7 Summary of Residual Impacts

This Chapter of the EIAR collates the predicted residual impacts on the environment as identified in Chapters 5.1 to 5.14, arising from the Proposed Development, during Demolition and 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 6: Summary of Mitigation Measures.

The residual effects for each environmental topic are grouped by:

1. Demolition and Construction Phase (Section 7.1)
2. Operational Phase (Section 7.2)

7.1 Demolition and Construction Phase

7.1.1 Population

7.1.1.1 Resident

During this Phase, there is no predicted negative residual impact to the resident population demographic at local or city levels.

7.1.1.2 Working

Mitigation measures, as identified in other chapters of this EIAR, will be put in place to ensure that construction impacts on local businesses are suitably ameliorated.

There is otherwise no predicted residual negative impact for the working population at local or city levels, at construction phase.

It is predicted that there may be a direct positive impact for the local and City level working population arising from job creation at construction phase.

7.1.1.3 Visiting

There is potential for the visiting population to be dissuaded from visiting local attractions or amenities in the local neighbourhood during the construction phase, due to perceptions of lack of accessibility or other nuisance factors.

Mitigation measures, as identified in other chapters of the is EIAR, will be put in place to ensure that construction impacts on neighbouring visitor attractions are suitably ameliorated. Any residual impacts are identified in those chapters.

There is therefore no predicted residual negative impact for the visiting population at local or city levels.

7.1.2 Human Health

Due to the nature and location of the proposed development, there are no predicted adverse impacts with respect to human health factors at construction phase.

All other interrelated environmental aspects relating to the local environment that have the potential to impact on the health of the local resident, working or visiting population such as Chapter 11: Air Quality and Climate (Chapter 5.11), Noise and Vibration (Chapter 5.10), and Tranportation (Chapter 5.5) are cross referenced in the Human Health Chapter 5.2 and in more detail in those respective Chapters of this EIAR.

7.1.3 Cultural Heritage – Architectural Heritage

The Predicted Impacts after mitigation are set out under Section 5.3.7 (Chapter 5.3: Cultural Heritage – Architectural Heritage).

Specific impacts to the external fabric are set out under Table 5.3.4 of this chapter.

Specific impacts in relation to the internal fabric are set out under Table 5.3.5 of the Chapter.

In conclusion, when considering the impacts of proposed development on the fabric and character of the historic buildings, there are always positive and negative impacts. This is consistent with the assessment undertaken for this proposal. Positive impacts require no mitigation or justification.

Negative impacts need more careful understanding and consideration. Mitigation or justification assists in the overall

assessment of the proposal. Some impacts are avoidable, others are not for a variety of reasons. Negative impacts are to be expected and the essential criteria is that the impacts assessed are not greater that those that can be reasonably expected or that they will not result in excessive damage to the integrity and authenticity of the historic building and its fabric.

This assessment has considered the impacts of the proposals on the setting of the Historic Buildings, the impacts on their external fabric and the impacts on their internal fabric. It has not considered the impacts on the wider scale of the Conservation Areas and Architectural Conservation Areas as this study has been undertaken by others.

In terms of the setting, the study found that the proposal to site the new building in the rear yard would be positive, given that, with the sole exception of the Return of No. 23, all the historic returns, mews / coach houses, plot divisions etc. are gone. In addition, the existing mid 20th century Amharclann building and link corridor are not of special architectural or historic interest.

The assessment did find there are some negative impacts relating to the necessary connections between the existing and proposed new buildings. It found that, on balance, the setting to Parnell Square would be positive, although there were certain negatives.

In terms of the external fabric, again there were negatives and positives and excluding the proposed universal access ramps and their associated alterations. These were generally positive. However, the ramps and their associated alterations gave rise to a very significant negative impact for No. 21 and a profound negative impact for No 27.

Internally, a similar situation of positive and negative impacts was found. Again the universal access ramps gave rise to the very specific significant and profound negative impacts.

While there were greater negative impacts noted for the internal fabric of Nos. 26 and 27, the mitigation here was that these buildings had experienced the greatest losses and alterations in the past. The design decision was to target these buildings for the greater alterations to save the more intact buildings from damage. In the overall context, this is a reasonable and justified design decision.

The requirement for universal access is reasonable for a major public building such as is proposed for these buildings and site. The requirement for this access to be from Parnell Square is reasonable

also, given the inherent cultural significance of the place. If the recent history of the houses is considered, it is one of vacancy, disuse and deterioration notwithstanding the various maintenance operations undertaken - the fall of the hearthstone in No. 28 and the consequential severe damage to the original staircase is but one illustration of the situation. Given how long these buildings have been vacant, remaining vacant is not a good alternative, but there are no other potential uses for the buildings currently available. Therefore, the very significant and profound negative impacts of providing the required Universal Access from Parnell Square must be weighed against the alternative.

There are areas where the impact assessment could not be as thorough as would have been desired, such as the Services in general and the Fire Safety Design Strategy. This is not uncommon in dealing with historic buildings such as these where the detailed design has to take account of matters revealed as the fabric is opened up.

The need for continuing monitoring and assessment is self-evident. This requirement is normally contained in a condition of planning permission, whereby a compliance submission and / or a rolling compliance system would be activated for the particular project. It is essential that such a system is also put in place for the conservation aspects of this project as part of the approval process. To be effective, those monitoring the conservation aspects during construction stage should not be concerned with the day to day decisions that will be necessary, but should take an objective overview isolated from the demands of the day to day management and decision making that will be required. A system of information and report submission to an appropriate authority for compliance agreement would satisfy these needs. The appropriate authority best suited would be the Local Authority, Dublin City Council, and their Planning Department and Conservation Officer.

7.1.4 Cultural Heritage – Archaeology

Recommended mitigation measures in respect of further testing and monitoring of the construction site will ensure that all archaeological remains at the site will have been preserved by record, as part of an advance archaeology contract.

Therefore, there would be no residual impacts on archaeological remains from the proposed development at construction stage.

7.1.5 Material Assets – Transportation

The overall impact of the proposal on the transportation environment during the demolition and construction phase is expected to be slight negative and short term.

7.1.6 Landscape & Visual Impact Assessment

In the context of Landscape and Visual Impact Assessment, there are no remedial reductive or mitigation measures appropriate to a development of the nature proposed, the predicted visual impact during the construction phase will be as described under Potential Visual Impacts.

It is considered that the potential impact of the proposed development during the demolition & construction phase will be "moderate" in extent. While the visual impact of demolition and construction phase of the works is likely to be regarded as negative for a time, the anticipation of the completion of a major new public institution is likely to result in a positive public response.

7.1.7 Biodiversity

Following implementation of mitigation measures, no significant residual impacts are anticipated during the demolition and construction phase of the proposed development.

7.1.8 Soil & Geology (including 'Land')

The proposed development will result in a surplus of excavated material which has been identified to contain contaminants. The contaminated material will be exported to an approved licensed waste facility as described in Chapter 5.14: Material Assets – Waste Management, of this EIAR.

The removal of contaminated soil prior to the commencement of piling, will ensure that piling takes place through uncontaminated ground and avoids contamination of the underlying groundwater.

There is likely to be a slight negative, short term impact during the demolition and construction phase.

7.1.9 Water (Drainage, Supply, Flood Risk and Groundwater)

Water supply and wastewater facilities for construction activities, staff and sub-contractors during the construction phase will increase demand on the public watermains and sewers.

Some disruption to the collection and disposal of surface water on Parnell Square North can be expected during the development works for the public realm works.

The likely predicted impacts of the increased water demands on the existing networks during the construction phase are expected to be short term, slight and within the capacity of the existing public networks. The impacts will not be significant and will have a neutral effect.

7.1.10 Air – Noise & Vibration

7.1.10.1 Noise

The implementation of the mitigation measures outlined in Section 5.9.6, and detailed in Appendix 5.9.1, will aim to minimise impact of construction noise experienced at nearby residential and non-residential receptors.

Due to the nature of construction noise and the proximity of noise sensitive receptors, it is predicted construction noise levels will be above the relevant criteria while works are within 10m. In this situation there will be a negative, significant and short term impact on the sensitive receptors.

As works move further away from sensitive receptors, by c. 20-80m, the predicted noise levels fall within the relevant noise criteria. There will be a negative, moderate and short term noise impact during the construction phase.

7.1.10.1 Vibration

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

7.1.11 Climate & Climate Change - Air Quality

When the dust mitigation measures detailed in the mitigation section of this chapter are implemented for demolition, earthworks trackout and construction, fugitive emissions of dust from the site will be short term, insignificant and pose no nuisance at nearby receptors.

There is the potential for a number of greenhouse gas emissions to the atmosphere during the demolition and construction phases of the development. Greenhouse gas emitting sources such as construction vehicles, generators etc., have been considered and these may give rise to CO2 and NO2 emissions.

However, due to the nature and extent of activities i.e. demolition and construction CO2 and NO2 emissions will have a negligible impact on climate.

7.1.12 Climate - Sunlight Analysis

As no ameliorative, remedial or reductive mitigation measures are proposed, the predicted impact of the proposed development on sunlight access will be as described as potential impact.

The potential of the construction phase of the proposed development on sunlight access is likely to be, initially, lesser than the impact of the completed development.

As the proposed development nears completion, the impact of the emerging structure is likely to be similar in all material respects to that of the completed structure.

It is noted that temporary structures and machinery (e.g. hoarding, scaffolding, cranes, etc.) will also cast shadows, although any additional impacts arising from temporary structures or machinery are likely to be temporary and minor.

7.1.13 Climate - Daylight Analysis

The potential of the construction phase of the proposed development on daylight access is likely to be, initially, lesser than the impact of the completed development.

As the proposed development nears completion, the impact of the emerging structure is likely to be similar in all material respects to that of the completed structure.

It is noted that temporary structures and machinery (e.g. hoarding, scaffolding, cranes, etc.) may also result in a change to the existing daylight environment, although any additional impacts arising from temporary structures or machinery are likely to be temporary and minor.

7.1.14 Material Assets – Waste Management

A carefully planned approach to waste management as set out in Section 15.14.6.1 of the Material Assets – Waste Management Chapter and adherence to the C&D WMP during the construction and demolition phase will ensure that the impact on the environment will be a likely, short-term, neutral effect which is imperceptible

7.2 Operational Phase

7.2.1 Population

7.2.1.1 Resident

It is not predicted that there will be a direct or indirect likely significant adverse impact on the resident population demographic at local or at city level during operational stage.

The relocation of the library facility from the Ilac Centre, to deliver a new City Library and cultural facilities and public realm enhancements, within the context of the Parnell Square Cultural, may contribute generally to the improved perception of the City as an attractive place to live.

7.2.1.2 Working

It is not predicted that there will be a direct or indirect likely significant adverse impact on the working population demographic at local or city level during operational stage.

The relocation of the library facility from the Ilac Centre, to deliver a new City Library and cultural facilities and public realm enhancements, within the context of the Parnell Square Cultural, is likely to provide further direct and indirect employment opportunities and contribute generally to the improved perception of the City as an attractive place to work.

7.2.1.3 Visiting

It is not predicted that there will be a direct or indirect likely significant adverse impact on the visiting population demographic at local or city level during operational stage.

The relocation of the library facility from the Ilac Centre, to deliver a new City Library and cultural facilities and public realm enhancements, within the context of the Parnell Square Cultural, should expand the public perception of the city core and is likely to contribute generally to the improved perception of the City as an attractive place to visit.

7.2.2 Human Health

It is expected that the proposed development will have a positive, long-term & imperceptible impact on the immediate area through health and social benefits arising from the reuse and regeneration of the site for a cultural use freely accessible to the general public.

The cumulative impact of the integration of the proposed development with the similar cultural and recreational uses in the immediately surrounding area (e.g. Hugh Lane Gallery, Garden of Remembrance, Irish Writers Museum, etc) to create a new cultural quarter, is likely to have a positive, long-term & imperceptible impact on human health and the cultural identity of the City.

7.2.3 Cultural Heritage – Architectural Heritage

During operational the predicted impacts would not be different to the outcome of the predicted impacts identified at demolition and construction stage. We refer to Section 7.1.3 above in this regard.

7.2.4 Cultural Heritage – Archaeology

Following the completion of the mitigation measures, all archaeological remains at the site will have been preserved by record. Therefore, there would be no further impacts on archaeological remains from the proposed development at operational stage. We refer to Section 7.1.4 above in relation to the construction phase of the development.

7.2.5 Material Assets – Transportation

Upon completion, the proposed development sees the retention of two lanes for vehicular traffic (one dedicated for buses and set down) and an enhanced shared surface for pedestrians and cyclists, at Parnell Square North. The project is likely to have a positive long term significant residual impact on the transportation environment during the operational phase.

7.2.6 Landscape & Visual Impact Assessment

In the context of Landscape and Visual Impact Assessment, there are no remedial reductive or mitigation measures appropriate to a development of the nature proposed, the predicted visual impact during the operational phase will be as described under Potential Visual Impacts.

There are 18 views selected as part of the assessment of potential visual impacts of the proposal on the built environment during the operational phase. The extent of visual impact under Chapter 5.6: Landscape & Visual Impact Assessment range from 'none' to 'moderate'. Detailed discussion in relation to these views is set out under Section 5.6.6.2 of this EIAR.

It is noted that, despite the large scale of the proposed new structure behind Nos. 23-28 Parnell Square North, its visibility in the

landscape / streetscape setting has been found to be very limited. The only obvious indication along the north side of Parnell Square of the existence of the large new structure behind Nos 23 to 28 is the proposed new doorway to No 27 Parnell Square North, which will provide access through the historic houses into the new structure at the rear. The surround of the new doorway is proposed as a simple undecorated modern granite door case. The new modern doorway suggests that there is something new to be discovered within, but the simple modesty of the doorway gives no hint of the grand scale of the proposed new structure beyond. This is a case where a greater visual presence for a proposed intervention might be warranted; and Georgian Dublin is no stranger to grand doorways.

The final appearance of works to the exterior of the existing Georgian buildings at to Nos. 20-21 and Nos. 23-28 Parnell Square North cannot be fully determined at this time. The full nature and extent of remedial and replacement works will only become apparent during the works, as the condition of each element of the existing fabric is established upon opening up. Given this, the photomontages prepared as part of the visual impact assessment are intended to give an impression of improved appearance of the existing Georgian Buildings subsequent to the works, but should not be taken as definitive in this respect. The predicted visual impact is long term and positive.

7.2.7 Biodiversity

Following implementation of mitigation measures, no significant residual impacts are anticipated during the operational phase of the proposed development.

7.2.8 Soils & Geology (including 'Land')

During the operational stage, the buildings and public realm will comprise built up urban environment covered respectively by roofs and hard standing. No likely significant adverse impacts are predicted on soils or geology.

7.2.9 Water (Drainage, Supply, Flood Risk and Groundwater)

Following the completion of the proposed development, there will be

a) An increase in demand for potable water from the public mains.

b) An increased discharge of foul water from the proposed development to the public sewers.

c) A reduction in the rate of surface water discharge from the site of the proposed development.

The likely predicted impact of the increased water demands on the existing networks during the operational phase are expected to be long-term, slight, and within the capacity of the existing public water networks to absorb. The impacts will not be significant and will have a neutral effect.

7.2.10 Air - Noise & Vibration

7.2.10.1 Noise

The external plant items will be designed and located so that emissions will be within the noise criteria set for day and night-time periods and the impact at any noise sensitive locations will be neutral, long term and imperceptible.

No other substantial noise sources are anticipated during the operational phase of the development.

7.2.10.2 Vibration

No vibration impact is expected in association with the operational phase.

7.2.11 Climate & Climate Change - Air Quality

7.2.11.1 Air Quality

By using the DMRB screening criteria, no road links can be classed as 'affected' by the proposed development and do not require inclusion in the local air quality or climate assessment.

7.2.11.2 Climate

There is the potential for a number of greenhouse gas emissions to atmosphere during the operational phase of the development.

Road traffic and space heating of buildings may give rise to CO2 and N2O emissions.

The increase in traffic was scoped out for air quality and climate in accordance with the UK DMRB guidance.

Due to the nature of this development the impact from emissions on climate arising at the operational phase is predicted to the negligible.

Further to a Flood Risk Assessment (FRA) by Arup consulting engineers, the risk of tidal and groundwater flooding to the site is predicted to be remote, including in a climate change scenario. The risk of fluvial flooding from the Bradoge River in a climate change scenario is also remote.

7.2.12 Climate - Sunlight Analysis

Having regard to the shape, layout and orientation of the application site, the potential of the proposed development to give rise to the overshadowing of lands outside the application site is largely limited to neighbouring lands at Parnell Square, Granby Row (Parnell Court), Bethesda Place, Sheridan Place and Frederick Lane North.

The potential for the proposed development to result in a change to the shadow environment is limited by the already dense shadow environment of this part of Dublin's urban core. Moreover, the potential for the redevelopment of the central portion of a city block (i.e. where the perimeter buildings of that city block are to be retained) to result in additional overshadowing of the wider area is very limited.

Shadows cast by the proposed development will extend to lands to the north (i.e. the three storey residential development at Sheridan Place) during the mornings and early afternoons throughout the year. While the rear facade of Sheridan Place is punctuated with secondary windows (i.e. principal windows serving living spaces are located on the other or northeast-facing side of the building), it is noted that shadows cast by the proposed development have the potential to reduce sunlight access to the rear façade of Sheridan Place to a "significant" extent, with windows at the western end of Sheridan Place most likely to be affected. While additional overshadowing of the rear of Sheridan Place may be considered to be "significant", it is noted that the scale of the proposed development is broadly similar to developments already built, under construction or permitted in the immediate area. As such, the impact of shadows cast by the proposed development on the rear façade of Sheridan Place may be considered to be consistent with emerging trends for development in the area.

ARC's analysis further indicates that the proposed development has the potential to result in "imperceptible" to "moderate" additional overshadowing of Charlemont House, as extended to accommodate the Hugh Lane Gallery, during the afternoons and evenings throughout the year. The potential for shadows cast by the proposed development to result in negative impacts on the amenity

value of rooms within the gallery or on the function of the gallery is strictly limited by the fact that rear-facing windows within Charlemont House do not have a reasonable expectation of sunlight (given that the rear façade faces within 90 degrees of due north) and given that there are few windows serving the modern elements of the gallery.

Shadows cast by the proposed development are also likely to extend to Granby Row (including Parnell Court) as far as Dorset Street Upper for a short time during the very early mornings of spring, summer and autumn months. The impact of shadows cast by the proposed development at this time is likely to be minor and is predicted to range from "imperceptible" to "moderate" in extent. Similarly, for a short time during the late afternoons of the winter months (i.e. November, December, January), shadows cast by the proposed development are predicted to result in an "imperceptible" to "slight" impact on lands to the north to the rear of Parnell Square North and Frederick Lane North.

7.2.13 Climate – Daylight Analysis

All impacts described in Section 5.13.5.2 will be permanent. Impacts described as "imperceptible" are considered to be neutral in character. Any reduction in daylight access resulting in a "slight", "moderate" and "significant" impact would usually be considered to be negative in character, unless otherwise indicated. Any increase in daylight access resulting in a "slight", "moderate" and "significant" impact would usually be considered to be positive in character, unless otherwise indicated.

The impact of the proposed development on daylight access within existing buildings is likely to be most significant in the case of existing buildings at close proximity with windows directly opposing the application site. Specifically, the proposed development is likely to result in a "moderate" to "significant" reduction in daylight access to a small number of southwest-facing rooms at Sheridan Place, although, given statutory planning policy for densification for the urban area, the impact of the proposed development on these rooms could be considered to be consistent with an emerging pattern of very high density development on backland or infill sites in Dublin City Centre.

The impact of the proposed development on daylight access within buildings at very close proximity to the site (e.g. Parnell Court and within Charlemont House to the east) are likely to range from "imperceptible" to "moderate". The impact on daylight access on other nearby buildings at Granby Row and Frederick Lane North is likely to range from "imperceptible" to "slight".

Given that the potential for development to result in impacts on daylight access diminishes with distance, it is the finding of ARC's analysis that the impacts outlined above represent a worst-case scenario and the proposed development is unlikely to have any undue adverse effects on daylight access within buildings in the wider surrounding area.

7.2.14 Material Assets – Waste Management

During the operational phase, a structured approach to waste management as set out in Section 15.14.6.2 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 impact of the operational phase on the environment will be a likely, long-term, neutral and imperceptible effect.