Validation Checklist

Lodgement Number : **LDG-058889-22**
Case Number: **ABP-315053-22**
Customer: **Ventaway Limited**
Lodgement Date: **07/11/2022 16:15:00**
Validation Officer: **James Sweeney**
PA Name: **Dublin City Council South**
PA Reg Ref: **4674/22**
Case Type: **Normal Planning Appeal PDA2000**
Lodgement Type: **Appeal**

An Bord Pleanála

* Buff *

Validation Checklist	Value
Confirm Classification	Confirmed - Correct
Confirm PA Case Link	Confirmed-Correct
Confirm ABP Case Link	Confirmed-Correct
Fee/Payment	Valid – Correct
Name and Address available	Yes
Agent Name and Address available (if engaged)	Yes
Subject Matter available	Yes
Grounds	Yes
Sufficient Fee Received	Yes
Received On time	Yes
3rd Party Acknowledgement	Not Applicable
Eligible to make lodgement	Yes
Completeness Check of Documentation	Yes
Valid Lodgement Channel	Yes

BP01 to Applicant (gets Receipt) ✓

BP07 to PA (gets copy) ✓

* 1 copy *

CT 09/11/22.

Run at: 09/11/2022 09:55

Run by: James Sweeney

Lodgement Cover Sheet - LDG-058889-22

ABP-315053-22

An Bord Pleanála

1 VRL + EIAR

Details

Lodgement Date	07/11/2022
Customer	Ventaway Limited
Lodgement Channel	In Person
Lodgement by Agent	Yes
Agent Name	John Spain Associates
Correspondence Primarily Sent to	Agent
Registered Post Reference	

Lodgement ID	LDG-058889-22
Map ID	
Created By	Orlagh Kearney
Physical Items included	No
Generate Acknowledgement Letter	
Customer Ref. No.	
PA Reg Ref	

Categorisation

Lodgement Type	Appeal
Section	Processing

DD-014430-22

PA Name	Dublin City Council South
Case Type (3rd Level Category)	

Fee and Payments

Specified Body	No
Oral Hearing	No
Fee Calculation Method	System
Currency	Euro 3000
Fee Value	0.00
Refund Amount	0.00

4674/22

Observation/Objection Allowed?	
Payment	PMT-045982-22
Related Payment Details Record	PD-045872-22

BP01

07

Appeal

Decision date: ~~11~~/10/22 : 7/11/22

Pt Notified: 9/11/22

Run at: 07/11/2022 16:22

Run by: Orlagh Kearney

PA Case Details Manual	
PA Case Number	
PA Decision	
PA Decision Date	
Lodgement Deadline	
Development Description	
Development Address	

Appeals Type	

Run at: 07/11/2022 16:22

Run by: Orlagh Kearney

JSA John Spain Associates
Planning & Development Consultants
Chartered Town Planners & Chartered Surveyors

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The Secretary,
An Bord Pleanála,
64 Marlborough Street,
Dublin 1

AN BORD PLEANÁLA
LDG- 058889 - 22
ABP-
07 NOV 2022 o.k
Fee: € 3000 Type: bankdraft
Time: 16.15 By: hand

7th November 2022

Dear Sir / Madam,

RE: 1ST PARTY APPEAL AGAINST DECISION TO REFUSE PERMISSION FOR A PLANNING APPLICATION, INCLUDING ENVIRONMENTAL IMPACT ASSESSMENT REPORT, FOR PROPOSED MIXED USE DEVELOPMENT AT 1-4 CITY QUAY, DUBLIN 2, D02 KT32, 23-25 MOSS STREET, DUBLIN 2, D02 F854 AND 5 CITY QUAY, DUBLIN 2, D02 PC03.

DUBLIN CITY COUNCIL REG. REF.: 4674/22

1.0 INTRODUCTION

1.1. On behalf of the applicant, Ventaway Limited, Park Chambers, 13 St. Stephen's Green, Dublin 2, we, John Spain Associates of 39 Fitzwilliam Place, Dublin 2, wish to submit a 1st party appeal against the decision of Dublin City Council dated 11th October 2022 to refuse planning permission for a mixed use development at a site at 1-4 City Quay, Dublin 2, D02 KT32, 23-25 Moss Street, Dublin 2, D02 F854 and 5 City Quay, Dublin 2, D02 PC03.

1.2. Please see enclosed fee of €3,000 for the submission of the 1st party appeal for a commercial application including an EIAR and NIS.

1.3. The proposal is for a mixed use development comprising arts centre, office and gym with a GFA of 22,587 sq.m over 24 no. storeys. The proposed development has been designed to a high architectural standard in accordance with the policies and objectives of the Draft Dublin City Development Plan 2022-2028. Given the expected decision date for this first party appeal, it is considered likely that the Dublin City Development Plan 2022-2028 will be adopted and in force, and this first party appeal is therefore prepared in this context.

1.4. Similarly, the George's Quay LAP 2012 has expired (July 2022) and is not assessed in detail within this first party appeal, however, is addressed by reference to an element of the rationale put forward for the decision to refuse by the City Council. The proposed development has been assessed against both of these documents in the Planning Report submitted for the Section 34 application to Dublin City Council (Reg. Ref.: 4674/22) subject of this appeal.

1.5. The proposed development has had due regard to the relevant national policy guidance, including the National Planning Framework and the Urban Development and Building Height Guidelines, during the design stage process. These Guidelines promote consolidation of urban development in city centres, increased building heights and increased densities in key urban and city centre location in close proximity to major public transport infrastructure such as the Dart and proposed MetroLink. Having regard to the stated national policy guidance and the suitability of the proposal for the subject site, it is respectfully requested that An Bord Pleanála grant permission for the subject development as set out herein

1.6. A core objective of the NPF is to increase urban consolidation through urban regeneration, increased densities and increased building heights in appropriate urban locations and particularly adjacent to public transport corridors and public transport interchanges. These objectives are also included in the Building Height Guidelines to provide increased building heights and densities next to significant public transport.

1.7. The proposed development has had regard to the proposed MetroLink project, with the proposed station located c. 160m west of the site; however, the existing public transport frequency and capacity would support the development. MetroLink is currently subject of a Railway Order Application to An Bord Pleanála. Tara Street Station is proposed to be the only interchange between Dart and MetroLink in the city, making Tara Street Station an even more significant public transport node in the city centre. The subject site is therefore in a unique location within the city centre in terms of accessibility and provides an opportunity to create a high-density, mixed-use scheme in close proximity to proposed public transport interchange. It is considered appropriate and in accordance with national policy guidance to respond by providing for a development of greater height and density at this location.

1.8. The proposed MetroLink project will connect Swords to Charlemont through the City Centre via underground tunnels and connecting at surface level to existing public transport infrastructure such as the DART at Tara Street Station. The MetroLink will also connect with the Luas Green Line at Charlemont.

1.9. The design team has also provided for a suitable amount of arts space across basement, ground and first floor as well as significant improvements to the public realm by providing a public plaza at the corner of Moss Street and City Quay. The provision of arts space at the lower levels and the improvements to the public realm ensures a significant gain for the subject site and the surrounding area.

1.10. It is worth noting that Dublin City Council acknowledge the positive economic impact the proposed development will have on the city as a whole. The Planner's Report states:

"As a direct result of the proposed redevelopment of the subject site the envisioned increase in footfall, vibrancy and functionality is also likely to have a significant economic benefit for the local area and the City."

1.11. In this regard it is respectfully requested that An Bord Pleanála have regard to the overarching national planning policy and grant permission for this development as a key economic driver and significant enhancement to the subject area within the city centre of Dublin in close proximity to a significant public transport interchange.

1.12. The following documents are submitted as part of this 1st party appeal:

- Appendix 1: Decision of Dublin City Council;
- Appendix 2: Daylight & Sunlight Assessment Addendum prepared by Digital Dimensions;
- Appendix 3: Architect's Response to Planning Refusal prepared by Mahoney Architecture;
- Appendix 4: Report on Townscape and Visual Impact for 1st Party Appeal prepared by Modelworks;
- Appendix 5: Urban Strategies Inc. Appeal Response including resubmission of Appendix 1 submitted with the application for convenience;
- Appendix 6: Cover Letter prepared by Byrne Looby including the following appendices:
    - Appendix A: Drawings
    - Appendix B: Delivery and Servicing Management Plan
    - Appendix C: Stage 1 Road Safety Audit
    - Appendix D: Public Transport Capacity Assessment
    - Appendix E: Updated Outline Construction Management Plan
- Appendix 7: Pedestrian Realm People Flow Study prepared by Bakkala Consulting Engineers;
- Appendix 8: City Quay Additional Verified Photomontages prepared by Digital Dimensions

1.13. Given the expected decision date for this first party appeal, the proposed development is subject to the provisions of the Draft Dublin City Development Plan 2022-2028 which will be in effect when a decision is made. The Draft Development Plan contains specific objectives for developments which increase commercial activity in the city particularly at public transport nodes, promote tourism, re-development of brownfield sites and the provision of tall buildings at key locations in the city.

2.0 SITE LOCATION

2.1. The application site consists of lands bounded by City Quay to the north, Moss Street to the west, Gloucester Street to the south and the City Quay National School to the east. The site benefits from frontage to the River Liffey to the north. The site is brownfield in nature and accommodates a c. 20th century three storey building of poor condition which is derelict and vacant. The southern part of the site exists as a surface car park.

2.2. The City Quay National School, St. Marys Crèche & Pre-School and City Quay Church neighbour the site to the east. The St. George's Quay office development (6-13 storeys) is located across Moss Street to the west and the Grant Thornton building is located within the same city block to the east, extending to 5-9 storeys. A hotel and residential development extending to 8 no. storeys is currently under construction to the south. The Custom House and IFSC are located to the north.

2.3. The subject site is centrally located in respect of Dublin city centre and is highly accessible, located c. 165 metres east of Tara Street rail interchange, 250 metres south of Busáras bus station and Luas Stop and 400 metres south of Connolly Station. It is immediately adjacent to Dublin Bus stops and Dublin Bikes stations on City Quay. The location of the subject site is shown in red in Figure 2.1 below, in the context of its surroundings.

2.4. The surrounding area is currently evolving with numerous developments completed, underway or on stream. Such developments include the 8-storey, 393-bedroom hotel and residential development currently under construction to the immediate south of the subject site at 44-53 Townsend Street, 33-39 Moss Street, 31-33 Gloucester Street South, and including Bracken's Lane, as well as the granted 22-storey office development located to the west along Tara Street and the Apollo House development which reaches 22 no. storeys also.

2.5. Additional existing buildings in the surrounding area include the Grant Thornton building which ranging in height from 5-9 storeys is located to the east along City Quay as well as the George's Quay office development which is located directly to the west across Moss Street reaches 13 no. storeys in height. The City Quay National School adjoins the site to the east, with the Immaculate Heart of Mary Church located to the east of the site also.

Figure 2.1: Aerial View of Site (Source: Google Maps)

2.6. The existing buildings have been vacant for a number of years which has led to their deterioration and dereliction. The surrounding area along the Liffey and within the George's Quay Local Area Plan area is undergoing significant urban renewal and change. The subject site is a key opportunity to contribute to this urban renewal dues to its location along the Quays and its proximity to high-quality public transport. The demolition of the existing buildings and redevelopment of the site by providing a high-density cultural and office scheme would result in a significant improvement on the current streetscape.

2.7. A Demolition Justification Report has been prepared and was included with this application to provide a rationale for the demolition of the existing buildings on site, which was accepted by the City Council.

Figure 2.2: Existing Buildings along City Quay (Source: Google Maps)

Figure 2.3: Existing Buildings along Moss Street (Source: Google Maps)

3.0 PROPOSED DEVELOPMENT

Introduction

3.1. The proposed development provides for the demolition of existing buildings and structures on site and the construction of a 24 no. storey mixed use building comprising office accommodation, arts centre and gym. The development will also provide for significant upgrades to the public realm by providing a public plaza at the corner of Moss Street and City Quay. A double basement is provided catering for 11 no. car parking spaces and 424 no. bicycle spaces

3.2. The site is located at the junction of City Quay and Moss Street the site extends to over 0.2 hectares. The site is also bound to the south by Gloucester Street South.

3.3. The highly visible site, on the south side of the Talbot Memorial Bridge, marks one of the most important arrival points into the city centre and justifies a landmark building appropriate to its unique setting and access to public transportation. The proposed building extends to 24 no. floors above ground floor and also contains 2 no. basement levels.

Figure 3.1: CGI of Proposed Development (Source: Digital Dimensions)

3.4. The main entrance to the building, located to the northwest corner of the site, is set back from the site boundary to form a small plaza and opens into a 448 sq.m. light-filled, double-height lobby shared by the Arts Centre and office accommodation above. The lobby floor is surfaced to read as an extension of the exterior public realm and functions as a gathering space – an internalised public space.

3.5. As detailed in the Architectural Design Statement submitted with the application the massing of the building steps as the building rises from a six-storey shoulder height fronting the quays to the twenty-four storey tower. A series of stepped back terraces at 7th, 9th and 11th floors transition the form of the building from the base of the tower.

3.6. The shape and form of the tower has evolved in response to its alignment with the axis of Gardiner Street. The slender diamond plan shape ensures that the building form is elegant and slim when viewed from Gardiner Street where its form is further accentuated by the fluted profile of its prow.

3.7. The roof profile of the tower is angled towards the Gardiner Street axis creating a distinctive and unique form on the City's skyline and contributing to the character of the grouping of nearby buildings including Liberty Hall, Busáras and The Custom House.

3.8. The lower floors form a base to the tower and are located in a black brick frame with glazing infill. The frame presents two-storey high columns at 3000mm centres. In contrast, the tower is wrapped in curtain walling with 750mm wide vertical aluminium bands also at 3000mm centres. These bands contain patterned louvres which allow air transfer to the on-floor mechanical ventilation system as well as the demand control ventilation system. A similar ventilation arrangement serves the base floors.

3.9. The fenestration pattern extends to the roof-top plant area with the glazing bands replaced by perforated aluminium panels which are backlit to create a lantern effect at light time. This cladding also screens the maintenance craneage system.

3.10. The eastern façade bordering the Immaculate Heart of Mary Church and City Quay National School features a trellis of climbing plants set between the brick frame and horizontal louvres on the set-back glazing to ensure the visual privacy of these properties.

3.11. The south facing façade of the tower provides photovoltaic panels which, combined with the air-to-water heat pumps, provide renewable heat and power sources for the building.

Cultural and Art Spaces

3.12. The basement, ground and first floor of the proposed development will provide spaces for art studios and an art gallery. The first floor will also partly include office accommodation with a lobby located at the ground floor at the entrance to the development fronting onto City Quay. These uses at the lower floor of the building will provide for animation at street level and create vibrancy and vitality for long periods of the day and into the evening when events are hosted in the art spaces. The proposal also includes for a community centre which is accessed from Moss Street to the west of the subject site.

Figure 3.2: Proposed Arts Centre (Source: Digital Dimensions)

3.13. The existing building was previously home to the City Arts Centre which was a significant cultural building in Dublin City. The building has been in disuse for a significant number of years and has become severely derelict and unsafe for pedestrians passing by along Moss Street or City Quay. It is therefore considered appropriate to demolish the existing building in order to provide a cultural space that is fit for purpose and can become a significant part of the Dublin City community again.

3.14. It is considered that it is not appropriate for the building to remain in its current state along the quayside where multiple surrounding sites are being redeveloped. The proposed development provides for a unique opportunity for this cultural space to come back into use.

3.15. The proposed modern cultural spaces will replace the existing building which was previously used as an arts centre before the building became derelict and vacant. These new spaces will be a significant improvement on the previous building by providing a large art gallery which is capable of hosting events and exhibitions. These floors will also provide for 12 no. of art studios which can be rented out on an individual basis.

Public Realm

3.16. The proposed building is sited at a very busy location at the junction of City Quay, Moss Street and Talbot Memorial Bridge. As such, the envelope of the building at ground floor level, has been pulled back from the boundary line at the northwest corner to increase the size of the open space at the main entrance. A bespoke granite bench aligns with the undercroft of the second floor above and will be the main feature in the space.

3.17. It is proposed to upgrade the public realm footpath, along the west side of the building, from brushed concrete to DCC standard granite slabs and continue this surface into the main open space with brass pavement studs installed to demarcate the boundary line. It is also proposed to upgrade the surface of the existing pavement extension to the north of the building from precast paving units to DCC standard granite slabs with the material aim of creating public/private zone suited to the quality of the proposed new building.

3.18. The primary paving finish on the ground floor will be a Leinster Granite natural stone slab with featured perimeter bands of textured cast in-situ concrete. All proposed paving is of a high quality and provides continuity and connectivity throughout the ground floor. The works outside the application site boundary are subject to agreement with Dublin City Council and shown outside the red line at their request.

Figure 3.3: CGI of Public Realm Improvements at the junction of Moss Street and City Quay (Source: Urban Strategies Inc.)

3.19. The additional space proposed at this corner will allow for a greater ease of movement for people who are entering and exiting the building which will be constant throughout the day. This will also provide for a greater sense of activity and animation at this corner compared with the current situation and will alleviate the expected congestion that will arise as a result of the proposed development.

3.20. The frontages onto City Quay and Moss Street present a two-storey high scale at street level. The full height glazing reveals the activity of the Arts Centre within, including the video wall. 3 no. two-storey high circular polished black concrete columns frame the glazed shopfront of the Centre. The triple height volume to the front of the building accommodates the staircase which link the three floors of the Arts Centre. The highly visible movement and activity within creates curiosity and encourages the passing public to visit the Centre.

3.21. The active street frontage extends along Moss Street where the gym unit is located. The entrance is positioned in the recess formed by the tower volume and a series of tail folding doors can be opened in mild weather to further animate the streetscape.

3.22. The DCC Planner's Report stating the following regarding the public realm upgrades:

"Overall, the proposed development will provide for a significantly enhanced public realm and pedestrian access to the proposed development, particularly along Moss Street and City Quay. The proposed development will therefore increase the accessibility and permeability of the subject area thus improving the resilience of locations in terms of public access and egress at surface level. On balance, the proposal responds to its overall natural and built environment and makes a positive contribution to the urban neighbourhood and streetscape."

Duration of Permission

3.23. A 10 year permission is sought; having regard to the complexities around the delivery of a landmark building and current impacts on the supply chain being experienced by the construction industry. The extended duration of the permission would allow for such potential constraints on the delivery of the development if permitted.

Access and Car Parking

3.24. Vehicular access to the basement of the site will be from Gloucester Street via a new double car lift. A full assessment of the access arrangements are set out in the Transport and Mobility Management Plan prepared by Bakkala Consulting Engineers and Byrne Looby Consulting Engineers which were submitted with the application to Dublin City Council. A total of 11 no. car parking spaces with an additional 2 no. disabled car parking spaces are provided in line with the current Development Plan standards. All the spaces will be equipped with EV charging facilities. The Transport Planning Section of the City Council sought additional information on the application. As the decision was to refuse permission, a response to these items is provided by in the Byrne Looby documentation accompanying this appeal.

Bicycle Parking

3.25. Bicycle parking is also proposed in the basement of the development. It is proposed to provide 412 no. bicycle parking spaces. In addition to these spaces, it is proposed to provide 22 no. motorbike space, 36 no. e-scooter spaces and 12 no. cargo bikes spaces. Cyclists will also have access to a total of 20 no. showers including 4 no. disabled accessible showers, 4 no. WCs and 430 no. lockers.

Basement

3.26. The proposed development provides for 2 no. levels of basement which will accommodate car and bicycle parking as well as plant and services for the building. An Outline Basement Impact Assessment has been prepared by Bakkala and Byrne Looby Consulting Engineers was submitted with the application to Dublin City Council.

4.0 GROUNDS FOR APPEAL

Reason for Refusal No. 1

4.1. The first reason for refusal issued by Dublin City Council for the proposed development on 11th October 2022 was:

"Having regard to the prominent and sensitive location of the subject site by reason of its important location within the historic City core fronting onto the River Liffey, its proximity to the Custom House and having regard to Policy SC7 & SC17 of the Dublin City Development Plan 2016-2022 which seeks to protect and enhance the skyline of the inner city, and to ensure that all proposals for mid-rise and taller buildings make a positive contribution to the urban character of the inner city, the proposed development due to its scale, bulk and height would seriously detract from the setting and character of the Custom House and environs. In addition the proposal would have a significant and detrimental visual impact on the River Liffey Conservation Area and important views and vistas, including those views from the Custom House environs, Amiens Street, Mountjoy Square, Gardiner Street Lower, Trinity College Campus and views westward from the River Liffey. Moreover, due to the excessive scale of the proposed building and its proposed location, removed from the permitted buildings at Tara Street Station and Apollo House, the proposed building would stand apart as an overly assertive solo building which would not form part of a coherent cluster. The proposal would therefore have a significant and detrimental visual impact on Dublin's historic skyline, by reason of fragmentation and visual intrusion and would thereby seriously injure the urban character of the City Centre skyline, would create a precedent for similar type undesirable development and would be contrary to the proper planning and sustainable development of the area."

4.2. The first reason for refusal relates to the impact of the proposed development on the setting and character of the Custom House and environs as well as the visual impact on the River Liffey Conservation Area. The refusal reasons also make reference to a number of key views that will be impacted by the proposed development including those from the Custom House, Amiens Street, Mountjoy Square, Gardiner Street Lower, Trinity College Campus and views westward of the River Liffey.

4.3. The supporting document prepared by Mahoney Architecture suggests that *"achieving density in the George's Quay environs is vital to justification of the investment in the Metro Link project, where Tara Street station is the central hub of this infrastructure. It is difficult to see where else density of the necessary scale can be achieved adjacent to city centre, making the George's Quay Quarter the single most important central location for a substantial cluster of tall buildings."*

4.4. An additional Townscape and Visual Impact assessment has been prepared by Modelworks and is included with this first party appeal to address the reasons for refusal issued by Dublin City Council. The document addresses the first reason for refusal issued by Dublin City Council and states the following:

"DCC evaluates the effects of the development on both these views (among others) as dramatically negative. While the effects may be dramatic, if different values are applied the effects can be considered positive. This applies to the proposed development due to its very high design quality and the consideration given to the sensitivities in the context, which reflects in the design. It is not only a

beautiful building, but also appreciably responsive to the river, the Custom House (and Gardiner Street views) and the church."

4.5. It is therefore respectfully submitted that An Bord Pleanála assess the proposed development in accordance with the overarching national policies and objectives set out in the NPF, the Urban Development and Building Height Guidelines, the Draft Dublin City Development Plan 2022-2028 and the strategic importance of the location of the subject site in close proximity to a major public transportation hub at the existing Tara Street Dart Station and proposed future Metrolink Station.

4.6. The first reason for refusal referenced policies SC7 and SC17 of the 2016-2022 City Plan. These policies are superseded by the policies and objectives of the 2022-2028 City Plan at the date when the Board determines this appeal. As such the concerns which formed the refusal are addressed in this Section below, and a separate Section addresses the policy context of the proposed development, inclusive of the provisions of the Draft Dublin City Council Development Plan 2022-2028. It is noted the final content of the next City Development Plan is not finalised at the time of writing this report. It is notable that blanket height restrictions have been removed from the forthcoming City Plan, with a qualitative assessment instead provided for against specified criteria (Table 3 of Appendix 3 and Table 4 of Appendix 3, with the latter specific to Landmark Buildings).

4.7. In particular it is noted that as part of the Draft Development Plan, Strategic Development and Regeneration Area 6 (Docklands; within which the site is located) did not identify any landmark buildings within George's Quay.

4.8. As part of the material alterations, it was proposed to identify Tara Street as a 'Landmark Building' and City Quay as a 'Locally Higher Building'. The final outcome as to whether there if there is a designation on the site or not is not definitive at the time of writing as a final document is not yet available. It is however understood that the material alteration was adopted.

4.9. No designation was provided in any scenario on the College Square development site, which highlights an inconsistent approach in providing for such buildings on the SDRA Map. Notwithstanding this, Table 3 and Table 4 of the 2022-2028 City Plan, which provide criteria for the assessment of taller and landmark buildings respectively, have been addressed in this appeal and the application as submitted. The designation of a site or otherwise, for a locally higher building does not preclude proposals for a landmark building provided the Table 3 and 4 criteria are satisfied, and it is submitted this is the case.

4.10. Additionally, it must be considered that as part of planning judgement, the assessment of proposals must take all factors into consideration and a balanced judgement taken. It is respectfully submitted that notwithstanding the concerns of the City Council with respect to visual impact (which are contended to be unfounded), the benefits of the scheme to the City which were recognised by the City Council, were not given significant weight as part of a balanced judgement in refusing permission. There is a clear planning policy and objective basis for the granting of permission and therefore it is respectfully requested that the decision to refuse is overturned.

4.11. Detailed responses to the first reason for refusal prepared by Mahony Architecture, Modelworks and Urban Strategies accompany this appeal, and are summarised below.

Custom House and Environs

4.12. The additional TVIA submitted with this appeal firstly addresses the prominent location of the site and the development's impact of the proposed development on the River Liffey and the Custom House. In relation to the prominence of the site, the TVIA states *"While this demands a considered response in the conceptualisation and design of new development on the site, it equally points to the site's potential – especially considered in light of other policy (e.g. compact growth, increased building height, alignment of land use/density and public transport, promotion of Dublin as a 'global city of scale', etc.).*

The site has considerable potential to contribute to (a) place-making and legibility, (b) regeneration/reimaging of the George's Quay/City Quay/Moss Street are, which is sub-optimal in character, quality and function, and (c) overcoming the physical and visual barrier between the old city and the Docklands."

4.13. It is also considered that the River Liffey provides a favourable context for taller buildings given that it is a wide open space corridor and its banks are a key mobility corridor in the city. This is consistent with the Urban Development and Building Height Guidelines which states *"the proposal enhances the urban design context for public spaces and key thoroughfares and inland waterway/ marine frontage, thereby enabling additional height in development form to be favourably considered in terms of enhancing a sense of scale and enclosure while being in line with the requirements of "The Planning System and Flood Risk Management – Guidelines for Planning Authorities" (2009)."* The TVIA goes on to state:

"The conservation-orientated approach to the Liffey corridor indicated by its CA designation should be balanced with (a) recognition of the diversity of character areas and buildings within view of the river due to it being the central feature and movement corridor through the city, and (b) the validity of the urban design principle of positioning building height along the edge of large open spaces and thoroughfares such as the Liffey corridor.

As to the specific positioning of tall buildings for positive townscape effect (e.g. place-making, legibility), bridges, as nodes along the river corridor, are a suitable location."

4.14. The Planner's Report states the following in relation to the impact on the Custom House and the River Liffey corridor:

"It is considered that the proposed development, due to its excessive, eight scale and bulk, would seriously detract from the setting and character of the Custom house, one of the city's most important architectural set pieces, and would also adversely affect the River Liffey Conservation Area."

4.15. The impact on the Custom House is addressed in the TVIA as follows:

"The Custom House is thus at the centre of a particularly diverse character area, in which there is no uniformity in development era, building typology, form, scale or architecture. Many of the developments were forerunners and strong architectural expressions of their type and time - for example the Custom House itself, Busáras, Liberty Hall, IFSC, George's Quay Plaza, AquaVetro and College Square. The proposed development is a natural progression and could take its place comfortably (albeit prominently) in this character area."

4.16. Dublin is recognised as an international city and gateway to the European Union for many businesses. The city region contributes significantly to Ireland's economy and is a major economic driver for the country. The Draft Plan identifies the City Centre as an area to provide increased economic investment by focusing on liveability, enhanced public realm and mobility measures. The TVIA identifies the evolution of the townscape in response to the presence of a Custom House is not unique to Dublin and provides examples of international cities which have had a similar evolution.

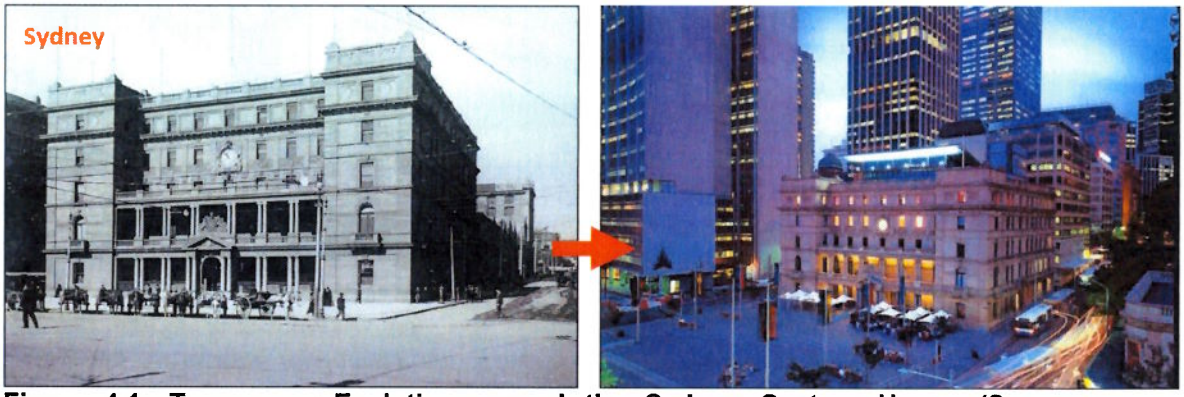

Figure 4.1: Townscape Evolution around the Sydney Custom House (Source: Modelworks)

4.17. The proposed development is located in a transitional zone between the historic city core and the newly developed Docklands and Grand Canal Dock areas. The subject site is therefore considered to have significant potential for development given its location adjacent to significant public transport facilities and within an area of emerging higher buildings which is undergoing renewal.

4.18. In order for Dublin to compete as a *"global city of scale"* as set out in Section 6.1 of the Draft Development Plan, commercial buildings of this scale should be encouraged within the city centre. Particularly given the site's location within the city centre close to Tara Street Station.

Key Views

4.19. The reason for refusal identifies a number of important views which are impacted by the proposed development. These views include views from Custom House Environs, Amiens Street, Mountjoy Square, Gardiner Street Lower, Trinity College Campus and views westward from the River Liffey. The TVIA Appeal Response provides an assessment of the impact the proposed development has on each of the views stated in the reason for refusal.

Custom House Environs

4.20. The proposed development is visible to various extents depending on the angle and distance viewed from Custom House. The TVIA notes that *"the particular vantage point at which the proposed tower would rise behind the cupola (Viewpoint 35b – shown above) is not an important viewing position or approach route to the Custom House."* The most important views of the Custom House are viewed from the front, in which the proposed development is not visible. The TVIA states:

"The photographs and photomontages above show that the proposed development would cause no greater impact on views than the existing and permitted buildings in the Custom House environs (even those that would not be characterised as 'tall',

.e.g. IFSC, Irish Life Centre). In terms of architectural quality, the proposed development compares favourably to the other modern buildings. Therefore, where it does appear in views, its presence would not be negative, and it would elevate the quality of the built environment overall."

4.21. The appeal document provided by Mahoney Architects also states:

"The proposed building on the City Quay site is at a significant distance from the Custom House, where the river broadens towards Dublin Bay and will not have a detrimental impact on the views towards Custom House from the river or the south quays."

Amiens Street

4.22. The Planner's Report states that the views from Amiens Street are *"overly assertive in terms of its influence on Dublin's historic skyline."* The TVIA states the following in relation to views of the proposed development from Amiens Street:

"The sequence of views shows that the visual effect would be 'not significant neutral' at a distance (Five Lamps), increasing to 'moderate positive' towards the end of Amiens Street. It would initially just catch the eye, then gain in prominence as the viewer moves along the street until it is fully revealed just before crossing the Liffey. On a key thoroughfare entering the city centre this changing effect is appropriate and positive overall. DCC's assertion that it would be 'overly assertive in terms of its influence on the historic skyline' is untenable."

4.23. Mahoney Architecture state the following regarding views from Amiens Street:

"In reality, the building would form a completely separate new focal point and would become a dramatic new landmark on the south side of Matt Talbot bridge. The building will enhance the skyline of the inner city at this point by creating a new gateway and arrival point to the south central city and will undoubtedly make a positive contribution to the urban character of the inner city."

Mountjoy Square and Gardiner Street

4.24. It is outlined in the TVIA Appeal Report submitted that *"the proposed development would have no impact on the open space of Mountjoy Square."* A new photomontage has been included in the TVIA illustrating this.

4.25. The Custom House is more prominent towards the southern end of Gardiner Street Lower. The TVIA states:

"It should be noted that any building of contemporary urban scale – even a building of 10 storeys (as specified in the now expired George's Quay LAP) - would protrude well above the main body of the Custom House, adjacent to the cupola. A taller building allows for a narrower floorplate, which retains some sky space between the new building and the off-centre cupola."

4.26. The TVIA further states:

"It must be recognised that the cupola is not a building or building volume (such as the dome of the Four Courts); it is a much smaller, decorative feature of a building. In any view/composition it will appear small in comparison to an actual building.

...

Gardiner Street is an important approach route to the city centre, and to a key river crossing. The site's position on the axis of the street is as much a reason – in townscape terms - to place a landmark building on the site as a reason to not do so."

4.27. Mahoney Architecture similarly state the following:

"The new City Quay building will create an entirely new set piece within the city's urban fabric. It will become the focal point for a highly legible and dramatic visual sequence as you head south along Gardiner Street Lower, rounding Bereford Place and finally crossing Matt Talbot bridge, to arrive at the south inner city. This will be a dramatic and stark change which may initially draw a 'shock of the new' reaction, but will in time, become a significant addition to the architectural layering of our city, and be welcomed as an exciting and celebratory urban event."

Trinity College Campus

4.28. The DCC Planner's Report states that *"the views from Trinity College will be compromised by the permitted tall buildings at Tara St Station and Apollo House."* The TVIA identifies the historic squares to be the most significant elements of Trinity College, from which the permitted developments *"would have less visual presence than either of the permitted buildings."*

4.29. The proposed development is not visible in both of the viewpoints provided behind existing buildings, while both the permitted Apollo House and Tara Street Station are visible. The development is visible from other areas within the Trinity campus however the TVIA concludes that *"the character of the campus is strong. It can withstand such change in its environs without losing its own integrity and charm."*

Figure 4.2: Propsoed Development viewed from Trinity College Front Square (Source: Modelworks)

4.30. The document prepared by Mahoney Architecture states that *"it is therefore clear inconsistent to claim that the proposal would have a significant and detrimental visual impact on these views where the adjacent permitted developments have been deemed not to have this impact."*

Views Westward from the River Liffey

4.31. The area to the east of the subject site along the River Liffey has undergone significant redevelopment over recent years. This stretches 1.5km to the east to the Capital Dock building. This viewpoint if identified in Figure 4.1 of the Draft Dublin City Development Plan 2022-2028 and has been included in the TVIA Appeal Report prepared by Modelworks. The analysis from Modelworks states:

"Overall, the building – for its type, and considering the site proportions (a rectangle perpendicular to the river) – is a bold but responsive and attractive architectural composition. The development does no harm to any valued element or characteristic of the view – including the Liffey and the Custom House. In combination with the AquaVetro and College Square buildings it forms a distinct new character area in the townscape on the south side of the Liffey. This is a welcome change to the otherwise very uniform Docklands river corridor."

Figure 4.3: Views from the River Liffey (Source: Modelworks)

Cluster of Buildings

4.32. The reason for refusal also states that the proposed development would be removed from the permitted buildings at Tara Street Station and Apollo House and the development would therefore provide an *"overly assertive solo building which would not form part of a coherent cluster."*

4.33. The subject site is located c. 160m from the permitted building at Tara Street Station. Figure 4.4 identifies the location of the proposed development at City Quay and also outlines the locations of nearby tall buildings at Tara Street Station, Apollo House and Liberty Hall. The George's Quay development lies between the subject

site and the permitted building at Tara Street Station which reaches up to 22 no. storeys (88m).

Figure 4.4: Tall Building Cluster (Source: Modelworks)

4.34. The TVIA included with this first party appeal states:

"In the one view (below) in which all three buildings are clearly visible, contrary to DCC's opinion they clearly do form a coherent cluster. In the 360 degree field of view available from this location, they occupy a narrow wedge of the view. Their cumulative effect would be to establish a distinct zone of contemporary high density development in the vicinity, but outside of, the campus. This is neither inappropriate nor undesirable for a university campus located at the heart of a European capital city in the 21st century.

DCC's contention that this change – specifically the addition of the 3rd building to the cluster – would constitute a dramatic detrimental impact on the Dublin skyline, is untenable."

Figure 4.5: Cluster of Tall Buildings as viewed from Trinity College (Source: Modelworks)

4.35. The TVIA also goes on to that *"a cluster is established and the development would have the effect of reinforcing this cluster and adding to the visual interest of the evolving city centre skyline."*

4.36. The supporting document provided by Mahoney Architecture states:

"The emerging cluster around Tara Street station is in its infancy with the College Square (Apollo House site) building well under construction and the Tara Street emerging from the ground. Two buildings hardly form a cluster and it is highly likely that other nearby sites will be redeveloped over the coming decades and that the cluster will evolve over time"

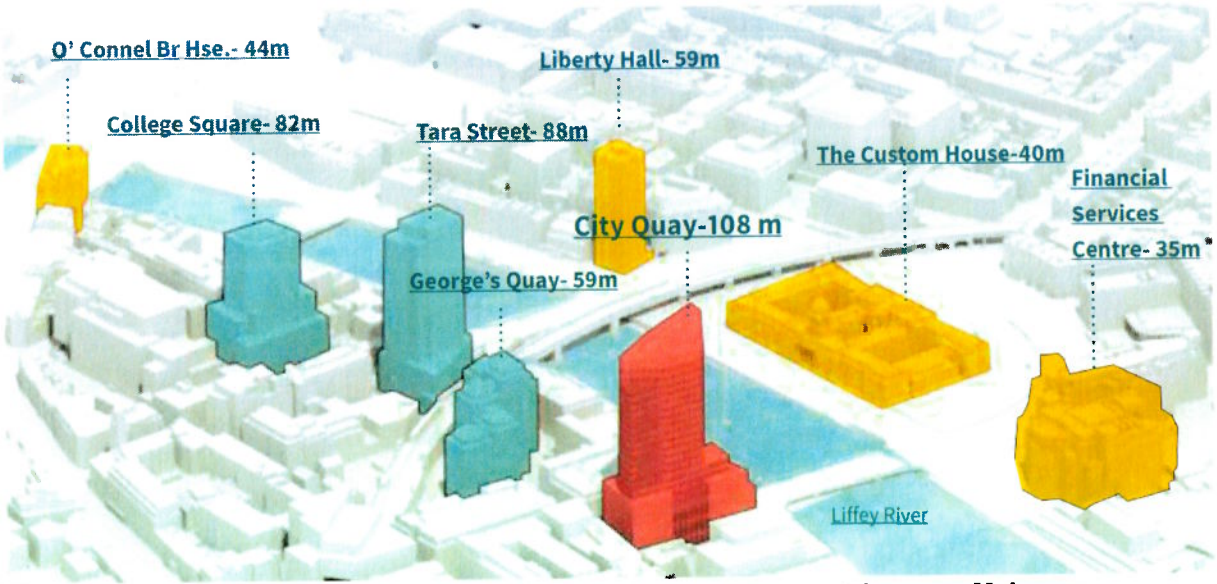

Figure 4.6: Emerging Cluter around Tara Street Station (Souce: Mahoney Architecture)

4.37. The Planner's Report states the following in relation to the design of the proposed development:

"It should be noted that the proposed building is an interesting modern and assertive design which exhibits the use of high quality materials and finishes and if viewed in isolation and not taking into account the sensitivities of the surrounding context, the scheme has significant positive attributes."

4.38. The DCC Planner's Report also states that the proposed development would have a positive impact on the placemaking of the surrounding area:

"In regard to the impact in the immediate/surrounding public realm, the change will be significant. Setting aside the height of the proposed development, there will likely be a positive change at street level, with the replacement of the existing vacant and underutilised buildings with a modern mixed use development. The proposal would cause a significant change in character to the Talbot Bridge, George's Quay, City Quay and the surrounding area. It would become the focal point of the view when crossing Talbot Bridge, and views along Moss St. / Shaw St and would likely have a strong place- making effect."

4.39. It is considered that the subject site is a highly appropriate location for the proposed development. The site is located within c. 160m of the Tara Street Station which will have connections to Dart, Intercity services and the proposed MetroLink. The site is also within walking distance of Busáras bus station and both Luas lines as outlined in Figure 4.6 below. The site is similarly within walking distance of significant areas within the city such as Grafton Street, the IFSC, Merrion Square and the Docklands. The development would therefore provide for a suitably scaled development at a sustainable location within the city centre of Dublin in close proximity to necessary services and facilities.

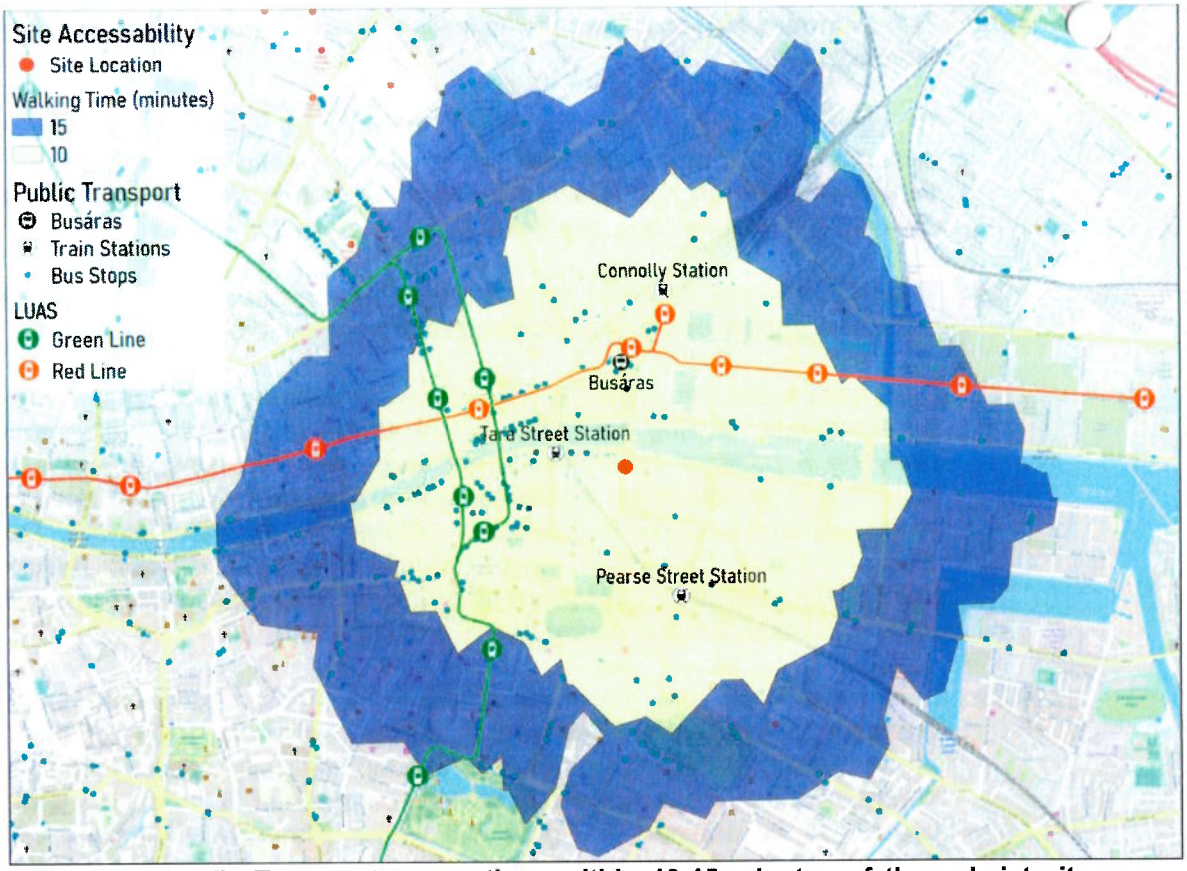

Figure 4.7: Public Transport connections within 10-15 minutes of the subejct site (Source: Modelworks)

4.40. As identified in the analysis provided by Modelworks, the proposed development will integrate successfully into the surrounding context and skyline without having a significant detrimental impact on local sensitivities. It is therefore considered that the proposed development will be a significant, positive addition to the existing cluster of tall buildings at this location.

4.41. A supporting document has been prepared by Urban Strategies Inc. and included with this first party appeal. The document states:

"The proposed development is the correct response to the site, situated in an opportune area of the city, due to its proximity to a major transit station. Though the Planner's Report notes that the location of the site and its proximity to important historic areas is negative, we must disagree. The proposed development is centrally located in a well-connected area that can benefit from revitalization while safeguarding areas of the city that have an important historic past. It allows for a denser cluster within the Georges Quay, by providing investment into the area and the Metro Link project. With the Tara Street Station serving as the central hub and the vital location of important transit infrastructure, the City Quay site is the next logical location for a substantial height and scale, located just 165m east of Tara Street rail station. Similarly, the Apollo House site is located approximately 100 metres from the Station and around 200 metres from the proposed development and is expected to be 78.95 metres tall. The same benefits can be applied to both sites. "

4.42. The document provides an analysis of the emerging cluster of tall buildings surrounding Tara Street Station and compares it with similar clusters around

significant public transport interchanges at Heuston Station, Connolly Station and Grand Canal Dock. In response to the statement from DCC that the proposed development would constitute *"an overly assertive solo building"*, Urban Strategies state the following:

"We believe that the proposed development reads as part of a compact, coherent and integrated building within the cluster that further confirms the decision to permit tall buildings on the Tara Station and Apollo House site. A cluster is widely defined as a relatively close concentration of high-rise buildings in a development area, designed this way to create density that allows the different buildings to benefit from the proximity and shared resources within an area. The two approved buildings at Tara Street Station and Apollo House are not enough to create a cluster alone. We believe that the cluster can be more accurately defined to include more than just the Tara Street Station, Apollo House and the future City Quay. Furthermore, the experience of the cluster needs to be envisioned to include the Liberty Hall Tower, the Financial Services Centre and the O'Connell Bridge House, uniting both side of the River."

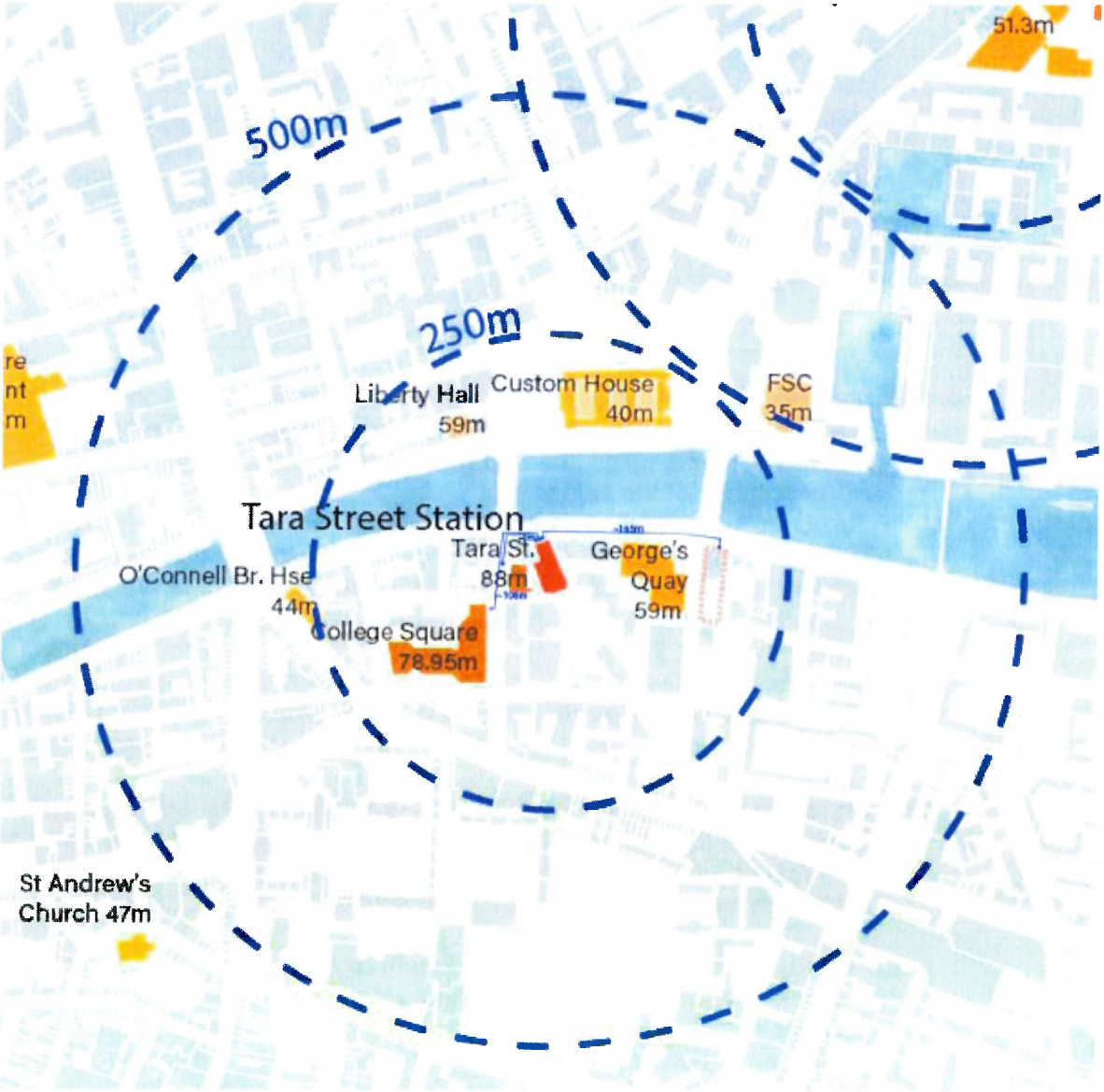

Figure 4.8: Existing and Emerging Cluster of Tall Building around Tara Street Station (Source: Urban Strategies Inc.)

4.43. It is therefore considered from the above analysis provided by Mahoney Architecture, Modelworks and Urban Strategies Inc., that the proposed development is suitably located in close proximity to Tara Street Station to be considered as part of the emerging cluster of tall buildings at this city centre location. The subject area is considered appropriate for an additional tall building, allowing the area to develop similar to other clusters around major transport hubs in the city.

Reason for Refusal No. 2

4.44. The second reason for refusal issued by Dublin City Council for the proposed development on 11th October 2022 was:

"Taking into account, the scale of the proposed building and the impacts on the surrounding receiving urban environment, it is considered the scheme is likely to have noticeable and detrimental overbearing and overshadowing impacts on neighbouring property. The Overshadowing Study indicates a proposed building of overwhelming scale, mass and height that will undoubtedly cast a significant shadow and have an overbearing impact on the surrounding environment, including the Church and the public space to the front, the nearby school and associated grounds and public space to the front of the adjacent office building. The proposed development would therefore constitute an overdevelopment of the subject site, would seriously injure the amenities of neighbouring property, would devalue property in the vicinity, create a precedent for similar type undesirable development and would be contrary to the proper planning and sustainable development of the area."

City Quay National School & Immaculate Heart of Mary Church

4.45. Shadow diagrams were included in the detailed Daylight & Sunlight Report prepared by Digital Dimensions which was included with the application. The report states the following on the impact of the proposed development on the outdoor amenity space of the adjacent school:

"The courtyard / outdoor amenity would have minimal reduction to the available sunlight. The assessment of sun on the ground indicates there will be a reduction in sunlight hours but the amenity space will not be reduced below 80% of the current value at 93.7%. A visual inspection of the shadow diagrams indicates that the school yard will be overshadowed by the boundary wall / screen by the time any shadow is cast by the proposed development and there will be no additional overshadowing."

4.46. An additional Daylight & Sunlight Assessment has been prepared by Digital Dimensions to deal with concerns raised by DCC regarding overshadowing on neighbouring properties as a result of the proposed development. The assessment states the following with regard to the school:

"There is currently a high wall and metal screen over to the boundary between the National School and the proposed development site. The assessment of the sunlight availability to the amenity space to the courtyard of the National School is in line with the recommendations and is not reduced below 80% of its existing value on the 21st March. Additionally it can be seen from the shadow diagrams that there will be no shadow cast from the proposed development before 3.00pm which is outside of the school operational hours.

The current levels of sunlight availability to the school courtyard are below the recommended levels because the courtyard is limited in size and self shadowed by the school building to the south. The proposed level of sunlight to the amenity space remains at 93.7% of its existing level which is the same as a development in line with those demonstrated in the LAP as can be seen in Section 4.1 of the original daylight and sunlight assessment and repeated below. Additionally it can be seen that any shading from the proposed development will not occur until after 3pm in the afternoon which is outside the operational hours of the Primary National School."

4.47. Mahoney Architecture have also provided a document which responds to the reasons for refusal issued by Dublin City Council. The document includes the measures that have been included on the eastern façade to avoid overlooking onto the Immaculate Heart of Mary Church and City Quay National School. The document identifies the following measures that have been incorporated to maintain the privacy of these properties:

- *"This glazing is set-back 3.3m from the eastern boundary and is screened from the adjacent properties by an open brick clad frame and trellis planting. The selected planting is Lonicera which is trained vertically by tensioned cables and grows from a substantial trough at ground level which ensures convenient and accessible maintenance.*
- *A translucent interlayer contained within the glazing extends from floor level to a height of 1.8m on each floor to fully prevent any overlooking of the school property below."*

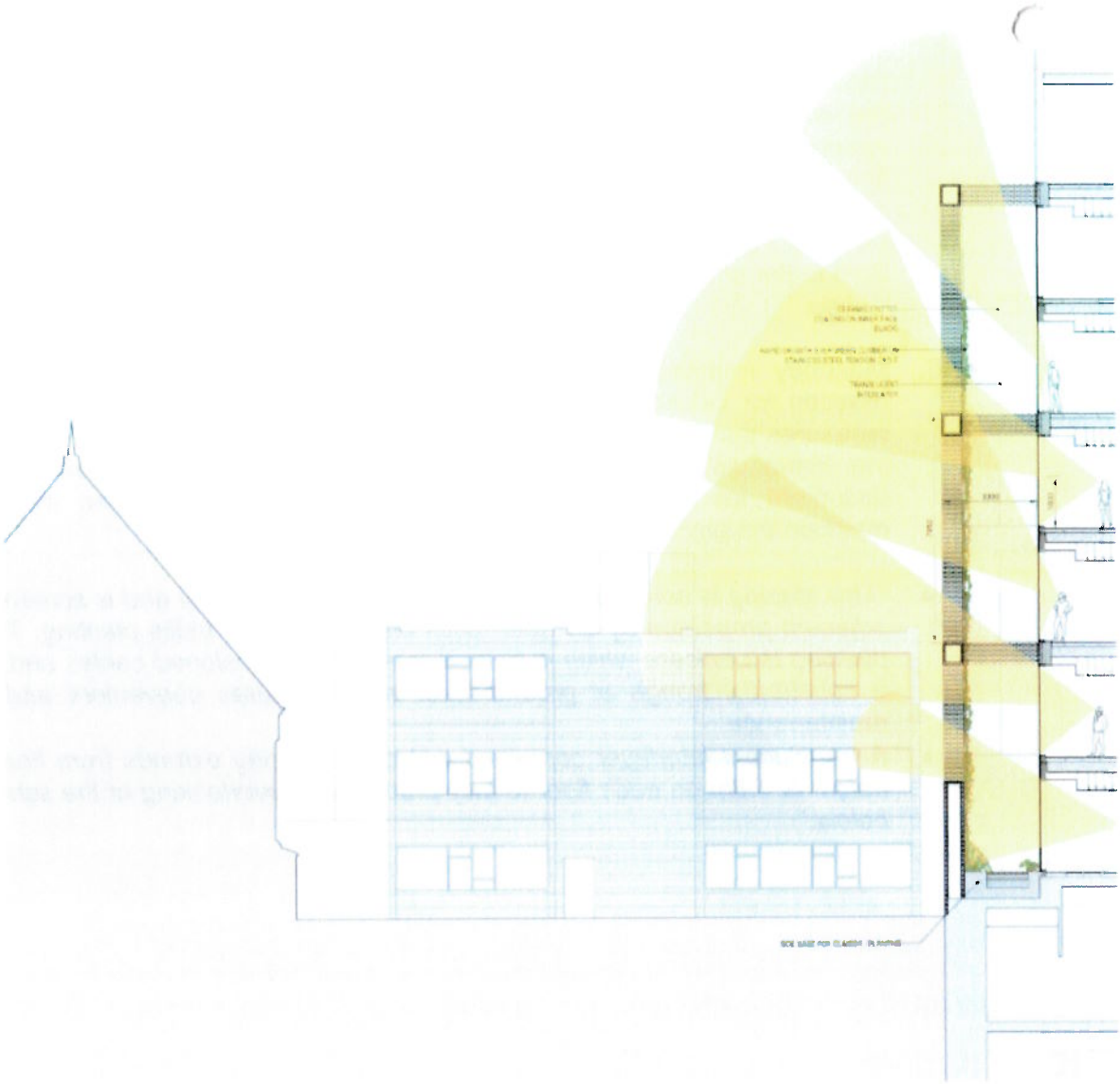

Figure 4.8: Level of Overlooking to the east (Source: Mahoney Architecture)

Surrounding Amenity Spaces

4.48. Digital Dimensions have included an assessment of surrounding amenity spaces in their appeal document. In addition to the adjacent National School, the document assesses properties at 7/8 City Quay, the Presbytery and the Immaculate Heart of Mary Church. The response is as follows:

"The daylight and sunlight report assessed the sunlight to the surrounding amenity spaces of the properties owned by the St Laurence O'Toole Diocesan Trust. The Archdioceses notes the property at 7/8 City Quay is no longer in use as a Creche and is currently in use as a Covid 19 Centre. This operation is a commercial entity and does not have a specific requirement for external amenity space.

The assessment of the daylight to the windows indicates that there is a reduction to the available daylight to some of the windows but this is broadly in line with a massing as indicated in the LAP. Any development of a similar height to that of the recently constructed buildings to the south and the Grant Thornton Building to the East will lead to a reduction and the results indicate the main reduction is a result

of the obstruction from the lower floors of the proposed development and not the massing above 30m.

The site is in an inner city location and zoned for development. Currently the site is vacant with a boundary wall which affords the neighbouring properties an unobstructed access to the sky from the direction of the site. The buildings at 7/8 City Quay and 1 City Quay have the benefit of river front location and an unobstructed access to daylight to the rooms facing the north. The presbytery has main elevations onto the north and east with larger window than the window to the south indicating that the prominent room are most likely facing away from the proposed development with rooms of lesser importance and ancillary / circulation to the south.

There is no amenity space to the Church and the area to the north of the Church is set out in car parking spaces as can be seen in Figure 3 which does not have a requirement for sunlight. Additionally the location of the church is the main source of shading to this space."

Custom House

4.49. The assessment has also analysed the overshadowing on the Custom House due to the concerns raised by DCC in their Planner's Report and submission by the OPW. The assessment states the following:

"The original daylight and sunlight assessment contained a series of shadow diagrams as 2 hourly intervals on March 21st, June 21st, September 21st and December 21st in Section 5 of the original report. The diagrams indicated there was no shading cast by the proposed development from March to September. The shadow diagram reaches the elevation in December early morning when the sun is low and all buildings will cast long shadows. Shadows are also cast by the Georges Quay development and the planning approved scheme at Tara Street currently under construction which causes shading in late afternoon and evening.

Additional shadow diagrams have been generated on the 21st for the months of October, November, December, January and February for clarity. In addition the diagrams have been generated in perspective view to see the extent of the shadow on the on the Custom House.

The diagrams indicate that there will be minimal additional shading to the Custom House elevation from the proposed development and the extent will be limited to early morning from October to February. The shadow cast on at any one time is a small percentage and transient. The proposed development under construction at Tara Street can be seen to cast a shadow on the Custom House in the afternoon on similar dates during the period from October to February. Additionally the Georges Quay development cast shadows on the Custom House in the winter months.

The original and additional shadow diagrams can be view in Section 4."

4.50. Please refer to the additional Daylight and Sunlight Assessment submitted with this appeal for full details regarding impacts on surrounding properties and amenity spaces. Shadow diagrams are also provided in the assessment outlining the impacts on surrounding properties and amenity spaces.

5.0 RESPONSE TO ADDITIONAL CONCERNS FROM DCC AND THIRD PARTY SUBMISSIONS

5.1. The Planner's Report states the following in relation to access and servicing of the proposed development:

"It is noted that the proposed access is located on boundary with the adjoining School. Notwithstanding the number of car parking spaces proposed to use the new access, this division have concerns with the location of the vehicular access adjoining a school and particularly its use for service vehicles. Gloucester Street South has seen within recent years, a number of recently completed commercial developments with new vehicular accesses and an increase in vehicle activity along the street. In this regard, the applicant is requested to prepare and submit a Road Safety Audit Stage 1.

...

While it is acknowledged that a service area is provided within the site via a new access on Gloucester Street South, no details are provided with regard the number, type and frequency of vehicles that will be required. Having regard to the scale of the proposed development, the applicant is requested to prepare and submit a detailed Servicing Management Plan which sets out the number, type and frequency of vehicles that will be required to serve the development. This plan should also inform the requested RSA Stage 1."

5.2. In response to the above points mentioned in the Planner's Report, a Delivery and Service Management Plan has been prepared by Bakkala Consulting Engineers/Byrne Looby

5.3. The transport Planning Section Report requested additional information with respect to a number o matters. The Byrne Looby Cover Letter and associated enclosures responds to the points raised. A Stage 1 Road Safety Audit has been prepared by Byrne Looby and submitted as part of their response. The Road Safety Audit makes a number of recommendations, it is respectfully submitted that these recommendations be a condition of any grant of permission and details submitted to the City Council for agreement prior to commencement of development.

5.4. A number of construction related concerns were raised by 3rd parties, these are also responded to in the Byrne Looby response documentation.

Summary of Third-Party Observations

5.5. A number of 3rd party observations were submitted on the planning application from BNP Paribas Real Estate, Cushman & Wakefield, the Department of Defence, IBEC, Knight Frank, McGreevy Property Consultants, Philip Kennedy, TII, An Taisce, Archdiocese of Dublin, City Quay National School, Frank McDonald, Grant Thornton, OPW and Sheehan Planning on behalf of Irish Life Assurance.

5.6. It is noted that a large amount of these submissions are favourable and supportive of the development (BNP Paribas Real Estate, Cushman & Wakefield, IBEC, Knight Frank, McGreevy Property Consultants and Philip Kennedy), providing additional rationale in support of and the need for the development.

5.7. TII and the Dept. Defence do not raise any objections to the proposals.

5.8. The main items of the observations which have been critical of the proposed development related to the following:

- Height, scale and massing of the proposed development;
- Impact on the surrounding context;
- Overshadowing and overbearing on nearby buildings;
- Daylight/Sunlight impacts on surrounding properties;

5.9. The height of the proposed development at 24 no. storeys is considered appropriate given the site's location within the city centre of the Dublin. The site is located c. 160 from the Tara Street Station which provides high-capacity rail services including Dart and Intercity railway connections. Tara Street Station will also be the only interchange between the Dart and MetroLink making it one of the most important public transport nodes in the city. The proposal for a tall building at this location is therefore in compliance with national policy guidance which seeks to promote compact development close to sustainable transport.

5.10. The proposed development will form part of a cluster of tall buildings within the city centre which will enhance the visual interest along the River Liffey. In response to the Council's concerns regarding impact on the surrounding context, an additional TVIA has been prepared by Modelworks and included with this first party appeal. The document provides an assessment of the proposed development for key views identified by DCC in their reasons for refusal. Please refer to the response to reason for refusal no. 1 for details regarding the impact of the proposed development on the surrounding contexts.

5.11. A Daylight/Sunlight Report was prepared by Digital Dimensions and submitted with the application. The report made the following conclusions regarding daylight and sunlight impacts on surrounding developments:

"There will be a moderate to major reduction in the available daylight levels to the directly adjacent buildings. The majority of these are commercial offices which with deep floor plates require artificial lighting and have a lesser requirement for natural daylight which varies throughout the day and would require supplementary lighting in an office setting.

There would be a reduction to the light levels in the classrooms adjacent the proposed development but the main window retains a VSC in excess of the 9% Target. The high level side windows would have a major reduction but this would be the case with a 4 storey development.

There would be some reduction the daylight levels in the social housing on Gloucester Street but these apartments have large continuous balconies which currently restrict daylight access from the sky and any development will cause a relatively large reduction because the existing VSC levels are low.

The assessment of massing in line with the recent developments adjacent the site and the recommendation development level in the Local area plan indicate that overall the additional height of the proposed development would cause minimal additional reduction in daylight levels and the majority of the reduction would come from a development similar in massing to the adjacent buildings"

5.12. In response to certain submissions (Sheehan Planning on behalf of Irish Life, OPW, Grant Thornton, City Quay National School and the Archdiocese of Dublin) with respect to daylight and sunlight impacts, a response is provided by Digital Dimensions. Please refer to this document for responses to the concerns raised. It is noted that the impact on daylight, particularly to the surrounding commercial buildings must be considered against the current low height of the existing buildings, which is inconsistent with the vision for the area. A building of similar scale to that of the buildings of the third party observations would not have a significantly dissimilar impact to that from the subject landmark building.

6.0 PLANNING POLICY CONEXT

6.1. The following section includes minor updates to the planning report which was submitted with the application to account for material alterations to the Draft City Development Plan 2022-2028 and additional inputs with this appeal, which includes pedestrian modelling to ensure the development would not have a significant negative impact on pedestrian comfort due to crowding. Additionally, further commentary with respect to public transport capacity is provided having regard to the Public Transport Capacity Assessment prepared by Derry O'Leary enclosed in Appendix D of the Cover Letter submitted by Byrne Looby. A Pedestrian Realm People Flow Study has also been prepared by Bakkala Consulting Engineers and is enclosed in Appendix 7 of this appeal.

National Planning Framework 2040

6.2. The National Planning Framework (Ireland 2040 – Our Plan) was published on the 16th February 2018. The plan will guide national, regional and local planning opportunities throughout Ireland together in conjunction with investment decisions until 2040.

6.3. As a strategic development framework, Ireland 2040 sets the long-term context for our country's physical development and associated progress in economic, social and environmental terms and in an island, European and global context.

6.4. National investment planning, the sectoral investment and policy frameworks of departments, agencies and the local government process will be guided by these strategic outcomes in relation to the practical implementation of Ireland 2040. The NPF sets out the importance of development within existing urban areas by *"making better use of under-utilised land including 'infill' and 'brownfield' and publicly owned sites together with higher housing and job densities, better services by existing facilities and public transport".*

6.5. Objective 4 states *"ensure the creation of attractive, liveable, well designed, high quality urban places that are home to diverse and integrated communities that enjoy a high quality of life and well being".* The proposed development will provide for high quality office accommodation and cultural space. The proposed materials and finishes will also be of a high-quality standard in order to create a unique quality urban place.

6.6. National Policy Objective 5 states that it is an objective to:

"Develop cities and towns of sufficient scale and quality to compete internationally and to be drivers of national and regional growth and investment".

6.7. Objective 5 clearly sets out that there is an emphasis on the need to develop a more consolidated form of urban development, utilising high quality public transport where possible, to counteract the provision of outwards sprawl.

6.8. Compact smart growth is a key objective:

"Compact, Smart Growth: "Carefully managing the sustainable growth of compact cities and towns adds value and should create more attractive places for people to live and work in. All our cities and many rural towns contain large potential development areas, centrally located and frequently publicly owned, that are suitable and capable of re-use to provide housing, jobs, amenities and services, but which need a streamlined and co-ordinated approach to their development, with investment in enabling infrastructure and supporting amenities, to realise their potential. Activating these strategic areas and achieving effective density and consolidation, rather than more sprawl of urban development is a top priority".

6.9. The importance of Dublin at the *"engine of Ireland's economy"* is recognised. The NPF states on page 48, section 3.5 that *"Dublin is Ireland's globally competitive city of scale and continues to drive much of the growth of the county as a whole".*

6.10. Importantly the NPF introduces an objective (National Policy Objective 10) which outlines that *"there will be a presumption in favour of development that encourages more people, jobs and activity within existing urban areas, subject to development meeting appropriate planning standards and achieving targeted growth".*

6.11. The proposed development along City Quay is in compliance with the height policy as set out in the Draft Dublin City Development Plan 2022-2028. It is also considered important to have regard to National Planning Policy in relation to increased building heights and densities at locations in close proximity to high-quality, high-capacity public transport.

6.12. The NPF set out a vision for the economy and prosperity of the country. It is noted that place making is essential to economic prosperity as globalisation continues to have a concentrating effect. The employment trends noted in the NPF indicated that increasingly city regions are the focal point for international investment due to the high value-added services which are attracted to urban areas.

6.13. The NPF also specifically recognises Dublin's importance as Ireland's only *"globally competitive city of scale"* and *"critical to Ireland's competitiveness".*

6.14. Compact Growth is a key goal of the NPF. It states the importance of *"carefully managing the sustainable growth of compact cities, towns and villages will add value and create more attractive places in which people can live and work":*

6.15. National Policy objective 11 states that:

"In meeting urban development requirements, there will be a presumption in favour of development that can encourage more people and generate more jobs and activity within existing cities, towns and villages, subject to development meeting appropriate planning standards and achieving targeted growth".

6.16. The NPF advocates compact development and focuses maximising existing uses onsite and maximising potential with respect to connections to transport links. The NPF goes on to states that:

"Although sometimes necessary to safeguard against poor quality design, planning standards should be flexibly applied in response to well designed development proposals that can achieve urban infill and brownfield development objectives in settlements of all sizes.

This is in recognition of the fact that many current urban planning standards were devised for application to greenfield development sites and struggle to take account of evolved layers of complexity in existing built-up areas.

In particular, general restriction on building height or universal standards for car parking or garden size may not be applicable in all circumstances in urban areas and should be replaced by performance-based criteria appropriate to general locations e.g. city/ town centre, public transport hub, inner suburban, public transport corridor, outer suburban, town, village etc"

6.17. Objective 13 of the National Planning Framework states:

"In urban areas, planning and related standards, including in particular building height and car parking will be based on performance criteria enabling alterative solutions that seek to achieve well-designed high quality and safe outcomes in order to achieved targeted growth and that protect the environment".

6.18. The proposed development is located close to one of the main transportation hubs in the country. The subject site is situated c. 160 metres from the existing Tara Street Dart station which is one of the main public transport nodes in the city, catering for in excess of 20,000 passengers daily. In addition, the Tara MetroLink station, which will be the only interchange between the Dart and Metro in the city centre, is proposed here also, thereby very significantly increasing passenger numbers passing through this are of the city in the future.

6.19. The proposed development will therefore be located close to a key interchange for a variety of public transport movements. The long-term redevelopment of the subject site is therefore considered important allowing it to play a vital role in the long-term development of Dublin City as a compact city where public transport plays a major role. The proposed development will act as a key destination for employment within the city therefore consolidating urban development close to this key public transport location which is considered to be compliant with the policies and objectives of the National Planning Framework.

Urban Development and Building Heights Guidelines 2018

6.20. The Building Height Guidelines are intended to set out national planning policy guidelines on building heights in urban areas in response to specific policy objectives set out in the National Planning Framework and Project Ireland 2040.

6.21. The Guidelines in effect put in place a policy in favour of high buildings close to public transport nodes. The Guidelines state that it is Government policy to promote increased building height in locations with good public transport services.

6.22. The Guidelines emphasise the policies of the NPF to greatly increase levels of residential development in urban centres and significantly increase building heights and overall density and to ensure that the transition towards increased heights and densities is not only facilitated but actively sought out and brought forward by the planning process and particularly at Local Authority level and An Bord Pleanála level.

6.23. SPPRs as stated in the Guidelines, take precedence over any conflicting, policies and objectives of development plans, local areas plans and strategic development zone planning schemes. Where such conflicts arise, such plans/ schemes need to be amended by the relevant planning authority to reflect the content and requirement of these guidelines and properly inform the public of the relevant SPPR requirements.

6.24. The Guidelines also state that the implementation of the National Planning Framework requires increased density, scale and height of development in town and city cores with an appropriate mix of uses.

6.25. In relation redevelopment and enhancement of the city core, the guidelines state that *"to meet the needs of a growing population without growing out urban areas outwards requires more focus in planning policy and implementation term on reusing previously developed "brownfield" land, building up urban infill sites (which may not have been built on before) and either reusing or redeveloping existing sites and buildings that may not be in the optimal usage or format taking into account contemporary and future requirements".*

6.26. The guidelines also place significant emphasis on promoting development within the existing urban footprint utilising the existing sustainable mobility corridors and networks.

"In order to optimise the effectiveness of this investment in terms of improved and more sustainable mobility choices and enhanced opportunities and choices in access to housing, jobs, community and social infrastructure, development plans must actively plan for and bring about increased density and height of development within the footprint of our developing sustainable mobility corridors".

6.27. In addition, the Guidelines state that taller buildings also have the opportunity to create a sense of place within city or town centres. The guidelines state:

"Furthermore, while taller buildings will bring much needed additional housing and economic development to well -located urban areas, they can also assist in reinforcing and contributing to a sense of place within a city or town centre, such as indicating the main centres of activity, important street junctions, public spaces and transport interchanges. In this manner, increased building height is a key factor in assisting modern placemaking and improving the overall quality of our urban environments."

6.28. The subject site is located close to Tara Street Station, which is currently one of the busiest Dart stations in the city catering for in excess of 20,000 passengers daily and will be increased with the inclusion of the MetroLink station. The proposed development will therefore be located c. 160m from the most important public transport interchange in the city, between the MetroLink and the DART and as such, the site is suitable to cater for a building of increased heights (24 no. storeys) to assist in the reinforcement and contribution to a sense of place within the city centre in accordance with the draft guidelines.

6.29. The Guidelines also states that *"the preparation of development plans, local areas plans, and Strategic Development Zone Planning Schemes and their implementation in the city, metropolitan and wider urban areas must therefore become more proactive and more flexible in securing compact urban growth through a combination of both facilitating increased densities and building heights".*

6.30. The Draft Development Plan does not set height limits for the city. It does outline, however, in Appendix 3 of the Draft Plan performance criteria for assessing urban schemes of enhanced density and scale. A Tall Building Statement was prepared by Urban Strategies Inc. and included at application stage. This report responds to each of the criteria. These responses have been included in Appendix 1 of the Tall Building Statement.

6.31. The proposed development is in accordance with the planning policy framework of the Dublin City Development Plan and with National Policy Guidelines with regard to the importance of providing higher densities and building heights.

6.32. The Guidelines set out detail assessment criteria for higher buildings at Section 3.2 which are addressed below. It is notable that the City Council in their Planner's Report assess the development against these criteria and consider the development satisfies them, with the exception of visual impact. The first reason for refusal did not however reference the Urban Development and Building Height Guidelines.

The site is well served by public transport with high capacity, frequent service and good links to other modes of public transport.

6.33. The proposed development is located c. 160m from one of the city's busiest DART Stations at Tara Street and is also proposed to be the location of the only future MetroLink and DART interchange in the city centre. Both the Red and Green Luas Lines are located within 500m of the site at Trinity College (Green) and Abbey Street (Red). The site is also located next to a number of Dublin Bus routes and Busáras located 300m to the north which provides bus connections regionally and nationally. The proposed development for a 24 no. storey building at this location is therefore in compliance with the assessment criterion of the Building Height Guidelines.

6.34. A Public Transport Capacity Assessment has been prepared by Derry O'Leary and is included with this first party appeal. The assessment details the frequency of buses and the spare capacity during the peak PM period (16:30-18:30) at bus stop no. 4495. There are a total of 44 no. buses over the 2-hour period which equates to a bus every 2.7 minutes.

Timeband	Number of Buses	Total Passenger Nos	Average Passengers/ Bus	Revised % Spare capacity
16.30 - 16.45	6	173	29	57
16.46 - 17.00	5	121	24	64
17.01 - 17.15	9	155+**36**=191	21	69
17.16 - 17.30	3	125+**37**=162	54	19
17.31 - 17.45	3	78+**36**=114	38	43
17.46 - 18.00	6	170+**37**=207	35	48
18.01 - 18.15	6	192	32	52
18.16 - 18.30	6	168	28	58
Total	44	1,328	**30**	**55**

Figure 5.1: Bus Capacity (Source: Bakkala Consulting Engineers)

6.35. The assessment concludes the following:

"Passenger numbers in this hour-long time band increased from the 528 surveyed to 674, an increase of 27.7%. The additional passengers in Table 10 in the evening peak hour had the effect of increasing the average passengers per bus for these time bands and for the total as a whole. The overall average number of passengers per bus increased from 27 (in Table 2) to 30 over the two-hour survey period. But this average of 30 passengers per bus represents seated occupancy of only 45% for the 44 double decker buses observed in the survey period. This equates to spare seated capacity of 55%. Even allowing for residual Covid effects, based on recent patronage, this analysis clearly indicates that the bus network's spare capacity, post generated trips, is more than adequate to cater for the increased bus commuter demand from the proposed development. This conclusion is indicative of the anticipated outcome for all the bus stops in the core of the city centre."

6.36. The assessment also assessed the impact on the Luas Green Line from the proposed development and states the following:

"In Table 4 earlier the estimated number of passengers on the Luas Green Line passing through Hawkin's Street came to a total of 3,140 commuters on 13 trams. If all 50% of the 239 generated rail trips attributed to Luas were to use the Green Line southbound only this would increase the observed patronage as shown in Table 11:

Trips	Surveyed October 2022	Generated by Site	Future Estimate
Luas Southbound	3,140	120	3,260
Passengers/Tram	242	9	251

Table 11. Impact of allocation of all Generated Luas trips to Green Line, southbound.

Despite the onerous allocation of all generated Luas trips to just the Green Line southbound, the impact on Luas capacity is quite minimal in that the average increase per tram amounts to only 9 passengers. Tram loadings after the increase above still remain more than 30% below stated Luas tram capacity. When one takes into account that the full tram service did not operate on the day of the survey, due to operational issues, then the impact is likely to be smaller again."

6.37. The assessment concludes:

"In summary then, the analysis of the current and anticipated future bus and rail passengers, from the granular data in the case of the buses and Luas to the overview numbers for DART patronage, it is clear that the proposed development at City Quay can be easily accommodated by the sheer scale of the public transport offering open to future commuters to and from the subject site. The current plans for the ongoing upgrade of Dublin's public transport infrastructure, both bus and rail, are outlined in the next section. These will further boost the capacity of the city's public transport network to cater for future developments such as City Quay."

Development proposals incorporating increased building height, including proposals within architecturally sensitive areas, should successfully integrate into/ enhance the character and public realm of the area, having regard to topography, its cultural context, setting of key landmarks, protection of key views. Such development proposals shall undertake a landscape and visual assessment, by a suitably qualified practitioner such as a chartered landscape architect.

6.38. A Landscape and Visual Impact Assessment has been included as Chapter 11 of the EIAR which was submitted with the application. The LVIA prepared by Modelworks states the following:

"While there are valued townscape assets in the immediate environs (the Liffey, Custom House and the nearby church), the site is squarely in the Docklands, in an area characterised by predominantly modern buildings and a particularly diverse mix of building typologies, scale and architecture. Each of these buildings (e.g. the Custom House itself, Buasáras, Liberty Hall, IFSC, George's Quay Plaza, AquaVetro and College Square) was a forerunner and a strong expression of its type and time. The proposed development fits into this character.

From the immediate environs of the site the building's design response to its context, and its refined design and material quality would be appreciable. It would be a bold intervention in terms of scale, but seen from close-up it would be beautiful. The arts centre, positioned and designed for maximum visibility from the surrounding public realm would contribute to this.

...

Although the application site is limited outside of the building footprint, which limits the extent of public realm works proposed, the development could be a catalyst for improvements to the public realm of Moss St, City Quay, George's Quay and their junction at the landing of Talbot Bridge. The quality of the public realm in this area is a particular weakness of the townscape currently."

On larger urban redevelopment sites, proposed developments should make a positive contribution to place-making, incorporating new streets and public spaces, using massing and height to achieve the required densities but with sufficient variety in scale and form to respond to the scale of adjoining developments and create visual interest in the streetscape.

6.39. The proposed development will provide for a significantly enhanced public realm and pedestrian access to the proposed development, particularly along Moss Street and City Quay. A new public plaza will provided at the building's entrance at the corner of Moss Street and City Quay. The proposed development will therefore increase the accessibility and permeability of the subject area thus improving the resilience of locations in terms of public access and egress at surface level.

The proposal responds to its overall natural and built environment and makes a positive contribution to the urban neighbourhood and streetscape

6.40. The site is located in proximity to an emerging cluster of tall buildings which will frame the backdrop and urban setting of the Customs House. The City Quay site can be developed a part of a balanced massing on the south quays, to include the recently permitted scale of the Tara Street Station site tower and College Square developments, which will reinforce the systematic setting of the Customs House on the north quays.

6.41. The proposed development is located on a significant site and the emerging trend of taller buildings at this location justify a design response which will deliver a building of considerable scale and character in a zone of the city identified in Dublin City Development Plan as suitable for tall buildings.

6.42. The Design Statement submitted at application stage states the following:

"The site is located in an extremely important city centre area with unparalleled access to public transport and infrastructure. The site needs to deliver optimum development efficiency and should not be compromised by the retention of a severely sub-standard and highly inefficient building which would undoubtedly jeopardise the financial viability of development of the site.

The site is one of the most important locations in the George's Quay Local Area Plan, particularly in terms of its Place-Making potential as a marker building at one of the busiest river crossings I the City. The site can accommodate a building of significant scale and efficiency and deliver a design of architectural importance and merit. The retention of the existing building totally compromises this potential and will greatly reduce the efficiency of on of the most 'public transport' accessible sites in the city centre."

The proposal is not monolithic and avoids long, uninterrupted walls of building in the form of slab blocks with materials / building fabric well considered.

6.43. A detailed assessment of the visual impact of the proposed development has been prepared and was submitted at application stage. The Design Statement states:

"The brick clad gridded podium follows the site perimeter on the north, east and south facades and then folds inwards on the west (Moss Street) façade to form an entrance plaza where the fluted north-west corner of the tower is allowed to extend and touch the ground surface.

The podium massing steps back from the riverside in a series of landscaped terraces which twist and rotate from the geometry of the street lines to settle as an elegant symmetrical form on the Gardiner Street vista. This form is accentuated by the fluted profile of its prow and the scalloped silhouette of its roofline.

The tower form rising from the podium expresses a crystalline volume clad in glass and decorative brushed aluminium panels. The form and material palette is inspired by the craft of silversmiths and crystal glass, materials used together over the centuries to create elegant vases and other vessels.

A restrained colour and material palette combined with the reflective surface, softens and lightens the impact of the tower on the skyline."

The proposal enhances the urban design context for public spaces and key thoroughfares and inland waterway/ marine frontage, thereby enabling additional height in development form to be favourably considered in terms of enhancing a sense of scale and enclosure while being in line with the requirements of "The Planning System and Flood Risk Management – Guidelines for Planning Authorities" (2009).

6.44. The northern portion of the subject site is located within Flood Zone C. The southern portion of the site is located within Flood Zone A and B. A Flood Risk Assessment was prepared by Bakkala Consulting Engineers which concludes the following:

"The proposed development will not impact of flood extent, depth, risk or flood routes elsewhere.

Whilst there will be reliance on existing defences of the South Campshire Flood Protection Scheme to protect the development, the development has measures in place that will, on their own, protect the development to the require design standard in the FRM Guidelines.

Ancillary building facilities, such as heating, back-up power and sprinkler systems will be protected from flooding.

Mitigation measures to reduce residual risk of flooding for greater than design event and or breach/overtopping are suggested in Chapter 7 of this report. The residual risk of flooding has been adequately addressed.

A justification test for the proposed development has been undertaken which demonstrates the appropriateness of the development and how it meets the requirements of The Planning System and Flood Risk Management, Guidelines for Planning Authorities (2009), local zoning objective whist respecting the local streetscape and urban fabric."

6.45. The Design Statement states that the proposed development *"will provide a landmark building on the arrival side of an important river crossing and become a significant structure in the emerging cluster of tall buildings in Dublin City Centre's premier commercial district."*

6.46. The TVIA similarly states that *"for several reasons the place warrants a marker. These include (a) the site's river-front position at one end of an important river crossing, opposite one of the city's most important historical buildings; (b) its*

position at the arrival and distribution point for vehicular and pedestrian traffic from north of the Liffey into the old city and Docklands; (c) its position in the transitional zone between the old city and the Docklands, an area that was and remains the crucible for tall buildings in Dublin; (d) its unrivalled access to the city and to public transport."

The proposal makes a positive contribution to the improvement of legibility through the site or wider urban area within which the development is situated and integrates in a cohesive manner.

6.47. The massing of the proposed development has been informed by its surrounding context. The 6-storey podium on City Quay has relates to the established shoulder height of recent developments along City Quay. The 8-storey podium to the south relates to the scale of new developments on Moss Street and Gloucester Street South.

6.48. The development will also form part of an emerging cluster of tall buildings in close proximity to Tara Street Station. The surrounding context includes recently permitted developments at Tara Street (22 no. storeys) and College Square (22 no. storeys) which align with national planning policy of providing for increased heights and densities at significant public transport nodes.

6.49. The scale of the site affords the potential to deliver a significant quantum of development and employment within a short stroll of this hugely important public transportation hub. It also offers the opportunity to create a notable presence on the arrival side of this important river crossing which will form an appropriate gateway to the south city centre across Talbot Memorial Bridge.

6.50. The LVIA submitted as part of the EIAR at application stage states:

"The introduction of a building of landmark stature and quality would cause a significant change in character to the Talbot Bridge, George's Quay and City Quay, Moss St and Gloucester St South. It would become the focal point of the view when crossing Talbot Bridge, and views along Moss St / Shaw St, would have a strong place-making effect. This is appropriate."

The proposal positively contributes to the mix of uses and/ or building/dwelling typologies available in the neighbourhood.

6.51. The proposed mixed-use development will provide for cultural uses at basement, ground and first floor levels with office accommodation on the floor above. The existing site provides for a derelict and vacant building that was previously used for cultural uses. The southern portion of the site comprises of a commercial car park. The proposed development will significantly enhance the uses on site which is currently significantly underused given the site's location with the city centre and in close proximity to major public transport.

6.52. The proposed cultural uses will enhance the mix of uses on offer in the surrounding area and will replace the use that was previously on site. The office accommodation will provide for high-quality large floor plates which are not in high supply within the city centre. The proposed development will provide for a greater consolidation of the workforce within Dublin and will help achieve the national policy objectives regarding compact growth. The development is considered to complement the existing uses in the area with tourist accommodation, residential accommodation and smaller-scale office units in the immediate surrounding area.

The form, massing and height of proposed developments should be carefully modulated so as to maximise access to natural daylight, ventilation and views and minimise overshadowing and loss of light.

6.53. The ground floor entrance lobby has been designed as a double height space to allow for the maximum amount of light exposure at this key entrance point to the proposed development. In relation to the office accommodation above, the buildings core has been designed at the centre of the building leaving an open floor plate with 360 degree panoramic views of the city. The 2.8m ceiling height allows high levels of daylight to penetrate the full depth of the office floor plate.

6.54. The façade of the building is designed to incorporate photovoltaic panels. The panels are positioned at the spandrel section in line with the floor build-up and will not impact on light penetration into the building or views from the tenant space. Perforations in the brushed aluminium panels accommodate the on-floor ventilation system.

6.55. The Design Statement states: *"The eastern façade of the development bordering the Immaculate Heart of Mary Church and the City Quay National School maintains visual privacy for these properties through a number of measures:*

- *This glazing is set-back 3.3m from the eastern boundary and is screened from the adjacent properties by an open brick clad frame and trellis planting. The selected planting is Lonicera which is trained vertically by tensioned cables and grows from a substantial trough at ground level which ensures convenient and accessible maintenance.*

- *A translucent interlayer contained within the glazing extends from floor level to a height of 1.8m on each floor to fully prevent any overlooking of the school property below."*

Appropriate and reasonable regard should be taken of quantitative performance approaches to daylight provision outlined in guides like the Building Research Establishment's 'Site Layout Planning for Daylight and Sunlight' (2nd edition) or BS 8206-2: 2008 – 'Lighting for Buildings – Part 2: Code of Practice for Daylighting'.

6.56. A Daylight and Sunlight Assessment has been prepared by Digital Dimensions and was included at application stage. Please refer to the report for a more detailed analysis of the impact on surrounding buildings, however, the report states:

"There will be a moderate to major reduction in the available daylight levels to the directly adjacent buildings. The majority of these are commercial offices which with deep floor plates require artificial lighting and have a lesser requirement for natural daylight which varies throughout the day and would require supplementary lighting in an office setting.

There would be a reduction to the light levels in the classrooms adjacent the proposed development but the main window retains a VSC in excess of the 9% Target. The high level side windows would have a major reduction but this would be the case with a 4 storey development.

There would be some reduction the daylight levels in the social housing on Gloucester Street but these apartments have large continuous balconies which

currently restrict daylight access from the sky and any development will cause a relatively large reduction because the existing VSC levels are low.

The assessment of massing in line with the recent developments adjacent the site and the recommendation development level in the Local area plan indicate that overall the additional height of the proposed development would cause minimal additional reduction in daylight levels and the majority of the reduction would come from a development similar in massing to the adjacent buildings."

Where a proposal may not be able to fully meet all the requirements of the daylight provisions above, this must be clearly identified and a rationale for any alternative, compensatory design solutions must be set out, in respect of which the planning authority or An Bord Pleanála should apply their discretion, having regard to local factors including specific site constraints and the balancing of that assessment against the desirability of achieving wider planning objectives. Such objectives might include securing comprehensive urban regeneration and or an effective urban design and streetscape solution.

6.57. Details regarding design solutions for the proposed development have been provided in the Design Statement, the LVIA chapter of the EIAR, the Daylight and Sunlight Assessment and the Tall Building Statement. Please refer to these documents for further details.

Specific impact assessment of the micro-climatic effects such as downdraft. Such assessments shall include measures to avoid/ mitigate such micro-climatic effects and, where appropriate, shall include an assessment of the cumulative micro-climatic effects where taller buildings are clustered.

6.58. A Wind Microclimate Assessment has been prepared by BRE and was included at application stage. The report concludes the following:

"The following conclusions can be drawn from this study:

- *The ground level wind conditions around the Existing Site were found to be suitable for any pedestrian activity at all measurement locations during both the summer and winter seasons.*
- *There were no distress criteria exceedances for the Existing Site during either the summer or winter season.*
- *The ground level wind conditions for the Proposed Development showed that the wind conditions are suitable for any pedestrian activity during the summer.*
- *For the Proposed Development, measurements taken on the roof terraces showed that wind conditions are suitable for any pedestrian activity during the summer.*
- *For the Proposed Development, none of the test locations have higher distress ("unsafe") wind conditions.*
- *For the Proposed Development, the wind conditions in winter mean that at a few test locations have occasional lower wind distress ("discomfort) conditions, and depending upon their intended pedestrian usage, some locations might have unsuitable wind comfort conditions. These locations are highlighted in the report, and where appropriate attention is directed to commonly used wind mitigation measures that are described in Appendix C.*

- *It is judged that the wind impacts of minor changes to the tower profile are likely to be negligible."*

In development locations in proximity to sensitive bird and / or bat areas, proposed developments need to consider the potential interaction of the building location, building materials and artificial lighting to impact flight lines and / or collision.

6.59. An NIS has been prepared by Altemar and was included at application stage.

6.60. Appendix II of the NIS provides a flightline assessment of the proposed development. The assessment state the following:

"11 bird species were recorded from observations made at the City Quay site. Results from the surveys suggest that the site is not an ex-situ foraging or roosting site for species of qualifying interest from nearby Special protection areas (SPA's). Results also suggest that the site is not a regular flightline path for such species like Brent Geese or other species of significant interest, from the observers experience of regular commuting through this part of the city center these species are not frequently encountered passing through this area. The birds move primarily from roost sites (in the case of Brent Geese for example - the North Bull) on the coast and travel west and northwest further north and east from Dublin city center. A nearby site being surveyed in Fairview concurrently in the same period that these surveys were conducted found Brent Geese were following the Tolka river from the coast as a route to negotiate towards feeding grounds inland. This would appear to be the closest flight path to the city center identified and some distance from this site."

6.61. The Design Statement also states the following in relation to the building's design and its impact on birds:

"The integration of bird friendly design is being taken into account in the form of a specialised etching and/or printed interlayer on the glazed elements as birds often perceive glazing as openings. Visual ques will help identify solid surface which are visible up close yet difficult to read from any kind of a distance. These etchings also have the added bonus of providing a form of solar control."

An assessment that the proposal allows for the retention of important telecommunication channels, such as microwave links.

6.62. A Telecommunications Report has been prepared by Independent Site Management and was submitted at application stage. The report states:

"ISM can conclude based on the findings outlined herein that the proposal being made by the Applicant within its submission to the Planning Body allows for the retention of important Telecommunications Channels, such as Microwave links, and therefore satisfies the criteria of Section 3.2 of the Building Height Guidelines (2018)."

An assessment that the proposal maintains safe air navigation.

6.63. An Aeronautical Assessment Report has been prepared by O'Dwyer & Jones Design Partnership and was submitted at application stage. The report summarises its findings as follows:

"The proposed development at City Quay, Dublin 2 (which is located at 8.3kmfrom Dublin Airport and 14.4km from Casement Aerodrome) —

(i) lies under the "Outer Horizontal Surfaces" for Dublin Airport and for Casement Aerodrome, but at more than 100m below these "Surfaces" so that it cannot affect either of them; and

(ii) lies well clear of any other "obstacle limitation surface" (the closest being the Approach to Dublin Airport's subsidiary runway 34 with its nearest edge at1.9km to the east), so that it cannot affect this or any other aviation "surface"; and

(iii) lies significantly lower than the few flight paths in the vicinity (to/from Weston and Dublin airports), and is well clear of all Public Safety Zones, all Airport Noise Contours, and all areas affected by aviation Navigational Equipment considerations; and

(iv) is located on a site which is surrounded by three existing identified obstacles– all marked on aviation charts, and all significantly taller (by more than 14m) than the proposed development – so that it could not have any additional effect on aviation; and

(v) complies fully with all other potential aviation-related considerations."

6.64. The report concludes that *"the proposed office development at City Quay, Dublin 2, complies fully with all aviation and aeronautical considerations and requirements affecting the site."*

An urban design statement including, as appropriate, impact on the historic built environment.

6.65. The existing City Arts Centre on site has run into disrepair and dereliction since closing in 2001. It is proposed to retain the 'City Arts Centre' neon sign and the Pooley Weighbridge to be refurbished and reused in the proposed development. The Design Statement states:

"The existing buildings are of no particular architectural importance or interest and are not included on the list of Protected Structures in the Dublin City Council Development Plan. There is no evidence that they have ever been considered for inclusion and no reference to their potential retention in the Local Area Plan.

The interior of the existing building is in very poor condition and has been derelict for many years. There are no internal spaces of architectural importance or quality."

6.66. The LVIA which is Chapter 12 of the EIAR states the following:

- *"A high level of attention has been given to the materials and finish so that when seen from close up the façade would be both beautiful and subtly reflective of its context. This can be seen in the 'fluted' profile of the glazing in the north west façade of the tower (created by alternating concave and convex curved glass panels), which references the canopy of Busáras; the vertical strips of aluminium panels between the glazing of the tower, which have a wave-like pattern of perforations; and other details.*

- *Attention has also been paid to making the arts centre as visible as possible from the surrounding public realm (including by re-using the distinctive neon signage of the original 'City Arts Centre'). This too would add to the place-making effect and visual interest of the building, as well as generating footfall.*

It is inevitable and not undesirable that a tall building on a (potential) landmark site, would have significant visual and townscape effects. This is the intention of such development. Overall, in the author's opinion, those effects (as described for each representative viewpoint and the main affected townscape character areas in Section 11.5.3 and Table 11.6 above) would be positive."

Relevant environmental assessment requirements, including SEA, EIA, AA and Ecological Impact Assessment, as appropriate.

6.67. An NIS has been prepared by Altemar and was included at the application stage. The NIS concluded the following:

"No significant effects are likely on Natura 2000 sites, their features of interest or conservation objectives. The proposed project will not will adversely affect the integrity of European sites."

6.68. An EIAR has also been prepared and was included with the application. Please refer to the EIAR for further detail on environmental impacts.

Dublin City Development Plan 2022-2028

6.69. The Draft Dublin City Development Plan 2022-2028 was published on the 25th November 2021. The public consultation period on the Draft Plan ended on the 14th February 2022. The Plan was adopted on the 2nd November 2022 and will come into effect on the 14th December 2022, we understand.

6.70. The final adopted Plan has not been published at the date of this appeal. This appeal therefore is based on the Draft Plan and the Proposed Material Alterations published by the City Council in July 2022. It is recognised that the Board will need to consider the adopted version of the Plan when available.

Zoning

6.71. The subject site is zoned Z5 'City Centre' under the Draft Plan. The Land-Use Zoning Objective for the site is *"to consolidate and facilitate the development of the central area, and to identify, reinforce, strengthen and protect its civic design character and dignity."*

6.72. Office, cultural, creative and artistic uses are permissible under the Z5 zoning.

Figure 5.1: Zoning Extract from the Draft Dublin City Development Plan 2022-2028 (subject site approximately outlined in red)

6.73. The Draft Plan states that the primary purpose of this use zone is to sustain life within the centre of the city through intensive mixed-use development. The strategy is to provide a dynamic mix of uses which interact with each other, help create a sense of community and which sustain the vitality of the inner city both by day and night. Ideally, a mix of uses should occur both vertically through the floors of buildings as well as horizontally along the street frontage. A general mix of uses e.g. retail, commercial, residential will be desirable throughout the area and active, vibrant ground floor uses promoted.

6.74. In relation to providing mixed-use developments that a primarily made up of office accommodation on Z5 zoned lands, the Draft Plan states:

"In the interests of promoting a mixed use city, it may not be appropriate to allow mono office use on Z5 zoned lands, particularly on large scale development sites, or to allow an overconcentration of hotel uses in a particular area. Therefore, where significant city centre sites are being redeveloped, an element of residential and other uses as appropriate should be provided to complement the predominant office use in the interests of encouraging sustainable, mixed use development."

Locally Higher Building

6.75. As part of the Proposed Material Alterations to the Draft Plan published by the Chief Executive, an amendment was proposed to the site at City Quay to accommodate a 'Locally Higher Building', with an update to SDRA – Docklands Map (ref. No.: 13.28) as illustrated below:

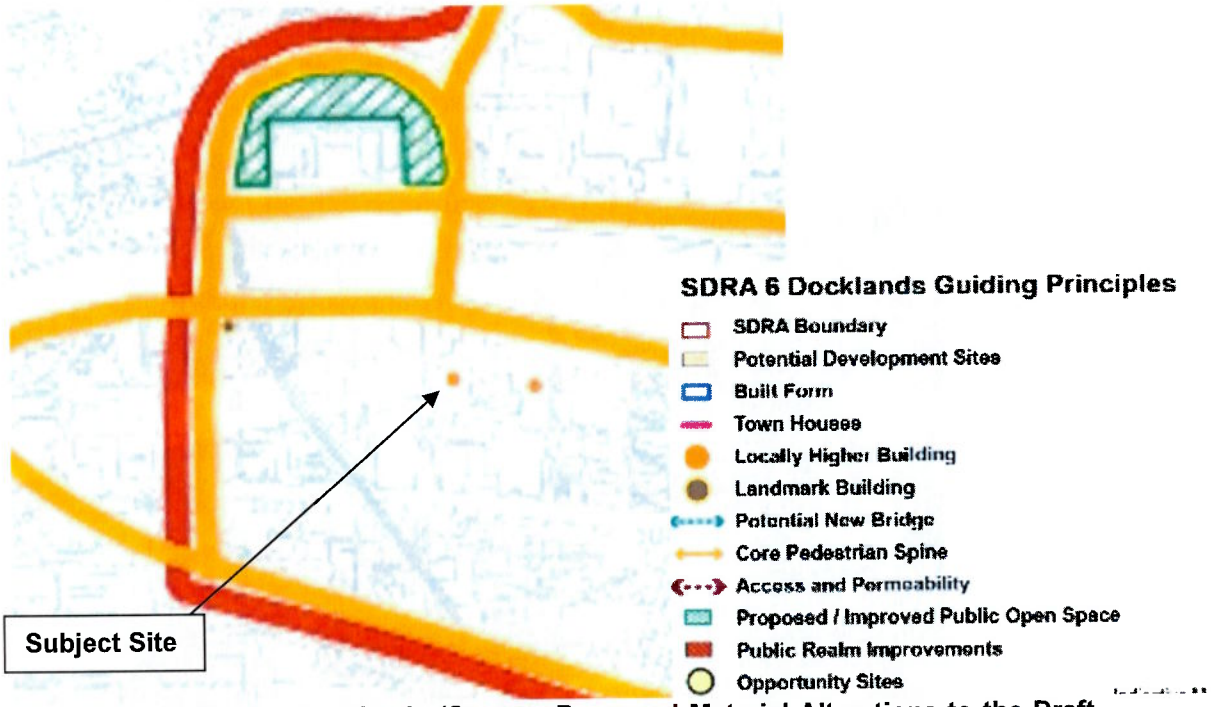

Figure 5.2: SDRA 6 – Docklands (Source: Proposed Material Alterations to the Draft Dublin City Development Plan 2022-2028)

6.76. A 'Locally Higher Building' is defined as *"buildings that are significantly higher than their surroundings and are typically up to 50 metres in height. Higher buildings can act as Local or District landmarks."* The proposed development provides for a building of 108m which can act as a local or distinct landmark for Dublin City. It is noted that while the Tara Street Station site has been designated as a site for a 'Landmark Building', the Apollo House/College Square site does not have any designation to provide for a building of up to 22 no. storeys (82m) as permitted. Given the identification of a further 'Locally Higher Building' to the east, it is considered appropriate that a cluster of tall buildings is formed at this location in close proximity to Tara Street Station.

6.77. It is important to note that the designation of a site or otherwise, for a landmark building does not preclude one being proposed. The Draft City Development provides assessment criteria for landmark buildings in Table 3 and 4 of Appendix 3,

which have been addressed in the submitted application (Planning Report and TBS) and herein.

City Economy and Enterprise

6.78. Dublin is recognised as an international city and gateway to the European Union for many businesses. The city region contributes significantly to Ireland's economy and is a major economic driver for the country. The following policies and objectives in the Draft Plan are of relevance to the proposed development:

"CEE2: To take a positive and proactive approach when considering the economic impact of major planning applications in order to support economic development, enterprise and employment growth and also to deliver high-quality outcomes."

6.79. The Draft Plan identifies the City Centre as an area to provide increased economic investment by focusing on liveability, enhanced public realm and mobility measures. The city centre will retain and build upon its existing role as one of Ireland's most important employment areas with a mix of office, retail, residential, tourism related and cultural activities. The proposed mixed-use development will significantly enhance the employment offering in the city and will also encourage more sustainable modes of transport due to its location close to major public transport networks and the low provision of car parking spaces.

Regeneration and Vacancy

6.80. The Draft states that in addition to contributing to the overall quality and attractiveness of the city, the redevelopment of regeneration areas has the potential to directly benefit the city's economy through the creation of jobs in the construction sector, the provision of new retail, commercial and office floorspace to accommodate new residential units. Vacancy is another significant issue for the city economy, as vacant commercial and residential floorspace represent not only a misuse of a valuable resource, but also detracts from the urban quality and on the attractiveness of an area for its residents, visitors, businesses and for potential investors. CEE20 (iii) states:

6.81. The proposed development will provide for the demolition of the existing derelict and vacant buildings and the overall redevelopment of the site. The proposed development will have a positive impact on the surrounding area and will encourage further investment in the regeneration of the surrounding area.

Office and Commercial Floorspace

6.82. The Draft Plan recognises that a choice of good quality and cost-competitive office and commercial space is critical in attracting investment, supporting enterprises and generating employment and there is an ongoing need to encourage the high quality re-development of outdated office stock.

6.83. Similarly, attracting headquarter type uses to the city is a key foreign direct investment strategy. However, there is a limited supply of the large footplate offices outside of Docklands, Heuston and the suburbs. Sites of sufficient size to provide such floor-plates are often found in regeneration areas and this represents a significant strategic advantage for Dublin.

6.84. The proposed development will provide for an increased choice of high-quality commercial floorspace within the city centre with a notable landmark building in an

appropriate location in the city centre. It will be key to attracting multinational companies setting up their headquarters here as numerous companies have done so already. The proposed development will provide for large footplate offices outside of the existing areas and will encourage the further regeneration of the city centre. CEE21 (i) states the following:

"To promote and facilitate the supply of commercial space, where appropriate, including larger office floorplates suitable for indigenous and FDI HQ-type uses."

Built Heritage

6.85. The Draft Plan outlines the following policies with relate to Conservation Areas:

*"**BHA9:** To protect the special interest and character of all Dublin's Conservation Areas – identified under Z8, Z2 zoning objectives and denoted by red line conservation hatching on the zoning maps. Development within or affecting a Conservation Area must contribute positively to its character and distinctiveness and take opportunities to protect and enhance the character and appearance of the area and its setting, wherever possible. Enhancement opportunities may include:*

1. Replacement or improvement of any building, feature or element which detracts from the character of the area or its setting.
2. Re-instatement of missing architectural detail or important features.
3. Improvement of open spaces and the wider public realm and reinstatement of historic routes and characteristic plot patterns.
4. Contemporary architecture of exceptional design quality, which is in harmony with the Conservation Area.
5. The repair and retention of shop and pub fronts of architectural interest.
6. Retention of buildings and features that contribute to the overall character and integrity of the Conservation Area.
7. The return of buildings to residential use.

Changes of use will be acceptable where in compliance with the zoning objectives and where they make a positive contribution to the character, function and appearance of the Conservation Areas and its setting. The Council will consider the contribution of existing uses to the special interest of an area when assessing change of use applications and will promote compatible uses which ensure future long-term viability.

***BHA10:** There is a presumption against the demolition or substantial loss of a structure that positively contributes to the character of a Conservation Area, except in exceptional circumstances where such loss would also contribute to a significant public benefit."*

6.86. The proposed development will be a significant improvement on the current state of the site which has been vacant and derelict since 2001. The proposal will include 3 no. floors of arts space which will restore the cultural uses which previously occupied the site. The development also includes for a gym and a significant amount for high-density office accommodation located in close proximity to high-quality, high-capacity sustainable public transport which is in accordance with national and regional policy guidance. The development is considered to be a significant improvement on the current site. Chapter 12 of the EIAR states:

"The proposed development is located within the River Liffey Conservation Area, along with the two landmark developments considered above. When all three

developments are considered together, they clearly have a cumulative impact on the Conservation Area, due to the introduction of three multi-storey structures. It is noted that the Docklands as a whole already contains tall buildings and as detailed in Chapter 11, the three structures are within an area that represents a transition zone between the old city and the Docklands. The fact that the structures are grouped relatively close together lends a character type to this area and reduces potential impacts on the Conservation Area; however, when viewed from the east and west, the change in the skyline, which is formed by the three structures, is noticeable, especially from the west, with the structures emerging above the River Liffey and the more consistent line of the Georgian structures fronting onto the quays."

Culture

6.87. Cultural-specific event spaces are integral to the continued development of the arts throughout the city. Policy CU2 states *"To ensure the continued development of Dublin as a culturally vibrant, creative and diverse city with a broad range of cultural activities provided throughout the city, underpinned by quality cultural infrastructure."*

6.88. The city boasts many existing cultural venues such as the National Gallery and the Abbey Theatre. However, the Council seeks to continue to support the growth and expansion of the many cultural resources within the city, particularly where proposals increase the opportunity for greater engagement with local communities, the young, the marginalised and people with disabilities. Such cultural institutions play an important role in shaping the future of the arts and culture within the city in giving people, particularly children, the opportunity to engage and experience arts and culture and in nurturing future interest and involvement. CU4 states:

"To support the development of new and expanded cultural resources and facilities within the city that enrich the lives of citizens and visitors, provide new opportunities for engagement and celebrate aspects of our history and culture."

6.89. The proposed development will provide for the demolition of a former cultural space at the City Arts Centre and the replacement with a significantly improved cultural space to provide for an art gallery and individual art studios. It is considered that the new arts centre will have a significant, positive impact on the surrounding community by promoting cultural uses at such a prominent location in the city centre. CUO23 states the following:

6.90. *"Where applications are made seeking to demolish or replace a cultural space/use, the development must re-accommodate the same or increased volume of space/use or a similar use within the redevelopment. Cultural uses include theatres, cinemas, artist studios, performance spaces, music venues, nightclubs, studios and dance space."*

6.91. CU12 of the Draft Plan also states the desire *"to grow the range of cultural spaces and facilities in tandem with all new developments such as in basement or roof-top spaces where suitable and across existing developments to meet the needs of an increased population within the city."*

6.92. CUO22 of the Draft Plan states:

"All new regeneration areas (SDRAs) and large scale developments above 10,000 sq. m. in total area must provide for 5% community, arts and culture and artist

workspaces internal floorspace as part of their development at the design stage. The option of relocating a portion (no more than half of this figure) of this to a site immediately adjacent to the area can be accommodated where it is demonstrated to be the better outcome and that it can be a contribution to an existing project in the immediate vicinity. The balance of space between cultural and community use can be decided at application stage, from an evidence base/audit of the area. Such spaces must be designed to meet the identified need."

6.93. The proposed development provides for 1,648 sq.m. of arts space which equates to 5% of the Gross Internal Floor Area excluding the plant and core areas in the basement.

6.94. Another policy which is delivered as part of the proposals is CUO27 which states the need *"to further develop and provide for artist work spaces and spaces for creative production within the city and avail of opportunities for utilising underused buildings within communities for artistic and cultural purposes."*

Conservation Area

6.95. It is noted that the northern part of the site is located within the Liffey Corridor Conservation Area. The Development Plan states that *"as with Architectural Conservation Areas, there is a general presumption against development which would involve the loss of a building of conservation or historic merit within the Conservation Areas or that contributes to the overall setting, character and streetscape of the Conservation Area. Such proposals will require detailed justification from a viability, heritage and sustainability perspective."*

6.96. The existing buildings on site are not considered to be of any historic significance as identified at application stage and accepted by the City Council. Any existing features on site of historic or cultural importance will be preserved and/or incorporated into the proposed development.

6.97. There are 3 no. protected structures located adjacent to the site to the east. These 3 no. protected structures are identified as City Quay (Ref.: 8825), 9 City Quay (Ref.: 1853) and 10-12 City Quay (Ref.: 1854). The protected structure are described as follows:

- *Ref. 8825: City Quay, Dublin 2 – Granite ashlar quay wall, mooring hooks, granite quay steps & Cast-iron ladders.*
- *Ref. 1853: 9 City Quay, Dublin 2 – Presbytery.*
- *Ref. 1854: 10-12 City Quay, Dublin 2 – St. Mary's Church, belfry, and boundary walls and railings*

6.98. The impact of the proposed development on the Conservation Area has been addressed at application stage within the LVIA EIAR. Please refer to this document for further details.

Enhanced Height, Density and Scale

6.99. Appendix 3 of the Draft Dublin City Development Plan 2022-2028 outlines performance criteria for assessing urban schemes of enhanced density and scale. An additional document has been prepared by Urban Strategies Inc. which is included with this appeal. The criteria have been addressed in Appendix 1 of their document which is a resubmission of the information submitted at planning application stage, for convenience. Please refer to this document for further details.

To promote development with a sense of place and character

Enhanced density and scale should:

respect and/or complement existing and established surrounding urban structure, character and local context, scale and built and natural heritage and have regard to any development constraints,
have a positive impact on the local community and environment and contribute to 'healthy placemaking',
create a distinctive design and add to and enhance the quality design of the area,
be appropriately located in highly accessible places of greater activity and land use intensity,
have sufficient variety in scale and form and have an appropriate transition in scale to the boundaries of a site/adjacent development in an established area,
not be monolithic and should have a well-considered design response that avoids long slab blocks,
ensure that set back floors are appropriately scaled and designed.

6.100. Please refer to Appendix 1 of the appeal document prepared by Urban Strategies Inc. for a response to the above criteria.

To provide appropriate legibility

Enhanced density and scale should:

make a positive contribution to legibility in an area in a cohesive manner,
reflect and reinforce the role and function of streets and places and enhance permeability.

6.101. Please refer to Appendix 1 of the appeal document prepared by Urban Strategies Inc. for a response to the above criteria.

6.102. The proposed development will significantly improve the streets and public realm which surrounds the site. Permeability around the site will be significantly improved as a result of the public realm improvements and the provision of a public plaza to the northwest corner of the site.

To provide appropriate continuity and enclosure of streets and spaces

Enhanced density and scale should:

enhance the urban design context for public spaces and key thoroughfares,
provide appropriate level of enclosure to streets and spaces,
not produce canyons of excessive scale and overbearing of streets and spaces,
generally be within a human scale and provide an appropriate street width to building height ratio of 1:1.5 – 1:3,
provide adequate passive surveillance and sufficient doors, entrances and active uses to generate street-level activity, animation and visual interest.

6.103. Please refer to Appendix 1 of the appeal document prepared by Urban Strategies Inc. for a response to the above criteria.

6.104. The proposed development provides for a street width to building height ratio of 1:2.4 fronting onto City and the River Liffey which is within the parameter set out in the Objective 4 above.

To provide well connected, high quality and active public and communal spaces

Enhanced density and scale should:

integrate into and enhance the public realm and prioritises pedestrians, cyclists and public transport,
be appropriately scaled and distanced to provide appropriate enclosure/exposure to public and communal spaces, particularly to residential courtyards,
ensure adequate sunlight and daylight penetration to public spaces and communal areas is received throughout the year to ensure that they are useable and can support outdoor recreation, amenity and other activities – see Appendix 16,
ensure the use of the perimeter block is not compromised and that it utilised as an important typology that can include courtyards for residential development,
ensure that potential negative microclimatic effects (particularly wind impacts) are avoided and or mitigated,
provide for people friendly streets and spaces.

6.105. Please refer to Appendix 1 of the appeal document prepared by Urban Strategies Inc. for a response to the above criteria.

6.106. The proposed development will significantly enhance the public realm surrounding the site, particularly at the northwest corner where a public plaza will be incorporated to include seating areas. The streets will be more people friendly by providing areas for people to socialise and interact.

To provide high quality, attractive and useable private spaces

Enhanced density and scale should:

not compromise the provision of high quality private outdoor space,
ensure that private space is usable, safe, accessible and inviting,
ensure windows of residential units receive reasonable levels of natural light, particularly to the windows of residential units within courtyards – see Appendix 16,
assess the microclimatic effects to mitigate and avoid negative impacts,
retain reasonable levels of overlooking and privacy in residential and mixed use development.

6.107. Please refer to Appendix 1 of the appeal document prepared by Urban Strategies Inc. for a response to the above criteria.

6.108. The Wind Microclimate Assessment prepared by BRE and submitted at application stage states the following in relation to microclimate impacts:

"The following conclusions can be drawn from this study:

The ground level wind conditions around the Existing Site were found to be suitable for any pedestrian activity at all measurement locations during both the summer and winter seasons.
There were no distress criteria exceedances for the Existing Site during either the summer or winter season.

The ground level wind conditions for the Proposed Development showed that the wind conditions are suitable for any pedestrian activity during the summer.
For the Proposed Development, measurements taken on the roof terraces showed that wind conditions are suitable for any pedestrian activity during the summer.
For the Proposed Development, none of the test locations have higher distress ("unsafe") wind conditions.
For the Proposed Development, the wind conditions in winter mean that at a few test location shave occasional lower wind distress ("discomfort) conditions, and depending upon their intended pedestrian usage, some locations might have unsuitable wind comfort conditions. These locations are highlighted in the report, and where appropriate attention is directed to commonly used wind mitigation measures that are described in Appendix C.
It is judged that the wind impacts of minor changes to the tower profile are likely to be negligible."

6.109. Please refer to the Daylight & Sunlight Assessment prepared by Digital Dimensions and submitted at application stage for further information, supplemented by the additional information submitted as part of this appeal.

To promote mix of use and diversity of activities

Enhanced density and scale should:

promote the delivery of mixed use development including housing, commercial and employment development as well as social and community infrastructure,
contribute positively to the formation of a 'sustainable urban neighbourhood',
include a mix of building and dwelling typologies in the neighbourhood,
provide for residential development, with a range of housing typologies suited to different stages of the life cycle.

6.110. Please refer to Appendix 1 of the appeal document prepared by Urban Strategies Inc. for a response to the above criteria.

6.111. The proposed development provides for a mixed-use development by providing 3 no. floors of arts/cultural uses with 22 no. floors of office space above. The development also includes for a gym facility which fronts onto Moss Street. The high-density development will add to the sustainable urban neighbourhood due to large number of people that the building will cater for on a day to day basis and the site's proximity to significant public transport links.

To ensure high quality and environmentally sustainable buildings

Enhanced density and scale should:

be carefully modulated and orientated so as to maximise access to natural daylight, ventilation, privacy, and views to minimise overshadowing and loss of light – see Appendix 16,
not compromise the ability of existing or proposed buildings and nearby buildings to achieve passive solar gain,
ensure a degree of physical building adaptability as well as internal flexibility in design and layout,
ensure that the scale of plant at roof level is minimised and have suitable finish or screening so that it is discreet and unobtrusive,
maximise the number of homes enjoying dual aspect, to optimise passive solar gain, achieve cross ventilation and for reasons of good street frontage,

be constructed of the highest quality materials and robust construction methodologies,
incorporate appropriate sustainable technologies, be energy efficient and climate resilient,
have appropriate and reasonable regard to quantitative approaches to assessing daylighting and sun lighting proposals. Where appropriate, satisfactory, alternative compensatory design solutions should be provided for a failure to meet reasonable daylighting provisions, in the context of a constrained site or securing wider objectives such as comprehensive urban regeneration or an effective urban design and streetscape solution – see Appendix 16,
incorporate an Integrated Surface Water Management Strategy to ensure necessary public surface water infrastructure and nature-based SUDS solutions are in place – see Appendix 13,
include a flood risk assessment - see SFRA Volume 7.

6.112. Please refer to Appendix 1 of the appeal document prepared by Urban Strategies Inc. for a response to the above criteria.

6.113. The Daylight and Sunlight Assessment prepared by Digital Dimensions and submitted at application stage states:

"There will be a moderate to major reduction in the available daylight levels to the directly adjacent buildings. The majority of these are commercial offices which with deep floor plates require artificial lighting and have a lesser requirement for natural daylight which varies throughout the day and would require supplementary lighting in an office setting.

There would be a reduction to the light levels in the classrooms adjacent the proposed development but the main window retains a VSC in excess of the 9% Target. The high level side windows would have a major reduction but this would be the case with a 4 storey development.

There would be some reduction the daylight levels in the social housing on Gloucester Street but these apartments have large continuous balconies which currently restrict daylight access from the sky and any development will cause a relatively large reduction because the existing VSC levels are low.

The assessment of massing in line with the recent developments adjacent the site and the recommendation development level in the Local area plan indicate that overall the additional height of the proposed development would cause minimal additional reduction in daylight levels and the majority of the reduction would come from a development similar in massing to the adjacent buildings."

6.114. Please refer to the Daylight and Sunlight Assessment for further details.

6.115. The office floor plates are all designed open plan and are therefore adaptable to the needs of tenants. Plant is located at basement and roof level and will not be visible from street level. The SUDs measures for the proposed development have been outlined in the Engineering Assessment prepared by Bakkala Consulting which was submitted at application stage.

6.116. The Flood Risk Assessment submitted at application stage concludes the following:

"A justification test for the proposed development has been undertaken which demonstrates the appropriateness of the development and how it meets the

requirements of The Planning System and Flood Risk Management, Guidelines for Planning Authorities (2009), local zoning objective whilst respecting the local streetscape and urban fabric."

To secure sustainable density, intensity and location of high intensity

Enhanced density and scale should:

be at locations of higher accessibility well served by public transport with high capacity frequent service with good links to other modes of public transport,
look to optimise their development footprint; accommodating access, servicing and parking in the most efficient ways possible integrated into the design.

6.117. Please refer to Appendix 1 of the appeal document prepared by Urban Strategies Inc. for a response to the above criteria and the Archaeological, Architectural and Cultural Heritage Chapter of the EIAR submitted with the application.

To protect historic environments from insensitive development

Enhanced density and scale should:

not have an adverse impact on the character and setting of existing historic environments including Architectural Conservation Areas, Protected Structures and their curtilage and National Monuments – see section 6 below.
be accompanied by a detailed assessment to establish the sensitives of the existing environment and its capacity to absorb the extent of development proposed,
assess potential impacts on keys views and vistas related to the historic environment.

6.118. Please refer to Appendix 1 of the appeal document prepared by Urban Strategies Inc. for a response to the above criteria.

To ensure appropriate management and maintenance

Include an appropriate management plan to address matters of security, management of public/communal areas, waste management, servicing etc.

6.119. Please refer to Appendix 1 of the appeal document prepared by Urban Strategies Inc. for a response to the above criteria.

6.120. The relationship of the proposed development to, and potential impact on, the historic area of the city, including the Custom House, are addressed in detail in the submitted Architectural Design Statement, LVIA chapter and the Archaeological, Architectural and Cultural Heritage chapter of the EIAR

Landmark/Tall Buildings

6.121. The Draft Dublin City Development Plan 2022-2028 sets out similar criteria for assessment for landmark/tall buildings. The proposed building has been assessed against the below criteria by Urban Strategies Inc. and included in their report. The criteria are as follows and have been responded to in the Tall Building Statement:

Exemplary Architecture

All proposals must be accompanied by a detailed design statement that demonstrates the achievement of excellent design and the highest standards for future occupants.
The development should make a significant contribution to the built environment of the city. Detailed consideration must be given to the scale, form, massing and proportions of the building. A slenderness ratio of 3:1 is desirable.
The facades must be carefully articulated and animated. This can be achieved through the use of high quality materials, colour, fenestration, reflectiveness and/or expression of depth. Large, blank or inactive gables should be avoided.
The building form and layout must have regard to the density and character of the surrounding development. The applicant will be required to demonstrate the relationship and potential impacts of the proposal to the surrounding context, including topography, built form, scale, height, urban grain, streetscape, public realm, open spaces, rivers and waterways, important views and prospects, skyline and that these factors have been considered in the design approach.
Detailed consideration will be required for all lighting proposals to ensure that they are energy efficient, contribute to the design and quality of the building whilst limiting the potential for excessive light spill, glare and sky glow.
The impact of the roofscape (including telecommunications apparatus and plant rooms) must be considered and it should be designed to make an appropriate contribution to the city's skyline.
Where a landmark/tall building/s proposal abuts a lower density areas, such sites should be planned to provide lower level buildings at the perimeter assisting the transition in scale from the landmark/ tall building/s down to the surrounding context.
Where a proposal of significant height is proposed, the process of design selection should preferably be by means of an architectural competition.

6.122. Please refer to Appendix 1 of the appeal document prepared by Urban Strategies Inc. for a response to the above criteria.

6.123. Calculations on the slenderness ratio have also been included in the Architectural Design Statement prepared by Mahoney Architecture at application stage.

6.124. A Site Lighting Report was prepared by PMEP Consulting and submitted at application stage. The report concludes that the proposed lighting installation achieves the following:

"The luminaire selection adds to the ambience of the main entrance of the building and the communal open space roof terrace areas.
The lighting scheme creates a pleasant environment for the occupants of the open space roof terrace areas.
The lighting scheme creates a save environment for the pedestrians along the walkway of the building.
Luminaire selection limits upward light spill.
The lighting scheme achieves the recommended lux levels in accordance with current regulations and standards.
The lighting scheme achieves good uniformity throughout the varies are as to ensure good visibility at night."

Sustainable Design and Green Credentials

Landmark/tall buildings should set exemplary standards in terms of sustainability. Proposals should incorporate appropriate technologies and design features to minimise energy use.

The applicant must demonstrate that the design is innovative and flexible and can be adapted overtime.

6.125. Please refer to Appendix 1 of the appeal document prepared by Urban Strategies Inc. for a response to the above criteria.

Public Realm

The development should contribute positively to its surroundings at street level, help create a 'sense of place', provide appropriate passive surveillance and active ground floor uses. The design of the base of landmark/tall building/s must be of a proportion, composition and scale that appropriately defines and enhances the public realm, and provides for a safe and comfortable pedestrian experience. Particular attention must be paid to the design and location of public entrances to ensure that they are legible and accessible.
Detailed design and hard and soft landscape measures for the treatment of the public realm both within and external to the development must be provided.
Opportunities to improve the permeability of the site and wider area should be maximised, particularly where increased pedestrian and cycle flows are envisaged.

6.126. Please refer to Appendix 1 of the appeal document prepared by Urban Strategies Inc. for a response to the above criteria.

6.127. The active uses, such as the arts centre and gym, at ground floor level provide for passive surveillance onto the surrounding pedestrian spaces. The provision of a public plaza to the northwest corner of the site will provide for greater permeability on the site and improved pedestrian facilities.

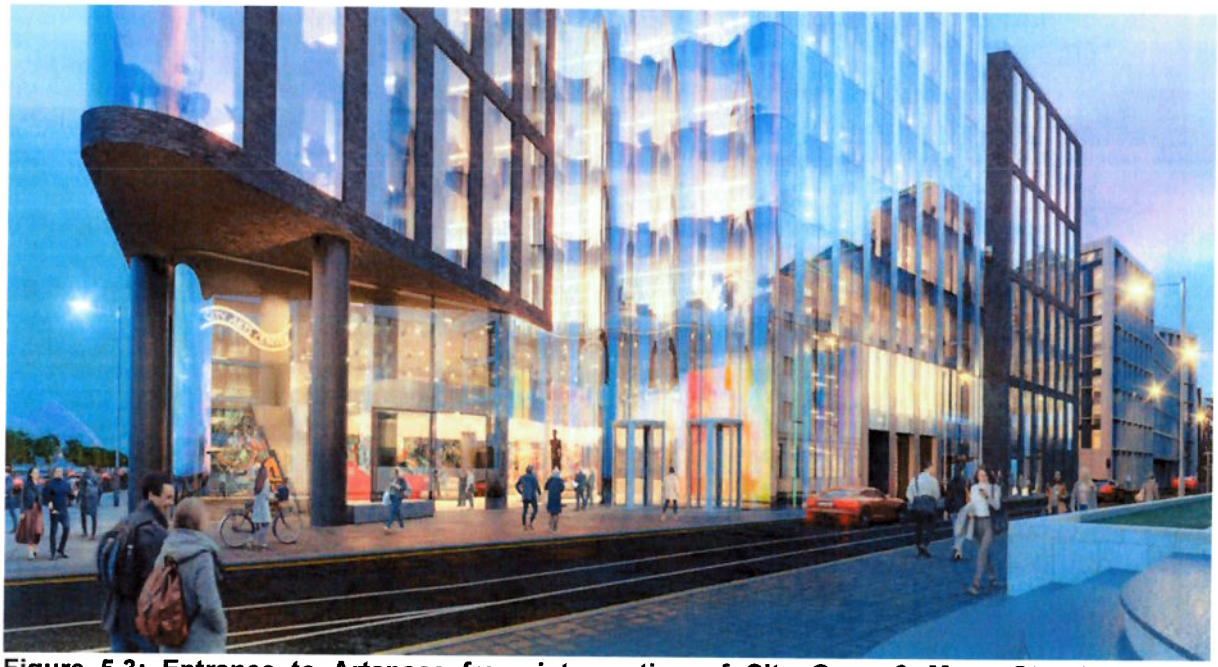

Figure 5.3: Entrance to Artspace from intersection of City Quay & Moss Street (Source: Tall Building Statement)

Environmental Impacts

Applications must be accompanied by detailed technical analysis and supporting reports to demonstrate how potential environmental impacts can be appropriately mitigated and avoided. It must be proven that the development will not affect the

surroundings adversely in terms of microclimate, wind turbulence, overshadowing, noise and reflected glare. This should be done through the testing of accurate physical and three dimensional models, conducting wind tunnel studies, sun path studies, as well as other suitable impact simulation methods. Impacts on adjacent properties should be tested through detailed section analysis and three dimensional (3D) computer models.
Potential impacts to sensitive bird or bat species should be considered where appropriate.
Where the development would have a significant environmental impact, EIA screening will be required and an Environmental Impact Statement may be required.

6.128. Please refer to Appendix 1 of the appeal document prepared by Urban Strategies Inc. for a response to the above criteria.

6.129. A Natura Impact Statement has been carried out by Altemar and was included with the application to Dublin City Council. The Statement states the following in relation to sensitive birds and bats species:

"No rare or bird species of conservation value were noted during the field assessment."

"There is no evidence of a current or past bat roost in the structures on site, therefore no significant negative impacts on the roosting of these animals are expected to result from the proposed development. Foraging activity was not present."

6.130. Please refer to the Environmental Impact Assessment Report prepared by AWN Consulting for more detail regarding environmental impacts.

Public Safety and Functional Impacts

Landmark/tall building proposals must demonstrate that the development creates a pleasant, safe and healthy environment for its future occupants. The design of the building should follow best practice to minimise the threats from fire, flood and other hazards.
All applications must be accompanied by an assessment on potential interference with aviation, navigation and telecommunications.
It must be demonstrated that buildings can be serviced, maintained and managed in a manner that will not cause disturbance or inconvenience to surrounding public realm.
Entrances, access routes, and ground floor uses should be designed and placed to allow for peak time use and to ensure there is no unacceptable overcrowding in the surrounding areas.
All tall building proposals must be accompanied by a full transport capacity assessment. The intensity of use associated with tall buildings will only be appropriate if it is supported by an appropriate level of transport capacity to ensure good pedestrian and public transport access.

6.131. Please refer to Appendix 1 of the appeal document prepared by Urban Strategies Inc. for a response to the above criteria.

6.132. A 'Pedestrian Realm Flow Study' has been prepared by Bakkala Consulting Engineers to address the fourth point regarding overcrowding at entrances, access routes and ground floor uses. The report concluded:

"Based on the results of agent-based computer simulations of pedestrian flows in the vicinity of the proposed development it is clear that the additional foot traffic generated by the scheme will not lead to unacceptable overcrowding in the surrounding areas."

6.133. A Telecommunication Report has been prepared by ISM which was included with the application and concludes the following:

"ISM can conclude based on the findings outlined herein that the proposal being made by the Applicant within its submission to the Planning Body allows for the retention of important Telecommunication Channels, such as Microwave links, and therefore satisfies the criteria of Section 3.2 of the Building Height Guidelines."

6.134. An Aeronautical Assessment Report has been prepared by O'Dwyer & Jones Design Partnership and included at application stage which states:

"We consider that the proposed offices development at City Quay, Dublin 2, complies fully with all aviation and aeronautical considerations and requirements affecting the site."

Visual Impact and Cityscape Analysis

All applications must be accompanied by a detailed visual impact and cityscape assessment to illustrate the impact on the context, especially on residential amenities, conservation areas and significant views.
The cityscape analysis should include a detailed assessment including accurate visual modelling of the existing characteristics of the built form. It should identify strategic views and present detailed verifiable fully rendered photomontages (day and night) of the proposed tall building in the context of the surrounding area (existing, proposed and cumulative). It should be demonstrated that the development makes a positive contribution to long range, mid-range and immediate views.
It must be demonstrated that the landmark/tall building/s will reinforce the spatial hierarchy of the local and wider context and aid legibility and wayfinding.
The cityscape study should include a simulation of the building within a 3D digital model to demonstrate the impact of the proposal.
The cumulative impact of a tall building proposal in the context of other existing and proposed tall building proposals must be considered.
Landmark/tall building proposals must demonstrate the impacts on the historic context, including the need to ensure that the proposal will preserve and/or enhance historic buildings, sites, landscapes and skylines. Landmark/tall building proposals must address their effect on the setting of, and views to and from historic buildings, sites and landscapes over a wide area. It must be demonstrated that the building will have no adverse impact on the built cultural or historical heritage of the city including Architectural Conservation Areas and Protected Structures and their curtilage and National Monuments.

6.135. Please refer to Appendix 1 of the appeal document prepared by Urban Strategies Inc. for a response to the above criteria.

6.136. Please also refer to Chapter 11: Landscape and Visual Impact Assessment of the EIAR for further details.

Tall Building Clusters

In general, opportunities for singular landmark/ tall buildings in the city is likely to be limited. It is acknowledged from an architectural and land use perspective that it is preferable that landmark/ tall buildings are clustered and the City Council supports this approach in the locations identified as suitable for taller buildings. A cohesive group of landmark/tall buildings maximises their economic and sustainable advantages.
Where clusters of landmark/tall buildings are proposed, careful attention must be paid to the roof profile in the context of the whole cluster. Clusters of such towers should be composed with the tallest at the centre of the group, falling away to the edges.

6.137. Please refer to Appendix 1 of the appeal document prepared by Urban Strategies Inc. for a response to the above criteria.

Public Realm

6.138. The Draft Development Plan acknowledges that a high-quality public realm makes the city a more attractive place to live, work and visit, and provides for an improved quality of life for all. The following policies are of relevance:

"CCUV37: To promote the development of a network of active, healthy, attractive, high quality, green, and safe streets and public spaces which are inviting, pedestrian friendly and easily navigable. The aspiration is to encourage walking as the preferred means of movement between buildings and activities in the city. In the case of pedestrian movement within major developments, the creation of a public street is preferable to an enclosed arcade or other passageway.

CCUV38: To promote the development of high-quality streets and public spaces which are accessible and inclusive in accordance with the principles of universal design, and which deliver vibrant, attractive, accessible and safe places and meet the needs of the city's diverse communities regardless of age, ability, disability or gender.

CCUV39: To deliver a permeable, legible and connected public realm that contributes to the delivery of other key objectives of this development plan namely active travel and sustainable movement, quality urban design, healthy placemaking and green infrastructure."

6.139. The proposed building is sited at a very busy location at the junction of City Quay, Moss Street and Talbot Memorial Bridge. As such, the envelope of the building at ground floor level, has been pulled back from the boundary line at the northwest corner to increase the size of the open space at the main entrance. A bespoke granite bench aligns with the undercroft of the second floor above and will be the main feature in the space.

6.140. It is proposed to upgrade the public realm footpath, along the west side of the building, from brushed concrete to DCC standard granite slabs and continue this surface into the main open space with brass pavement studs installed to de-mark the boundary line. It is also proposed to upgrade the surface of the existing pavement extension to the north of the building from precast paving units to DCC standard granite slabs with the material aim of creating public/private zone suited to the quality of the proposed new building.

6.141. The primary paving finish on the ground floor will be a Leinster Granite natural stone slab with featured perimeter bands of textured cast in-situ concrete. All proposed paving is of a high quality and provides continuity and connectivity throughout the ground floor.

6.142. The additional space proposed at this corner will allow for a greater ease of movement for people who are entering and exiting the building which will be constant throughout the day. This will also provide for a greater sense of activity and animation at this corner compared with the current situation and will alleviate the expected congestion that will arise as a result of the proposed development.

6.143. The proposed improvements to the public realm in the area are essential to the functionality of the proposed development. The improved pedestrian facilities around the subject site will ensure safe and easy pedestrian access is provided for at a significant, high-density employment hub.

6.144. The frontages onto City Quay and Moss Street present a two-storey high scale at street level. The full height glazing reveals the activity of the Arts Centre within, including the video wall. 3 no. two-storey high circular polished black concrete columns frame the glazed shopfront of the Centre. The triple height volume to the front of the building accommodates the staircase which link the three floors of the Arts Centre. The highly visible movement and activity within creates curiosity and encourages the passing public to visit the Centre.

6.145. The active street frontage extends along Moss Street where he gym unit is located. The entrance is positioned in the recess formed by the tower volume and a series of tail folding doors can be opened in mild weather to further animate the streetscape.

Urban Design and Architecture

6.146. The Draft Plan states that well- connected urban design and architecture, including use of high-quality materials and finishes, and well-designed buildings, spaces and landscapes make a positive contribution to the urban environment and improve the environmental performance, competitiveness and attractiveness of the city. The following policies are of relevance:

6.147. *"SC19: To promote development which positively contributes to the city's built and natural environment, promotes healthy placemaking and incorporates exemplar standards of high-quality, sustainable and inclusive urban design and architecture befitting the city's environment and heritage and its diverse range of locally distinctive neighbourhoods.*

6.148.

SC21: To promote and facilitate innovation in architectural design to produce contemporary buildings which contribute to the city's character and which mitigates and is resilient to, the impacts of climate change."

6.149. The proposed development of the City Arts Centre will create a distinctive new profile on the Dublin City's skyline as submitted in the Architectural Design Statement submitted by Mahoney Architecture. The carefully considered building form has evolved in response to its immediate context as well to its impact on the wider City. It will provide a landmark building on the arrival side of an important river crossing and become a significant structure in the emerging cluster of tall buildings in Dublin City Centre's premier commercial district. The building will also

reincarnate the City Arts Centre which occupied the site during the 1990's, in th form of an expansive new arts and cultural centre for the City.

6.150. The Planner's Report states the following in relation to the design of the proposed development:

"It should be noted that the proposed building is an interesting modern and assertive design which exhibits the use of high quality materials and finishes and if viewed in isolation and not taking into account the sensitivities of the surrounding context, the scheme has significant positive attributes."

6.151. The DCC Planner's Report also states that the proposed development would have a positive impact on the placemaking of the surrounding area:

"In regard to the impact in the immediate/surrounding public realm, the change will be significant. Setting aside the height of the proposed development, there will likely be a positive change at street level, with the replacement of the existing vacant and underutilised buildings with a modern mixed use development. The proposal would cause a significant change in character to the Talbot Bridge, George's Quay, City Quay and the surrounding area. It would become the focal point of the view when crossing Talbot Bridge, and views along Moss St. / Shaw St and would likely have a strong place- making effect."

Energy Efficiency

6.152. The Draft Plan recognises the need for developments to be more sustainable and energy efficient in order to reach climate action target set by national policy. QHSN11 states the following:

"To encourage neighbourhood development which protects and enhances the quality of our built environment and supports public health and community wellbeing. Promote developments which:

• promote sustainable design through energy efficiency, use of renewable energy and sustainable building materials and improved energy performance;"

6.153. A Climate Action and Energy Statement has been prepared by PMEP and was submitted at application stage. The report concludes that:

"Based on the initial review, there is sufficient utility infrastructure in the area for the development.

The sustainable design elements of the proposed development contribute to a building design that meets and exceeds the Building Regulations in terms of primary energy consumption and carbon dioxide emissions.

The passive measures included in the design, such as maximising the use of daylight and minimising solar gain (glazing selection and solar shading), reducing fabric heat loss through the building envelope and improving the air tightness significantly contribute towards reducing the loads on the active systems within the building.

The active measures have been designed to reduce the primary energy consumption through intelligent control and highly efficient plant and equipment.

The sustainable design of the proposed development offers a building that will consume approximately considerably less primary energy than the reference building used to assess Part L compliance."

Archaeology

6.154. The subject site is located within a zone of archaeological interest. The subject site is located outside of the Georgian Core as identified in Figure 11-2 of the Draft Plan. BHA26 of the Draft Plan relating to Archaeological Heritage states the following:

"1. To protect and preserve Record of Monuments and Places (RMP) as Established under Section 12 of the National Monuments (Amendment) Act 1994 interest which have been identified in the Record of Monuments and Places and the Historic Environment Viewer (www.archaeology.ie).
2. To protect archaeological material in situ by ensuring that only minimal impact on archaeological layers is allowed, by way of re-use of standing buildings, the construction of light buildings, low impact foundation design, or the omission of basements (except in exceptional circumstances) in the Zones of Archaeological Interest.
3. To seek the preservation in situ (or where this is not possible or appropriate, as a minimum, preservation by record) of all archaeological monuments included in the Record of Monuments and Places, and of previously unknown sites, features and objects of archaeological interest that become revealed through development activity. In respect of decision making on development proposals affecting sites listed in the Record of Monuments and Places, the Council will have regard to the advice and/or recommendations of the Department of Housing, Heritage and Local Government.
4. Development proposals within Record of Monuments and Places (RMP) as Established under Section 12 of the National Monuments (Amendment) Act 1994 , of sites over 0.5 hectares size and of sites listed in the Dublin City Industrial Heritage Record, will be subject to consultation with the City Archaeologist and archaeological assessment prior to a planning application being lodged.
5. To preserve known burial grounds and disused historic graveyards. Where disturbance of ancient or historic human remains is unavoidable, they will be excavated according to best archaeological practice and reburied or permanently curated.
6. Preserve the character, setting and amenity of upstanding and below ground town wall defences.
7. Development proposals in marine, lacustrine and riverine environments and areas of reclaimed land shall have regard to the Shipwreck Inventory maintained by the Department of Culture, Heritage and the Gaeltacht and be subject to an appropriate level of archaeological assessment.
8. To have regard to national policy documents and guidelines relating to archaeology and to best practice guidance published by the Heritage Council, the Institute of Archaeologists of Ireland and Transport Infrastructure Ireland."

6.155. An archaeological assessment has been prepared by IAC Archaeology. Please refer to this for information regarding the archaeological and historical information in relation to the proposed development on the subject site. Please also refer to the Archaeological, Architectural and Cultural Heritage Chapter of the submitted EIAR.

Car and Bicycle Parking

6.156. The proposed development provides 11 no. car parking spaces. Appendix 5 of the Draft Plan requires that no car parking be provided for office developments within Zone 1. The impacts of this volume of parking on traffic network in the area is therefore minimal. The Draft Plan also states that *"a minimum of 50% of all car parking spaces shall be equipped with fully functional EV Charging Points. The remaining spaces shall be designed to facilitate the relevant infrastructure to accommodate future EV charging. Spaces for EV charging infrastructure shall be clearly detailed in planning applications."* All 1 no. car parking spaces will be capable of facilitating electric vehicle charging.

6.157. The Draft Plan requires that 1 no. bicycle parking space is required for every 75 sq.m of office space, 1 no. per 5 no. staff and 1 no. per 50 sq.m. for a gym, and 1 no. per 5 no. staff and 1 no. per 50 sq.m. of community space. This calculates to a requirement of 334 no. bicycles parking spaces plus additional spaces depending on the number of staff in the arts centre and gym.. The proposed development provides for 412 no. bicycle parking spaces which is in excess of the Draft Development Plan standards.

6.158. In addition to the above, the basement will provide for 12 no. cargo bike spaces, 36 no. scooter spaces and 22 no. motorbike spaces.

6.159. The Transport and Mobility Management Plan prepared by Bakkala Consulting Engineers which was submitted at application stage states the following:

6.160. *"The central location of this development and the numerous accessible public transport options available, in addition to the aspiration to really promote active travel options, has resulted in the development greatly surpassing the minimum requirements of the current development plan."*

Proposed MetroLink

6.161. The Railway Order application for the MetroLink was submitted to An Bord Pleanála on the 30th October 2022. The MetroLink project comprises of the development of a north south urban railway service that will run along the busy corridor between Swords and Sandyford, connecting key destinations including Dublin Airport and the city centre along the 26km route.

6.162. The proposed alignment will run underground c. 160m to the west of the site at Tara Street Station. The proposed MetroLink will connect to the Dart at create the only interchange between the Dart and Metro at this station.

6.163. The proposed MetroLink will cater for 15,000 passages per direction each hour and will have a maximum journey time of 50 minutes in one direction.

6.164. The subject site, due to its location, is situated close to the only planned interchange point between the existing Dart and proposed MetroLink. Therefore, the redevelopment of the site to take account for this major public transport facility is essential to ensure the progression of the city a global city of scale which will encourage more sustainable modes of transport. This is in accordance with national planning policy which encourages the provision of increased building heights and densities in close proximity major public transport nodes such as Tara Street Station.

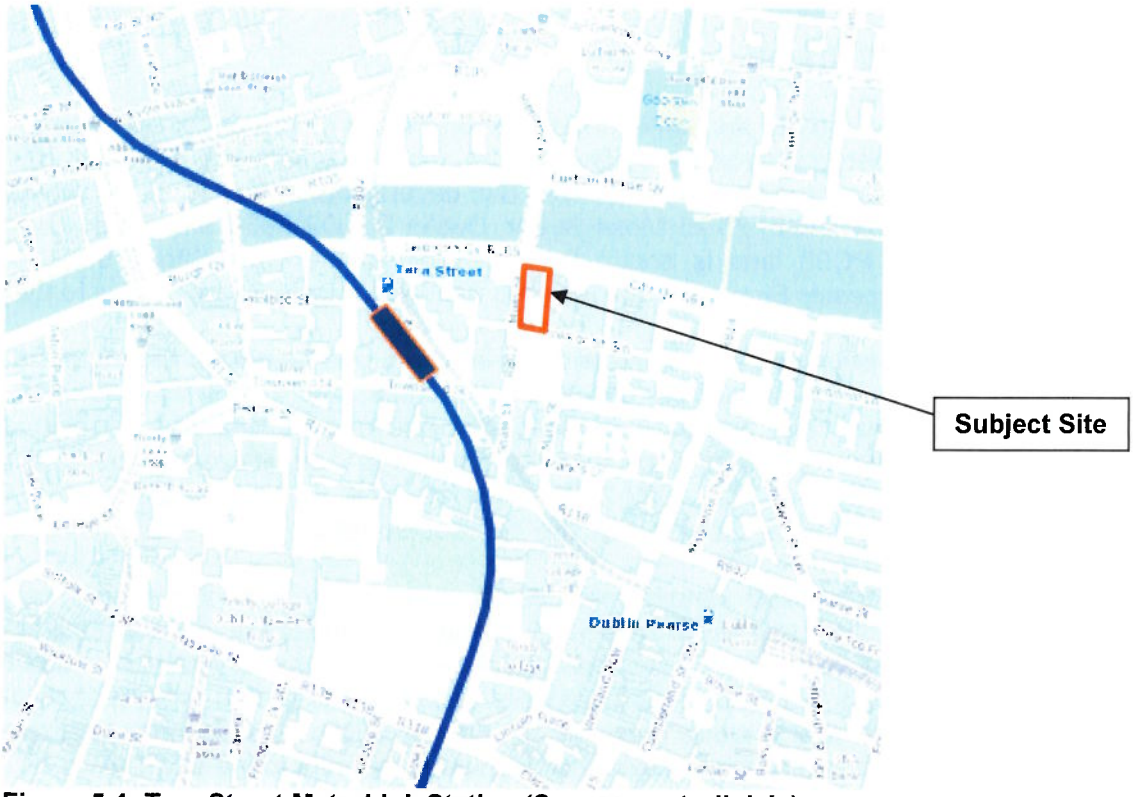

Figure 5.4: Tara Street MetroLink Station (Source: metrolink.ie)

7.0 CONCLUSION

7.1. This 1st party appeal is submitted on behalf of the applicant, Ventaway Limited, against the decision of Dublin City Council dated 11th October 2022 to refuse planning permission for a mixed use development at a site at 1-4 City Quay, Dublin 2, D02 KT32, 23-25 Moss Street, Dublin 2, D02 F854 and 5 City Quay, Dublin 2, D02 PC03, and is bound by City Quay to the north, Moss Street to the west, Gloucester Street to the south and the City Quay National School to the east.

7.2. The proposed development is for a mixed use landmark development comprising office accommodation, arts and cultural uses and a gym with a GFA of over 24 no. storeys. The proposed development has been designed to a high architectural standard in accordance with the policies and objectives of the Draft Dublin City Development Plan 2022-2028 which has recently been adopted by the City Council and will come into effect on the 14th December 2022.

7.3. The proposed development is in accordance with the recent national policy objectives and will provide for significant enhancement to the overall area providing for a number of beneficial outcomes to the city in terms of economic activity, tourism, significant improvements to the public realm, regeneration of a key city centre site in close proximity to a major public transportation interchange (Dart / MetroLink) and will provide for a unique landmark to the city skyline.

7.4. We respectfully request An Bord Pleanála overturn the decision of Dublin City Council and grant permission for the proposed development in accordance with the proper planning and sustainable development of the area and is consistent with the policies and objectives of the statutory planning framework nationally and locally for the subject site.

Yours faithfully,

John Spain Associates,

APPENDIX 1: DECISION OF DUBLIN CITY COUNCIL

Comhairle Cathrach Bhaile Átha Cliath
Dublin City Council

An Roinn Pleanála & Forbairt Maoine
Bloc 4, Urlár 3, Oifigí na Cathrach, An Ché Adhmaid, Baile Átha Cliath 8

Planning & Property Development Department
Dublin City Council, Block 4, Floor 3, Civic Offices, Wood Quay, Dublin 8

T: (01) 222 2288

E:planning@dublincity.ie

12-Oct-2022

RECEIVED

John Spain Associates
39,Fitzwilliam Place
Dublin 2

Application No.	4674/22
Registration Date	17-Aug-2022
Decision Date	11-Oct-2022
Decision Order No	P4910
Location	Site bound by City Quay to the north,Moss Street to the west & Gloucester Street South to the south,Dublin 2. The site includes 1-4 City Quay (D02 PC03),5 City Quay and 23-25 Moss Street (D02 F854)
Proposal	Ten year planning permission for proposed development comprising : Demolition of the existing buildings and structures; • Construction of a building up to 24 storeys in height (108.4 metres above ground) over a double basement including arts centre,offices,gym and ancillary uses; • The arts centre is contained at basement -1,ground and first floor level • The gym is proposed at ground level onto Moss Street; The offices are proposed from ground to 23rd floor (24th storey) with terraces to all elevations; • The double basement provides for 11 car parking spaces and 424 bicycle spaces • The overall gross floor area of the development comprises 35,910 sq.m. including 1,404 sq.m. arts centre,22,587 sq.m. offices and 244 sq.m. gym. All ancillary and associated works plant,and development including temporary construction works,public realm,landscaping,telecommunications infrastructure,utilities connections and infrastructure. An Environmental Impact Assessment Report and Natura Impact Statement have been prepared in respect of the proposed development and have been submitted with the planning application .
Applicant	Ventaway Limited
Application Type	Permission

- **If you have any queries regarding this Decision, please contact the email shown above**

NOTIFICATION OF DECISION TO REFUSE PERMISSION

In pursuance of its functions under the Planning & Development Acts 2000 as amended, Dublin City Council, being the Planning Authority for the City of Dublin has by order dated 11-Oct-2022 decided to REFUSE PERMISSION for the development described above, for the following reason(s).

NOT1ref

Comhairle Cathrach Bhaile Átha Cliath
Dublin City Council

An Roinn Pleanála & Forbairt Maoine
Bloc 4, Urlár 3, Oifigi na Cathrach, An Ché Adhmaid, Baile Átha Cliath 8

Planning & Property Development Department
Dublin City Council, Block 4, Floor 3, Civic Offices, Wood Quay, Dublin 8

T: (01) 222 2288

E:planning@dublincity.ie

REASON(S)

1. Having regard to the prominent and sensitive location of the subject site by reason of its important location within the historic City core fronting onto the River Liffey,its proximity to the Custom House and having regard to Policy SC7 & SC17 of the Dublin City Development Plan 2016-2022 which seeks to protect and enhance the skyline of the inner city,and to ensure that all proposals for mid-rise and taller buildings make a positive contribution to the urban character of the inner city,the proposed development due to its scale,bulk and height would seriously detract from the setting and character of the Custom House and environs. In addition the proposal would have a significant and detrimental visual impact on the River Liffey Conservation Area and important views and vistas,including those views from the Custom House environs,Amiens Street,Mountjoy Square,Gardiner Street Lower,Trinity College Campus and views westward from the River Liffey. Moreover,due to the excessive scale of the proposed building and its proposed location,removed from the permitted buildings at Tara Street Station and Apollo House,the proposed building would stand apart as an overly assertive solo building which would not form part of a coherent cluster. The proposal would therefore have a significant and detrimental visual impact on Dublin's historic skyline,by reason of fragmentation and visual intrusion and would thereby seriously injure the urban character of the City Centre skyline,would create a precedent for similar type undesirable development and would be contrary to the proper planning and sustainable development of the area.

2. Taking into account,the scale of the proposed building and the impacts on the surrounding receiving urban environment,it is considered the scheme is likely to have noticeable and detrimental overbearing and overshadowing impacts on neighbouring property. The Overshadowing Study indicates a proposed building of overwhelming scale,mass and height that will undoubtedly cast a significant shadow and have an overbearing impact on the surrounding environment,including the Church and the public space to the front,the nearby school and associated grounds and public space to the front of the adjacent office building. The proposed development would therefore constitute an overdevelopment of the subject site,would seriously injure the amenities of neighbouring property,would devalue property in the vicinity,create a precedent for similar type undesirable development and would be contrary to the proper planning and sustainable development of the area.

- Any observations or submissions received by the Planning Authority in relation to this application have been noted.

- Appeals must be received by An Bord Pleanala within **FOUR WEEKS** beginning on 11-Oct-2022. (N.B. not the date on which the decision is sent or received). This is a strict statutory time limit and the Board has no discretion to accept late appeals whether they are sent by post or otherwise. The appeal **MUST BE FULLY COMPLETE** in all respects - including the appropriate fee - when lodged. It is not permissible to submit any part of it at a later date, even within the time limit.

Comhairle Cathrach Bhaile Átha Cliath
Dublin City Council

An Roinn Pleanála & Forbairt Maoine
Bloc 4, Urlár 3, Oifigí na Cathrach, An Ché Adhmaid, Baile Átha Cliath 8

Planning & Property Development Department
Dublin City Council, Block 4, Floor 3, Civic Offices, Wood Quay, Dublin 8

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- Refund of Fees submitted with a Planning Application. Provision is made for a partial refund of fees in the case of certain repeat applications submitted within a period of twelve months, where the full standard fee was paid in respect of the first application, and where both applications relate to developments of the same character or description and to the same site. An application for a refund must be made in writing to the Planning Authority and received by them within a period of 8 weeks beginning on the date of the Planning Authority's decision on the second application.

Signed on behalf of the Dublin City Council

For Administrative Officer

Advisory Note:

Please be advised that the development types shown below can now be submitted via our online service

Domestic Extensions including vehicular access, dormers /Velux windows, solar panels

Residential developments up to & including four residential units (houses only)

Developments for a change of use with a floor area of no more than 200 sq. m

Temporary permission (e.g. accommodation for schools)

Outdoor seating / smoking areas.

Shopfronts / signage

NOT1ref

APPENDIX 2: DAYLIGHT & SUNLIGHT ASSESSMENT ADDENDUM PREPARED BY DIGITAL DIMENSIONS

digital dimensions

Addendum Report - for An Bord Pleanála First Party Appeal to DCC Reg. Ref.: 4674/22

Daylight & Sunlight Assessments of a Proposed Mixed Use Development at City Quay, Dublin 2.

Date: 3rd November 2022

Prepared by John Healy
MSc Environmental Design of Buildings

1 Rathmines Road Upper, Dublin 6, D06 Y5P5 tel 01 4965340 email mail@digitaldimensions.ie
web digitaldimensions.ie Digital Dimensions Ltd trading as Digital Dimensions.

1. Introduction

This Addendum Report is provided in support of the applicant's first party appeal to Dublin City Council's decision to refuse permission Reg. Ref.: 4674/22

The proposed development is a commercial office building in Dublin city centre on the south quays on the site of the City Arts Centre.

1.1 Executive Summary

The report assesses the impact of the proposed development for Daylight and Sunlight on the neighbouring buildings. This analysis is carried out based on the drawings of Mahoney Architecture.

Impact on adjacent properties

The report assess the availability of daylight and sunlight to the surrounding buildings. The proposed development is in an inner city location and there are a mixture of buildings uses surrounding the site including residential, Office, Educational and Hotel accommodation. The different building uses have different requirements for daylight. The BRE guidelines sets out criteria for residential buildings and references other buildings that may have a requirement for daylight and sunlight.

The guidelines recommends an assessment of the Vertical Sky Component (VSC) to assess how much light from the sky is blocked by obstructing buildings. The guideline sets numerical values and recommends that if the VSC is greater than 27% then enough skylight should still be reaching the window of the existing standard room with a window of normal dimensions. The guidelines recommends that if the VSC with the new development in place is both less than 27% and less than 0.80 times its former value then occupants of the existing building will notice a reduction.

BR209 Appendix F sets out alternative target VSC values to be used in certain circumstances. One example is "in cases where an existing building has windows that are unusually close to the site boundary and taking more than their fare share of light." This is the case in inner city locations where buildings are built to the boundary with the with the footpath. The guidelines sets out methods to establish the appropriate target VSC level based on the existing obstructing angle in the area. Section 3.4 examines the established and notional mirror image obstructing angle in the local area on Moss Street, Gloucester Street and Princes Street South to determine the VSC level appropriate to the location. The buildings surrounding the location range in increasing heights with the tallest building a Hotel located directly to the south. The most recent developments in the area have an obstructing angle equivalent to a VSC of 7%. The overall average of the sections weighted for the taller adjacent buildings is 9% when rounded and this is considered the relevant VSC for the area.

Social housing on Gloucester Street:
There will be a moderate reduction in the available daylight levels. The apartments have a large continuous balconies overhead with low VSC values. BRE guidelines recommends assessing the existing development without the balconies to determine if the balconies are the main reason for poor daylight levels. The assessment of the VSC values for the proposed development without the balconies indicates that while there would be some reduction in below 80% of the existing value the windows would retain high VSC levels and all windows would retain a VSC in excess of 9%.

Presbytery City Quay:
There will be a reduction in available daylight to the windows to the rear of the Presbytery. The majority of the windows retain a VSC in excess of 9%. Two windows are reduced below the recommended VSC and below 80% of the existing value but they are most likely to bedrooms or ancillary use. Any impact will be minor.
There will be no noticeable reduction in available sunlight to the amenity space to the rear. There will be a minor reduction in the sunlight but it will still maintain 2 hours sunlight over 50% of the amenity space and will not be reduced below 87.7% of its existing value.

Petersons Court:
There would be no noticeable reduction in daylight levels to the houses in Petersons Court and any impact will be negligible.

National School Gloucester Street:
There would be a reduction to the available daylight of the windows on the classrooms to the courtyard side of the school. The windows would retain a VSC in excess of the target 9%. This is consistent with the VSC levels to the classrooms facing Gloucester Street following the recent completion of the Hotel, Social housing scheme and Office block which form a continuous obstruction to daylight levels to all 6 classrooms on this facade. The current proposal would not reduce the light levels any further to this facade and the VSC levels would still exceed the 9% target values to the classrooms facing the courtyard.

The courtyard / outdoor amenity would have minimal reduction to the available sunlight. The assessment of sun on the ground indicates there will be a reduction in sunlight hours but the amenity space will not be reduced below 80% of the current value at 93.7%. A visual inspection of the shadow diagrams indicates that the school yard will be overshadowed by the boundary wall / screen by the time any shadow is cast by the proposed development and there will be no additional overshadowing.

Hotel at junction of Moss Street and Gloucester Street:
There will be a reduction in available to the bedroom windows facing the proposed development on Gloucester Street. The usage of the rooms are short stay accommodation and the residents would not perceive any reduction in daylight levels relating to the existing and developed site due to the short stay nature of the residence. Currently the Hotel rooms face a vacant site with unobstructed access to the sky. The reduction in daylight levels from the current proposed development is similar to the levels of a mirror building on the proposed site of similar scale to the hotel. The VSC results for the massing as indicated appropriate for the site in the Local Area Plan indicate there would be a similar level of reduction the these windows.

Office buildings 1GQ:
There would be a reduction in the daylight levels to some of the windows facing the proposed development on moss street. Offices have a lesser requirement for daylight than residential buildings. The building has large floor plates at 36m deep with a central atrium. They are beyond lighting naturally for the depth of the floor. Offices require consistent light levels and use supplementary automatic lighting to achieve this. There is a reduction in the available daylight to the windows facing the proposed development which is 25% of the total facade of 1GQ. The majority of the windows that would have a reduction in VSC levels will retain a VSC in excess of the 9% target level.

7/8 City Quay:
There will be a reduction to VSC levels to the windows at the rear of the office building adjacent the proposed development on City Quay. The windows would retain a VSC level in excess of the Target 9%.

Grant Thornton:
There would be a reduction in the daylight levels to some of the windows in the surrounding offices. Offices have a lesser requirement for daylight than residential buildings. The floor plates to this buildings is deep at 35m facing the proposed development. The building has large full height glazing but still require supplementary lighting. The majority of the windows facing the proposed development retain a VSC level in excess of the Target 9%. A small number of windows are reduced below this level that are located in an inner corner with the building itself blocking the available light from the sky.

There will be a moderate reduction to the daylight availability to the directly adjacent buildings however the majority of the windows to the buildings facing the proposed development retain a VSC in excess of the target 9%. This is in line with the possible reduction of a building similar in massing to the surrounding building and as set out in the local area plan.

2. Methodology

2 Notes on the use of BRE guidance document BR209 (2022 3rd edition) - Site Layout Planning for Daylight and Sunlight.

Building Research Establishment (BRE) BR209: 2022 "Site Layout Planning for Daylight and Sunlight" (Third edition) was released in June 2022 and supersedes BR209: 2011 (Second edition). It is intended to be used with the interior daylight recommendations of BS EN 17037 British Standard Daylight in Buildings. BR209: 2022 is a comprehensive revision of the 2011 edition of Site Layout Planning for Daylight and Sunlight.

BR209: 2022 sets out that "The guidance here is intended for use in the United Kingdom and in the Republic of Ireland, though recommendations in the Irish Standard IS EN 17037 may vary from those in BS EN17037."

EN 17037 is a unified daylighting standard published by the European Committee for Standardization (CEN) in 2018 (CEN 17037:2018). It is applicable across all countries within the EU including Ireland with the Irish edition IS EN17037:2018. The standard is enacted in Britain under BS EN 17037:2018+A1:2021 with a UK National Annex for regional assessments. The daylight and sunlight assessment methods referenced in BR209: 2022 (third edition) for internal daylight and sunlight provision are common to both the Irish Standard Version and the UK version.

The UK National Annex (NA) provides further recommendations for daylight provision in the UK and Channel Islands. NA.1 states that the UK committee supports the recommendations for daylight in buildings given in BS EN17037:2018. The annex states that the daylight target levels in Clause A.2 may be hard to achieve in buildings in the UK and in particular dwellings in urban areas with significant obstructions or tall trees outside. NA.2 sets out minimum daylight provision to be achieved in UK dwellings.

BR209: 2022 updates guidance in two areas and they are summarised below:

Impact on daylight and sunlight to adjacent buildings.

This is broadly in line with the previous version of the BRE guidelines (2011) and the assessment methods contained within BR 209:2022. The metrics are the same for assessing impact in the areas of Daylight (VSC) and Sunlight (APSH) to adjacent buildings. Sunlight to adjacent amenity space is assessed through the measurement of sunlight availability on the 21st March. Clarity has been provided in a number of areas on the appropriate use of each assessment.

Interior daylight and sunlight to proposed buildings.

The BRE guidelines (2022) recommend the use of BS EN 17037:2018 for assessing the quality of interior spaces in proposed developments, this supersedes BS 8206-2:2008. BS EN 17037 sets out assessment methods for daylight provision and access to sunlight. The use of the Average Daylight Factor (ADF) assessment is no longer recommended. BS EN 17037 is based on the European standard EN 17037 and uses assessment methodologies not directly comparable to BS 8206-2.

The UK National Annex A1 sets out room specific minimum values to be achieved in the UK and Channel Islands. All the rooms achieve the minimum DF factor levels set out in A1 for Bedrooms (DF0.7%), Living Rooms (1%DF) and Kitchens and living spaces containing a Kitchen(1.3%). The Daylight Factor percentage values are derived from minimum room specific illiminance levels set out in NA+1 and the Median External Diffuse Illuminance ($E_{v,d,med}$) for Dublin from Table A.3 EN17037:2018. The illuminance levels and corresponding DF% are given in Table 5 below.

The Daylight and Sunlight assessments included in this addendum report demonstrates the level of compliance with the following documents:

- BR209 2022: Site Layout Planning for Daylight and Sunlight (Third edition).
- BS EN 17037:2018+A1:2021 Daylight in Buildings
- IS EN 17037:2018 Daylight in Buildings

The BRE guidelines (2022) state at the outset that "It is purely advisory and the numerical target values within it may be varied to meet the needs of the development and its location."

This is accordance with the most relevant S.28 Ministerial Guidelines including Section 6.6 of the Sustainable Urban Housing: Design Standards for New Apartments (2020), and Section 3.2 of the Urban Development and Building Heights Guidelines for Planning Authorities (2018). Sustainable Urban Housing: Design Standards for New Apartments, Guidelines for Planning Authorities (2020) states that planning authorities should have regard to quantitative performance approaches to daylight provision outlined in guides like the BRE guide 'Site Layout Planning for Daylight and Sunlight' (2nd edition) or British Standard BS 8206-2: 2008 – 'Lighting for Buildings – Part 2: Code of Practice for Daylighting'. The 2018 Building height Guidelines state that "appropriate and reasonable regard" should be taken of quantitative performance approaches to daylight provision outlined in guides like the Building Research Establishment's 'Site Layout Planning for Daylight and Sunlight' (2nd edition) or BS 8206-2: 2008 – 'Lighting for Buildings – Part 2: Code of Practice for Daylighting. Section 12.3.4.2 of the 2022 Development Plan states that development shall be guided by the principles of Site Layout Planning for Daylight and Sunlight, A guide to good practice (Building Research Establishment

Report, 2011) and/or any updated, or subsequent guidance, in this regard and that a daylight analysis will be required for all proposed developments of 50+ units, or as otherwise required by the Planning Authority. BR209 2022 (3rd edition) and BS EN 17037 supersede and directly replace BR209 2011(second edition) and BS 8206-2:2018 and the assessment has regard to the standards for daylight and sunlight access in buildings (and the methodologies for assessment of same) in BR209 2022 (3rd edition) and BS EN 17037.

That the recommendations of the BRE guidelines (2022) are not suitable for rigid application to all developments in all contexts is of particular importance in the context of national and local policies for the consolidation and densification of urban areas.

2.2 Daylight to existing dwellings

BRE guidance document (2022) "Site layout planning for daylight and sunlight" BS EN 17037 Daylight in Buildings and IS EN 17037 Daylight in Buildings relates to daylight and sunlight to existing buildings. As set out above, this is broadly in line with the previous version of the BRE guidelines (2011) and the assessment methods contained within BR 209:2022. The metrics are the same for assessing impact in the areas of Daylight (VSC) and Sunlight (APSH) to adjacent buildings. Sunlight to adjacent amenity space is assessed through the measurement of sunlight availability on the 21st March. Clarity has been provided in a number of areas on the appropriate use of each assessment.

A proposed development could potentially have a negative effect on the level of daylight that a neighbouring property receives, if the obstructing building is large in relation to their distance from the existing dwelling. To ensure a neighbouring property is not adversely affected, the Vertical Sky Component (also referred to as VSC) is calculated and assessed. VSC can be defined as the amount of skylight that falls on a vertical wall or window.

BRE guidelines (2022) recommend that: *"Loss of light to existing windows need not be assessed if the distance of each part of the new development from the existing window is three or more times its height above the centre of the existing window."* The diffuse light of the existing building may be adversely affected if part of a new building measured in a vertical section perpendicular to the main window wall of an existing building, from the centre of the lowest window, subtends an angle of more than 25° to the horizontal. If a window falls within a 45° angle both in plan and elevation with a new development in place then the window may be affected and should be assessed.

For loss of light the BRE guidelines (2022) recommends calculation of the Vertical Sky Component. This is the ratio of direct sky illuminance falling on the outside window, to the simultaneous horizontal illuminance under an unobstructed sky. The standard CIE Overcast Sky is used and the ratio is usually expressed as a percentage. The maximum value is just under 40% for a completely unobstructed vertical wall. The Vertical Sky Component on a window is a good measure of the amount of daylight entering it.

The BRE guidelines (2022) recommend one of two criteria is met when assessing for the Vertical Sky Component:
a) Where the Vertical Sky Component at the centre of the existing window exceeds 27% with the new development in place then enough sky light should still be reached by the existing window.

b) Where the Vertical Sky Component with the new development in place is both less than 27% and less than 0.8 times its former value, then the area lit by the window is likely to appear more gloomy, and electric light will be needed more of the time.

The BRE guidelines (2022) state that if the VSC is:

- At least 27%, then conventional window design will usually give reasonable results;
- Between 15% and 27%, then special measures (larger windows, changes to room layout) are usually needed to provide adequate daylight;
- Between 5% and 15%, then it is very difficult to prove adequate daylight unless very large windows are used;
- Less than 5%, then it is often impossible to achieve reasonable daylight, even if the whole window wall is glazed

This report assesses the percentage of direct sky illuminance that falls on the centre point of neighbouring windows that could be affected by the proposed development, The Vertical Sky Component (VSC) as per the methodologies contained in the BRE guidelines BR209:2022 (third edition).

2.3 Daylight and Sunlight to existing buildings

The BRE guidelines (2022) recommend assessing the main living rooms and conservatories if they have a window wall facing within 90° of due south. Kitchens and bedrooms are less important but care should be taken not to block too much sun. If the proposed development is fully north of the existing window then sunlight need not be assessed.

The Annual Probable Sunlight Hours (APSH) is used to assess the quantity of sunlight for a given location. This is the total amount of sunshine for a given location on an unobstructed horizontal surface taking cloud cover into account. Statistical data from the Irish Meteorological Service is used to assess the APSH and the Winter Probable Sunlight Hours (taken to fall between the 21st of September and the 21st of March). Table 1 shows the average sunlight hours for each month and the maximum possible without any cloud cover. This gives the factor of possible sunlight hours for each month.

Met Eireann Sunlight Hours Data Set 1981-2010													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Average Sunlight Hours/ Day	1:54	2:45	3:36	5:32	6:44	6:40	5:17	5:13	4:16	3:17	2:10	1:44	
Average Sunlight Hours/ Month	58:54	77:00	111:36	166:00	208:44	200:00	163:47	161:43	128:00	101:47	65:00	53:44	1496.25
Total Available Sunlight Hours	252	265	358	412	488	485	496	451	375	320	250	248	4383
Probable Sunlight Hours Ratio	23.37%	29.06%	31.17%	40.29%	42.77%	41.24%	33.02%	35.86%	34.13%	31.81%	26.00%	21.67%	34.14%

Table 1: Average monthly sunlight hours recorded at Dublin Airport - Data set 1981-2010

The BRE guidelines (2022) recommend that the centre of a window or 1.6m above ground for a door be assessed and receive at least 25% of the APSH and at least 5% during the period of 21st September to 21st March. If the available APSH is less than this then it should not be reduced below 0.8 times its former value or noticeable loss of sunlight may occur.

2.4 Daylight in the Proposed Development.

BR209 (2022) Appendix C sets out interior daylight recommendations. The guideline sets out the that: "BS EN 17037 supersedes BS8206 Part 2 'Code of practice for daylighting' which contained a method of assessment based on Average Daylight Factor, which is now no longer recommended." This is in line with the BRE 2011 Guidelines assessed in the report submitted to ABP with the responses to the third party appeals dated 18/05/21.

BS EN 17037:2018+A1 sets out two methods for assessing daylight provision in proposed buildings. One method is called the **Illuminance method**. This is based on Target illuminances for daylight to be achieved across specified fractions of a reference plane at working plane height (0.85m) for half the daylight hours in a year. The Illuminance Method requires the use of a suitable weather file local climate conditions and takes into account the orientation of the space.

The alternative method is called the **Daylight Factor Method.** This method is based on calculating the daylight factors achieved over specific fractions of a reference plane. The Daylight factor is the illuminance at a point on a reference plane in a space, divided by the illuminance on an unobstructed horizontal surface outdoors. This method uses an overcast sky for calculation and the assessment of the space is orientation independent. BS EN 17037 gives the Median External Diffuse Illuminance ($E_{v,d,med}$) for the capital cities throughout Europe to account for external local illuminance levels.

The UK National Annex (NA) sets out additional minimum room specific Target Daylight Factor values for the UK where the target values in A2 are hard to achieve. NA.2 sets out illuminance values to be exceeded over at least 50% of the points on a reference plane 0.85m above the floor for at least half the daylight hours. The UK committee formed the opinion that the Target Illuminance recommendations in Clause A.2 of BS EN 17037 may not be achievable for some buildings, particularly dwellings. The UK committee believes this could be the case for dwellings with basement rooms or those with significant external obstructions.

BR209 (2022) recommends surface reflectances should represent real conditions and where reflectance values have not been measured or specified default values are set out in Table C4 of the guidance document. The surface reflectances have been specified and are set out in Table 2 below. This table also shows the input values for material used and additional assessment model input parameters.

Input Values for Assessment Model			
Surface Reflectance			
Element	Reflectance	Transmittance	Material Description
Internal walls	80%	0%	White Painted Walls
Internal ceiling	80%	0%	White Painted Ceiling
Floor - light wood	40%	0%	Light wood Flooring
External walls - proposed development	50%	0%	Light yellow Brick
External walls - outside site	50%	0%	CIBSE
External ground	20%	0%	CIBSE
Glass		68%	Triple glazed clear glass
Maintenance Factor for Glass		Assessment Plane	
Suburban Vertical no overhang	0.96	Sensor Grid spacing	0.3m
Suburban Vertical sheltered by balcony or overhang	0.88	Sensor grid inset	0.35m
Framing Factor: Patio Doors	0.77	Minimum inset	0.3m
		Work plane offset	0.85m

Table 2: Surface reflectance parameters and input values for model calculations

The EN17037:2018 Standard was introduced prior to the publication of Sustainable Urban Housing: Design Standards for New Apartments in 2020 which has no reference to the new standard but in any event applies here.

The standard deals exclusively with new developments and does not give guidance or metrics on loss of light or sunlight to existing properties. EN 17037:2018 sets out values for Minimum and Target levels to be achieved with a minimum, medium and high compliance level for each. The guideline recommends that the minimum level should be achieved but does not give guidance on the number of units or fraction within a multiple residential unit development that should achieve these values. Additionally it does not differentiate between room use and weighted targets for rooms which would have a lesser requirement. The UK National annex sets out factors for UK specific settings where it is difficult to achieve natural daylighting.

The compliance calculation is based on an annual, climate-based simulation of interior illuminance distributions, BR209 refers to this method as the Illuminance Method. For each hour of the year, the percentage of the floor area achieving minimum and target illuminance thresholds are measured on a room-by-room basis. Two target types are set with the following criteria:

- Target Illuminance: 300 lux over 50% of floor area for at least 50% of daylight hours.
- Minimum Illuminance: 100 lux over 95% of floor area for at least 50% of daylight hours.

BS EN 17037 gives three levels of recommendation for daylight provision in an interior space: minimum, medium and high. BR209 (2022 3rd edition) Section C3 recommends for compliance with the standard a space should achieve the minimum level.

Daylight hours are defined as the 4380 hours with the most diffuse horizontal illuminance in the weather file. In addition to this baseline (Minimum) requirement, rooms can achieve Medium and High levels of compliance by meeting higher illuminance thresholds, as outlined in the table below:

Target Illuminance from Daylight over at least half the daylight hours		
Level of recommendation	Target illuminance E_T(lx) for half of the assessment grid	Target illuminance E_{TM}(lx) for 95% of the assessment grid
Minimum	300 lux	100 lux
Medium	500 lux	300 lux
High	750 lux	500 lux

Table 3: IS / BS EN 17037:2018 Target Illuminance from Daylight over at least half the daylight hours.

Target Daylight Factor (D) for Dublin		
Level of recommendation	Target daylight factor D for half of the assessment grid	Target daylight factor D for 95% of the assessment grid
Minimum	2%	0.7%
Medium	3.5%	2%
High	5%	3.5%

Table 4: IS / BS EN 17037:2018 Target Daylight Factor (D) for Dublin.

Target Minimum Daylight Factor (D) for Dublin based UN National Annex		
Room Type	Target illuminance E_T(lx) for half of the assessment grid	Target daylight factor D from Table A.3 EN17037 $E_{v,d,med}$ for Dublin -14,900
Bedroom	100	0.7%
Living Room	150	1%
Kitchen	200	1.3%

Table 5: BS EN 17037:2018+A1:2021 Target Illuminance levels and Daylight Factor (D) for Dublin.

2.5 Sunlight to proposed developments

The BRE guidelines (2022) recommend that for large residential developments the overall sunlight potential can be initially assessed by counting the number of windows facing south, east and west and the aim should be to minimise the number of living rooms facing solely north, north-east or north-west unless there is some compensating factor such as an appealing view to the north. The guideline acknowledges in large developments it may not be possible to have every living room facing within 90° of south, it recommends maximising the number of units with a southerly aspect.

The BRE guidelines (2022) states that BS EN 17037 should be used to assess for interior access to direct sunlight. BS EN 17037 sets recommendations for access to sunlight in a range achieving compliance from Minimum to High. In dwellings at least one habitable room, preferably a living room, should achieve the minimum of 1.5 direct hours on a specified date between 1st February and 21st March, with a cloudless sky. This assessment uses the 21st March. The guidelines recommends a time step of 5 minutes or less for the assessment interval. The minimum level to achieve is 1.5, the medium level is 3 hours and the high level is 4 hours direct sunlight.

2.6 Sunlight to gardens and open spaces

For calculations of sunlight analysis it is general practice to use March 21st. The BRE guidelines (2022) states:

"It is recommended that for it to appear adequately sunlit throughout the year, at least half of a garden or amenity area should receive at least two hours of sunlight on 21 March. If as a result of new development an existing garden or amenity area does not meet the above, and the area which can receive two hours of sun on 21 March is less than 0.8 times its former value, then the loss of sunlight is likely to be noticeable. If a detailed calculation cannot be carried out, it is recommended that the centre of the area should receive at least two hours of sunlight on 21 March."

2.7 Calculations of Trees & Hedges

Trees are not usually included in the assessments of impact on neighbouring properties, unless specified otherwise. In relation to the effects of trees and hedges the BRE guidelines (2022) states:

"It is generally more difficult to calculate the effects of trees on daylight because of their irregular shape and because some light will generally penetrate through the crown. Where the effects of a new building on existing buildings nearby is being analysed, it is usual to ignore the effects of existing trees. This is because daylight is at its scarcest and most valuable in winter when most trees will not be in leaf."

BR209:2022 recommends that sometimes trees should be taken into account for the proposed development where the new development is proposed near large existing trees. This needs to be done by modelling a representative of the existing trees. Reflectance and transparency should be taken into account. Table G1 in BR209:2022 gives values for transparencies of tree crowns in summer and winter for deciduous trees, dense evergreen can be assessed as opaque. Table G2 gives general reflectance values for shades of trees.

2.8 BRE Guidelines (2022) Appendix H: Environmental Impact Assessment

The BRE guidelines sets out criteria for classification for assessment of impact where a new development affects a number of existing buildings or open spaces in relation to an Environmental Impact Assessment. The guide does not give a specific range or percentages but sets out parameters set out below.

"Where the loss of skylight or sunlight fully meets the guidelines in this book, the impact is assessed as negligible or minor adverse. Where the loss of light is well within the guidelines, or only a small number of windows or limited area of open space lose light (within the guidelines), a classification of negligible impact is more appropriate. Where the loss of light is only just within the guidelines, and a larger number of windows or open space area are affected, a minor adverse impact would be more appropriate, especially if there is a particularly strong requirement for daylight and sunlight in the affected building or open space.

Where the loss of skylight or sunlight does not meet the guidelines in this book, the impact is assessed as minor, moderate or major adverse. Factors tending towards a minor adverse impact include:

- *only a small number of windows or limited area of open space are affected*
- *the loss of light is only marginally outside the guidelines*
- *an affected room has other sources of skylight or sunlight*
- *the affected building or open space only has a low level requirement for skylight or sunlight*
- *there are particular reasons why an alternative, less stringent, guideline should be applied.*

Factors tending towards a major adverse impact include:

- *a large number of windows or large area of open space are affected*
- *the loss of light is substantially outside the guidelines*
- *all the windows in a particular property are affected*
- *the affected indoor or outdoor spaces have a particularly strong requirement for skylight or sunlight, eg a living room in a dwelling or a children's playground.*

Beneficial impacts occur when there is a significant increase in the amount of skylight and sunlight reaching an existing building where it is required, or in the amount of sunlight reaching an open space.

Beneficial impacts should be worked out using the same principles as adverse impacts. Thus a tiny increase in light would be classified as a negligible impact, not a minor beneficial impact."

A flexible approach should be taken when assessing the impact with daylight and sunlight being one of many factors that influence the environment when planning a new development.

3. Responses to daylight and sunlight issues raised in observations to DCC Reg. Ref.: 4674/22

In the following pages extracts from the observations made to the planning application on issues relating to daylight and sunlight issues are set out and responded to in turn. In some cases extracts from the original report, with the original numbering of figures and tables are included.

Some observations related to communal and public amenity spaces. Figure 1, taken from google maps, shows the location of these areas referred to in the observations below.

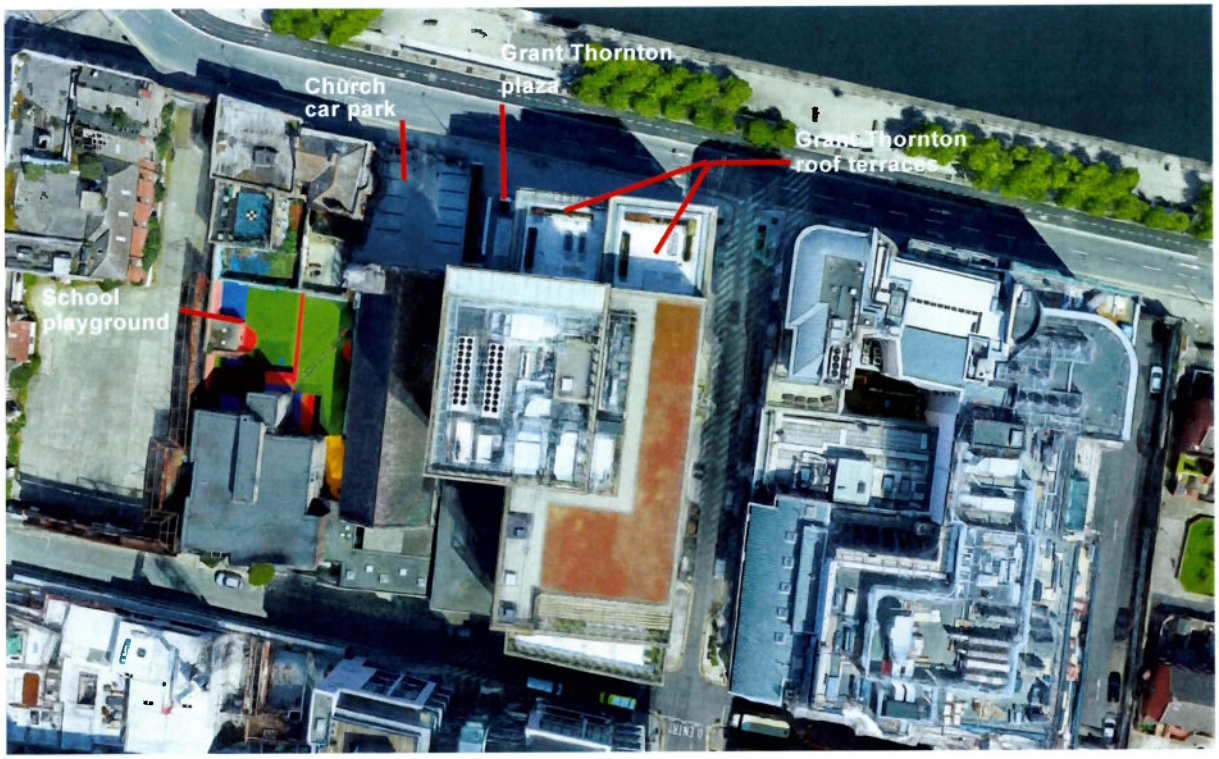


Figure 1: Aerial plan from google maps

3.1 Observation from the Office of Public Works

Extract from the OPW document:

"Custom House Chief Elevation
As the proposed development is located to the south of the Custom House, there is concern that it will throw shadow onto its important river front facade. The Daylight & Sunlight Assessment that accompanies the planning application seems to suggest that this will be the case (pages 44-48 of this report). It is considered that the impact of these shadows, and the consequent loss of sunlight on the facade, has not been analysed from the perspective of the Custom House being a very significant historical building.
The casting of a large shadow over part of the twenty-nine bay facade at any point during the day could result in an interruption in the reading of the elevation as a whole. The impacts on the statutory, and the recesses of this significant elevation, also need to be considered. It should be noted that the Portland stone of this facade is seen at its best in sunlight."

3.1.1 Response

The original daylight and sunlight assessment contained a series of shadow diagrams as 2 hourly intervals on March 21st, June 21st, September 21st and December 21st in Section 5 of the original report. The diagrams indicated there was no shading cast by the proposed development from March to September. The shadow diagram reaches the elevation in December early morning when the sun is low and all buildings will cast long shadows. Shadows are also cast by the Georges Quay development and the planning approved scheme at Tara Street currently under construction which causes shading in late afternoon and evening.

Additional shadow diagrams have been generated on the 21st for the months of October, November, December, January and February for clarity. In addition the diagrams have been generated in perspective view to see the extent of the shadow on the facade on the Custom House.

The diagrams indicate that there will be minimal additional shading to the Custom House elevation from the proposed development and the extent will be limited to early morning from October to February. The shadow cast on the facade at any one time is a small percentage of the facade and transient. The proposed development under construction at Tara Street can be seen to cast a shadow on the Custom House in the afternoon on similar dates during the period from October to February. Additionally the Georges Quay development cast shadows on the Custom House facade in the winter months.

The original and additional shadow diagrams can be view in Section 4.

3.2 Observation from City Quay National School

Extract from the City Quay National School Submission:

> *"It is accepted that the site is located in proximity to good public transport. This factor is the only positive element to the scheme in planning terms. However, there are many other considerations and proximity to public transport cannot be the only determinant of suitability and acceptability. According to the draft City Plan (p 224, Appendix 3) "in general, and in accordance with the Guidelines, a default position of 6 storeys will be promoted in the city centre and within the canal ring subject to site specific characteristics and heritage/environmental considerations. Where a development site abuts a lower density development, appropriate transition of scale and separation distances must be provided in order to protect existing amenities". In this instance the proposed development abuts a significantly lower density and very sensitive school site. There is no attempt to secure an appropriate transition in scale and no separation distance. No attempt has been made to protect the amenities of the school building or school yard/ playground to the rear. The development will detract from the already diminished availability of sunlight and daylight to both the school building and the school yard. In addition, the presence of such a high tower in very close proximity to the school may introduce micro climate effects such as downdraught's. "*

3.2.1 Response

There is currently a high wall and metal screen over to the boundary between the National School and the proposed development site. The assessment of the sunlight availability to the amenity space to the courtyard of the National School is in line with the recommendations and is not reduced below 80% of its existing value on the 21st March. Additionally it can be seen from the shadow diagrams that there will be no shadow cast from the proposed development before 3.00pm which is outside of the school operational hours.

The current levels of sunlight availability to the school courtyard are below the recommended levels because the courtyard is limited in size and self shadowed by the school building to the south. The proposed level of sunlight to the amenity space remains at 93.7% of its existing level which is the same as a development in line with those demonstrated in the LAP as can be seen in Section 4.1 of the original daylight and sunlight assessment and repeated below. Additionally it can be seen that any shading from the proposed development will not occur until after 3pm in the afternoon which is outside the operational hours of the Primary National School.

Extract from the original daylight and sunlight assessment page 30: ----------

4.1 Private amenity space to neighbouring properties.

The private amenity space to the neighbouring properties were assessed for the availability of sunlight on the ground. The existing, the massing in the Local Area Plan and the proposed scenarios were modelled. The radiation maps are shown in Figure 11, the results can be seen in Table 15 below.

Sunlight on the Ground - Adjacent Residences							
Location ID	Use	% Area receiving 2 hours sunlight on 21st March			Ratio - Recommended > 80%		Meets criteria of >50% area Or if <50% but >80% Existing Value
		Existing	LAP	Proposed	Ex : LAP	Ex : Pro	
L1	School	31.6	29.6	29.6	93.67%	93.7%	Yes
L2	Presbytery	67.7	59.4	59.4	87.74%	87.7%	Yes

Table 15: Calculation of Sun on the Ground to Adjacent Amenity Spaces.

End of Extract ----------

The proposed development meets the targets set out in BR209:2011 (second edition) which was current at the time of submission. The proposed development also meets the targets set out in the current version of BR209:2022 (third edition).

The reduction in available daylight to the classrooms will be limited to 2 classrooms to the north elevation. The reduction is similar to that of the building scale set out in the LAP. The three recent developments along Gloucester Street South form a considerable continuous obstruction with no scaling back at the upper stories to the daylight and sunlight of the 6 classrooms of the south.

The school has reduced the availability of daylight and sunlight to the windows of the classrooms itself by placing screen in front of the windows and planting trees close to the elevation as can be seen in the photos from .

There will be no loss of sunlight because the proposed development does not extend due south of the south facing windows. The windows to the courtyard are north facing and do not currently receive any sunlight.

Extract from the original daylight and sunlight assessment page 16: ----------

Figure 9: Photograph of National School Gloucester Street indicating screening and trees

Figure 10: Photograph of National School Gloucester Street indicating screening and rear of school.

The proposed development will not reduce the available daylight levels on Gloucester Street. It can be seen from the photographs that the school has screening to the majority of the windows on Gloucester Street and trees in close proximity resulting in the requirement for supplementary lighting. The photographs taken in the afternoon outside the school hours indicate that a number of the classrooms are using supplementary lighting on both sides of the building.

Additionally it can be seen in image 4 that the recent development of apartments and hotel on Gloucester Street create a large continuous obstruction to the south of the school which would have caused a substantial reduction in available daylight to all 6 classrooms facing Gloucester Street.

(For clarity the buildings to the south in Gloucester Street have been outlines in red in Photograph 4. The photographs were taken on the 20th June 2022 at circa 5:30pm.)

End of Extract ----------

3.3 Observation from the Archdiocese of Dublin

Extract from the Archdiocese of Dublin submission:

"The four properties in the immediate vicinity owned by the St Laurence O'Toole Diocesan Trust are as follows:

- *No 7/8 City Quay, Dublin 2, 002 Y663 (former creche building):*
- *Presbytery 1 City Quay, Dublin 2, 002 HE08, (Protected Structure);*
- *Church of the Immaculate Heart of Mary, City Quay, Dublin 2, 002 A090 (Protected Structure);*
- *City Quay National School, Gloucester Street South, Dublin 2, 002 H277.*

The Church, Presbytery, School and the former creche building, recently a Covid 19 Centre and previously a community centre and boxing club, have been in use since the mid-19th Century and form an important part of the local community as centres for education, worship and gathering. The proximity of such a large-scale structure immediately adjacent to these low-scale community facilities will have a detrimental effect on their present use. Unfortunately, there has been no involvement by the developer with the Local Community to date.

Loss of Light:
The Daylight and Sunlight Analysis included with the application clearly demonstrate that the four properties, Church, Presbytery, School and former Creche building will be adversely affected by the construction of a 24 storey office block to the west and south. The report suggests that the tower block will have no worse an impact on the adjacent buildings than the height proposed in the LAP, thus acknowledging that it will impact on the use of the adjacent properties. Both the Church and the School have suffered loss of light with the recent construction of buildings in the vicinity. This loss will be further compounded if a 24 storey block is constructed to the south and west of the properties."

3.3.1 Response

The daylight and sunlight report assessed the sunlight to the surrounding amenity spaces of the properties owned by the St Laurence O'Toole Diocesan Trust. The Archdioceses notes the property at 7/8 City Quay is no longer in use as a Creche and is currently in use as a Covid 19 Centre. This operation is a commercial entity and does not have a specific requirement for external amenity space.

The assessment of the daylight to the windows indicates that there is a reduction to the available daylight to some of the windows but this is broadly in line with a massing as indicated in the LAP. Any development of a similar height to that of the recently constructed buildings to the south and the Grant Thornton Building to the East will lead to a reduction and the results indicate the main reduction is a result of the obstruction from the lower floors of the proposed development and not the massing above 30m.

The site is in an inner city location and zoned for development. Currently the site is vacant with a boundary wall which affords the neighbouring properties an unobstructed access to the sky from the direction of the site. The buildings at 7/8 City Quay and 1 City Quay have the benefit of river front location and an unobstructed access to daylight to the rooms facing the north. The presbytery has a main elevations onto the north and east with larger window than the window to the south indicating that the prominent room are most likely facing away from the proposed development with rooms of lesser importance and ancillary / circulation to the south.

There is no amenity space to the Church and the area to the north of the Church is set out in car parking spaces as can be seen in Figure 3 which does not have a requirement for sunlight. Additionally the location of the church is the main source of shading to this space.

The response to the National School is set out in Section 3.2 above.

3.4 Observation from Grant Thornton

Extract from Grant Thornton submission:

"As an adjoining occupier and major employer, we have identified several concerns with the proposal. While we welcome the redevelopment of the site, we must object to the proposal on the following grounds:

- *Overshadowing Public Plaza*
- *Overshadowing of External Terraces*
- *Overshadowing and Overbearing Impact on City Quay National School*
- *Daylight Impact on Surrounding Windows*

We occupy the entire office floorspace at 13-18 City Quay.... We also sublet the two ground floor commercial units on City Quay, and therefore, must also act to protect the interests of existing and future tenants of these premises.

The applicants own analysis confirm, that the proposed development will overshadow the public plaza from early afternoon. We are very concerned that this will be detrimental to the attractiveness of this space. Not only would this contravene an objective of the Georges Quay LAP, but It would also adversely affect our tenant 'as one'.

Cafe / restaurant operators in the City Centre continue to recover from the impact of CV19 and the staggered return of office workers. One of the ground floor premises at 13- 18 City has been vacant since December 2019 (former 1925 Restaurant). A significant reduction in the attractiveness of the pubic plaza would have corresponding impact on the number of visitors to the space. We are very concerned that this impact and the contravention with the LAP objective, has not been adequately considered in the proposed building design.

Furthermore, we note that the applicant's assessment of 'sunlight on the ground' does not consider this public space. Paragraph 5.2 of Appendix 16 of the Draft City Development Plan '2022 2028) requires proposals to assess their impact on sunlight on Ground in all surrounding amenity spaces·: Should the Council seek 'Further Information' on the application, we request that the applicant's Daylight and Sunlight assessment is updated to include this analysis.

Overshadowing of External Terraces

Similarly, the design of 13-18 City Quay was dictated by the LAP. Figure 31 of the LAP showed external roof terraces, with landscaping for the occupiers of the building. 13 - 18 City Quay was constructed with two external terraces on the north side of the building overlooking the River Liffey and Immaculate Heart of Mary Church.

We regularly utilise this external space for staff amenity and client events. The terraces receive ample sunlight from late afternoon and across the evening during the Summer. These terraces add to the vibrancy of the Liffey Quays by encouraging regular usage.

The applicants own Daylight and Sunlight assessment confirms that the external terraces will start to be overshadowed by 18.00. The proposal will result in significant adverse impact on the attractiveness and function of the external terraces. It would also contravene the design objectiveness of the LAP.

Overshadowing and Overbearing Impact on City Quay National School.

We are also concerned regarding the impact of the proposal on our neighbours, the City Quay National School. A letter of objection, prepared by the Board of Management, highlights several strong concerns with the proposal. We urge the City Council to give full weight and due consideration to the concerns raised by the National School.

In our view the proposed design will have an overbearing impact on the National School and its playground / external play space in particular. We also believe that the applicant's impact analysis on the school's playground is misleading. The Daylight & Sunlight assessment includes the images in Figure 5 below. This attempts to make the case that the impact of the proposal is similar to that envisaged in the LAP.

This is clearly misleading and does not take account of the additional design guidance provided by the LAP. The images in Figure 6 below are provided in the LAP and clearly show how a new building on the application site was intended to protect the amenity of the National School. It shows a significant setback adjoining the playground to reduce overbearing, overlooking and ensure adequate sunlight on the ground.

The analysis contained in the applicant's Daylight and Sunlight Assessment appears to model the LAP scheme without any setback and at a height of 36 metres. This overstates the impact of the LAP designed building and therefore, understates the additional impact compared with the proposed development.

The applicant also states that sun on the ground in the playground will not be reduced below 80% of the current value at 93.7%. We would also ask the Council to consider whether this level of impact can be considered acceptable on a school playground. The
BRE Guidelines 2022 states that factors tending towards a major adverse impact include
"the affected indoor or outdoor spaces have a particularly strong requirement for skylight or sunlight, e.g. a living room in a dwelling or a children's playground".

Daylight Impact on Adjoining Premises
The excessive height and massing of the proposed development would also generate adverse daylight impact on existing windows in our building and the National School.

The analysis contained in the applicant's Daylight and Sunlight assessment confirms that 80 out of 82 GT windows facing the development would not meet the target of 80% pre-development VSC. Most windows fall between 50% - 60% of the pre development levels.

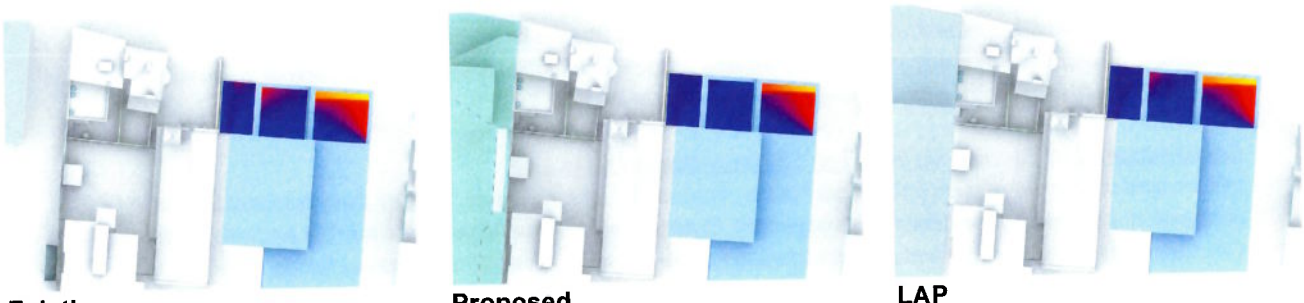
For the National School, nine of it's 24 windows, (i.e. 38%) would not meet the target of 80% pre-development VSC. This includes six windows where the VSC levels will be reduced to zero."

3.4.1 Response: Overshadowing of Public Plaza and Communal external terraces.

Additional assessment of the sun on the ground as set out in BR209:2022 (third edition) was carried out in response to the observation by Grant Thornton. The amenity spaces to the neighbouring properties were assessed for the availability of sunlight on the ground. The existing, the massing in the Local Area Plan and the proposed scenarios were modelled. The radiation maps are shown in Figure 2, the results can be seen in Table 6 below.

Sunlight on the Ground - Adjacent Residences							
Location ID	Use	% Area receiving 2 hours sunlight on 21st March			Ratio - Recommended > 80%		Meets criteria of >50% area Or if <50% but >80% Existing Value
		Existing	LAP	Proposed	Ex : LAP	Ex : Pro	
L1	Public Plaza	0%	0%	0%	-	-	Yes
L2	Lower Terrace	6.2%	1.4%	0%	22.5%	0%	No
L3	Upper Terrace	51.2%	50.0%	49.2%	97.6%	96.0%	Yes

Table 6: Calculation of Sun on the Ground to Adjacent Amenity Spaces.



Existing **Proposed** **LAP**

Figure 2: Sun on the ground assessment

There is very little sun light to the amenity space of the Public Plaza at ground level and the space does not achieve 2 hours sunlight over 50% of the amenity space. The shadow diagrams indicate that there is very limited sunlight to this space and it is self shadowed by the building at 12-18 City Quay and the Church for the majority of time and any cafe or restaurant would not be relying on a sunlit terrace for their day to day business as there would be no direct sunlight for at least 6-7 months of the year. It can be seen in Figure 3, a sample image from google street view, taken in August that the area directly outside the cafe and the seating area along the boundary wall are in shade from the church. The addition of a large increase in office workers and tourists to the gallery less than 50m away would be considered desirable to any cafe or restaurant.

The lower terrace does not achieve 2 hours sunlight over 50% of the amenity space. While there will be some additional reduction the existing level it is so low that any reduction will seem extreme as a ratio. In reality the terrace is to the north of the building shadowed by the upper stories.

The amenity space at the upper terrace achieves 2 hours sunlight over 50% of the amenity space. There will be a small reduction in the available sunlight below 50% but the space will retain in excess of 80% of its existing sunlight at 96%. It should be noted that t[illegible]unnier sections of the terrace are to the west away from the proposed development and are not affected.

While some sunlight will be achieved on the ground and lower terrace this will only happen at the height of the summer when the sun is at its highest in the sky. It is evident from the shadow diagrams and the assessment of sun on the ground that while there will be minor additional shadowing caused by the proposed development this meets the recommendations of BR209:2022 (third edition) and that the overwhelming majority of shading to the amenity spaces at 13-18 City Quay is caused by the building itself and the church to the west.

The example given for temporal use of the terrace sets a very narrow time frame for summer evening and does not make reference to the fact that there is no shading cause by the proposed development until late in the evening outside of normal office hours throughout the year.

Figure 3: Image taken from google street view.

3.4.2 Response: Daylight impact on adjoining properties

An assessment was carried out for the daylight availability to the windows on the facade facing the proposed development which is mostly glazing. The assessment of the VSC is more appropriate to assessing domestic dwellings than offices which have deep floor plates that rely on supplementary artificial lighting. It can be seen in the sample from google street view above in Figure 3 that all the lights are on up to the perimeter of the building at the brightest time of the day in the summer time confirming that the office building has a lesser requirement for daylight and a reduction in available daylight would not be significant. Additionally the floor plate of the building is 34m across and natural light levels drop off after 6m to the point where supplementary lighting would be need for office based tasks.

3.4.3 Response: Overshadowing and Overbearing Impact on City Quay National School

The daylight and sunlight assessment response to the National School is set out in Section 3.2 above.

There will be no additional shadows cast to the amenity space during the school operational hours. Any additional shading will be limited because the existing boundary condition already casts a substantial shadow to the amenity space at the time the proposed development begins to overshadow.

The reduction in daylight to the school is in line with the alternative established VSC targets based on established building heights and adjacencies.

3.5 Observation from Sheehan Planning for Irish Life Assurance

Extract from the Sheehan Planning for Irish Life Assurance submission:

> *"The sunlight and daylight report submitted as part of the planning application refers to impacts on No. 1 Georges Quay as follows:*
> *'There would be a reduction in the daylight levels to some of the windows facing the proposed development on Moss Street. Offices have a lesser requirement for daylight than residential buildings. The building has large floor plates at 36m deep with a central atrium. They are beyond lighting naturally for the depth of the floor. Offices require consist light levels and use supplementary automatic lighting to achieve this. There is a reduction in the available daylight to the windows facing the proposed development which is 25% of the total facade of 1GQ. The majority of the windows that would have a reduction in VSC levels will retain a VSC in excess of the 9% target level."*
> *We ask the Planning Authority to consider whether the '9% target level' is appropriate and to consider the wider issue of whether it is appropriate to allow developments of this scale, despite their impacts on their context.*
>
> *Irish Life Assurance pie respectfully asks the Planning Authority to have regard to the impacts of overbearing and loss of light to the Moss Street flank of their office complex at No. 1 George's Quay."*

3.5.1 Response

The loss to daylight is limited to a small percentage of the facade to moss street where the majority of the window to 1GQ are small and would be insufficient to provide enough daylight for office task based activities. The small window size to Moss street with the deep floor plate means the use of supplementary lighting will be required in the office space currently and the effects of any additional reduction in daylight from the 24 storey proposal above the 8-11 Story massing in the LAP would be minor adverse.

3.6 Comment from the planning authority

Extract from the planning report:

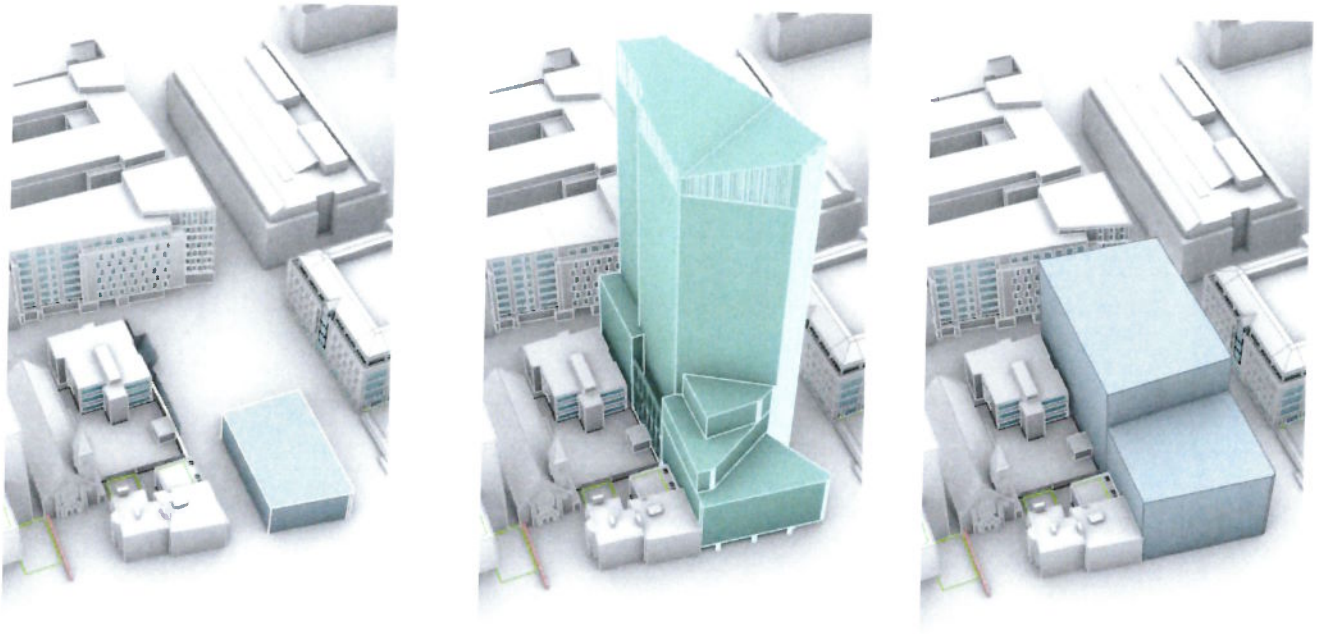
> *"Ideally, an exercise should be completed by the Applicant which compared the existing VSC experienced by the surrounding buildings with the impact of a more modest building on the subject site, for example a 9/10 storey building or a 12/13 building. This exercise would possibly give greater clarity regarding the daylight/sunlight impacts of different scales of proposed building on adjoining and nearby property."*

3.6.1 Response

The assessment of loss of daylight to the adjacent buildings was carried out in Section 3 of the original daylight and sunlight assessment. The assessment of the Vertical Sky Component (VSC) was carried out for the existing and proposed conditions for each building assessed. In the original report, an additional assessment was carried out for a building with a height of 24m to the northern waterside area of the site and 36m to the southern end of the site, 8/11 storeys. The additional assessment was set out in the table for each building as supplementary.

A comparison of the ratio of the existing condition to the proposed 24 storey building and the existing condition to the 8/11 storey building indicates a similar reduction from the 8/11 story building. The majority of the reduction in available daylight to any of the surrounding buildings is caused by the massing of the building at the lower level and the upper floors contribute a marginal additional reduction in some cases.

The assessment of the VSC to the surrounding buildings from the original report is included on the following pages for clarity.



Existing **Proposed** **LAP**

Figure 4: Image of assessment mode for existing, proposed 24 storey and 8/11 Storey buildings

Vertical Sky Component

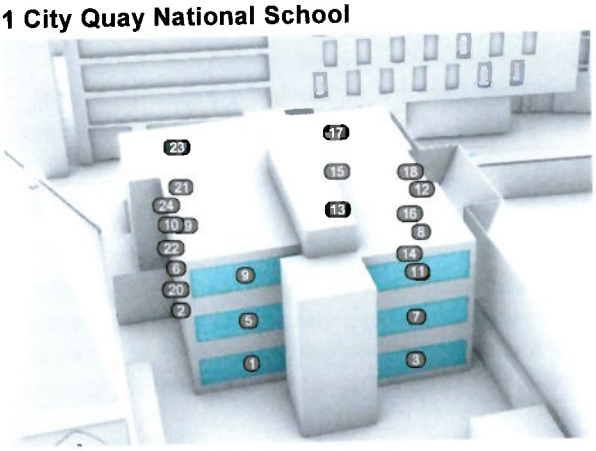
Window ID	Vertical Sky Component - Alternative value for area based on sections and table F1 VSC > 9% Ratio - Recommended > 80% if less than 9% VSC					Notes	Supplementary Information Massing of hypothetical building on proposed site based on the Local Area Plan			Overall compliance
	VSC: Existing	VSC: Proposed	Ratio: Existing: Proposed	Meets Criteria=Ratio >80% existing	Meets Criteria = VSC>9%		Local Area Plan	Ratio: Existing: Local Area Plan	Meets Criteria	
1	14.93	14.82	99.3%	Y	Y		14.88	99.7%	Y	Y

Existing to proposed 24 Storey development **Existing to 8/10(24m/36m) Storey development**

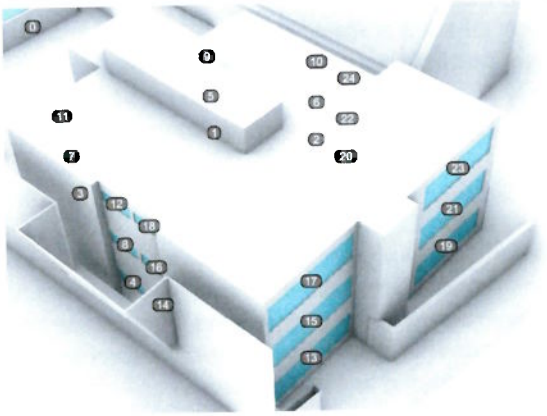
Figure 5: Extract from heading to VSC assessment table

Extract from the original daylight and sunlight assessment page 15, 17 - 29: ----------

3.5.1 City Quay National School



North Elevation



South & West Elevations

Figure 8: View of model of City Quay National School, locating of windows assessed for VSC.

Vertical Sky Component

Window ID	Vertical Sky Component - Alternative value for area based on sections and table F1 VSC > 9% Ratio - Recommended > 80% if less than 9% VSC						Supplementary Information Massing of hypothetical building on proposed site based on the Local Area Plan			Overall compliance
	VSC: Existing	VSC: Proposed	Ratio: Existing: Proposed	Meets Criteria=Ratio >80% existing	Meets Criteria = VSC>9%	Notes	Local Area Plan	Ratio: Existing: Local Area Plan	Meets Criteria	
1	14.93	14.82	99.3%	Y	Y		14.88	99.7%	Y	Y
2	9.51	9.47	99.6%	Y	Y		9.48	99.7%	Y	Y
3	20.80	14.08	67.7%	N	Y		13.74	66.1%	N	Y
4	5.91	0.00	0.0%	N	N	*1	0.00	0.0%	N	N
5	18.03	17.59	97.6%	Y	Y		17.99	99.8%	Y	Y
6	13.67	13.67	100.0%	Y	Y		13.67	100.0%	Y	Y
7	26.57	16.37	61.6%	N	Y		15.92	59.9%	N	Y
8	15.82	0.00	0.0%	N	N	*1	0.00	0.0%	N	N
9	25.10	21.26	84.7%	Y	Y		22.01	87.7%	Y	Y
10	18.05	18.03	99.9%	Y	Y		18.00	99.7%	Y	Y
11	33.43	19.41	58.1%	N	Y		18.88	56.5%	N	Y
12	28.56	0.00	0.0%	N	N	*1	0.00	0.0%	N	N
13	7.29	7.10	97.4%	Y	N		6.97	95.6%	Y	Y
14	6.10	0.00	0.0%	N	N	*1	0.00	0.0%	N	N
15	9.71	9.27	95.5%	Y	Y		9.06	93.3%	Y	Y
16	17.25	0.00	0.0%	N	N	*1	0.00	0.0%	N	N
17	13.71	12.73	92.9%	Y	Y		12.59	91.8%	Y	Y
18	28.85	0.01	0.0%	N	N	*1	0.00	0.0%	N	N
19	9.63	9.63	100.0%	Y	Y		9.63	100.0%	Y	Y
20	9.73	9.61	98.8%	Y	Y		9.61	98.8%	Y	Y
21	12.02	11.99	99.8%	Y	Y		11.99	99.8%	Y	Y
22	13.03	12.98	99.6%	Y	Y		12.99	99.7%	Y	Y
23	15.10	15.10	100.0%	Y	Y		15.10	100.0%	Y	Y
24	18.67	18.67	100.0%	Y	Y		18.67	100.0%	Y	Y

* The BRE guidelines recommend where there are more than one window to a room the cumulative average can used.

Table 6: Vertical sky component - City Quay National School

The City Quay national school is directly on the boundary with the proposed development. There are a number of high level windows to the national school directly on the boundary line facing the proposed development. These windows are small high level windows and are either a second window to the class room or a window to ancillary facilities.

The windows to the class rooms at 3, 7 and 11 are below 80% of the current value. The main windows to all the classrooms retain a VSC values in excess of the 9% target VSC.

3.5.2 Presbytery, City Quay

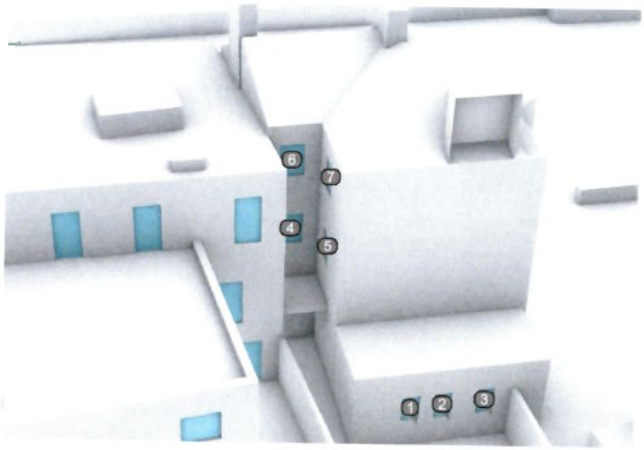


Figure 11: View of model of Presbytery, City Quay, locating of windows assessed for VSC.

Vertical Sky Component											
	Vertical Sky Component - Alternative value for area based on sections and table F1 VSC > 9% Ratio - Recommended > 80% if less than 9% VSC						Supplementary Information Massing of hypothetical building on proposed site based on the Local Area Plan			
Window ID	VSC: Existing	VSC: Proposed	Ratio: Existing: Proposed	Meets Criteria=Ratio >80% existing	Meets Criteria = VSC>9%	Notes	Local Area Plan	Ration: Existing: Local Area Plan	Meets Criteria	Overall compliance
1	22.64	13.86	61.2%	N	Y		15.24	67.3%	N	Y
2	22.49	13.59	60.4%	N	Y		15.06	67.0%	N	Y
3	21.76	12.95	59.5%	N	Y		14.59	67.0%	N	Y
4	9.18	8.36	91.1%	Y	N		8.44	91.9%	Y	Y
5	8.85	1.53	17.3%	N	N		3.07	34.7%	N	N
6	18.65	12.98	69.6%	N	Y		15.77	84.6%	Y	Y
7	22.15	6.92	31.2%	N	N		10.86	49.0%	N	N

* The BRE guidelines recommend where there are more than one window to a room the cumulative average can used.

Table 7: Vertical sky component - Presbytery, City Quay

There is a reduction in the VSC values below 80% of the current value to some of the window. The majority of the windows retain a VSC value in excess of the 9% Target value. There are 2 windows that are below the VSC target of and less than 80% of the current value. The windows are on the gable and face a gable wall of the adjacent building. The room use is not know but they are likely to be windows to rooms with ancillary use and not main living rooms.

3.5.3 Commercial Building, City Quay

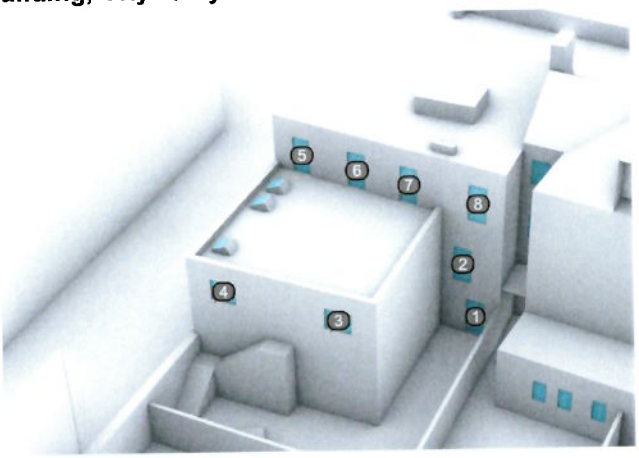


Figure 13: Rear of Commercial Building, City Quay, locating of windows assessed for VSC.

Vertical Sky Component										
	Vertical Sky Component - Alternative value for area based on sections and table F1 VSC > 9% Ratio - Recommended > 80% if less than 9% VSC						Supplementary Information - Massing of hypothetical building on proposed site based on the Local Area Plan			
Window ID	VSC: Existing	VSC: Proposed	Ratio: Existing: Proposed	Meets Criteria=Ratio >80% existing	Meets Criteria = VSC>9%	Notes	Local Area Plan	Ratio: Existing: Local Area Plan	Meets Criteria	Overall compliance
1	13.74	12.76	93%	Y	Y		13.61	99.1%	Y	Y
2	15.81	14.36	91%	Y	Y		15.64	98.9%	Y	Y
3	27.33	16.15	59%	N	Y		16.40	60.0%	N	Y
4	28.29	14.90	53%	N	Y		14.28	50.5%	N	Y
5	30.43	14.49	48%	N	Y		13.86	45.5%	N	Y
6	30.08	15.27	51%	N	Y		15.57	51.8%	N	Y
7	29.73	15.82	53%	N	Y		16.98	57.1%	N	Y
8	29.02	16.26	56%	N	Y		18.27	63.0%	N	Y

* The BRE guidelines recommend where there are more than one window to a room the cumulative average can used.

Table 8: Vertical sky component - Commercial Building, No. 7-8 City Quay

There is a reduction in the VSC values but all the windows retain a VSC value in excess of the 9% Target value. The building use is office which does not have a specific requirement for daylight levels and will most likely use artificial light.

3.5.4 Social Housing Gloucester Street

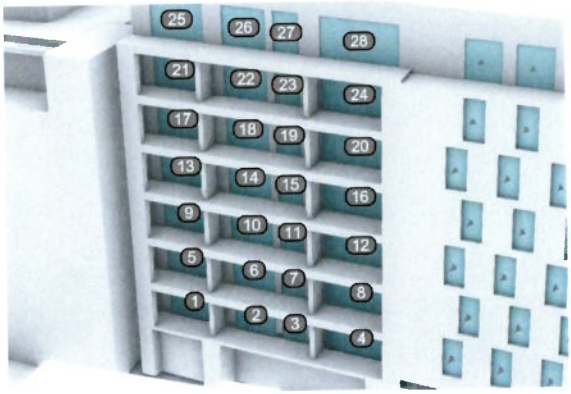


Figure 12: View of model of Social Housing Gloucester Street, locating of windows assessed for VSC.

Vertical Sky Component

Window ID	Vertical Sky Component - Alternative value for area based on sections and table F1 VSC > 9% Ratio - Recommended > 80% if less than 9% VSC						Supplementary Information Massing of hypothetical building on proposed site based on the Local Area Plan				Assessment of existing apartments without balconies			Overall compliance
	VSC: Existing	VSC: Proposed	Ratio: Existing: Proposed	Meets Criteria=Ratio >80% existing	Meets Criteria = VSC>9%	Notes	Local Area Plan	Ratio: Existing: Local Area Plan	Meets Criteria	VSC: Existing no balcony to Apt	VSC: Proposed no balcony to Apt	Ratio: Existing: Proposed no balcony	Meets Criteria = VSC>9%	
1	5.32	3.97	74.6%	N	N		3.86	72.6%	N	22.29	15.49	69.5%	Y	Y*
2	5.84	3.80	65.1%	N	N		3.67	62.8%	N	25.06	17.51	69.9%	Y	Y*
3	5.44	3.71	68.2%	N	N		3.55	65.3%	N	25.54	17.49	68.5%	Y	Y*
4	6.11	3.64	59.6%	N	N		3.43	56.1%	N	23.08	17.01	73.7%	Y	Y*
5	7.40	5.19	70.1%	N	N		5.12	69.2%	N	24.98	17.23	69.0%	Y	Y*
6	8.54	5.42	63.5%	N	N		5.29	61.9%	N	28.46	19.85	69.7%	Y	Y*
7	8.18	5.47	66.9%	N	N		5.34	65.3%	N	29.15	19.97	68.5%	Y	Y*
8	8.81	5.49	62.3%	N	N		5.29	60.0%	N	26.55	19.46	73.3%	Y	Y*
9	8.57	6.04	70.5%	N	N		6.01	70.1%	N	26.52	18.36	69.2%	Y	Y*
10	9.83	6.25	63.6%	N	N		6.17	62.8%	N	30.45	21.37	70.2%	Y	Y*
11	9.40	6.33	67.3%	N	N		6.24	66.4%	N	31.09	21.48	69.1%	Y	Y*
12	9.95	6.39	64.2%	N	N		6.19	62.2%	N	28.17	20.78	73.8%	Y	Y*
13	9.41	6.90	73.3%	N	N		7.00	74.4%	N	27.55	19.47	70.7%	Y	Y*
14	10.78	7.16	66.4%	N	N		7.20	66.8%	N	31.87	22.92	71.9%	Y	Y*
15	10.23	7.23	70.7%	N	N		7.19	70.3%	N	32.45	22.91	70.6%	Y	Y
16	10.75	7.20	67.0%	N	N		7.05	65.6%	N	29.34	21.99	74.9%	Y	Y*
17	10.14	7.69	75.8%	N	N		7.98	78.7%	N	28.83	20.76	72.0%	Y	Y*
18	11.68	8.05	68.9%	N	N		8.23	70.5%	N	33.49	24.59	73.4%	Y	Y*
19	11.12	8.18	73.6%	N	N		8.24	74.1%	N	33.88	24.43	72.1%	Y	Y*
20	11.48	7.96	69.3%	N	N		7.90	68.8%	N	30.78	23.24	75.5%	Y	Y*
21	10.84	8.45	78.0%	N	N		8.99	82.9%	Y	32.13	24.17	75.2%	Y	Y*
22	12.51	8.87	70.9%	N	N		9.32	74.5%	N	35.19	26.38	75.0%	Y	Y*
23	12.02	9.13	76.0%	N	Y		9.49	79.0%	N	35.42	26.00	73.4%	Y	Y
24	12.13	8.67	71.5%	N	N		8.78	72.4%	N	33.78	25.11	74.3%	Y	Y*
25	36.15	28.36	78.5%	N	Y		33.60	92.9%	Y	36.16	28.42	78.6%	Y	Y
26	36.46	27.78	76.2%	N	Y		33.18	91.0%	Y	36.43	27.79	76.3%	Y	Y
27	36.52	27.28	74.7%	N	Y		32.72	89.6%	Y	36.52	27.27	74.7%	Y	Y
28	36.90	26.72	72.4%	N	Y		31.92	86.5%	Y	36.95	26.71	72.3%	Y	Y

* Achieve target VSC when assessed without balconies.

Table 9: Vertical sky component - Social housing, Gloucester Street

There is a reduction in a large number of the VSC values below the Target value of 9% and below 80% of their existing value. The majority of the apartments have large continuous balconies which obstructs the light from the sky and this the main contributing factor towards low VSC values. BR209 section 2.2.13 discusses balconies and overhead obstructions and recognises that "even a modest obstruction opposite may result in a large relative impact on the VSC, and on the area receiving direct sunlight."

The assessment of the VSC values to the apartments without the balconies indicates that there would be a reduction in VSC values below 0.80 times the existing value however they would retain high VSC values and all the windows would retain VSC values in excess of the target 9%. This indicates that the balconies are the main cause of low daylight availability.

3.5.5 Staycity Apart-hotel on Gloucester Street

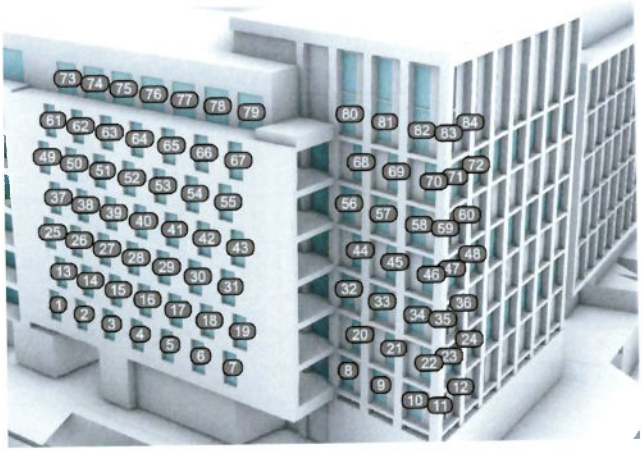


Figure 14: View of model of Staycity Apart-hotel on Gloucester Street, locating of windows assessed for VSC.

Vertical Sky Component											
	Vertical Sky Component - Alternative value for area based on sections and table F1 VSC > 9% Ratio - Recommended > 80% if less than 9% VSC						Supplementary Information Massing of hypothetical building on proposed site based on the Local Area Plan			Overall compliance
Window ID	VSC: Existing	VSC: Proposed	Ratio: Existing: Proposed	Meets Criteria=Ratio >80% existing	Meets Criteria = VSC>9%	Notes	Local Area Plan	Ratio: Existing: Local Area Plan	Meets Criteria	
1	26.94	15.55	57.7%	N	Y		15.74	58.4%	N	Y
2	27.73	14.88	53.7%	N	Y		14.93	53.8%	N	Y
3	28.42	11.66	41.0%	N	Y		11.23	39.5%	N	Y
4	28.98	8.64	29.8%	N	N		7.95	27.4%	N	N
5	29.34	6.30	21.5%	N	N		5.43	18.5%	N	N
6	29.64	4.91	16.6%	N	N		4.28	14.4%	N	N
7	29.84	4.17	14.0%	N	N		3.62	12.1%	N	N
8	15.08	3.18	21.1%	N	N		2.88	19.1%	N	N
9	23.55	4.23	18.0%	N	N		4.30	18.3%	N	N
10	26.03	6.38	24.5%	N	N		6.46	24.8%	N	N
11	15.51	15.50	99.9%	Y	Y		15.48	99.8%	Y	Y
12	14.36	14.34	99.9%	Y	Y		14.39	100.2%	Y	Y
13	29.65	17.39	58.7%	N	Y		17.59	59.3%	N	Y
14	29.99	15.60	52.0%	N	Y		15.55	51.9%	N	Y
15	30.26	12.01	39.7%	N	Y		11.41	37.7%	N	Y
16	30.54	9.00	29.5%	N	Y		8.04	26.3%	N	Y
17	30.73	6.62	21.5%	N	N		5.67	18.5%	N	N
18	30.88	5.43	17.6%	N	N		4.60	14.9%	N	N
19	30.95	4.78	15.4%	N	N		4.17	13.5%	N	N
20	17.14	1.98	11.6%	N	N		1.99	11.6%	N	N
21	23.77	3.45	14.5%	N	N		4.02	16.9%	N	N
22	26.07	6.66	25.5%	N	N		7.08	27.2%	N	N
23	17.75	17.68	99.6%	Y	Y		17.75	100.0%	Y	Y
24	17.05	17.03	99.9%	Y	Y		17.02	99.8%	Y	Y
25	30.54	18.58	60.8%	N	Y		19.29	63.2%	N	Y
26	30.86	17.66	57.2%	N	Y		18.00	58.3%	N	Y
27	31.11	14.23	45.7%	N	Y		13.84	44.5%	N	Y
28	31.32	10.90	34.8%	N	Y		9.85	31.4%	N	Y
29	31.49	8.39	26.6%	N	N		7.02	22.3%	N	N

Vertical Sky Component

	Vertical Sky Component - Alternative value for area based on sections and table F1 VSC > 9% Ratio - Recommended > 80% if less than 9% VSC						Supplementary Information Massing of hypothetical building on proposed site based on the Local Area Plan			
Window ID	VSC: Existing	VSC: Proposed	Ratio: Existing: Proposed	Meets Criteria=Ratio >80% existing	Meets Criteria = VSC>9%	Notes	Local Area Plan	Ratio: Existing: Local Area Plan	Meets Criteria	Overall compliance
30	31.62	6.80	21.5%	N	N		5.69	18.0%	N	N
31	31.75	5.86	18.5%	N	N		5.06	15.9%	N	N
32	15.97	4.30	26.9%	N	N		4.21	26.4%	N	N
33	25.05	5.48	21.9%	N	N		6.34	25.3%	N	N
34	28.00	7.86	28.1%	N	N		8.84	31.6%	N	N
35	21.28	21.30	100.1%	Y	Y		21.27	100.0%	Y	Y
36	20.11	20.10	100.0%	Y	Y		20.13	100.1%	Y	Y
37	31.46	19.19	61.0%	N	Y		20.13	64.0%	N	Y
38	31.71	17.52	55.3%	N	Y		17.80	56.1%	N	Y
39	31.96	14.33	44.8%	N	Y		13.62	42.6%	N	Y
40	32.10	11.58	36.1%	N	Y		10.07	31.4%	N	Y
41	32.28	9.19	28.5%	N	Y		7.62	23.6%	N	Y
42	32.39	7.71	23.8%	N	N		6.54	20.2%	N	N
43	32.49	6.81	21.0%	N	N		6.04	18.6%	N	N
44	17.77	2.85	16.0%	N	N		3.45	19.4%	N	N
45	24.86	4.48	18.0%	N	N		6.26	25.2%	N	N
46	27.35	7.84	28.7%	N	N		9.49	34.7%	N	N
47	22.91	22.91	100.0%	Y	Y		22.93	100.1%	Y	Y
48	22.36	22.35	100.0%	Y	Y		22.37	100.0%	Y	Y
49	32.11	20.22	63.0%	N	Y		21.87	68.1%	N	Y
50	32.36	19.35	59.8%	N	Y		20.40	63.0%	N	Y
51	32.50	16.69	51.4%	N	Y		16.33	50.2%	N	Y
52	32.72	14.05	42.9%	N	Y		12.46	38.1%	N	Y
53	32.86	11.75	35.8%	N	Y		9.64	29.3%	N	Y
54	33.00	9.71	29.4%	N	Y		8.27	25.1%	N	Y
55	33.09	8.55	25.8%	N	N		7.59	22.9%	N	N
56	17.07	5.76	33.7%	N	N		6.38	37.4%	N	N
57	26.92	7.38	27.4%	N	N		9.97	37.0%	N	N
58	29.42	9.55	32.5%	N	Y		12.07	41.0%	N	Y
59	26.22	26.19	99.9%	Y	Y		26.20	99.9%	Y	Y
60	24.89	24.92	100.1%	Y	Y		24.89	100.0%	Y	Y
61	32.83	20.79	63.3%	N	Y		22.98	70.0%	N	Y
62	33.02	19.58	59.3%	N	Y		20.65	62.5%	N	Y
63	33.19	17.63	53.1%	N	Y		16.76	50.5%	N	Y
64	33.30	15.78	47.4%	N	Y		13.41	40.3%	N	Y
65	33.48	13.36	39.9%	N	Y		11.13	33.2%	N	Y
66	33.59	11.34	33.8%	N	Y		10.08	30.0%	N	Y
67	33.69	10.04	29.8%	N	Y		9.56	28.4%	N	Y
68	21.93	5.11	23.3%	N	N		8.79	40.1%	N	N
69	28.24	8.40	29.7%	N	N		11.91	42.2%	N	N
70	29.50	10.18	34.5%	N	Y		14.19	48.1%	N	Y
71	26.45	26.43	99.9%	Y	Y		26.45	100.0%	Y	Y
72	25.84	25.85	100.0%	Y	Y		25.85	100.0%	Y	Y
73	37.19	25.72	69.2%	N	Y		29.25	78.7%	N	Y
74	37.31	25.18	67.5%	N	Y		27.57	73.9%	N	Y
75	37.41	24.44	65.3%	N	Y		24.87	66.5%	N	Y

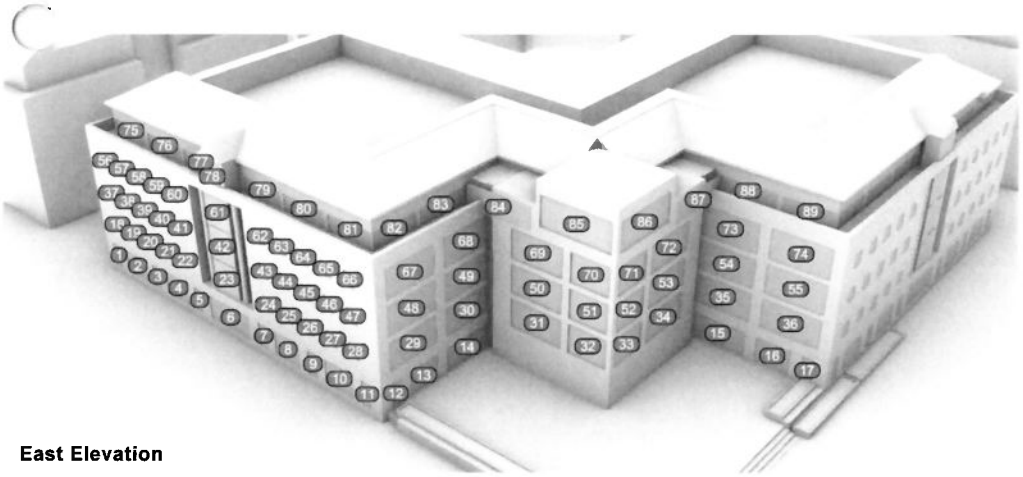
Vertical Sky Component											
	Vertical Sky Component - Alternative value for area based on sections and table F1 VSC > 9% Ratio - Recommended > 80% if less than 9% VSC						Supplementary Information Massing of hypothetical building on proposed site based on the Local Area Plan			Overall compliance
Window ID	VSC: Existing	VSC: Proposed	Ratio: Existing: Proposed	Meets Criteria=Ratio >80% existing	Meets Criteria = VSC>9%	Notes	Local Area Plan	Ratio: Existing: Local Area Plan	Meets Criteria	
76	37.56	23.66	63.0%	N	Y		22.39	59.6%	N	Y
77	37.63	21.34	56.7%	N	Y		20.56	54.6%	N	Y
78	37.69	18.90	50.1%	N	Y		19.49	51.7%	N	Y
79	37.79	17.38	46.0%	N	Y		19.04	50.4%	N	Y
80	32.62	12.81	39.3%	N	Y		17.94	55.0%	N	Y
81	32.87	12.70	38.6%	N	Y		18.41	56.0%	N	Y
82	32.80	12.82	39.1%	N	Y		19.25	58.7%	N	Y
83	31.60	31.61	100.0%	Y	Y		31.60	100.0%	Y	Y
84	29.90	29.90	100.0%	Y	Y		29.90	100.0%	Y	Y

* The BRE guidelines recommend where there are more than one window to a room the cumulative average can used.

Table 11: Vertical sky component - Staycity Apt-hotel, Gloucester Street

Currently the bedrooms face an undeveloped vacant site and have an unobstructed access to the sky and any development on the site would result in a large reduction in the VSC values as can be seen from the results of the massing outlined in the Local area Plan. The building is a hotel with short term stay accommodation and any occupants will not perceive a reduction in daylight. There will be a reduction in daylight to windows facing the proposed development and some are below the target ADF values. Hotel bedrooms are generally shallow and require less skylight. The glazing to the rooms is also floor to ceiling and the rooms will still be well daylit.

3.5.6 1GQ



East Elevation

Figure 15: View of model of commercial building 1GQ, locating of windows assessed for VSC.

Vertical Sky Component											
	Vertical Sky Component - Alternative value for area based on sections and table F1 VSC > 9% Ratio - Recommended > 80% if less than 9% VSC						Supplementary Information Massing of hypothetical building on proposed site based on the Local Area Plan			Overall compliance
Window ID	VSC: Existing	VSC: Proposed	Ratio: Existing: Proposed	Meets Criteria=Ratio >80% existing	Meets Criteria = VSC>9%	Notes	Local Area Plan	Ratio: Existing: Local Area Plan	Meets Criteria	
1	26.21	9.37	39.7%	N	Y		10.41	35.7%	N	Y
2	27.26	7.10	30.5%	N	N		8.31	26.0%	N	N
3	27.54	5.44	24.3%	N	N		6.70	19.8%	N	N
4	28.29	5.11	22.6%	N	N		6.40	18.1%	N	N
5	28.28	4.49	20.4%	N	N		5.78	15.9%	N	N
6	28.64	4.75	21.0%	N	N		6.01	16.6%	N	N
7	27.95	4.68	20.8%	N	N		5.81	16.7%	N	N
8	27.86	5.35	22.8%	N	N		6.36	19.2%	N	N
9	26.95	5.68	23.8%	N	N		6.41	21.1%	N	N
10	26.78	6.88	26.8%	N	N		7.17	25.7%	N	N
11	25.88	7.61	28.7%	N	N		7.43	29.4%	N	N
12	28.53	26.49	88.2%	Y	Y		25.16	92.8%	Y	Y
13	26.60	24.78	89.4%	Y	Y		23.78	93.2%	Y	Y
14	20.59	19.25	90.8%	Y	Y		18.69	93.5%	Y	Y
15	21.16	19.71	91.3%	Y	Y		19.32	93.1%	Y	Y
16	27.45	22.74	89.7%	Y	Y		24.61	82.8%	Y	Y
17	30.09	24.19	89.1%	Y	Y		26.81	80.4%	Y	Y
18	28.54	9.55	39.3%	N	Y		11.21	33.5%	N	Y
19	29.14	7.61	31.9%	N	N		9.30	26.1%	N	N
20	29.78	6.38	27.2%	N	N		8.11	21.4%	N	N
21	30.13	5.66	24.8%	N	N		7.46	18.8%	N	N
22	30.54	5.25	23.2%	N	N		7.08	17.2%	N	N
23	31.67	5.54	23.8%	N	N		7.54	17.5%	N	N
24	31.10	5.36	22.8%	N	N		7.09	17.2%	N	N
25	31.03	5.80	24.0%	N	N		7.46	18.7%	N	N
26	30.96	6.43	25.2%	N	N		7.79	20.8%	N	N
27	30.91	7.27	27.0%	N	N		8.36	23.5%	N	N
28	31.02	8.39	28.8%	N	N		8.92	27.0%	N	N
29	29.74	27.33	88.4%	Y	Y		26.29	91.9%	Y	Y

Vertical Sky Component

	Vertical Sky Component - Alternative value for area based on sections and table F1 VSC > 9% Ratio - Recommended > 80% if less than 9% VSC						Supplementary Information Massing of hypothetical building on proposed site based on the Local Area Plan			
Window ID	VSC: Existing	VSC: Proposed	Ratio: Existing: Proposed	Meets Criteria=Ratio >80% existing	Meets Criteria = VSC>9%	Notes	Local Area Plan	Ratio: Existing: Local Area Plan	Meets Criteria	Overall compliance
30	21.80	20.24	90.6%	Y	Y		19.76	92.8%	Y	Y
31	26.81	15.37	70.9%	N	Y		19.02	57.3%	N	Y
32	31.50	18.66	71.3%	N	Y		22.47	59.2%	N	Y
33	33.14	32.88	98.9%	Y	Y		32.77	99.2%	Y	Y
34	28.65	28.48	99.1%	Y	Y		28.38	99.4%	Y	Y
35	22.22	20.61	92.0%	Y	Y		20.45	92.8%	Y	Y
36	30.00	24.42	90.9%	Y	Y		27.28	81.4%	Y	Y
37	30.42	10.72	43.0%	N	Y		13.07	35.2%	N	Y
38	31.08	8.70	35.6%	N	N		11.07	28.0%	N	N
39	31.62	7.45	30.9%	N	N		9.77	23.6%	N	N
40	32.07	6.62	28.2%	N	N		9.03	20.6%	N	N
41	32.51	6.05	26.4%	N	N		8.59	18.6%	N	N
42	33.79	6.29	26.7%	N	N		9.01	18.6%	N	N
43	33.64	6.07	25.8%	N	N		8.68	18.0%	N	N
44	33.89	6.51	26.8%	N	N		9.07	19.2%	N	N
45	34.09	7.25	28.3%	N	N		9.65	21.3%	N	N
46	34.29	8.27	30.1%	N	N		10.31	24.1%	N	N
47	34.44	9.57	32.5%	N	Y		11.19	27.8%	N	Y
48	32.08	29.52	89.1%	Y	Y		28.59	92.0%	Y	Y
49	23.14	21.58	91.7%	Y	Y		21.21	93.3%	Y	Y
50	29.78	16.92	74.5%	N	Y		22.20	56.8%	N	Y
51	33.73	20.29	74.8%	N	Y		25.22	60.2%	N	Y
52	34.63	34.38	98.9%	Y	Y		34.24	99.3%	Y	Y
53	30.62	30.46	99.3%	Y	Y		30.40	99.5%	Y	Y
54	23.32	21.50	93.5%	Y	Y		21.80	92.2%	Y	Y
55	31.61	25.61	92.9%	Y	Y		29.38	81.0%	Y	Y
56	32.15	12.12	48.0%	N	Y		15.42	37.7%	N	Y
57	32.73	10.08	40.5%	N	Y		13.27	30.8%	N	Y
58	33.19	8.66	35.9%	N	N		11.92	26.1%	N	N
59	33.60	7.77	32.8%	N	N		11.03	23.1%	N	N
60	33.96	7.05	31.1%	N	N		10.56	20.8%	N	N
61	34.73	6.77	30.8%	N	N		10.68	19.5%	N	N
62	34.96	6.82	30.9%	N	N		10.79	19.5%	N	N
63	35.09	7.30	32.1%	N	N		11.28	20.8%	N	N
64	35.27	8.10	34.1%	N	N		12.04	23.0%	N	N
65	35.41	9.29	36.6%	N	Y		12.97	26.2%	N	Y
66	35.55	10.84	39.7%	N	Y		14.13	30.5%	N	Y
67	34.25	32.28	92.5%	Y	Y		31.69	94.2%	Y	Y
68	25.43	24.19	94.5%	Y	Y		24.04	95.1%	Y	Y
69	33.01	18.87	78.8%	N	Y		26.01	57.2%	N	Y
70	35.51	22.04	79.4%	N	Y		28.18	62.1%	N	Y
71	36.20	36.08	99.4%	Y	Y		35.97	99.7%	Y	Y
72	33.58	33.45	99.5%	Y	Y		33.42	99.6%	Y	Y
73	25.55	22.86	95.8%	Y	Y		24.48	89.5%	Y	Y
74	33.82	27.19	95.1%	Y	Y		32.15	80.4%	Y	Y
75	32.72	11.66	51.6%	N	Y		16.89	35.6%	N	Y

Vertical Sky Component											
	Vertical Sky Component - Alternative value for area based on sections and table F1 VSC > 9% Ratio - Recommended > 80% if less than 9% VSC						Supplementary Information Massing of hypothetical building on proposed site based on the Local Area Plan			Overall compliance
Window ID	VSC: Existing	VSC: Proposed	Ratio: Existing: Proposed	Meets Criteria=Ratio >80% existing	Meets Criteria = VSC>9%	Notes	Local Area Plan	Ratio: Existing: Local Area Plan	Meets Criteria	
76	33.28	9.06	43.7%	N	Y		14.54	27.2%	N	Y
77	32.99	7.13	39.0%	N	N		12.87	21.6%	N	N
78	35.89	7.74	37.8%	N	N		13.55	21.6%	N	N
79	33.50	6.62	39.2%	N	N		13.13	19.8%	N	N
80	34.43	8.32	43.5%	N	N		14.97	24.2%	N	N
81	34.76	10.79	49.5%	N	Y		17.21	31.0%	N	Y
82	34.18	32.77	94.9%	Y	Y		32.44	95.9%	Y	Y
83	31.45	30.57	96.7%	Y	Y		30.42	97.2%	Y	Y
84	33.20	18.27	83.1%	Y	Y		27.59	55.0%	N	Y
85	37.00	23.13	84.4%	Y	Y		31.24	62.5%	N	Y
86	37.59	37.55	99.6%	Y	Y		37.45	99.9%	Y	Y
87	34.04	34.01	99.8%	Y	Y		33.96	99.9%	Y	Y
88	31.49	24.91	98.1%	Y	Y		30.89	79.1%	N	Y
89	34.07	26.96	96.6%	Y	Y		32.91	79.1%	N	Y

* The BRE guidelines recommend where there are more than one window to a room the cumulative average can used.

Table 12: Vertical sky component - 1GQ, commercial building.

There will be a reduction in the VSC values to the majority of the windows facing the proposed development and some are below the Target VSC of 9%. The building is in use as a commercial office with large floor plates. The depth of the floor plates means the use of artificial light will be required at present with an unobstructed access to the sky facing the proposed development.

3.5.7 Grant Thornton

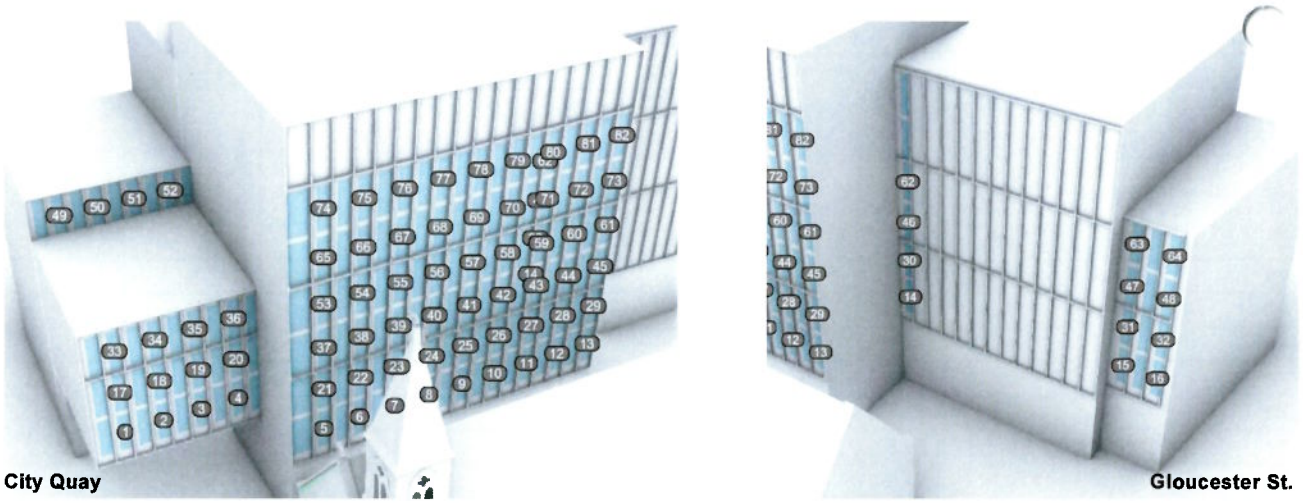


Figure 16: View of model of Grant Thornton, locating of windows assessed for VSC.

Vertical Sky Component											
	Vertical Sky Component - Alternative value for area based on sections and table F1 VSC > 9% Ratio - Recommended > 80% if less than 9% VSC						Supplementary Information Massing of hypothetical building on proposed site based on the Local Area Plan			Overall compliance
Window ID	VSC: Existing	VSC: Proposed	Ratio: Existing: Proposed	Meets Criteria=Ratio >80% existing	Meets Criteria = VSC>9%	Notes	Local Area Plan	Ration: Existing: Local Area Plan	Meets Criteria	
1	30.16	20.59	68.3%	N	Y		27.12	89.9%	Y	Y
2	28.70	18.97	66.1%	N	Y		25.76	89.8%	Y	Y
3	25.66	16.87	65.7%	N	Y		22.98	89.6%	Y	Y
4	20.40	15.24	74.7%	N	Y		18.67	91.5%	Y	Y
5	20.25	14.69	72.5%	N	Y		20.22	99.9%	Y	Y
6	18.72	12.09	64.6%	N	Y		18.72	100.0%	Y	Y
7	18.13	11.18	61.7%	N	Y		18.08	99.7%	Y	Y
8	17.97	11.02	61.3%	N	Y		17.98	100.1%	Y	Y
9	17.99	11.10	61.7%	N	Y		18.01	100.1%	Y	Y
10	18.11	11.16	61.6%	N	Y		18.11	100.0%	Y	Y
11	18.21	11.36	62.4%	N	Y		18.22	100.1%	Y	Y
12	18.22	11.54	63.3%	N	Y		18.29	100.4%	Y	Y
13	18.36	11.68	63.6%	N	Y		18.32	99.8%	Y	Y
14	13.33	8.51	63.8%	N	N		11.83	88.7%	Y	N
15	18.99	12.50	65.8%	N	Y		16.60	87.4%	Y	Y
16	25.01	16.84	67.3%	N	Y		21.98	87.9%	Y	Y
17	31.51	21.21	67.3%	N	Y		28.60	90.8%	Y	Y
18	30.38	19.63	64.6%	N	Y		27.32	89.9%	Y	Y
19	27.33	17.45	63.8%	N	Y		24.49	89.6%	Y	Y
20	21.48	15.78	73.5%	N	Y		19.92	92.7%	Y	Y
21	27.61	16.80	60.8%	N	Y		23.96	86.8%	Y	Y
22	27.02	15.04	55.7%	N	Y		22.96	85.0%	Y	Y
23	26.97	14.15	52.5%	N	Y		22.63	83.9%	Y	Y
24	27.14	13.84	51.0%	N	Y		22.63	83.4%	Y	Y
25	27.49	14.00	50.9%	N	Y		22.72	82.6%	Y	Y
26	27.74	14.25	51.4%	N	Y		22.85	82.4%	Y	Y
27	27.93	14.45	51.7%	N	Y		22.94	82.1%	Y	Y
28	28.05	14.79	52.7%	N	Y		23.04	82.1%	Y	Y
29	28.08	15.11	53.8%	N	Y		23.12	82.3%	Y	Y

Vertical Sky Component

	Vertical Sky Component - Alternative value for area based on sections and table F1 VSC > 9% Ratio - Recommended > 80% if less than 9% VSC						Supplementary Information Massing of hypothetical building on proposed site based on the Local Area Plan			
Window ID	VSC: Existing	VSC: Proposed	Ratio: Existing: Proposed	Meets Criteria=Ratio >80% existing	Meets Criteria = VSC>9%	Notes	Local Area Plan	Ration: Existing: Local Area Plan	Meets Criteria	Overall compliance
30	14.86	9.22	62.0%	N	Y		12.89	86.7%	Y	Y
31	20.71	13.89	67.1%	N	Y		18.40	88.8%	Y	Y
32	27.43	18.68	68.1%	N	Y		24.38	88.9%	Y	Y
33	32.51	21.98	67.6%	N	Y		30.28	93.1%	Y	Y
34	31.55	20.42	64.7%	N	Y		29.06	92.1%	Y	Y
35	28.49	18.19	63.8%	N	Y		26.16	91.8%	Y	Y
36	22.36	16.47	73.7%	N	Y		21.18	94.7%	Y	Y
37	30.77	18.09	58.8%	N	Y		26.91	87.5%	Y	Y
38	30.72	16.87	54.9%	N	Y		26.02	84.7%	Y	Y
39	30.90	16.20	52.4%	N	Y		25.81	83.5%	Y	Y
40	31.29	15.95	51.0%	N	Y		25.84	82.6%	Y	Y
41	31.65	15.92	50.3%	N	Y		25.83	81.6%	Y	Y
42	31.90	15.97	50.1%	N	Y		25.84	81.0%	Y	Y
43	32.02	16.18	50.5%	N	Y		25.85	80.7%	Y	Y
44	32.11	16.44	51.2%	N	Y		25.90	80.7%	Y	Y
45	32.08	16.79	52.3%	N	Y		25.97	81.0%	Y	Y
46	15.73	10.06	64.0%	N	Y		14.18	90.1%	Y	Y
47	22.37	15.46	69.1%	N	Y		20.45	91.4%	Y	Y
48	29.74	20.83	70.0%	N	Y		27.06	91.0%	Y	Y
49	29.35	22.50	76.7%	N	Y		28.65	97.6%	Y	Y
50	27.16	21.33	78.5%	N	Y		26.59	97.9%	Y	Y
51	24.32	19.76	81.3%	Y	Y		23.84	98.0%	Y	Y
52	20.74	17.80	85.8%	Y	Y		20.39	98.3%	Y	Y
53	32.25	18.71	58.0%	N	Y		29.29	90.8%	Y	Y
54	32.26	18.00	55.8%	N	Y		28.59	88.6%	Y	Y
55	32.36	17.44	53.9%	N	Y		28.44	87.9%	Y	Y
56	32.55	17.21	52.9%	N	Y		28.34	87.1%	Y	Y
57	32.69	17.05	52.2%	N	Y		28.28	86.5%	Y	Y
58	32.83	17.10	52.1%	N	Y		28.24	86.0%	Y	Y
59	32.85	17.25	52.5%	N	Y		28.19	85.8%	Y	Y
60	32.85	17.47	53.2%	N	Y		28.19	85.8%	Y	Y
61	32.83	17.79	54.2%	N	Y		28.23	86.0%	Y	Y
62	16.30	10.69	65.6%	N	Y		15.22	93.4%	Y	Y
63	23.67	16.69	70.5%	N	Y		22.16	93.6%	Y	Y
64	31.30	22.51	71.9%	N	Y		29.21	93.3%	Y	Y
65	33.67	19.69	58.5%	N	Y		31.65	94.0%	Y	Y
66	33.66	19.25	57.2%	N	Y		31.23	92.8%	Y	Y
67	33.70	18.80	55.8%	N	Y		31.07	92.2%	Y	Y
68	33.72	18.59	55.1%	N	Y		30.91	91.7%	Y	Y
69	33.76	18.46	54.7%	N	Y		30.83	91.3%	Y	Y
70	33.80	18.47	54.6%	N	Y		30.72	90.9%	Y	Y
71	33.79	18.58	55.0%	N	Y		30.66	90.7%	Y	Y
72	33.79	18.81	55.7%	N	Y		30.66	90.7%	Y	Y
73	33.78	19.08	56.5%	N	Y		30.66	90.8%	Y	Y
74	34.06	20.16	59.2%	N	Y		32.85	96.4%	Y	Y
75	34.05	19.78	58.1%	N	Y		32.71	96.1%	Y	Y

Vertical Sky Component											
	Vertical Sky Component - Alternative value for area based on sections and table F1 VSC > 9% Ratio - Recommended > 80% if less than 9% VSC						Supplementary Information Massing of hypothetical building on proposed site based on the Local Area Plan			Overall compliance
Window ID	VSC: Existing	VSC: Proposed	Ratio: Existing: Proposed	Meets Criteria=Ratio >80% existing	Meets Criteria = VSC>9%	Notes	Local Area Plan	Ration: Existing: Local Area Plan	Meets Criteria	
76	34.02	19.47	57.2%	N	Y		32.58	95.8%	Y	Y
77	34.07	19.24	56.5%	N	Y		32.48	95.3%	Y	Y
78	34.04	19.14	56.2%	N	Y		32.41	95.2%	Y	Y
79	34.05	19.10	56.1%	N	Y		32.32	94.9%	Y	Y
80	34.04	19.23	56.5%	N	Y		32.30	94.9%	Y	Y
81	34.06	19.36	56.8%	N	Y		32.31	94.9%	Y	Y
82	34.04	19.68	57.8%	N	Y		32.30	94.9%	Y	Y

* The BRE guidelines recommend where there are more than one window to a room the cumulative average can used.

Table 13: Vertical sky component - Grant Thornton, City Quay

13-18 City Quay - Grant Thornton

There will be a reduction in the VSC values to the majority of the windows facing the proposed development but the majority retain a VSC in excess of the 9% Target. The building is in use as a commercial office with large floor plates. The depth of the floor plates means the use of artificial light will be required at present with an unobstructed access to the sky facing the proposed development.

3.5.8 Petersons Court

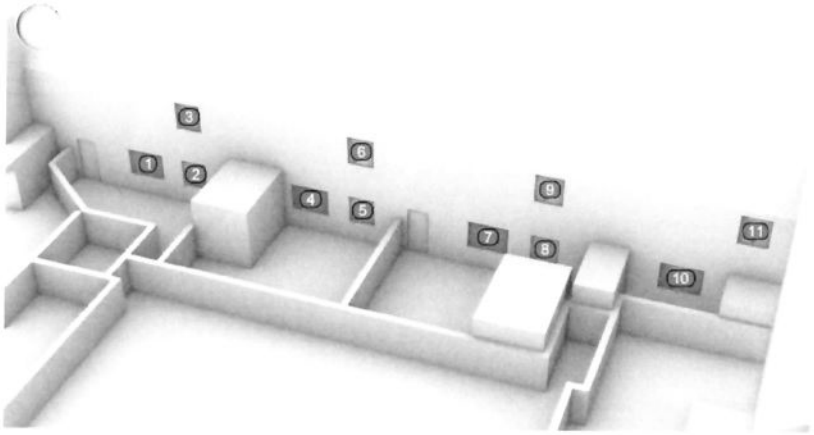


Figure 18: View of model of Petersons Court, locating of relevant windows assessed for VSC.

Vertical Sky Component											
	Vertical Sky Component - Alternative value for area based on sections and table F1 VSC > 9% Ratio - Recommended > 80% if less than 9% VSC						Supplementary Information Massing of hypothetical building on proposed site based on the Local Area Plan			Overall compliance
Window ID	VSC: Existing	VSC: Proposed	Ratio: Existing: Proposed	Meets Criteria=Ratio >80% existing	Meets Criteria = VSC>9%	Notes	Local Area Plan	Ration: Existing: Local Area Plan	Meets Criteria	
1	23.09	22.68	0.98	Y	Y		23.09	100.0%	Y	Y
2	22.78	22.38	0.98	Y	Y		22.77	100.0%	Y	Y
3	28.15	27.58	0.98	Y	Y		28.15	100.0%	Y	Y
4	22.82	22.40	0.98	Y	Y		22.80	99.9%	Y	Y
5	26.53	26.15	0.99	Y	Y		26.53	100.0%	Y	Y
6	29.07	28.52	0.98	Y	Y		29.07	100.0%	Y	Y
7	26.00	25.62	0.99	Y	Y		25.98	99.9%	Y	Y
8	24.60	24.47	0.99	Y	Y		24.55	99.8%	Y	Y
9	28.39	27.82	0.98	Y	Y		28.36	99.9%	Y	Y
10	20.21	19.82	0.98	Y	Y		20.21	100.0%	Y	Y
11	20.33	19.81	0.97	Y	Y		20.34	100.0%	Y	Y

Table 14: Vertical sky component - Petersons Court, residential use.

Petersons Court

There will be no perceivable reduction in the available daylight to the residential houses at Petersons Court.

3.6 Conclusion

There will be a moderate to major reduction in the available daylight levels to the directly adjacent buildings. The majority of these are commercial offices which with deep floor plates require artificial lighting and have a lesser requirement for natural daylight which varies throughout the day and would require supplementary lighting in an office setting.

There would b a reduction to the light levels in the classrooms adjacent the proposed development but the main window retains a VSC in excess of the 9% Target. The high level side windows would have a major reduction but this would be the case with a 4 storey development.

There would be some reduction the daylight levels in the social housing on Gloucester Street but these apartments have large continuous balconies which currently restrict daylight access from the sky and any development will cause a relatively large reduction because the existing VSC levels are low.

The assessment of massing in line with the recent developments adjacent the site and the recommendation development level in the Local area plan indicate that overall the additional height of the proposed development would cause minimal additional reduction in daylight levels and the majority of the reduction would come from a development similar in massing to the adjacent buildings

End of Extract ----------

4. Shadow Diagrams

4.1 BRE Guidance on Shadow Studies

Shadow diagrams are a visual aid to understand where possible shading may occur. The BRE guidelines recommends using the March Equinox due the equal length of the day and night time. It states:

"If a space is used all year round, the equinox (21 March) is the best date for which to prepare shadow plots as it gives an average level of shadowing. Lengths of shadows at the autumn equinox (21 September) will be the same as those for 21 March, so a separate set of plots for September is not required."

Each month from 21st September through to 21st March have been plotted, with Daylight Saving Time (DST) applied where applicable. The summer solstice has also been plotted with DST. It should be noted that the summer solstice is the best case scenario with shadows at their shortest. In Winter even low buildings will cast long shadows and it is common for large areas of the ground to be in shadow throughout the day especially in a built up area and sun barely rises above an altitude of 10° during the course of the day.

The guidelines recommends that Sunlight at an altitude of 10° or less does not count. Below are the times for the Equinox and Solstice that the sun is above 10° altitude rounded to the nearest half hour.

Equinox: between 8:30 and 17:30
Summer Solstice: Between 6:30 and 20:00
Winter Solstice: Between 10:30 and 14:00

This study shows the existing and proposed shadow diagrams, in plan and 3D form. The planning approved building on the junction of Tara Street and George's Quay has been included in the existing model, as it is currently under construction. It is included so the accumulative impact of shading can be assessed.

- Section 4.2 shows shadow diagrams for the Summer Solstice on the 21st June at two hourly intervals during the day between 09:00 and 17:00.
- Section 4.3 shows shadow diagrams for the Equinox on the 21st September at 2 hourly intervals during the day between 09:00 and 17:00.
- Section 4.4 shows shadow diagrams for the 21st October at 2 hourly intervals during the day between 09:00 and 17:00.
- Section 4.5 shows shadow diagrams for the 21st November at 2 hourly intervals during the day between 09:00 and 17:00.
- Section 4.6 shows shadow diagrams for the Winter Solstice on the 21st December at 2 hourly intervals during the day between 09:00 and 15:00.
- Section 4.7 shows shadow diagrams for the 21st January at 2 hourly intervals during the day between 09:00 and 17:00.
- Section 4.8 shows shadow diagrams for the 21st February at 2 hourly intervals during the day between 09:00 and 17:00.
- Section 4.9 shows shadow diagrams for the Equinox on the 21st March at 2 hourly intervals during the day between 09:00 and 17:00.

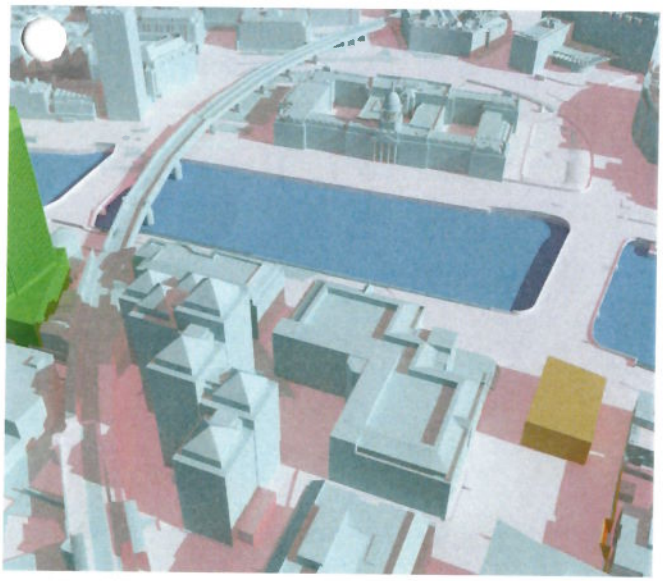
Shadow diagrams are a visual aid to understand where possible shading may occur. The use of shadow diagrams as an assessment method should be taken over the course of the day and not a specific time due to the transient nature of the sun and the shade caused by obstructions.

In relation to the effects of trees and hedges the BRE guidelines states,

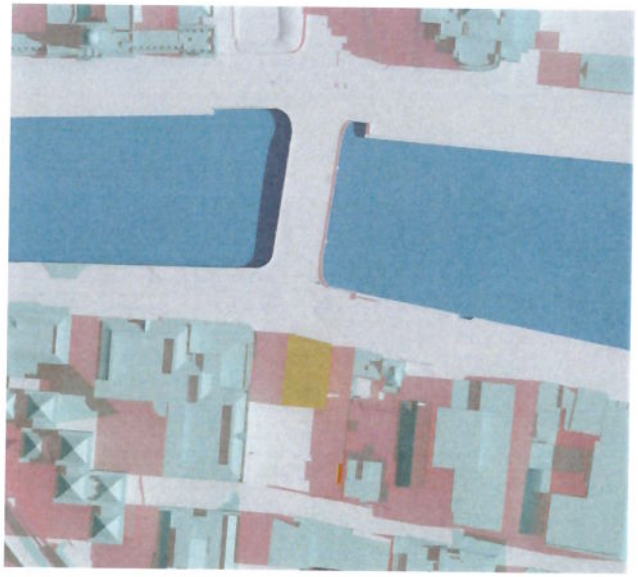
> *"It is generally more difficult to calculate the effects of trees on daylight because of their irregular shape and because some light will generally penetrate through the crown. Where the effects of a new building on existing buildings nearby is being analysed, it is usual to ignore the effects of existing trees. This is because daylight is at its scarcest and most valuable in winter when most trees will not be in leaf."*

The trees were not included because they are mostly deciduous and guidelines recommends only including trees where there are dense bands of evergreen trees.

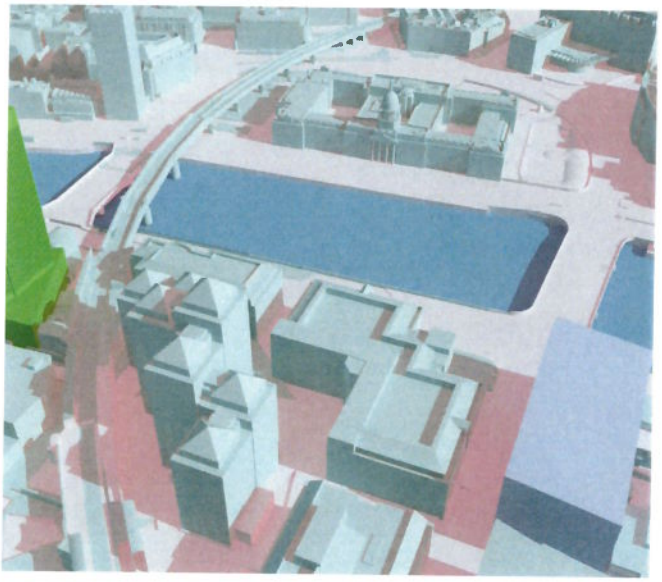
4.2 Shadow Casting diagrams June Solstice



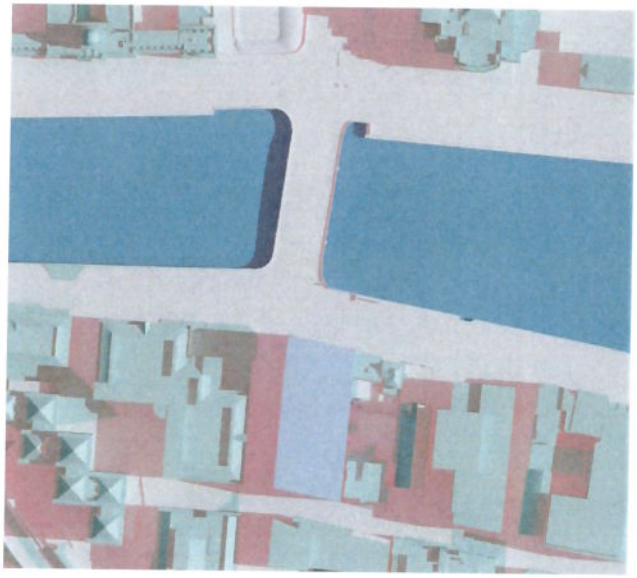
Existing 3D view



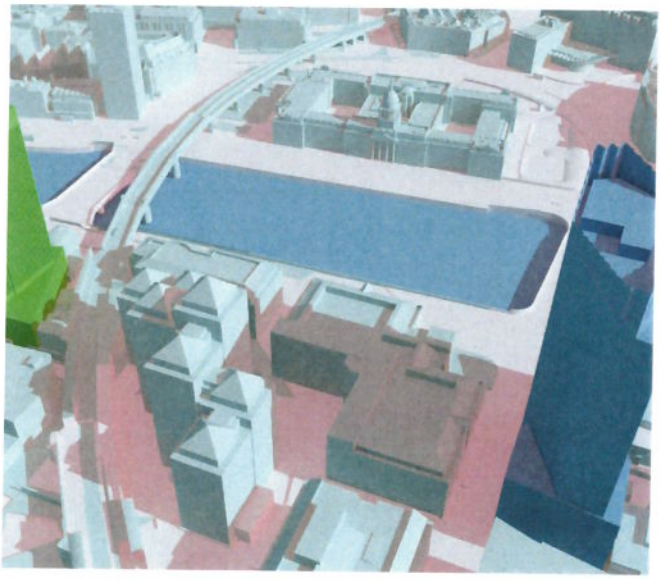
Existing plan view



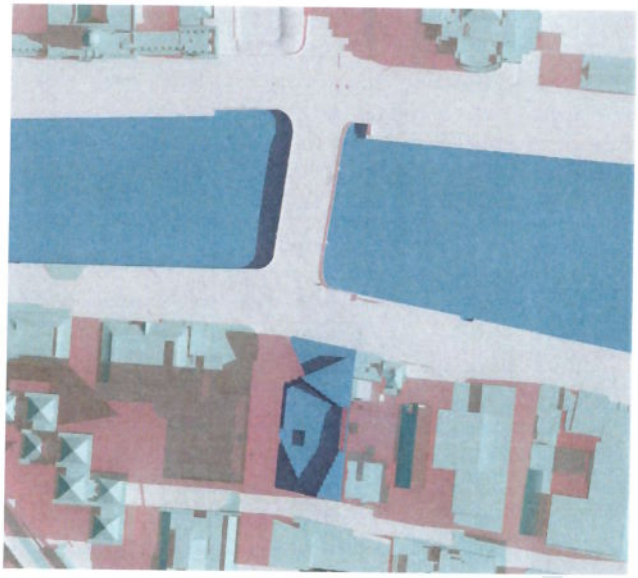
LAP 3D view



LAP plan view



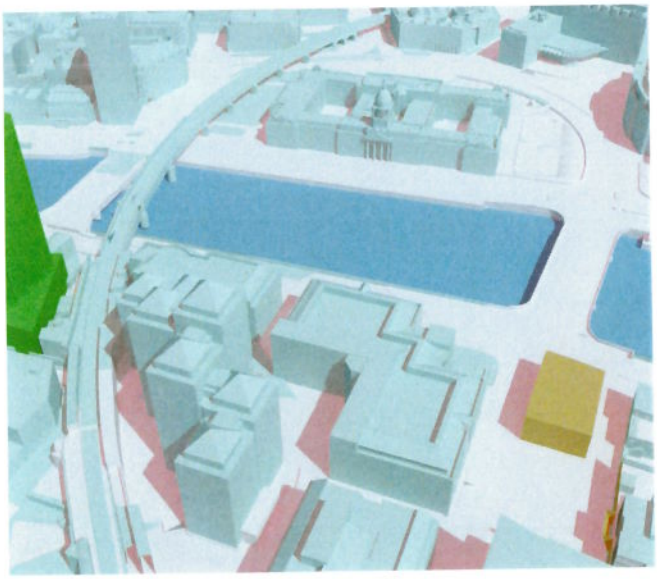
Proposed 3D view



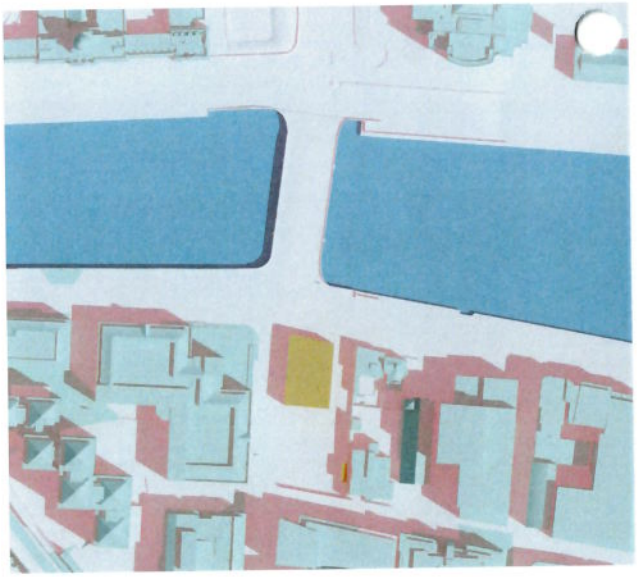
Proposed plan view

N

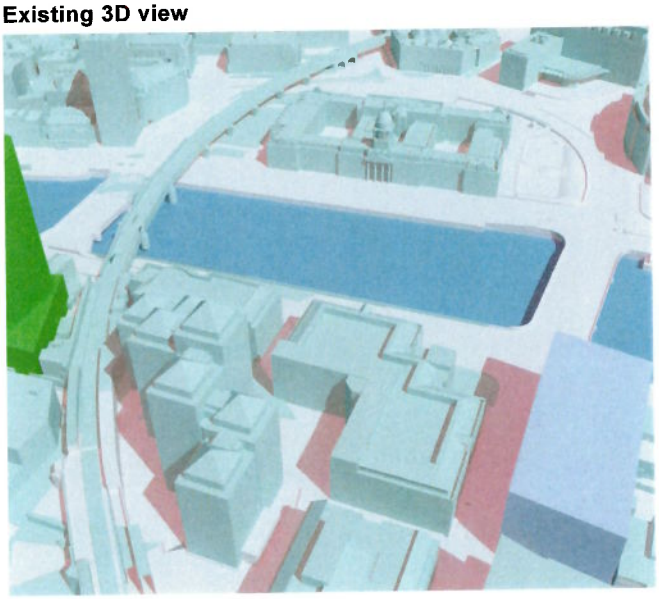
Figure 7: Shadow diagrams 21 June 09:00 UTC +1



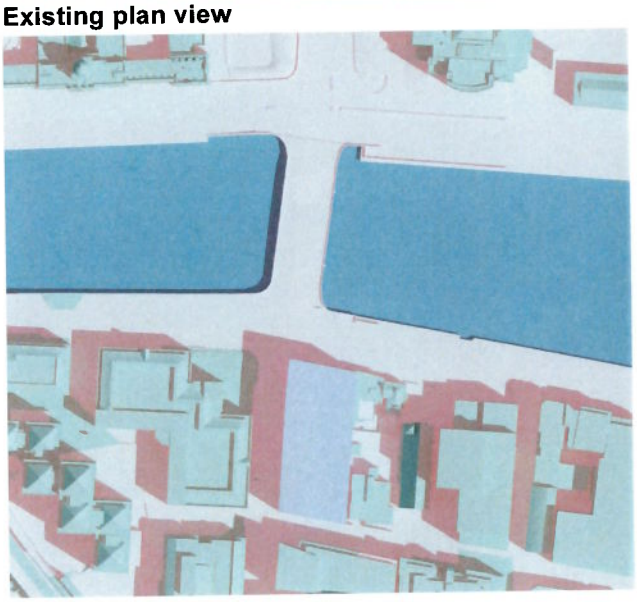
Existing 3D view



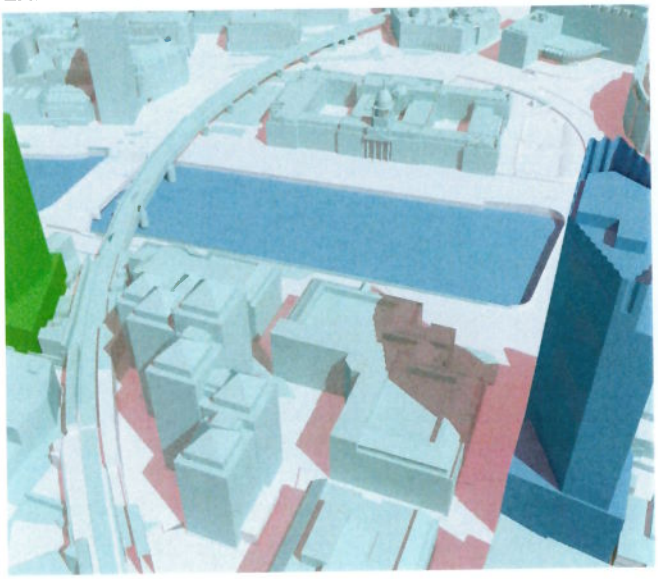
Existing plan view



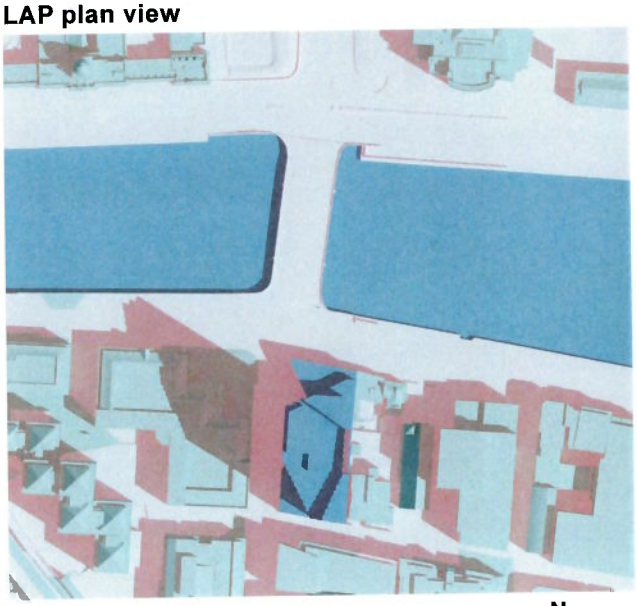
LAP 3D view



LAP plan view



Proposed 3D view



Proposed plan view

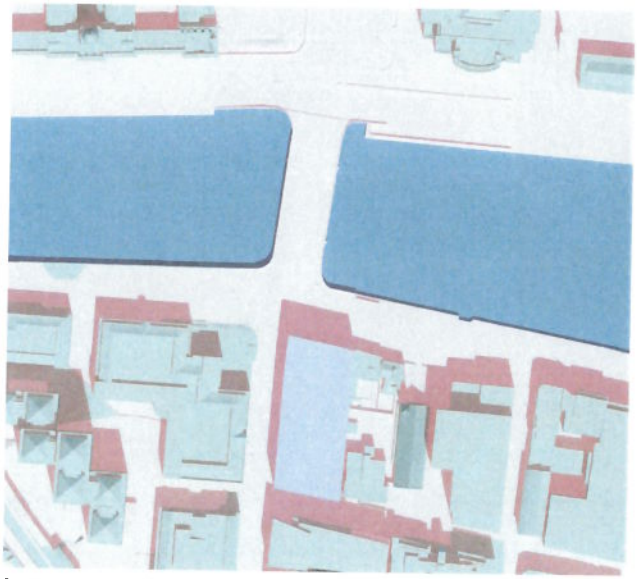
N

Figure 8: Shadow diagrams 21 June 11:00 UTC +1

Existing 3D view

Existing plan view

LAP 3D view



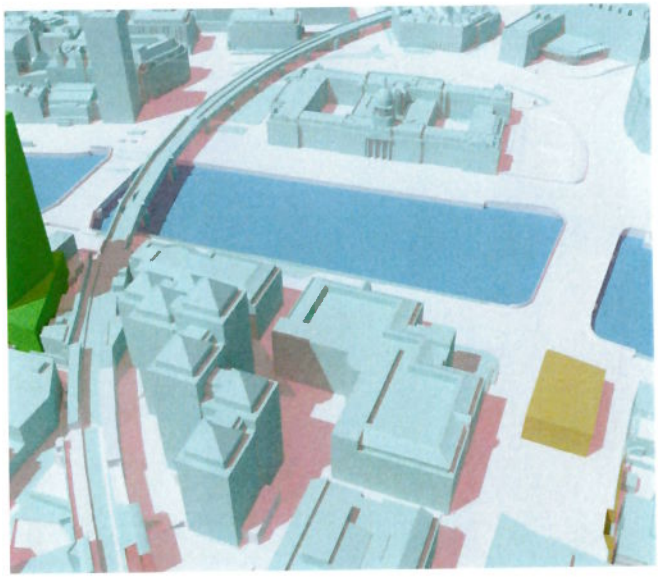
LAP plan view

Proposed 3D view

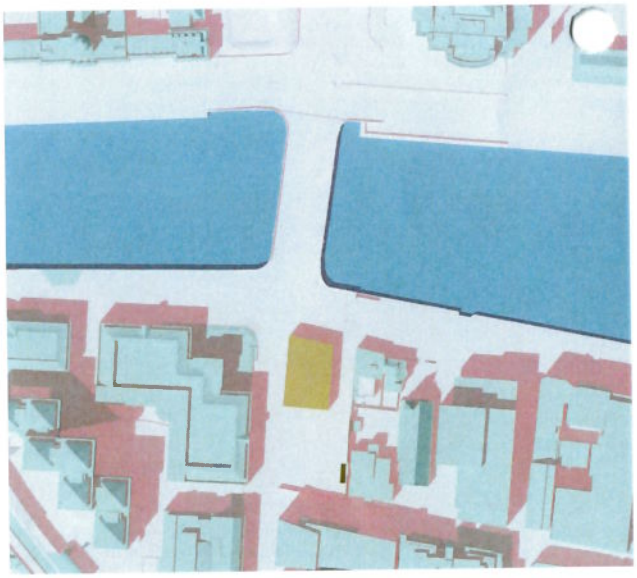
Proposed plan view

N

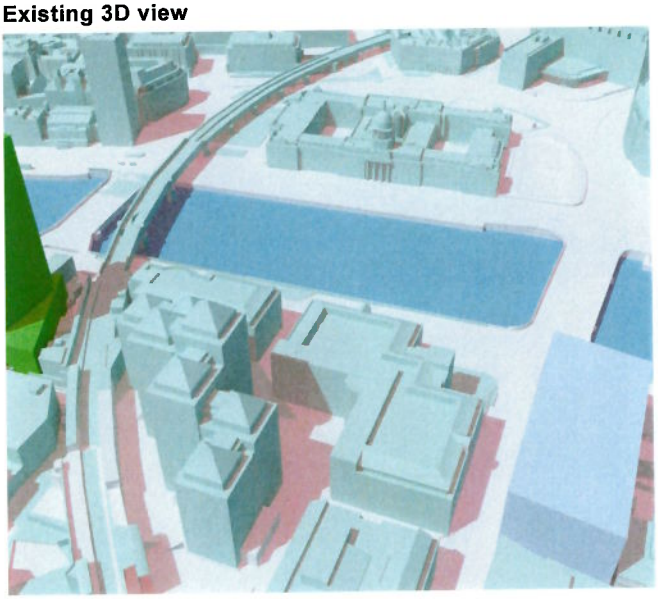
Figure 9: Shadow diagrams 21 June 13:00 UTC +1



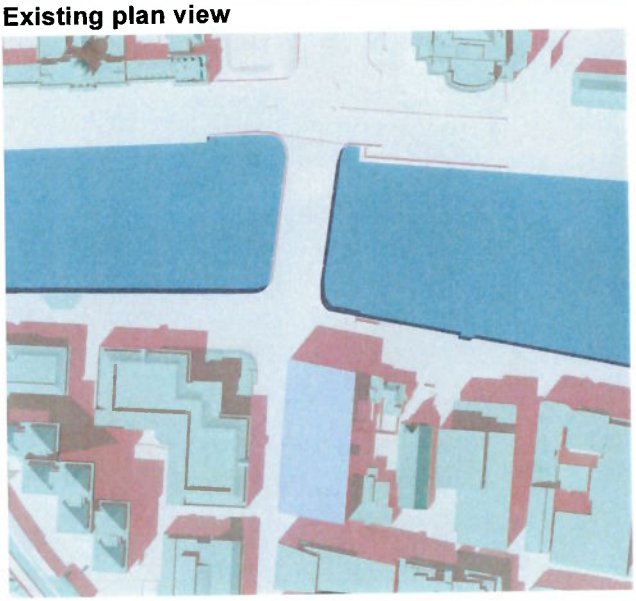
Existing 3D view



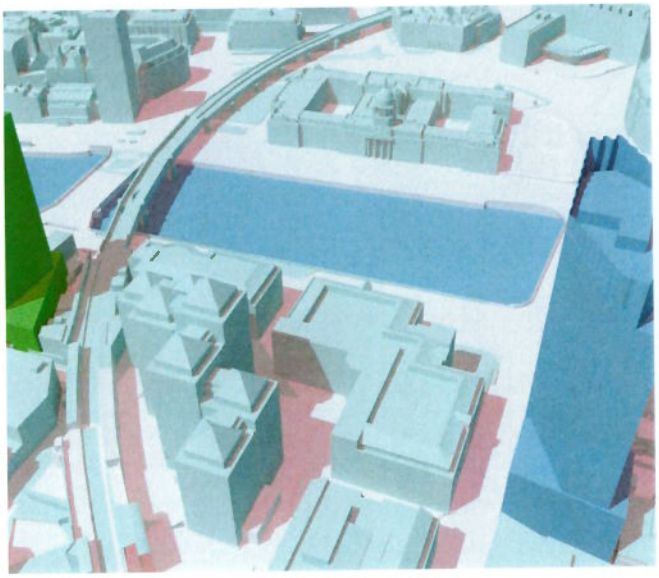
Existing plan view



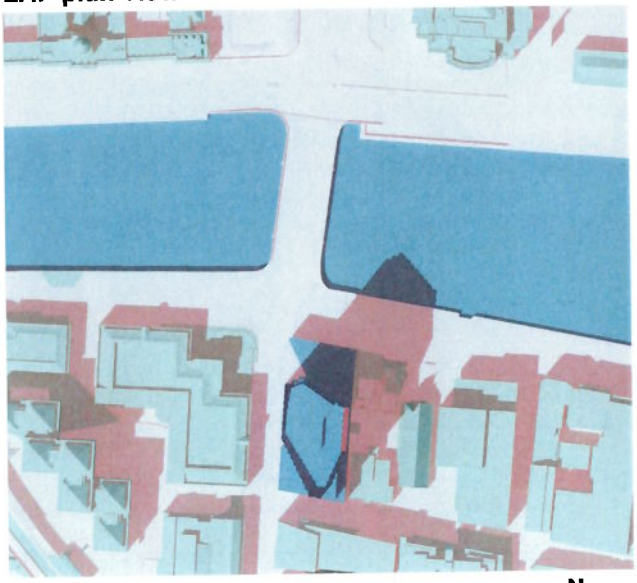
LAP 3D view



LAP plan view



Proposed 3D view

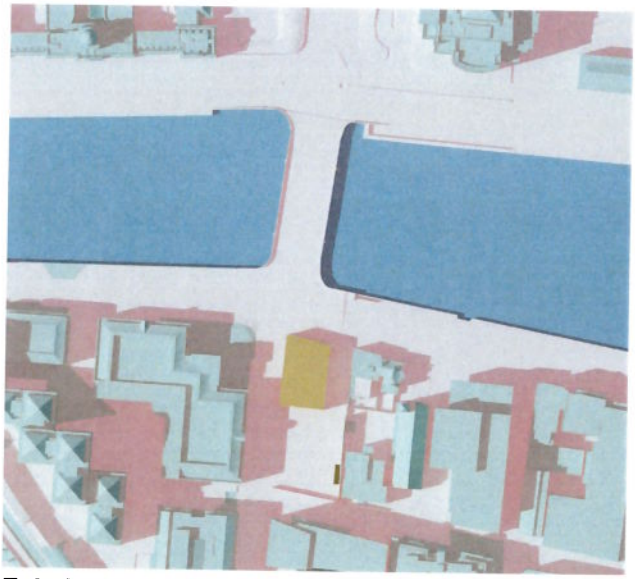


Proposed plan view

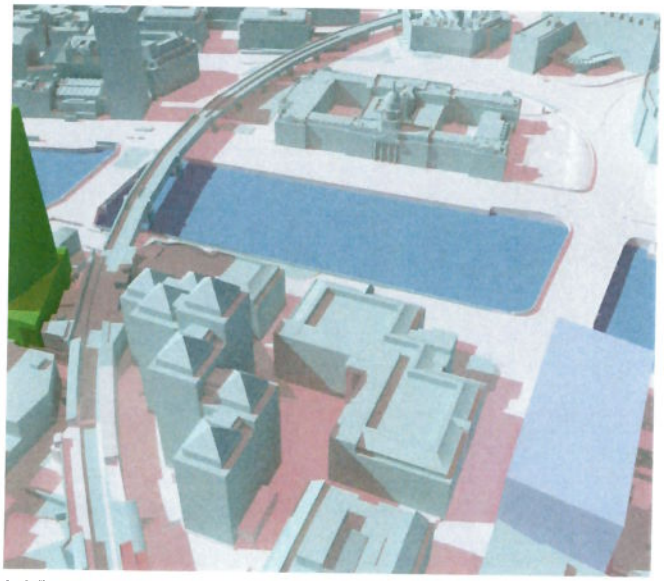
N

Figure 10: Shadow diagrams 21 June 15:00 UTC +1

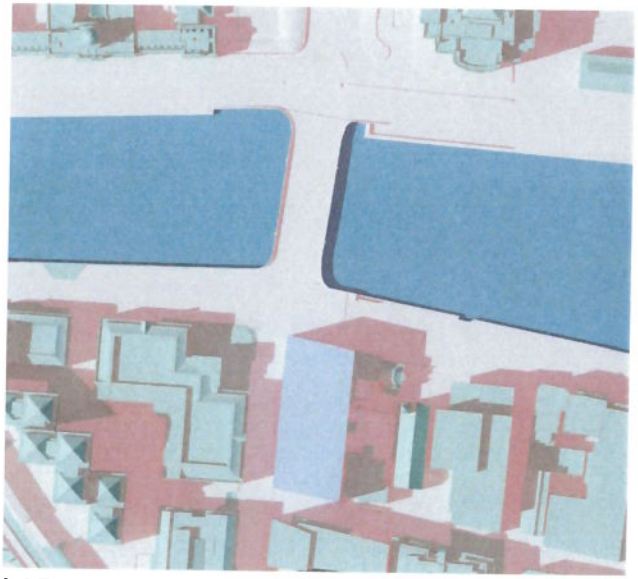
Existing 3D view



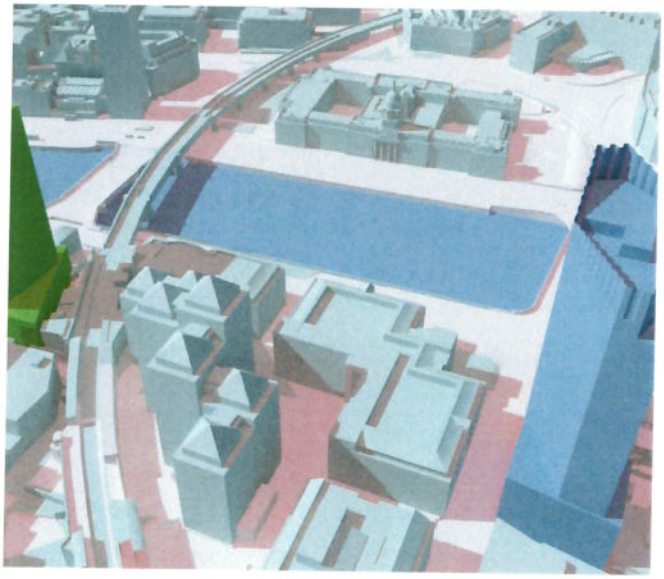
Existing plan view



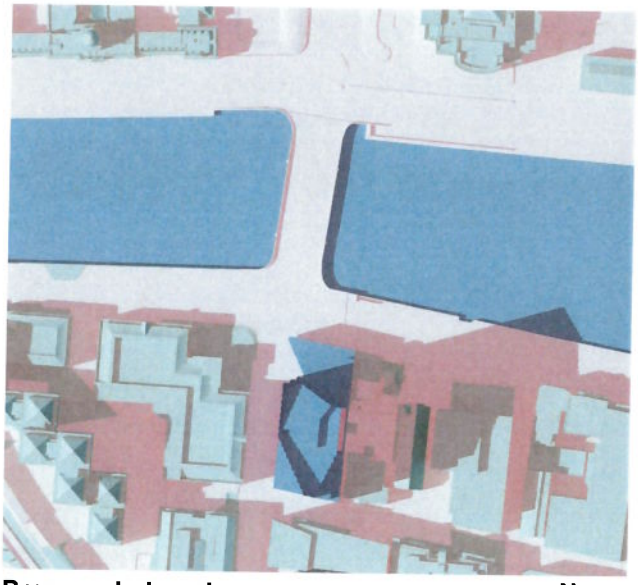
LAP 3D view



LAP plan view



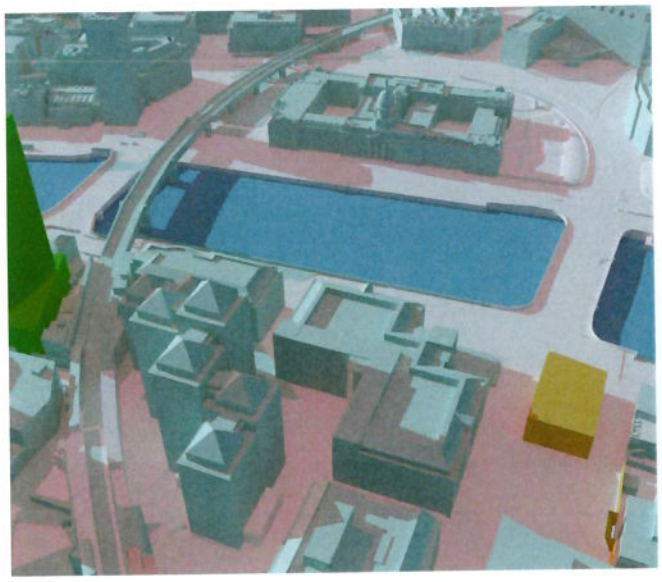
Proposed 3D view



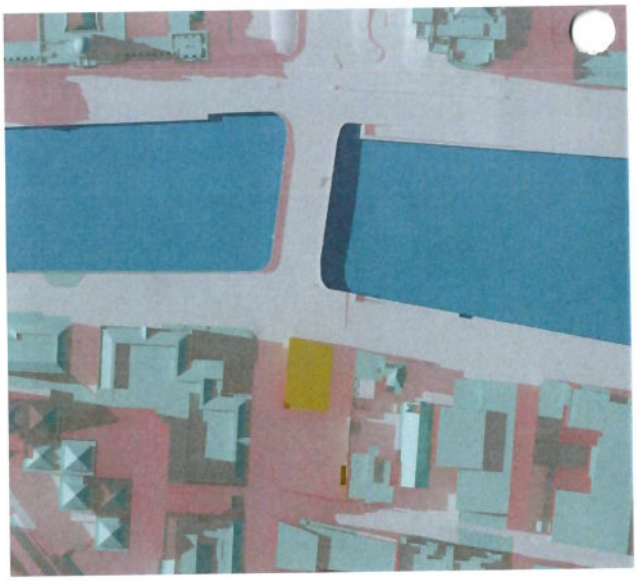
Proposed plan view

N

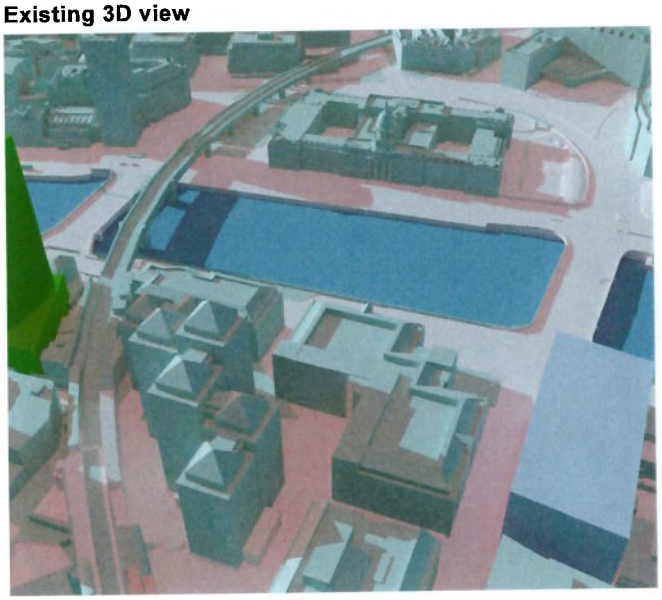
Figure 11: Shadow diagrams 21 June 17:00 UTC +1



Existing 3D view



Existing plan view



LAP 3D view

LAP plan view

Proposed 3D view

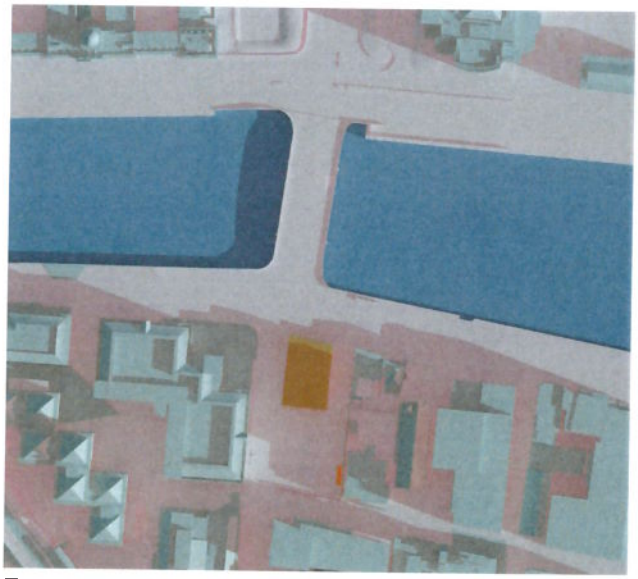
Proposed plan view

N

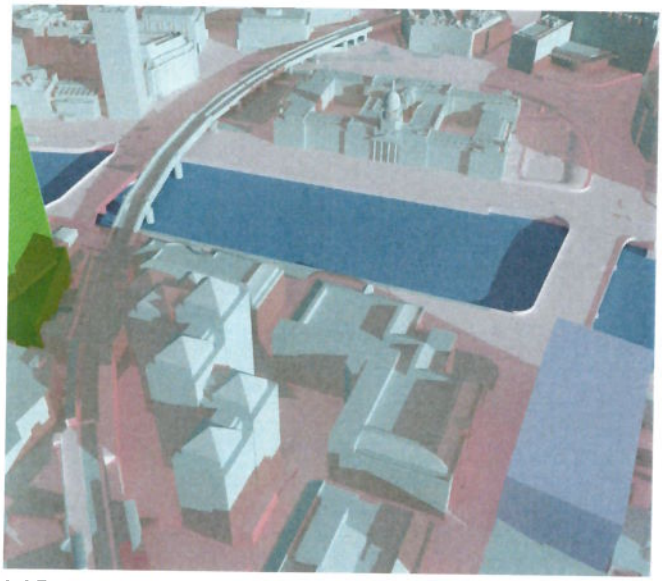
Figure 12: Shadow diagrams 21 June 19:00 UTC +1

4.3 Shadow Casting diagrams September Equinox

Existing 3D view

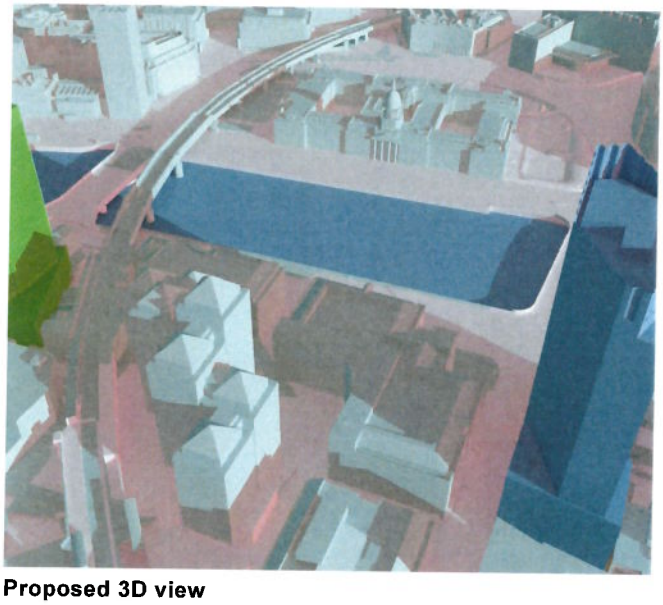


Existing plan view

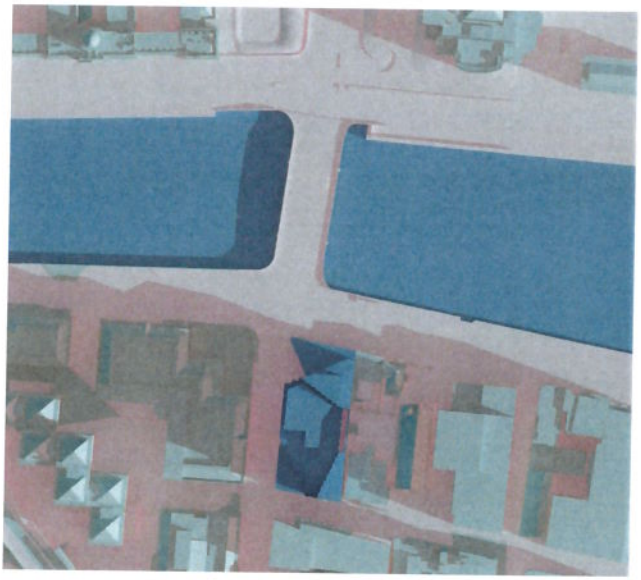


LAP 3D view

LAP plan view



Proposed 3D view



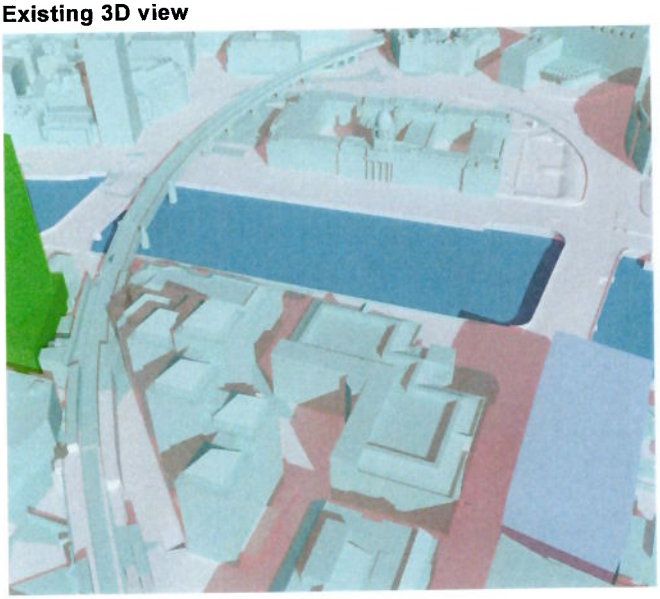
Proposed plan view

N

Figure 13: Shadow diagrams 21 September 09:00 UTC +1

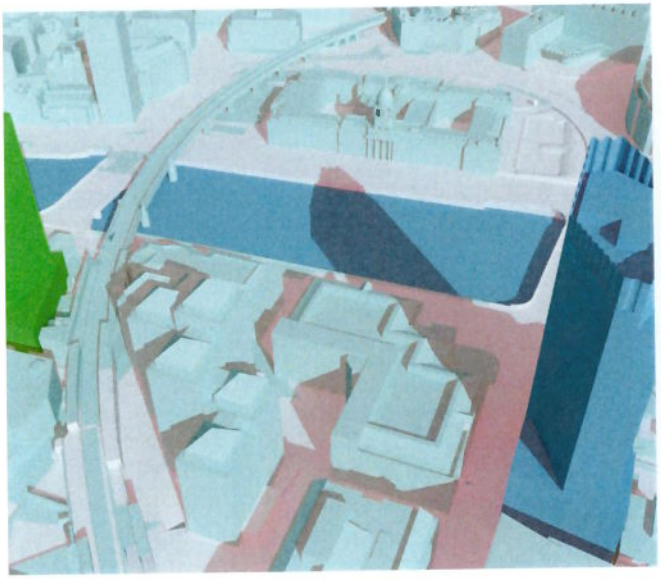
Existing 3D view

Existing plan view

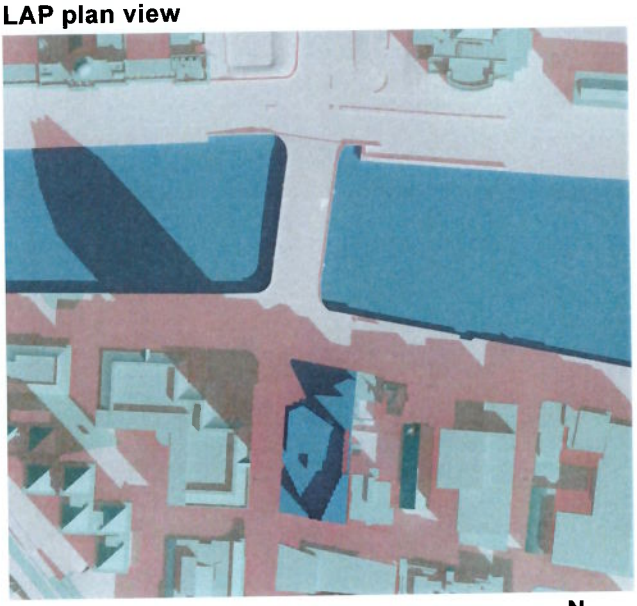


LAP 3D view

LAP plan view



Proposed 3D view



Proposed plan view

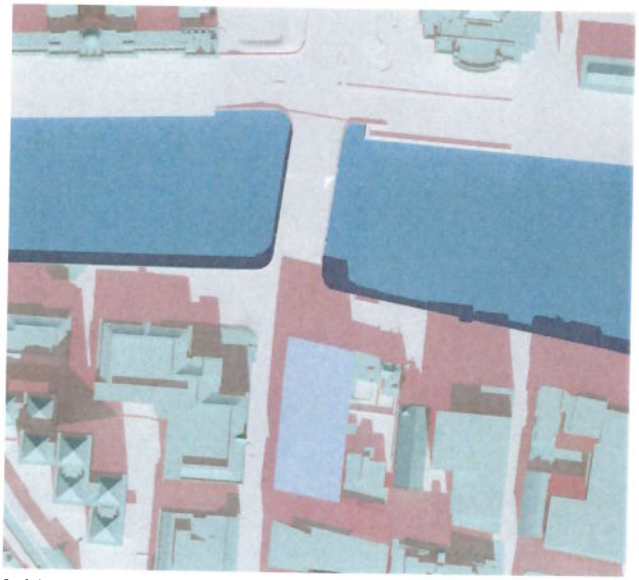
N

Figure 14: Shadow diagrams 21 September 11:00 UTC +1

Existing 3D view

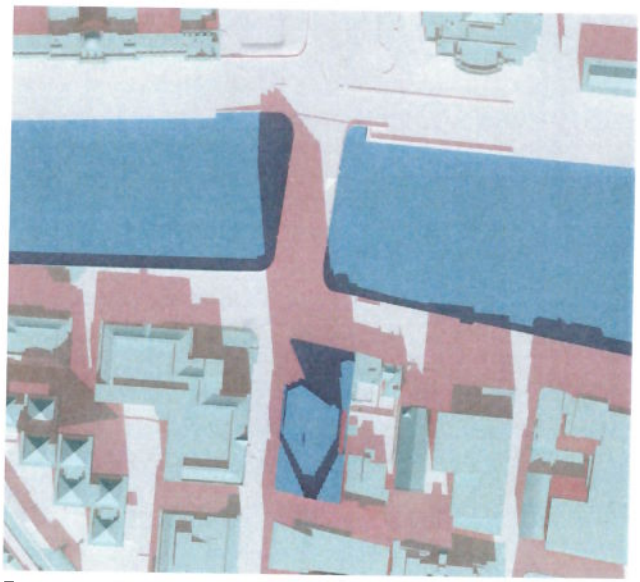
Existing plan view

LAP 3D view



LAP plan view

Proposed 3D view



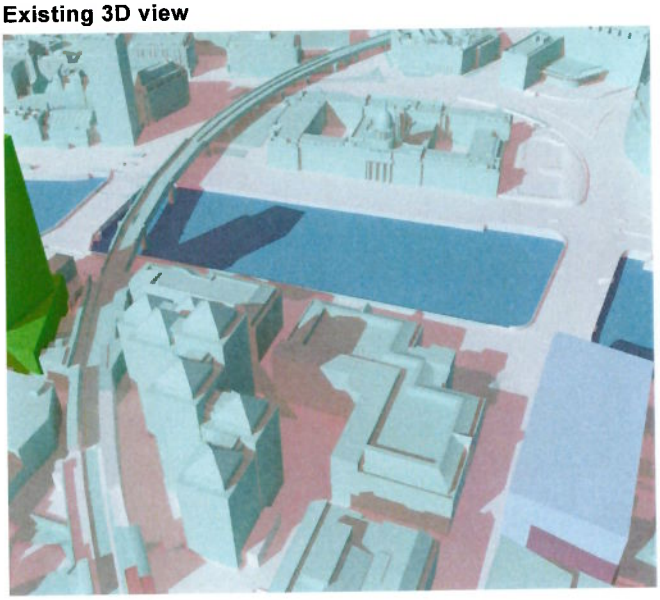
Proposed plan view

N

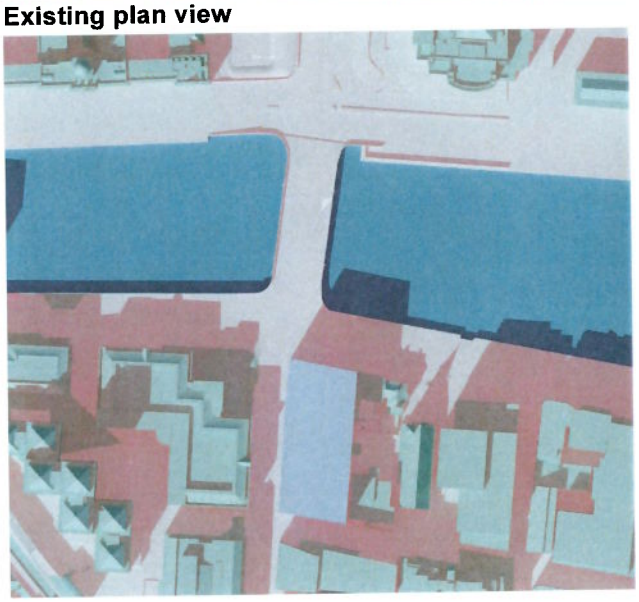
Figure 15: Shadow diagrams 21 September 13:00 UTC +1

Existing 3D view

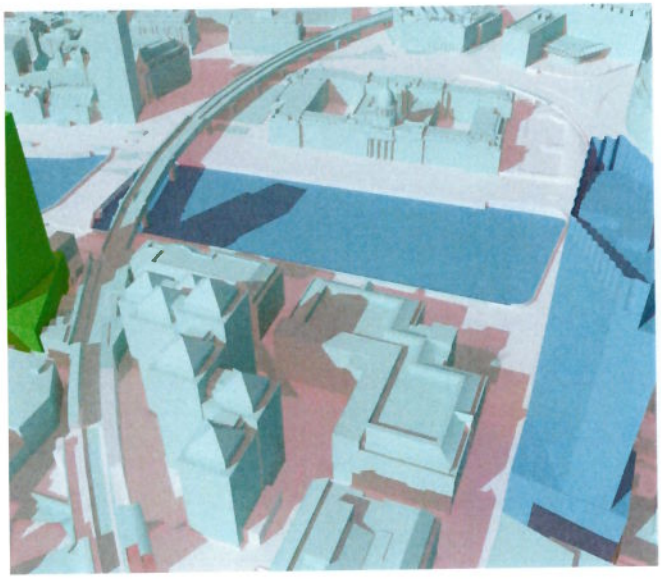
Existing plan view



LAP 3D view



LAP plan view



Proposed 3D view

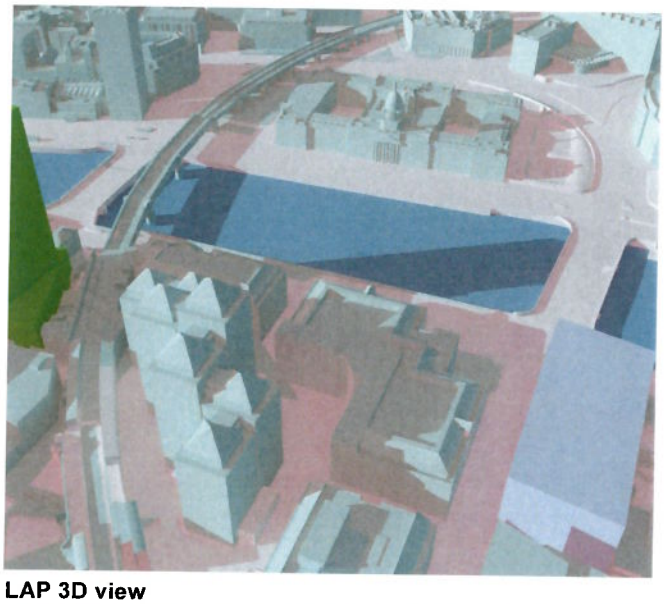
Proposed plan view

N

Figure 16: Shadow diagrams 21 September 15:00 UTC +1

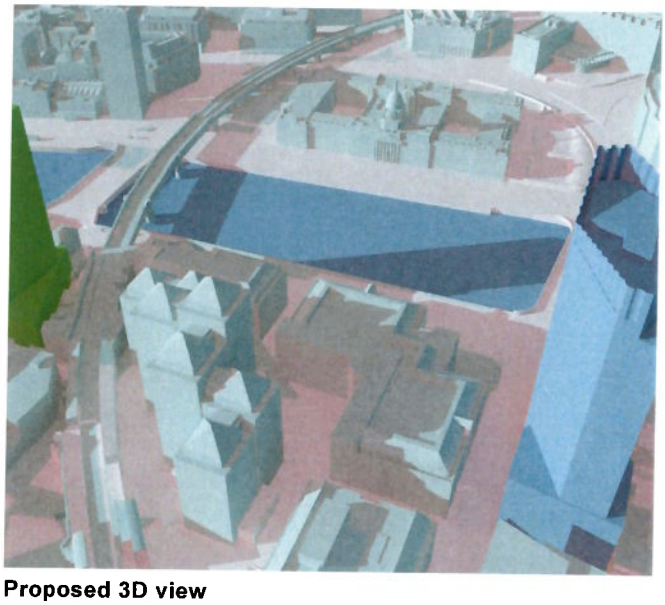
Existing 3D view

Existing plan view

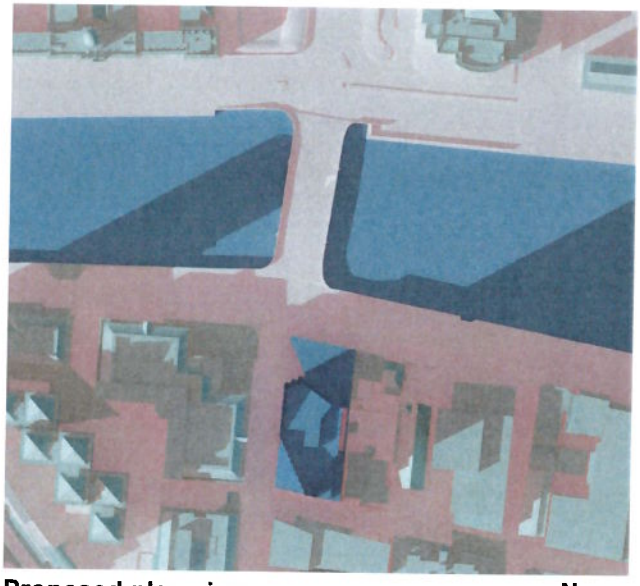


LAP 3D view

LAP plan view



Proposed 3D view



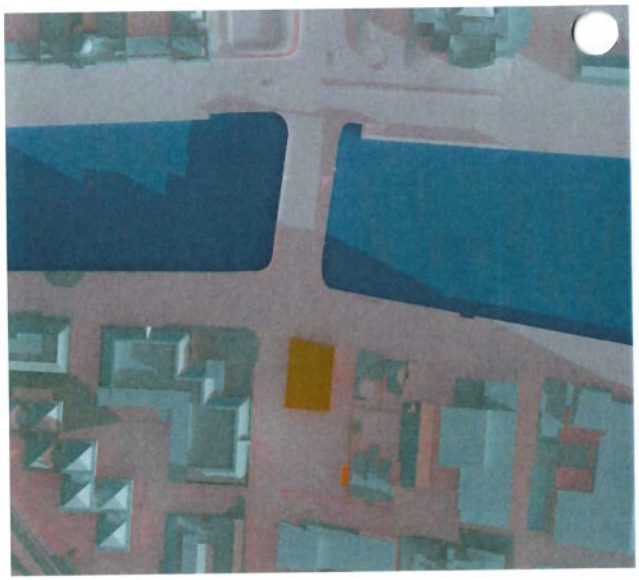
Proposed plan view

N

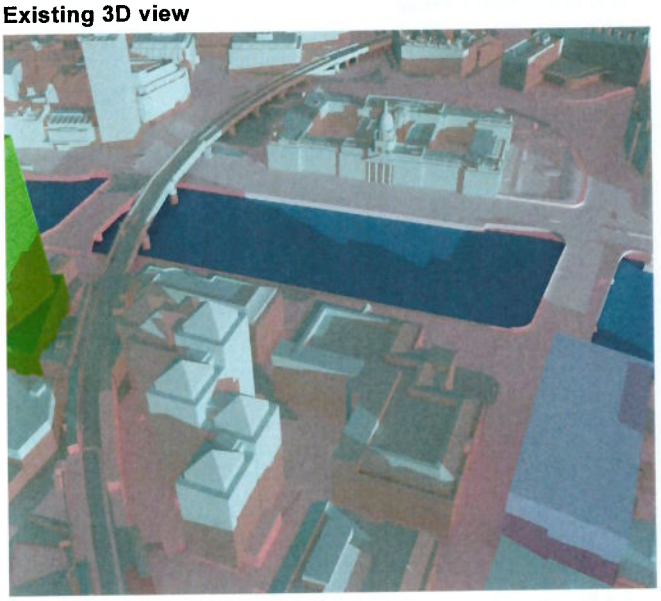
Figure 17: Shadow diagrams 21 September 17:00 UTC +1

5.4 Shadow Casting diagrams October

Existing 3D view

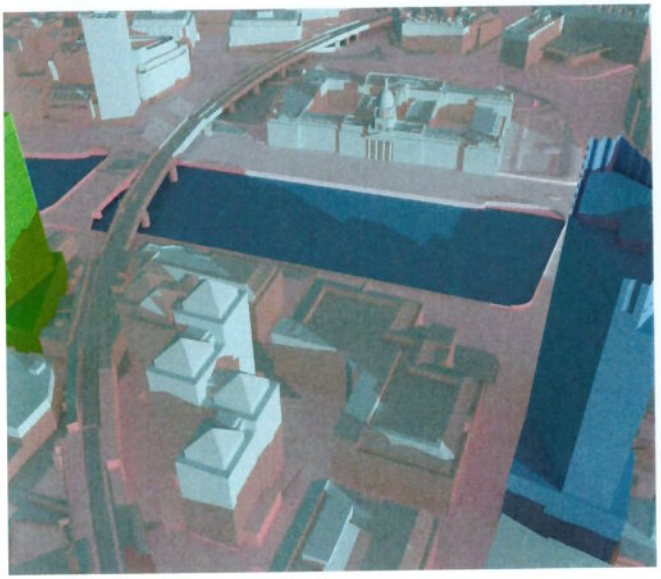


Existing plan view



LAP 3D view

LAP plan view



Proposed 3D view

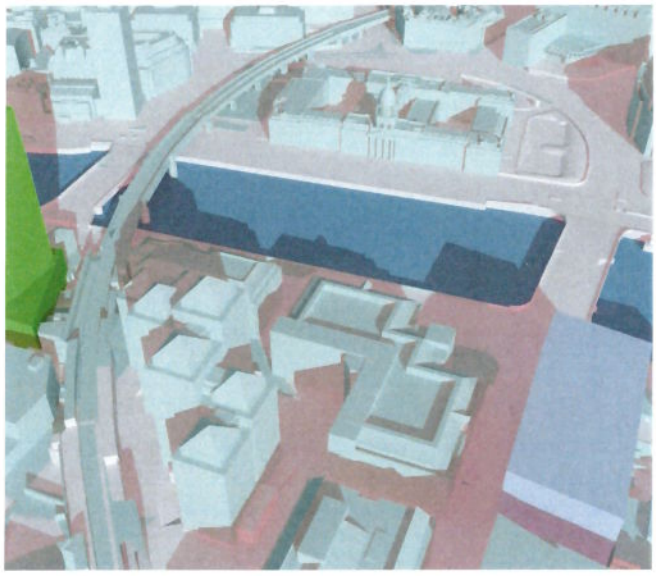
Proposed plan view

N

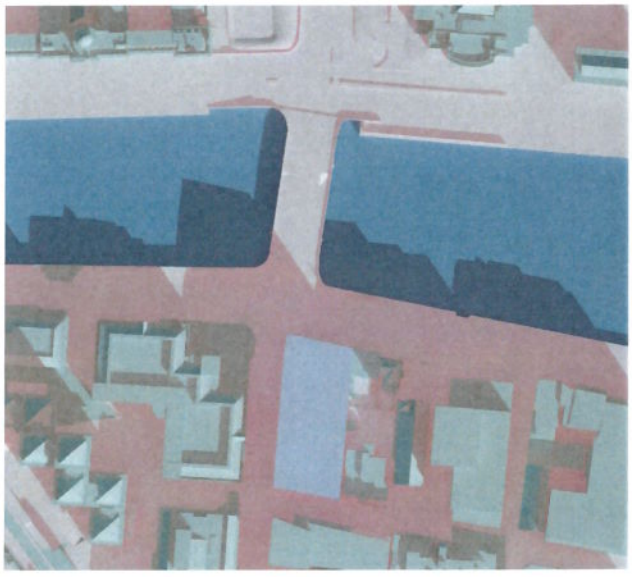
Figure 18: Shadow diagrams 21 October 09:00 UTC +1

Existing 3D view

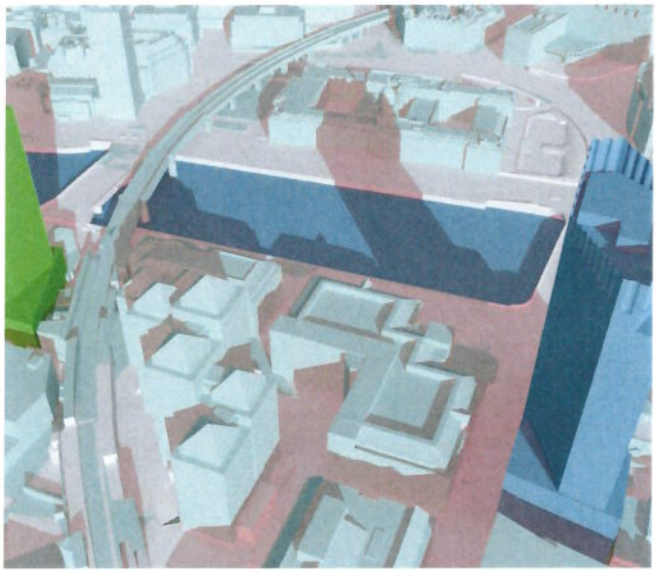
Existing plan view



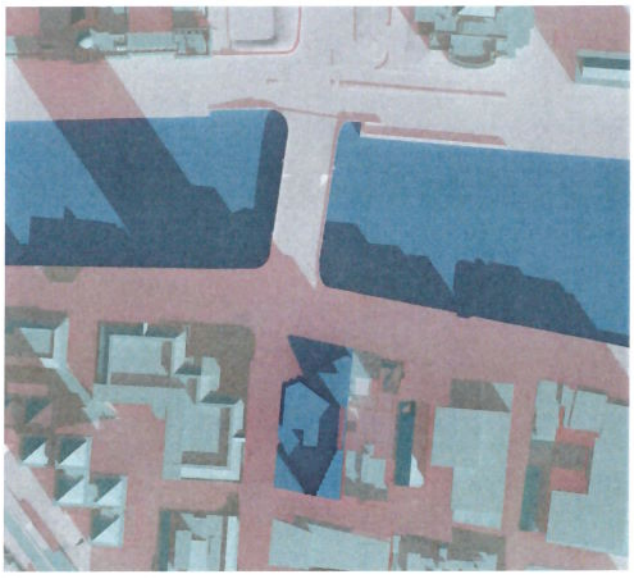
LAP 3D view



LAP plan view



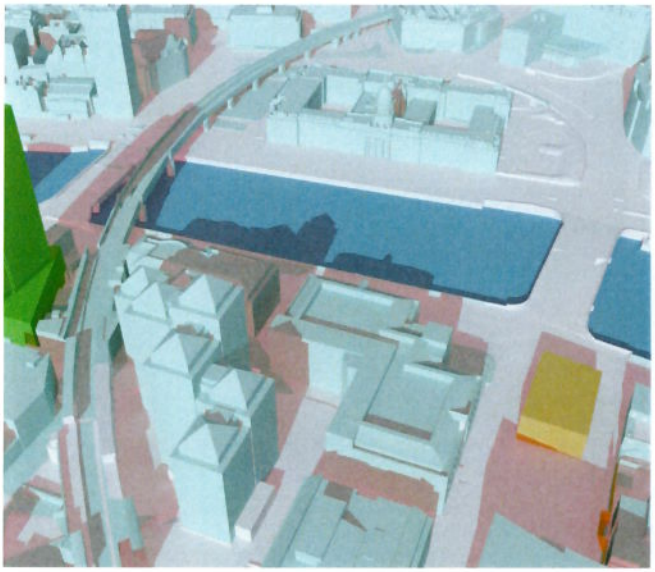
Proposed 3D view



Proposed plan view

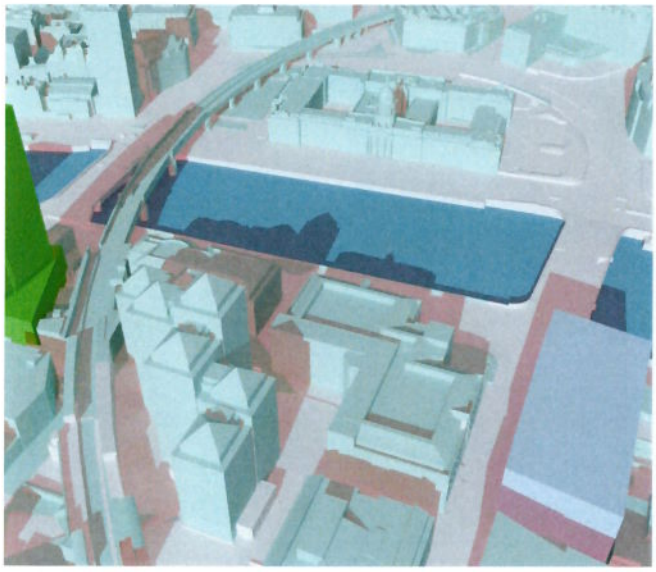
N

Figure 19: Shadow diagrams 21 October 11:00 UTC +1

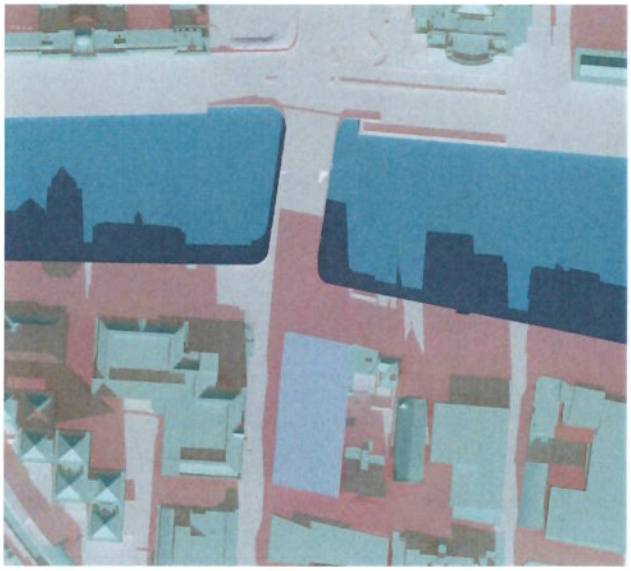


Existing 3D view

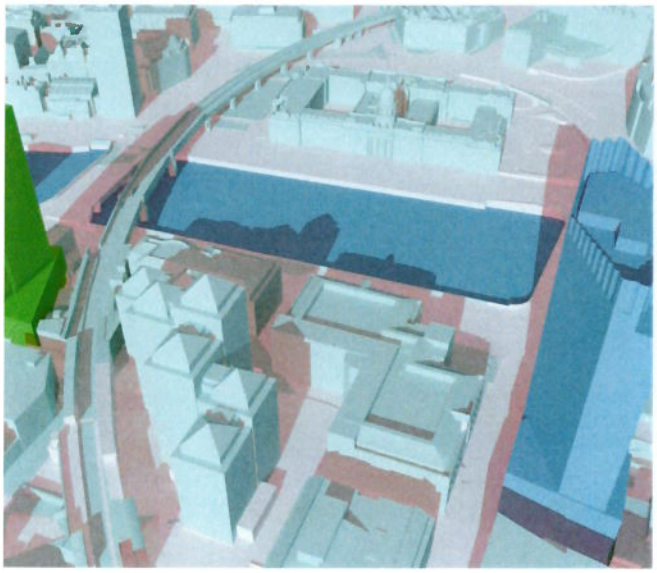
Existing plan view



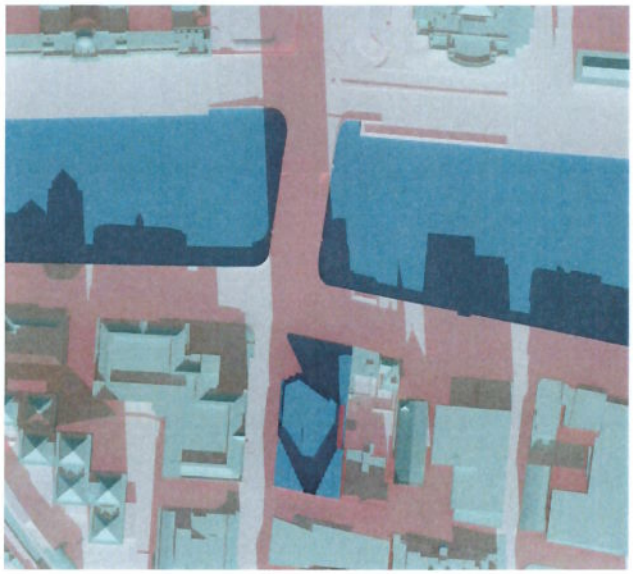
LAP 3D view



LAP plan view



Proposed 3D view

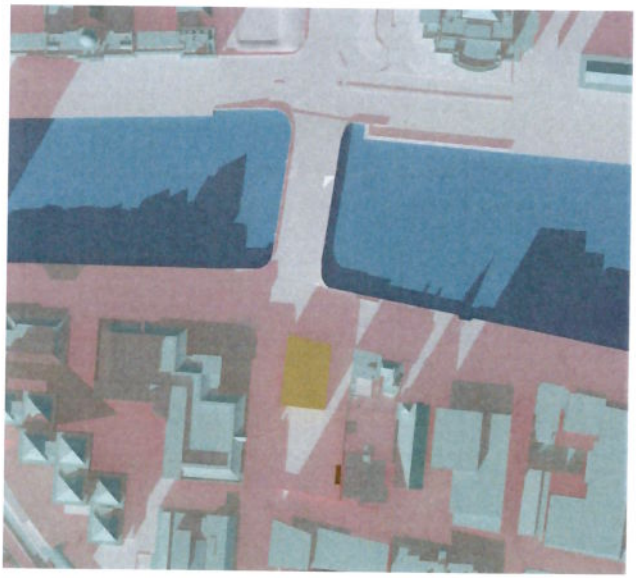


Proposed plan view

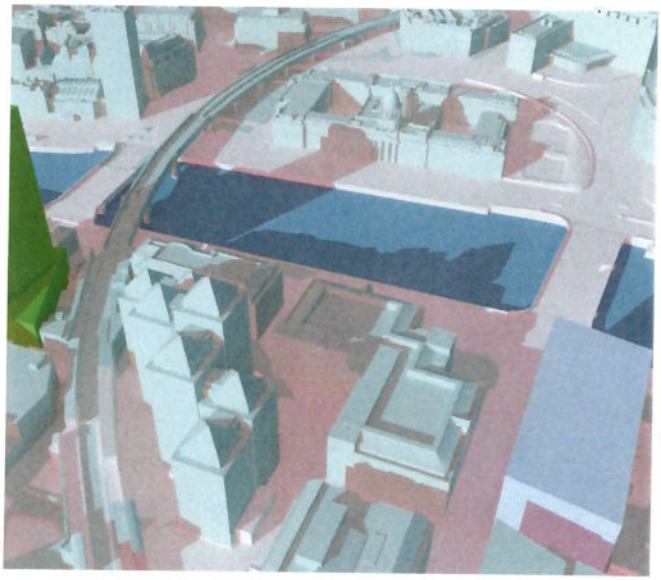
N

Figure 20: Shadow diagrams 21 October 13:00 UTC +1

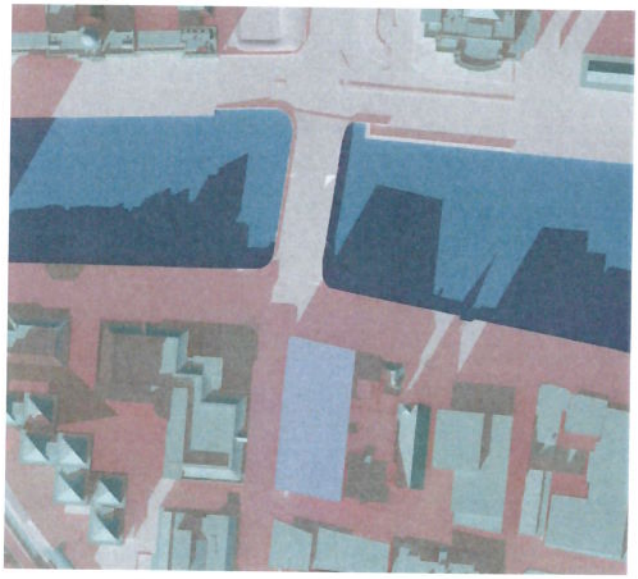
Existing 3D view



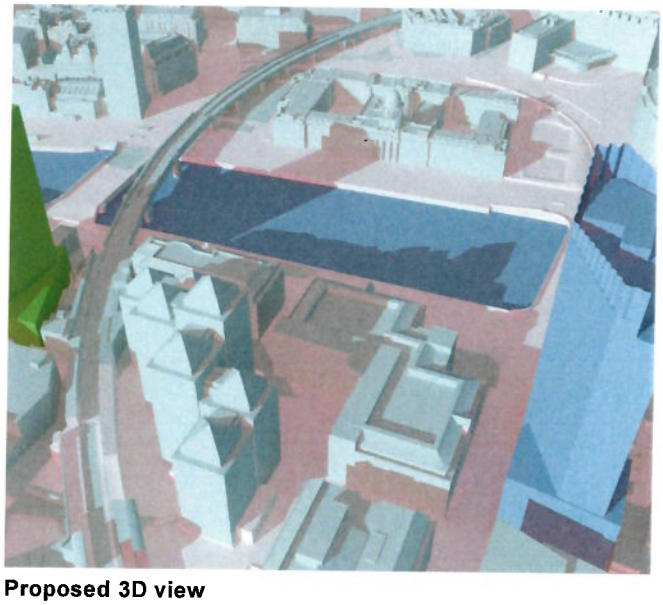
Existing plan view



LAP 3D view



LAP plan view

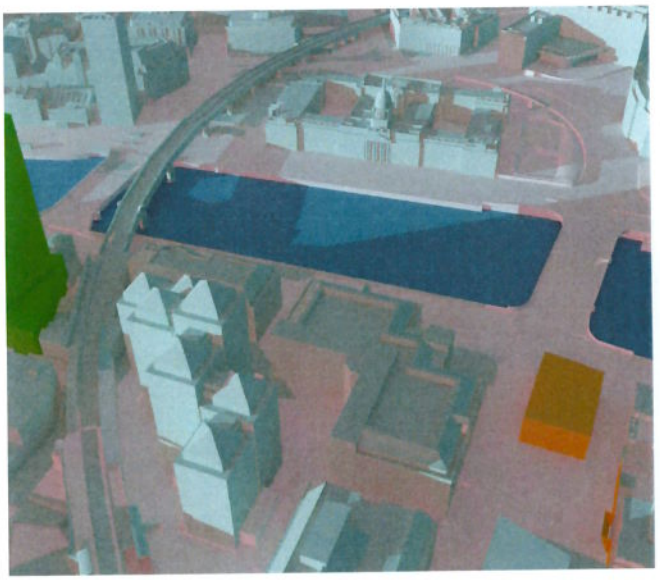


Proposed 3D view

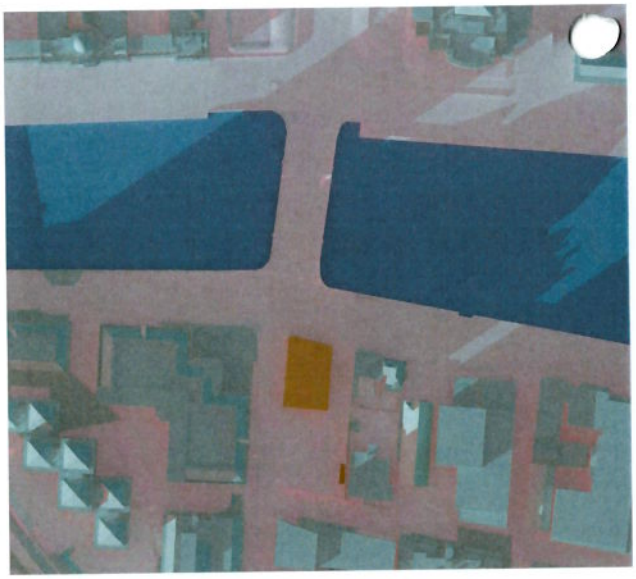
Proposed plan view

N

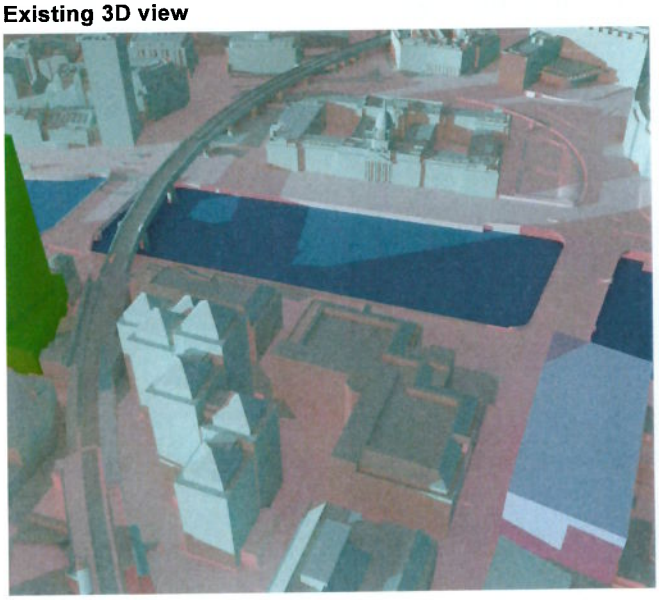
Figure 21: Shadow diagrams 21 October 15:00 UTC +1



Existing 3D view



Existing plan view



LAP 3D view

LAP plan view

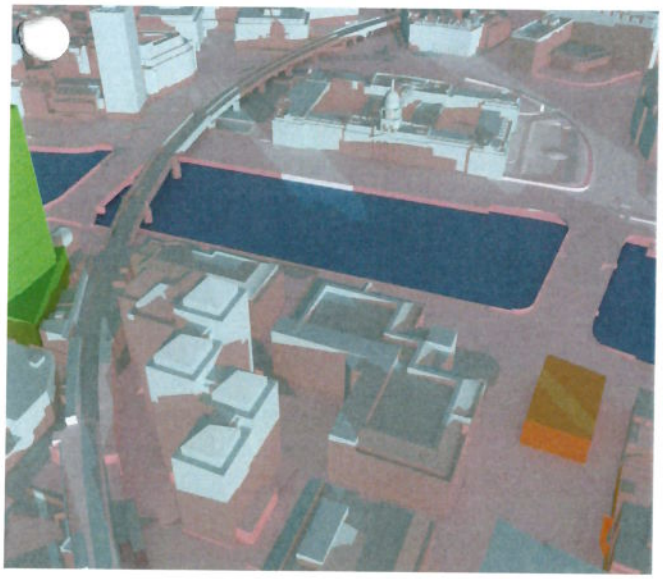
Proposed 3D view

Proposed plan view

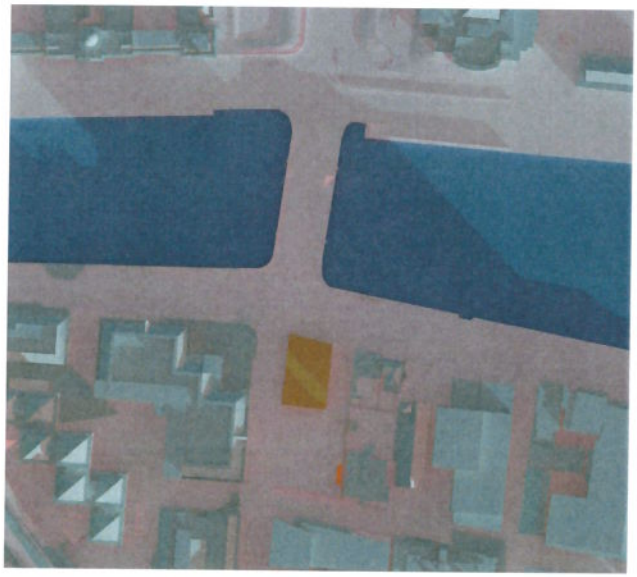
N

Figure 22: Shadow diagrams 21 October 17:00 UTC +1

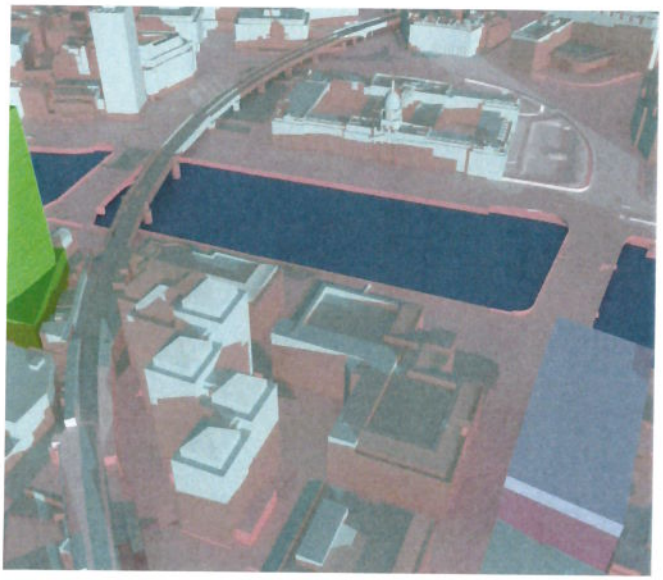
5.5 Shadow Casting diagrams November



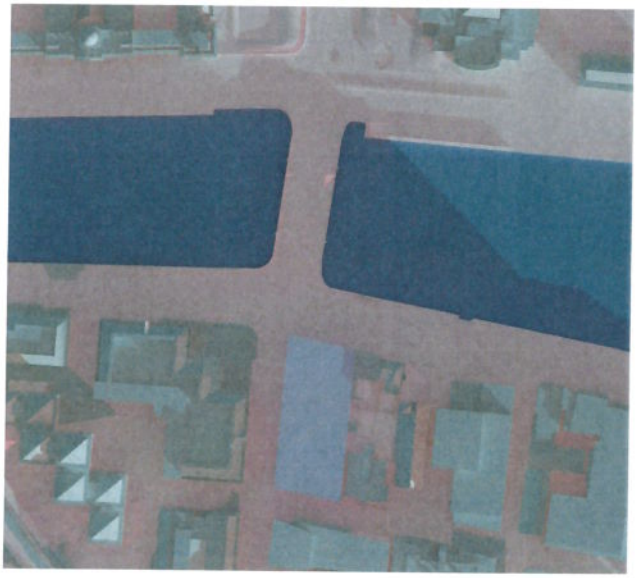
Existing 3D view



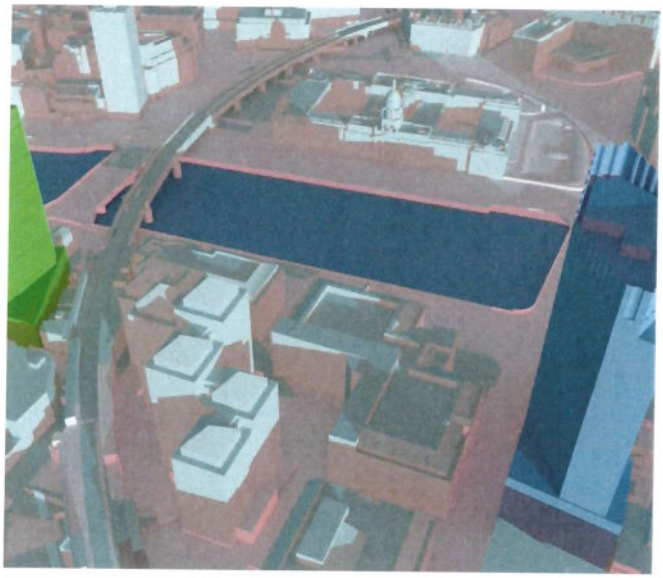
Existing plan view



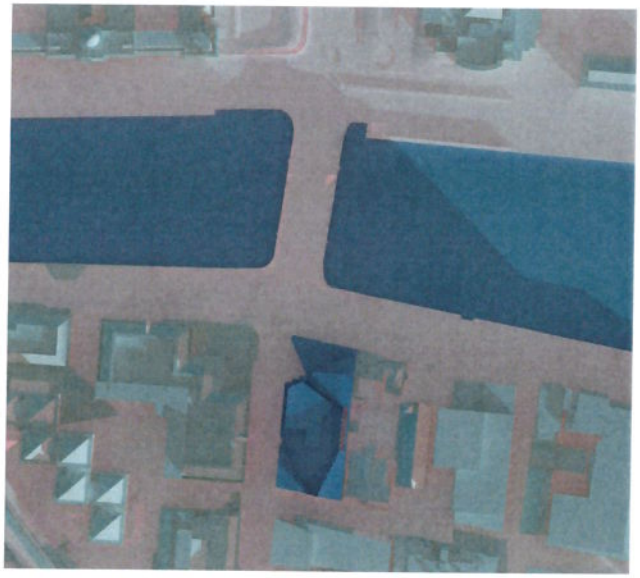
LAP 3D view



LAP plan view



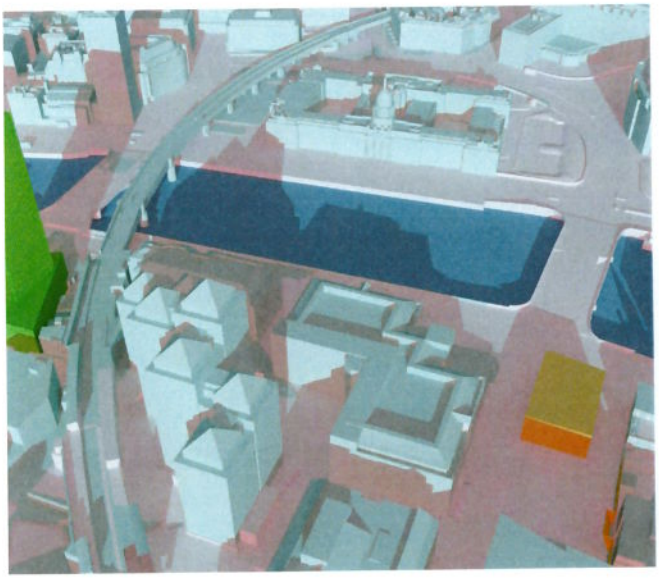
Proposed 3D view



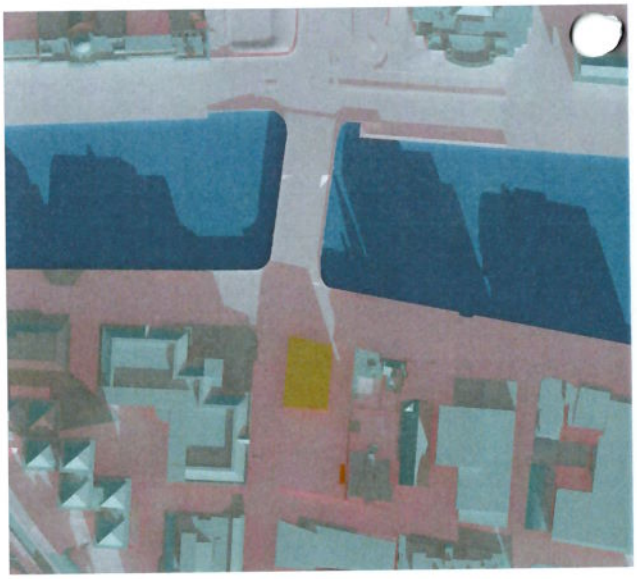
Proposed plan view

N

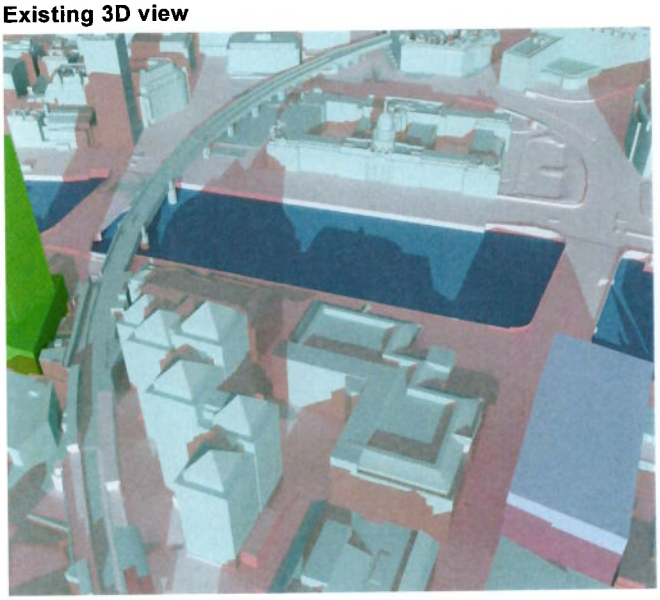
Figure 23: Shadow diagrams 21 November 09:00 UTC



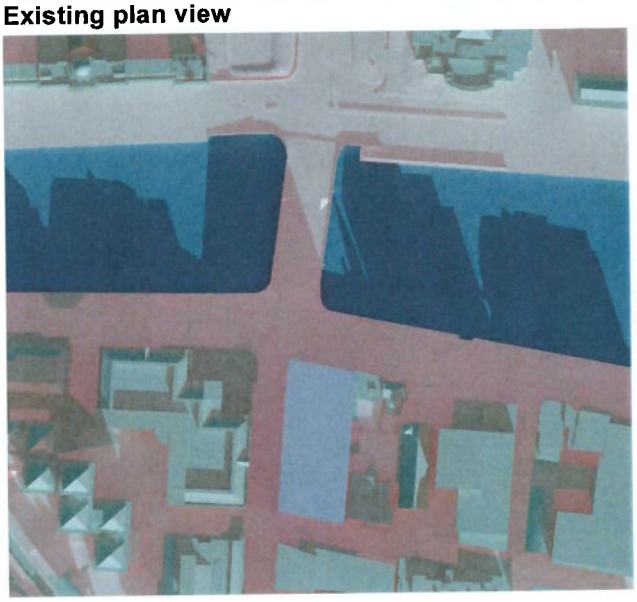
Existing 3D view



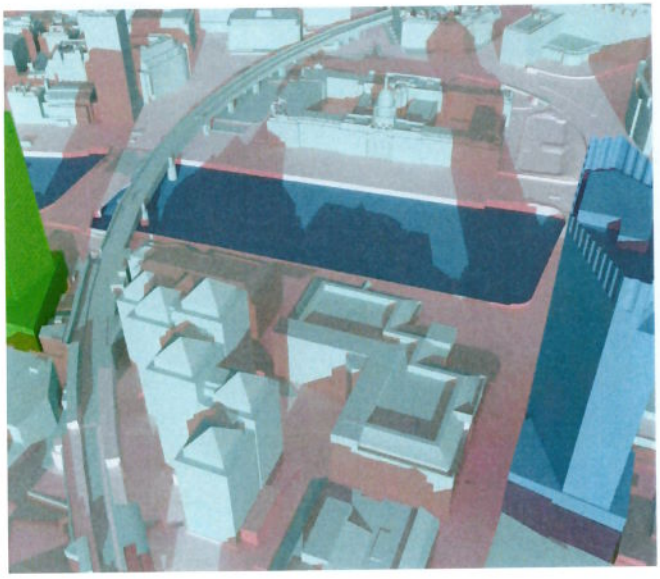
Existing plan view



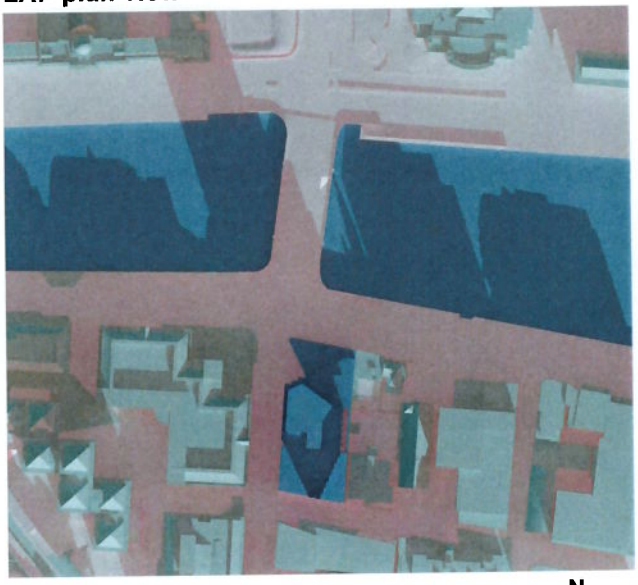
LAP 3D view



LAP plan view



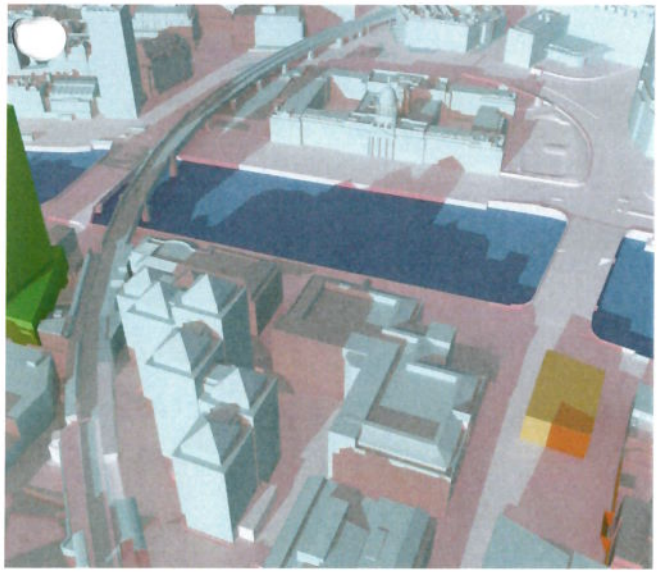
Proposed 3D view



Proposed plan view

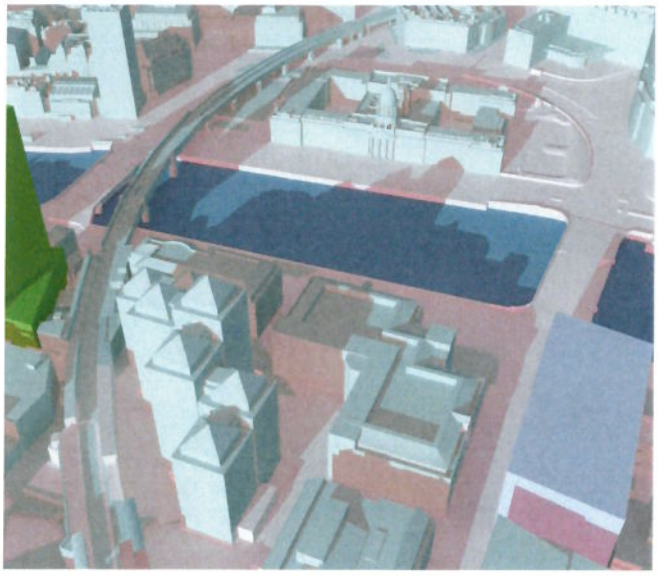
N

Figure 24: Shadow diagrams 21 November 11:00 UTC



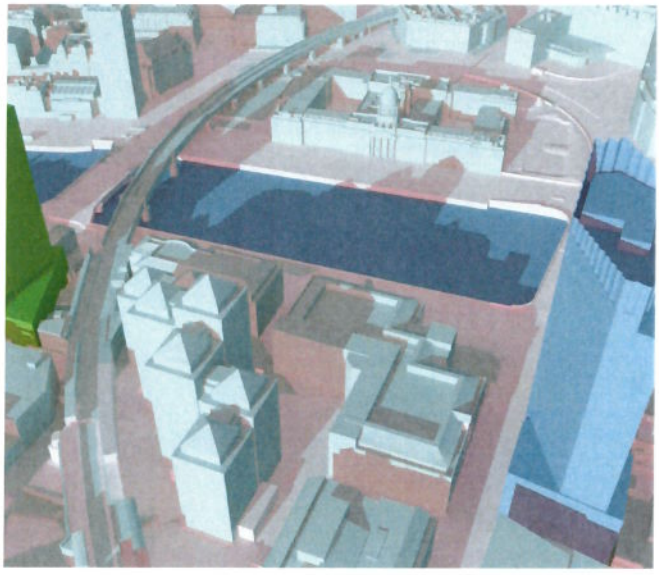
Existing 3D view

Existing plan view

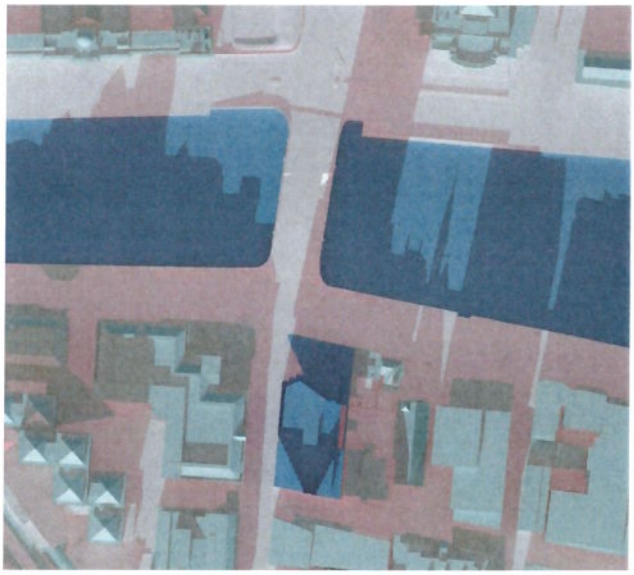


LAP 3D view

LAP plan view



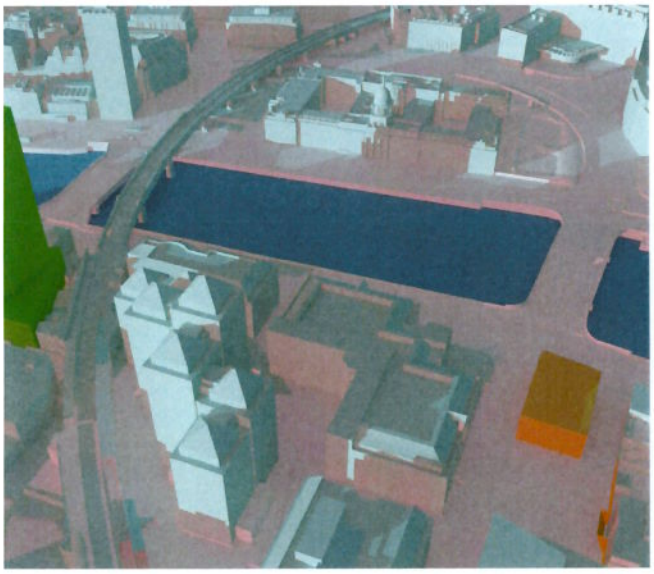
Proposed 3D view



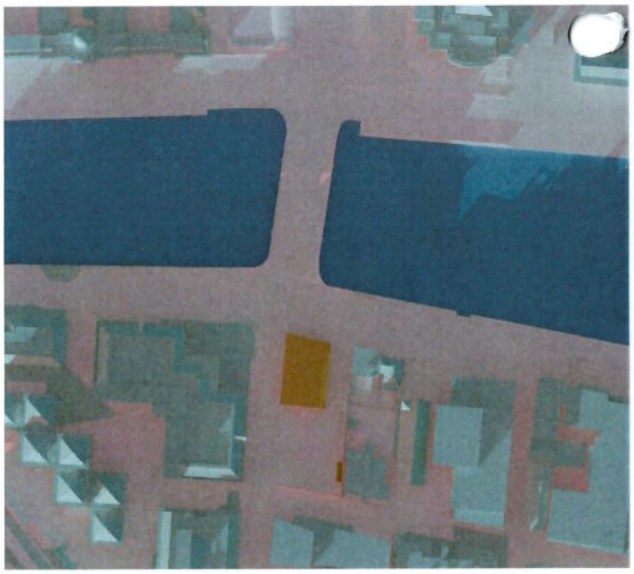
Proposed plan view

N

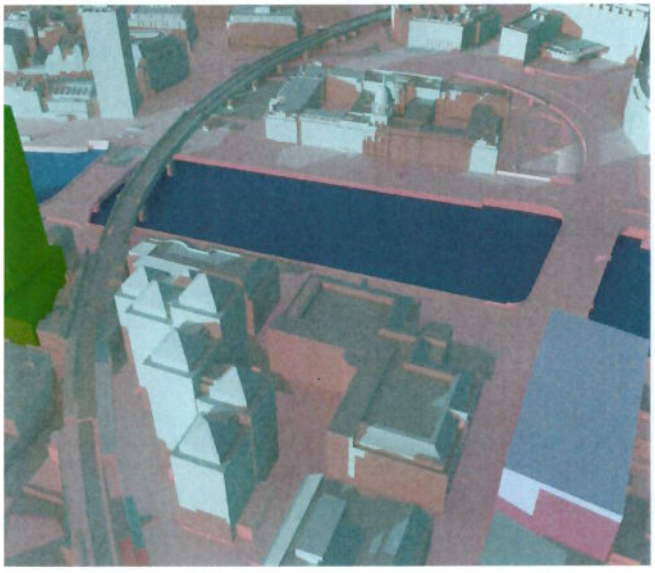
Figure 25: Shadow diagrams 21 November 13:00 UTC



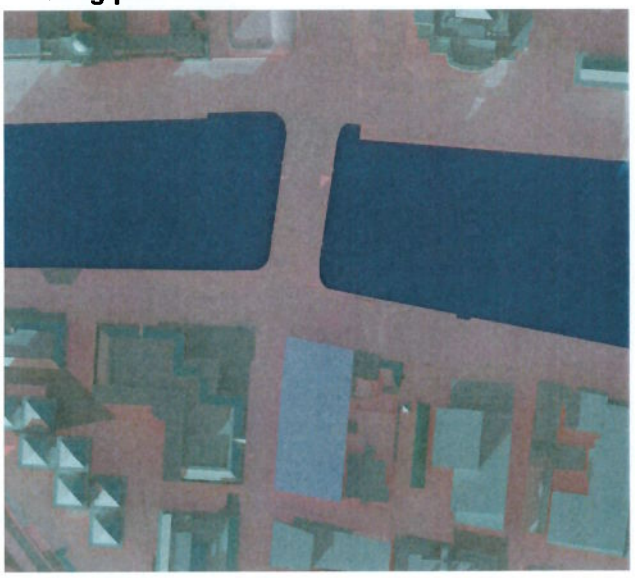
Existing 3D view



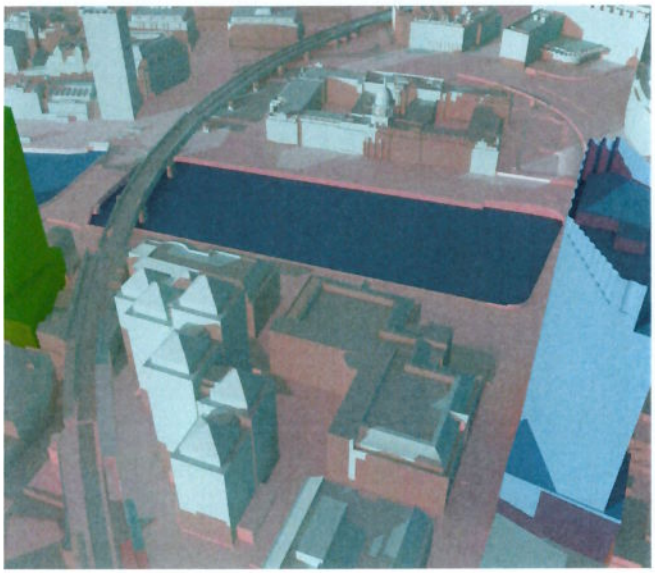
Existing plan view



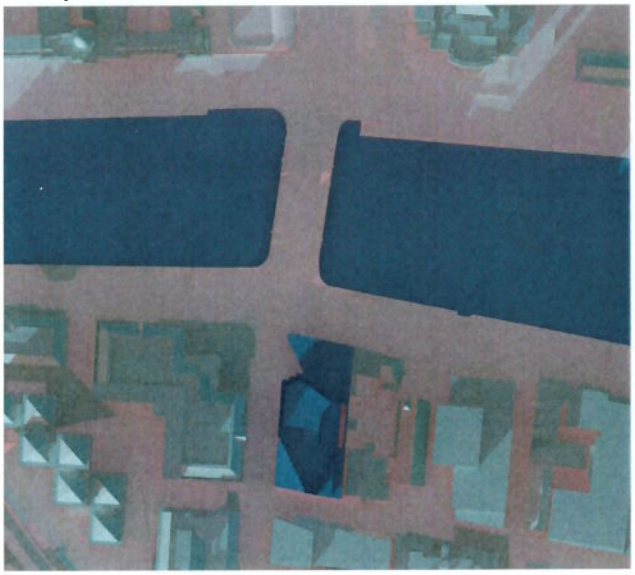
LAP 3D view



LAP plan view



Proposed 3D view

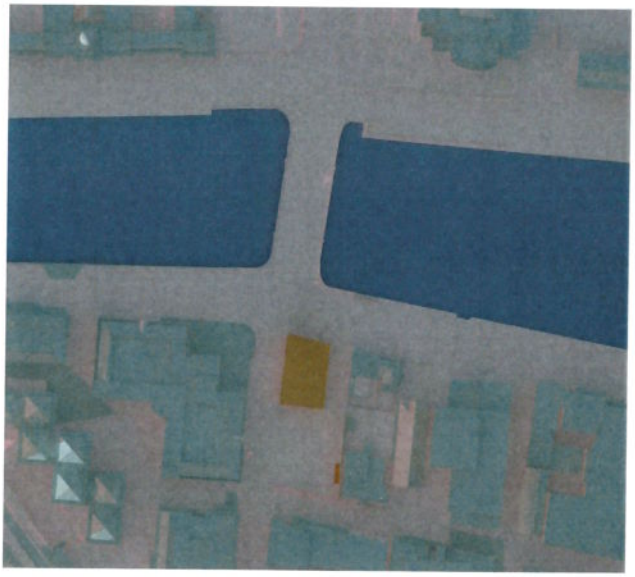


Proposed plan view

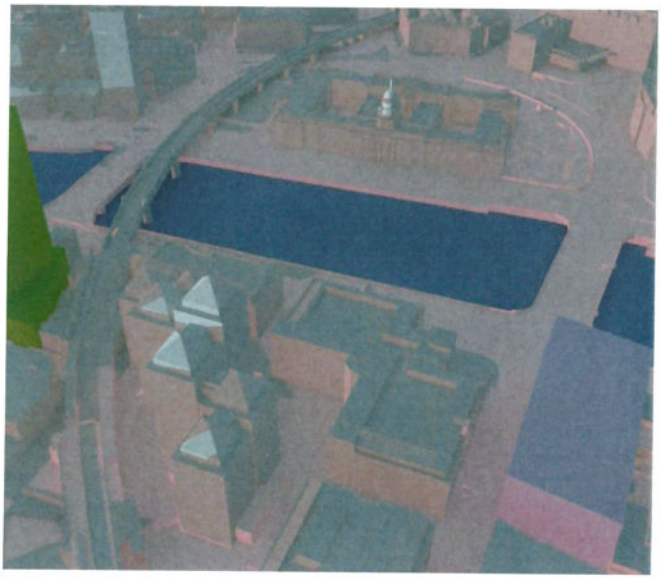
N

Figure 26: Shadow diagrams 21 November 15:00 UTC

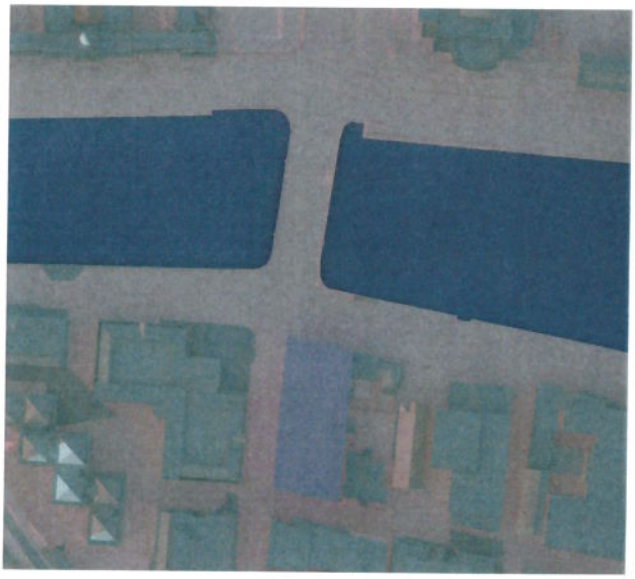
Existing 3D view



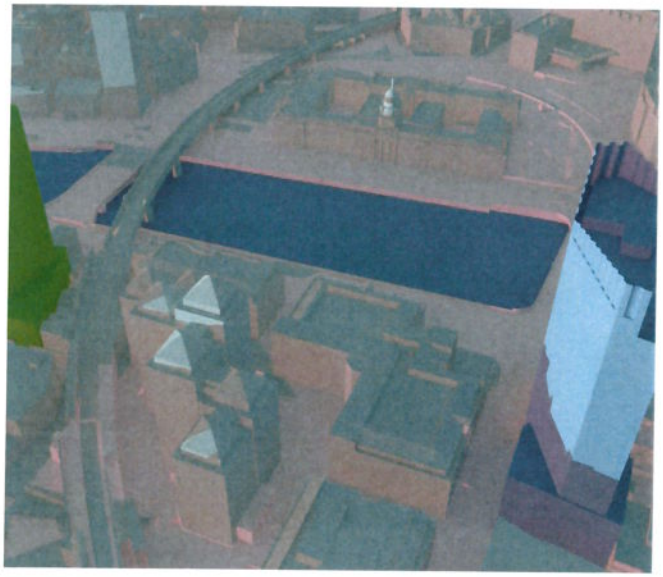
Existing plan view



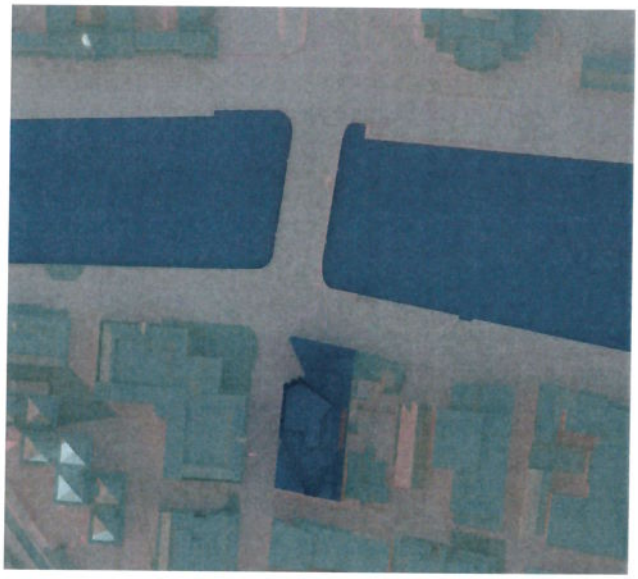
LAP 3D view



LAP plan view



Proposed 3D view

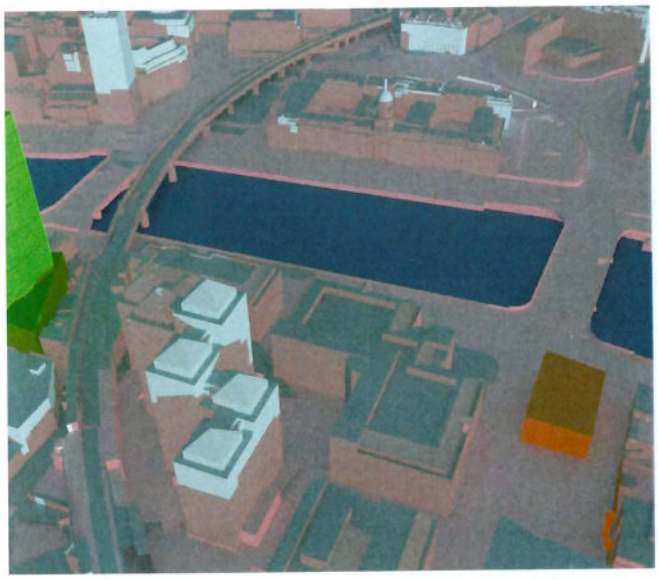


Proposed plan view

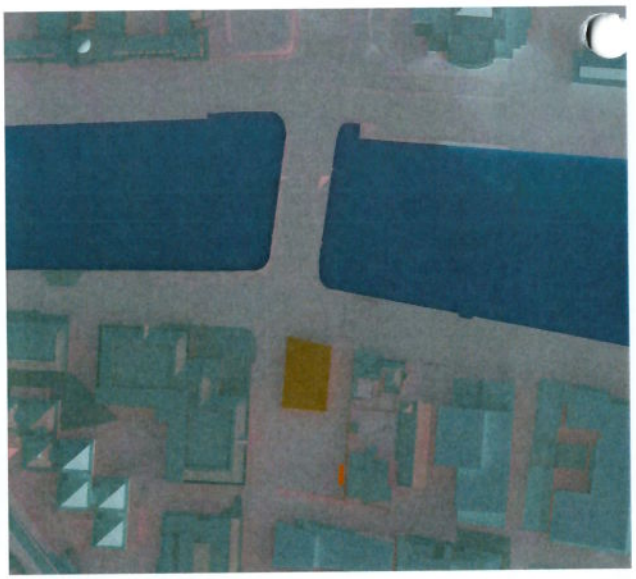
N

Figure 27: Shadow diagrams 21 November 17:00 UTC

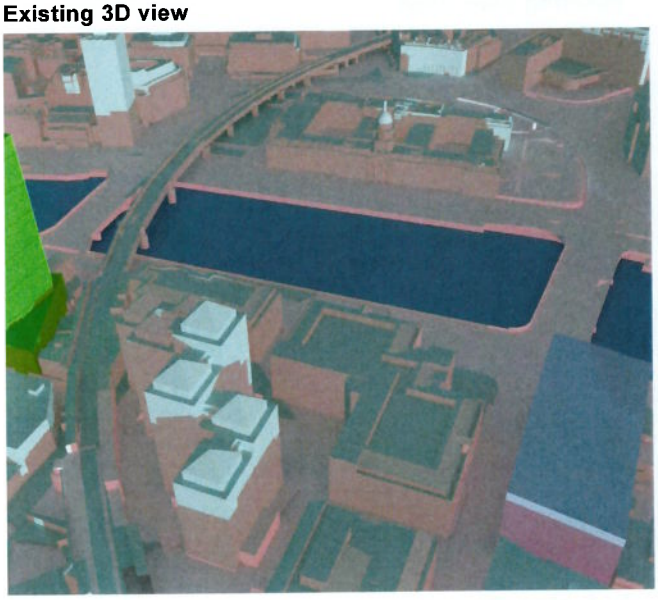
4.6 Shadow Casting diagrams December Solstice



Existing 3D view

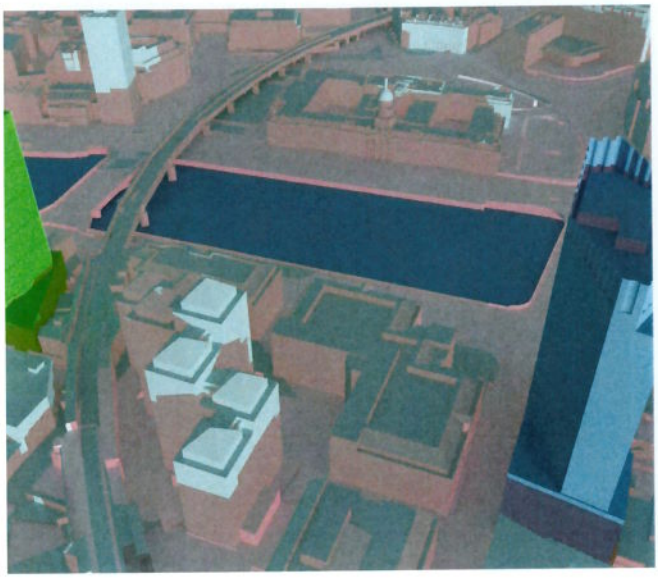


Existing plan view



LAP 3D view

LAP plan view

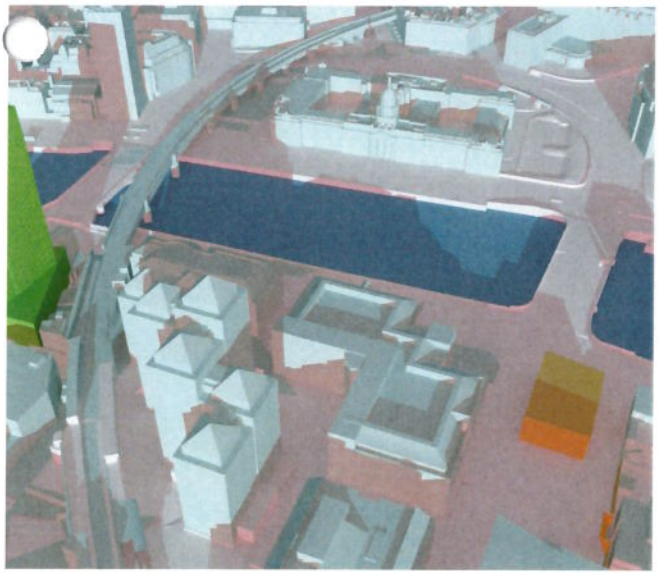


Proposed 3D view

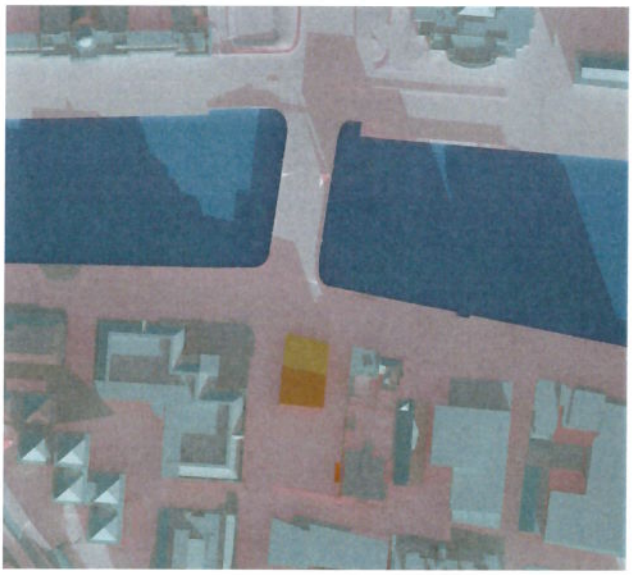
Proposed plan view

N

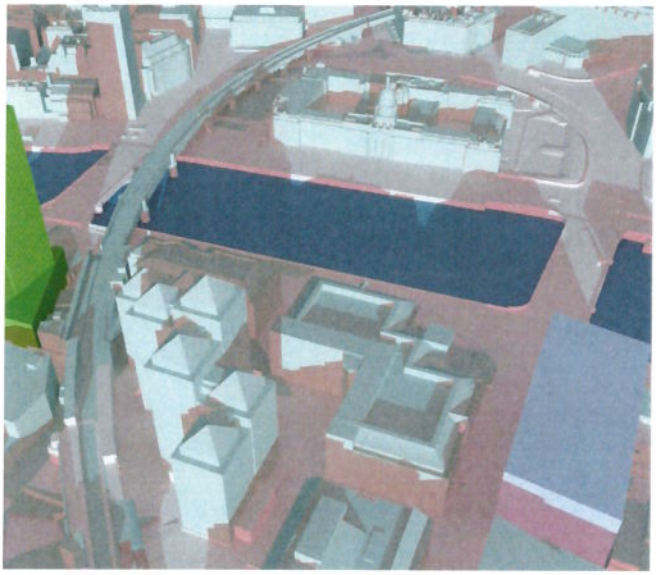
Figure 28: Shadow diagrams 21 December 09:00 UTC



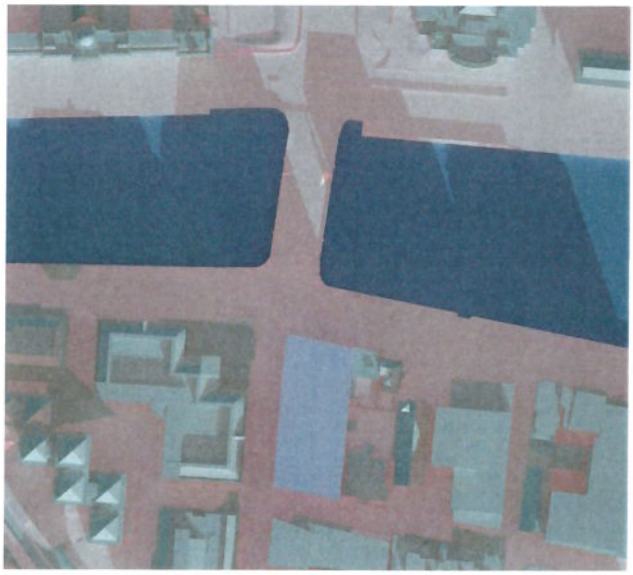
Existing 3D view



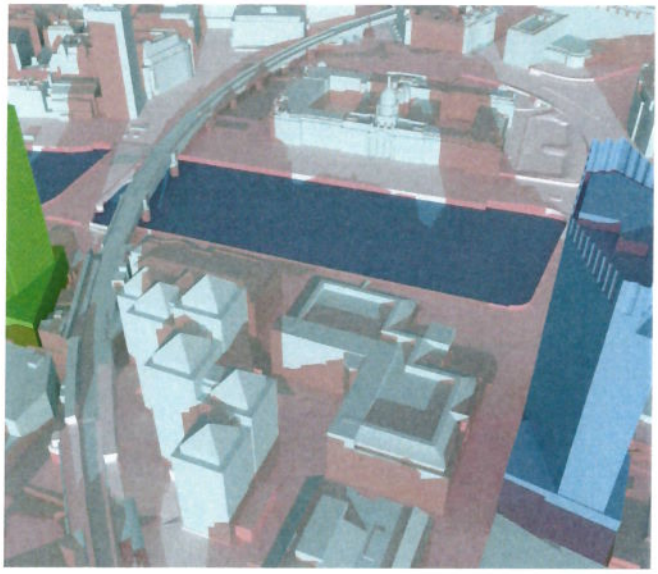
Existing plan view



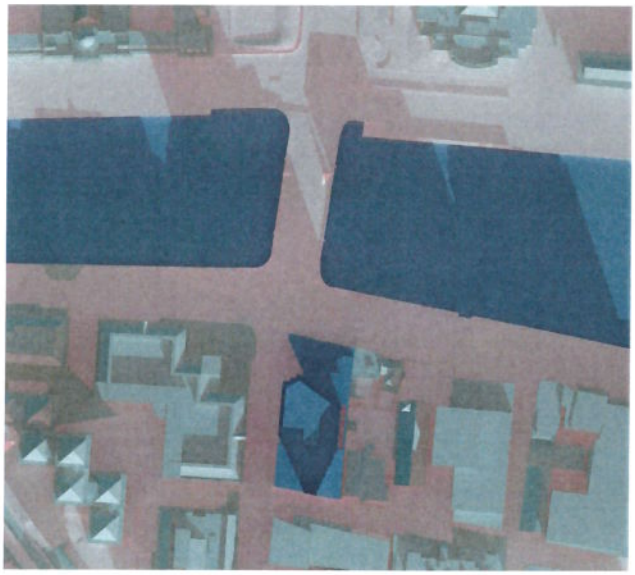
LAP 3D view



LAP plan view



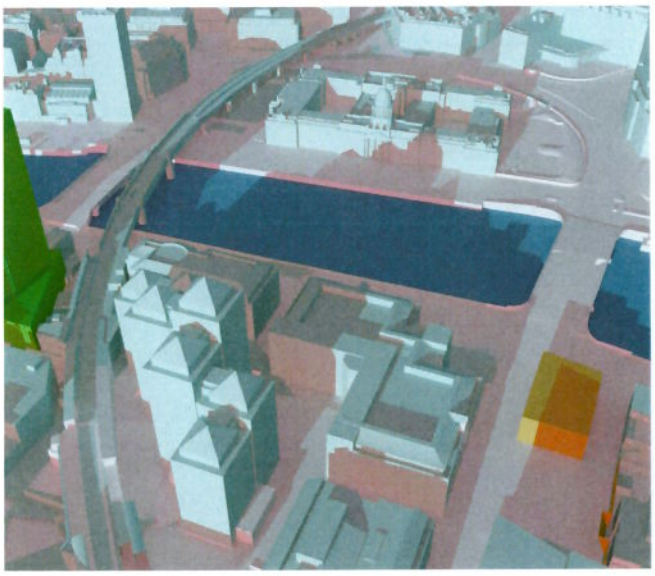
Proposed 3D view



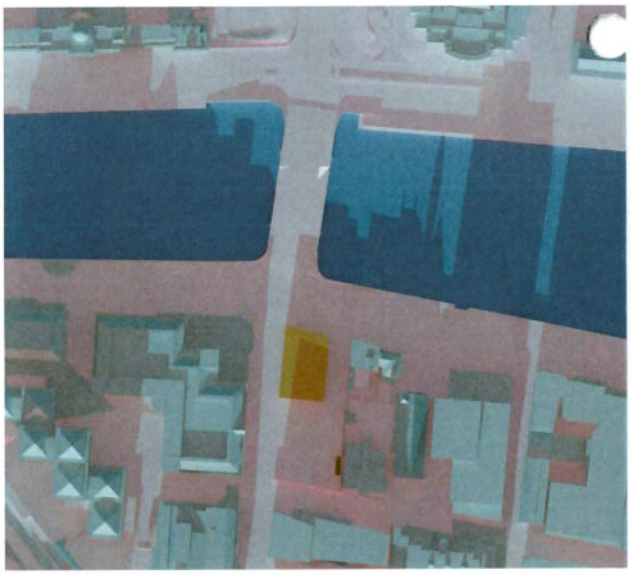
Proposed plan view

N

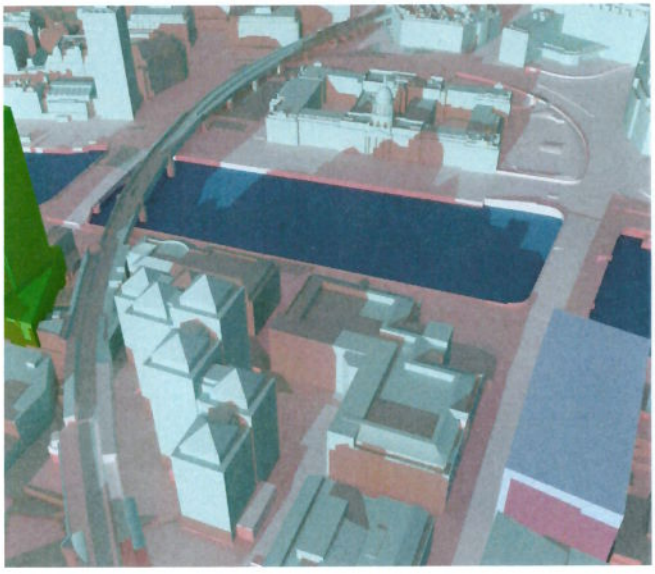
Figure 29: Shadow diagrams 21 December 11:00 UTC



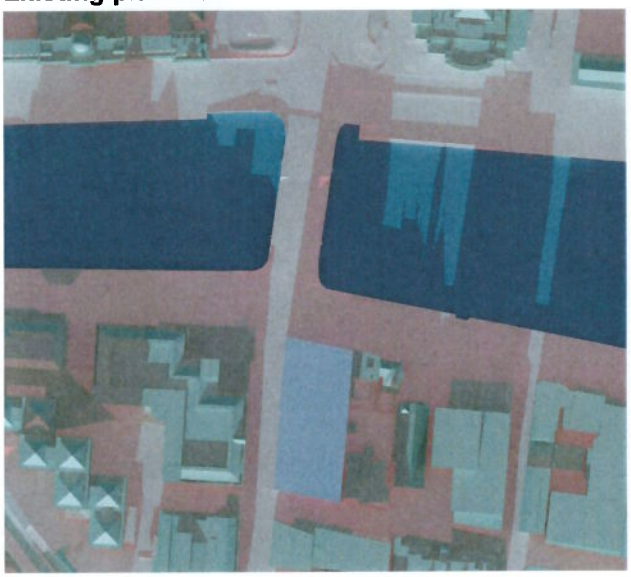
Existing 3D view



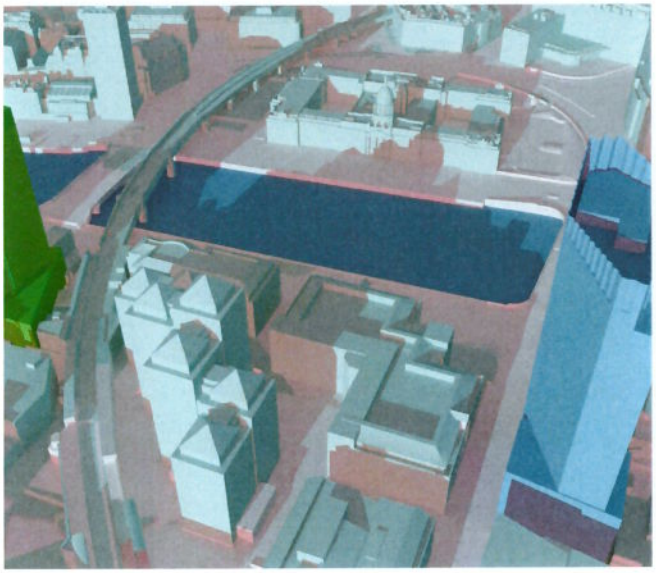
Existing plan view



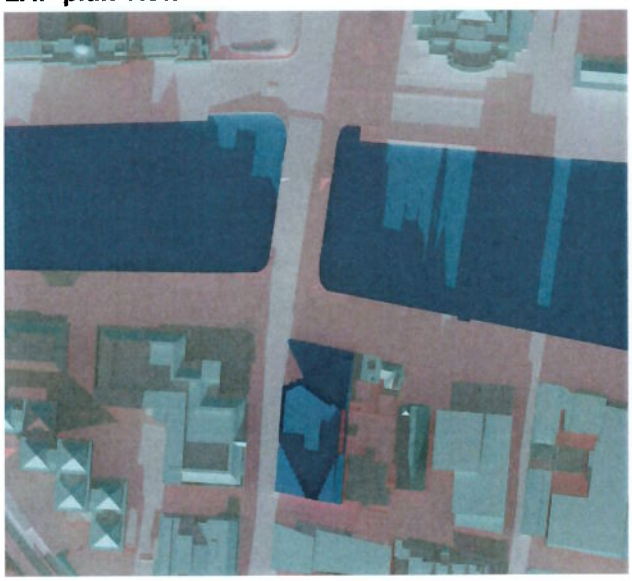
LAP 3D view



LAP plan view



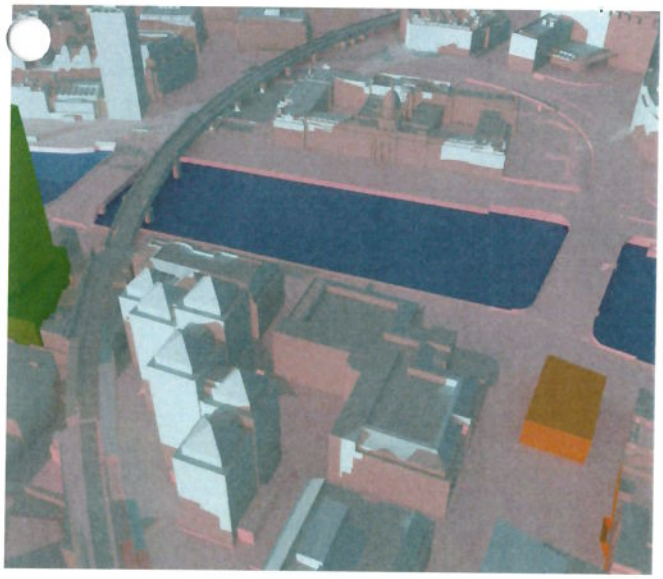
Proposed 3D view



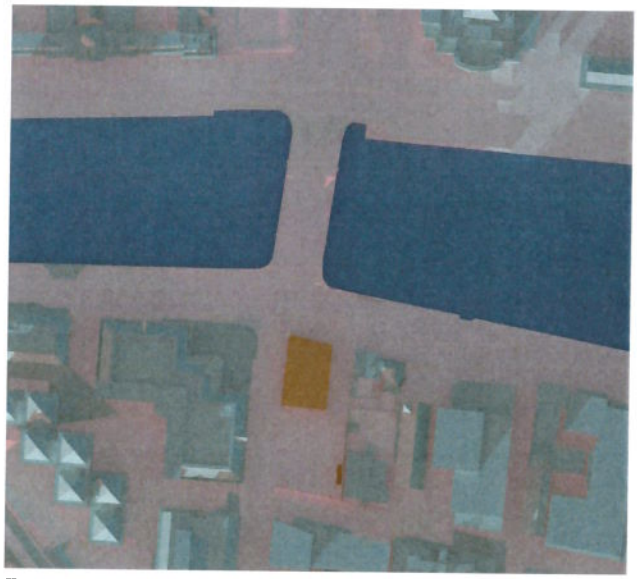
Proposed plan view

N

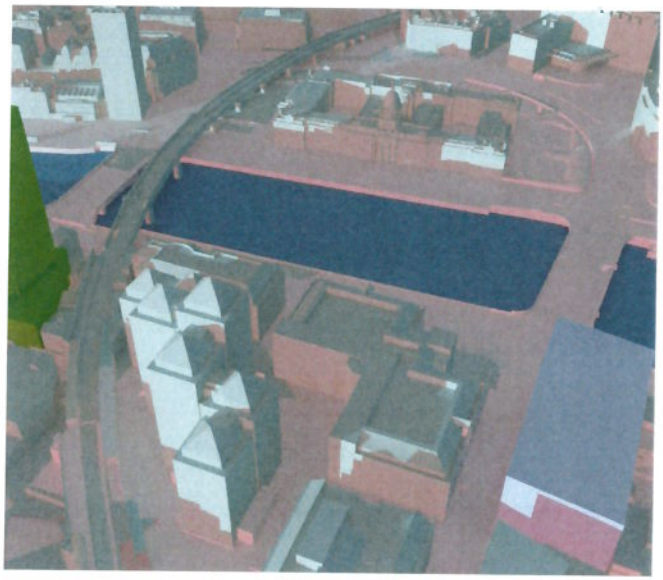
Figure 30: Shadow diagrams 21 December 13:00 UTC



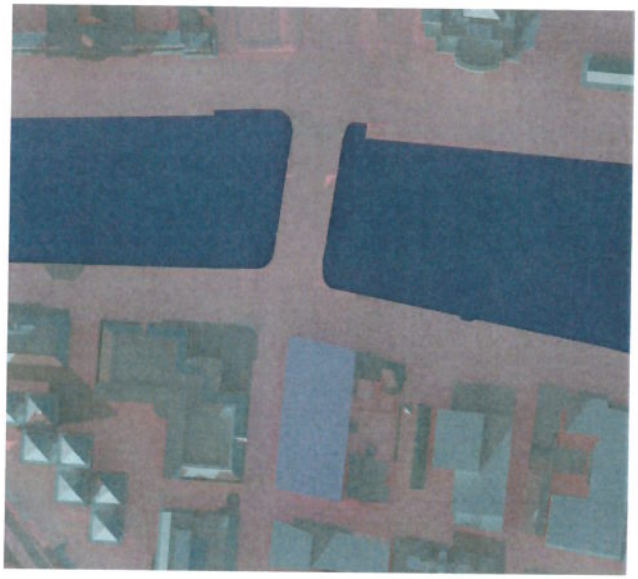
Existing 3D view



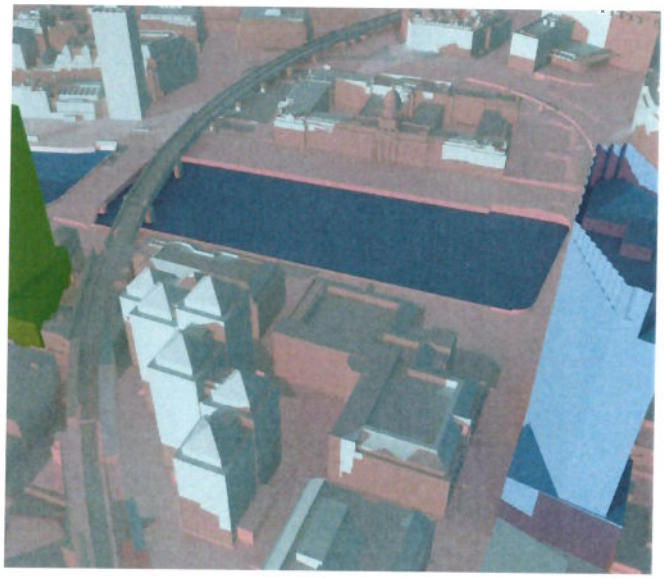
Existing plan view



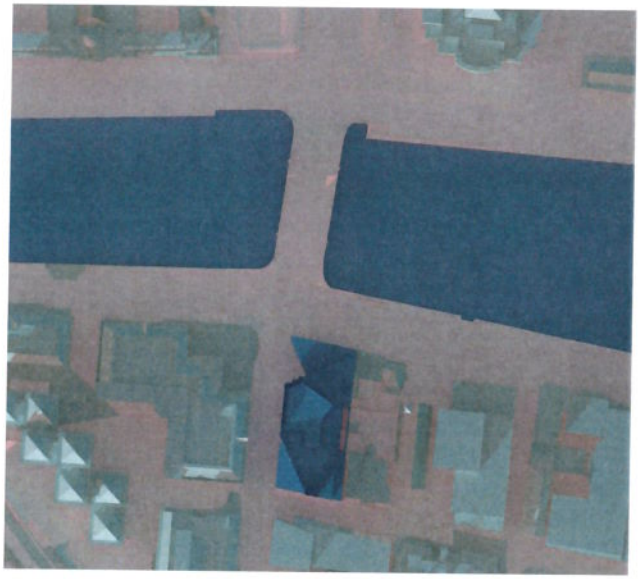
LAP 3D view



LAP plan view



Proposed 3D view

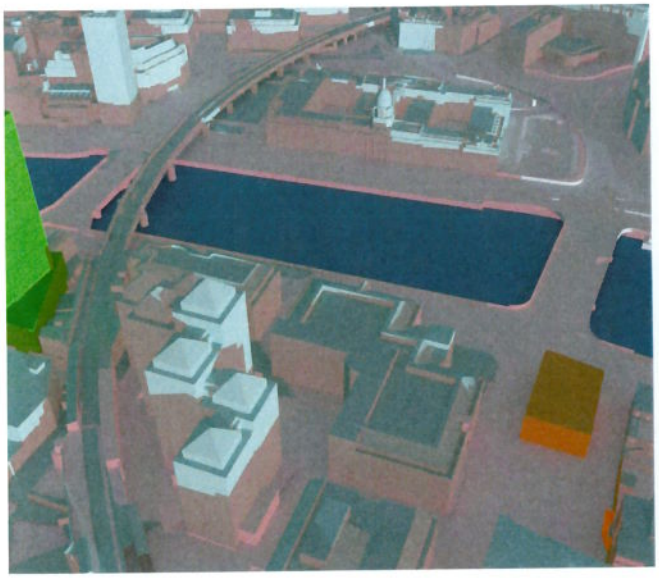


Proposed plan view

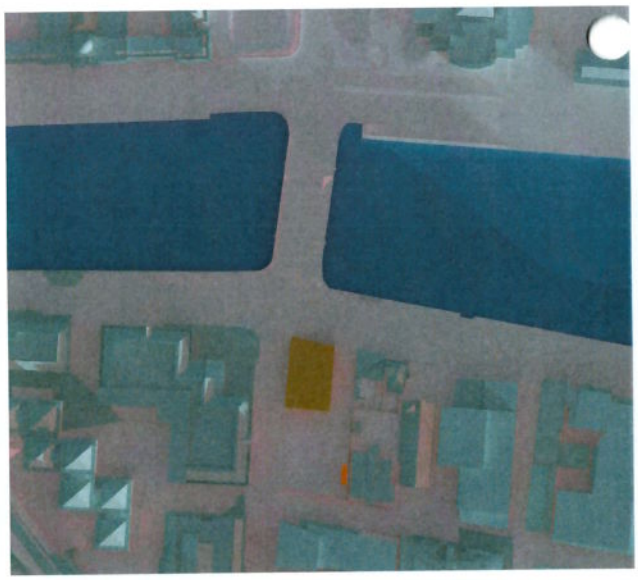
N

Figure 31: Shadow diagrams 21 December 15:00 UTC

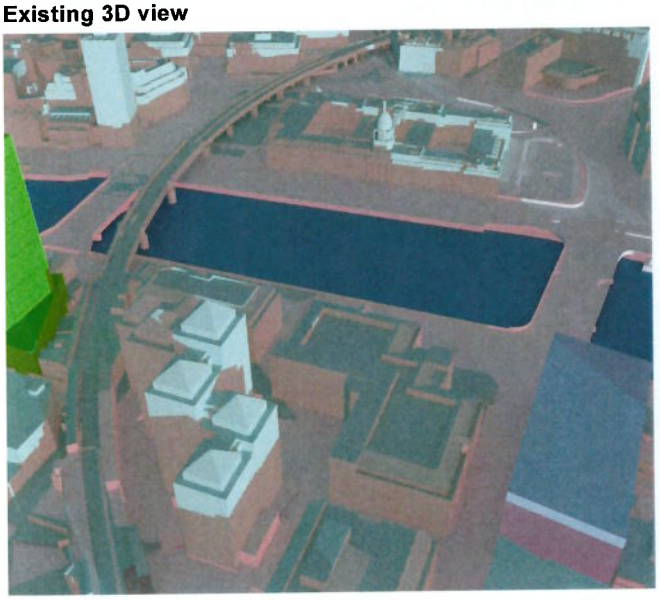
5.7 Shadow Casting diagrams January



Existing 3D view

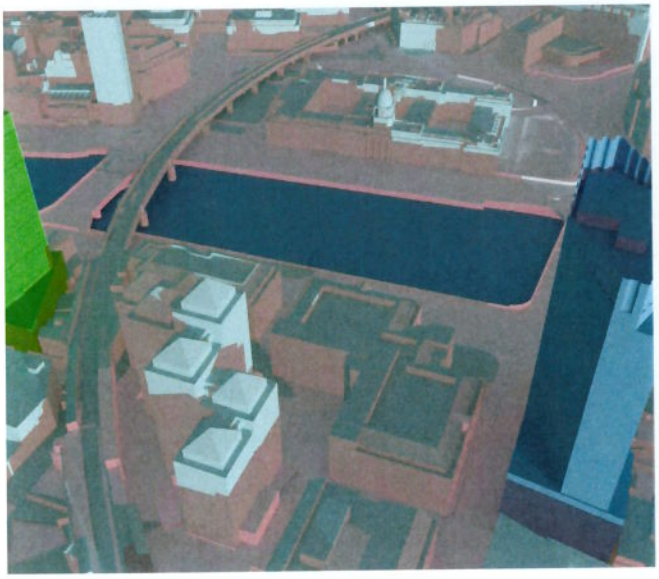


Existing plan view



LAP 3D view

LAP plan view

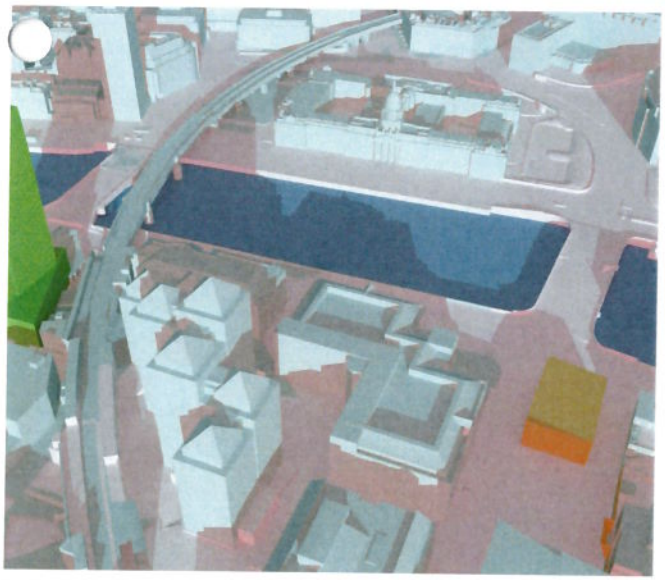


Proposed 3D view

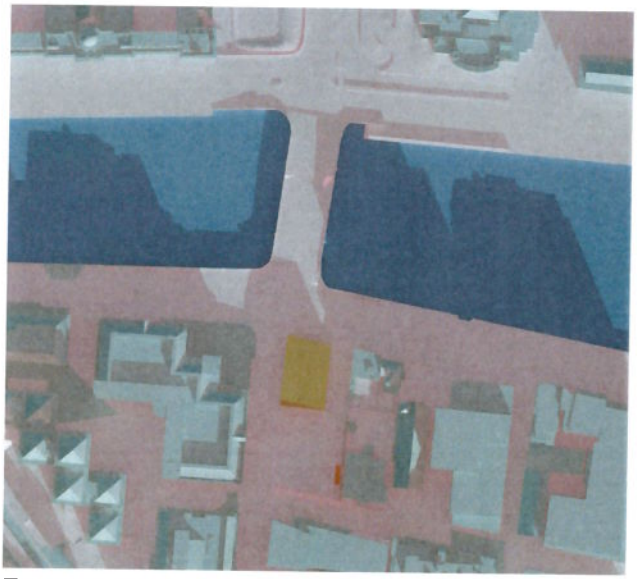
Proposed plan view

N

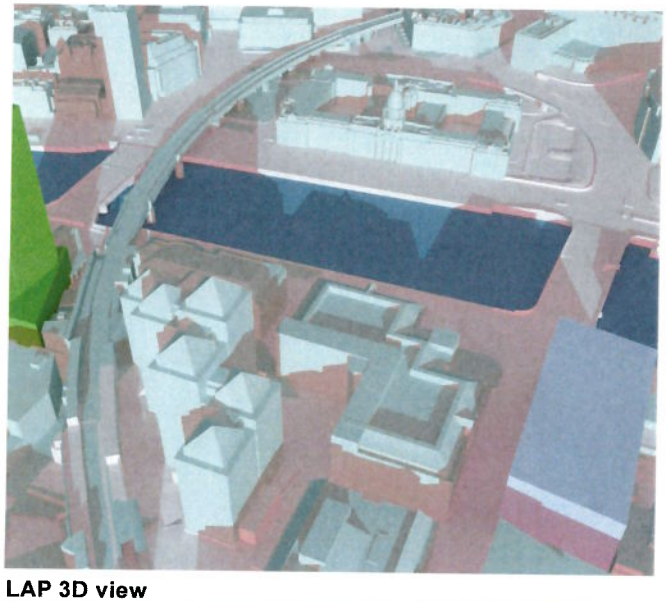
Figure 32: Shadow diagrams 21 January 09:00 UTC



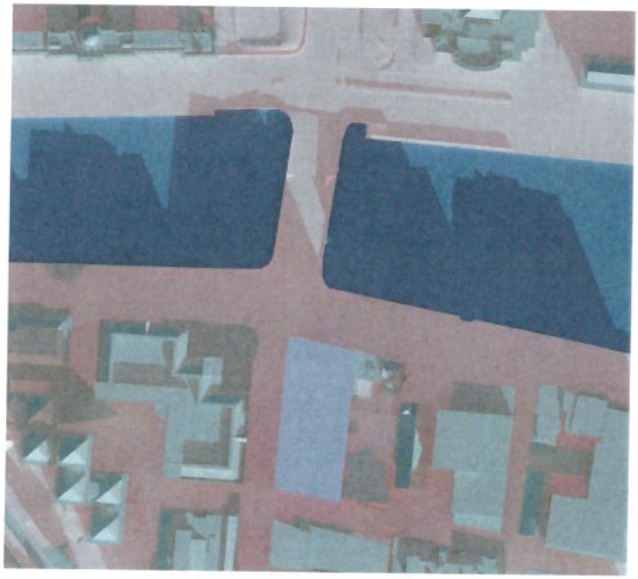
Existing 3D view



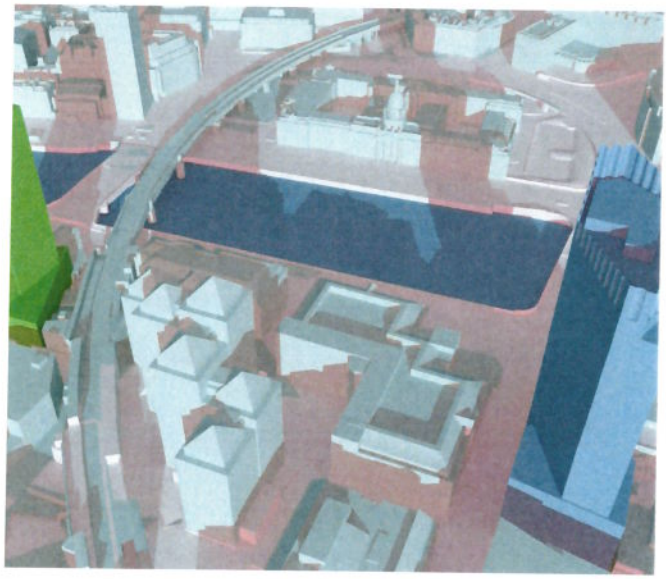
Existing plan view



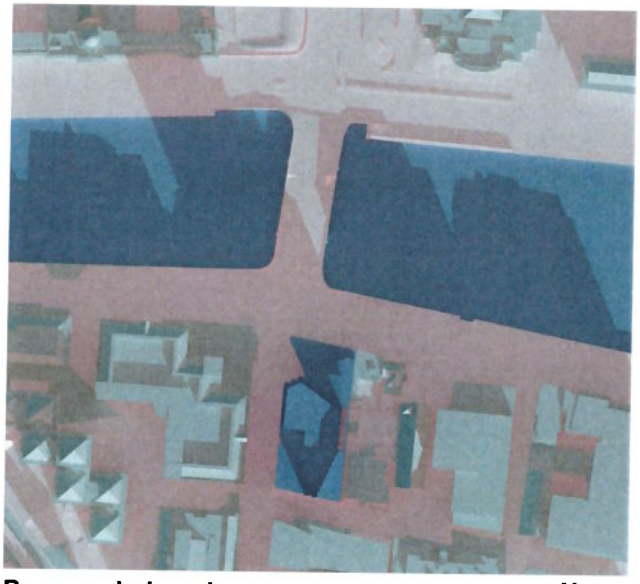
LAP 3D view



LAP plan view



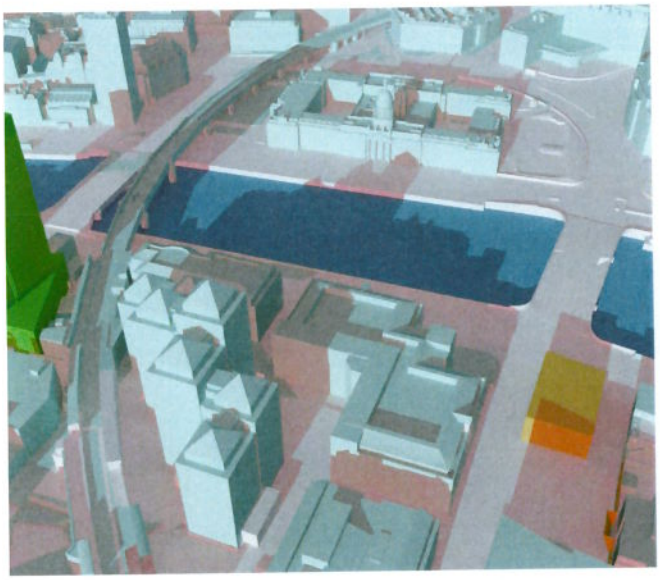
Proposed 3D view



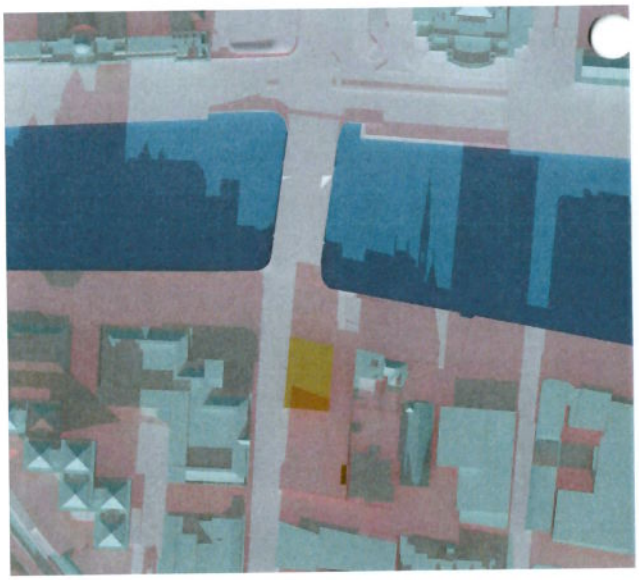
Proposed plan view

N

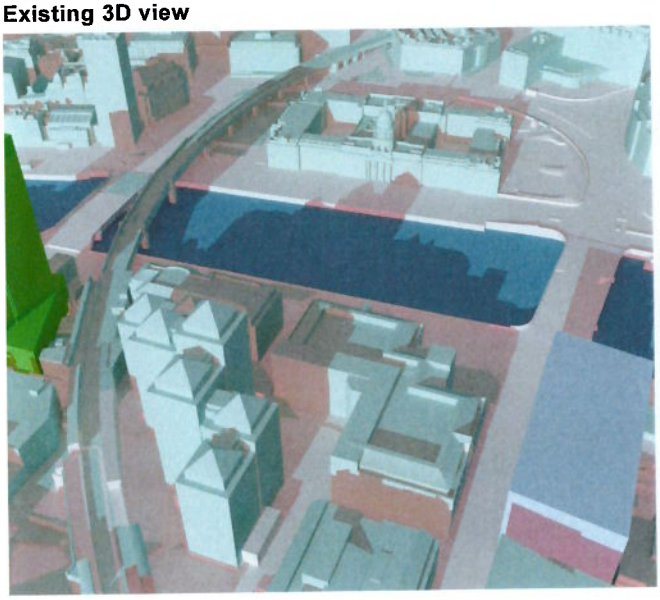
Figure 33: Shadow diagrams 21 January 11:00 UTC



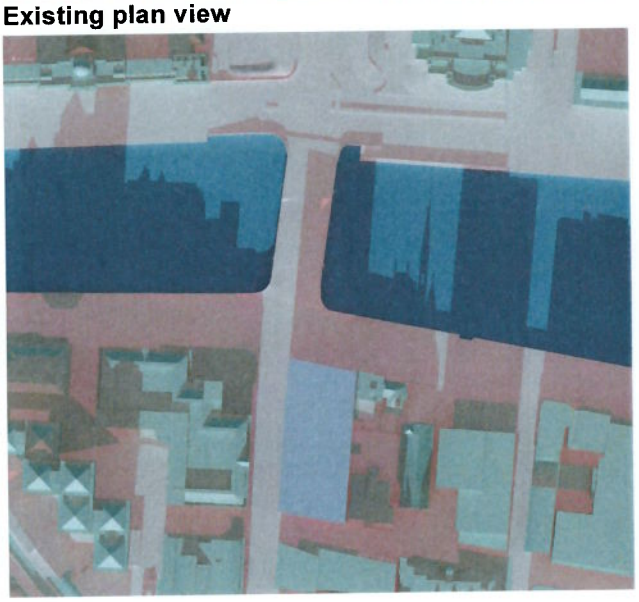
Existing 3D view



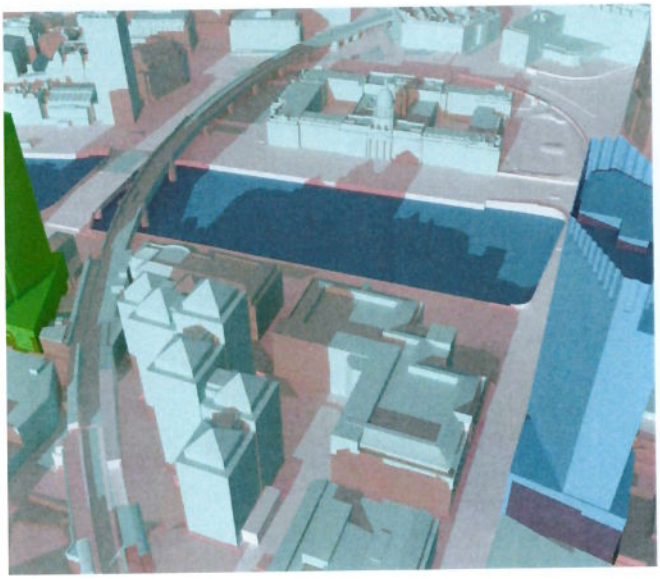
Existing plan view



LAP 3D view



LAP plan view

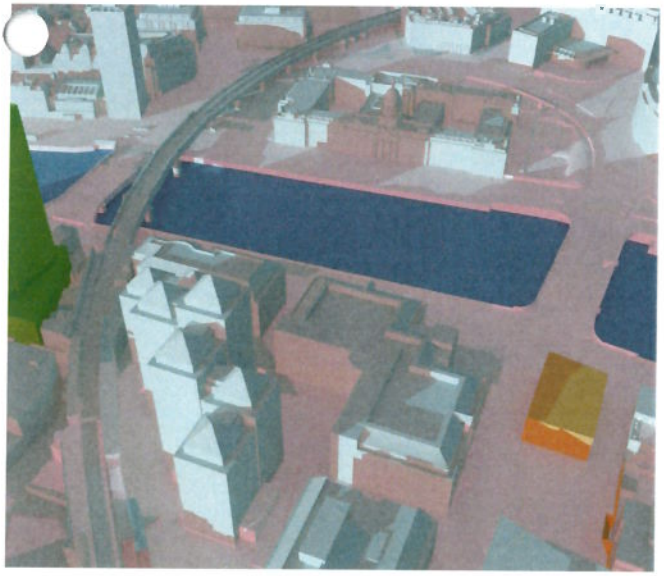


Proposed 3D view

Proposed plan view

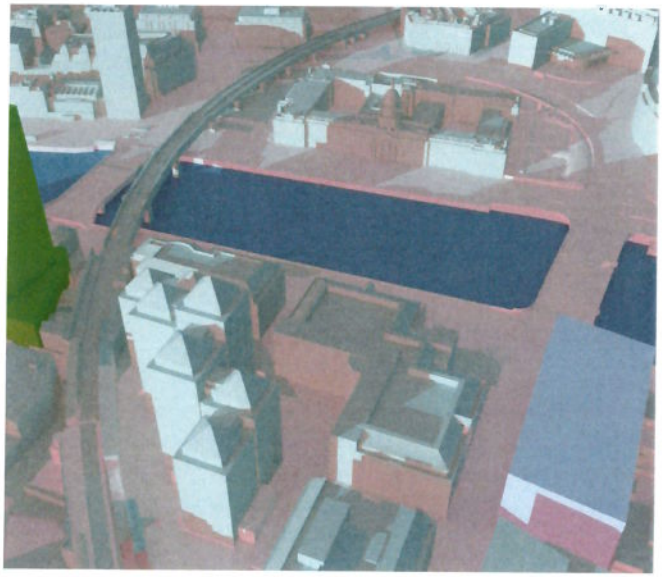
N

Figure 34: Shadow diagrams 21 January 13:00 UTC

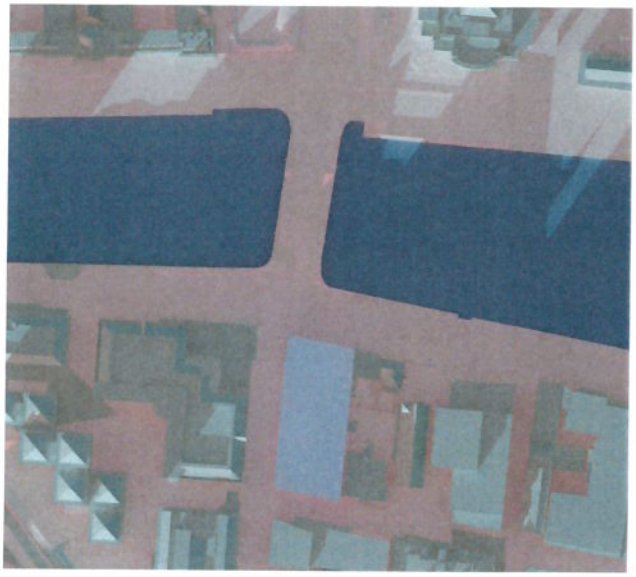


Existing 3D view

Existing plan view

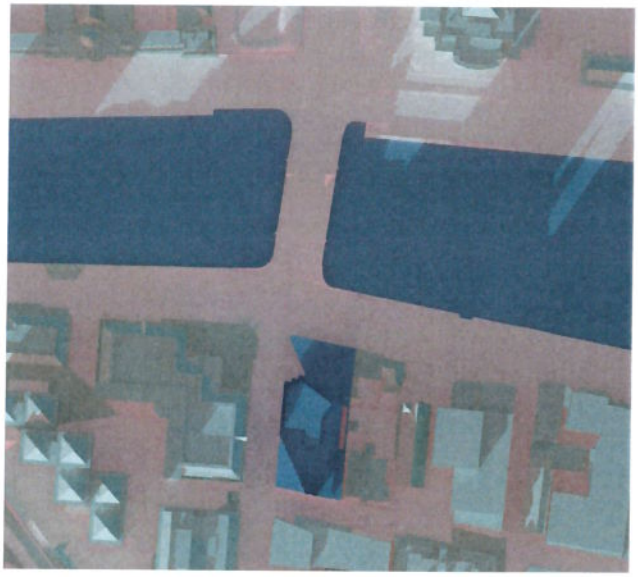


LAP 3D view



LAP plan view

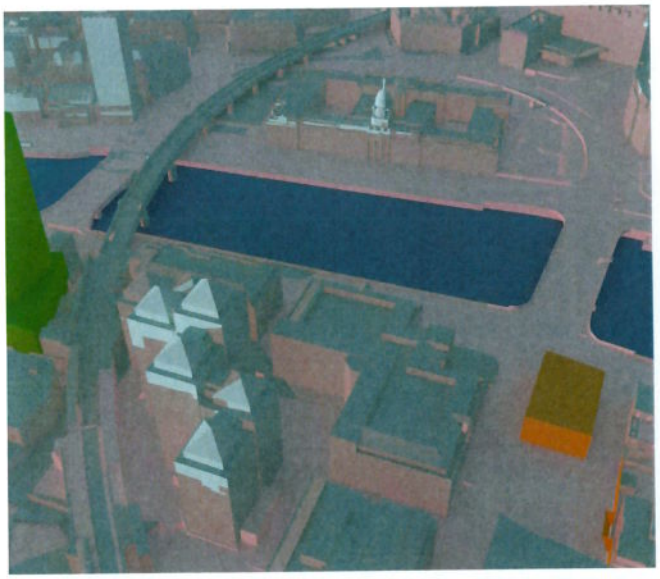
Proposed 3D view



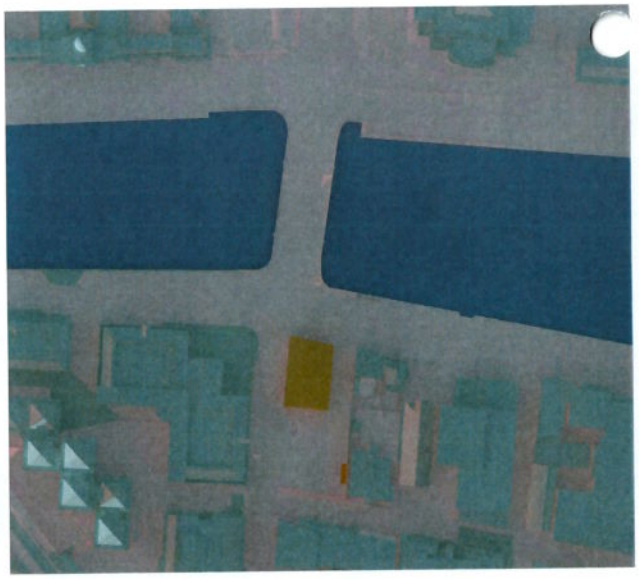
Proposed plan view

N

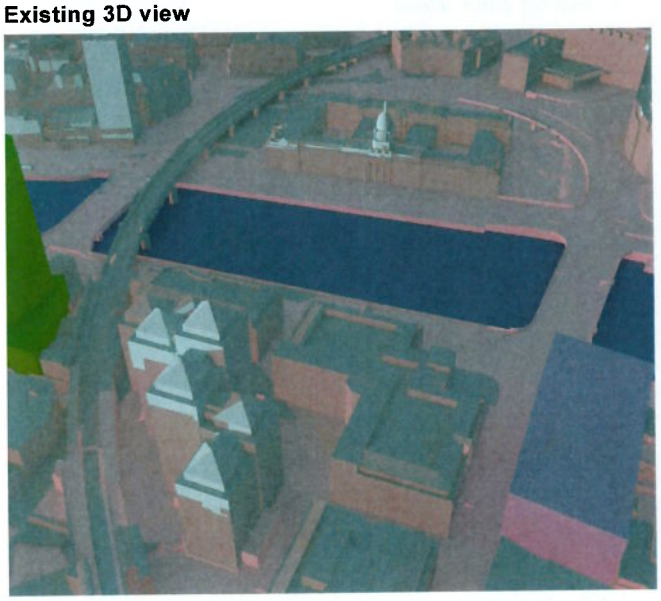
Figure 35: Shadow diagrams 21 January 15:00 UTC



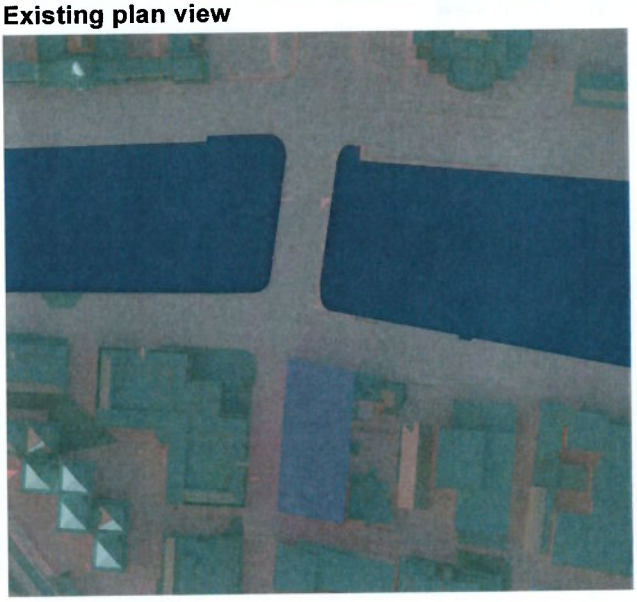
Existing 3D view



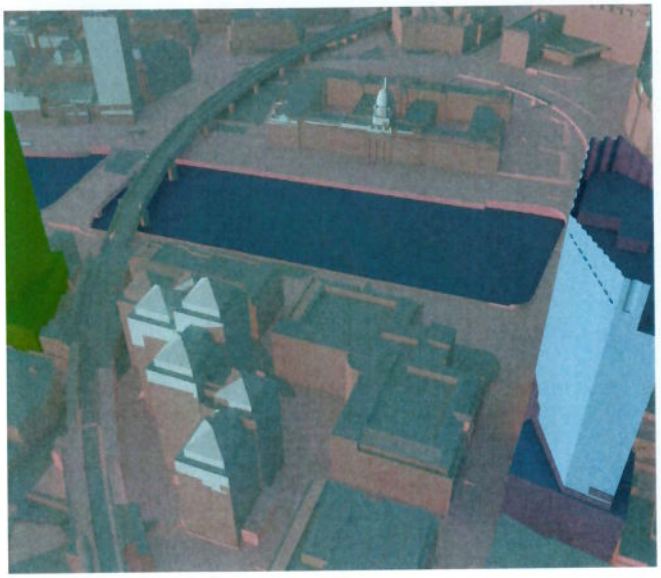
Existing plan view



LAP 3D view



LAP plan view



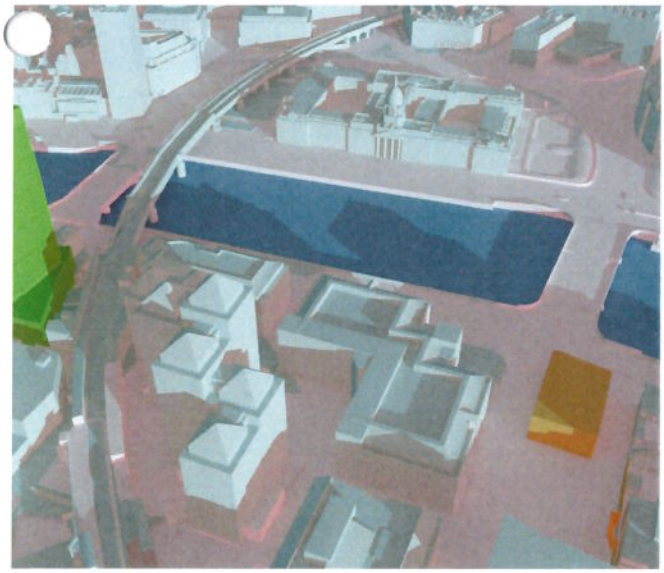
Proposed 3D view

Proposed plan view

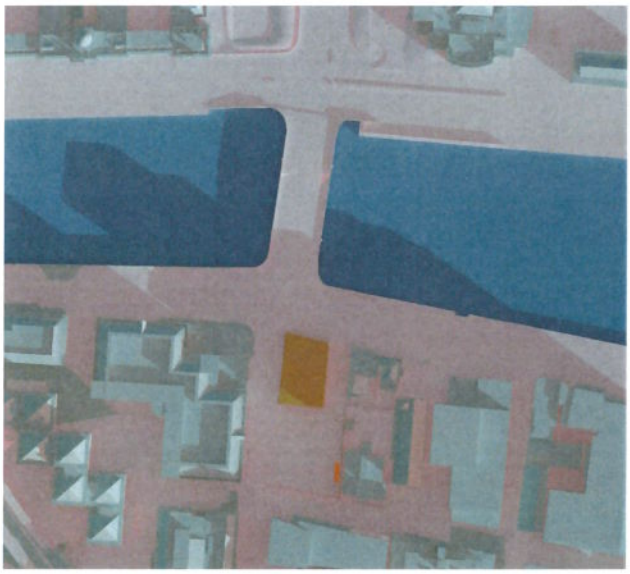
N

Figure 36: Shadow diagrams 21 January 17:00 UTC

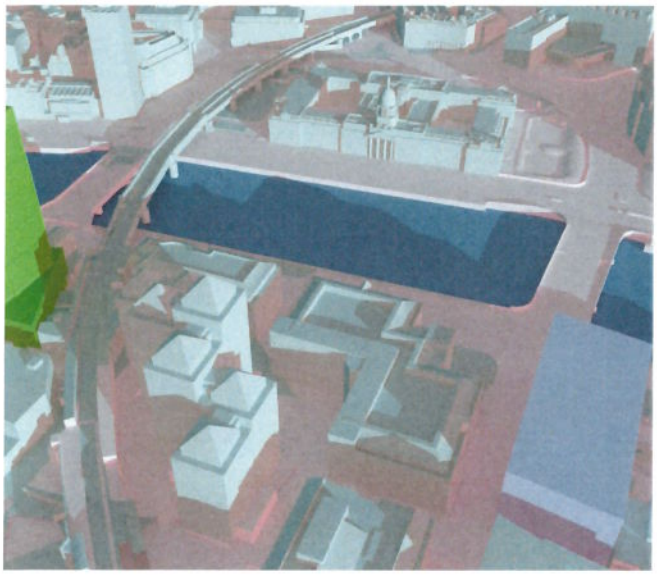
5.8 Shadow Casting diagrams February



Existing 3D view

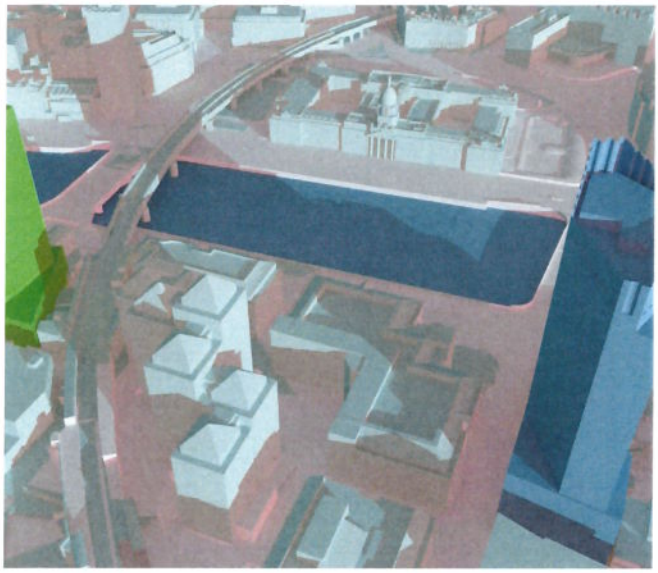


Existing plan view

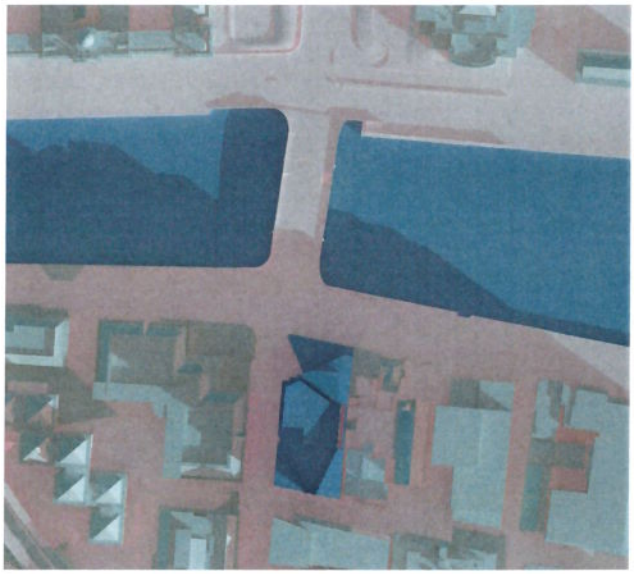


LAP 3D view

LAP plan view



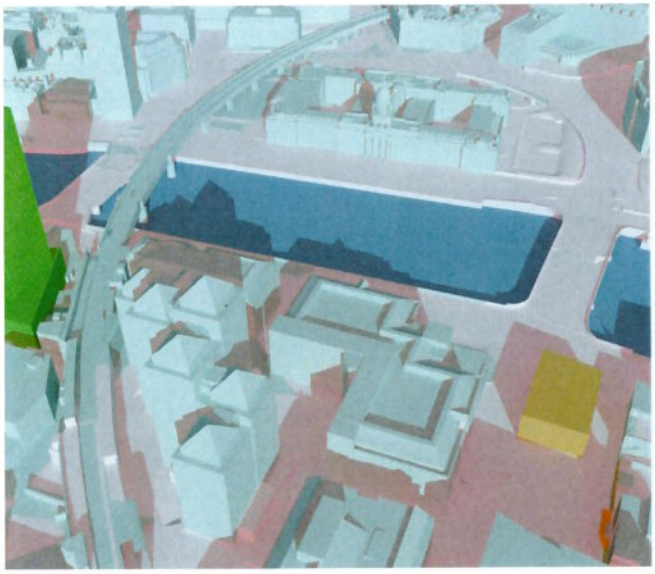
Proposed 3D view



Proposed plan view

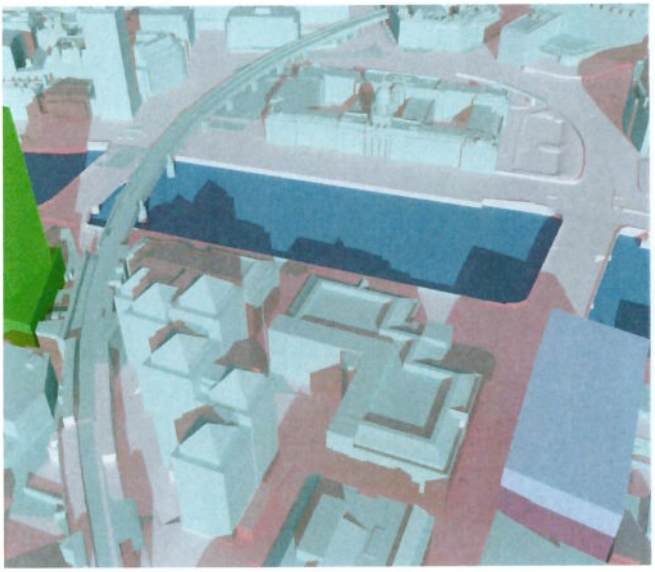
N

Figure 37: Shadow diagrams 21 February 09:00 UTC

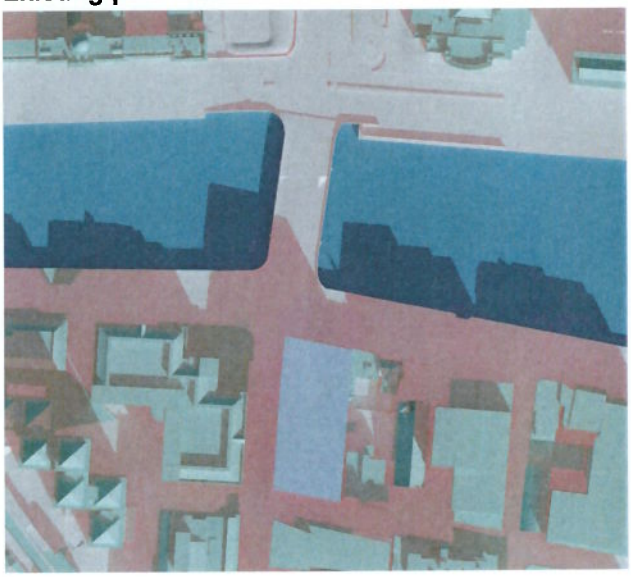


Existing 3D view

Existing plan view

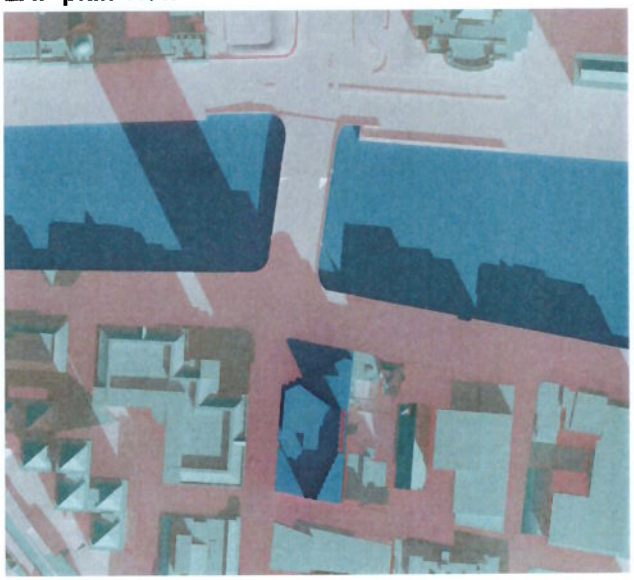


LAP 3D view



LAP plan view

Proposed 3D view



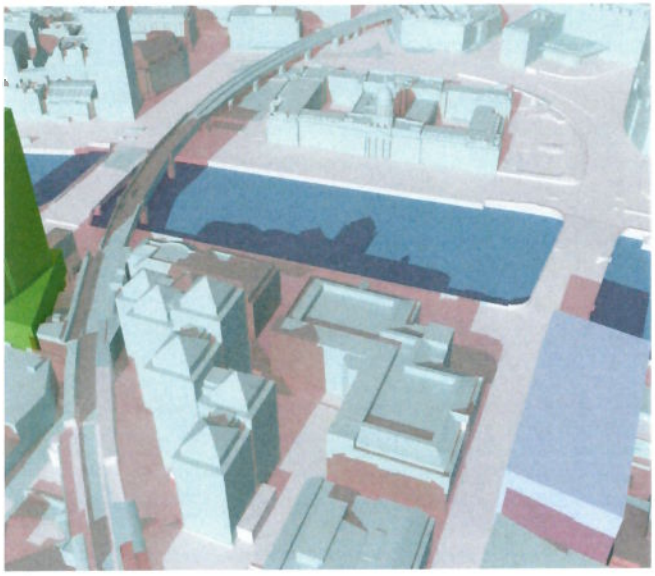
Proposed plan view

N

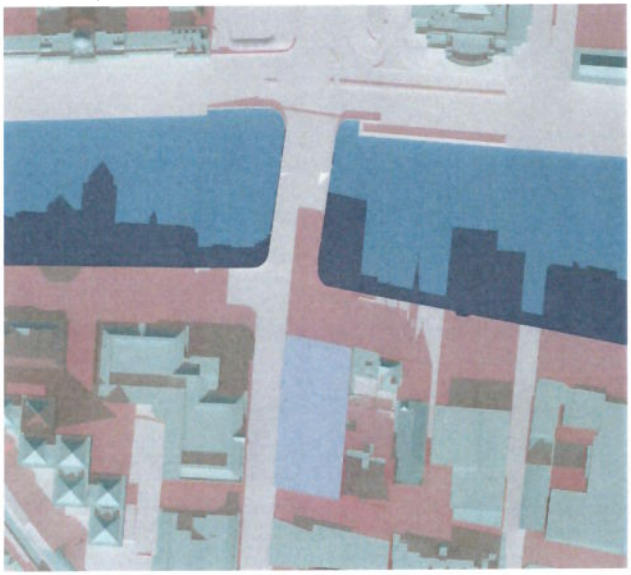
Figure 38: Shadow diagrams 21 February 11:00 UTC

Existing 3D view

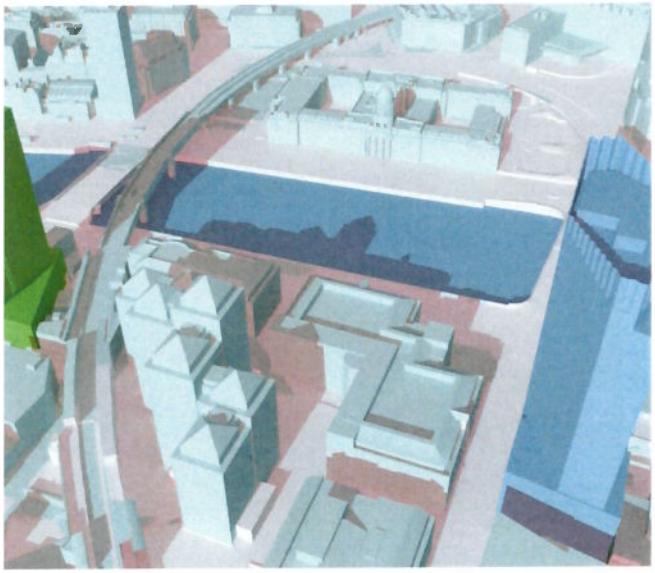
Existing plan view



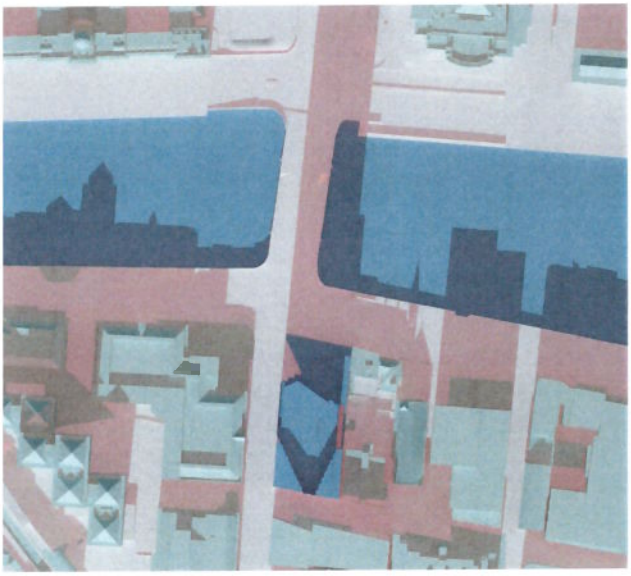
LAP 3D view



LAP plan view



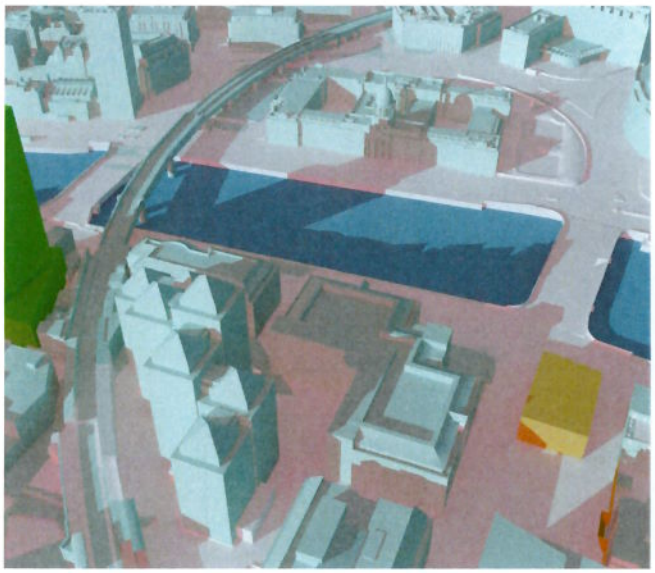
Proposed 3D view



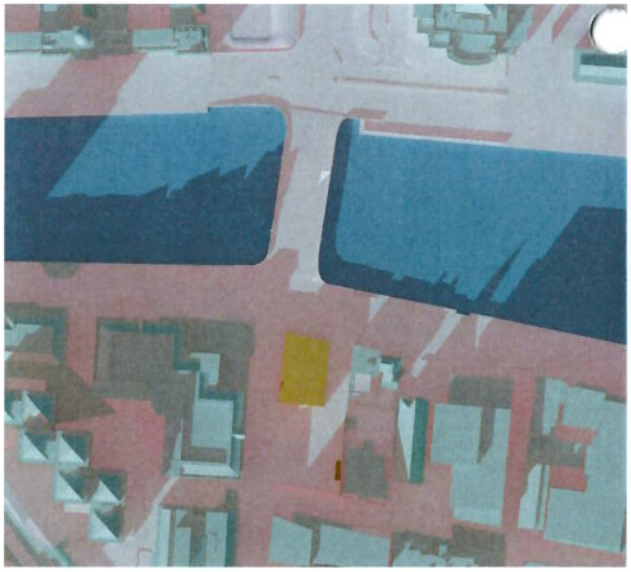
Proposed plan view

N

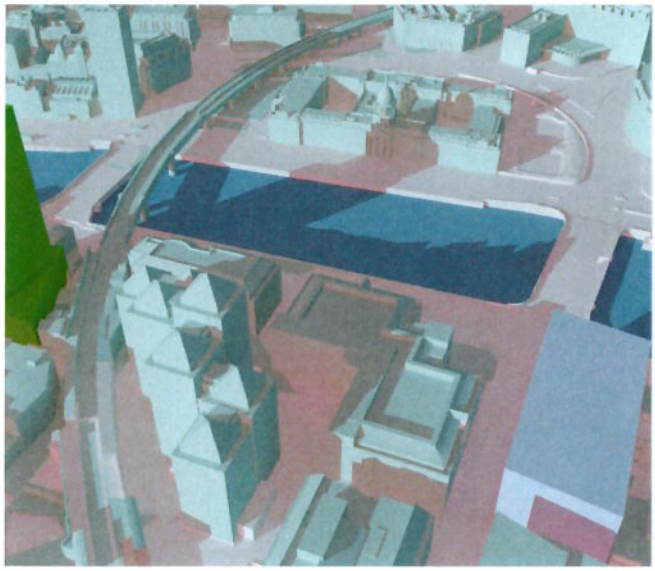
Figure 39: Shadow diagrams 21 February 13:00 UTC



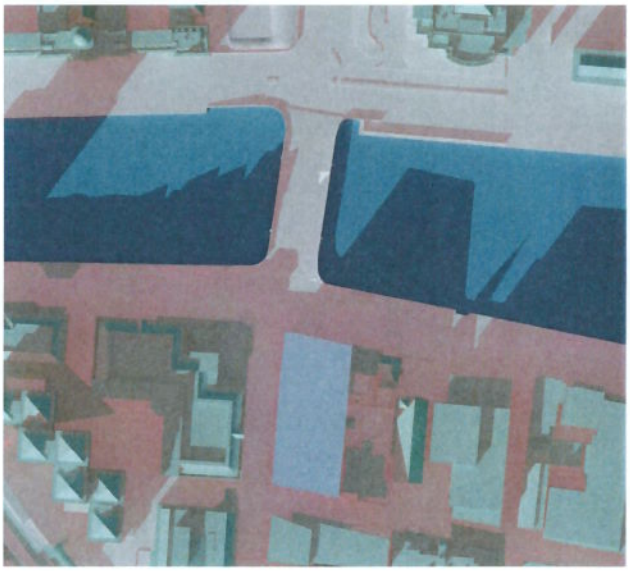
Existing 3D view



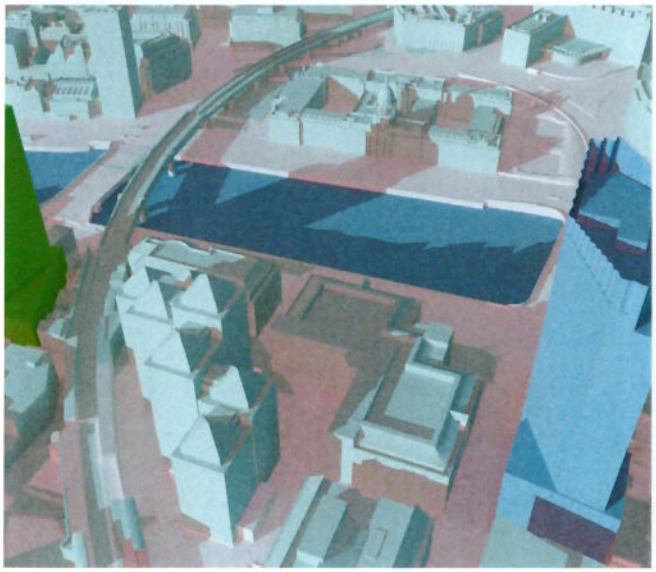
Existing plan view



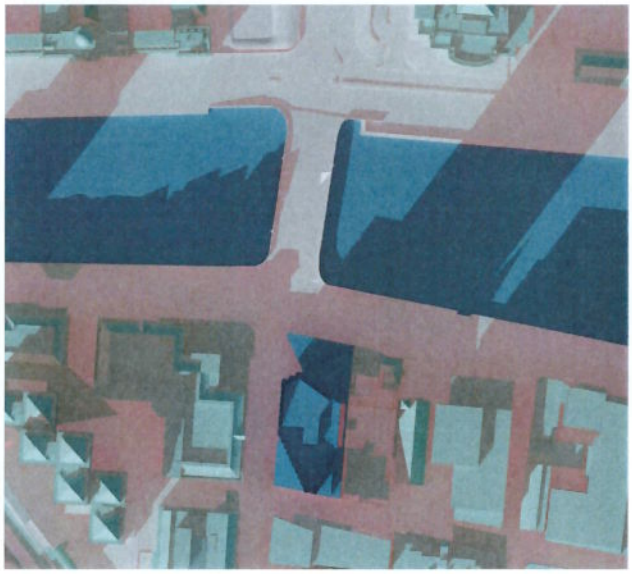
LAP 3D view



LAP plan view



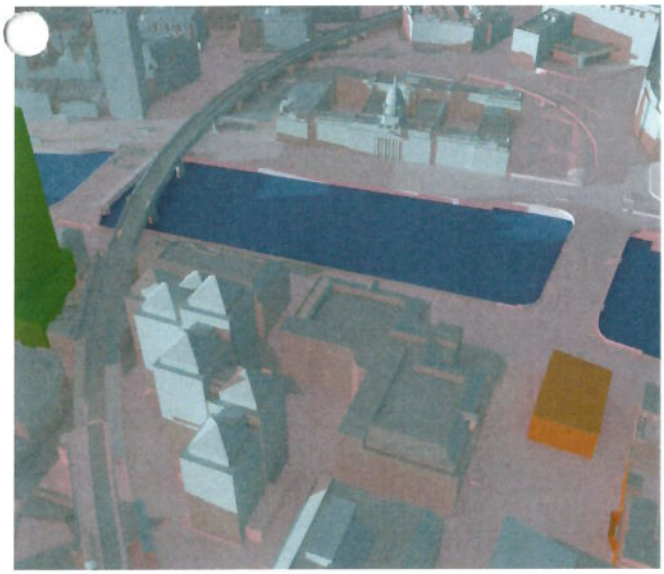
Proposed 3D view



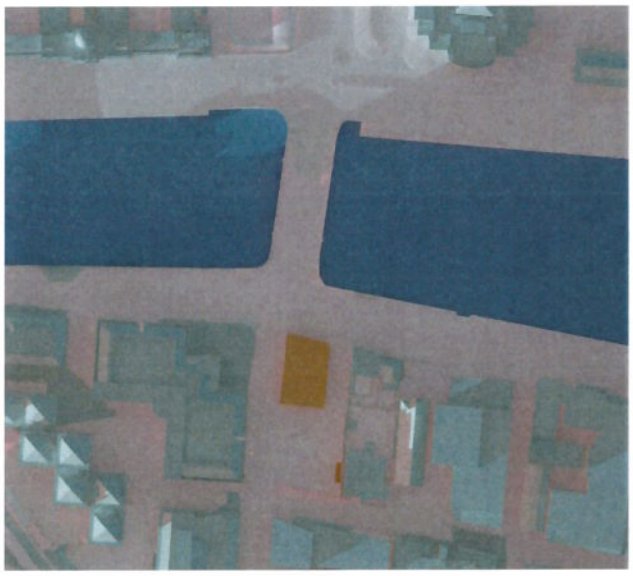
Proposed plan view

N

Figure 40: Shadow diagrams 21 February 15:00 UTC

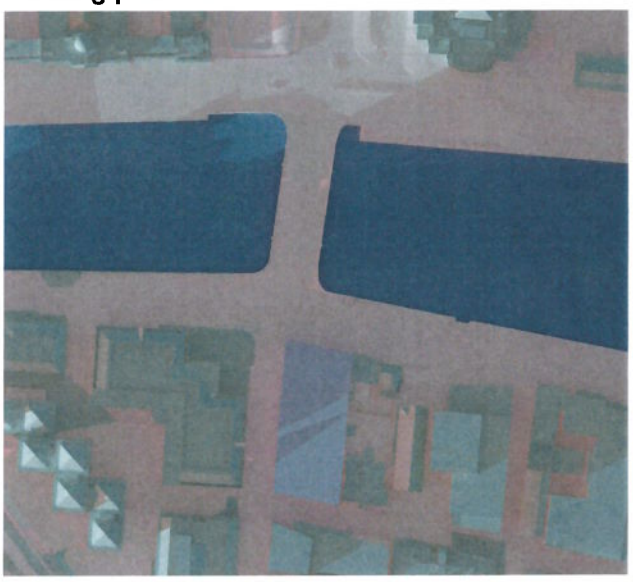


Existing 3D view

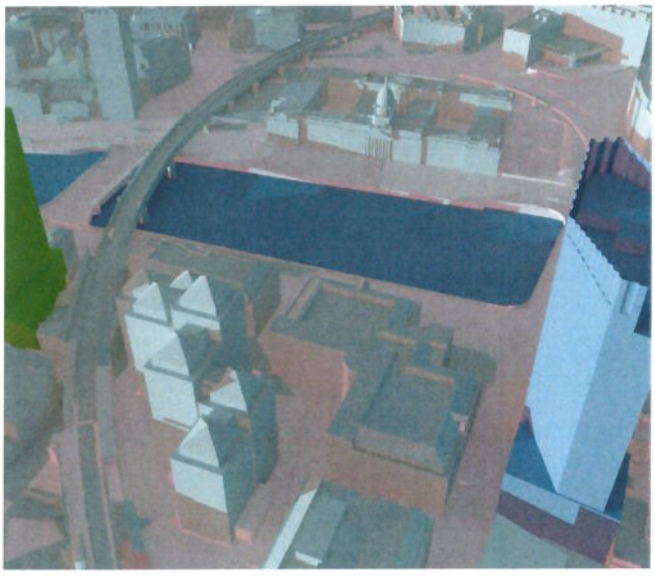


Existing plan view

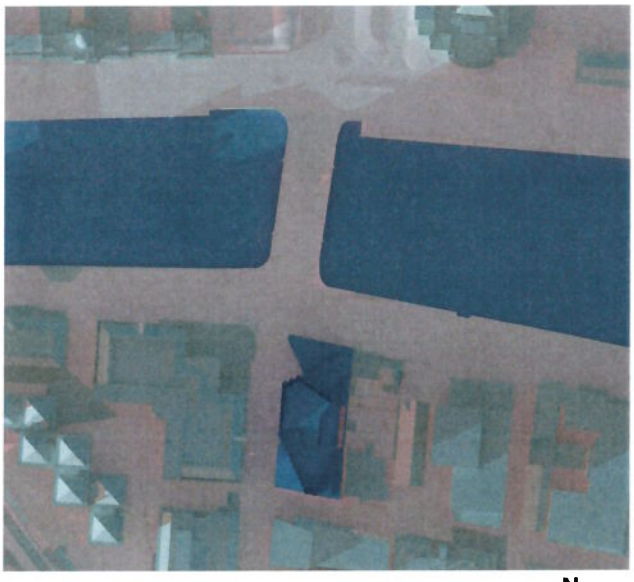
LAP 3D view



LAP plan view



Proposed 3D view



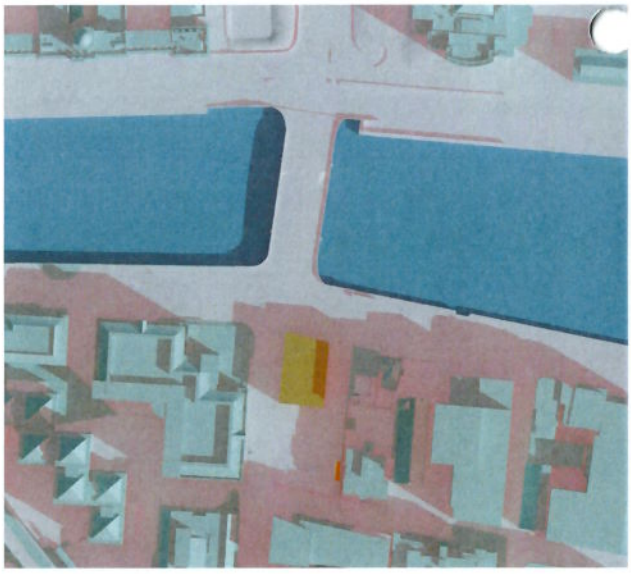
Proposed plan view

N

Figure 41: Shadow diagrams 21 February 17:00 UTC

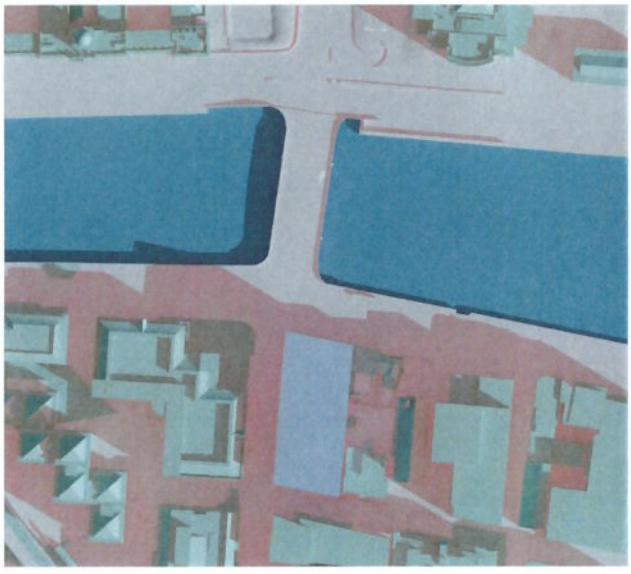
5.9 Shadow Casting diagrams March Equinox

Existing 3D view

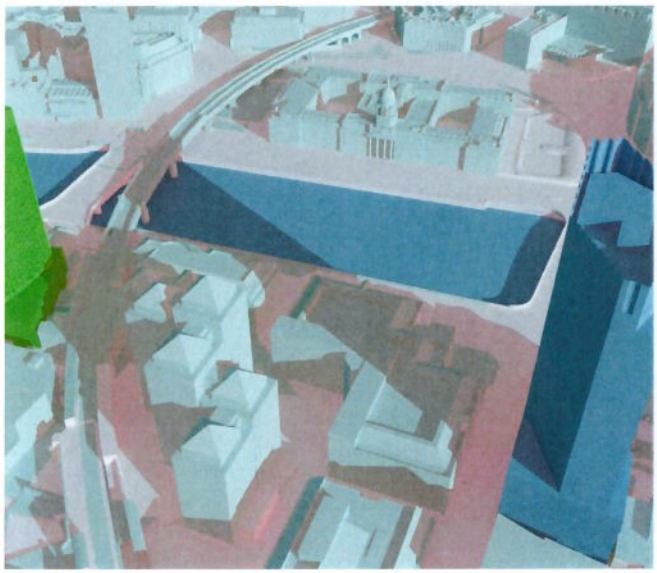


Existing plan view

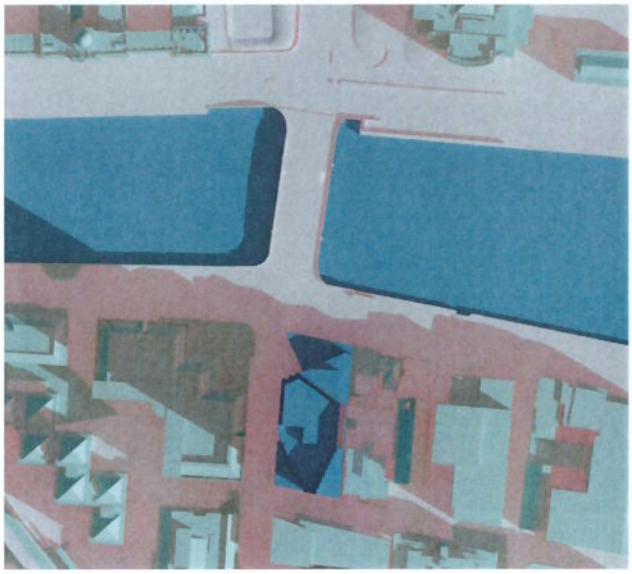
LAP 3D view



LAP plan view



Proposed 3D view

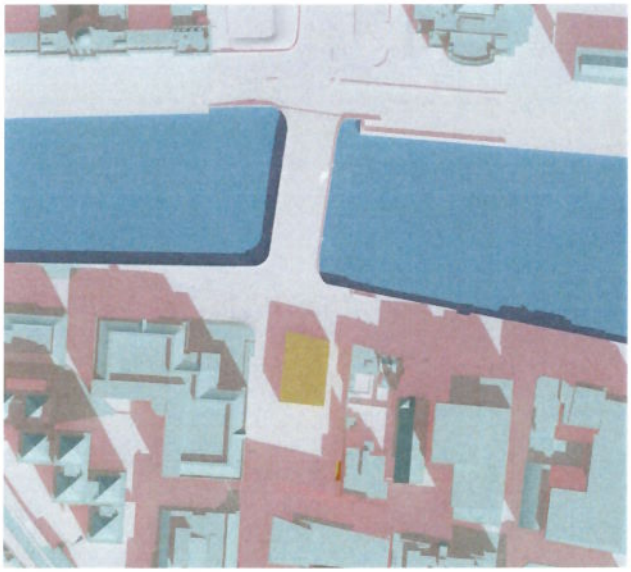


Proposed plan view

N

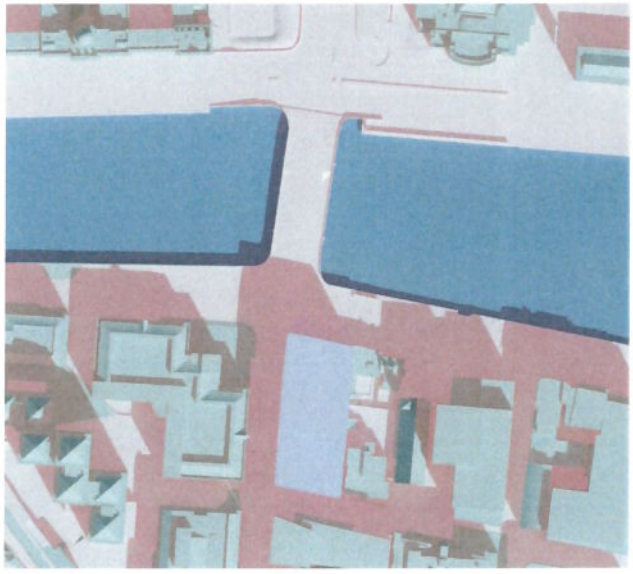
Figure 42: Shadow diagrams 21 March 09:00 UTC

Existing 3D view

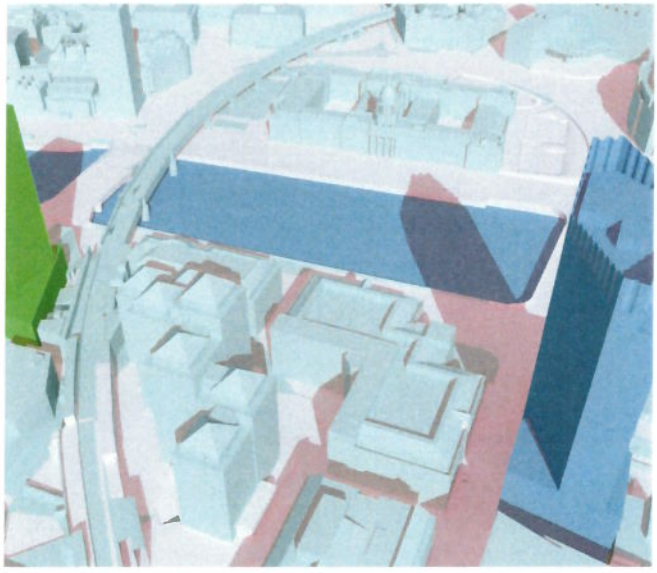


Existing plan view

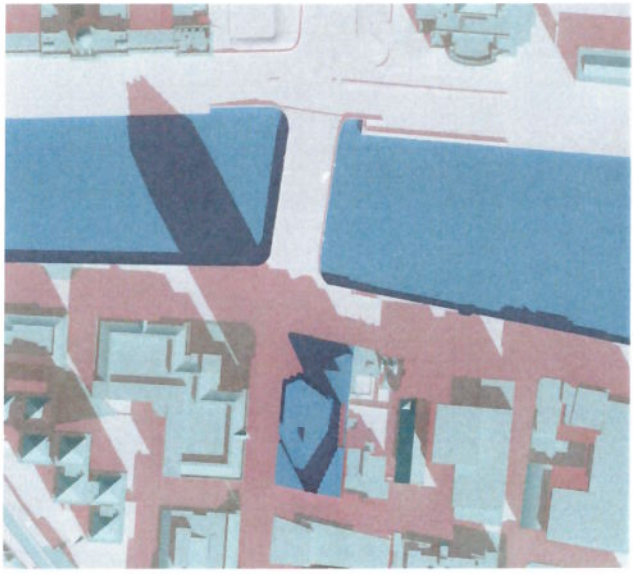
LAP 3D view



LAP plan view



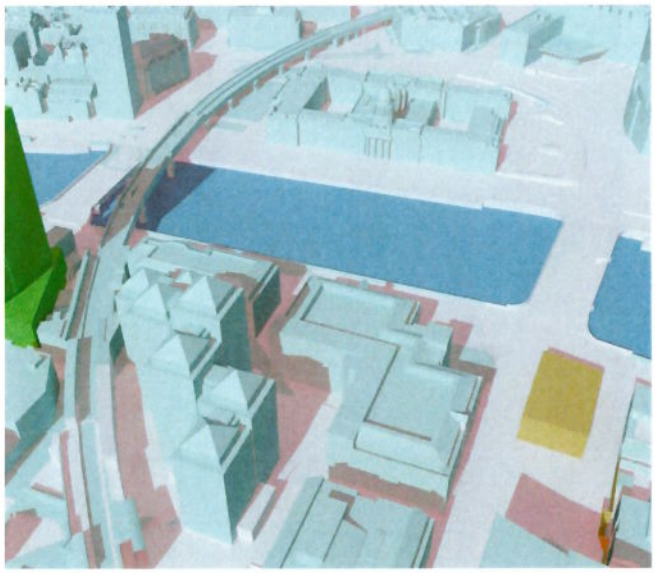
Proposed 3D view



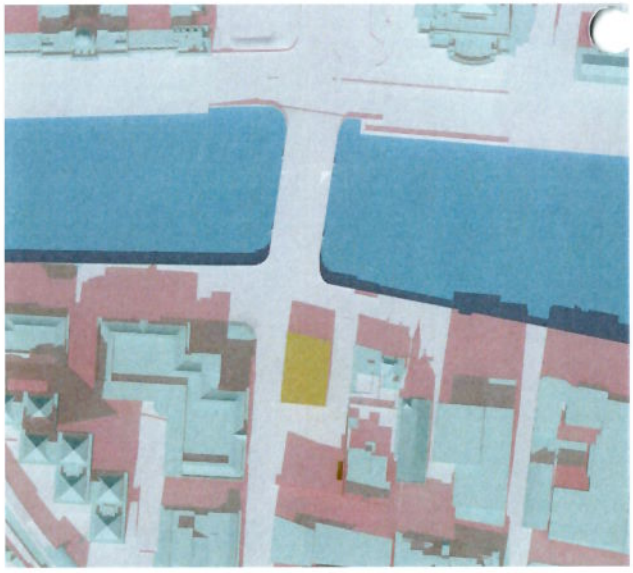
Proposed plan view

N

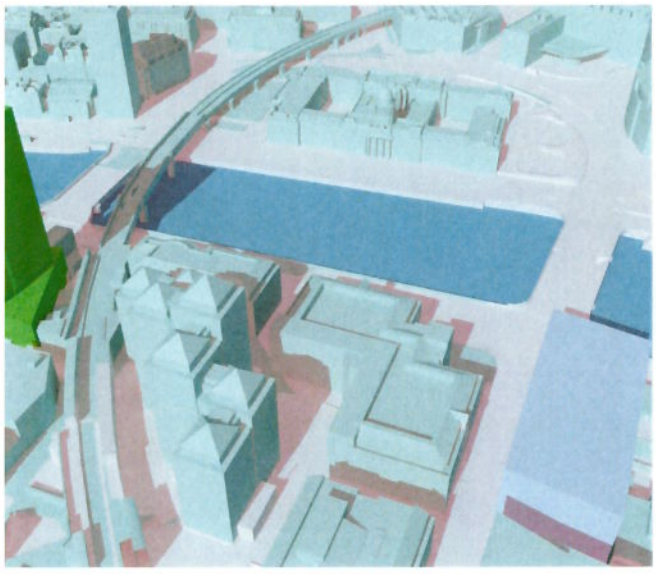
Figure 43: Shadow diagrams 21 March 11:00 UTC



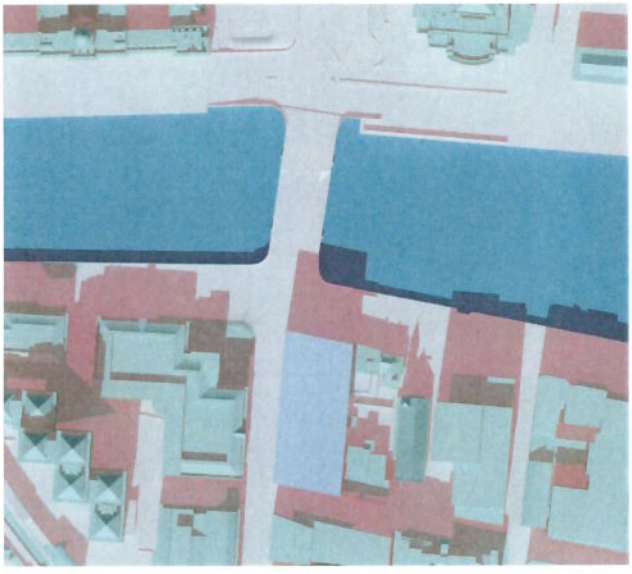
Existing 3D view



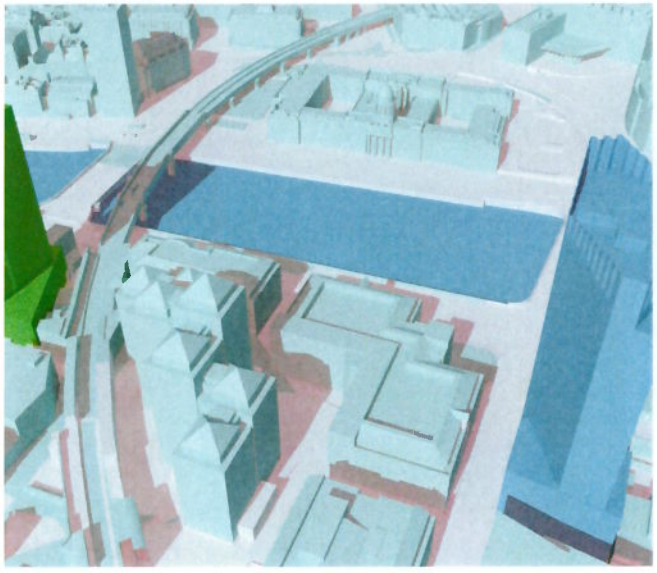
Existing plan view



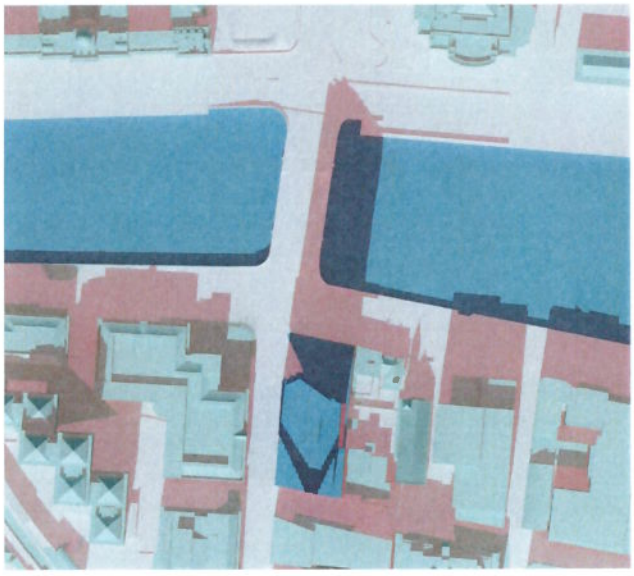
LAP 3D view



LAP plan view



Proposed 3D view



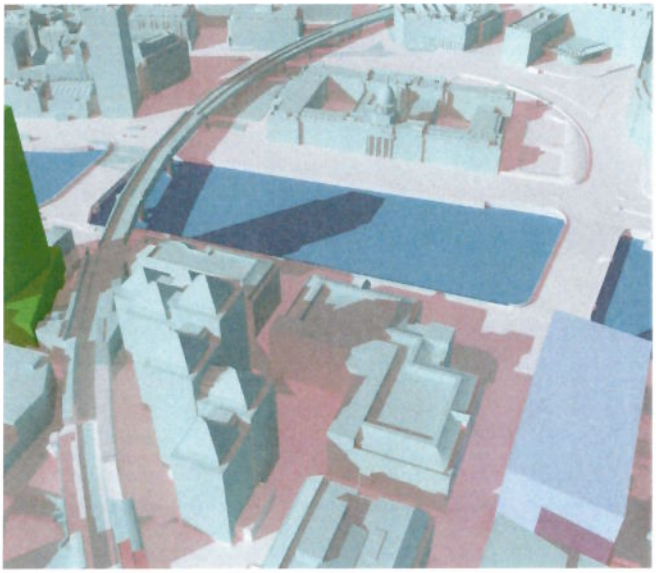
Proposed plan view

N

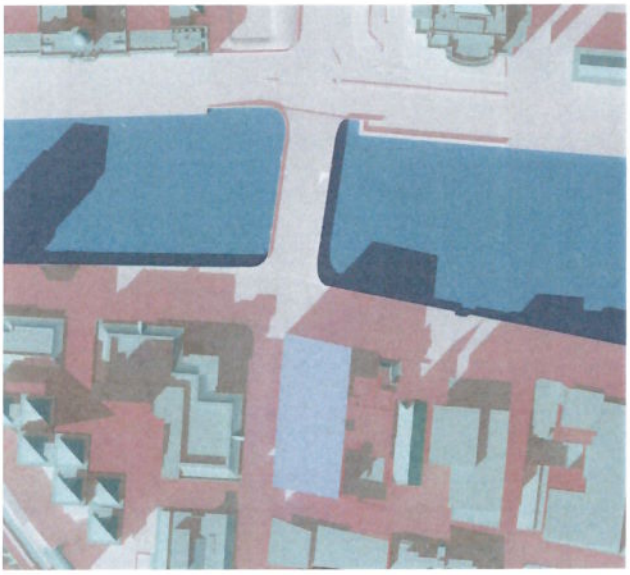
Figure 44: Shadow diagrams 21 March 13:00 UTC

Existing 3D view

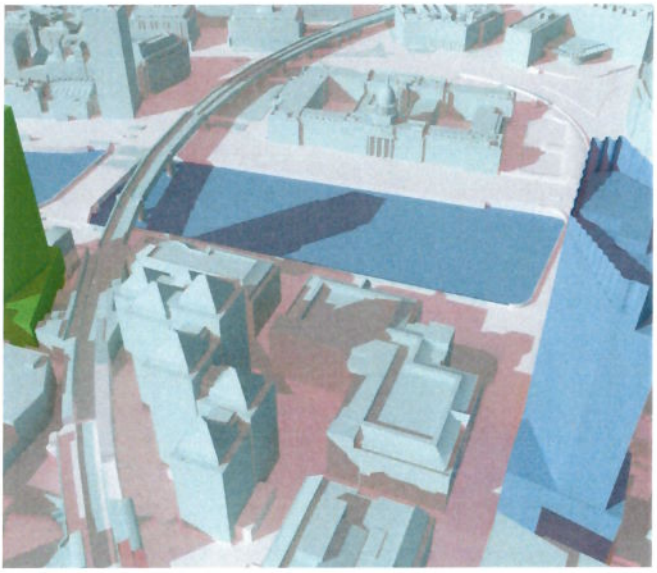
Existing plan view



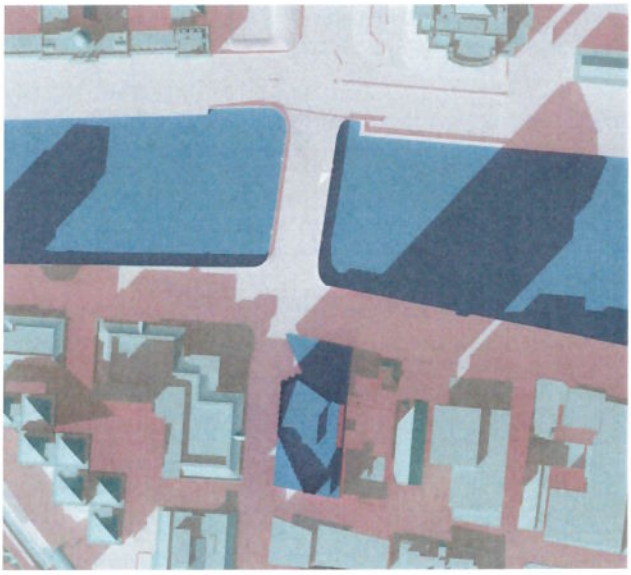
LAP 3D view



LAP plan view



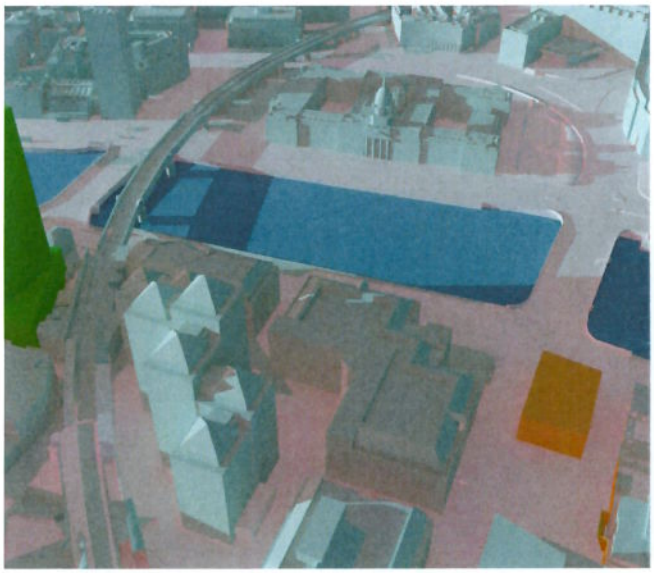
Proposed 3D view



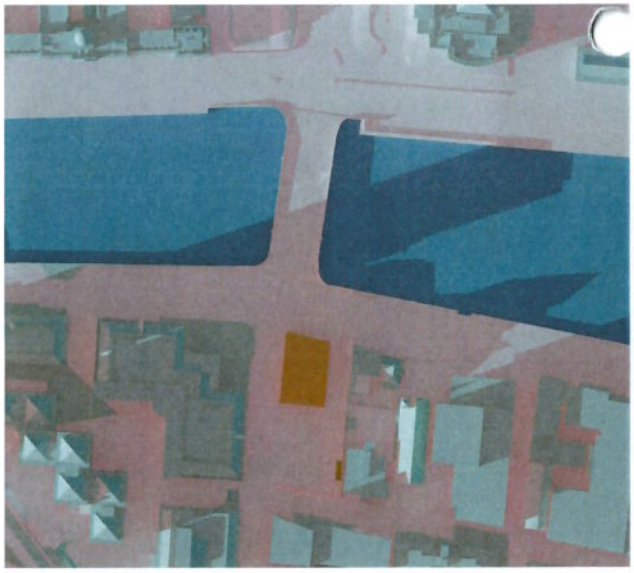
Proposed plan view

N

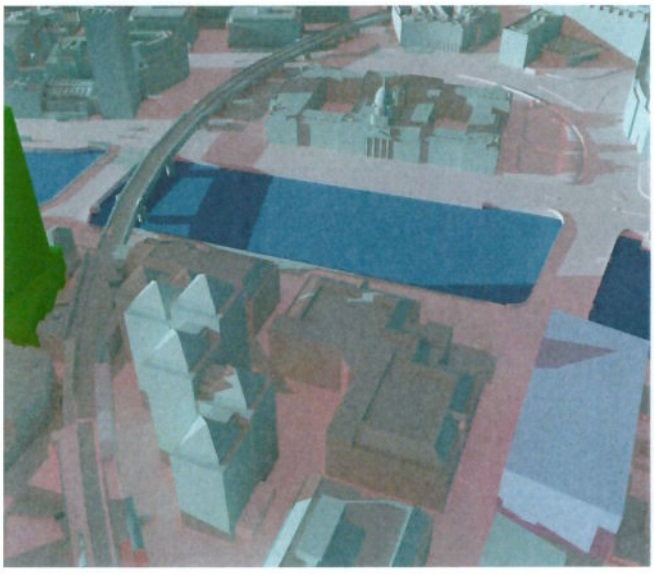
Figure 45: Shadow diagrams 21 March 15:00 UTC



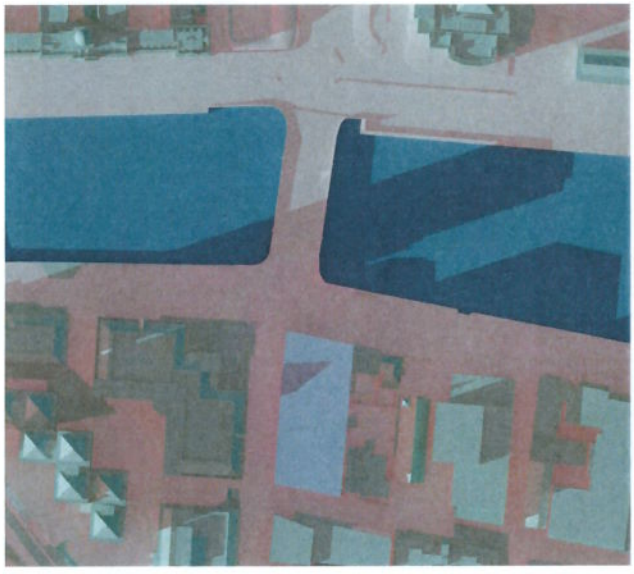
Existing 3D view



Existing plan view

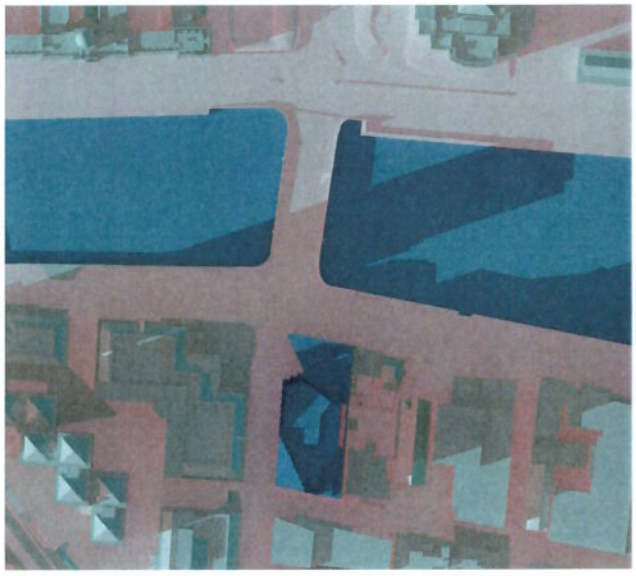


LAP 3D view



LAP plan view

Proposed 3D view



Proposed plan view

N

Figure 46: Shadow diagrams 21 March 17:00 UTC

APPENDIX 3: ARCHITECT'S RESPONSE TO PLANNING REFUSAL PREPARED BY MAHONEY ARCHITECTURE

APPENDIX 4: REPORT ON TOWNSCAPE AND VISUAL IMPACT FOR 1ST PARTY APPEAL PREPARED BY MODELWORKS