



City Quay

Non Technical Summary

EIAR
August 2022

DCC PLAN NO 4674/22
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NON-TECHNICAL SUMMARY

1.0 INTRODUCTION

- 1 This is the non-technical summary of an Environmental Impact Assessment (EIA) Report prepared by AWN Consulting (AWN) on behalf of Ventaway Limited (herein referred to as 'the applicant') to accompany an application for planning permission to Dublin City Council (DCC) for the demolition of the existing disused former City Arts Centre Building and construction of a 24 storey mixed use building containing an arts centre, office and café accommodation, and exhibition performance space on a parcel of land comprised of 1-4 City Quay, Dublin 2 D02KT32, 23-25 Moss Street, Dublin 2 D02 F854 and 5 City Quay, Dublin 2 D02PC03.

- 2 The location of the Proposed Development is shown in Figure 1.1. The lands primarily comprise the former City Arts Centre Building and associated hard standing bounded to the north by City Quay, to the west by Moss Street, and to the south by Gloucester Street South. The City Quay Covid testing centre and City Quay National school abut the eastern boundary of the subject lands.

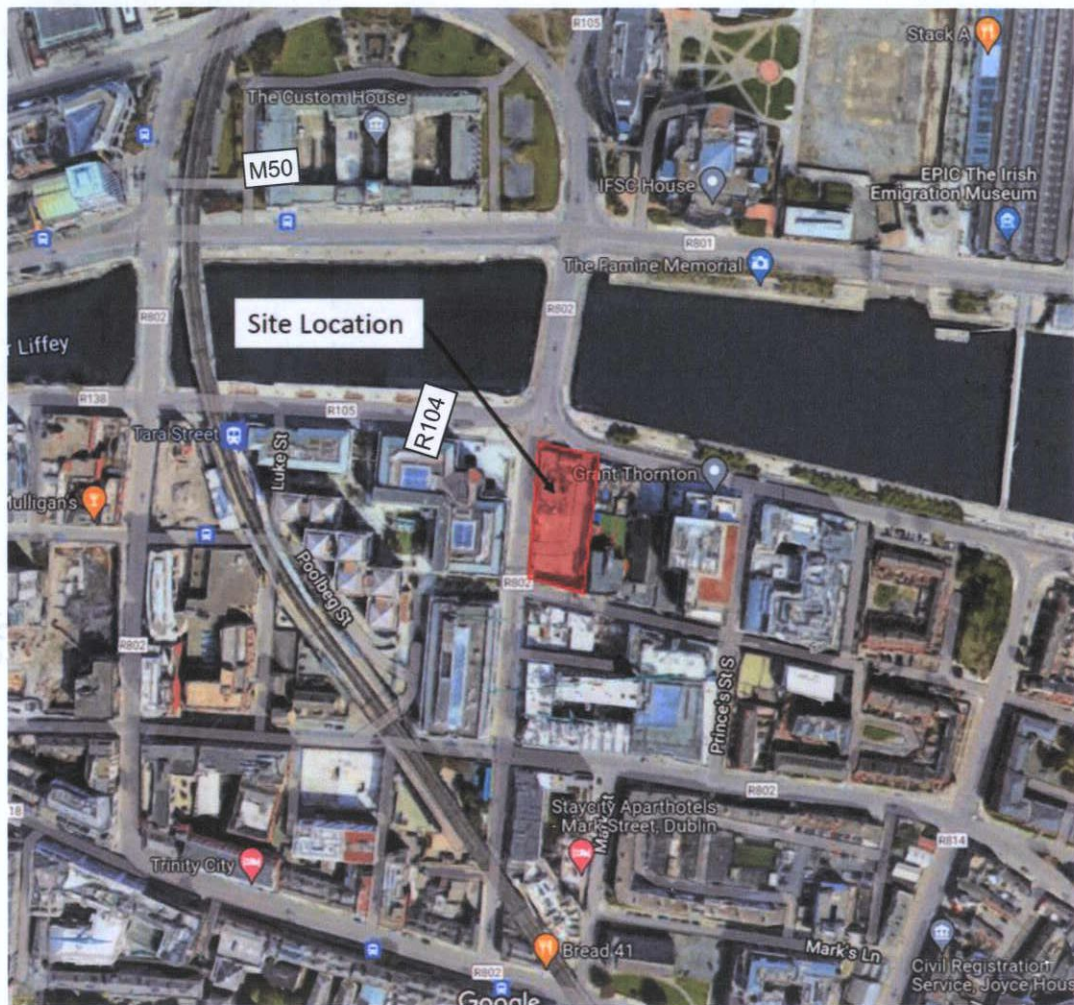


Figure 1.1 Location of the proposed development

Methodology for Preparation of the EIAR

- 3 The requirement for EIA for certain types and scales of development is set out in the EIA Directives (2011/92/EU and 2014/52/EU), European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (the bulk of which came into operation in September 2018), the European Communities (Environmental Impact Assessment) Regulations 1989-2006, Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001-2017.
- 4 This EIA Report has been prepared in accordance with the requirements of EIA Directives (2011/92/EU and 2014/52/EU), with consideration given to: Environmental Protection Agency (EPA) “*Guidelines on the Information to be Contained in Environmental Impact Assessment Reports*” (2022); *The Department of Housing, Planning and Local Government Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment* (2018); and the *European Commission Guidance on the preparation of the Environmental Impact Assessment Report* (2017).
- 5 The applicant and the project team have liaised with Dublin City Council, in advance of lodgement of this application. In addition, the relevant specialists have liaised with statutory bodies (including Irish Water, ESB, NPWS etc.) as required during the course of the EIA Report preparation. The advice and comments received have been incorporated into the relevant chapters of this EIA Report.

Contributors to the EIA Report

- 6 The preparation and co-ordination of the EIA Report has been completed by AWN in conjunction with experienced specialists. The role and responsibility of each contributor, their qualifications and relevant experience are detailed in Chapter 1 (Introduction) of the EIA Report.

2.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT

- 7 The Description of the Proposed Development Chapter (Chapter 2) of the EIA Report describes the site location and the characteristics of the proposed development. This chapter sets the scene for the individual aspects of the EIAR.
- 8 The site of the proposed development extends to c. 0.22 hectares. It is a rectangular plot of land, situated on City Quay on the southern side of the banks of the River Liffey, with the western boundary defined by Moss Street and the southern boundary by Gloucester Street South. City Quay National School and a Covid testing centre are located along the eastern boundary. The Church of the Immaculate Heart of Mary and the associated presbytery are situated to the east of the City Quay National School and the Covid testing centre.
- 9 The subject lands are characterised as brownfield, 100% hard cover, developed lands. The north-western corner of the site contains the former City Arts building; an abandoned cluster of three storey, over basement derelict buildings which cover c. one-third of the subject lands. The remainder of the lands are hard paved and currently in use as surface car parking which is accessed via an entrance along the eastern perimeter from City Quay. A small single-storey shed is located within the southern yard along the western perimeter. There is an original Pooley Weighbridge located on the site which will be salvaged and incorporated into the public realm area of the

proposed development. The perimeter of the site not delineated by the derelict buildings is lined with a wall formed from steel framework infilled with railway sleepers and corrugated sheeting.

10 The existing buildings on site are of no particular architectural importance or interest and are not included in the list of Protected Structure in the DCC Development Plan 2016 – 2022 and the draft DCC Development Plan 2022-2028 (“DCC Plan”).

11 Figure 2.1 presents the site layout for the proposed development, while Figure 2.2 provides a computer generated image of the proposed development.

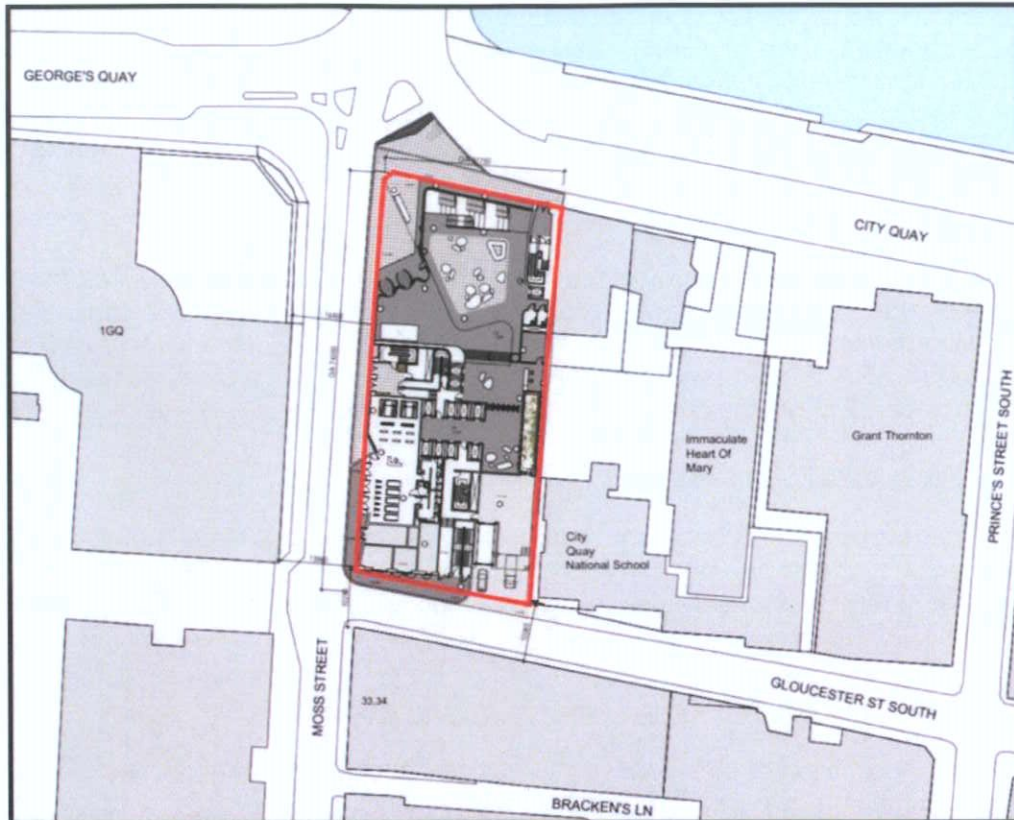


Figure 2.1 Proposed Site Layout (Mahoney Architecture)

12 The proposed development consists of the demolition of the existing buildings on site and the construction of a new arts centre and office development with associated restaurant/café and gym.

13 The Arts Centre will occupy three floors at the front of the building; basement, ground and first floor levels encompassing a total of 1,404m².

14 The basement floor level of the proposed building will form two primary functions; the most southern part of the building will be used for bicycle and scooter parking; the most northern end as an adaptable exhibition/performance/workshop space for the Arts Centre. The entire ground floor of the proposed development will provide for exhibition and public space, while the entire first floor of the proposed development will contain administration, workshops and studios.



Figure 2.2 *Computer Generated Image of Proposed Development (Mahoney Architecture)*

- 15 The main entrance to the first floor, located in the north-east corner of the site off City Quay is set back from the site boundary to form a small plaza which opens into a light-filled double-height lobby. Externally a granite bench provides a waiting place close to the entrance. There will be a large door on the City Quay frontage that can be opened onto the plaza to allow for occasional entrances for large events and also to allow for large scale art works to be moved in and out.

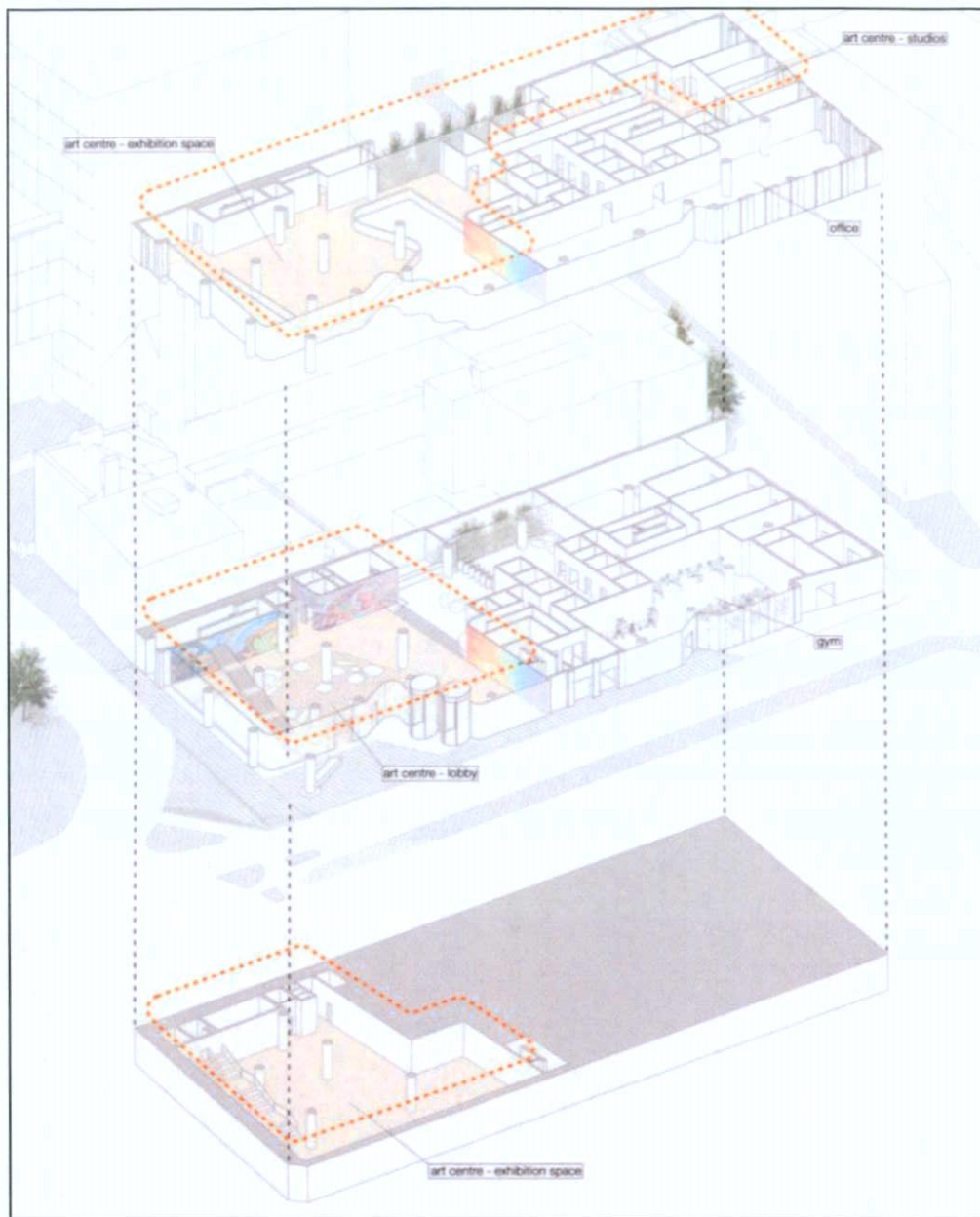


Figure 2.3 Internal layout of Proposed Arts Centre (Mahoney Architecture 2022)

- 16 Internal to the main lobby on the first floor a large video wall is positioned in front of the main entrance. The wall will display video artworks and will be highly visible from the outside. The salvaged Pooley Weighbridge will be set into the floor directly in front of the video wall and will have the capacity to interact with the video wall. The concrete wall located to the west of the entrance will be a curated graffiti wall which will continue to change over time. The area to the east of the entrance will provide a multi-use space for workshops, exhibitions and performances along with a café.
- 17 The office accommodation begins at the first floor level and extends to the top floor of the building (24 storeys) providing a total of 22,587 m² net office floor space.
- 18 The central core of the building accommodates the lifts, toilets and service risers leaving an open floor plate with 360 degree panoramic views of the city. The floor plate

depth and ceiling height ensures high levels of daylight penetrate through to the full extent of the office accommodation.

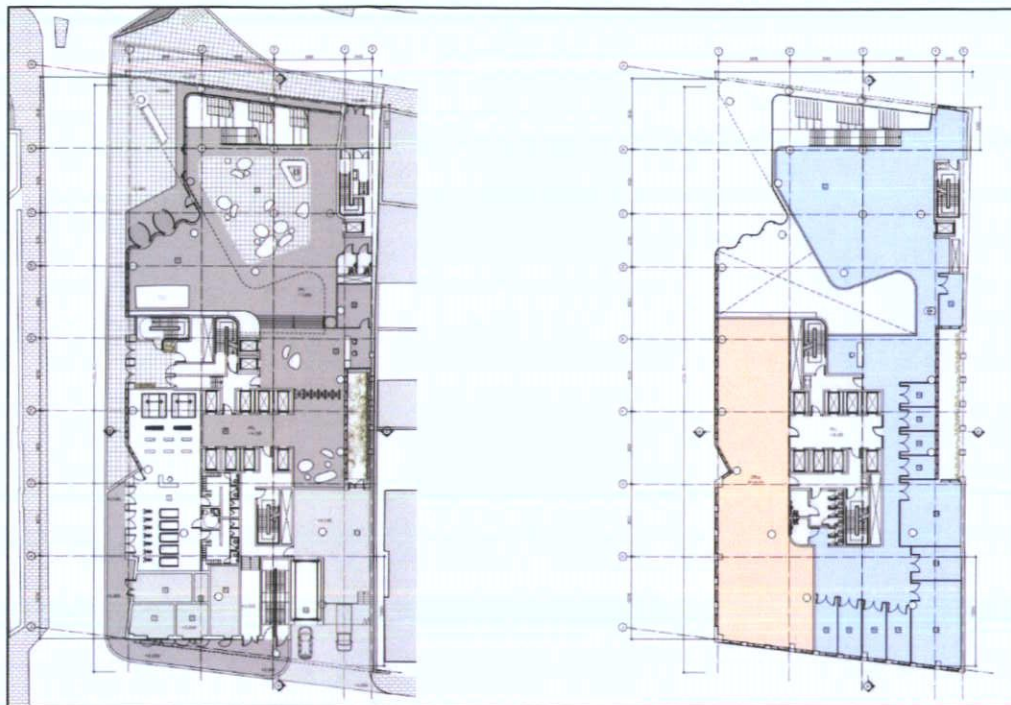


Figure 2.4 Ground Floor and First Floor Plan (Mahoney Architecture 2022)

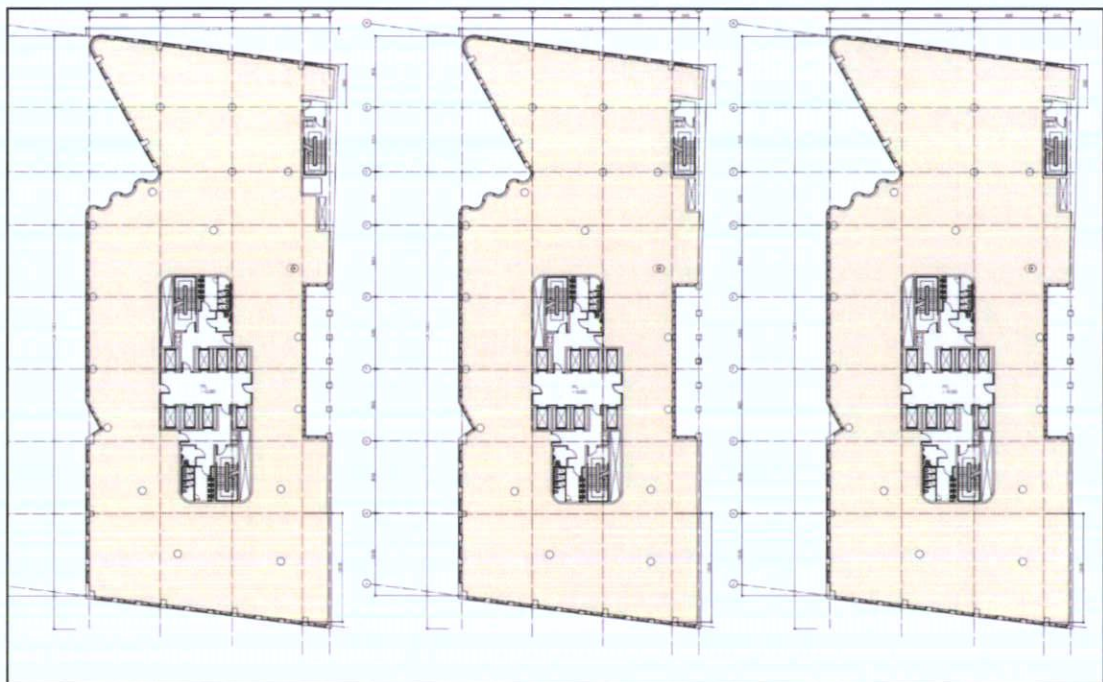


Figure 2.5 Proposed 2nd, 3rd and 4th Floor Levels (Mahoney Architecture 2022)

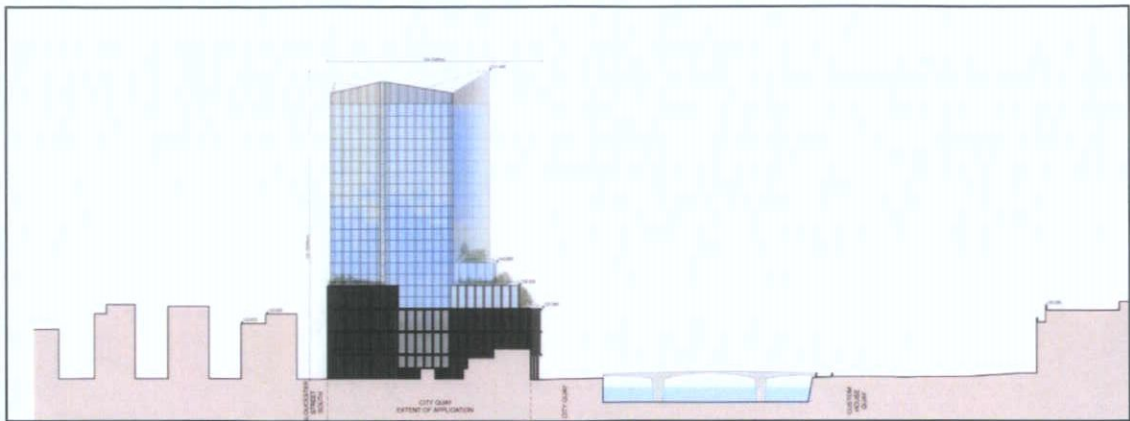


Figure 2.6 North Elevation (Mahoney Architecture 2022)

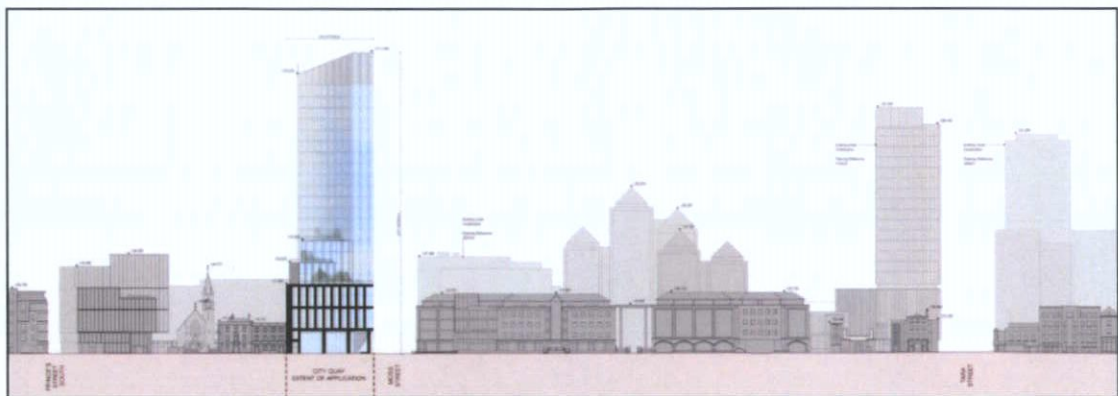


Figure 2.7 East Elevation (Mahoney Architecture 2022)

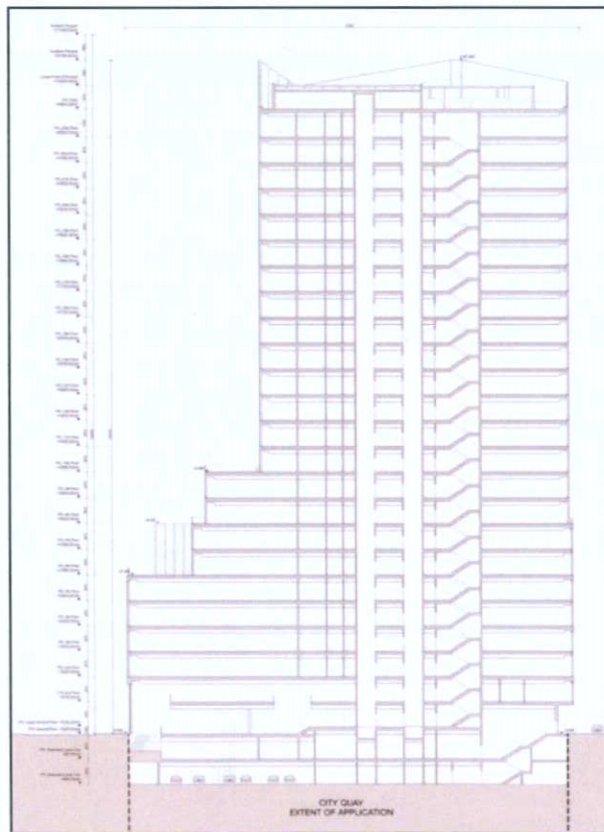


Figure 2.8 Cross Section of Proposed Development (3DDesign Bureau 2021)

- 19 A gym/spa facility exclusive for use by the office users and Art Centre staff is located on the upper basement floor level (-1 level), situated in the centre of the floor between the Art Centre and the changing rooms area.
- 20 Sustainable parking will be provided over the two lower basement levels in the proposed development.
- 21 The lower basement level (-2 level) will provide for 11 car parking spaces (all of which will have EV charging points and two of which are disabled accessible parking spaces) and 20 motorcycle parking spaces. This lower basement level will also contain plant rooms, sprinkler pumps, flood defence barriers, water tanks and a waste storage area. Motorised vehicles can access this lower basement level from Gloucester Street south via a car lift.
- 22 The upper basement level (-1 level) provides for extensive cyclist facilities on the southern end. A total of 424 no. bike spaces will be provided along with a cycle repair dock. Cyclists will have access to a total of 20 no. showers including 4 no. disabled accessible showers, 4 no. toilets and 430 no. lockers. Cyclists can access the basement from Gloucester Street South via a designated double-width stair with wheel tracks on each side, or via the car lift.
- 23 The proposed development has been designed by skilled personnel in accordance with internationally recognised standards, design codes, legislation, good practice and experience. At design stage, each unit has been assessed for energy efficiency.

3.0 ALTERNATIVES

- 24 The Alternatives Chapter (Chapter 3) of the EIA Report describes reasonable 'alternatives' for projects with regard to their environmental effects addressing:
- Do Nothing Alternative;
 - Alternative project locations;
 - Alternative designs/layouts;
 - Alternative processes; and
 - Alternative mitigation.

- 25 This chapter describes the alternatives that were considered for the proposed development, where applicable, under each of these headings and the reasons for the selection of the chosen option including consideration of environmental effects.

Do Nothing Alternative

- 26 In the event that the Proposed Development does not proceed, the specific need for a high-density mixed use development would still exist for the site, and as such the proposed development would need to be built elsewhere.

Alternative Project Locations

- 31 Given the current zoning of the site, the high level of accessibility to public transport infrastructure, the surrounding land uses, the proximity to similar associated developments, the proposed development is the most appropriate use for the site.

Alternative Design/Layouts

- 3.2 The subject lands form a key corner of the South Quays within the Custom House Setting. In light of existing, current and recently permitted development in the area the subject lands provide an opportunity to create a formal composition in response to the Custom House Setting.
- 3.3 Since the project outset great deal of time has been spent on optimising of the resultant design of the proposed development in response to the following:
- Consultation feedback arising from meetings with Dublin City Council (DCC) 11th Oct 2021, 15th Nov 2021, 15th Dec 2021, 21st Jan 2022, 10th Feb 2022 and 2nd March 2022.
 - The interaction of the proposed development with City Quay National School and the Immaculate Heart of Mary Church, in particular the need to reduce any sunlight/daylight impacts and to prevent any overlooking of the school.
 - Consideration for the Custom House visual envelope and the Gardiner Street Axis.
 - Reduction in bulk and presentation to the receiving environment as height progresses.
 - Desire to create relevance to and interaction with the streetscape.
 - Need to create a landmark building integrating with surrounding architecture and cumulative developments.

Alternative Processes

- 3.4 The flexibility to select alternative processes is limited for this type of development as opposed to an activity that has more complex equipment and processes. Notwithstanding this the applicant did include a number of renewable energy measures in the design of the proposed development.

Alternative Mitigation

- 27 The most appropriate mitigation has been decided through an analysis of the existing environment, likely impacts of the proposed development, relevant guidance, legislation, and the range of mitigation measures available to address the potential impact.

4.0 PLANNING AND DEVELOPMENT CONTEXT

- 28 The Planning and Development Context Chapter (Chapter 3) identifies the national, regional and local planning policy and context applicable to the proposed development. The installation is located within the administrative area of Dublin City Council ("DCC").
- 29 The chapter concludes that the facility is in accordance with the policies and objectives of the National Spatial Strategy, Regional Spatial and Economic Strategy for the Eastern and Midlands Regional Assembly and the Dublin City Development Plans. As part of the assessment of the impact of the proposed development, account has been taken of local committed developments that are currently permitted or under construction within the vicinity of the proposed site.

5.0 POPULATION AND HUMAN HEALTH

- 30 This chapter has been prepared to assess the likely impacts associated with Human Health for the proposed development. In accordance with the Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2020), Draft Advice Notes for Preparing Environmental Impact Statements (EPA, 2015), and European Commission (EC), Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (EU, 2017) this chapter has considered the “existence, activities and health of people” with respect to “topics which are manifested in the environment such as employment and housing areas, amenities, extended infrastructure or resource utilisation and associated emissions”.
- 31 Issues examined in this chapter include demography; population; employment; social infrastructure; landscape, amenity and tourism; natural resources; land, soil, geology and hydrogeology; hydrology; air quality; noise and vibration; material assets; microclimate; traffic and health and safety.
- 32 The assessment of significance is a professional appraisal based on the sensitivity of the receptor and the magnitude of effect.
- 33 The proposed development site is located in County Dublin, and in the electoral district of Mansion House A (ED 02117).
- 34 The proposed development site is within the existing footprint of the disused former Dublin Arts Centre. The closest residential sensitive receptor is the presbytery associated with the Immaculate Heart of Mary Catholic Church situated c. 15m to the east of the proposed development on City Quay. Further residential development is one block away, comprising City Quay apartments on Gloucester Street South, while slightly further to the east are a number of low-density single family homes; Peterson’s Court and Dowling Court with similar residential homes located further again to the east. In addition to this medium-density housing is located along Prince’s Street South, and on both sides of Townsend Street.
- 35 City Quay National School is immediately adjacent to the eastern boundary of the subject lands. This school fronts on to and is accessed by Gloucester Street South.
- 36 The subject site falls into the River Liffey Conservation Area (CA) and is across the river from the Custom House, for which there are plans to create a visitor centre. There are several protected views and prospects identified for protection in the site’s receiving environment. These include views east and west along the Liffey (specifically views towards the Custom House), and the view south along Gardiner Street towards the Custom House. Dublin City is a Nationally important asset with respect to tourism and the Irish Emigration Museum (EPIC) on Custom House Quay is situated opposite the proposed development. The proposed development provides a unique opportunity to enhance the cultural and tourism potential of the Dublin Dockland Strategic Regeneration Areas and City Quay in particular.
- 37 The proposed development is located within a Z5 zone as noted in the Dublin City Development Plan 2016 – 2022 and in the draft DCC Dev. Plan 2022-2028. Z5 zones are identified ‘*t*(T)*o consolidate and facilitate the development of the central area, and to identify, reinforce, strengthen and protect its civic design character and dignity*’. The development is in line with the goals of the zoning.

- 38 A number of potential impacts related to population and human health have been identified in this chapter; economic impacts, air quality impact, noise and vibration impact, local amenity and tourism impact, material assets impact, traffic impact, unplanned events/health and safety impacts, sunlight/daylight impacts, and microclimate wind impacts.
- 39 In response to any potential impacts arising as a result of the proposed development detailed mitigation measures have been set out which will successfully negate any significant negative impacts with the exception of some short-term construction noises to be slightly (5dB) above the recommended sound level at the upper floor level of City Quay National School. It must be noted that these potential exceedances will be short term and temporary and that the majority of residual construction noise impacts during the remaining work phases will be within recommended limits.
- 40 Considerable attention was paid during the design phase of the proposed development to ensure that there is no decrease in sunlight in the playground during school hours, however be an unavailable loss of daylight to some of the classroom windows on the courtyard side of the school during school hours. This reduction is however within BER VSC (vertical sky component) targets resulting in an overall negative, slight, long-term impact to the school.
- 41 The cumulative impact of the proposed development together with the permitted proposed and existing developments in the area have been assessed based, and it has been determined to be negligible in the context of the established network. The residual impacts are actually expected to be positive, with increased cultural arts capacity and economic generation consistent with the Dublin County Development Plan, in addition to the significant positive contribution towards the enhancement of the custom house visual envelope and the linkage of Dublin City to the Dublin Docklands.

6.0 BIODIVERSITY

- 42 This Biodiversity section of the EIAR was carried out by Altemar Ltd. It assesses the biodiversity value of the proposed development area and the potential impacts of the development on the ecology of the surrounding area and within the potential zone of influence (ZOI).
- 43 The programme of work in relation to biodiversity aspects of the EIAR has been designed to identify and describe the existing ecology of the proposed development site and outline the habitats or species of conservation interest that may be present on site. It also assesses the significance of the likely impacts of the scheme on the biodiversity elements including designated conservation sites and designs mitigation measures to alleviate identified impacts. Mitigation measures and the phasing of the project are contained in the accompanying Outline Construction Management Plan (oCMP), which has been prepared by Byrne Looby Consulting Engineers.
- 44 A pre-survey biodiversity data search was carried out in May 2021 and updated in June 2022. This included examining records and data from the National Parks and Wildlife Service (NPWS), National Biological Data Centre (NBDC) and the Environmental Protection Agency (EPA), in addition to aerial, 6 inch maps and satellite imagery.
- 45 Habitat, flora, bat and wintering bird surveys were undertaken within the appropriate seasonal timeframes and in compliance with relevant guidelines. Field surveys were

carried out as outlined in Table 6.1. All surveys were carried out in the appropriate seasons. A mammal/fauna survey was also carried out.

Table 6.1 Field surveys

Survey Type	Surveyors	Survey Dates
Field Survey (habitat, flora and mammal)	Bryan Deegan (Altemar)	9 th and 21 st September 2021. 10 th August 2022
Bat Survey	Bryan Deegan (Altemar)	9 th and 21 st September 2021. 10 th August 2022
Wintering Bird and Flightline Assessment	Hugh Delaney (ornithologist)	14 th and 27 th December 2021

46 The potential ZOI of the project in the absence of mitigation was deemed to be; within the site outline, and nearby sensitive receptors including the River Liffey and designated sites downstream of the proposed works. Given the extend of the demolition and site clearance works, and the proximity of the River Liffey to the subject site (15m), in the absence of mitigation there is the potential for dust and surface water runoff to enter the proximate watercourse. As a result, out of an abundance of caution, the ZOI of the proposed works site is extended to the River Liffey and downstream designated conservation sites located within Dublin Bay.

47 Foul wastewater and surface water drainage will also be discharged to the combined sewer. As a result, there is an indirect hydrological pathway from the proposed development to designated conservation sites located within the marine environment at Dublin Bay. In the case of the proposed development, the potential ZOI extends beyond the site, with the potential for downstream impacts to extend beyond the proposed development area via the proposed construction works and the surface water/foul water networks during construction and operation.

48 The proposed development site is not within a designated site. There are four Natura 2000 sites within 5km (South Dublin Bay SAC, North Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA and North Bull Island SPA), five National conservation sites (pNHA's) within 5 km (Royal Canal, Grand Canal, North Dublin Bay, South Dublin Bay and Dolphins, Dublin Docks) , and two Ramsar sites within 15km (Sandymount Strand / Tolka Estuary and North Bull Island) of the proposed development site.

49 It should be noted that no species of conservation importance were noted on site, based on NPWS and NBDC records at fine resolution.

Evaluation of Habitats

50 The proposed development site is on built land. No habitats of conservation significance were noted within the site outline.

Plant Species

51 No rare or plant species of conservation value were noted during the field assessment. Records of rare and threatened species from NBDC and NPWS were examined. No rare or threatened plant species were recorded in the vicinity of the proposed site. No invasive plant species that could hinder removal of soil from the site during groundworks, such as Japanese knotweed, giant rhubarb, Himalayan balsam or giant hogweed were noted on site.

Fauna

- 52 No rare or threatened faunal species were recorded within the proposed development site based on NBDC records. No badgers or badger activity was noted on site. No hedgehogs were seen during the site visit. The common frog (*Rana temporaria*) was not observed on site. The common lizard (*Zootoca vivipara*) or smooth newt (*Lissotriton vulgaris*) were not recorded on site. There are no features within the site boundary that could be important to Amphibians/Reptiles. No rare or bird species of conservation value were noted during the field assessment. There is no evidence of a current or past bat roost in the structures on site, therefore no significant negative impacts on the roosting of these animals are expected to result from the proposed development. Foraging activity was not present. Herring gull were noted flying and were not nesting on site. The site is not seen as an important wintering bird site due it consisting entirely of built land. Results also suggest that the site is not a regular flightline path for such species like Brent Geese or other species of significant interest, from the observers experience of regular commuting through this part of the city centre these species are not frequently encountered passing through this area.
- 53 In the absence of mitigation measures the overall development of the site is likely to have direct negative impacts upon the existing habitats, fauna and flora within the site. Direct negative effects will be manifested in terms of the removal of the site's internal and perimeter habitats. The removal of these habitats will result in a loss of species of low biodiversity importance. The area is not deemed to be an important foraging area for terrestrial mammals or birds. It should be noted that the proposed development site is located 15m from the River Liffey and the nearest Natura 2000 site is South Dublin Bay and Tolka Estuary SPA, located 1.9 km downstream of the proposed demolition and construction site. The nearest pNHA is Royal Canal pNHA (located 0.7 km from the subject site) and the nearest Ramsar site is Sandymount Strand/Tolka Estuary (located 2.9 km downstream). Given the nature of the demolition and construction works and the subject site's proximity to the River Liffey (15m), out of an abundance of caution it is considered that there is a direct hydrological pathway to designated conservation sites located within Dublin Bay, downstream of the River Liffey, namely, South Dublin Bay (SAC & pNHA), South Dublin Bay and River Tolka Estuary SPA, is Sandymount Strand/Tolka Estuary Ramsar site, North Dublin Bay (SAC & pNHA), and North Bull Island SPA.
- 54 In the absence of mitigation measures surface water runoff and dust during site demolition and clearance works could potentially impact on the River Liffey and downstream conservation sites, with water quality or downstream/upstream impacts, due to the tidal nature of the River Liffey proximate to the site.
- 55 The impact of the development during construction phase will be a loss of existing habitats and species on site. It would be expected that the flora and fauna associated with these habitats would also be displaced. In the absence of any mitigation on site, due to the proximity of the estuarine element of the River Liffey and the potential for dust during demolition, surface water runoff during the removal of material off site into road drainage and pumping of unmitigated surface/ground water from excavations to the watercourse, there is potential for downstream/upstream impacts on biodiversity from contaminated runoff, silt, dust and petrochemicals. No birds of conservation importance were nesting on site. Herring gull were not nesting on site but there is potential that herring gull could potentially nest on site.
- 56 Once constructed, the site would be seen as a stable ecological environment. However, in the absence of mitigation, appropriate measures should be taken to

prevent surface water run-off into adjacent habitats and in particular the River Liffey and downstream designated sites in the absence of standard mitigation measures. No significant operational impacts are foreseen on terrestrial flora and fauna. In relation to birds the results of the flightline assessment suggest that the site is not a regular flightline path for such species like Brent Geese or other species of significant interest, and that these species are not frequently encountered passing through this area. In addition, *bird friendly design has been taken into account in the form of an applied etching and/or printed laminate on the glazed elements.*

57 A range of mitigation measures have been outlined and will include the appointment of a project ecologist to oversee drainage and demolition works. Measures will include measures in relation to dust and surface water. In addition, a pre-construction survey for bats for bats will be carried out and nesting birds if demolition is to commence within bird nesting season. Standard operational mitigation measures as outlined in the engineering report will be in place to protect surface water networks from pollution.

58 Taking into account the mitigation measures stated in this EIAR no significant environmental impacts are likely in relation to the demolition/construction of the proposed development.

59 Effects: Slight effects / site / Negative effect / Not significant /short term/likely. Standard mitigation will be in place on site.

60 Taking into account the mitigation measures stated in this EIAR no significant environmental impacts are likely in relation to the operation of the proposed development.

61 Effects: Slight effects / site / Negative effect / Not significant / long term/likely. Standard mitigation will be in place on site.

7.0 LAND, SOILS, GEOLOGY AND HYDROGEOLOGY

62 This chapter assesses and evaluates the potential effects of the development on the land, soil, geological and hydrogeological aspects of the site and surrounding area. In assessing likely *potential* and predicted effects, account is taken of both the importance of the attributes and the predicted scale and duration of the likely effects.

63 The site ground conditions show MADE GROUND encountered to 2.80mbgl and 2.90mbgl. This was logged as clay soils overlying gravel soils with red brick and concrete fragments running through them. Underlying the fill material is granular SAND and GRAVEL soils with cohesive CLAY and SILT soils underlying these with the boundaries between 4.80mbgl and 5.60mbgl. BH02 recorded further granular soils at 5.60mbgl whereas the two holes closer to the river recorded cohesive soils until termination.

64 Bedrock was encountered during the site investigations in 2020 by SIL. The three (3) no. boreholes were drilled to a maximum depth of 9.10 metres below ground level (mbgl). Therefore, the depth to bedrock is greater than 9 metres at the proposed development site. Based on this data, aquifer vulnerability is considered 'low'. The bedrock geology of the site is classified as Calp formation which is described as dark grey to black limestone & shale of Lower Carboniferous age.

- 65 Based on the most recent data (www.epa.ie) the Dublin groundwater body (IE_EA_G_008) within which the Proposed Development has a “Good” status (2018) and is “*under review*” (2015).
- 66 In addition, no groundwater source protection zones, which are zones defined by the GSI within which development is limited in order to protect groundwater from potential pollution, are identified by the GSI under the site or in the immediate vicinity. There are no karst features in the area.
- 67 Based on the NRA/IGI (2009) methodology, the criteria for rating the importance of geological features, the importance of the geological features at this site is rated as *Low Importance*.
- 68 Based on the NRA/IGI (2009) methodology, the criteria for rating the importance of hydrogeological features, the importance of the hydrogeological features at this site is rated as *Medium Importance*.
- 69 The volume of material to be excavated has been estimated by the project engineers to be approximately 25,000m³ of material. Any suitable excavated material will be temporarily stockpiled for reuse as fill (although this is considered minimal due to the extents of the proposed development across the site footprint), where possible, with remaining soil to be removed off-site for appropriate reuse, recovery and / or disposal. During construction, specific mitigation measures will be implemented to manage risks to soil and water quality. The contractor will be required to operate in compliance with a Construction Environmental Management Plan (CEMP). Measures include, management of silt laden run-off, management of fuel storage, management of alkaline run-off from cement works, and management of excavated soils.
- 70 Following implementation of mitigation measures the predicted effect during construction of the proposed development will be **short-term, imperceptible** and **neutral**.
- 71 During the Operational phase, there are limited activities that could potentially effect on the land soils, geological and hydrogeological environment. The development does not include the storage of bulk fuel or chemicals and there are no direct discharges to ground. Any accidental discharge (from vehicles) will discharge through a petrol interceptor and an attenuation tank. The predicted effect during operation of the proposed development, following implementation of design and mitigation measures will be **long-term, imperceptible** and **neutral**.

8.0 HYDROLOGY

- 72 This chapter assesses and evaluates the potential impacts of the proposed development on the local hydrology. In assessing likely potential and predicted effects, account is taken of both the importance of the attributes and the predicted scale and duration of the likely effects.
- 73 The lands primarily comprise the former City Arts Centre Building and associated hard standing bounded to the north by City Quay, to the west by Moss Street, and to the south by Gloucester Street South. The City Quay Covid testing centre and City Quay National school along the eastern boundary of the subject lands. The current 0.22 ha site is brownfield and is 100% hard standing. The area within the site is currently used for car parking. Within the boundary there is an existing semi-derelict three storey building at the northwest corner of the site.

- 74 The River Liffey (IE_EA_090_0400, 09_2111) is the closet waterbody to the site. This waterbody is located approx. 0.02 km to the north of the Proposed Development site. The River Liffey discharges to Dublin Bay Natura Site approx. 1.54 km to the east of the Proposed Development site.
- 75 The Liffey Estuary Upper is considered '*Moderate*' due to the waterbody being classed as '*Potentially Eutrophic*'. However, this improves status further downstream after the Talbot Memorial Bridge where it is classed as '*Intermediate*'. These waterbodies are transitional waterbodies. The River Liffey is classed as '*Poor*' at the closet river station to the site - LIFFEY - 0.2 km d/s Chapelizod Bridge (Lynch's Lane) (RS09L012360) approx. 6.05 km upstream (west). This is an operational station, with a current status of *Poor* (Q-value of 3) in 2019.
- 76 The subject site lies within Flood Zones A, B and C. The development of a commercial complex is classified as a less vulnerable development under the FRM Guidelines. The less vulnerable development adopts the precautionary approach to setting of finished floor levels as noted in Section 5.16 of the FRM Guidelines and is robust to breach, overtopping and climate change scenarios. Commercial development is proposed to be sited above the 0.5% AEP coastal flood level with allowance for climate change and freeboard (at 4.0mOD), with other less vulnerable uses at existing streetscape level to ensure continuity within the streetscape, but protected with demountable barriers to address the food risk. The proposed development will not impact of flood extent, depth, risk or flood routes elsewhere.
- 77 Based on the TII methodology (2009) the importance of the hydrological features at this site is rated as '*Medium importance*' based on the assessment that the attribute has a medium-quality significance or value on a local scale.
- 78 The proposed development will provide a significant improvement to the local drainage catchment as it is proposed to provide full attenuation for increase in hardstand area in compliance with the requirements of the Greater Dublin Strategic Drainage Study.
- 79 A number of measures will be put in place to minimise the likelihood of any spills entering the water environment to include the design of the car park, and on-site speed restrictions.
- 80 Mitigation measures to protect water quality during construction are included in the Construction Environmental Management Plan (CEMP) for the proposed development.
- 81 The implementation of mitigation measures detailed in Chapter 8 of the EIA Report will ensure that the potential effects on the surface water environment do not occur during the construction phase and that the residual impact will be *short-term-imperceptible-neutral*.
- 82 During operation there are limited risks to surface water receptors. The development does not include the storage of bulk fuel or chemicals.
- 83 The implementation of mitigation measures highlighted in Chapter 8 will ensure that the potential effects on the surface water environment do not occur during the operational phase and that the predicted impact will be *long-term-imperceptible-neutral*.

9.0 AIR QUALITY AND CLIMATE

- 84 AWN Consulting Limited has been commissioned to conduct an assessment of the likely impact on air quality and climate associated with the proposed development at 1-4 City Quay, Dublin 2 D02KT32, 23-25 Moss Street, Dublin 2 D02 F854 and 5 City Quay, Dublin 2 D02PC03. The proposed development will involve demolition of the current structures on site and development of an office building and Arts Centre.
- 85 In terms of the existing air quality environment, baseline monitoring data available from similar environments indicates that levels of nitrogen dioxide, particulate matter less than 10 microns and less than 2.5 microns are generally well below the National and European Union (EU) ambient air quality standards.
- 86 The existing climate baseline can be determined by reference to data from the EPA on Ireland's total greenhouse gas (GHG) emissions and compliance with European Union's Effort Sharing Decision "EU 2020 Strategy" (Decision 406/2009/EC). The EPA state that Ireland had total GHG emissions of 57.7 Mt CO₂eq in 2020. This is 6.73 Mt CO₂eq higher than Ireland's annual target for emissions in 2020. The EPA predict that Ireland can comply with the GHG targets for 2021 – 2030 provided full implementation of the measures outlined within the Climate Action Plan and the use of the flexibilities available.
- 87 Impacts to air quality and climate can occur during both the construction and operational phases of the proposed development. With regard to the construction stage the greatest potential for air quality impacts is from fugitive dust emissions impacting nearby sensitive receptors. Impacts to climate can occur as a result of vehicle and machinery emissions. In terms of the operational stage air quality and climate impacts will predominantly occur as a result of the change in traffic flows in the local areas associated with the proposed development.
- 88 There is one sensitive receptors in close proximity to the site with City Quay National School bordering the site to the east. There are also a number of medium sensitivity receptors in the form of office buildings and a hotel within 20m of the site. A medium level of sensitivity to construction dust soiling impacts has been assigned to the surrounding area. The surrounding area is considered of low sensitivity to human health related dust impacts. The IAQM guidance was used to determine the level of risk associated with the construction phase of the proposed development in relation to potential dust impacts to the surrounding area. It was determined that there is a medium risk of dust soiling impacts and a low risk of human health related dust impacts as a result of the construction phase activities. Provided the dust mitigation measures outlined in Appendix 9.1 of Chapter 9 are implemented, dust emissions are predicted to be short-term, negative and imperceptible and will not cause a nuisance at nearby sensitive receptors.
- 89 The best practice dust mitigation measures that will be put in place during construction of the proposed development will ensure that the impact of the development complies with all EU ambient air quality legislative limit values which are based on the protection of human health. Therefore, the impact of construction of the proposed development will be short-term, localised, negative and imperceptible with respect to human health.
- 90 Potential impacts to air quality and climate during the operational phase of the proposed development are as a result of a change in traffic flows and volumes on the local road network. The changes in traffic flows were assessed against the UK Design Manual for Roads and Bridges (DMRB) screening criteria for an air quality and climate assessment. The change in traffic on the surrounding roads as a result of the proposed

development is below the threshold requiring a detailed air quality and climate modelling assessment. Therefore, the operational phase is considered long-term, neutral and imperceptible in relation to air quality and climate. In addition, the proposed development has been designed to reduce the impact to climate where possible during operation.

91 As the National and EU standards for air quality are based on the protection of human health, and concentrations of pollutants in the operational stage of the proposed development are predicted to be significantly below these standards, the impact to human health is predicted to be imperceptible, neutral and long term.

92 No significant impacts to either air quality or climate are predicted during the construction or operational phases of the proposed development.

10.0 NOISE AND VIBRATION

93 Chapter 10 of the EIAR provides information on the assessment of noise and vibration impacts on the surrounding environment during both the construction and operational phases of the development.

94 When considering the potential impacts, the key sources will relate to the short-term Construction Phase and the long-term impacts associated with the development, once operational.

Baseline Noise Environment

95 The baseline noise environment at the closest noise sensitive locations to the proposed development is dominated by road traffic along the surrounding road network. The results of the measured noise surveys are typical of a location in close proximity to busy roads in an urban setting.

Construction Phase

96 Construction noise calculations have been performed representing the different phases of work that will occur at the development site. The results of the assessment have determined that construction works can operate within the construction noise significance thresholds adopted for the project at the nearest noise sensitive locations once mitigation measures are in place. There is potential for the construction noise threshold to be exceeded at distances up to 20 m along the eastern boundary during the initial stage works with highest construction noise levels.

97 A range of noise mitigation measures have been included to reduce construction noise levels at the closest site boundaries. The application of binding noise limits and hours of operation, along with implementation of appropriate noise control measures including liaison with adjacent building occupants, will ensure that significant effects during this phase is minimised.

98 Vibration impacts during the Construction Phase of the proposed development are not significant at the nearest sensitive buildings due to the type of construction activity on site, the low levels of vibration associated with same and the distances to nearest sensitive buildings. Site activities will be managed so as not to exceed the vibration limits set out in Chapter 10.

Operational Phase

- 99 The main potential sources of outward noise from the development during the Operational Phase relate to traffic flows to and from the development via public roads and mechanical and electrical plant used to service the buildings. The primary sources of outward noise in the operational context are deemed to be long term in nature. There are no vibration sources associated with the operational phase.
- 100 The assessment has determined that the above sources will not generate any significant noise impact at existing noise sensitive locations in the surrounding environment. A range of noise mitigation and best practice control measures have been included within the assessment to control noise levels at the closest noise sensitive properties to the development once operational.

11.0 LANDSCAPE AND VISUAL IMPACT

- 101 The proposed development would have widespread visual effects of moderate to high significance affecting the site's immediate environs and a number of important and sensitive townscape character areas in the wider receiving environment.
- 102 For the most part the effects have been classified positive. Two important factors in coming to these conclusions - in addition to the design/appearance of the proposed development - have been the site location in the townscape and relevant policy.

Site Location / Townscape Characteristics

- The site occupies a pivotal position in the Liffey corridor, just east of the point where the river changes from a narrower, sinuous channel contained by older, terraced buildings (in the old city to the west), to a wide, straight-sided channel lined by large, detached buildings (in the Docklands to the east). The site falls into the latter character area, but is also close to the pivot (which is one of the reasons that the Tara Street site was selected for a high building).
- The site is also located in a zone of transition in townscape character, between the old city centre to the west and the Docklands to the east. It is an established principle in urban design that edges/transitions - the coming together of two types - can and should be encouraged to generate diversity.
- Currently, there is an acknowledged disconnection between the old city centre and the Docklands area. This is due to a combination of factors including the effect of the Loopline Bridge, and the inconsistent built frontage, lack of activity-generating uses and entrances, the public realm design and the openness of the river corridor east of the Loopline, which makes it less definable and attractive as a place. There are few reasons for people to be on the Liffey quays between the Loopline Bridge and Sean O'Casey Bridge. Despite its distinctive buildings (see bullet below) and the presence of Talbot Bridge, this area lacks place-identity and is something of a dead zone in the public realm. This area, of which the site is a key element, acts as an impediment to the desired integration of the old city centre and the Docklands.
- Within the transitional area between the old city and the Docklands is the Custom House, which is the centrepiece of a distinct local character area of which the site is a part. The Custom House is one of Dublin's most important historic buildings, but it exists in a townscape characterised by diversity of built form, scale and architecture (and a lack of cohesion) – an area which has undergone constant change since the Custom House was built. Many of the buildings were forerunners and strong architectural expressions of their type

and time (e.g. the Custom House itself, Busáras, Liberty Hall, IFSC, George's Quay Plaza, AquaVetro and College Square). This is due to the strategic location (a) at the centre of Dublin, (b) adjacent to the historic city centre and commercial core, (c) at the intersection of all transport networks, and (d) in an area characterised by diversity. Such lack of uniformity in building typology, form, scale, architecture and materials creates capacity for further diversity.

- There is a long history (for Dublin) of tall buildings in the site's vicinity – for the reasons identified above. Liberty Hall was the first tall building in the city. George's Quay Plaza, although not particularly tall, was the second. The AquaVetro and College Square permissions have firmly established height as a characteristic of the zone of transition between the old city and the Docklands. These buildings all are/will be visible from east and west along the Liffey, and from Trinity College, and in a range of views of the Custom House.
- Currently, the three tallest buildings/permissions (Liberty Hall, AquaVetro, College Square) lie to the west of the Loopline (the definable barrier between the old city and Docklands). There is an argument to be made that expanding this cluster of tall buildings east to straddle that divide, complementing George's Quay Plaza, would help to overcome the disconnection between the city and Docklands.
- This effect (the visible expansion of a definable, transitional character area across the current divide) would be reinforced if the new development also contained a use or uses that could draw people from the old city towards the Docklands along the quays.
- The site is located at a strategic junction in the road network, where traffic from north of the Liffey is channelled over Talbot Bridge to arrive at the southern city centre. Here, directly in front of the site, traffic is diverted to the historic city centre, Trinity College, or the Docklands. Talbot Bridge, and the junction of the bridge with George's Quay, City Quay and Moss Street, together are a significant component of the road, pedestrian and cycle networks. However, this is not reflected in the surrounding built form. The junction lacks definition and place-identity.
- The site (and any future development on the site) is a feature of several views of strategic importance, including views along the Liffey, and from Gardiner Street to the north and Kildare Street to the south. Its axial position in these views creates potential for gains in legibility, clearly identifying a 'place' in the city. (That place, significantly, is east of the Loopline). While the site's focal-point position in these views is a sensitivity, it must be recognised that it is equally an opportunity. There are few sites that present the potential for focal-point visibility from important streets on both the north side and south side of the Liffey.
- As a result of the policy of compact growth, in the coming years there will be a general increase in height and changes in townscape character and views throughout the city, towards a denser urban condition. It is logical that the greatest concentration of density and height should be in the city centre in the areas best served by public transport.

103 • The above summary indicates that the site is suitable for a landmark tall building. The *Tall Building Statement* prepared by Urban Strategies Inc. came to the same conclusion based on an assessment of the site and the proposal against the Draft Dublin City Development Plan 2022-2028 'Performance Criteria in Assessing Proposals for Enhanced Height, Density and Scale' (Table 3 of Appendix 3 of the Draft Development Plan). Albeit the author acknowledges that the latter is 'Draft', the Performance Criteria is based on criteria that is widely accepted and which supports National policy in this regard.

104 Although policy should not be used to classify environmental impacts as positive when otherwise they would be classified negative, it is the case that development policy has for some time dictated the character of landscapes and townscapes. Being the product of democratically elected local and national governments, planning policy reflects the values and culture of the population. Visual amenity and 'the landscape' are unusual as environmental resources in that they are *perceived* by people. They are therefore subject to variations in the attitudes and values - including aesthetic preferences - of the receptors. One person's attitude to a development may differ from another person's, and thus their response to the effects of a development on a townscape or view may vary. In seeking to reflect this, when carrying out Landscape/Townscape and Visual Impact Assessment, it is reasonable to consider the relevant planning policy – as an expression of culture and values - in coming to conclusions on the significance of a proposed development's effects.

105 The following policy factors suggest a high sensitivity to change in the receiving environment:

- The site is a riverside site in Dublin city centre, across the Liffey from the Custom House – a protected structure and one of the city's most valued architectural heritage features. Any development on the site would affect the setting of the Custom House, and be visible in views of and from the Custom House.
- The Liffey Corridor is covered by Conservation Area designation, which extends to cover the Custom House (and Beresford Place and Busáras to the north). The CA designation also extends onto the site itself, specifically covering the front portion of the site.
- There are two protected structures a short distance to the east of the site, namely the Immaculate Heart of Mary Church and the adjacent parochial house. Any development on the site would affect their setting, and be visible in views of and from these buildings. Between the site and these protected structures is a school, located immediately adjacent to the site. The school is also a sensitive receptor of change.
- Any development on the site would feature in views east and west along the Liffey corridor. These views are protected in the City Development Plan.
- Any development (except for a very low development) on the site would also feature in views from Gardiner Street across the Liffey to the north west. This is also a protected view, in which the cupola of the Custom House already features at the end of the street (although off-centre from the axis of the street).
- Any tall development on the site would feature in certain views from Trinity College. The Development Plan requires that new tall development must be sensitive to Trinity College (and to the historic city centre, the Liffey and quays, Dublin Castle, the historic squares and the canals). The Development Plan states: *"It is important to protect and enhance the skyline of the inner city and to ensure that any proposals for high buildings make a positive contribution to the urban character of the city, and create opportunities for place-making and identity."*

106 The following policy factors are drivers for change on the site:

- The National Planning Framework states the following objective for Dublin: *"Supporting the future growth and success of Dublin as Ireland's leading global city of scale, by better managing Dublin's growth to ensure that more of it can be accommodated within and close to the city".* If Dublin is to compete internationally as a global city of scale, then office buildings of scale and

distinction must be provided to the market. The closer that such a building is to the city centre, to any sectoral agglomerations (e.g. finance, tech/innovation, etc.) and to transport links, the more valuable the development will be – to prospective occupants and to the city and national economy.

- Policy CEE5 of the DCDP states: “...*cities are crucibles of innovation and... the city centre Z5 zoned area and inner city area including the Docklands are the crucial metropolitan and national resource for innovation, promoting the proximity and diversity of uses that foster innovation*”, and “*high-quality and dense development drives productivity and innovation in a city.*”
- The site, being located at the centre of a triangle formed by the city centre, the Docklands and Trinity College – only minutes’ walk from each of them – and 150m from the future MetroLink station at Tara Street (providing a rail connection to the airport), must be considered a land/development asset of national importance. This understanding of the site has implications for the consideration of any development proposal (including its townscape and visual effects) since a development of commensurate stature and distinction is a logical response to the unique opportunity the site presents.
- The DCDP states: “*The strategy of extending the inner city eastwards and westwards, towards the Docklands and Heuston respectively, is now complemented with a strategy for the quality consolidation of the inner city, protecting heritage while promoting diversity.*” The site has the potential to deliver on all the objectives contained in this statement. i.e. expansion of the inner city to the east, quality consolidation of the inner city, diversity, and protecting heritage – the latter by responding positively to it.
- Regarding density, the DCDP states:
 - “*Higher densities will be promoted in the city centre... and within the catchment of high capacity public transport...*”
 - “*To encourage intensification and mixed-use development along existing and planned public transport corridors and at transport nodes where sufficient public transport capacity and accessibility exists to meet the sustainable transport requirements of the development, having regard to conservation policies... and the need to make best use of urban land.*”
 - “*To promote sustainable densities, particularly in public transport corridors, which will enhance the urban form and spatial structure of the city, which are appropriate to their context...*”
- While the Development Plan states that DCC remains committed to the need to “*protect conservation areas, architectural conservation areas and the historic core of the city*”, it also notes: “*taller buildings can also play an important visual role and can make a positive contribution to the skyline of a city. Dublin City Council recognises the merit of taller buildings, including landmark buildings, in a very limited number of locations at a scale appropriate for Dublin.*”

107 Although secondary to the consideration of the actual appearance of the proposed development in the views from representative viewpoints, the above policy has been taken into consideration.

108 As to the appearance of the proposed development and its related effects on views and townscape character, the following factors have informed the generally positive classification of effects. As a landmark development, the building has been designed with consideration of both its long-range visibility, and its close-up appearance.

Building form in consideration of long-range visibility

- The tower is positioned so that it is directly at the centre of the views from both Gardiner St. and Kildare St..
- The axis of the tower is turned to align directly with the Custom House and Gardiner Street, so that it appreciably addresses these elements/ sensitivities in the townscape.
- The width of the tower was reduced to the maximum extent at which the floorplates remain viable (in terms of plan form, and area), thereby minimising the width of the tower – and maximising its slenderness ratio - in views from the north (e.g. Gardiner St.) and south (e.g. Kildare St., Moss St. and parts of Trinity College).
- This also maximises the tower's separation from the Custom House cupola in views from Gardiner St..
- Particular attention has been paid to the roof design – both its shape and materials. The multi-angled parapet projecting above the top floor emphasises the orientation of the building towards the Liffey, the Custom House and Gardiner St.. The parapet design celebrates the height of the building (as opposed to seeking to downplay it, which has been the unfortunate norm in many of the modern buildings in the Docklands), creating a distinctive roof profile that would make the building recognisable from a distance, improving legibility. The distinctiveness of the roof is emphasised by the use of shaped, perforated metal panels, which at night would be backlit to create a lantern effect.
- The two steps between the podium block of the building and the set-back tower anchor the tower to its context (the row of river-front buildings) and successfully transition from the low, horizontal shape of the podium to the vertical form of the tower.
- However, the tower also descends all the way to meet/rise from the street along a part of Moss St. and at the corner facing Talbot Bridge, the Liffey and the Custom House. This reflects the ambition of the design, and in its way pays respect to those features/ sensitivities. The proposal does not seek to hide or shy away from its height; it seeks to employ its height as a virtue in the creation of a new landmark.



Design detail in consideration of immediate environs

- A high level of attention has been given to the materials and finish so that when seen from close up the façade would be both beautiful and subtly reflective of its context. This can be seen in the 'fluted' profile of the glazing in the north west façade of the tower (created by alternating concave and convex curved glass panels), which references the canopy of Busáras; the vertical strips of aluminium panels between the glazing of the tower, which have a wave-like pattern of perforations; and other details.
- Attention has also been paid to making the arts centre as visible as possible from the surrounding public realm (including by re-using the distinctive neon signage of the original 'City Arts Centre'). This too would add to the place-making effect and visual interest of the building, as well as generating footfall.



- 109 It is inevitable and not undesirable that a tall building on a (potential) landmark site, would have significant visual and townscape effects. This is the intention of such development. Overall, in the author's opinion, those effects would be positive.

12.0 ARCHAEOLOGY, ARCHITECTURE AND CULTURAL HERITAGE

- 110 IAC Archaeology (IAC) has prepared this chapter 12 to assess the effect, if any, on the archaeological, architectural and cultural heritage resource of the proposed development at 1-4 City Quay, Dublin 2 D02KT32, 23-25 Moss Street, Dublin 2 D02 F854 and 5 City Quay, Dublin 2 D02PC03.
- 111 The proposed development area is located within the Zone of Archaeological Potential for Dublin City (RMP DU018-020) and as such is afforded Statutory Protection. While there are no recorded monuments within the proposed development area there are eight in the Study Area (i.e. 250m). The nearest of these is the City Quay/Sir John Rogerson's Quay (DU018-020479), which runs east-west c. 23m to the north of the site.
- 112 There are no protected structures or NIAH structures within the proposed development area; however, there are 23 Protected structures and 30 NIAH sites within the Study Area. It is proposed to add City Quay, Custom House Quay and George's Quay to the list of Protected Structures in the forthcoming updated Development Plan (2022-2028). The Dublin City Industrial Heritage Record (DCIHR) notes the presence of a former coal yard (Brewery) within the southern half of the proposed development Area. This was evident on the historic maps in the latter half of the 19th century for the historic location of a Coal Yard (Brewery).
- 113 The northern part of the proposed development area is located within a Conservation Area, as designated within the Dublin City Development Plan (2016-2022). The site is

not located within an Architectural Conservation Area, the closest ACA is located c. 360m to the west, and associated with O'Connell Street and Bridge.

- 114 Whilst the proposed development area was located within the tidal estuary until reclamation in the 17th century there is potential for artefacts or features of archaeological significance to survive in the original estuarine deposits (c. 2.8m+ BCGL). These remains may relate to prehistoric or medieval activity on the river, such as fish traps or early revetments. In the absence of mitigation, there may be a direct very significant negative impact on surviving archaeological remains caused by ground works associated with the proposed double-basement level construction.
- 115 It is clear that the proposed development area has been subject to continuous redevelopment following reclamation in the 17th century. The degree to which this has impacted on the footprint of the earliest building remains is unknown at present; however, it is likely that some structural elements survive below the current ground level; especially within the southern half of site. In the absence of mitigation, there may be a direct significant negative impact on surviving early structural remains caused by ground works and other site preparation works associated with the proposed development.
- 116 The proposed development will require extensive bulk excavation to allow the installation of a foundations (piles and raft foundations), basements, water attenuation tanks and trenches for connecting services.
- 117 The use of concrete reinforced piles into the substrates beneath will require the boring of piles and the excavation of a capping trench. In the absence of mitigation these may have a direct very significant negative impact on any surviving archaeological remains that exist at deeper levels (c. 2.8m+ BCGL) within the waterlogged estuarine deposits.
- 118 It is possible that ground disturbances, across the site may, in the absence of mitigation, have a direct significant negative impact on buried archaeological remains of early structures and industrial heritage that have the potential to survive in the upper reclamation deposits.
- 119 A programme of archaeological test trenching will be carried out across the site to investigate the potential for earlier structural remains to survive beneath the current ground level. This may occur in two phases, within the open yard to the south, and following demolition in the north. The results of this investigation will inform the pre-development archaeological mitigation strategy for the site, which may include preservation by record (excavation), preservation in-situ and/or archaeological monitoring. Any further mitigation will require approval from the National Monuments Service of the DoH/LGH and in consultation with the Dublin City Archaeologists.
- 120 Following the programme of archaeological testing and resultant mitigation, further mitigation during construction may be required such as archaeological monitoring. This will be carried out by a suitably qualified archaeologist. If any features of archaeological potential are discovered, further archaeological mitigation may be required, such as preservation in-situ or by record. Any further mitigation will require approval from the National Monuments Service of the DoH/LGH and in consultation with the Dublin City Archaeologists.
- 121 The proposed development area contains upstanding buildings that are in derelict condition within the northern half of site. These buildings, date to the 19th and 20th centuries. It is proposed to demolish these buildings and clear the site in advance of

- construction. In the absence of mitigation, this will have a direct significant negative impact on the architectural heritage of the site.
- 122 Elements of industrial heritage, associated with the former brewery and coal yard (such as cranes) may survive beneath the areas of hardstanding to the rear of site. Ground disturbances and other site preparation works, associated with the proposed development may, in the absence of mitigation, have a direct negative significant impact on any such surviving remains.
- 123 A full photographic and detailed built heritage survey will be carried out of the existing buildings and walls that are of historical interest prior to the commencement of demolition works. This record will ensure that the vital information on the history of Dublin Quays is preserved by record.
- 124 The construction of a landmark, multi-storey structure will result in temporary negative indirect impacts on the surrounding architectural heritage resource due to the disruptive nature of construction activities. However, these effects will be short-term.
- 125 No direct operational impacts are predicted upon the archaeological or cultural heritage resource.
- 126 All protected structures and NIAH structures within the study area have been assessed for potential impacts during operation. Indirect negative moderate impacts have been identified in relation to the Presbytery and Church of the Immaculate Heart of Mary and the Custom House. The remaining identified impacts are slight and in many instances impacts do not occur due to the developed nature of the landscape between the proposed development area and the structures under assessment.
- 127 The proposed development is located within the River Liffey Conservation Area and will see the introduction of a landmark modern structure. Whilst a number of surrounding multi-storey structures exist in this environment, the operation of the development will have an indirect negative effect on the overall Conservation Area, which will be moderate in significance.
- 128 No mitigation is proposed for the operational phase of the proposed development in relation to the architectural heritage resource. It is not possible to mitigate negative impacts upon the settings of built heritage structures, due to the landmark nature of the development.
- 129 Following the completion of the above mitigation measures there would be no residual impact on the archaeological heritage resource resulting from the proposed development
- 130 The negative impacts caused by the removal of historic derelict buildings is mitigated down to a slight negative residual affect due to the creation of a detailed record of the buildings before their demolition.
- 131 There will be slight and moderate residual negative effects upon the architectural heritage resource during the operation of the development. This is due to the fact that no mitigation is available to reduce the impacts of a landmark structure on the architectural heritage resource.

13.0 TRAFFIC AND TRANSPORTATION

- 132 The objective of this chapter is to assess the traffic implications associated with the proposed development in terms of its integration with existing traffic in the area. The assessment determines and quantifies the extent of additional trips generated by the development during construction and operation, and the impact on operational performance of such trips on the local road network.
- 133 Junction capacity analyses have been undertaken, of the signalised junction of Moss Street and City Quay, the junction of Moss Street and Gloucester Street South, the signalised junction of Moss Street and Townsend Street, the junction of Prince's Street and Gloucester Street and the junction of Prince's Street and City Quay. All junctions assessed are predicted to operate within capacity for each of the assessment years 2024 (last year of construction), 2025 (Opening Year), 2030 and 2040 (years of operation) with, and without, the proposed development.
- 134 A Bicycle Level of Service (BLOS) was calculated for City Quay, Matt Talbott Bridge, and George's Quay where a cycle track or an advisory cycle lane is provided. The Bicycle Level of Service (BLOS) assigns a grade A through F to a portion of the roadway. This grade corresponds to the perceived level of service that roadway provides to bicycles. It was determined that all bicycle facilities assessed will continue to operate within capacity with, and without, the proposed development.
- 135 A Pedestrian Level of Service (PLOS) was calculated for the pedestrian crossings of City Quay, Moss Street and Gloucester Street South. The Pedestrian Level of Service (PLOS) assigns a grade A through F to a portion of the footpath which corresponds to the perceived Level of Service provided to pedestrians. It was determined that all pedestrian crossings will continue to operate within capacity with, and without, the proposed development.
- 136 The capacity assessments of the existing road/street network in the vicinity of the proposed development have also taken account of the cumulative impacts of nearby committed developments.
- 137 The County Development Plan does not require a minimum number of car parking spaces for the development zone in which the development site is located. A total of 11 car parking spaces are proposed within the development. However, a minimum of 302 bicycle parking stands, in accordance with the City Development Plan is required. A total of 424 bicycle parking stands are proposed within the development, which is considered adequate for the projected demand.
- 138 The following predicted impacts associated with the proposed development were assessed as part of this Traffic Assessment:
- **Link Capacity** – to determine if the development will lead to congestion on local streets during demolition/construction and operational phases.
 - **Junction Capacity** – to determine if the development will lead to congestion at key junctions within the local road network during demolition/construction and operational phases.
 - **Pedestrians and Cyclists** – to determine if pedestrians and cyclist mobility will be impacted by the proposed development during demolition/construction and operational phases.

- **Public Transport** – to determine if existing Public Transport infrastructure can accommodate the increase in passenger numbers during demolition/construction and operational phases.
- **Parking** – to determine if the development can accommodate the required parking demands of the development.

139 Following assessment, it was determined that the proposed development will have an imperceptible impact on link and junction capacity in each of the assessment years; will have an imperceptible impact on pedestrians, cyclists, and public transport passengers; and can accommodate parking demands as outlined in the Dublin City Development Plan (2016-2022).

14.0 MATERIAL ASSETS

140 This chapter evaluates the potential impact from the proposed development on Material Assets which are defined in the EPA Guidelines (2022) as “*built services and infrastructure, roads and traffic and waste management*”. The EPA Advice Notes (2015) also gives examples of material assets including assimilative capacity of air and water; ownership and access; and tourism and recreational infrastructure. The European Commission Guidance (2017) refers to several examples of material assets including buildings, other structures, mineral resources and water resources.

141 In this EIA Report, the impacts on some of the material assets described in the above guidance have already been considered in the following chapters and therefore these aspects will not be addressed in specific detail within this chapter. This chapter assesses ownership and access, built services and infrastructure, which have not already been addressed elsewhere in this EIA Report. The subsequent sections address built services and infrastructure. The potential impacts on built services and infrastructure, if any, are assessed in under the following subheadings:

- Land Use, Property, and Access
- Power and Electrical Supply
- Surface water infrastructure
- Foul drainage infrastructure
- Water supply
- Telecommunications

142 The subject lands are characterised as brownfield, 100% hard cover, developed lands. The north-western corner of the site contains the former City Arts building; an abandoned cluster of three storey, over basement derelict buildings which cover c. one-third of the subject lands. The remainder of the lands are hard paved and currently in use as surface car parking which is accessed via an entrance along the eastern perimeter from City Quay.

143 The western boundary defined by Moss Street and the southern boundary by Gloucester Street South. City Quay National School and a Covid testing centre are located along the eastern boundary. The Church of the Immaculate Heart of Mary and the associated presbytery are situated to the east of the City Quay National School and the Covid testing centre.

144 The proposed development site is zoned as ‘Z5 – City Centre’ in the Dublin City Council Development Plan 2016-2022 and draft DCC Development Plan 2022-2028, for which the zoning objective is to “*consolidate and facilitate the development of the central*

area, and to identify, reinforce, strength and protect its civic design character and dignity”.

- 145 A construction compound and temporary power supply will be established in consultation with the utility supplier. The power requirements for the construction phase will be relatively minor. Once in operation, electricity will be provided to the site via the national grid and the on-site PV panels, tying in with existing infrastructure in neighbouring areas. New electricity and telecommunications services infrastructure will be put in place to serve the various buildings. This will be carried out in accordance with the requirements of the various service providers. There will be no impact to existing ESB, Gas and Telecommunication networks during the construction and operational phases.
- 146 Based on preliminary surveys all surface water currently drains unrestricted from the subject lands to the combined foul and surface sewers on City quay, Moss Street and Gloucester Street South. This public sewerage ultimately discharges to the Irish Sea via Ringsend Wastewater Treatment Plant (WWTP).
- 147 For the proposed development surface water run-off from the proposed roof areas, including green roof, will discharge by gravity via siphonic drainage within the building to the attenuation tank within the basement. Surface water will then be pumped to the last foul manhole, which it will then travel by gravity to the existing public combined system at Moss Street or Gloucester Street South
- 148 Sustainable drainage systems (SuDS) measures will be incorporated into the stormwater drainage network to improve the quality of stormwater leaving the site. SuDS are drainage systems that are environmentally beneficial, causing minimal or no long-term detrimental damage.
- 149 These measures will include green roofs for 50% of the roof area, attenuation, a hydrobrake and rainwater harvesting for re-use as irrigation water and grey water. Petrol interceptors will also be provided for any surface water collected from the underground parking area.
- 150 The stormwater drainage network has been designed and modelled for the 100-year storm event and will reduce the surface water flow rate existing the site to 2l/s/ha. Welfare facilities will be provided for the contractors via portable sanitary facilities within the construction compound site during the construction works. It is anticipated that initially, waste will be collected by tanker and disposed of appropriately, and that temporary connections to the existing services will be established to provide service and utilities subject to relevant applications and approvals.
- 151 Welfare facilities will be provided for the contractors via portable sanitary facilities within the construction compound site during the demolition/construction works. It is anticipated that initially, waste will be collected by tanker and disposed of appropriately, and that temporary connections to the existing services will be established to provide service and utilities subject to relevant applications and approvals.
- 152 All foul effluent generated at the proposed development site during the operational phase shall be collected in a new foul drainage network for the proposed development designed in accordance with Irish Water Code of Practice for Wastewater Infrastructure.
- 153 Flow design loading calculations for the proposed development provide a worst case maximum peak flow rate of 10.71 l/s. The proposed development shows water closets

and sanitary provision at basement level -01. As basement level -01 will be at a level below the nearest combined sewer invert level, there will be a requirement to pump foul waste from the basement levels to the last manhole prior to discharging to the existing combined network.

154 The proposed water supply network will be designed and installed to the requirements and specifications set out in the Irish Water Code of Practice for Water. Measures are proposed to minimise water use during the operational phase, including low consumption sanitary fittings, and leak detection systems and reuse of rainwater.

155 The estimated water demand for the proposed development is 186m³/day. The peak demand will be 10.78l/s in accordance with Irish Water code of Practice Water infrastructure

156 There are telecommunication lines in existence for telephone and broadband services in the area. A fibre optic cable distribution network will be installed with an incoming fibre infrastructure provided to the building via underground fibre ducts. There are existing underground carrier ducts adjacent to the site that will be utilised for the development.

157 The works contractor will be obliged to put best practice measures in place and work in accordance with the CEMP. The implementation of mitigation measures within each chapter and detailed in this Chapter (Chapter 14) will ensure that the predicted impacts on the material assets during the demolition/construction phase will be neutral, imperceptible and short-term.

158 Likewise the implementation of mitigation measures within each chapter and detailed in Chapter 14 will ensure that the predicted impacts on the material assets during the operational phase will be neutral, imperceptible and long-term.

15.0 WASTE MANAGEMENT

159 AWN Consulting Ltd. carried out an assessment of the potential impacts associated with waste management during the construction and operational phases of the proposed development. The receiving environment is largely defined by Dublin City Council (DCC) as the local authority responsible for setting and administering waste management activities in the area through regional and development zone specific policies and regulations.

160 During the construction phase, typical C&D waste materials will be generated which will be source segregated on-site into appropriate skips/containers, where practical and removed from site by suitably permitted waste contractors to authorised waste facilities. Where possible, materials will be reused on-site to minimise raw material consumption. Source segregation of waste materials will improve the re-use opportunities of recyclable materials off-site. There will be soil and stones excavated to facilitate construction of the new building foundations, installation of services and carparking for the development extension. The volume of material to be excavated has been estimated by the project engineers (Bakkala Consulting Engineers) to be c. 25,000m³. Any suitable excavated material will be temporarily stockpiled for reuse as fill (although this is considered minimal due to the extents of the development across the site footprint), where possible, with remaining soil to be removed off-site for appropriate reuse, recovery and / or disposal.

- 161 A carefully planned approach to waste management and adherence to the mitigation measures in Chapter 15 and the site-specific Resource and Waste Management Plan (Appendix 15.1) during the construction phase will ensure that the effect on the local and regional environment will be *short-term, neutral and imperceptible*.
- 162 During the operation phase, waste will be generated from the office tenants and arts centre tenants at the proposed development. A Waste Storage Area (WSA) and waste collection area have been allocated within the development for tenants. The WSA has been appropriately sized to accommodate the estimated waste arisings in the office units and arts centre. The waste storage area has been allocated to ensure a convenient and efficient management strategy with source segregation a priority. Waste will be collected from the designated waste collection area and within the curtilage by permitted waste contractors and removed off-site for re-use, recycling, recovery and/or disposal.
- 163 An Operational Waste Management Plan has been prepared which provides a strategy for segregation (at source), storage and collection of wastes generated within the development during the operational phase including dry mixed recyclables, organic waste, mixed non-recyclable waste, medical waste, cardboard, plastic and glass as well as providing a strategy for management of waste batteries, WEEE, printer/toner cartridges, chemicals, textiles, waste cooking oil and furniture / bulky items (Appendix 15.2). The Plan complies with all legal requirements, waste policies and best practice guidelines and demonstrates that the required storage areas have been incorporated into the design of the development.
- 164 Provided the mitigation measures outlined in Chapter 15 and the site-specific Operational Waste Management Plan (Appendix 15.2) are implemented and a high rate of reuse, recycling and recovery is achieved, the predicted effect of the operational phase on the environment will be *long-term, neutral and imperceptible*.

16.0 INTERACTIONS – INTERRELATIONSHIPS BETWEEN THE ASPECTS

- 165 This chapter of the EIA Report addresses potential interactions and inter-relationships between the environmental factors discussed in the preceding chapters. This covers both the demolition/construction and operational phase of the proposed development.
- 166 In the main, the interactions between the environmental factors and impacts discussed in this EIAR have been assessed and the majority of interactions are neutral. While there will be moderate to significant demolition/construction noise impacts to the upper floors of City Quay National School this will be short-term and temporary. Also while the extensive re-designs of the proposed development have minimised to a substantial degree the impact of shading on City Quay National School there will be a moderate reduction in available light at some windows on the courtyard side of the school; however this reduction is within BRE guidelines as acceptable. By the very design of this proposed landmark building there will be some indirect negative impacts of moderate significance to the Presbytery and Church of the Immaculate Heart of Mary, the Custom House, and the River Liffey Conservation Area. The proposed development will however result in a landmark building in a well-suited location (in terms of public infrastructure, prominence within the city centre and need) delivering high-density office employment and cultural arts resources which will have a positive benefit within the hinterland in which the development is located.