Site at East Wall Road, Dublin 3

Information to support an EIA Screening Determination to Accompany a Part 8 Application for Residential Development

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1 Introduction

This report has been collated to provide information to support Dublin City Council in undertaking a screening determination for Environmental Impact Assessment. It has been prepared for a proposed development of 68 new residential units on a site of 0.55 ha at East Wall Road, Dublin 3. The Part 8 application is being pursued by Dublin City Council. The process to bring the scheme forward must have regard to the conclusions of the EIA Screening Report. This shall determine whether appropriate process is a Part 8 (of the Planning and Development Regulations, 2001 to 2021) where the consenting authority is the Council, or an application is made to An Bord Pleanála.

1.1 Legislation and Guidance

The EIA Screening Report has had regard to the following:

- Planning and Development Act 2000 as amended
- Planning and Development Regulations 2001 as amended
- The European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018)
- Draft Guidelines on the information to be contained in Environmental Impact Assessment Reports, Environmental Protection Agency, 2017
- Environmental Impact Assessment of Projects: Guidance on Screening, European Commission, 2017
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment August 2018
- Circular Letter: PL 10/2018 22 November 2018 Public notification of timeframe for application to An Bord Pleanála for screening determination in respect of local authority or State authority development
- Office of the Planning Regulator (May 2021) Environmental Impact Assessment Screening- Practice Note

1.2 Methodology

The EIA screening assesses the proposed scheme with reference to the relevant EIA legislation including the EIA Directive, and Planning and Development Regulations. The methodology has particular regard to the ‘3-Step’ assessment process set out in the Office of the Planning Regulator (OPR) Environmental Impact Assessment Screening Practice Note PN02 (June 2021). Regard is also had to European and National guidance documents.

Pursuant to Article 81(ca) of the Regulations 2001, a Planning Authority must indicate its conclusion under article 120(1)(b)(i) (a preliminary examination) or screening determination under article 120(1B)(b)(i) in the public notices that form part of a Part 8 process.
Where a local authority proposes to carry out a subthreshold development, the authority shall carry out a preliminary examination of, at the least, the nature, size or location of the development.

Where the local authority concludes, based on such preliminary examination, that—

(i) there is no real likelihood of significant effects on the environment arising from the proposed development, it shall conclude that an EIA is not required,

(ii) there is significant and realistic doubt in regard to the likelihood of significant effects on the environment arising from the proposed development, it shall prepare, or cause to be prepared, the information specified in Schedule 7A for the purposes of a screening determination, or

(iii) there is a real likelihood of significant effects on the environment arising from the proposed development, it shall— (I) conclude that the development would be likely to have such effects, and (II) prepare, or cause to be prepared, an EIAR in respect of the development.

1.3 Data Sources

The information is obtained from review of several online databases and public sources including:

- Geological Survey of Ireland (GSI) online dataset - https://www.gsi.ie/;
- Environmental Protection Agency (EPA) - http://gis.epa.ie/Envision;
- Myplan.ie
- Dublin City Development Plan 2017-2023
- GeoHive – http://map.geohive.ie/mapviewer.html;
- EPA Online dataset;
- EPA Catchments - https://www.catchments.ie/;
- Met Éireann - http://www.met.ie/;
- Office of Public Works (OPW) - http://www.floodinfo.ie/map/floodmaps; and,
- National Parks & Wildlife Service (http://www.npws.ie/).
- Planning applications website.
- Marine Atlas.

1.4 Qualifications

This EIA Screening Report has been prepared by Jerry Barnes, BA, MPhil, MA, MSc, MIPI MRTPI. Jerry is a Chartered Town Planner and Chartered Surveyor with 30 years’ experience in the public and private sectors in Ireland including the preparation of EIARs and EIA screenings for infrastructure, commercial and residential development projects. He has MPhil in Environmental Planning (MPhil) from the University of Reading.
2 The Site and Surroundings

2.1 Site

The site is currently vacant, but was previously used as a concrete batching plant. There is a two storey red brick flat roofed structure at the front of the site and the remnants of demolished outbuildings. There are high boundary walls along southern and eastern sides. The front boundary has a wall and railings and there are trees between the existing structure and the front boundary wall. There are broken areas of hardstanding across the site. There is an oil tank and an ESB substation on site. A detailed topographical survey was completed showing that the site is relatively flat with falls from west to east. The levels range from 3.78mOD to 3.17mOD.

2.2 The Surroundings

The site is located c. 1.5 km north of Dublin City Centre. The North Strand Fire Station abuts the site to the west. The site’s principal frontage is to its north on East Wall Road and faces the River Tolka, which enters Dublin Bay c1km to the north-east. There is housing to the south and east on Leinster Avenue and Hope Avenue respectively.

Figure 1: Site Location

Fairview Park lies on the northern side of the River Tolka and main roads consists of the East Wall Road and North Strand Road. The DART and mainline rail line crosses the River Tolka to the east of the site and the Maynooth line crosses the North Strand Road to the south. Other significant infrastructure in the vicinity includes the Port Tunnel which traverses underground Fairview Park before emerging on the eastern side of the Alfie Byrne Road.
Further to the east is the commercial area associated with East Point Business Park, offices on East Wall Road and retailing and other services at East Wall Road/Church Road. The area is experiencing redevelopment, particularly on Poplar Row where previous commercial/industrial premises are being redeveloped for residential purposes.

Generally, the area has experienced population increases in the last number of censuses, although there was a decrease in the ED immediately to the south in the 2011-2016 period. The increase in population is illustrated in Figure 3 below.
2.3 Environmental sensitivities of the site

2.3.1 Bedrock

According to the Geological Survey Ireland (GSI), the site is underlain by the Lucan Formation. The Lucan Formation is described by the GSI as bedrock that comprises dark-grey to black, fine-grained, occasionally cherty, micritic limestones that weathers paler, usually to pale grey. The Lucan Formation was formed during the Late Chadian to Asbian Stage of the Dinantian Series within the Carboniferous Period.

2.3.2 Soils

Teagasc Soils (Soils) underly the site and are described as Made-Ground. The City of Dublin is predominantly mapped as made/built land due to the presence of roads, concrete pavements and buildings which have relatively impermeable properties. Subsoils consist of Urban Quaternary Sediments (subsoils). From the site investigation at the site, the bedrock aquifer has a minimum 12.40m of thickness of soil over the bedrock.

A total of 47 samples were taken across the site which the laboratory received on the 12th July 2021. The Contaminated Land Assessment Report for the site, which was prepared by RPS indicates that the generalised succession of strata underlying the site included approximately 0.50m of concrete underlain by Made-Ground between 0.50 and 4.20mbgl. The Made-Ground varied in composition and compaction across the site and was generally described as building rubble with clay and gravel but containing a high percentage of brick, plaster, ceramics, glass, slate, timber, wire, metal, paper etc. The Made-Ground is underlain by medium to dense gravel up to approximately 6.65mbgl and this is underlain by alluvium sands and silts between 6.65 and 11.10mbgl. The alluvium deposits were underlain by black boulder clay (glacial till) which is common in the north of Dublin City.

The Contaminated Land Assessment divided the site into three zones, residential (north), public open space (centre) and commercial (car parking in the south of the site). The assessment found that in the residential zone, concentrations of Total Petroleum Hydrocarbons (TPHs) and Polycyclic Aromatic Hydrocarbons (PAHs) were above the Suitable for Use Levels (S4ULs) for human health produced by Land Quality Management (LQM)/Chartered Institute of Environmental Health (CIEH). Within the public open space section and car park section, the assessment found that concentrations of PAHs were above the S4ULs for human health. An on-site survey found that an ESB Substation was located on-site, therefore, soil samples were analysed for Polychlorinated Biphenyls (PCBs). Where analysed, PCB concentrations were below the laboratory limit of detection.

2.3.3 Hydrology

The River Tolka is 20m to the north of the site. It forms part of the Tolka Estuary Transitional Waterbody which flows eastwards and subsequently to the Dublin Bay Coastal Waterbody. Under the Water Framework Directive, the Tolka Estuary Transitional Waterbody is currently classed as ‘Moderate’ status and is ‘At Risk’ of not meeting WFD objectives. Upstream, the freshwater section of the River Tolka is ‘Poor’ status. The coastal waters of Dublin Bay are of ‘Good’ status.

2.3.4 Aquifer and Groundwater

The site is underlain by limestone (Lucan Formation). The Lucan Formation that underlies the site is a Locally Important Bedrock Aquifer (LI). Locally Important aquifers are of ‘Medium’
importance as the attribute has a medium quality, significance or value on a local scale. The GSI vulnerability description is ‘Low Vulnerability’.

Groundwater vulnerability is regionally mapped by the GSI. The GSI database shows that Dublin Port and Dublin City north of the River Liffey is predominantly classified as ‘Low’ groundwater vulnerability. The site itself is underlain by a region of ‘Low’ groundwater vulnerability.

**Figure 4: Ground Water Vulnerability (Site in red)**

![Ground Water Vulnerability Map](source: GSI)

Subsoil permeability is defined as ‘Low’ by the GSI.

Percolation tests (soakaways) were performed at three locations on-site. The tests were undertaken within the Made-Ground layer and found that the infiltration rate was between 0.01624m/minute and 0.6673m/minute, which is suitable for dispersion of surface water in conventional soakaways.

Groundwater was noted by IGSL at all locations in association with the granular strata at approximately 4.00mbgl. Long-term water observation over a tidal cycle in the two installed standpipes confirmed a standing level at approximately 3.20mbgl and the water level varied 0.20m over the recorded tidal cycle. The observed maximum groundwater levels in BH04 and BH09 were 0.50m and 0.41m AOD respectively, while the maximum tide levels at Dublin Port are in the order of 1.40mAOD during the recorded period.

### 2.3.5 Radon

Between five and ten per cent of the homes in this 10km grid square are estimated to be above the Reference Level for Radon and accordingly this is not a ‘High Radon Area’.
2.3.6 Air quality

The EPA Air Zone designation is ‘Zone A’ ‘Dublin Conurbation’. The Air Quality Index Regions indicate that air quality is ‘Good’.

2.3.7 Designated sites

The nearest Natura 2000 sites are as follows:

- South Dublin Bay and River Tolka Estuary SPA (site code 4024) – 0.6km to east.
- South Dublin Bay SAC (site code 210) 3.1 km south-east
- North Dublin Bay SAC (site code 206) - 3.7 km east
- North Bull Island SPA (site code 4006) - 3.7 km east

2.3.8 Proposed Natural Heritage Areas (pNHA)

The Royal Canal pNHA is located 0.4 km south-west of the site, and the Grand Canal pNHA is located 1.7 km south; North Dublin Bay is a located 0.6 km to the north east of the site.

2.3.9 Archaeology

There are no recorded monuments situated within the site boundaries but there are several monuments within the broader area. These are:

- DU018-022001- Bridge (Ballybough)
- DU018-040 - Graveyard (Ballybough)
- DU018-067- Burial (Fairview)

There is a shipwreck visible on the mudflats of Clontarf Strand at low tide. The wreck is orientated WNW-ESE with the bow to the ESE. The wreck measures 14.68m long and 3.92m wide.

2.3.10 Dublin City Development Plan Objectives

The River Tolka is a designated conservation area in the Dublin City Development Plan 2016-2022. The site is zoned Z4 which is to provide for mixed services. The houses on Leinster Avenue are designated with a residential conservation zoning objective Z2. There are no protected structures in the immediate vicinity of the site. There are the following protected structures in the wider area:

- RPS 6837 Poplar Row, Flats buildings on north side of Poplar Row
- RPS 5833 North Strand Road, St. Columba’s Church/North Strand Church (1838), including gates, railings and surrounding walls

Under the Plan any contaminated land will require appropriate remediation prior to redevelopment, including, in some instances, removal of material from a site which may require a licence under the Waste Management Act 1996, as amended, prior to the undertaking of such works.
2.3.11 Ecological nature of site

Habitats within the Site were classified using *A Guide to Habitats in Ireland* (Fossitt 2000). The main habitat within the Site are Scrub (WS1) Treeline (WL2) / Hedgerow (WL1) Buildings and artificial surfaces (BL3).

All habitats are of negligible ecological importance. No protected plants or problematic invasive species (e.g. Japanese knotweed) were recorded. Two other invasive non-native species were recorded during the site inspection; winter heliotrope and butterfly-bush. These species are not listed on the European Communities (Birds and Natural Habitats) Regulations 2011, and thus do not have legal restrictions. This habitat has a relatively high species diversity, but all species are common and widespread in urban wasteground throughout Dublin. The vegetation would only have been present in small quantities when the site was occupied, and has only become widespread since the site has been vacated. On this basis, it is considered to be of ‘Negligible’ ecological value.

A live fox *Vulpes vulpes* was observed during the survey for the EcIA, but foxes are not a protected species. No other mammals were observed during field surveys, nor any characteristic field signs of protected species (e.g. badger setts). While otters, which are a protected species, are known along the River Tolka, no otter holts, spraints or other field signs of otter were found within or adjacent to the Site. Therefore, the site is of ‘Negligible’ importance for otters.

A bat survey was carried out at dusk on the 12th of May and dawn on the 13th May. Two species were recorded: common pipistrelle and soprano pipistrelle. These are the most common species in Ireland, and are listed as ‘least concern’ on the Irish red list of terrestrial mammals (Marnell...
et al 2019). No bats were observed roosting within the Site, and there was no sign of a roost in the immediate vicinity (i.e. within 20 m of the Site).

2.3.12Other Site Environmental Sensitives

The proposed development includes the demolition of existing site buildings. An asbestos survey was carried out on the 16th September 2021, for the purpose of identifying any asbestos containing materials within the areas of the site where planned demolition works are to occur. The survey found asbestos present in a number of forms within the site.

There is also an existing oil tank on site which will be removed as part of the development.
3 Proposed Development

The proposed development consists of the demolition of existing industrial-type structures, (c. 382 sqm in total) an electrical substation and removal of an oil tank and the construction of 60 apartments and 8 duplex units in 2 blocks as follows:

- One block ranges from 3 to 6 storey high and fronts East Wall Road. It includes 60 units (13 no. 1-bed; 28 no. 2-bed and 19 no. 3-bed).
- One duplex terrace block is 3 storey high and located to the west of the site. It includes 8 duplex units (4 no. 1-bed and 4 no. 3 bed).

The proposed development also includes surface car parking (34 spaces), communal open space, boundary treatments, public lighting, site drainage works, internal road surfacing and footpath, ESB substation, bin and bicycle storage, landscaping, play area and all ancillary site services and development works.

Figure 6: Site Layout
4 Preliminary Examination in Context of Proposed Development

4.1 Guidance on Environmental Impact Assessment Screening

The Office of the Planning Regulator (OPR) has issued guidance on EIA screening in the form of the Environmental Impact Assessment Screening- Practice Note, May 2021 which aids planning authorities as the Competent Authority (CA) in this area.

Figure 7: Extract from Guidance Note

This report has had regard to the OPR guidance and methodology.

The proposed application is a project for the purpose of Environmental Impact Assessment (EIA) under Stage 1 stage (a) of the OPR guidance.

4.2 Sub-threshold Development

A list of the types or classes of development that require EIA or screening for EIA is provided in Part 1 and Part 2 of Schedule 5 of the Planning and Development Regulations 2001, as amended. ‘Sub-threshold development’ comprises development of a type that is included in Part 2 of Schedule 5, but which does not equal or exceed a quantity, area or other limit (the threshold).

In Part 2 of schedule 5, the following is the relevant to assessment of sub-threshold development (with particular reference to those items in bold).

10. Infrastructure projects

(b) (i) Construction of more than 500 dwelling units.

(ii) Construction of a car-park providing more than 400 spaces, other than a car-park provided as part of, and incidental to the primary purpose of, a development.

(iii) Construction of a shopping centre with a gross floor space exceeding 10,000 square metres.

(iv) Urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere.

(“business district” means a district within a city or town in which the predominant land use is retail or commercial use.)

In relation to proposed development none of the thresholds above are exceeded, but those highlighted in bold indicate the thresholds of relevance to the subject proposal.
Accordingly, the project is sub-threshold development with reference to the above thresholds and under Step 1(c) of the OPR guidance a preliminary examination is required under Step 2.

**Figure 8: Extract from Guidance Note**

4.3 **Preliminary Examination considerations**

Preliminary examinations must consider at least the following:

- The nature of the development including the production of wastes and pollutants;
- The size of the development; or
- The location of the development including the potential to impact on certain ecologically sensitive sites and the potential to affect other environmentally sensitive sites in the area.

This overlaps with the submitted Appropriate Assessment (AA) screening report and consideration of hydrological and other connections to European sites.

The OPR guidance states a number of questions to assist the preliminary examination.

4.4 **Nature of the development:**

*Is the nature of the proposed development exceptional in the context of the existing environment?*

The nature of the development is not exceptional in the context of the existing urban environment, which consists of residential to the east and south, services to the west and the River Tolka and Fairview Park to the north. The development will be between 3 and 6 storeys in height rising from 3 storeys adjacent to the lower height housing to the south and east up to 6 storeys along East Wall Road. This building height along the frontage to East Wall Road corresponds with emerging new building height on Poplar Row and North Strand Road.

*Will the development result in the production of any significant waste, or result in significant emissions or pollutants?*

The nature of the proposed use is residential. The proposed residential use by its nature will not cause any significant emissions or pollutants during the operational. However, the construction
phase will require excavation of contaminated materials and the Contaminated Land Assessment Report indicates the approximate tonnage of material to removed following groundworks at the site include:

- Concrete hardstanding: 6,387 tonnes of uncrushed concrete or 3,286 tonnes of crushed concrete; and,
- Soil and stone / Made Ground: 17,938 tonnes of soil and stone with elevated levels of TPHs and PAHs which are considered harmful to human health.

An analysis was undertaken for a total of 21 No. soil samples. All samples were classified, as a minimum, as Stable, Non-Reactive Hazardous Waste in Non-Hazardous Landfill. TP07 (0.50-1.00mbgl) and TP08 (3.50-4.00mbgl) were classified as Hazardous Landfill Waste. In addition, there is asbestos within certain building elements on site.

The development may therefore, during the construction phase, result in the production of significant waste which may result in significant emissions or pollutants.

4.5 Size of the development:

_is the size of the proposed development exceptional in the context of the existing environment?_

The size of the development is not exceptional in the context of the existing environment. The development will result in a density of 103 units per ha. This is not exceptional in an urban context. The lands are zoned for mixed-use development. Currently, the site is a vacant brownfield development site with a two-storey existing building to the front. The proposed scale and massing as described above is not exceptional and is in line with the emerging building size on North Strand Road and Poplar Row to the west. Permitted development, which is currently under construction to the west is considered below.

_are there cumulative considerations having regard to other existing and/or permitted projects?_

The main developments proposed or under construction that would be considered for cumulative impacts are sites to the west on Poplar Row and North Strand Road.

**PA.Reg.Ref: 3900/18 (ABP Ref:PL29N.304256):** Planning permission was granted in 2018 for a six storey block of 52 build to rent apartments on the site of the former car dealers on Poplar Row. This building is now under construction.

**PA.Reg.Ref.2213/20:** Planning permission was granted in 2018 (PA Reg.Ref3601/18) for development of a five storey block containing 14 apartment on the site of the former AIB bank on the junction of North Strand and Poplar Row. A flood risk assessment was undertaken for the development. It had a finished floor level of 4mAOD. This was amended with this permission to add a further floor. This currently under construction.

**PA. Reg.Ref:3091/20:** Planning permission was granted in 2020 for a 15 storey hotel, 2 residential/commercial blocks of 8 and 10 storeys with a total of 76 apartments, 1,893 sqm of commercial over a basement car park at the commercial premises at the junction of Alfie Byrne Road and East Wall Road.

The cumulative quantum of permitted and under construction development is 142 residential units and 8,364 sqm of commercial floor space. This together with the proposed 68 units is well below the threshold in terms of site size and unit number.
4.6 Location

Is the proposed development located on, in, adjoining or does it have the potential to impact on an ecologically sensitive site or location?

The nearest designated Natura 2000 sites are as follows:

- South Dublin Bay and River Tolka Estuary SPA (site code 4024) – 0.6km to east.
- North Dublin Bay SAC (206) - 3.7 km east
- North Bull Island SPA (4006) - 3.7 km east

There are 3 proposed Natural Heritage Areas as follows:

- The Royal Canal pNHA is located 0.4 km south-west of the Site,
- The Grand Canal pNHA is located 1.7 km south;
- North Dublin Bay is a located 0.6 km to the north east of the site.

All of these are illustrated in Figure 9 below.

Figure 9: SPA (Green) SAC (Brown) and pNHA (purple)

Source: EPA

A source-pathway-receptor model should be used in considering any potential significant effects. Pathways are via groundwater, surface water and air. An analysis utilising this method was undertaken as part of the Contaminated Land Assessment. Three sources were identified: contaminated land (S1); the oil tank (S2); and the asbestos on site (S3). Five pathways were identified: vertical leachate migration (P1); lateral leachate migration (P2); dermal contact (P3); ingestion (P4); and inhalation (P5). Four receptors were identified: human presence (R1); protected areas (R2); bedrock aquifer (R3); and surface waterbodies (R4).

The Contaminated Land Assessment Report assesses the development with and without remedial work. The remedial work consists of the removal of material up to 4.00m in residential and open space areas and the removal of 1.20m of soil underlying the proposed car park.
Furthermore, this scenario includes importing suitably ‘clean’ material to infill the void left by excavation.

The AA Screening Report also undertakes a Source-Pathway-Receptor assessment of the development. Consideration of the potential impacts upon the designated Natura 2000 sites are considered. It concludes that there no significant impacts.

Does the proposed development have the potential to affect other significant environmental sensitivities in the area?

The detailed sensitivities of the site are outlined in section 2.2 above.

There are no recorded monuments situated within the site boundaries or immediately adjoining. There are no structures on the Record of Protected Structures (RPS). It does not lie within a zone of archaeological interest.

An EcIA has been undertaken by NM Ecology. It indicates that the site is of low ecological value, there are no roosting bats and the site is not suitable for otters.

As the site is proximate to the River Tolka which connects to Natura 2000 sites to the north-east.

4.7 Preliminary Examination Conclusion

Following preliminary examination, the planning authority is recommended to conclude that there are doubts regarding the likelihood of significant effects on the environment arising from the proposed development and to proceed to stage 3 a screening determination.
5 **Screening Determination**

Where the requirement to carry out EIA is not excluded at preliminary examination stage, the planning authority must carry out a screening determination.

In making its screening determination, the competent authority must have regard to:

- Schedule 7 criteria,
- Schedule 7A information,
- Any further relevant information on the characteristics of the development and its likely significant effects on the environment submitted by the applicant,
- Any mitigation measures proposed by the applicant,
- The available results, where relevant, of preliminary verifications or assessments carried out under other relevant EU environmental legislation, including information submitted by the applicant on how the results of such assessments have been taken into account, and
- The likely significant effects on certain sensitive ecological sites.

**Figure 10: Extract from Guidance Note**

**5.1 Schedule 7 criteria**

5.1.1 **Characteristics of proposed development**

OPR guidance — “If relevant, briefly describe the characteristics of the development (i.e. the nature and extent):

*The characteristics of proposed development, in particular—*

(a) **the size and design of the whole of the proposed development,**

The proposed development comprises the construction of 68 residential units on a brownfield site of 0.55 ha. It will include buildings of between three and six storeys and 34 surface car parking spaces. The proposed development also includes communal and private amenity spaces, access roads, hardstanding, cycle parking, footpaths and bin storage. The development includes the demolition of existing structures on site.

(b) **cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or**
development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment,

Section 4.5 of this report identifies relevant applications for the assessment of cumulative effects. Together, the Part 8 site and the other permitted developments are not likely to give rise to significant effects.

(c) the nature of any associated demolition works,

The following demolition works are proposed as part of the development:

- ESB substation;
- Building in the north east corner;
- Oil tank;
- Existing pile of rubble;
- High concrete walls; and,
- Concrete ground slabs, ramps and plinths.

All of these will be removed off site. Details of the demolitions are provided in the Outline Construction and Demolition Waste Management Plan.

(d) the use of natural resources, in particular land, soil, water and biodiversity,

The site currently has a vacant use. It was previously used as a concrete batching plant and may be considered as a brownfield development site. It will therefore result in the use of land and will make an efficient use of scarce urban development land that is aligned to the development patterns in the area.

The Contaminated Land Assessment report indicates that soil will have to be excavated to a depth of between 1.2m and 4m blg. This mitigating measure is in the interests of human health. This will involve the excavation of 17,938 tonnes of soil and stone with elevated levels of TPHs and PAHs.

The development will be constructed with standard building materials, including concrete, timber glass, and different forms of metals.

The development will generate water demands during the construction and operational phases of the development. Water will be supplied from the public watermain. A pre-connection inquiry has been submitted to Irish Water and a Statement of Feasibility has been secured.

During the construction the contractor will be required to implement standard measures during the construction phase in order to minimise adverse effects to the sites water and to reduce runoff and prevent pollutants entering the any watercourses. Any contaminated surface water or groundwater will be collected and removed from the site. A contingency plan for pollution emergencies should also be developed and regularly updated, which would identify the actions to be taken in the event of a pollution incident. During the operational phase, surface waters will discharge to the public sewerage network. The site falls within Flood Zone A, as detailed in the Flood Risk Assessment accompanying the application, owing to both fluvial and coastal flood risks.
Figure 11: Flood Risk Assessment Map (Combined Flood Risk)

An Ecological Impact Assessment (EcIA) is submitted with this part 8 application. There are a number of trees on site which will be removed and bats were surveyed as foraging across the site. However, there was no evidence of roosting bats. No otters were recorded as being present on site. The proposed development site does not provide a suitable inland feeding area for any SPA bird species. The EcIA concludes that the proposed development will not cause any significant negative impacts on designated sites, habitats, legally protected species, or any other features of ecological importance.

An overall roof area of 1,440sqm is available with 790sqm of green roof included in the design. This accounts for 55% of green roof coverage. A total of 755sqm of communal open space is provided at surface level.

(e) the production of waste,

The Contaminated Land Assessment report found that there are, following the site investigation and environmental sampling, large quantities of the subsoil on-site which have elevated concentrations of TPHs and PAHs. The report classifies the waste on the basis of Waste Acceptance Criteria (WAC) to determine whether it is Inert, Non-Reactive Hazardous Waste in Non-Hazardous Landfill or Hazardous Waste Landfill.

“A common exceedance across the WAC analysis was the pH value of the soil above the >6 pH unit threshold for stable non-reactive hazardous waste in a non-hazardous landfill. pH
values across most samples range between 9 and 12 units which indicates more alkaline soils. This will need to be deemed natural soil level in the vicinity to be considered inert. According to the Soil Geochemical Atlas of Ireland, pH is typically higher in the east and south east of Ireland.

Another common exceedance of the inert landfill limit is Total Organic Carbon (TOC) (3%). In most cases, the WAC values exceed the inert waste limit but fall below the stable non-reactive limit (5%). A soil sample from TP07 between 0.50 and 1.00mbgl exceeded the TOC limit for a hazardous waste landfill (6%) with a value of 7%. According to the Soil Geochemical Atlas of Ireland, soil typically has a range of 2.1 – 6% TOC in Dublin City and north Co. Dublin. The EPA guidance for soil recovery facilities states that the primary concern in relation to soil and stone with elevated TOC is the potential for generation of methane gas. This risk must be maintained at a very low level at soil recovery sites and as such, materials including topsoil and peat should not be accepted at soil recovery facilities.

The inert waste concentration limit of Total petroleum hydrocarbons (TPHs) and Polycyclic aromatic hydrocarbons (PAHs) is 500mg/kg and 100mg/kg respectively. These have been exceeded on multiple occasions within soil analysed. .......

Metal concentrations occasionally exceed the inert waste landfill limit. The metal limits exceeded include Antimony, Chromium and Molybdenum. However, the values observed are below the limit for stable non-reactive hazardous waste in a non-hazardous landfill.

Sulphate, Fluoride and Total Dissolved Solid concentrations occasionally exceed the inert waste landfill limit. However, the values observed are below the limit for stable non-reactive hazardous waste in a non-hazardous landfill.

The TP08 soil sample taken between 3.50 and 4.00 mbgl exceeded the loss on ignition hazardous waste landfill limit (10%) with a value of 13%. which are hazardous to human health and therefore cannot be reused on-site and will require off-site disposal.”

All inert material, non-hazardous waste and hazardous waste will be disposed of in accordance with the categorisation of waste and in accordance with the relevant licencing and regulatory requirements.

The existing oil tank on site will be removed. The Contaminated Land Assessment Report indicates that:

“From the site investigation at the site (Appendix B), the bedrock aquifer has minimum 12.40m thickness soil over bedrock. This and its relatively low permeability associated with clay and silt layers, provides a limited means for surface water and bedrock groundwater to interact. Following the removal of the on-site oil tank, further investigations will be required to assess if there is any evidence of historic leaks or spills from the oil tank resulting in the saturation of adjacent soils which could produce contaminated leachate, if present.”

An Asbestos Survey was undertaken and found asbestos in cement slates, bitumen products, textiles and gaskets, putty and mastic. Asbestos was detected within two soil samples as part of the site investigation. Asbestos was detected within TP07 between 0.50 and 1.00mbgl and in TP11 between 1.50 and 2.00mbgl. In both instances, the asbestos detected was chrysotile in the form of fibres/clumps. Asbestos found on-site should be removed by qualified personnel to a suitable facility to avoid the disruption of asbestos and the inhalation by humans.
The following waste will be generated during the construction phase:

- Rubble arising from demolition of existing electrical substation, the two-storey building and existing walls and railings on site.
- Oil tank removal.
- Concrete hardstanding – 6,387 tonnes of uncrushed concrete or 3,286 tonnes of crushed concrete; and,
- Soil and stone/Made-Ground – 17,938 tonnes of soil and stone with elevated levels of TPHs and PAHs which are considered harmful to human health. Due to the elevated concentrations of TPHs and PAHs across the site, it is likely that this material will be treated as a Category C1 waste.

An Outline Construction and Demolition Waste Management Plan has been prepared for the Part 8 documentation.

During the operation, the proposed development will give rise to general non-hazardous waste including paper, cardboard, plastics, metals, electrical equipment and electrical waste commensurate with the residential use of the site.

**(f) pollution and nuisances,**

The construction phase of the project has the potential to be a source of pollution in relation to water, noise, vibration, dust and traffic. The ground investigations and Contaminated Land Assessment have revealed contamination on site. The Asbestos Survey shows that there is asbestos in various elements on site. The Outline Construction Management Plan sets out how pollution to groundwater and surface water will be avoided and it states:

“The contractor will be required to implement the following procedures during the construction phase in order to minimise adverse effects to the sites water and to reduce runoff and prevent pollutants entering the any watercourse [standard measures listed]…Any contaminated surface water or groundwater will be collected and removed from the site. Nonetheless, a contingency plan for pollution emergencies should also be developed and regularly updated, which would identify the actions to be taken in the event of a pollution incident”

Specific dust suppression measures will be utilised during the demolition and construction phase to avoid hazards to human health arising from removal of asbestos from site and other air borne pollutants associated with the construction phase. These measures are outlined in the Outline Construction Management Plan. The dust control measures will relate to general site management, surrounding roads, earth removal/excavation and stockpiling.

A variety of items of plant will be in use during demolition, site clearance, remediation of contaminated soils and construction. There will be vehicular movements to and from the site that will make use of existing roads, namely East Wall Road and North Strand Road. Hope Avenue and Leinster Avenue will not be used by construction traffic during the construction phase. Due to the nature of these activities, there is potential for the generation of elevated levels of noise. The main source of vibration during the construction phase is associated with demolitions, excavation and ground-breaking activities. A baseline noise survey will be undertaken and specific noise control measures will be put in place and these are outlined in the Outline Construction Management Plan.
There is some potential for noise pollution during the operational phase in the form of delivery vehicles and parking cars. However, the ambient noise levels will mask this noise during the daytime.

The potential sources of pollution can be mitigated, and these measures are examined in the Outline Demolition and Construction Waste Management Plan, the Outline Construction Management Plan and the Contaminated Land Assessment and the Traffic Impact Assessment. A detailed Construction Environmental Management Plan (CEMP) will be prepared by the contractor prior to construction.

With the implementation of these mitigating measures, there are no likely residual significant effects on the environment.

(g) the risk of major accidents, and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge,

Standard construction practices will be employed throughout the construction phase. The subject lands are not proximate to any Seveso site. The finished floor levels of the development will protect against any flood risk.

There is no significant risk of accidents or disasters.

(h) the risks to human health (for example, due to water contamination or air pollution).

There is hazardous and non-hazardous waste in the soil and subsoil on site. These elements have the potential to have significant effects on human health. The Contaminated Land Assessment states:

“The LQM/CIEH and CL:AIRE have produced Generic Assessment Criteria (GAC) for soils for human health risk assessment. The GAC are used as a set of screening criteria for the assessment of risks to human health from soil contamination. The GAC can be used as a starting point for evaluating long-term risks to human health from chemicals in soil and provide an indication of the chemical concentration in soil below which the long-term human health risks for site occupants (for various generic land-use scenarios) are considered to be tolerable or minimal. It should be noted that the GAC do not represent the ‘trigger’ for unacceptable intake, and they cannot be used to evaluate risks to construction workers or non-human receptors.”

Without remediation of the site, the assessment concluded:

“Through assessing the soil quality data provided by IGSL (See Section 7), it was concluded that the exceedances of the Generic Assessment Criteria above the relevant land-use indicates potential risk to human health if left in-situ without treatment in the residential and public open space areas.”

As a remedial and mitigating measure an assessment of the scheme with the removal of contaminated material was undertaken. It concluded:

“This scenario will remove 4.00m of soil and stone from the residential and public open space area which will be replaced with suitably ‘clean’ infill material. This will remove the pathway to human interaction, therefore, breaking the potential pollutant linkage.”
A survey found asbestos present in a number of forms within the site. The site investigation also found asbestos fibres/clumps within the soil. This has the potential to affect human health through inhalation. Asbestos found on-site should be removed by qualified personnel to a suitable facility to avoid the disruption of asbestos and the inhalation by humans.

It can be concluded that with these mitigating measures, there would be no significant effect upon human health.

There are no Seveso / COMAH sites in the vicinity of this location. Foul water will discharge to the public sewer. During operational phase, surface water will discharge to the public sewerage network.

5.1.2 2. Location of proposed development

The environmental sensitivity of geographical areas likely to be affected by the proposed development, with particular regard to—

(a) the existing and approved land use,

Currently, the existing site is vacant, and was last used as concrete batching plant. The lands immediately to the east and south are in residential use, the area to the west has a mixture of uses with the Fire Station and commercial service uses and residential and new residential being developed. To the north is the River Tolka and the recreational use associated with the Fairview Park. In the wider area, there are commercial offices, two supermarkets and services to the east on East Wall Road, residential and local services to the north in Fairview, and further residential uses to the south and west.

In the Dublin City Development Plan 2016-2022, the lands are zoned Z4 ‘To provide for and improve mixed-services facilities’. Residential is a normally permissible use. The plan states:

“Opportunity should be taken to use the levels above ground level for additional commercial/retail/services or residential use with appropriate social facilities. Higher densities will be permitted in district centres, particularly where they are well served by public transport.”

The River Tolka is a Conservation Area.

(b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground,

The ground site investigations indicate generalised succession of strata underlying the site included approximately 0.50m of concrete underlain by Made-Ground between 0.50m and 4.20mbgl. The Made-Ground varied in composition and compaction across the site and was generally described as building rubble with clay and gravel but containing a high percentage of brick, plaster, ceramics, glass, slate, timber, wire, metal, paper etc. The Made-Ground is underlain by medium to dense gravel up to approximately 6.65mbgl and this is underlain by alluvium sands and silts between 6.65 and 11.10mbgl. The soils are contaminated, as detailed above.

The land may be categorised as scarce urban development land, well serviced by infrastructure, public transport, community services and where the objective is to maximise its development potential in the interests of sustainable development and compact growth.

The site is underlain by limestone (Lucan Formation). The Lucan Formation that underlies the site is a Locally Important Bedrock Aquifers (LI). The site itself is underlain by a region of ‘Low’
groundwater vulnerability. Subsoil permeability is defined ‘Low’ by the GSI. Percolation tests show that the site is suitable for dispersion of surface water in conventional soakaways.

Groundwater was noted during site investigations at all locations in association with the granular strata at approximately 4.00mbgl. Long-term water observation over a tidal cycle in the two installed standpipes confirmed a standing level at approximately 3.20mbgl and the water level varied 0.20m over the recorded tidal cycle. The observed maximum groundwater levels are between 0.50 and 0.41mAOD respectively, while the maximum tide levels at Dublin port are in the order of 1.40mAOD during the recorded period. The Contaminated Land Assessment concludes:

“The observed maximum groundwater levels in BH04 and BH09 are 0.50 and 0.41 mAOD respectively, while the maximum tide levels at Dublin port are in the order of 1.40mAOD during the recorded period. This significant level difference between the Dublin Port and the Tolka River water level and the borehole groundwater level suggests no active direct hydraulic connection between these waterbodies. Therefore, any temporal variations in the groundwater levels during the recorded period can be considered as imperceptible.”

The site is c20m to the south of the River Tolka, which forms part of the Tolka Estuary Transitional Waterbody (IE_EA_090_0200) which flows eastwards and subsequently to Dublin Bay Coastal Waterbody (IE_EA_090). Under the Water Framework Directive, the Tolka Estuary Transitional Waterbody is currently classed as ‘Moderate’ status and is ‘At Risk’ of not meeting WFD objectives. Upstream, the freshwater section of the Tolka is ‘Poor’ status. The coastal waters of Dublin Bay are of ‘Good’ status. The site is also located approximately 500m north east of the Royal Canal Main Line (Liffey and Dublin Bay) (IE_09_AWB_RCMLE).

Biodiversity associated with environmentally sensitive sites is considered in detail below. Fairvew Park is a public park on the northern side of the River Tolka and is set out with playing pitches, trees, and footpaths.

In relation to biodiversity on site, the EcIA classified all habitats on site, and they were considered to be of negligible ecological importance. No protected plants or problematic invasive species (e.g. Japanese knotweed) were recorded. A live fox was observed during the survey for the EcIA, but foxes are not a protected species and no other mammals were observed. No bats were observed roosting within the Site, and there was no sign of a roost in the immediate vicinity (i.e. within 20 m of the Site).

(c) the absorption capacity of the natural environment, paying particular attention to the following areas:

(i) wetlands, riparian areas, river mouths;

The site is close to the River Tolka and the point where the estuary becomes a coastal zone close to on the eastern side of the Alfie Byrne Road. The Hydrogeological and Flood Risk Assessment confirms that there is no direct groundwater connection between the site and the River Tolka and there is no tidal connection. As such there is no direct groundwater connection between the site and the riparian waters. Surface water on site currently discharges to ground, and the percolation tests illustrate that there is good percolation on site. The River Tolka is tidal upstream and downstream of the site, and this combined with the base river flows indicate a good absorption capacity in the aquatic environment.

The Hydrogeological and Flood Risk Assessment indicates that the site falls within Flood Zone A owing to the risk of fluvial and coastal flooding. Based on ICWWS 2018, the estimated coastal
flood level in the vicinity of the proposed site for the MRFS is 3.65 mOD (0.5% AEP coast flood event). Inclusive of a freeboard allowance of 0.5m, the proposed FFL level of the buildings should be set a minimum level of 4.15mOD. The top of wall level along the right bank of the River Tolka downstream of Annesley Bridge varies between 5.28 mOD and 4.39 mOD.

**(ii) coastal zones and the marine environment;**

The Coastal Waterbody under the WFD Directive is beyond Bull Wall and South Wall Coastal (Code IE_EA_090_0000) and is defined as ‘Good’. Beyond this are Marine Waters as defined under the Maritime Strategic Framework Directive (MSFD). All components achieve Good Environmental Status (GES), with the exception of D1 birds and D2 coastal fish, where GES will be achieved post 2020.

**(iii) mountain and forest areas;**

The site is not proximate to mountains or forested areas.

**iv) nature reserves and parks;**

The site is not proximate to nature reserves. The relationship with Fairview Park in examined above.

**(v) areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive;**

The following Natura 2000 sites have been identified:

<table>
<thead>
<tr>
<th>Site Name</th>
<th>Distance</th>
<th>Qualifying Interests</th>
</tr>
</thead>
</table>
| South Dublin Bay and River Tolka Estuary SPA (site code 4024) | 0.6 km east | **Habitats:** tidal / coastal wetlands  
**Special conservation interests:** light-bellied brent goose, oystercatcher, ringed plover, grey plover, knot, sanderling, dunlin, bar-tailed godwit, redshank, black-headed gull (over-wintering populations), arctic tern, roseate tern (passage migrants), and common tern (breeding populations) |
| South Dublin Bay SAC (210) | 3.1 km south-east | **Annex I habitats:** inter-tidal mudflats / sandflats  
**Annex II species:** none |
| North Dublin Bay SAC (206) | 3.7 km east | **Annex I habitats:** inter-tidal mudflats / sandflats (including patches of *Salicornia* and other annuals), *Spartina* swards, salt marshes, annual vegetation of drift lines, embryonic shifting dunes, white dunes, grey dunes, dune slacks  
**Annex II species:** petalwort *Petalophyllum ralfsii* |
| North Bull Island SPA (4006) | 3.7 km east | **Habitats:** tidal / coastal wetlands  
**Special conservation interests:** light-bellied brent goose, shelduck, teal, pintail, shoveler, oystercatcher, golden plover, knot, sanderling, dunlin, black-tailed godwit, bar-tailed godwit, curlew, redshank, turnstone, black-headed gull (all are over-wintering populations) |

*Source: NME EcIA*
The subject site is not used by any protected species for feeding purposes. Direct and indirect pathways to the Natura 2000 sites are examined in the AA screening. Currently, surface waters discharge to ground and the hydrogeological assessment demonstrates that there is no tidal or groundwater connection between the subject site and the River Tolka, which feeds into the South Dublin Bay and River Tolka Estuary SPA.

The AA screening concludes that:

“However, no viable surface water (or other) pathways were identified between the proposed development site and any Natura 2000 sites. Consequently, the risk that pollutants from the construction site could cause significant negative impacts on any Natura 2000 sites is negligible, even in a worst-case scenario and in the absence of standard site-management measures. ………Having considered the particulars of the proposed development, we conclude that this application meets the first conclusion, because there is no risk of direct or indirect impacts on any Natura 2000 sites. Therefore, with regard to Article 42 (7) of the European Communities (Birds and Natural Habitats) Regulations 2011, it can be excluded on the basis of objective scientific information following screening, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site. Therefore, we conclude that Appropriate Assessment is not required.”

(vi) areas in which there has already been a failure to meet the environmental quality standards laid down in legislation of the European Union and relevant to the project, or in which it is considered that there is such a failure;

Under the Water Framework Directive, the Tolka Estuary Transitional Waterbody is currently classed as ‘Moderate’ status and is ‘At Risk’ of not meeting WFD objectives. Contaminated soils will be removed from the site.

(vii) densely populated areas;

The site falls within the East Wall inner suburban area of Dublin. Population changes are illustrated in Figure 3 above. The proposed development will result in a density of 103 units per ha. The area is well served with public transport and community facilities. It is supported by 6 churches and 3 community halls. There are also 5 no. primary schools and 6 no. post primary schools in the broader area.

The site has access to significant areas of public open space and amenity, including Fairview Park, Clontarf Promenade, Bull Island and the Liffey Campshires.

(viii) landscapes and sites of historical, cultural or archaeological significance.

No archaeological monuments are located on the site. There are no protected structures on site or immediately adjoining. There are no protected views or vistas identified in the Development Plan that may affect the site. There will be a limited visual impact from the development as the development will be up to 6 storeys in height and will not impact upon long range views. An Archaeological Impact Assessment has been prepared by Archer Heritage Planning Ltd. It indicates that the site is “…located on ground reclaimed from the sea and built up in the eighteenth and nineteenth centuries and as such no deposits or features of archaeological significance are likely to be discovered in the top few metres of the soil. However, it is likely that deeper groundworks would have the potential to negatively impact on any buried archaeological remains that may exist on the site.” It recommends that in the event of ground excavations of more than 1m, groundworks should be monitored by a qualified archaeologist.
5.1.3 Types and characteristics of Potential Impacts

The likely significant effects on the environment of proposed development relate to those criteria set out in paragraph (b)(i)(I) to (V) of section 171A of the Act, taking into account—

(a) the magnitude and spatial extent of the impact (for example, geographical area and size of the population likely to be affected),

(b) the nature of the impact,

(c) the transboundary nature of the impact,

(d) the intensity and complexity of the impact,

(e) the probability of the impact,

(f) the expected onset, duration, frequency and reversibility of the impact,

(g) the cumulation of the impact with the impact of other existing and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment,

(h) the possibility of effectively reducing the impact.

The OPR’s Practice Note on EIA Screening considers what are likely significant effects. Refer to Box 1 below.

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**Box 1: Likely Significant Effects**

1. **Are the effects identified likely to occur?**
   
   This refers to the effects that are expected to occur, those that can be reasonably foreseen as normal consequences of project construction and operation, including where relevant associated demolition, remediation and/or restoration.

2. **Are the effects, which are likely to occur, significant?**

   EPA draft guidelines define a ‘significant effect’ as an effect, which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment. The same draft guidelines provide useful definitions in relation to quality of effects, significance of effects, context of effects, probability of effects and duration and frequency of effects.

3. **Will identified likely significant effects impact the environment?**

   Likely significant effects should cover the direct and indirect, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the project.

   The factors of the environment to be described and assessed are:

   - population and human health;
   - biodiversity, with particular attention to protected species and habitats;
   - land, soil, water, air and climate;
   - material assets, cultural heritage and the landscape; and
   - the interaction between the factors.
I. Population and Human Health

The population of the area within a 1.5km radius of the site is detailed table below.

Table 2: List of Electoral Divisions and population.

<table>
<thead>
<tr>
<th>Electoral Division</th>
<th>Population (CSO, 2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ballybough A</td>
<td>3,672</td>
</tr>
<tr>
<td>Ballybough B</td>
<td>3,709</td>
</tr>
<tr>
<td>Clontarf East D</td>
<td>2,710</td>
</tr>
<tr>
<td>Clontarf West C</td>
<td>3,637</td>
</tr>
<tr>
<td>Clontarf West D</td>
<td>2,303</td>
</tr>
<tr>
<td>Clontarf West E</td>
<td>2,470</td>
</tr>
<tr>
<td>Drumcondra South A</td>
<td>5,100</td>
</tr>
<tr>
<td>Drumcondra South B</td>
<td>1,694</td>
</tr>
<tr>
<td>Grace Park</td>
<td>5,801</td>
</tr>
<tr>
<td>Mountjoy A</td>
<td>5,313</td>
</tr>
<tr>
<td>Mountjoy B</td>
<td>3,954</td>
</tr>
<tr>
<td>North City</td>
<td>5,441</td>
</tr>
<tr>
<td>North Dock A</td>
<td>1,356</td>
</tr>
<tr>
<td>North Dock B</td>
<td>7,768</td>
</tr>
<tr>
<td>North Dock C</td>
<td>4,162</td>
</tr>
<tr>
<td>Rotunda A</td>
<td>5,629</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>64,719</strong></td>
</tr>
</tbody>
</table>

The ED in which the site is located is North Dock A, which had a population of 1,356 in 2016, which was an increase of 53 from the 2011 Census. It had 695 dwellings. The subject site is located in an area that is suitable for medium to high densities, as it is well served by public transport and services.

The EC guidance relating to the implementation of the 2014 EIA Directive considers issues of human health and states:

“Human health is a very broad factor that would be highly project dependent. The notion of human health should be considered in the contexts of other factors in Article 3(1) of the EIA Directive and thus environmentally relates health issues (such as health effects caused by release of toxic substances to the environment, health risks arising from major hazards associated with the Project, effects caused by changes in disease vectors caused by the project, changes in living conditions, effects on vulnerable groups, exposure to traffic noise or air pollutants) are obvious aspects to study”

During the demolition and construction phase, and without remediation of the contaminated soil from the site, there is potential to give rise to effects that can impact upon human health. The demolition of buildings containing asbestos and the breaking of ground containing contaminants has the potential to release air borne and water borne pollutants that give risk to human health. Other general construction related impacts relate to noise, vibrations and traffic. Construction activities may require the use of potentially harmful material, such as fuels and other such substances and give rise to waste for disposal. Such use will be typical of construction sites. These impacts will be mitigated and measures area indicated in the Outline Construction Management Plan. Impacts will be further mitigated through a detailed Construction
Environmental Management Plan (CEMP) which will be prepared by the contractor prior to construction.

During the operational phase, the contaminated soil if left in situ has the potential to have significant effects upon human health of future residents. A key mitigating measure of the project is to remediate and remove contaminated soil from the site and dispose of arising waste in accordance with the relevant regulations and to licenced waste management facilities.

Other potential effects on the environment arising from the operation of the development is the management and collection of waste and additional traffic arising from the development. These are not deemed to be significant effects on the environment within the meaning of the Directive.

II.  *Biodiversity, with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive*

The AA screening report indicates that there is no risk of direct impacts on any designated sites. The EcIA indicates that the treeline and scrub may provide habitat for nesting birds. It states:

“If the trees / shrubs are cleared during the bird nesting season (between March and August, inclusive), it is possible that active nests could be destroyed. The killing of any birds or the disturbance of their nests would constitute an offence under the Wildlife Act 1976 (as amended), and could have a significant negative impact.”

Low to moderate levels of foraging / commuting activity by bats were recorded within the site. It is expected that bats will continue to feed on the site after the development is complete. The EcIA concludes that there are no likely significant effects upon species or habitats protected under the Habitats and Birds Directives. Mitigating measures include protection of birds and small mammals during site clearance works and the installation of bat sensitive lighting.

During the operational phase there is the potential to enhance biodiversity through planting of native species and the installation of bat boxes.

III.  *Land, soil, water, air and climate*

The impact upon land during construction will be temporary and not significant. There will be a long-term positive impact upon the land which will be brought into residential use.

A total of 17,938 tonnes of soil, stone and man-made ground will be removed from the site. Any hazardous material will be removed to a licenced facility by the contractor.

There are potential spills to ground water during the construction phase. This is potentially significant and likely in relation to the contaminated soils and asbestos on site. There is also the potential for discharges from the oil tank on site. These potential impacts will be mitigated through standard construction methods and the removal of any contaminated surface and ground water off site during construction.

There is the potential for air borne pollutants arising from demolition of structures.

There are no likely significant effects upon global or micro climate as a result of the development.

The Outline Construction and Demolition Waste Management Plan details various measures for the control and management of issues arising and a detailed Construction Environmental Management Plan (CEMP) will be prepared by the contractor prior to construction.
IV. Material assets, cultural heritage and the landscape

The development will connect to the public water supply. It will discharge foul sewage via the public sewerage system to the Ringsend Wastewater Treatment Plant. Refer to Drainage and Watermain Design Report. Both the public water supply and foul sewerage have the capacity to accommodate the development without significant effects on the environment.

The Traffic Impact Assessment indicates that the development can be accommodated without adverse effects upon the environment.

There are no recorded monuments situated within the site boundaries or immediately adjoining. There are no structures on the Record of Protected Structures (RPS). It does not lie within a zone of archaeological interest. There are no protected views or vistas affecting the site.

No significant adverse effects have been identified, no measures are recommended to avoid or prevent such impacts.

V. Interaction of Effects

There is potential for interaction of effects during the construction phase in relation to soil, water, biodiversity and human health. The negative impacts arise from potential risk of pollution, dust and noise. However, mitigation measures will ensure that there are no significant effects on the environment.

VI. Cumulative effects

It is considered that cumulative impacts with other existing and/or approved projects are not likely to cause significant effects on the environment.

No significant adverse effects have been identified, no measures are recommended to avoid or prevent such impacts.

VII. Transboundary effects

Owing to the scale, nature and location of the proposed development there will be no transboundary effects. No mitigating measures are required.

5.2 Schedule 7A information

1. A description of the proposed development, including in particular—
   (a) a description of the physical characteristics of the whole proposed development and, where relevant, of demolition works, and

Response

Refer to Section 5.1.1 of this report.

(b) a description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected.

Response

Refer to Section 5.1.2 of this report.

2. A description of the aspects of the environment likely to be significantly affected by the proposed development.
3. A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from—

(a) the expected residues and emissions and the production of waste, where relevant,

Response

The following waste will be generated during the construction phase:

- Rubble arising from demolition of existing electrical substation, the two storey building and existing walls and railings on site.
- Oil tank removal.
- Concrete hardstanding – 6,387 tonnes of uncrushed concrete or 3,286 tonnes of crushed concrete; and,
- Soil and stone/Made-Ground – 17,938 tonnes of soil and stone with elevated levels of TPHs and PAHs which are considered harmful to human health.

The expected residues and emissions arising from this construction waste arising are likely to be as follows:

- Soils consisting hazardous and non-hazardous waste in relation have the potential for emissions of the following:
  - Aliphatic TPHs were above the laboratory limit of detection at a number of sampling points.
  - PAH concentrations were detected within all other samples (when analysed for PAHs), the following determinants exceeded their respective GAC value on at least one occasion:
    - Naphthalene;
    - Benzoanthracene;
    - Chrysene;
    - Benzo[b]fluoranthene;
    - Benzopyrene; and,
    - Dibenz(a,h)Anthracene.
- An Asbestos Survey was undertaken and found asbestos in cement slates, bitumen products, textiles and gaskets, putty and mastic. Asbestos was detected within two soil samples as part of the site investigation. The asbestos detected was chrysotile in the form of fibres/clumps.

The Contaminated Land Assessment has undertaken a Source-Pathway-Receptor analysis without mitigating measures in place. The result of the assessment is provided in the table below.
It can be concluded that, without mitigation, there are likely significant effects on the environment, particularly in relation to human health. Remediation of the site is proposed as a mitigating measure. The Source-Pathway-Receptor assessment has been undertaken with this mitigation and residual impacts are considered. See table below.

Table 4: Source-Pathway-Receptor Assessment (with mitigation)

<table>
<thead>
<tr>
<th>Source</th>
<th>Pathway</th>
<th>Receptor</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leachate Migration (Vertical)</td>
<td>Bedrock Aquifer</td>
<td>Human Presence</td>
<td>From the site investigation at the site (Appendix B), the bedrock aquifer has a minimum 12.4 inh thickness soil over bedrock. This and its relatively low permeability associated with clay and silt layers, provides a limited means for surface water and bedrock groundwater to interact. The proposed development will largely consist of hardstanding areas with the exception of the public open space. Therefore, a limited volume of leachate is expected to be expelled from the site. Further investigations will be required to assess the quality of groundwater underlying the site.</td>
</tr>
<tr>
<td>Leachate Migration (Lateral)</td>
<td>Surface Waterbodies</td>
<td>Human Presence</td>
<td>Through assessing the soil quality data provided by IGSL (see Section 7), it was concluded that the exceedances of the Generic Assessment Criteria above the relevant land-use indicators potential risk to human health if left in-situ without treatment in the residential and public open space areas.</td>
</tr>
<tr>
<td>Leachate Migration (Vertical)</td>
<td>Bedrock Aquifer</td>
<td>Human Presence</td>
<td>Following the removal of the on-site oil tank, further investigations will be required to assess if there is any evidence of historic leaks or spills from the oil tank resulting in the saturation of adjacent soils which could produce contaminated leachate, if present.</td>
</tr>
<tr>
<td>Disturbed Asbestos</td>
<td>Ingestion</td>
<td>Human Presence</td>
<td>An asbestos survey was carried out by OHSIS on the 1st September 2021, the survey found asbestos present in a number of forms within the site. The IGSL site investigation also found asbestos fibres/dremps within the soil. Asbestos found on-site should be assessed by qualified personnel to a suitable facility to avoid the disruption of asbestos and the inhalation by humans.</td>
</tr>
</tbody>
</table>

Following mitigation, it can be concluded that there no likely significant effects on the environment.
Waste and emissions arising during the operational phase are not considered to be significant within the meaning of the Directive.

(b) the use of natural resources, in particular soil, land, water and biodiversity.

Response
Refer to 5.1.1. of this report.

4. The compilation of the information at paragraphs 1 to 3 shall take into account, where relevant, the criteria set out in Schedule 7.

Response
Please refer to section 5.1 of this report.

5.3 Any further relevant information

Response
This part 8 is accompanied by a suite of documentation to support the conclusions included in this report, this includes:

▪ Appropriate Assessment Screening Report
▪ Ecological Impact Assessment
▪ Drainage and Watermain Design Report
▪ Outline Demolition and Construction Waste Management Plan
▪ Outline Construction Management Plan
▪ Contaminated Land Assessment
▪ Traffic Impact Assessment
▪ Hydrogeological and Flood Risk Assessment
▪ Asbestos Survey
▪ Archaeological Impact Assessment

A suite of architectural, engineering and landscape drawings and reports also accompanies the documentation detailing the proposed development.

5.4 Any mitigation measures

The following mitigation measures are proposed as part of the Part 8 application:

▪ Contaminated soils will be removed from the site and hazardous and non-hazardous wastes arising will be disposed of at licenced facilities.
▪ Outline Demolition and Construction Waste Management Plan accompanies the application.
▪ An Outline Construction Management Plan accompanies the application.
▪ A detailed Construction Environmental Management Plan (CEMP) will be prepared in advance of construction.
▪ Any tree felling and site clearance works will be carried out between September and February (inclusive) i.e. outside of nesting season. If that is not possible, then an ecologist will be retained to survey the affected area(s) to assess whether any breeding birds are present.
▪ Bats sensitive lighting techniques will be incorporated into the public lighting.
▪ Monitoring of groundworks by a qualified archaeologist.
5.5 Available results under other relevant EU environmental legislation,

Other relevant EU environmental legislation may include:

- SEA Directive [2001/42/EC]
- Water Framework Directive [2000/60/EC]
- Ambient Air Quality Directive and Heavy Metals in the Ambient Air Directive
- Industrial Emissions Directive
- Seveso Directive
- Trans-European Networks in Transport, Energy and Telecommunication
- EU Floods Directive 2007/60/EC

### Table 5: Results of other Assessments

<table>
<thead>
<tr>
<th>Directive</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEA Directive [2001/42/EC]</td>
<td>The proposed development is located of lands which have been zoned under the Dublin City Development Plan 2016-2022. These have been subject to Strategic Environmental Assessment.</td>
</tr>
</tbody>
</table>
The AA concludes that ‘Having considered the particulars of the proposed development, we conclude that this application meets the first conclusion, because there is no risk of direct or indirect impacts on any Natura 2000 sites. Therefore, with regard to Article 42 (7) of the European Communities (Birds and Natural Habitats) Regulations 2011, it can be excluded on the basis of objective scientific information following screening, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site. Therefore, we conclude that Appropriate Assessment is not required”
The EcIA identifies a number of measures to minimize impacts on wildlife, specifically birds and bats. |
<table>
<thead>
<tr>
<th>Directive</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Framework Directive [2000/60/EC]</td>
<td>The main surface water feature in the area is the active River Tolka, 20m to the north. Under the Water Framework Directive status assessments 2013 – 2018, the River Tolka is defined as at ‘Risk’. No potential pathway via groundwater or surface water has been identified, as the hydrogeological assessment indicates surface water discharges to ground and there is no hydrological link between the ground water and the River.</td>
</tr>
<tr>
<td>Marine Strategy Framework Directive</td>
<td>The site is located c. 15km from the MSFD assessment area. There is no likely impact given the distance.</td>
</tr>
<tr>
<td>Ambient Air Quality Directive and Heavy Metals in the Ambient Air Directive</td>
<td>n/a to proposed development</td>
</tr>
<tr>
<td>Industrial Emissions Directive</td>
<td>n/a to proposed development</td>
</tr>
<tr>
<td>Seveso Directive</td>
<td>There are Seveso Establishments in Dublin Port, but the site lies outside any buffer areas.</td>
</tr>
<tr>
<td>Trans-European Networks in Transport, Energy and Telecommunication</td>
<td>n/a to proposed development</td>
</tr>
<tr>
<td>EU Floods Directive 2007/60/EC</td>
<td>A Hydrogeological and Flood Risk Assessment has been undertaken. The development will be protected against flooding. No flood risk arises.</td>
</tr>
</tbody>
</table>

5.6 Likely significant effects on certain sensitive ecological sites

Sensitive areas include:

i) a European site,

Response

An appropriate assessment (AA) screening report accompanies this part 8 submission. The AA concludes that there will be no potentially significant effects on a designated European site and that a Stage 2 NIS is not required.

ii) an area which is the subject of a notice under Section 16(2)(b) of the Wildlife (Amendment) Act 2000 (No. 38 of 2000),
Response

The Ecological Impact Assessment has not identified any likely significant effect on areas subject to a notice under Section 16(2)(b) of the Wildlife (Amendment) Act 2000.

   iii) an area designated as a Natural Heritage Area (NHA) under Section 18 of the Wildlife (Amendment) Act 2000,

Response

The Ecological Impact Assessment has not identified any likely significant effect on a Natural Heritage Areas.

   iv) land established or recognised as a nature reserve within the meaning of Section 15 or 16 of the Wildlife Act 1976 (No. 39 of 1976),

Response

The Ecological Impact Assessment has not identified any likely significant effect on a nature reserve.

   v) land designated as a refuge for flora or as a refuge for fauna under Section 17 of the Wildlife Act 1976,

Response

The Ecological Impact Assessment has not identified any likely significant effect on a refuge for flora or a refuge for fauna.

   vi) a place, site or feature of ecological interest, the preservation, conservation or protection of which is an objective of a development plan or local area plan, draft development plan or draft local area plan, or proposed variation of a development plan, for the area in which the development is proposed,

Response

The Ecological Impact Assessment has not identified any likely significant effect on a place, site or feature of ecological interest, the preservation, conservation or protection of which is an objective of the Dublin City Development Plan 2016-2022.

   vii) a proposed Natural Heritage Area (pNHA).

The Ecological Impact Assessment has not identified any likely significant effect on a pNHA.
6 Screening Determination Recommendation

Having regard to the nature and scale of the proposed development which is below the thresholds set out in Class 10 of Part 2 of Schedule 5, the criteria in Schedule 7, the information provided in accordance with Schedule 7A of the Planning and Development Regulations 2001, as amended, and the following:

- The scale, nature and location of the proposed impacts
- The potential impacts and proposed mitigation measures
- The results of the any other relevant assessments of the effects on the environment

It is considered that the proposed development would not be likely to have significant effects on the environment and it is recommended that environmental impact assessment report is not required.