DAYLIGHT, SUNLIGHT, OVERSHADOWING, SOLAR GLARE AND LIGHT POLLUTION	
AUTHOR	**GIA**
SUPPORTING APPENDIX	**ES Volume 3: Appendix: Daylight, Sunlight, Overshadowing, Solar Glare and Light Pollution:** Annex 1: Legislation, Planning Policy and Other Relevant Standards and Guidance; Annex 2: Methodology and Baseline; Annex 3: Daylight and Sunlight Assessment; and Annex 4: Overshadowing Assessment.
KEY CONSIDERATIONS	• Changes to the duration and quality of daylight and sunlight experienced by sensitive receptors in proximity to the Site; • Changes to the amount of overshadowing at amenity areas surrounding the Site; • Additional Light Pollution effects to neighbouring sensitive receptors; and • Additional Solar Glare effects to nearby railway and road users.
CONSULTATION	The following key points regarding Daylight, Sunlight, Overshadowing, Light Pollution and Solar Glare were agreed following the LBTH Scoping Opinion, full details of which can be found within Appendix EIA Methodology Annex: Applicant's Response to LBTH EIA Scoping Opinion.

EIA Scoping Opinion – LBTH	Response and LBTH Meeting (6.3.20) Outcomes
In line with the EIA Regulations to produce an accurate assessment of the likely significant effects within the ES, the Applicant will need to undertake a quantitative assessment of Light Pollution and Solar Glare for a number of worst-case locations/scenarios and produce detailed Design Codes, principles and minimum performance standards to back up any qualitative or indicative assessments provided, as well as a summary of impacts to future sensitive receptors internal to the Site. They should also consider at an early stage the possibility of committing, for example, to low glare design finishes and treatments, and the limitation of reflective angles within the design. *With regards to solar glare given the Proposed Development is sought in outline, the facades are to be considered as fully reflective to represent a worst case scenario in the solar glare assessment and will need to consider all likely sensitive receptors, not just road users as stated in Paragraph 8.62 of the ES. Please note this is standard practice for Proposed Developments sought in outline in LBTH.*	It was agreed with LBTH that, owing to the outline nature of this application, a qualitative assessment of Solar Glare and Light Pollution was proportionate and further detailed Solar Glare and Light Pollution assessments will be undertaken at Reserved Matters Stages. A full assessment of the potential for good levels of internal daylight and sunlight has been undertaken within the Internal Daylight and Sunlight Report submitted as part of this OPA and summarised within this ES chapter.
LBTH requires that overshadowing of and light pollution on Millwall and West India Dock SINC to be considered and assessed.	It was agreed with the LBTH and Temple that a specific overshadowing test (sun hours on ground) on Millwall and West India Dock SINC would not be required as they are located to the south of the Proposed Development. This chapter includes a study of Transient Overshadowing which shows a wide area. For Light Pollution, a qualitative statement in relation to potential impacts and likely effects on the most likely sensitive receptors has been be provided.
It is considered that assessment of effects during construction should be provided within the ES as confirmed in Paragraph 8.62 of the Scoping Report and consider effects from construction equipment such as with cranes in situ.	It was agreed with the LBTH and Temple that given the evolving nature of enabling and construction works a qualitive assessment would be undertaken. The study of the effects of cranes during construction would not be necessary as it would be impossible to determine a plausible crane location. The daylight and sunlight impacts generated by cranes would also be insignificant.
LBTH require Little St Matthias preschool, Shah Jalal Mosque, 25 Hale Street (worship area), Vietnamese Pastoral Centre, further properties in Dingle Gardens and Dolphin Lane to be identified as receptors and assessed.	The additional properties requested have been included within this assessment.
If photovoltaic panels will be installed in any building, this should be considered in terms of solar glare on pilots. LCA would require information about the exact location, angle, manufacturer's specifications for each complete installation. This is to avoid glint and glare which could blind pilots flying on final approach. The Applicant is advised to refer to London City Airport's (LCA) consultation response in this regard.	It was agreed that, owing to the outline nature of the planning application, the position of the proposed buildings would not be confirmed until the submission of RMAs, let alone the potential location of proposed solar panels upon the buildings. The methodology for assessment of solar PVs requires the specific model, location and inclination of the panels in order to ascertain whether they could generate glare. The above factors would make it impossible to assess the potential effects of solar PVs on pilots and airfields at this stage. It was agreed that an assessment of the potential effects of solar PVs will not be undertaken, and if incorporated within the Proposed Development at the RMA stage, an assessment will be undertaken at that point.
Depending on the proximity of cumulative schemes identified, it is requested that an additional scenario is tested, which shows the existing scenario with cumulative schemes but without the Proposed Development.	It was agreed that there are no Cumulative Schemes close enough to the site to affect any sensitive receptors on a cumulative basis. As such, no cumulative scenario was deemed necessary for the submission of this application, including this existing scenario with cumulative schemes.

ASSESSMENT METHODOLOGY

Outline Application Methodology

11.1 Flexibility is being sought by the Applicant within the OPA, particularly in regard to the scale and layout of the Proposed Development. Therefore, in order to assess a worst-case scenario, the daylight, sunlight and overshadowing technical assessments have been undertaken through assessing the maximum parameters as any adverse effects will not be any greater than those of the maximum massing (Scenario 1 - the 'Maximum Development Parameters' as described in **ES Volume 1, Chapter 2: EIA Methodology**). It should be noted that this creates an extreme site-wide worst-case scenario whereby each plot is built out to the maximum, disregarding the design guidelines' requirements such as those for building spacing and the Development Specification maximum developable floorspace (355,000 m^2). This is an extreme site worst case scenario because it would not be feasible for the maximum massing parameter to be fully built out across the Site (given the Development Specification restrictions on maximum floorspace areas and total maximum floorspace as detailed in **ES Volume 1, Chapter 4: Proposed Development**).

11.2 To provide an understanding of a more realistic impact of the Proposed Development, consideration has also been given to the Indicative Scheme presented within this OPA (Scenario 5 - the 'Indicative Scheme' as described in **ES Volume 1, Chapter 2: EIA Methodology**). This presents a more realistic scenario than that of the maximum parameters which represents an extreme site-wide worst-case.

11.3 To further contextualise any significant effects, the effects of the Indicative Scheme have been compared with the 2007 Consent. As the 2007 Consent is a detailed application, it follows that the assessment of daylight, sunlight and overshadowing effects contained within this chapter will present greater effects owing to the nature of assessing maximum parameters rather than actual buildings (discussed above). For this reason, whilst **ES Volume 3, Appendix: DSOSGLP - Annex 3** provides a full assessment of the 2007 Consent against both the Maximum Development Parameters Scenario and Indicative Scheme, it is considered most informative to compare the 2007 Consent with the Indicative Scheme and this is discussed at the end of this ES chapter.

11.4 Outline planning applications do not contain enough information for a meaningful quantitative technical assessment of solar glare or light pollution and assessing maximum parameters for solar glare is not feasible as this would not provide meaningful nor realistic worst-case assessments. To expand upon this point for

Solar Glare, assessing Solar Glare from the Maximum Development Parameters could only be done through considering the maximum parameter massing as a series of mirrored boxes which itself, assuming an impossible area of reflected façade, does not provide a meaningful assessment. It may then be suggested that this is indicative of a worst-case scenario but again this is not the case as the actual buildings 'facades' orientations may well differ from the straight lines of the maximum parameter. There may also be areas of curved glass where sunlight can be found to reflect for much of the day rather than an instance in time from a flat façade. The result of testing mirrored boxes is therefore not considered more useful than the qualitative study undertaken below.

11.5 Therefore, owing to the lack of information available to enable technical assessment and given the requirement under EIA Regulations to report likely significant effects, a qualitative light pollution and solar glare assessment is included within this ES chapter, identifying receptors/locations where there is the potential for significant impacts and assigning a range of scales for the potential effects. Detailed and full technical light pollution and solar glare assessments will be undertaken at the Reserved Matters Application (RMA) stage when details of the actual development coming forward are known and can be quantitatively assessed.

Defining the Baseline

11.6 An existing baseline characterisation was completed by firstly undertaking a review of the surrounding land uses, using information and data sources from the Council (Valuation Office Agency (VOA)) website[1] and Google Maps. This review was undertaken using professional judgement for properties and amenity areas in close enough proximity to the Site to be affected by the Proposed Development, to identify potentially sensitive receptors.

11.7 The review of information and data sourced from the VOA website and Google Maps was followed by a site visit in June 2018 to confirm the accuracy of existing conditions. The conditions recorded are not considered to have changed from the day of the site visit to the time of writing this ES chapter.

11.8 From the review of the surrounding context, a 3D computer model was developed for the existing surrounding properties and amenity areas as well as the existing conditions using a photogrammetric survey and site photographs.

Evolution of the Baseline

11.9 No emerging baseline or future baseline has been considered within this ES chapter as there are no Cumulative Schemes within close proximity of the Proposed Development relevant to this assessment and the natural evolution of the site would not result in any baseline changes relevant to this assessment.

Impact Assessment Methodology

Enabling and Construction

11.10 Owing to the evolving and changing nature of enabling and construction activities, the assessment of potential effects on daylight, sunlight and overshadowing to surrounding receptors has not been modelled. Instead, a qualitative assessment has been undertaken using professional judgement and experience.

11.11 It is considered that the effects would gradually increase throughout the construction period as massing is erected, to align with the potential effects identified for the completed Proposed Development. It is therefore considered that the completed Proposed Development represents the worst-case assessment in terms of likely daylight, sunlight and overshadowing effects. In some cases, scaffolding, cranes and hoarding would marginally increase the size of the Proposed Development's maximum massing, however this would be temporary and is unlikely to result in additional noticeable effects due to the scale of these structures and their transient nature.

11.12 In terms of light pollution, these effects would only be experienced once any high powered external lighting or the commercial elements of the Proposed Development are completed and operational. There is the potential for temporary light pollution effects as a result of the equipment required for enabling and construction works, however any additional effects would be temporary and in line with the strategy set out within the Construction Environmental Management Plan. Therefore, it is considered that the worst-case assessment in terms of light pollution is represented in the completed Proposed Development scenario.

11.13 In terms of solar glare, as the façades of the Proposed Development are installed, the potential solar glare effects would gradually increase to those of the complete and operational Proposed Development. Therefore, it is considered that the worst-case assessment in terms of solar glare is represented in the completed Proposed Development scenario.

Phasing

11.14 Whilst it is noted that there is indicative phasing based on the Indicative Scheme as set out in the **ES Volume 1, Chapter 5: Enabling and Construction Works**, this does not affect the assessments within this chapter, as these assessments consider a worst case scenario on surrounding receptors in which the Proposed Development is complete and operational.

Completed Development

11.15 The following scenarios have been assessed and are reported within this chapter of the ES:

- Baseline; and
- Maximum Development Parameters.

Baseline

11.16 This scenario considers the baseline condition and considers the receptors shown in Figure 11.1 on page 8 and found within **ES Volume 3, Appendix: DSOSGLP - Annex 2**.

Proposed Development (Maximum Parameters)

11.17 The basis of Proposed Development (Maximum Parameters) scenario is depicted within **ES Volume 3, Appendix: DSOSGLP - Annex 3**.

11.18 This scenario consists of the maximum parameters of the completed massing of the Proposed Development in the context of the surrounding environment. This scenario assesses the potential daylight, sunlight and

[1] http://cti.voa.gov.uk/cti/inits.asp

overshadowing effects of the Proposed Development on the surrounding sensitive receptors and amenity spaces.

11.19 In ascertaining the potential daylight, sunlight and overshadowing effects, comparisons are made with the baseline scenario.

11.20 The Indicative Scheme has been assessed in terms of its daylight and sunlight impact to surrounding sensitive receptors, with the results presented within **ES Volume 3, Appendix: DSOSGLP - Annex 3.** A summary of the results and a comparison with the Maximum Development Parameters Scenario has been provided at the end of this ES chapter.

11.21 The results of the 2017 Scheme have also been provided within **ES Volume 3, Appendix: DSOSGLP - Annex 3** for reference.

11.22 A qualitative assessment of light pollution and solar glare has also been undertaken with the Maximum Development Parameter Scenario.

11.23 An assessment of Internal Daylight, Sunlight and Overshadowing within the Indicative Scheme has been undertaken and reported on within the Internal Daylight and Sunlight Report. The full methodology, results and conclusions can be found within this appended document but are summarised within this ES chapter.

Cumulative Scenario

11.24 No cumulative schemes are in close enough proximity to the sensitive receptors tested to warrant testing, and as such no cumulative scenario assessment has been undertaken.

Methodology

11.25 The following methodologies are used to assess the impact of the completed Proposed Development on sensitive receptors. Details of the methodology can be found in **ES Volume 3, Appendix: DSOSGLP - Annex 2** and outline summaries are presented below, including assessment criteria within Table 10.1.

Daylight

11.26 The following methodologies are used to assess daylight:

- Vertical Sky Component (VSC);
- No Sky Line (NSL); and
- Average Daylight Factor (ADF).

11.27 VSC is a 'spot' measure of the skylight reaching the mid-point of a window from an overcast sky. It represents the amount of visible sky that can be seen from that reference point, from over and around an obstruction in front of the window. That area of visible sky is expressed as a percentage of an unobstructed hemisphere of sky, and, therefore, represents the amount of daylight available for that particular window.

11.28 NSL is a measure of the distribution of diffuse daylight within a room. The NSL simply follows the division between those parts of a room that can receive some direct skylight from those that cannot. If from a point in a room on the working plane (a plane 850mm above the floor) it is possible to see some sky then that point will lie inside the NSL contour. Conversely, if no sky is visible from that point then it would lie outside the contour.

11.29 ADF takes into account the total glazed area to the room, the transmittance quality of the glazing proposed, the total area of the room surfaces including ceilings and floors, and the internal average reflectance for the room being assessed. The method also takes into account the VSC and the quantum of reflected light off both internal and external surfaces. The ADF is a significantly more detailed method of assessment than VSC, as set it takes into account the greatest number of factors in establishing a quantitative output.

11.30 The ADF method of assessment is normally only used in reporting on levels of light within proposed spaces such as those in future residential accommodation either within or surrounding a development site. This is principally owing to the assessment's reliance on accurate data on room layouts and glazing transmittances which is usually unknown for neighbouring properties. However, where room layouts of a neighbouring building are known and, particularly where a room is lit by multiple windows, it can be informative to assess the ADF alongside the VSC and NSL so as to understand the likely levels of light retained within each room and compare these to the recommendations available for new developments. In the case of this ES chapter, this has been done for 1 West India Quay only owing to its unique position in close proximity to the Site and the dual aspect nature of rooms. In this specific case, an assessment by VSC and NSL (although still provided and discussed) is not sufficient to fully understand the effects to these dual aspect rooms.

Sunlight

11.31 The Annual Probable Sunlight Hours (APSH) is used to assess sunlight.

11.32 APSH is a measure of sunlight that a given window may expect over a year period. The BRE guidance recognises that sunlight is less important than daylight in the amenity of a room and is heavily influenced by orientation. North facing windows may receive sunlight on only a handful of occasions in a year, and windows facing eastwards or westwards will only receive sunlight for some of the day. The BRE guidance states that only windows with an orientation within 90 degrees of south need be assessed. Therefore, in terms of sunlight, only rooms facing south are assessed for APSH as north facing rooms will not receive direct sunlight.

11.33 The baseline both annual probable sunlight hours (APSH) and winter probable sunlight hours (WPSH) are assessed. The APSH and WPSH have different BRE criteria (refer Table 11.1**Error! Reference source not found.**). For the assessment of the Proposed Development, the APSH and WPSH are reported separately, to provide a more detailed assessment reflecting the different sunlight conditions.

Overshadowing

11.34 The following methodologies are used to assess overshadowing:

- Transient Overshadowing; and
- Sun Hours on Ground.

11.35 Both transient overshadowing and sun hours on ground assessments determine the extent of overshadowing on surrounding amenity areas. Transient overshadowing is initially used as a screening exercise to determine which amenity areas should be included for the purpose of the sun hours on ground assessment.

11.36 For large amenity areas transient overshadowing is used as the main assessment given the difficulties to quantify using the sun hours on ground assessment.

11.37 For smaller amenity areas with distinct boundaries, and where the transient overshadowing assessment has shown the potential for an effect, sun hours on ground is used as the main assessment.

11.38 The BRE Criteria summarised in Table 11.1 are used as guidance for the assessments. Numerical analysis and professional judgement have also been used to determine the significance of potential effects.

11.39 Table 11.1 provides a summary of the criteria set out within the BRE Guidelines for daylight and sunlight.

Table 11.1 Summary of BRE Criteria

Topic	Method	2011 BRE Criteria
Daylight	Vertical Sky Component (VSC)	A window may be adversely affected if the VSC measured at the centre of the window is less than 27% and less than 0.8 times its former value.
	No Sky Line (NSL)	A room may be adversely affected if the daylight distribution (no sky line) is reduced beyond 0.8 times its existing area.
Sunlight	Annual Probable Sunlight Hours (APSH)	A window may be adversely affected if a point at the centre of the window receives for the whole year, less than 25% of the APSH including at least 5% of the PSH during the winter months (21 September to 21 March) and less than 0.8 times its former sunlight hours during either period, and (for existing neighbouring buildings), if there is a reduction in total APSH which is greater than 4%.
Overshadowing	Sun Hours on Ground	An area of amenity space or garden may be adversely affected if less than half (50%) of the area is prevented by buildings from receiving two hours of sunlight on the 21st March (as suggested by the BRE guidelines[2]) and the area which can receive some sun on the 21st March is less than 0.8 times its former value.

Solar Glare

11.40 Solar reflections off a building are particularly important at road junctions including pedestrian crossings, and traffic signals as glare can cause temporary blinding of drivers. Typically, those elements of a Proposed Development considered reflective are either glazed elements or specular metal cladding which is not known at this stage.

11.41 Solar Glare is not a comparative assessment; the fact it may occur in the baseline does not necessarily justify its occurrence as a result of a Proposed Development. Therefore, the assessment considers the effect of the Proposed Development in absolute terms.

11.42 For the purposes of this OPA, a quantitative solar glare assessment has not been carried out as there is not yet the required level of detailing to undertake such an assessment. Therefore, sensitive viewpoints have been identified and qualitatively assessed, with a full assessment to be carried out at the RMA stage, if necessary.

11.43 A further, more detailed description of the methodologies used for this assessment can be found in **ES Volume 3, Appendix: DSOSGLP - Annex 2**.

Light Pollution

11.44 Light pollution is defined as any light emitting from artificial sources into spaces where it is unwanted, such as spillage of light from office or commercial buildings onto residential accommodation, where this would cause nuisance to the occupants. The ILP Guidance Notes provide suggested lighting level values to ascertain the acceptability of lighting levels of light pollution.

11.45 It should be noted that artificial light is not always perceived as being negative, particularly in areas of high crime where good street lighting and light into street environments is seen as a positive attribute. Adverse effects caused as a result of electric lighting include the intrusion of light into sensitive locations such as adjacent residential accommodation, areas of special night-time interest, or needless spillage into the night sky.

11.46 It should also be noted that the ILP Guidance relates and refers to external luminaires. However, commercial buildings with large areas of glazing and possible night-time usage can sometimes cause light intrusion from their internal luminaires. For this reason, quantitative light pollution assessments can be undertaken in relation to these internal luminaires or any high powered external lighting, should the information be available at the planning application stage of a project.

11.47 Potential light pollution effects of a new development are typically assessed in relation to four specific criteria:

- Sky Glow is the brightening of the night sky over our towns, cities and countryside. It can be quantified by measuring the Upward Light Ratio (ULR), which is the maximum permitted percentage (%) of luminaire flux for the total installation that goes directly into the sky;
- Light Intrusion is the spilling of light beyond the boundary of a proposed development. It is assessed as vertical illuminance in lux (Ev) measured flat at the centre of the sensitive receptor;
- Luminaire Intensity is the uncomfortable brightness of a light source when viewed against a dark background. It is applied to each source visible from a sensitive receptor and is measured as source intensity (I) (kcd); and
- Building Luminance which can cause an increase in the brightness of a general area and is measured in cd per metre squared (L) as an average over the building facade caused only by external lighting.

11.48 Light pollution is not a comparative assessment; the fact it may occur in the baseline does not necessarily justify its occurrence as a result of the Proposed Development. Therefore, the assessment considers the effect of the Proposed Development in absolute terms, by reference to the relevant guidance levels.

11.49 Given the outline nature of this application and resultant lack of detailed information available to enable a quantitative technical assessment, light pollution has been qualitatively considered within this ES in relation to the maximum parameters using professional judgement. Receptors where there is the potential for significant effects have been identified, and where necessary, these will be fully assessed at the RMA stage

[2] *Building Research Establishment (BRE) Guidelines: Site Layout Planning for Daylight and Sunlight 2011, A Guide to Good Practice, Second Edition, 2011*

once the relevant detailed information is known. Within this ES chapter, all receptors/locations where there is the potential for significant impacts have been identified and assigned a range of scales for the potential effects.

11.50 Table 11.2 below sets out the environmental zones as per the ILP Guidance which have been applied in this assessment.

Table 11.2 ILP Light Pollution Criteria for Environmental Zones

Environmental Zone	Sky Glow ULR (Max %) (1)	Light Intrusion (Into Windows) Ev (Lux) (2)		Luminaire Intensity (Candelas) (3)		Building Luminance Pre-Curfew (4)
		Pre-Curfew	Post-Curfew	Pre-Curfew	Post-Curfew	Average L[Cd/M2]
E0 – Dark areas (e.g. UNESCO Starlight Reserves, IDA Dark Sky Parks)	0	0	0	0	0	0
E1- Intrinsically dark areas (e.g. National Parks, areas of outstanding natural beauty)	0	2	0 (1*)	2,500	0	0
E2- Low district brightness (e.g. rural or small village locations)	2.5	5	1	7,500	500	5
E3- Medium district brightness (e.g. small town centres or urban locations)	5.0	10	2	10,000	1,000	10
E4- High district brightness (e.g. town/city centres with high levels of night time activity)	15.0	2	5	25,000	2,500	25

Notes:
ULR = Upward Light Ratio of the Installation is the maximum permitted percentage of luminaire flux for the total installation that goes directly into the sky
Ev = Vertical Illuminance in Lux and is measure flat on the glazing at the centre of the window
I = Light Intensity in Cd L = Luminance in Cd/m2 Curfew = The time after which stricter requirements (for the control of obtrusive light) will apply; often a condition of use of lighting applied by the planning authority. If not otherwise stated – 23.00 hrs is suggested.
* = From Public road lighting installations only.

11.51 With reference to Table 11.2 above, taken from the ILP guidance, the Site is classified as environmental zone E4. This zone allows for a maximum pre-curfew light intrusion level of 25 lux and a maximum post-curfew light intrusion level of 5 lux.

Assumptions and Limitations

11.52 No assumptions are made in relation to construction as no quantitative technical assessments are undertaken. It is however assumed that the completed development is the worst-case scenario for daylight, sunlight, overshadowing, solar glare and light pollution and therefore, the enabling and construction phase is not quantitatively assessed within this chapter.

11.53 For the existing surrounding sensitive receptors where layout information was not available, assumptions have been made as to the use and internal configuration of the rooms (from external observations) behind the fenestration observed. In such cases a standard 4.3m (14ft) room depth has been assumed, unless the building form dictated otherwise. This is common practice where access to buildings for surveying is unavailable.

Methodology for Defining Effects

Receptors and Receptor Sensitivity

11.54 In terms of sensitivity, existing surrounding residential properties (i.e. receptors) are considered highly sensitive to daylight and sunlight levels, and specifically habitable rooms within the properties such as living rooms, kitchens and bedrooms, in accordance with the BRE Guidelines. All existing residential receptors assessed within this chapter are considered highly sensitive due to the expectation of natural light and are given equal weighting, and therefore each individual residential receptor is not assigned a level of sensitivity as per general EIA methodology i.e. high, medium, low or very low.

11.55 It should be noted that the BRE Guidelines paragraph 2.2.2 consider bedrooms to be less important in relation to daylight distribution, given that the primary use of the room is for sleeping and they therefore have a lower requirement for daylight. However, the BRE Guidelines state that care should be taken not to block too much sun.

11.56 Section 2.2 of the BRE Guidelines state that commercial spaces such as offices and retail areas are not considered sensitive receptors and are therefore not assessed as industry standard.

11.57 However, the BRE Guidelines may be applied to any existing non-domestic building where the occupants have a reasonable expectation of daylight. As such, an educational facility (New City College), and two Religious Buildings (Vietnamese Pastoral Centre and Shah Jalal Poplar Mosque) have been considered within the assessments. Owing to the transient nature of the occupation of these buildings, they are considered of medium sensitivity.

11.58 For Transient Overshadowing, all public areas of open space such as parks and squares and neighbouring communal amenity areas and private gardens are considered highly sensitive.

11.59 In relation to light pollution, receptors within approximately 30m have been considered sensitive to effects from the Proposed Development. All residential receptors are considered to be of high sensitivity whilst, owing to its proximity to Canary Wharf, the presence of the artificially lit buildings and structures surrounding

it and its nature as one of the site's for Canary Wharf's light show, the Millwall and West India Dock SINC is considered of low sensitivity to light pollution.

11.60 Similarly, for Solar Glare, all train and road viewpoints identified are considered to be of high sensitivity whilst those of the DLR are considered of low sensitivity owing to the driverless nature of the DLR. Whilst it is understood that, should the automated system fail, the a DLR train can controlled by a driver, this is an emergency whereby they are limited to very low speed and so would have longer to respond to any solar reflections.

Magnitude of Impact

11.61 The key terminology used to describe the magnitude of impacts are as follows and is determined with reference to the BRE criteria presented within 11.67 and the scale and nature of effect sections of this chapter:

- High;
- Medium;
- Low; and
- No impact.

Defining the Effect

Nature and Scale of Effects - Daylight

11.62 The nature of the effects may be either adverse (negative or detrimental) or beneficial (advantageous or positive).

11.63 For daylight, the BRE Guidelines outline the approach within the accompanying appendix, in terms of assigning criteria to assess the effects:

"Adverse impacts occur when there is a significant decrease in the amount of skylight […] reaching an existing building where it is required […]. The assessment of impact will depend on a combination of factors, and there is no simple rule of thumb that can be applied."

"Where the loss of skylight […] fully meets the guidelines, 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 […] 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 […] are affected, a minor adverse impact would be more appropriate, especially if there is a particularly strong requirement for daylight […] in the affected building […]."

"Where the loss of skylight […] 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 […] are affected;*
- *The loss of light is only marginally outside the guidelines;*
- *An affected room has other sources of skylight […]; and/or*
- *The affected building […] has a low level of requirement for skylight […].*"

11.64 The classification of major adverse is documented within Paragraph 7 of the BRE Guidelines:

- "*Factors tending towards a major adverse impact include:*
- *a large number of windows […] are affected;*
- *the loss of light is substantially outside the guidelines;*
- *all the windows in a particular property are affected; and*
- *the affected indoor […] spaces have a particular strong requirement for skylight […], e.g. a living room in a dwelling […].*"

11.65 Where the BRE Guidelines are met, the effects will be considered negligible.

11.66 The significance of effect is determined with both regard to the BRE Guidelines and professional judgement. The BRE Guidelines provide a steer on the magnitude of impact and nature effect, with the numerical criteria for determining the category of effect for VSC and NSL seen in **Table 11.1**.

11.67 Alongside the BRE Guidelines percentage alterations, when assigning significance per property consideration is given to the proportion of windows and rooms affected, absolute changes, existing levels, retained levels and any other relevant factors, such as orientation, balconies, overhangs or design features. As such, the criteria are not applied mechanistically. Percentage Alterations from the Existing Baseline

Table 11.3 Percentage Alterations from the Existing Baseline

Scale of Effect	Daylight Criteria
Negligible	0-19.9% alteration
Minor	20-29.9% alteration
Moderate	30-39.9% alteration
Major	≥ 40% alteration

11.68 If the retained VSC levels are ≥27% and the NSL levels are ≥80%, the effects are considered negligible, regardless of the alteration.

Nature and Scale of Effects – Sunlight

11.69 For sunlight, the BRE Guidelines outline the approach of assigning criteria to assess the effects:

"Adverse impacts occur when there is a significant decrease in the amount of […] sunlight reaching an existing building where it is required […]. The assessment of impact will depend on a combination of factors, and there is no simple rule of thumb that can be applied."

"Where the loss of skylight […] fully meets the guidelines, 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 […] 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 are affected, a minor adverse impact would be more appropriate, especially if there is a particularly strong requirement for […] sunlight in the affected building […]."

- *"Where the loss of […] 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 […] are affected;*
- *The loss of light is only marginally outside the guidelines;*
- *An affected room has other sources of […] sunlight; and/or*
- *The affected building […] only has a low level of requirement for […] sunlight."*

11.70 The significance of effect is determined with both regard to the BRE Guidelines and professional judgement. The BRE Guidelines provide a steer on the magnitude of impact and nature effect, with the numerical criteria for determining the category of effect for VSC and NSL seen in 11.71.

11.71 Alongside the BRE Guidelines percentage alterations, when assigning significance per property consideration is given to the proportion of windows and rooms affected, absolute changes, existing levels, retained levels and any other relevant factors, such as orientation, balconies, overhangs or design features. As such, the criteria are not applied mechanistically. Percentage Alterations from the Existing Baseline (both Annual and Winter PSH)

Table 11.4 Percentage Alterations from the Existing Baseline (both Annual and Winter PSH)

Scale of Effect	Sunlight Criteria
Negligible	0-19.9% alteration
Minor	20-29.9% alteration
Moderate	30-39.9% alteration
Major	≥ 40% alteration

11.72 If the retained total APSH levels are ≥ 25% with at least 5% of this occurring in the winter months, the effects are considered negligible in line with the BRE Guidance, regardless of the alteration.

Nature and Scale of Effects - Transient Overshadowing

11.73 The BRE Guidelines do not include criteria for the scale and nature of effects and subsequent significance of transient overshadowing other than to identify the different times of the day and year when shadow would be cast over a surrounding area.

11.74 The assessment of potential effects as a result of transient is therefore based on professional judgement, taking into consideration the conditions of the existing site and surrounding area, and comparing these conditions against the resultant impact of the Proposed Development.

Nature and Scale of Effects - Sun Hours on Ground

11.75 It is suggested in the BRE Guidelines that for an area to appear adequately sunlit throughout the year, at least half (50%) of any assessment area should see direct sunlight for at least two hours on the 21st March. If, as a result of new development, an existing assessment area will not meet BRE Guidelines and the area which can receive two hours of direct sunlight on 21st March is reduced to less than 0.8 times its former area, then the loss of sunlight is likely to be noticeable.

11.76 Where the results show compliance with the BRE Guidelines criteria, the occupants are unlikely to experience any noticeable change to their sunlight amenity levels. For the purposes of this assessment, such an effect would be considered negligible and Not Significant. Should the relevant criteria not be achieved, a judgement has to be made as to the scale and nature of effects and their resultant significance based on the level of loss, retained sunlight levels and the relevant baseline level.

11.77 11.77 sets out the numerical criteria adopted in relation to the sun on ground assessment. Sun Hours on Ground Criteria.

Table 11.5 Sun Hours on Ground Criteria

Scale of Effect	Numerical Criteria on 21st March
Negligible	Over 50% of the amenity area will receive 2 hours of sunlight or less than 20% alteration in area which receives 2 hours of direct sunlight.
Minor	20-29.9% reduction or increase in the area which receives 2 hours of direct sunlight (and below 50% retained area).
Moderate	30-39.9% reduction or increase in the area which receives 2 hours of direct sunlight (and below 50% retained area).
Major	≥ 40% reduction or increase in the area which receives 2 hours of direct sunlight (and below 50% retained area).

Nature and Scale of Effects – Solar Glare

11.78 There are no quantitative criteria within the BRE Guidelines or elsewhere regarding acceptable levels of solar glare.

11.79 For the purposes of this OPA, a quantitative solar glare assessment has not been carried out as there is not yet the required level of detailing to undertake this. Sensitive viewpoints have been identified and qualitatively assessed, with a full assessment to be carried out at the RMA stage, if necessary.

11.80 Professional judgement has therefore been applied to assign the significance of solar glare arising from the Proposed Development and to determine the criteria for assessing the scale and nature of solar glare effects.

Nature and Scale of Effects - Light Pollution

11.81 This assessment considers the effect of the Proposed Development in absolute terms, by reference to the ILP guidance.

11.82 The ILP Guidance Notes do not provide details on assigning the nature and scale of effects relating to light pollution. Therefore, the determination of the scale and nature of effect has been based on professional judgement, considering the extent of the residential façade potentially adversely affected, as well as the extent to which the thresholds set out in the guidance are exceeded. Table 11.6 highlights the criteria used to assign the nature and scale of effect.

Table 11.6 Light Pollution Criteria

Nature and Scale of Effect	Description
Negligible	No breaches of ILP criteria for pre-curfew or post-curfew.
Minor Adverse	Small breaches of ILP post-curfew criteria, marginally noticeable to the sensitive receptor. This may include marginal breaches of the ILP criteria which should be viewed in the context of the urban character of the area. No breaches in ILP pre-curfew criteria.

Nature and Scale of Effect	Description
Moderate Adverse	Breaches in ILP post-curfew criteria which may cause a moderate noticeable change to the sensitive receptor. This may consist of a large proportion of marginal infringements of the numerical values suggested in the ILP guidance and/or a small percentage of significant infringements. No breaches in ILP pre-curfew criteria.
Major Adverse	Breaches in ILP post-curfew criteria which may cause a major noticeable change to the sensitive receptor. This may consist of a large proportion of significant breaches of both the pre-curfew and post-curfew criteria suggested within the ILP Guidance Notes.

Direct and Indirect

11.83 All daylight, sunlight, overshadowing, light pollution and solar glare effects are considered 'direct', 'permanent' and 'long-term'.

Categorising Likely Significant Effects

11.84 Neither the BRE nor ILP Guidelines advise on significance of an effect. As such, in the context of a development of this nature, the following criteria is applied:

- 'Moderate' or 'Major' effects are deemed to be 'significant'; and
- 'Negligible' or 'Minor' effects are considered 'Not Significant'.

BASELINE CONDITIONS

11.85 The Site is bound by Aspen Way (A1261) to the north, Billingsgate Market to the east, North Dock and Canary Wharf Crossrail Station to the south, and Hertsmere Road to the west of the Site. The West India Quay Docklands Light Railway (DLR) station and Delta Junction are located on the western side of the Site

11.86 The area comprises high rise Canary Wharf buildings to the south and low to medium rise buildings to the north and east of a range of uses. Owing to the lack of sensitive buildings to the south, all the sensitive receptors are located to the north through to the west of the Site.

Daylight and Sunlight

11.87 Full details of the baseline assessment are located within **ES Volume 3, Appendix: DSOSGLP - Annex 3** but are summarised below.

11.88 A total of 2,875 windows serving 1,214 rooms within 88 properties have been assessed for daylight and 1,115 rooms within the same 88 properties have been assessed for sunlight.

11.89 Of the 2,875 windows assessed, 2,088 (72.6%) have a baseline VSC equal or greater than 27% whilst 756 (62.3%) of the 1,214 rooms assessed have a baseline NSL of at least 80%. In relation to sunlight, 943 (84.6%) of the 1,115 rooms assessed achieve the levels of sunlight recommended within the BRE Guidelines.

Overshadowing

11.90 Of the 124 private gardens assessed, 109 (87.1%) achieve at least two hours of sunlight across 50% of their area, as recommended by BRE.

RECEPTORS AND RECEPTOR SENSITIVITY

Existing Receptors

11.91 The full baseline summary can be found within **ES Volume 3, Appendix: DSOSGLP - Annex 2.**

Daylight and Sunlight

11.92 A total of 2,875 windows serving 1,214 rooms within 88 residential buildings have been assessed for daylight. For sunlight, 1,115 rooms within the same 88 residential buildings have been assessed.

Figure 11.1 Neighbours assessed for Daylight and Sunlight

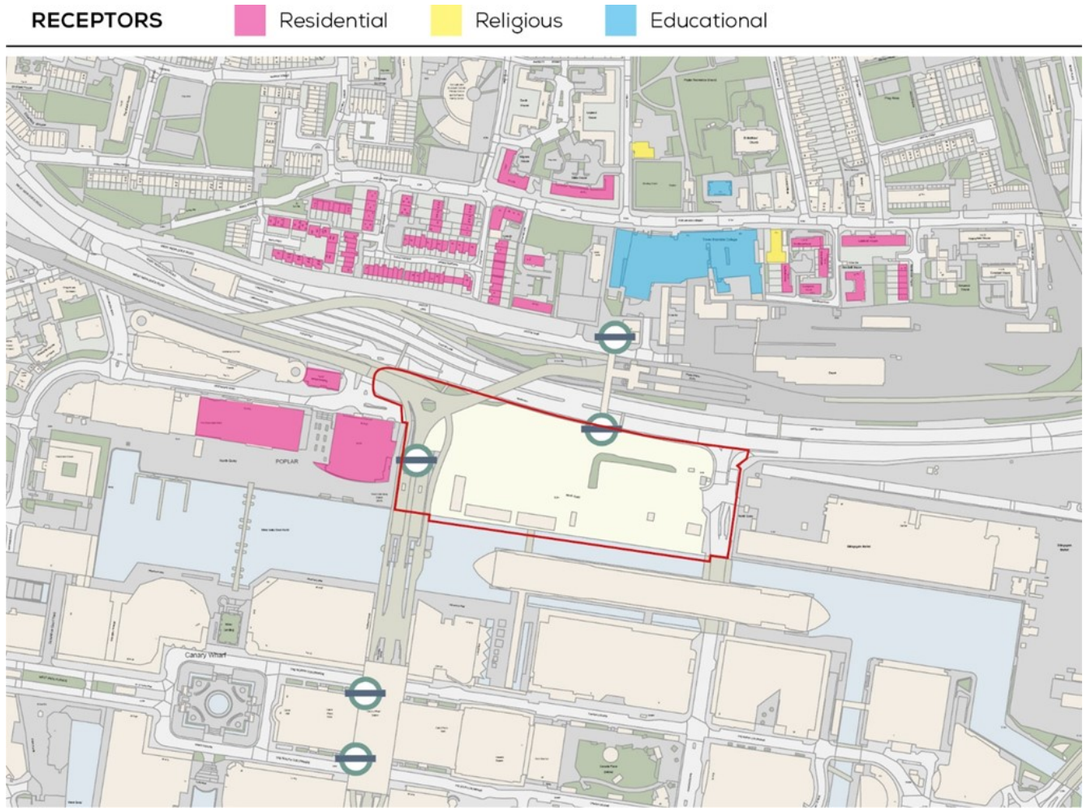


Table 11.7 The surrounding properties considered sensitive to daylight and sunlight are listed below. Where applicable, consecutive properties have been grouped together: Neighbouring Properties Assessed for Daylight and Sunlight

Type	Address	
Residential	Cruse House	34a Ming St
	1-12 Dingle Gardens	34c Ming St
	13 to 53 Dingle Gardens	34e Ming St
	1 to 4 Dolphin Lane	36a Ming St
	5 to 17 (odds) Dolphin Lane	36c Ming St
	1 West India Quay	2-30 Ming Street

Type	Address	
	Good Faith House	2-24 Poplar High Street
	Good Speed House	26-36 Poplar High Street
	Good Hope House	40-50 Poplar High Street
	Goodwill House	54-64 Poplar High Street
	Horizon Building	74 Poplar High Street
	1-18 Lubbock House	Port East Apartments
	1-12 Martindale House	1-8 Stoneyard Lane
	32a-32b Ming St	9-24 Stoneyard Lane
	32c-32d Ming St	Wigram House
	38a Ming St	Willis House
	38c Ming St	Winant House
	40 Ming St	
Educational	Little St Matthias Preschool New City College	
Religious	Vietnamese Pastoral Centre, 130 Poplar High Street Shah Jalal Mosque Poplar, 25 Hale Street	

11.93 These receptor locations have been agreed with the LBTH Daylight Officer, through the EIA Scoping Process and a detailed map showing each building's location can be found within **ES Volume 3, Appendix: DSOSGLP - Annex 3**.

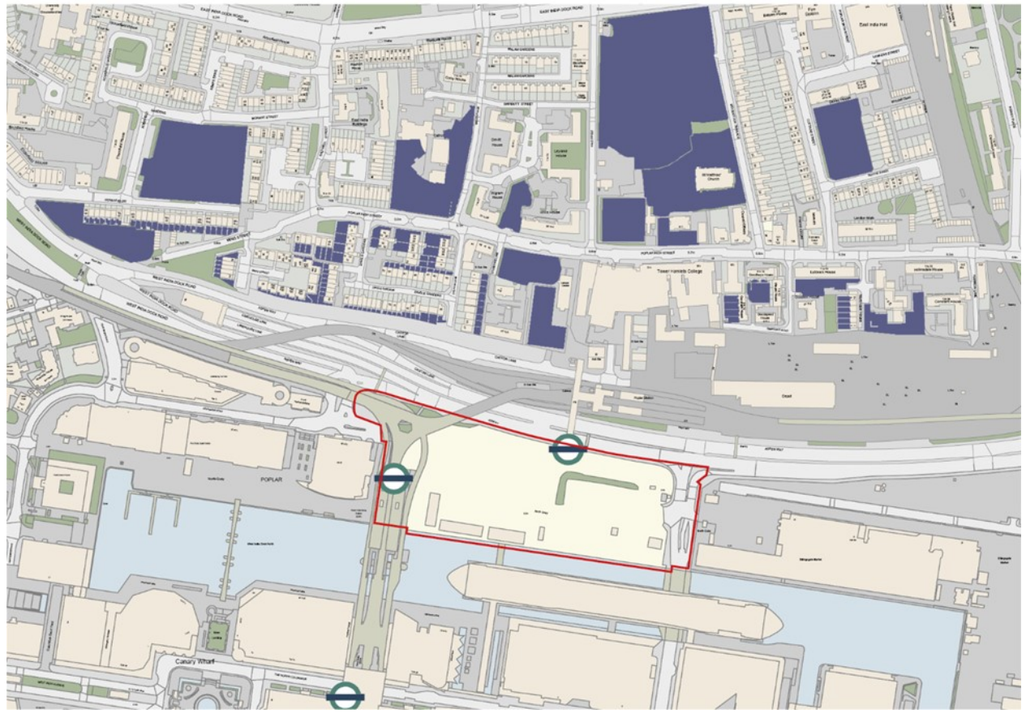
11.94 Additional to the receptors listed above and subsequent to the LBTH Scoping Response, LBTH's Daylight Officer queried the inclusion of Roosevelt Tower to the east of the Proposed Development. At over 200 metres from the Proposed Development, however, this residential tower is not considered close enough to the Proposed Development to be significantly affected and as such is scoped out of this ES chapter.

Overshadowing

11.95 A total of 135 areas of amenity surrounding the site have been tested for overshadowing. These are comprised of 11 areas of public or communal amenity and 124 private gardens.

Figure 11.2 Neighbouring areas of amenity assessed for Overshadowing

RECEPTORS



11.96 The surrounding areas of public, communal or private amenity considered sensitive to overshadowing are as follows:

Table 11.8 Neighbouring Area of Amenity Assessed for Overshadowing

Type	Address	
Public or Communal Amenity	Green spaces serving houses on Pennyfields Pennyfields Park Playground of Our Lady & St Joseph Primary School Play Area at Will Crooks Estate Park Area at The Workhouse Leisure Centre	Sports Pitches at The Workhouse Leisure Centre Poplar Recreation Ground St Matthias Church Ground Little St Matthias Preschool outside space Public Bowling Green on Hale Street Public Park on Cottage Street
Private Gardens	30-42 (even) Pennyfields 82-118 (even) Pennyfields 40-50 (even) Ming Street 32b Ming Street 32c Ming Street 34a Ming Street 34c Ming Street 34e Ming Street 36a Ming Street 36c Ming Street 38a Ming Street	7-9-11 Dingle Gardens 26-30-34 Dingle Gardens 28-32-36 Dingle Gardens 42-46-50 Dingle Gardens 40-44-48 Dingle Gardens 54-58-62 Dingle Gardens 56-60-64 Dingle Gardens 2 Dolphin Lane 21-53 Dingle Gardens 1-17 (odd) Dolphin Lane Goodfaith House (four areas)

Type	Address	
	38c Ming Street	Courtyard at Simpon's Road
	13-20 Dingle Gardens	Goodhope House (two areas)
	2-12 (even) Poplar High Street	Lubbock House
	1-3-5 Dingle Gardens	1-6 Martindale House
	2-4-6 Dingle Gardens	Norwood House
	8-10-12 Dingle Gardens	
Educational	Little St Matthias Preschool	
	New City College	

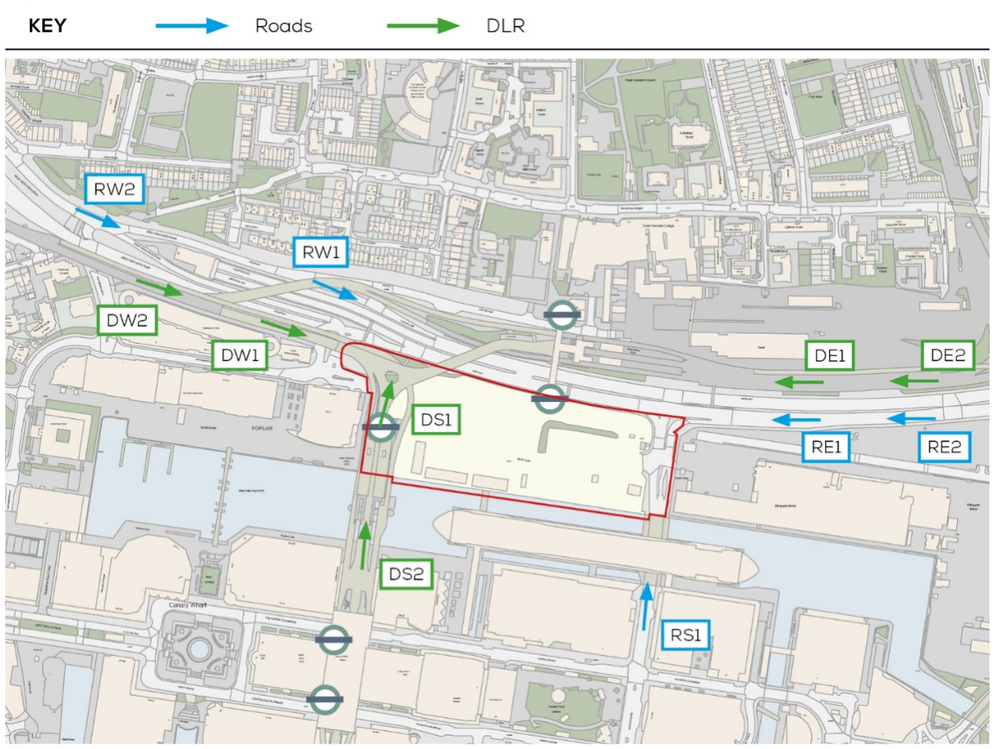
11.97 Being located to the south of the Site, the Millwall and West India Dock SINC will not be overshadowed by the Proposed Development and as such is not considered sensitive to overshadowing so does not require any further consideration within this chapter.

11.98 These receptor locations have been agreed with the LBTH Daylight Officer, through the EIA Scoping Process and a detailed map showing each area of amenity's location can be found within **ES Volume 3, Appendix: DSOSGLP - Annex 3**.

Solar Glare

11.99 Road junctions and train lines are considered most sensitive to solar glare and therefore consideration has been given to eleven viewpoints at traffic junctions and train lines (DLR) from which the Proposed Development will be visible. The viewpoints assessed are indicated in 11.99.

Figure 11.3 Viewpoints assessed for Solar Glare



Light Pollution

11.100 Potential Light Pollution effects are most likely to occur on receptors located within a 20-meter radius of the proposed commercial buildings or high powered external lighting. Owing to the location of the commercial elements of the Proposed Development or possible locations of external lighting, the following residential receptors have been considered sensitive to light pollution.

1 West India Quay

11.101 In the scenario that Development Zone NQ.A1 is designed and proposed with office uses adjacent to the western boundary of the Site, the residential dwellings within 1 West India Quay are considered potentially sensitive to light pollution effects.

Millwall and West India Dock SINC

11.102 As requested by the LBTH, the Millwall and West India Dock SINC is considered potentially sensitive to light pollution effects.

Future Residential Receptors within the Site.

11.103 Given the outline nature of the Proposed Development, Development Zones where future residential units could be located have been provided within the Parameter Plans. Due to their proximity to the potential commercial buildings, the windows serving habitable within the Site (Development Plots NQ.A and NQ.D) are considered sensitive to light pollution.

Internal Daylight and Sunlight

11.104 The purpose of the internal daylight, sunlight and overshadowing assessments is to ascertain whether the Proposed Development would provide residential accommodation and associated amenity space considered acceptable in terms of daylight, sunlight and overshadowing. It is not considered appropriate to ascribe a scale and nature of effect (and whether such an effect is considered to be significant), as there is no 'baseline' against which the internal daylight, sunlight or overshadowing conditions can be considered and assessed against. Therefore, relevant consideration has been given as to whether good levels of daylight and sunlight can be achieved by potential future residents occupying the Proposed Development and its associated amenity space, having regard in each case to the relevant assessment criteria as set out in the BRE criteria. The full Internal Daylight, Sunlight and Overshadowing Report Is discusses this in detail and is submitted alongside this application.

POTENTIAL EFFECTS

Enabling and Construction

11.105 The magnitude of impact and resultant potential effect in relation to the daylight, sunlight, overshadowing, light pollution and solar glare on the surrounding receptors would vary throughout the enabling and construction phase, depending on the level of obstruction caused.

11.106 The construction of the new buildings on the Site would have a gradual effect upon the levels of daylight, sunlight and overshadowing as the massing of the Proposed Development increases over time. It is therefore considered that the completed Proposed Development represents the worst-case assessment in terms of likely resultant effects. The effects during the enabling and construction works would almost certainly be less

than that of the Proposed Development, given that the extent of permanent massing would increase throughout the construction programme, until the Proposed Development is complete. As discussed below, these effects range from Negligible (Not Significant) to Major Adverse (significant).

11.107 During enabling works and construction, artificial lighting would be used on the site and therefore there is the potential for adverse light pollution effects at neighbouring residential receptors. Given that the lighting design is not known at this stage, it cannot be assessed. However, it is considered that the effects would be temporary and controlled in line with the CEMP, the requirement for which will form a suitably worded planning condition.

11.108 Therefore, reference should be made to the assessments of the completed Proposed Development in relation to potential daylight, sunlight, overshadowing, light pollution and solar glare effects, which are discussed in the sections below.

Phasing

11.109 Whilst it is noted that there may be phased occupation within the Site, the assessments are carried out on the completed Proposed Development basis as this presents the worst-case scenario to surrounding sensitive receptors.

Completed Development

Daylight

11.110 The full daylight assessment for the completed Proposed Development against the Baseline Scenario can be found within **ES Volume 3, Appendix: DSOSGLP - Annex 3** and is summarised in below in Table 11.9.

11.111 In the Proposed Development scenario, of the 2,875 windows assessed for VSC, 1,948 (67.8%) meet the BRE criteria. Of the 1,214 rooms assessed for NSL, 1,091 (89.9%) meet the BRE criteria.

11.112 Of the 88 buildings tested, the 34 highlighted in blue in the below table experience little to no impact (less than 20% alteration to both VSC and NSL) which is considered a **Negligible** effect (Not Significant).

11.113 The results of the remaining 54 buildings are discussed in more detail below but, to summarise, tThere are five buildings with significant effects comprising of four **Moderate Adverse** effects and one **Major Adverse effect**. The buildings experiencing significant effects are Cruse House, Horizon Building, 1-8 Stoneyard Lane, 9-24 Stoneyard Lane and New City College. The effects to the remaining 49 buildings are considered to be of **Negligible** or **Minor Adverse**.

Table 11.9 Daylight Assessment at Sensitive Receptors

Address	VSC						NSL					
	Total No. of Windows	No. Windows that meet BRE criteria	Below BRE Guidelines				Total No. of Rooms	No. Rooms that meet the 0.8 times former value criteria	Below BRE Guidelines			
			20-29.9% Reduction	30-39.9% Reduction	>40% Reduction	Total			20-29.9% Reduction	30-39.9% Reduction	>40% Reduction	Total
Cruse House	42	15	13	4	10	27	31	28	2	0	1	3
1-12 Dingle Gardens	32	30	0	0	2	2	30	29	0	1	0	1
13 Dingle Gardens	6	5	0	1	0	1	4	4	0	0	0	0
14 Dingle Gardens	4	4	0	0	0	0	4	4	0	0	0	0
15 Dingle Gardens	4	4	0	0	0	0	4	4	0	0	0	0
16 Dingle Gardens	4	4	0	0	0	0	4	4	0	0	0	0
17 Dingle Gardens	4	3	0	1	0	1	4	3	0	0	1	1
18 Dingle Gardens	4	4	0	0	0	0	4	4	0	0	0	0
19 Dingle Gardens	4	4	0	0	0	0	4	4	0	0	0	0
20 Dingle Gardens	8	7	1	0	0	1	5	5	0	0	0	0
21 Dingle Gardens	3	2	1	0	0	1	3	3	0	0	0	0
22 Dingle Gardens	2	2	0	0	0	0	2	2	0	0	0	0
23 Dingle Gardens	2	2	0	0	0	0	2	2	0	0	0	0
24 Dingle Gardens	3	2	1	0	0	1	3	3	0	0	0	0
25 Dingle Gardens	3	1	2	0	0	2	3	3	0	0	0	0
26 Dingle Gardens	2	1	1	0	0	1	2	2	0	0	0	0
27 Dingle Gardens	2	0	2	0	0	2	2	2	0	0	0	0
28 Dingle Gardens	3	1	2	0	0	2	3	3	0	0	0	0

Table 11.9 Daylight Assessment at Sensitive Receptors

Address	VSC						NSL					
	Total No. of Windows	No. Windows that meet BRE criteria	Below BRE Guidelines				Total No. of Rooms	No. Rooms that meet the 0.8 times former value criteria	Below BRE Guidelines			
			20-29.9% Reduction	30-39.9% Reduction	>40% Reduction	Total			20-29.9% Reduction	30-39.9% Reduction	>40% Reduction	Total
29 Dingle Gardens	3	0	3	0	0	3	3	3	0	0	0	0
30 Dingle Gardens	2	0	2	0	0	2	2	2	0	0	0	0
31 Dingle Gardens	2	0	2	0	0	2	2	2	0	0	0	0
32 Dingle Gardens	3	0	3	0	0	3	3	3	0	0	0	0
33 Dingle Gardens	3	0	1	2	0	3	3	3	0	0	0	0
34 Dingle Gardens	2	0	2	0	0	2	2	2	0	0	0	0
35 Dingle Gardens	2	0	2	0	0	2	2	2	0	0	0	0
36 Dingle Gardens	3	0	2	1	0	3	3	3	0	0	0	0
37 Dingle Gardens	6	0	4	2	0	6	6	3	3	0	0	3
38 Dingle Gardens	6	0	3	3	0	6	6	2	2	2	0	4
39 Dingle Gardens	5	1	3	1	0	4	5	5	0	0	0	0
40 Dingle Gardens	5	0	3	1	1	5	3	1	2	0	0	2
41 Dingle Gardens	5	0	3	0	2	5	4	2	1	1	0	2
42 Dingle Gardens	4	1	3	0	0	3	4	3	1	0	0	1
43 Dingle Gardens	8	4	2	1	1	4	4	2	2	0	0	2
44 Dingle Gardens	6	1	4	1	0	5	4	3	1	0	0	1
45 Dingle Gardens	6	2	3	1	0	4	4	2	1	1	0	2
46 Dingle Gardens	6	3	2	1	0	3	4	4	0	0	0	0
47 Dingle Gardens	6	4	1	1	0	2	4	3	0	1	0	1
48 Dingle Gardens	4	1	3	0	0	3	4	4	0	0	0	0
49 Dingle Gardens	4	4	0	0	0	0	4	3	0	1	0	1
50 Dingle Gardens	4	4	0	0	0	0	4	3	0	1	0	1
51 Dingle Gardens	6	3	3	0	0	3	4	4	0	0	0	0
52 Dingle Gardens	6	6	0	0	0	0	6	6	0	0	0	0
53 Dingle Gardens	6	6	0	0	0	0	6	6	0	0	0	0
1 Dolphin Lane	8	8	0	0	0	0	4	4	0	0	0	0
11 Dolphin Lane	6	6	0	0	0	0	4	4	0	0	0	0
13 Dolphin Lane	6	6	0	0	0	0	4	4	0	0	0	0
15 Dolphin Lane	6	6	0	0	0	0	4	4	0	0	0	0
17 Dolphin Lane	6	5	1	0	0	1	4	4	0	0	0	0
2 Dolphin Lane	7	7	0	0	0	0	6	6	0	0	0	0
3 Dolphin Lane	8	8	0	0	0	0	4	4	0	0	0	0
4 Dolphin Lane	7	5	1	0	1	2	6	6	0	0	0	0
5 Dolphin Lane	6	6	0	0	0	0	4	4	0	0	0	0
7 Dolphin Lane	6	6	0	0	0	0	4	4	0	0	0	0
9 Dolphin Lane	6	6	0	0	0	0	4	4	0	0	0	0

Table 11.9 Daylight Assessment at Sensitive Receptors

Address	VSC						NSL					
	Total No. of Windows	No. Windows that meet BRE criteria	Below BRE Guidelines				Total No. of Rooms	No. Rooms that meet the 0.8 times former value criteria	Below BRE Guidelines			
			20-29.9% Reduction	30-39.9% Reduction	>40% Reduction	Total			20-29.9% Reduction	30-39.9% Reduction	>40% Reduction	Total
Eastern Tower West India Quay	1384	954	3	19	408	430	209	206	1	2	0	3
Good Faith House	9	9	0	0	0	0	6	6	0	0	0	0
Good Speed House	18	18	0	0	0	0	18	18	0	0	0	0
Good Hope House	63	45	7	2	9	18	18	18	0	0	0	0
Goodwill House	51	45	0	2	4	6	43	42	1	0	0	1
Horizon Building	67	12	33	13	9	55	43	21	18	4	0	22
Little St Matthias Preschool	22	20	2	0	0	2	2	2	0	0	0	0
1-18 Lubbock House	98	76	0	0	22	22	54	54	0	0	0	0
1-12 Martindale House	66	60	0	1	5	6	51	51	0	0	0	0
32a-32b Ming St	4	4	0	0	0	0	4	4	0	0	0	0
32c-32d Ming St	4	4	0	0	0	0	4	2	1	1	0	2
38a Ming St	6	6	0	0	0	0	6	6	0	0	0	0
38c Ming St	6	6	0	0	0	0	6	6	0	0	0	0
40 Ming St	6	6	0	0	0	0	6	6	0	0	0	0
34a Ming St	6	6	0	0	0	0	4	4	0	0	0	0
34c Ming St	6	6	0	0	0	0	6	4	2	0	0	2
34e Ming St	6	6	0	0	0	0	6	4	1	1	0	2
36a Ming St	6	6	0	0	0	0	6	6	0	0	0	0
36c Ming St	6	6	0	0	0	0	6	6	0	0	0	0
2-30 Ming Street	48	48	0	0	0	0	24	24	0	0	0	0
Shah Jalal Mosque Poplar	15	15	0	0	0	0	2	2	0	0	0	0
Vietnamese Pastoral Centre (130 Poplar High Street)	20	20	0	0	0	0	10	10	0	0	0	0
2-24 Poplar High Street	66	66	0	0	0	0	52	52	0	0	0	0
26-36 Poplar High Street	16	16	0	0	0	0	15	15	0	0	0	0
40-50 Poplar High Street	16	16	0	0	0	0	15	15	0	0	0	0
54-64 Poplar High Street	16	16	0	0	0	0	15	15	0	0	0	0
74 Poplar High Street	13	8	5	0	0	5	8	8	0	0	0	0
Port East Apartments	54	40	14	0	0	14	45	33	10	2	0	12
1-8 Stoneyard Lane	27	8	0	10	9	19	19	16	3	0	0	3
9-24 Stoneyard Lane	56	8	0	0	48	48	56	22	13	10	11	34
New City College	175	78	44	23	30	99	58	51	3	2	2	7
Wigram House	40	39	1	0	0	1	32	32	0	0	0	0
Willis House	89	18	71	0	0	71	89	79	10	0	0	10
Winant House	73	57	7	0	9	16	18	18	0	0	0	0
Totals	**2,875**	**1,948**	**268**	**91**	**570**	**929**	**1,214**	**1,091**	**78**	**30**	**15**	**123**

Cruse House

11.114 Cruse House is located to the north of the Proposed Development and its southern façade is defined by access decks and an external stairwell, both of which serve to reduce the levels of light seen in the baseline condition. Being obstructed by its own design therefore, it follows that any meaningful development on the Site will lead to adverse daylight effects.

11.115 A total of 42 windows serving 31 rooms were assessed for daylight within this building.

11.116 For VSC, 15 of the 42 (36%) windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.117 Of the affected windows, 13 would experience alterations in VSC levels between 20-29.9% which is considered to equate to a Minor Adverse effect. Five of these windows on the second and third storey would retain VSC levels above 16% which may be considered acceptable for urban location, with the lower floors seeing lower levels of daylight due to being located beneath access decks.

11.118 Four windows would experience alterations between 30-39.9% which is considered to equate to a Moderate Adverse effect and the remaining 10 windows would experience an alteration in excess of 40% which is considered a Major Adverse effect. 13 of these 14 windows have lower existing levels of daylight ranging from 2.1% to 15% which is well below the recommend 27%, whereby any alteration may result in a disproportionate percentage change. In addition, the uses of the rooms these windows serve are unknown and there is a possibility that they serve non-habitable rooms such as circulation space or bathrooms, or serve bedrooms which are considered less sensitive to daylight than living rooms within the BRE guidelines.

11.119 It should also be noted that those six windows serving the stairwell have been tested in order to show how a window would perform should it not be overhung by balconies. All six of these windows are still recessed into the brickwork and so blinkered in the baseline condition but, despite this, see percentage reductions in VSC of circa 26-27% which would be considered a Minor Adverse effect. In light of these windows being closer to the Proposed Development, it can be concluded that the effects to Cruse House's VSC levels would be minor adverse should the windows not be so heavily obstructed in the baseline.

11.120 For NSL 28 of the 31 (90%) rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.121 Of the three affected rooms, two would experience alterations in NSL levels between 20-29.9% which is considered to equate to a Minor Adverse effect, and one would experience an alteration in excess of 40% which is considered a Major Adverse effect. Each of these rooms are located either beneath a balcony or light is obstructed by the architectural design of the building.

11.122 Overall, the effect to daylight at this property is considered **Moderate Adverse** (Significant).

1-12 Dingle Gardens

11.123 1-12 Dingle Gardens is located to the north-east of the Proposed Development with the east facing façade considered within this assessment including an overhang to the entrance and windows sitting beneath it.

11.124 A total of 32 windows serving 30 room were assessed for daylight within this building.

11.125 For VSC, 30 of the 32 (94%) windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.126 For NSL 29 of the 30 (97%) rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.127 Both affected windows serve the same room, which sees a loss greater than 40% for both VSC and NSL, considered a Major Adverse effect. However, this room is at ground floor and is most likely the entrance to the building and so not sensitive to daylight alterations. The levels of VSC retained across the unobstructed main façade of this building remain excellent at circa 30% and so overall this is considered acceptable.

11.128 Overall, the effect to daylight within this building is considered **Negligible** (Not Significant).

13 Dingle Gardens

11.129 13 Dingle Gardens is the end building of a row of terraced properties, located to the north-east of the Proposed Development. Its east facing façade considered within this assessment is defined by a set back façade as well as a porch.

11.130 A total of six windows serving four rooms were assessed for daylight within this building.

11.131 For VSC, five of the six (83%) windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.132 The affected window would experience alterations in VSC levels between 30-39.9% which is considered to equate to a Moderate Adverse effect, is a small side window serving likely serving a porch.

11.133 For NSL all four rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.134 Overall, the effect to daylight within this building is considered **Negligible** (Not Significant).

17 Dingle Gardens

11.135 17 Dingle Gardens sits within a row of terraced properties, located to the north-west of the Proposed Development. Its east facing façade considered within this assessment is defined porch roof over the front door.

11.136 A total of four windows serving four rooms were assessed for daylight within this building.

11.137 For VSC, three of the four (75%) windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.138 The affected window would experience alterations in VSC levels between 30-39.9% which is considered to equate to a Moderate Adverse effect. However, this window is a glazed panel in a door serving a hallway and as such not considered sensitive.

11.139 For NSL three of the four (75%) rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.140 The affected room would experience an alteration in excess of 40% which is considered a Major Adverse effect. This room is likely to be a hallway and has a low existing VSC level of 11%, whereby any alteration may result in a disproportionate percentage change as shown by the small absolute change of 3.4. This is

due to the location of window on the ground floor, which is inherently shaded by the architectural design of the property.

11.141 Overall, the effect to daylight at this property is considered **Negligible** (Not Significant)

20 Dingle Gardens

11.142 A total of eight windows serving five rooms were assessed for daylight within this building. Of these five rooms, four would meet BRE's criteria for both VSC and NSL and as such experience a Negligible effect.

11.143 For VSC, seven of the eight (87.5%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.144 The affected window would experience an alteration in VSC of 20.1% which is technical a Minor Adverse effect but only marginally above the 20% recommended and so, with 100% NSL being retained, is unlikely to be noticed. Additionally, the window retains 19.5% VSC which is considered good for an urban location.

11.145 For NSL all four rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.146 Overall, the effect to daylight at this property is considered **Negligible** (Not Significant).

21 Dingle Gardens

11.147 This property is the end building on a terraced row, located to the north-west of the Proposed Development. Only the south facing façade to the rear of the property are considered for assessment, with the north facing façade being unaffected by the Proposed Development. Two windows sit beneath a roof overhang and as such, any meaningful development on the Site will lead to adverse daylight effects as a result of this obstruction by its own design.

11.148 A total of 3 windows serving three rooms were assessed for daylight within this building.

11.149 For VSC, two of the three (67%) windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.150 The affected window is located beneath the roof overhang and would experience alterations in VSC levels of 21.7% which is considered to equate to a Minor Adverse effect, This window, however, retains 15.9% VSC which is considered commensurate within an urban location and, as is shown by the ground floor being compliant, only sees a breach of guidance owing to the overhang above.

11.151 For NSL all four rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.152 Overall, given the only marginal breach of guidance to one window, the effect to daylight at this property is considered **Negligible** (Not Significant).

24 Dingle Gardens

11.153 A total of three windows serving three rooms were assessed for daylight within this building. Of these three rooms, two would meet BRE's criteria for both VSC and NSL and as such experience a Negligible effect.

11.154 For VSC, two of the three (66.7%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.155 The affected window would experience an alteration in VSC of 22.5% which is considered a Minor Adverse effect, but this is the first-floor window which only sees this slight breach in guidance owing to the roof overhang above. This is shown by the ground floor windows being fully compliant with BRE guidance and additionally the retained level of 16.8% VSC is considered good for an urban location.

11.156 For NSL, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.157 Overall, considering all the above, the effect to daylight within this building is considered **Negligible** (Not Significant).

25 Dingle Gardens

11.158 A total of three windows serving three rooms were assessed for daylight within this building. Of these three rooms, one would meet BRE's criteria for both VSC and NSL and as such experience a Negligible effect.

11.159 For VSC, one of the three (33.3%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.160 Of the two affected windows, both would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect, but both retain 14-17% VSC and very good levels of NSL so will remain acceptably daylit.

11.161 For NSL, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.162 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

26 Dingle Gardens

11.163 A total of two windows serving two rooms were assessed for daylight within this building. Of these two rooms, one would meet BRE's criteria for both VSC and NSL and as such experience a Negligible effect.

11.164 For VSC, one of the two (50%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.165 The affected window would experience an alteration in VSC of 21.6% which is marginally in excess of the 20% recommended and considered a Minor Adverse effect. Being at first floor level, however, this window only falls short owing to the roof overhang above and retains a good level of light at 18.5% VSC as well as 87.6% NSL.

11.166 For NSL, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.167 Overall, considering all the above, the effect to daylight within this building is considered **Negligible** (Not Significant).

27 Dingle Gardens

11.168 A total of two windows serving two rooms were assessed for daylight within this building.

11.169 For VSC, both windows assessed see losses greater than recommended by BRE.

11.170 Of the two affected windows, both would experience Minor Adverse effects (alterations in VSC of 20.2% and 21.2%). These reductions are only marginally above the 20% recommended by BRE and, with these rooms retaining circa 20% VSC and 84-85% NSL, will continue to be well daylit.

11.171 For NSL, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.172 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

28 Dingle Gardens

11.173 A total of three windows serving three rooms were assessed for daylight within this building. Of these three rooms, one would meet BRE's criteria for both VSC and NSL and as such experience a Negligible effect.

11.174 For VSC, one of the three (33.3%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.175 Of the two affected windows, both would experience an alteration in VSC between 20-24.7% which is considered a Minor Adverse effect.

11.176 For NSL, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.177 Overall, good levels of light are retained and the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

29 Dingle Gardens

11.178 A total of three windows serving three rooms were assessed for daylight within this building.

11.179 For VSC, all three windows assessed see losses greater than recommended by BRE.

11.180 Of the three affected windows, all would experience an alteration in VSC between 20-27.7% which is considered a Minor Adverse effect.

11.181 For NSL, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.182 Overall, good levels of light are retained and the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

30 Dingle Gardens

11.183 A total of two windows serving two rooms were assessed for daylight within this building.

11.184 For VSC, both windows assessed see losses greater than recommended by BRE.

11.185 Of the two affected windows, both would experience Minor Adverse effects (alterations in VSC of 21.7% and 22.8%). These reductions are only marginally above the 20% recommended by BRE and, with these rooms retaining circa 20% VSC and 90% NSL, will continue to be well daylit.

11.186 For NSL, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.187 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

31 Dingle Gardens

11.188 A total of two windows serving two rooms were assessed for daylight within this building.

11.189 For VSC, both windows assessed see losses greater than recommended by BRE.

11.190 Of the two affected windows, both would experience Minor Adverse effects (alterations in VSC of 22.3% and 23.9%). These reductions are only marginally above the 20% recommended by BRE and, with these rooms retaining circa 20% VSC and 90% NSL, will continue to be well daylit.

11.191 For NSL, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.192 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

32 Dingle Gardens

11.193 A total of three windows serving three rooms were assessed for daylight within this building.

11.194 For VSC, all three windows assessed see losses greater than recommended by BRE.

11.195 Of the three affected windows, all would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect.

11.196 For NSL, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.197 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

33 Dingle Gardens

11.198 A total of three windows serving three rooms were assessed for daylight within this building.

11.199 For VSC, all three windows assessed see losses greater than recommended by BRE.

11.200 Of the three affected windows, one would experience an alteration in VSC of 24.3% which is considered a Minor Adverse effect whilst two would experience an alteration between 31-32.5% which is considered a Moderate Adverse effect. The effects to VSC within these two windows are greater than those of its neighbours owing to the property's set back nature behind 32 Dingle Gardens leading to the windows closest to that neighbour being obstructed to the west and so seeing lower levels of light in the existing condition. Despite seeing absolute losses in light on the same scale as its neighbours therefore, the percentage reduction to these neighbours is greater owing to this lower baseline figure.

11.201 For NSL, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.202 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

34 Dingle Gardens

11.203 A total of two windows serving two rooms were assessed for daylight within this building.

11.204 For VSC, both windows assessed see losses greater than recommended by BRE.

11.205 Of the two affected windows, both would experience an alteration in VSC between 24.5-25.7% which is considered a Minor Adverse effect.

11.206 For NSL, all rooms retain very good levels and would meet BRE's criteria so are considered to experience a Negligible effect.

11.207 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

35 Dingle Gardens

11.208 A total of two windows serving two rooms were assessed for daylight within this building.

11.209 For VSC, both windows assessed see losses greater than recommended by BRE.

11.210 Of the two affected windows, both would experience an alteration in VSC between 24.6-26.5% which is considered a Minor Adverse effect.

11.211 For NSL, all rooms retain very good levels and would meet BRE's criteria so are considered to experience a Negligible effect.

11.212 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

36 Dingle Gardens

11.213 A total of three windows serving three rooms were assessed for daylight within this building.

11.214 For VSC, all three windows assessed see losses greater than recommended by BRE.

11.215 Of the three affected windows, two would experience an alteration in VSC between 25.6-26% which is considered a Minor Adverse effect whilst one would experience an alteration between 32% which is considered a Moderate Adverse effect. The single window seeing a greater percentage reduction is the first floor window, believed to serve a bedroom, which sees lower levels of light in the baseline condition owing to the roof overhang above. This overhang leads to a greater percentage reduction despite the same absolute reduction in VSC caused by the Proposed Development.

11.216 For NSL, all rooms retain very good levels and would meet BRE's criteria so are considered to experience a Negligible effect.

11.217 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

37 Dingle Gardens

11.218 A total of six windows serving six rooms were assessed for daylight within this building.

11.219 For VSC, all six windows assessed see losses greater than recommended by BRE.

11.220 Of the six affected windows, four would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect whilst two would experience an alteration between 30-39.9% which is considered a Moderate Adverse effect.

11.221 As with 33 Dingle Gardens, the effects to VSC within these two windows are greater than those of its neighbours owing to the property's set back nature behind 36 Dingle Gardens leading to the windows closest to that neighbour being obstructed to the west and so seeing lower levels of light in the existing condition. Despite seeing absolute losses in light on the same scale as its neighbours therefore, the percentage reduction to these neighbours is greater owing to this lower baseline figure.

11.222 For NSL, three of the six (50%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. Of the three affected rooms, all would experience an alteration in NSL between 20-29.9% which is considered a Minor Adverse effect.

11.223 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

38 Dingle Gardens

11.224 A total of six windows serving six rooms were assessed for daylight within this building.

11.225 For VSC, all six windows assessed see losses greater than recommended by BRE.

11.226 Of the six affected windows, three would experience an alteration in VSC between 27.6-28.7% which is considered a Minor Adverse effect whilst three would experience an alteration between 30.4-32.1% which is considered a Moderate Adverse effect.

11.227 For NSL, two of the six (33.3%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.228 Of the four affected rooms, two would experience an alteration in NSL between 23.9-27.5% which is considered a Minor Adverse effect whilst two would experience an alteration between 32.1-38.5% which is considered a Moderate Adverse effect.

11.229 The minor adverse effects all occur to the ground floor rooms whilst the moderate adverse effects are seen at the first floor (assumed to be bedrooms) owing to the roof overhang further obstructing the levels of light enjoyed.

11.230 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

39 Dingle Gardens

11.231 A total of five windows serving five rooms were assessed for daylight within this building. Of these five rooms, one would meet BRE's criteria for both VSC and NSL and as such experience a Negligible effect.

11.232 For VSC, one of the five (20%) windows assessed would meet BRE's criteria and is therefore considered to experience a Negligible effect.

11.233 Of the four affected windows, three would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect whilst one would experience an alteration of 31% which is just above 30% so considered a Moderate Adverse effect.

11.234 For NSL, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.235 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

40 Dingle Gardens

11.236 A total of five windows serving three rooms were assessed for daylight within this building.

11.237 For VSC, all five windows assessed see losses greater than recommended by BRE.

11.238 Of the five affected windows, three would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect and one would experience an alteration between 30-39.9% which is

considered a Moderate Adverse effect. The remaining window would experience an alteration in excess of 40% which is considered a Major Adverse effect.

11.239 However, three of these windows, including those identified as moderate adverse and major adverse, are those of a single bay window at ground floor beneath a significant overhang. This overhang reduces the levels of light in the baseline condition and so, despite the same absolute losses as those seen by the first floor windows (minor adverse), greater percentage reductions are seen.

11.240 For NSL, one of the three (33.3%) rooms assessed would meet BRE's criteria and is therefore considered to experience a Negligible effect. This is the ground floor room discussed above.

11.241 Of the two affected first floor rooms, both would experience an alteration in NSL between 20-29.9% which is considered a Minor Adverse effect.

11.242 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

41 Dingle Gardens

11.243 A total of five windows serving four rooms were assessed for daylight within this building.

11.244 For VSC, all five windows assessed see losses greater than recommended by BRE.

11.245 Of the five affected windows, three would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect whilst two would experience an alteration greater than 40% which is considered a Major Adverse effect. However, these two major adverse windows appear to serve the building's porch which would not be sensitive to daylight and sunlight alterations. The overall effect to VSC for this building is therefore considered Minor Adverse.

11.246 For NSL, two of the four (50%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.247 Of the two affected rooms, one would experience an alteration in NSL of 24.9% which is considered a Minor Adverse effect whilst one would experience an alteration of 33.7% which is considered a Moderate Adverse effect. These rooms retain 71% and 58.9% NSL respectively, however, which is considered good for an urban environment.

11.248 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

42 Dingle Gardens

11.249 A total of four windows serving four rooms were assessed for daylight within this building. Of these four rooms, one would meet BRE's criteria for both VSC and NSL and as such experience a Negligible effect.

11.250 For VSC, one of the four (25%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.251 Of the three affected windows, all would experience an alteration in VSC between 24.1-26.7% which is considered a Minor Adverse effect.

11.252 For NSL, three of the four (75%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The affected room would experience an alteration in NSL of 22.9% which is considered a Minor Adverse effect.

11.253 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

43 Dingle Gardens

11.254 A total of eight windows serving four rooms were assessed for daylight within this building. Of these four rooms, one would meet BRE's criteria for both VSC and NSL and as such experience a Negligible effect.

11.255 For VSC, four of the eight (50%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.256 Of the four affected windows, two would experience an alteration in VSC between 23.2-23.7% which is considered a Minor Adverse effect and one would experience an alteration between 30-39.9% which is considered a Moderate Adverse effect. The remaining window would experience an alteration in excess of 40% which is considered a Major Adverse effect.

11.257 However, these two windows identified as Moderate and Major Adverse, are those of a single bay window at ground floor beneath a significant overhang. This overhang reduces the levels of light in the baseline condition and so, despite smaller absolute losses to those seen by the first floor windows (23-24% loss so minor adverse), greater percentage reductions are seen.

11.258 For NSL, two of the four (50%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. This includes the ground floor room discussed above.

11.259 Of the two affected rooms on the first floor, both would experience an alteration in NSL between 20-29.9% which is considered a Minor Adverse effect.

11.260 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

44 Dingle Gardens

11.261 A total of six windows serving four rooms were assessed for daylight within this building.

11.262 For VSC, one of the six (16.7%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.263 Of the five affected windows, four would experience an alteration in VSC between 23.9-26.2% which is considered a Minor Adverse effect whilst one would experience an alteration of 36.4% which is considered a Moderate Adverse effect. Two of the affected windows, including the Moderate Adverse window, are at ground floor and beneath a significant overhang which leads to existing levels of 1.5-1.6% VSC. Such a low level of light leads to great percentage reductions from very small losses which would not be noticeable to occupants and it is also believed that these windows serve only the entrance of the building, a space not considered sensitive to daylight changes.

11.264 For NSL, three of the four (75%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The affected room would experience an alteration in NSL of 23% which is considered a Minor Adverse effect.

11.265 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

45 Dingle Gardens

11.266 A total of six windows serving four rooms were assessed for daylight within this building. Of these four rooms, one would meet BRE's criteria for both VSC and NSL and as such experience a Negligible effect.

11.267 For VSC, two of the six (33.3%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.268 Of the four affected windows, three would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect whilst one would experience an alteration between 30-39.9% which is considered a Moderate Adverse effect.

11.269 As with 44 Dingle Gardens, the two most affected windows, including the moderate adverse window, are at ground floor, apparently serve the entranceway, and beneath a significant overhang which leads to existing levels of 1.5-1.7% VSC. This space would not be considered sensitive to daylight or sunlight changes but, even if it were, such a low level of light leads to great percentage reductions from very small losses which would not be noticeable to occupants.

11.270 For NSL, two of the four (50%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.271 Of the two affected rooms, one would experience an alteration in NSL between 20-29.9% which is considered a Minor Adverse effect whilst one would experience an alteration between 36.3% which is considered a Moderate Adverse effect. This latter room is understood to be the entranceway which again would not be considered sensitive to daylight reductions.

11.272 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

46 Dingle Gardens

11.273 A total of six windows serving four rooms were assessed for daylight within this building. Of these four rooms, one would meet BRE's criteria for both VSC and NSL and as such experience a Negligible effect.

11.274 For VSC, three of the six (50%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.275 Of the three affected windows, two would experience an alteration in VSC between 22.7-24.5% which is considered a Minor Adverse effect whilst one would experience an alteration of 30.8% which is considered a Moderate Adverse effect.

11.276 The single window seeing a Moderate Adverse effect again apparently serves the entranceway and is situated beneath a significant overhang which leads to existing levels of 1.3% VSC. This space would not be considered sensitive to daylight or sunlight changes but, even if it were, such a low level of light leads to great percentage reductions from very small losses which would not be noticeable to occupants.

11.277 For NSL, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.278 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

47 Dingle Gardens

11.279 A total of six windows serving four rooms were assessed for daylight within this building. Of these four rooms, two would meet BRE's criteria for both VSC and NSL and as such experience a Negligible effect.

11.280 For VSC, four of the six (66.7%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.281 Of the two affected windows, one would experience an alteration in VSC of 21.8% which is considered a Minor Adverse effect whilst one would experience an alteration of 30.8% which is considered a Moderate Adverse effect.

11.282 The single window seeing a moderate adverse effect again apparently serves the entranceway and is situated beneath a significant overhang which leads to existing levels of 1.3% VSC. This space would not be considered sensitive to daylight or sunlight changes but, even if it were, such a low level of light leads to great percentage reductions from very small losses which would not be noticeable to occupants.

11.283 For NSL, three of the four (75%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.284 The affected room would experience an alteration in NSL of 31.8 % which is considered a Moderate Adverse effect but is understood to be the entranceway which again would not be considered sensitive to daylight reductions.

11.285 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

48 Dingle Gardens

11.286 A total of four windows serving four rooms were assessed for daylight within this building. Of these four rooms, one would meet BRE's criteria for both VSC and NSL and as such experience a Negligible effect.

11.287 For VSC, one of the four (25%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.288 Of the three affected windows, all would experience an alteration in VSC between 21.1-22.4% which is considered a Minor Adverse effect.

11.289 For NSL, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.290 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

49 Dingle Gardens

11.291 A total of four windows serving four rooms were assessed for daylight within this building. Of these four rooms, three would meet BRE's criteria for both VSC and NSL and as such experience a Negligible effect.

11.292 For VSC, all windows assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.293 For NSL, three of the four (75%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.294 The affected room would experience an alteration in NSL of 34.2% which is considered a Moderate Adverse effect but is understood to be the entranceway which again would not be considered sensitive to daylight reductions.

11.295 Overall, the effect to daylight within this building is considered **Negligible** (Not Significant).

50 Dingle Gardens

11.296 A total of four windows serving four rooms were assessed for daylight within this building. Of these four rooms, three would meet BRE's criteria for both VSC and NSL and as such experience a Negligible effect.

11.297 For VSC, all windows assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.298 For NSL, three of the four (75%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.299 The affected room would experience an alteration in NSL of 35.3% which is considered a Moderate Adverse effect but is understood to be the entranceway which again would not be considered sensitive to daylight reductions.

11.300 Overall, the effect to daylight within this building is considered **Negligible** (Not Significant).

51 Dingle Gardens

11.301 A total of six windows serving four rooms were assessed for daylight within this building. Of these four rooms, two would meet BRE's criteria for both VSC and NSL and as such experience a Negligible effect.

11.302 For VSC, three of the six (50%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.303 Of the three affected windows, all would experience an alteration in VSC between 20.9-25.9% which is considered a Minor Adverse effect but two of which are understood to serve the entranceway which again would not be considered sensitive to daylight reductions. The one affected window serving a habitable window sees a reduction of 21%, marginally above the 20% recommended by BRE, and retains a good level of VSC (18.8%) and very good level of NSL (97.4%).

11.304 For NSL, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.305 Overall, the effect to daylight within this building is considered **Negligible** (Not Significant).

17 Dolphin Lane

11.306 A total of six windows serving four rooms were assessed for daylight within this building.

11.307 For VSC, five of the six (83%) windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.308 The affected window would experience alterations in VSC levels between 20.5% which is a very slight breach of guidance and is considered to equate to a Minor Adverse effect. This window, however, retains 20.5% VSC which is considered commensurate within an urban location.

11.309 For NSL all four rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.310 Overall, given the only marginal breach of guidance to one window, the effect to daylight at this property is considered **Negligible** (Not Significant).

4 Dolphin Lane

11.311 A total of seven windows serving six rooms were assessed for daylight within this building.

11.312 For VSC, five of the seven (71%) windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.313 Both affected windows are glazed panels on the front door beneath the porch and so likely to serve an entranceway not considered sensitive to alterations in daylight.

11.314 Whilst one window would experience alterations in VSC levels between 20-29.9% which is considered to equate to a Minor Adverse effect, and one would experience an alteration in excess of 40% a Major Adverse effect, these are glazed panels on the front door beneath the porch and so likely to serve an entranceway not considered sensitive to alterations in daylight. Additionally, the existing levels of light are extremely low (0.8% and 1.7%) and so this change will not be noticeable to occupants.

11.315 For NSL all four rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.316 Overall, the effect to daylight at this property is considered **Negligible** (Not Significant).

Eastern Tower – 1 West India Quay

11.317 Eastern Tower West India Quay is located across the DLR tracks to the west of the Proposed Development and, with the lower floors being a hotel, only residential storeys (13 to 33) of the east and south facing façade are considered sensitive to daylight alterations with every storey having a small overhang to the window below. The eastern façade is defined by a recessed 'well' in the middle section. This architectural feature of the property has resulted in very low existing daylight levels to the windows which sit within it. The windows and rooms of the eastern façade currently overlook a vacant Site, and as such any increase in massing on the Site is likely to lead to adverse daylight effects.

11.318 A total of 1,384 windows serving 209 rooms were assessed for daylight within this building.

11.319 For VSC, 954 of the 1,384 (69%) windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect. In terms of NSL, almost all rooms assessed, 206 of the 209 (99%), would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.320 Of the affected windows, three windows would experience alterations in VSC levels between 20-29.9% which is considered to equate to a Minor Adverse effect and nineteen would experience alterations between 30-39.9% which is considered to equate to a Moderate Adverse effect. The remaining 408 windows would experience an alteration in excess of 40% which is considered a Major Adverse effect.

11.321 Of the three rooms whose NSL is affected, one would experience an alteration in NSL between 20-29.9% which is considered a Minor Adverse effect whilst two would experience an alteration between 30-39.9%

which is considered a Moderate Adverse Effect. However, each of these rooms are bedrooms which the BRE Guidelines note are less sensitive to daylight alterations and additionally retain 66.5%, 76.1% and 63.4% NSL which may be considered commensurate within an urban location.

11.322 In looking to understand the above, as each room is served by a great number of windows and all living areas seeing reductions in VSC to some windows, also being served by windows seeing no breaches of the BRE Guidelines, it is pertinent to consider the levels of light retained within the room. To understand whether the retained levels are acceptable and in light of floor plans being available for this building, the ADF was calculated which showed that every room tested will retain very good levels of light, well in excess of those recommended by BRE for new developments.

11.323 Overall, only the end elevation of this building is affected by the Proposed Development and all living areas will retain levels of ADF and NSL in excess of those recommended by BRE for new developments. Additionally, all bedrooms will see the levels of ADF recommended by BRE and all but three will see at least 80% NSL. Given the good levels of light retained within the rooms tested, the overall effect to daylight at this property is considered **Minor Adverse** (Not Significant).

Good Hope House

11.324 This block of flats is located to the north-east of the Proposed Development. Only the southern façade to the rear is considered for assessment and is defined by nine recessed balconies, which inherently obstructs daylight to the windows which sit within it.

11.325 A total of 63 windows serving 15 rooms were assessed for daylight within this building.

11.326 For VSC, 45 of the 63 (71%) windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.327 Of the affected windows, all of which sit within a recessed balcony area, seven windows would experience alterations in VSC levels between 20-29.9% which is considered to equate to a Minor Adverse effect and two would experience alterations between 30-39.9% which is considered to equate to a Moderate Adverse effect. The remaining nine windows would experience an alteration in excess of 40% which is considered a Major Adverse effect.

11.328 All eighteen affected windows have very low existing VSC levels ranging from 3.5% to 7.9% owing to their being located within recessed balconies. Being well below the 27% recommended by the BRE Guidelines, these levels mean only small absolute losses lead to disproportionate percentage changes. The unobstructed windows in the main façade of this building are all fully compliant with BRE guidance so it can be concluded that the breaches of guidance are a consequence of this neighbour's architecture and the levels of light reaching this building's boundary will not alter significantly as a result of the Proposed Development.

11.329 For NSL all 15 rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.330 Overall, the effect to daylight at this property is considered **Negligible** (Not Significant).

Goodwill House

11.331 A total of 51 windows serving 43 rooms were assessed for daylight within this building.

11.332 For VSC, 45 of the 51 (88%) windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.333 Of the affected windows, two would experience alterations between 30-39.9% which is considered to equate to a Moderate Adverse effect and four would experience an alteration in excess of 40% which is considered a Major Adverse effect.

11.334 Despite maximum losses of 2.7% VSC (a level of loss unlikely to be noticeable), all six of these windows, however, see high percentage alterations owing to their extremely low (0.2-7.7% VSC) existing levels of light resulting from their location within this building's courtyard and beneath access decks. The windows in the end elevation of the southern wing are all fully compliant with the BRE Guidelines and retain 26% VSC despite their location closer to the Proposed Development. This highlights the neighbour's architecture as the reason for levels of daylight below those recommended by BRE.

11.335 For NSL, 42 of the 43 (97.7%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.336 The affected room would experience an alteration in NSL of 20.6% which is only marginally in excess of the 20% recommended by BRE considered a Minor Adverse effect.

11.337 Overall, considering all the above, the effect to daylight at this property is considered **Negligible** (Not Significant).

Horizon Building

11.338 A total of 67 windows serving 43 rooms were assessed for daylight within this building. From a floor plan obtained for the typical floor, we understand each of the second to eleventh floors to include one dual aspect living room, a kitchen and bedroom with one window each looking over the Site and a dual aspect bedroom also looking over the Site.

11.339 For VSC, 12 of the 67 (17.9%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.340 Of the 55 affected windows, 33 would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect and 13 would experience an alteration between 30-39.9% which is considered a Moderate Adverse effect. The remaining nine windows would experience an alteration in excess of 40% which is considered a Major Adverse effect.

11.341 The nine windows identified as Major Adverse above are understood to serve dual aspect bedrooms and see a greater percentage reduction owing to their obstructed nature leading to low levels of VSC in the baseline (6.3-8.3%). On every floor, this bedroom's second window is the same size and, despite looking towards the Site, retains at least 23.8% VSC at ground floor which is considered very good for bedrooms in an urban environment.

11.342 Of the 13 windows identified as Moderate Adverse, nine of these are understood to serve bedrooms and retain at least 17.6% VSC which is considered a good level of light for a bedroom in an urban environment. Of the remaining four, two are the same windows as those identified as Major Adverse above but on the upper floors which lead to reduced impacts and the point remains that these two rooms will be well daylit from the

other window. The final two windows are secondary windows serving dual aspect living areas which will continue to enjoy light from other windows.

11.343 For NSL, 21 of the 43 (48.8%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.344 Of the 22 affected rooms, 18 would experience an alteration in NSL between 20-29.9% which is considered a Minor Adverse effect whilst four are bedrooms experiencing alterations between 30-35.5% which is considered a Moderate Adverse effect.

11.345 Overall, the living areas of these units will remain well daylit owing to their dual aspect nature and so whilst there are isolated more significant effects to bedrooms, the overall effect to daylight is considered **Moderate Adverse** (Significant)**.**

Little Matthias Preschool

11.346 A total of 22 windows serving two rooms were assessed for daylight within this building.

11.347 For VSC, 20 of the 22 (90.9%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.348 Of the two affected windows, both are small glazed panels above the doors which see lower levels of VSC in the existing condition owing to their position, size and shaded nature. Both these windows would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect but, given the very good levels of light retained at all the other (main) windows and glazed door panels, the levels of light retained within these two rooms will remain excellent.

11.349 For NSL, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.350 Overall, therefore, the effect to daylight within Little Matthias Preschool is considered **Negligible** (Not Significant).

1-18 Lubbock House

11.351 A total of 98 windows serving 54 rooms were assessed for daylight within this building.

11.352 For VSC, 76 of the 98 (78%) windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.353 Of the affected windows, all 22 would experience an alteration in excess of 40% which is considered a Major Adverse effect, but all have very low existing VSC levels (from 4% to 7.2%) owing to their position beneath recessed balconies, whereby any alteration leads to a disproportionate percentage change. The windows in the façade are fully compliant with guidance and retain very good levels of light (above the recommended 27% VSC) and so any breach of guidance can be directly linked to the presence of recessed balconies and good levels of light are retained at the building's boundary.

11.354 For NSL all 54 rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.355 Overall, given all the above, the effect to daylight within this property is considered **Negligible** (Not Significant).

1-12 Martindale House

11.356 A total of 66 windows serving 51 rooms were assessed for daylight within this building.

11.357 For VSC, 60 of the 66 (91%) windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.358 Of the affected windows, one would experience alterations between 30-39.9% which is considered to equate to a Moderate Adverse effect and five would experience an alteration in excess of 40% which is considered a Major Adverse effect. but all have very low existing VSC levels (from 3.7-4% for the Major Adverse windows and 7.2% for the Moderate Adverse window) owing to their position beneath recessed balconies, whereby any alteration leads to a disproportionate percentage change. The windows in the façade are again fully compliant with guidance and retain very good levels of light (above the recommended 27% VSC) and so any breach of guidance can be directly linked to the presence of recessed balconies and good levels of light are retained at the building's boundary.

11.359 For NSL, all 51 rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.360 Overall, given all the above, the effect to daylight within this property is considered **Negligible** (Not Significant).

32c-32d Ming St

11.361 A total of four windows serving four rooms were assessed for daylight within this building.

11.362 For VSC, all four windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.363 For NSL, two of the four (50%) rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.364 Of the affected rooms, one would experience alterations in NSL level of 24.9% which is considered to equate to a Minor Adverse effect, and one would experience alteration of 33.4% which is considered to equate to a Moderate Adverse effect. Both of these rooms, however, are assumed to be bedrooms and are impacted only owing to their first floor location leading to an increased impact from the roof overhang. Finally, these rooms are served by windows which retain VSC levels above 20% and as such will continue to be well daylit bedrooms.

11.365 Overall, due to BRE compliance for VSC, the effect to daylight within this property is considered **Minor Adverse** (Not Significant).

34c Ming St

11.366 A total of six windows serving six rooms were assessed for daylight within this building.

11.367 For VSC, all six windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.368 For NSL, four of the six (67%) rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.369 Both affected rooms would experience alterations in NSL levels between 26-27.4% which is considered to equate to a Minor Adverse effect, however both of these rooms are served by windows retain VSC levels of 24.1% and 22.5% which is considered good for an urban environment.

11.370 Overall, the effect to daylight within this property is considered **Minor Adverse** (Not Significant).

34e Ming St

11.371 A total of six windows serving six rooms were assessed for daylight within this building.

11.372 For VSC, all six windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.373 For NSL, four of the six (67%) rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.374 Of the affected rooms, one would experience alterations in NSL levels of 28.1% which is considered to equate to a Minor Adverse effect. The second room, despite seeing a smaller absolute loss, would experience a percentage alteration of 31.8% owing to its lower baseline level and this is considered a Moderate Adverse effect. Both of these rooms are served by windows retaining VSC levels of 24% and 22.5%.

11.375 Overall, the effect to daylight within this property is considered **Minor Adverse** (Not Significant).

74 Poplar High Street

11.376 A total of 13 windows serving eight rooms were assessed for daylight within this building.

11.377 For VSC, eight of the thirteen (62%) windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.378 All five affected windows would experience alterations in VSC levels between 20-29.9% which is considered to equate to a Minor Adverse effect.

11.379 For NSL, all eight rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.380 Overall, the effect to daylight within this property is considered **Minor Adverse** (Not Significant).

Port East Apartments

11.381 A total of 54 windows serving 45 rooms were assessed for daylight within this building.

11.382 For VSC, 40 of the 54 (74%) windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.383 All 14 affected windows would experience alterations in VSC levels between 20-29.9% which is considered to equate to a Minor Adverse effect.

11.384 For NSL 33 of the 45 (73%) rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.385 Of the affected rooms, ten would experience alterations in NSL levels between 20-29.9% which is considered to equate to a Minor Adverse effect and two would experience alterations between 30-39.9% which is considered to equate to a Moderate Adverse effect. The two rooms with moderate adverse effects, however, are located on the top floor of this building where the windows become smaller and arched, thereby increasing the room's reliance on sky visibility over the site. Despite this, the levels of NSL retained within these two rooms are still considered good for an urban environment at 57.5% and 58%.

11.386 Given the above, the effect to daylight within this property is considered **Minor Adverse** (Not Significant).

1-8 Stoneyard Lane

11.387 A total of 27 windows serving 19 rooms were assessed for daylight within this building.

11.388 For VSC, eight of the 27 (20%) windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.389 Of the affected windows, ten would experience alterations between 30-39.9% which is considered to equate to a Moderate Adverse effect and nine would experience an alteration in excess of 40% which is considered a Major Adverse effect.

11.390 All nine of the windows seeing a Major Adverse effect, however, are recessed into the façade either behind balconies and serving assumed living rooms with secondary, unobstructed windows or, in the case of two windows, located centrally within the façade and seem to serve the stairwell. As such, the living areas will remain well daylit by virtue of the second window whilst the stairwell is not considered sensitive to daylight alterations.

11.391 Other than the three on the top floor, the ten windows identified as potentially experiencing Moderate Adverse effects all retain at least 17% VSC which is considered a good level of daylight for an urban environment. The three on the top floor retain slightly lower levels of 15.9-16.6% VSC owing to the roof overhang casting a little shade.

11.392 For NSL 16 of the 19 (84%) rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.393 All three affected rooms would experience alterations in NSL levels between 20-29.9% which is considered to equate to a Minor Adverse effect. However, these rooms retain 72.7%, 73.4% and 71.6% NSL which is considered good for an urban location.

11.394 Overall, considering all the above, the effect to daylight within this building is considered **Moderate Adverse** (Significant).

9-24 Stoneyard Lane

11.395 A total of 56 windows serving 56 rooms were assessed for daylight within this building.

11.396 For VSC, eight of the 56 (14%) windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.397 All 48 affected windows would experience an alteration in excess of 40% which is considered a Major Adverse effect. Each of these windows currently enjoy very good levels of daylight in the baseline scenario as they overlook the undeveloped Site and therefore, any development on the Site will lead to reductions in daylight.

In addition, the levels of light retained (circa 14-15% VSC) are considered in line with expectations of an urban environment.

11.398 For NSL 22 of the 56 (39%) rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.399 Of the affected rooms, 13 would experience alterations in NSL levels between 20-29.9% which is considered to equate to a Minor Adverse effect and ten would experience alterations between 30-39.9% which is considered to equate to a Moderate Adverse effect. The remaining 11 rooms would experience an alteration in excess of 40% which is considered a Major Adverse effect. However, 30 of these retain NSL levels in excess of 50% which is considered in line with expectations for a building in an urban context looking over the Site.

11.400 Overall, whilst the levels of light retained are considered acceptable overall, the effect to daylight within this building is considered **Major Adverse** (Significant).

New City College

11.401 A total of 175 windows serving 58 rooms were assessed for daylight within this educational building.

11.402 For VSC, 78 of the 175 (44.6%) windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.403 Of the affected windows, 44 windows would experience alterations in VSC levels between 20-29.9% which is considered to equate to a Minor Adverse effect and 23 would experience alterations between 30-39.9% which is considered to equate to a Moderate Adverse effect. The remaining 30 windows would experience an alteration in excess of 40% which is considered a Major Adverse effect.

11.404 However, many of the windows tested are significantly obstructed in the existing location which either leads to very low levels of light from which to compare (0.5% VSC in one example) or increases reliance on light over the Site owing to light from other directions already being blocked. It is also noted that, where very good levels of light were seen previously, the levels retained are good and it is only windows with below 27% in the baseline scenario that see below 15% (a level considered acceptable for urban environments) now.

11.405 For NSL 51 of the 58 (87%) rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.406 Of the affected rooms, three would experience alterations in NSL levels between 20-29.9% which is considered to equate to a Minor Adverse effect and two would experience alterations between 30-39.9% which is considered to equate to a Moderate Adverse effect. The remaining two rooms would experience an alteration in excess of 40% which is considered a Major Adverse effect. All rooms with at least 80% in the baseline scenario, retain at least 50% with the Proposed Development in place.

11.407 Overall, owing to educational nature of this building, the effect to daylight within this building is considered **Moderate Adverse** (Significant).

Wigram House

11.408 A total of 40 windows serving 32 rooms were assessed for daylight within this building. Of these 32 rooms, 31 would meet BRE's criteria for both VSC and NSL and as such experience a Negligible effect.

11.409 For VSC, 39 of the 40 (97.5%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.410 The affected window would experience an alteration in VSC of 20.4% which is marginally over the 20% recommended so considered a Minor Adverse effect.

11.411 For NSL, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect, including the room served by the windows discussed above retaining 96% NSL.

11.412 Overall, the effect to daylight within this building is considered **Negligible** (Not Significant).

Willis House

11.413 A total of 89 windows serving 89 rooms were assessed for daylight within this building.

11.414 For VSC, 18 of the 89 (20%) windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.415 All 71 of the affected windows would experience alterations in VSC levels between 20-29.9% which is considered to equate to a Minor Adverse effect, however, all rooms retain VSC levels of between 19.2% and 25.2% which is considered good for an urban location.

11.416 For NSL, 79 of the 89 (10%) rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.417 All ten affected rooms would experience alterations in NSL levels between 20-29.9% which is considered to equate to a Minor Adverse effect.

11.418 Overall, the effect to daylight within this building is considered **Minor Adverse** (Not Significant).

Winant House

11.419 A total of 73 windows serving 18 rooms were assessed for daylight within this building.

11.420 For VSC, 57 of the 73 (87%) windows assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.421 Of the affected windows, seven would experience alterations in VSC levels between 20-29.9% which is considered to equate to a Minor Adverse effect and nine windows would experience an alteration in excess of 40% which is considered a Major Adverse effect.

11.422 However, all windows seeing adverse effects only do so owing to their location behind recessed balconies. This is shown by the ground floor, where no balconies are provided, and all other windows being fully BRE compliant as well as by the low levels of VSC (4.8-9.4%) seen in the baseline scenario for all windows affected. Additionally, it is noted that the affected rooms all benefit from an unobstructed window which is, as mentioned above, experienced a Negligible effect.

11.423 For NSL all 18 rooms assessed would meet the BRE Guidelines criteria which would therefore be considered to equate to a Negligible effect.

11.424 Overall, given the unaffected nature of all rooms and windows not behind balconies, the effect to daylight within this building is considered **Negligible** (Not Significant).

Sunlight

11.425 The full sunlight assessment of the Proposed Development against the Baseline Scenario can be found in **ES Volume 3: Appendix DSOSGLP - Annex 3** and the results are presented in Table 11.10.

11.426 For the Proposed Development, of the 1,115 rooms assessed for sunlight, 795 (71.3%) would meet the BRE criteria for both total and Winter PSH and are considered to experience a Negligible effect (Not Significant).

11.427 Of the 88 buildings tested, the 44 highlighted in blue in the below table are fully compliant with BRE guidance for both APSH and WPSH which is considered a Negligible effect (Not Significant).

11.428 The results of the remaining 44 buildings are discussed in more detail below but, in summary, there are 10 buildings with significant effects, comprising seven **Moderate Adverse** effects and three **Major Adverse** effects. The buildings experiencing significant effects are Cruse House, 1 Dolphin Lane, 3 Dolphin Lane, 11 Dolphin Lane, 13 Dolphin Lane, 15 Dolphin Lane, 17 Dolphin Lane, 1 West India Quay, Good Faith House and Port East Apartments. The effects to the remaining 34 buildings are considered to be **Negligible** or **Minor Adverse**.

Table 11.10 Assessment at Sensitive Receptors

Address	Total No. of Rooms	No. Rooms that meet BRE criteria	Annual PSH			Winter PSH		
			Below BRE Guidelines			Below BRE Guidelines		
			20-29.9% Reduction	30-39.9% Reduction	>40% Reduction	20-29.9% Reduction	30-39.9% Reduction	>40% Reduction
Cruse House	31	9	1	5	11	0	0	11
1-12 Dingle Gardens	30	16	0	0	1	0	0	14
13 Dingle Gardens	4	2	0	0	0	0	0	2
14 Dingle Gardens	4	1	0	0	0	0	0	3
15 Dingle Gardens	4	2	0	0	0	0	0	2
16 Dingle Gardens	3	1	0	0	0	0	0	2
17 Dingle Gardens	4	0	0	1	0	0	0	4
18 Dingle Gardens	4	1	0	0	0	0	0	3
19 Dingle Gardens	4	1	1	0	0	0	0	3
20 Dingle Gardens	5	2	0	2	0	0	0	3
21 Dingle Gardens	3	2	0	0	0	0	0	1
22 Dingle Gardens	2	1	0	0	0	0	1	0
23 Dingle Gardens	2	2	0	0	0	0	0	0
24 Dingle Gardens	3	3	0	0	0	0	0	0
25 Dingle Gardens	3	3	0	0	0	0	0	0
26 Dingle Gardens	2	2	0	0	0	0	0	0
27 Dingle Gardens	2	2	0	0	0	0	0	0
28 Dingle Gardens	3	3	0	0	0	0	0	0
29 Dingle Gardens	3	3	0	0	0	0	0	0
30 Dingle Gardens	2	2	0	0	0	0	0	0
31 Dingle Gardens	2	2	0	0	0	0	0	0
32 Dingle Gardens	3	3	0	0	0	0	0	0
33 Dingle Gardens	3	3	0	0	0	0	0	0
34 Dingle Gardens	2	2	0	0	0	0	0	0
35 Dingle Gardens	2	2	0	0	0	0	0	0
36 Dingle Gardens	3	3	0	0	0	0	0	0

Address	Total No. of Rooms	No. Rooms that meet BRE criteria	Annual PSH			Winter PSH		
			Below BRE Guidelines			Below BRE Guidelines		
			20-29.9% Reduction	30-39.9% Reduction	>40% Reduction	20-29.9% Reduction	30-39.9% Reduction	>40% Reduction
37 Dingle Gardens	6	6	0	0	0	0	0	0
38 Dingle Gardens	6	6	0	0	0	0	0	0
39 Dingle Gardens	5	5	0	0	0	0	0	0
40 Dingle Gardens	3	3	0	0	0	0	0	0
41 Dingle Gardens	4	4	0	0	0	0	0	0
42 Dingle Gardens	3	3	0	0	0	0	0	0
43 Dingle Gardens	4	4	0	0	0	0	0	0
44 Dingle Gardens	4	4	0	0	0	0	0	0
45 Dingle Gardens	4	4	0	0	0	0	0	0
46 Dingle Gardens	4	3	0	0	0	0	0	1
47 Dingle Gardens	4	4	0	0	0	0	0	0
48 Dingle Gardens	4	4	0	0	0	0	0	0
49 Dingle Gardens	4	4	0	0	0	0	0	0
50 Dingle Gardens	4	4	0	0	0	0	0	0
51 Dingle Gardens	4	4	0	0	0	0	0	0
52 Dingle Gardens	6	1	1	0	0	0	0	5
53 Dingle Gardens	6	1	1	0	0	0	0	5
1 Dolphin Lane	4	0	0	0	0	0	0	4
11 Dolphin Lane	4	0	0	0	0	0	0	4
13 Dolphin Lane	4	0	0	1	1	0	0	4
15 Dolphin Lane	4	0	0	1	3	0	0	4
17 Dolphin Lane	4	0	0	0	4	0	0	4
2 Dolphin Lane	6	6	0	0	0	0	0	0
3 Dolphin Lane	4	0	0	0	0	0	0	4
4 Dolphin Lane	6	5	0	0	0	0	0	1
5 Dolphin Lane	4	0	0	0	0	0	0	4
7 Dolphin Lane	4	0	0	0	0	0	0	4
9 Dolphin Lane	4	0	0	0	0	0	0	4
Eastern Tower West India Quay	146	111	0	0	35	0	1	0
Good Faith House	6	3	0	1	0	0	0	3
Good Speed House	18	18	0	0	0	0	0	0
Good Hope House	18	18	0	0	0	0	0	0
Goodwill House	35	30	2	0	1	0	2	3
Horizon Building	43	10	0	0	33	0	0	31

Address	Total No. of Rooms	No. Rooms that meet BRE criteria	Annual PSH			Winter PSH		
			Below BRE Guidelines			Below BRE Guidelines		
			20-29.9% Reduction	30-39.9% Reduction	>40% Reduction	20-29.9% Reduction	30-39.9% Reduction	>40% Reduction
Little St Matthias Preschool	2	2	0	0	0	0	0	0
1-18 Lubbock House	54	54	0	0	0	0	0	0
1-12 Martindale House	51	46	2	1	0	0	0	5
32a-32b Ming St	4	4	0	0	0	0	0	0
32c-32d Ming St	4	4	0	0	0	0	0	0
38a Ming St	6	6	0	0	0	0	0	0
38c Ming St	6	6	0	0	0	0	0	0
40Ming St	6	6	0	0	0	0	0	0
34a Ming St	4	0	0	0	0	0	0	4
34c Ming St	6	0	0	0	0	0	0	6
34e Ming St	6	0	3	0	0	0	0	6
36a Ming St	6	6	0	0	0	0	0	0
36c Ming St	6	6	0	0	0	0	0	0
2-30 Ming Street	24	24	0	0	0	0	0	0
Shah Jalal Mosque Poplar	2	2	0	0	0	0	0	0
Vietnamese Pastoral Centre (130 Poplar Hight Street)	1	0	0	0	0	0	0	1
2-24 Poplar High Street	51	51	0	0	0	0	0	0
26-36 Poplar High Street	15	3	0	0	0	0	0	12
40-50 Poplar High Street	15	3	0	0	0	0	0	12
54-64 Poplar High Street	15	3	3	3	0	0	0	12
74 Poplar High Street	8	7	0	0	0	0	0	1
Port East Apartments	45	22	1	7	15	1	0	0
1-8 Stoneyard Lane	19	17	0	0	0	0	0	2
9-24 Stoneyard Lane	50	20	0	0	1	0	0	30
New City College	58	46	0	2	1	0	0	12
Wigram House	32	32	0	0	0	0	0	0
Willis House	79	79	0	0	0	0	0	0
Winant House	18	8	1	0	0	0	0	10
Totals	**1,115**	**795**	**16**	**24**	**106**	**1**	**4**	**245**

Cruse House

11.429 A total of 31 rooms were assessed for sunlight within this building of which 9 (29%) would meet the BRE's criteria for both Annual and Winter PSH.

11.430 For Annual PSH, 14 of the 31 (45.2%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.431 Of the 17 rooms affected annually, one would experience an alteration in Annual PSH between 20-29.9% which is considered a Minor Adverse effect and five would experience an alteration between 30-39.9% which

is considered a Moderate Adverse Effect. The remaining 11 rooms would experience an alteration in excess of 40% which is considered a Major Adverse effect.

11.432 For Winter PSH, 20 of the 31 (64.5%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining 11 see losses greater than 40% which is considered a Major Adverse effect.

11.433 However, as with the daylight effects discussed previously, these sunlight effects are significantly exacerbated by this building's access decks and external stairwell. The lowest windows in this stairwell retain 22% Annual and 6% Winter PSH despite themselves being recessed into the brickwork and being closer to the Proposed Development. It is therefore concluded that the levels of sunlight reaching this building should be considered acceptable and overall the effect to sunlight is considered **Moderate Adverse** (Significant).

1-12 Dingle Gardens

11.434 A total of 30 rooms were assessed for sunlight within this building of which 16 (53.3%) would meet the BRE's criteria for both Annual and Winter PSH.

11.435 For Annual PSH, 29 of the 30 (96.7%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining room sees a loss greater than 40% which is considered a Major Adverse effect, but this room is at ground floor and is most likely the entrance to the building and so not sensitive to sunlight alterations. The levels of Annual PSH retained across the unobstructed main façade of this building remain excellent at circa 35-40%.

11.436 For Winter PSH, 16 of the 30 (53.3%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining 14 see losses greater than 40% which is considered a Major Adverse effect, but the levels retained across the main façade are still considered good for an urban location, especially in consideration of the excellent levels of Annual PSH retained.

11.437 Overall, the effect to sunlight on this property is considered **Minor Adverse** (Not Significant).

13 Dingle Gardens

11.438 A total of four rooms were assessed for sunlight within this building of which 2 (50%) would meet the BRE's criteria for both Annual and Winter PSH.

11.439 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.440 For Winter PSH, two of the four (50%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining two see losses greater than 40% which is considered a Major Adverse effect but retain 3-4% Winter PSH which, in conjunction with the high levels of Annual PSH retained (25-34%) should be considered good for an urban location.

11.441 Overall, the sunlight effect to this property is considered **Minor Adverse** (Not Significant).

14 Dingle Gardens

11.442 A total of four rooms were assessed for sunlight within this building of which 1 (25%) would meet the BRE's criteria for both Annual and Winter PSH.

11.443 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.444 For Winter PSH, one of the four (25%) rooms assessed would meet BRE's criteria and is therefore considered to experience a Negligible effect. The remaining three see losses greater than 40% which is considered a Major Adverse effect but all retain 4%, only just below the 5% recommended which, in conjunction with the high levels of Annual PSH retained (29-36%) should be considered very good for an urban location.

11.445 Overall, the sunlight effect to this property is considered **Minor Adverse** (Not Significant).

15 Dingle Gardens

11.446 A total of four rooms were assessed for sunlight within this building of which 2 (50%) would meet the BRE's criteria for both Annual and Winter PSH.

11.447 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.448 For Winter PSH, two of the four (50%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining two see losses greater than 40% which is considered a Major Adverse effect, but both retain 3-4%, only just below the 5% recommended which, in conjunction with the high levels of Annual PSH retained (29-30%) should be considered very good for an urban location.

11.449 Overall, the sunlight effect to this property is considered **Minor Adverse** (Not Significant).

16 Dingle Gardens

11.450 A total of three rooms were assessed for sunlight within this building of which 1 (33.3%) would meet the BRE's criteria for both Annual and Winter PSH.

11.451 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.452 For Winter PSH, one of the three (33.3%) rooms assessed would meet BRE's criteria and is therefore considered to experience a Negligible effect. The remaining two see losses greater than 40% which is considered a Major Adverse effect, but both retain 3-4%, only just below the 5% recommended which, in conjunction with the high levels of Annual PSH retained (29-32%) should be considered very good for an urban location.

11.453 Overall, the sunlight effect to this property is considered **Minor Adverse** (Not Significant).

17 Dingle Gardens

11.454 A total of four rooms were assessed for sunlight within this building of which none would meet the BRE's criteria for both Annual and Winter PSH.

11.455 For Annual PSH, three of the four (75%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining room sees a loss between 30-39.9% which is considered a Moderate Adverse effect, but this window is in the door to the porch and so not considered a habitable space.

11.456 For Winter PSH, all four rooms assessed see losses greater than 40% which is considered a Major Adverse effect but all but one retains 4% which is considered good. The final window is shaded by the porches to either side, retains 1% winter PSH but only saw 2% in the baseline owing to this additional shade cast by the porches.

11.457 Overall, the levels of both annual and winter PSH retained within this building are considered acceptable and the effect is considered of **Minor Adverse** (Not Significant).

18 Dingle Gardens

11.458 A total of four rooms were assessed for sunlight within this building of which 1 (25%) would meet the BRE's criteria for both Annual and Winter PSH.

11.459 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.460 For Winter PSH, one of the four (25%) rooms assessed would meet BRE's criteria and is therefore considered to experience a Negligible effect. The remaining three see losses greater than 40% which is considered a Major Adverse effect.

11.461 The levels of Annual PSH retained are excellent, however, at 27-30% seen at the main windows, and so overall the effect to sunlight at this building is considered **Minor Adverse** (Not Significant).

19 Dingle Gardens

11.462 A total of four rooms were assessed for sunlight within this building of which 1 (25%) would meet the BRE's criteria for both Annual and Winter PSH.

11.463 For Annual PSH, three of the four (75%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining room sees a loss between 20-29.9% which is considered a Minor Adverse effect.

11.464 For Winter PSH, one of the four (25%) rooms assessed would meet BRE's criteria and is therefore considered to experience a Negligible effect. The remaining three see losses greater than 40% which is considered a Major Adverse effect.

11.465 The effects at ground floor, however, are again exacerbated by the shading of this building's existing porch and the retained levels of sunlight at the first floor, where this is not a factor, remain very good for an urban location (26% total and 2% winter). Given this, the overall effect to sunlight to this building is considered **Minor Adverse** (Not Significant).

20 Dingle Gardens

11.466 A total of five rooms were assessed for sunlight within this building of which 2 (40%) would meet the BRE's criteria for both Annual and Winter PSH.

11.467 For Annual PSH, three of the five (60%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining two see losses between 30-39.9% which is considered a Moderate Adverse effect.

11.468 For Winter PSH, two of the five (40%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining three see losses greater than 40% which is considered a Major Adverse effect.

11.469 The three affected windows, however, are shaded by this building's porch and roof overhangs but retain levels of sunlight considered good for an urban location urban location (23% total and 2% winter). Given this, the overall effect to sunlight to this building is considered **Minor Adverse** (Not Significant).

21 Dingle Gardens

11.470 A total of three rooms were assessed for sunlight within this building of which 2 (66.7%) would meet the BRE's criteria for both Annual and Winter PSH.

11.471 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.472 For Winter PSH, two of the three (66.7%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining room sees a loss greater than 40% which is considered a Major Adverse effect but retains 40% annual and 3% winter PSH which is considered excellent.

11.473 Overall, given the excellent levels of sunlight retained, the effect to sunlight within this building is considered **Negligible** (Not Significant).

22 Dingle Gardens

11.474 A total of two rooms were assessed for sunlight within this building of which one (50%) would meet the BRE's criteria for both Annual and Winter PSH.

11.475 For Annual PSH, both rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.476 For Winter PSH, one of the two (50%) rooms assessed would meet BRE's criteria and is therefore considered to experience a Negligible effect. The remaining room sees a loss between 30-39.9% which is considered a Moderate Adverse effect but retains 41% annual and 4% winter PSH which is considered excellent.

11.477 Overall, the effect to sunlight within this building is considered **Negligible** (Not Significant).

46 Dingle Gardens

11.478 A total of four rooms were assessed for sunlight within this building of which 3 (75%) would meet the BRE's criteria for both Annual and Winter PSH.

11.479 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.480 For Winter PSH, three of the four (75%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining room sees a loss greater than 40% which is considered a Major Adverse effect but retains 38% annual and 4% winter PSH which is still considered very good.

11.481 Overall, the effect to sunlight within this building is considered **Negligible** (Not Significant).

52 Dingle Gardens

11.482 A total of six rooms were assessed for sunlight within this building of which one (16.7%) would meet the BRE's criteria for both Annual and Winter PSH.

11.483 For Annual PSH, five of the six (83.3%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining room sees a loss between 20-29.9% which is considered a Minor Adverse effect.

11.484 For Winter PSH, one of the six (16.7%) rooms assessed would meet BRE's criteria and is therefore considered to experience a Negligible effect. The remaining five see losses greater than 40% which is considered a Major Adverse effect.

11.485 However, the effects to this building are exacerbated by the overhangs shading the ground and second floors. The retained levels of sunlight at first floor remain very good for an urban location (32-33% annual and 3-4% winter PSH) and so overall the levels of sunlight remain acceptable and **Minor Adverse** (Not Significant).

53 Dingle Gardens

11.486 A total of six rooms were assessed for sunlight within this building of which 1 (16.7%) would meet the BRE's criteria for both Annual and Winter PSH.

11.487 For Annual PSH, five of the six (83.3%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining room sees a loss between 20-29.9% which is considered a Minor Adverse effect.

11.488 For Winter PSH, one of the six (16.7%) rooms assessed would meet BRE's criteria and is therefore considered to experience a Negligible effect. The remaining five see losses greater than 40% which is considered a Major Adverse effect but, other than the two ground floor windows shaded by the overhang, retain 3-4% winter PSH which is considered acceptable for an urban environment.

11.489 Given the above, the overall effect to sunlight within this building is considered **Minor Adverse** (Not Significant).

1 Dolphin Lane

11.490 A total of four rooms were assessed for sunlight within this building of which none would meet the BRE's criteria for both Annual and Winter PSH.

11.491 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.492 For Winter PSH, owing to the sun's low angle at winter and these windows' easterly orientation precluding afternoon sunlight, all four rooms assessed see losses greater than 40% which is considered a Major Adverse effect.

11.493 Overall, the retained levels of Annual PSH are very good (29-32%) but owing to the winter effects, the overall effect to sunlight within this building is considered **Moderate Adverse** (Significant).

11 Dolphin Lane

11.494 A total of four rooms were assessed for sunlight within this building of which none would meet the BRE's criteria for both Annual and Winter PSH.

11.495 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.496 For Winter PSH, owing to the sun's low angle at winter and these windows' easterly orientation precluding afternoon sunlight, all four rooms assessed see losses greater than 40% which is considered a Major Adverse effect.

11.497 Overall, the retained levels of Annual PSH are very good (26-29%) but owing to the winter effects, the overall effect to sunlight within this building is considered **Moderate Adverse** (Significant).

13 Dolphin Lane

11.498 A total of four rooms were assessed for sunlight within this building of which none would meet the BRE's criteria for both Annual and Winter PSH.

11.499 For Annual PSH, two of the four (50%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.500 Of the two rooms affected annually, one would experience an alteration in Annual PSH between 30-39.9% which is considered a Moderate Adverse effect whilst one would experience an alteration in excess of 40% which is considered a Major Adverse effect. The retained levels of Annual PSH is good for both these windows, however, and at 22% and 24%, this is only just below the 25% recommended by BRE.

11.501 For Winter PSH, all four rooms assessed see losses greater than 40% which is considered a Major Adverse effect.

11.502 Overall, the retained levels of Annual PSH are very good (22-26%) but owing to the winter effects, the overall effect to sunlight within this building is considered **Moderate Adverse** (Significant).

15 Dolphin Lane

11.503 A total of four rooms were assessed for sunlight within this building of which none would meet the BRE's criteria for both Annual and Winter PSH.

11.504 For Annual PSH, all four rooms assessed see losses greater than recommended by BRE.

11.505 Of the four rooms affected annually, one would experience an alteration in Annual PSH between 30-39.9% which is considered a Moderate Adverse effect whilst three would experience an alteration in excess of 40% which is considered a Major Adverse effect. One of these three, however, very likely serves an entranceway not sensitive to sunlight changes and all other windows retain 21-23% Annual PSH which should be considered acceptable for an urban environment.

11.506 For Winter PSH, all four rooms assessed see losses greater than 40% which is considered a Major Adverse effect.

11.507 Overall, the retained levels of Annual PSH are good (21-23%) but owing to the winter effects, the overall effect to sunlight within this building is considered **Major Adverse** (Significant).

17 Dolphin Lane

11.508 A total of four rooms were assessed for sunlight within this building of which none would meet the BRE's criteria for both Annual and Winter PSH.

11.509 For both Annual and Winter PSH, all four rooms assessed see losses greater than 40% which is considered a Major Adverse effect.

11.510 Overall, the effects to sunlight within this building are considered **Major Adverse** (Significant)but the baseline levels of sunlight here are below those recommended by BRE owing to this property's location fronting on to 9-24 Stoneyard Lane.

3 Dolphin Lane

11.511 A total of four rooms were assessed for sunlight within this building of which none would meet the BRE's criteria for both Annual and Winter PSH.

11.512 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.513 For Winter PSH, all four rooms assessed see losses greater than 40% which is considered a Major Adverse effect.

11.514 Overall, the retained levels of Annual PSH are very good (27-30%) but owing to the winter effects, the overall effect to sunlight within this building is considered **Moderate Adverse** (Significant).

4 Dolphin Lane

11.515 A total of six rooms were assessed for sunlight within this building of which 5 (83.3%) would meet the BRE's criteria for both Annual and Winter PSH.

11.516 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.517 For Winter PSH, five of the six (83.3%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining room sees a loss greater than 40% which is considered a Major Adverse effect but the retained levels of Annual PSH here are very high at 33% which is considered very good for an urban environment.

11.518 Overall, owing to the retained APSH levels, the effect to sunlight to this property is considered **Minor Adverse** (Not Significant).

5 Dolphin Lane

11.519 A total of four rooms were assessed for sunlight within this building of which none would meet the BRE's criteria for both Annual and Winter PSH.

11.520 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.521 For Winter PSH, all four rooms assessed see losses greater than 40% which is considered a Major Adverse effect but retain 2-4% which, combined with the high levels of Annual PSH retained (25-28%), is considered good for an urban environment.

11.522 Overall, therefore, the effect to sunlight to this property is considered **Minor Adverse** (Not Significant).

7 Dolphin Lane

11.523 A total of four rooms were assessed for sunlight within this building of which none would meet the BRE's criteria for both Annual and Winter PSH.

11.524 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.525 For Winter PSH, all four rooms assessed see losses greater than 40% which is considered a Major Adverse effect but retain 2-3% which, combined with the high levels of Annual PSH retained (25-28%), is considered good for an urban environment.

11.526 Overall, therefore, the effect to sunlight to this property is considered **Minor Adverse** (Not Significant).

9 Dolphin Lane

11.527 A total of four rooms were assessed for sunlight within this building of which none would meet the BRE's criteria for both Annual and Winter PSH.

11.528 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.529 For Winter PSH, all four rooms assessed see losses greater than 40% which is considered a Major Adverse effect but retain 2% which, combined with the high levels of Annual PSH retained (28-29%), is considered good for an urban environment.

11.530 Overall, therefore, the effect to sunlight to this property is considered **Minor Adverse** (Not Significant).

Eastern Tower West India Quay

11.531 A total of 146 rooms were assessed for sunlight within this building of which 111 (76%) would meet the BRE's criteria for both Annual and Winter PSH.

11.532 For Annual PSH, 111 of the 146 (76%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining 35, understood to consist of 19 bedrooms, two L/K/Ds and 14 Studios see losses greater than 40% which is considered a Major Adverse effect. All but one bedroom, however, retain at least 19% Annual and 6% Winter PSH which is considered acceptable for an urban environment. The one bedroom with lower levels of sunlight belongs to a unit whose living room retains 29% Annual PSH so good levels of sunlight will still be enjoyed within the unit.

11.533 For Winter PSH, 145 of the 146 (99.3%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining room is understood to be the bedroom discussed above and sees a loss between 30-39.9% which is considered a Moderate Adverse effect.

11.534 Overall, owing to the retained APSH levels, the effect to sunlight to this property is considered **Moderate Adverse** (Significant).

Good Faith House

11.535 A total of six rooms were assessed for sunlight within this building of which 3 (50%) would meet the BRE's criteria for both Annual and Winter PSH.

11.536 For Annual PSH, five of the six (83.3%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining room sees a loss between 30-39.9% which is considered a Moderate Adverse effect, but this room retains 23% Annual PSH which is just short of the 25% recommended and considered good for an urban environment.

11.537 For Winter PSH, three of the six (50%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining three see losses greater than 40% which is considered a Major Adverse effect but retain 3% Winter PSH which is considered good for an urban environment.

11.538 Overall, the effect to sunlight to each this property is considered **Moderate Adverse** (Significant).

Goodwill House

11.539 A total of 35 rooms were assessed for sunlight within this building of which 30 (85.7%) would meet the BRE's criteria for both Annual and Winter PSH.

11.540 For Annual PSH, 32 of the 35 (91.4%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.541 Of the three rooms affected annually, two would experience an alteration in Annual PSH between 20-29.9% which is considered a Minor Adverse effect whilst one would experience an alteration greater than 40% which is considered a Major Adverse Effect. The single room with a Major Adverse effect, however, only loses 5% PSH in total so the greater relative loss is a direct result of the low existing level brought about by the window's position at ground floor beneath the access deck. The windows in the end elevation of the southern wing retain 28% Annual and 6% Winter PSH despite being closer the Proposed Development which highlights the building's architecture as the reason for levels of sunlight below those recommended by BRE.

11.542 For Winter PSH, 30 of the 35 (85.7%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.543 Of the five rooms affected in the winter, two would experience an alteration in Winter PSH between 30-39.9% which is considered a Moderate Adverse effect whilst three would experience an alteration in excess of 40% which is considered a Major Adverse effect. Again, however, this is a result of the access decks and courtyard nature of the building and, as shown above, the levels of sunlight reaching the neighbour's boundary remain very good.

11.544 Overall, considering the above, the effect to sunlight to each this property is considered **Minor Adverse** (Not Significant).

Horizon Building

11.545 A total of 44 rooms were assessed for sunlight within this building of which 10 (22.7%) would meet the BRE's criteria for both Annual and Winter PSH.

11.546 For Annual PSH, 11 of the 44 (25%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining 33 see losses greater than 40% which is considered a Major Adverse effect.

11.547 For Winter PSH, 12 of the 44 (27.3%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.548 Of the 32 rooms affected in the winter, one would experience an alteration in Winter PSH between 30-39.9% which is considered a Moderate Adverse effect whilst 31 would experience an alteration in excess of 40% which is considered a Major Adverse effect.

11.549 However, all the rooms experiencing significant effects above are understood to be east facing bedrooms and kitchens, the living rooms of which are dual aspect and retain excellent levels of sunlight (at least 33% annual and 5% winter, well in excess of BRE's recommendations). Given the above, the effects to bedrooms are deemed acceptable and the levels retained are in line with expectations considering their orientation and location.

11.550 Overall, given that occupants of the flats in question will retain excellent levels of sunlight in their living rooms, where it is most appreciated, the sunlight effects to this building are considered **Minor Adverse** (Not Significant).

1-12 Martindale House

11.551 A total of 51 rooms were assessed for sunlight within this building of which 46 (90.2%) would meet the BRE's criteria for both Annual and Winter PSH.

11.552 For Annual PSH, 48 of the 51 (94.1%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.553 Of the three rooms affected annually, two would experience an alteration in Annual PSH between 20-29.9% which is considered a Minor Adverse effect whilst one would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect.

11.554 For Winter PSH, 46 of the 51 (90.2%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining five see losses greater than 40% which is considered a Major Adverse effect.

11.555 However, not only are the retained levels of light generally good for an urban environment, all the windows identified as experiencing effects above do so only owing to their set back nature blocking existing sunlight. The levels of sunlight retained at the building's main façade remain excellent at circa 36% Annual and 7% Winter PSH and so any breaches of guidance are a direct result of this building's architecture.

11.556 Given the above, the effect to sunlight to each this building is considered **Minor Adverse** (Not Significant).

34A Ming Street

11.557 A total of four rooms were assessed for sunlight within this building of which none would meet the BRE's criteria for both Annual and Winter PSH.

11.558 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.559 For Winter PSH, all four rooms assessed see losses greater than 40% which is considered a Major Adverse effect but, with 26-30% Annual PSH, they will still see very good levels of sunlight considering their easterly orientation and urban location.

11.560 Overall, the effect to sunlight to this building is considered **Minor Adverse** (Not Significant).

34C Ming Street

11.561 A total of six rooms were assessed for sunlight within this building of which none would meet the BRE's criteria for both Annual and Winter PSH.

11.562 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.563 For Winter PSH, all six rooms assessed see losses greater than 40% which is considered a Major Adverse effect but, with 25-29% Annual PSH, they will still see very good levels of sunlight considering their easterly orientation and urban location.

11.564 Overall, the effect to sunlight to this building is considered **Minor Adverse** (Not Significant).

34E Ming Street

11.565 A total of six rooms were assessed for sunlight within this building of which none would meet the BRE's criteria for both Annual and Winter PSH.

11.566 For Annual PSH, three of the six (50%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining three see losses between 20-29.9% which is considered a Minor Adverse effect but only just fall short of guidance with 24% Annual PSH where 25% is recommended.

11.567 For Winter PSH, all six rooms assessed see losses greater than 40% which is considered a Major Adverse effect but, with 24-27% Annual PSH, they will still see very good levels of sunlight considering their easterly orientation and urban location.

11.568 Overall, the effect to sunlight to this building is considered **Minor Adverse** (Not Significant).

Vietnamese Cultural Centre (130 Poplar High Street)

11.569 With the rooms assessed being predominantly west facing, only one room was assessed for sunlight within this building owing to its dual aspect nature leading to a second window facing south.

11.570 For Annual PSH, the single room assessed would meet BRE's criteria and so is considered to experience a Negligible effect.

11.571 For Winter PSH, the single room assessed sees a loss greater than 40% which is considered a Major Adverse effect. The currently high levels of winter sunlight, however, are a function of the Site's empty nature and it is a consequence of any development of the Site that some low angle winter sunlight will be blocked by the Proposed Development. Additionally, the levels of sunlight in this room overall remain very good for an urban environment with 25% APSH and 1% WPSH.

11.572 Overall, with good levels of sunlight retained, the effect to sunlight in this building is considered **Minor Adverse** (Not Significant).

26-36 Poplar High Street

11.573 A total of 15 rooms were assessed for sunlight within this building of which 3 (20%) would meet the BRE's criteria for both Annual and Winter PSH.

11.574 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.575 For Winter PSH, three of the 15 (20%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining 12 see losses greater than 40% which is considered a Major Adverse effect but, with 29-40% Annual PSH, they will still see excellent levels of sunlight considering their easterly orientation and urban location.

11.576 Overall, the effect to sunlight to this building is considered **Minor Adverse** (Not Significant).

40-50 Poplar High Street

11.577 A total of 15 rooms were assessed for sunlight within this building of which 3 (20%) would meet the BRE's criteria for both Annual and Winter PSH.

11.578 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.579 For Winter PSH, three of the 15 (20%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining 12 see losses greater than 40% which is considered a Major Adverse effect but, with 28-41% Annual PSH, they will still see excellent levels of sunlight considering their easterly orientation and urban location.

11.580 Overall, the effect to sunlight to this building is considered **Minor Adverse** (Not Significant).

54-64 Poplar High Street

11.581 A total of 15 rooms were assessed for sunlight within this building of which 3 (20%) would meet the BRE's criteria for both Annual and Winter PSH.

11.582 For Annual PSH, nine of the 15 (60%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.583 Of the six rooms affected annually, three would experience an alteration in Annual PSH between 20-29.9% which is considered a Minor Adverse effect whilst three would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. It should be noted, however, that the retained levels of Annual PSH are all considered good for an urban environment and especially considering their easterly orientation.

11.584 For Winter PSH, three of the 15 (20%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining 12 see losses greater than 40% which is considered a Major Adverse effect. The retained levels of 2-4% are still considered good for their location and orientation however.

11.585 Considering all the above, the overall sunlight effect to this building is considered **Minor Adverse** (Not Significant).

74 Poplar High Street

11.586 A total of eight rooms were assessed for sunlight within this building of which 7 (87.5%) would meet the BRE's criteria for both Annual and Winter PSH.

11.587 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.588 For Winter PSH, seven of the eight (87.5%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining room sees a loss greater than 40% which is considered a Major Adverse effect but retains 4% which is only just below the 5% recommended. In conjunction with a 37% Annual PSH retained, this is considered an excellent level of light for an urban environment.

11.589 Overall, the effect to sunlight to this building is considered **Negligible** (Not Significant).

Port East Apartments

11.590 Located to the west of the Site, the east facing façade of this building is reliant on sunlight over the Site owing to the shade cast in the existing condition by West India Quay.

11.591 A total of 45 rooms were assessed for sunlight within this building of which 22 (48.9%) would meet the BRE's criteria for both Annual and Winter PSH.

11.592 For Annual PSH, 22 of the 45 (48.9%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.593 Of the 23 rooms affected annually, one would experience an alteration in Annual PSH between 20-29.9% which is considered a Minor Adverse effect and seven would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. The remaining 15 rooms would experience an alteration in excess of 40% which is considered a Major Adverse effect.

11.594 For Winter PSH, 44 of the 45 (97.8%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining room sees a loss between 20-29.9% which is considered a Minor Adverse effect.

11.595 Overall, the effect to sunlight to these three properties is considered **Major Adverse** (Significant).

1-8 Stoneyard Lane

11.596 A total of 19 rooms were assessed for sunlight within this building of which 17 (89.5%) would meet the BRE's criteria for both Annual and Winter PSH.

11.597 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.598 For Winter PSH, 17 of the 19 (89.5%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining two see losses greater than 40% which is considered a Major Adverse effect but the retained levels of at least 31% Annual and 3% Winter PSH are considered very good for this location.

11.599 Overall, owing to the excellent levels retained by this building, the effect to sunlight to this building is considered **Negligible** (Not Significant).

9-24 Stoneyard Lane

11.600 A total of 50 rooms were assessed for sunlight within this building of which 20 (40%) would meet the BRE's criteria for both Annual and Winter PSH.

11.601 For Annual PSH, 49 of the 50 (98%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining room sees a loss greater than 40% which is considered a Major Adverse effect.

11.602 For Winter PSH, 20 of the 50 (40%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining 30 see losses greater than 40% which is considered a Major Adverse effect but all but one retain 2-4% winter PSH which, combined with the very high levels of Annual PSH retained (36-44%) is considered very good for an urban environment.

11.603 Overall, given the high retained Annual PSH levels, the effect to sunlight to this building is considered **Minor Adverse** (Not Significant).

New City College

11.604 A total of 58 rooms were assessed for sunlight within this building of which 46 (79.3%) would meet the BRE's criteria for both Annual and Winter PSH.

11.605 For Annual PSH, 55 of the 58 (94.8%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

11.606 Of the three rooms affected annually, two would experience an alteration in Annual PSH between 30-39.9% (retaining 14% and 21% Annual PSH) which is considered a Moderate Adverse effect whilst one would experience an alteration in excess of 40% (retaining 23% Annual PSH) which is considered a Major Adverse effect but a very good retained level of light.

11.607 For Winter PSH, 46 of the 58 (79.3%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining 12 see losses greater than 40% which is considered a Major Adverse effect but these 12 represent a small proportion of the whole, nine of them will retain very high Annual PSH levels, well above the 25% recommended by the BRE, with remaining three rooms retaining 14%, 21%, and 23% APSH.

11.608 Overall, given the number of rooms with high retained APSH levels as well as the lower sensitivity of the receptor, the effect to sunlight to this educational building is considered **Minor Adverse** (Not Significant).

Winant House

11.609 A total of 18 rooms were assessed for sunlight within this building of which 8 (44.4%) would meet the BRE's criteria for both Annual and Winter PSH.

11.610 For Annual PSH, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

11.611 For Winter PSH, eight of the 18 (44.4%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining 10 see losses greater than 40% which is considered a Major Adverse effect, but all these windows retain overall levels of sunlight considered very good for an urban environment.

11.612 Overall, given the number of rooms with high retained APSH levels, the effect to sunlight in the building is considered **Minor Adverse** (Not Significant).

Overshadowing

11.613 The potential overshadowing impacts of the Maximum Parameters Scenario of the Proposed Development on surrounding amenity areas have been assessed against the Baseline Scenario. The full overshadowing assessment for the Proposed Development can be found within **ES Volume 3, Appendix: DSOSGLP - Annex 4** and is summarised below.

Sun Hours on Ground

Public or Communal Areas of Amenity

11.614 The following public or communal areas of amenity have been assessed with by sun hours on ground assessment:

- Green spaces serving houses on the houses on Pennyfields;
- Pennyfields Park;
- Playground of Our Lady & St Joseph Primary School;
- Play Area at Will Crooks Estate;
- Park Area at The Workhouse Leisure Centre;
- Sports Pitches at The Workhouse Leisure Centre
- Poplar Recreation Ground
- St Matthias Church Ground;
- Little St Matthias Preschool outside space;
- Public Bowling Green on Hale Street; and
- Public Park on Cottage Street.

11.615 All 11 of the areas above are fully compliant with the BRE Guidelines and remain excellently sunlit with over 88% of their total area seeing least two hours on sunlight on 21st March with the completed Proposed Development.

11.616 As such, the overshadowing effects of the Proposed Development to all 11 areas of public or communal amenity are considered to be **Negligible**.

Private Gardens

11.617 Of the 124 private gardens tested, 115 (92.7%) are full compliant with the BRE Guidelines and so would experience a **Negligible** (Not Significant) effect.

11.618 The remaining nine gardens are discussed below:

<u>32c Ming Street</u>

11.619 This is a small north-facing garden which sees very low levels of sunlight in the baseline condition owing to its orientation.

11.620 In the baseline condition, 9% of the area sees two hours or more on the equinox and this would reduce to 0% with the Proposed Development, a Major Adverse effect although not a significant absolute loss. This, however, is unavoidable in developing the Site in any meaningful manner.

11.621 Additionally, over half of this north-facing garden will continue to enjoy over six hours of sunlight on 21st June which is very good considering the orientation.

11.622 Overall, considering the very low levels of sunlight in the baseline scenario, the overall overshadowing effect to this garden is considered **Moderate Adverse** (Significant).

<u>34a Ming Street</u>

11.623 Just under half (48%) of this building's garden sees two hours or more sunlight on the 21st March. This is owing to its predominantly northerly aspect meaning that 34a Ming Street itself shadows that garden for most of the day on the equinox.

11.624 The Proposed Development would reduce this 48% to 20%, a percentage reduction of 58% equating to a Major Adverse effect but the 21st June assessment shows no additional shadow cast by the Proposed Development and this garden continues to enjoy over three hours of sunlight.

11.625 Overall, the overshadowing effect to this property is considered **Major Adverse** (Significant).

<u>48 and 49 Dingle Gardens</u>

11.626 These are two north-facing gardens which see very low levels of sunlight in the baseline condition owing to their orientation.

11.627 In the baseline condition, only 4% of each area sees two hours or more on the equinox and this would reduce to 0% with the Proposed Development, a Major Adverse effect although not a significant absolute loss. This, however, is unavoidable in developing the Site in any meaningful manner.

11.628 Additionally, over half of these two north-facing gardens will continue to enjoy over six hours of sunlight on 21st June which is very good considering the orientation.

11.629 Overall, considering the very low levels of sunlight in the baseline scenario, the overall overshadowing effect to these two gardens is considered **Moderate Adverse** (Significant).

<u>1 Dolphin Lane</u>

11.630 This is an east facing garden to the north-west of the Site which, owing to the undeveloped nature of the Site currently enjoys significant sunlight over it, with 100% of the area seeing two hours or more on 21st March.

11.631 Reductions in sunlight will therefore be seen with any development of the Site and the Proposed Development would lead to an 72% reduction to 28% of the area, a Major Adverse effect. Again, however, the sunlight levels in the summer when gardens are in greater use will be much higher and the assessment on 21st June shows well over six hours are retained.

11.632 Overall, whilst the summer sunlight levels are still excellent, the effect to this property is considered **Major Adverse** (Significant).

2 Dolphin Lane

11.633 Exactly half of this building's garden sees two hours or more sunlight on the 21st March and so any further reduction will take it below the 50% recommended by BRE. This is owing to its westerly orientation meaning that 2 Dolphin Lane itself shadows that garden in the morning and the neighbours to the west shade it in the evenings.

11.634 The Proposed Development would reduce this 50% to 34%, a percentage reduction of 31% equating to a Moderate Adverse effect but, as this garden is reliant on sunlight over the Site owing to the existing shade, additional shadow on the equinox is to be expected with any development on the Site.

11.635 This garden will still remain excellently sunlit in the summer months as shown by the 21st June assessment where there is no shade from the development and the garden retains well over six hours of sunlight.

11.636 Overall, the overshadowing effect to this property is considered **Moderate Adverse** (Significant).

3 Dolphin Lane

11.637 This is an east facing garden to the north-west of the Site which, owing to the undeveloped nature of the Site currently enjoys significant sunlight over it, with 100% of the area seeing two hours or more on 21st March.

11.638 Reductions in sunlight will therefore be seen with any development of the Site and the Proposed Development would lead to an 72% reduction to 28% of the area, a Major Adverse effect. Again, however, the sunlight levels in the summer when gardens are in greater use will be much higher and the assessment on 21st June shows well over six hours are retained.

11.639 Overall, whilst the summer sunlight levels are still very good, the effect to this property is considered **Major Adverse** (Significant).

13 Dolphin Lane

11.640 This garden sees just over two hours of sunlight in 100% of its area in the baseline scenario owing to the undeveloped nature of the site. Being east facing, 13 Dolphin Lane itself shades the garden in the afternoons whilst 9-24 Stoneyard Lane shades it in the early morning, leading to an increased reliance on light over the Site in the late morning.

11.641 With the Proposed Development in place, therefore, the additional shadow reduces the sunlight levels to below two hours, the result being that none of the garden still sees two hours of sunlight on the equinox, a Major Adverse effect.

11.642 Owing to the garden's reliance on sunlight over the Site, a significant overshadowing impact on the equinox is unavoidable with any meaningful development of the Site but it should also be noted that the summer levels of sunlight are very much higher and the whole garden continues to enjoy over six hours of sunlight on 21st June.

11.643 Overall, whilst the summer sunlight levels are still excellent, the effect to this property is considered **Major Adverse** (Significant).

15 Dolphin Lane

11.644 Being slightly further south than 13 Dolphin Lane, the overshadowing effect from 9-24 Stoneyard Lane is reduced to this garden but the principles remain in that 15 Dolphin Lane is very much reliant on sunlight over the Site to achieve the baseline condition of 100% of its area seeing two hours of sunlight on 21st March.

11.645 With the Proposed Development in place, this reduces to 32%, a 68% loss and so a Major Adverse effect. As with 13 Dolphin Lane though, some additional shadow on the equinox is unavoidable should the Site be developed in a meaningful manner. Again, the levels in the summer are unaffected and remain excellent with over six hours seen across the whole garden.

11.646 Overall, whilst the summer sunlight levels are still excellent, the effect to this property is considered **Major Adverse** (Significant).

Transient Overshadowing

11.647 In addition to the sun hours on ground assessment above, a transient overshadowing assessment has been undertaken for the wide area and can be found within **ES Volume 3, Appendix: DSOSGLP - Annex 4**. To provide further information on the potential overshadowing effects therefore, the effects to public and communal areas of amenity are discussed below.

21st March

11.648 At 08:00GMT a small proportion of the area of greenspace serving the houses on Pennyfields experiences overshadowing from the Proposed Development. The shadow cast from the Proposed Development continues to move in an easterly direction throughout the day, and by 09:00GMT the shadow is cast from the Proposed Development on to the southern part of Pennyfields Park. By 11:00GMT both of these amenity areas are unaffected by shadow from the Proposed Development.

11.649 At 10:00GMT shadow is cast from the Proposed Development on to the park area and outdoor sports pitches at the Workhouse Leisure Centre. By 11:00GMT these amenity areas are completely in shadow from the Proposed Development, remaining overshadowed until 13:00GMT. By 14:00GMT, the shadow has moved, and the Workhouse Leisure Centre play area is predominantly in direct sunlight and by 15:00GMT the Workhouse Leisure Centre pitches are predominantly in directly sunlight. From 16:00GMT until the end of the day, these amenity areas are unaffected by shadow cast from the Proposed Development.

11.650 At 11:00GMT the Play Area at the Will Crooks Estate is affected by shadow cast from the Proposed Development, however by 14:00GMT the shadow has moved from the play area and it remains unaffected for the rest of the afternoon.

11.651 At 12:00GMT the Playground of Our Lady and St Joseph Primary School is in shadow from the Proposed Development which moves away from the amenity area by 13:00GMT, at which point the Bowling Green on Hale Street becomes cast in shadow. The shadow continues to move throughout the afternoon, casting intermittent shadows onto the Bowling Green until 15:00GMT, when this amenity area is no longer affected by shadow from the Proposed Development for the remainder of the day.

11.652 From 13:00GMT the southern part of the St Matthias Church yard and approximately half of Little St Mattias Preschool outside space experiences overshadowing from the Proposed Development. By 15:00GMT the church yard is unaffected by overshadowing from the Proposed Development for the rest of the day. The

shadow continues to move across the Preschool outside space until 16:00GMT, at which time it is unaffected for the remainder of the day.

11.653 At 15:00GMT a small proportion of the Public Park on Cottage Street is affected by shadow cast from the Proposed Development however the shadow moves quickly and by 16:00GMT the park is no longer under shadow cast from the Proposed Development.

11.654 Despite the above amenity areas experiencing short periods of overshadowing, the sun hours on ground assessment shows full compliance with BRE guidance and as such this is considered in line with planning policy and acceptable.

21st June

11.655 On 21st June, shadows are shorter in length due to the higher position of the sun during the summer period. Minimal shadow is cast from the Proposed Development and all of the amenity areas are unaffected by overshadowing from the Proposed Development.

11.656 The effect of overshadowing on all public or communal amenity areas assessed is considered Negligible on this day.

21st December

11.657 During winter months, the sun's altitude is particularly low; therefore, relatively low obstructions create long shadows. On this day, there is a small amount of overshadowing cast from the Proposed Development as the surrounding amenity areas are already in shadow from the existing buildings to the south of the Site in Canary Wharf.

11.658 From 13:00GMT, there is additional overshadowing from the Proposed Development on the park area at the Workhouse Leisure Centre, St Matthias Church Yard and the Poplar Recreation Ground however, this shadow continues to move in an easterly direction throughout the afternoon and at 14:00GMT a small amount of shadow is cast on to the outdoor sports pitches at the Workhouse Leisure Centre. By 15:00GMT this shadow has completely moved from these amenity areas.

11.659 The significance of the effect of overshadowing on the above areas of public or communal amenity is considered Minor Adverse.

11.660 The remaining amenity areas of Pennyfields Park, the Play Area at Will Crooks Estate, Public Bowling Green on Hale Street, the Play Ground of Our Lady & St Joseph Primary School and the Public Park on Cottage Street are unaffected by overshadowing from the Proposed Development on this day and therefore experience a Negligible effect in relation to overshadowing on this day.

Light Pollution

11.661 The potential light pollution impacts arising from a commercial led scheme upon the surrounding existing sensitive receptors have been qualitatively considered.

11.662 Three sensitive receptors are within close enough proximity to be considered potentially sensitive to light pollution from the Proposed Development.

- 1 West India Quay;
- Millwall and West India Dock SINC; and
- Future Residential Receptors within the Site.

1 West India Quay

11.663 This sensitive receptor comprises a hotel at the lower storeys with residential uses at the upper storeys and is located approximately 40m west of the Proposed Development and as such there is only a very low potential for significant light pollution effects. At the time of making this OPA, however, the Applicant has indicated which Development Zones may be suitable for which use classes. The Development Zone NQ.A, at the western end of the site is identified as 'Any Permitted Uses' or 'Predominately Use Class A1-A5, D1,D2 or sui generis' and as such there is the potential for commercial uses here although the parameter plans do indicate other areas where commercial use will be predominately located. In the case of highly glazed office buildings being located here, there is the potential for light spill to reach 1 West India Quay but this is significantly reduced by the 40m distance. The effect to this receptor is therefore likely to be **Negligible** to **Minor Adverse** (Not Significant) and quantitative assessments would only be required at RMA stage should the RMA include a large, significantly glazed, office building along the western boundary of NQ.A.

Millwall and West India Dock SINC

11.664 There is the potential for light to spill on to this receptor predominantly from any high powered external lighting of the Quayside but any office building at the south of the Proposed Development may also cause light pollution should they be heavily glazed and lit to a significant level at night. As set out within the Design Guidelines (which will be a secured control document), any lighting of the Quayside will be designed sensitively with this in mind and with reference to the ILP Guidelines on light pollution. As such, any effects will be mitigated to **Negligible** to **Minor Adverse** (Not Significant) and no further assessments are proposed at RMA stage.

Future Residential Receptors within the Site

11.665 With the potential for highly glazed office buildings to be located in close proximity to residential buildings, there is the potential for significant light spill reaching the residential windows. There is the potential for **Negligible** to **Major Adverse** (Significant) effects and as such, future RMAs for highly glazed office buildings will be accompanied by an assessment of light pollution.

Solar Glare

11.666 As stated in the BRE guidelines, solar glare or dazzle can occur when sunlight is reflected from a highly glazed or reflective façade. This usually occurs when there are large areas of reflective glass and particularly when this is angled back, thereby reflecting high altitude sunlight towards drivers. Thus, heavily glazed or mirrored buildings can cause long terms problems.

11.667 It is not typical for residential developments to include large areas of highly reflective elements. Rather the facades will likely be comprised of brickwork and punched windows. There is the potential for solar reflections to occur from the windows, however it is unlikely that these will cause significant effects above what typically occurs for residential buildings. As such, should residential elements come forward at the RMA stage, they are unlikely to cause significant solar glare effects.

11.668 Any buildings proposed within the Proposed Development may include large areas of glazing or other reflective cladding and as such have the potential to cause solar glare or dazzle at the sensitive viewpoints identified within this chapter.

11.669 As seen in Figure 11.2, a total of 11 viewpoints on the DLR and nearby roads (Aspen Way and Upper Bank Street) are considered sensitive to solar glare from the Proposed Development and there is the potential for solar reflections to be visible within 30 degrees of a driver's line of sight at each of these locations. However, their duration and significance will depend on the building orientation, façade details including fenestration size and location, balconies and cladding materials. Therefore, the effects could range from **Negligible** to **Major Adverse** (Significant) for each of these viewpoints.

11.670 Once a building has been designed in detail for each zone, the relevant RMA will therefore be accompanied by a detailed and quantitative assessment of solar glare to include the mitigation measures considered on a building by building basis.

MITIGATION MEASURES, MONITORING AND RESIDUAL EFFECTS

Enabling and Construction Mitigation

11.671 The potential effects of the construction of the Proposed Development will steadily increase from all negligible effects to the maximum effect identified within the completed Proposed Development assessment, as the superstructure is built and then clad. These range from Negligible (Not Significant) to Major Adverse (Significant) as set out above.

11.672 During the construction phase, a number of tall cranes are likely to be present on-site, however their size and temporary presence will lead to generally imperceptible effects of a temporary nature.

11.673 Given that daylight, sunlight, overshadowing and solar glare effects are not anticipated to be worse during the enabling and construction period than when the buildings are completed, no mitigation measures are required for construction related effects. Any potential light pollution effects during enabling and construction will be managed in line with the CEMP.

11.674 Given that mitigation measures are not considered necessary for construction related effects, any effects on daylight, sunlight, overshadowing and solar glare to the surrounding properties and road and rail receptors during the enabling and construction phase will gradually increase from all negligible effects up to those outlined above in respect of the completed Proposed Development.

Completed Development Mitigation

Daylight, Sunlight and Overshadowing

11.675 During the design process expert advice was given on alternative massing options, which were technically assessed to understand how the daylight, sunlight and overshadowing effects could be reduced and mitigated. No specific monitoring measures have been recommended.

11.676 After a number of technical iterations, the analysis of the results achieved with different massing options has informed the final massing as set out in **ES Volume 1, Chapter 3: Alternatives and Design Evolution**.

11.677 Therefore, the Proposed Development has daylight, sunlight and overshadowing mitigation embedded within the design and the residual effects would remain the same as presented in the Potential Effects section. However, here it should again be noted that the Maximum Parameter Scenario tested creates an extreme site-wide worst-case scenario whereby each plot is built out to the maximum, disregarding the restrictions set out in the Control Documents. For example, Design Guidelines' requirements such as those for building spacing and the Development Specification maximum developable floorspace (355,000 m^2). As such, the actual effects of the Proposed Development when built will be lesser than those reported here.

Solar Glare

11.678 The potential for solar glare will be considered throughout the detailed design process for each building and potential effects will be mitigated through measures such as:

- Orienting the facades to not reflect sunlight at a particular time or place;
- Reducing any large areas of glazing or reflective cladding; and/or
- Blocking the view of the building in question from receptors such as through planting trees in the line of sight.

11.679 Until further information on a building's design is available, however, the practicality of the measures above cannot be known, and so residual solar glare effects would be based on a worst-case qualitative assessment, and be **Negligible** (Not Significant) to **Major Adverse** (Significant). The details of any mitigation and its efficacy will be presented and reported upon within the relevant RMA.

Light Pollution

11.680 In order to minimise any potential light pollution effects from the commercial office elements upon the residential elements of the Proposed Development, potential mitigation measures could include:

- Ensuring that any external lighting does not directly illuminate the sky;
- Ensuring that any external lighting visible from any sensitive receptor is of low intensity;
- Avoiding external lighting which directly illuminates the SINC;
- Provision of blinds for commercial offices;
- Lighting strategies that reduce the output of luminaires closer to the façades; and
- Light fittings controlled through the use of sensors which switch on and off the light according to office occupancy.

11.681 Until further information on an emerging detailed scheme is available, however, the practicality of the measures above cannot be known, and so residual light pollution effects would be based on a worst-case qualitative assessment, and be **Negligible** (Not Significant) to **Major Adverse** (Significant). The details of any mitigation and its efficacy will be presented and reported upon within the relevant RMA.

Residual Effects

11.682 Table 11.11 provides a tabulated summary of the outcomes of the Daylight, Sunlight, Overshadowing, Light Pollution and Solar Glare Impact Assessment of the Proposed Development.

11.683 As discussed previously, the effects of the Proposed Development represent an extreme worst-case scenario.

Table 11.11 Residual Effects

Receptor	Description of the Residual Effect	Scale and Nature	Significant / Not Significant	Geo	D I	P T	St Mt Lt
Enabling and Construction							
Neighbouring Properties	Daylight and sunlight alterations at sensitive receptors	As Per Completed Development	As Per Completed Development	(L)	D	T	St
Public or Communal Amenity Areas	Overshadowing at sensitive receptors						
Private Gardens	Overshadowing at sensitive receptors						
1 West India Quay	Light pollution to residential windows						
Millwall and West India Dock SINC	Light pollution to sensitive receptor						
Future Receptors within the Proposed Development	Light pollution to residential windows						
Sensitive Viewpoints	Solar Glare to sensitive viewpoints						
Completed Development							
Neighbouring Properties	Daylight alterations at sensitive receptors	Negligible to 53 buildings	Not Significant	(L)	D	P	Lt
		Minor Adverse to 30 buildings					
		Moderate Adverse to four buildings: 1. Cruse House 2. Horizon Building 3. 1-8 Stoneyard Lane 4. New City College	**Significant**				
		Major Adverse to one building, 9-24 Stoneyard Lane					
	Sunlight alterations at sensitive receptors	Negligible to 51 buildings	Not Significant	(L)	D	P	Lt
		Minor Adverse to 28 buildings					
		Moderate Adverse to seven buildings: 1. Cruse House 2. 1 Dolphin Lane 3. 3 Dolphin Lane 4. 11 Dolphin Lane 5. 13 Dolphin Lane 6. 1 West India Quay 7. Good Faith House	**Significant**				
		Major Adverse to three buildings: 1. 15 Dolphin Lane 2. 17 Dolphin Lane 3. Port East Apartments					
Public or Communal Amenity Areas	Overshadowing at sensitive receptors	Negligible to all 11 amenity areas	Not Significant	(L)	D	P	Lt
Private Gardens	Overshadowing at sensitive receptors	Negligible to 115 amenity areas	Not Significant	(L)	D	P	Lt
		Moderate Adverse to four amenity areas: 1. 32 C Ming Street 2. 48 Dingle Gardens 3. 49 Dingle Gardens 4. 2 Dolphin Lane	**Significant**				
		Major Adverse to five amenity areas: 1. 34 A Ming Street 2. 1 Dolphin Lane 3. 3 Dolphin Lane 4. 13 Dolphin Lane 5. 15 Dolphin Lane					
1 West India Quay	Light pollution to residential windows	Negligible to Minor Adverse	Not Significant	(L)	D	P	Lt
Millwall and West India Dock SINC	Light pollution to sensitive receptor	Negligible to Minor Adverse	Not Significant	(L)	D	P	Lt
Future Receptors within the Proposed Development	Light pollution to residential windows	Negligible to Major Adverse	Not Significant to **Significant**	(L)	D	P	Lt
Sensitive Viewpoints	Solar Glare to sensitive viewpoints	Negligible to Major Adverse	Not Significant to **Significant**	(L)	D	P	Lt

Notes:
Residual Effect
- Scale = Negligible / Minor / Moderate / Major
- Nature = Beneficial or Adverse

Geo (Geographic Extent) = Local (L), Borough (B), Regional (R), National (N)
D = Direct / I = Indirect
P = Permanent / T = Temporary
St = Short Term / Mt = Medium Term / Lt = Long Term
N/A = not applicable / not assessed

CLIMATE CHANGE

Daylight

11.684 Following the guidance published by BRE, daylight assessments are carried out under an assumed overcast sky.

11.685 The methodologies used to quantity the levels of daylight are the VSC and NSL. Of these, none are explicit measurements of light but rather the VSC is expressed as percentages of the total amount of light received at an unobstructed location. The NSL by contrast is a percentage of the room that can see the sky.

11.686 Being percentages, the daylight assessments above do not depend on the absolute amount of daylight outside and, since they also assume an overcast sky, they are independent of the cloud coverage or the annual number of sunlight hours.

11.687 By following the current BRE methodology, therefore, the numeric daylight results are not affected by changes in climate.

11.688 Data from the UKCP18 website suggests that the average cloud coverage will be slightly reduced, although no information is provided on how this will affect global and diffuse illuminance and irradiance levels. The relationship between cloud cover and daylight illuminance is not elaborated on the UKCP web site, although it is probably reasonable to assume as cloud coverage is reduced, the overall amount of usable daylight increases. As mentioned above, however, this would not impact the conclusions within this report which are based on numeric daylight assessments and unaffected by cloud cover.

Sunlight

11.689 To quantify the amount of sunlight that a residential window can be expected to receive throughout the years, APSH are used. This is a set of 100 fixed locations in the sky representing possible sun positions throughout the year.

11.690 The point locations were published by BRE and are based on hourly sunlight availability. A change in climate that might result in more annual sunlight hours (currently 1481 in London) would not result in more than 100 APSH test points, since this is a fixed number.

11.691 If in a future revision of the daylighting guide, BRE were to keep the current methodology but update the set of 100 reference points to reflect a slightly sunnier climate, it can be expected that the locations of the points on the sky dome may shift, whilst their overall number will remain the same.

11.692 Therefore, an APSH assessment following the current methodology but relying on a (hypothetical) updated set of test points will likely produce comparable but not necessarily identical results.

Overshadowing and Solar Glare

11.693 These assessments do not consider climate data and assume a day with no cloud cover and so the maximum potential sunlight is assessed. As per UKCP18 data, the future climate in the UK is likely to be somewhat sunnier but this increase in 'sunniness' will not affect the results of the overshadowing or solar glare assessments.

Light Pollution

11.694 Light pollution is artificial in nature and not related to climate. As such, climate change would not alter the assessment undertaken.

INTERNAL DAYLIGHT, SUNLIGHT AND OVERSHADOWING

11.695 The purpose of the internal daylight, sunlight and overshadowing report included within the Application's supporting documents is twofold: firstly, it aims to ascertain the potential of the Proposed Development to offer acceptable daylight and sunlight amenity for the enjoyment of future occupants; secondly, it provides guidance to be used by the design team at detailed design stage to ensure that the design advanced at the RMA stage makes the most of the daylight and sunlight available on site.

11.696 To ascertain the potential of the Proposed Development to provide good daylight and sunlight amenity, daylight and sunlight assessments have been undertaken on the residential buildings' elevations and overshadowing assessments have been carried out for the public realm. In order to portray the most realistic scenario in terms of building massing, the assessments have been undertaken with the Indicative Scheme in place. Further details can be found in the Methodology section of the report within the Internal Daylight and Sunlight Report.

11.697 The results of the façade assessments have shown that the daylight potential seen is generally good, with lower levels of light found only on the lowest floors and where buildings are in close proximity to each other. The results are typical of high-density urban developments and the daylight ingress into the rooms can be optimised through a number of measures to be implemented at detailed design stage. Further details of these can be found in Section 6 of the Internal Daylight and Sunlight Report.

11.698 The levels of sunlight reaching the buildings' façades throughout the year are generally excellent, with the majority of the facade area assessed seeing overall levels of sunlight in line with or greater than the BRE's recommendations. As would be expected, lower levels of sunlight can be found predominantly where tall buildings face one another. Levels of winter sunlight are also good, overall, with areas of lower availability located predominantly on the lowest storeys, where low-angle winter sunlight is easily intercepted by tall buildings within and around the Site.

11.699 A variety of spaces are suggested within the Indicative Scheme, some of which are very well sunlit whilst other smaller areas provide more shade but overall, 50% of all the public realm will enjoy at least two hours of sunlight on the 27th March, just six days after the recommendation of the 21st. Very high levels of sunlight will be available in summer months, when outdoor areas are more likely to be utilised for longer periods of time. Given the variety of spaces on offer, future occupants will be able to enjoy either a sunlit or more shaded space depending on their requirements. The main unified amenity space provided across Quay Square and The Quayside will meet the recommended levels of sunlight just one day after the equinox, and will therefore perform well. Overall, the performance is not considered uncommon for high-density locations such as this and can be considered good considering the context of Canary Wharf adjacent to the south. In conclusion, the Proposed Development has the potential to provide residential accommodation and outdoor areas of amenity considered acceptable in terms of daylight, sunlight and overshadowing and the assessment and suggestions within the Internal Daylight, Sunlight and Overshadowing report can be used to aid future designers of detailed plots in bringing forward designs with optimised levels of natural light.

ASSESSMENT OF THE FUTURE ENVIRONMENT

Evolution of the Baseline Scenario

11.700 Should the Proposed Development not be implemented then, the baseline condition would remain as reported within this ES chapter.

Cumulative Effects Assessment

11.701 No cumulative schemes are in close enough proximity to the Site or the sensitive receptors tested to warrant testing and as such the cumulative effects will be unchanged from those reported within this chapter.

New City College Poplar Campus

11.702 Should a development emerge on the New City College Poplar Campus Site (PA/19/02067/NC), there may be a cumulative effect to those receptors assessed within this ES chapter. However, no information on the potential scale nor design of this scheme is currently available and so this can be neither tested nor

qualitatively assessed. Any cumulative effects should be presented within the New City College Scheme's application once their design is known.

LIKELY SIGNIFICANT EFFECTS

11.703 For daylight, there are five buildings with significant effects comprising of four **Moderate Adverse** effects and one **Major Adverse** effect. The buildings experiencing significant effects are Cruse House, Horizon Building, 1-8 Stoneyard Lane, 9-24 Stoneyard Lane and New City College.

11.704 For sunlight, there are 10 buildings with significant effects, comprising seven **Moderate Adverse** effects and three **Major Adverse** effects. The buildings experiencing significant effects are Cruse House, 1 Dolphin Lane, 3 Dolphin Lane, 11 Dolphin Lane, 13 Dolphin Lane, 15 Dolphin Lane, 17 Dolphin Lane, 1 West India Quay, Good Faith House and Port East Apartments.

11.705 It is important to note that many of the windows that experience significant losses in daylight or sunlight are situated beneath balconies, recessed balconies or other architectural features of the property which inherently obstruct daylight availability in the Baseline.

11.706 For overshadowing, there are no significant effects to any public or communal amenity areas assessed but there are nine instances of significant effects to private gardens comprising of four **Moderate Adverse** effects and five **Major Adverse** effects. The buildings experiencing significant effects to their gardens are 32c and 34a Ming Street, 48 and 49 Dingle Gardens and, 1,2,3, 13 and 15 Dolphin Lane.

11.707 For Solar Glare, a qualitative assessment has identified the potential for significant effects ranging from **Negligible** to **Major Adverse** to all 11 viewpoints identified as sensitive. Further assessments will be undertaken once the detailed designs are available and presented as part of any RMA proposing highly glazed office buildings.

11.708 For Light Pollution, a qualitative assessment has identified the potential for significant effects ranging from **Negligible** to **Major Adverse** to future receptors within the Proposed Development. Further assessments will be undertaken once the detailed designs are available and presented as part of any RMA proposing highly glazed office buildings.

INDICATIVE SCHEME COMPARISON

11.709 In addition to those assessments above, an assessment of the daylight sunlight and overshadowing effects of the Indicative Scheme has been undertaken and is presented within **ES Volume 3, Appendix: DSOSGLP - Annex 3**. This presents a significantly more realistic scenario than that of the maximum parameters which, as previously discussed, represents an extreme worst-case scenario for the Site as a whole whereby each plot is built out to the maximum, disregarding the design guidelines' requirements such as those for building spacing and maximum developable floorspace (355,000 m^2).

11.710 With the Indicative Scheme in place, significant effects continue to be seen, owing to the undeveloped nature of the existing site, but much more light passes through the Site, between the gaps in the buildings.

11.711 The full data can be found within **ES Volume 3, Appendix: DSOSGLP - Annex 3** but Table 11.12 below summarises the daylight improvements seen on a sitewide basis:

Table 11.12 Comparison of VSC effects from Indicative Scheme and Proposed Development (Maximum Parameters)

	Proposed Development (Maximum Parameters)	Indicative Scheme	Alteration
Number of Windows Achieving VSC Compliance with BRE Guidelines	1,948 (67.7%)	2,139 (74.3%)	-191 (-9.8%)
Number of Windows with a Negligible or Minor Adverse effect (Not Significant)	2,216 (77%)	2,294 (79.7%)	-78 (-3.5%)
Number of Windows with a Moderate Adverse effect (Significant)	91 (3.2%)	135 (4.7%)	-44 (-48%)
Number of Windows with a Major Adverse effect (Significant)	570 (19.8%)	448 (15.6%)	122 (21.4%)

11.712 The effects of the Indicative Scheme on daylight are therefore both less wide ranging (with fewer windows breaching guidance) and less significant with those which continue to breach guidance seeing less of a reduction.

11.713 In terms of sunlight, a similar conclusion can be drawn as the below table show the number of adverse effects significantly reduces as sunlight reaches neighbouring properties between the buildings of the Indicative Scheme.

Table 11.13 Comparison of APSH effects from Indicative Scheme and Proposed Development (Maximum Parameters)

	Proposed Development (Maximum Parameters)	Indicative Scheme	Alteration
Number of Rooms Achieving APSH Compliance with BRE Guidelines	795 (71.3%)	902 (80.9%)	-107 (-13.5%)
Number of Rooms with a Negligible or Minor Adverse effect (Not Significant) to Total APSH	15 (1.3%)	4 (0.4 %)	11 (73.3%)
Number of Rooms with a Moderate Adverse effect (significant) to Total APSH	24 (2.2 %)	13 (1.2 %)	11 (45.8%)
Number of Rooms with a Major Adverse effect (significant) to Total APSH	106 (9.5 %)	63 (5.7 %)	43 (40.6%)
Number of Rooms with a Negligible or Minor Adverse effect (Not Significant) to Winter PSH	1 (0.1 %)	1 (0.1 %)	0 (0%)
Number of Rooms with a Moderate Adverse effect (significant) to Winter PSH	4 (0.4 %)	4 (0.4 %)	0 (0%)
Number of Rooms with a Major Adverse effect (significant) to Winter PSH	246 (22 %)	175 (15.7 %)	71 (28.9%)

11.714 In relation to overshadowing, the conclusions are similar in that the number of neighbours with significant effects reduce from nine private areas of amenity to three, and the levels of sunlight retained are significantly better owing to the gaps now visible between buildings. This highlights the unrealistic and extreme worst-case scenario of assessing these maximum parameters.

11.715 Owing to the outline nature of this application, the Indicative Scheme has not been designed to the level of detail needed for a meaningful technical assessment of solar glare or light pollution. To provide an indication of the potential effects, the massing of the Indicative Scheme has been reviewed in the same manner as that of the Maximum Parameters but the conclusion must remain that, whilst there is the potential for effects ranging from **Negligible** to **Major Adverse**, this will be reviewed and mitigated throughout the detailed design process and future RMAs will be submitted with detailed and quantitative assessments outlining any residual effects.

11.716 It should again be noted that no meaningful development of the Site could be undertaken without having some adverse effects to the neighbouring properties and the above is in line with expectations for a

development of this nature. By nature of the Site's distance from the neighbours, however, the majority of neighbouring buildings see no significant loss of daylight or sunlight.

COMPARISON AGAINST THE 2007 CONSENT

11.717 With the 2007 Consent being a detailed application, it follows that the assessment contained within this chapter will present greater effects owing to the nature of assessing maximum parameters rather than actual buildings. For this reason, whilst **ES Volume 3, Appendix: DSOSGLP - Annex 3** provides the full assessment against both the Maximum Parameters and Indicative Scheme, it is considered most informative to compare the 2007 Consent with the Indicative Scheme. Additionally, the effects of the Indicative Scheme are significantly more likely than those of the Maximum Parameters and so the discussion below discussed the 2007 Consent's effects in comparison with the Indicative Scheme.

11.718 In all, the effects from both the Indicative Scheme and the 2007 Consent are very similar. In terms of VSC, BRE state that a change of 20% or more may be noticeable and as such it follows that a change of less than 20% is very unlikely to be noticed and Not Significant. Of all 2,877 windows assessed against the 2007 Consent, only 89 see changes in VSC greater than 20%, 35 of which see better levels whilst 54 see worse levels.

11.719 In reviewing those 54 windows which see lower levels of light than they would have with the 2007 Consent, the absolute difference is only 1.2% VSC on average and 3% at most. These alterations are small and unlikely to be noticeable.

11.720 As such, we can conclude that the Indicative Scheme performs very similarly to the 2007 Consent and no significant additional daylight effects from the 2007 Consent would be seen should the scheme be developed as envisaged in the Indicative Scheme.

11.721 In terms of sunlight, the results are similar in that variations can be seen between the Indicative and Consented schemes (903 rooms see changes in sunlight levels), 336 of these see lower levels of light with the Indicative Scheme and 567 see higher levels of light. When this is filtered to disregard very small alterations (less than 4% total PSH), 93 rooms see a worsening in sunlight levels whilst 109 see an improvement under the Indicative Scheme. To conclude on sunlight, owing to changes in the exact positioning of buildings within the scheme, some neighbouring properties see improved overall levels of sunlight with the Indicative Scheme whilst others see reduced levels but overall, the effect to annual sunlight is considered similar between the 2007 Consent and the Indicative Scheme.

11.722 For overshadowing, the results are again very similar between the Indicative Scheme and the 2007 Consent. All areas of public or communal amenity continue to see a Negligible effects and, for the private gardens assessed, 23 see an improvement with the Indicative Scheme whilst 18 see a worsening of area which sees two hours of sunlight on the equinox. The changes, however, are very minor and of the 18 which see a worsening, 14 continue to meet BRE guidance through at least 50% of the area seeing two hours or more of sunlight on 21st March. The remaining four all see within 14% (relative) of the consented levels other than one which reduces from 28% to 20% but still only sees an absolute loss of 8%. None of these are therefore considered a significant worsening of the conditions and so, with more areas seeing a benefit from the Indicative Scheme, we can conclude that the Indicative Scheme performs very similarly to the 2007 Consent with no significant additional daylight effects from those consented in 2007.