging from 51.6 to 69.8 dB whilst all but 1 no. of the 18 locations exceed the 45 $L_{Aeq, 8\text{ hr}}$ (night time) with results ranging from 43.4 to 65.4 dB. The highest levels both during the day and night times were recorded at NML 9, a location on the 9th floor balcony of an apartment block at Kilmainham Square with views of the train tracks (69.8 dB $L_{Aeq,16\text{ hr}}$ and 65.4 $L_{Aeq, 8\text{ hr}}$). The lowest (both day and night time) were recorded at NML 4 located along a gated laneway to the rear of Glenbeigh Road (51.6 dB $L_{Aeq,16\text{ hr}}$ and 43.4 dB $L_{Aeq, 8\text{ hr}}$).

15.4.9. Baseline vibration surveys was undertaken at 3 locations; Con Colbert House (2 no. monitoring stations, one external and one internal in data server room), Adamstown Park (3 no. monitoring stations at varying distances to rail line) and Kilmainham

Square (3 no. monitoring stations on ground, 2nd and 6th floors). The baseline vibration survey results are presented for velocity and acceleration. With trains a PPV mm/s of 0.170 and VDV (m/s^{1.75}) of 0.059 were recorded external to Con Colbert House (VML 1) , a PPV of 0.09 and VDV of 0.042 at 10 metres from tracks at Adamstown (VML 3) and a PPV 0.130 and VDV of 0.092 at ground floor level of Kilmainham Square (VML 6).

Do Nothing

- 15.4.10. In the absence of the project, achievement of the national, regional and local objectives for compact growth would be curtailed. Journey characteristics and journey amenity will continue to be suboptimal, with existing train services becoming more overcrowded as train capacity is limited to the current 12 trains per hour per direction and a current peak capacity of approximately 5,000 passengers per hour per direction. The opportunities for modal shift to more sustainable transport options will be curtailed. Commuter dependence on private car usage as the means to access Dublin City for work and to access services will continue, contributing to ongoing congestion on the road network. Opportunities for improved inter-rail and inter-modal connectivity and integration with other public transport services would be constrained along the catchment area for the rail network, reducing accessibility to jobs, education, and other social and economic opportunities from inward investment. Employment opportunities and economic benefit for local businesses and communities generated through the construction phase will not arise.
- 15.4.11. In terms of noise and vibration the continued use of the railway line would require the use of diesel fuelled units and the frequency of services and speeds on the line may be altered to accommodate the constraints of the two track alignments. This change in frequency and operation may give rise to an increase in railway noise levels. There may be a requirement for additional maintenance of the tracks due to wear and tear. Ballast adjustments and rail grinding would be required to be carried out at night as it requires line closures. Therefore, current noise and vibration levels from rail operations and associated maintenance works are considered to be lower than a future 'Do Minimum' scenario.

Likely Significant Effects

Construction Phase

15.4.12. Population and Health

- Positive employment opportunities during the construction period with local expenditure, hospitality and retail sales likely to increase due to expenditure from construction workers.
- To facilitate certain works such as bridge replacement/upgrade, temporary construction compounds will be located on lands adjacent to the railway corridor and will impact on land use including permanent or temporary land-take of community land (e.g. open space).
- Construction activities will include an increase in HGV traffic, traffic diversions, increased dust, noise and vibration emissions, and will result in negative, direct and indirect temporary impacts to journey characteristics and journey amenities for all road users including pedestrians close to construction sites and compounds.
- Some construction works will impact rail services due to the requirement for works to take place on or over the railway and for safety reasons will require full or partial closure of the railway which will result in disruption or temporary suspension of rail services. The Phoenix Park Tunnel Branch Line and the Phoenix Park Tunnel are to be closed for a period of 6 months resulting in a negative effect of journey characteristics and journey amenity to road and rail users.
- Extended construction activities resulting in nuisance, including noise particularly during night-time works, may have a direct and indirect economic impact on sensitive sites such as hotels, B&Bs and other commercial properties in the vicinity of the construction works.
- The potential for health effects from changes in air quality (including PM₁₀, NO₂ and nuisance from dust) during construction.

- The potential for health effects from changes in noise and vibration exposure. For a small section of the population the levels of exposure will cross, or approach standards set for health protection.

15.4.13. Noise and Vibration

- Noise associated with various activities and stages of the construction process are assessed including site clearance works, ground investigations, demolition works including bridges, earthworks, construction of bridges, construction of retaining structures, construction of new DART station within Heuston station, construction of substations, electrification of the line, track lowering, and drainage works. In many instances noise is predicted to exceed 70 dB L_{Aeq} at locations in proximity to the works. Where activities occur within 10m of the noise sensitive receptors, predicted noise levels can reach up to 80dB and higher for secant piling, trench wall works and soil nailing/wall anchoring. There is potential for temporary significant to profound effects at the nearest noise sensitive receptors.
- The predicted change in noise from construction traffic was calculated using Calculation of Road Traffic Noise (CRTN) Department of Transport, Welsh Office, HMSO 1988. Temporary, traffic management diversions required to facilitate temporary bridge closures will not result in significant effects. Moderate effects are predicted on Kylemore Park Road North as a result on Le Fanu Road Bridge and Kylemore Road Bridge closures.
- Vibration during construction arises from a variety of sources including pile installation, earthmoving equipment including dozers, excavators and trucks. A review of construction vibration by Wiss (1981)³ provided typical vibration data on several construction sources (see Figure 14-3). Caisson drilling is a significant activity, and the data indicates that vibration up to 1mm/s can occur at distances of up to 21 metres from the source. The majority of residences are greater than 15 metres from proposed caisson pile activity. The worst case scenario arises at Le Fanu Drive where it is proposed to install ground anchors underneath these residences to provide support for a

³ Wiss (1981), Construction Vibrations: State of the Art, Journal of the Geotechnical Engineering Division, ASCE, Vol.107, Issue 2

piled wall. The worst case vibration levels at Le Fanu Drive are 2.15mm/s for caisson piling and 2.17 mm/s for ground anchoring.

Operational Phase

15.4.14. *Population and Human Health*

- Increased passenger capacity and enhanced train service will have potential positive impacts on sustainable economic development and population growth, accessibility to jobs, education, and other social and economic opportunities including catering for planned growth of existing and future transport oriented development areas such as Adamstown, Clonburris, Cherry Orchard and Park West;
- Modal shift from unsustainable private car usage to public transport, promoting sustainable travel patterns and integration with other public transport modes.
- The electrification supports more electric trains, with their co-benefit to health in terms of a reduction in exposure to air pollutants and associated reduction in climate altering pollutant emissions. Operational noise impacts of the proposed project are considered to result in a minor adverse (not significant) effect on population.
- The assessment of EMF and stray current indicates that radiation and stray current impacts are expected to be within applicable standard limits. There could be a slight, adverse mental health effect for the local population if concern about EMF exposures from electrification of the line are widespread. This conclusion reflects scientific understanding of the impact of uncertainty or concern about environmental risks on mental health. The level of actual exposure is negligible, however the scale of change that may contribute to community concern about EMF is medium, continuous and long-term.

15.4.15. *Noise and Vibration*

- In a 'Do Something' scenario the number of receptors which have noise levels greater than 55dB $L_{Aeq,16\text{ hr}}$ would be 863, an increase of 134 over the "Do Minimum" scenario. Of these residential properties account for 807, an increase of 132 over the 'Do Minimum' scenario. In terms of noise levels

greater than 45 $L_{Aeq,8hr}$ the number of receptors in the 'Do Something' scenario would be 1506 which is an increase of 174 over the 'Do Minimum' scenario. Of these residential properties account for 1423, a change of 171.

- Several locations along the length of the project have been identified as meeting the criteria for mitigation.
- There will not be significant vibration arising from the project during the operational phase.

Mitigation Measures

15.4.16. Construction Phase

- A CEMP, to be updated by the main contractor, will address all environmental issues and mitigation including noise emissions from both machinery and noise from the workforce.
- A CTMP will be prepared to minimise disruption to commercial and residential properties and ensure access is maintained along haulage routes and in vicinity of the construction site(s) for vehicles, pedestrians, cyclists, and economic operators at all times. A Mobility Management Plan will be prepared as part of the CTMP to include details regarding construction workers travelling to site, car-parking, haulage routes and construction compounds.
- Construction to be phased in line with a Construction Strategy to minimise the duration of activities in each area.
- Appointment of a CLO and implementation of a Community Liaison Plan prior to the construction phase.
- Details of general construction process/phasing will be communicated to the relevant stakeholders prior to implementation to ensure local residents and businesses are fully informed of the nature and duration of construction including early notice on road closures and interruptions and other significant disruptions.
- When railway services are planned to be disrupted for extended periods IÉ will provide suitable bus transfer services to replace the services affected with adequate communications regarding disruption in advance.

- Works to be carried out using Best Practicable Means to minimise noise and vibration including limiting hours of construction during night-time or weekend possessions and scheduling of noisy works to normal working hours except in exceptional circumstances. Work practices, equipment noise control and screening shall be in compliance with BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1: Noise, and BS 5228-2:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 2: Vibration (together referred to as B.S. 5228).
- Where works need to be completed outside normal working hours or where proposed works indicate that the noise or vibration levels set out in Section 14.3.3.2 (Construction Noise Criteria) or Section 14.3.3.4 (Construction Vibration Criteria) may be exceeded, permission for these works must be sought from the planning authority in advance of any works taking place. The application for such works will require a detailed noise control plan and follow up report to be prepared.
- A noise and vibration monitoring programme will be implemented for the duration of the construction phase. Monitoring will assess compliance of the construction works with the noise limits set out in Tables 14.3 and 14.6.
- Where activities are occurring for an extended duration within 20 metres of a receptor and there is direct line of sight, temporary barriers or enclosures are to be considered, where practicable, and reduction in the simultaneous use of heavy plant
- Sound reduction measures and equipment to be fitted to machinery such as vacuum excavator, rock breakers and hydraulic breakers and use of noise barrier or enclosure where practicable.
- During construction of retaining walls the driving system should be enclosed by an acoustic shroud where possible.
- Where track widening works are proposed noise barriers are to be used.
- In accordance with Section E.4 of BS5228 – 1:2009+A1:2014 temporary rehousing will be offered to eligible owners/occupiers where the construction

causes, or is expected to cause, a measured or predicted airborne construction noise level that exceeds either of the following at the property:

- A noise level 10 dB above any of the trigger noise levels presented in Table 14.12 for the corresponding times of day;
 - A noise level 10 dB or more above the existing pre-construction ambient noise level for the corresponding times of day; and
 - Whichever level is the higher; and for a period of 10 or more days of working in any 15 consecutive days or for a total number of days exceeding 40 in any 6 consecutive months.
- In densely populated areas or where mitigation measure options are limited such as for apartment blocks, consideration to be given to the use of multiple piling rigs per location. To reduce the duration of the secant piling activity, it is proposed to use two piling rigs with a minimum productivity of 3 piles per day. As the works progress the intensity of the activity will first increase and then decrease at any specific location.

15.4.17. *Operational Phase*

- Noise barriers to be erected at 30 no. locations (locations as delineated in Volume 3A and Table 14.69).
- Where noise barriers are not effective, namely where properties are in high rise buildings and where a significant effect is identified, noise insulation or the reasonable costs thereof will be offered.
- Planned works including maintenance of the railway infrastructure shall be communicated to neighbouring properties as part of the CIÉ notification procedures. The procedures outlined in IÉ *CCE-QMS-008-002 Noise Management – CCE Activities* will be implemented.
- The sharing with communities of non-technical summary information about EMF regulatory standards, the negligible EMF risks of the proposed project and the results of monitoring.
- Appropriate design of station PA systems.

Residual Impacts

- 15.4.18. As noted above there will be some noise sensitive locations where there will be periods where noise levels are above the noise limits and where temporary rehousing will be implemented during construction.
- 15.4.19. There are several locations (R17, R17a, R20 and R20a) where the installation of noise barriers along the boundary is not effective as the properties are high rise buildings where there would direct line of sight between the noise sensitive locations and passing trains. The significance was assessed to be long term negative moderate effect.

Assessment

- 15.4.20. The realisation of the project will align with national, regional and local planning and transport policy assisting in providing for a resilient and efficient public transport network and reducing dependence on private car usage along the route corridor.
- 15.4.21. Many of the submissions raise issues with regard to potential impacts on population and human health. I have addressed issues with regard to traffic, dust and air quality elsewhere in the report, both in the planning assessment and in the relevant sections of this EIA and these sections should be read in parallel.
- 15.4.22. A significant number of submissions/objections to the proposal cite noise and vibration as material concerns both in terms of impact on health but also on residential amenities and structural impacts and I refer the Board to section 14.3 of my planning assessment above.
- 15.4.23. I consider that in the absence of statutory national guidance that the approach adopted by the applicant in referencing guidance documents on environmental noise and precedent set by other urban rail projects is appropriate and the use of the $L_{Aeq,16hr}$ and $L_{Aeq,8hr}$ parameters is acceptable.
- 15.4.24. I note the criticisms of the noise assessment carried out specifically in the individual and grouped submissions by residents at Kilmainham Square which I have addressed in section 14.3 above. The apartment complex with frontage onto the railway corridor and R148 Chapelizod By-Pass is within an environment dominated by both rail and road noise with some of the highest baseline noise recorded along the entire rail corridor. As per the results provided by the applicant the 3rd floor apartment had a daytime level of 64.0 dB $L_{Aeq,16hr}$ and nighttime 59.1 dB $L_{Aeq,8hr}$. The 9th floor apartment had recorded levels of 69.8 dB $L_{Aeq,16hr}$ and 65.dB $L_{Aeq,8hr}$.

respectively. Whilst monitoring location(s) at ground floor units may have provided for a more comprehensive picture I note that the results of noise monitoring undertaken on behalf of the residents at ground floor level gave baseline figures comparable to those recorded at 9th floor level. I submit that these are the prevailing background levels against which any impacts must be appropriately assessed. I do not consider that the omission of monitoring locations at lower levels by the applicant to be a material deficiency and I submit that the monitoring locations chosen are representative of the receiving environment at this location and are acceptable.

- 15.4.25. There is no question that the proposed construction phase which is anticipated to take in the region of 4 years will cause some degree of disturbance and nuisance to neighbouring properties with the impact predicted to be significant where certain works are to be carried out in close proximity. This is compounded by the fact that night-time works will be required. Such night-time works are unavoidable when seeking to maintain a functioning rail network.
- 15.4.26. Whilst works will be carried out using Best Practicable Means (BPM) to minimise noise and vibration some construction activities within 25m of noise sensitive locations will result in temporary periods where noise levels are predicted to be above the acceptable noise limits. For example, where piling occurs within 10m of the noise sensitive receptors, predicted noise levels can reach up to 80 dB and higher for secant piling, trench wall works and soil nailing/wall anchoring. The impacts on the affected properties will be significant. Given the proximity of construction activity to some noise sensitive locations, the mitigation measures proposed may not be sufficient to fully mitigate the noise impact. A temporary rehousing scheme is to be offered to eligible owners/occupiers and such a scheme is not an unusual occurrence in such type projects.
- 15.4.27. All construction activity will be carried out within the vibration thresholds, but it is accepted that residents at certain locations, notably where soil anchors are required for retaining walls in close proximity to dwellings, will experience levels which would be noticeable and could trigger complaint.
- 15.4.28. I note the suite of mitigation measures proposed for the construction phase. Notwithstanding, I submit that the impacts would be unavoidable, short-term and temporary for the receiving environment and will be required to be managed

through an array of plans, including a CEMP, a CTMP, a Construction and Demolition Waste Management Plan, and an Air Quality Management Plan. Of particular import will be consistent and continuous provision of information and prior notification and explanation of works to be undertaken to affected residents. This will be a central role of the proposed CLO. Noise and vibration monitoring will also be of importance, and I submit that the results should be publicly available which would assist in terms of communications with residents.

- 15.4.29. In terms of the operational phase the results of the assessment indicate that the majority of the receptors adjacent to the rail line have noise levels above the 55 dB $L_{Aeq,16hr}$ during daytime and 45 dB $L_{Aeq,8hr}$ and that the “Do Something” noise levels can be reduced to the equivalent ‘Do Minimum’ rail traffic noise levels at the majority of locations with the recommended mitigation measures in place, notably noise barriers. However, a limited number of properties will experience a residual noise impact as a result of the proposed project, notably in the apartment complexes of Seven Oaks at Sarsfield Road and Kilmainham Square. An insulation scheme will be offered to the units where a significant impact will arise. In the context of the realisation of this infrastructural project which will advance the increase in public transport options, the impacts are considered acceptable.

Population and Human Health – Conclusion

- 15.4.30. Overall, it is acknowledged that the proposed development would occur within an established railway corridor where there is an established pattern of rail movements with its associated noise and vibration. I have considered the matter of how such a strategic development may be justifiable, notwithstanding the need to provide for intervention in terms of noise insulation at some locations, having regard to the benefit to the public at large.
- 15.4.31. I consider that given the nature of the receiving landscape and national, regional and local imperatives in terms of providing for public transport options that will assist in supporting and promoting the transition to a low carbon and climate resilient society, that the noise impacts, both during both the construction and operational phases, would not have such an adverse impact on the residential amenities such as would warrant a recommendation of refusal on such grounds.
- 15.4.32. I have considered all of the submissions made in relation to population and human health including noise and vibration. I am satisfied that any potential impacts would

be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects in terms of population and human health.

15.5. Biodiversity

- 15.5.1. The application is accompanied by a Natura Impact Statement, and I refer the Board to the appropriate assessment in section 16 below.

Environmental Impact Assessment Report

- 15.5.2. **Chapter 8** of the EIAR addresses biodiversity with supporting detail provided in **Chapter 8 of Volume 3A** – Technical Figures and **Appendix 8.1 in Volume 4**. Due regard is also had to the applicant's response to the submissions received.
- 15.5.3. The assessment methodology included a combination of desk top studies using recognised ecological databases and field surveys including habitat and invasive species surveys, bat, otter and badger surveys and aquatic surveys of all watercourses crossed by the proposed project.
- 15.5.4. Natural Heritage Areas and proposed Natural Heritage Areas were identified and are set out in Section 8.4.1.1. and Figure 8.2. The Royal Canal pNHA (site code 0020103) intersects the proposed project at a railway underbridge. The Dublin Bay Biosphere Reserve and the Sandymount Strand/Tolka Estuary Ramsar sites (site 832) are located c. 3.2 km and c. 6.5 km east of the proposed project, respectively.
- 15.5.5. The information provided by the desktop study indicates the Natura 2000 sites within the zone of likely impact. As the potential for significant effects is considered in detail in the NIS, the designated sites are not considered further in this chapter of the EIAR.
- 15.5.6. There is also an overlap with water. To avoid undue repetition, I will address matters arising in terms of water, including flood risk assessment, in section 15.7 below.

Receiving Environment

- 15.5.7. The dominant habitat within the proposed works area is gravel ballast (ED1 exposed gravel) used to stabilise rail lines with the rail corridor boundary habitats

comprising a mix of hedgerow, trees, palisade fencing and concrete walls. In the wider area the habitats vary along the length of the route from those corresponding with agricultural lands to the west to buildings and artificial surfaces to the east.

- 15.5.8. No protected flora or flora species of conservation concern were noted. Four invasive species were recorded; Japanese knotweed, Himalayan balsam, Spanish bluebell, and Three-cornered leek. The majority of the Japanese knotweed was located around the western side of Platform 10 at Heuston Station, whilst a smaller cluster was noted on the southern side of the rail line towards Hazelhatch.
- 15.5.9. 32 bird species were recorded during field surveys 11 which are of 'amber' conservation concern and one of 'red' conservation concern (swift).
- 15.5.10. In terms of bats the preliminary ground level roost assessments identified seven structures with features suitable for roosting bats which are potentially impacted by the proposed project. 5 no. were surveyed (BS1-BS5) and no bats were recorded emerging or re-entering. A total of six species of bat Leisler's bat, Nathusius' pipistrelle, common pipistrelle, soprano pipistrelle, brown long-eared, and Daubenton's were identified foraging and/or commuting in the vicinity of the static detector deployment locations. In addition, unidentified Myotis species and unidentified Pipistrellus species were also recorded. Tubber Lane had the highest total passes across the survey timeframe.
- 15.5.11. Evidence of badger activity was noted in a number of areas, but no badger setts were recorded. Although much of the rail line boundary is effectively mammal proof, there is potential for badger setts adjacent to the railway, particularly in open ground towards Hazelhatch. The bulk of the badger activity was noted between the northern entrance to the Phoenix Park Tunnel and the Cabra road rail bridge.
- 15.5.12. The field surveys did not record any sightings of otter or identify any signs of resting or breeding sites within the Zone of Influence(ZoI) of the proposed project. This species is nevertheless presumed to forage and/or commute within the ZoI of the proposed project.
- 15.5.13. The presence of pygmy shrew, hare, hedgehog, red squirrel, Irish stoat and pine marten were noted in the data search within the study area however, no signs of these protected mammals were noted from the field surveys. No common frog or smooth newts were encountered during the field study with limited suitable habitats

recorded. Frogs are considered likely to be present within the site, however, smooth newt are considered unlikely to occur within the Zol.

Do Nothing

15.5.14. In a Do Nothing scenario the rail line would continue as existing, and the current pressures and threats to habitats and species would remain.

Likely Significant Effects

15.5.15. Construction Phase

- Potential for water pollution from surface water runoff carrying suspended silt or contaminants into local watercourses.
- Potential for biodiversity loss, fragmentation and alteration and disturbance from noise, vibration, lighting and human presence for bats, birds and badgers.
- Potential loss of unrecorded roosting bats and badger setts and breeding badgers within the un-surveyed areas and loss of bat hibernation sites.
- Spread of invasive species.

15.5.16. Operational Phase

- Vegetation management (cutting and trimming).
- Species disturbance from noise, vibration, lighting and human presence. Loss of suitable commuting and foraging habitat.
- Impact on potential hibernating bats at Phoenix Park Tunnel from increased train frequency.
- Spread of invasive species
- Potential bird collisions with OHLE on Liffey Bridge.
- Water pollution.

Mitigation Measures

15.5.17. Construction Phase

- Appointment of Project Ecologist and Site Environmental Manager/Clerk of Works prior to commencement of development.

- Preparation of a CEMP and employment of best practice construction methods.
- Before construction begins, a Biodiversity Management Plan (or Landscape and Biodiversity Management Plan) and an Invasive Alien Species Avoidance and Management Plan shall be prepared.
- At least one month in advance, but no greater than six months in advance of commencing any enabling or advance works, a pre-construction survey for protected and invasive alien species (IAPS) shall be undertaken (within a suitable season) within the proposed project area, including areas which could not be accessed during the establishment of the baseline. The ecologist shall advise, in writing, on any additional relevant protective measures and/or licensing requirements resulting from the preconstruction survey findings.
- A buffer zone of 10 m shall be put in place around all known locations of IAPS. No works shall proceed in the 10 m buffer zone without prior approval from the Project Ecologist. All excavated material within 7 m of the known IAPS locations shall be considered to be contaminated with IAPS (roots, stem fragments, or seeds) suitable to cause the spread of IAPS and shall be disposed of at an appropriately licensed waste facility.
- Pre-construction bat roosting and roosting/hibernation assessments will be completed. In the event that unknown roosting or stranded bats are encountered, works shall immediately cease in that area and the local NPWS Conservation Ranger shall be contacted. If present, bats shall only be removed under licence from the NPWS.
- The timing of the construction works within the Phoenix Park Tunnel will avoid the bat winter hibernation periods (November-March, inclusive). In the event that construction works in Phoenix Park Tunnel cannot be completed outside the winter hibernation periods works will only proceed under the supervision of the project ecologist. A derogation licence may be required to complete this work. Should any potential hibernation sites be identified during the construction phase by the Project Ecologist, works will immediately cease until the appropriate course of action is identified by a suitably qualified and licensed bat ecologist, which may include the

requirement to seek a licence from the Wildlife Licensing Unit for the completion of the construction works.

- At least one month in advance, but no greater than six months in advance of commencing any enabling or advance works, a pre-construction survey for badger shall be undertaken by the Project Ecologist. Any additional mitigation measures shall be cognisant of the Guidelines for the treatment of badgers prior to the construction of National Road Schemes (NRA, 2005). The project ecologist shall also advise on any additional relevant protective measures and/or licensing requirements resulting from the survey findings. Measures to prevent badger access to areas of construction, including use of protective fencing and covering excavations overnight, where possible.
- The removal of existing hedgerow and vegetation shall avoid the bird nesting season (March to August, inclusive).
- Construction lighting will avoid night-time illumination of retained and adjoining vegetation during the bird nesting season (March to August, inclusive).
- Prior to construction commencement, Root Protection Areas (RPAs) for retained trees shall be put in place.
- Implementation of measures to protect surface and groundwater are as detailed in section 15.7 below.

15.5.18. Operational Phase

- Retained and reinstated vegetation shall be improved through hedgerow planting, wildflower seeding, and tree planting which incorporates the safety requirements in relation to OHLE clearance specified in IÉ CEE-TMS-381 Control and Management of Vegetation Standard Measures.
- Green walls shall be developed on retaining walls/boundary treatments.
- Creation of biodiversity 'Stepping Stones' at 11 locations along the route to mitigate the loss of linear habitat removal through the enhancement of existing lands adjoining the proposed project (see Table 8.5).
- Alternative bat roosting structures, for use by multiple bat species, shall be installed adjoining the proposed Inchicore substation and adjoining the

proposed Hazelhatch substation. Bat hibernation boxes appropriate for brown long-eared bat to be placed in close proximity to northern Phoenix Park Tunnel entrance

- Bird nesting boxes shall be installed at various locations. The specification for these boxes is outlined in Section 8.6.2.1.2.
- Timing of vegetation maintenance works to avoid the breeding bird season (e.g. no removal between 1st March and the 31st August, inclusive).
- Operation activities to follow set guidelines for non-native invasive plant species in accordance with the Invasive Species Management Plan for the proposed project.
- Measures to avoid artificial light spillage. Any proposed external lighting shall be directional and cowled to avoid the light spill (greater than 1 LUX above background levels) to all relevant ecological features.
- The feeder wire along both sides of Single-Track Cantilever OHLE masts on the Liffey Bridge crossing (Zone D) will be fitted with a device to make lines more visible to commuting and foraging birds.

Residual Impacts

15.5.19. No significant residual impacts anticipated.

Assessment

15.5.20. No habitat of ecological importance has been identified along the project corridor. Whilst existing vegetation and tree cover will be required to be removed to facilitate the project and maintained to ensure operational safety requirements the retention, augmentation and reinstatement, where possible, is noted.

15.5.21. A number of submissions identify the presence of bats along the rail corridor with reservations as to the adequacy of the survey work undertaken. In this regard I note the submission from Sharon Matthews as to possible bat roosting at Le Fanu Bridge, the submissions from residents in Woodfield Avenue as to the use of the boundary wall for commuting/foraging and submissions from residents in the vicinity of the River Liffey as to its use for commuting/foraging. I refer the Board to section 14.12 of the planning assessment above.

- 15.5.22. Table 8.2 of the EIAR gives a summary of the field surveys conducted with due cognisance had of the Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016). Visual assessment was followed up by an emergence and re-entry survey in addition to use of 4 no. static detectors.
- 15.5.23. The EIAR acknowledges that there were constraints in relation to completing full dawn bat roost re-entry surveys due to safety restrictions for access to the live rail. Dawn surveys were completed as far as possible (up to one hour before dawn) with additional dusk bat emergence surveys completed to compensate for the reduced dawn survey data. This limitation was applicable to the Royal Canal and LUAS Twin Arch Bridge (OBO8).
- 15.5.24. I also note that assessment of structures and trees within privately owned lands, was not undertaken but in order to reduce any potential gaps in the baseline, assessments were carried out using binoculars from accessible lands combined with assessment of potentially suitable habitats using satellite imagery.
- 15.5.25. I note that the above limitations are acknowledged and incorporated into the assessment. I consider that the combined static and incidental data, and desk study results provide for an adequate bat activity baseline and is sufficient to allow for an assessment of the potential impacts on bat species.
- 15.5.26. Le Fanu Road Bridge (OBC7) was not deemed to have potential suitability for roosting bats as a result of the visual assessment completed and was therefore not included in the emergence/re-entry survey. It is proposed to undertake further survey work prior to construction and should the species be encountered then appropriate mitigation measures under licence from the NPWS will be required. The applicant has confirmed that the vegetation along the River Liffey will not be impacted and that the wall to the rear of Woodfield Avenue is not being removed. I note that the DHLGH considers the measures to be satisfactory.
- 15.5.27. Construction works will inevitably result in noise, vibration and lighting. I submit that this must be assessed in the context of the established and operating railway line, a significant section of which is within a largely urban and built up environment, to which species will have habituated. Notwithstanding, impacts will arise. Best practice construction methods including appropriate placing and culling of construction lighting will be employed to limit, as far as practicable, the impacts. As part of the mitigation measures, pre-construction ecology surveys including

suitability for roosting bats will be completed in advance of any construction works. Bat and bird boxes are proposed to be provided at appropriate locations. Invasive species, identified in certain locations, will require appropriate treatment for their eradication and to prevent their spread outside the study area. I note that the use of wildflower seeding is discouraged by the DHLGH to which the applicant accedes. This can be addressed by way of condition.

Biodiversity – Conclusion

15.5.28. I have considered all of the submissions made in relation to biodiversity. I am satisfied that any potential impacts would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects in terms of biodiversity.

15.6. Land and Soil

Environmental Impact Assessment Report

15.6.1. **Chapter 9** addresses land and soils with supporting details provided in **Chapter 9** of **Volume 3A – Technical Figures**. **Chapter 19** which deals with Resource and Waste Management is also relevant. The assessment comprises both desktop and site investigations undertaken along the route of the proposed project. The study area extends 1km from the site boundary. Table 9.1 provides a summary of the site surveys.

Receiving Environment

15.6.2. The soils (Teagasc soils) underlying much of the greater Dublin region are largely classified as Made Ground (Made) associated with urbanisation leading to an increased volume of hardstanding and impermeable surfaces, particularly within the M50 motorway. At its southwestern extent, the route (south of Celbridge) transverses across a region of shallow poorly drained mainly basic soils (BminSP) derived from mainly calcareous parent materials. West of Clondalkin, the route transverses across extensive regions of deep well drained mainly basic mineral soil (BminDW), poorly drained mainly basic mineral soils (BminPD) and shallow well drained mainly basic mineral soils (BminSW).

- 15.6.3. According to the GSI, the regional Quaternary sediment underlying Dublin City include urban ground, alluvium sediment, till derived from limestones (TLs) and gravels derived from limestones (GLs). A large proportion of Dublin City and County is underlain by the Lucan Formation (CDLUCN).
- 15.6.4. There are three audited Geological Heritage Sites in the vicinity of the linear route in Dublin City, Phoenix Park (Site Code: DC009), Glasnevin Cemetery County Geological Site (CGS) (Site Code: DC004) and Guinness Wells CGS (Site Code: DC005).
- 15.6.5. Previous historic ground investigations, in combination with environmental sampling and testing, have identified a number of areas where ground contamination is likely present within the proposed project boundary including at Inchicore Works and Heuston Station. A variety of contaminants are often found in soils and ballast associated with historic railway operations, including hydrocarbons, solvents, asbestos containing materials (ACM) and pesticides.

Do Nothing

- 15.6.6. In a Do Nothing scenario there would be no effect on land and soil within the project corridor. The opportunity to reduce the volume of potentially contaminated surface soils and ballast from the rail corridor and identified areas of historic maintenance works will be lost. It is likely that track maintenance activity would increase in the medium to long term.

Likely Significant Effects

15.6.7. Construction Phase

- It is estimated that over 465,000 m³ of surplus material in the form of soil and stone (topsoil/soil/track ballast) will be generated. Topsoil equates to approx. 15,000 m³ of this figure, of which very little will be required in the future works, but some may be suitable for use as noise or visual bunds at sensitive locations. Soil accounts for approx. 400,000 m³ which is to be removed from site. Approx. 55,000 m³ of ballast is to be imported to the site in addition to 37,000 m³ recycled (assuming up to 50% wastage).

- Due to the linear nature of the project, the extensive areas being excavated (particularly cut sections) and the nature of the works which will involve significant stockpiling of material, there is the potential for erosion of soils.
- Accidental spillages of fuels, chemicals or other contaminants during construction works may result in localised contamination of soils/subsoils underlying the site.
- Disturbance of areas of potential soil contamination (detailed in Section 9.4.1.5) leading to the contamination of soil during the construction phase.
- There is a risk of release of potentially hazardous substances from imported material which has not been appropriately screened.

15.6.8. Operational Phase

- Accidental emissions and release of potentially hazardous substances during operation or maintenance that may affect the quality of soils, most notably associated with release of hydrocarbons (fuels and oils).

Mitigation Measures

15.6.9. Construction Phase

- The CEMP will be updated by the successful main contractor.
- Best practice construction methods to be employed.
- A preliminary geotechnical risk register has been prepared and will be developed during the detailed design phase to identify potential hazards (e.g. unforeseen soft ground, potential for settlement and induced vibration).
- The layout of site work zones and compounds shall be optimised to reduce the need for subgrade works. Buried temporary works infrastructure will only be utilised where absolutely necessary. Designated material stockpile and sorting areas will be utilised to encourage on-site reuse.
- Old ballast will be removed to a dedicated site in the Inchicore Depot for re-use/recycling/disposal as appropriate. In areas where corridor widening is required the new tracks will be laid first and then old tracks will be removed and recycled/disposed of.

- The quality and quantity of contaminated soils arising from this project will be determined at the time of soil excavation. Contaminated soil arisings are remediated at its source site or is treated at licensed facilities in Ireland to non-hazardous status, is landfilled or is exported for processing abroad.
- Should unknown contamination be encountered during construction, material will be considered as potentially hazardous and further testing will be required to confirm waste classification suitability for re-use / retention on-site or disposal off site. If asbestos or other hazardous materials are identified by survey or otherwise encountered, they will be segregated and stored in accordance with best practice for onward processing at a facility licensed to treat hazardous materials.
- Erosion control measures to be taken during the construction works will be outlined within a Sediment and Erosion Control Plan (SECP) which will be prepared by the successful Main Contractor. Mitigation contained within the SECP will be to current industry best practice and principles (e.g. CIRIA C648) and will typically include installation of drainage and runoff controls prior to start of site clearance/earthworks and sequencing of works in order to minimise areas of exposed ground.
- Measures to protect surface and groundwater are as detailed in section 15.7 below.
- Prevention of runoff from entering active works zones via interceptor drains, bunds etc; dedicated areas for stockpiling and storage of excavated materials; covering of stockpiles to reduce wind / rain effects; monitoring and maintenance of erosion and sediment controls; and establishment of vegetation / landscaping as soon as practicable following reinstatement.
- Appropriate best practice measures to avoid emissions and release of potentially hazardous substances and emergency procedures should such an event occur.

15.6.10. Operational Phase

- No operational phase mitigation measures are proposed beyond those contained within the existing IÉ Environmental Management Policies and Process document (CCE-IMS-008).

Residual Effects

15.6.11. No significant residual effects anticipated.

Assessment

15.6.12. Whilst large-scale and widespread excavation and removal of topsoil and subsoil throughout the proposed project area will be required the majority of material to be removed will be from within the pre-existing rail corridor i.e., there is no significant land-take required, and soils to be removed originate predominantly from brownfield, highly developed areas. A stated core strategy of the project, is to limit the volume of soils to be removed from the site, retaining excess material to recycle within the works where possible. I acknowledge that the exact quantities of material classified as hazardous waste has not been determined at this stage but note that Zones C and D would be likely to have the highest levels of contamination. This will be determined at the time of soil excavation. Contaminated soil arisings are remediated at its source site or is treated at licensed facilities in Ireland to non-hazardous status, is landfilled (one landfill in Ireland can process mildly contaminated inert materials) or is exported for processing abroad. I note that the applicant has identified facilities operating under EPA Waste Licences in the surrounding counties and notes the landfill licensed capacities and waste facilities permitted to accept asbestos. I refer the Board to Appendix 19.1 in Volume 4. The CEMP will set out management of construction and demolition waste, sediment and erosion control and general site housekeeping in addition to appropriate measures in terms of handling and disposal of contaminated soil.

Land and Soil – Conclusion

15.6.13. I have considered all of the submissions made in relation to land and soil. I am satisfied that any potential impacts would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects in terms of land and soil.

15.7. Water

Environmental Impact Assessment Report

- 15.7.1. **Chapter 10** addresses water including flood risk and **Chapter 11** addresses hydrogeology, supported by details in **Chapters 10** and **11** in **Appendix 3A – Technical Figures**. The application is accompanied by a **Site Specific Flood Risk Assessment**.
- 15.7.2. The primary study area includes lands within 250m of the proposed project. Consideration is also given to the surface waterbodies that are potentially hydrologically linked to the study area, this includes the Royal Canal, the River Liffey and its tributaries.
- 15.7.3. The assessment for this chapter has been undertaken following guidance and criteria outlined in the ‘Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes’ (NRA, 2009) and the ‘Guidelines on the Information to be contained in Environmental Impact Assessment Reports’ (EPA, 2022).
- 15.7.4. Site specific topographical information, hydrometric information, existing flood mapping, historical mapping and aerial imagery were reviewed to locate any potential features of hydrological interest in order to assess the significance of any likely environmental impacts from the proposed project. All relevant watercourses within the study area which could be affected directly or indirectly were assessed by a detailed desk study and hydrological assessment. Water quality sampling data for the receiving waterbodies was collected from a desktop review of available existing sources (EPA, Local Authority information). As noted, a Site Specific Flood Risk Assessment was prepared.

Receiving Environment

- 15.7.5. The proposed project is located within the lower reaches of the River Liffey catchment Hydrometric Area (HA) 09, and traverses the following sub catchments, (from west to the east) of the railway route:
- Hazelhatch Stream;
 - Shinkeen Stream;
 - Coneyburrow Stream;
 - Lucan Stream;
 - Griffeen River;

- Blackditch Stream; and
- River Camac, which is culverted beneath Heuston Station.

- 15.7.6. The River Liffey drains a catchment of approximately 1340.5 km² from the Wicklow & Dublin Mountains discharging into the Irish Sea. The rail line crosses the River Liffey via Liffey Bridge north of Heuston Station and into Phoenix Park Tunnel.
- 15.7.7. The status of the watercourses as reported under the 3rd cycle Water Framework Directive (WFD) range from poor (Camac) to moderate (Lucan Stream and Griffeen) and good (e.g. Hazelhatch, Coneyburrow and Liffey). The Shinkeen and Blackditch Streams are both currently unassigned. The Royal Canal risk status is currently under review (3rd WFD cycle) but for all monitoring periods up to the present (1st and 2nd WFD cycle) this section of the canal has achieved good ecological potential.
- 15.7.8. Zone A was identified as at risk from fluvial (river) flooding particularly at Hazelhatch (Hazelhatch and Shinkeen streams) and Adamstown (Griffeen River). Zone B was not identified as at risk from fluvial (river) flooding but was considered at risk from pluvial (rainfall) flooding. Zone C was noted as at risk from fluvial (river) flooding associated with the Camac River and Zone D, was identified as at risk from extreme rainfall events associated with the Royal Canal if coupled with any blockages at the 6 downstream lock gates. In such a case flood water would overtop this embankment and cause flooding to the surrounding lands and railway tracks.
- 15.7.9. There is one protected drinking water stream within the study area which feeds the Leixlip Reservoir. See Figure 10-11 (Coneyburrow Stream also designated as Liffey_150). The protected stream from the most recent available EPA water quality reporting has achieved “Good Ecological Potential”.
- 15.7.10. The entire route of the proposed project is underlain by the Dublin Groundwater Body (GWB), a poorly productive bedrock aquifer, extending over a wide area spanning much of Dublin City and County.
- 15.7.11. Zone A between Hazelhatch & Celbridge Station and the M50, traverses regions of High and Extreme groundwater vulnerability classifications with bedrock at or close to the surface in some areas. The eastern portion of the proposed project (Zones C and D) generally traverses regions of Low to Moderate groundwater vulnerability.

15.7.12. One gravel aquifer has been identified within the study area (Zones C and D), the Liffey, extending east from Islandbridge to the coast, over an area of 7km². It is classified as a locally important gravel aquifer. The underlying Lucan Formation is classified as a locally Important bedrock aquifer which is moderately productive only in local zones.

Do Nothing

15.7.13. In the absence of the project, the current hydrological regime within the study area is not expected to change whilst the baseline condition of hydrogeology would remain unaltered.

Likely Significant Effects

15.7.14. Construction Phase

- Accidental emission / release of potentially hazardous substances (principally hydrocarbons), impacts associated with potential contaminated run-off from machinery, infrastructure and on-land operations including the temporary storage of construction materials, oils, fuels and chemicals.
- Impacts on surface waters as a result of stormwater run-off causing soil erosion and sedimentation to surface waterbodies;
- Potential for localised flooding due to disruption of local drainage systems associated with changes in the elevation of the track, location of new infrastructure such as substations or extending the footprint of existing infrastructure.
- Potential impacts to the hydromorphology of watercourses where works take place adjacent to water channels, (rivers and streams). Physical damage can impact on the hydromorphology of the watercourse and therefore affect the ecological status;
- Potential hydrological modifications which may alter the current flows, discharges and the location of outfalls; and
- Potential for changes in the natural hydrological regime due to discharges to watercourses arising from track drainage.

- Construction activities could lead to increased runoff of contaminants and fuel spillages entering the Coneyburrow Stream which feeds the Leixlip Reservoir and subsequently the Leixlip WTP.
- Groundwater pumping/dewatering particularly in deeper excavations and new bridge construction works have the potential to impact groundwater levels and flows.

15.7.15. Operational Phase

- General water quality impacts associated with potential accidental release from the storage of hydraulic oils, fuels and chemicals, and associated with the operation and maintenance of the mechanical and electrical equipment in substations;
- Potential for impacts on surface waters from accidental release of oils, fuel, chemicals, hydraulic fluids etc. from road service vehicles, trains and maintenance activities; and
- Potential for localised flooding due to additional increase in hardstanding areas, removal of floodplains and additional crossing of watercourses.

Mitigation Measures

15.7.16. Construction Phase

- A CEMP is to be prepared.
- Preparation of a Pollution Prevention Plan and an Environmental Incident and Emergency Response Plan which will detail the controls to be adopted to manage the risk of pollution incidents and procedures to be followed in the event of any pollution incidents.
- Best practice measures to avoid the potential for sediment or other pollutants to enter watercourses and drainage systems. These are based on the CIRIA Guideline Document C532 Control of Water Pollution from Construction Sites (CIRIA, 2001) and Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters (IFI, 2016). Such measures include control of surface water drainage by construction of temporary berms and drainage channels with no direct discharge of surface water from any element of the works without suitable attenuation and treatment;

- Where pumping of water or dewatering occurs, temporary sumps will be installed with filters at inlets and discharged through a sediment trap which would desilt water before discharging to an outfall;
- Appropriate handling of fuel and bunding of storage areas.

15.7.17. Operational Phase

- Drainage strategies and infrastructure to be incorporated into the project to limit the risk to watercourses and the hydrological environment from flooding and runoff contamination. In the area where four tracking is being provided a new drainage network is proposed with collected runoff attenuated in attenuation ponds before discharging to outfalls (existing storm sewers or surface watercourses). The attenuation systems have been designed to retain storm water volumes up to 1 in 100-year return period plus 30% climate change allowance (see Table 10.7). Revisions are proposed to the drainage infrastructure in the Phoenix Park Tunnel and the branch line to Glasnevin.
- IÉ will follow and implement its flood risk management operational procedures which assist in managing flood risk for rolling stock during inclement weather and flooding events.
- Water quality monitoring to be undertaken in all watercourses within the study area, with monthly samples being taken from at least 12 months prior to commencement of construction until at least 24 months post-completion. In the event of any non-compliance with regulatory limits for any of the water quality parameters monitored, an investigation will be undertaken to identify the source of this non-compliance and corrective action will be taken where this is deemed to be associated with the proposed project.

Residual Impacts

15.7.18. During the construction and operational stages, the drainage strategies, mitigation measures and proposed infrastructure will limit the water quality and flooding risks to watercourses and the hydrological environment from flooding and runoff contamination. Therefore, any residual effects will be a limited to negative, slight and temporary.

Assessment

- 15.7.19. The proposed scheme provides a comprehensive suite of mitigation measures which will, in my opinion, ensure the protection of water quality and avoid significant impacts on water bodies in the vicinity. The drainage system for the new four track area and the revisions in the Phoenix Park Tunnel are acceptable subject to the installation of interceptors in accordance with the DHLGH's recommendation.
- 15.7.20. Whilst the existing flood risk identified at Hazelhatch and Adamstown is not being addressed at this juncture due to the potential for up and down stream impacts arising from the possible mitigation measures, the proposed development will have no impact on adjoining lands with the line being able to operate with the parameters for EMUs. A final drainage and SuDS strategy should be completed prior to commencement. The applicant commits to engaging with the OPW and Kildare County Council in relation to the Hazelhatch Flood Relief Scheme. It also acknowledges that to address future flood risk it may have to develop procedures that would ensure operations in Adamstown are managed safely to avoid damage to critical on-board equipment and to mitigate against the risk of a train becoming disabled in a flooded area. Alternatively, they could develop hard mitigation measures to protect the track however, any mitigation measures would need to ensure they do not increase risk on adjoining lands.
- 15.7.21. There is a history of flooding on the line between the Royal Canal and LUAS Twin Arch (OBO8) and the Maynooth Line Twin Arch (OBO9) structures which is now addressed by a pump station. With 100mm track lowering required in this area with a further reduction of 200mm to take account of the maximum water level permissible for the EMU rolling stock, the existing pump station will be lowered with an increase in the wet well chamber dimensions. This increase in size will provide for the additional volumes collected by the drainage system in order to keep the water levels within operating limits required by the EMU's. Accumulated storm water will be pumped to the existing infiltration basin similar to the existing arrangement.
- 15.7.22. Overall, following the implementation of the stated mitigation measures I consider that impacts in relation to flooding and water quality arising from the construction and operational phases of the proposed scheme will be imperceptible.
- 15.7.23. In relation to the Water Framework Directive, I consider that the proposed development does not prevent or compromise progress of any water body to good

ecological status. I refer the Board to Table 10.10 which provides a summary of the WFD assessment summary.

Water – Conclusion

15.7.24. I have considered all of the submissions made in relation to water. I am satisfied that any potential impacts would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects in terms of water.

15.8. Air and Climate

Environmental Impact Assessment Report

15.8.1. **Chapter 12** addresses Air Quality and **Chapter 14** addresses Climate.

15.8.2. The statutory ambient air quality standards in Ireland are outlined in S.I. No. 180 of 2011 Air Quality Standards Regulations 2011, which incorporate the ambient air quality limits set out in Directive 2008/50/EC. For the proposed project, the main air emissions of concern are PM₁₀, PM_{2.5} and NO₂ concentrations, reflective of the road and rail transport related emissions and construction dust emissions.

15.8.3. Regard is had to a number of guidance documents and guidelines including WHO Air Quality Guidelines 2021, the Institute of Air Quality Management Guidance (IAQM, 2016); and TII's Environmental Assessment and Construction Guidelines, including the Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes (National Roads Authority, 2006, revised 2011).

15.8.4. The Zol for the construction phase dust impacts is set at 350 metres from all works areas. A study area of 200m from roads that experience a significant change in traffic numbers, road alignment or speed band, as per the UKHA DMRB LA - 105 Guidance is adopted to assess the potential impacts to air quality relating to alterations to traffic patterns (e.g. road closures/traffic diversions) such as around

Kylemore area due to the reconstruction of the Le Fanu Road Bridge (OBC7) and Kylemore Road Bridge (OBC5A).

15.8.5. The baseline ambient air quality environment has been characterised through a desk study of publicly available published data sources and baseline ambient monitoring surveys undertaken in the area. This included air quality monitoring programmes operated by both the EPA and Local Authorities in the Dublin region; the EPA Annual Air Quality in Ireland Reporting; the EPA 2020 Nitrogen Dioxide levels in Dublin Report; the Clear Air Together Project led by the EPA and the Environmental Education Unit of An Taisce. Regard was also had to relevant monitoring data from other transport projects in the Dublin Area (DART+ West, MetroLink and BusConnects).

15.8.6. An assessment of climate adaption and vulnerability has been undertaken in line with the Institute of Environmental Management and Assessment (IEMA) guide 'Assessing Greenhouse Gas Emissions and Evaluating their Significance', 2nd Edition, 2022.

Receiving Environment

15.8.7. The area of the proposed project is located within air quality Zones A and C.

15.8.8. Results for levels of nitrogen dioxide (NO₂) from EPA continuous monitoring stations show that the concentrations at the city centre location represented by St. John's Road, near Heuston Station, were in exceedance of the limits for 2018/2019 and these high levels are largely associated with the levels of road traffic and congestion in the area. Results at other monitoring stations close to the proposed project at Davitt Road and Ballyfermot were found to be in compliance with the statutory limit and are lower than St. John's Road given the more suburban nature of these locations, however all levels recorded were above the WHO Guidelines. This is supported by the EPA NO₂ data gathered in conjunction with Dublin City Council in 2017 and 2018 using passive diffusion tubes. It is noted that monitoring was undertaken for a single calendar year and, therefore, long-term averages are not available. All locations are roadside monitoring locations in proximity to Heuston Station and the surrounding road network on the north and south quays.

15.8.9. Continuous PM₁₀ and PM_{2.5} monitoring is carried out by the EPA at St. John's Road, Davitt Road and Ballyfermot. This data is presented in Table 12.17 for PM₁₀ and Table 12.18 for PM_{2.5}. The PM₁₀ data shows levels in the range of 10-19µg/m³

with an average of $14\mu\text{g}/\text{m}^3$. These levels are largely stable in recent years and while well below the limit for the protection of human health, levels fluctuate above and below the WHO Guidelines in the period 2015 to 2019. Similarly, $\text{PM}_{2.5}$ data is largely stable, well below the limit but consistently above the WHO Guidelines.

- 15.8.10. As there are greater than 10 receptors within 20m of the rail boundary, the sensitivity of the area to dust soiling effects on people and property is considered 'high'.
- 15.8.11. The IAQM Guidance also outlines the criteria for assessing the human health impact from PM_{10} emissions from construction activities based on the current annual mean PM_{10} concentrations, receptor sensitivity and the number of receptors effected as per Table 12.20. The annual mean background PM_{10} concentration was reviewed in Section 12.4.1.3. This found concentrations to be significantly less than $24\mu\text{g}/\text{m}^3$ (Table 12.20). Having regard to this the sensitivity of the area to human health impacts is considered 'medium' as there are greater than 100 residential receptors within 20m of the redline boundary.
- 15.8.12. In terms of climate the EPA published the provisional 1990-2021 Greenhouse Gas (GHG) inventory in July 2022 and the provisional national GHG emissions are estimated to be 61.53 million tonnes carbon dioxide equivalent ($\text{Mt CO}_{2\text{eq}}$). The breakdown of the sources of national emissions of GHG are shown in Table 13.8. The table shows that in 2021 transport accounted for 18% of national emissions ($10.91\text{ Mt CO}_{2\text{eq}}$) showing that this is the second largest source of emissions in the country after agriculture (38%).

Do Nothing

- 15.8.13. In a Do Nothing scenario the baseline air quality trends for Dublin and nationally show a static or very slight gradual decline for pollutants. There is a broad mix of EU and national policy and legislation directed at reducing transport, industrial and space heating emissions to improve air quality. It is expected that national and ambient levels of air quality pollutants will decrease in future years with the successful implementation of the above policies and regulation.
- 15.8.14. Any potential GHG reductions and increased local benefits with regard to modal shift from road traffic to rail traffic arising from the proposed development would not occur.

Likely Significant Effects

15.8.15. Construction Phase

- A number of temporary bridge closures across the project area will require a level of traffic diversion with potential for air quality impact. Emissions from road traffic on the surrounding road network will increase as a result of all three diversions at Le Fanu Road Bridge (OBC7), Kylemore Road Bridge (OBC5A) and Memorial Road Bridge (OBC3) but the impact is minimal (less than 3%) over the existing traffic emissions.
- There are potential emissions from construction traffic delivering personnel and materials to each of the works areas. The works areas with the greatest traffic requirement (areas between Park West and Heuston) will result in the highest emissions.
- Cumulatively, the additional emissions associated with both the diversions and the construction traffic amount to 71,805kg (71.8 tonnes) of NO_x and 2,035kg (2.0 tonnes) of PM₁₀ during construction. These levels equate to 0.18% of the NO_x emissions ceiling for 2030 and 0.02% of the PM₁₀ emission ceiling for 2030 as presented in Table 12.2. As a consequence, these regional impacts to air quality as a result of diversions and construction traffic are considered to be a short term 'slight adverse' impact.
- The greatest potential impact on air quality during the construction phase is from construction dust emissions, PM₁₀ and PM_{2.5} emissions and the potential for nuisance dust. The potential for dust emissions due to construction can vary substantially day to day and are strongly influenced by the level of activity, the specific operations, and the prevailing meteorological conditions.
- The impacts during the construction phase include emissions from activities such as site clearance, embodied carbon from construction materials and their transport, waste materials and excavation works (where required), water and fuel usage. The total GHG emissions generated as a result of the construction of the proposed project are estimated to be equivalent to an annualised total of 0.017% of Ireland's 2030 target under non-emissions trading scheme (ETS).

15.8.16. Operational Phase

- The proposed Project aims to provide greater frequency of trains which will aid in supporting a modal shift from road to rail transport and thereby a potential indirect net reduction in transport emissions in the area.
- The decreases in annual emissions associated with the 'Do Something' scenario, relative to the 'Do Minimum' scenario, are circa 1,866kg NO_x and circa 1kg PM_{2.5}. When compared to the 2030 National Target (Article 4(1) of Directive 2016/2284 as per Table 12.2), these decreases equate to 0.0046% of the NO_x target and 0.0001% of the PM_{2.5} target. While these decreases in emissions are low nationally, given the ongoing difficulties in achieving the national emissions ceilings, any decrease is considered positive.
- DMUs i.e. current intercity trains, will remain on the line and unlike the electric units, diesel units do have localised tailpipe emissions. The change in GHG emissions between the 'Do Minimum' and 'Do Something' scenarios shows that despite the significant increase in rail numbers, there is an overall net annual decrease of 20 tonnes in GHG emissions relative to the Do Nothing scenario. While this decrease is very low nationally, given the ongoing challenge for the State to meet climate targets any decrease is considered positive.

Mitigation Measures

15.8.17. Construction Phase

- An air quality management plan is to be prepared by the main contractor and approved by the relevant planning authority. The plan shall include all appropriate dust and emissions mitigation measures, applicable to the circumstances of the relevant site.
- A pre-construction dilapidation survey of all buildings will be required prior to commencement of the construction phase. If asbestos potential is identified, a fully intrusive asbestos-containing materials survey will be completed. Prior to commencement of the demolition works, all asbestos containing materials identified by the survey will be removed by a suitably trained and competent person.

- Best practice measures to reduce dust emissions and nuisance including control of dust with respect to HGV movements onsite and deliveries to/from the site.
- Monitoring of construction dust deposition at nearby sensitive receptors to ensure mitigation measures are working satisfactorily.
- Climate mitigation measures to be implemented during the construction phase will relate to purchase of materials and services with lower embodied/embedded emissions; optimisation cut/fill balance; regular scheduled maintenance of construction plant machinery; use of hydrogen generators or electrified plant over traditional diesel generators and a mobility strategy is to be prepared to reduce the need for private vehicles to get to site.

15.8.18. Operational Phase

- In addition to changing the rail corridor to facilitate a shift to electric trains, further mitigation through the improvements in fuel efficiency for the remaining diesel trains shall be implemented including timetable optimisation and driver training; consumption telematics for older rolling stock and matching of train sizes to customer demand; continued fuel efficiency programs in progress / on trial by IÉ such as use of fuel additive to increase fuel efficiency and replacement of diesel vans with electric road vehicles supported by charging points at depots and stations.
- The IÉ Sustainability Strategy 2021-2030 will be implemented to ensure reduction in the carbon footprint through measures such as relevant ISO and national NSAI energy and environmental standards; recycling of 70% of all wastes; and implementation of efficiency programmes for waste and water management and green procurement.
- The overhead line equipment will be designed to take into account a range of minimum and maximum temperatures (-200C to +400C) and loads under current and future climate conditions.
- IÉ has agreed to purchase up to 80% of its operational demand from certified low or zero carbon electricity for operations. This will ensure that should the

CAP target of 80% renewables not be achieved, the proposed project will still achieve the target.

Residual Effects

- 15.8.19. The overall residual effect of the proposed project is considered 'slight adverse' in the long term as a result on the ongoing / increased use of diesel trains on the line.

Assessment

- 15.8.20. Invariably the construction phase will result in dust and nuisance to nearby sensitive receptors which will be compounded by the requirement for nighttime works. I note this concern has been raised in many of the observations to the proposed development. Subject to the implementation of best practice and mitigation measures the impacts arising would not be significant and, by their nature, would be temporary in duration.
- 15.8.21. As per the details provided in Table 4.21 and Table 12.35 the proposed project would result in no change in DMUs on the intercity route but would result in a reduction in their use on the Outer Commuter Routes from 84 to 72 representing a 7% decrease on the rail corridor. This is contradicted in the EIAR Non-Technical Summary which states that the project will allow for an increase in diesel units increasing intercity services on the rail line. It also states that with increased DMUs on the proposed rail network there will be a corresponding increase in rail emissions and properties adjacent to the rail network may experience a resultant increase in exposure from these additional diesel emissions. I submit that the main EIAR document should take precedence which does not, at any juncture, make reference to such increases and is consistent in its statement that a marginal reduction in diesel units would arise. Such a reduction would have a corresponding slight decrease in rail emissions.
- 15.8.22. The beneficial impacts from the proposed project are noted including providing a greater frequency of trains which will aid in supporting a modal shift from road to rail transport and thereby a potential indirect net reduction in transport emissions in the area. While these decreases in emissions are low nationally, given the ongoing difficulties in achieving the national emissions ceilings, any decrease is considered positive.

Air and Climate – Conclusion

15.8.23. I have considered all of the submissions made in relation to air and climate. I am satisfied that any potential impacts would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects in terms of air and climate.

15.9. **Material Assets**

Environmental Impact Assessment Report

15.9.1. **Chapters 16** deals with agricultural properties, **Chapter 17** deals with non-agricultural properties. **Chapter 18** details with utilities and **Chapter 10** deals with resources and waste management. **Chapter 6** deals with Traffic and Transportation. The sections are accompanied by supporting plans and details in **Appendices 3A and 4**.

Receiving Environment

15.9.2. The proposed project is located in the three administrative areas of Dublin City Council, South Dublin County Council and Kildare County Council. The receiving environment along the corridor ranges from a more rural setting in Zone A to peri-urban and dense urban setting in Zones B- D. I refer the Board to the detailed site description as given in Section 3 above.

15.9.3. The existing railway line forms part of the mainline rail network connecting Dublin to Westport/Ballina, Galway, Limerick, Cork and Waterford. Diesel powered intercity and commuter services currently operate on these routes. There are currently 6 no. existing stations located along the length of the rail corridor with connections to the LUAS Red line at Heuston Station. Car parking/park and ride facilities are provided at a number of the train stations along the line.

Land

15.9.4. While the majority of works proposed will be accommodated within the existing rail corridor and on CIÉ owned lands, some of the works will take place outside the existing railway corridor e.g. for the provision of substations, construction compounds etc. and will require temporary and/or permanent land take from third party/private lands. 2 no. agricultural and 549 non-agricultural plots of land within

the area have been identified as being impacted by temporary or permanent land take⁴.

Utilities

15.9.5. Utilities that cross the existing rail corridor are generally concentrated in road bridges and train stations. There are also several utilities that cross underneath the railway tracks or run parallel to the tracks such as Irish Water pipes and electricity cables. There are also overhead cables.

Roads

15.9.6. Tables 6.14 and 6.15 provide a schedule of bridges/underpasses and roads in the vicinity of the corridor. There are a number of vehicular and pedestrian crossings along the length of the railway line which are generally provided in the form of bridges/underpasses. There are no 'at grade' crossings of the railway line along the extent of the proposed project i.e. no level crossings. There is a comprehensive road network in the study area and in the immediate vicinity of the railway line, particularly within the city centre where there is an extremely dense road network, and the railway line passes beneath a number of regional roads. There are existing pedestrian and cyclist routes located within the study area which link to the wider network and facilitate pedestrian and bicycle movement. Dedicated cycle/pedestrian facilities are generally not provided on more rural roads in Zone A, while in more urban areas such facilities are provided although dedicated lanes are not always available e.g. Le Fanu Road Bridge. There are a large number of bus services operating within the study area and many bus stops within a short walking distance of the train stations. The train station with the largest volume of bus connectivity, along the project route, is Heuston Station.

Do Nothing

15.9.7. In a 'Do Nothing' scenario it is anticipated that there will continue to be a high level of dependence on private motor vehicle transport and there will be no significant increase in rail transport. Any increase in private motor vehicle transport will further

⁴ Several plots may relate to a single property

increase road congestion and can be expected to impact negatively on journey time for private and public road transport.

15.9.8. In the absence of the project, it is anticipated that land and properties required for the proposed project will remain in existing use albeit with some general improvements/changes in the area driven by legislative and local policy. In the wider area there are a number of SDZs e.g. Clonburris, which will alter the wider land use patterns in the longer term.

15.9.9. There would be no material alteration to existing utilities other than localised alterations.

Likely Significant Effects

15.9.10. Construction Phase

- The construction works will involve the temporary land take of 0.29 ha of agricultural lands and 15.23 ha temporary land take of non-agricultural lands. The significance of impacts for each plot is set out in Table 17.6. The temporary acquisition of land at Glasnevin cemetery is considered to have a significant impact.
- Enabling works on utilities must be undertaken to maintain connections or at least minimise downtimes. 67 no. conflicts between the project and existing utilities are identified.
- A number of bridges require modification or replacement including replacement of Le Fanu Bridge and Kylemore Road Bridge, modifications to Sarsfield Road underbridge and Memorial Road Bridge and provision of a new cut and cover portal at South Circular Road. The traffic diversions required by the works will have a significant adverse impact on traffic.
- During construction, thirty-three (33 no.) bus routes will be affected by the bridge works and road diversions. This will also lead to longer journey times of between 5-8 minutes as a result of longer routes, more junctions and higher levels of traffic using all surrounding roads when diversions are in place. The most significant effects will be at Kylemore Road, Memorial Road Bridge and South Circular Interchange.

- The estimated quantities of materials required for the proposed project are shown in Table 19.9 of the EIAR with Table 19.10 detailing the key streams of waste materials arising during construction.

15.9.11. Operational Phase

- The project will increase passenger capacity from the current peak capacity of approx. 5000 passengers per hour per direction to approx. 20,000 passengers per hour per direction.
- The proposal will require a land take of 0.058ha of agricultural lands for easements and 8.92ha of non-agricultural lands for some OHLE infrastructure, retaining walls, track widening, bridge foundations and abutments. Substratum acquisition is required for soil anchors/nailing. The significance of impacts for permanent land take are set out in Table 17.6. Of note are the land acquisitions associated with reconstruction of the Khyber Pass Footbridge at Landen Road and Seven Oaks and the works at Kylemore and Inchicore where there will be a reduction of the total land area between residential plots on Kylemore Drive and Landen Road and the railway cess to facilitate track works and retaining walls. There will also be a reduction in a residential plot at 4 St. George's Villas, Inchicore Parade to facilitate track works. The residual effects of the said acquisitions are considered to be significant. The residual effect on the two commercial/industrial properties is considered to be profound with demolition of one required to facilitate the works. The 1st is Unit 1 Westlink Industrial Estate, and the 2nd is 79 Sarsfield Road (Dan Ryan Truck Rental).
- Maintenance of existing and proposed utilities (substations which form part of the project) will be required.

Mitigation Measures

15.9.12. Construction Phase

Roads

- A CEMP has been prepared and will be updated. It will incorporate best practice in terms of interface with utilities.
- Phasing of bridge and road works. The reconstruction and re-opening of Le Fanu Road Bridge will be completed before works on the reconstruction of Kylemore Road Bridge commence and Memorial Road will not be closed at the same time as either the South Circular Road main traffic diversion or with Sarsfield Road closures.
- Provision of temporary vulnerable user bridges.
- Traffic counts in advance of works and periodically during the work period are proposed. This will be supplemented by the formalised audit processes for temporary traffic management schemes within Dublin City Council and TII.
- Ongoing monitoring of car parking and cycle parking at stations will be undertaken.

Lands

- Following completion of relevant construction works lands temporarily acquired will be reinstated and returned to the owner.
- Mitigation measures are proposed for the construction phase of the proposed project including the appointment of a landowner liaison officer to coordinate landowner engagement, ensure reinstatement of land to existing condition post construction, maintenance and restoration of accesses, and maintenance/replacement of services (water, electricity) prior to any disruption.
- For properties affected by substratum acquisition the following measures are proposed:
 - A property protection scheme will be established. As part of the scheme a pre-construction structural and condition survey will be carried out on impacted properties prior to construction works. A post condition survey will also be carried out.

- Where soil nailing/anchors extend below trees in residential properties, a tree survey will be carried out prior to construction to ensure they can be preserved and will not be impacted by the works.
- Where part of the curtilage of the property is being compulsorily acquired the acquiring authority will hold discussions with the property owner to agree replacement boundaries on a like for like basis where possible.

Utilities

- Any utility services that are interfered with as a result of the works will be replaced.

Resource Management

- Where possible, materials will be re-used/recycled to reduce the need for procurement of new materials. In accordance with the IÉ Sustainability Strategy 2021 - 2030, 25% of raw material purchases will come from recycled sources.
- Develop and implement a Construction Waste Management Plan and a Construction Demolition Waste Management Plan.

15.9.13. Operational Phase

- IÉ will prepare a guidance note for property owners regarding any proposed extensions or changes to a property where there are substratum works.

Residual Effects

15.9.14. Following mitigation there are 2 commercial properties on which the residual impact is predicted to be profound. There is a residual significant effect on 14 properties with the majority of over 96% achieving slight impact or less.

Assessment

15.9.15. I refer the Board to section 17 below wherein I assess the proposed compulsory acquisition of lands both on a temporary and permanent basis in addition to substratum acquisition. In summary there is a distinct and obvious community need and justification for the proposed scheme. The infrastructure facilitated by the compulsory acquisition will provide greater opportunities and enhanced connectivity for all sections of the local community and all will be able to enjoy the wider benefits

arising in terms of modal shift, reduced congestion, and reduced emissions, as well as more sustainable transport options.

- 15.9.16. The proposed bridge replacement and modification works will provide for segregated pedestrian and cyclist facilities which, heretofore, were not available although there are currently no active travel scheme designs available in the vicinity with which they would tie into. It is reasonable to anticipate that they will ultimately form part of the delivery of a cycle network by the local authority at some stage in the future.
- 15.9.17. Due regard is had to the proposed and approved Bus Connects projects which the project intersects at Sarsfield Road Bridge and Memorial Road Bridge. I refer the Board to section 14.9 of the planning assessment above.

Material Assets – Conclusion

- 15.9.18. I have considered all of the submissions made in relation to material assets. I am satisfied that any potential impacts would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects in terms of material assets.

15.10. Cultural Heritage

Environmental Impact Assessment Report

- 15.10.1. **Chapters 20** and **21** deal with archaeological, cultural and architectural heritage supported by mapped features in **Appendix 3A**. **Chapter 20** in **Volume 4 Appendices** provides details on the legislative context for national monuments and explanation of archaeological designations.
- 15.10.2. In order to inform the likely significant impacts from an archaeological and cultural heritage perspective, a 250m assessment study area was established on either side of the existing railway line. The evaluation of the archaeological resource was based on a desk study of published and unpublished documentary, aerial photography and cartographic sources. A review of existing documentation and supplementary research and field surveys has taken place, where necessary, in order to evaluate the archaeological and cultural heritage constraints in terms of

avoidance and mitigation measures. Research on architectural heritage was undertaken in two phases. The first phase comprised a paper survey of all available architectural, historical and cartographic sources. The second phase involved a field inspection.

Receiving Environment

- 15.10.3. The project largely, but not entirely, is confined to the existing railway corridor. In total 23 no. recorded archaeological sites (RMP Sites) were identified within the study corridor. There are two national monuments (NM) within the study area; Kilmainham Gaol (DU018-125, NM Ref:675) 105m south of the railway line and Phoenix Park (DU018-007001) under which the rail line runs. The eastern end of Zone B, and the full extent of Zone C of the project are within the Zone of Archaeological Potential (ZAP) for Dublin City (DU018-020). There is one recorded archaeological site along the line; the site of a burial on St. Johns Road (RMP DU018-032). There are 3 no. recorded archaeological sites in proximity to the rail line (within 50m) but outside the railway construction works. These include an enclosure site at Stacumny (RMP KD011-068), the site of a castle in Adamstown (RMP DU017-029) and an enclosure site at Cappagh (DU017-036). None of these sites have upstanding remains.
- 15.10.4. The architectural heritage assessment identified 116 structures/features of architectural heritage significance, or potential significance and eleven historic gardens or demesnes within an area that extends to 50 metres beyond the boundary of the proposed project.
- 15.10.5. Within County Kildare a number of structures at Hazelhatch & Celbridge Station are protected structures. A lime kiln located close to the northern side of the track to the west of Stacumny Bridge is also included in the RPS.
- 15.10.6. Within Dublin City Council a number the structures/features within the Inchicore Railway works are on the RPS including the boundary walls and signal box. Buildings/features within Heuston Station complex are also included in the record. Cabra Road bridge (OBO6) is also on the record.
- 15.10.7. A number of bridges along the route are included in the NIAH namely Hazelhatch Footbridge (OBC24), Finnstown R120 Road Bridge (OBC19), Adamstown

Footbridge (OBC16A), Kishoge Road Bridge (OBC14C), Ninth Lock Road bridge (OBC13), Liffey Bridge (UBO1), Old Cabra Road Bridge (OBO5).

15.10.8. Further structures along the rail line are included in the Dublin City Industrial Heritage Record (DCIHR), but which have not been included in either the record of protected structures or the NIAH.

Do Nothing

15.10.9. There would be no potential for disturbance of as yet undiscovered subsurface archaeological deposits, features or finds. The architectural heritage that forms part of the railway system would continue in use.

Likely Significant Effects

15.10.10. Construction Phase

- Ground disturbance and excavation, caused by construction activities (including service connections and diversions) which may lead to the damage or destruction/ removal of recorded or previously unknown (newly revealed) heritage assets.
- The removal of a signal box and perimeter wall at Inchicore Works which are protected structures.
- Alterations to parapets of Cabra Road bridge which is a protected structure.
- Several other bridges that are included in the NIAH would be affected by the requirement to raise the parapets.
- Impact on setting of protected structures in the vicinity.

15.10.11. Operational Phase

- OHLE will have an indirect effect on a number of structures of architectural heritage significance through the change to the settings of the structures resulting from its presence.
- Permanent alteration to the parapets of bridges.

Mitigation Measures

15.10.12. Construction Phase

- A suitably qualified archaeologist is to be employed with archaeological monitoring to be undertaken in areas of archaeological potential under licence to ensure that any archaeological finds during excavation works are properly identified and recorded.
- A Conservation Architect will be appointed to oversee and advise on works in proximity to heritage assets. Condition Surveys will be carried out for engineering, property and conservation purposes; these will include structural surveys prior to works with high levels of vibration and/or in proximity to features of conservation.
- Le Fanu Road Bridge (OBC7) is to be recorded by means of photographs, written description and measured drawings to English Heritage Level 3
- The signal box is to be recorded by means of photographs, written description and measured drawings to English Heritage Level 3. The potential for its reconstruction on an alternative site within Inchicore Works is to be examined.
- The section of the wall that is to be removed at Inchicore Works is to be recorded by means of photographs and written description prior to removal and the resulting new end of the wall is to be repaired in accordance with a method statement to be prepared by a qualified conservation specialist.

15.10.13. Operational Phase

None

Residual Effects

- 15.10.14. The residual effect of the project will be the effect of the OHLE on the character and settings of a number of structures of architectural heritage significance.

Assessment

- 15.10.15. By the nature of the works required within Inchicore Works to allow for the four tracking and, having regard to the site constraints, I acknowledge that two protected structures will be required to be removed, namely the Signal Box and part of the Boundary Wall. I would concur with the EIAR assessment that the significance of effect would be profound. The structures are to be recorded by means of photographs and written description with the potential for the signal box to be

erected at an alternative location. I consider that in line with DCC's comments the extent of wall to be removed at ch.11+200 can be addressed by way of condition. I note that other structures within the complex are also required to be demolished to facilitate the works and whilst 1 no. (extension to maintenance shed and shunting hut) is included within the DCIHR it is not included in either the RPS or the NIAH. I note that the said single-storey structure is a later addition to the maintenance shed. The Board is advised that the DCHIR does not have a statutory basis with the onus on the planning authority to decide whether or not structures included therein should be included in the RPS.

15.10.16. I consider that the complex of structures at Inchicore Works presents as an integral component in the rail line infrastructure and that the proposed works, whilst significant, will not later this character and, thus, the setting of the protected structures within the complex would not be adversely affected.

15.10.17. As noted above a number of bridges that cross the rail line are included in the NIAH with that at Hazelhatch & Celbridge Station included in the County Kildare RPS and that at Cabra included in the Dublin City RPS. In most cases, the existing bridges have the necessary vertical and horizontal clearance, but some will require modifications. Of substantive concern is the OHLE and raising of parapets. The requirements in terms of clearance for OHLE allow for very limited flexibility and potential for reduction in clearance. Similarly the raising of parapets is a safety requirement providing suitable protection for the general public to prevent accidental contact with the OHLE, including with the aid of a stick or other long object.

15.10.18. The bridges to be removed and replaced are concentrated along the section of the rail line where four tracking is to be provided. They are Le Fanu Bridge, Kylemore Road Bridge and the Khyber Pass pedestrian bridge. None are included in the RPS or NIAH.

15.10.19. Due to the presence of the existing rail line and extent of works proposed the potential for previously unknown archaeological sites is largely limited to the small greenfield/undeveloped areas where works are proposed along its length.

Cultural Heritage – Conclusion

15.10.20. I have considered all of the submissions made in relation to cultural heritage. I am satisfied that any potential impacts would be avoided, managed and mitigated by

the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects in terms of cultural heritage.

15.11. Landscape

Environmental Impact Assessment Report

15.11.1. **Chapter 15** addresses Landscape and Visual Amenity. Photomontages are provided in **Volume 3B** of the EIAR.

15.11.2. The Landscape and Visual Impact Assessment (LVA) entailed a combination of desk studies and field surveys and is based on the recommendations in the Guidelines for Landscape and Visual Impact Assessment (GLVIA) as published by the Landscape Institute and the Institute of Environmental Management and Assessment (3rd ed. 2013) along with published guidance from TII for Specified Infrastructure and Proposed National Roads. Due regard is also had to the landscape character assessment in the Kildare and South Dublin County Development Plans. Dublin City Development Plan does not have a published landscape character assessment.

Receiving Environment

15.11.3. The vicinity of the rail line is as described in section 3 above, characterised by undeveloped farmed land to the west towards an urban, built-up environment as the line moves eastwards.

15.11.4. The study area extents varies throughout the length of the project and is c. 1km from the railway centreline within the agricultural landscape from Hazelhatch to Kishoge; 0.5km within the built-up landscape east of Kishoge and 0.25km within the built up landscape from north of the Phoenix Park Tunnel to Glasnevin.

15.11.5. The section of the rail corridor within County Kildare is within the 'northern lowlands' landscape character. The area of high amenity designation applies to the Grand Canal within the study area. There are no protected views or designated scenic routes within the study area.

15.11.6. The section within South Dublin moves from Newcastle Lowlands to Suburban South Dublin landscape characters. Areas of significant amenity value are

associated with The Grand Canal and The Griffeen River. There are no protected views or designated scenic routes within the study area.

15.11.7. Dublin City Council seeks to protect the character of river corridors including the river Liffey with the Landscape Conservation Area designation applying to a number of sites including The Grand Canal, The Royal Hospital Kilmainham, The National War Memorial Gardens, Islandbridge, Linear Open Space along the Camac River and adjacent Richmond Park and Kilmainham Gaol, The River Liffey, The Phoenix Park, The Royal Canal and built up areas adjacent and north of the Phoenix Park. McKee Barracks is a designated conservation area. There is one protected view north towards The Phoenix Park from the grounds of The Royal Hospital Kilmainham (indicated in Dublin City Development Plan on map only – no description).

Do Nothing

15.11.8. In a Do Nothing scenario the existing landscape character and views will not be altered.

Likely Significant Effects

15.11.9. Construction Phase

- The construction phase will follow a sequence commencing with site clearance activities, demolition of existing structures followed by the introduction of the proposed project into the receiving landscape. Construction compounds, noise barriers and lighting will be required along its length. There will be periodic use of tall plant and machinery. The works will be evident in proximity to the rail line.

15.11.10. Operational Phase

- New infrastructure will be introduced into existing views including OHLE, substations, retaining walls and noise barriers and new bridge structures.
- Views from residential properties along the route will be impacted with views of the OHLE, noise barriers and retaining walls. This will be in the context of the existing railway line. In some cases, the removal of vegetation will reveal short range views of the rail line the OHLE and noise barriers. In some cases, the noise barriers will be visible at very short range and will obstruct existing views across the railway. Such impacts are deemed to be major

significant adverse to residents at Hazelhatch, between Cherry Orchard to Khyber Pass footbridge (some residents may experience profound significant adverse visual effects), between Inchicore to Kilmainham, the Kilmainham Square Apartments, and between Cabra and Glasnevin.

Mitigation Measures

15.11.11. Construction Phase

- Retention, where possible, of existing trees and wooded vegetation and best practice measures to be employed for their protection and retention.
- An arboricultural survey, impact assessment and tree constraints plan to be prepared. The plan is to be updated at the end of the construction phase, with any recommendations for on-going monitoring of retained trees during the operational phase.
- Where properties are subject to permanent and/ or temporary acquisition (as listed in Chapter 17 Material Assets: Non-Agricultural Properties), an inventory of boundary details and accesses, planting, paving, and other features that may be disturbed or removed will be prepared prior to commencement of construction in order that these can be protected or replaced.

15.11.12. Operational Phase

- Use of appropriate materials and finishes to existing bridge parapets, railings, replacement bridge structures and masonry walls.
- Existing wooded vegetation at the boundaries of the electrical substations will be retained, where possible, to provide visual screening of these facilities.
- Proposed planting will be introduced to mitigate adverse landscape and visual effects, where feasible, and having regard for engineering and safety requirements.
- Hedgerows identified for improvement include the following locations: Zone B (areas between Park West & Cherry Orchard Station and Cherry Orchard Footbridge, chainage 14+600 to 13+350); and Zone D (North entrance to

Phoenix Park Tunnel to the Glasnevin cemetery road bridge, chainage 8+150 to 5+650).

- New hedgerows include the following locations: adjacent to Park West substation, chainage 14+500; along Le Fanu Rd, chainage 12+600 and adjacent to proposed Inchicore substation, chainage 11+750. See landscape mitigation, see Volume 4, Appendix 15.1 of this EIAR

Residual Effects

15.11.13. The maturing mitigation planting along the alignment will, at year 15 contribute towards increased screening of project components thereby reducing adverse effects compared with year 1 of operation. At year 15, residents adjacent to the existing railway line at Hazelhatch, Cherry Orchard to Khyber Pass Footbridge, Inchicore to Kilmainham; and Kilmainham Square Apartments, are estimated to experience residual significant (major or higher) adverse visual effects.

Assessment

15.11.14. I would concur that the proposed works when assessed in the context of the existing rail corridor would not impact, to any material degree, the existing, varying landscape character along the rail line ranging from farmed landscape to the west to the built up urban areas to the east. Although the scale of the changes close to the railway line will be considerable, these changes will diminish rapidly with increasing distance from the project.

15.11.15. I would also submit that the visual impacts of the works from the public realm would be largely imperceptible. This is demonstrated by the photomontages provided with no discernible impact evident in the majority of views. The views that are altered arise from the infrastructure required at bridges including parapet railings. I submit that the works required at certain locations do provide for an improvement, in visual terms, over that which currently prevails. Whilst DCC express reservations as to the preferred choice of IP2X solution I submit that the final design can be subject to its agreement.

15.11.16. Many observers to the proposed development express concern as to the visual impacts arising and loss of privacy. I accept that due to the nature of the works proposed, the relatively narrow rail corridor along stretches and the proximity of the established residential areas to same, material changes to existing views from

residential properties will arise. Currently trees and mature vegetation results in large stretches of the rail line being screened from view. The nature of the works and the need to maintain clearance for engineering and safety requirements necessitates the removal of this vegetation which, in many locations, cannot be replaced. Additional works such as noise barriers will also be in short range views. Of particular import are properties at Hazelhatch, between Cherry Orchard to Khyber Pass Footbridge and Inchicore to Kilmainham. These cannot be mitigated.

15.11.17. Whilst views will be materially altered from the residential units within Clancy Quay apartments and the apartments to the north along Conyngham Road due to the location of the new DART station these must be assessed in the context of the existing railway infrastructure in the prevailing views. I am also of the view that the OHLE required to Liffey Bridge will be viewed within the context of the existing rail corridor.

15.11.18. I would not concur with the assessment in the EIAR of the visual effect in terms of Le Fanu Road (photomontage 7) and would suggest that there is a typographical error. I submit that the existing view is characterised by visual clutter and that while the removal of vegetation during construction will open up the view, that arising with the proposed boundary walls and paladin fence, whilst major and significant, would not be adverse (stated to be major, significant and adverse in Table 15.28)

Landscape – Conclusion

15.11.19. I have considered all of the submissions made in relation to landscape. Having regard to the receiving environment and to national, regional and local imperatives in terms of providing for public transport options that will assist in supporting and promoting the transition to a low carbon and climate resilient society, I submit that the visual impacts arising would not have such an adverse impact on residential amenities such as would warrant a recommendation of refusal on such grounds. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects in terms of landscape.

15.12. Interaction between Effects

15.12.1. Chapter 25 of the EIAR addresses interactions of the potential environmental impacts arising with a matrix provided in Table 25.1. I would concur that the most

dynamic interactions pertain to human beings with other interactions including between transport and air and climate.

- 15.12.2. I have considered the interrelationships between factors and whether this might, as a whole, effect the environment, even though the effects may be acceptable when considered on an individual basis. In my assessment of each environmental topic, I have considered the likelihood of significant effects arising as a consequence of interrelationship between factors. Most interactions e.g. the impact of noise and vibration on the population and human health are addressed under individual topic headings. Having regard to the impacts which are predicted to occur having regard to the nature of the proposed development, mitigation measures, or as a consequence of proposed conditions, I do not foresee any likelihood of any of these interrelationships giving rise to significant effects on the environment.
- 15.12.3. In conclusion, I am satisfied that there are no such effects and, therefore, nothing to prevent the approval for the development on the grounds of interaction between factors.

15.13. Cumulative Impacts

- 15.13.1. Section 26 of the EIAR addresses the potential for cumulative impacts to arise. The potential is considered in the context of other permitted and planned development in the area as well as the existing/approved plans and programmes. The process by which the projects and plans included in the assessment are set out in section 26.3.1 of the EIAR and the long list of projects considered are set out in Appendix 26.1 Volume 4. Those brought forward for more detailed assessment have been identified on the basis of temporal scope, scale and nature and likelihood of significantly contributing to the effects of the proposed scheme. Other factors such as the conceptual or physical effect-receptor pathway or the capacity of the receiving environment to absorb any changes as a result of potential cumulative effect were also considered.
- 15.13.2. The projects considered are divided into 4 tiers as follows:

- *Tier 1* - Cumulative effects of many minor or significant effects resulting from the entirety of the project (assessed under each environmental factor as appropriate).
- *Tier 2* - Development that is functionally or legally interdependent on further development(s) not included in the application for consent approval. The main Tier 2 projects relevant to the proposed DART+ South West project are the ESB electricity supply connections required to operate the proposed project and proposed substations and the diversion of the Le Fanu and Park West ESB infrastructure. See Table 26.3
- *Tier 3* - Existing or approved projects, plans or programmes to include relevant land use, planning and transport plans/strategies relevant to the project. A list of relevant national, regional and local plans and programmes identified as having the potential to have a cumulative effect with the proposed project are detailed in Tables 26.4 to 24.8
- *Tier 4* - 'Other' identified projects that are in the public domain/at preliminary design i.e. not active/granted but have the potential for cumulative effects with the project. This includes other DART+ Programme projects and NTA projects. Table 26.9 refers.

15.13.3. As noted above **1st tier** is the cumulative assessment of effects resulting from the entirety of the project and which have been assessed under each of the headings above.

15.13.4. The **2nd tier** are the ESB electricity supply connections and supply alterations/diversions required to serve the development. ESB are to progress a separate application for electricity supply connections to accommodate the development. The works will progress in parallel and will be completed in advance of the completion of the proposed project. The works will involve underground cabling along the local road networks which will require partial or temporary road closures. I do not consider that there would be residual cumulative effects which would be significant. It is accepted that if construction works for these other supporting projects coincide with the proposed development there would be increased traffic effects and nuisance arising for local communities affected. These construction impacts would be short-term, with appropriate management provisions being made through the relevant CEMPs which will be updated throughout

construction (including traffic management measures) seeking to minimise disturbance effects. I refer the Board to Table 26.3.

- 15.13.5. The **3rd tier** is in two sections. The first assesses a range of plans and programmes and includes a suite of European, national, regional and local policy documents. I consider that the documents considered is comprehensive. I note that a number of the plans have been updated since the preparation of the EIAR including (a) the GDA Cycle Network Plan 2013 and draft 2021 GDA Cycle Network Plan which have been superseded by the 2023 document and (b) the adoption of the Kildare County Development Plan 2023. I submit that the applicable and relevant provisions of the updated plans remain consistent with the overall objectives of the proposed development, and I have considered these within this cumulative assessment.
- 15.13.6. In all instances it is concluded that the proposed development would support the goals of the relevant plans and policy documents and there would be positive, direct and indirect, significant and long term cumulative effects to arise. In view of the firm standing of the proposed development in terms of national transport and climate action policies which percolate down to regional and local policy documents seeking to encourage a modal shift to more sustainable forms of transport, enhancing connectivity and transport integration and its role in securing more compact development, I would concur with the conclusions. I refer the Board to Table 26.5
- 15.13.7. The 2nd section of the 3rd tier appraisal provides for a cumulative assessment of permitted/planned projects within the three administrative areas across which the rail corridor traverses. The projects considered are wide ranging including (not exhaustive) Dart + West, Metrolink, Bus Connects (Liffey Valley, Lucan, Ballymun/Finglas, Blanchardstown/Mulhuddart), varying developments within the Clonburris SDZ, various developments within the Adamstown SDZ including the district centre development, in addition to multiple housing/apartment and commercial schemes along the rail corridor. In terms of the latter I note (a) the 750 apartments and mixed uses permitted under ref. ABP 312290-21 at Park West Avenue and Park West Road, a section of which overlaps with an area identified for a construction compound and access road (see section 17.3 below), (b) 399 Build to Rent and ancillary uses at Heuston South Quarter permitted under ref. ABP

311591-21 and (c) 927 residential units at the grounds of the former De La Salle National School, Ballyfermot Road permitted under ref. ABP 313320-22.

- 15.13.8. The Board is advised that the projects/consents given in the EIAR does not include more recent developments including that as referenced by Residents of Kilmainham Square which is a recently permitted mixed use development of 578 units at Emmet Road under ref. ABP 314791-22. In addition, I note a section 175 application made to the Board under ref ABP 318607- 23 for a mixed use residential development comprising of 708 residential units, retail and community facilities on a site in proximity to the Park West & Cherry Orchard rail station. The application is made by The Land Development Agency on behalf of Dublin City Council. At the date of writing this report no decision has been made. In the interests of clarity, I have considered these projects within this cumulative assessment.
- 15.13.9. I submit that the substantive cumulative impacts which could potentially arise would be associated with the construction periods of the projects should they overlap or occur sequentially. There would be potential for impacts on traffic due to road diversions and increase in HGVs on the road network with potential negative cumulative effects on traffic and transport which would impact on journey characteristics and amenity of motorists. There is also potential for cumulative adverse impact on air quality arising from construction dust in addition to increased noise and vibration which would impact on the local resident population where projects overlap or are in the vicinity of one another. The mitigation measures including CEMPs should result in the impacts being lessened. I submit that any such negative cumulative impacts would be short term, albeit some could potentially be over relatively lengthy construction periods.
- 15.13.10. Having regard to the nature and extent of the projects the likely cumulative impacts arising and to the mitigation measures proposed including CEMP which would entail traffic management, I accept the conclusions that there would be no significant residual cumulative effects. In terms of the operational phase no significant residual cumulative impacts are predicted with any impacts, in the main, being either none, neutral or positive and long term.
- 15.13.11. In terms of Dart+ West it is noted that there is potential for cumulative effects on rail passenger and freight operations if the construction works on the rail network occur concurrently and/or sequentially. There will be a loss of linear habitat associated

with the projects which will impact on the biodiversity resource. There will also be cumulative losses of heritage features associated with both projects. The recording of structures that are to be demolished, while not preserving the structures, can ensure that knowledge of their existence and character is preserved for the future.

- 15.13.12. In terms of Metrolink the Glasnevin Station provides interchange capability with Irish Rail services on the Maynooth and Kildare lines that serve Connolly Station and Docklands Station. Where construction stage of both projects occurs within the same timeframe the potential exists for cumulative effects. People living in the Glasnevin area in the vicinity of the proposed Glasnevin Station may be particularly impacted by the works where the projects converge, particularly for traffic-related cumulative effects with knock-on effects for air quality, climate, noise & vibration, population and human health. Mitigation measures proposed for the DART+ South West Project will be implemented to mitigate potential cumulative impacts.
- 15.13.13. Bus connects projects are considered with potential cumulative effects on traffic and transport, population, water (in event of accidental pollution), air quality identified should the construction phases overlap
- 15.13.14. The **4th tier** appraisal provides for a cumulative assessment of the proposed development with other DART+ projects included in the DART+ programme including DART+ Coastal North and DART+ Coastal South. The assessment also includes Bus Connects Clondalkin to Drimnagh Core Bus Corridor Scheme, Lucan LUAS, Celbridge to Hazelhatch Link Road scheme, Grand Canal Greenway and Camac Greenway, Camac Flood Alleviation Study and Hazelhatch Flood Relief Scheme. As above the potential for cumulative effects during the construction phase could arise.
- 15.13.15. Having regard to the above I am satisfied that a robust and detailed assessment of the potential for cumulative impacts to arise has been carried out.

15.14. Reasoned Conclusions

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

15.14.1. ***Population and Human Health:***

- The electrification of the railway line and the increased services for this public transport service would have a long term, positive impact on population and human health in that it would aid in improving sustainable connectivity, support compact growth, reduce transport congestion and emissions, and reduce reliance on private vehicle trips, with consequent reductions in vehicle emissions, thus assisting in the delivery of climate change goals. The project follows and expands the potential capacity of an existing operational railway, is aligned with national, regional and local policy objectives and is regarded as acceptable in principle in terms of planning and transportation policy.
- The proposed Heuston West Station would constitute significant additional railway infrastructure which would greatly enhance rail services for the city and would make a significant positive contribution to the delivery of enhanced public transport services for the GDA.
- There would be potential significant, negative short-term impacts on population from the construction phase of the proposed project in terms of noise, vibration, dust, access restrictions and traffic including night-time works. These will be mitigated through compliance with a Construction Environmental Management Plan, a Construction Traffic Management Plan, and best practice construction methods. Temporary rehousing will be offered to eligible owners/occupiers where the construction causes, or is expected to cause, a measured or predicted airborne construction noise level that exceeds specified parameters.
- In terms of the operational phase noise levels can be reduced to the equivalent 'Do Minimum' rail traffic noise levels at the majority of locations with the recommended mitigation measures in place, notably noise barriers. However, a limited number of properties will experience a residual negative noise impact as a result of the proposed project. An insulation scheme will be offered to the units where a significant negative impact will arise. In the context of the realisation of this infrastructural project, which will advance the increase in public transport options, the impacts are considered acceptable.

15.14.2. ***Air and Climate***

- Temporary negative impacts from dust during the construction phase will be mitigated through compliance with a Construction Environmental Management Plan and a Dust Minimisation Plan.

15.14.3. **Material Assets**

- Road closures and diversions will be required during the construction period to facilitate the proposed bridge works including replacement works. The potential predicted impacts cannot be fully mitigated by way of a Construction Traffic Management Plan and there will be short term, negative impacts on the carrying capacity of roads and junctions in the wider vicinity which will result in increased traffic and traffic congestion.
- Permanent and temporary negative impacts will arise from land take from various individual residential and commercial properties required to facilitate the proposed scheme.

15.14.4. **Cultural Heritage**

- The demolition of the signal box and removal of the boundary wall at the Inchicore Works which are protected structures are required so as to facilitate the proposed project and cannot be mitigated. They are to be recorded by means of photographs and written description prior to removal. The potential for relocation of the signal box is to be examined. The new end of the wall is to be repaired in accordance with a method statement to be prepared by a qualified conservation specialist.
- The demolition of Le Fanu Bridge which is not a protected structure and not on the National Inventory of Architectural Heritage shall be recorded by means of photographs, written description, and measured drawings to English Heritage Level 3.

15.14.5. **Landscape**

- Due to the nature of the works proposed, the relatively narrow rail corridor, and the proximity of established residential areas material changes to existing views from residential properties will arise. The nature of the works and the need to maintain clearance for engineering and safety requirements necessitates the removal of existing trees and mature vegetation which, in many locations, cannot be replaced. Additional works such as noise barriers

will also be in short range views. Of particular note are the visual impacts to properties at Hazelhatch, between Cherry Orchard to Khyber Pass Footbridge and Inchicore to Kilmainham. These impacts cannot be mitigated.

16.0 Appropriate Assessment

16.1. Introduction

16.1.1. The requirements of Article 6(3) as related to appropriate assessment of a project under part XAB, section 177AE of the Planning and Development Act 2000 (as amended) are considered fully in this section.

16.1.2. The areas addressed are as follows:

- Compliance with Article 6(3) of the Habitats Directive
- The Natura Impact Statement
- Screening for appropriate assessment
- Appropriate assessment of implications of the proposed development on the integrity of each European site

16.2. Compliance with Article 6(3) of the Habitats Directive

16.2.1. Article 6(3) of the Habitats Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site before consent can be given.

16.3. Natura Impact Statement

16.3.1. An Appropriate Assessment AA Screening Report and Natura Impact Statement (NIS) dated February 2023 prepared by RPS and TTA-JV (Typsa, Tuc Rail and Atkins Joint Venture) on behalf of IÉ accompany the application. The NIS is supported by appendices.

16.3.2. The NIS outlines the methodology used for assessing potential impacts on the habitats and species within the European Sites that have the potential to be affected by the proposed development. It predicts the potential impacts for these sites and their conservation objectives, it suggests mitigation measures, assesses

in-combination effects with other plans and projects and it identifies any residual effects on the European sites and their conservation objectives.

16.3.3. The NIS was informed by the following studies, surveys, and consultations:-

- Desk top study
- Ecological surveys carried out on various dates and across seasons between 2020 and 2022 (see Appendix E of NIS). Surveys were carried out for terrestrial and aquatic flora and fauna, during the optimum seasons (where possible).
- Consultations both with the statutory consultees, the NPWS and Inland Fisheries Ireland (IFI), and other relevant stakeholders.

16.3.4. The report concluded that, taking into account the project design and the implementation of mitigation measures identified in the NIS, the proposed development will not result in adverse effects on the integrity of any Natura 2000 site.

16.3.5. The observations on the proposed development received by the Board were circulated to the applicant for comment and its response is noted. Regard is had to the said submissions.

16.3.6. Having reviewed the NIS and the supporting documentation, I am satisfied that it provides adequate information in respect of the baseline conditions, clearly identifies the potential impacts, and uses best scientific information and knowledge to assess any potential impacts. Details of mitigation measures are provided, and they are summarised in Section 7 of the NIS. I am satisfied that the information is sufficient to allow for an appropriate assessment of the proposed development.

16.4. Geographical Scope of Project and Main Characteristics

16.4.1. The rail corridor is approx. 20km long and traverses the administrative areas of Kildare, South Dublin and Dublin City. The land use extends from undeveloped green field/agricultural lands to the west towards the emerging communities of Adamstown, Kishoge, Park West to the urban built up areas of Ballyfermot, Inchicore/Kilmainham crossing the River Liffey to Cabra and terminating in Glasnevin.

16.4.2. The following Waterbodies are in the vicinity;

River Waterbodies

- Castletown_9 (EPA Code: IE_EA_09C500830)
- Tributary of Castletown_9 (EPA Code: -)
- Coneyburrow_09 (EPA Code: IE_EA_09L011900)
- Lucan Stream (EPA Code: IE_EA_09L012100)
- Griffeen River (EPA Code: IE_EA_09L012100)
- Tributary of the Griffeen River (EPA Code: -)
- River Liffey (EPA Code: IE_EA_09L012360)

Transitional Waterbody

- Liffey Estuary Upper (EPA Code: IE_EA_090_0400)

Coastal Waterbody

- Dublin Bay (EPA Code: IE_EA_090_0000)

Groundwater Body

- Dublin (EPA Code: IE_EA_G_008)

All river waterbodies drain into the Liffey Estuary Upper before entering the Liffey Estuary Lower.

16.5. Screening for Appropriate Assessment

16.5.1. The proposed development is not directly connected with or necessary to the management of a European Site and, therefore, it needs to be determined if the development is likely to have significant effects on any European sites.

16.5.2. The proposed development is examined in relation to any possible interaction with European sites, i.e. Special Areas of Conservation (SAC) and Special Protection Areas (SPA) to assess whether it may give rise to significant effects on any European Site.

16.5.3. The applicant, in its screening report, sets out the methodology for the identification of relevant European sites using the source-pathway-receptor model. The

screening report concluded that the possibility of significant effects could not be ruled out for 12 of the 22 sites and, therefore, the proposed development works must proceed to appropriate assessment.

16.5.4. The following is my summary of the information in relation to the potential impacts identified in the screening stage.

Site Name	Qualifying Interests (QI's)	Potential receptor-pathway-source links to Development Site
Rye Water Valley/Cartron SAC [001398], located c.3km to north of proposed project	Petrifying springs with tufa formation (Cratoneurion) [7220] Whorl Snail Vertigo angustior [1014] Desmoulin's Whorl Snail Vertigo moulinsiana [1016]	No - SAC is located upstream of the proposed project. Connectivity between the proposed project and SAC is ruled out. Can potential likely significant effects be excluded? Yes
Site Name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
South Dublin Bay SAC [000210], located c. 5.6km to north east of proposed project	Mudflats and sandflats not covered by seawater at low tide [1140]	Yes - Indirect hydrological connectivity via the River Liffey and its tributaries, and Liffey Estuary which discharges into Dublin Bay. Can potential likely significant effects be excluded? No – site to proceed to AA.

Site Name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
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<p>South Dublin Bay and River Tolka Estuary SPA [004024], located c. 5.6km to east of proposed project</p>	<p>Light-bellied Goose <i>Branta bernicla hrota</i> [A046]</p> <p>Oystercatcher <i>Haematopus ostralegus</i> [A130]</p> <p>Ringed Plover <i>Charadrius hiaticula</i> [A137]</p> <p>Grey Plover <i>Pluvialis squatarola</i> [A141]</p> <p>Knot <i>Calidris canutus</i> [A143]</p> <p>Sanderling <i>Calidris alba</i> [A144]</p> <p>Dunlin <i>Calidris alpina alpina</i> [A149]</p> <p>Bar-tailed Godwit <i>Limosa lapponica</i> [A157]</p> <p>Redshank <i>Tringa tetanus</i> [A162]</p> <p>Black-headed Gull <i>Chroicocephalus ridibundus</i> [A179] T</p> <p>Roseate Tern <i>Sterna dougallii</i> [A192]</p> <p>Common Tern <i>Sterna hirundo</i> [A193]</p> <p>Arctic Tern <i>Sterna paradisaea</i> [A194]</p> <p>Wetlands [A999]</p>	<p>Yes - Indirect hydrological connectivity via the River Liffey and its tributaries, and Liffey Estuary which discharges into Dublin Bay.</p> <p>Potential use of the River Liffey corridor for bird movements from the SPA to inland areas.</p> <p>Can potential likely significant effects be excluded? No – site to proceed to AA.</p>
<p>Site Name</p>	<p>Qualifying Interests (QIs)</p>	<p>Potential receptor-pathway-source links to Development Site</p>

<p>North Dublin Bay SAC [000206], located c. 6.3km to east of proposed project</p>	<p>Mudflats and sandflats not covered by seawater at low tide [1140]</p> <p>Annual vegetation of drift lines [1210]</p> <p>Salicornia and other annuals colonising mud and sand [1310]</p> <p>Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>) [1330]</p> <p>Petalwort <i>Petalophyllum ralfsii</i> [1395]</p> <p>Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</p> <p>Embryonic shifting dunes [2110]</p> <p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]</p> <p>Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]</p> <p>Humid dune slacks [2190]</p>	<p>Yes - Indirect hydrological connectivity via the River Liffey and its tributaries, and Liffey Estuary which discharges into Dublin Bay.</p> <p>Can potential likely significant effects be excluded? No – site to proceed to AA.</p>
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Site Name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
<p>North Bull Island SPA [004006], located</p>	<p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</p>	<p>Yes - Indirect hydrological connectivity via the River Liffey</p>

<p>c. 6.3km east of the proposed project</p>	<p>Shelduck (<i>Tadorna tadorna</i>) [A048]</p> <p>Teal (<i>Anas crecca</i>) [A052]</p> <p>Pintail (<i>Anas acuta</i>) [A054]</p> <p>Shoveler (<i>Anas clypeata</i>) [A056]</p> <p>Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</p> <p>Golden Plover (<i>Pluvialis apricaria</i>) [A140]</p> <p>Grey Plover (<i>Pluvialis squatarola</i>) [A141]</p> <p>Knot (<i>Calidris canutus</i>) [A143]</p> <p>Sanderling (<i>Calidris alba</i>) [A144]</p> <p>Dunlin (<i>Calidris alpina</i>) [A149]</p> <p>Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</p> <p>Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</p> <p>Curlew (<i>Numenius arquata</i>) [A160]</p> <p>Redshank (<i>Tringa totanus</i>) [A162]</p> <p>Turnstone (<i>Arenaria interpres</i>) [A169]</p> <p>Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]</p> <p>Wetland and Waterbirds [A999]</p>	<p>and its tributaries, and Liffey Estuary which discharges into Dublin Bay.</p> <p>Potential use of the River Liffey corridor for bird movements from the SPA to inland areas.</p> <p>Can potential likely significant effects be excluded? No – site to proceed to AA.</p>
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Site Name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
Glenasmole Valley SAC [001209], c. 8.54km south of proposed project	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia) (* important orchid sites)* [6210] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410] Petrifying springs with tufa formation (Cratoneurion)* [7220]	No - SAC is located upstream and is separated from the project by existing river water bodies and groundwater bodies. Can potential likely significant effects be excluded? Yes
Site Name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
Baldoyle Bay SAC [000199], c.10km north east of proposed project	Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (Glaucopuccinellietalia maritima) [1330] Mediterranean salt meadows (Juncetalia maritimi) [1410]	Yes - Indirect hydrological connectivity via the River Liffey and its tributaries, and Liffey Estuary which discharges into Dublin Bay. Can potential likely significant effects be excluded? No – site to proceed to AA.
Site Name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
Baldoyle Bay SPA [004016], located c.10.4km east of the proposed Project	Brent Goose Branta bernicla hrota [A046] Shelduck Tadorna tadorna [A048]	Yes - Indirect hydrological connectivity via the River Liffey and its tributaries, and Liffey

	<p>Ringed Plover <i>Charadrius hiaticula</i> [A137]</p> <p>Golden Plover <i>Pluvialis apricaria</i> [A140]</p> <p>Grey Plover <i>Pluvialis squatarola</i> [A141]</p> <p>Bar-tailed Godwit <i>Limosa lapponica</i> [A157]</p> <p>Wetlands [A999]</p>	<p>Estuary which discharges into Dublin Bay.</p> <p>Potential use of the River Liffey corridor for bird movements from the SPA to inland areas.</p> <p>Can potential likely significant effects be excluded? No – site to proceed to AA.</p>
Site Name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
<p>Malahide Estuary SAC [000205], located c. 11.5km north east of the proposed project</p>	<p>Mudflats and sandflats not covered by seawater at low tide [1140]</p> <p>Salicornia and other annuals colonising mud and sand [1310]</p> <p>Spartina swards (<i>Spartinion maritimae</i>) [1320]</p> <p>Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>) [1330]</p> <p>Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</p> <p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]</p> <p>Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]</p>	<p>No - Site is separated from the proposed project by existing river water bodies and groundwater bodies.</p> <p>Can potential likely significant effects be excluded? Yes</p>

Site Name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
Malahide Estuary SPA [004025], located c.11.7km south of proposed Project,	Great Crested Grebe (<i>Podiceps cristatus</i>) [A005] Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Pintail (<i>Anas acuta</i>) [A054] Goldeneye (<i>Bucephala clangula</i>) [A067] Red-breasted Merganser (<i>Mergus serrator</i>) [A069] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Knot (<i>Calidris canutus</i>) [A143] Dunlin (<i>Calidris alpina</i>) [A149] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Redshank (<i>Tringa totanus</i>) [A162] Wetland and Waterbirds [A999]	Yes - Site is separated from the proposed project by existing river water bodies and groundwater bodies. Can potential likely significant effects be excluded? Yes

Site Name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
<p>Wicklow Mountains SAC [002122], located c. 11.7km southeast of proposed Project</p>	<p>Otter <i>Lutra lutra</i> [1355]</p> <p>Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110]</p> <p>Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoetoneanojuncetia</i> [3130]</p> <p>Natural dystrophic lakes and ponds [3160]</p> <p>Northern Atlantic wet heaths with <i>Erica Tetralix</i> [4010]</p> <p>European dry heaths [4030]</p> <p>Alpine and Boreal heaths [4060]</p> <p>Calaminarian grasslands of the <i>Violetalia calaminariae</i> [6130]</p> <p>Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230]</p> <p>Blanket bogs (* if active bog) [7130]</p> <p>Siliceous scree of the montane to snow levels (<i>Androsacetalia</i></p>	<p>No - the SAC is located upstream of the proposed project c. 16.5km southwest via surface waterbodies.</p> <p>Can potential likely significant effects be excluded? Yes</p>

	<p>alpinae and Galeopsietalia ladani) [8110]</p> <p>Calcareous rocky slopes with chasmophytic vegetation [8210]</p> <p>Siliceous rocky slopes with chasmophytic vegetation [8220]</p> <p>Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]</p>	
Site Name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
<p>Wicklow Mountains SPA [004040]</p> <p>c.11.7km south of the proposed Project,</p>	<p>Merlin Falco columbarius [A098]</p> <p>Peregrine Falco peregrinus [A103]</p>	<p>No - Site is separated from the proposed project by existing river water bodies and groundwater bodies. Both species for which this site is designated are unlikely to occur within the area of the proposed project.</p> <p>Can potential likely significant effects be excluded? Yes</p>
Site Name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
<p>Rockabill to Dalkey Island SAC 003000], c.12.3km east of proposed Project</p>	<p>Reefs [1170]</p> <p>Harbour porpoise Phocoena phocoena [1351]</p>	<p>Yes - Indirect hydrological connectivity via the River Liffey and its tributaries, and Liffey Estuary which discharges into Dublin Bay.</p> <p>Can potential likely significant effects be excluded? No – site to proceed to AA.</p>

Site Name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
Red Bog, Kildare SAC [000397] c.12.4km southwest of proposed project.	Transition mires and quaking bogs [7140]	No - Site is separated from the proposed project by existing river water bodies and groundwater bodies. Can potential likely significant effects be excluded? Yes
Site Name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
Ireland's Eye SPA [004117] c.14.2km east of proposed project	Cormorant (Phalacrocorax carbo) [A017] Herring Gull (Larus argentatus) [A184] Kittiwake (Rissa tridactyla) [A188] Guillemot (Uria aalge) [A199] Razorbill (Alca torda) [A200]	Yes - Indirect hydrological connectivity via the River Liffey and its tributaries, and Liffey Estuary which discharges into Dublin Bay. Potential use of the River Liffey corridor for bird movements from the SPA to inland areas Can potential likely significant effects be excluded? No – site to proceed to AA.
Site Name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
Ireland's Eye SAC [002193] c.14.3km north east of proposed project	Perennial vegetation of stony banks [1220] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	Yes - Indirect hydrological connectivity via the River Liffey and its tributaries, and Liffey Estuary which discharges into Dublin Bay. The QI habitats occur above the high-water mark.

		Can potential likely significant effects be excluded? – Yes
Site Name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
Howth Head SAC [000202] c.14.6km east of proposed project	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230](M) European dry heaths [4030](M)	Yes - Indirect hydrological connectivity via the River Liffey and its tributaries, and Liffey Estuary which discharges into Dublin Bay. The QI habitats occur above the high-water mark. Can potential likely significant effects be excluded? – Yes

Site name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
Howth Head Coast SPA [004113] c.14.6km east of proposed project,	Kittiwake Rissa tridactyla [A188]	Yes - Indirect hydrological connectivity via the River Liffey and its tributaries, and Liffey Estuary which discharges into Dublin Bay. Potential use of the River Liffey corridor for bird movements from the SPA to inland areas. Can potential likely significant effects be excluded? No – site to proceed to AA.

Site Name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
Poulaphouca Reservoir SPA [004063] c.14.6km south of proposed project	Greylag Goose Anser anser [A043] Lesser Black-backed Gull Larus fuscus [A183]	No - Site is separated from the proposed project by existing river water bodies and groundwater bodies. Can potential likely significant effects be excluded? Yes
Site Name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
Ballynafagh Bog SAC [000391], located c. 14.7km southwest of proposed project.	Degraded raised bogs still capable of natural regeneration [7120] Depressions on peat substrates of the Rhynchosporion [7150]	No - Site is separated from the proposed project by existing river water bodies and groundwater bodies. Can potential likely significant effects be excluded? Yes
Site Name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
Rogerstown Estuary SAC [000208], located c.15km north east of proposed project	Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (Glaucopuccinellietalia maritima) Mediterranean salt meadows (Juncetalia maritimi)	No - Site is separated from the proposed project by existing river water bodies and groundwater bodies. Can potential likely significant effects be excluded? Yes

	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) Fixed coastal dunes with herbaceous vegetation (grey dunes)	
Site Name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
Dalkey Islands SPA [004172] located c.15km southeast of proposed Project,	Roseate Tern <i>Sterna dougallii</i> [A192] Common Tern <i>Sterna hirundo</i> [A193] Arctic Tern <i>Sterna paradisaea</i> [A194]	Yes - Indirect hydrological connectivity via the River Liffey and its tributaries, and Liffey Estuary which discharges into Dublin Bay. Potential use of the River Liffey corridor for bird movements from the SPA to inland areas Can potential likely significant effects be excluded? No – site to proceed to AA.
Site Name	Qualifying Interests (QIs)	Potential receptor-pathway-source links to Development Site
North-west Irish Sea SPA (site code 004236)	Red-throated Diver (<i>Gavia stellata</i>) [A001] Great Northern Diver (<i>Gavia immer</i>) [A003] Fulmar (<i>Fulmarus glacialis</i>) [A009] Manx Shearwater (<i>Puffinus puffinus</i>) [A013] Cormorant (<i>Phalacrocorax carbo</i>) [A017] Shag (<i>Phalacrocorax aristotelis</i>) [A018]	Yes - Indirect hydrological connectivity via the River Liffey and its tributaries, and Liffey Estuary which discharges into Dublin Bay. Potential use of the River Liffey corridor for bird movements from the SPA to inland areas.

	Common Scoter (<i>Melanitta nigra</i>) [A065] Little Gull (<i>Larus minutus</i>) [A177] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Common Gull (<i>Larus canus</i>) [A182] Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183] Herring Gull (<i>Larus argentatus</i>) [A184] Great Black-backed Gull (<i>Larus marinus</i>) [A187] Kittiwake (<i>Rissa tridactyla</i>) [A188] Roseate Tern (<i>Sterna dougallii</i>) [A192] Common Tern (<i>Sterna hirundo</i>) [A193] Arctic Tern (<i>Sterna paradisaea</i>) [A194] Little Tern (<i>Sterna albifrons</i>) [A195] Guillemot (<i>Uria aalge</i>) [A199] Razorbill (<i>Alca torda</i>) [A200] Puffin (<i>Fratercula arctica</i>) [A204]	Can potential likely significant effects be excluded? No – site to proceed to AA.
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16.5.5. No measures designed or intended to avoid or reduce any harmful effects of the project on a European Site have been relied upon in this screening exercise.

16.5.6. While not included within the submitted AA Screening report and NIS (as it had not yet been identified) the Board should note that I have included the North-west Irish Sea SPA within my consideration above with reference to its conservation objectives dated September 2023. I also recommend that Howth Head SAC and Ireland's Eye SAC be omitted from appropriate assessment on the basis that the

qualifying interests occur above the high-water mark and, therefore, there is no hydrological pathway to the subject site.

Screening Determination

16.5.7. Having regard to the information presented in the Screening Report and NIS, the nature, size and location of the proposed development and its likely direct, indirect and in-combination effects, the source pathway receptor principle and sensitivities of the ecological receptors, I broadly concur with the applicant's screening that significant effects cannot be ruled out for the following sites in view of their respective conservation objectives:

- Baldoyle Bay SAC (000199)
- South Dublin Bay SAC (000210)
- North Dublin Bay SAC (000206)
- Rockabill to Dalkey Island SAC (003000)
- South Dublin Bay and River Tolka Estuary SPA (004024)
- North Bull Island SPA (004006)
- Baldoyle Bay SPA (004016)
- Ireland's Eye SPA (004117)
- Howth Head Coast SPA (004113)
- Dalkey Islands SPA (004172)
- North-west Irish Sea SPA (004236)

16.5.8. The following European Sites

- Rye Water Valley/Carton SAC [001398]
- Glenasmole Valley SAC [001209],
- Howth Head SAC (000202);
- Malahide Estuary SAC [000205]
- Malahide Estuary SPA [004025]
- Wicklow Mountains SAC [002122]

- Wicklow Mountains SPA [004040]
- Red Bog, Kildare SAC [000397]
- Poulaphouca Reservoir SPA [004063]
- Ballynafagh Bog SAC [000391]
- Rogerstown Estuary SAC [000208]
- Ireland's Eye SAC [002193]

could not be significantly affected by the proposed development works. I am satisfied that this has been done objectively with reference to the geographical separation and the absence of ecological pathways between those sites.

16.5.9. It is reasonable to conclude on the basis of the information on the file, which I consider adequate in order to issue a screening determination, that the proposed development, individually or in combination with other plans or projects, would not be likely to have a significant effect on these European Sites in view of the sites' conservation objectives and a Stage 2 appropriate assessment is not, therefore, required for these sites.

16.6. Appropriate Assessment of Relevant European sites

16.6.1. The following is an objective assessment of the implications of the proposal on the relevant conservation objectives of the European sites using the best scientific knowledge in the field. All aspects of the project which could result in significant effects are assessed and mitigation measures designed to avoid or reduce any adverse effects are examined and assessed 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 (2021) Assessment of plans and projects in relation to Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EC
- EC (2018) Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC.

European Sites

16.6.2. 11 no. sites as outlined above could not be excluded from the screening exercise undertaken on the basis that significant effects could not be ruled out.

Aspects of the Proposed Development

16.6.3. Having reviewed the development proposal I submit that the main aspects that could adversely affect the conservation objectives of the above-mentioned European Sites include:

- Impacts as a result of reduction of water quality through construction related pollution events (e.g. chemicals, oil/fuel, cementitious materials etc.) or sediments/silt runoff.
- Spread of invasive alien species through the movement of soils and/or use of machinery.
- Species mortality arising from electrocution/collision with lines over the River Liffey during operational phase. Four structures (masts) are to be attached to the existing Liffey Bridge parapet sidings to accommodate track electrification.

Mitigation Measures

16.6.4. Section 7 of the NIS details mitigation measures to be employed during the construction and operational phases of the development, the majority of which are considered to represent best construction practice measures and are included in the interests of completeness. Specific measures include:

16.6.5. Construction Phase

Environmental Team

- Ecological Clerk of Works to be retained to ensure that the mitigation measures outlined in this NIS (including any updates to this document following consent) are implemented in full and to supervise works in sensitive locations.
- Project Ecologist to supervise all implementation and overseeing of ecological mitigation measures and ensuring that activities on site are conducted in accordance with the planning permission as they pertain to ecological matters.

Measures to Protect Surface Water Quality during Construction

- No in-stream works will be permitted.
- Preparation of method statement for works within 15 metres of a watercourses to be agreed with IFI and NPWS. Works within 15 metres to be overseen by ecologist.
- No stockpiling of materials within 15 metres of watercourses.
- Appropriate storage of chemicals and fuels in designated, secure bunded areas.
- Refuelling of plant and construction vehicles within designated bunded areas.
- Appropriate storage of waste materials in designated areas.
- Routine checking of machinery.
- Monitoring of weather conditions when planning certain construction activities.
- Concrete shall be contained and managed appropriately.
- All ready-mixed concrete shall be brought to site by truck. A suitable risk assessment for wet concreting shall be completed prior to works being carried out which will include measures to prevent discharge of alkaline waste waters to the underlying subsoil. Wash down and washout of concrete transporting vehicles shall take place at an appropriate facility offsite. Where this is not possible, wash down and washout shall take place within a washout berm for later disposal after drying.
- Concrete pouring not to take place during periods of heavy rain.
- Waste materials shall be stored in designated areas that are isolated from surface water drains. Skips shall be closed or covered to prevent materials being blown or washed away.
- Preparation of an Environmental Incident and Emergency Response Plan.
- Availability of on-site spill kits

- Emergency response measures to be implemented for any spillage of fuel, lubricants etc.
- Environmental training and awareness procedures for all employees and subcontractors.

Measures for Control of Water Pollution at Liffey Bridge

- Attenuation tanks to collect untreated discharges in addition to installation of vortex grit chambers.
- Silt fences to be installed and maintained along the southern boundary of Liffey Bridge which will comply with the requirements of ASTM D6462 – 19 Standard Practice for Silt Fence Installation and Maintenance (June 2019) (ASTM, 2019) and adhere to IFI (2016) Guidelines. The fences will comprise a double geotextile layer. The fence is to be inspected daily and after heavy rainfall.
- Discharge to watercourses only on consent of the ECoW to ensure all available measures have been applied to prevent siltation/pollution of the Liffey Estuary Upper.
- Defined working areas delineated by temporary protective fencing.
- No stockpiling of materials within 15 metres and said materials to be suitably covered with an impermeable material.

16.6.6. **Operational Phase**

Measures to Protect Surface Water

- Project has been designed so as to allow for all surface water runoff to be treated prior to discharge to the River Liffey.
- Discharge to the River Liffey after attenuation will not exceed the existing greenfield runoff rate.
- As per the details provided by the applicant in its response to the submissions from prescribed bodies oil separators will be provided for in the attenuation tanks at Inchicore, Heuston and in the Phoenix Park Tunnel drainage system.

Bird Collision Risk

- The feeder wire along both sides of Single-Track Cantilever OHLE masts on the Liffey Bridge crossing (Zone D) will be fitted with devices to make lines more visible to commuting, foraging and migrating SCIs. A hanging device is proposed.

Relevant European Sites

- 16.6.7. Tables 1-11 in Appendix 2 attached to this report provide a summary of the appropriate assessment for each of the 11 no. European Sites. Each table sets out the qualifying interests (QIs)/special conservation interests (SCIs), conservation objectives (summary of targets and attributes) and potential adverse effects that could arise on the European Site from the proposed scheme. The relevant measures being incorporated to mitigate and avoid effects are also listed and an overall conclusion presented in relation to the integrity of the said European site in the context of the proposed scheme.

Potential for Adverse Effects

- 16.6.8. I note that the applicant in the NIS concluded that (a) due to the fact that the project is along an existing railway line with track drainage in place and (b) the nature of the works which are largely localised and short term, the proposed development would not produce pollutants or sediment of significant magnitudes when considering dispersion and dilution within the Liffey Estuary over time and distance. It considers that the mitigation measures to ensure the protection of water quality pertain to specific SCI's only, namely Cormorant and Herring Gull. The said species are SCIs of 2 no. SPAs namely Ireland's Eye SPA (site code 004117) and North-west Irish Sea (site code 004236).
- 16.6.9. Whilst I accept the nature and extent of the works proposed is largely localised, I consider that a precautionary approach to the assessment of likelihood of adverse effects is appropriate. There is the potential for a pollution event associated with the construction phase having regard to the extent of the works required to widen the rail corridor between Park West & Cherry Orchard train station and Heuston Station Yard to facilitate 4 tracking including drainage provision, in addition to the construction and demolition works within Heuston Station yard to provide for the DART station which is in close proximity to the River Liffey. The release of contaminated surface water runoff and/or an accidental spillage or pollution event into any surface water features during construction has the potential to affect water

quality. The associated effects of a reduction of surface water quality, albeit unlikely, could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The potential changes to water quality from pollution and sedimentation of watercourses during the construction phase could potentially result in adverse effects on the downstream habitat degradation/effects on QI species and habitat degradation and could affect the quality of intertidal/coastal habitat that support SCI bird species. 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.

- 16.6.10. Regard is also had to the potential for habitat degradation as a result of introducing/spreading invasive species during construction phase. As noted, such invasive species are recorded within and in the vicinity of the rail corridor including in proximity to Platform 10 in Heuston Station yard where the new DART station is proposed. A further small cluster was recorded on the southern side of the rail line at Hazelhatch.
- 16.6.11. Based on the information provided and mitigation measures included in relation to protection of water during the construction period, adverse effects from water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the relevant watercourses and pipe networks which drain into Dublin Bay.
- 16.6.12. In terms of the operational phase there will be no net increase in existing runoff rates and appropriate treatment will ensure runoff quality. Attenuation tanks are to be provided to serve the increased rail corridor arising from the provision of four tracks between Park West & Cherry Orchard Station and Heuston Station. There will be appropriate treatment prior to discharge including oil interceptors at the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system.
- 16.6.13. Invasive species can be controlled via mitigation measures, including pre-construction surveys, implementation of a management plan and monitoring in subsequent years following treatment.

- 16.6.14. The habitat in the upper estuary is deemed unsuitable for foraging, roosting, breeding and/or staging for migration of SCIs save for four no. species and, therefore, are unlikely to be commuting beyond the lower reaches of the estuary.
- 16.6.15. **Light-bellied brent geese** feed on grasslands in Dublin City when their main food source in Dublin Bay, eelgrass, becomes exhausted. Areas close to the proposed project which have potential to support this species include the gardens at the Royal Kilmainham Hospital, the National War Memorial Park and Phoenix Park. It is considered likely that wintering population commute up the River Liffey to available foraging grassland habitat as well as those which may be using the Liffey Estuary as a migration corridor as they travel north to the coastal tundra (BWI, 2022) for winter and stage in Iceland (RSPB, 2022). The potential for collision with Liffey Bridge OHLE infrastructure and mortality could have an adverse effect on populations trends and distribution.
- 16.6.16. **Herring Gull** forages in coastal areas in the intertidal zone and at sea on fish, invertebrates and insects. It can be known to forage up to distances of 92km and has both a terrestrial and aquatic diet. There is the potential for the species to occur commuting and foraging throughout the Dublin area and within the upper Liffey Estuary in high densities. The potential for reduced food availability and increased mortality may adversely impact on breeding population abundance, productivity rates, prey biomass available and barriers to connectivity.
- 16.6.17. **Black-headed gull** may also be commuting from the lower reaches of the Liffey Estuary upstream toward the proposed project to suitable foraging and roosting grounds within Dublin City and the proposed project area (i.e. urban habitat). The potential for collision with Liffey Bridge OHLE infrastructure and mortality could have an adverse effect on populations trends and distribution.
- 16.6.18. **Cormorant** has a recorded mean max (+ standard deviation) foraging range of 35km (i.e. 25+10) with studies by Bird Watch Ireland confirming that cormorants use the Liffey Channel for feeding and roosting (BWI, 2016). There is also the potential for collision with Liffey Bridge OHLE infrastructure. The potential for reduced food availability and increased mortality may adversely impact on breeding population abundance, productivity rates, prey biomass available and barriers to connectivity.

- 16.6.19. Potential adverse impacts on **prey biomass** in the River Liffey is to be mitigated by the measures to protect water quality during the construction stage as set out in section 16.6.6 above.
- 16.6.20. In terms of the potential for **collision risk** the proposed development will entail 4 no. structures (masts) being attached to the existing Liffey Bridge parapet sidings to accommodate track electrification. The highest wire height will be 6m (feeder wire) from the existing bridge, while contact wires will be located at a height between 4 and 5.5m. Electrification infrastructure on this bridge will be perpendicular with the Liffey Estuary Upper and potential flight lines used within this corridor. Collision risk is to be mitigated by the feeder wire along both sides of Single-Track Cantilever OHLE masts on the Liffey Bridge crossing being fitted with a device to make lines more visible to the above species. A hanging device is proposed on the basis that it is universal, cost-effective, allows easy installation, remains in position in severe weather conditions and fits a range of conductors/wires.
- 16.6.21. On the basis of the foregoing, 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 Baldoyle Bay SAC (000199), South Dublin Bay SAC (000210), North Dublin Bay SAC (000206), Rockabill to Dalkey Island SAC (003000), South Dublin Bay and River Tolka Estuary SPA (004024), North Bull Island SPA (004006), Baldoyle Bay SPA (004016), Ireland's Eye SPA (004117), Howth Head Coast SPA (004113), Dalkey Islands SPA (004172) and North-west Irish Sea SPA (004236).
- 16.6.22. The potential for adverse effects can be effectively ameliorated by both design-based and applied mitigation measures associated with the proposed scheme. I consider that all measures proposed are implementable and will be effective in their stated aims. Furthermore, an Environmental Manager or equivalent role will be appointed by the contractor during the construction phase who will, inter-alia, co-ordinate the day-to-day management of environmental impacts and commitments, and also a suitably qualified Ecologist will be appointed to advise the contractor on ecological matters during construction.

In combination Effects

- 16.6.23. In combination effects are examined in Section 6 of the submitted NIS. The proposed works were considered in combination with plans and/or projects with the

potential to impact upon the European sites. Such plans and projects included any national and local land use plans and existing or proposed projects (in place at the time of lodgement of the proposed scheme for the consideration of the Board (see Appendix F) that could potentially affect the ecological environment within the Zol of the proposed Scheme.

16.6.24. I note that in consideration of plans for the purposes of in-combination effects on European sites that the Draft 20321 GDA Cycle Network Plan as referenced in the NIS has been adopted. In the interests of clarity, I confirm that I have regard to the adopted plan in my assessment.

16.6.25. I also note that given the new legislative provisions that have been enacted in relation to maritime consents for marine/coastal developments for both An Bord Pleanála and the relevant Marine Coastal Area Local Authorities, that the consideration of the National Marine Planning Framework, 2021 (NMPF) is pertinent. In this regard I note that the provisions of the NMPF require that any proposals must demonstrate that they can be implemented without adverse effects on the integrity of SACs or SPAs (Protected Marine Sites Policy 1 refers).

16.6.26. I note that the proposed scheme is located in an urban location with a significant number and wide range of projects both permitted and proposed along the scheme corridor, in the vicinity, and in the wider area. In the interests of clarity, I wish to state that I have considered these consents as part of this assessment in relation to the potential to give rise to in-combination effects on the relevant European Sites. In particular, I have considered the context of the permissions that have issued for these projects (being located within a fully serviced urban environment), as well as the nature and character of the consents (which have considered all relevant environmental factors and included appropriate conditions/design/mitigation measures as relevant). I also note that all projects which have been permitted or are currently proposed 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.) which include protections for Natura 2000 sites and areas of ecological sensitivity. In this regard all such projects are subject to the environmental protection policies included within the relevant land use plans and have all been, or will be, (in the case of current not-yet consented projects) subject to the requirements of the relevant consenting and appropriate assessment processes. In this regard I have considered all relevant

projects and am satisfied that all such projects have been considered in the context of potential for in combination effects on the relevant European Sites.

16.6.27. Considering the environmental protection policies included within these land use plans as well as the NMPF, and given that, as concluded previously above, on its own the proposed development will not give rise to adverse impact on the integrity of any European site I do not consider there will be any in-combination impacts arising. In this regard I note that all local area plans must also fit within and follow the framework policies and objectives established within the higher-level City and County Level land use plans in the policy hierarchy.

Appropriate Assessment Conclusion: Integrity Test

16.6.28. In screening the need for Appropriate Assessment, it was determined that the proposed DART+ South West rail project had the potential to result in significant effects on Baldoyle Bay SAC (000199), South Dublin Bay SAC (000210), North Dublin Bay SAC (000206), Rockabill to Dalkey Island SAC (003000), South Dublin Bay and River Tolka Estuary SPA (004024), North Bull Island SPA (004006), Baldoyle Bay SPA (004016), Ireland's Eye SPA (004117), Howth Head Coast SPA (004113), Dalkey Islands SPA (004172) and North-west Irish Sea SPA (004236) and that appropriate assessment was required in view of the conservation objectives of those sites.

16.6.29. 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 Baldoyle Bay SAC (000199); South Dublin Bay SAC (000210); North Dublin Bay SAC [000206]; Rockabill to Dalkey Island SAC (003000); Howth Head SAC (000202); South Dublin Bay and River Tolka Estuary SPA (004024); North Bull Island SPA (004006); Baldoyle Bay SPA (004016); Ireland's Eye SPA (004117); Howth Head Coast SPA (004113) and Dalkey Islands SPA (004172), and North West Irish Sea SPA (004236), can be excluded in view of the conservation objectives of those sites.

16.6.30. My conclusion is based on the following:

- A detailed assessment of all aspects of the proposed development that could result in 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 and special conservation interest bird species.
- A full assessment of risks to qualifying interest habitats and species and to special conservation interest bird species, and
- Application of mitigation measures designed to avoid adverse effects on site integrity and likely effectiveness of same.

16.6.31. The proposed development would not undermine the favourable conservation condition of any qualifying interest or special conservation interest or delay the attainment of favourable conservation condition for any qualifying interest or special conservation interest of these European sites.

17.0 Compulsory acquisition

17.1. Overview

17.1.1. The Draft RO includes a series of Schedules of which the following are relevant to the issue of land acquisition:

- Schedule 2 (Part 1) - Land which may be acquired;
- Schedule 3 - Substratum land which may be acquired;
- Schedule 4 - Land of which temporary possession may be taken;
- Schedule 5 - Land over which public rights of way or other easements may be acquired;
- Schedule 6 - Public rights, including public rights of way which may be extinguished or altered;
- Schedule 7 - Public and private rights of way which may be temporarily interrupted;
- Schedule 8 - Roads including public roads which may be altered, realigned or closed;

17.1.2. Part III of the Draft RO relates to Acquisition and Possession of Land and Rights and contains a series of articles setting out the powers of the railway undertaking to extinguish rights of way, acquire lands, easements and other rights over the lands identified in the abovementioned schedules.

17.1.3. The affected lands are also identified in the Book of Reference and are illustrated in a series of RO Schedule drawings.

17.1.4. The applicant advised that potentially impacted landowners/occupiers were contacted as soon as the need for land acquisition at their property was identified with property owners' names identified via **Property Registration Authority of Ireland (PRAI)** searches. Consequent to the lodgement of the application there are instances where this data was found to be out-of-date. I acknowledge that this is a matter outside the control of the applicant, and it has continued to update the property owner database where new information has become available in the

course of the engagement process. An amended Book of Reference with the necessary changes made titled *Updated March 2024* has been submitted.

17.2. Assessment

17.2.1. The matters that the Board must consider before confirming the compulsory acquisition of lands are not clearly prescribed in legislation. Case law indicates that the Board must be satisfied that the applicant (in this case IÉ) has demonstrated that the compulsory acquisition “*is clearly justified by the common good*”⁵.

17.2.2. Legal commentators⁶ have stated that this phrase requires the following minimum criteria to be satisfied:

- There is a community need that is to be met by the acquisition of the lands in question,
- The particular lands are suitable to meet that community need,
- Any alternative methods of meeting the community need have been considered but are not demonstrably preferable (taking into account environmental effects, where appropriate), and
- The works to be carried out should accord with or at least not be in material contravention of the provisions of the statutory development plan.

17.2.1. Another test set out in “Planning and Development Law” (Garrett Simons – Second Edition) requires consideration of whether the proposed compulsory acquisition measures will have a disproportionate or excessive effect on the interests of the affected persons. This issue of proportionality, along with other issues arising from the matters raised by the objectors to the compulsory acquisition are discussed in the following sections. In assessing the compulsory acquisition, I have considered throughout whether the lands/rights being acquired are necessary and suitable to facilitate the provision of the Dart+South West scheme. The Board will note that some of these issues, namely justification/need for the scheme, development plan compliance and assessment of alternatives have also been addressed in other

⁵ Para. [52] of judgement of Geoghegan J in *Clinton v An Bord Pleanála* (No. 2) [2007] 4 IR 701.

⁶ Pg. 127 of *Compulsory Purchase and Compensation in Ireland: Law and Practice*, Second Edition, by James Macken, Eamon Galligan, and Michael McGrath and published by Bloomsbury Professional (West Sussex and Dublin, 2013).

sections of this report, and, therefore, this section should be read in conjunction with same, where relevant.

- 17.2.2. Matters relating to compensation for land/property acquisition are not within the remit of the Board and will be subject to separate compulsory purchase practice and procedures, should the Board grant the RO.

Community Need

- 17.2.3. I refer the Board to section 14.2 of the planning assessment above. Overall, the proposed scheme as facilitated by the compulsory acquisition will deliver critical and necessary physical infrastructure which is required to support urban compact growth, to sustain and cater for the existing and projected population growth along the rail corridor which will benefit the community as a whole at a local, county, regional and national level. It will provide for an accessible, resilient, efficient and reliable public transport option providing an attractive alternative to the private car and will contribute to reducing transport congestion and emissions.
- 17.2.4. From the above it is clear that there is a distinct and obvious community need and justification for the proposed scheme. The infrastructure facilitated by the acquisition will provide greater opportunities and enhanced connectivity for all sections of the local community and all will be able to enjoy the wider benefits arising in terms of modal shift, reduced congestion, and reduced emissions, as well as providing more sustainable transport options.
- 17.2.5. As assessed in section 14.7 above I have serious reservations regarding the compulsory acquisition of the lands to allow for the removal and replacement of what is known locally as the Khyber Pass footbridge. The option put forward as the preferred solution, requires the compulsory acquisition of portions of rear gardens of 4 no. dwellings on Landen Road and the acquisition of land at the Seven Oaks apartment complex. I am not convinced that the applicant has provided sufficient justification as to the proportionality of the proposed acquisition. I note that the intervention and infringement of 3rd party property rights is to provide for pedestrian facilities for workers at the Inchicore Works, only, does not provide for a wider public benefit and will not be accessible by the public. On this basis I recommend the omission of the said lands for compulsory acquisition although I acknowledge that temporary acquisition to allow for the dismantling of the existing bridge may be required at this location.

- 17.2.6. In conclusion and subject to the above recommended omissions, whilst there will be adverse impacts for individual landowners and occupiers whose lands it is proposed to acquire, I consider that the proposed acquisition can be justified by the exigencies of the common good. I submit that the community need for the proposed development has been established.

Suitability of Lands

- 17.2.7. It is proposed to acquire lands (both on a permanent and temporary basis), to acquire substratum lands and restrict or otherwise interfere with public rights of way along and in proximity to the existing railway corridor.
- 17.2.8. The lands subject to compulsory acquisition are currently used for a range of land uses including private amenity space (gardens), commercial (both buildings and curtilage of buildings), community (cemetery) and greenfield and brownfield sites. No habitable dwellings are proposed to be acquired. The 3 no. derelict dwellings in the vicinity of Hazelhatch Celbridge train station identified as the location for a substation are in the applicant's ownership.
- 17.2.9. The Book of Reference, as amended, identifies all lands that are being acquired on both a permanent and temporary basis and identifies lands on which public and private rights of ways will be altered or interfered with. Individual submissions/objections received in relation to the lands to be acquired and impacts on rights have been summarised in section 7.2 of this report.
- 17.2.10. I have reviewed the submitted drawings and application documentation, considered the submissions made and conducted a site inspection. The Board will note a range of matters considered in the planning assessment above including the replacement of the Khyber Pass footbridge. Having considered these matters, save for the lands required for the replacement of the said footbridge I am satisfied that the extent of land that would be permanently or temporarily acquired is necessary and proportionate to ensure the delivery of the proposed scheme to appropriate standards and I do not consider that the applicant is seeking to acquire lands in excess of the minimum required to achieve the project objectives. I am satisfied that the land and rights subject to the compulsory acquisition are suitable for the uses and purposes for which the compulsory acquisition is being sought i.e. to facilitate the DART+ South West project and all associated works.

Alternative Methods

- 17.2.11. The consideration of alternatives is addressed in Chapter 3 of the EIAR, is assessed in section 15.2 of the EIA and under various headings of my planning assessment.
- 17.2.12. The Multi-Criteria Analysis (MCA) technique has been applied to inform the option selection process to determine the end-to-end preferred option for the proposed Project. The MCA was informed by the *Common Appraisal Framework (CAF) for Transport Projects and Programmes* (Department of Transport Tourism and Sport, March 2016 and updated October 2020). The CAF Guidelines require projects to undergo an MCA under a common set of six CAF criteria pertaining to economy, integration, environment, accessibility, safety and physical activity.
- 17.2.13. I accept that due to the existence of the existing operational rail line running in a pre-defined corridor the scope of reasonable alternatives is significantly constrained. Thus, the focus of the interventions required are, in their totality, on an operational rail line and primarily within or directly adjacent to the existing rail corridor. A number of discrete elements extend beyond the boundary of the existing railway. Given this, the alternatives have been drafted to focus on those elements for which alternative options manifest, options which are markedly different from one another, and which have varied impact on the local environment. Examples of such include four-tracking, bridge replacements, options for the location of substations and construction compounds and drainage. I also note that in terms of the new station at Heuston Station the specific requirements in terms of its position relative to the Phoenix Park Tunnel Branch line restricts alternative locations. The 5 no. design options considered related to technical and design matters including the station's configuration and access arrangements. I refer the Board to my consideration of the station's access arrangements in section 14.15 above.
- 17.2.14. I consider that the process undertaken by the applicant has included a robust assessment of alternative options having regard to planning and environmental considerations, safety, economic and social factors, and the stated project need and objectives, and I generally concur with the reasons for choosing the preferred options in terms of bridge modifications or replacement and provision of four tracking.

- 17.2.15. Furthermore, I note that the design of the scheme has, insofar as is possible, minimised impacts on individual landowners. Where land take requirements are necessary the EIAR shows that a number of alternatives were considered and reviewed before the final option was selected.
- 17.2.16. On the basis of the above I am satisfied that the proposed scheme chosen is the one which best meets the stated scheme objective, to support as part of the wider DART + programme urban compact growth and contribute to reducing transport congestion and emissions in Dublin by enabling a modernised high-quality commuter rail service. I am, therefore, satisfied that any alternative means of meeting the community need have been considered and are not demonstrably preferable to that set out in the application.

Accordance with Planning Policy

- 17.2.17. As detailed in sections 12 and 14.2 above, I am satisfied that the proposed development is consistent with all applicable planning policy and, more particularly, is supported by and in accordance with policies and objectives of the Kildare County, South Dublin County and Dublin City Development Plans and is also consistent the applicable transport policies at national and regional levels.

17.3. 3rd Party Submissions/Objections to compulsory acquisition

- 17.3.1. 87 no. submissions were received in relation to compulsory acquisition. The submissions and issues raised have been summarised individually in section 7.2 of this report. The submissions were circulated to the applicant who submitted a response which is summarised in section 8.3. The applicant's responses were forwarded to the various parties by the Board and further commentary was invited. 12 no. further submissions were made, which are summarised in section 10.

Common Issues raised in Objections.

- 17.3.2. There is a commonality to many of the issues raised by affected landowners/occupiers. Many of the matters arising pertain to planning and environmental issues rather than issues directly relating to the proposed land acquisition per se and, as such, are addressed in detail in the relevant sections of this report. Of note in this regard is the assessment on noise, vibration and structural integrity of properties, dust and air quality, public health considerations, vermin control and drainage and flood risk.

17.3.3. I consider that the common issues arising with specific regard to compulsory acquisition can be summarised as follows:

- Community liaison and clarity of proposals,
- Impact of substratum acquisition on development potential and property valuation

Community Liaison and Clarity of Proposals

17.3.4. Many objectors raised concerns as to the adequacy of the public consultation process and the ease of accessibility and understanding of the documentation served. I refer the Board to section 14.1 of the planning assessment above.

17.3.5. Landowners have been notified and the necessary documentation served with the process advertised accordingly. I am therefore satisfied in relation to the applicant's compliance with the relevant legislation in this regard. Some third parties raise concerns that the extent of land take lacks clarity and more detailed mapping should be provided, however, I am satisfied that the maps are of sufficient standard for clarity and the application documentation provides sufficient detail in relation to the nature of the proposed works.

17.3.6. I also note the commitments set out within the documentation for liaison and engagement with property owners in terms of the works that are proposed and timing/scheduling of same.

Impact of substratum acquisition on development potential and property valuation

17.3.7. Substratum acquisition is proposed in two areas along the corridor. The 1st pertains to lands between Park West & Cherry Orchard Train Station to Heuston Station where soil anchors/nailing will be required for retaining walls required both to the north and south sides of the expanded rail corridor allowing for the four-track layout. The substratum wall anchors will extend beyond the retaining walls between 8 to 30 m (length) and 1 – 30m (depth) under adjoining properties.

17.3.8. The 2nd are lands between the Phoenix Park Tunnel to Glasnevin along which retaining walls are required where track lowering is proposed so as to provide reinforcement to the existing cutting slopes. Soil nailing will be installed above the new retaining wall locations along the embankments to provide greater stability of the cutting slopes and to ensure the long-term safety and stability of the rail operations. The new soil anchors will typically extend 10 to 15m into the slopes.

- 17.3.9. Objectors are concerned that such substratum acquisition would impact adversely on the development potential of their lands including potential to erect extensions, garages, sheds etc. to dwellings and that it would also result in devaluation of property.
- 17.3.10. The need for the soil anchors/nailing is accepted in that it would provide stability for the retaining walls and embankments and would ensure the long term safety and stability of the rail operations. It is a well-established methodology and will be a substantial distance below ground level under the rear gardens/adjoining lands. Their installation will be completed from track side and access to properties will not be required for construction. The soil anchors will not be visible in the gardens/adjoining lands. No adverse structural impacts to property are anticipated as a result of these works. I refer the Board to the proposed property protection scheme which will incorporate the carrying out of a condition survey of property before construction works commence which will be used to assess if any deterioration has occurred. Such a condition survey will include sheds/garages in rear gardens and boundary walls. I refer the Board to my recommendation in section 14.3 above in terms of formalising the scheme. Such a formalised scheme would provide for a level of certainty and clarity as to the mechanisms to ensure protection of property. A number of objectors query the period available following completion of construction whereby claims may be made should damage manifest itself. I submit that this is effectively a legal matter. As noted, the applicant is committing to undertaking a post construction survey. Any claim for compensation would be in accordance with statute, and standard compulsory purchase practice and procedures would address all matters.
- 17.3.11. CIÉ/IÉ will own the substratum and soil anchors installed underneath the property. They do not necessarily preclude development potential in the future but CIÉ/IÉ will need to be consulted to ensure that no interference would arise. It is of the opinion that should substratum be acquired any future purchaser of the property should be notified of such.
- 17.3.12. I consider that the applicant has provided sufficient detail to justify the need for the substratum acquisition and that matters regarding potential compensation arising from infringement on development rights, if any, and devaluation of property are not within the Board's remit for consideration.

- 17.3.13. Some observers have raised concerns relating to possible implications the project will have in relation to them insuring their property. Again, this is not a matter for the Board to make a determination on. In any event the provisions of s.48(3)(a) of the Transport (Railway Infrastructure) Act 2001 Act are noted in terms of compensation where an owner/occupier suffers loss, injury, damage or incurs expenditure as a consequence of the railway undertaking.

Individual Submissions

- 17.3.14. I propose to adopt the zones used by the applicant in presenting the proposed objections. In the interests of avoiding undue repetition, I have grouped submissions by location and where there is a commonality in their content, and I reference other sections of this report where a matter has already been addressed.

Zone A: Hazelhatch & Celbridge Station to Park West & Cherry Orchard Station.

None.

Zone B: Park West & Cherry Orchard Station to Heuston Station

Park West

- 17.3.15. **Airscape Ltd. and related entities** (lands at Park West Business and Industrial Park). Approx. 60,000 sq.m. is proposed for temporary possession to provide for main and satellite compounds, ESB MV Directional Drilling and haul routes. 2142.8 sq.m. substratum is to be acquired for retaining wall anchors.
- 17.3.16. The lands in question are within the Park West Business and Industrial Park to the south of the rail line along which the corridor is to be widened to facilitate four tracking. The applicant states that the temporary acquisition of the lands for the compound to the east of Park West Avenue is to be used as a launch pit to facilitate direction drilling to divert existing services under the rail corridor. The lands in question are, as yet, undeveloped but permission has been secured for 750 apartments and associated works under ref. ABP 312290 – 21. I note that the EIAR has due regard to the cumulative impacts of the proposed development with the said permitted development and I refer the Board to Table 26.7 (pg. 26-82). As per the approved layout, the area of the proposed compound is to be developed as

open space and bicycle parking area with the haul route traversing the housing site. Liaison with the site developer and timing of works would ensure that the construction works on the projects can proceed in parallel and I do not see an impediment to the timely development of the housing project.

17.3.17. I accept that anchoring is required to secure the proposed retaining wall and to ensure the stability and safety of the rail corridor.

17.3.18. A temporary construction compound is required at lands west of Friel Avenue, primarily for piling, excavation and track access works required to carry out the works between Cherry Orchard Footbridge (OBC8B) and Le Fanu Road Bridge (OBC7) with the temporary acquisition of lands north and east of Friel Avenue required to establish a temporary construction compound which will include site offices, welfare facilities, storage facilities, workshops, and storage of construction plant and equipment required to carry out the works. A new temporary access will be made off Friel Avenue. Some of the lands detailed are currently in use for carparking and storage by adjoining tenants. Alternative locations for the compounds were considered and assessed with the details provided in sections 3.7.5.1.3 and 3.7.5.1.4 of the EIAR. The reasoning for the locations is also provided. The use of the industrial estate roads to facilitate access to the said worksites along the rail corridor is also proposed. The need for the location of compounds in proximity to the rail line and bridge crossings is acknowledged and the applicant proposes to locate same on lands currently undeveloped/vacant. On completion of the proposed project the sites will be returned to the owner. Whilst impacts will arise with increased traffic on the industrial estate roads this is in the context of an existing commercial/industrial environment and will be temporary. Liaison with the landowner during the construction phase will occur.

17.3.19. I refer the Board to my assessment with respect to substratum acquisition and impact on development potential in section 17.2 above.

17.3.20. The lands at this location are within Strategic Development and Regeneration Area (Z14) in the current Dublin City Development Plan. The proposed development, the objective of which is to provide high quality sustainable transport, would support the development of these lands.

17.3.21. I consider that the works as detailed are essential for the delivery of the project at this location and are unavoidable. I submit that there is a community need to be

met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of the Dublin City Development Plan.

Kylemore Drive

- **Tracy Humphreys** (49 Kylemore Drive)
- **Paul O'Brien represented by Joe Mortell** (65 Kylemore Drive)
- **Ciaran & Liona O'Toole** (67 Kylemore Drive)
- **Lillian Roe** (91 Kylemore Drive)
- **Meghan Roe** (91 Kylemore Drive)
- **Craig Delaney & Others** (93 & 95 Kylemore Drive)

17.3.22. These properties are to the north of and back onto the rail line. Substratum acquisition of between 86.3 sq.m. and 112 sq.m. is proposed. The drawings in the Book of Reference delineate the extent of acquisition for each property.

17.3.23. Piling will occur to the rear of the dwellings during daytime periods. Night-time time works in the vicinity of the dwellings, including preparation of piling platforms on the north side of the tracks in addition to works associated with Kylemore Bridge and Le Fanu Bridge will be required. In view of the proximity of the landowners' houses to the rail line and both Kylemore Road bridge and Le Fanu bridge, the impact on their residential amenities during the construction phase will be significant. Such works are essential for the delivery of the project at this location and are unavoidable. A Noise Management Plan and a scheme of temporary rehousing where certain parameters are met, will be part of the construction stage of the project. The applicant proposes to keep residents informed of upcoming works and give advance notice of any disruptive operations.

17.3.24. A new secant retaining wall will be constructed along the rail corridor in the vicinity of the properties. The design of the retaining wall and the boundary treatments in this area will be finalised during the detailed design stage, subject to the grant of the RO. I accept that anchoring is required to secure the proposed retaining wall to

ensure its stability and longevity and to safeguard the stability and safety of the rail corridor.

- 17.3.25. The rear boundaries at these locations will not be altered. The space between the rear boundary walls and the new retaining wall will be fenced off and maintained by CIÉ/IE. Vegetation removal including tree removal at the rear of the properties will be required. Technical and space constraints means that replanting is not possible.
- 17.3.26. The proposed Property protection scheme would provide certainty with respect to the matters arising in terms of vibration and structural integrity.
- 17.3.27. A noise barrier is proposed along the rail corridor in this area. With the proposed noise mitigation measures in place, the operational rail noise at this location is expected to be lower compared to the situation without the project in place. I refer the Board to the Table 14.70 of the EIAR which predicts a moderate positive impact at location R28. There is no requirement for noise insulation.
- 17.3.28. The increased level of service proposed at the operational phase and impacts on residential amenities must be assessed in the context of the long-established use of the rail line onto which the affected properties back onto and which would dominate views from upper floor windows. The proposed infrastructure proposed as part of the project would be seen in the context of these existing views. The increased train frequency will not result in increased visual access to properties.
- 17.3.29. I refer the Board to the sections of my report addressing noise, vibration, dust and air, access and traffic, vermin control, property protection scheme, property valuation, impact of substratum acquisition on development potential and train station provision.
- 17.3.30. I submit that there is a community need to be met by the acquisition of the substratum in question, that the substratum is suitable to meet that community need, that alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and that the works to be carried out would not be in material contravention of the provisions of the Dublin City Development Plan.

Kylemore Road

- **Patricia and Derel McFarlane** (357 Kylemore Road)

- **Maria Manifold Doyle (359 Kylemore Road)**

- 17.3.31. These two storey properties are to the north of and side onto the rail line and Kylemore Road Bridge. Substratum acquisition of 14.2 sq.m. and 115.8 sq.m. respectively is proposed.
- 17.3.32. I accept that anchoring is required to secure the proposed retaining wall to ensure its stability and longevity and to safeguard the stability and safety of the rail corridor.
- 17.3.33. The trees along the road in front of the dwellings will need to be felled to allow for the necessary bridge replacement and associated compounds.
- 17.3.34. It is likely that access to the driveways will be disrupted during the Kylemore Road Bridge reconstruction works with the applicant committing to reducing the duration of the impact. Where access to properties is disrupted, alternative parking provision will be put in place and will be restored without unreasonable delay. Access for deliveries, bin collections, utility providers and tradesmen will be facilitated within the CTMP which will be developed and implemented by the contractor.
- 17.3.35. Night-time works proposed in the vicinity of the dwellings include preparation of piling platforms on the north side of the tracks. Whilst the rail line works will be linear and therefore transient the bridge replacement will be relatively static and anticipated to take in the region of 9 months. In view of the proximity of the landowners' houses to the rail line and Kylemore Road bridge the impact on their residential amenities during the construction phase will be significant to profound. Such works are essential for the delivery of the project at this location and are unavoidable. A Noise Management Plan and a scheme of temporary rehousing where certain parameters are met will be part of the construction stage of the project. The applicant proposes to keep residents informed of upcoming works and that advance notice is given of any disruptive operations.
- 17.3.36. The proposed property protection scheme would provide certainty with respect to the matters arising in terms of vibration and structural integrity.
- 17.3.37. I refer the Board to the sections of my planning assessment and EIA above which address traffic, health considerations, noise and dust during construction phase and vermin control.

17.3.38. I submit that there is a community need to be met by the acquisition of the substratum in question, that the substratum is suitable to meet that community need, that alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and that the works to be carried out would not be in material contravention of the provisions of the Dublin City Development Plan.

Kylemore Park North

Breege, Lorraine and Shirley Lyons (Unit 4 Kylemore Park North)

17.3.39. This commercial unit is to the south of, and backs onto the rail line. 318.1 sq.m. substratum is to be acquired for retaining wall anchors. I accept that anchoring is required to secure the proposed retaining wall to ensure its stability and longevity and to safeguard the stability and safety of the rail corridor.

17.3.40. I consider that the extent of acquisition is clear from the details provided in the Book of Reference.

17.3.41. Both the retaining wall and associated anchors will be constructed and installed from the rail line side and access from the site will not be required. As the works are substratum there would be no impact on access to the rear of the properties. The applicant proposes a structural survey of properties which may be impacted by the proposed works. I refer to my recommendation regarding the property protection scheme.

17.3.42. Any future development proposals of the site will be required to be notified to CIÉ/ IÉ/ in advance for its agreement.

17.3.43. I submit that there is a community need to be met by the acquisition of the substratum in question, that the substratum is suitable to meet that community need, that alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and that the works to be carried out would not be in material contravention of the provisions of the Dublin City Development Plan.

Westlink Business Park / Kylemore Business Park

- **M7 Real Estate Ireland Ltd. PP. Onyx Ireland 2021 Propco IV Ltd.**

- 17.3.44. 2847.8 sq.m. is proposed to be acquired with unit 1 to be demolished to allow for track widening, headshunt and retaining walls and also the reconstruction of Kylemore Bridge with 3,019 sq.m. temporary possession to allow for a satellite compound and construction of track and retaining walls. 767.3 sq.m. substratum is to be acquired for retaining wall anchors.
- 17.3.45. The permanent acquisition of Unit 1 is required to facilitate the widening of the rail corridor and reconstruction of Kylemore Bridge. The headshunt piled retaining wall is in close proximity to the north west corner of the building and will be affected by the works. The lands will be used as a temporary construction compound required for Kylemore Bridge reconstruction which will revert to the owner on completion of the works.
- 17.3.46. I note that alternatives in terms of bridge replacement went through a number of stages, leading to the selection of the preferred option. This is the option that forms part of the application and which the Board is required to make a decision on. I also accept the reasoning for a construction compound requirement in proximity to the bridge replacement and the acquisition of the site is necessary to provide for same. Invariably the entrance to the business park will be altered as a consequence of these temporary works which will be appropriately enclosed. Site security matters will be addressed in the CEMP.
- 17.3.47. I consider that the applicant has provided sufficient information for the landowner to gauge the impact of the proposed development on its property and I am satisfied that the applicant has undertaken an assessment of the impacts to same. The applicant has determined that the impact would be profound. If the development proceeds the business operation in unit 1 would cease and its use would extinguish. There are no mitigation measures which could change this outcome. The portion of the site subject to temporary acquisition will be returned to the landowner on completion of the project. The landowner would be required to be compensated for the loss of this business. This is not a matter for adjudication by the Board.
- 17.3.48. I accept that anchoring is required to secure the proposed retaining wall to ensure its stability and longevity and to safeguard the stability and safety of the rail corridor. Any future development proposals on the lands within the estate impacted by substratum acquisition will be subject to prior notification and agreement with

IE/CIE. The applicant proposes a before and after structural survey of impacted properties. I refer to my recommendation in terms of a property protection scheme in this regard.

17.3.49. I submit that there is a community need to be met by the acquisition of the lands and substratum in question, that these particular lands and substratum are suitable to meet that community need, that alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and that the works to be carried out would not be in material contravention of the provisions of Dublin City Development Plan.

- **Marlet Property Group Ltd.** (7 & 8 Kylemore Business Park and Jamestown Road)
- **Vardis Group** (7 & 8 Kylemore Business Park and Jamestown Road)

17.3.50. An area of 582.1sq.m. is being acquired to accommodate the headshunt and retaining walls with 1926.9 sq.m. being temporarily acquired to facilitate track and retaining wall construction. 1097.1 sq.m. of substratum is to be acquired for pile anchoring.

17.3.51. I note that Marlet Property Group are an associated company of Prime GP6 Limited who are the owners and landlords of the properties 7 & 8 Kylemore Business Park, Jamestown Road, Dublin 8. The Book of Reference has been amended accordingly.

17.3.52. The buildings in question comprise industrial units accessed from Jamestown Road to the south of the rail line immediately adjoining the CIE/IE Inchicore Works. The dwellings on Landen Road are to the north of the rail line at this location. I accept that the options available to the applicant at this location are constrained.

17.3.53. The permanent land acquisition at this location (plot ref. 18832.P.280(B)) is required to facilitate the widening of the rail corridor and new retaining walls which are required due to the level difference between the rail corridor and the adjacent land. I note the option selection process for lands adjacent to Inchicore Works onto which the lands abut and I refer the Board to the consideration of alternatives in section 15.2 above. I consider that the site is a reasonable choice to address the functionality of the works. I accept that anchoring is required to secure the

proposed retaining wall to ensure its stability and longevity and to safeguard the stability and safety of the rail corridor.

- 17.3.54. Restricting access to existing rail access points would present a significant constraint to the realisation of the project in a timely manner and would inevitably extend the construction period materially. This would be further compounded by the fact that it is an objective to ensure the continued operation of the mainline rail line during construction. On this basis the development of local access points including that as proposed at this location is accepted. The applicant has acknowledged that the impact of the works on the property is significant, and I refer the Board to Table 17.6 of the EIAR.
- 17.3.55. The circulation area around the buildings will be impacted as a consequence of the acquisition and, while it may limit the potential occupants of the building, would not result in their complete sterilisation. The main building structures will not be impacted by the proposed works and the access points are to be maintained. Notwithstanding, I note that the current occupants (Vardis Group) have stated that it would have no option but to break its lease. Loss of commercial viability/use of the building is a matter for compensation.
- 17.3.56. The lands are zoned Z6 employment/enterprise in the current Dublin City Development Plan. I note that these lands are within the area of the City Edge project wherein redevelopment is proposed. I submit that the proposed land and substratum acquisition at this location would not constrain the realisation of the project which covers extensive lands at this location. Indeed, the proposed development, the objective of which is to provide high quality sustainable transport, would support the development of these lands.
- 17.3.57. I submit that there is a community need to be met by the acquisition of the lands in question, that these particular lands are suitable to meet that community need, that alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and that the works to be carried out would not be in material contravention of the provisions of the Dublin City Development Plan.

Landen Road

- **Philip & Lilian Dalton** (17 Landen Road) - 10.2 sq.m. to be acquired for Khyber Pass bridge reconstruction with 5.7 sqm to be temporarily acquired for construction compound and haul road
- **Daniel Sheehan** (19 Landen Road) - 24.2 sqm. to be acquired for Khyber Pass bridge reconstruction and 75.2 sq.m. to be temporarily acquired for construction compound and haul road
- **Pamela Lee** (23 Landen Road) - 83.7 sq.m to be temporarily acquired for construction compound

17.3.58. The said properties are at the eastern end of Landen Road served by long rear gardens that back onto the lane providing access to the Khyber Pass footbridge. The rear boundaries onto the lane are delineated by a wall backed with mature planting.

17.3.59. I refer the Board to my assessment in section 14.7 above in which I note the design options at this location including the permanent removal of the footbridge and implementation of an alternative pedestrian access route via Sarsfield Road and Inchicore Terrace North. The option put forward as the preferred solution, namely a new bridge providing for increased span entails an access stairs over a reach of approx. 19 metres on the northern end. It is also proposed to widen the access lane. The works requires the acquisition of portions of the rear gardens of 4 no. dwellings on Landen Road and a strip of ground within the Seven Oaks apartment complex on the other side of the access lane. The bridge does not provide for disabled access although it provides for a more accessible arrangement than heretofore exists.

17.3.60. I am not satisfied that the applicant has provided sufficient justification for the bridge replacement and widening of the existing access lane or as to the proportionality of the said acquisition in terms of infringement on 3rd party property rights. The intervention is to provide for pedestrian facilities for workers at the Inchicore Works, only, and does not provide for a wider public benefit. The bridge will not be open to the public. Whilst the removal of the bridge would require alternative, and possible longer routes to be used by employees, this does not automatically mean that employees would revert to the private car as a means of travelling to and from work. Should the Board concur I recommend that the proposed bridge replacement and acquisition of the said identified lands be omitted from the RO.

- 17.3.61. The requirement to provide some manner of construction compound to allow for the dismantlement and removal of the bridge is acknowledged at this location. The lands would be returned to the relevant owners on completion of the works.
- 17.3.62. Should the Board not concur with my recommendation and accept the acquisition proposals to allow for a replacement bridge I consider that replacement boundaries will be required to the affected properties which would be subject to detailed design. The preferred bridge design with stairs over a reach of 19 metres along its northern end could give rise to greater levels of overlooking from pedestrians than heretofore exists. I note that the bridge would have a steel mesh cover.
- 17.3.63. I refer the Board to the sections in the planning assessment and EIA which address health considerations, noise, dust and health and safety.
- 17.3.64. In conclusion I submit that the community need which would be met by the proposed bridge replacement has not been established to justify the acquisition of the lands in question.

- **Emma King** (197 Landen Road)
- **Nicole Concannon & Jason Byrne** (221 Landen Road)
- **Anne & Anthony Costello** (229 Landen Road)
- **Thomas Moroney** (231 Landen Road)
- **Teresa Galvin** (233 Landen Road)
- **Marie Brogan** (245 Landen Road)
- **Rosemarie Kiernan (Lynch)** (251 Landen Road)
- **Laura Molson** (275 Landen Road)
- **Adam Harrington** (275 Landen Road)
- **Breda Lakes** (291 Landen Road)
- **Eliza Palumbo** (293 Landen Road)
- **Alan and Shane O'Callaghan** (313 Landen Road)
- **Breda and Patrick Curran** (409 Landen Road)
- **Karen Balfe** (413 Landen Road)

- **Mairead Kirby** (419 Landen Road)
- **Catherine Malone** (449 Landen Road)
- **John and Veronica Bolger** (453 Landen Road)

17.3.65. These comprise of two storey dwellings on Landen Road to the north of the rail line. The properties back onto the track with those to the east backing onto Inchicore Works. The rail corridor is to be widened to provide for four tracking. Substratum acquisition ranging between 38.9 sq.m and 261.1 sq.m is proposed the greatest being at the western end of the road in proximity to Kylemore Road Bridge. The acquisition is so as to allow for soil anchoring. I consider that the drawings in the Book of Reference delineate the extent of acquisition for each property.

17.3.66. Piling will occur to the rear of the dwellings during daytime periods. Night-time works in the vicinity of the dwellings will include preparation of piling platforms. A new secant retaining wall will be constructed along sections of the rail corridor at this location. The design of the retaining walls and the boundary treatments will be finalised during the detailed design stage, subject to the grant of the RO. The rear boundaries to the dwellings will not be affected with the space between the rear boundary walls and the new retaining wall, where provided, to be fenced off and maintained by CIÉ/IE.

17.3.67. I accept that anchoring is required to secure the proposed retaining wall to ensure its stability and longevity and to safeguard the stability and safety of the rail corridor.

17.3.68. In view of the proximity of the landowners' houses to the rail line with some also in proximity to Kylemore Road bridge (which is to be replaced) and the need for night time works, the impact on their residential amenities during the construction phase will be significant. Such works are essential for the delivery of the project at this location and are unavoidable. A Noise Management Plan and a scheme of temporary rehousing where certain parameters are met will be part of the construction stage of the project. The applicant proposes to keep residents informed of upcoming works and will give advance notice of any disruptive works.

17.3.69. The proposed property protection scheme would provide certainty with respect to the matters arising in terms of vibration and structural integrity. I note that ongoing noise and vibration monitoring is proposed during the construction phase.

- 17.3.70. The existing trees and vegetation to the rear of the properties will be removed with insufficient space due to technical and safety considerations to allow for replacement planting.
- 17.3.71. Noise barriers are proposed along this section of rail corridor. With these mitigation measures in place the operational rail noise at these locations is expected to be lower compared to the situation without the project in place. The barriers would be approx. 2.5 to 3.5 metres high. There is no requirement for noise insulation.
- 17.3.72. The retaining walls, where provided, and noise barriers would not adversely impact the levels of light into property.
- 17.3.73. The increased level of service proposed at the operational phase and impacts on residential amenities must be assessed in the context of the long-established use of the Inchicore Works site and operational rail line onto which the affected properties back onto and which would dominate views from upper floor windows. The proposed infrastructure proposed as part of the project would be seen in the context of these existing views. The increased train frequency will not result in increased visual access to properties.
- 17.3.74. The contractor will be responsible for providing appropriate security provisions during the construction works including site security measures and prevention of access to neighbouring properties. Measures are to be identified in the CEMP.
- 17.3.75. I refer the Board to the sections of my report addressing procedural issues, noise, vibration, dust and air, construction traffic and road diversions, lighting during construction, security cameras, health and safety, appointment of CLO, vermin control, biodiversity, property owner protection scheme which would also apply to structures in rear gardens, impact of substratum acquisition on development potential and property insurance, property valuation and train station provision.
- 17.3.76. I submit that there is a community need to be met by the acquisition of the substratum in question, that the substratum is suitable to meet that community need, that alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and that the works to be carried out would not be in material contravention of the provisions of the Dublin City Development Plan.

Seven Oaks, Sarsfield Road

- **Seven Oaks Owners' Management Company**
- **Mary Kinane** (Block A, Apt. 32)
- **Margaret & Kiran Bul** (Apt. 33, Block B)
- **Eoghan McIlwaine** (Apt. 55, Block B)
- **Fiona Taylor** (Apt. 59, Block B)
- **Alicia Doyle** (Apt.61. Block C)
- **Trevor Woods** (Apt. 66, Block C)
- **Sean Smallhome** (Apt. 80 Block C)
- **Geraldine Doyle & Martin Morrisey** (Apt. 85, Block C)
- **Gayle O'Brien** (Apt. 109, Block D)
- **Deborah Mahony** (Apt. 114, Block D)
- **Deborah Sullivan** (Apt.117 Block D)
- **Lisa Reid (Magee)** (Apt. 123, Block D)
- **Patrick Walsh** (Apt. 162, Block E)
- **Barry Kelly** (Apt 165, Block E)
- **Ian Hill** (Apt. 161, Block E)
- **Karen Lynch** (Apt. 168, Block E)
- **Dan O'Neill** (Apt. 169, Block E)
- **Maeve O'Sullivan** (Apt. 177, Block E)
- **Aisling Redmond Healy** (Apt. 191, Block F)

17.3.77. Seven Oaks comprises of 5 no. 4 to 6 storey apartment blocks developed within the grounds of Oak House accessed from Sarsfield Road to the north of the rail line. 3 no. of the blocks back onto the track with windows and balconies on their southern elevations overlooking same. 2 no. blocks are adjacent to the access lane leading to the gated Khyber Pass footbridge into the Inchicore Works. The complex would already experience both day and night time activities associated with both the rail line and the Inchicore Works directly adjacent.

- 17.3.78. An L-shaped area of ground at the corner of the complex adjoining the track to the footbridge is to be acquired to allow for the bridge replacement with 348.6 sq.m. proposed to be temporarily acquired to facilitate a construction compound.
- 17.3.79. I refer the Board to my assessment in section 14.7 above in which I note the design options at this location including the permanent removal of the footbridge and implementation of an alternative pedestrian access route via Sarsfield Road and Inchicore Terrace North. The option put forward as the preferred solution, namely a new bridge providing for increased span entails an access stairs over a reach of approx. 19 metres on the northern end. It is also proposed to widen the access lane. The works require the acquisition of rear gardens of 4 no. dwellings on Landen Road and the strip of ground within the Seven Oaks apartment complex on the other side of the access lane. The bridge does not provide for disabled access although it provides for a more accessible arrangement than heretofore exists.
- 17.3.80. I am not satisfied that the applicant has provided sufficient justification for the bridge replacement and widening of the existing access lane or as to the proportionality of the said acquisition in terms of infringement on 3rd party property rights. The intervention is to provide for pedestrian facilities for workers at the Inchicore Works, only, and does not provide for a wider public benefit. The bridge will not be open to the public. Whilst the removal of the bridge would require alternative, and possibly longer routes to be used by employees, this does not automatically mean that they would revert to the private car as a means of travelling to and from work. Should the Board concur I recommend that the proposed bridge replacement and acquisition of the said identified lands be omitted from the RO.
- 17.3.81. The requirement to provide some manner of construction compound to allow for the dismantlement and removal of the bridge at this location is acknowledged. The lands would be returned to the relevant owners on completion of the works.
- 17.3.82. Should the Board not concur with my recommendation and accept the acquisition proposals to allow for a replacement bridge I consider that replacement boundaries will be required to the affected properties which would be subject to detailed design. The preferred bridge design with stairs over a reach of 19 metres along its northern end could give rise to greater levels of overlooking from pedestrians than heretofore exists. I note that the bridge would have a steel mesh cover.

- 17.3.83. In view of the proximity of the apartment complex to the rail line impact on residential amenities during the construction phase will be significant. Such works are essential for the delivery of the project at this location and are unavoidable. A Noise Management Plan and a scheme of temporary rehousing where certain parameters are met will be part of the construction stage of the project. The applicant proposes to keep residents informed of upcoming works and give advance notice of any disruptive works.
- 17.3.84. In terms of the operational phase the residual impact is predicted to be significant following application of mitigation measures which will require the application of a noise insulation measures for affected units.
- 17.3.85. The matter as to who would receive the compensation payment i.e. Individual owners/occupiers, or the management company is not a matter for adjudication by the Board.
- 17.3.86. In conclusion I submit that the community need which would be met by the proposed bridge replacement has not been established to justify the acquisition of the lands in question.

Sarsfield Road

Dan Ryan Truck Rental Ltd. (79 Sarsfield Road)

- 17.3.87. The site in question is roughly triangular in shape and directly adjoins the Sarsfield Road bridge and rail line. It is accessed from Sarsfield Road and is used for commercial purposes associated with a truck rental business. As noted on day of inspection the site is closed, albeit with vehicles maintained on site. A sign on the gated access stated that the occupier had relocated. 1716 sq.m. of the site is to be permanently acquired with 2257.1 sq.m. delineated for temporary possession.
- 17.3.88. The permanent acquisition is to allow for the provision of the additional two tracks at this location and the new railway boundary wall cannot be achieved without permanent land take and direct impact on the existing building, requiring demolition. The temporary acquisition is required for the track access for the section of works from Sarsfield Road to South Circular Road and for the reconstruction of Sarsfield Road abutments and southern deck.

- 17.3.89. There is a clear understanding of why the applicant has pursued this alternative over the other options considered at Sarsfield Bridge. The assessment criteria for option selection are set out in the EIAR and the information is presented which has led to the option selection. The design solution is deemed a necessary component of the overall scheme, and the acquisition of the lands are necessary for the new bridge and associated works. Furthermore, I consider they are proportionate to meet the needs of the project at the construction and operational phases. It is acknowledged by the applicant that the impact would be profound.
- 17.3.90. I consider that the applicant has provided sufficient information for the landowner to gauge the impact of the proposed development on its property and the impact and interference with its property and business. The applicant has determined that the impact would be profound. If the development proceeds the business operation on these lands would cease. Its use would extinguish. There are no mitigation measures which could change this outcome. The landowner would be required to be compensated for the loss of this business. I note that the site is within an area zoned Z1 in the current Dublin City Development Plan providing for sustainable residential neighbourhoods.
- 17.3.91. I submit that there is a community need to be met by the acquisition of the lands in question, that these particular lands are suitable to meet that community need, that alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and that the works to be carried out would not be in material contravention of the provisions of the Dublin City Development Plan.

Lally Road

Joe Finn (The Horse Sanctuary) (70, Lally Road)

- 17.3.92. This comprises lands to the north and parallel to the rail line. There are a number of outbuildings and open lands associated with its use for the housing of horses. 3969.9 sq.m. of the site is proposed to be temporarily acquired to be used as a construction compound and track access location for the works associated at Sarsfield Bridge and it is anticipated that the lands would be required for four years. No works are proposed to the main yard or the paddock to the west. I note that the

lands are zoned Zone Z12 Institutional Land (Future Development Potential) in the current Dublin City Development Plan.

17.3.93. I consider that there is a clear understanding of why the applicant has pursued the preferred option over the other alternatives considered at Sarsfield Bridge and the need to locate construction compound(s) in close proximity to the works is accepted. The assessment criteria for option selection are set out in the EIAR and the information is presented which has led to the option selection. The locational constraints in terms of the road network immediately adjoining and the existing rail line are accepted. I consider the lands are proportionate to meet the needs of the project at the construction phase and will revert to the owner/occupier on its completion. Any adverse impact on the enterprise would be subject to compensation.

17.3.94. I submit that there is a community need to be met by the acquisition of the lands in question, that these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and that the works to be carried out would not be in material contravention of the provisions of the Dublin City Development Plan.

Murray's Cottages

- **Patrick & Una Manning** (6 Murray's Cottages)
- **Peter Byrne** (7 Murray's Cottages)
- **Dermot Foley & Sinead Lanagan** (8 Murray's Cottages)

17.3.95. These comprise of a small enclave of single storey dwellings accessed from Sarsfield Road. They are to the south of and back onto the rail line. They are served by small rear gardens.

17.3.96. Substratum acquisition ranging between 48.5 sq.m. and 103.8. sq.m. is required for retaining wall anchors with temporary possession of between 6.3 sq.m. and 25 sq.m. proposed to facilitate the retaining and boundary wall construction.

17.3.97. I consider that the Book of Reference and plans included therein are sufficient to delineate the extent of the substratum to be acquired. The applicant has clarified

that it does not propose to create a way leave under the properties but that it would acquire part of the substratum of same.

- 17.3.98. Works associated with the provision of four tracks are proposed in the immediate vicinity including construction of a new retaining wall, which will require drilling and installation of soil anchors beneath the properties. I accept that anchoring is required to secure the proposed retaining wall to ensure its stability and longevity and to safeguard the stability and safety of the rail corridor.
- 17.3.99. Due to the imperative of keeping the Cork mainline operational which will constrain certain daytime works, the works to the north and south side of the railway line cannot be carried out concurrently. A Noise Management Plan will be part of the construction stage of the project with the applicant committed to ensuring that residents are informed of upcoming works and given advance notice of any disruptive operations. A temporary hoarding will be erected in the gardens to shield the property from construction activities. Notwithstanding, in view of the proximity of the properties and the limited depth of the rear gardens construction stage noise and vibration impacts will be unavoidable and the impact on their residential amenities during the construction phase will be significant. Such works are essential for the delivery of the project at this location and are unavoidable. The temporary rehousing scheme may be applicable in these instances.
- 17.3.100. In relation to the project duration, the overall programme of 50 months is required given the scale and complexity of the project although it is not anticipated that work will be continuous in the vicinity.
- 17.3.101. Following the completion of relevant construction works, lands temporarily acquired will be reinstated and a 2.4 metre high railway corridor boundary wall on to the new retaining wall will be constructed. The sympathetic treatment of the replacement wall, which is cognisant of that to be removed, can be subject to detailed agreement.
- 17.3.102. The proposed property protection scheme would provide certainty with respect to the matters arising in terms of vibration and structural integrity.
- 17.3.103. I refer the Board to the sections of my planning assessment and EIA above which address noise, vibration, dust and air, appointment of CLO, vermin control, , biodiversity, property valuation, impact of substratum acquisition on development potential and train station provision.

17.3.104. I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of the Dublin City Development Plan.

Woodfield Avenue

- **Kieva McDermott** (8 Woodfield Avenue)
- **Nuala Goodwin** (9 Woodfield Avenue)
- **Cliona Martyn** (10 Woodfield Avenue)
- **Gerard Greene** (12 Woodfield Avenue)
- **Aoife Lalor** (16 Woodfield Avenue)

17.3.105. Woodfield Avenue is an enclave of single and two storey terraced dwellings accessed from Sarsfield Road. The dwellings are to the south of and back onto the railway line. Substratum of between 28.1 sq.m. and 31.9 sq.m. is to be acquired for retaining wall anchors. I consider that the Book of Reference and plans included therein are sufficient to delineate the extent of the substratum to be acquired.

17.3.106. Works associated with the provision of four tracks are proposed in the immediate vicinity including construction of a new retaining wall, which will require drilling and installation of soil anchors beneath the properties. I accept that anchoring is required to secure the proposed retaining wall to ensure its stability and longevity and to safeguard the stability and safety of the rail corridor.

17.3.107. Due to the imperative of keeping the Cork mainline operational which will constrain certain daytime works, the works to the north and south side of the railway line cannot be carried out concurrently. In relation to the project duration, the overall programme of 50 months is required given the scale and complexity of the project although it is not anticipated that work will be continuous in the vicinity.

17.3.108. In view of the proximity of the landowners' houses to the rail line and the need for night time works the impact on their residential amenities during the construction phase will be significant. Such works are essential for the delivery of the project at this location and are unavoidable. A Noise Management Plan and a scheme of

temporary rehousing where certain parameters are met will be part of the construction stage of the project. Mitigation measures for the construction phase do not entail window insulation against noise. The applicant proposes to keep residents informed of upcoming works and to give advance notice of any disruptive operations.

- 17.3.109. The proposed property protection scheme would provide certainty with respect to the matters arising in terms of vibration and structural integrity. I note that ongoing noise and vibration monitoring is proposed during the construction phase.
- 17.3.110. The applicant has confirmed that the existing boundary wall would not be required to be demolished to facilitate the construction of the retaining wall. This is as delineated on drawing no. DP-04-23-DWG-RO-TTA-18898 in Book 3 of the RO Drawings. Such a boundary wall would be included in a condition survey, and I refer the Board to my recommendation regarding the property protection scheme.
- 17.3.111. The applicant will be responsible for ensuring that any drainage infrastructure in the gardens would not be impacted by the substratum works.
- 17.3.112. The increased level of service proposed at the operational phase and impacts on residential amenities must be assessed in the context of the long established use rail line onto which the affected properties back onto. It is not unreasonable to expect services to be maintained and improved along the corridor. Noise sensitive receptor R19 is in proximity to Woodfield Avenue where the predicted increase in noise levels of 62 L_{Aeq, 18hr} and 57 L_{Aeq, 8hr} is assigned a slight significance rating. A noise barrier is not proposed in the vicinity.
- 17.3.113. I refer the Board to the sections of my report addressing noise, vibration, dust and air, appointment of community liaison officer, biodiversity and property valuation.
- 17.3.114. I submit that there is a community need to be met by the acquisition of the substratum in question, that the substratum is suitable to meet that community need, that alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and that the works to be carried out would not be in material contravention of the provisions of Dublin City Development Plan.

Sunnybank, Conyngham Road

- **Phoenix Park Property Management CLG** (Sunnybank, Conyngham Road)
- **Pamela Benson** (Apt. 9)
- **Angela Palmer** (Apt. 10)

- 17.3.115. Sunnybank apartments presents as a 2 and 3 storey building onto Conyngham Road. The building is to the west of and immediately adjoining the rail line where it emerges from the Phoenix Park Tunnel. 15.5 sq.m. to be acquired so as to accommodate OHLE mast requirements with 53.1 sq.m. temporary acquisition proposed to facilitate the construction of the OHLE poles and the running of cables between poles between the Liffey Bridge and Conyngham Road. The provisions being made are necessary for the delivery of the project.
- 17.3.116. Access is to be maintained to all affected properties and, if interruption is necessary, the property owner/occupier will be notified in advance. It will be restored without unreasonable delay. Traffic management measures will be put in place during construction where temporary or minor diversions are required.
- 17.3.117. A Noise Management Plan will be part of the construction stage of the project including a temporary noise curtain/barrier to be installed at the tunnel entrance where works are required to anchor the existing tunnel structure. CIÉ/IÉ will ensure residents are informed of upcoming works and given advance notice of any disruptive operations. There will also be ongoing community liaison channels in place during construction to respond to any specific concerns that arise. Notwithstanding in view of the proximity of the properties construction stage noise impacts will be unavoidable.
- 17.3.118. The proposed property protection scheme would provide certainty with respect to the matters arising in terms of vibration and structural integrity. I note that ongoing noise and vibration monitoring is proposed during the construction phase.
- 17.3.119. In terms of noise the assessment undertaken concludes that there will be an overall positive noise impact at sensitive receptors south of the Phoenix Park Tunnel due to the replacement of the DMUs currently travelling along this section with EMUs. Due to this overall positive impact at these noise sensitive locations, no mitigation measures are required.
- 17.3.120. There will be changes to some residential views as a result of the introduction of the overhead line equipment. The prevailing view within such an urban context entails

part of the River Liffey Corridor, the existing railway line crossing at Liffey Bridge and Heuston Yard.

17.3.121. I refer the Board to the sections of my report addressing noise, vibration, dust and air, appointment of community liaison officer, biodiversity and property valuation. Compensation is not a matter for adjudication by the Board.

17.3.122. I submit that there is a community need to be met by the acquisition of the lands in question, that these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and that the works to be carried out would not be in material contravention of the provisions of the Dublin City Development Plan.

Cabra Road, Cabra Drive, Faussagh Avenue

- **Flat Management Ltd.** (The Gables, 78 Old Cabra Road)
- **Joan Giltinan** (3 Cabra Drive)
- **Deiric O Broin** (4 Cabra Drive)
- **Deirdre Cullen** (2 Faussagh Avenue)
- **Robert Cullen** (2 Faussagh Avenue)

17.3.123. Substratum is to be acquired for soil nailing ranging between 36.4 sq.m. and 106.5 sq.m. Substratum is also proposed to be acquired at 78 Old Cabra Road, but no figure is stipulated in the Book of Reference. Notwithstanding I consider that the plans included therein are sufficient to delineate the extent of the substratum to be acquired.

17.3.124. The Gables is a two-storey apartment block setback and accessed from Old Cabra Road with the railway line to the west. Nos. 3 and 4 Cabra Drive are two storey dwellings that back onto the railway line. Nos. 2 Faussagh Avenue is a two-storey dwelling to the west and side-on to the railway line. The railway line is in cut with the properties elevated above it with planted embankments.

- 17.3.125. Soil nailing will be constructed predominantly at the time of the closure of the Phoenix Park Tunnel Branch line. During this time work will be carried out on a number of work fronts simultaneously along the rail corridor to minimise disruption to local communities. Due to the extensive nature of the works, some construction works may continue beyond this closure period, requiring works to be carried out during off peak periods or under safe working arrangements. The Noise Management Plan, the mitigation measures as detailed in the EIAR and communications via the CLO will be important in advising residents of intended works.
- 17.3.126. Site-specific ground investigation and geotechnical reports were prepared which informed the proposed design. Section 9.4.1.4 of the EIAR summarises information in relation to Zone D: Liffey Bridge to Glasnevin Junction.
- 17.3.127. I accept that soil nailing is required at these locations to reinforce the embankments to ensure their stability and to safeguard the stability and safety of the rail corridor.
- 17.3.128. The proposed method of soil nailing is considered to be the most appropriate means of embankment stability and is a well established practice. Further details are included in Section 5.2.4.2.3. of the EIAR. The type of mesh system will be determined during the detailed design stage.
- 17.3.129. As the railway line adjacent to these properties is in cut with boundary walls at the top of the cut thereby blocking line of sight installation of noise barriers are not proposed. A Noise Management Plan will be part of the construction stage of the project. CIÉ/IE will ensure residents are informed of upcoming works and given advance notice of any disruptive operations. Whilst train services will increase in the operational phase the noise is not predicted to do so due to the use of ECUs.
- 17.3.130. No impact on the boundary walls is anticipated and they can be included in the condition survey. There will be an impact on existing trees and vegetation to facilitate the project and to ensure appropriate clearance from infrastructure on health and safety grounds. The extent to be removed in this area is delineated on drawing no. DP-04-23-DWG-RO-TTA-23853 (Landscape Mitigation Sheet 16 of 17, Appendix 15) notably to the rear of nos. 3 and 4 Cabra Drive. The proposed landscaping proposals in the vicinity entail a proposed hedge along sections. Whilst the vegetation removal will alter the outlook from the properties, as noted previously, the rail line is in cut at this location.

- 17.3.131. The proposed property protection scheme would provide certainty with respect to the matters arising in terms of vibration and structural integrity. I note that ongoing noise and vibration monitoring is proposed during the construction phase.
- 17.3.132. Cabra lies within Zone D – Liffey Bridge to Glasnevin Junction (Phoenix Park Tunnel Branch Line) and the salient hydrological feature is the Royal Canal. The SSFRA concluded that no flood risk to the adjacent lands and properties are anticipated.
- 17.3.133. I refer the Board to the sections of my report addressing adequacy of documentation accompanying the RO, noise, vibration, dust and air quality, health and safety, lighting during construction, appointment of community liaison officer, vermin control, property valuation, property owner protection scheme in which due regard can be had to structures in rear gardens, impact of substratum acquisition on development potential and train station provision.
- 17.3.134. I submit that there is a community need to be met by the acquisition of the substratum in question, that the substratum is suitable to meet that community need, that alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and that the works to be carried out would not be in material contravention of the provisions of Dublin City Development Plan.

- **Matts of Cabra, 2A Faussagh Avenue**

- 17.3.135. The site comprises of what was a part single, part two storey building previously used for commercial purposes with surface parking to the front. The building is now partly demolished, and the remainder boarded up. It is to the east and side on to the railway line at Faussagh Bridge. 1550.8 sq.m. substratum is to be acquired for soil nailing.
- 17.3.136. The site is zoned Z1 and Z3 in the current Dublin City Development Plan on which residential and neighbourhood centre are permissible uses. Permission had previously been secured on the site for 208 bed student accommodation (ref. no. ABP-300666-17).
- 17.3.137. As per Drawing No. DP-04-23-DWG-RO-TTA-18949 accompanying the EIAR a 1.5 metre high king post retaining wall is proposed at this location with additional soil nailing. The alternative put forward by the agent for the landowner in terms of

gabion walls is deemed to be not technically suitable in such instances where the cut is relatively deep with high embankments to be retained and would not be permitted under CIÉ/IE's technical design standards. Gabions do not address the need to stabilise the embankment. I accept that soil nailing is required at these locations to reinforce the embankments to ensure their stability and to safeguard the stability and safety of the rail corridor.

- 17.3.138. As noted previously substratum acquisition, of itself, does not preclude development on the site subject to consultation.
- 17.3.139. I consider that the proposed development, the objective of which is to provide high quality sustainable transport and the future DART station to be developed on lands in the immediate vicinity for which passive provision has been made would not hinder the development of these lands. The matter of reduction in development potential and compensation is not a matter for assessment by the Board.
- 17.3.140. I submit that there is a community need to be met by the acquisition of the substratum in question, that the substratum is suitable to meet that community need, that alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and that the works to be carried out would not be in material contravention of the provisions of Dublin City Development Plan.

Bannow Road & St. Attracta Road

- **Anne, William & Caroline Cumiskey** (44 Bannow Road)
- **Jackie & David Donohoe** (48 Bannow Road)
- **Amanda Vaughan** (56 Bannow Road)
- **Michelle Moulder (nee Burke)** (64 Bannow Road)
- **Frances Moss** (66 Bannow Road)
- **Nicola Kelly** (245 St. Attracta Road)
- **William Hyland** (255 St. Attracta Road)
- **June Fitzgerald** (257 St. Attracta Road)
- **Aine Kelly & James McCarthy** (267 St. Attracta Road)

- **Jacqueline Kelly** (275 St. Attracta Road)

- 17.3.141. Bannow Road is to the west of the railway line with the two storey dwellings backing onto the line. St. Attracta Road is to the east of the line, again with the two storey dwellings backing onto the site. The dwellings are served by rear gardens. Due to the line being in cut the properties are elevated over the rail track. Substratum ranging from 18.4 sq.m. to 79.1 sq.m. is to be acquired for soil nailing. I consider that the Book of Reference and plans included therein are sufficient to delineate the extent of the substratum to be acquired.
- 17.3.142. I accept that soil nailing is required at these locations to reinforce the embankments to ensure their stability and to safeguard the stability and safety of the rail corridor. The type of mesh system will be determined during the detailed design stage. Soil nailing will be constructed predominantly at the time of the closure of the Phoenix Park Tunnel Branch line. During this time work will be carried out on a number of work fronts simultaneously along the rail corridor to minimise disruption to local communities. Due to the extensive nature of the works, some construction works may continue beyond this closure period, requiring works to be carried out during off peak periods or under safe working arrangements. The Noise Management Plan, the mitigation measures as detailed in the EIAR and communications via the CLO will be important in advising residents of intended works.
- 17.3.143. Site-specific ground investigation and geotechnical reports were prepared which informed the proposed design. Section 9.4.1.4 of the EIAR summarises information in relation to Zone D: Liffey Bridge to Glasnevin Junction.
- 17.3.144. As the railway line adjacent to these properties is in cut with boundary walls at the top of the cut thereby blocking line of sight, installation of noise barriers is not proposed. A Noise Management Plan will form part of the construction stage of the project. CIÉ/IE will ensure residents living near the rail line are informed of upcoming works and given advance notice of any disruptive works. In terms of the operational phase whilst train services will increase in the operational phase the noise is not predicted to increase due to the use of ECUs.
- 17.3.145. The proposed property protection scheme would provide certainty with respect to the matters arising in terms of vibration and structural integrity. I note that ongoing noise and vibration monitoring is proposed during the construction phase.

- 17.3.146. Cabra lies within Zone D – Liffey Bridge to Glasnevin Junction (Phoenix Park Tunnel Branch Line) and the salient hydrological feature is the Royal Canal. The SSFRA concluded that no flood risk to the adjacent lands and properties are anticipated
- 17.3.147. There will be an impact on existing vegetation on the embankment to facilitate the project and to ensure appropriate clearance from infrastructure on health and safety grounds. The extent to be removed in this area is delineated on drawing no. DP-04-23-DWG-RO-TTA-23854 (Landscape Mitigation Sheet 17 of 17, Appendix 15) notably at intervals to the rear of nos. 44-60 Bannow Road. The landscaping proposals entail a proposed hedge along the rear of the properties on Bannow Road. Limited vegetation removal is proposed on the embankment to St. Attracta Road. Whilst the vegetation removal will alter the outlook from the properties, the rail line is in cut at this location and the proposed OHLE will not impact on views.
- 17.3.148. I refer the Board to the sections of my report addressing adequacy of documentation accompanying the RO, noise, vibration, dust and air quality, lighting during construction, health and safety, appointment of community liaison officer, vermin control, property valuation, property owner protection scheme in which due regard would be had to structures in rear gardens, impact of substratum acquisition on development potential and train station provision.
- 17.3.149. I submit that there is a community need to be met by the acquisition of the substratum in question, that the substratum is suitable to meet that community need, that alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and that the works to be carried out would not be in material contravention of the provisions of Dublin City Development Plan.

Glasnevin

- **Dublin Cemeteries Trust**

- 17.3.150. The lands to which the temporary acquisition refers serves St. Paul's Cemetery which is accessed via Claremont Lawns to the south of the R135. A car park is to the north of the rail line with a gated bridge over the track which can facilitate one way vehicular movements to the graveyard. 1180.4 sq.m. temporary possession of land is proposed to provide for a construction compound and works access with the

existing bridge to be removed and replaced. The existing bridge is a single span reinforced concrete slab bridge with insufficient height which is insufficient to provide for the necessary clearance for the OHLE. In addition, the parapets consisting of fencing do not meet the necessary safety requirements. I refer the Board to section 14.7 of my assessment above. I consider that the applicant has provided sufficient justification for the bridge removal and its replacement.

- 17.3.151. Substratum is also being acquired and I accept that soil nailing is required at this location to reinforce the embankments to ensure their stability and to safeguard the stability and safety of the rail corridor.
- 17.3.152. The substantive issues pertain to the temporary arrangements to be put in place. The works at Glasnevin Cemetery Road Bridge will take place over a period of approx. 4 months during which the bridge will be required to be closed to vehicular access for a 3-week period (approx.). This four month period includes preparatory measures, establishing the construction compound, installing the temporary pedestrian bridge, demolition and replacement of the vehicular bridge, removal/decommissioning of temporary works and the construction compound.
- 17.3.153. Dublin Cemeteries Trust is not satisfied with the proposed solution of a temporary pedestrian and wheelchair accessible bridge at a location 3-6 metres to the southeast and considers that the solution should allow for some form of motorised means of transport for coffins. I consider this to be a reasonable request to allow for the continuation of funeral services at the grounds and should be resolved between the parties including any protocols to be put in place to ensure that noise disruption is kept to a minimum during funeral services.
- 17.3.154. The need for providing a construction compound in proximity to the bridge to facilitate the works is accepted and I consider that its location in the cemetery car park to be the optimum location. The suggested alternative location in the open space area serving Claremont Lawns is not preferable and would impact on the wider population within the estate. The loss of parking spaces in the period required is regrettable but, subject to appropriate facilities, being made available for funeral cortege vehicles this loss on a temporary basis is acceptable. The lands and parking area will revert to the owner on completion of the works. The matter of overspill parking to neighbouring residential areas is noted and would appear to be already an issue. This is a matter for the relevant authorities to address.

- 17.3.155. I consider the intervention required at this location has been adequately justified and whilst the period of construction works will add to disturbance, I consider that appropriate measures can be put in place to ensure that access to the burial sites from the car park is appropriate, practical and dignified.
- 17.3.156. I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of the Dublin City Development Plan.
- **Helen Fayne** (2 Claremont Lawns, Glasnevin)
 - **Kieran Ebbs** (4 Claremont Lawns, Glasnevin)
 - **Caroline McGrotty** (5 Claremont Lawns, Glasnevin)
- 17.3.157. Between 27.7sq.m. and 40.9 sq.m. substratum is to be acquired for soil nailing. I consider that the Book of Reference and plans included therein are sufficient to delineate the extent of the substratum to be acquired.
- 17.3.158. The applicant has advised that Ordnance Survey (OS) mapping was used for the production of drawings and maps. I accept that such mapping is time specific and that physical features on the ground may change over time, and for this reason, the OS mapping may not reflect building changes or extensions. A condition survey is proposed by the applicant, and I refer the Board to my recommendation regarding a property protection scheme. Any structures in the rear garden as in the case of Ms. Fayne and extensions as in the case of Mr. Ebb's property would be included in such a scheme.
- 17.3.159. The need and justification of the location of the construction compound in the carpark serving St. Paul's cemetery has been provided and is considered reasonable.
- 17.3.160. I accept that soil nailing is required at these locations to reinforce the embankments to ensure their stability and to safeguard the stability and safety of the rail corridor. Soil nailing will be undertaken predominantly at the time of the closure of the Phoenix Park Tunnel Branch line. During this time work will be carried out on a

number of work fronts simultaneously along the rail corridor to minimise disruption to local communities. Due to the extensive nature of the works, some construction works may continue beyond this closure period, requiring works to be carried out during off peak periods or under safe working arrangements. The Noise Management Plan, the mitigation measures as detailed in the EIAR and communications via the CLO will be important in advising residents of intended works.

- 17.3.161. The predicted noise levels in the EIAR applies to external locations with noise levels inside dwellings expected to be significantly lower. The rail line is in cut at this location with boundary walls at the top of the cutting. Whilst train services will increase in the operational phase the noise is not predicted to increase due to the use of ECUs. R1 in Table 14.70 of the EIAR is representative of Claremont Lawns which predicts a slight positive impact from the project.
- 17.3.162. The potential for the project to be constructed at the same time as the Finglas/Ballymun Bus Corridor with a compound for same identified at the entrance to Claremont Lawns is considered by the applicant in its assessment of cumulative impacts.
- 17.3.163. Cabra lies within Zone D – Liffey Bridge to Glasnevin Junction (Phoenix Park Tunnel Branch Line) and the salient hydrological feature for the study area between Heuston Station and Glasnevin Junction is the Royal Canal. The SSFRA concluded that no increase in flood level or any increased flooding risk to the adjacent lands and properties are anticipated.
- 17.3.164. I refer the Board to the sections of my report addressing adequacy of documentation accompanying the RO, noise, vibration, appointment of a CLO, vermin control and property valuation.
- 17.3.165. I submit that there is a community need to be met by the acquisition of the substratum in question, that the substratum is suitable to meet that community need, that alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and that the works to be carried out would not be in material contravention of the provisions of the Dublin City Development Plan.

Compulsory acquisition - Conclusion

- 17.3.166. I am satisfied that the process and procedures undertaken by CIÉ have been fair and reasonable, that it has demonstrated the need for the lands, with the exception plot ref. nos. 18832.P.1(BI), 18832.P.1(BJ), 18832.P.1(BV), 18832.P.1(CC) and 18832.P.302(A) associated with the Khyber Pass footbridge replacement as set out above, and that all the other lands and substratum being acquired are both necessary and suitable to facilitate the provision of DART + South West.
- 17.3.167. Having regard to the constitutional and convention protection afforded to property rights, I consider that the permanent and temporary acquisition of lands and substratum, restriction/interference with public rights of way, acquisition of private rights, restriction/interference with private rights, and temporary restriction/interference with private rights, as set out in the draft Railway Order Book of Reference pursues, and is rationally connected to, a legitimate objective in the public interest, namely the development of DART+ South West.
- 17.3.168. I am also satisfied that the acquiring authority has demonstrated that the means chosen to achieve that objective impair the property rights of affected landowners as little as possible; in this respect, I have considered alternative means of achieving the objective referred to in submissions to the Board, and am satisfied that the acquiring authority has established that none of the alternatives are such as to render the means chosen and the compulsory acquisition made by the acquiring authority unreasonable or disproportionate.
- 17.3.169. The effects of the compulsory acquisition on the rights of affected landowners are proportionate to the objective being pursued. I am further satisfied that the proposed permanent and temporary acquisition of lands and substratum, restriction/interference with public rights of way, acquisition of private rights, restriction/interference with private rights, and temporary restriction/interference with private rights would be consistent with the policies and objectives of the Dublin City Development Plan, South Dublin County Development Plan and Kildare County Development Plan all of which support the provision and roll out of the DART + South-West scheme. Accordingly, I am satisfied that that the confirmation of the draft Railway Order is clearly justified by the exigencies of the common good.

18.0 Recommendation

Having regard to the foregoing I recommend that the Railway Order be granted for the reasons and considerations set out below subject to the conditions.

19.0 Reasons and Considerations

In coming to its decision, the Board had regard to:

- (a) the nature, scale and extent of the proposed development,
- (b) the characteristics of the route corridor and of the general vicinity,
- (c) national, regional and local policy support for the proposed development, including:
 - National Planning Framework, 2018,
 - National Development Plan 2021 – 2030,
 - National Investment Framework for Transport in Ireland,
 - National Sustainable Mobility Policy,
 - National Investment Framework for Transport in Ireland,
 - Climate Action Plan, 2023,
 - Regional Spatial and Economic Strategy for the Eastern and Midlands Region 2019-2031,
 - GDA Transport Strategy 2022-2042
 - Dublin City Development Plan 2022 – 2028,
 - South Dublin County Development Plan 2022 -2028
 - Kildare County Development Plan 2023-2029,
- (d) The Draft Railway Order and supporting documents and drawings submitted with the application, including the Environmental Impact Assessment Report and the Natura Impact Statement,
- (e) the submissions on file, including those from prescribed bodies, the relevant local authorities, the observers and persons affected by the proposed land acquisition,

- (f) the report of the Inspector.

Environmental Impact Assessment

The Board completed an Environmental Impact Assessment of the proposed development taking into account:

- (i) the nature, scale and extent of the proposed development,
- (ii) the Environmental Impact Assessment Report and associated documentation submitted in support of the application,
- (iii) the submissions made in the course of the application; and
- (iv) 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 application.

The Board considered, and agreed with the inspector's reasoned conclusions, that the main significant direct and indirect effects of the proposed development on the environment are as follows:

Population and Human Health:

- The electrification of the railway line and the increased services for this public transport service would have a long term, positive impact on population and human health in that it would aid in improving sustainable connectivity, support compact growth, reduce transport congestion and emissions, and reduce reliance on private vehicle trips, with consequent reductions in vehicle emissions, thus assisting in the delivery of climate change goals. The project follows and expands the potential capacity of an existing operational railway, is aligned with national, regional and local policy

objectives and is regarded as acceptable in principle in terms of planning and transportation policy.

- The proposed Heuston West Station would constitute significant additional railway infrastructure which would greatly enhance rail services for the city and would make a significant positive contribution to the delivery of enhanced public transport services for the GDA.
- There would be potential significant, negative short-term impacts on population from the construction phase of the proposed project in terms of noise, vibration, dust, access restrictions and traffic including night-time works. These will be mitigated through compliance with a Construction Environmental Management Plan, a Construction Traffic Management Plan, and best practice construction methods. Temporary rehousing will be offered to eligible owners/occupiers where the construction causes, or is expected to cause, a measured or predicted airborne construction noise level that exceeds specified parameters.
- In terms of the operational phase noise levels can be reduced to the equivalent 'Do Minimum' rail traffic noise levels at the majority of locations with the recommended mitigation measures in place, notably noise barriers. However, a limited number of properties will experience a residual negative noise impact as a result of the proposed project. An insulation scheme will be offered to the units where a significant negative impact will arise. In the context of the realisation of this infrastructural project, which will advance the increase in public transport options, the impacts are considered acceptable.

19.1.1. ***Air and Climate***

- Temporary negative impacts from dust during the construction phase will be mitigated through compliance with a Construction Environmental Management Plan and a Dust Minimisation Plan.

Material Assets

- Road closures and diversions will be required during the construction period to facilitate the proposed bridge works including replacement works. The potential predicted impacts cannot be fully mitigated by way of a Construction Traffic Management Plan and there will be short term, negative

impacts on the carrying capacity of roads and junctions in the wider vicinity which will result in increased traffic and traffic congestion.

- Permanent and temporary negative impacts will arise from land take from various individual residential and commercial properties required to facilitate the proposed scheme.

Cultural Heritage

- The demolition of the signal box and removal of the boundary wall at the Inchicore Works which are protected structures are required so as to facilitate the proposed project and cannot be mitigated. They are to be recorded by means of photographs and written description prior to removal. The potential for relocation of the signal box is to be examined. The new end of the wall is to be repaired in accordance with a method statement to be prepared by a qualified conservation specialist.
- The demolition of Le Fanu Bridge which is not a protected structure and not on the National Inventory of Architectural Heritage shall be recorded by means of photographs, written description, and measured drawings to English Heritage Level 3.

Landscape

- Due to the nature of the works proposed, the relatively narrow rail corridor, and the proximity of established residential areas material changes to existing views from residential properties will arise. The nature of the works and the need to maintain clearance for engineering and safety requirements necessitates the removal of existing trees and mature vegetation which, in many locations, cannot be replaced. Additional works such as noise barriers will also be in short range views. Of particular note are the visual impacts to properties at Hazelhatch, between Cherry Orchard to Khyber Pass Footbridge and Inchicore to Kilmainham. These impacts cannot be mitigated.

The Board completed an environmental impact assessment in relation to the proposed development and concluded that, subject to the implementation of the mitigation measures set out in the Environmental Impact Assessment Report, and subject to compliance with the conditions set out below, the effects on the

environment of the proposed development, by itself and in combination with other development in the vicinity, would be acceptable. In doing so, the Board adopted the report and conclusions of the inspector.

Appropriate Assessment - Stage 1

The Board considered the Natura Impact Statement and all the other relevant submissions and carried out both an appropriate assessment screening exercise and an appropriate assessment in relation to the potential effects of the proposed development on designated European Sites. The Board agreed with and adopted the screening assessment and conclusion carried out in the inspector's report that the European sites in respect of which the proposed development has the potential to have a significant effect are Baldoye Bay SAC (000199); South Dublin Bay SAC (000210); North Dublin Bay SAC [000206]; Rockabill to Dalkey Island SAC (003000); Howth Head SAC (000202); South Dublin Bay and River Tolka Estuary SPA (004024); North Bull Island SPA (004006); Baldoye Bay SPA (004016); Ireland's Eye SPA (004117); Howth Head Coast SPA (004113), Dalkey Islands SPA (004172), and North West Irish Sea SPA (004236)

Appropriate Assessment – Stage 2

The Board considered the Natura Impact Statement and associated documentation submitted with the application, the mitigation measures contained therein, the submissions on file, and the inspector's assessment. The Board completed an appropriate assessment of the implications of the proposed development for the four European Sites, namely, Baldoye Bay SAC (000199); South Dublin Bay SAC (000210); North Dublin Bay SAC [000206]; Rockabill to Dalkey Island SAC (003000); Howth Head SAC (000202); South Dublin Bay and River Tolka Estuary SPA (004024); North Bull Island SPA (004006); Baldoye Bay SPA (004016); Ireland's Eye SPA (004117); Howth Head Coast SPA (004113), Dalkey Islands SPA (004172), and North West Irish Sea SPA (004236) 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 appropriate assessment, the Board considered, in particular, the following:

- (i) the likely direct and indirect impacts arising from the proposed development both individually or in combination with other plans or projects,

- (ii) the mitigation measures which are included as part of the current proposal, and
- (iii) the conservation objectives for the European Sites.

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 aforementioned European Sites, having regard to the sites' Conservation Objectives.

In overall conclusion, the Board was satisfied that the proposed development, by itself or in combination with other plans or projects, would not adversely affect the integrity of the European Sites, in view of the sites' Conservation Objectives.

Proper Planning and Sustainable Development

It is considered that, subject to compliance with the conditions set out below, the proposed development would accord with national, regional and local planning and related transport policy, would not have an unacceptable impact on the landscape or biodiversity of the area, would not seriously injure the visual or residential amenities of the area or of property in the vicinity, and would result in improvements to railway services, safety, reliability and efficiency. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

20.0 Conditions

1. The 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.

Reason: In the interest of clarity.

2. The following modifications are made to the Railway Order:

- (i) The Ninth, Tenth and Eleventh Schedules shall be omitted. An amended Ninth Schedule, entitled 'Conditions, Modifications, Restrictions and Requirements' shall be added to the Railway Order and shall consist of the Board's reasoned conclusion and the conditions hereby attached to the grant of the Railway Order.

Reason: In the interests of clarity and the proper planning and sustainable of the area.

3. The removal of the Khyber Pass Footbridge is approved by this Railway Order. The replacement of the footbridge shall be omitted and shall not be developed in accordance with the submitted Railway Order application drawings and details.

Reason: In the interests of protecting the amenities of adjoining property.

4. All of the environmental, construction and ecological mitigation and monitoring measures set out in the Environmental Impact Assessment Report, the Natura Impact Statement and other particulars submitted with the application shall be implemented by the developer in conjunction with the timelines set out therein, except as may otherwise be required in order to comply with the conditions of this Order.

Reason: In the interest of clarity and the protection of the environment during the construction and operational phases of the development.

5. Prior to the commencement of development a finalised Construction Environmental Management Plan shall be prepared in consultation with the three planning authorities, Transport Infrastructure Ireland, National Parks and Wildlife Service, Inland Fisheries Ireland, and Waterways Ireland. The plan shall incorporate all mitigation measures as set out in the Environmental Impact Assessment Report, the Natura Impact Statement and the conditions set out herein and shall include details of compliance and details and schedules of monitoring supervision and reporting to the planning authorities.

Reason: To protect amenities, public health and safety.

6. (a) The finalised Construction and Environmental Management Plan shall include the location of all archaeological and cultural heritage constraints relevant to the proposed development as set out in chapter 20 of the Environmental Impact Assessment Report and any subsequent archaeological investigations associated with the project. The Construction and Environmental Management Plan shall clearly describe all identified likely archaeological impacts, both direct and indirect and all mitigation measures to be employed to protect the archaeological and cultural heritage environment during all phases of site preparation and construction activity.

(b) The 3 no. planning authorities and the Department of Housing, Local Government and Heritage shall be furnished with a final archaeological report describing the results of all archaeological monitoring and any archaeological investigative work/excavation required, following the completion of all archaeological work on site and any necessary post-excavation specialist analysis.

Reason: To ensure the continues preservations (either in situ or by record) of places, caves, sites, features or other objects of archaeological interest.

7. The applicant shall provide a property protection scheme throughout the construction period of the proposed development and shall be responsible for its management and operation. The scheme shall assess impacts on properties from vibration due to construction works, including deep excavation, soil compaction, pile driving, soil anchoring/nailing, temporary works and enabling works. Details of the

scheme shall be submitted to Dublin City Council for written agreement prior to the commencement of development. In default of any agreement, the matter shall be referred to An Bord Pleanála for determination.

The scheme shall include provisions for:

- i. The criteria defining the inclusion of properties falling within the scheme's remit,
- ii. The access and registration system for the scheme,
- iii. The categorisation of damage to structures and thresholds for taking actions,
- iv. The nature and extent of pre-, intermediate and post-construction surveys/inspections to be undertaken, and
- v. The mechanism through which compensation shall be provided.

In the event that structural damage is noted to any structure falling within the scheme while construction works are in progress and the damage corresponds with a defined category of damage determined to require modification to works, the contractor shall cease works at that location immediately and construction methods and/or equipment shall be modified to avoid further damage.

Reason: In the interest of orderly development and to minimise structural damage to vulnerable properties.

8. The Heuston West DART station design shall be amended to provide for lift(s). Revised plans and drawings incorporating such provision shall be submitted to Dublin City Council for written agreement prior to commencement of development.

Reason: In the interests of securing universal access.

9. Prior to commencement of development, plans, specifications and details of the following shall be submitted to Dublin City Council for written agreement:

- (a) proposed pedestrian and cyclist connections and associated works from Heuston West DART station to the main Heuston Station concourse,

(b) proposed pedestrian and cyclist connections and associated works from Heuston West DART station to South Circular Road via Clancy Quay.

Reason: To ensure appropriate pedestrian and cyclist connectivity.

10. The works required as part of the development to and in the vicinity of the M50 shall be undertaken in accordance with the requirements of Transport Infrastructure Ireland. Prior to commencement of development the necessary plans and details of works on, or in the vicinity of the national road network shall be submitted to the planning authority for written agreement.

Reason: To protect the carrying capacity of the national road network.

11. The works required as part of the development in the vicinity of LUAS shall be undertaken in accordance with the requirements of Transport Infrastructure Ireland. Prior to commencement of development the necessary plans and details of works in the vicinity of LUAS shall be submitted to the planning authority for written agreement.

Reason: To protect public transport infrastructure

12. Wildflower seed mixes shall not be used in landscaping. Any areas of embankment where vegetation is removed shall be allowed to re-vegetate spontaneously. Prior to the commencement of development amended landscaping plans with the necessary alterations shown thereon shall be submitted for written agreement with the relevant planning authorities.

Reason: In the interest of protecting the flora diversity within the site.

13. Prior to the commencement of development, the following shall be agreed in writing with the relevant planning authorities:

(a) A Handover Procedure Agreement for all works to be undertaken on public lands;

- (b) Details of roads design and construction methodologies for works on public roads, inclusive of reinstatement works; and
- (c) Provision of public lighting around works areas at the construction stage and the provision of replacement lighting for defunct public lighting at the operation stage.

Reason: In the interest of orderly development.

14. Prior to the commencement of development, the following details shall be submitted to Dublin City Council for written agreement:

- (i) Details of the extent of masonry boundary wall to be removed within Inchicore Works.
- (ii) Details of proposed interventions and/or repair of the abutments and associated retaining walls at Sarsfield Road Bridge.
- (iii) Proposals, if necessary, for the underpinning of historic walls arising from the lowering of the railway track at Conyngham Road (BH-81), the Phoenix park Tunnel (BH-82), the Royal Canal and LUAS Twin Arch Bridge (Bh-12) and the Maynooth Line Twin Arch (BH-115).
- (iv) Proposed finishes to replacement bridges at Le Fanu Road and Sarsfield Road and,
- (v) The design of all interventions including railings and IP2X panels to bridge parapets.

Reason: In the interests of protecting and recording the architectural heritage.

15. (a) Drainage arrangements, including the attenuation and disposal of surface water, shall comply with the requirements of the planning authorities for such works in respect of both the construction and operation phases of the proposed development.

(b) Oil interceptors or other filtration devices shall be installed on the inflows to the attenuation tanks which are to be constructed at Inchicore Works and Heuston Station and to the Phoenix Park Tunnel drainage system.

Reason: In the interest of environmental protection and public health.

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.

Pauline Fitzpatrick

Senior Planning Inspector

May, 2024

Appendix 1 – Submissions Received

Adam Harrington	Cieran Perry
Aine Kelly	Claire Flahavan
Airscape Limited	Cliona Martyn
Aisling Redmond Healy	Craig Delany & Others
Alan & Shane O'Callaghan	Dan O' Neill
Alicia Doyle	Dan Ryan Truck Rental Ltd.
Amanda Vaughan	Daniel Sheehan
Angela Palmer	Development Applications Unit
Ann Nolan & Others	Deborah Sullivan
Anne McElroy & Anthony Costello	Deirdre Cullen
Anne, William & Caroline Cumiskey	Deirdre Joyce
Aoife Lalor	Deiric O'Broin
Barbara Carberry	Dermot Foley & Sinead Lanagan
Barry Kelly	Dublin Cemeteries Trust
Breda & Patrick Curran	Dublin Chamber
Breda Lakes	Dublin City Council
Breege, Lorraine & Shirley Lyons	Dublin Commuter Coalition
Caroline McGrotty	Eliza Palumbo
Catherine Clarke & Gerard Manly	Elvire Callaghan
Catherine Malone	Emma King
Ciaran & Liona O' Toole	Eoghan McIlwaine

Fiona Taylor	Laura Molson
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Frances Moss	Land Development Agency
Gayle O'Brien	Leonard Hayes & Julien Joly
Geological Survey of Ireland	Lillian Roe
Geraldine Doyle & Martin Morrissey	Lisa Fitzgerald & Jason Barron
Gerard Greene	Lisa Reid (Magee)
Hazel de Notuin & Brid Smith	M7 Real Estate Ireland (Onyx Ire 2021 Propco IV Ltd.)
Helen Fayne	
Helen Shine	Maeve O'Sullivan
Ian Hill	Mairead Cullen
Jackie & David Donohoe	Mairead Kirby
Jacqueline Kelly	Margaret & Kiran Bul
James Temple & Others	Margaret Berrigan
Janine Cooper	Maria Gavin
Joan Giltinan	Maria Manifold Doyle
Joe Finn	Marie Brogan
John & Veronica Bolger	Marlet Property Group Ltd.
John Blackman	Mary Kinane
June Fitzgerald	Meghan Roe
Karen Balfe	Michael Mara
Karen Lynch	Michelle Moulder (nee Burke)
Kate Joyce	Nicola Kelly
Kieran Ebbs	Nicole Concannon & Jason Byrne
Kieva McDermott	Noel & Ann Fitzgerald
Kildare County Council	Nuala Goodwin
Orla Cassin	Tracy Humphreys
Pamela Benson	Transport Infrastructure Ireland

Pamela Lee	Trevor Woods
Patricia & Derek McFarlane	Vardis Group
Patrick & Una Manning	Vasile, Audrey & Thomasina Farrington
Patrick Walsh	William Hyland
Paul O'Brien c/o Joseph Mortell	
Peter Byrne	
Philip & Lilian Dalton	
Phoenix Park Property Management CLG	
Proinsias Mac Fhlannchadha	
R & D Developments	
Residents of Glenbeigh Road	
Residents of Kilmainham Square Apts	
Robert Cullen	
Rosemarie Lynch	
Sean Smallhorne	
Seven Oaks Management Company Ltd.	
Sharon Matthews	
South Dublin County Council	
Teresa Galvin	
The Gables Flat Management Ltd.	
Thomas Moroney	

Appendix 2 – Summary Tables - Appropriate Assessment

Table 1 - South Dublin Bay SAC (Site code: 000210)			
Key Issues: <ul style="list-style-type: none"> Habitat degradation as a result of hydrological impacts and/or introduction/spread of invasive species. 			
Conservation Objectives: NPWS - Site Code 000210 S.I. No. 525/2019 - South Dublin Bay SAC			
Summary of Appropriate Assessment			
To maintain (M) or Restore (R) the favourable conservation condition of the following:	Targets and attributes (summary-as relevant)	Potential adverse effects	Mitigation measures (including monitoring)
Mudflats and sandflats not covered by seawater at low tide [1140] (M)	Stable or increasing habitat area; maintenance of extent/ conservation of high quality of Zostera-dominated community and conserve its high quality; and conserve the community type in a natural condition of fine sands with Angulus tenuis community complex	Habitat degradation / effects on QIs as a result of hydrological impacts through release of contaminated surface water run-off and/or accidental spillage or pollution event into any surface water features during construction and operation.	Measures to protect surface water quality during construction & operation as detailed in sections 16.6.5 & 16.6.6 above, including measures to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, etc.).
Salicornia and other annuals colonising mud and sand [1310](R)	Restore the favourable conservation condition in relation in habitat – extent/distribution, physical and vegetation structure as well vegetation zonation and composition.	Habitat degradation as a result of introducing / spreading non-native invasive species during construction phase. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat, in particular coastal habitat not permanently or regularly inundated by seawater.	Oil interceptors to be provided for in the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system. The CEMP in Appendix C attached to the NIS sets out the mechanisms by which environmental protection is to be achieved during the construction phase of the proposed development including preparation of An Environmental Incident and Emergency Response Plan.

			Measures to prevent the spread of non-native invasive species to be incorporated into an Invasive Alien Species and Avoidance Management Plan including preconstruction survey and treatment plan.
Annual vegetation of drift lines [1210](R)	Restore the favourable conservation condition in relation in habitat – extent/distribution, physical and vegetation structure as well vegetation zonation and composition.	Habitat degradation as a result of introducing / spreading non-native invasive species during construction phase. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat, in particular coastal habitat not permanently or regularly inundated by seawater.	Measures to prevent the spread of non-native invasive species to be incorporated into an Invasive Alien Species and Avoidance Management Plan including preconstruction survey and treatment plan.
Embryonic shifting dunes [2110](R)	Restore favourable conservation condition in relation in habitat area, distribution, physical and vegetation structure Restore the favourable conservations condition in relation in habitat – extent/distribution, physical and vegetation structure as well vegetation zonation and composition		

Overall Conclusion – Integrity Test

The applicant in the NIS determined that the potential for adverse effects associated with the above downstream habitats are as a result of Impacts on water quality arising from contaminants and sediment. It concludes that (a) due to the fact that the project is along an existing railway line with track drainage in place and (b) the nature of the works which are largely localised and short term, the proposed development would not produce pollutants or sediment of significant magnitudes when considering dispersion and dilution within the Liffey Estuary over time and distance.

I have regard to the nature and extent of the works proposed including the construction of a new DART station within Heuston Yard in proximity to the River Liffey and the increase in the rail corridor to facilitate four tracking between Park West & Cherry Orchard Station and Heuston Station. There is the potential for a pollution event during construction to have downstream impacts arising through release of contaminated surface water runoff and/or accidental spillage.

I also note that Japanese Knotweed was recorded in the vicinity of platform 10 at Heuston Station where the new DART station is proposed. Japanese Knotweed was also recorded in proximity to Tributary of the Castletown in the vicinity of Hazelhatch & Celbridge Station on the site boundary of the proposed project.

Adverse effects of water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the relevant watercourses which drain into Dublin Bay. There will be no net increase in existing runoff rates with attenuation tanks to be provided to serve the increased rail corridor arising from the provision of four tracks between Park West & Cherry Orchard Station and Heuston Station. There will be appropriate treatment prior to discharge including oil interceptors at the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system.

The spread of invasive species can be controlled via mitigation measures, including pre-construction survey and implementation of a treatment plan to be incorporated into an Invasive Alien Species and Avoidance Management Plan.

Based on the information provided and my review, I am satisfied that adverse effects can be excluded for South Dublin Bay SAC and that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of the South Dublin Bay SAC and adverse effects on site integrity can be excluded.

Table 2 - North Dublin Bay SAC (Site code: 000206)

Key Issues:

- Habitat degradation as a result of hydrological impacts and/or introduction/spread of invasive species.

Conservation Objectives: [NPWS - Site Code 000206](#)

Summary of Appropriate Assessment

To maintain (M) or Restore (R) the favourable conservation condition of the following:	Targets and attributes (summary-as relevant)	Potential adverse effects	Mitigation measures (including monitoring)
Mudflats and sandflats not covered by seawater at low tide [1140] (M)	Stable or increasing habitat area; maintenance of extent/ conservation of high quality of <i>Mytilus edulis</i> dominated community and conserve its high quality; and conserve the community type in a natural condition of fine sand to sandy mud with <i>Pygospio elegans</i> , <i>Crangon crangon</i> and <i>Spio martinensis</i> community complex.	Habitat degradation / effects on QIs as a result of hydrological impacts through release of contaminated surface water run-off and/or accidental spillage or pollution event into any surface water features during construction and operation.	Measures to protect surface water quality during construction & operation as detailed in sections 16.6.5 & 16.6.6 above. including measures to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, etc.).
Atlantic Salt Meadows (<i>Glaucopuccinellietalia maritimae</i>) [1330] (M)	Maintain the favourable conservation condition in relation to extent/structure, vegetation structure – zonation/height/cover/composition and no significant expansion of cordgrass	Habitat degradation as a result of introducing / spreading non-native invasive species during construction phase. These species may outcompete other native species present, negatively impacting the species composition, diversity	Oil interceptors to be provided for in the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system. The CEMP in Appendix C attached to the NIS sets
Mediterranean salt meadows (<i>Juncetalia</i>)			

maritime) [1410](M)		and abundance and the physical structural integrity of the habitat, in particular coastal habitat not permanently or regularly inundated by seawater.	out the mechanisms by which environmental protection is to be achieved during the construction phase of the proposed development including preparation of An Environmental Incident and Emergency Response Plan.
Salicornia and other annuals colonising mud and sand [1310](R)	Restore the favourable conservations condition in relation in habitat – extent/distribution, physical and vegetation structure as well vegetation zonation and composition.		Measures to prevent the spread of non-native invasive species to be incorporated into an Invasive Alien Species and Avoidance Management Plan including preconstruction survey and treatment plan.
Petalwort Petalophyllum ralfsii [1395] (M)	No decline in population distribution, spread and size; no decline in suitable habitat; maintain hydrological conditions; and maintain low vegetation structure with high percentage of bryophytes and bare ground.	Habitat degradation as a result of introducing / spreading non-native invasive species during construction phase. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat, in particular coastal habitat not permanently or regularly inundated by seawater.	Measures to prevent the spread of non-native invasive species to be incorporated into Invasive Alien Species and Avoidance Management Plan including preconstruction survey and treatment plan.
Annual vegetation of drift lines [1210](R)	Restore the favourable conservations condition in relation in habitat – extent/distribution, physical Yand vegetation structure as well vegetation zonation and composition.		
Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] (M)	Restore favourable conservation condition in relation in habitat area, distribution, physical and vegetation structure Restore the favourable conservations condition in relation in habitat – extent/distribution, physical and vegetation structure as well vegetation zonation and composition		
Embryonic shifting dunes [2110](R)			
Shifting dunes along the shoreline with Ammophila arenaria (white			

dunes) [2120](R)			
Humid dune slacks [2190](R)			

Overall Conclusion – Integrity Test

The applicant in the NIS determined that the potential for adverse effects associated with the above downstream habitats are as a result of impacts on water quality arising from contaminants and sediment. It concludes that (a) due to the fact that the project is along an existing railway line with track drainage in place and (b) the nature of the works which are largely localised and short term, the proposed development would not produce pollutants or sediment of significant magnitudes when considering dispersion and dilution within the Liffey Estuary over time and distance.

I have regard to the nature and extent of the works proposed including the construction of a new DART station within Heuston Yard in proximity to the River Liffey and the increase in the rail corridor to facilitate four tracking between Park West & Cherry Orchard Station and Heuston Station. There is the potential for a pollution event during construction to have downstream impacts arising through release of contaminated surface water runoff and/or accidental spillage.

I also note that Japanese Knotweed was recorded in the vicinity of platform 10 at Heuston Station where the new DART station is proposed. Japanese Knotweed was also recorded in proximity to Tributary of the Castletown in the vicinity of Hazelhatch & Celbridge Station on the site boundary of the proposed project.

Adverse effects of water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the relevant watercourses which drain into Dublin Bay. There will be no net increase in existing runoff rates with attenuation tanks to be provided to serve the increased rail corridor arising from the provision of four tracks between Park West & Cherry Orchard Station and Heuston Station. There will be appropriate treatment prior to discharge including oil interceptors at the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system.

The spread of invasive species can be controlled via mitigation measures, including pre-construction survey and implementation of a treatment plan to be incorporated into an Invasive Alien Species and Avoidance Management Plan.

Based on the information provided and my review, I am satisfied that adverse effects can be excluded for North Dublin Bay SAC and that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of the North Dublin Bay SAC and adverse effects on site integrity can be excluded.

Table 3 - Baldoyle Bay SAC [000199]

Key Issues:

- Habitat degradation as a result of hydrological impacts and/or introduction/spread of invasive species.

Conservation Objectives: NPWS - Site Code 000199 S.I. No. 525/2019 - South Dublin Bay SAC			
Summary of Appropriate Assessment			
To maintain (M) or Restore (R) the favourable conservation condition of the following:	Targets and attributes (summary-as relevant)	Potential adverse effects	Mitigation measures (including monitoring)
Mudflats and sandflats not covered by seawater at low tide [1140] (M)	Stable or increasing habitat area; maintenance of extent/ conservation of high quality of <i>Mytilus edulis</i> dominated community and conserve its high quality; and conserve the community type in a natural condition of fine sand to sandy mud with <i>Pygospio elegans</i> , <i>Crangon crangon</i> and <i>Spio martinensis</i> community complex.	Habitat degradation / effects on QIs as a result of hydrological impacts through release of contaminated surface water run-off and/or accidental spillage or pollution event into any surface water features during construction and operation.	Measures to protect surface water quality during construction & operation as detailed in sections 16.6.5 & 16.6.6 above. including measures to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, etc.).
Atlantic Salt Meadows (Glauco-Puccinellietalia maritima) [1330] (M)	Maintain the favourable conservation condition in relation to extent/structure, vegetation structure – zonation/height/cover/composition and no significant expansion of cordgrass	Habitat degradation as a result of introducing / spreading non-native invasive species during construction phase. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat, in particular coastal habitat not permanently or regularly inundated by seawater.	Oil interceptors to be provided for in the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage systems.
Mediterranean salt meadows (Juncetalia maritima) [1410] (M)			
Salicornia and other annuals colonising mud and sand [1310] (M)	Maintain favourable conservation condition in relation in habitat – extent/distribution, physical and vegetation structure as well vegetation zonation and composition.		
			The CEMP in Appendix C attached to the NIS sets out the mechanisms by which environmental protection is to be achieved during the construction phase of the proposed development including preparation of An Environmental Incident and

			<p>Emergency Response Plan.</p> <p>Measures to prevent the spread of non-native invasive species to be incorporated into an Invasive Alien Species Avoidance and Management Plan including preconstruction survey and treatment plan.</p>
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Overall Conclusion – Integrity Test

The applicant in the NIS determined that the potential for adverse effects associated with the above downstream habitats are as a result of impacts on water quality arising from contaminants and sediment. It concludes that (a) due to the fact that the project is along an existing railway line with track drainage in place and (b) the nature of the works which are largely localised and short term, the proposed development would not produce pollutants or sediment of significant magnitudes when considering dispersion and dilution within the Liffey Estuary over time and distance.

I have regard to the nature and extent of the works proposed including the construction of a new DART station within Heuston Yard in proximity to the River Liffey and the increase in the rail corridor to facilitate four tracking between Park West & Cherry Orchard Station and Heuston Station. There is the potential for a pollution event during construction to have downstream impacts arising through release of contaminated surface water runoff and/or accidental spillage.

I also note that Japanese Knotweed was recorded in the vicinity of platform 10 at Heuston Station where the new DART station is proposed. Japanese Knotweed was also recorded in proximity to Tributary of the Castletown in the vicinity of Hazelhatch & Celbridge Station on the site boundary of the proposed project.

Adverse effects for water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the relevant watercourses which drain into Dublin Bay. There will be no net increase in existing runoff rates with attenuation tanks to be provided to serve the increased rail corridor arising from the provision of four tracks between Park West & Cherry Orchard Station and Heuston Station. There will be appropriate treatment prior to discharge including oil interceptors at the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system.

The spread of invasive species can be controlled via mitigation measures, including pre-construction survey and implementation of a treatment plan to be incorporated into an Invasive Alien Species and Avoidance Management Plan.

Based on the information provided and my review, I am satisfied that adverse effects can be excluded for Baldoyle Bay SAC, and that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of the Baldoyle Bay SAC and adverse effects on site integrity can be excluded.

Table 4 - Rockabill to Dalkey Island SAC (Site code: 003000)

Key Issues:

- Habitat degradation/ effects on QI habitats and species as a result of hydrological impacts

Conservation Objectives: NPWS - Site Code 00300 S.I. No. 94/2019 - Rockabill To Dalkey Island SAC			
Summary of Appropriate Assessment			
To maintain (M) or Restore (R) the favourable conservation condition of the following:	Targets and attributes (summary-as relevant)	Potential adverse effects	Mitigation measures (including monitoring)
Reefs [1170] (M)	Stable or increasing habitat area and habitat distribution; and conserve intertidal reef community complex and subtidal reef community complex in natural condition.	Habitat degradation / effects on QIs as a result of hydrological impacts through release of contaminated surface water run-off and/or accidental spillage or pollution event into any surface water features during construction and operation.	Measures to protect surface water quality during construction & operation as detailed in sections 16.6.5 & 16.6.6 above. including measures to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, etc.). Oil interceptors to be provided for in the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage systems. The CEMP in Appendix C attached to the NIS sets out the mechanisms by which environmental protection is to be achieved during the construction phase of the proposed development including preparation of An Environmental Incident and Emergency Response Plan.
Harbour porpoise <i>Phocoena phocoena</i> [1351](M)	No restriction of species range by artificial barriers to site use; and human activities should occur at levels that do not adversely affect the species at the site.		
Overall Conclusion – Integrity Test The applicant in the NIS determined that the potential for adverse effects associated with the above downstream habitats are as a result of Impacts on water quality arising from contaminants and sediment. It concludes that (a) due to the fact that the project is along an existing railway line with track drainage in place and (b) the nature of the works which are largely localised and short term, the proposed development would not produce pollutants or sediment of significant magnitudes when considering dispersion and dilution within the Liffey Estuary over time and distance. I have regard to the nature and extent of the works proposed including the construction of a new DART station within Heuston Yard in proximity to the River Liffey and the increase in the rail corridor to facilitate four tracking between Park West & Cherry Orchard Station & Heuston Station. There is the potential for a			

pollution event during construction to have downstream impacts arising through release of contaminated surface water runoff and/or accidental spillage.

Adverse effects for water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the relevant watercourses which drain into Dublin Bay. There will be no net increase in existing runoff rates with attenuation tanks to be provided to serve the increased rail corridor arising from the provision of four tracks between Park West & Cherry Orchard Station and Heuston Station. There will be appropriate treatment prior to discharge including oil interceptors at the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system.

Based on the information provided and my review, I am satisfied that adverse effects can be excluded for Rockabill to Dalkey Island SAC and 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 and adverse effects on site integrity can be excluded.

Table 5 - Baldoye Bay SPA (Site code: 004016)

Key Issues:

- Habitat degradation/ effects on SCIs as a result of hydrological impacts and/or introduction/spread of invasive species.
- Mortality or injury

Conservation Objectives: [NPWS - Site Code 004016](#)

[S.I. No.275/2010 - Baldoye Bay SPA](#)

Summary of Appropriate Assessment

To maintain (M) or Restore (R) the favourable conservation condition of the following:	Targets and attributes (summary-as relevant)	Potential adverse effects	Mitigation measures (including monitoring)
Shelduck Tadorna tadorna [A048] (M) Ringed Plover Charadrius hiaticula [A137] (M) Golden Plover Pluvialis apricaria [A140] (M) Grey Plover Pluvialis squatarola [A141] (M)	Long-term population stable or increasing; and no significant decrease in range, timing, or intensity of use of area.	Habitat degradation as a result of hydrological impacts through release of sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and operation. Effects of reduction in water quality could extend a significant distance downstream and could affect the quality of intertidal/ coastal habitat that support SCI bird species.	Measures to protect surface water quality during construction & operation as detailed in sections 16.6.5 & 16.6.6 above. including measures to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, etc.). Oil interceptors to be provided for in the

[A1570 Bar-tailed Godwit Limosa lapponica (M)		Habitat degradation as a result of introducing / spreading non-native invasive species during construction phase. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat, in particular coastal habitat not permanently or regularly inundated by seawater.	attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system. The CEMP in Appendix C attached to the NIS sets out the mechanisms by which environmental protection is to be achieved during the construction phase of the proposed development including preparation of An Environmental Incident and Emergency Response Plan. Measures to prevent the spread of non-native invasive species to be incorporated into an Invasive Alien Species Avoidance and Management Plan including preconstruction survey and treatment plan.
Wetlands [A999] (M)	Permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 1,713 hectares.	As above	As above
Light-bellied Brent Goose Branta bernicla hrota [A046] (M)	Long-term population stable or increasing; and no significant decrease in range, timing, or intensity of use of area.	As above May be susceptible to collision with the overhead wires.	As above Collision risk is to be mitigated by the feeder wire along both sides of Single-Track Cantilever OHLE masts on the Liffey Bridge crossing being fitted with hanging devices to make the line more visible.

Overall Conclusion – Integrity Test

The applicant in the NIS determined that the potential for adverse effects associated with the above downstream habitats are as a result of Impacts on water quality arising from contaminants and sediment. It concludes that (a) due to the fact that the project is along an existing railway line with track drainage in place and (b) the nature of the works which are largely localised and short term, the proposed development would not produce pollutants or sediment of significant magnitudes when considering dispersion and dilution within the Liffey Estuary over time and distance.

I have regard to the nature and extent of the works proposed including the construction of a new DART station within Heuston Yard in proximity to the River Liffey and the increase in the rail corridor to facilitate

four tracks between Park West & Cherry Orchard Station and Heuston Station. There is the potential for a pollution event during construction to have downstream impacts arising through release of contaminated surface water runoff and/or accidental spillage.

I also note that Japanese Knotweed was recorded in the vicinity of platform 10 at Heuston Station where the new DART station is proposed. Japanese Knotweed was also recorded in proximity to Tributary of the Castletown in the vicinity of Hazelhatch & Celbridge Station on the site boundary of the proposed project.

Adverse effects for water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the relevant watercourses which drain into Dublin Bay. There will be no net increase in existing runoff rates with attenuation tanks to be provided to serve the increased rail corridor arising from the provision of four tracks between Park West & Cherry Orchard Station and Heuston Station. There will be appropriate treatment prior to discharge including oil interceptors at the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system.

The spread of invasive species can be controlled via mitigation measures, including pre-construction survey and implementation of a treatment plan to be incorporated into an Invasive Alien Species and Avoidance Management Plan.

The habitat in the upper estuary is deemed unsuitable for foraging, roosting, breeding and/or staging for migration for the conservation interests save for Light bellied brent goose and, therefore, are unlikely to be commuting beyond the lower reaches of the estuary.

Light bellied brent geese feed on grasslands in Dublin City when their main food source in Dublin Bay, eelgrass, becomes exhausted. Areas close to the proposed project which have potential to support this species include the gardens at the Royal Kilmainham hospital, the National War Memorial Park and Phoenix Park. The use of hanging devices to the feeder wire along both sides of single-track cantilever OHLE masts on the Liffey Bridge will make the line more visible to mitigate the potential of collision which could result in electrocution and mortality.

Based on the information provided and my review, I am satisfied that adverse effects can be excluded for Baldoye Bay SPA, and that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of the Baldoye Bay SAC and adverse effects on site integrity can be excluded.

Table 6 – South Dublin Bay and Tolka Estuary SPA (Site code:004024)

Key Issues:

- Habitat degradation/ effects on SCIs as a result of hydrological impacts and/or introduction/spread of invasive species.
- Mortality or injury

Conservation Objectives: [NPWS - Site Code 004024](#)

Summary of Appropriate Assessment

To maintain (M) or Restore (R) the favourable conservation condition of the following:	To maintain (M) or Restore (R) the favourable conservation condition of the following:	To maintain (M) or Restore (R) the favourable conservation condition of the following:	To maintain (M) or Restore (R) the favourable conservation condition of the following:
<p>[A130] Oystercatcher (<i>Haematopus ostralegus</i>) (M)</p> <p>[A137] Ringed Plover (<i>Charadrius hiaticula</i>) (M)</p> <p>[A143] Knot (<i>Calidris canutus</i>) (M)</p> <p>[A144] Sanderling (<i>Calidris alba</i>) (M)</p> <p>[A149] Dunlin (<i>Calidris alpina</i>) (M)</p> <p>[A157] Bar-tailed Godwit (<i>Limosa lapponica</i>) (M)</p> <p>[A162] Redshank (<i>Tringa totanus</i>) (M)</p>	<p>Long-term population stable or increasing; and no significant decrease in range, timing, or intensity of use of area.</p>	<p>Habitat degradation as a result of hydrological impacts through release of sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and operation. Effects of reduction in water quality could extend a significant distance downstream and could affect the quality of intertidal/ coastal habitat that support SCI bird species.</p> <p>Habitat degradation as a result of introducing / spreading non-native invasive species during construction phase. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat, in particular coastal habitat not permanently or regularly inundated by seawater.</p>	<p>Measures to protect surface water quality during construction & operation as detailed in sections 16.6.5 & 16.6.6 above. including measures to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, etc.). Oil interceptors to be provided for in the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system.</p> <p>The CEMP in Appendix C attached to the NIS sets out the mechanisms by which environmental protection is to be achieved during the construction phase of the proposed development including preparation of An Environmental Incident and Emergency Response Plan.</p> <p>Measures to prevent the spread of non-native invasive species to be incorporated into an Invasive Alien Species Avoidance and</p>

			Management Plan including preconstruction survey and treatment plan.
Grey Plover <i>Pluvialis squatarol</i> [A141]	Proposed for removal		
Roseate Tern (<i>Sterna dougallii</i>) [A192] (M) Common Tern (<i>Sterna hirundo</i>) [A193] (M) Arctic Tern (<i>Sterna paradisaea</i>) [A194](M)	Maintain the favourable conservation condition of the species in the SPA in terms of no significant decline in passage population, distribution of roosting areas, prey biomass available, no significant increase in barriers to connectivity and human activities should not occur at levels that would cause adverse effects. As well as targeting no significant decline in roosting areas, breeding colonies, productivity rate, and breeding population abundance in relation to the Common Tern.	As above	As above
[A999] Wetland and Water Birds (M)	Maintain the favourable conservation condition of the wetland habitat in the SPA as a resource for the regularly occurring migratory water birds that use it. In terms of its extent not falling significantly below the estimated/established/map ped area of 2,192ha other than natural patterns of variation.	As above	As above
Black-headed Gull <i>Chroicocephalus ridibundus</i> [A179] (M) Light-bellied Brent Goose <i>Branta bernicla hrota</i> [A046] (M)	Long-term population stable or increasing; and no significant decrease in range, timing, or intensity of use of area.	As above May be susceptible to collision with overhead wires	As above Collision risk is to be mitigated by the feeder wire along both sides of Single-Track Cantilever OHLE masts on the Liffey Bridge crossing being fitted with hanging devices

			to make line more visible to the species.
<p>Overall Conclusion – Integrity Test</p> <p>The applicant in the NIS determined that the potential for adverse effects associated with the above downstream habitats are as a result of Impacts on water quality arising from contaminants and sediment. It concludes that (a) due to the fact that the project is along an existing railway line with track drainage in place and (b) the nature of the works which are largely localised and short term, the proposed development would not produce pollutants or sediment of significant magnitudes when considering dispersion and dilution within the Liffey Estuary over time and distance.</p> <p>I have regard to the nature and extent of the works proposed including the construction of a new DART station within Heuston Yard in proximity to the River Liffey and the increase in the rail corridor to facilitate four tracking between Park West & Cherry Orchard Station and Heuston Station. Although unlikely there is the potential for a pollution event during construction to have downstream impacts arising through release of contaminated surface water runoff and/or accidental spillage. I also note that Japanese Knotweed was recorded in the vicinity of platform 10 at Heuston Station where the new DART station is proposed. Japanese Knotweed was also recorded in proximity to Tributary of the Castletown in the vicinity of Hazelhatch & Celbridge station on the site boundary of the proposed project was also recorded.</p> <p>Adverse effects of water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the relevant watercourses which drain into Dublin Bay. There will be no net increase in existing runoff rates with attenuation tanks to be provided to serve the increased rail corridor arising from the provision of four tracks between Park West & Cherry Orchard Station and Heuston Station. There will be appropriate treatment prior to discharge including oil interceptors in the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system.</p> <p>The spread of invasive species can be controlled via mitigation measures, including pre-construction survey and implementation of a treatment plan to be incorporated into an Invasive Alien Species and Avoidance Management Plan.</p> <p>The habitat in the upper estuary is deemed unsuitable for foraging, roosting, breeding and/or staging for migration for the SCIs save for Black-headed Gull and Light-bellied Goose and, therefore, are unlikely to be commuting beyond the lower reaches of estuary.</p> <p>The Black headed gull has both a terrestrial and aquatic diet with potential to occur commuting and foraging throughout the Dublin area and within the upper Liffey Estuary in high densities. The mitigation measures to protect water quality will ensure no impact on the prey availability for the species.</p> <p>Light bellied brent geese feed on grasslands in Dublin City when their main food source in Dublin Bay, eelgrass, becomes exhausted. Areas close to the proposed project which have potential to support this species include the gardens at the Royal Kilmainham hospital, the National War Memorial Park and Phoenix Park.</p> <p>The use of hanging devices to the feeder wire along both sides of single-track cantilever OHLE masts on the Liffey Bridge will make the line more visible to mitigate the potential of collision from the above species which could result in electrocution and mortality.</p> <p>Based on the information provided and my review, I am satisfied that adverse effects can be excluded for South Dublin Bay & River Tolka Estuary SPA and that no uncertainty remains.</p> <p>The proposed development would not delay or prevent the attainment of the Conservation objectives of the South Dublin Bay & River Tolka Estuary SPA and adverse effects on site integrity can be excluded.</p>			

Table 7 – North Bull Island SPA (Site code:004006)**Key Issues:**

- Habitat degradation/ effects on SCIs species as a result of hydrological impacts and/ introduction/spread of invasive species.
- Mortality or injury

Conservation Objectives: [NPWS - Site Code 004006](#)

[S.I. No. 211/2010 North Bull Island SPA](#)

Summary of Appropriate Assessment

To maintain (M) or Restore (R) the favourable conservation condition of the following:	To maintain (M) or Restore (R) the favourable conservation condition of the following:	Potential Adverse Effects	Mitigation measures (including monitoring)
Shelduck <i>Tadorna tadorna</i> [A048] (M) Teal <i>Anas crecca</i> [A052] (M) Pintail <i>Anas acuta</i> [A054] (M) Shoveler <i>Anas clypeata</i> [A056] (M) Oystercatcher <i>Haematopus ostralegus</i> [A130] (M) Golden Plover <i>Pluvialis apricaria</i> [A140] (M) Grey Plover <i>Pluvialis squatarol</i> [A141] (M) Knot <i>Calidris canutus</i> [A143] (M) Sanderling <i>Calidris alba</i> [A144] (M) Dunlin <i>Calidris alpina</i> alpin [A149] (M)	Long-term population stable or increasing; and no significant decrease in range, timing, or intensity of use of area.	<p>Habitat degradation as a result of hydrological impacts through release of sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and operation. Effects of reduction in water quality could extend a significant distance downstream and could affect the quality of intertidal/ coastal habitat that support SCI bird species.</p> <p>Habitat degradation as a result of introducing / spreading non-native invasive species during construction phase. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat, in particular coastal habitat not permanently or regularly inundated by seawater.</p>	<p>Measures to protect surface water quality during construction & operation as detailed in section 16.6.6 above. including measures to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, etc.).</p> <p>Oil interceptors to be provided for in the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system.</p> <p>The CEMP in Appendix C attached to the NIS sets out the mechanisms by which environmental protection is to be achieved during the construction phase of the proposed development including preparation of An Environmental Incident and Emergency Response Plan.</p>

Black-tailed Godwit <i>Limosa limosa</i> [A156] (M) Bar-tailed Godwit <i>Limosa lapponica</i> [A157] (M) Curlew <i>Numenius arquata</i> [A160] (M) Redshank <i>Tringa tetanus</i> [A162] (M) Turnstone <i>Arenaria interpres</i> [A169] (M)			Measures to prevent the spread of non-native invasive species to be incorporated into an Invasive Alien Species Avoidance and Management Plan including preconstruction survey and treatment plan.
Black-headed Gull <i>Chroicocephalus ridibundus</i> [A179] (M) Light-bellied Brent Goose <i>Branta bernicla hrota</i> [A046] (M)		As above May be susceptible to collision with overhead wires.	As above Collision risk is to be mitigated by the feeder wire along both sides of Single-Track Cantilever OHLE masts on the Liffey Bridge crossing being fitted with a hanging device to make lines more visible to the above species.

Overall Conclusion – Integrity Test

The applicant in the NIS determined that the potential for adverse effects associated with the above downstream habitats are as a result of Impacts on water quality arising from contaminants and sediment. It concludes that (a) due to the fact that the project is along an existing railway line with track drainage in place and (b) the nature of the works which are largely localised and short term, the proposed development would not produce pollutants or sediment of significant magnitudes when considering dispersion and dilution within the Liffey Estuary over time and distance.

I have regard to the nature and extent of the works proposed including the construction of a new DART station within Heuston Yard in proximity to the River Liffey and the increase in the rail corridor to facilitate four tracking between Park West & Cherry Orchard Station and Heuston Station. Although unlikely there is the potential for a pollution event during construction to have downstream impacts arising through release of contaminated surface water runoff and/or accidental spillage. I also note that Japanese Knotweed was recorded in the vicinity of platform 10 at Heuston Station where the new DART station is proposed. Japanese Knotweed was also recorded in proximity to Tributary of the Castletown in the vicinity of Hazelhatch/Celbridge station on the site boundary of the proposed project was also recorded.

Adverse effects of water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the relevant watercourses which drain into Dublin Bay. There will be no net increase in existing runoff rates with attenuation tanks to be provided to serve the increased rail corridor arising from the provision of four tracks between Park West & Cherry Orchard Station and Heuston Station. There will be appropriate treatment prior to discharge including oil interceptors in the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system.

The spread of invasive species can be controlled via mitigation measures, including pre-construction survey and implementation of a treatment plan to be incorporated into an Invasive Alien Species and Avoidance Management Plan.

The habitat in the upper estuary is deemed unsuitable for foraging, roosting, breeding and/or staging for migration for the SCIs save for Black-headed Gull and Light-bellied Goose and, therefore, are unlikely to be commuting beyond the lower reaches of estuary.

The Black headed gull has both a terrestrial and aquatic diet with potential to occur commuting and foraging throughout the Dublin area and within the upper Liffey Estuary in high densities. The mitigation measures to protect water quality will ensure no impact on the prey availability for the species.

Light bellied brent geese feed on grasslands in Dublin City when their main food source in Dublin Bay, eelgrass, becomes exhausted. Areas close to the proposed project which have potential to support this species include the gardens at the Royal Kilmainham hospital, the National War Memorial Park and Phoenix Park.

The use of hanging devices to the feeder wire along both sides of single-track cantilever OHLE masts on the Liffey Bridge will make the line more visible to mitigate the potential of collision from the above species which could result in electrocution and mortality.

Based on the information provided and my review, I am satisfied that adverse effects can be excluded for North Bull Island SPA and that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of the North Bull Island SPA and adverse effects on site integrity can be excluded.

Table 8 – Ireland’s Eye SPA (site code 004117)

Key Issues:

- Habitat degradation/ effects on SCIs as a result of hydrological impacts and/or introduction/spread of invasive species.
- Mortality or injury

Conservation Objectives: [NPWS - Site Code 004117](#)

[S.I. No.240/2010 Ireland's Eye SPA](#)

Summary of Appropriate Assessment

To maintain (M) or Restore (R) the favourable conservation condition of the following:	Targets & Attributes (summary as relevant)	Potential adverse effects	Mitigation measures (including monitoring)
<p>Kittiwake (<i>Rissa tridactyla</i>) [A188],</p> <p>Guillemot (<i>Uria aalge</i>) [A199],</p> <p>Razorbill (<i>Alca torda</i>) [A200]</p>	<p>To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. As there are no site-specific conservation objectives for this SPA the NIS has considered targets based on the specific objectives available for Rogerstown Estuary. These targets relate to stable or increasing population trends, and no significant decrease in the range. Timing and intensity of use of areas by SCI species other than that occurring from natural patterns of variation.</p>	<p>Habitat degradation as a result of hydrological impacts through release of sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and operation. Effects of reduction in water quality could extend a significant distance downstream and could affect the quality of intertidal/ coastal habitat that support SCI bird species.</p> <p>Habitat degradation as a result of introducing / spreading non-native invasive species during construction phase. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat, in particular coastal habitat not permanently or regularly inundated by seawater.</p>	<p>Measures to protect surface water quality during construction & operation as detailed in sections 16.6.5 & 16.6.6 above. including measures to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, etc.).</p> <p>Oil interceptors to be provided for in the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system.</p> <p>The CEMP in Appendix C attached to the NIS sets out the mechanisms by which environmental protection is to be achieved during the construction phase of the proposed development including preparation of An Environmental Incident and Emergency Response Plan.</p> <p>Measures to prevent the spread of non-native invasive species to be incorporated into an Invasive Alien Species Avoidance and Management Plan including preconstruction survey and treatment plan.</p>

Cormorant (Phalacrocorax carbo) [A017], Herring Gull (Larus argentatus) [A184],		As above May be susceptible to collision with overhead wires.	As above Collision risk is to be mitigated by the feeder wire along both sides of Single-Track Cantilever OHLE masts on the Liffey Bridge crossing being fitted with hanging devices to make lines more visible to the above species.
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Overall Conclusion – Integrity Test

The applicant in the NIS determined that the potential for adverse effects associated with the above downstream habitats are as a result of Impacts on water quality arising from contaminants and sediment. It concludes that (a) due to the fact that the project is along an existing railway line with track drainage in place and (b) the nature of the works which are largely localised and short term, the proposed development would not produce pollutants or sediment of significant magnitudes when considering dispersion and dilution within the Liffey Estuary over time and distance.

I have regard to the nature and extent of the works proposed including the construction of a new DART station within Heuston Yard in proximity to the River Liffey and the increase in the rail corridor to facilitate four tracking between Park West & Cherry Orchard Station and Heuston Station. Although unlikely there is the potential for a pollution event during construction to have downstream impacts arising through release of contaminated surface water runoff and/or accidental spillage. I also note that Japanese Knotweed was recorded in the vicinity of platform 10 at Heuston Station where the new DART station is proposed. Japanese Knotweed was also recorded in proximity to Tributary of the Castletown in the vicinity of Hazelhatch & Celbridge Station on the site boundary of the proposed project.

Adverse effects of water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the relevant watercourses which drain into Dublin Bay. There will be no net increase in existing runoff rates with attenuation tanks to be provided to serve the increased rail corridor arising from the provision of four tracks between Park West & Cherry Orchard Station and Heuston Station. There will be appropriate treatment prior to discharge including oil interceptors in the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system.

The spread of invasive species can be controlled via mitigation measures, including pre-construction survey and implementation of a treatment plan to be incorporated into an Invasive Alien Species and Avoidance Management Plan.

The habitat in the upper estuary is deemed unsuitable for foraging, roosting, breeding and/or staging for migration for the SCIs save for Cormorant and Herring Gull and, therefore, are unlikely to be commuting beyond the lower reaches of estuary.

Cormorant has a terrestrial and aquatic diet with potential use the Liffey Channel for feeding and roosting. There is the potential for Herring Gull to use the Liffey Channel for commuting and foraging. The mitigation measures to protect water quality will ensure no impact on the prey availability for the species.

The use of hanging devices to the feeder wire along both sides of single-track cantilever OHLE masts on the Liffey Bridge will make the line more visible to mitigate the potential of collision from the above species which could result in electrocution and mortality.

Based on the information provided and my review, I am satisfied that adverse effects can be excluded for Ireland's Eye SPA and that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of the Ireland's Eye and adverse effects on site integrity can be excluded.

Table 9 - Dalkey Islands SPA (Site code: 004172)

Key Issues:

- Habitat degradation/ effects on SCI species as a result of hydrological impacts

Conservation Objectives: [NPWS - Site Code 004172](#)

[S.I. No.238/2010 - Dalkey Islands SPA](#)

Summary of Appropriate Assessment

To maintain (M) or Restore (R) the favourable conservation condition of the following:	Targets and attributes (summary-as relevant)	Potential adverse effects	Mitigation measures (including monitoring)

Roseate Tern <i>Sterna dougallii</i> [A192]	No significant decline of breeding population, productivity rate, passage population, breeding colonies, roosting areas, available prey biomass and barrier to connectivity; and human activities should occur at levels that do not adversely breeding and numbers among the post-breeding aggregation.	Habitat degradation as a result of hydrological impacts through release of sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and operation. Effects of reduction in water quality could extend a significant distance downstream and could affect the quality of intertidal/ coastal habitat that support SCI bird species.	Measures to protect surface water quality during construction & operation as detailed in sections 16.6.5 & 16.6.6 above. including measures to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, etc.). Oil interceptors to be provided for in the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system. The CEMP in Appendix C attached to the NIS sets out the mechanisms by which environmental protection is to be achieved during the construction phase of the proposed development including preparation of An Environmental Incident and Emergency Response Plan.
Common Tern <i>Sterna hirundo</i> [A193]			
Arctic Tern <i>Sterna paradisaea</i> [A194]			

Overall Conclusion – Integrity Test

The applicant in the NIS determined that the potential for adverse effects associated with the above downstream habitats are as a result of Impacts on water quality arising from contaminants and sediment. It concludes that (a) due to the fact that the project is along an existing railway line with track drainage in place and (b) the nature of the works which are largely localised and short term, the proposed development would not produce pollutants or sediment of significant magnitudes when considering dispersion and dilution within the Liffey Estuary over time and distance.

I have regard to the nature and extent of the works proposed including the construction of a new DART station within Heuston Yard in proximity to the River Liffey and the increase in the rail corridor to facilitate four tracking between Park West & Cherry Orchard Station and Heuston Station. Although unlikely there is the potential for a pollution event during construction to have downstream impacts arising through release of contaminated surface water runoff and/or accidental spillage.

Adverse effects for water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the relevant watercourses which drain into Dublin Bay. There will be no net increase in existing runoff rates with attenuation tanks to be provided to serve the increased rail corridor arising from the provision of four tracks between Park West & Cherry Orchard Station and Heuston

Station. There will be appropriate treatment prior to discharge including oil interceptors in the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system.

The habitat in the upper estuary is deemed unsuitable for foraging, roosting, breeding and/or staging for migration for the SCIs.

Based on the information provided and my review, I am satisfied that adverse effects can be excluded for Dalkey Islands SPA and that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of the Ireland's Eye and adverse effects on site integrity can be excluded.

Table 10 - Howth Head Coast SPA (Site code: 004113)

Key Issues:

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

Conservation Objectives: [NPWS - Site Code 004113](#)

[S.I. No. 185/2012 - Howth Head Coast SPA](#)

Summary of Appropriate Assessment

To maintain (M) or Restore (R) the favourable conservation condition of the following:	Targets and attributes (summary-as relevant)	Potential adverse effects	Mitigation measures (including monitoring)
Kittiwake <i>Rissa tridactyla</i> [A188]	No significant decline in breeding population abundance, productivity rate, distribution, and available prey biomass; no significant increase in barriers to connectivity and disturbance at breeding sites.	Habitat degradation as a result of hydrological impacts through release of sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and operation. Effects of reduction in water quality could extend a significant distance downstream and could affect the quality of intertidal/ coastal habitat that support SCI bird species.	Measures to protect surface water quality during construction & operation as detailed in sections 16.6.5 & 16.6.6 above including measures to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, etc.). Oil interceptors to be provided for in the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system. The CEMP in Appendix C attached to the NIS sets out the mechanisms by which environmental

			protection is to be achieved during the construction phase of the proposed development including preparation of An Environmental Incident and Emergency Response Plan.
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Overall Conclusion – Integrity Test

The applicant in the NIS determined that the potential for adverse effects associated with the above downstream habitats are as a result of Impacts on water quality arising from contaminants and sediment. It concludes that (a) due to the fact that the project is along an existing railway line with track drainage in place and (b) the nature of the works which are largely localised and short term, the proposed development would not produce pollutants or sediment of significant magnitudes when considering dispersion and dilution within the Liffey Estuary over time and distance.

I have regard to the nature and extent of the works proposed including the construction of a new DART station within Heuston Yard in proximity to the River Liffey and the increase in the rail corridor to facilitate four tracking between Park West & Cherry Orchard Station and Heuston Station. Although unlikely there is the potential for a pollution event during construction to have downstream impacts arising through release of contaminated surface water runoff and/or accidental spillage.

Adverse effects for water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the relevant watercourses which drain into Dublin Bay. There will be no net increase in existing runoff rates with attenuation tanks to be provided to serve the increased rail corridor arising from the provision of four tracks between Park West & Cherry Orchard Station and Heuston Station. There will be appropriate treatment prior to discharge including oil interceptors at the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system.

The habitat in the upper estuary is deemed unsuitable for foraging, roosting, breeding and/or staging for migration for the SCIs.

Based on the information provided and my review, I am satisfied that adverse effects can be excluded for Howth Head Coast SPA and that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of the Howth Head Coast SPA and adverse effects on site integrity can be excluded.

Table 11 – North West Irish Sea SPA (Site Code 004236)

Key Issues:

- Habitat degradation/ effects on SCIs as a result of hydrological impacts and/or introduction/spread of invasive species.
- Mortality or injury

Conservation Objectives: [NPWS - Site Code 004236](#)

Summary of Appropriate Assessment

To maintain (M) or Restore (R) the favourable conservation	Targets and Attributes (summary as relevant)	Potential adverse effects	Mitigation measures (including monitoring)
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condition of the following:			
<p>Red-throat Diver (<i>Gavia stellata</i>) [A001] (M)</p> <p>Great Northern Diver (<i>Gavia immer</i>) [A003] (M)</p> <p>Fulmar (<i>Fulmarus glacialis</i>) [A009] (R)</p> <p>Manx Shearwater (<i>Puffinus puffinus</i>) [A013] (M)</p> <p>Shag (<i>Phalacrocorax aristotelis</i>) [A018] (R)</p>	<p>To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA, considering the following targets: no significant decline, stable or increasing population trends, sufficient number of locations, area and availability of suitable habitat to support the population, sufficient number of locations,</p>	<p>Habitat degradation as a result of hydrological impacts through release of sediment into receiving waters, accidental spillage and/ or leaks of contaminants during construction and operation. Effects of reduction in water quality could extend a significant distance downstream and could affect the quality of intertidal/ coastal habitat that support SCI bird species.</p>	<p>Measures to protect surface water quality during construction & operation as detailed in sections 16.6.5 & 16.6.6 above including measures to mitigate against the release of hydrocarbons, polluting chemicals, sediment/ silt and contaminated waters (e.g. silt fences, exclusion zones, weather monitoring, fuels/ chemical storage, etc.).</p>
<p>Common Scoter (<i>Melanitta nigra</i>) [A065] (M)</p> <p>Little Gull (<i>Larus minutus</i>) [A177]</p> <p>Kittiwake (<i>Rissa tridactyla</i>) [A188] (R)</p> <p>Roseate Tern (<i>Sterna dougallii</i>) [A192] (M)</p> <p>Common Tern (<i>Sterna hirundo</i>) [A193] (M)</p> <p>Arctic Tern (<i>Sterna paradisaea</i>) [A194] (M)</p> <p>Little Tern (<i>Sterna albifrons</i>) [A195] (M)</p> <p>Guillemot (<i>Uria aalge</i>) [A199]</p> <p>Razorbill (<i>Alca torda</i>) [A200]</p>	<p>area of suitable habitat and available forage biomass to support population target, intensity, frequency, timing and duration of disturbance, barriers not significantly impacting populations access to the SPA or other ecologically important sites outside the SPA.</p>	<p>Habitat degradation as a result of introducing / spreading non-native invasive species during construction phase. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat, in particular coastal habitat not permanently or regularly inundated by seawater.</p>	<p>Oil interceptors to be provided for in the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system.</p> <p>The CEMP in Appendix C attached to the NIS sets out the mechanisms by which environmental protection is to be achieved during the construction phase of the proposed development including preparation of An Environmental Incident and Emergency Response Plan.</p> <p>Measures to prevent the spread of non-native invasive species to be incorporated into an Invasive Alien Species Avoidance and Management Plan including preconstruction survey and treatment plan.</p>

Black-headed Gull <i>Chroicocephalus ridibundus</i> [A179] (M) Cormorant (<i>Phalacrocorax carbo</i>) [A017] (R)		As above May be susceptible to collision with overhead wires.	As above Collision risk is to be mitigated by the feeder wire along both sides of Single-Track Cantilever OHLE masts on the Liffey Bridge crossing being fitted with a hanging device to make lines more visible to the above species.
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Overall Conclusion – Integrity Test

The applicant in the NIS determined that the potential for adverse effects associated with the above downstream habitats are as a result of Impacts on water quality arising from contaminants and sediment. It concludes that (a) due to the fact that the project is along an existing railway line with track drainage in place and (b) the nature of the works which are largely localised and short term, the proposed development would not produce pollutants or sediment of significant magnitudes when considering dispersion and dilution within the Liffey Estuary over time and distance.

I have regard to the nature and extent of the works proposed including the construction of a new DART station within Heuston Yard in proximity to the River Liffey and the increase in the rail corridor to facilitate four tracking between Park West & Cherry Orchard Station and Heuston Station. Although unlikely there is the potential for a pollution event during construction to have downstream impacts arising through release of contaminated surface water runoff and/or accidental spillage. I also note that Japanese Knotweed was recorded in the vicinity of platform 10 at Heuston Station where the new DART station is proposed. Japanese Knotweed was also recorded in proximity to Tributary of the Castletown in the vicinity of Hazelhatch & Celbridge Station on the site boundary of the proposed project was also recorded.

Adverse effects of water contamination and sediment release can be effectively prevented by mitigation measures ensuring the protection of the relevant watercourses which drain into Dublin Bay. There will be no net increase in existing runoff rates with attenuation tanks to be provided to serve the increased rail corridor arising from the provision of four tracks between Park West & Cherry Orchard Station and Heuston Station. There will be appropriate treatment prior to discharge including oil interceptors in the attenuation tanks at Inchicore and Heuston Yard and in the Phoenix Park Tunnel drainage system.

The spread of invasive species can be controlled via mitigation measures, including pre-construction survey and implementation of a treatment plan to be incorporated into an Invasive Alien Species and Avoidance Management Plan.

The habitat in the upper estuary is deemed unsuitable for foraging, roosting, breeding and/or staging for migration for the SCIs rests save for Cormorant and Herring Gull and, therefore, are unlikely to be commuting beyond the lower reaches of estuaries. Cormorant has a terrestrial and aquatic diet with potential use the Liffey Channel for feeding and roosting. There is the potential for Herring Gull to use the Liffey Channel for commuting and foraging. The mitigation measures to protect water quality will ensure not impact on the prey availability for the species.

The use of hanging devices to feeder wire along both sides of single-track cantilever OHLE masts on the Liffey Bridge will make the line more visible to mitigate the potential of collision from the above species which could result in electrocution and mortality.

Based on the information provided and my review, I am satisfied that adverse effects can be excluded for North west Irish Sea SPA and that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of the North west Irish Sea SPA and adverse effects on site integrity can be excluded.