In review of statutory policies directing the provision of pedestrian linkages within the development site, the proposal wholly fulfils this important requirement in addition to purposefully redeveloping a presently vacant plot which succeeds in its existing capacity only at eroding urban unity.

Anticipated Impacts for the Urban Character of the Wider Townscape

Anticipated Impact for the Urban Character of Henry Street

The development of Site 2 does not directly impact Henry Street, however, the taller buildings will be visible above its terrace, due north and from its junction with Henry Place.

A proposed development at Site 3, whilst subject to an ongoing An Bord Pleanála review, will alter the character of the same aspect due north, from Henry Street. In the event that Site 3 is delivered, its mergence with Site 2 will reduce adverse impacts associated with the morphological change of the latter. Whilst on its own merits the scheme deviates in density from the existing given template, in fusing with larger building typologies on Henry Street (GPO, Arnott's, ILAC Centre etc), a new interactive category is generated.

As previously stated, the scale and orientation of the new pedestrian street has been designed to avoid displacing the prominence of Henry Street as the most significant secondary street interconnecting with O'Connell Street. Henry Street is the primary shopping street on the north side of the city and the proposal seeks to support the street in this central role. The new access route proposed as part of the Site 2 development will create a 'loop' likely enhancing the commercial success of the ACA and Henry Street.

Anticipated impact for the urban character of Moore Street and its Historic Market

As cited in CEE18 (vi), Table 7.1 above, the proposed development provides a new pedestrian street linking O'Connell Street to a proposed new civic space within Site 4 of the Masterplan scheme. Proposed east-west connections with Moore Lane from O'Connell Street Upper, together with the introduction of the MetroLink Station are intended to increase access to and in turn the prominence of the Moore Street Market, creating new possibilities for the restoration of the market as a thriving cultural and commercial destination.

Anticipated Impact for the Urban Character of Cavendish Row

Site 2 will be visible from Cavendish Row, with the gable of Site 2C culminating the existing No.43 O'Connell Street acquiring particular prominence from this position.

Its prominence is exaggerated, albeit not eliminated, on account of the presently injurious fracture in the once homogenous terrace, caused by the absence of terraced buildings at Nos.40 and 41 O'Connell Street. The consequentially incongruous gable condition of No.42, divorced from its original mid-terraced form, draws attention from the classically composed corner of the AIB Bank at Nos 37-38 O'Connell Street and highlights an urgent requirement to restore the terrace and compositional integrity of this important junction, a central objective of Site 1 of the Dublin Central Masterplan. The temporary condition of undeveloped vacant plots at Nos 40 and 41 inevitably does little to shield Site 2. It is likely that a development at Site 1 at operational stage will screen Site 2C to an extent where it becomes imperceptible within the roofscape provided by the remainder of Site 2 to the south.

In mitigation, in offering to address uppermost, visible levels of Site 2C as a mid-terraced building temporarily viewed 'in the round' from this viewpoint due south, Grafton Architects have skilfully integrated a colonnaded belvedere within the northern gable. A concept borrowed from attic storey belvederes found in prominent 18th century city-center buildings such as the Four Courts, is successfully adapted in the subject development not just to mitigate the impact of visual change, but to provide an exceptional amenity within the proposed building. The treatment of this northern elevation is thus tempered in its further adoption to the rhythm of the smooth limestone pilastered shopfront of Nos 37-38 O'Connell Street, visually connecting both with the consequence of an urban cohesion overcoming a potentially excessive impact otherwise.

A further element visible from Cavendish Row will comprise the proposed walkway and chamfered corner of Site 2B, which will likely encourage greater animation of this street and its extant amenities.

Anticipated Impact for the Urban Character of Parnell Street

As evidenced from assessment of View 1 of the LVIA (Parnell Square- North West), the proposed scheme is most visible due south from the junction of Parnell Street West with Moore Lane, and as described in Section 7.8.3.3. above, with Parnell Street East/ Cavendish Row/ O'Connell Street Upper, with the gable of Building 2C having greatest prominence.

Setting aside visual change inevitably following the taller development of Site 2 as proposed than what exists presently, the proposal will support the success of the Parnell Square Cultural Quarter's integration with the ACA in improving pedestrian connections unifying the northern portion of the ACA with the retail core of Henry Street in a manner not existing at present.

Anticipated Impact for the Urban Character of Cathal Brugha Street

It is anticipated that the introduction of a new pedestrian route through Site 2 obliquely opposing the junction of Cathal Brugha Street with O'Connell Street Upper, will encourage lateral movement of pedestrians with adjoining streets. Increased footfall towards the north end of O'Connell Street Upper from within Site 2 is likely to enhance the relative prosperity of Cathal Brugha Street and Parnell Street East as cited in Section 7.8.2.4 above.

Anticipated Impact for the Urban Character of Cathedral Street

Cathedral Street is positioned to the east of the subject site. West facing vistas from this street terminate in the protected terrace of Nos.59-68 O'Connell Street, defined as much by its variances as its cohesive assemblage.

The proposed raising of building mass set back behind the extant terraced screen reconciles the potential dichotomy between the terrace as the dominant plinth to a lesser attic storey above. However this architectural approach, consistently applied across the entire eastern length of Site 2 is received, it is preferable to the originally permitted approach (Planning Reference Number 247/08/ABP Ref. PL29N.232347) which successfully argued for the removal of No. 59 O'Connell Street, which would have arisen in a more dramatic break of the homogeneity of the terrace as viewed from Cathedral Street than what is now proposed.

In the respectful retention of protected facades within Site 2, visual change will be limited to the new buildings that appear above and behind the parapet line, with the only new form comprising a replacement structure at Nos.55-56 O'Connell Street to the north west of this vantage point.

Anticipated Impact for the Urban Character of O'Rahilly Parade

The original character of O'Rahilly Parade has evolved somewhat negatively from vibrant laneway fusing light industrial and tenement functions. The lane was culminated by the tall façade of a brick and calp warehouse building, befitting the forms flanking the north and southern faces of the street. Present-day O'Rahilly Parade dues east from Moore Street is defined by impermeable hotel facades of its northern edge and a vacant plot at its southern edge, with the bleakness compounded by its culmination of the car park building at Nos.46-49 O'Connell Street. The replacement of this building with a carefully crafted contribution made by Site 2C will immeasurably enhance the visual amenity of O'Rahilly Parade and offer an unparalleled opportunity to engage with the ACA of O'Connell Street from its continuance through the proposed new street.

Anticipated impact of the detachment, conservation and adaptation of the Reading Room at No.59 O'Connell Street Upper

Please read in conjunction with Appendix 15.15

Proposed detachment of an introverted, inherently 'attached' structure

Goad's map depicts the fully developed site at No.59, where the exterior form of the former reading room was not the primary consideration in its design, given its sandwiching between flanking garden walls shared with Nos.58 and 60 respectively.

Its origins were likely as a coach house coupled with staff kitchens, which evolved to include a myriad of increasingly grander functions over the course of the varied occupancy of No.59, as reflected in its possibly 19th century multi-pitched roof form surmounting a top lit reception space. Enclosed to the east by another top lit building, and to the west by a car port onto Moore Lane, viable daylight from its roofs was a central function of the otherwise elevationally constrained building.

The extent of its obscure composition has influenced even its external recording for the purposes of this study.

The reimagining of its introverted character as a detached structure revealed within a newly created landscaped urban setting of a proposed pocket square dramatically transports this modestly scaled building into an entirely different architectural genre, which could be viewed by sceptics as somewhat unsettling. The challenge of appropriately presenting a building never intended to be viewed 'in the round' in its new context is considered to be satisfactorily resolved by the development, with design tweaks likely to continue into the development stage as more of the building's fabric is exposed.

Proposed Adaptation

The radical transformation of its exterior wholly contrasts with the relative consistency of its internal character, which does not depart significantly from its origins, albeit with windows inserted into niches to improve visual permeability.

The internal spatial quality of the elevated upper ground level reading room, is compromised by the insertion of mid-20th century partitioning of cellular stores, whose removal is proposed as part of the subject development. Reinstatement of the original spatial configuration of the room will positively enhance its legibility and also introduce a unique recreational form in this part of the city.

The function of its former kitchen at lower ground level will be reinstated, alongside the provision of appropriate guest facilities and additional café spaces.

Proposed conservation

The proposed conservation of the building's fabric will reinstate its physical integrity and render the exercise of its change of use wholly positive.

Anticipated impact of the change of use and conservation of No.61 O'Connell Street Upper

The development of this historic townhouse as proposed will enliven a presently undiscovered historic building within the streetscape. The introduction of residential uses at upper floors will prove immeasurably beneficial for the enclosing ACA. Please read in conjunction with Appendix 15.15

Construction Phase

The process of demolition and subsequent construction of the proposed development has the potential to disturb adjacent retained buildings and historic fabric, however, every effort at anticipating worst case scenario impacts at construction stage and mitigating against same is

acknowledged with acceptable levels of vibration determined on a case by case basis, depending on the materiality of what is being removed, as described in Table 5 of the Outline Construction & Demolition Management Plan –Site 2; DC-WAT-2X-XX-RP-C-001011 (Waterman Moylan Consulting Engineers Limited). In accordance with recommendations, the structures will be monitored for movement during the course of the demolition and reconstruction works.

Prior to the demolition phase an external survey control system is to be established. This will be carried out using traditional closed traverse surveying techniques and will involve the setting up of sufficient external control stations to allow monitoring of the neighbouring structures during and after demolition. The control stations are to have co-ordinates which are directly correlated to the building grids and datum levels related to those shown on the Land Survey drawings, issued by the Architect. The initial control survey is to be carried out by the Contractor and may be independently checked and verified by the appointed survey contractor.

The appointed Grade 1 Conservation Architect will be required to attend site at regular intervals to visually observe that all protection measures are succeeding to safeguard retained fabric as designed, and will swiftly react if any instance of potential damage arises.

Singular mitigation strategies will be adopted to reduce impacts in respect of each building. in the instance of retained facades, each building was physically investigated at all levels and comprehensively recorded in advance of preparation of this report. It is recommended that a copy of measured surveys and records be submitted to the Irish Architectural Archive in mitigation of removals.

Mitigation measures adopted for the removal of selected building fabric at No.59 O'Connell Street Upper will require care where abutting retained return building fabric to rear of the main building range, and fabric abutting the east and west gables of the reading room. All such fabric will be dismantled carefully and recorded as the works progress.

The public realm strategy is committed to preserving the legibility of the historic streetscape. This will be achieved by reinstating the historic street surfaces in the original location. New street and open public spaces will be finished in complementary, but clearly distinguishable materials.

Mitigation measures adopted for the physical removal of No.60A will be generated to ensure that a full recording takes place during demolition and that no damage occurs where abutting the retained Reading Room.

18.2.12 Cultural Heritage (Archaeology) (Chapter 16)

18.2.12.1 Dublin Central Masterplan

Construction Stage

Works in the Vicinity of the National Monument – Nos. 14 – 17 Moore Street

Appropriate conservation methodologies will be employed on all works carried out adjacent to the National Monument (see Chapter 15: Cultural Heritage (Architectural).

The preservation order for Nos. 14 – 17 Moore Street provides the site with the highest level of statutory protection. The investigation, demolition, earthmoving and construction works within the previously defined assessment area for works in proximity to the National Monument (**Error! Reference source not found.**) for the development of Site 4 in the Dublin Central Masterplan area will require Ministerial Consent under Section 14 of the National Monuments Act (as amended). The consent application will be supported by detailed method statements compiled by the integrated conservation team for the Dublin Central project (comprising a conservation architect, structural conservation engineer, architect and archaeologist). This will include an archaeological strategy.

It is anticipated that the National Monument will be developed as a commemorative centre under Ministerial Consent C495. Consultation with the OPW and their conservation team has and will continue to be carried out to ensure that there is an integrated and collaborative approach for the protection and conservation of the monument and their shared/adjoining boundaries.

The archaeological mitigation in the vicinity of the National Monument will as a minimum include: -

- Archaeological monitoring of site investigation, site preparation and temporary works as required.
- Archaeological monitoring of site clearance (including the clearance of cellars/basements) and of demolition works to identify and record as appropriate, any objects, fixtures or features that can be related to the 1916 Easter Rising.
- Archaeological testing will be carried out after demolition in the areas to the rear of Nos. 18 and 19 Moore Street and in the rear yard of No. 13 Moore Street to establish the depth and nature of the infill material associated with the backfilling of the brickfield quarry.
- Archaeological excavation of archaeological soils or features that are encountered and impacted by the proposed development.
- Archaeological monitoring of earthmoving works.

The archaeological works will be carried out under Ministerial Consent. The Minister may attach further conditions in the granting of consent, including conditions requiring archaeological excavation.

Where the Minister has granted a consent under Section 14 of the Act, no other consent or licence under any provision of the National Monuments Act, including an excavation licence, is required for any archaeological work or activity, (e.g., the other works in Site 4 not bounding the National Monument will require an archaeological licence).

General Mitigation

The following archaeological mitigation measures will be carried out within the Dublin Central Masterplan area under licence to the DHLGH: -

Monitoring

A programme of archaeological monitoring will take place at the pre-construction, site preparation and enabling works / early stages of construction where any preparatory ground reduction works are required. This will be carried out in order to establish the presence or absence, as well as the nature and extent, of any archaeological deposits, features or sites that may be present, where ground investigation and earth-moving works are taking place. This will include the survey and recording of any surviving 18th century structures that may be revealed.

Test Excavation

Given that the development is within the ZAP for Dublin (DU018-020), archaeological test excavation will be required. The testing will be carried out during the post demolition phase in areas where it is possible and safe to do so. It will be strategic and focused in areas where there are no existing basements. The testing will establish the nature and the level of disturbance across the site.

Following the implementation of an approved programme of mitigation, any impact on archaeological soils, finds or features identified within the Dublin Central Masterplan area will be resolved in consultation with the relevant authorities during the course of the project.

Excavation

In the event that archaeological features or deposits exist, the mitigation for development impact will involve an excavation which will be integrated into the early phases of the site's development programme.

Archaeological excavation will ensure that this removal is systematically and accurately recorded, drawn and photographed, to achieve a full descriptive paper and digital archive, thereby adding to the archaeological record and to the knowledge of a specified area.

The results will be compiled in detailed reports which will be submitted to DCC and to DHLGH and the NMI in compliance with the awarding of a licence.

Licencing

Archaeological monitoring and excavation will be carried out under licence from the DHLGH and the NMI, and will ensure the full recognition of, and the proper excavation and recording of all archaeological soils, features, finds and deposits which may be disturbed below the ground surface.

All mitigation measures will be carried out in accordance with an approved method statement which will be agreed in advance with the DCC City Archaeologist.

General

These proposed strategies do not prejudice any further recommendations made by the Department, who may seek additional information or consider alternative strategies.

National Monuments Legislation (as amended) states that in the event of the discovery of archaeological finds or remains, the NMI should be notified immediately. Provision must be made to allow for, and fund any, archaeological work that may be needed if any remains should be noted during ground preparation works or during construction. As described above, if features are revealed, the area will need to be investigated, allowing no further development to take place until the site is fully identified, recorded and excavated or, alternatively, avoided.

All archaeological issues shall be resolved to the satisfaction of the DHLGH and the NMI.

The Applicant is aware of the archaeological potential of the site and its implications for the development and the possibility of a significant design change. The Applicant will make provision to allow for and fund whatever archaeological work may be needed on the site in accordance with the National Monuments legislation (1930–2004).

Operational Stage

None required.

18.2.12.2 Proposed Development – Site 2

Construction Stage

National Monument -Construction Mitigation Measures

To ensure the physical protection of the National monument a 3m wide protection zone from the rear of No. 8-9 Moore Lane will be established and will be in place for the duration of the construction works.

A construction access haul road is also proposed along the line of Moore Lane. It is proposed to construct a secant piled wall along the western boundary of Site 2. In the temporary condition the secant piled wall retains the soil outside the site boundary, the stiffness of the wall will be designed to reduce ground movement associated with the basement excavation works. Additionally, the secant piled wall provides protection to the construction works within Site 2 from the surcharge loading of construction traffic along the haul road. In the permanent design, the secant wall forms the basement of Site 2 (Figure 18.5 and Figure 18.6).

The secant piled wall at the boundary is part of the strategy for enabling the deeper excavation to form the MEW station box. The shallow basement required for the oversite is less significant than the deep basement excavation that are required to enable the MEW station box.

Chapter 15: Cultural Heritage (Architectural) provides the mitigation measures for all the historic structures in the vicinity of the site.

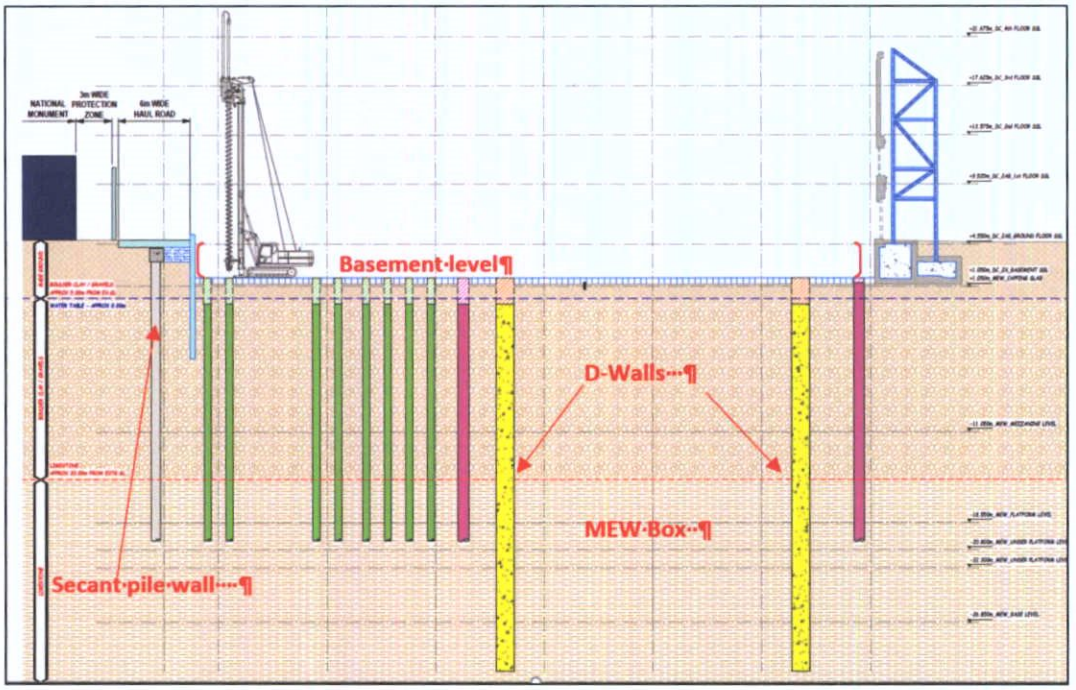

Figure 18.5: Cross section showing excavation to piling mat level before the bulk excavation of the MEW. A 3m wide protection zone will be established to the rear of the National Monument.

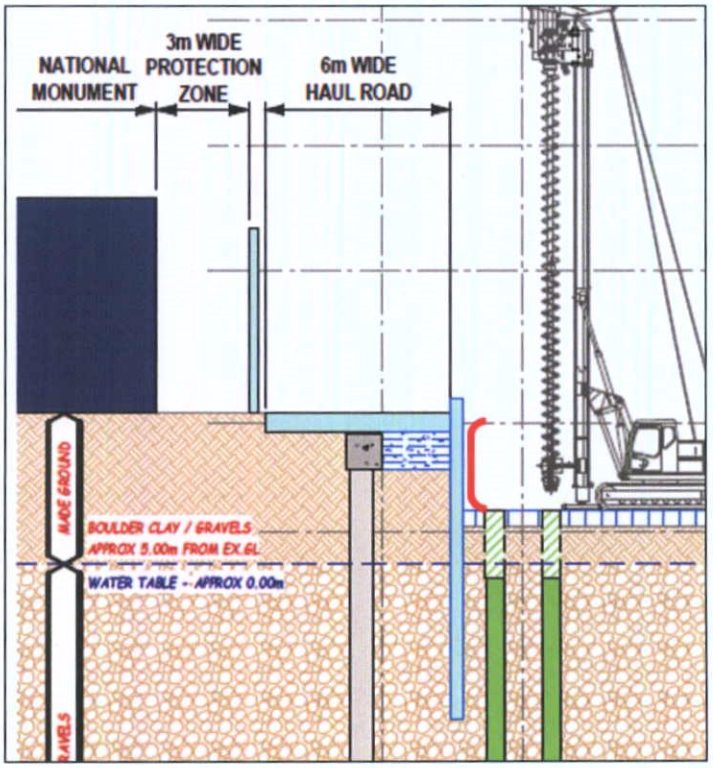

Figure 18.6: Cross section showing the National Monument (rear yard) and 3m wide protection zone and haul road

General Mitigation

Monitoring

Archaeological monitoring will take place at the pre-construction, site preparation and enabling works/ early stages of construction and where any preparatory ground reduction works are required. This will be carried out in order to establish the presence or absence, as well as the nature and extent, of any archaeological deposits, features or sites that may be present, where ground investigation and earth-moving works are taking place. The monitoring will be carried out under licence to the Department of Housing, Local Government and Housing (DHLGH) in accordance with an agreed method statement that is also approved by the Dublin City Council's City Archaeologist.

Pre-demolition investigation works which may include but are not limited to the monitoring of:

- Site investigation works. Should any permanent underpinning be required at the footings of the retained facades or along the boundaries of protected structures it will be carried out at basement level it will be monitored and recorded.
- Opening up works at basement or ground levels.
- Temporary retaining framework supports along O'Connell Street will be constructed on the footpath. Coal-cellars run along the full length of O'Connell Street that extend out under the pavement. Investigation works on O'Connell Street might be required to identify cellars to establish whether or not the cellars are infilled and structurally sound. The investigation of the cellars may require the opening of a trench along the footpath to identify the crowns of the cellars and any openings. The investigation works will be archeologically monitored. The existing cellars may also be tied into earlier structural remains i.e., those shown on Rocque.
- In association with the Architectural Conservation specialist, demolition works required of the structures along Moore Lane will be monitored in order to identify any features/ evidence of fabric damage that may be associated with the 1916 rising.
- Prior to infilling the existing vaults/ cellars/ basements (to facilitate the insertion of the piling mat) a survey will be carried out in association with the conservation contractor (as required) to record any mid- 18th century fabric that might be identified. The basements should be examined for earlier fabric or features and must be fully recorded before infilling. The monitoring of the removal of these basements will take place before bulk excavation.
- Demolition, enabling and excavation works, monitoring will be carried out during:
    - Temporary enabling works where they will require opening up works at ground level.
    - Stripping for the Haul Road
    - Strip footings associated with retention of structures and adjacent basements.
    - Post-demolition grubbing out of foundations and substructures.
    - Pile guide trenches for the perimeter wall.
    - All earthmoving works.

Following the implementation of an approved programme of mitigation, any impact on archaeological soils, finds or features identified within Site 2 during the course of the project, will be resolved through excavation (preservation by record) under consultation with the relevant authorities, if appropriate.

Excavation

In the event that archaeological features or deposits exist, the mitigation for development impact will involve an excavation which will be integrated into the early phases of the site's development programme.

Archaeological excavation will ensure that this removal is systematically and accurately recorded, drawn and photographed, to achieve a full descriptive paper and digital archive, thereby adding to the archaeological record and to the knowledge of a specified area.

The results will be compiled in detailed reports which will be submitted to DCC and to DHLGH and the NMI in compliance with the awarding of a licence.

Licencing and Codes of Practice

Archaeological monitoring and excavation will be carried out under licence from the DHLGH and the NMI, and will ensure the full recognition of, and the proper excavation and recording of all archaeological soils, features, finds and deposits which may be disturbed below the ground surface.

As the Site 2 work will include the MEW works on behalf of the TII the mitigation measures will be carried out in line with the most up to date version of the *MetroLink Cultural Heritage Strategy*, which is a live iterative document, and the *Code of Practice for Archaeology* (2017) between the Minister for the Department of Housing, Local Government and Heritage and TII.

In accordance with the Code of Practice TII will appointed a Project Archaeologist to the proposed Project to oversee and manage the archaeological elements of the project. All Archaeological Consultants appointed to the proposed Project shall comply with the Code of Practice and shall liaise directly with the TII Project Archaeologist in relation to all archaeological requirements.

The Applicant is aware of the archaeological potential of the site and its implications for the development and the possibility of a significant design change. The Applicant will make provision to allow for and fund whatever archaeological work may be needed on the site in accordance with the National Monuments legislation (1930–2004).

General

National Monuments Legislation (as amended) states that in the event of the discovery of archaeological finds or remains, the NMI should be notified immediately. Provision must be made to allow for, and fund any, archaeological work that may be needed if any remains should be noted during ground preparation works or during construction. As described above, if features are revealed, the area will need to be investigated, allowing no further development to take place until the site is fully identified, recorded and excavated or, alternatively, avoided.

All archaeological issues shall be resolved to the satisfaction of the DHLGH and the NMI.

<u>Public Realm Works – Historic paving and kerbing</u>

The in-situ recording, cleaning and sequential lifting of the historic paving on Moore Lane and O'Rahilly Parade will be carried out by conservation contractors in association with the site archaeologist and conservation architect. It will be carried out in accordance with best practice as set out in the Department of Arts Heritage and Gaeltacht (now DHLGH) and Dublin City Council 2015 Advice Series '*Paving -the conservation of historic ground surfaces.*'

A thorough record will be carried out during the site preparation/ enabling works stage of construction, that is, when the streets are safely closed to the public, and the heritage consultants can carry out the careful removal of tarmac and cement to complete a record and condition survey. The results of survey will identify where and how the setts will be re-laid.

A detailed methodology of the lifting, transport soring and reinstatement of the setts will be submitted to the heritage authority for prior approval, an indicative methodology is provided as follows: -

Proposed Removal Methodology

Exposing the surface, recording, and lifting will be carried out in the enabling works phase of the project and well in advance of construction. It will precede the enabling works for Dublin Central Site 2 and thus will be well ahead of the commencement of Sites 3, 4 and 5. There will be temporary road closure to allow for the works to take place. A detailed methodology of the lifting, transport storing, and reinstatement of the setts will be submitted to the local authority for prior approval. Consultation will be needed to ensure that agreement is reached with all the relevant stakeholders, as the pavement forms part of the public realm.

The following is an outline methodology: -

- Exemplars

  Consultation with conservation specialists will establish the most appropriate method to remove tarmacadam from the stone setts and concrete from the granite kerbs. A representative sample of tarmacadam will be removed in an area of c. 10sqm. The exemplar will be reviewed with the Local Authority and the methodology finalised.

- In-situ recording and cleaning

  Once the tarmac is removed, a baseline drawn survey of the surviving setted pavement and kerbstones will be undertaken. The paving and kerbing will be gently cleaned in situ. Once cleaned, the heritage consultants will record the bond, showing the placement system of setts of varying size, sorting into rows, width of the joints, gutter details, edge conditions, camber of road surface, and falls of inclined borders any undulations and irregularities, including the concentration of heavily worn areas., so they can be re-laid in correct order. The judicious use of a laser/detailed topographical survey will also be considered.

  A visual inspection will identify any indications of the 1916 rising battle on the setts – such as bullet scars etc., and their location recorded. A record will be taken of any particular concentration of these, as they may reveal any intensity of shots fired in a specific area which will inform the interpretation of the battle and of the reinstatement measures. The existence and location of previous alterations will also be recorded where the coherence and integrity of the original bonding pattern was lost or disturbed in earlier poorly conceived interventions

  The heritage consultants will assign each item with a unique reference code numbered on a survey drawing, and the individual stones numbered with a water-soluble marking to allow for the correct reinstatement of the paving.

- Lifting

  A trial area of paving and kerbing will be lifted in an agreed location measuring c. 10sqm. These should be lifted manually. Joints should be raked out to their full depth taking care not to damage the arrises of the setts. After reviewing the trial area and approved method statement, the paving kerbing and stone setts will be lifted logically and sequentially. Records should be filed in a systematic way for reference during reinstatement and for archival purposes. The subbase bedding and jointing materials will also be analysed. Paving elements will be cleaned of all bedding and jointing materials and any other materials adhering to them.

- Storing

  The setts and kerbs will be stored in a clean, dry secure storage facility until reinstatement which has yet to be identified. The setts and kerbstones will be laid on pallets and evenly supported to prevent breakage.

- Archaeology

  Despite the services running along it the lanes surrounding the site, the laneways are likely to be the least archaeologically disturbed areas of the site. Licensed archaeological monitoring of any earthmoving works below the sub baselevel of the streets within the public realm will be monitored in order to identify any former street surfaces or potential undisturbed clays.

- Reinstatement

The uncovering and recording of the setts and kerbs in the earliest stages will, under discussion with the Local Authority, identify the most appropriate location for reinstation. The setts will be re-laid following the historic layout, bonding pattern and junction details where surfaces are to be re-laid and maintain the same joint width and pointing detail.

Proposed Public Presentation Methodology

The integration of the historic stone setts and kerbs into the design proposals will be considered subject to amount of original material available and condition surveys. It will also be managed in agreement with the statutory stakeholders.

As part of the Site 2 landscaping strategy, it is proposed to consolidate the historic setts from the current locations on O'Rahilly Parade and Moore Lane in order to provide a continuous visual appearance of the historic setts. The approximate quantity of stone setts and paving available based on the GPR survey would allow for the re-surfacing of Henry Place and the southern section of Moore Lane with historic setts. That is, in the area to the rear of the National Monument and along Henry Place where most of the 1916 activity was enacted. Correspondingly, the integration of the historic granite kerbs along Henry Place, and Moore Lane will be considered once further information is available about their dimensions, condition and the overall quantity available (

Figure 18.7).

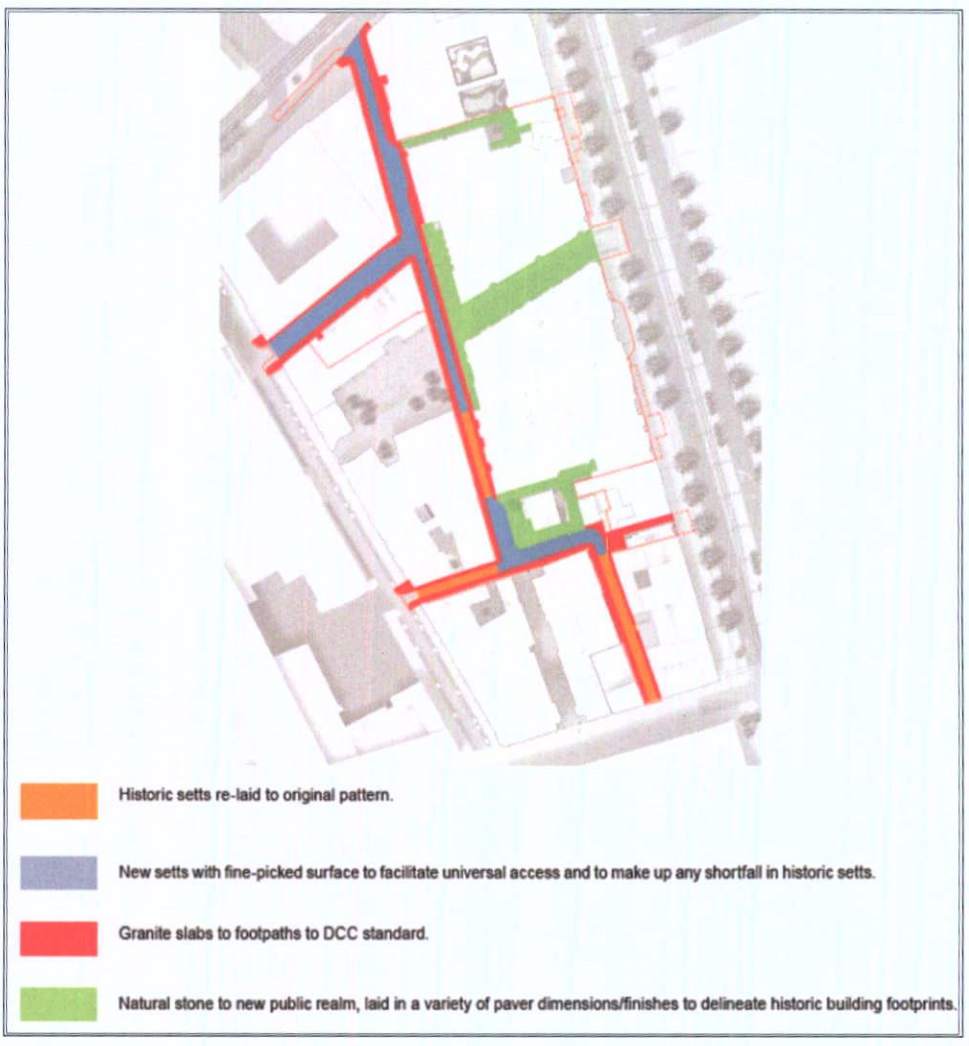

Figure 18.7: Indicative location for the re-laying of the historic setts in the public realm

18.2.12.3 Proposed Development – No. 61 O'Connell Street

Construction Stage

No measures are required from an archaeological perspective for the development of No. 61 O'Connell Street Upper during the construction or operational stages of the development.

Operational Stage

Not applicable.

18.2.13 Risk Management (Major Accidents & Disasters) (Chapter 17)

Construction Phase

The mitigation measures relevant to each environmental factor outlined in chapters 5 – 16 of the EIAR, as well as in the Construction Management Plan, will be implemented during the construction phase and will collectively mitigate the risk of major accidents and disasters during this time.

The construction phase will be carried out in accordance with best practice site management measures relating to health and safety and emergency response. These measures are described in the Outline Construction Management Plan, prepared by Waterman Moylan Consulting Engineers.

Operational Stage

No mitigation or monitoring measures are proposed specific to reducing the risk of major accident / disaster during operation.

19 ENVIRONMENTAL INTERACTIONS & CUMULATIVE IMPACT

19.1 Introduction

This Chapter of the EIAR identifies the principal interactions between the potential impacts of the environmental factors identified in Chapter 5 to 17 inclusive.

The principal interactions are summarised below, under Table 19.1, and further discussed in Section 19.2 of this Chapter.

The predicted impacts identified in Chapters 5 – 17 have taken into account the principal interactions listed below and associated mitigation measures.

The cumulative impacts arising from the interaction of impacts identified below, is also outlined in this Chapter.

	Population & Human Health	Biodiversity	Land, Soils & Geology	Water	Climate (Air Quality & Climate Change)	Climate (Sunlight & Daylight)	Air (Noise & Vibration)	Landscape & Visual Impact	Material Assets (Transport)	Material Assets (Waste)	Cultural Heritage (Archaeological)	Cultural Heritage (Architectural)
Population & Human Health		X	✓	✓	✓	✓	✓	✓	✓	X	X	X
Biodiversity	X		X	✓	X	X	✓	✓	X	X	X	X
Land, Soils & Geology	✓	✓		✓	✓	X	✓	X	✓	✓	X	X
Water	✓	✓	✓		X	X	✓	X	X	✓	X	X
Climate (Air Quality & Climate Change)	✓	X	✓	X		X	X	X	✓	X	X	X
Climate (Sunlight & Daylight)	X	X	X	X	X		X	X	X	X	X	X
Air (Noise & Vibration)	✓	X	X	X	X	X		X	X	X	X	X
Landscape & Visual Impact	✓	✓	X	X	X	X	X		✓	X	✓	✓
Material Assets (Transport)	✓	✓	X	X	✓	X	✓	X		✓	X	X
Material Assets (Waste)	✓	X	✓	X	X	X	X	X	✓		X	X
Cultural Heritage (Archaeological)	X	X	X	X	X	✓	✓	✓	X	X		✓
Cultural Heritage (Architectural)	X	X	X	X	X	X	X	X	X	X	X	

Where there is an interaction = ✓ No Interaction = **X**

Table 19.1: Matrix of Interactions between Environmental Factors (During Construction and Operational Phases)

19.2 Interactions

19.2.1 Population and Human Health (Chapter 5)

Land, Soils & Geology

The interaction between Human Health on Soils resulted in baseline soils testing to ensure that there was no potential for spread of contaminant substances due to excavation works, or ground failure.

Water

The interaction between Human Health on Water resulted in baseline water investigations to ensure that there was no potential for contamination of water sources, no flooding risks, or risks of diminished potable water supply.

Climate (Air Quality & Climate Change)

The interaction between Human Health on Air Quality has resulted in controlled construction measures and traffic management plans to curtail air and dust emissions.

Climate (Sunlight & Daylight)

The interaction between Human Health on Sunlight has affected the design of the buildings to reduce sunlight depravation for both residents living in the area and residents living within the proposed development.

Air (Noise & Vibration)

The interaction between Human Health on Noise has resulted in controlled construction measures, traffic management plans and social noise management plans to curtail noise emissions.

Material Assets (Transportation)

The interaction of Human Health on Traffic has resulted in baseline traffic assessments and traffic management plans to ensure that stresses associated with longer waiting times and un-safe junctions do not pose a significant threat.

19.2.2 Biodiversity (Chapter 6)

Biodiversity receptors interact with other environmental items as outlined in Chapter 6 of this EIAR, these are summarised as follows: -

Water

Interactions between water and biodiversity including habitats, flora and fauna could potentially occur through impacts on water quality in the River Liffey either arising from an accidental pollution event during construction or during operation. This interaction has the potential to result in significant effects on hydrologically connected habitats such as those designated for in Dublin Bay European sites, and the sensitive fauna that rely on these habitats. Given the reasons discussed within section 6.5 of Chapter 6 and information based on the Hydrological and Hydrogeological qualitative risk assessment (AWN, 2021), negative effects on biodiversity as a result of the proposed development are not predicted to be significant at any geographic scale.

Air (Noise & Vibration)

Interactions between noise and vibration and sensitive fauna, i.e. breeding birds, could potentially occur owing to increased noise and vibration levels during construction works. This interaction has the potential to result in significant effects on sensitive fauna. Following the implementation of mitigation measures outlines in Section 6.7.3 of Chapter 6, effects on fauna arising from noise and vibration are not predicted to be significant at any geographic scale.

Landscape & Visual Impact Assessment

There are pockets of low value vegetation due for removal within the proposed development site. As a result, there are no effects predicted on biodiversity due to the lack of habitats within the Proposed Development site. Interactions between landscaping and biodiversity could occur due to the enhancement measures proposed within the landscaping design, providing benefits to biodiversity and residents in a predominantly urbanised environment.

19.2.3 Land, Soils and Geology (Chapter 7)

The interactions between Chapter 7 (Lands, Soils and Geology) and the other chapters of the EIAR are set out below: -

Population & Human Health

Dust from the site and from soil spillages on the existing road network around the site may impact human health, especially during dry conditions. Dampening down measures with water sprays will be implemented during periods of dry weather to reduce dust levels arising from the development works.

Water

Accidental oil or diesel spillages from construction plant and equipment, in particular at refuelling areas, may result in oil contamination of the soils and underlying geological structures, including surface water and groundwater. Measures will be implemented throughout the construction stage to prevent contamination of the soil and adjacent watercourses from oil and petrol leakages.

Climate (Air Quality & Climate Change)

Dust from the site and from soil spillages on the existing road network around the site may impact air quality, especially during dry conditions. Dampening down measures with water sprays will be implemented during periods of dry weather to reduce dust levels arising from the development works. Air Quality will be controlled and monitored as set out in Chapter 9 of this EIAR.

Air (Noise & Vibration)

Heavy machinery used for excavations may impact on noise and vibration. Both will be controlled and monitored as set out in Chapter 12 of this EIAR.

Waste Management

Excess soil excavated during construction works, including any potential contaminated soils, will be managed and disposed of in approved locations as provided for in this EIAR.

Biodiversity

Accidental oil or diesel spillages from construction plant and equipment may impact local flora and fauna. Such spills will be mitigated in accordance with Chapter 7 of this EIAR.

Material Assets (Transport)

Excess soil excavated during construction works for Dublin Central will be transported by road for disposal in approved locations as provided for in this EIAR. Movements of construction traffic will be managed in accordance with the Construction Traffic Management Plan.

19.2.4 Water (Chapter 8)

The interactions between Chapter 8 (Water) and the other chapters of the EIAR are set out below: -

Population & Human Health

There is a risk of pollution of groundwater and water courses by accidental spillage of foul effluent during connections being made to live sewers, which could impact human health. This risk will be mitigated in accordance with Chapter 8 of this EIAR.

Land, Soils & Geology

There is a risk of pollution of groundwater by accidental spillage of foul effluent during connections being made to live sewers. This risk will be mitigated in accordance with Chapter 8 of this EIAR.

Air (Noise & Vibration)

Heavy machinery used for excavations to facilitate watermains, drainage and attenuation may impact on noise and vibration. Both will be controlled and monitored as set out in Chapter 12 of this EIAR.

Waste Management

Excess soil excavated during construction works to facilitate watermains, drainage and attenuation, including any potential contaminated soils, will be managed and disposed of in approved locations as provided for in this EIAR.

Biodiversity

There is a risk of pollution of groundwater and water courses by accidental spillage of foul effluent during connections being made to live sewers, which could affect local flora and fauna. Such spills will be mitigated in accordance with Chapter 8 of this EIAR.

19.2.5 Climate (Air Quality and Climate Change) (Chapter 9)

Air quality does not have a significant number of interactions with other topics.

Population & Human Health

The most significant interactions are between population and human health and air quality. An adverse impact due to air quality in either the construction or operational phase has the potential to cause health and dust nuisance issues. The mitigation measures that will be put in place at the proposed development will ensure that the impact of the proposed development complies with all ambient air quality legislative limits and therefore the predicted impact is short to long term, negative and imperceptible with respect to human health.

Land, Soils and Geology

Construction phase activities such as land clearing, excavations, stockpiling of materials etc. have the potential for interactions between air quality and land and soils in the form of dust emissions. With the appropriate mitigation measures to prevent fugitive dust emissions, it is predicted that there will be no significant interactions between air quality and land and soils.

Material Assets (Transportation)

Interactions between air quality and traffic can be significant. With increased traffic movements and reduced engine efficiency, i.e. due to congestion, the emissions of vehicles increase. The impacts of the proposed development on air quality are assessed by reviewing the change in annual average daily traffic on the surrounding road network. In this assessment, the impact of the interactions between traffic and air quality are considered to be imperceptible.

No other significant interactions with air quality and climate have been identified.

19.2.6 Climate (Sunlight & Daylight) (Chapter 10)

No potential impacts from other chapters of this EIAR were considered to have the potential to have associated sunlight and daylight impacts.

19.2.7 Air, Noise and Vibration (Chapter 11)

Construction Phase

During the preparation of this chapter it was necessary to coordinate and align information with the design team working on the MetroLink project regarding the construction criteria for the Metro Enabling Works which are included under the planning permission being sought for the Proposed Development.

Operational Phase

The operational noise impact assessment has been prepared in consultation with the design team, mechanical & electrical engineers and traffic engineers. Reference can be made to the relevant chapters for additional information.

19.2.8 Landscape and Visual Impact (Chapter 12)

Introduction

All environmental factors are inter-related to some extent, these relationships can range from the tenuous to highly complex. Landscape and visual impacts often interact with and/or interrelate to the following topics for the proposed development.

Biodiversity

An interaction between biodiversity and landscape and visual impact during the operation phase of the proposed development is identified.

There is little of ecological interest present within the application site, so during construction there is little potential for loss of features of value. Once operational, the introduction of street trees, planted swales and courtyards in addition to green roofs is likely to have a positive effect on the ecological potential of the site and its setting.

Cultural Heritage

A potential interaction between cultural heritage and landscape and visual impact during both the construction and operational phases of the proposed development is identified.

The area around the site of the proposed development is one of cultural significance, including the surrounding streets and their historical significance and buildings and other elements in these streets. Short term effects derived from hoardings located along the boundary of the application site during construction in addition to cranes and scaffolding have the potential to affect how the cultural significance of the area is perceived. During the operational phase the proposed buildings and changes to the public realm also have the potential to affect the perception of cultural heritage. The design of buildings, landscape and the selection of materials have the potential to contribute to the understanding of, engagement with and perception of the cultural heritage of the area.

Population and Human Health

An interaction between the population and human health and landscape and visual impact during both the construction and operational phase of the proposed development is identified.

Adverse, short term visual impacts will arise for visual receptors located close to or adjoining the application site during construction. These effects will derive from the presence of scaffolding, cranes, hoarding and materials. Once operational, the proposed development will contribute to the structure and functionality of this area of the City. This is principally due to the transformation of disused parts of the development site into useful development and publicly accessible civic spaces. Enhancements to landscape and visual amenity have the potential to positively impact on population and human health by increasing footfall to the area.

Transport

An interaction between transport and landscape and visual impact during both the construction and operational phases of the proposed development is identified.

Adverse, short term impacts will arise for receptors located close to or adjoining the application site during construction. These effects will derive from the increased movement of vehicles both using the public road network delivering and removing materials and within the application site. Once operational, positive effects such as pedestrian and cyclist movements and activity deriving from the proposed development will enliven and animate the streetscape.

19.2.9 Material Assets (Transportation) (Chapter 13)

The interactions between Chapter 13 Material Assets (Transport) and the other chapters of the EIAR are set out below: -

Population and Human Health

Traffic diversions during the Construction Stage could result in a temporary slight negative impact on population and human health. Diversions will be managed in accordance with the Construction Traffic Management Plan.

Lands, Soil & Geology

Material excavated during the construction of the will be transported by road for disposal in approved locations as provided for in Chapter 7 of this EIAR. Movements of construction traffic will be managed in accordance with the Construction Traffic Management Plan.

Climate –(Air Quality & Climate Change)

The generation of traffic during the Construction Stage has the potential to impact on Air Quality. Air Quality will be controlled and monitored as set out in Chapter 9 of this EIAR.

Air (Noise and Vibration)

The traffic generated during the Construction Stage has the potential to impact on noise and vibration. Both will be controlled and monitored as set out in Chapter 11 of this EIAR.

Material Assets (Waste)

Excess material excavated during construction works for Dublin Central will be transported by road for disposal in approved locations as provided for in this EIAR. Movements of construction traffic will be managed in accordance with the Construction Traffic Management Plan.

19.2.10 Material Assets (Waste) (Chapter 14)

Dublin Central Masterplan

Adherence to the mitigation measures outlined in Section 14.6 will ensure that there are no significant impacts on resource or waste management from the proposed development. The management of waste during the construction phase in accordance with the Resource & Waste Management Plan (RWMP) and during the operational phase in accordance with the Operational Waste Management Plan (OWMP) will meet the requirements of regional and national waste legislation and promote the management of waste in line with the priorities of the waste hierarchy.

Land & Soils

During the construction phase excavated soil, stone, clay and made ground (c. 163,490m^3) will be generated from the excavations required to facilitate site levelling and construction of foundations. It is estimated that all of excavated material will need to be removed offsite due to limited opportunities for reuse. Where material has to be taken off site it will be taken for reuse or recovery, where practical, with disposal as last resort. Adherence to the mitigation measures in Chapter 14 and the RWMP in appendix 14.1 will ensure the effect is long-term, imperceptible and neutral.

Material Assets -Transportation

Local traffic and transportation will be impacted by the additional vehicle movements generated by removal of waste from the site during the construction and operational phases of the development. The increase in vehicle movements as a result of waste generated during the construction phase will be temporary in duration. There will be an increase in vehicle movements in the area as a result of waste collections during the operational phase but these movement will be imperceptible in the context of the overall traffic and transportation increase and has been addressed in Chapter 13 Material Assets Transportation. Provided the mitigation measures detailed in Chapter 13, 14 and the requirements of the OWMP (included as Appendix 14.2) are adhered to, the effects should be short to long-term, imperceptible and neutral.

Population & Human Health

The potential impacts on human beings in relation to the generation of waste during the demoltion, construction and operational phases are that incorrect management of waste could result in littering which could cause a nuisance to the public and attract vermin. A carefully planned approach to waste management and adherence to the project specific C&DWMP and OWMP, will ensure appropriate

management of waste and avoid any negative impacts on the local population. long-term, imperceptible and neutral.

Site 2

Adherence to the mitigation measures outlined in Section 14.6 will ensure that there are no significant impacts on resource or waste management from the proposed development. The management of waste during the construction phase in accordance with the RWMP and during the operational phase in accordance with the OWMP will meet the requirements of regional and national waste legislation and promote the management of waste in line with the priorities of the waste hierarchy.

Land & Soils

During the construction phase excavated soil, stone, clay and made ground (133,565m^3) will be generated from the excavations required to facilitate site levelling and construction of foundations. It is estimated that all of the excavated material will need to be removed offsite due to the limited opportunities for reuse onsite. Where material has to be taken off site it will be taken for reuse or recovery, where practical, with disposal as last resort. Adherence to the mitigation measures in Chapter 14 and the RWMP in appendix 14.1 will ensure the effect is long-term, imperceptible and neutral.

Material Assets -Transportation

Local traffic and transportation will be impacted by the additional vehicle movements generated by removal of waste from the site during the construction and operational phases of the development. The increase in vehicle movements as a result of waste generated during the construction phase will be temporary in duration. There will be an increase in vehicle movements in the area as a result of waste collections during the operational phase but these movement will be imperceptible in the context of the overall traffic and transportation increase and has been addressed in Chapter 13 Material Assets Transportation. Provided the mitigation measures detailed in Chapter 13, 14 and the requirements of the OWMP (included as Appendix 14.2) are adhered to, the effects should be short to long-term, imperceptible and neutral.

Population & Human Health

The potential impacts on human beings in relation to the generation of waste during the demoltion, construction and operational phases are that incorrect management of waste could result in littering which could cause a nuisance to the public and attract vermin. A carefully planned approach to waste management and adherence to the project specific C&DWMP and OWMP, will ensure appropriate management of waste and avoid any negative impacts on the local population. *long-term, imperceptible* and *neutral.*

No. 61 O'Connell Street Upper

Adherence to the mitigation measures outlined in Section 14.6 will ensure that there are no significant impacts on resource or waste management from the proposed development. The management of waste during the construction phase in accordance with the RWMP and during the operational phase in accordance with the OWMP will meet the requirements of regional and national waste legislation and promote the management of waste in line with the priorities of the waste hierarchy.

Land & Soils

During the construction phase a small quantity of excavated soil, stone, clay and made ground will be generated from the excavations required to facilitate site redevelopment and the installations of

services. It is estimated that all of the excavated material will need to be removed offsite due to the limited opportunities for reuse onsite. Where material has to be taken off site it will be taken for reuse or recovery, where practical, with disposal as last resort. Adherence to the mitigation measures in Chapter 14 and the RWMP in appendix 14.1 will ensure the effect is long-term, imperceptible and neutral.

Material Assets -Transportation

Local traffic and transportation will be impacted by the additional vehicle movements generated by removal of waste from the site during the construction and operational phases of the development. The increase in vehicle movements as a result of waste generated during the construction phase will be temporary in duration. There will be an increase in vehicle movements in the area as a result of waste collections during the operational phase but these movement will be imperceptible in the context of the overall traffic and transportation increase and has been addressed in Chapter 13 Material Assets Transportation. Provided the mitigation measures detailed in Chapter 13, 14 and the requirements of the OWMP (included as Appendix 14.2) are adhered to, the effects should be short to long-term, imperceptible and neutral.

Population & Human Health

The potential impacts on human beings in relation to the generation of waste during the demoltion, construction and operational phases are that incorrect management of waste could result in littering which could cause a nuisance to the public and attract vermin. A carefully planned approach to waste management and adherence to the project specific C&DWMP and OWMP, will ensure appropriate management of waste and avoid any negative impacts on the local population. *long-term, imperceptible* and *neutral.*

19.2.11 Cultural Heritage (Architectural) (Chapter 15)

The existing Cultural Heritage character of retained historic building fabric within and historic building fabric external to the masterplan site is identified and informed by interactions with the following chapters of the EIAR: -

Climate (Sunlight & Daylight)

The interaction between cultural heritage and sunlight/ daylight has influenced the design of Sites 3, 4 and 5 in particular to reduce consequential daylight impacts for historic building fabric and historic streetscapes in the vicinity of the combined development.

Air (Noise & Vibration)

Retained structures of significance within Site 2 & No. 61 O'Connell Street Upper, and in particular immediately adjoining historic buildings have benefited from a comprehensive review of the likely effects of vibration due to heavy machinery at demolition, excavation and construction stages, and mechanisms to control and monitor these effects, as cited in the various construction and management plans (Appendix 3.1 - 3.3 of this EIAR).

Landscape and Visual Impact

Operational stage impacts for the setting of retained historic fabric within and historic fabric enclosing Site 2 & No. 61 O'Connell Street Upper are demonstrated in Chapter 12 of the EIAR, following consideration and tempering of impacts at design stage.

Cultural Heritage (Archaeological)

Chapter 16 of the EIAR has influenced consideration of impacts for the inherent and adjoining architectural cultural heritage of Site 2 & No. 61 O'Connell Street Upper insofar as its predictions for impacts at excavation stage, which have in turn informed methodologies for protection of architectural heritage, expanded at design stage and reflected in mitigations cited in the various construction and management plans (Appendix 3.1 - 3.3 of this EIAR).

19.2.12 Cultural Heritage (Archaeological) (Chapter 16)

No significant interactions with Archaeology are envisioned as the mitigation measures proposed are incorporated into the design, construction, or operation of the proposed development. Archaeological monitoring is recommended for all earthmoving works required within the Dublin Central Masterplan area which will have the potential to reveal in-situ archaeological remains. The implementation of the archaeological mitigation measures during site preparation and construction works will ensure that all interactions are mitigated appropriately.

19.2.13 Risk Management (Major Accidents and Disasters) (Chapter 17)

As outlined in sections 17.5.1.6 and 17.5.1.7 in chapter 17, no likely risks of a major accident / disaster occurring are identified during construction stage. A medium risk of major accident / disaster in respect of the proposed development during the operational phase. No cumulative effects are identified.

19.3 Cumulative Impacts

Where cumulative impacts were considered to arise, these have been outlined in the relevant Chapters of this EIAR. The below sections outline the cumulative impacts as raised in each relevant Chapter.

19.3.1 Population and Human Health (Chapter 5)

19.3.1.1 Proposed Development – Site 2 & No. 61 O'Connell Street Upper

Construction Stage

The cumulative impact of other potential impacts on human health from air quality, noise quality and traffic have been incorporated into the various models and assessment that have contributed to section 5.5.2 in chapter 5 of this EIAR.

Operational Stage

The cumulative impact of other potential impacts on human health from air quality, noise quality and traffic have been incorporated into the various models and assessment that have contributed to section 5.5.2 in chapter 5 of this EIAR.

19.3.2 Biodiversity (Chapter 6)

19.3.2.1 Dublin Central Masterplan

The Dublin Central Masterplan site is currently zoned as Z5 "City / Town / Village Centre, Central Area" with the zoning objective *"to consolidate and facilitate the development of the central area, and to identify, reinforce, strengthen and protect its civic design character and dignity"* within the Dublin City Development Plan 2016 – 2022[1].

This section of the chapter assesses the potential for any other Proposed Developments to act cumulatively with the development of the Dublin Central Masterplan, to give rise to likely significant effects on biodiversity.

Based on a search of active or recent planning applications in the immediate environs of the Dublin Central Masterplan site[2], most applications relate to minor additions or amendments to existing buildings, including installation of platform lifts, improved access facilities etc.

Potential cumulative impacts may arise during construction and operation, as a consequence of the development of the Dublin Central Masterplan acting in-combination with other plans and projects, on water quality in the downstream surface water environment, and on disturbance and habitat loss to birds.

There is potential for cumulative impacts to arise with other local developments that would also result in increased noise, vibration, and human presence. However, as any disturbance effects from other such local developments are likely to be or a minor nature, temporary, localised and over a short-duration, they are not likely to cumulatively affect the local breeding bird populations in conjunction with the implementation of the Dublin Central Masterplan.

Considering the predicted impacts associated with the implementation of the Dublin Central Masterplan, the mitigation measures proposed to protect the local biodiversity resource and the

[1] The zoning of the site remains the same as is currently zoned in the draft Dublin City Development Plan (2022 – 2028)

[2] Planning applications accessed via myplan.ie in August 2022. Only planning applications that have been granted permission within the last five years were considered.

receiving environment, and the protective policies and objectives on the land-use plans that will direct future development locally, significant cumulative negative effects on biodiversity are not predicted.

19.3.2.2 Proposed Development – Site 2 & No. 61 O'Connell Street Upper

The Cumulative impact for the Proposed Development is the same as the Masterplan in section 19.3.2.1 above.

19.3.3 Land, Soils and Geology (Chapter 7)

No cumulative impacts are noted for land, soils and geology.

19.3.4 Water (Chapter 8)

19.3.4.1 Dublin Central Masterplan

No cumulative impacts are noted for water.

19.3.5 Climate (Air Quality and Climate Change) (Chapter 9)

No cumulative impacts are noted for Climate (Air Quality and Climate Change).

19.3.6 Climate – (Sunlight & Daylight) (Chapter 10)

19.3.6.1 Proposed Development – Site 2 & No. 61 O'Connell Street Upper

Construction Stage

The proposed Dublin Central Masterplan development will be constructed in a number of sites (Site 1 – 5), the construction stage for the individual phases will overlap with each other thus leading to cumulative construction dust emissions. However, a high level of dust control will be implemented across the full Dublin Central Masterplan site which will control dust emissions from each phase of the development. Therefore, cumulative dust emissions associated with the full Dublin Central Masterplan development will be **short-term, localised, negative** and **imperceptible.**

According to the IAQM guidance (2014) should the construction phase of the Proposed Development or Dublin Central Masterplan development coincide with the construction phase of any other development within 350m then there is the potential for cumulative construction dust impacts. However, as stated above a high level of dust control will be implemented across the full Dublin Central Masterplan site which will avoid significant dust emissions. Provided these mitigation measures are in place for the duration of the demolition and construction phase cumulative dust related impacts to nearby sensitive receptors are not predicted to be significant. Cumulative impacts to air quality will be **short-term, localised, negative** and **imperceptible.**

Due to the short-term duration of the construction phase and the low potential for significant CO_2 and N_2O emissions cumulative impacts to climate are considered neutral.

There are no significant cumulative impacts to air quality or climate predicted for the construction phase.

Operational Stage

The traffic data reviewed for the operational stage impacts to air quality and climate included the cumulative traffic associated with other existing and permitted developments in the local area as well as traffic associated with the full Dublin Central Masterplan development. Therefore, the cumulative impact is included within the operational stage impact for the Proposed Development. The impact is predicted to be **long-term, neutral** and **imperceptible** with regards to air quality and climate.

In addition, the proposed Dublin Central Masterplan development will facilitate the development of the proposed Metrolink with a station located within the development. The development of the Metrolink, if permitted, will provide for an alternative, more sustainable method of transport in comparison to personal passenger cars. This will result in a positive impact to air quality and climate by reducing emissions associated with cars.

The likely evolution of the current state of the environment (the baseline scenario) with the MetroLink project involves passengers using the intended station, using the railway infrastructure and all associated apparatus necessary for the station and metro.

Having regard to the standards proposed to be complied with by TII, the Dublin Central Proposed Development is not likely to have any significant impact on the MetroLink project to report within this EIAR, or any different effect on the environment, after its evolution to include the MetroLink project.

Strictly, the likely effect of the MetroLink project on the Dublin Central Proposed Development is a matter to be examined, analysed and evaluated within the EIAR for the MetroLink project, and by An Bord Pleanála, the competent authority that must complete the assessment of the application for a Railway Order. Even so, for the sake of completeness, the Applicant is pleased to confirm that, on the basis of available information, at the date of this application, including the standards proposed to be complied with by TII, no significant adverse effect from the MetroLink project on those occupying and using the Dublin Central Proposed Development is predicted.

19.3.7 Air, Noise and Vibration (Chapter 11)

19.3.7.1 Dublin Central masterplan

Construction Stage

The construction stages of the Dublin Central Masterplan will occur on a phased basis. There are no expected cumulative impacts associated with external construction works to the Dublin Central Masterplan. The closest construction work relative to the site is more than 40m from the closest site boundary. As illustrated in **Error! Reference source not found.**, the contribution from any secondary site external to the Dublin Central Masterplan is likely to be more than 10 dB below noise contribution from the closest site within the Dublin Central Masterplan and will not add to the noise impact at the nearest sensitive receptor.

Notwithstanding the above, any cumulative construction activities undertaken will be required to operate below the recommended noise and vibration criteria set out in Section **Error! Reference source not found.** and Section **Error! Reference source not found.**. Mitigation measures and recommended good practices have been outlined in Section 11.6.1.1.

Operational Stage

The different sites within the Dublin Central Masterplan will be designed so that the cumulative noise emissions from processes and activities are within the relevant noise criteria set out. In the same way, Proposed Developments external to the Dublin Central Masterplan site will in turn be designed in order to comply with appropriate noise criteria.

Any major development in close proximity to the Dublin Central Masterplan site will be required to prepare an EIAR wherein cumulative impacts will also be considered.

19.3.8 Landscape and Visual Impact (Chapter 12)

No cumulative impacts are noted for landscape and visual impact.

19.3.9 Material Assets (Transportation) (Chapter 13)

19.3.9.1 Dublin Central Masterplan

The Potential Impact of the Cumulative Development arising from the Construction Stage is the same as the Potential Impact of the Proposed Development described in Section 13.4.2.1.1 in Chapter 13.

19.3.9.2 Proposed Development – Site 2 & No. 61 O'Connell Street Upper

The Potential Impact of the Cumulative Development arising from the Construction Stage is the same as the Potential Impact of the Proposed Development described in Section 13.4.2.1.1 in Chapter 13.

19.3.10 Material Assets (Waste) (Chapter 14)

As has been identified in the receiving environment section all cumulative developments that are already built and in operation contribute to our characterisation of the baseline environment. As such any further environmental impacts that the proposed development may have in addition to these already constructed and operational cumulative developments has been assessed in the preceding sections of this chapter.

Construction Stage

Multiple permissions remain in place for both residential and commercial developments within the vicinity of the development. Due to the high number of waste contractors in the Dublin region there would be sufficient contractors available to handle waste generated from a large number of these sites simultaneously, if required. Similar waste materials would be generated by all the developments.

Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans which will minimise / mitigate any potential cumulative effects associated with waste generation and waste management. As such the effect will be short-term, not significant and negative.

Operational Stage

There are existing residential and commercial developments close by, along with the multiple permissions remaining in place. All of the current developments will generate similar waste types during their operational phases. Authorised waste contractors will be required to collect waste materials segregated, at a minimum, into recyclables, organic waste and non-recyclables. An increased density of development in the area is likely improve the efficiencies of waste collections in the area.

Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans which will minimise / mitigate any potential cumulative impacts associated with waste generation and waste management. As such the effect will be a long-term, imperceptible and neutral.

Do-Nothing Impact

If the proposed development was not to go ahead (i.e. in the Do-Nothing scenario) there would be no demolition, excavation or construction at this site. Current operational waste would continue to be generated at the same levels. There would, therefore, be a neutral effect on the environment in terms of waste.

19.3.11 Cultural Heritage (Architectural) (Chapter 15)

No cumulative impacts are noted for Cultural Heritage (Architectural).

19.3.12 Cultural Heritage (Archaeology) (Chapter 16)

19.3.12.1 Dublin Central Masterplan

Construction Stage

Potential cumulative impacts may arise during construction and operation, as a consequence of the proposed development acting in-combination with other plans and projects. The archaeological sites within the environs of the development are subsurface in nature and do not have an above ground legibility, the below ground surviving remains albeit truncated provide a record of the of the past.

Considering the predicted impacts associated with the proposed Dublin Central Masterplan development on archaeology, the mitigation measures proposed to identify and record the archaeological resource and the receiving environment, and the protective policies and objectives of the City Development Plans that will direct future development locally, significant cumulative negative effects on archaeology are not predicted.

Operational Stage

There is no likely or significant predicted impact during the operational stage of the Dublin Central Masterplan area. All physical archaeological impact issues will be resolved at the pre-construction stage of the development and therefore no potential impacts are envisioned at the operation stage of the development.

The Dublin Central Development proposals include the retention of structures of historic merit that are contemporaneous with the events of the 1916 Rising, the retention of the laneways of the evacuation route from the GPO and the reuse of stone sett pavements and kerbstones. When considered in combination with the development of Nos. 14 – 17 Moore Street as a commemorative centre the proposed development will have a permanent positive impact on the setting of the national monument. It ensures its protection and appreciation into the future and will bring to the fore the relationship between these structures and laneways and the history and heritage of the Moore Street area.

The retention of the lanes and properties of historic merit within the site have a significant positive and permanent impact on the setting of the National Monument.

Do-Nothing Impact

In the "do-nothing" scenario the Dublin Central Masterplan area would not be redeveloped and therefore there would be no adverse impacts to any as yet undiscovered subsurface archaeological deposits, features or finds. Under the do-nothing scenario, any archaeological features that lie below the existing ground level will remain in- situ. Any information that might enhance our understanding of the eastern development of the city in the early post medieval and post medieval period will remain unknown.

19.3.13 Risk Management (Major Accidents and Disasters) (Chapter 17)

As outlined in sections 17.5.1.6 and 17.5.1.7 in chapter 17, no likely risks of a major accident / disaster occurring are identified during construction stage. A medium risk of major accident / disaster is identified during the operational phase. No cumulative effects are identified.

20 SUMMARY OF RESIDUAL IMPACTS

20.1 INTRODUCTION

This Chapter of the EIAR collates the predicted residual impacts on the environment as identified in Chapters 5 to 17, arising from the Proposed Development, during Construction and Operational Phases.

Residual Impacts, according to the Draft EPA Guidelines (2017, p.3) are: -

> *"The final or intended effects which occur after the proposed mitigation measures have been implemented."*

A summary of the Proposed Mitigation Measures are outlined under Chapter 18: Summary of Mitigation Measures.

20.2 PROPOSED RESIDUAL IMPACTS

20.2.1 Population and Human Health (Chapter 5)

20.2.1.1 Dublin Central Masterplan

Construction Stage

Residual Impacts on Business and Residences

Taking into account the mitigation measures outlined in Section 5.6.6.1 in chapter 5 it is predicted that there will be no likely significant effect with regard to the construction phase on business and residences.

Residual Impacts on Human Health from Air Quality

The greatest residual impact on air quality during the demolition and construction phase of the Dublin Central Masterplan is from construction dust emissions and the potential for nuisance dust. Taking into account the mitigation measures in Section 9.6 (and Appendix 9.2 'Dust Minimisation Plan') of this EIAR, there will be no residual impact to human health arising from air quality impact

Residual Impacts on Human Health from Noise & Vibration

Taking into account the mitigation measures and design recommendations outlined in Section 11.6 of Chapter 11: Air (Noise & Vibration) of this EIAR, there will be no residual impact to human health arising from noise and vibration impact.

Residual Impacts on Local Amenities and Tourism

It is predicted that there will be no likely significant effect of the residual impacts of the construction of the Dublin Central Masterplan on material assets.

Residual Impacts from Additional Traffic & Roadworks

Taking into account mitigation measures outlined in Chapter 13: Material Assets (Transportation) it is predicted that the predicted residual impacts with regard to the construction phase on the local population is concluded to be **temporary, short-term, slight and negative.**

Unplanned Events / Impacts on Health and Safety

Taking into account the mitigation measures outlined in Section 5.6 in chapter 5 it is predicted that there will be no likely significant effect arising from the predicted residual impacts with regard to the construction phase for unplanned events and human health and safety.

Operational Stage

Residual Impacts on Businesses and Residences

Taking into account the mitigation measures outlined in Section 5.6 in chapter 5 the predicted residual impacts with regard to the operational phase on business and residences is concluded to be **positive and significant.**

Residual Impacts on Human Health from Air Quality

It is predicted that there will be no likely significant effect of the residual impact of air quality on Human Health.

Residual Impacts on Human Health from Noise & Vibration

Taking into account the mitigation measures and design recommendations outlined in Section 11.6 of Chapter 11: Air (Noise & Vibration) of this EIAR, there will be no residual impact to human health arising from noise and vibration impact.

Residual Impacts on Local Amenities and Tourism

It is predicted that there will be no likely significant effect of the residual impact of the operational phase of the Dublin Central Masterplan on local amenities and tourism.

Residual Impacts on Material Assets

It is predicted that there will be no likely significant effect of the residual impact of the operational phase of the Dublin Central Masterplan on material assets.

Residual Impacts from Additional Traffic

Taking into account the mitigation measures and design recommendations outlined in Section 13.6 of Chapter 13: Material Assets (Transportation) of this EIAR, there will be no residual impact to human health arising from noise and vibration impact.

Unplanned Events / Impacts on Health and Safety

It is predicted that there will be no likely significant effect of the residual impact of the operational phase of the Dublin Central Masterplan on unplanned events and human health and safety.

Worst Case

The precautionary principle has been applied throughout this assessment.

20.2.1.2 Proposed development – Site 2 & No. 61 O'Connell Street

The residual impacts of the Proposed Development are the same as the remedial impacts of the Proposed Masterplan Development described in Section 20.2.1.1

20.2.1.3 Cumulative

Construction Stage

The cumulative impact of other potential impacts on human health from air quality, noise quality and traffic have been incorporated into the various models and assessments that have contributed to section 5.5 of chapter 5.

Operational Stage

The cumulative impact of other potential impacts on human health from air quality, noise quality and traffic have been incorporated into the various models and assessment that have contributed to Section 5.5 of chapter 5.

20.2.2 Biodiversity (Chapter 6)

20.2.2.1 Dublin Central Masterplan

Designated Sites

European Sites

The assessment presented in the Appropriate Assessment Screening Report (Scott Cawley Ltd 2022) concluded that there was no risk of the Proposed Development resulting in a likely significant effect on any European site, either alone or in combination with other plans or projects. Therefore, the Proposed Development is not likely to have significant residual effects on any European sites.

National Sites

There is no risk of the Proposed Development to affect the integrity of any nationally designated site, either alone or in combination with other plans or projects. Therefore, the Proposed Development is not likely to have significant residual effects on any nationally designated sites.

Birds

The effects of the Proposed Development on breeding birds have been considered within Section 6.6.2.5 of chapter 6. Measures to avoid, reduce and mitigate effects on breeding birds have been provided in Section 6.6.3.2 of chapter 6. Following the implementation of these measures, residual effects on breeding birds arising from the Proposed Development will be reduced to levels not considered to be significant.

Worst Case Impact

Construction and operational activities are assessed under the best and worst-case operating conditions, to determine all potential impacts associated with the Dublin Central Masterplan.

20.2.2.2 Proposed Development – Site 2 & No. 61 O'Connell Street Upper

Designated Sites

European Sites

The assessment presented in the Appropriate Assessment Screening Report concluded that there was no risk of the Proposed Development resulting in a likely significant effect on any European site, either alone or in combination with other plans or projects. Therefore, the Proposed Development is not likely to have significant residual effects on any European sites.

National Sites

There is no risk of the Proposed Development to affect the integrity of any nationally designated site, either alone or in combination with other plans or projects. Therefore, the Proposed Development is not likely to have significant residual effects on any nationally designated sites.

Birds

The effects of the Proposed Development on breeding birds have been considered within Section 6.7.2.3 of chapter 6. Measures to avoid, reduce and mitigate effects on breeding birds have been provided in Section 6.7.3.2 of chapter 6. Following the implementation of these measures, residual effects on breeding birds arising from the Proposed Development will be reduced to levels not considered to be significant.

Worst Case Impact

Construction and operational activities are assessed under the best and worst-case operating conditions, to determine all potential impacts associated with the Proposed Development.

20.2.3 Land, Soils and Geology (Chapter 7)

20.2.3.1 Dublin Central Masterplan

Construction Stage

With the protective measures noted above in place during excavation works, any potential impacts on soils and geology in the area will be minimised.

The Proposed Development will result in a surplus of excavated material, which may contain contaminants. Any contaminated material will be exported to an approved licensed waste facility.

No significant adverse impacts on the soils and geology of the subject lands are envisaged.

Operational Stage

During the operational stage, the buildings and public realm will be an urban environment, largely covered in roof and hard standing. Some areas with permeable paving, tree pits and green planting will allow for some surface water to permeate the soil. These SuDS devices treat and improve water quality by trapping suspended solids and filtering pollutants before they enter the soil.

No likely significant adverse impacts are predicted on soils or geology.

Worst Case Impact

The worst case scenario would be for contaminated soils to be encountered during the works. As noted above, any contaminated soils encountered will be excavated and disposed of off-site in accordance with the Waste Management Acts, 1998-2006, and associated regulations and guidance provided in Guidelines for the Management of Waste from National Road Construction Projects published by the National Roads Authority in 2008.

In the worst case scenario, subsoil may be exposed to inclement weather during construction and may result in the erosion of soils. However, with the proposed mitigation measures the quantity of soils exposed and the duration of that exposure will be minimised.

20.2.3.2 Proposed Development – Site 2 & No. 61 O'Connell Street Upper

Construction Stage

The residual impacts for the Proposed Development (Site 2AB, Site 2C and 61 O'Connell Street Upper, including associated Metro Enabling Works and Public Realm Works) are the same as the residual impacts described for the Dublin Central Masterplan described in Section 20.2.3.1.

Operational Stage

The residual impacts for the Proposed Development (Site 2AB, Site 2C and 61 O'Connell Street Upper, including associated Metro Enabling Works and Public Realm Works) are the same as the residual impacts described for the Dublin Central Masterplan described in Section 20.2.3.1.

Worst Case Impact

The worst case impact for the Proposed Development (Site 2AB, Site 2C and 61 O'Connell Street Upper, including associated Metro Enabling Works and Public Realm Works) are the same as the worst case impact described for the Dublin Central Masterplan described in Section 20.2.3.1.

20.2.4 Water (Chapter 8)

20.2.4.1 Dublin Central Masterplan

Water Supply

Construction Stage

Due to the proposed remedial measures outlined above no significant adverse impacts are expected to arise during the construction stage of the implementation of the Dublin Central Masterplan on the water supply network.

Operational Stage

There will be a water demand for the implementation of the Dublin Central Masterplan of approximately 760m^3 per day. Irish Water will confirm whether the existing network has sufficient capacity, or alternatively will outline any upgrades required to facilitate the development.

Foul Water Drainage

Construction Stage

During the construction stage of implementation of the Dublin Central Masterplan some short term negative impacts as identified above may result. However, if the proposed remedial and reductive measures are implemented, the impact of the implementation of the Dublin Central Masterplan during the construction stage will be minimised and no significant long term impacts will result from the construction works.

Operational Stage

By removing surface water flows from the combined network, the implementation of the Dublin Central Masterplan will result in a net decrease in the wastewater flows discharging to the existing combined drainage system.

Surface Water Drainage

Construction Stage

During the construction stage of implementation of the Dublin Central Masterplan some short term negative impacts as identified above may result. However, if the proposed remedial and reductive measures are implemented, the impact of the implementation of the Dublin Central Masterplan during the construction stage will be minimised and no significant long term impacts will result from the construction works.

Operational Stage

With the implementation of the SuDS treatment train, attenuation and flow control, there will be a net improvement in the quality and a net reduction in the quantity of surface water discharging from the individual site within the Dublin Central Masterplan. The proposal to discharge Site 2C to the existing surface water network, rather than the combined network, will result in a significant decrease in flows to the combined network and a net increase in flows to the surface water network.

No significant adverse impacts are envisaged.

Worst Case Impact

In the worst case scenario, there could be some surface water ingress into the foul water drainage system due to poor workmanship. Leakage from sewers and drains could result in local contamination of soil and ground waters in the area. The runoff from the roads and hardstanding areas will discharge contaminants, including oils and silts, to the surface water system which might result in polluting of the surface water network. However, with the mitigation measures set out above, the likelihood of these impacts will be minimised, and no significant long term impacts will result from the development.

20.2.4.2 Proposed Development – Site 2 & No. 61 O'Connell Street

Water Supply

The potential impacts on water supply of the Proposed Development (Site 2AB, Site 2C and 61 O'Connell Street Upper, including associated Metro Enabling Works and Public Realm Works) are the same as the potential impacts of the Dublin Central Masterplan described in Section 20.2.4.1

Foul Water Drainage

The potential impacts on foul water drainage of the Proposed Development (Site 2AB, Site 2C and 61 O'Connell Street Upper, including associated Metro Enabling Works and Public Realm Works) are the same as the potential impacts of the Dublin Central Masterplan described in Section 20.2.4.1.

Surface Water Drainage

The potential impacts on surface water drainage of the Proposed Development (Site 2AB, Site 2C and 61 O'Connell Street Upper, including associated Metro Enabling Works and Public Realm Works) are the same as the potential impacts of the Dublin Central Masterplan described in Section 20.2.4.1

Worst Case Impact

The worst case impact of the Proposed Development (Site 2AB, Site 2C and 61 O'Connell Street Upper, including associated Metro Enabling Works and Public Realm Works) is the same as the do noting impact of the Dublin Central Masterplan described in Section 20.2.4.1.

20.2.5 Climate (Air Quality and Climate Change) (Chapter 9)

20.2.5.1 Dublin Central Masterplan

Construction Stage

Air Quality

In order to minimise dust emissions during construction, a series of mitigation measures have been prepared in the form of a dust minimisation plan which will be incorporated into the construction environmental management plan (CEMP) for the site. Provided the dust minimisation measures outlined in the plan (see Appendix 9.2 and Section 9.6.1.1) are adhered to, the air quality impacts during the construction phase will be short-term, negative, localised and imperceptible.

Construction traffic emissions will have a **long-term, localised, negative** and **imperceptible** impact on air quality as per Section 9.5.1.1.1 in Chapter 9.

Climate

According to the IAQM guidance (2014) site traffic and plant are unlikely to make a significant impact on climate during the construction phase. Therefore, the potential impact on climate is considered to be **imperceptible** and **short-term.**

Human Health

Best practice mitigation measures are proposed for the construction phase of the Proposed Development which will focus on the pro-active control of dust and other air pollutants to minimise generation of emissions at source. The 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 (see Table 9.1). Therefore, the impact of construction of the Proposed Development is likely to be **negative, short-term** and **imperceptible** with respect to human health.

Operational Stage

Air Quality

As the traffic generated by the Proposed Development does not meet the criteria detailed in Section 9.2.2.1 for requiring a detailed air quality assessment the impact to air quality from traffic emissions during the operational stage is **neutral, long-term** and **imperceptible.**

Climate

The traffic associated with the operational phase of the Proposed Development is below the criteria requiring a detailed climate assessment. The impact to climate as a result of traffic emissions is predicted to be **long-term, neutral** and **imperceptible.**

In addition, the Proposed Development has been designed to reduce the impact to climate where possible through incorporated design measures. Full details of all measures included are outlined within the Energy & Sustainability Statement submitted as part of the planning application.

Human Health

Emissions of air pollutants are predicted to be significantly below the ambient air quality standards which are based on the protection of human health, impacts to human health are **long-term, neutral** and **imperceptible.**

Worst Case Impact

In terms of construction phase impacts, worst-case assumptions regarding volumes of excavation materials and number of vehicle movements have been used in order to determine the highest level of mitigation required in relation to potential dust impacts (see Section 9.5.1.1). The Dublin Central Masterplan development is the worst-case scenario in terms of dust emissions, emissions from each individual phase will be lower than the cumulative Dublin Central Masterplan.

Worst-case traffic data was used in the assessment of construction and operational phase impacts. In addition, conservative background concentrations were used in order to ensure a robust assessment. Thus, the predicted results of the construction and operational stage assessment are worst-case and the significance of effects is most likely overestimated.

20.2.5.2 Proposed Development – Site 2

Construction Stage

Air Quality

Once the dust minimisation measures outlined in Section 9.6.1.1 and Appendix 9.2 are adhered to, the air quality impacts during the construction phase will be **short-term, negative, localised** and **imperceptible.**

Climate

According to the IAQM guidance (2014) site traffic and plant are unlikely to make a significant impact on climate during the construction phase. Therefore, the potential impact on climate is considered to be **neutral**, **imperceptible** and **short-term.**

Human Health

Best practice mitigation measures are proposed for the construction phase of the Proposed Development which will focus on the pro-active control of dust and other air pollutants to minimise generation of emissions at source. The 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 (see Table 9.1). Therefore, the impact of construction of the Proposed Development is likely to be **negative, short-term** and **imperceptible** with respect to human health.

Operational Stage

Air Quality

As the traffic generated by the Proposed Development does not meet the criteria detailed in Section 9.2.2.1 for requiring a detailed air quality assessment the impact to air quality from traffic emissions during the operational stage is **neutral, long-term** and **imperceptible.**

Climate

The traffic associated with the operational phase of the Proposed Development is below the criteria requiring a detailed climate assessment. The impact to climate as a result of traffic emissions is predicted to be **long-term, neutral** and **imperceptible.**

In addition, the Proposed Development has been designed to reduce the impact to climate where possible through incorporated design measures. Full details of all measures included are outlined within the Energy & Sustainability Statement submitted as part of the planning application.

Human Health

Emissions of air pollutants are predicted to be significantly below the ambient air quality standards which are based on the protection of human health, impacts to human health are **long-term, neutral** and **imperceptible.**

Worst Case Impact

The worst case impact described in Section 20.2.5.1 for the implementation of the Dublin Central Masterplan is also applicable to the Proposed Development.

20.2.5.3 Proposed Development – No. 61 O'Connell Street Upper

Construction Stage

Air Quality

Once the dust minimisation measures outlined in Section 9.6.1.1 and Appendix 9.2 are adhered to, the air quality impacts during the construction phase will be **short-term, negative, localised** and **imperceptible.**

Climate

According to the IAQM guidance (2014) site traffic and plant are unlikely to make a significant impact on climate during the construction phase. Therefore, the potential impact on climate is considered to be **neutral**, **imperceptible** and **short-term.**

Human Health

Best practice mitigation measures are proposed for the construction phase of the Proposed Development which will focus on the pro-active control of dust and other air pollutants to minimise generation of emissions at source. The 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 (see Table 9.1). Therefore, the impact of construction of the Proposed Development is likely to be **negative, short-term** and **imperceptible** with respect to human health.

Operational Stage

Air Quality

As the traffic generated by the Proposed Development does not meet the criteria detailed in Section 9.2.2.1 for requiring a detailed air quality assessment the impact to air quality from traffic emissions during the operational stage is **neutral, long-term** and **imperceptible.**

Climate

The traffic associated with the operational phase of the Proposed Development is below the criteria requiring a detailed climate assessment. The impact to climate as a result of traffic emissions is predicted to be **long-term, neutral** and **imperceptible.**

In addition, the Proposed Development has been designed to reduce the impact to climate where possible through incorporated design measures. Full details of all measures included are outlined within the Energy & Sustainability Statement submitted as part of the planning application.

Human Health

Emissions of air pollutants are predicted to be significantly below the ambient air quality standards which are based on the protection of human health, impacts to human health are **long-term, neutral** and **imperceptible.**

Worst Case Impact

The worst case impact described in Section 20.2.5.1 for the implementation of the Dublin Central Masterplan is also applicable to the Proposed Development.

20.2.5.4 Cumulative Development

Construction Stage

The proposed Dublin Central Masterplan development will be constructed in a number of sites (Site 1 – 5), the construction stage for the individual phases will overlap with each other thus leading to cumulative construction dust emissions. However, a high level of dust control will be implemented across the full Dublin Central Masterplan site which will control dust emissions from each phase of the development. Therefore, cumulative dust emissions associated with the full Dublin Central Masterplan development will be **short-term, localised, negative** and **imperceptible.**

According to the IAQM guidance (2014) should the construction phase of the Proposed Development or Dublin Central Masterplan development coincide with the construction phase of any other development within 350m then there is the potential for cumulative construction dust impacts. However, as stated above a high level of dust control will be implemented across the full Dublin Central Masterplan site which will avoid significant dust emissions. Provided these mitigation measures are in place for the duration of the demolition and construction phase cumulative dust related impacts to nearby sensitive receptors are not predicted to be significant. Cumulative impacts to air quality will be **short-term, localised, negative** and **imperceptible.**

Due to the short-term duration of the construction phase and the low potential for significant CO_2 and N_2O emissions cumulative impacts to climate are considered neutral.

There are no significant cumulative impacts to air quality or climate predicted for the construction phase.

Operational Stage

The traffic data reviewed for the operational stage impacts to air quality and climate included the cumulative traffic associated with other existing and permitted developments in the local area as well as traffic associated with the full Dublin Central Masterplan development. Therefore, the cumulative impact is included within the operational stage impact for the Proposed Development. The impact is predicted to be **long-term, neutral** and **imperceptible** with regards to air quality and climate.

In addition, the proposed Dublin Central Masterplan development will facilitate the development of the proposed Metrolink with a station located within the development. The development of the Metrolink, if permitted, will provide for an alternative, more sustainable method of transport in comparison to personal passenger cars. This will result in a positive impact to air quality and climate by reducing emissions associated with cars.

The likely evolution of the current state of the environment (the baseline scenario) with the MetroLink project involves of passengers using the intended station, using the railway infrastructure and all associated apparatus necessary for the station and metro.

Having regard to the standards proposed to be complied with by TII, the Dublin Central Proposed Development is not likely to have any significant impact on the MetroLink project to report within this EIAR, or any different effect on the environment, after its evolution to include the MetroLink project.

Strictly, the likely effect of the MetroLink project on the Dublin Central Proposed Development is a matter to be examined, analysed and evaluated within the EIAR for the MetroLink project, and by An

Bord Pleanála, the competent authority that must complete the assessment of the application for a Railway Order. Even so, for the sake of completeness, the Applicant is pleased to confirm that, on the basis of available information, at the date of this application, including the standards proposed to be complied with by TII, no significant adverse effect from the MetroLink project on those occupying and using the Dublin Central Proposed Development is predicted.

Worst Case Impact

The worst case impact described in Section 20.2.5.1 for the implementation of the Dublin Central Masterplan is also applicable to the Proposed Development.

20.2.6 Climate (Sunlight & Daylight) (Chapter 10)

The scale of the development at Site 2 will have a **minor impact** on the shadow environment but the consequences of this will not be noticeable due to the site orientation and existing urban density of the area.

20.2.7 Air, Noise and Vibration (Chapter 11)

20.2.7.1 Dublin Central Masterplan

Construction Stage

Noise

All cumulative Dublin Central Masterplan construction activities are predicted to exceed the noise threshold value when they occur at the closest proximity to the residential, commercial and clinical receptors closest to the proposed site boundary. However, it should be noted that the assessment can be considered highly worst case and it is unlikely that all items of plant assessed will be in operational simultaneously, or that two adjoining sites of the development will be under construction simultaneously. Additionally, the predictions only indicate a potential significant effect (based on a worst-case scenario) when working at the closest location to the dwellings, with lesser impacts predicted at all other locations across site.

The implementation of the mitigation measures outlined in Section **Error! Reference source not found.**, and detailed in Appendix 11.2, will aim to minimise impact of construction noise experienced at nearby residential, commercial and clinical receivers.

Due to the nature of construction noise and the proximity of noise sensitive receivers, it is predicted the residual construction noise levels will be at or above the relevant noise criteria while works are within 15m of commercial receptors and less than 20m of residential receptors during initial site works. There will be a **negative, moderate to significant** and **short-term** residual noise impact during the initial site works activities at commercial and residential receptors within 10m and 15m respectively.

As the initial construction works move greater than 15m and 20m from commercial and residential receptors respectively, the predicted residual noise levels are at or below the relevant noise criteria but above the existing baseline noise levels, there will be a **negative, slight to moderate** and **short-term** noise impact. As the works move further away than 30m, the predicted noise levels are below the relevant noise criteria and existing baseline noise levels there will be a **neutral, not significant** and **short-term** noise impact.

All commercial receptors are predicted to have residual construction noise levels below the relevant noise criteria during utilities and structural construction works. The closest residential receptors are at 15m distance, which have residual noise levels below the relevant noise criteria during works but above the existing baseline noise level. There will be a **negative, slight to moderate** and **short-term** residual noise impact during the utilities and structural construction works at the commercial and residential receptors within 15m. As the works move further away than 20m from commercial and

residential receptors, the predicted residual noise levels are below the relevant noise criteria and existing baseline noise levels there will be a **neutral, not significant** and **short-term** noise impact.

All commercial and residential receptors are predicted to have residual construction noise levels below the relevant noise criteria during general construction work activities and below the existing baseline noise levels. At all commercial and residential receptors there will be a **neutral, not significant** and **short-term** impact during general construction work activities.

The closest clinical receptor is at 20m distance with an existing baseline noise level above 70 dB $L_{Aeq,T}$, therefore there will be a **neutral, not significant** and **short-term** residual noise impact during all works activities at closest boundaries to the clinical receptors.

Vibration

No predicted significant adverse impact arising from vibration during construction provided works are carried out so as to fall under the relevant vibration criteria.

Worst Case Impact

In terms of potential noise and vibration impacts, the assessment has considered a range of worst case scenarios to determine the potential impacts of the Proposed Development.

During the construction phase, a range of worst case scenarios have been assessed assuming all plant items are operating along the closest noise sensitive boundaries. The assessment has determined impacts associated with these scenarios can be controlled through the best practice measures outlined in Section **Error! Reference source not found.**.

Operational Stage

Noise

Mechanical Plant Noise

Once cumulative plant noise emissions from the various sites of the Dublin Central Masterplan are designed to achieve the appropriate noise criteria the cumulative noise impact will be **neutral**, **imperceptible** and **permanent**.

Entertainment Noise

Once entertainment noise is designed and managed to achieve the criteria set out, i.e. inaudibility, the residual noise impact will be **neutral**, **imperceptible** and **permanent.**

Delivery and Servicing Traffic

Delivery activity has been considered in the context of the existing environment of a serviced, city centre location. The cumulative noise impact will be **neutral**, **not significant** and **permanent.**

Inward Noise Impact

With respect to inward noise impacts, the specification of noise mitigation has been recommended so that the internal noise criterion will be met. The residual noise impact will be **neutral**, **not significant** and **permanent.**

Vibration

There are no significant sources of vibration associated with the operational phases of the Dublin Central Masterplan. There is therefore a **neutral**, **imperceptible** and **permanent** cumulative impact associated.

20.2.7.2 Proposed Development – Site 2

Construction Stage

Noise

The implementation of the mitigation measures outlined in Section **Error! Reference source not found.**, and detailed in Appendix 11.2, will aim to minimise impact of construction noise experienced at nearby residential, commercial and clinical receivers.

Due to the nature of construction noise and the proximity of noise sensitive receivers, it is predicted the residual construction noise levels will be at or above the relevant noise criteria while works are within 10m of commercial receptors and 15m of residential receptors during initial site works. There will be a **negative, moderate to significant** and **short-term** residual noise impact during the initial site works activities at commercial and residential receptors within 10m and 15m respectively. When the initial construction works are between 10m to 15m of the commercial receptors the residual noise levels are below the relevant noise criteria but above the existing baseline noise levels, there will be a **negative, slight to moderate** and **short-term** noise impact. As the works move more than 20m from commercial and residential receptors the predicted residual noise levels are below the relevant noise criteria and below the existing baseline noise levels, there will be a **neutral, not significant** and **short-term** noise impact.

All commercial and residential receptors are predicted to have residual construction noise levels below the relevant noise criteria during utilities and structural construction works. At commercial receptors within 10m of the works, the residual construction noise level is predicted above the existing baseline noise level. There will be a **negative, slight to moderate** and **short-term** residual noise impact during works at the commercial receptors within 10m. As the works move further away than 10m from commercial receptors and 15m from the closest residential receptors, the predicted residual noise levels are below the relevant noise criteria and existing baseline noise levels, therefore there will be a **neutral, not significant** and **short-term** noise impact.

All commercial and residential receptors are predicted to have residual construction noise levels below the relevant noise criteria during general construction work activities and below the existing baseline noise levels. At all commercial and residential receptors there will be a **neutral, not significant** and **short-term** impact during general construction work activities.

The closest clinical receptor is at 20m distance with an existing baseline noise level above 70 dB $L_{Aeq,T}$, therefore there will be a **negative, not significant** and **short-term** residual noise impact during all works activities at closest boundaries to the clinical receptors.

Vibration

No predicted significant adverse impact arising from vibration during construction provided works are carried out so as to fall under the relevant vibration criteria.

Operational Stage

Noise

Mechanical Plant Noise

Once cumulative plant noise emissions from the various sites of the Dublin Central Masterplan are designed to achieve the appropriate noise criteria the cumulative noise impact will be **neutral**, **imperceptible** and **permanent**.

Entertainment Noise

Once entertainment noise is designed and managed to achieve the criteria set out, i.e. inaudibility, the residual noise impact will be **neutral, imperceptible** and **permanent.**

Delivery and Servicing Traffic

Delivery activity has been considered in the context of the existing environment of a serviced, city centre location. The cumulative noise impact will be **neutral, not significant** and **permanent.**

Inward Noise Impact

With respect to inward noise impacts, the specification of noise mitigation has been recommended so that the internal noise criterion will be met. The residual noise impact will be **neutral, not significant** and **permanent.**

Vibration

There are no significant sources of vibration associated with the operational phases of the Dublin Central Masterplan. There is therefore a **neutral, imperceptible** and **permanent** cumulative impact associated.

20.2.7.3 Proposed Development –No. 61 O'Connell Street Upper

Construction Stage

Noise

Construction works associated with the proposed development are anticipated to be of a lesser scale to other sites within the Masterplan. It is expected that noise from construction noise will be limited and that noise breakout to the surroundings will be minimal. In the overall context of the Masterplan construction this works at 61 O'Connell Street are deemed to have a negative, not significant and short-term impact.

Vibration

No predicted significant adverse impact arising from vibration during construction, provided works are carried out so as to fall under the relevant vibration criteria.

Operational Stage

Mechanical Plant Noise

Noise from plant items serving the proposed development will be designed to be within the noise criteria set out in Section 11.5.2.5.2. The residual impact is therefore predicted to be negative, imperceptible and long-term.

Entertainment Noise Breakout

Entertainment noise from the gym area is required to be designed/managed in line with the noise criteria set out in Section 11.5.1.2.1. The residual impact is therefore predicted to be negative, imperceptible and long-term.

20.2.7.4 Cumulative Development

Construction Stage

The similar magnitude of residual noise and vibration impacts discussed in Section 20.2.7.1 for the Dublin Central Masterplan are relevant to the cumulative assessment of construction works external to the proposed site given it is anticipated that the same construction noise and vibration criteria would apply to these external construction sites.

Operational Stage

The different sites within the Proposed Development will be designed so that the cumulative noise emissions from processes and activities are within the relevant noise criteria set out. In the same way, Proposed Developments external to the Proposed Development will in turn be designed in order to comply with appropriate noise criteria.

Any major proposed development in close proximity to the Proposed Development will be required to prepare an EIAR wherein cumulative impacts will also be considered.

20.2.8 Landscape and Visual Impact Assessment (Chapter 12)

20.2.8.1 Dublin Central Masterplan

Not applicable as the masterplan is still being refined and discussions with the Planning Authority are on-going. Notwithstanding this, as the masterplan presents an integrated design for a new city quarter, no remedial or reductive measures are likely to be applicable.

20.2.8.2 Proposed Development – Site 2 & No. 61 O'Connell Street Upper

Since remedial and reductive measures do not apply, residual impacts will, initially, be as tabulated for potential impacts, above. Reduction in the visibility of the Proposed Development, resulting from the construction of other development, will gradually reduce its visibility and thereby its impacts, whether positive, negative or neutral in character.

20.2.8.3 Worst Case Impact

The effects considered above represent the 'worst case' scenario

20.2.9 Material Assets (Transportation) (Chapter 13)

20.2.9.1 Dublin Central Masterplan

Construction Stage

Car Parking

During the Construction Stage, there will be a permanent loss of 160no. car parking spaces on the subject site currently accessed from O'Rahilly Parade and Moore Lane. The reduction in car parking is predicted to be a **permanent long-term slight** impact which will be ameliorated by the high provision of public transport in the surrounding area.

Traffic Flow / Speed

The presence of construction traffic on the surrounding streets during the Construction Stage is not expected to lead to significant delays to vehicular traffic including public transport. Construction traffic is predicted to generate a temporary **slight negative, short term** impact during the construction site.

Diversion of Traffic

No traffic diversions are proposed on Parnell Street or O'Connell Street Upper. Local traffic diversions could occur on O'Rahilly Parade, Moore Lane and Henry Place which could lead to a temporary **slight negative, short term** impact during the Construction Stage.

Capacity of Public Transport

Due to the proposed non-provision of car parking on-site, there is likely to be an increased demand for public transport from construction workers. The impact of the additional passenger demand is expected to be **temporary, short-term, slight,** and **negative.**

Cycle and Pedestrian

During construction works for the installation of underground services on the public streets, temporary facilities will be required to be provided by the main contractor to maintain cycle connectivity and pedestrian access. These facilities will be provided in accordance with the Construction Management & Waste Management Plan and the Construction Traffic Management Plan. The impact is predicted to be **temporary, short-term, slight,** and **negative**.

Overall

Overall, the impact of the Construction Stage on the transportation environment in the area of the subject site is predicted to be **temporary, short-term, slight**, and **negative**.

Operational Stage

Car Parking

The loss of 160no. car parking spaces on Moore Lane will result in the permanent loss of car parking revenue to the operators together with an increased demand on other car parking in the surrounding area, primarily off-street. The loss of car parking is likely to be a **permanent, long-term, slight**, and **negative impact** which will be ameliorated by the high provision of public transport in the surrounding area.

Traffic Flow / Speed

No works are proposed to the carriageways or junctions on O'Connell Street Upper, Parnell Street or Moore Street. The results of the traffic modelling undertaken demonstrates that the surrounding street network will operate without any material or significant impact on the road infrastructure. As a result, the Proposed Development is predicted to have a **permanent, neutral, long term slight** and **impact** on traffic flows and speeds on O'Connell Street Upper and Parnell Street.

Diversion of Traffic

No traffic diversions are proposed on Parnell Street or O'Connell Street Upper. Permanent reversal of traffic flow from one-way southbound to one-way northbound is proposed on the northern section of Moore Lane. Pedestrianisation is proposed on Henry Place and on the southern section of Moore Lane. These changes are predicted to have a **permanent, long term, moderate** and **positive impact** on the transportation network.

Delays to Public Transport

No delays or disruption to bus or Luas services are predicted. The impact of the development is predicted to be **permanent, long term, imperceptible** and **neutral.**

Capacity of Public Transport

The commissioning of Metrolink and the high level of public transport usage by staff, guests, and residents at Dublin Central are predicted to **create a permanent, long term, significant** and **positive impact** on public transport in the City Centre.

Cycle and Pedestrian

The proposed pedestrian area on Moore Lane and Henry Place in conjunction with the extensive provision of cycle parking are predicted to create **a permanent, long term, significant** and **positive impact** on the pedestrian and cycle environment in the City Centre.

Overall

Overall, the impact of the Operational Stage on the transportation environment in the area of the subject site is predicted to be permanent, long-term, slight, and positive.

Cumulative Development

Construction Stage

The Residual Impact for the Cumulative Development arising from the Construction Stage will be the same as the Residual Impact for the Proposed Development described in Section 13.7.1.1.

Operational Stage

The Residual Impact for the Cumulative Development arising from the Operational Stage will be the same as the Residual Impact for the Proposed Development described in Section 13.7.1.2.

Worst Case Impact

Where the various mitigation measures (ameliorative, remedial, reductive, and monitoring) described in Section 13.6 are not implemented correctly or fail, the proposal is likely to have to be a **negative short-term moderate impact** on the transportation environment during the Construction Stage and **a negative long term slight impact** on the transportation environment during the Operational Stage.

20.2.9.2 Proposed Development – Site 2 & No. 61 O'Connell Street Upper

Construction Stage

The Residual Impact for the Proposed Development arising from the Construction Stage of the Proposed Development will be the same as the Residual Impact for the Dublin Central Masterplan Site described in Section 13.7.1.1.

Operational Stage

The Residual Impact for the Cumulative Development arising from the Operational Stage of the Proposed Development will be the same as the Residual Impact for the Dublin Central Masterplan Site described in Section 13.7.1.2.

Cumulative Development

Construction Stage

The Residual Impact for the Cumulative Development arising from the Construction Stage of the Proposed Development will be the same as the Residual Impact for the Dublin Central Masterplan Site described in Section 13.7.1.3.1.

Operational Stage

The Residual Impact for the Cumulative Development arising from the Operational Stage of the Proposed Development will be the same as the Residual Impact for the Dublin Central Masterplan Site described in Section 13.7.1.3.1.

Worst Case Impact

The Worst-Case Impact for the Proposed Development will be the same as the Worst-Case Impact for the Dublin Central Masterplan described in Section 13.7.1.4

20.2.10 Material Assets (Waste) (Chapter 14)

20.2.10.1 Dublin Central Masterplan

Construction Stage

A carefully planned approach to waste management as set out in Section 14.6 of Chapter 14 and adherence to the RWMP during the demolition, excavation and construction phase will ensure that the effect on the environment will be short-term, imperceptible and neutral.

Operational Stage

During the operational phase, a structured approach to waste management as set out in Section 14.6 of Chapter 14 and adherence to the OWMP will promote resource efficiency and waste minimisation. Provided the mitigation measures 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, imperceptible and neutral.

Worst Case Impact

In a worst-case scenario, if no mitigation measures found in section 14.6 of chapter 14 are followed, poor onsite waste management, non-permitted waste contractors or unauthorised waste facilities could give rise to inappropriate management of waste offsite and result in negative environmental impacts or pollution as shown in section 14.5 of chapter 14.

20.2.10.2 Proposed Development - Site 2

Construction Stage

A carefully planned approach to waste management as set out in Section 14.6 of chapter 14 and adherence to the RWMP during the demolition, excavation and construction phase will ensure that the effect on the environment will be **short-term**, **imperceptible** and **neutral**.

Operational Stage

During the operational phase, a structured approach to waste management as set out in Section 14.6 of chapter 14 and adherence to the OWMP will promote resource efficiency and waste minimisation. Provided the mitigation measures 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**, **imperceptible** and **neutral.**

Worst Case Impact

In a worst-case scenario, if no mitigation measures found in section 14.6 of chapter 14 are followed, poor onsite waste management, non-permitted waste contractors or unauthorised waste facilities could give rise to inappropriate management of waste offsite and result in negative environmental impacts or pollution as shown in section 14.5 of chapter 14.

20.2.10.3 Proposed Development – 61 O'Connell Street Upper

Construction Stage

A carefully planned approach to waste management as set out in Section 14.6 and adherence to the RWMP during the demolition, excavation and construction phase will ensure that the effect on the environment will be **short-term**, **imperceptible** and **neutral**.

Operational Stage

During the operational phase, a structured approach to waste management as set out in Section 14.6 and adherence to the OWMP will promote resource efficiency and waste minimisation. Provided the mitigation measures 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**, **imperceptible** and **neutral.**

Worst Case Impact

In a worst-case scenario, if no mitigation measures found in section 14.6 in chapter 14 are followed, poor onsite waste management, non-permitted waste contractors or unauthorised waste facilities could give rise to inappropriate management of waste offsite and result in negative environmental impacts or pollution as shown in section 14.5 in chapter 14.

20.2.11 Cultural Heritage (Architectural) (Chapter 15)

20.2.11.1 Dublin Central Masterplan

Operational Phase

The viability of the masterplan development at operational stage is dependant on the prosperity of the community for which it is intended to be delivered. In the event of a recession, and piecemeal occupancy – the vitality of the scheme and long term securing of its architectural heritage would be impacted. A positive residual impact, even in the event of a future recession, would be the securing of that same architectural heritage at construction stage, overcoming the current status of incremental decline.

Construction Phase

A key residual impact is the possibility of accidental/ unforeseen permanent loss during the construction stage, of architectural heritage cited as having significance and intended to be retained as part of the proposed development.

A less tangible residual impact following the commencement of the development of the masterplan is economic uncertainty or a continuing post-Covid pandemic-scenario or continuing conflict to the east of Europe arising in the temporary or prolonged cessation of works, leaving historic fabric more vulnerable than it is currently.

The proposed development has been designed so that on commencement of the masterplan development, both risks are mitigated against in the certainty of funding and in the natural elimination of the pandemic.

20.2.11.2 Proposed Development Site 2 & No. 61 O'Connell Street Upper

Operational Phase

The massing, scale and height of the scheme as a single development exceeds the existing, largely consistently formed volumes. However, considerable incremental intensification of plots on this western side of O'Connell Street has occurred over the course of the 20th century, commencing with the full infilling of certain plot footprints in the 19th century and gradual infilling of others in the 1920s and 1930s.

The proposed increased massing and plot amalgamation inevitably accompanies a commercially viable city centre development designed to maximise occupancy and ensure functional occupancy where every urban convenience of transport and use mix is offered.

The consequences of the scheme's massing, scale and height are more perceptible from the north, due south, along Cavendish Row and due west from Cathal Brugha Street, than corresponding views due north up O'Connell Street.

In terms of materiality, each proposed scheme seeks to reflect to palette of pre-existing materials within the ACA, of brick, Portland stone and granite. All are used in contemporary methods, to good effect, with the consequence of a materially compatible scheme.

In respect of use, the proposed development within Site 2 comprises a mixture of offices, with restaurant and retail uses at ground level opening onto pedestrian street and new civic squares to create vibrant urban spaces. No.61 O'Connell Street in turn offers a mix of residential and retail, and also accommodates a critically important pedestrian link connecting O'Connell Street with laneway networks to the rear. Within the wider Masterplan, diverse range of uses including residential, hotel and cultural are proposed, with each element contributing cohesively to the success of the whole.

Multiple uses proposed complimenting the residential, cultural and hotel uses proposed elsewhere in the wider Masterplan are designed to a high quality to attract long term occupants ensuring purposeful long-term occupancy, which will benefit the vibrancy of the ACA.

Summary of anticipated residual architectural heritage impacts for the enclosing environs

referencing Section 12.5.2.6 of EIAR Chapter 12, Landscape and Visual Impact Assessment are tabled below. The assessment reflects on findings of the LVIA, but reviews same views from the perspective of architectural heritage impacts, differing in some instances from the opinion contained therein.

Viewpoint	Distance	Extent of Effects	Anticipated Architectural Heritage Impact
1. Parnell Square North West	270m	Moderate	*Moderate* It is accepted that the height of the proposed development is visible above existing buildings on the south side of Parnell Street from this vantage point. However, it is found that the character of the western 18th century terrace is sensitively reflected in the rhythmic modulation of the development with the result that its impact is reduced.
2. Parnell Square North	280m	Imperceptible to Slight	*Slight* The proposed development is taller than the existing townscape but is largely screened from this vantage point by existing buildings, merging with the existing terraced roofscapes provided by buildings on Parnell Street.
3. O'Connell Street at the	100m	Moderate to Significant	*Significant*

Viewpoint	Distance	Extent of Effects	Anticipated Architectural Heritage Impact
Parnell Monument			As described in 7.8.3.3. above, the permanent effect of the proposed development following development of Site 1 (i.e. infilling of the vacant former terraced plots at Nos 40 and 42 O'Connell Street) is not examined in this application. The *temporary* condition of a gable at No.43 rising above the roof of No.42 introduces a significant visual change from within the ACA due south down O'Connell Street. The removal of chimneys repeating the rhythm established by the corner structure at No.39 is also notable, but one which will inevitably be obscured in the future development of Site 1.
4. O'Connell Street at Cathal Brugha Street	40m	Moderate to Significant	*Significant* The proposed development changes the character of the terrace to the west of the ACA. Its new infill frontages replacing selected buildings introduces a divergence stylistically from the existing settled street and roofscape, however, an excitement is also generated in the quality of the architectural provision, fusing with early 20th century retained facades.
4a. O'Connell Street at the Carlton	40m	Moderate to Significant	*Significant* The façade of the Carlton is largely obscured by trees in this view, reflecting the reality of this verified view. However, in examination of proposed contiguous elevations, the proposal is found to successfully respect the proportions and materiality of the Carlton as the dominant protected façade, in its referencing of a rhythm established by this nationally important early modernist building. Notwithstanding the careful synchrony introduced in the crafting of a denser, taller enclosing development, the change brought about by the scheme is significant, but found to be tempered.
5. Cathal Brugha Street near O'Connell Street	60m	Moderate to Significant	*Moderate* Site 2C is less dramatic from this vantage point when compared with View 3 above, with the architectural intention behind the gesture of the belvedere is most evident. The subtle consistency in approach to the colonnaded façade at Nos 46-49 and the belvedere successfully terminates the gable and is found to be respectful of the lower roof form of No.42.
5a. Cathal Brugha Street	150m	Moderate to Significant	*Moderate* The development is found to merge with the character of the southern terrace of Cathal Brugha Street whilst retaining the legibility of parapets of the opposing O'Connell Street terrace, including that of No.42. The recessed attic stories of the taller structures are rendered distinct from their terraced plinths, relating as much to a rear development on Moore Lane as to a hinterland development visible above the streetscape of O'Connell Street.
6. O'Connell Street at the GPO	120m	Moderate	*Slight* The proposal is barely discernible above an established streetscape offering differing attic storey treatments, from this vantage point within the ACA. The GPO retains its prominence as a focal landmark structure and is not found to be compromised by the scale of the development. It is noted that an assessment of the cumulative impact of Site 3 with Site 2 is absent from this submission, however on its own merits, Site 2 is considered to provide a benign change within the streetscape.
7. O'Connell Street at Abbey Street	200m	Slight to Moderate	*Slight* As above, the proposed development merges with the given roofscape of the western side of O'Connell Street and is not found to present a significant change within the ACA.
8. O'Connell Bridge	360m	Moderate	*Slight* As with View 7 above, the proposed development merges with the given roofscape of the western side of O'Connell Street and is not found to present a significant change within the ACA.

Viewpoint	Distance	Extent of Effects	Anticipated Architectural Heritage Impact
9. Cavendish Row	120m	Moderate	*Moderate* The set-back of upper levels of Site 2C is visible above the parapet line of No.39 O'Connell Street and the Rotunda but recedes behind the established streetscape with the result of a reduced relationship with O'Connell Street and greater association with Moore Lane. The change is moderate and generally found to be acceptable.
10. Parnell Square West	95m	Moderate	*Moderate* The full depth of the plot at No.43 is visible from this vantage point, however the taller building, perhaps owing to its orientation aligns itself with the character of the hotel development at the western junction of Parnell Street with Moore Lane. As a consequence, morphological impacts are reduced.
11. Moore Street looking into O'Rahilly Parade	80m	Moderate	*Significant* Whilst outside the ACA, this view due east towards the ACA is already dominated by the unfortunately angled, anonymous rear structure at Nos 46-49 O'Connell Street. Setting aside the visual change, the proposed development being perforated and incorporating the MetroLink entrance, successfully animates this junction and enhances its purposeful connection with the ACA.
12. Moore St looking towards the National Monument	65m	None	*None* No change to the compositional integrity of the National Monument or its setting arises from the proposal, from this pivotal viewpoint.
12a. Moore St looking into Henry Place	65m	Slight	*None* Please note that an assessment of the proposed redevelopment of No.61 O'Connell Street falls outside the scope of this study. No change to the compositional integrity of Moore Street arises from the proposal, from this pivotal viewpoint.
13. Henry Street at Liffey Street	245m	None	*None* No architectural heritage impacts arise from the development of Site 2, which is not visible from this viewpoint.
14. Parnell Street at Dominick Street	195m	None	*None* As above
15. Sean McDermott Street at Gardiner Street	400m	Slight to Moderate	*None* As above
16. Marlborough Street at North Earl Street	240m	None	*None* As above

Table 15.7.1: Summary of impacts for the enclosing environs as described in Section 12.5.3.2. of EIAR Chapter 12, Landscape and Visual Impact Assessment

Anticipated impacts for protected structures and adjoining historic buildings adjoining the site are tabled below: -

Address	RPS Ref.	NIAH Rating (L= Local) (R=Regional) (N= National)	Anticipated Architectural Heritage Impact
14 Moore Street, Dublin 1	5282	50010489 (R)	As cited above, physical impacts arising from the proposed development have been mitigated in favour of conserving the special status of the national monument at Nos.14-17 Moore Street. The western edge of Site 2 will alter the outward visual setting of the monument, as it opposes its Moore Lane elevation, with visual impacts anticipated as including absent connection with the rear of the O'Connell Street terrace, as viewed from upper rear rooms of the monument. Visual impacts from Moore Lane are not considered especially adverse, as it is intended to develop the presently ruined façade of No.9 Moore Lane (to the west of the Moore Street terrace), which will unify with similarly scaled buildings opposing.
15 Moore Street, Dublin 1	5283	50010490 (R)	
16 Moore Street, Dublin 1	5284	50010491 (N)	
17 Moore Street, Dublin 1	5285	50010492 (R)	
Rotunda Hospital: Parnell Square West, Dublin 1	6419	50010619-50010622 (N)	Site 2C is most visible from the section of Cavendish Row aligned with the Rotunda. It is likely to be visible from upper rooms due south across the city roofscape, a factor not considered central to the continuance of character of a city centre protected structure. As assessed in Section 7.10 above, the proposed intensification of the site is not found to present an injurious impact for the outward visual integrity of this compositionally intact 18th century building group.
70 Parnell Street, Dublin 1	6423	50010561 (R)	Due to the once terraced composition of No.70 Parnell Street to the south aligned with Moore Lane, a historic visual connection between Site 2 and its accommodation was not originally enjoyed. Owing to the bulk of O'Connell Hall at No.42 O'Connell Street, the present-day visibility of Site 2C in particular, being in closest proximity, is largely imperceptible, with little impact arising as a consequence.
71 Parnell Street, Dublin 1	-	50010562 (R)	The rear of this 19th century structure previously opposed the hotel, now demolished, at Nos.40-41 O'Connell Street. as a consequence, no visual connection with Site 2 existed. A present day connection is possible but limited from mostly blocked up upper level rear windows. Visual impacts are therefore reduced.
72-74 Parnell Street, Dublin 1	6424	50010559 (R)	The rear of this public house due south towards Site 2 presents an impervious boundary with no openings, precluding a direct visual connection between the two sites. Site 2 will not be visible from the streetscaped setting of this protected structure, precluding any visual impact.
37-38 O'Connell Street Upper, Dublin 1	6021	50010558 (R)	A similar rear boundary condition to that at Nos.72-74 Parnell Street exists at this protected Bank building forming a chamfered junction between O'Connell Street Upper and Parnell Street. whilst no direct visual connection exists between the two sites, the gable of 2C will be visible from the junction of Cavendish Row/ O'Connell Street Upper and Parnell Street, altering the roofscape profile of this protected structure when viewed due south within the ACA.
42 O'Connell Street Upper, Dublin 1	6022	50010554/ 50010560 (N/R)	The proposed intensified development of a plot adjoining the southern boundary of this protected structure is bound to introduce a change to its amenity. The form of the building occupies the full of the plot length, with a gap created at the boundary offering respite from the scale of the new

Address	RPS Ref.	NIAH Rating (L= Local) (R=Regional) (N= National)	Anticipated Architectural Heritage Impact
			building. the set back succeeds in separating the proposal from the rear rooms of the protected structure, and in particular its stair hall which is of exceptional importance. A Sunlight, Shadow and Daylight Analysis – Site 2 (BDP), has been generated examining existing daylight levels and comparing the differences between the proposed development and the previously permitted, taller development which also encroaches the rear of No.42. It is not surprising that the proposed scheme presents significantly lesser impacts, not just in terms of loss of daylight, but also loss of separation and legibility of form. The subject development will however, reduce daylight levels to rear rooms and from rooflights within No.42. As examined in the daylight assessment, the loss is attached to any vertical extension of the plot above an additional floor level. It is inevitable therefore that daylight quality will be reduced within No.42 in any form of taller development at No.43. The proposal, as cited above, presents a marked improvement on the originally permitted scheme in reducing its encroachment enclosing the rear of No.42. The proposal also presents a reduced impact in terms of construction, in the provision of a more generous set back for excavations to what was previously permitted. On the whole, whilst the scheme may be perceived as introducing radical and unacceptable change, the inevitable development of this site encapsulated by the proposal is a significant improvement on the originally permitted development. Changes in the condition of Moore Lane to the south of the subject site will not adversely impact O'Connell Hall.
59 O'Connell Street Upper, Dublin 1	-	50060601 (R)	The rear, western building range to No.59 is included in the boundary of Site 2, with positive impacts associated with the redevelopment as proposed to retain and purposefully re-use the former Reading Room as a cafe. The proposed taller development of Site 2, within the plot of No. 58 to the north of this retained structure will have little impact on its integrity. The principal building range to the east is outside the subject site. Its integrity is largely respected physically and visually by the proposal.
60 O'Connell Street Upper, Dublin 1	6028	50010535 (R)	Notwithstanding the proximity of No.60 to the taller development of Site 2 above the plot of No.58 O'Connell Street, the integrity of this building remains largely unaffected by the development. Outward vistas from upper rear rooms when viewed obliquely due north will be altered in the infilling of a presently modestly scaled footprint commencing at No.58. No similar visual connection will arise from outward vistas to front rooms. The vertical extension above the retained façade of Nos.43-58 O'Connell Street will alter the urban composition of No.60 insofar as it will become more legibly intact as retaining its original building form within the terrace.