LONDON BOROUGH OF WALTHAM FOREST

Committee / Date:	Planning – 07 March 2022
Application Reference:	212685
Applicant:	London Square Developments and London Borough of Waltham Forest.
Location:	Lea Bridge Station Sites: Site 1 – Adjoins railway overpass to southern boundary, railway to west and Argall Way to north and east. Site 2 – Adjoins Orient Way to west, Lea Bridge Road to the north and rear of Elm Park Road properties to east, and Wannis Warehouse to the South. Site 3 –Adjoins railway overpass to north, railway to west and Orient Way to south and east.
Proposed Development:	Demolition of existing structures and redevelopment of three land parcels to deliver 345 x residential units (Use Class C3), commercial floorspace (Use Class E) and community floorspace (Use Class F.2) in buildings of up to 26 storeys. Associated development including new public realm areas, tree planting and landscaping, accesses, parking and servicing facilities.
Wards Affected:	Lea Bridge
Appendices:	Appendix 1. Daylight Appendix 2. Sunlight

1 RECOMMENDATION

1.1 That Planning Permission be GRANTED subject to conditions and informatives, Stage 2 Referral to the Greater London Authority (GLA) and completion of a Section 106 Legal Agreement (S106) with the following Heads of Terms:

Affordable Housing Provision

- 50% of units (by habitable room) as affordable housing which is proposed to be delivered with the assistance of grant, which the GLA has agreed to in principle.
- 50% of affordable units (by habitable room) as London Affordable Rented homes
- 50% of affordable units (by habitable room) as Shared Ownership homes
- Delivery Clause: Not to occupy more than 50% of OMU until the affordable units are complete, ready for occupation and transferred to a Registered Provider.
- Early-stage review mechanism.

Wheelchair Housing

- Wheelchair housing in any private/SO units to be exclusively marketed to disabled occupiers for a minimum period of 6 months from launch.
- Prepare a Wheelchair Accessible Dwelling Marketing Strategy for the Development that sets out how the wheelchair homes will be promoted and advertised during the exclusivity period - to be agreed prior to commencement

Air Quality Action Plan

- Financial contribution of £57,570 towards mitigating the impact of the development on air quality.

Healthcare Improvements

- A financial contribution of £175,908 is necessary to increase the capacity of local health care provision.

Education

- A contribution of £105,000 for early years is necessary to increase the capacity of secondary schools in the local area.

Play Space

- Contribution of £250,000 towards capacity enhancements to offsite play space for children over 11 years of age, made necessary by the development.

Local Labour, Employment and Skills Training

- Employment and Skills Plan - To be prepared and submitted to by the Local Planning Authority at least 6 months prior to implementation. No development to take place until the plan has been approved.
- Construction Jobs – To ensure that 35% of all jobs available for the construction or fit-out of the Development during the Construction Phase are fulfilled by Local Residents. Local Residents defined as residents of Waltham Forest. This definition extending to include residents of Enfield, Haringey, Hackney, Tower Hamlets, Newham, Redbridge, Havering, (Essex) in the event no residents of Waltham Forest are found to fill roles.
- Apprenticeships - Provide a minimum of 75 Apprentice Posts or Equivalents at the site. Equivalents would include the following:
    - CSCS Card: upskilling local candidates with a career ready qualification recognised by the Construction Skills Certification Scheme (CSCS)
    - Traffic marshals' tickets: upskilling local candidates with a traffic marshal ticket qualification recognised by the Construction Skills Certification Scheme (CSCS)
    - DEC sponsorship: Sponsor a local school (or schools) to deliver the Design, Engineer, Construction programme (DEC) to support take up of construction related STEM Subjects.

- Work Placements - To provide a minimum of 15 Work Placements, paid at London Living Wage (LLW)) in the construction trade during the Construction Phase of the Development with such posts being first offered to Local Residents through the Council's Employment, Business and Skills Service.
- To use reasonable endeavours to ensure that as a minimum, 20% of suppliers during the construction, fit out and end user Phases of the Development to be local to the London Borough of Waltham Forest.

- Subject to reasonable endeavours not being undertaken to achieve employment obligations, default Payments – as set out in LBWF's adopted Planning Obligations SPD.

Car Free Housing

- No residential unit will be eligible for a parking space unless disabled/blue badge holder.
- Each new Residential Occupier of the development must be informed prior to occupying any residential unit that they shall not be entitled to a residents parking permit unless blue badge holder.

Transport and Highways

- Not to occupy the development on Site 1 until the development approved in 202850 has been built and is operational.
- Car free development.
- Controlled Parking Zones (CPZ) review £25,000.
- A contribution of £75,000 towards drainage and flood mitigation for the Dagenham Brook.
- Walking and Cycling £188,000
- CLP monitoring contribution £22,500
- Wayfinding contribution of £14,000.
- Lighting £60,000
- £60,000 is proposed for CCTV enforcement cameras at the entrances to the 3 sites

Total Transport and Highways financial contributions: £444,500

Public Highway

- Site 1
  - Two stopping up orders
  - Two land transfers
- Site 2
  - One stopping up order
  - One S38 agreement
- Site 3
  - One stopping up order

S278 works will be required upon completion of the works relating to the development prior to occupation. An application for Highway Works will be required. Extent of works will include but are not limited to:

- Site 1
  - Renewal of the footway on all frontages of the site including Lea Bridge Road, Argall Way.
  - Renewal and repositioning of the cycle track on Lea Bridge Road and Argall Way and any accommodation works in relation to the traffic signals
  - Construction of the rerouted cycle track along Network Rails boundary fence.
  - Construction of a dropped kerb to facilitate vehicular access on Argall Way
  - Review of the waiting and loading restrictions on Lea Bridge Road and Argall Way
  - New lighting design

  - Double yellow lines on Argall Way as required

- Site 2
  - Renewal of the footway on all frontages of the site including Lea Bridge Road and Orient way
  - Construction of the rerouted footway on Orient Way
  - Renewal of the cycle track along Lea Bridge Road and Orient Way
  - Construction of a dropped kerb to facilitate vehicular access on Orient Way
  - Review of the waiting and loading restrictions on Lea Bridge Road and Orient Way
  - New lighting design
  - Construction of a new Toucan crossing on Orient Way

- Site 3
  - Renewal of the footway on all frontages of the site including Lea Bridge Road and Orient way
  - Renewal of the cycle track on Lea Bridge Road and Orient way
  - Construction of the rerouted cycle track along Network Rails boundary fence.
  - Repositioning of the width of the footway and cycle track along Orient Way as discussed and agreed with Highways at the pre application stage
  - Construction of the repositioned footway and cycle track along Orient Way
  - Construction of a dropped kerb to facilitate vehicular access on Orient Way
  - Review of the waiting and loading restrictions on Lea Bridge Road and Orient way
  - New lighting design
  - Construction of a new Toucan crossing on Orient Way

Works to be carried out by the Local Highway Authority and funded by the developer.

Travel Plans

- Travel plan for non-residential elements
- Travel Plan for residential elements
- Monitoring contribution of £8,000– one off payment

Replacement planting

- A contribution towards offsite tree planting equating to the CAVAT value of trees to be lost: £600,000.

Retention of Architect

- Scheme architects (Hawkins Brown) to be retained in a design advisor role.

Sustainability

- A financial contribution of £514,846 towards a Carbon Offset Fund. Payable on implementation.
- Development to be made ready for connection to a Decentralised Energy Network (DEN).
- The feasibility of connection to a DEN to be tested and reported in Updated Energy Statements. Connection if feasible.

- Updated Energy Statements on commencement and completion based on As Built energy calculations for each phase.
- Connection of each phase to the energy centre for that phase, providing full heating to the domestic units and the option to connect to the shell-only non-domestic units in line with the energy strategy.
- Post-construction monitoring (be seen):
  - A. Within 8 weeks of grant of planning permission to submit to the GLA accurate and verified estimates of the 'be seen' energy performance indicators.
  - B. Prior to occupation the Owner shall provide updated accurate and verified estimates of the 'be seen' energy performance indicators for each the Development.
  - C. Upon completion of the first year of Occupation and for the following four years, to provide accurate and verified annual in-use energy performance data for all relevant indicators.
  - In the event that the 'In-use stage' evidence submitted under Clause C shows that the 'As-built stage' performance estimates derived from Clause B have not been or are not being met, the Owner should investigate and identify the causes of underperformance and the potential mitigation measures and set these out in the relevant comment box of the 'Be Seen' in-use stage reporting webform. An action plan comprising measures identified in Clause C shall be submitted to and approved in writing by the GLA, identifying measures which would be reasonably practicable to implement and a proposed timescale for implementation. The action plan and measures approved by the GLA should be implemented by the Owner as soon as reasonably practicable.

Epping Forest

- Financial contribution of £34,500 towards SAMMS to mitigate against recreational impacts to the Epping Forest SAC.

Lee Valley Regional Park/SANGS

- Financial contribution of £250,000 towards measures to improve access and biodiversity (including tree planting) and to mitigate against recreational impacts in the LVRP.

Monitoring and Implementation

- £60,000 contribution towards monitoring, implementation and compliance of the Section 106 legal agreement.

Legal Fees:

- Payment of the Council's legal fees for the preparation and completion of the Legal Agreement.

Minor Amendments

1.2 That authority to be given to the Assistant Director of Development Management and Building Control in consultation with the Council's Legal Services for the sealing of the Legal Agreement and to agree any minor amendments to the conditions or the Legal Agreement on the terms set out above.

1.3 In the event that the Section 106 legal agreement is not completed within a reasonable timeframe following the date of Planning Committee, the Assistant Director of Development Management and Building Control is hereby authorised to refuse the application, if appropriate, in consultation with the Chair. In the absence of the legal agreement the Council would not be able to ensure that:

- Affordable housing would be delivered;
- The integrity of the Epping Forest SAC is not compromised;
- The aims of policies seeking the creation of employment opportunities and jobs growth are met;
- Sufficient capacity exists in educational, health and play facilities to cope with additional demand from the development;
- Necessary highway works are undertaken;
- Measures are in place to improve the public realm and promote sustainable travel options and reduce car use;
- The development is car free;
- Carbon emissions are offset and the site is sustainable; and
- Tree loss and air quality impacts are appropriately mitigated.

2 REASONS REFERRED TO COMMITTEE

- The quantum of residential units, town centre uses, and height of the proposed development exceeds the thresholds in the Mayor of London Order 2008 and is strategic in planning terms and referable to the Mayor of London.
- Council owned land.
- Major matters of planning policy are involved.
- Significant public interest.

3 SITE AND SURROUNDINGS

3.1 The three sites are located at a prominent location on Lea Bridge Road at the junction with Orient Way and the Lea Bridge Station. The sites do not fall within a designated Conservation Area, nor do any of the sites contain any listed buildings.

Site 1 – Station Site, Argall Way

3.2 This site is an open, grassed area broadly triangular in shape which slopes downwards from east to west. The site currently abuts the bridge over the railway line along its southern boundary and the current entrance to Lea Bridge Station to the north, which is at platform level. It is contained by Argall Way to the east and the existing railway to the west.

3.3 The site is currently unoccupied other than a small cycle storage locker structure which serves the station entrance, and several large ornamental stones. A cycle path currently connects Site 1 to Site 3 under the road overbridge, parallel to the rail line and provides a route for cyclists from Orient Way to the station entrance, allowing cyclists to bypass the currently difficult junction of Lea Bridge Road and Orient Way.

3.4 The current station entrance occupies an area to the north of Site 1 of around 181sqm. Part of Site 1 is designated in the existing Local Plan as being a Strategic Industrial Location.

3.5 Most of Site 1 falls within Flood Risk Zone 2 and part of the site is affected by Flood Risk Zone 3. The Public Transport Accessibility Level (PTAL) rating for site 1 is 3.

Site 2 – Lea Bridge Road

3.6 Site 2 is currently used as an informal open space with footpaths. It features numerous trees, including 1 tree the subject of a Tree Protection Order. The Site is not designated as a park or protected open space.

3.7 The eastern boundary of the site adjoins the rear gardens of houses fronting Elm Park Road. To the south of the site lies a large industrial unit occupied by a wholesale food distributor.

3.8 Parts of Site 2 falls within Flood Risk Zone 2 and 3. Site 2 has a PTAL of 3.

Site 3 – Orient Way

3.9 This site is an open grassed area adjacent to the railway with a significant slope from north to south and east to west of the site. It has a longer triangular geometry and features a service access to the railway and a sloped cycle path which connects Orient Way to Site 1 underneath the road overbridge. There is some tree planting on the site and has steep topography. A UKPN power cable runs beneath part of the Site.

3.10 Parts of site 3 falls within Flood Risk Zone 2 and 3. Site 3 has a PTAL of 2.

The Surroundings

3.11 Lea Bridge station lies on the West Anglia Mainline, between Stratford and Tottenham Hale stations, it was re-opened in 2016 and has acted as a catalyst for regeneration of the surrounding area, exceeding its expected patronage levels. The railway runs along the boundary of the Lee Valley Regional Park (designated Metropolitan Open Land) and forms a buffer between significant Victorian and Edwardian suburban residential development and an industrial landscape of former industry and reservoirs.

3.12 This buffer is further reinforced by several bands of industrial uses (many designated as Strategic Industrial Locations (SIL)) which together form an important employment base for the borough.

3.13 The 3 sites lie to the north of the Queen Elizabeth Olympic Park and hence benefit from extensive sport, cultural and educational facilities as well as significant retail areas in Stratford. This location, although in the periphery, is well connected to central London and benefits from being part of a strategic growth area (the Upper Lee Valley Opportunity Area covers 3,884 hectares shared between the London Boroughs of Enfield, Haringey, Waltham Forest and Hackney), which includes a diverse range of successful businesses and opportunity sites for redevelopment.

3.14 Trains available at Lea Bridge go on to Tottenham Hale and Bishops Stortford for access to Stansted airport. The site is also within the Northern Olympic Fringe Housing Zone.

3.15 With its good connectivity Lea Bridge is an area of focus for accommodating a significant element of housing needed in the borough over the next 20 years. The area provides access to significant green space and leisure facilities and has good levels of accessibility through overground rail services, including the rail station at Lea Bridge, providing direct links to Stratford and Tottenham Hale. The area is well served by buses.

3.16 Lea Bridge Road (A104) is part of the Strategic Road Network (SRN), with the closest section of Transport for London Road Network (TLRN) being Lea Bridge roundabout, located approximately 1.7 kilometres to the west.

3.17 Site 2 directly adjoins a bus stop, which provides access to two bus services. Cycleway 23 directly adjoins the site, running east-west on Lea Bridge Road, crossing the junction and intersecting with another segregated north-south local cycle route along Orient Way and Argall Way. The site is therefore well connected to the rest of the London-wide strategic cycle network, as well as many high-quality local cycle routes elsewhere in Waltham Forest and neighbouring boroughs. All three sites contain on-site cycleways and link well, to the Enjoy Waltham Forest infrastructure.

4 APPLICATION PROPOSAL

4.1 The application seeks full planning permission for the redevelopment of the three sites to deliver a residential led mixed use scheme. The three sites together are integral to a single development project.

4.2 Overall, 345 homes are proposed (including 160 affordable homes), along with non-residential space at the lower levels (including cultural/community space) in 4 buildings.

4.3 The proposed development would be located across the three sites as follows:

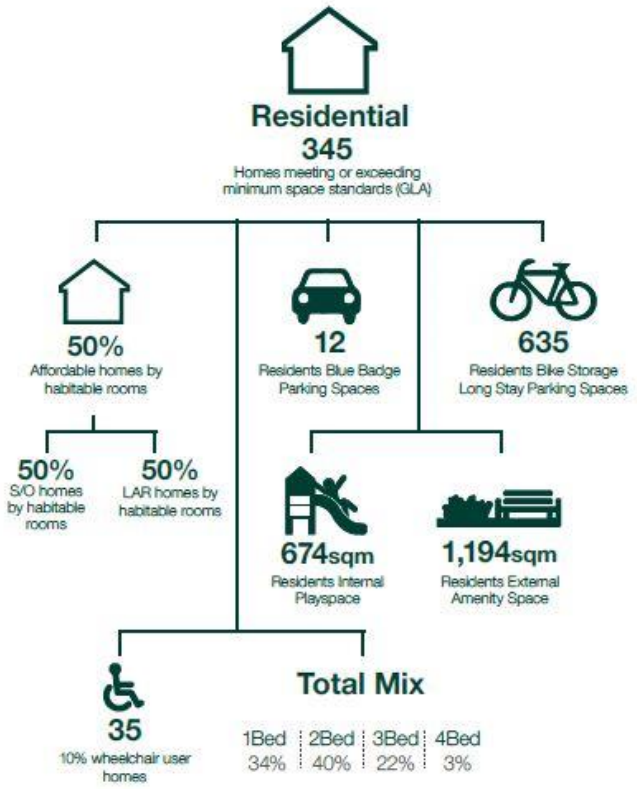
- Tower 1 (Site 1) 132 homes and 4 commercial units (Use Class E),
- Courtyard (Site 2) 68 homes and 1 community use unit (Use Class E / F.2),
- Terrace (Site 2) 23 homes and 3 commercial unit (Use Class E), and
- Tower 2 (Site 3) 122 homes and 1 commercial unit (Use Class E).

4.4 The image below shows the footprint of proposed buildings across the 3 sites.

4.5 The proposed massing and height have been carefully considered in order to create a balanced and dynamic scheme. Towers 1 and 2 are the tallest buildings in the Proposed Development with buildings heights of 26 and 23 storeys respectively.

4.6 The courtyard building incorporates a taller corner element of 11 storeys at the junction of Lea Bridge Road and Orient Way then steps down to 6, 5 and 4 storeys to the south and east, adjacent to existing residential properties.

4.7 There is an aspiration to create a new local centre at Lea Bridge as part of a 15 minute neighbourhood, within a revived business quarter improving this key gateway to the borough, which will be pivotal in creating a distinctive centre. The image and table below shows the site wide proposals in relation to the residential elements.



4.8 The overall mix of residential dwellings include 50% of units (by habitable room) as affordable housing (being London Affordable Rent (LAR), Shared Ownership (SO)) is shown in the table below:

Tenure	1 bed	2 bed	3 bed	4 bed	Total
LAR	11	23	29	9	72
SO	32	35	20	1	88
Private	76	81	28	0	185
Total	119	139	77	10	345

4.9 Cycle parking storage for long stay cycle parking is provided throughout the development in dedicated secure stores. A total of 655 long stay spaces will be provided throughout the development, including a proportion of spaces for oversized cycles. In addition, 40 short stay cycle spaces will be provided within the public realm of the Site.

Site 1

4.10 Site 1 would accommodate 132 homes. The table below shows the proposed residential mix (which is discussed in further detail in section 10D of this report).

Site 1	1 Bed	2 Bed	3 Bed	4 Bed	Total	%
SO	16	15	12	0	43	33%
Private	45	24	20	0	89	67%
Total	61	39	32	0	132	100%
% units	46%	30%	24%	0%	100%	

4.11 Site 1 would also accommodate 4 commercial units. The table below shows the proposed non-residential space proposed.

Site 1	**Unit**	**Use Class**	**Sqm (GIA)**
Tower 1	Ground floor - unit 1	E	107
	Upper ground floor - unit 2	E	169
	Upper ground floor - unit 3	E	244
	First floor - unit 4	E	537
Total Site 1			1,057

4.12 There would be 3 Blue Badge car parking spaces proposed on Site 1. Parking and servicing would be to the rear (north end) of Site 1.

4.13 The development of Site 1 would be combined with the development of the a new (step free) station entrance on Lea Bridge Road. The new station entrance was granted planning permission in January 2021. It is proposed that delivery of this would be brought forward at the same time as the development of Site 1.

4.14 The images below show a photograph looking from the north to the south, indicating the location of the approved new station entrance, and a computer-generated image of the approved station entrance looking from the east to the west.

4.15 The development approved as part of the new station entrance includes a cycle hub below the station entrance. The cycle hub would be adjacent to the base of Tower 1 proposed in this application. It would be possible to access the cycle hub from Lea Bridge Road via an external pedestrian stair way proposed as part of this application. The development proposes to improve the lighting and cycle path which pass underneath Lea Bridge Road.

4.16 The lowest level of the proposed Tower 1 building would accommodate plant, equipment and secure cycle parking for future residents. Above this level would be the residential entrance and commercial space.

4.17 There are level changes across the site, with the footway and cycle way sloping down from the proposed new station entrance and sloping down further along Argall Way. The level change has dictated threshold levels for points of access into the commercial and residential uses.

4.18 A further 2 floors of commercial space are proposed, above which would be a floor of indoor play space (offering year-round useable play space). There would be 352sqm of indoor play space, separating the commercial units below and residential floors above.

4.19 The fully internal residential play space within the building will provide a new play typology and an area for residents and families to play, gather and socialise safely. The space would comprise prescriptive play elements for younger children and amenity area for community functions and smaller social events. In addition to play space the application proposes 884sqm of private amenity space for the residential units.

1. Versatile space for gathering, activities and events
2. Games tables and hang-out space for older children / adults
3. Parents lounge
4. Toddlers and Tots area for imaginative play and learning with cupboards and cubby holes for games
5. Mounded play space with climbing, scrambling and slide elements
6. Seating and observation area with enclosed timber area and seating space

4.20 Alongside the amenity space for residents, there would be public realm and landscaping works around Site 1. Improvements are proposed to create a coherent interface with the new station entrance through a station plaza connecting existing and new residents to the station, commercial units and residential entrance to Tower 1. This area will provide a gateway to Lea Bridge from the station entrance. The image below shows a view of this area looking out from the new station entrance.

4.21 Site 1 retains the existing levels of the cycleway under Lea Bridge Road, and ties in with the proposed levels and access routes of the approved station building. A retaining wall is proposed to manage the transition between the car parking/servicing level at the rear (north) end of the site and the lowest cycleway level.

4.22 Enhancements to the footway, cycle way and lighting are proposed, and this work would need to be secured through legal agreements.

4.23 The image below shows a view of tower 1 to the left, looking east along Lea Bridge Road. Tower 2 (located on Site 3) is to the right of the image.

Site 2

4.24 Site 2 would accommodate two buildings, one in the form of a Courtyard building, rising in part to 11 storeys. 68 homes are proposed in the Courtyard building. The second building on site 2 is named the Terrace building and would accommodate 23 homes and 3 commercial units.

4.25 The table below shows the proposed residential mix (which is discussed in further detail in section 10D of this report).

Site 2	1 Bed	2 Bed	3 Bed	4 Bed	Total	%
Courtyard						
LAR	11	23	29	5	68	75%
Terrace						
LAR	0	0	0	4	4	4%
SO	4	6	8	1	19	21%
Total	15	29	37	10	91	100%
% units	16%	32%	41%	11%	100%	

4.26 Site 2 would also accommodate 3 non-residential units with frontages to Lea Bridge Road within the ground floor of the Terrace building.

4.27 The Courtyard building would accommodate cultural and community space at the ground floor level, for which the Council and Community will have the opportunity to influence the final uses and contribute to a successful 15 minute neighbourhood. The table below shows the proposed non-residential space proposed.

Site 2	**Unit**	**Use Class**	**Sqm (GIA)**
Courtyard	Cultural / Community - unit 5	E/F	744
Terrace	Ground floor - unit 6	E	152
	Ground floor - unit 7	E	101
	Ground floor - unit 8	E	155
Total Site 2			1,152

4.28 The final occupiers of the 744sqm of cultural/community space on Site 2 will be agreed following further consultation with the Council and local community. The Applicant advises that one vision for the space could be to offer a hybrid model that:

- Offers a diverse mix of uses, ensuring the centre meets the needs of a wider group of individuals.
- Encourages mixing of age groups.
- Creates dedicated specialist equipment like a kitchen area.
- Provides flexible space that adjusts to the needs of a specific event.
- Potential Activities:
- Communal kitchen/social space
- Activity/exercise space
- Produce shop
- Book/resource/knowledge exchange
- Event space
- Bookable rooms

4.29 The layout has been flexibly designed and could accommodate a range of potential uses (zones could be created for different activities). Within Site 2 the proposed development would create a publicly accessible open space (790sqm) and public realm area between the Courtyard and Terrace buildings. This space would be accessible amenity space for future residents and residents of the wider area.

4.30 Duplex homes are proposed at the lower level of the Terrace building, these would have rear gardens (private amenity space). Officers note that there would also be an area of communal amenity space for residents living in this building at the ground floor level. The image below depicts the amenity space between the Courtyard and Terrace buildings. To the left hand side of the image is a view of the public realm area looking south across Lea Bridge Road. The image to the right is a view looking east along Lea Bridge Road.

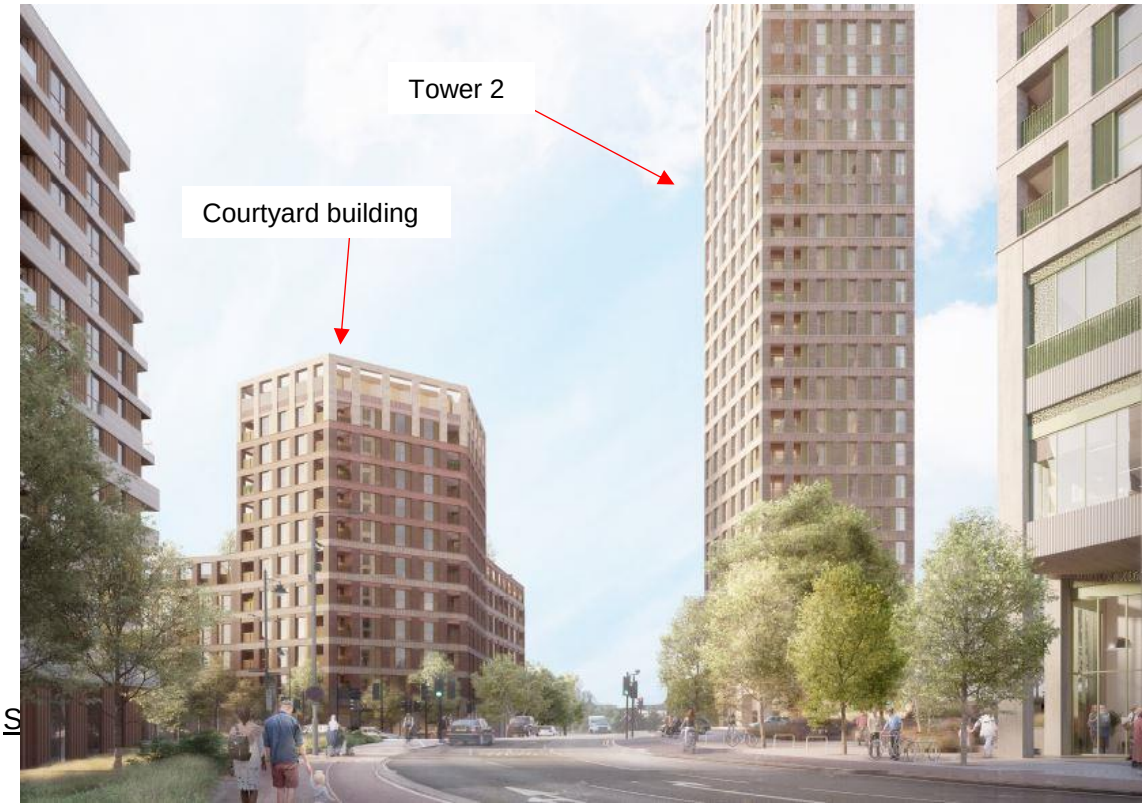
4.31 To the rear of the cultural and community space proposed in the Courtyard building would be ancillary areas for refuse, recycling, cycle storage and 6 Blue Badge parking spaces along with plant and equipment. Access for servicing and to parking spaces would be from Orient Way.

4.32 Residential dwellings are proposed above the ground floor. Communal amenity space is proposed at the first-floor podium level. Further communal amenity space (in the form of roof terraces) is proposed at the 4th, 5th and 6th floor levels.

4.33 The image below shows a computer-generated image of the proposed first floor podium level communal amenity space for the Courtyard building.

4.34 Enhancements to the footway, cycle way and lighting are proposed, and this work would need to be secured through legal agreements. In terms of play space on site 2, there would be 282sqm of play space externally and 596sqm provided in the Courtyard building.

4.35 The image below shows a view looking south along Argall Way, the Courtyard building is indicated, to the right of the picture are images of Tower 2 (background) and Tower 1 (right-foreground).



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4.36 Site 3 would accommodate a single building (Tower 2) rising to 23 storeys within which there would be 122 homes. The table below shows the proposed residential mix (which is discussed in further detail in section 10D of this report).

Site 3	1 Bed	2 Bed	3 Bed	4 Bed	Total	%
SO	12	14	0	0	26	21%
Private	31	57	8	0	96	79%
Total	43	71	8	0	122	100%
% units	35%	58%	7%	0%	100%	

4.37 Site 3 would also accommodate 1 commercial unit (Class E). This would accommodate 218sqm of floor space and be located at the ground floor of the building.

4.38 The lowest level of the building would accommodate cycle storage, plant and equipment. In addition to commercial space at ground level there would also be the entrance to the residential elements of the building, further secure cycle storage and refuse and recycling storage space. Access for servicing would be to the rear (south) of the building, off Orient Way. 3 Blue badge spaces are also proposed to the rear of the building.

4.39 At the first-floor level would be 334sqm of indoor play space and further cycle storage space. The upper levels accommodating residential homes.

4.40 Between Tower 2 and the western boundary of the site would be the cycle lane connecting to Site 1, and Argall Way beyond. The approach to level changes for Site 3 is similar to Site 1. It is proposed to retain the existing level of the cycleway under Lea Bridge Road and using a retaining wall to manage the transition between the car park/servicing level to the rear (south) of the proposed building and the lowest cycleway level.

Environmental Statement

4.41 The application is accompanied by an Environmental Statement (ES). The Council engaged an expert consultant to undertake an independent review of the submitted information. The consideration of the environmental effects of the proposed development is discussed in Section 11.

4.42 The following topics were scoped into the ES:

- Demolition and construction
- Traffic and transport
- Air quality
- Noise and vibration
- Archaeology
- Wind / micro climate
- Daylight/sunlight overshadowing and solar glare
- Ground conditions
- Greenhouse cases
- Effect interactions

Phasing

4.43 For the purposes of collected CIL, this is a phased development and will not relate to the phasing set out above. A specific CIL phasing condition will be applied to permission if approved.

5 RELEVANT SITE HISTORY

A. Planning

5.1 The table below provides a summary of most relevant planning history to this application:

Reference	Description of Development	Decision
202850	Construction of a new Network Rail station entrance at Lea Bridge, including an unmanned ticket hall, provision for future automatic ticket gate lines, a retail unit (proposed as shell and core) and a basement level cycle hub. Installation of bicycle hanger shelters and bicycle stands within the proposed public realm.	Approved

5.2 The table below provides a summary of the planning history of site which are close to the site:

Reference	Site and Description	Decision
153834	Land adjacent to 97 Lea Bridge Road, E17 7QL A mixed use development. Demolition of existing warehouse and construction of 300 residential units (81 x 1 bed, 178 x 2 bed, 28 x 3bed, 1 x 4 bed and 12 x studios) in new buildings ranging in height from 5 to 18 storeys. Provision of (1082.3sq.m) flexible retail space for (use class A1, A2, A3, A5), (810.70sq.m) space for (uses class D1/D2). 60 car parking spaces, 2 car club spaces, 540 cycle parking spaces, refuse store and plant room at basement level with public and private amenity space.	Approved
201659	162 - 168 Lea Bridge Road, Leyton, London, E10 7NU – 'Freya Court Construction of a four storey building comprising 11 self-contained flats (2x1 bed, 8x2 bed and 1x3 bed), associated with refuse/recycling and cycle storage facilities.	Approved

5.3 Other relevant planning history includes the Council's response to a request by the Applicant for a scoping opinion in relation to an environmental impact assessment for the redevelopment of the Site. The contents of the ES are discussed in Section 11 of this report.

5.4 The site's have a history of uses associated with the railway, industry (Sites 1 and 3) and gas works (Site 2). Historically Site one had been used by industrial businesses. The industrial use ceased when Argall Way was created, effectively separating the site from industrial land to the east. It is worth highlighting that the historical use as industrial land is still echoed in the designation of part of site 1 as strategic industrial land. Albeit the industrial used ceased long ago. The emerging Local Plan will see the industrial designation removed.

B. Pre-Application

5.5 Prior to the submission of this planning application, the applicant has been involved in an extensive programme of topic-based meetings and workshops held with Officers of the Council. In addition, the scheme was presented to the Council's Design Review Panel.

5.6 The programme of pre-application meetings covered 26 meetings, and included the following topics:

- Planning,
- Noise, air quality and contamination,
- Design, including layout, scale, massing and materiality,
- Flood risk,
- Trees, landscaping and ecology,
- Highways, including walking, cycling, construction logistics, servicing and parking,
- Housing, including mix, tenure, and standard of accommodation
- Accessibility,
- Planning S106 obligations, including affordable housing and social infrastructure.

5.7 The applicant has also engaged at the pre-application stage with the GLA, TfL, Natural England (NE), Lee Valley Regional Park Authority (LVRPA), the Metropolitan Police and the Centre for Accessible Environments (CAE).

Design Review Panel

5.8 The proposals were peer reviewed by a CABE Design Review Panel. The peer review was held on 29 April 2021.

5.9 To summarise, the panel were strongly supportive of the London Borough of Waltham Forest's aspiration for these sites and believe the design has developed well. Development of the Lea Bridge Stations Sites is vital to unlock local transport links, provide affordable housing and support commercial and community function within this area. The Panel provided advice in relation to height and massing on site 2, public realm, elevational treatment, cycleway, and green infrastructure.

5.10 The Applicant continued to develop the design for a further 5 months, specifically focussing of the advice from the CABE design review panel. The Applicant advises that the final design reflects the optimal arrangement, following exhaustive options testing. The final design has been reviewed and supported by the Council's Urban Design advisor.

C. Enforcement

5.11 None.

6 PUBLIC CONSULTATIONS

Pre-Application Stage

6.1 Early engagement by the Applicant with community groups included:

- Dedicated engagement web site.
- 11 on online surveys attracting over 1,236 responses with a series of publications.
- A printed flyer and a printed newsletter with an enclosed free post feedback form sent to over 5,700 addresses in a distribution area around the site.
- Five social media campaigns.
- Email newsletter updates sent to 416 people who had signed up to the mailing list via the engagement website.
- Engagement with local stakeholders – including near neighbours and local community groups, providing updates on the proposals and offering one-to-one briefings via videoconference.
- Seven meetings organized with local stakeholders – including groups of Lea Bridge residents.
- Pop-up events in Lea Bridge, including two engagement sessions at Lea Bridge Station and one engagement session with local businesses.
- A workshop at Lammas School and Sixth Form.

6.2 A full schedule of all consultation activities, dates, and responses is including within the submitted Statement of Community Involvement.

Planning Application Stage

6.3 Since the submission of the application, the Applicant has continued to engage with the public, including:

- Various blogs on the dedicated engagement web site, highlighting the submitted planning application documentation, seeking feed back on the potential use of community/cultural space,
- New letters and flyers distributed to 5,787 addresses in the area around the site in October and November 2021 (including free phone number, email and postal address for further enquiries).
- Online workshop (held virtually via zoom) in November 2021, along with a public exhibition event (held at the Lea Bridge library).
- Additionally, a meeting was held with residents and Councillors as part of a Ward Forum.

6.4 The statutory consultation began on 26 August 2021. 776 neighbouring occupiers were notified of this planning application.

6.5 8 site notices dated 26 August 2021 were displayed near the site. The site notices set out the key details (as required by statute) needed in order to identify the application reference, the site location, description of development, and the Council's web site where comments could be made.

6.6 The application was also advertised in local press (Waltham Forest Guardian) on 26 August 2021.

6.7 A hard copy of the application was deposited in the Lea Bridge Library.

6.8 The consultation followed the submission of the application and resulted in a total of 182 representations received raising objection to the scheme. One letter of support was also received.

6.1 The Applicant revised the application in response to feedback from consultation responses. The application was then the subject of a second round of consultation on 16 December 2021. Again 776 neighbouring occupiers were notified, 8 site notices erected and an add published in the press. A hard copy was again deposited in the Lea Bridge Library

6.2 In response to the second round of consultation 76 representations were received. One letter of support was also received.

6.3 Of the total, it is noted that 39 objections were duplicates, that is they were made by the same person in relation to the same issues.

6.4 The objections are summarised in the table below:

Objection	Officer Response
Loss of trees	
• The application will result in the loss of a substantial number of trees. • Replacement trees will be small and not compensate for the loss. • Loss of trees will also mean the loss of carbon sequestration, and wont be compensated for with replacement planting. • Loss of trees will result in loss of habitat for wild life. • The Council declared a Climate Emergency and the tree removal is contrary to attempts to reverse climate change. • Trees provide shade, slow wind speeds, and take up water in the flood zone and this would be lost. • Replacement planting may not survive. • One tree for removal is the subject of a Tree Protection Order (TPO) and should not be removed. • There will be a net loss of biodiversity.	See Section 10K (Trees Landscaping and Ecology).
Loss of pocket park and open space	
• The development would see the loss of a pocket park and open space. The park is well used, particularly during the Covid pandemic. • The public realm areas in the proposed are very urban and wont compensate. • The pocket park helps to address noise and air quality issues and would be lost. • The park is permeable and this helps with flooding. • The park is used by the community, and its loss is a loss of community space. • The application pits tree loss against the need for housing. • The pocket park is much closer for local persons with disabilities to use than Lee Valley Regional Park.	See Section 10A (Principle of Development).
Height bulk and scale	

• The height of the buildings is excessive and will be overly dominant in this area. • The heights are greater than were discussed with residents at the pre-application stage. • The height of buildings and close proximity to neighbours on Elm Park Road will impacts on outlook and be over bearing. The rear extensions of houses on Elm Park Road mean the development will very be close to neighbours. • The 5 storey portion of the Terrace building is excessive. • The height and massing of buildings will be an obstacle for birds and bats. • Adopted policy does not permit tall buildings at the site. Emerging policy has yet to be adopted and little weight should be put on this.	See Section: 10A (Principle of Development), 10B (Layout, Scale and Design) and 10G (Neighbouring Amenity)
Views	
• The height of the buildings is excessive and will be overly dominant when viewed from surrounding open space (including the marshes). • Views will be adversely impacted generally. • There will be cumulative impacts from this and other developments. • The colour of materials to be used on the buildings will make them more prominent in views. • The openness of the Greenbelt will be adversely impacted by the development.	See Section: 10A (Principle of Development), 10B (Layout, Scale and Design) and 10G (Neighbouring Amenity)
Flooding	
• The sites are in flood zones, the loss of trees and open space will leave no room for water. • The buildings and hard paved areas will prevent water draining into the ground, exacerbating flood risk. • The footprints of buildings will displace floodwater to neighbouring properties. • Removal of surface water would rely on pumping runoff into the drainage network. Pumps may breakdown over time. • Development should not take place in flood zones or flood plains.	See Section 10J (Flooding and Drainage)
Microclimate impacts	

• The buildings will over-shadow neighbours, including on Elm Park Road. • Elm Park Road properties are closer than the Applicant has identified, therefore impact will be greater. • Sunlight/daylight impacts to surrounding properties is harmful. Benefits don't outweigh the harm. • The sunlight/daylight analysis doesn't identify individual properties. • The tall buildings will create increased wind speeds making public realm areas uncomfortable and posing a danger to cyclists.	See Section 10G (Neighbouring Amenity and Section 11 (Environmental Statement). In relation to the location and exact separation distances to neighbouring properties, the sunlight/daylight assessment has accurately plotted the position of windows, rooms and built form. Wind tunnel testing has been undertaken, mitigation is proposed, subject to this, no objection is raised in terms of wind impacts.
Social Infrastructure	
• The additional population will put pressure on educational, health and sports facilities, and other forms of social infrastructure. • There should be more play space for older children, there is a lack of facilities in the area. The development will accommodate older children when there is already a shortage of space for this age group.	See Section 10O (Social Value and Infrastructure)
Affordable housing	
• Less than 50% of homes (by unit) would be affordable. There is concern over the use of habitable rooms to indicate 50% of housing would be affordable. • Shared ownership units are not affordable to those on low incomes. • The London Affordable Rent units are located on site 2. There is concern over the distribution of affordable housing. • The financial appraisal indicates the affordable housing is unviable without grant funding. There is concern that the affordable housing offer would not be delivered. • Social Rented housing should be included.	See Section 10D (Housing - Tenure and Mix)
Density and overdevelopment	
• The density proposed is excessive, representing an over development of the site. • The scale of development and small size of the sites mean the proposals represent an over development of the site. • Development should be directed elsewhere.	See Section 10E (Standard of Accommodation)

• Cumulative impacts of many developments already approved will worsen impacts.	
Air Quality	
• Dust and other contaminants would be released during the construction phase, adversely impacting health and amenity of near-by residents. • Impacts from Non-Road Mobile Machinery (NRMM) will worsen air quality. • The loss of trees would exacerbate air quality impacts. • The homes would be near the road, and emissions from vehicles would harm existing and future residents. • Emissions from vehicles associated with the development will worsen air quality.	See Section 10M (Environmental Impact) of the report for full details on air quality matters. Conditions are recommended to secure a suite of measures to be implemented during construction to mitigate against air quality impacts. NRMM emissions are controlled and limited by the GLA, and subject to a condition (which is recommended) to ensure compliance with GLA standards no objection is raised.
Consultation	
• The site notice didn't state how residents could contact the Council. • No hard copy of the proposals was made available. • Some residents don't have access to the internet and can't make comments. • Residents should be able to send comments by email or post. • Consultation feed-back at the pre-application stage has been ignored. • The consultation was not long enough to allow time for residents to comment. • Residents have been unable to locate the press add. • There has been a lack of meaningful engagement from the Applicant with residents. Feedback at public consultation events has not been reflected in the proposals.	The consultation adheres to statutory requirements. Consultation involved letters to neighbours, site notices erected at the site, and an advert in the Press. For clarity, the Council's main means of receiving comments is via the Council web site. This communication channel ensures no comments are lost as comments are stored directly with the application on the planning register. Representations made by post are always accepted. In this instance the Council agreed that comments could also be made via email. Although the statutory period for responding to the consultation was 30 days, the Council's accepts comments up until the date applications are reported to the Planning Committee. A hard copy of the planning submission was stored at the Lea Bridge library for each round of consultation. All plans and documentation were published on the Council's web site. 2 rounds of consultation were undertaken, and in each case comments were accepted up until the

	date application was reported to the Planning Committee. The Applicant engaged with the community at the pre-application stage and during the application consultation has followed statutory requirements.
Process	
• The Council has used executive powers to put the proposals into status that are hard to be challenged through democratic routes. • A Councillor now works for the developer.	The Application has been independently assessed by the Local Planning Authority, the GLA and other statutory consultees. No members of the Planning Committee or indeed anyone involved in the assessment or determination of the application have links with the developer. The Council has investigated ways to invest in the area for many years, including enhancements to the station entrance, bringing forward housing (including affordable housing), community and cultural facilities.
Traffic and highway matters	
• Insufficient parking is proposed. • Insufficient drop off and pick up bays are proposed. • The servicing areas are not large enough. • Additional traffic will be generated by the development, worsening congestion. The congestion will prevent access for heavy goods vehicles to existing businesses (adversely impacting of business viability). • Residents may use surrounding streets for parking. • Highway safety will be compromised. • Deliveries also occur in surrounding streets. • Construction traffic will cause congestion.	See Section 10H (Transport and Highways) in relation to concerns over traffic congestion, parking, highway safety, servicing and deliveries. Planning obligations are to be secured to ensure CPZ are reviewed and if necessary further restricted to prevent unauthorised parking. The application is largely car free and measures to improve walking, cycling and the station entrance would be enhanced (including being step free).
Public transport	
• Public transport to the site should be improved.	See Section 10H (Transport and Highways)
Overlooking	
• Overlooking of neighbouring occupiers would occur. • Separation distances to Elm Park Road properties are very close, and window to window distances will allow overlooking.	See Section 10G (Neighbour Amenity) of this report The distance between the proposed buildings and neighbouring properties is

	sufficient to mitigate against any undue loss of privacy. Officers have also considered the separation distances between the blocks and plots proposed within the site.
Noise	
• Noise from construction would be disturbing. Hours of work should be limited. • Noise from the operation of non-residential uses would be disturbing. • Noise from children using the external play area will adversely impact on amenity. The play space is located to close to neighbours and would result in noise and disturbance.	Issues are round noise are addressed in further detail at in Sections: 10E (standard of Accommodation), 10H (Transport and Highways) 10G (Neighbour Amenity) and 10M (Environmental Impact) Conditions are recommended to ensure noise attenuation measures are integrated into each phase of development. Conditions would be imposed on any consent to secure a Construction Logistics Plan, Construction Environmental Management Plan, including measures to control and monitor noise and implement further mitigation measures should these be required. A condition is recommended to prevent noise transmission between residential and on-residential uses.
Construction	
• Noise from construction would be disturbing. • Dust and debris would be emitted during construction adversely impacting on residential health and amenity. • Construction traffic will cause air quality impacts. • Construction may go on for several years, with associated impact adversely impacting neighbours for the same time.	See Section 10H (Transport and Highways)
Quality of accommodation	
• The proposed flats will be poor quality. • Houses not flats should be built. • The external play area is too small and should be relocated. • Housing is too close to the railway line and roads and will be impacted by noise and vibration. • Outdoor play space should not be located on roof terraces (high up).	See Section 10E (Standard of Accommodation)

Demand for development	
• There is no need for the public realm areas. • There is no demand for housing in high rise buildings. • There is not demand for the commercial spaces and they may be left vacant as a result. • Existing vacant buildings should be used rather than these sites.	The sites are identified in the Council's emerging development plan as being appropriate for 2,000sqm of non-residential commercial/community floorspace and residential dwellings. The emerging policy is underpinned by an evidence base. Existing and emerging policy identify demand for housing, and public realm improvements are also encouraged by adopted and emerging policy. Emerging policy is for support for a mix of uses at the site. The Applicant has undertaken market sounding exercise, which identified interest in the proposed non-residential proposed spaces. Existing vacant spaces further away from the site would not be appropriate from a locational perspective, for example commercial spaces complementary to the new station entrance would be best located next to the station (not elsewhere). Similarly, the community and cultural space proposed at Site 2 would be well located in terms of proximity to the future occupiers of the sites and public transport. Officers also note that the Applicant does not control existing vacant off-site locations and would not be able to bring this forward.
Accessibility	
• The sites are divided by roads and are not accessible.	The separation of the sites by roads is a constraint. The Applicant proposes to fund an additional Toucan crossing over Orient Way and there would be upgrades to pedestrian and cycle ways to improve accessibility.
Sustainability	
• Tall building embody significant energy, the materials used and structural support required means that they have an amplified carbon foot print.	See Sections: 10L (Sustainable Design and Energy Efficiency) 10K (Tree, Landscaping and Ecology)

• Tall buildings take more energy to heat and cool, with associated carbon emissions. • The Bio-diversity net gain calculation is inaccurate, and these calculations are inappropriately used. • The development should be carbon neutral.	
Landscaping	
• Insufficient landscaping and open space is proposed	See section 10E (Standard of Accommodation) and 10K (Trees Landscaping and Ecology) Officers are satisfied that there is sufficient space for a successful landscaping scheme to come forward. Amenity space is proposed in the form of private and communal space.
Fire	
• Post the Grenfell Tower fire tall buildings shouldn't be encouraged.	The application is accompanied by a Fire Statement, which has been reviewed by the London Fire Brigade who raised no objection. The Health and Safety Executive has also reviewed the proposals and raised no objection in terms of fire safety.
Water	
• Water consumption has been underestimated and water supply may not cope with the needs of the development.	Thames Water have been consulted and have requested conditions (which are recommended) be imposed on any consent to ensure adequate water infrastructure is in place to meet the needs of the development.
Volume of material	
• The volume of documents and information with the application is designed to prevent a proper understanding of the proposals.	The submission has been informed by national and local validation requirements. The nature of the proposals are such that a simplified submission could not have been accepted.
Contamination	
• The sites are contaminated and there are no firm proposals for remediation. • Site 2 had been used as a gas works and contaminated by products may remain on site.	See Section 10M (Environmental Impact) and Section 11 (Environmental Statement)]
Planning obligations and CIL	
• S06 & CIL funding is not adequately monitored.	The Council has a dedicated S106 monitoring officer, and funds are appropriately monitored and audited. Spending priorities for CIL are set out in the Council's Infrastructure Delivery Plan

	and spending S106 obligations would be secured in any legal agreement.

External Groups

6.5 The following points of objection were made by external groups:

Consultee	Officer Response
The Countryside Charity In summary, the Countryside Charity raised the following concerns:	
• The scale of the blocks for each site are very large and out of scale with surrounding development. With more effective design and some consideration of other nearby sites, the same number of units could be achieved while more green space and trees are retained.	See Section 10B (Layout, Scale and Design)
• The removal of greenspace is highly likely to contribute to increased flooding due to the loss of open green land surface that should naturally drain rainfall. Geographically the sites are on the floodplain of the River Lea. They should remain as permeable land and the trees on them should be retained or a minimum equivalent green space should be found to replace that which will be lost. There are opportunities throughout London including in Waltham Forest to work to reclaim road 'grey' space and every opportunity should be used to reconfigure and reclaim space from the road rather than using greenspace.	See Section 10J (Flooding and Drainage)
• Given the Court of Appeal's judgement on the Bethnal Green Mulberry we believe the proposed felling of a tree with a Tree Preservation Order is not supportable and may be subject to legal challenge.	See Section 10K (Trees Landscaping and Ecology, officer note that Sycamore tree subject to a TPO is neither an ancient or veteran tree
• Thousands of new residents utilising a pick-up/drop-off point on the junction of Orient Way/Lea Bridge Roads, risks a permanent rotation of idling vehicles and dangerous levels of air pollution close to homes, schools and gardens. • There will clearly be more pressure placed on public transport. There is a need to discourage traffic from coming through the area to ensure buses can work effectively. Waltham Forest needs to work with TfL and	See Section 10H (Transport and Highways)

neighbouring boroughs on schemes which discourage car trips. The Community Infrastructure Levy should be used to improve walking, cycling and public transport infrastructure.	
Waltham Forest Civic Society In summary, the WF Civic Society raised the following objections: • It is over development of this small site and will create the problems Tottenham Hale is now in. • 26 storey blocks overlooking the Lea Valley is totally unacceptable as people visit the open space to get away from the urban environment. Woodberry Downs Wetlands, its charm is lost because of massive huge blocks surrounding it. Why should those who can afford a wonderful view ruin the view from the Lea Valley for the thousands who enjoy the open space? • Tower blocks are damaging to the environment because of the amount of the earth's resources they consume and the pollution they create during the construction phase. • This is poor planning as Lea Bridge road is the most congested road in the Borough. Creating these developments will make it even worse or even gridlock it. Assuming residents are not allowed to own a car the online shopping deliveries and the normal services like plumbers and decorators vehicles will just add to this very congested road junction. Even if everything is brought to the flats by bicycle the existing cycle lanes in Lea Bridge road are already at capacity so being able to move around this area will become almost impossible. In addition the extra traffic of what ever type will congest the industrial estate access roads making the businesses less viable and reducing the job opportunities for residents. • The loss of the pocket park shows the Council has no understanding of why it declared a Climate Emergency. The park is an essential green lung in an already highly polluted area and creating homes for more people creates the needs for more open space for them to have a healthy life. The pocket park is a haven of peace in this very urban landscape and must be preserved. • Until the Grenfell Inquiry is complete and the Building Regulations revised and properly enforced tower blocks should no longer be built	See Section 10A (Principle of Development), 10B and 10C of this report See Section 10L (Sustainable Design and Energy Efficiency) See Section 10H (Transport and Highways) See section: 10L (Sustainable Design and Energy Efficiency) and 10M (Environmental Impact)]

• The Site is so close to the recreational area of the Lea Valley, the park will be impacted.	The HSE were consulted on the application, and have provided advice which confirms the acceptability of the scheme from a fore perspective, noting that further approvals will be required at the Building Control stage Planning obligations would be secured on any consent to secure access and biodiversity enhancements to the Park, ensuring the park is sufficiently robust to cope with additional usage associated with future residents who may live in the proposed development.
Save Lea Marshes • This development will not deliver the required genuinely affordable housing. • It is not indicated for tall buildings and is not suitable for tall buildings in terms of its proximity to the Marshes. Further policy is still in draft form. • It will demolish a much loved and well used small wood. • It will not deliver the biodiversity gain which the wood will deliver if left alone and improved • The continued existence of the wood will do more to combat the Climate Emergency and provide more local enjoyment than a few extra scattered trees, assuming they survive planting. • The development is in a tidal and fluvial flood zone and the risk of flooding is implicitly recognised in the measures provided to counter this. • The development is in a floodplain and building on a floodplain is undesirable, especially as we enter a period of greatly increased risk, supposedly recognised by the Council in its declaration of a Climate Emergency and in its earlier report on fluvial flooding. • The development will worsen air quality at a time when air pollution is increasingly recognised as a very severe health hazard.	See Section 10D (Housing and Tenure). See Section 10B (Layout, Scale and Design). See Section 10K (Trees Landscaping and Ecology. See Section 10J (Flooding and Drainage). See Section 10M (Environmental Impact).

• There is no Area Framework and this development renders any Framework irrelevant • The applicants have misrepresented the natural status of the Marshes and tried, erroneously, to claim inherent value attaches to tall buildings. • The applicants have claimed views of buildings improve the visual amenity of the Marshes without citing any policy to justify this claim. National policy states the opposite. Taken to its logical conclusion this argument would claim the Marshes should be surrounded by tall buildings. • The development, contrary to national guidance, will do severe cumulative damage to the visual amenity, openness, permanence and enjoyment of the Marshes, which are a vital natural resource for the community in terms of physical and mental health, recreation and in combatting flooding and the Climate Emergency, declared by the Council.	See Section 10K (Trees, Landscaping and Ecology) See Section 11 (Environmental Statement)
• Raise concern that a Councillor now works for London Square's Housing Association.	The Application has been independently assessed by the Local Planning Authority, the GLA and other statutory consultees. No members of the Planning Committee or indeed anyone involved in the assessment or determination of the application have links with the developer.
In relation to the second round of consultation, the Save Lee Marshes group raised concern that the re-consultation had taken place over the Holiday period.	The timing for re-consultation simply reflects the date revised and further information was received. The Council accepts comments in relation to consultation until applications are presented to Committee (in this case well beyond the expiry of the statutory consultation period.
Argall Business Improvement District (BID) First consultation response: • Raise concern that the planning application will adversely impact on businesses in the BID area. • The development will result in a worsening of traffic congestion, which would impact the efficient operation of businesses in the BID area.	See Section 10H (Transport and Highways)

• The scale of buildings is excessive. • The loss of open space is regrettable. Second consultation response: In summary the Argall BID raised objection to the scheme for the following reasons: • Congestion is already bad at the junction of Argall Way and Lea Bridge Road, through which all traffic serving the Argall/ Lea Bridge area must pass. • During peak periods, the junction is in grid lock, with delays of up to 45 minutes common place for vehicles both accessing and leaving local business premises. • Even a small increase in traffic using this junction as a result of the proposed development will have a significant negative impact on our businesses. • The redevelopment of the Lea Bridge Station Sites for the scale and nature of the development proposed will have a significant adverse impact on the ability of this junction to accommodate an increase in traffic, both during the construction phase and when the development is occupied. • This will also bring additional adverse local environmental impacts through increased noise and disturbance and poorer air quality. • The development would not be meaningfully 'car free'. Each new residential unit will generate trips through a combination of deliveries, taxis, and visitors and with car parking available in surrounding streets that are not part of the CPZ. • Inappropriate off-site car parking along Argall Way and in the neighbouring industrial estates will further impact upon the ability of our businesses to operate effectively. The objection is accompanied by a petition signed by 133 occupiers of nearby businesses.	See Section 10B (Layout, Scale and Design) See Section 10K (Tree Landscaping and Ecology) See Sections: 10H (Transport and Highways) and 10M (Environmental Impact)
Capital Industrial First consultation response: • Capital Industrial owns a number of properties within the Lea Bridge area, including the Leyton Industrial Village and several units at Argall Avenue (forming part	See Section 10H (Transport and Highways)

of the Argall Way Industrial Estate) and Fairways Business Park (part of the Lammas Industrial Estate). • The importance of the Lea Bridge area as an employment location is recognised in both the London Plan and Waltham Forest existing Development Plan, with the area designated as a Strategic Industrial Location (SIL). • The efficient operation of the local highway network is a critical requirement of businesses across Capital Industrial's assets within the Lea Bridge area. • Existing conditions within Lea Bridge and on the local road network are such that there is no capacity available to accommodate increased traffic from new development. Additional road traffic associated with the proposal will exacerbate existing issues. • Concern is raised that the Applicant's Transport Assessment is inadequate. In particular HGV movements have been underestimated. • Future residents crossing the roads would delay traffic. Deliveries to future residents will also delay traffic.	
• Capital Industrial also objects to the application design, which is an excessive overdevelopment of the site, completely out of keeping with the characteristics of the surrounding area.	See Section 10B (Layout, Scale and Design)
Second consultation response: • Existing traffic congestion is bad, and already impedes business operations. Any worsening should be prevented. • There is a long-term upward trend in on-line shopping, and contrary to the applicant's assumptions, this is clearly a permanent and growing phenonium that should be correctly referenced in its TA and assessed accordingly. • The number of online deliveries to residential sites is expected to double in the next 5 years and it is this level of on-site activity that should be included in any assessment of traffic impact at the site. • The applicant also needs to provide information on how deliveries are going to be received at the site. • Concerns are also raised in relation to construction traffic. Congestion on Orient Way may have been underestimated. • CPZ must be strengthened to prevent overspill parking. • A robust delivery and servicing plan must be secured.	See section 10H (Transport and Highways)

• Robust controls over construction management and logistics must be secured. • Reponses to matters raised by the GLA and TfL are not on the web site. Further objection • Deliveries for the residential development will be higher than assessed; and • Routing of construction vehicles – clarification is required as to if the construction traffic would be routed south as per the plan, or distributed in all directions as per the assessment. If all of the vehicles are routed via Orient Way, then there would be a higher impact on pedestrians and cyclists than assessed when compared to a scenario when construction HGV are dispersed.	Officers have checked and can confirm that the Applicant's response to matters raised by the GLA and TfL are located on the Council's web site. See section 10H of this report
Allied Bakeries • The junction of Lea Bridge Road and Argall Way is gridlocked daily and already causing issues for HGVs crossing the junction. There is no alternative access/route to / from Argall Industrial Estate for HGVs. • The proposed development will worsen the capacity issue of the junction of Argall Avenue and Lea Bridge Road, thereby exacerbating the server delays already experienced by Allied Bakeries and other businesses in the area. • The proposed development will generate additional traffic associated with servicing, deliveries, refuse collections, residential deliveries. Vehicular access to all three plots within the proposed development will cross over the footway and the cycleway, which could also cause traffic queuing and give rise to safety issues, as vehicles will need to give way to pedestrians and cyclists. These factors combined will worsen the operation of the junction and significantly impact Allied Bakeries' operations in terms of deliveries and associated costs. • Allied Bakeries is concerned about the impact on the HGV movements during construction, given the existing junction capacity issue and the estimated duration of the construction phase.	See Section 10H (Transport and Highways)

• Any further delay in deliveries caused by the worsening of the operation of the junction will undermine Allied Bakeries' ability to satisfy their customer requirements (with a narrow time window for delivery meaning that a late arrival to a customer will have a knock-on effect). • Further capacity/ congestion and safety issues at the junction as a result of the proposed development will therefore prejudice the ongoing operation of Allied Bakeries and their ability to grow within the SIL, as supported by the London Plan. • It will increase the operational costs associated with additional drivers and HGVs (as it is not possible to extend drivers' hours under the Drivers Working Time Directive). • Policy E5 of the London Plan states: "Development proposals within or adjacent to SILs should not compromise the integrity or effectiveness of these locations in accommodating industrial type activities and their ability to operate on a 24-hour basis. Residential development adjacent to SILs should be designed to ensure that existing or potential industrial activities in SIL are not compromised or curtailed." Its supporting text clarifies that "SILs are the capital's main reservoir of land for industrial, logistics and related uses and are given strategic protection because they are critical to the effectiveness of the functioning of London's economy". • The proposed development fails to meet Policy E5 of the London Plan which seeks to protect the function and operation of SILs and ensures that existing or potential industrial activities are not compromised or curtailed	

7 OTHER CONSULTATIONS

Internal Representations Received

7.1 The table below lists the responses received from the London Borough of Waltham Forest consultees.

LBWF Consultees	Comments
Tree Preservation & Nature Conservation Officer	In summary the Tree Preservation & Nature Conservation Officer (Tree Officer) advised that according to the proposal there would be 3 trees retained and the remainder removed. Whilst such a large reduction in on site trees raises significant concerns, the Tree Officer has acknowledged that the trees need to be removed to facilitate the development proposal and be subject to the submission and implementation of a high-quality scheme of tree replacement and soft landscaping. The land on Site 2 is undulating and some trees simply can't be kept if levels are to be made

	workable for the new development. The sites are tight, and space is needed for the buildings and access. Site 2 is contaminated, and remediation is needed before the sites could be used, and as part of that work some trees would be impacted. The majority of trees to be removed are low quality and relatively young. The Tree Officer advised that it is important to recognise that there are factors which moderate the impact, including an increase in species and diversity of both trees and associated soft landscape planting on site post development. The Tree Officer advised that the replacement planting should be submitted in a well-conceived and detailed soft landscaping scheme. Many of the replacement trees should be significant in size, for instant impact and underpinned with a varied age class of multi – functional soft landscaping to increase biodiversity and amenity on the site where possible. Off-site replacement planting should be undertaken at an early stage, before Autumn 2022, the aim being not to wait until post completion but to plant off site trees early so the trees would have a couple of years to become more established by the time the development is completed. Off-site tree planting funded by the CAVAT value from this site and others securing a 5:1 ratio (new planting to compensate removed trees), with 1 of the 5 being a mature tree. Planting will take place in the Lea Bridge area. The Tree Officer advised that Officers need to weigh these factors in the overall planning balance before coming to a conclusion on the acceptability of tree loss in the context of the overall planning application proposals. The Tree Officer advised that the current soft landscaping concept initially appears to be well-conceived in principle with some good, well-linked soft landscaping ideas. Officers continue to work with the developer to ensure a high quality multi-functional soft landscaping scheme is delivered to increase biodiversity net gain and amenity to the proposed scheme. Planning conditions should be imposed on any consent to ensure the submission, implementation and management of a detailed, high-quality, biodiverse, multifunctional soft landscaping scheme, to include a suitable diversity and number of pertinent habitat boxes.
Lead Local Flood Authority/ Drainage	The site is located partially in Flood Zone 1, 2, and 3. A Flood Risk Assessment (FRA) has been submitted as required. The ground floor levels of the proposed development have been set above the 1,000 year fluvial flood event levels and an assessment of floodplain compensation has been undertaken to demonstrate that fluvial floodwater would not be displaced as a result of the development. This is supported. A Flood Warning and Evacuation Plan (FWEP) will need to be provided, which should be secured by condition. The FRA adequately assesses the risk of flooding from pluvial, sewer, groundwater, and reservoir flooding.

	The drainage strategy proposes to restrict runoff to 2.0 l/s, 3.0 l/s, and 2.0 l/s for sites 1, 2, and 3 respectively, for the 100 year event plus 40% climate change, which is supported. The drainage strategy includes pumped outfalls for surface water drainage due to the site's topography sloping away from Lea Bridge Road which provides the only feasible outfall location. Whilst pumping is not a preferred solution, the drainage strategy includes adequate explanation to justify why pumping cannot be avoided. In terms of SuDS, the drainage strategy proposes green roofs, permeable paving, rain gardens, and rainwater harvesting, which is acceptable. The Sustainability Statement proposes that the proposed dwellings will have a maximum indoor water consumption of 105 l/person/day, in line with the optional standard in Part G of the Building Regulations, and compliant with The London Plan 2021 policy SI.5. The Sustainability Statement notes that three Wat 01 credits are targeted for the non-residential uses on site, with water consumption reduced by 40%, in line with The London Plan 2021 policy SI.5 A contribution is sought towards flood alleviation works along the Dagenham Brook.
Urban Design & Conservation	Please refer to the assessment section of the report.
Heritage	There would be a limited degree of indirect harm arising from the proposed development, with regards to the setting of non-designated heritage assets. This harm will be indirect and will consequently need to be weighed against any public benefits of the wider scheme, so as to be justified.
Business, Investment & Employment	Recommend planning obligations be secured to ensure the aims of policies seeking the creation of employment opportunities and jobs growth are met.
Education	Infrastructure Deliver Plan (IDP) identifies that there is sufficient capacity in local primary schools to cope with additional population at the site. In secondary, it is observed that there is a projected growth in demand which is increased by planned housing growth which will likely result in surplus places being so few that it becomes a risk. This will continue to be monitored and the secondary expansion programme will remain under review to ensure there are sufficient places available to meet the Council's statutory duty. The IDP identifies funding is earmarked for the secondary expansion and funding will also come from the DfE. An issue has been identified in the Lea Bridge Area in relation to a lack of any spare capacity in early years provision. The development is forecast to accommodate 81 children aged between 0 to 4 years, and there is not spare capacity in local nurseries.

	The Council's Childcare Sufficiency Assessment (CSA) for the Lea Bridge area shows evidence of need for full day care and term time provision across all early year age groups. Capacity enhancements in early years is not funded by the DFE, and the IDP identifies S106 as a source for funding. There is an opportunity to undertake refurbishment and minor expansion works at Sybourn Primary School (a maintained school is within a 6 minute walk of Lea Bridge Road station) to increase capacity to accommodate early years at that location.
Parks Development Officer	Request £250,000 towards capacity enhancements on play facilities for older children (over 11 years of age). The contribution needed to bolster play facilities as provision for children in these age groups is not proposed to be provided on site (and insufficient capacity exists in existing play facilities).
Environmental Health – Air Quality	A planning obligation is required to secure funding to be used for the implementation of AQAP measures, maintenance of the AQ monitoring network, predictive AQ modelling, education, research, installation of electric charging points and bike hire scheme or car club feasibility. The Air Quality Assessment (AQA) and Air Quality Neutral Assessment (AQNA) submitted with the application have been reviewed and accepted. A condition is required to ensure non-road mobile machinery (NRMM) is compliant with the NRMM Low Emission Zone requirements and has been registered for use on the site on the NRMM register. An informative is recommended to advise the Applicant about the requirements for control of Dust and Emissions during Construction and Demolition. A condition is required to secure full details of the proposed mitigation measures for impact on air quality and dust emissions, in the form of an Air Quality and Dust Management Plan (AQDMP). A further condition to ensure odours from any commercial kitchen are mitigated. An informative is recommended to advise the Applicant about the scope of information that is required to be included in the AQDMP.
Environmental Health - Noise	Recommend conditions be imposed on any consent to secure a CEMP and CLP. Hours of use for non-residential elements must be controlled by condition. A condition is also required to limit noise from plant and equipment. A condition is required to ensure adequate sound insulation is installed between residential and non-residential uses. The noise levels to balconies and flats have been assessed and is acceptable.

Environmental Health - Contaminated Land	Recommended conditions be imposed on any consent to ensure an acceptable remediation strategy is secured and implemented. Further conditions are required to obtain a verification report to confirm remediation has been successful, and to ensure there will be no harm from asbestos.
Housing	In summary the housing advisor advised that demand for affordable housing in the London Affordable Rent (LAR) tenure is greatest for families (who need larger units). There should be an emphasis to deliver a mix with a high proportion of larger units in the LAR tenure. Site 2 has a good mix of both rented and shared ownership occupiers, with all large 4 bed homes set aside for LAR. It was noted that the Applicant proposes 50% of units (by habitable room) would be affordable. This is an acceptable approach as it facilitates larger family sized units within the LAR tenure. It is acknowledged that large, intermediate and private market units can be difficult to sell, impacting on viability. A greater proportion of smaller units in the intermediate and private tenure is therefore accepted. Having the affordable units in the blocks proposed means they are easily transferred from a legal point of view, and in a position where the Housing Association can control the entire area that it is managing. The larger family homes have been focused through the design process on the lower density buildings, to enhance the service available to families and ensure access to outdoor communal space is as easy as possible.
Highway Development	The following is required <u>Public Highway</u> Site 1 • Two stopping up orders • Two land transfers Site 2 • One stopping up order • One S38 agreement Site 3 • One stopping up order <u>Site 1</u> • Renewal of the footway on all frontages of the site including Lea Bridge Road, Argall Way. • Renewal and repositioning of the cycle track on Lea Bridge Road and Argall Way and any accommodation works in relation to the traffic signals • Construction of the rerouted cycle track along Network Rails boundary fence. • Construction of a dropped kerb to facilitate vehicular access on Argall Way

	• Review of the waiting and loading restrictions on Lea Bridge Road and Argall Way • New lighting design <u>Site 2</u> • Renewal of the footway on all frontages of the site including Lea Bridge Road and Orient way • Construction of the rerouted footway on Orient Way • Renewal of the cycle track along Lea Bridge Road and Orient Way • Construction of a dropped kerb to facilitate vehicular access on Orient Way • Review of the waiting and loading restrictions on Lea Bridge Road and Orient Way • New lighting design • Construction of a new Toucan crossing on Orient Way <u>Site 3</u> • Renewal of the footway on all frontages of the site including Lea Bridge Road and Orient way • Renewal of the cycle track on Lea Bridge Road and Orient way • Construction of the rerouted cycle track along Network Rails boundary fence. • Repositioning of the width of the footway and cycle track along Orient Way as discussed and agreed with Highways at the pre application stage • Construction of the repositioned footway and cycle track along Orient Way • Construction of a dropped kerb to facilitate vehicular access on Orient Way • Review of the waiting and loading restrictions on Lea Bridge Road and Orient way • New lighting design • Construction of a new Toucan crossing on Orient Way Works will be carried out by the Council and funded by the developer Conditions are required to secure a CLP, CEMP, DSP, highway condition survey, SuDS, waste strategy, wayfinding, lighting and materials.
Transport Policy	In summary, the Transport Policy Officer provided the following advice: Car Parking: The 'car-free' principle of the development is welcomed though Blue Badge only car parking spaces are provided for residents, Site 1 contains 3 spaces, Site 2 includes 6 spaces and Site 3 provides 3 spaces. Pre-application discussions on the quantum of parking spaces to be provided considered policy coupled with the likely uptake of spaces (considering the location), the public transport in the immediate vicinity of the site and the impact on the public realm and concluded that the quantum of spaces proposed is appropriate. Further detail should be provided within the Delivery and Servicing Plan (DSP) to detail the on-site delivery and servicing management processes that will ensure that Blue Badge parking spaces can be accessed at all times, including whilst servicing activity is taking place to ensure that no

	vehicles must wait on the public highway and or block pedestrian and cycle infrastructure. The provision of short stay cargo bike parking spaces to encourage deliveries by this mode are welcomed. We welcome commitment to the London Plan standards for EV Charge Points, with application of 80% passive and 20% active electric vehicle charging points. Cycle Parking: The quantum of cycle parking accords with London Plan standards. Further detail is required including dimensioned drawings to demonstrate that the cycle stores are in accordance with the LCDS Chapter 8 standards. This may be satisfied by a planning condition. Pedestrian and Cycle Access: The development has the benefit of direct access from Cycleway 23 and the Black Path Route which run across the boundaries of the sites. It is considered that the of high quality of cycle parking and direct access to these routes will aid the uptake of cycling at the development. Public Transport: The scheme proposes to deliver an improved site access to Lea Bridge Station which is welcomed. Given the proximity to Lea Bridge Station and several other public transport options trips generated by the proposed development are expected to dissipate quickly across the network and will not have a noticeable impact.
Planning Policy	Funding of SAMMS and SANG mitigation for Epping Forest SAC would need to be secured in order to comply with the Habitat Regulations.
Waste	Conditions are required to ensure suitable waste and recycling is provided.
Sustainability and Energy	As mentioned previously, using SAP12 factors, the overall development exceeds the on-site reduction target of 35%. Looking in more detail, Waltham Forest policies currently require an on-site emissions reduction of 35% for non-residential developments. Here, the non-residential element achieves an on-site reduction of 46%, while the residential achieves 58% (well above the target). Conditions are recommended to ensure the target is met and the non-residential units achieve BREEAM ‘Excellent’. The Energy report confirms that it is not feasible to connect to an existing DHN, but as the development is within an HNPA a community heating system is proposed. The nearest proposed heat network is the Upper Lea Valley network (around 800m away). The development is to be designed to facilitate a potential future connection should one become available during the operational lifetime of the building. The development will be provided with heating and hot water via a communal heat network, served by air source heat pumps. A solar PV installation is also proposed which is acceptable.

	A condition is required to ensure domestic water use is limited to the target rate. A further condition is required to ensure the residential elements are constructed to achieve not less than HQM 'three star, with performance indicators of at least three for Costs and at least two for Wellbeing and Footprint'. A contribution of £514,846 is required to off-set residual carbon emissions.

External Representations Received

7.2 The table below lists the responses received from External consultees.

External & Statutory Consultees	**Comments**
Sport England	The site is not considered to form part of or constitute a playing field as defined The Town and Country Planning (Development Management Procedure) (England) Order 2015 (Statutory Instrument 2015 No. 595), therefore Sport England has considered this a non-statutory consultation. This application falls within the scope of the above guidance as it relates to a residential development of 300 or more residential units. Sport England's established Sports Facilities Calculator (SFC) can help to provide an indication of the likely demand that will be generated by a development for certain sports facility types. Consideration should be given by the Council to using the figures from the Sports Facility Calculator for informing the level of any financial contribution if indoor sports provision was to be made through a S.106 agreement.
Environment Agency	The previous land use at this site suggests the potential presence of contamination. As the site is situated in a vulnerable groundwater area within Source Protection Zone 2 these proposals need to be dealt with in a way which protects the underlying groundwater. As the site is situated in a vulnerable groundwater area within Source Protection Zone 2 these proposals need to be dealt with in a way which protects the underlying groundwater. This means that all risks to groundwater and surface waters from contamination need to be identified. No infiltration based sustainable drainage systems should be constructed on land affected by contamination as contaminants can remobilise and cause groundwater pollution (e.g. soakaways act as preferential pathways for contaminants to migrate to groundwater and cause pollution). Piling or any other foundation designs using penetrative methods should not cause preferential pathways for contaminants to migrate to groundwater and cause pollution. A Detailed Quantitative Risk Assessment (DQRA) for controlled waters using the results of the site investigations with consideration of the hydrogeology of

	the site and the degree of any existing groundwater and surface water pollution should be carried out. This increased provision of information by the applicant reflects the potentially greater risk to the water environment. The DQRA report should be prepared by a "Competent Person" e.g. a suitably qualified hydrogeologist. Following the DQRA, a Remediation Options Appraisal should be completed to determine the Remediation Strategy. The verification plan should include proposals for a groundwater monitoring programme to encompass regular monitoring for a period before, during and after ground works e.g. monthly monitoring before, during and for at least the first quarter after completion of ground works, and then quarterly for the remaining 9-month period. Flood risk standing advice: The proposed development falls within Flood Zones, which is land defined in the planning practice guidance as being at risk of flooding. The EA recommend that the Council view standing advice in full before making a decision on this application. The advice includes the need for sequential and exception testing. All new residential development are required to achieve a water consumption limit of a maximum of 125 litres per person per day. Following the second round of consultation the EA advised that they had no further comments to make.
Greater London Authority	In summary the GLA provided the following advice: Land use principles: The residential, commercial and community uses on this Opportunity Area site are supported. The site has been identified for such uses by the Council through a longstanding regeneration programme for the Lea Bridge area, as per the emerging site allocation. Considering green infrastructure and other benefits offered by the proposals, including the re-provision of over 700 sq.m. green public space, and subject to confirmation of a biodiversity net gain, an increase in trees, and the required Urban Greening Factor; the loss of existing public open green space may be acceptable in this instance. A very small part of the site is within a Strategic Industrial Location; however, it is proposed to be de-designated in the emerging Local Plan and the lack of industrial re-provision is therefore acceptable. Housing: 50% affordable housing, split equally between London Affordable Rent and shared ownership, which would meet the requirement for the fast track viability route on public sector land, subject to being secured without public subsidy and meeting other policy requirements. Urban design: The site is not identified as appropriate for tall buildings in the adopted Local Plan; however, it is in the emerging Local Plan, and the existing context includes tall buildings of up to 18 storeys. Subject to addressing all functional and environmental impacts, whilst the proposals would not fully comply with London Plan Policy D9, the heights could be acceptable. A very low level of harm to the significance of a heritage asset has the potential to be outweighed by public benefits, subject to their final confirmation. The number of adjacent properties experiencing limited

	adverse impact to daylight/sunlight/ overshadowing is low, and sufficient levels would be retained. Transport: Further information required on Healthy Streets, construction impacts, public transport impacts, parking, vehicle access, delivery and servicing, and travel planning. A contribution towards Legible London and TfL Cycleways signage should be secured. Climate change/environment: Before Stage 2, further information is required on the energy strategy; whole life cycle carbon; circular economy; green infrastructure; and sustainable drainage and water use.
Centre for Accessible Environments	The proposals were referred to the Centre of Accessible Environments (CAE) to review and assess the design for compliance with accessibility requirements. The CAE requested various amendments, which were made by the Applicant through an iterative process, with revised plans being referred back to the CAE who, in summary, advised that the response from design team has addressed the queries raised. The CAE advised that 1:20 plans and elevations of kitchens and bathrooms. and 1:50 unit layouts should be provided ahead of commencement when the detailed design has been further progressed. A further comment was made in relation to storage areas for washing machines. The advice is that putting a washing machine in the utility cupboard is acceptable if easily accessible and not at the back of a deep cupboard. The requirement being that the proposal ensure a minimum 850mm clear door opening widths etc and minimum 1200mm approach. Conditions are recommended to ensure the detail requested is submitted prior to commencement.
Historic England (Greater London Archaeological Advisory Service)	In summary GLASS provided the following advice: The three sites lie in the Lea Valley Archaeological Priority Zone and riverside activity from multiple period may be present, shown by Roman site at the Lea Bridge Road Waterworks and of the. In the mid nineteenth century the sites were on or close to the local "bungalow shanty town" which has local social history value and where contemporary archaeological remains may survive. I consider an archaeological condition discharged in 2 stages could provide an acceptable safeguard. This would comprise firstly, evaluation to clarify the nature and extent of surviving remains, followed, if necessary, by a full investigation.
Historic England	On the basis of the information available to date, we do not wish to offer any comments.
London Fire Brigade.	No objection.

	An undertaking should be given that, access for fire appliances as required by Part B5 of the current Building Regulations Approved Document and adequate water supplies for fire fighting purposes, will be provided.
Metropolitan Police – Design Out Crime Prevention Officer	Recommended a condition be imposed to ensure each phase of development achieves a Certificate of Compliance to the relevant Secure by Design Guide(s). Informatives are also recommended to advise the Applicant where to find information on requirements and contact details for the Met Police. There is a desire to ensure playspace is accessible by all tenures and in this instance, this would require residents to be able to move between the blocks. Permeability between different buildings is not encouraged because of the risks it poses to residents who live there. The only way to mitigate the risks is to ensure access is suitably monitored and controlled. CCTV in vulnerable areas alongside SBD compartmentation (e.g. data logged destination lifts and floor by floor access control) will limit to a degree where people can gain entry to and will hopefully help to capture/identify misuse. Other considerations to limit the permeability misuse would be a booking system that only allows access on the fob for specific times and ensuring that children using the amenity spaces are in the company of an adult (that needs verification when they turn up to use the lift). It should be noted that even with this in place, due to the fire egress strategy, this permeability does potentially allow people from another block to have free access from the amenity space up and down the stair cores by the amenity spaces which they would not normally have access to.
Natural England	Natural England (NE) initial response raised concern over the Habitats Regulation Assessment (HRA). The Applicant revised the HRA & Appropriate Assessment (AA), which was then referred back to NE for consideration. Mitigation is required to prevent adverse impact to the Epping Forest Special Area of Conservation (SAC) in relation to control of construction traffic routes and funding towards delivery of Suitable Alternative Natural Greenspaces (SANG) and Strategic Access Management and Monitoring (SAMM). NE advise that they are now happy with the package that is being put forward. Following the discussions and updated information, NE are satisfied that the specific issues raised in previous correspondences relating to this development have been resolved, and NE consider the following to provide appropriate avoidance and mitigation measures: • Appropriate SAMM payments for each housing unit coming forward as part of the development • Appropriate SANG payments to secure the SANG is delivered as outlined in the most recent SANG Strategy (v0.9 of the HRA and v0.3 of the SANG strategy).

Thames Water	In summary Thames Water requested conditions to ensure: • A Source Protection Strategy detailing, how the developer intends to ensure the water abstraction source is not detrimentally affected by the proposed development both during and after its construction • No construction shall take place within 5m of the water main • No piling shall take place until a piling method statement (detailing the depth and type of piling to be undertaken and the methodology by which such piling will be carried out, including measures to prevent and minimise the potential for damage to subsurface water infrastructure, and the programme for the works) • No development shall be occupied until confirmation has been provided that either:- all water network upgrades required to accommodate the additional flows to serve the development have been completed; or - a development and infrastructure phasing plan has been agreed with Thames Water to allow development to be occupied Informatives were requested to advise the Applicant of the following: • Warning the Applicant that the development is in close proximity underground waste water assets and sewers. • Waring the Applicant that the development is within15m of underground waste water assets • The Applicant will need to obtain a trade effluent consent for any effluent discharge. • Thames Water would recommend that petrol / oil interceptors be fitted in all car parking/washing/repair facilities. • Drainage serving kitchens in commercial hot food premises should be fitted with a grease separator. In response to the second round of consultation Thames Water simply reiterated earlier advice.
Transport for London	In summary TfL provided the following advice: • Footways are narrow in places due to on-footway cycle lanes. The applicant should seek to ensure that all footways are at least a minimum of 2 metres wide. Noting the additional demand that the proposed development will place on the pedestrian network, the applicant should undertake a pedestrian capacity assessment that follows the Pedestrian Comfort Guidance for London. • As a result of this assessment, further changes and highway works may be necessary to improve the pedestrian crossings and the general balance of space between vehicles, cyclists and pedestrians. The development should ensure that there is sufficient space for pedestrians from all walks of life to safely and comfortable navigate through the sites and to key trip attractors, such as Lea Bridge Station and the bus stop. • Given the excellent cycle connections, the proposals should seek to enhance the cycling network both within and beyond the red line boundary to support facilitating a higher cycling mode share at this site, and create direct connections to existing cycling infrastructure were possible • A new toucan crossing is proposed on Orient Way.

	Noting that the proposed crossing is to be signalised, further engagement with TfL, who control all signals within London, during the detailed design of this crossing will be required. A contribution towards new Legible London and TfL Cycleways signage should be secured, in line with London Plan Policies D8, T2 and T3. An outline Construction Logistics Plan (CLP) has been provided. The details of the construction methodology and logistics should be further developed to ensure that pedestrian and cyclist movement and safety is maintained throughout the construction period, in line with the Mayor's Vision Zero approach. Cycle parking provision should be designed in accordance with London Cycle Design Standards (LCDS), also referenced within Policy T5. Twelve disabled person parking spaces are proposed, which is equivalent to 3.5% of dwellings having access to a disabled person parking space from the outset. This is acceptable. Noting the site's proximity to a bus stop, and the planned upgrades to Lea Bridge Station, which will introduce step-free access to platforms, the provision may be supported on this occasion.
Health and Safety Executive	No objection.
Lee Valley Regional Park Authority	That the London Borough of Waltham Forest be informed that the Authority recognises the principle of residential development on the Lea Bridge Station sites and does not object to the current application providing that: • Section 106 contributions can be agreed for the delivery of the enhancements, habitat works and access improvements needed for the adjacent open green spaces and designated sites of the Regional Park, which are considered necessary to mitigate for the increased recreational use of the Regional Park area; • Further consideration is given to reducing the height of the towers proposed for Sites 1 and 3 to reflect the scale and height of recently permitted and built development in the locality; The Authority would wish to see the following conditions attached requiring: • A lighting strategy, in accordance with the 'Institution of Lighting Professionals (2018), Bats and Artificial Lighting in the UK, Guidance Note 08/18', both for the construction period and once the sites are occupied to take account of the adjoining Park areas and designated sites; • Further detail on the ecological corridor to ensure it connects through to other habitats and spaces and includes native planting and the inclusion of more varied and a larger number of integrated roost features; • Provision of a Construction and Environmental Management Plan to ensure best practice construction measures and to protect nearby watercourses and open spaces within the Park from impacts including noise, dust, surface runoff, and other pollution;

	• Further detail on improvements to offsite walking and cycling routes and crossing points including wayfinding to the Park from the new Station Plaza; • Detail on the interpretation to be provided to new residents about both on site and off site ecological features, to explain their purpose and value particularly in relation to the Regional Park, and its nationally important SSSI at Walthamstow Marshes and the regionally important Water Works Nature Reserve.
Network Rail	Any works which impact the Station, including the operation and access to the Station, are to be communicated with the train operating company (Greater Anglia), and access to and from the Station is to be maintained at all times in times of operation and emergencies Any proposals for works to be delivered at the Station are to be communicated and coordinated with NR and Greater Anglia to ensure that the relevant approvals and processes are adhered to in terms of Station access arrangement and regulatory consents if applicable. Network Rail also advised that the Applicant would need to liaise with that organisation to address the following potential matters: • There are potentially buried services crossing under the railway tracks. Some of the services may be owned by Network Rail or Statutory Utilities that may have entered into a contract with Network Rail. • Proximity of the development to the Network Rail infrastructure and boundary fence and adequate space for future maintenance of the development. • Environmental pollution (Dust, noise etc.) on operational railway. • Risk from Overhead Live Electricity (OLE) and damage to railway infrastructure such as OLE and Catenary cables. • Potential impact on the adjacent railway infrastructure from the construction activities. • Proximity of the development to the Network Rail infrastructure and adequate space for future maintenance of the development. • Trespasses and unauthorised access through an insecure or damaged boundary fence. • Encroachment on the boundary fence, interference with sensitive equipment, space for inspection and maintenance of the railway infrastructure. • Collapse of lifting equipment adjacent to the boundary fence/line. • Piling adjacent to the railway infrastructure if any. Concerns with ground movement affecting the track geometry and surrounding ground and structure stability. • Collapse of structural temporary works elements on to Network rail assets and property. • Impact of potential ‘flash-over’ from metallic materials near Network rail assets and property. • Structural stability and movement of Network Rail Assets which will affect the Track Support Zone. • Effect of windows along the elevation of railway lines • Interference with the Train Drivers’ vision • Errant vehicle onto the railway land.

London Underground Infrastructure Protection	I can confirm that London Underground Infrastructure Protection has no comment to make on this planning application. This site is adjacent to Network Rail assets. Please contact them directly to query what affect, if any, the proposals will have on their railway.

8 DEVELOPMENT PLAN

8.1 Section 70(2) of the Town and Country Planning Act 1990 (as amended) sets out that in considering and determining applications for planning permission the local planning authority must have regard to:

(a) the provisions of the development plan, so far as material to the application;
(b) any local finance considerations, so far as material to the application; and
(c) any other material considerations.

8.2 Section 38(6) of the Planning and Compulsory Purchase Act (2004) makes it clear that 'if regard is to be had to the development plan for the purpose of any determination to be made under the planning Acts the determination must be made in accordance with the plan unless material considerations indicate otherwise'. The development plan for Waltham Forest comprises the Core Strategy, the Development Management Local Plan, and the London Plan. The NPPF does not change the legal status of the development plan.

The London Plan (2021)

8.3 The London Plan (2021) is the overall strategic plan for London, and it sets out a fully integrated economic, environmental, transport and social framework for the development of the capital. Objectives and Policies relevant to this application include:

- GG1 Building strong and inclusive communities
- GG2 Making best use of land
- GG3 Creating a healthy city
- GG4 Delivering the homes Londoners need
- GG5 Growing a good economy
- GG6 Increase efficiency and resilience
- SD10 Strategic and local regeneration
- D1 London's form, character and capacity for growth
- D2 Infrastructure requirements for sustainable densities
- D3 Optimising site capacity through the design-led approach
- D4 Delivering good design
- D5 Inclusive design
- D6 Housing quality and standards
- D7 Accessible housing
- D8 Public realm
- D9 Tall Buildings

- D11 Safety, security and resilience to emergency
- D12 Fire Safety
- D13 Agent of Change
- D14 Noise
- H1 increasing housing supply
- H4 Delivering affordable housing
- H5 Threshold approach to applications
- H6 Affordable housing tenure
- H10 Housing size mix
- S1 Developing London's social infrastructure
- S2 Health and social care facilities
- S4 Play and informal recreation
- S5 Sports and recreation facilities
- E2 Providing suitable business space
- E9 Retail, markets and hot food takeaways
- E11 Skills and opportunities for all
- HC1 Heritage conservation and growth
- HC3 Strategic and local views
- HC5 Supporting London's culture and creative industries
- HC6 Supporting the night-time economy
- G1 Green Infrastructure
- G4 Open Space
- G5 Urban Greening
- G6 Biodiversity and access to nature
- G7 Trees and woodlands
- G9 Geodiversity
- SI1 Improving air quality
- SI2 Minimising greenhouse gas emissions
- SI3 Energy infrastructure
- SI4 Managing heat risk
- SI5 Water infrastructure
- SI6 Digital connectivity infrastructure
- SI7 Reducing waste and supporting the circular economy
- SI12 Flood Risk Management
- SI13 Sustainable drainage
- T1 Strategic approach to transport

- T2 Healthy Streets
- T3 Transport capacity, connectivity and safeguarding
- T4 Assessing and mitigating transport impacts
- T5 Cycling
- T6 Car Parking
- T6.1 Residential parking
- T6.2 Office parking
- T6.3 Retail parking
- T6.5 Non-residential disabled persons parking
- T7 Deliveries, servicing and construction
- T9 Funding transport infrastructure through planning
- DF1 Delivering of the Plan and Planning Obligations

Waltham Forest Local Plan Core Strategy (2012)

8.4 The Waltham Forest Core Strategy (2012) was adopted on 1st March 2012. The Core Strategy contains 16 policies designed to deliver the Council's vision for the physical, economic, environmental and social development of the Borough. These policies will be used to direct and manage development and regeneration activity up to 2026.

8.5 The policies considered relevant to this application are as follows:

- CS1: Location and Management Growth
- CS2: Improving Housing Quality and Choice
- CS4: Climate Change
- CS5: Enhancing Green Infrastructure and Biodiversity
- CS6: Promoting Sustainable Waste Management and Recycling
- CS7: Developing Sustainable Transport
- CS8: Making Efficient Use of Employment Land
- CS10: Creating More Jobs and Reducing Worklessness
- CS13: Promoting Health and Well Being
- CS15: Well Designed Buildings, Places and Spaces
- CS16: Making Waltham Forest Safer

Waltham Forest Local Plan Development Management Policies (2013)

8.6 The Local Plan Development Management Policies Document was adopted in November 2013. This sets out the borough-wide policies that implement the Core Strategy and delivering the long term spatial vision and strategic place shaping objectives. There is an emphasis on collaboration and a positive proactive approach to reaching a balance agreement that solves problems rather than a compromise that fails to meet objectives. The following policies are relevant in this case:

- DM1: Sustainable Development and Mixed Use Development
- DM2: Meeting Housing Targets
- DM3: Affordable Housing Provision
- DM5: Housing Mix
- DM7: External Amenity and Internal Space Standards
- DM10: Resource Efficiency and High Environmental Standards
- DM11: Decentralised and Renewable Energy
- DM13: Co-ordinating Land use and Transport
- DM14: Sustainable Transport Network
- DM15: Managing Private Motorised Transport
- DM16: Parking
- DM17: Social and Physical Infrastructure
- DM18: Strategic Industrial Locations
- DM19: Borough Employment Areas
- DM21: Improving Job Access and Training
- DM23: Health and Well Being
- DM24: Environmental Protection
- DM29: Design Principles, Standards and Local Distinctiveness
- DM30: Inclusive Design and the Built Environment
- DM31: Tall Buildings
- DM32: Managing Impact of Development on Occupiers and Neighbours
- DM33: Improving Community Safety
- DM34: Water
- DM35: Biodiversity and Geodiversity
- DM36: Working with Partners and Infrastructure

9 MATERIAL PLANNING CONSIDERATIONS

<u>The Town and Country Planning (Environmental Impact Assessment) Regulations 2017.</u>

9.1 The regulations came into force on 16th May 2017. The aim of Environmental Impact Assessment is to protect the environment by ensuring that a local planning authority when deciding whether to grant planning permission for a project, which is likely to have significant effects on the environment, does so in the full knowledge of the likely significant effects, and takes this into account in the decision making process.

<u>The Town and Country Planning and Infrastructure (Environmental Impact Assessment) (Amendment) Regulations 2018.</u>

9.2 Minor updates to the EIA Regulations 2017.

Northern Olympic Fringe draft Area Action Plan (Preferred Options 2011)

9.3 The purpose of the draft Area Action Plan (AAP) is to set out a broad planning and development guidance to deliver positive, managed change that harnesses the potential of the Olympics and its Legacy and delivers ambitious, appropriate and sustainable development.

9.4 The Northern Olympic Fringe is an area at the heart of the Lower Lea Valley and adjoins east London's important green network. The Application sites lie within the North Olympic Fringe, a location identified for housing and growth. The draft AAP envisaged the re-opening of Lea Bridge station, as being important to the promotion of Lea Valley character area as an attraction for people. The Application site is identified as a landmark location in the draft AAP. This document was not adopted, however nor was it formally withdrawn. It remains capable of representing a material consideration.

Lee Valley Regional Park Authority Park Development Framework Strategic Policies (2019)

9.5 The Lee Valley Regional Park Authority is not a planning authority, but it has a range of powers and duties in relation to the statutory planning process. Section 14(1) of the Park Act requires the Authority to prepare a plan setting out proposals for the future management and development of the Regional Park. The Authority will apply the Development Framework Strategic Policies (2019) policies to guide development within and adjacent to the Park. The policies help the LVRPA in its role as a statutory consultee on development plans and planning applications.

Department for Communities and Local Government Technical Housing Standards – Nationally Described Space Standard (2015)

9.6 This standard relates to the internal space within new dwellings and is suitable for application across all tenures. It sets out requirements for the Gross Internal Area (GIA) of new dwellings at a defined level of occupancy as well as floor areas and dimensions for key parts of the home including bedrooms and storage.

The London Plan Housing Supplementary Planning Guidance (2016)

9.7 This supplementary planning guidance (SPG) focuses on affordable housing and viability. It includes four distinct parts: background and approach; the threshold approach to viability assessments and detailed guidance on viability assessments.

London Plan Affordable Housing and Viability SPG (2017)

9.8 This supplementary planning guidance (SPG) focuses on affordable housing and viability. It includes four distinct parts: background and approach; the threshold approach to viability assessments and detailed guidance on viability assessments.

Waltham Forest Local Plan Urban Design SPD (2010)

9.9 This document has the aim of raising the quality of design within the Borough. The core principles underlying the advice in the SPD are Inclusive Design and the social model of disability.

Inclusive Housing Design SPD (2011)

9.10 The core principles underlying the advice in the SPD are Inclusive Design and the social model of disability.

Waltham Forest Affordable Housing & Viability SPD 2018

9.11 This supplementary planning document (SPD) has been prepared to provide further detailed guidance on affordable housing and viability. The document provides further guidance on how the Council will take viability into account when considering planning applications and what supporting information applicants will be required to produce. The Council does not intend to apply this guidance retrospectively to any planning applications being processed or determined.

Waltham Forest Planning Obligations SPD (2017)

9.12 This document seeks to provide transparent, clear and consistent information for the negotiation of planning contributions.

Historic England Advice Note 4: Tall Buildings (2015)

9.13 The purpose of this Historic England advice note is to support all those involved in dealing with proposals for tall buildings in implementing historic environment legislation, the relevant policies in the National Planning Policy Framework (NPPF), and the related guidance given in the Planning Practice Guidance (PPG).

Historic England Advice Note 3: The Setting of Heritage Assets (2017)

9.14 This document sets out guidance on managing change within the settings of heritage assets, including archaeological remains and historic buildings, sites, areas, and landscapes.

Conservation of Habitats and Species Regulations (as amended) 2017

9.15 The Conservation of Habitats and Species Regulations (as amended) 2017 (the Habitat Regulations) lay down rules for the protection, management and exploitation of important habitats and species. The objective is to protect biodiversity through the conservation of natural habitats and species of wild fauna and flora.

9.16 The 2017 Habitat Regulations are one of the pieces of domestic law that transposed the land and marine aspects of the Habitats Directive (Council Directive 92/43/EEC) and certain elements of the Wild Birds Directive (Directive 2009/147/EC).

Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

9.17 This document explains the changes made to the Habitats Regulations 2017 as a result of Brexit. Most of the changes involved transferring functions from the European Commission to the appropriate authorities in England and Wales. All

other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant. The obligations of a competent authority in the 2017 Regulations for the protection of sites or species do not change.

Natural England – Epping Forest Special Area of Conservation

9.18 Natural England issued interim advice on 6th March 2019 in relation to the Epping Forest Special Area of Conservation (SAC) Mitigation Strategy and the Habitats Regulations. The advice applies to all residential development within the extended Zone of Influence, which includes the Local Planning Authority's area. The development is therefore liable to mitigation measures on any impact on the Epping Forest SAC which will be secured by an appropriate financial contribution.

Circular 06/05

9.19 This Circular provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England. It sets out statutory obligations and their impact within the planning system.

European Site Conservation Objectives: Supplementary advice on conserving and restoring site features

9.20 This document provides Natural England's supplementary advice about the European Site Conservation Objectives relating to Epping Forest SAC.

The Town and Country Planning (Environmental Impact Assessment) Regulations 2017.

9.21 The regulations came into force on 16th May 2017. The aim of Environmental Impact Assessment is to protect the environment by ensuring that a local planning authority when deciding whether to grant planning permission for a project, which is likely to have significant effects on the environment, does so in the full knowledge of the likely significant effects, and takes this into account in the decision making process.

The Town and Country Planning and Infrastructure (Environmental Impact Assessment) (Amendment) Regulations 2018.

9.22 Minor updates to the EIA Regulations 2017.

National Planning Policy Framework (2021)

9.23 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied. It is a material consideration in planning decisions. It contains a presumption in favour of sustainable development, described as at the heart of the framework.

9.24 For decision-making the NPPF (2021) states that local planning authorities should approach decisions on proposed development in a positive and creative way. The NPPF goes on to state that decision-makers at every level should seek to approve applications for sustainable development where possible.

9.25 The NPPF gives a centrality to design policies; homes should be locally led, well-designed, and of a consistent and high quality standard. The NPPF states that in assessing applications, local planning authorities should have regard to the recommendations made by design review panels, and states that Development that is not well designed should be refused.

9.26 The specific policy areas of the NPPF considered to be most relevant to the assessment of this application are as follows:

- Delivering a sufficient supply of homes
- Building a strong, competitive economy
- Promoting healthy and safe communities
- Promoting sustainable transport
- Making effective use of land
- Achieve well-designed places
- Meeting the challenge of climate change and flooding
- Conserving and enhancing the natural environment
- Conserving and enhancing the historic environment

Shaping the Borough – London Borough Waltham Forest Draft Local Plan (Consultation Draft April 2021)

9.27 The draft Local Plan (draft WFLP Part 1: Strategic Policies (2020 - Reg 19) underwent Regulation 18 public consultation between July 2019 and September 2019 and consultation on the Submission version between 26th October 2020 and 14th December 2020. The Plan was submitted to the Secretary of State on 30th April 2021. This is an early stage of the plan making process and less weight will be given to its policies. The draft new Local Plan proposes to be a "combined" document comprising 12 thematic policies and a revised spatial strategy, splitting the borough into North, South and Central Waltham Forest.

9.28 Policy 9 (South Waltham Forest) identifies Lea Bridge as a priority area for regeneration and good growth, proposals will be supported where they direct development towards identified Strategic Locations of Lea Bridge and Church Road. The draft policy identifies the location for 3,000 new homes.

9.29 Of significance, the draft Local Plan clearly sets out the Council's growth agenda which seeks to facilitate the sustainable delivery of 27,000 new homes and 46,000sqm of employment floorspace over the next plan period and seeks to maximise the redevelopment potential of Lea Bridge Station Sites Site Opportunity Location; including supporting improvements of Lea Bridge Station in accordance with the Strategic Site Allocations DPD; and/ or as part of masterplan proposals.

Shaping the Borough – London Borough Waltham Forest Draft Site Allocations Document (Regulation 19 Draft November 2021)

9.30 The Site Allocations Document (draft WFLP Part 2: Site Allocations Document (2021 - Reg 19)) seeks to ensure The London Borough of Waltham Forest promotes the right development in the right places at the right scale, creating attractive sustainable neighbourhoods as well as new economic opportunities. Consultation started on this version of the draft WFLP Part 2 in early November 2021 and will continue until January 2022.

9.31 When adopted, the Site Allocations Document will represent Part 2 of the Council's Local Plan. It complements the Draft Local Plan. When adopted, the Site Allocations Document will represent Part 2 of the Council's Local Plan. It complements the Draft Local Plan. It identifies key or strategic sites including the Lea Bridge Station sites.

9.32 The proposed land allocations in this document seek to address the needs of the local community over the next 15 years, including the delivery of new high quality, genuinely affordable homes, new jobs and employment space, thriving cultural neighbourhoods and town centres, infrastructure provision, preserving the

environment and addressing climate change. The emerging site allocation notes for the 3 Lea Bridge Station sites that development will be supported where it would deliver **a minimum of 300 new homes (50% affordable housing), 3,000 sqm of non-residential floorspace including community and cultural space, a new station entrance and open space**.

Local Finance Considerations

9.33 Local Finance Considerations are a material consideration in the determination of all planning applications. Local Finance Considerations can include either a grant that has been or would be given to the Council from central government or money that the council has received or will or could receive in terms of Community Infrastructure Levy (CIL).

i) There are grants which have been or will or could be received from central government and/or the Mayor of London in relation to this development.

ii) The Council has not received but does expect to receive income from LBWF CIL in relation to this development.

iii) The Council has not received but does expect to receive income from Mayoral CIL in relation to this development.

10 ASSESSMENT

10.1 The main issues which shall be addressed within this report are:

A) Principle of Development;

B) Layout, Scale and Design of the Development;

C) Impact on Heritage Assets;

D) Housing – Tenure and Mix;

E) Standard of Accommodation;

F) Amenity;

G) Accessibility;

H) Transport and Highways;

I) Flooding;

J) Waste Management;

K) Trees, Landscaping and Ecology

L) Sustainable Design and Energy Efficiency

M) Environmental Impact;

N) Safety and Security;

O) Social Value and Infrastructure;

11 The Environmental Statement;

13 Planning Obligations;

13 Additional Considerations; and

14 Conclusions

A. PRINCIPLE OF DEVELOPMENT

Change of use away from open space

10.2 London Plan (2021) Policy G1 relates to green infrastructure and states that London's network of green and open spaces, and green features in the built environment, should be protected and enhanced. London Plan (2021) Policy G4 states that development proposals should not result in the loss of protected open space, and where possible should create areas of publicly accessible open space, particularly in areas of deficiency.

10.3 The WFLP Core Strategy (2012) policy CS5 relates to green infrastructure and states that the Council will endeavour to protect and enhance green infrastructure. The WFLP Development Management Policies (2013) DM12 relates to open spaces and states that (designated) parks will be retained.

10.4 The three Sites were historically industrial land, cleared when the road junction was enlarged, and have been identified for development by the Council through a longstanding regeneration programme for the Lea Bridge area, which is being formalised through the emerging site allocation.

10.5 Sites 1 and 3 currently comprise small areas of open space with grass and some trees, which slope down to the railway line. None of the spaces on any of the sites are formally designated as a park.

10.6 The majority of Site 2 (0.62 hectares) is an open space, with grass, semi-mature trees, and pathways. These areas of open space would be lost, with a new green public open space of 790 sqm proposed on Site 2. There would be small areas of hard landscaped public open space on the other sites, including an entrance plaza to the new station on Site 1.

10.7 The proposals would not align with London Plan (2021) Policy G1 or WFLP Core Strategy (2012) policy CS5. However, it is noted that none of the open spaces are protected, and the site is not in an area identified as deficient in open space, so the proposals would not be contrary to London Plan (2021) Policy G4 or WFLP Development Management (2013) policy DM12.

10.8 The draft WFLP Part 1: Strategic Policies Policy 9 (South Waltham Forest) identifies Lea Bridge as a priority area for regeneration and good growth. The re-opening of the station has improved the accessibility of the area and has acted as a catalyst for regeneration. It is a sound principle of spatial planning to direct new housing to locations where public investment in new infrastructure, such as railway stations, has been made. The draft policy seeks to maximise the redevelopment potential of Lea Bridge Station Sites Site Opportunity Location; including supporting improvements of Lea Bridge Station in accordance with the Strategic Site Allocations DPD; and/ or as part of masterplan proposals. Paragraph 216 of the NPPF states:

"From the day of publication, decision-takers may also give weight to relevant policies in emerging plans according to:

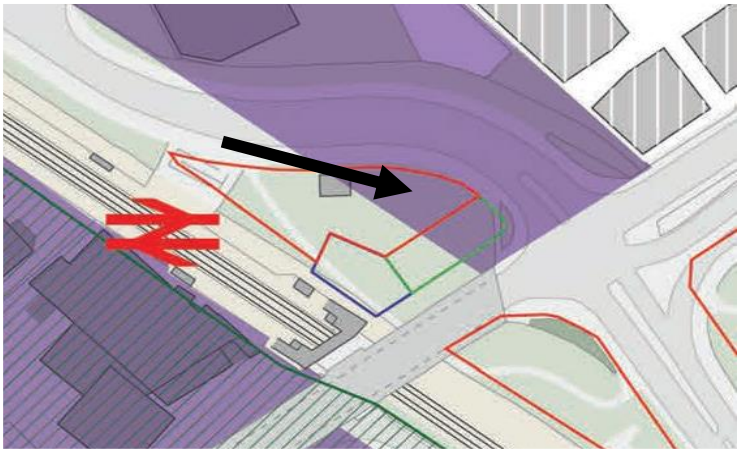
- The stage of preparation of the emerging plan (the more advanced the preparation, the greater the weight that may be given);
- The extent to which there are unresolved objections to relevant policies (the less significant the unresolved objections, the greater the weight that may be given); and
- The degree of consistency of the relevant policies in the emerging plan to the policies in this Framework (the closer the policies in the emerging plan to the policies in the Framework, the greater the weight that may be given)."

10.9 The emerging Local Plan has been consulted at the Regulation 19 stage, and some weight can be placed on this. While the emerging policy is not yet adopted, the proposals do align with the direction of travel.

10.10 While there is no objection in principle to the change of use, the impacts in terms of tree loss and other matters are also carefully considered (See Section 10K of this report).

Change of industrial use and agent of change

10.11 A small part of Site 1 alongside Argall Way is within the Rigg Approach Strategic Industrial Location (SIL). The SIL extends across Argall Way to the boundary of the Motion development as a projecting area of SIL from the main area to the north-west.



10.12 London Plan (2021) Policy E4 states that a sufficient supply of land and premises to meet current and future demands for industrial and related functions should be provided and maintained. Any release of industrial capacity should be focused in locations that are (or are planned to be) well-connected by public transport, walking and cycling and contribute to other planning priorities including housing (and particularly affordable housing), schools and other infrastructure.

10.13 London Plan (2021) Policy E5 states that Strategic Industrial Locations (SIL) should be managed proactively through a plan-led process, exploring opportunities to intensify and make more efficient use of land in SIL.

10.14 It also states that development proposals within or adjacent to SILs should not compromise the integrity or effectiveness of these locations in accommodating industrial type activities and their ability to operate on a 24-hour basis. Residential development adjacent to SIL should be designed to ensure that existing or potential industrial activities in SIL are not compromised or curtailed, with particular attention to layouts, access, orientation, servicing, public realm, air quality, soundproofing and other design mitigation in the residential development; in line with London Plan (2021) Policy D13 on Agent of Change.

10.15 London Plan (2021) Policy E7 sets out the requirements for industrial intensification, co-location and substitution, which should only be considered as part of a plan-led process of consolidation and intensification and not through ad hoc planning applications.

10.16 WFLP Core Strategy (2012) policy CS8 states that the Council will facilitate sustainable economic growth by ensuring the Borough has a healthy supply of land

for industrial uses by protecting SILs. WFLP Development Management Policies (2013) policy DM18 relates to SIL and states that to ensure SIL is protected only industrial, storage and distribution, ancillary offices and catering facilities for workers will be allowed in SIL.

10.17 It is understood that the road layout was altered in the late 1990s, resulting in Argall Way passing through this projecting area of SIL; however, the SIL boundary was not amended in subsequent updates of the Local Plan. The emerging Local Plan rectifies this, removing the projecting area from the SIL designation, including Argall Way and the area within Site 1.

10.18 Although the proposals to change the designated industrial land to residential use are not fully in accordance with the existing development plan, it is proposed to de-designate the area in the emerging Local Plan. It is also of note the existing SIL within Site 1 contains no industrial uses (there would be no loss of employment floor space). Additionally, the site is of limited size, such that it's use for industrial type uses is constrained. In this case, there are material considerations that would justify a divergence from industrial policy to allow the proposed uses on Site 1.

10.19 Site 2 is immediately adjacent to a SIL to the south, occupied by the rear wall of a food distribution warehouse the equivalent of approximately 3/4 residential storeys. Vehicular access to the warehouse is from the south (opposite) side of the building, approximately 80 metres away. An easement to the north of the warehouse means the proposed residential Courtyard building is separated by approximately 9m from the rear wall of the warehouse.

10.20 There are no openings in the norther elevation of the existing food warehouse building (limiting noise break out). The proposed homes which would have elevations facing the warehouse are either duel or triple aspect (affording adequate outlook away from the warehouse). The Courtyard building sets back from the warehouse as the building rises. Given the situation, Officers consider the relationship between the uses is acceptable.

10.21 Concerns have been raised by local businesses to ensure that the introduction of sensitive uses (i.e., residential occupiers) might mean that industrial businesses will come under pressure to close or stop operating in any sort of way that might impact residential amenity. However, in this case, officers are satisfied that the distances separating existing business operations and future residential homes is sufficient to prevent adverse impacts on amenity. Conditions should be imposed on any consent to ensure that the residential facades are adequately soundproofed to prevent noise from vehicles disturbing future residents.

10.22 Objectors have raised concern that traffic associated with the development will adversely impact on the function of businesses in the SIL. This is discussed in Section 10H and 11 of this report. The Applicant has carefully considered traffic generation both during construction and operation of the development and increases in vehicle movements are not expected to be significant in the context of the Environmental Impact Assessment Regulations.

10.23 There are conditions recommended to ensure construction traffic is appropriately controlled. The Council's Highway team are aware of the need to take a co-ordinated approach to the various other developments in the wider area to ensure cumulative impacts are mitigated. The development, when operational, would be largely car free, obligations are recommended to ensure Care Parking Zones (CPZ) and reviewed and reinforced if necessary. Conditions are recommended to ensure servicing of the sites is appropriately managed to avoid disruption to traffic. Subject to the conditions and obligations which are recommended, no objection is raised in terms of the developments impact on business operations in the area of the site.

Residential

10.24 The NPPF (2021) states that the supply of large numbers of new homes can often be best achieved through planning for larger scale development. London Plan (2021) Policy SD1 supports the growth potential of Opportunity Areas and gives an indicative capacity of 21,000 new homes and 13,000 jobs in the Lee Valley Opportunity Area. Policy H1 supports the redevelopment for surplus publicly owned site and sets Waltham Forest a ten-year housing target of 12,640. between 2019/2020 and 2028/29.

10.25 At the local level the WFLP Core Strategy (2012) policy CS1 relates to the location and management of growth and encourages development that will benefit the wider community including housing, employment, leisure and community uses at sites including sites within the Northern Olympic Fringe.

10.26 WFLP Core Strategy Policy CS2 and WFLP Development Management Policies (2013) Policy DM2 support the delivery of new homes in the borough, directing housing to location in the northern Olympic fringe.

10.27 Shaping the Borough – London Borough Waltham Forest Draft Local Plan (Submission Draft April 2021) draft policy 12 confirms the Council's commitment to delivering 27,000 new homes by 2035. This includes maximizing opportunities to increase the supply of homes on all suitable, appropriate and available sites and encouraging residential intensification.

10.28 The site has been identified in the LBWF Draft Local Plan Part 2, Site Allocations Document. The emerging allocation for the site states that development will be supported where it provides:

- Minimum of 3300 new homes (50% affordable housing)
- 2,400 sqm of non-residential floorspace including community and cultural space
- New station entrance
- Open space

10.29 The proposal would deliver 345 new homes of which 50% would be affordable (by habitable room). The application would make a valuable contribution towards meeting the borough's housing targets. The principle of residential use in this location is acceptable.

Office, retail, community and cultural space

10.30 The London Plan (2021) policies SD6, SD7, SD8 and SD9 support mixed use development in town centres. The London Plan (2021) takes a takes a strong town centres first approach, to make the most of the agglomeration benefits and accessibility of town centres and to ensure sustainable patterns of development. WFLP Core Strategy (2012) policy CS14 also seeks to ensure town centre uses, including retail, office, community, leisure, and cultural uses are directed to designated Town centres.

10.31 London Plan (2021) policy SD7 and WFLP Development Management Policies (2013) policy DM26 require a sequential test to be undertaken, where applications for main town centre uses are proposed out of centre. These policies also require an impact assessment on proposals for retail, leisure and office uses that are not in accordance with the development plan.

10.32 The proposal involves developing town centre uses in an out of centre location. As such the applicant has undertaken a sequential test, concluding that there is no sequentially preferable site that could accommodate the whole scheme. An impact assessment has also been undertaken, finding that the relatively limited floorspace would serve a local need only and would not compete with any allocated centre within the Borough.

10.33 Officers agree with the applicants' findings and support the type and quantum of non-residential uses proposed. The development proposes 345 new (and additional) dwellings. The future population living in the residential accommodation at the site would have significant spending power over the existing situation at the site, and it is reasonable to conclude future residents would spend within businesses on the sites. Consideration has also been given to the community and cultural space, which would likely to be well used by the local community, while not diverting trade from retailers on designated town centres. London Plan (2021) policy S1 supports development proposals that provide high quality, inclusive social infrastructure that addresses a local or strategic need (such as the community and cultural space proposed on Site 2.

10.34 While there are spaces which could be occupied by retailers, these are modest in size. The location of potential retail space on Site 1 would likely attract trade from users of the train station (as opposed to diverting trade from designated centres).

10.35 The GLA advised that London Plan (2021) Policy E2 supports the provision of a range of business space, in terms of type, use and size, at an appropriate range of rents, to meet the needs of micro, small and medium-sized enterprises and to support firms wishing to start-up or expand. London Plan Policy E3 states that planning obligations may be used to secure affordable workspace at rents maintained below the market rate for that space for a specific social, cultural or economic development purpose.

10.36 The Council has considered the need for affordable workspace in this location, however in this instance the spaces don't lend themselves to affordable workspace, lacking the size and locational requirements for this type of space. Provision of affordable workspace at decreased rents would adversely impact on financial viability, with a corresponding impact to the level of affordable housing provision, for which there is demonstrable need.

10.37 Subject to a condition to ensure the range of uses are split as proposed then officers do not consider the proposal would result in any unacceptable impact to the vitality or viability of designated town centres.

B. LAYOUT, SCALE AND DESIGN OF THE DEVELOPMENT

Policy context

10.38 Paragraph 126 of the NPPF (2021) highlights that the creation of high-quality buildings and places is fundamental to what the planning and development process should achieve. Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities.

10.39 Paragraph 132 of the NPPF (2021) states that design quality should be considered throughout the evolution and assessment of individual proposals. Paragraph 134 goes on further to state that permission should be refused for development of poor design. In determining applications, great weight should be given to outstanding or innovative designs which promote high levels of sustainability.

10.40 London Plan (2021) Policies D1, D2 and D3 seek to ensure that new developments are well-designed and fit into the local character of an area. New buildings and spaces should respond to the form, style and appearance to successfully integrate into the local character of an area, with a positive relationship with the natural environment and respect and enhancement of the historic environment.

10.41 WFLP Core Strategy (2012) policy CS15 requires development to be of a high standard and design quality that responds to the local context and the character of the surrounding area, while improving the way places function by promoting local distinctiveness and a strong sense of place.

10.42 WFLP Development Management Policies (2013) Policies DM29 and DM30 seek a high standard of urban and architectural design principles for all new development. Current planning policies require developments to make the most efficient use of the land and to optimise density through design led approach.

Building Layout and Spatial Configuration:

10.43 London Plan (2021) policy D3 states that optimising site capacity means ensuring that development is of the most appropriate form and land use for the site. The design-led approach requires consideration of design options to determine the most appropriate form of development.

10.44 The proposal has been the subject of an extensive design-driven investigation of the site's redevelopment potential and includes consideration of the existing site characteristics and constraints in a comprehensive appraisal including its landscape setting, distinct topography, existing trees, ecology, access, as well the surrounding area.

10.45 The master plan is underpinned by 4 key principles:

- Public space: Create a new public open space at the heart of the scheme with, Healthy Streets, improved cycle routes, a net increase in trees and spaces for the community to use.
- Sense of arrival: Visibly link the Station plaza and new public green space.
- Building heights: Consideration of building heights and location, rising from the Terrace building, to the Courtyard buildings and Towers 1 and 2.
- Appropriate scale and building form. Tie each building into its specific context with an appropriate built form.

10.46 The proposed layout is supported. Sites 1 and 3 successfully respond to the level changes from road level to the cycleway connecting the parcels under the bridge. On Site 1, a station plaza is proposed as a generous access route to the new station. The proposed building on Site 1 would have active frontages along Lea Bridge Road, with the residential entrance at the corner of the site (Lea Bridge Road Argall Way).

10.47 The community and cultural space would be placed around the new public green space on Site 2 to encourage outdoor spill out space and create enjoyable environments in which to dwell. There is an aim to maximise active public realm and create a new centre for Lea Bridge.

10.48 The typical residential floor plan aims to maximise the number of dual and triple aspect homes. This partly informs the geometry of the buildings and improves the quality of the accommodation.

10.49 The proposal seeks to create height variation across the buildings to tie into the neighbouring Elm Park Road and increases in height towards the station in the west. This creates a clear hierarchy across the proposal and with neighbouring

buildings. The courtyard and terrace block have further height variation that create visual interest and react to local micro-climate analysis.

10.50 The green public space on Site 2 provides amenity and play space oriented towards Lea Bridge Road and fronting onto the potential community/cultural space. An area of land connecting Site 2 to Elm Park Road has been incorporated into the scheme providing an ecological corridor.

10.51 Service areas are appropriately located and proposed to be softened with planting.

Design Scrutiny

10.52 London Plan (2021) policy D4 states that the design of development proposals should be thoroughly scrutinised by borough planning, urban design, and conservation officers. In addition, boroughs and applicants should make use of the design review process to assess and inform design options early in the planning process. The proposals in this application have been peer reviewed through by a design review panel (DRP).

10.53 Key points raised by the DRP are discussed in Section 5 (Relevant History) section of this report.

Tall Buildings

10.54 The Towers on Sites 1 and 3 would be 26 storeys and 23 storeys in height respectively. The Courtyard building would rise to 11 storeys and as such these buildings would be considered tall buildings.

10.55 Policy D9 of the London Plan (2021) relates to tall buildings and states that tall buildings should be developed in locations that are identified as suitable in development plans.

10.56 Policy CS15 of the WFLP Core Strategy (2012) directs tall buildings (10+ storeys) to key growth areas such as Blackhorse Lane, Northern Olympic Fringe, Walthamstow Town Centre and Wood Street. The policy states that appropriate sites will be identified as part of the development of Area Action Plans. Elsewhere within the Borough, tall buildings are considered inappropriate.

10.57 Policy DM31 of the WFLP DM Policies (2013) also relates to tall buildings and provides the Council's expectations for tall building proposals that meet the locational requirements set out in WFLP Core Strategy (2012).

10.58 The site is within the North Olympic Fringe, and the Northern Olympic Fringe AAP (Preferred Option 2011) identifies the general Lea Bridge area as a gateway site. However, the site is not specifically identified for tall buildings. The proposed height of the buildings don't accord with existing tall building policy in this regard. It is however important to note that the WFLP Core Strategy (2012) was adopted approximately 9 years ago. Since that time further evidence has been gathered that indicates that the Lea Bridge Station sites are suitable for tall buildings.

10.59 Policy 4 of the draft WFLP Part 1: Strategic Policies identifies Lea Bridge as a location for growth, involving new homes and jobs with supporting infrastructure. Policy 57 relates to tall buildings and states that tall buildings may be supported in locations such as growth areas (subject to various tests).

10.60 It is also noted that WFLP Part 2: Site Allocations Document (2021 – Reg 19) includes at draft allocation SA07 – Lea Bridge Station Sites 1, 2 and 3, proposals for the site to be allocated for at least 300 homes and 3,000sqm of non-residential floor space. Accommodating that level of development at the 3 sites would entail

significant built form. Whilst not yet adopted, the direction of travel in emerging policy is for support for tall buildings at the Lea Bridge Station Sites.

10.61 The draft Waltham Forest Skyline Study (2020) also examines the suitability of the Lea Bridge Station sites identifies it as being a location where tall buildings could be appropriate.

10.62 To understand if a tall building could be acceptable at the site, consideration has been given to whether the proposed buildings could meet the various criteria set out in London Plan (2021) policy D9. This policy requires development proposals for tall buildings to address various matters, including visual impact, functional impact, environmental impact, and cumulative impacts.

Tall Buildings - Visual impact

10.63 A townscape assessment was provided in the application submission. This identifies five townscape character areas and tests the visual impacts to the character of these areas:

- Character Area 1: Leyton Infrastructure and light industrial,
- Character Area 2: Walthamstow Marshes, Hackney Marshes & Lee Valley Park,
- Character Area 3: Lea Bridge,
- Character Area 4: Leyton Industrial Park; and
- Character Area 5: Lower Clapton.

10.64 The view testing included an assessment of the proposals in 19 views. Factors considered to understand impacts include the geographic extent of any potential effect (local, Borough wide, regional or national), whether the effect would be direct or indirect, permanent or temporary. The Applicant has comprehensively tested long-range, mid-range and immediate views.

10.65 The Council engaged an independent expert to review the Environmental Statement. The review established that the testing undertaken in the Environmental Statement (ES) is robust and categorisation of effects is accurate.

10.66 The testing identifies that there would be some minor adverse effects during the construction phase, arising from the appearance of demolition and construction activities. Officers note that the visual impacts from construction impacts are not permanent and taking account of mitigation (such as hoarding and adherence to a construction management plan) the impact can be reduced. The susceptibility of the areas affected is also relevant. The ES concludes (and officers agree) that the impacts would not be significant during the construction phase in the context of the Environmental Regulations.

10.67 Set out below is a summary of the effects on the 5-character areas during the operational phase.

Character Area 1: Leyton Infrastructure and light industrial

10.68 The Character Area 1 is characterised by a corridor of commercial, light industrial and transport related usages. The Proposed Development would introduce further tall and large development into the view and would be experienced visually in the context of existing tall buildings and structures on the skyline, although the scale of the proposals would be greater.

10.69 The design composition of the buildings comprises of a tripartite façade, with a base, middle and a crown section. With regards to Tower 1, the façade of the building is formed of a mix of brick and precast concrete. The light-coloured materials respond to the surrounding character area which is largely formed of light industrial and commercial units. The materiality is accompanied by metalwork

which references the earthy and natural colours of the surrounding parkland and marshes.

10.70 The façade principles of Tower 2 use a mix of brick and precast concrete; however the tone of the materiality uses slightly darker natural shade, which also references from the surrounding industrial nature of the character area. The brickwork and precast concrete are accompanied by golden coloured metal work. The crown of Towers 1 and 2 are a feature of the towers and would be made up of a faceted metal parapet between the precast piers which forms an architectural feature at the top of the Towers.

10.71 The façade of the Courtyard building is primarily built from bricks, which vary in colour between the middle and the base and crown of the building. The base and crown of the building use a red and brown mixed brick whereas the middle of the middle is primarily formed of red brick. The tones of the brickwork and the brown coloured metalwork of the proposals references the materials and colours of residential development along Clementina and Perth Road.

10.72 The ES identifies the Proposed Development as an improvement to the character, appearance and function to the area. There would be no undue visual impact to the character area.

Character Area 2: Walthamstow Marshes, Hackney Marshes & Lee Valley Park

10.73 Character Area 2 is characterised by a collection of open spaces forming part of Walthamstow Marshes, Hackney Marshes and Lea Valley Park.

10.74 The open nature of the spaces allows for long views to be gained of the surrounding townscape, which includes tall buildings and structures.

10.75 The view testing shows that the proposals would form a new feature within the backdrop of the view and would be partially obscured by mature vegetation. The Proposed Development would be experienced in the context of existing tall buildings and structures on the skyline, although the scale of the proposals would be greater.

10.76 The form and massing of the blocks would be simple, appearing as several separate buildings and creating an interesting skyline. Towers 1 and 2 form the tallest elements within the views and mark the location of the Lea Bridge Station and act as a gate as gateway to the Borough.

10.77 Over this distance, the architecture of the Proposed Development will be perceptible. The main façade of the buildings would be composed of bricks, with the crown of the blocks using a mix between brick, concrete or fluted concrete. Changes in the use of materiality colour and detailing creates variation, further distinguishing the buildings from one another and reducing the overall perception of mass. There would be no undue visual impact to the character area.

10.78 Concerns have been raised in objections over the impact to the marshes and park. The image below shows a blue outline (wire line) of the proposals in one view.

10.79 The proposals would be seen in the backdrop of the view and would introduce several new blocks of tall and large development into the townscape. Officers note that the blocks would be viewed in the context of existing tall and large development along Lea Bridge Road. The proposals would be at the periphery of those who are viewing them. People using the mashes would be focussing primarily on recreational activities (as opposed to the view towards Lea Bridge).

10.80 The Lee Valley Regional Park Authority is not a planning authority, but it has a range of powers and duties in relation to the statutory planning process. Section 14(1) of the Park Act requires the Authority to prepare a plan setting out proposals for the future management and development of the Regional Park.

10.81 Lee Valley Regional Park Authority Park Development Framework Strategic Policies (2019) Policy L3 is clear that the Lee Valley Regional Park Authority will require full landscape and visual assessments to be made of all proposals for tall buildings for sites both within and adjacent to the Park. The Applicant has prepared a full landscape and visual assessment.

10.82 In terms of the change to the view, it must be acknowledged that there are already existing tall buildings and structures that can be seen. This informs the value of the baseline and moderates the sensitivity to change. The proposed buildings rise above the treeline, and Officers are of the view that the proposal would cause an impact to the limited views of the proposals when looking out of the park. It should be noted that the view in question already feature built form (the Motion development), and there are many other areas around the periphery of the park which feature large buildings, which make up part of the character to areas beyond the boundary of the park. Users of the park will be primarily engaged in leisure activities, and it should be noted that views within the park occur in more than solely towards the application site.

10.83 The Applicant's assessment (as set out in the ES) does not identify any significant adverse impacts. Officers note that there is an industrial estate between the application sites and the Park, and this in addition to the distance between the sites and the park are considered to reduce weight that might be afforded to any indirect

impact that could be caused by the visual presence of the upper portions of the proposed buildings. Materiality and form are also relevant, which in this case are considered to tend to soften the appearance of the proposals. In summary, the proposal is not considered to result in any significant adverse impact in the context of the EIA regulations and no objection is raised in this regard.

Character Area 3: Lea Bridge,

10.84 Character Area 3 is largely characterised by fine grain development forming part of the Lea Bridge district. The setting already includes development of varying scales, age, and architectural styles, including that of the large and tall buildings. The Proposed Development Site is within the Upper Lee Valley Opportunity Area, Northern Olympic Fringe Housing Zone and the Lea Bridge & Leyton Masterplan Regeneration Vision Area emphasising the changing character of the area.

10.85 The view testing demonstrates that there will be limited inter-visibility of the Proposed Development throughout the character area, with the main visibility being from areas of open space and along Lea Bridge Road.

10.86 From longer views along the road, these demonstrate that the proposals would be peripheral feature. Where visible, the proposal would be seen over some distance.

10.87 In closer views to the Sites from along Lea Bridge Road the testing demonstrates that the proposal would become an increasingly prominent feature on the skyline. Where visible, views would be largely restricted to the upper halves of the building, with the remaining lower elements being screened from view by existing development. The 26 storey Tower 1 and 23 storey Tower 2 would introduce a new scale of development into the view and appear as slender and articulated tall buildings. The sky gaps gained from the separation of the sites and the proposed materiality of the towers helps to break down the visual massing.

10.88 View testing was undertaken to understand the impact of the Proposed Development from the neighbouring fine grain residential terraces along Elm Park Road. From this location, the Proposed Development will replace an existing gap with buildings. The massing forming part of the proposed Terrace building has been designed to respond to the adjacent Elm Park Road terraces, largely being three storeys and rising to five storeys behind. Whilst the scale of the blocks is greater than the existing two-story development along Elm Park Road, the block arrangement and the setback of the taller part of the building reduces the visual impact.

10.89 Concerns have been raised in objections in relation to separation distances between existing and proposed building, and this issue is discussed in more detail at Section 10G of this report.

Character Area 4: Leyton Industrial Park

10.90 This Character Area is characterised by a number of commercial and light industrial units forming part of the Leyton Industrial Park. The existing townscape is varied and generally formed of small to medium commercial and light industrial units which are utilitarian in appearance. Land to the wider west includes tall and large development forming part of the existing Motion Development (Beck Square).

10.91 The proposal would have no unacceptable impact on the appearance of this part of the townscape or the way it functions. The centre of the application site is over 650m from the Character Area, and the impact of the proposals will be limited to visual impact.

10.92 The view testing demonstrates that there will be limited inter-visibility of the proposed development throughout the character area. Where visible, the proposed development would be seen above existing development and would be seen as part of the redevelopment in Lea Bridge and Leyton. The geometry and slender approach to the design of Towers 1 and 2 will form a new feature on the skyline and will create a pair of gateway buildings to the Borough as well as improving wayfinding and legibility towards Lea Bridge Station.

Character Area 5: Lower Clapton

10.93 Character Area 5 is located to the south west of the study area and is predominantly characterised by dense residential development forming part of the Lower Clapton district, primarily within the London Borough of Hackney.

10.94 The Character Area is separated by some distance from the Proposed Development Site and the existing surrounding townscape is formed of development which varies in scale, age and architectural styles. Officers note that the area includes an established context of taller and larger development.

10.95 The application site is over 850m away from the character area and is separated by a mix of open land, existing development and waterways.

10.96 Due to the geographical extent of the character area, inter-visibility of the Proposed Development from within the character area is highly varied. The view testing demonstrates that the Proposed Development would form a new feature within the background of the view. The proposals would be recognised with the existing context of tall and large development, although the scale of the Proposed Development would be discernibly greater. The geometry and materiality and gaps between the proposed buildings tend to soften the visual impact.

10.97 Across longer distances within the character area, view testing demonstrates that the Proposed Development would be largely blocked from view by existing development and mature vegetation and be subject to glimpsed views of Towers 1 and 2. Where visible, the Proposed Development would appear at a similar scale to the existing tall and large buildings within this part of the townscape.

10.98 Due to significant separating distance, part interposing development and the existence of taller and larger development within the character area and the wider townscape, the Proposed Development would have a low magnitude of impact.

Tall Buildings - Visual impact continued

10.99 The height of the buildings would assist in way finding for the station entrance and would not cause harm to designated local or strategic views. As required by the London Plan policy D9, the proposal would have a direct relationship with the street network and the built form rises away from lower scale neighbouring properties ensuring an appropriate transition is achieved.

10.100 London Plan policy D9 seeks to ensure the architectural quality is exemplary. The proposals have been considered by the Council's Urban Design advisor and peer reviewed by a Design Review Panel (DRP). The conclusion from the Council's Urban Design advisor and DRP is that the architectural quality would be exemplary. Conditions are recommended to secure further information on the detailed design including materiality.

10.101 Policy D9 is also clear that proposals for tall buildings should take account of, and avoid harm to, the significance of London's heritage assets and their settings.

10.102 There would be no harm to designated heritage assets. There would be an adverse indirect effect to one non designated heritage receptor which is more distant. This

represents a low level of harm that is capable of being outweighed in the overall planning balance of benefits. This issue is considered in detail in section 10C (Impact on Heritage Assets) of this report.

Tall Buildings - Functional impact

10.103 London Plan policy D9 sets out a series of logical and practical requirements, such as how buildings will be serviced and accessed. Highways and transport matters (including servicing) are discussed in section 10H (Transport and Highways) of this report.

10.104 The detailed design of the building (including internal access) has been assessed by TfL, the Metropolitan Police, the Centre for Accessible Environments, and internal Highway Officers. Cycle parking is provided within the buildings, along with refuse and recycling stores. Space for parking and servicing is proposed at each of the 3 sites.

10.105 If approved, conditions will be imposed on any consent to ensure there is a servicing management plan, similarly if approved the development would need to meet secure by design accreditation. This is discussed in further detail on section 10L of this report.

10.106 The Transport Assessment demonstrates that the capacity of the area and its transport network is capable of accommodating the quantum of development.

10.107 Microclimate testing has been undertaken and this is discussed in Section 10G of this report.

Tall Buildings - Environmental and cumulative impacts

10.108 Early wind testing (using a wind tunnel) was undertaken in multiple scenarios to understand the baseline situation, how wind speeds would be reduced with proposed landscaping, and finally wind testing was carried out with a bespoke package of mitigation measures.

10.109 The result of wind testing of roof terraces, balconies and the podium level amenity space on the Courtyard buildings do not raise cause for concern. At ground level on Site 2 the amenity spaces would be comfortable for either sitting or standing in the windiest winter weather. In summer the situation is greatly improved, with the majority of amenity space being comfortable for sitting.

10.110 With the Proposed Development in situ with the mitigation measures implemented, all locations both on and off the site would have safe wind conditions for the intended use.

10.111 The Applicant has undertaken a Sunlight, Daylight and Overshadowing Assessment. This is discussed in detail in Section 10G. The Council engaged an independent expert to review the sunlight/daylight testing in the context of the Environmental Impact Assessment Regulations. The result of that review was that the overall impact of the development would result in a minor adverse impact. The impact weighs against the scheme in the planning balance, in understanding the weight afforded to the impact there are several factors which reduce the weight (discussed at Section 10G).

10.112 Part C4 of Policy D9 has regard to cumulative impacts. It has been demonstrated by the cumulative assessments provided that the proposal would not result in adverse cumulative effects on built heritage, townscape, and visual amenity.

Tall Buildings - conclusion

10.113 Taking into consideration the contextual appraisal which has been prepared in the submitted HTVIA, it is considered that there is justification for introducing tall elements within this setting. Emerging policy is also of relevance.

10.114 Officers are of the view that the proposed heights of buildings would not compromise the character of the site and its setting and would achieve an acceptable perception from street level. Given the situation, there are material considerations which would dictate that a departure from the Development Plan in relation to introducing the proposed tall buildings at the site is justified.

Character and Massing:

10.115 The supporting text to London Plan (2021) policy D1 states:

'As change is a fundamental characteristic of London, respecting character and accommodating change should not be seen as mutually exclusive. Understanding of the character of a place should not seek to preserve things in a static way but should ensure an appropriate balance is struck between existing fabric and any proposed change. Opportunities for change and transformation, through new building forms and typologies, should be informed by an understanding of a place's distinctive character, recognising that not all elements of a place are special and valued.'

10.116 The proposed building layout and configuration are considered to strike and appropriate balance between existing fabric and change. The Lea Bridge area is identified as a transformation growth area.

10.117 Policy 8 of the of the draft LBWF Local Plan (2021) (Reg 19) sets out the Council's approach to character-led intensification. The draft policy sets out 3 key approaches towards identifying opportunities for intensification of development;

A. Reinforcement: applicable to sites/areas with robust and desirable character where opportunities for redevelopment will involve a modest increase in intensification;
B. Transition: applicable to sites/areas where a considerable increase in intensification would be justified in local areas including Designated Centres, Major Routes, Borough Arrival Points and Strategic Locations; and
C. Transformation: applicable to sites/areas with a fragmented urban grain, where a transformative approach to intensification of existing character can be justified to deliver substantially more development.

10.118 Policy 9 of the draft LBWF Local Plan (2021) (Reg 19) identifies Lea Bridge as a growth area. The emerging policy describes support for proposals that would maximise the redevelopment potential of Lea Bridge Station Sites; including supporting improvements of Lea Bridge Station as part of masterplan proposal

10.119 A character-led approach to intensification is supported by LBWF's Characterisation and Intensification Study (2019). A transformation of character allows for a redefinition of appropriate Floor Area Ratios (FAR), within the context of local character. A transformation of character will in most cases accommodate substantially more development and at significantly higher densities.

10.120 The approach to massing has been to direct lower scale buildings to site 2, to achieve a better transition between the development and existing dwellings along Elm Park Road. The Courtyard building transitions between the towers in the west and terraced housing in the east. The Terrace building provides active frontage onto the new open space. Together, the four buildings offer site specific response to the immediate, and wider context.

Character and massing - Sites 1 and 3

10.121 The taller towers on site 1 and 3 act as gateway markers to the Borough and train station. Towers 1 & 2 are conceived as a pair, with similar plans and form but with complementary differences in appearance. The ground and lower floors of both buildings have been carefully considered to allow them to ground and connect into the wider area successfully.

10.122 The elongated hexagonal footprints are extruded upwards to present inclined faces providing visual interest and a reduced profile compared to a typical rectangular form. The proportions of the base and crown have been considered carefully as a proportional composition.

10.123 The two towers are orientated to respond to the surrounding context, the new junction and public realm. Building orientation, massing and the public realm have been considered in respect of prevailing southerly winds and daylight/sunlight.

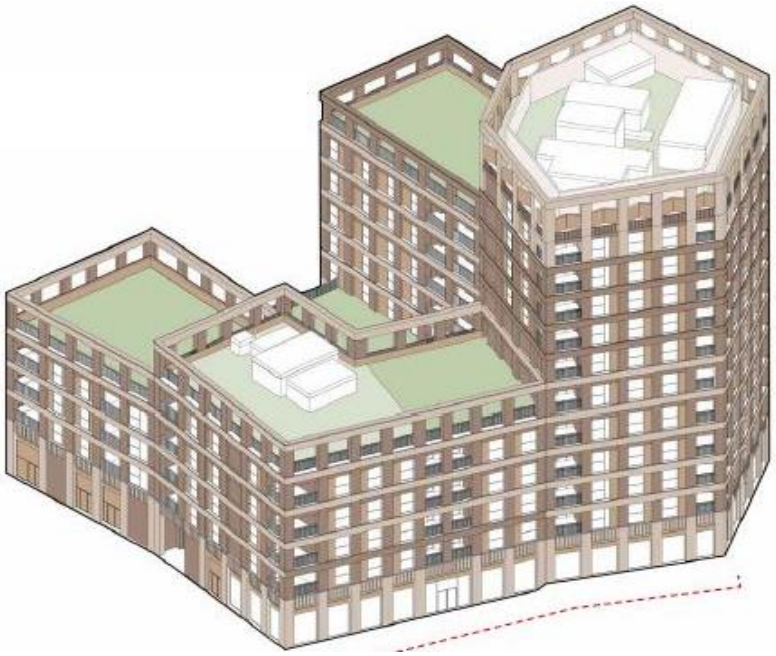
10.124 Although the development would introduce new and large buildings at the site, the design approach would provide a stepped built form rising towards the new station entrance, away from neighbours.

Character and massing – Site 2

10.125 The Applicant developed a Courtyard building typology for Site 2 to provide a building with flexible space at ground floor level, with dual and triple aspect residential flats above. The typology also mediates in scale between the towers on Sites 1 and 3, the Motion development (Beck Square) and the three to five storey Terrace building.

10.126 The Courtyard building incorporates a taller corner element at the junction of Lea Bridge Road and Orient Way opposite Towers 1 and 2, and steps down towards the lower neighbouring context to the East and South.

10.127 The proposed design of the Courtyard building features gallery access to flats around the podium level amenity space. The proposed gallery access would provide multi aspect to the flats and encourage interaction between residents within the development. The facade is broken down into segments to create variation. The detail varies between the tops, middle and bottom, creating a vertically emphasized crown at the top relating to the towers (sites 1 and 3), with horizontal bands emphasized lower down relating to the Motion development (Beck Square).



10.128 The Terrace building on site 2 creates a transition between the mid-scale courtyard typology and the existing terraced houses along Elm Park Road. The proposed massing achieves this by being three storeys generally with a five storey taller corner element on Lea Bridge Road (reflecting the 5 storeys of the Motion development (Beck Square) opposite). The terrace building would have a concertina-like facade which relates to the Courtyard building and the geometry of the Towers on Site 1 and 3. The lower elements of the terrace block step down towards houses along Elm Park Road. Gardens of the proposed maisonettes back on to the gardens of properties on Elm Park Road.

10.129 The GLA are supportive of the principle and quantum proposed. The application is considered to be consistent with Policies D1, D2, D3 the London Plan (2021) and Policies DM29 and DM30 of the WFLP Development Management Policies (2013).

Architecture and Materiality

10.130 The proposed design includes changes to the level of detail, tactility, decoration and expression of the buildings at different levels. Hard wearing, high quality materials are proposed at ground level, tactility would be introduced through brick rustication and individuality through glazed bricks.

10.131 The bottom and middle levels of the buildings would be experienced from the street, and the Applicant proposes that these levels have character and variation introduced through brick colour, banding and brick coursing.

10.132 The colouration of materials has been informed by the area's history, The Coppermill Pump House situated within the Walthamstow Wetlands, north of the site smelted copper. Copper tones form part of the proposed façade strategy.

10.133 Light brick works and mortar are proposed on Tower 1 (Site 1), the Tower would reflect light, softening its appearance. The crown design includes a faceted metal parapet between the piers which would reflect light from different angles at different times of day. The tone of the metalwork on Tower 1 responds to the green copper oxidization and responds to the natural colours of Lee Valley Park.

10.134 The proposed approach to the materiality of Tower 2 is similar to Tower 1. The tones of the brick and reconstituted stone would be darker when compared to Tower 1. The tone of the metalwork on Tower 2 would be akin to golden copper oxidization.

10.135 The tones of the brick on the Courtyard building (Site 2) reference the mixed mid-brown and red brick tones. The Ground floor has regularly spaced piers in a light brick with glazed frontage between and fluted brick spandrels above.

10.136 It is proposed to use a lighter brick and for the lower-level parts of the Courtyard building. A taller element is proposed at the corner which would be made of a brown/red brick. The tone of the metalwork on the Courtyard building would be a brown copper oxide colour.

10.137 The Terrace building (Site 2) would have two facade types. The taller corner element would have a less formal facade with staggered piers. The lower shoulders are more formal with stacking windows. The informal corner facade would be made of dark red brick with metal infills. The more formal lower shoulders would use a lighter brick. The tone of the metalwork on the terrace would reflect unexposed copper.

10.138 The Council's Urban Design advisor has advised that the overall approach is acceptable, subject to a condition being imposed on any consent to require samples and further details of materials to be submitted for approval.

Public Realm

10.139 Policy D8 of the London Plan (2021) sets out robust criteria to ensure that new public realm is well-designed, safe, accessible, inclusive, attractive, well-connected, related to the local and historic context, and easy to understand, service and maintain. Landscape treatment, planting, street furniture and surface materials should be of good quality, fit-for-purpose, durable and sustainable.

Site 1 and Site 3

10.140 The public realm proposals for Site 1 include a plaza to the front of the new station entrance. An elevated seat deck is proposed to provide an area for people waiting for trains or friends to wait just outside of the station entrance.

10.141 The topography of Site 1 slopes down from the station entrance to the east along Lea Bridge Road and down again along Argall Way. The slope dictates the levels of entrances to the building. To rationalise the changing levels on sites one and three, the proposal is to use walls that terrace down to the cycleway from street level. These terraces would be planted and landscaped.

10.142 Site 3 and Site 1 would be connected via the cycle way running beneath Lea Bridge Road. Similar forms, furniture and planting palette are proposed on Sites and 1 and 3. A terraced retaining wall is proposed with planting to rationalise levels at the interface with the cycleway.

Site 2

10.143 Areas of public realm are proposed to the front of the Courtyard building and between the Courtyard and Terrace buildings. Landscaping is proposed to be used to frame, activate or complement this area and its primary function as an area for people to rest and gather.

10.144 The amenity space would be dissected by a pathway leading towards the entrance of the community space in the Courtyard building, providing level access to users across this green space from Lea Bridge Road. Play elements would be provided towards the end of the Terrace building. This location is intentional; this area would be quieter and follows best practice to encourage children's safety. The proposed private gardens and outdoor residential amenity areas within the Terrace building back onto the gardens of properties fronting Elm Park Road.

10.145 The development recognises the opportunity to improve the quality of the public realm and maximise green infrastructure and access to open spaces. The proposals would facilitate social interaction and would also achieve an acceptable relationship with the buildings and frontages within their perimeter.

Conclusion

10.146 The development would reinforce a sense of place and would serve as a visual landmark when viewed from public vantage points.

C. IMPACT ON HERITAGE ASSETS

Policy Context

10.147 Paragraph 199 of the NPPF (2021) states that when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance.

10.148 Paragraph 203 of the NPPF (2021) states that the effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.

10.149 London Plan (2021) Policy HC1 'Heritage conservation and growth,' states that development should conserve heritage assets and avoid harm, which also applies to non-designated heritage assets.

10.150 Policy CS12 of the WFLP Core Strategy (2012) states that in managing growth and change, the Council will promote the conservation, enhancement and enjoyment of the Borough's heritage assets and their settings.

10.151 Policy DM28 of the WFLP DM Policies (2013) supports Policy CS12 stating that development proposals which may affect the significance of heritage assets in Waltham Forest (both designated and undesignated) or their setting should demonstrate how these assets will be protected, conserved and where appropriate enhanced.

Undesignated Heritage Assets

10.152 The closest designated heritage assets are approximately 500 metres away, with two locally listed (non-designated) heritage assets in close proximity.

10.153 The HTVIA establishes that there would be no adverse effects on the significance of designated heritage assets. In terms of non-designated assets, the Council's Heritage advisor also has advised that the impact to the locally listed Leyton Borough Electricity Substation, would be described as neutral or negligible. Similarly, the impact to the locally listed former Savoy Cinema be neutral/negligible.

10.154 The HTVIA identifies a very low level of harm to the Main Office Building of the Thames Water Lea Bridge Depot on Lea Bridge Road, due to the visibility of the 26-storey building in views from the river path, recognising that it would be a distant feature.

10.155 The character of the non-designated heritage asset's setting will be altered by the scale and quantum of the Proposed Development (i.e., an indirect impact). As a reminder paragraph 203 of the NPPF states that the effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.

10.156 The proposals would bring forward benefits, which need to be weighed against concerns over indirect impacts to the non-designated heritage asset. Benefits include much needed housing (including affordable housing), community and cultural, space, delivery of a new station entrance with enhanced accessibility.

10.157 There will be employment and training opportunities on site for residents during the construction and operational phases. In this case the benefits are considered to be significant, and commensurate weight has been afforded to the benefits.

10.158 The proposals would comply with modern energy efficiency requirements. In this instance officers consider that the scale of harm to the locally listed buildings is outweighed by the benefits the scheme would deliver.

10.159 Conditions and planning obligations would be needed to ensure the benefits are secured and delivered. Conditions are also required to ensure the design of the new buildings is exemplary, to mitigate against visual impacts and impacts to heritage assets.

Archaeology (Buried Heritage)

10.160 The Greater London Archaeological Advisory Service (GLASS) advised that the three sites lie in the Lea Valley Archaeological Priority Zone and riverside activity from multiple periods may be present.

10.161 A condition is recommended to secure a Written Scheme of Investigation (WSI). This would require investigation (potentially including trenches) ahead of construction and a watching brief during construction, in case anything is revealed in earth works. Significant finds would be recorded and preserved either in situ or elsewhere.

D. HOUSING – TENURE AND MIX

Affordable Housing

10.162 London Plan (2021) Policy H4 sets a strategic target for 50% of all new homes delivered across London to be genuinely affordable. For surplus public sector land (such as the application site) the policy requires delivery of at least 50% of proposed units as affordable housing.

10.163 London Plan (2021) Policy H5 sets out the Mayor's threshold approach, explaining when viability testing and review mechanisms are required. In summary, applications relating to surplus publicly owned sites are required to justify (through viability testing) any proposals which would deliver less than 50% of units as affordable housing. The London Plan advises that the percentage of affordable housing on a scheme should be measured in habitable rooms to ensure that a range of sizes of affordable homes can be delivered, including family-sized homes.

10.164 London Plan (2021) policy H6 relates to affordable housing tenure. In summary, the Policy states that affordable housing should be split as follows:

Low-cost rented homes (as either London Affordable Rent or Social Rent)	30% (min)
Intermediate products	30% (min)
To be determined by the borough as low-cost rented homes or intermediate products based on identified need	40%

10.165 The LBWF Affordable Housing and Viability SPD (2018) and LBWF Development Management Policies (2013) Policy DM3 'Affordable Housing provision' (2013) provide detailed guidance on affordable housing and viability. Policy DM3 states that:

"In accordance with policy CS2, the Council aims to provide 50% of new housing to be affordable, by:

A) seeking the provision of affordable housing within all residential developments in the borough. The Council will firstly seek this to be on site and secondly on a nearby site. Where this cannot practicably be achieved, the Council may accept an off-site payment-in-lieu;

B) applying deferred contributions to housing sites capable of providing 10 or more homes which propose less than 50% affordable housing;

C) seeking a tenure split of 60% social/affordable rented units and 40% intermediate housing units;

D) seeking the use of legal agreements in phased residential development to ensure that all parts or phases make appropriate provision of affordable housing; and

E) seeking affordable housing schemes to be 'tenure blind' to ensure homes across tenures are indistinguishable from one another."

10.166 LBWF's draft new Local Plan Proposed Submission Document (Regulation 19), policy 14 seeks a different tenure mix, being 70% affordable rented and 30% intermediate housing.

10.167 The Proposed Development includes 160 affordable homes which equates to 50% by habitable room. Officers are comfortable with the approach (50% by habitable room) as this allows a greater number of larger family sized units in the affordable tenure, where family housing need is highest.

Tenure (by hab room)		
	Private	Affordable
Total	507	505
%	50%	50%

10.168 Within the 50% affordable housing offer, 50% would be London Affordable Rent (LAR) and 50% would be Shared Ownership (SO).

	SO	LAR
Hab room	253	252
%	50%	50%

10.169 The GLA Affordable Housing and Viability SPG states that where 50% affordable housing is delivered on public land, the tenure of additional affordable homes above the 35% can be flexible and should take in to account the need to maximise affordable housing provision.

10.170 In this case 35% of habitable rooms would equate to 354 Habitable rooms.

10.171 Of these habitable rooms, 30% (106 habitable rooms) should be LAR and 30% (106 habitable rooms) intermediate tenure. The remaining portion (142 habitable rooms) is able to have a tenure which is flexible.

10.172 As the site is publicly owned a further 15% of the total (152 habitable rooms) should be provided as affordable housing to bring the total affordable to 50% (i.e. 35% + 15% = 50%). The tenure of the additional 15% can also be flexible.

10.173 The proposals would deliver more than the minimum requirement in each tenure. Of particular note is that 252 habitable rooms would be in the LAR tenure, well above the minimum of 106 rooms, which is welcome. No objection is raised to the proposal in relation to housing tenure.

10.174 The applicant provided a Financial Viability Assessment (FVA). The FVA concludes that the affordable housing provision is not technically viable. Notwithstanding this the Applicant has firmly committed to delivery of 50% of the scheme (by habitable room) as affordable housing which is proposed to be delivered with the assistance of grant, which the GLA has agreed to in principle.

Affordability

10.175 Concerns have been raised in objections that no social rented tenure is proposed. In this regards reference is made to London Plan (2021) policy H6 which is clear that the low cost rented tenure can be provided as either London Affordable Rent or Social Rent. In this case units as London Affordable Rent are proposed (which the policy explicitly allows).

10.176 The Mayor of London's Affordable Housing and Viability SPG (2017) states that for intermediate dwellings to be considered affordable, annual housing costs, including mortgage (assuming reasonable interest rates and deposit requirements), rent and service charges should be no greater than 40 per cent of net household income. Household income for intermediate housing must be capped at no more than £90,000. These affordability thresholds would need to be secured as a planning obligation on any consent.

Unit mix

10.177 Paragraph 9 of the NPPF states that sustainable development involves seeking positive improvements in the quality of the built environment, including widening the choice of high-quality homes. The NPPF recognises that in order to create sustainable, inclusive and diverse communities, a mix of housing types, which is based on demographic trends, market trends and the needs of different groups, should be provided.

10.178 Policy H10 of the London Plan (2021) requires a range of unit types to form inclusive neighbourhoods. The policy refrains from setting out a preferred mix to ensure flexibility that the mix is reflective of housing need for the location.

10.179 The WFLP Core Strategy Policy CS2 (2012) requires mixed and balanced communities and sets out the Council's priority for larger homes (3 bedrooms or more) in new developments. Policy DM5 of the WFLP Development Management Policies (2013) reiterates Core Strategy Policy CS2 and sets out the preferred housing mix policy:

10.180 WFLP DM Policy DM5 sets out the Council's preferred mix as follows:

	1 bed	2 bed	3 bed	4 bed
Market	20%	30%	40%	10%
Intermediate	20%	40%	30%	10%
Social Rent	20%	30%	40%	10%

10.181 The LBWF's draft new Local Plan is not yet adopted, however given the timing for delivery of housing at the site, it is highly likely to be in place, and as such consideration is given to the housing mix set out in emerging policy (see below).

	1 bed	2 bed	3 bed +
Social Rent	20%	30%	50%
Intermediate Rent	20%	40%	40%
Intermediate ownership	30%	50%	20%
Market	20%	50%	30%

10.182 It must be remembered that the mix is for the overall Borough and there are sub areas in the Borough where a slightly different mix is in need. Local authorities are required to have an understanding of housing needs in their area (for example, as set out in a Strategic Housing Market Assessment) and this, along with their local Housing Register, will provide the evidence for the size of low-cost rented homes (in terms of number of bedrooms) required to meet identified need.

10.183 The table below sets out the proposed residential unit mix:

	1 bed	2 bed	3 bed	4 bed	Total
	11	23	29	9	
LAR	15%	32%	40%	13%	72
SO	32	35	20	1	88

	36%	40%	23%	1%	
	76	81	28	0	
Private	41%	44%	15%	0%	185
Total	119	139	77	10	345

10.184 53% of LAR units would be family-sized 3 and 4 bedroom homes, for which there is a demonstrable need. This provision is strongly supported.

10.185 In relation to the size of units for market and intermediate tenures, the Council's Housing officer has advised that more flexibility can be provided. In part, this reflects the local real estate market conditions, where larger 3 and 4 bed shared ownership and private units can prove difficult to sell (the price of a large flat can approach the value of a house, which it would seem buyers often prefer).

10.186 Given the situation and the proposed delivery of family accommodation in the LAR tenure, no objection is raised.

Distribution of tenure.

10.187 The application proposes to locate most of the affordable housing on site 2 and there are several reasons why the Applicant's approach is justifiable.

10.188 The advice from the Council's Housing Officer to the Applicant was to ensure sufficient provision of larger units in the LAR tenure.

10.189 The housing on Site 2 is lower density and therefore more suited to family accommodation. Site 2 includes substantially more larger units catering for family housing, including 4 bed accommodation. Over half of the dwellings on Site 2 would have 3 or 4 bedroom properties.

10.190 Site 2 has external amenity space at ground floor level, there are also external amenity and play spaces at the podium and roof terrace levels. The provision of play space and amenity spaces on Site 2 is less constrained more generous and better suited for families with children when compared to Sites 1 and 3.

10.191 The community and cultural space in the Courtyard building would be more easily accessed from Site 2, to the benefit of the families living at that site.

10.192 The LAR family accommodation in the Terrace building would benefit from private rear gardens, in contrast to private amenity space on Sites 1 and 3 which is limited to balconies.

10.193 The sites deliver 10% of all units as accessible units M4 (3), and over half of these unit types are proposed on Site 2. Half of the accessible parking spaces proposed would also be on Site 2.

10.194 A key consideration for the future management of the development relates to the demised space that is transferred to the Housing Association that takes ownership of the affordable homes. Having the LAR and SO on Site 2 makes it easier for a Housing Association from a legal and housing management point of view. The Housing Association would be in a better position to control the entire area that it is managing (which is important in keeping maintenance costs low and affordable for residents in housing need).

10.195 The Housing Association would need to meet the ongoing cost of maintenance of the affordable homes, and it is acknowledged that maintenance costs are higher in high rise development. By way of example, cycle storage is provided at ground level on Site 2, whereas the access to cycle storage on sites 1 and 3 is via a dedicated lift (with associated maintenance costs). The Applicant is proposing that

future occupiers in LAR accommodation are based in lower density buildings which are more cost effective to maintain.

10.196 The Applicant has advised that the Regulator of Social Housing (RSH) requires that every registered provider complies with four key consumer standards. These standards are set so that all landlords deliver an effective, efficient, and cost-effective service to its customer. The RSH also requires every registered provider to comply with three key economic standards. These standards are set so that all landlords deliver value for money to its customers. These requirements have also informed the Applicant's approach to tenure distribution.

10.197 The Applicant has advised that development will be tenure blind and high quality, with all three sites delivering the same specification in terms of internal and external building fabric.

10.198 The affordable housing proposed in Towers on sites 1 and 3 would have the same access to communal facilities as the open market sale units. Similarly, the residents of dwellings located on site 2 will have equal access to communal areas.

10.199 It is considered that the proposed unit mix would provide a sustainable mix of accommodation in this location and support the family-sized units being provided in the affordable rent tenure. The proposal is considered acceptable and in line with London Plan (2021) Policy H12.

E. STANDARD OF ACCOMMODATION FOR FUTURE OCCUPIERS

Size

10.200 The 'Technical Housing Standards – nationally described space standard' (2015) stipulate the minimum gross internal floor space required for residential units on the basis of the level of occupancy that could be reasonably expected for the proposed units. The policy seeks for high quality internal and external design, which should consider the sense of 'arrival' at the building and the 'home as a place of retreat', with acceptable size of rooms and functional room layouts, that meet the minimum spatial requirements.

10.201 Policy D6 of the London Plan (2021) sets out the housing quality and standard design specifications for new developments. Including internal rooms sizes, dual aspect, built in storage.

10.202 Policy CS2 of the WFLP Core Strategy (2012) requires high quality design for new housing development that has the ability to adapt to changing needs of residents and therefore aims to create healthy and sustainable communities with appropriate spatial standards and adequate levels of residential amenity.

10.203 Policy DM7 of the Waltham Forest Local Plan Development Management Policies (2013) requires all new residential development to meet minimum internal and external amenity spaces outlined in Tables 8.1, 8.2 and 8.3 within the Plan and the GLA's Housing SPG (2016).

10.204 All of the proposed residential units would either meet or exceed the minimum space standards contained within the 'Technical Housing Standards - nationally described space standard' (2015).

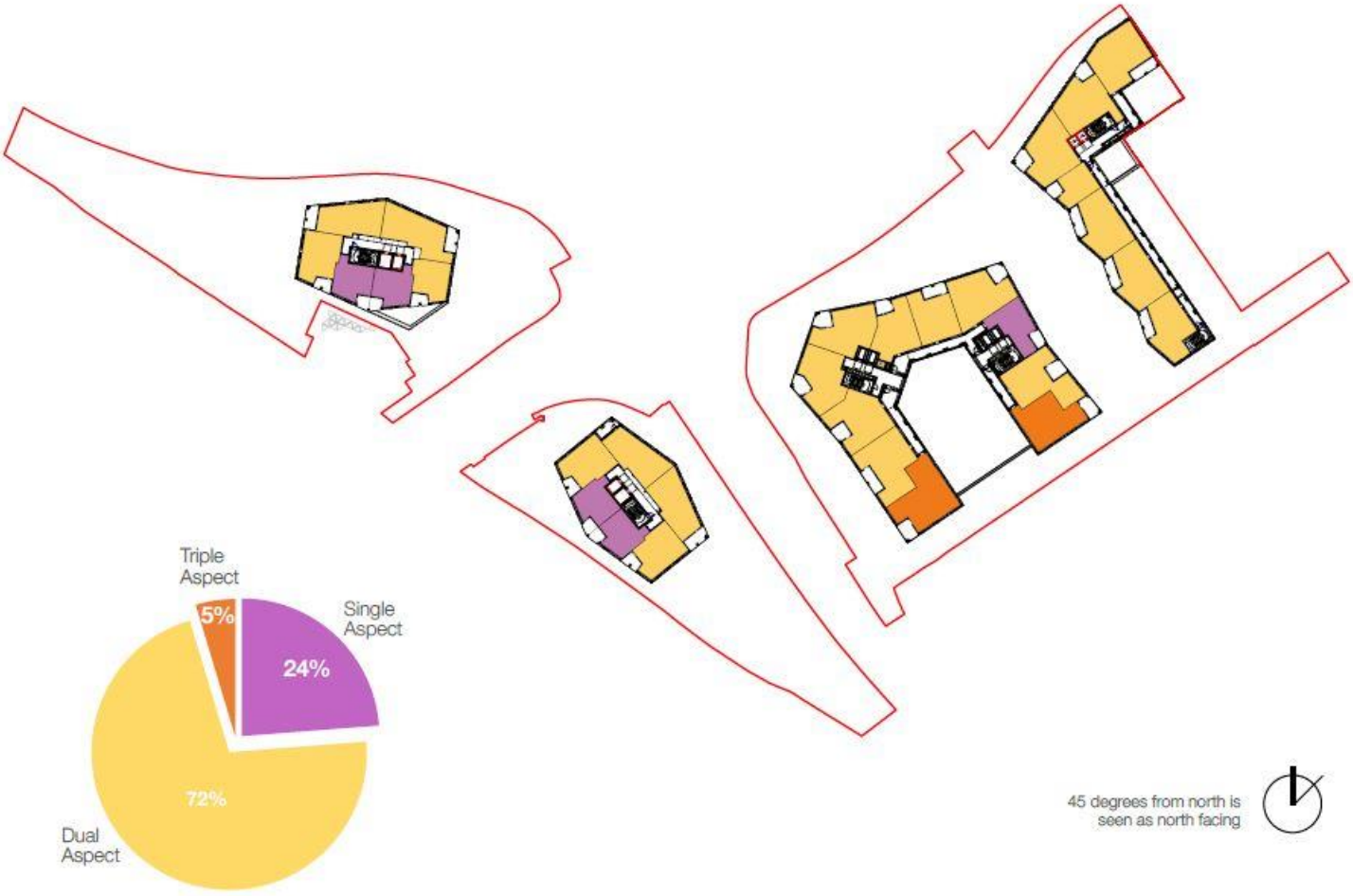
Aspect

10.205 Policy D6 of the London Plan (2021) seeks to maximise dual aspect units and advises that dual aspect dwellings with opening windows on at least two sides have better daylight, a greater chance of direct sunlight, natural cross-ventilation, a greater capacity to address overheating, pollution mitigation, improved aspect, and outlook, greater flexibility in the choice of rooms and greater chance of accessing quiet rooms. Single aspect units that are north facing should generally be avoided.

10.206 All homes with 2 or more bedrooms would be dual aspect. There are no north facing single aspect units. There are some single aspect units within Towers 1 and 2. However, these are south facing with a view across to the Lea Valley and meet relevant criteria regarding daylight and sunlight and overheating.

10.207 The Courtyard building is almost entirely dual or triple aspect which is achieved through a deck access arrangement. Larger three and four bed units are positioned on the corners to make use of the double/ triple aspect available in these locations.

10.208 The terrace building is 100% dual aspect. The building has a run of duplex flats along its southern end which are arranged as terraced housing with a front facing pedestrian street and rear facing private garden. The block is orientated north-south, which means the street and garden elevations face west and east respectively, and benefit from direct morning or evening sun. The terrace also has a third floor towards its northern end, with flats which are dual aspect.



Internal Daylight Assessment – future occupiers

10.209 On balance, officers are satisfied that the development would provide an acceptable level of flats with multiple aspects, and that there are mitigating factors (such as location and orientation) which would help ensure single aspect flats provide adequate living accommodation.

10.210 The average daylight factor (ADF) for the proposed residential units was tested. Overall, 865 (85%) of the 1,023 habitable rooms tested adhere to their respective ADF guidelines and a further 20 (2%) rooms fall within 20% of the guidelines.

10.211 The proposed development will produce well daylit accommodation. Although it will not be fully BRE compliant, daylight has clearly been prioritised in Living Kitchen Diners, as the BRE recommends. 92% of Living Kitchen Diners meet the recommendations. 81% of Bedrooms meet the recommendations. Proposed sunlighting levels demonstrate that 94% of the 'main living spaces will meet the recommended sunlighting hours in the BRE guidance.

10.212 Balconies provide much-needed amenity space but do come with a trade-off in terms of daylight as they limit the available daylight to the room beyond. In this case, recessed balconies affect the windows to the flat served by the balconies. These recessed balconies inevitably limit the view of sky and impact both daylight and sunlight levels to the rooms beyond the balcony. For all but one unit, the flats have at least one room that receives good daylight levels and adheres to the BRE guidelines.

10.213 Regarding overshadowing of amenity spaces proposed within the scheme, the BRE guidelines suggest that for an amenity space to be adequately sunlit throughout the year, it should receive at least two hours of direct sun on 21st March to half of its area (50%). Testing shows that eleven of the sixteen amenity areas adhere to the BRE guidelines, and that the large communal amenity areas achieve very high sunlight levels for an urban area.

10.214 Although the BRE guide gives numerical guidelines, these are intended to be applied flexibly since natural lighting is only one of many factors in site layout design. Furthermore, the Mayor of London's Draft Interim Housing Supplementary Planning Guidance emphasises that fully optimising housing potential may necessitate departure from conventional guidelines whilst still achieving satisfactory levels of residential amenity. A similar view is expressed by the National Planning Policy Framework whereby a flexible approach to the application of policies and guidance relating to daylight and sunlight is recommended for efficiency of land use.

10.215 Officers acknowledge that a high degree of compliance with the BRE guidelines has been achieved, and no objection is raised.

Density

10.216 Good Growth Objective GG2 of the London Plan (2021) supports development of surplus public sector land. It goes on to state that development must proactively explore the potential to intensify the use of land, to support additional homes and workspaces and promoting higher density development.

10.217 The London Plan (2021) Policy D3 states that all development must make the best use of land by following a design-led approach that optimises the capacity of sites.

10.218 The London Plan (2021) Policy D3 does not set out density limits rather it sets out guidance to shape the form and layout, experience, quality and character of the new development. The policy seeks to optimise capacity without compromising quality or the site as a place.

10.219 The density of the site has been calculated in line with the Mayor's Housing SPG (2016) guidance on calculating density of mixed-use developments. The proposed density is summarised in the table below:

Type	
Units per hectare	305
Habitable rooms per hectare	905
Floor Area Ratio (all floors / site area)	3

Site Coverage Ratio (ground floors / site area)	0.4

10.220 Making decisions on housing density requires striking a sensitive balance which takes account of a wide range of complex factors. The Mayor's Housing SPG (2016) guidance notes that to varying degrees, because of their size and scale, large sites, can define their own setting and accommodate higher densities.

10.221 Officers recognise these are three smaller sites but are mindful of the need for housing and in particular affordable housing (reflected in the housing target set for the Council by the GLA), and are of the view that the proposed density is acceptable and quality is not compromised.

Wheelchair Accessible and Inclusive Design

10.222 Policy D7 of the London Plan (2021) state that 10% of new housing must meets Building Regulation requirement Part M4 (3) 'wheelchair user dwellings', i.e. is designed to be wheelchair accessible, or easily adaptable for residents who are wheelchair users.

10.223 Policy D7 the requires all other dwellings to meet Building Regulation requirement M4(2) 'accessible and adaptable dwellings'

10.224 Communal entrances and circulation should be designed to Category 3 standards. Two lifts should be provided in each building (and the application complies with this requirement). With regard to the communal doors; circulation areas in blocks with M4(3) dwellings will be built in full accordance with Part M4(3). This includes the entrance and circulation area doors which will have to be fully compliant with the relevant sections of Approved Document M. A condition should be imposed on any consent to ensure the detailed design of buildings complies with these standards.

10.225 Specific standards for residential unit size and design will be secured by appropriately worded conditions, to ensure delivery of 10% M4 (3) [wheelchair user dwellings] and 90% M4 (2) [accessible and adaptable dwellings] on any consent. A planning obligation will also be used to ensure appropriate marketing of the shared ownership and market M4 (3) homes.

10.226 Subject to conditions to ensure the design of homes accord with appropriate standards, the proposed development would provide acceptable levels of wheelchairs units within the development in accordance with Policies D5 and D7 of the London Plan (2021).

10.227 The proposed development involves delivery of 345 homes of which 35 (10%) would be designed to Building Regulations requirement M4(3) [wheelchair user dwellings].

10.228 The tables below set out the mix of the wheelchair user units by tenure.

M4 (3) wheelchair user	1bed	2 bed	3 bed	Total
LAR	6	5	0	11
SO	5	6	2	13
Private	1	4	6	11
Total	12	15	8	35

10.229 Shown below is the overall provision of accessible units by dwelling size.

	1bed	2 bed	3 bed	4 bed	Total
M4 (3) wheelchair user	12	15	8	0	35
M4 (2)	107	124	69	10	310
Total	119	139	77	10	345

10.230 The minimum unit size for 1 bed units accords with the requirement to be a 1 bedroom, 2-person unit. Wheelchair housing units are to be provided across all tenures and buildings. All blocks have 2 wheelchair accessible lifts.

Private Amenity Space/Communal Amenity Space

10.231 Policy D6 of the London Plan (2020) states sets out amenity space standards where there are no higher local standards in Local Plan Documents. In this case Policy DM7 of the WFLP Development Management Policies (2013) relates to external amenity standards and the requires adherence to the external space standards in the policy/supporting text.

10.232 Emerging Local Plan Part 1 Policy 58 (residential Space Standards) is also of relevance, and states that proposals for new homes are required to meet the following external space standards:

- Houses should provide a minimum of 50 sq.m of private external amenity space per dwelling;
- One and two bed flats and maisonettes should provide a minimum of 10 sq.m of external amenity space per dwelling. Homes containing three bedrooms or more should provide a minimum of 10 sq.m of external amenity space plus an additional 1 sq.m for each additional occupant. These external amenity space requirements should include an element of private amenity space for each dwelling, in the form of balconies, terraces and/or private gardens (including roof gardens). Balconies, terraces and private gardens must be a minimum of 3 sqm to count towards external amenity space requirements. External amenity space requirements could also include communal, landscaped amenity space in accordance with guidelines set out in the London Plan. Communal amenity spaces must be a minimum of 50sq.m;
- The most important design factors to consider with both private and communal external amenity spaces are; ease of accessibility, allowing for the provision of good levels of sunlight penetration, security, shelter from wind and other environmental factors, and access to good levels of passive surveillance;
- The role and function of each external amenity space should be clear and the boundaries between different spaces should be clearly defined;
- All external amenity spaces should be well-designed, appropriately located and usable. External amenity space should not be steeply sloping, awkwardly shaped or very narrow;
- Communal external amenity spaces should be easily accessible for all residents of the development, regardless of tenure. Communal external amenity space can be provided in the form of roof gardens;
- Wherever possible, family homes in apartment blocks should be located with good access to communal external amenity space and should allow oversight of children playing outside;

- Where external amenity space standards cannot be provided on-site the Council may require financial contributions towards enhancing or upgrading the provision of local open space(s) in the vicinity of the development; and
- The calculation of external amenity space should exclude footpaths, driveways, and areas for vehicle circulation and parking.

10.233 Based on the emerging policy requirements, 3,537sqm of amenity space would be required. In this case 3,768sqm of space is proposed. A breakdown of the quantum of private space provision proposed across the three Site are set out below:

- Site 1 = 884.4sqm
- Site 2 = 878.3sqm (Terrace=356.4sqm Courtyard= 521.9sqm)
- Site 3 = 810.6sqm
- Total = 2,573.3sqm

10.234 In addition to the private amenity spaces, communal amenity space for residents living in the development comprises 1,195 sqm. This is located at Site 2 in the podium and rooftop of the Courtyard building. This is in addition to the publicly accessible spaces around the buildings. A small amount of external communal amenity space is also proposed at ground level as part of the Terrace building.

Children's Playspace

10.235 London Plan (2021) Policy S4 seek to ensure that development proposals include suitable provision for play and recreation and incorporate good-quality accessible play provision for all ages, of at least 10sqm per child. This quantum is also referenced in the LBWF Development Management Policies (2013).

10.236 Utilising the GLA Population Yield Calculator, the play space requirement totals 1,760 sqm for children of all ages.

10.237 The applicant proposes to provide the play space requirement for 0-11 year olds as follows:

Site 1
- Site One Requirement: Ages 0-11 – 322sqm
- Provided in building: 352.5sqm

Site 2
- Site Two Courtyard Requirement: Ages 0-11 – 624sqm
- Site Two Terrace Requirement: Ages 0-11 – 93sqm
- Provided in Courtyard block: 596sqm
- Provided in ground level landscape: 282.1sqm

Site 3
- Site Three Requirement: Ages 0-11 – 305sqm
- Provided in building: 322 sqm

10.238 On Sites 1 and 3, playspace will be provided in the form of fully internal residential play spaces within the building structure. This would provide a new play typology and an area for residents and families to play, gather and socialise.

10.239 The indoor play space would be almost double heights (4.6m floor to ceiling), conditions are recommended to ensure there is sound insulation installed between the internal play space and residential flats above. The space includes break out

space which could be booked by residents, the space would be able to be ventilated through a combination of natural and mechanical ventilation.

10.240 For Sites 1 and 3 internal play space would be the most practical location for meeting the child play space requirements. It is noted that a contribution towards creating additional off site play facilities is to be secured and would provide additional facilities for future residents. There are various areas of open space, within 400m of the development, would provide informal recreation areas, sufficiently extensive green spaces and more formal play.

10.241 The proposed indoor play area would comprise prescriptive play elements for younger children, with an inviting and engaging hangout space and amenity area for community functions and smaller social events.

10.242 The design of the indoor play spaces seeks to encourage collaborative play, and create areas and alcoves for small groups to gather and socialise. Furniture elements are generally movable to encourage the space to change to suit the needs of the users, with more fixed elements, such as mounds and seats being used to provide spatial separation.

10.243 The indoor play space on Site 1 and 3 utilise the same elements to create a versatile space suitable for play for ages 0-11, and with spaces for parents and guardians to gather. The design of these spaces would be further refined and conditions are recommended to secure this.

Indicative Elements of Residential Playspace

Roadside and rail side observation spaces with movable pillows and seating elements

Turfed and mounded spaces with tunnels, small scrambling furniture and animal trails

Enclosed 0-4 playspace for imaginative play and learning

Storage space, cubby holes and toy/book swap

Versatile hang-out space for small gatherings and organised groups

Mounding and small alcoves for privacy, including animal trails

10.244 London Plan (2021) policy S4 also seeks to ensure that play space is not segregated by tenure. In this instance this would mean that provision would need to be made for future residents to be able to access the playspace in buildings in which they are not residents. The Metropolitan Police highlighted that there can be security issues allowing access to buildings to people who don't reside there. The advice is however that subject to robust mitigation, concerns can be alleviated, and that this could be successfully dealt with as part of Secure by Design accreditation (a condition is recommended to secure this).

10.245 Considering the nature of the buildings and the site constraints, for older children (over 11 years old), it is proposed to rely on existing offsite play space within 400-800 metres of the site, including at Hackney Marshes; Leyton Jubilee Park; St. James' Park; and North Millfields Recreation Park.

10.246 To ensure off site play space is able to cope with additional usage, a contribution of £250,000 is sought as a S106 planning obligation. The funding would build capacity in nearby Leyton Jubilee Park. The Council's open space team advise that they would like to install a wheeled sports area (e.g. a skate park, scooter park, or BMX pump track) at Leyton Jubilee Park which would be suitable for people of all ages including 12 -17 year olds. Proposals are not confirmed and would be developed further if the application is approved.

10.247 In addition, a contribution towards enhancements in Lee Valley Regional Park would also be secured. While full details of proposals would need to be taken forward by the Council's Open Spaces and Parks Service.

10.248 Taking account of near by open spaces, the site constraints and subject to funding of enhancements to Leyton Jubilee Park, no objection is raised to the proposals in terms of playspace.

Outlook and Overlooking

10.249 The GLA's guidance on Housing Design and Quality Standards notes that that in the past, planning guidance for privacy has been concerned with achieving visual separation between dwellings by setting minimum distances between back-to-back homes (typically 18-21m). However, this is a crude measure, and adhering rigidly to these distances can limit the variety of urban spaces and housing types in the city, and unnecessarily lowers density. While separation distances provide a useful yard stick, they should be applied flexibly.

10.250 Rather than prescribing a standard offset distance between dwellings, it is recommended that architects demonstrate how the design as a whole uses a variety of measures to provide adequate visual and acoustic privacy for every home.

10.251 The proposed flats on Sites 1 and 3 are separated from each other by approximately 38m, sufficient to prevent overlooking. The separation distance between flats on Site 1 and the Motion Development (east across Argall Way) is approximately 44m.

10.252 Dwellings on Site 3 would be separated from the Courtyard building (Site 2) by over 24m.

10.253 At the podium level of the Courtyard building (Site 2), flats would be separated from one another by 18m. A deck access is proposed, and residents would walk past flat entrances when using the deck access. The flat layouts have been arranged so that the main living areas face externally rather than onto the podium level. Kitchens would have windows looking out to the deck access. The proposals would facilitate passive surveillance of the deck access and podium level play space (and also enable dual aspect, which is supported).

10.254 The separation between the Terrace Building and Courtyard buildings on Site 2 is between 16m and 18m. Consideration has been given to the adequacy of this distance given the potential for overlooking. The façade of the Terrace building is articulated, and angled. This means only some of the façades to the new homes would be less than 18m from dwellings in the Courtyard building.

10.255 If the buildings were further separated from one another, this would result in further tree loss. The benefit of retaining trees is recognised, and taking account of the fact that most homes would benefit from multiple aspects, no objection is raised.

F. ACCESSIBILITY

10.256 London Plan (2021) policy D5 relates to inclusive design and states that development proposals should achieve the highest standards of accessible and inclusive design. It goes onto set out key principles/standards that development proposals should adhere to, including:

- To provide high quality people focused spaces that are designed to facilitate social interaction and inclusion.
- Be convenient and welcoming with no disabling barriers, providing independent access without additional undue effort, separation or special treatment.
- Be able to be entered, used and exited safely, easily and with dignity for all.
- Be designed to incorporate safe and dignified emergency evacuation for all building users. In all developments where lifts are installed, as a minimum at least one lift per core (or more subject to capacity assessments) should be a suitably sized fire evacuation lift suitable to be used to evacuate people who require level access from the building.

10.257 The supporting text to the policy notes that the built environment includes the internal and external parts of buildings, as well as the spaces in between them. Despite recent progress in building a more accessible city, too many Londoners still experience barriers to living independent and dignified lives, due to the way the built environment has been designed and constructed or how it is managed. The London Plan (2021) is also clear that inclusive design is indivisible from good design.

10.258 Accessible parking spaces are proposed for residents, with, Site 1 accommodating 3 spaces, Site 2 including 6 spaces and Site 3 providing 3 spaces. This level of provision (3%) accords with the London Plan (2021) policy T6.1. The policy also seeks passive provision for the equivalent a further 5%. In this case the site constraints are such that further parking spaces could not be provided.

10.259 London Plan (2021) policy T6.1 states that accessible parking spaces should be located to minimise the distance between disabled persons parking bays and the relevant block entrance or lift core, and the route should be preferably level or where this is not possible, should be gently sloping (1:60 to 1:20) on a suitable firm ground surface.

10.260 Looking at levels on Site 1, the slope would be approximately 1:40 and at Site 3 the slope would be 1:30 (within the range set out in the policy). Parking at Site 2 would be level with the access to the building.

10.261 Guidance states designated parking bays should be located within 50m of the end-destination. The distances do not exceed 50m, between the proposed Blue Badge bays and the residential entrances for each site.

10.262 The Council's guidance in relation to parking spaces is that there should be accessible areas around the parking space itself. In this case parking bays on Site 3 would adjoin a retaining wall, limiting accessibility around the bays.

10.263 Officers are of the view that the arrangement remains workable. Two of the spaces would adjoin one another, as each bay is 3.6m in width, this would mean that the transfer space would adjoin one another, allowing greater space between the vehicles for access. The third space would meet the requisite size standard and be unobstructed on two sides.

10.264 Swept path analysis shows that when the site is being serviced (e.g. when refuse collection vehicles are on site) movement from accessible parking bays is restricted.

10.265 While greater amounts of level open space would be preferable around all sides of the parking bays, in this case Sites 1 and 3 are constrained, space is required for servicing vehicles to manoeuvre, and some consideration needs to be given to space for trees and landscaping. A condition should be imposed on any consent to require a servicing and parking management plan, to ensure arrangements for the control of servicing and access to and from parking spaces are in place and are acceptable. Subject to this no objection is raised.

10.266 The Council engaged the Centre for Accessible Environment (CAE) to review the detailed layouts of the flats and the development overall (including communal areas and external areas). The CAE made several recommendations to ensure wheelchair user flats comply with requisite standards. The proposals were revised to respond to the advice and the CAE advise that the scheme would be compliant with accessibility requirements, subject to final details (such as final configuration of storage spaces and location of utilities such as washing machines) being secured through the imposition of an appropriately worded condition.

G. NEIGHBOURING AMENITY

10.267 The London Plan (2021) Policy D3 states development proposals should deliver appropriate outlook, privacy and amenity, and help prevent or mitigate the impacts of noise and poor air quality.

10.268 Policy D6 sets out that the design of the development should provide sufficient daylight and sunlight to new and surrounding housing that is appropriate for its context, whilst avoiding overheating, minimising overshadowing, and maximising the usability of outside amenity space.

10.269 Policy D8 of the London Plan (2021) relates to Public Ream and states that proposals should ensure that appropriate shade, shelter, seating and, where possible, areas of direct sunlight are provided, with other microclimatic considerations, including temperature and wind, in order to encourage people to spend time in a place.

10.270 Policy DM32 of the WFLP Development Management Policies (2013) states that when considering the impact of a new development on residential amenity the Council will have regards to impacts on daylight and sunlight, outlook and privacy of surrounding properties.

Daylight, Sunlight and Overshadowing

10.271 Chapter 11 of the ES reports the outcome of the assessment of likely significant effects arising from the proposed development in terms of daylight, sunlight and overshadowing (DSO) of existing and proposed buildings.

10.272 A detailed assessment of the development's impact on the neighbouring properties in the context of the Environmental Impact Assessment Regulations is set out within Section 11 (The Environmental Statement) of this report.

10.273 Detailed tables of results of sunlight and daylight testing are included at Appendix 1 and 2 of this report.

10.274 Alterations to daylight and sunlight amenity to key sensitive surrounding receptors on completion of the Proposed Development have been examined including;

- Changes to sunlight and daylight to neighbouring properties
- Changes to overshadowing of key surrounding public and/or private amenity areas;
- Adequacy of light within the proposed residential units, and
- The potential for solar glare effects to key sensitive viewpoints surrounding the Proposed Development Site, particularly road users and train drivers, once the Proposed Development is complete.

10.275 When assessing impacts associated with planning applications, Local Authorities are guided by the tests laid out in the Building Research Establishment (BRE) document 'Site Layout Planning for Daylight and Sunlight', A guide to good practice, Second Edition.

10.276 It is important to note that the BRE guidance is for guidance purposes only and it is not intended to be interpreted as a strict set of rules. It also states:

"The advice given here is not mandatory and this document should not be seen as an instrument of planning policy; Its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of many factors in site layout design…"

10.277 Similarly, the Mayor's Housing SPG states an appropriate degree of flexibility needs to be applied when using BRE guidelines to assess the daylight and sunlight impacts of new development on surrounding properties, as well as within new developments themselves. Guidelines should be applied sensitively to higher density development, especially in opportunity areas, town centres, large sites and accessible locations, where BRE advice suggests considering the use of alternative targets. This should take into account local circumstances; the need to optimise housing capacity; and scope for the character and form of an area to change over time.

10.278 The BRE includes 3 key tests in relation to impacts to neighbour properties, namely:

- Vertical Sky Component (VSC)
- No Sky Line (NSL) which is also known as Daylight Distribution (DD)
- Annual Probable Sunlight Hour (APSH)

10.279 A full description of these tests is set out in Section 11 of this report. The effect to amenity space (sun on ground) and the adequacy of light within proposed dwellings has also been tested.

10.280 The impact of the proposal to the following neighbouring properties were tested:

Ref:	Address
1	2,4,6,8,10,12,14,16,18 Elm Park Road
2	1,3,7,13 Elm Park Road
3	162-168 Lea Bridge Road
4	160 Lea Bridge Road
5	Motion (Beck Square) blocks C,D,E,F,G

10.281 The starting point for the assessment is to note that all the BRE tests must be passed to be able to say the impact to a dwelling would be within the BRE guidelines (passing one test does not remove the requirement to pass the other

tests). Full tables showing transgressions against the 3 tests are included at Appendix 1 and 2 of this report. The tables below provide a summary of the detailed results.

Vertical Sky Component (VSC)

10.282 The table below relates to the results of the VSC test.

Property	Windows tested	BRE compliant		Not BRE compliant		
		Number	%	21% to 30% reduction	31% to 40% reduction	>40% reduction
Motion Block F and G	296	172	58%	33	48	43
Motion Block E	143	74	52%	17	41	11
Motion Block C and D	88	38	43%	9	14	27
160 Lea Bridge Road	4	3	75%	1	0	0
2 Elm Park Road	4	0	0%	0	0	4
4 Elm Park Road	7	1	14%	2	0	4
6 Elm Park Road	5	0	0%	0	1	4
8 Elm Park Road	7	2	29%	1	1	3
10 Elm Park Road	5	0	0%	2	2	1
12 Elm Park Road	7	2	29%	1	1	2
14 Elm Park Road	6	2	33%	1	3	0
16 Elm Park Road	6	1	17%	1	4	0
18 Elm Park Road	5	2	40%	1	2	0
1 Elm Park Road	5	5	100%	0	0	0
3 Elm Park Road	5	5	100%	0	0	0
7 Elm Park Road	5	5	100%	0	0	0
13 Elm Park Road	5	5	100%	0	0	0
TOTAL	**603**	**317**	**53%**	**69**	**117**	**99**

10.283 As the table above shows 53% of windows tested would comply with the VSC test with 47% not being compliant. It is noted that 69 tested windows which do not pass the BRE test showed transgression of between 21% to 30%, which is considered to be a minor transgression. A further 117 windows would see reductions in VSC by up to 40%, and 99 windows (16%) would see reduction over 40%. The transgressions weigh against the scheme in the planning balance.

10.284 While the impacts weigh against the scheme, it is important to recognise that there are factors which should be taken into account, which in this case moderate the weight that should be afforded to the transgressions.

10.285 Further detailed analysis of the individual circumstances of the dwellings, window and rooms impacted is set out in Chapter 11 of this report.

Daylight Distribution (DD)

10.286 The table below shows the overall results of the DD test of rooms within nearby dwellings.

Property	Rooms tested	BRE compliant		Not BRE compliant		
		Number	%	21% - 30% reduction	31% to 40% reduction	>40% reduction
Motion Block F and G	178	159	89%	11	4	4
Motion Block E	82	82	100%	0	0	0
Motion Block C and D	52	45	87%	2	4	1
160 Lea Bridge Road	2	2	100%	0	0	0
2 Elm Park Road	4	0	0%	0	0	4
4 Elm Park Road	5	2	40%	1	0	2
6 Elm Park Road	4	0	0%	1	1	2
8 Elm Park Road	4	3	75%	0	0	1
10 Elm Park Road	4	2	50%	0	0	2
12 Elm Park Road	4	3	75%	0	0	0
14 Elm Park Road	4	2	50%	1	0	1
16 Elm Park Road	4	2	50%	0	1	1
18 Elm Park Road	4	2	50%	0	0	2
1 Elm Park Road	2	2	100%	0	0	0
3 Elm Park Road	2	2	100%	0	0	0
7 Elm Park Road	2	2	100%	0	0	0
13 Elm Park Road	2	2	100%	0	0	0
TOTAL	**359**	**312**	**87%**	**16**	**10**	**20**

10.287 Using the DD test, it is observed that overall, 87% of rooms tested pass this BRE test. For a further 16 rooms, transgressions would be between 21% to 30% (considered to be a minor transgression given the London context).

10.288 At this point officers note that while a greater proportion of windows fail the VSC test, most rooms would retain compliant levels of DD. This reflects several factors which are bespoke to the individual residential units. These include location, number and size of windows and rooms. By way of example, in many cases rooms are lit by more than one window, while one window may be impacted by the proposal, the other may not. Where there are multiple windows serving a room and some windows are unaffected, the room is likely to retain a good level of DD.

10.289 Another factor to note is that the VSC test takes no account of the size of a window. By way of example, a window may be very small, and meet the VSC test (even though it may be so small and to only allow a small amount of light to the room it serves). This is a limitation of the VSC test, and why it is important to understand holistically how a residential unit would be impacted in apportioning weight to transgressions against the BRE guidance.

Annual Probable Sunlight Hours (APSH)

10.290 Where rooms are lit by more than one window it is sensible to consider the aggregate amount of sunlight reaching the room, though care should be taken to avoid double-counting. The BRE guide advises as follows:

"If a room has multiple windows on the same wall or adjacent walls, the highest value APSH should be taken. If a room has two windows on opposite walls, the APSH due to each can be added together."

10.291 In line with the BRE guidance the Applicant has calculated the room based aggregate APSH, which provides a more in depth understanding of impacts as compared to considering individual results for each window.

10.292 The table below shows the overall results of the APSH test of rooms within nearby dwellings.

ROOM-BASED APSH SUMMARY

PROPERTY	Rooms tested	ANNUAL SUNLIGHT					WINTER SUNLIGHT				
		BRE compliant		Not BRE compliant			BRE compliant		Not BRE compliant		
		Number	%	21% to 30% reduction	31% to 40% reduction	>40% reduction	Number	%	21% to 30% reduction	31% to 40% reduction	>40% reduction
Motion Block F and G	187	145	78%	4	22	16	183	98%	0	0	4
Motion Block E	87	77	89%	0	1	9	87	100%	0	0	0
Motion Block C and D	56	42	75%	0	3	11	50	89%	0	0	6
160 Lea Bridge Road	3	1	33%	0	0	0	1	33%	0	0	0
2 Elm Park Road	4	3	75%	0	0	1	3	75%	0	0	1
4 Elm Park Road	5	5	100%	0	0	0	5	100%	0	0	0
6 Elm Park Road	4	3	75%	0	0	1	3	75%	0	0	1
8 Elm Park Road	4	4	100%	0	0	0	3	75%	0	0	1
10 Elm Park Road	4	3	75%	0	0	1	3	75%	0	0	1
12 Elm Park Road	4	4	100%	0	0	0	3	75%	0	0	1
14 Elm Park Road	4	3	75%	0	1	0	3	75%	0	0	1
16 Elm Park Road	4	3	75%	1	0	0	3	75%	0	0	1
18 Elm Park Road	4	4	100%	0	0	0	4	100%	0	0	0
1 Elm Park Road	3	2	67%	0	0	0	2	67%	0	0	0
3 Elm Park Road	3	2	67%	0	0	0	2	67%	0	0	0
7 Elm Park Road	3	2	67%	0	0	0	2	67%	0	0	0
13 Elm Park Road	3	2	67%	0	0	0	2	67%	0	0	0
TOTAL	**383**	**305**	**80%**	**5**	**27**	**39**	**359**	**94%**	**0**	**0**	**17**

10.293 In terms of rooms, a total of 358 rooms have been tested for availability of annual and winter sunlight. A total of 287 rooms (80%) experience negligible impact

change for annual sunlight availability and 341 (94%) for winter sunlight after introducing the proposed development.

10.294 While there are transgressions in relation to the APSH test, the majority of rooms would meet the tests.

Alternate targets

10.295 The BRE guidelines set out at Appendix F provisions for setting alternate targets, noting that the numerical targets are advisory. The aim of alternate targets is to better understand the impacts of a proposal. One way to set alternate targets is to examine impacts with a scenario where an imaginary 'mirror image' building is modelled on the application site.

10.296 The 'mirror image' approach can be relevant, for example, where the baseline situation has no built form on the proposed development sites, as is the case here. Light received by existing neighbours would be greater than can be typically expected in an urban environment, where a development site is open. This can mean that the change (loss of light) from the existing and to the proposed (with development) scenario is amplified. The mirror massing approach provides an understanding whether it is the proposed development driving the extent of impact, or whether the scale of impact (light loss) is really driven by the fact an existing site is open and undeveloped. The Applicant has modelled a hypothetical mirror image scenario.

Mirror massing – Motion development, Blocks C and D

10.297 Comparison of the mirror analysis results to the proposed scheme impacts show overall similar results, with many that are even better with the proposed scheme in place. This is the case for both daylight tests. A similar outcome as above also applies to the comparison of sunlight results.

Mirror massing – Motion development, Block, E, F and G

10.298 For Block E, the mirror massing testing showed display similar levels of impact between a notional mirror massing and the proposed development. In some instances that proposed development had greater impacts in terms of VSC compared to a mirror massing scenario. Comparison of the daylight distribution levels shows they are very similar in the two scenarios.

10.299 For Blocks F and G, the mirror massing testing showed that in some instances that proposed development had greater impacts compared to a mirror massing scenario.

Mirror massing - conclusion

10.300 Overall, the availability of daylight and sunlight is similar between the proposed development on open sites compared to a notional mirror massing on the sites. Whilst there are some exceptions, it is relevant to consider the results of this exercise because it places the impacts of the proposed scheme in a more relevant perspective.

Conclusion

10.301 The tables above set out where the BRE guidelines are passed and where transgression occur. As would be expected with a scheme of such scale, there are likely significant environmental effects to some of the neighbouring residential properties. However, the proportion of properties out of the total assessed that would experience adverse impacts as a result with the development in place is considered low.

10.302 The transgressions weigh against the scheme in the balance of considerations relevant to its determination. To understand the weight to be afforded to transgressions there are a number of factors which should be taken into account, and these are discussed in detail within Section 11 of this report.

10.303 By way of examples of factors which tend to moderate the weight afforded to impacts, it is noted that in some cases the retained values are not significantly less than the BRE guidelines. In other cases, rooms are lit by more than one window and reasonable daylight distribution in rooms would be retained. There are instances where affected windows are located beneath balconies to flats above and are self-obstructed in the existing situation. In such situations an impact may be unavoidable even with a modest massing.

10.304 The Applicant has also undertake a mirror massing exercise, which shows that, in part, the scale of change (loss of light) reflects the fact that the sites don't currently accommodate built form, and as such existing neighbours receive more light than could typically be expected in an urban environment (and impacts are more pronounced for this reason).

10.305 The testing in Chapter 11 of the ES has looked holistically at affected properties in arriving at reasoned conclusions as to the overall effect. These have been examined by an independent daylight/sunlight expert and are considered accurate.

Privacy and Overlooking

10.306 The Mayoral Housing SPG (2016) states that development should maintain a distance of about 18m to 21m between habitable windows. The SPG adds how there should be adequate levels of privacy in relation to neighbouring properties, the street scene and other public places.

10.307 The separation distance between flats on Site 1 and the Motion Development (east across Argall Way) is approximately 44m. The Courtyard building on Site 2 would be set back approximately 30m from the facades of the Motion Development. The portion of the Terrace building on Site (where this fronts Lea Bridge Road) would be approximately 18m away from the Motion development, across a busy public highway.

10.308 The closest adjacency is between the Terrace Building on Site 2 and the rear of dwellings along the eastern side of Elm Park Road. The rear elevations to the main house of the properties along Elm Park Road would be separated from the proposed Terrace building by approximately 20m.

10.309 However, it is noted that the rear of the properties along Elm Park Road feature rear returns/extensions, which would be approximately 16m from windows in the proposed Terrace building.

10.310 To understand whether the separation distances are acceptable, context is important. Looking at separation distances in the vicinity, separation between the rear of dwellings if often 16m. By way of example, the distance between the rear of properties in nearby streets (such as Perth Road and Kettlebaston Road) is approximately 16m.

10.311 No. 4 Elm Park Road has a single storey extension which extends further into the rear garden and would be approximately 13m from windows in the proposed Terrace building. Direct overlooking from the proposed development at ground floor level would be prevented by boundary treatment.

10.312 Visibility of the rear extension at 4 Elm Park Road from first floor flats in the proposed development would be at an oblique angle. It is also worth highlighting that the rooms in the proposed flats facing Elm Park Road properties are to

bedrooms (not the main living rooms, which face west towards the Courtyard building).

10.313 At the second-floor level of the Terrace Building, the proposed flats don't have living areas at the rear. Access to the second-floor flats is proposed to be via a deck access at the rear (non-habitable space). While it would be possible for future residents to look from the deck access towards the rear of properties along Elm Park Road, the nature of this space as an accessway limits the time future residents would be on it. The main living area, and outdoor balconies for second floor flats face to the west (away from existing neighbours).

10.314 Looking at the situation as a whole, no objection is raised in terms of overlooking. Conditions are recommended to ensure boundary treatment is adequate and to prevent future residents using the biodiverse roof areas as terraces.

Outlook

10.315 Policy DM32 of the WFLP Development Management Policies (2013) defines outlook as the visual amenity afforded by a dwelling's immediate surroundings. It is expected that new developments should fit in within existing developments in functional terms, without creating an overbearing and dominating effect on adjoining occupiers.

10.316 Concerns have been raised in objections that scale of the proposed buildings is excessive, and would have an adverse impact to the outlook from existing properties. In relation to the buildings on Site 1 and 3 it is considered that these buildings would be set far enough away from existing properties to ensure there would be no undue impact to outlook.

10.317 The proximity of the Terrace building on Site 2 and properties along Elm Park Road would mean that outlook from the rear of the existing properties would be impacted. However, there are factors with mitigate any impact. Dwellings along Elm Park Road have multiple aspects, with rooms and an outlook across Elm Park Road, (which would not be impacted). In the existing situation, the outlook from the rear of the properties on Elm Park Road is unobstructed, and even modest massing would have an impact over the existing situation. The majority of the proposed Terrace building would be limited to 3 storeys in height, and this lower massing helps mitigate against any undue impact to outlook. Given the situation, no objection is raised.

Non-Residential Uses

10.318 The application proposes to deliver office, retail, community and cultural uses at ground level within the buildings.

10.319 Conditions to control hours of operation, servicing and deliveries, noise, vibration, flues, refuse storage and collection, recycling and light spill are recommended. A condition is also recommended to ensure sound insulation between residential and noise generating uses (including indoor play space).

Construction

10.320 Construction work would impact existing neighbouring occupiers as well as future residents living on the site in dwellings if these have been completed in earlier phases.

10.321 The noise report states that, in order to reduce noise and vibration effects, activities will follow Best Practicable Means (BPM). Proposed reduction methods include provision of site hoardings as noise barriers, selection of quieter plant or techniques and restrictions on working hours during certain phases or activities. Detailed information of these measures would be contained in the final Construction

Environmental Management Plan and it is considered that the successful implementation of these measures and appropriate phasing of the development could ensure that significant adverse noise and vibration effects would not arise during construction.

10.322 A range of consultees have commented on the proposal including its potential impacts and their mitigation in the construction phase. Overall, mitigation will be secured with an appropriately worded condition for a Construction Logistics Plan (CLP) to be approved prior to commencement of works. Compliance with the approved CLP would be a condition of any consent.

H. TRANSPORT AND HIGHWAYS

Policy Context

10.323 The NPPF (2021) states that development should:

- Give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;
- Address the needs of people with disabilities and reduced mobility in relation to all modes of transport;
- Create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;
- Allow for the efficient delivery of goods, and access by service and emergency vehicles; and
- Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

10.324 The NPPF also states that development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.

10.325 At the regional level, Policy T1 of the London Plan (2021) states that development proposals should facilitate the delivery of the Mayor's strategic target of 80 per cent of all trips in London to be made by foot, cycle or public transport by 2041.

10.326 The London Plan (2021) Policy T2 sets out the Mayor's Healthy Streets framework for ensuring that new developments deliver mechanisms which facilitate residents making shorter, regular trips by walking or cycling. Policy T3 requires developments to be mindful of transport capacity and connectivity. Policy T4 relates to assessing and mitigating transport impacts.

10.327 At the local level, Policy CS7 of the WFLP Core Strategy (2012) sets out that the Council will promote sustainable travel by guiding development to accessible locations, including town centres, to reduce the need to travel by car and to encourage walking, cycling and the use of public transport.

10.328 In addition, Policy DM14 of the WFLP Development Management Policies (2013) states that the Council will encourage sustainable travel. Major developments should be developed and contribute to a well-connected network of streets that optimises permeability and legibility and should have no detrimental impact on the walking and cycling environment.

Existing Access Arrangements

10.329 Towards the north end of Site 1 is the existing station entrance. There is a cycle lane and foot way along side of Site 1, the arrangement is such that the footway adjoins Argall Way, and the cycle lane runs inside the foot way, and adjoins the existing cycle hub on Site 1.

10.330 There is a cycle way and running beneath the railway bridge joining Sites 1 and 3. Footways and cycle ways pass along the Lea Bridge Road and Orient Way frontages of Site 2. The is also a bus stop on the Lea Bridge Road frontage of Site 2.

Access Proposals

10.331 Planning permission for the proposed Lea Bridge Station upgrade was granted in January 2021. The proposals for the new entrance include a ticket hall, provision for automatic ticket gate lines, a retail unit on the ground floor, and lower ground floor level cycle hub with 130 bicycle parking spaces (an increase from the 48 currently on Site 1) is proposed. The cycle hub would be adjacent to the cycle lane linking Sites 1 and 3.

10.332 The station upgrade involves decommissioning the existing entrance stairs from Argall Way and constructing a new deck and public plaza in front of the new station building adjacent to Lea Bridge Road. The new station building includes retail provision and cycle parking at the lower ground level. Access to the new station entrance would be from Site 1, on the Lea Bridge Road frontage. The approved new station entrance and proposed public realm areas on Site 1 will need to seamlessly connect to one another.

10.333 The ES states the construction of the New Lea Bridge Station Entrance development (Application Ref. 202850), located adjacent to Site 1, is anticipated to be undertaken concurrently with the construction works of the proposed development.

10.334 A planning obligation is recommended to ensure, that if this application is approved and implemented, the development of the new station entrance takes place concurrently. A condition is recommended to ensure access to the train station is maintained during construction.

10.335 On Site 1, it is proposed to alter the existing footway and cycle lane such that the foot way would adjoin the built form on site 1 (allowing direct access to the building for pedestrians). The cycle lane would run along the outside of the foot way, adjacent to Argall Way. Access for parking and servicing is proposed towards the northern end of Site 1.

10.336 In Site 2, access for servicing and parking is proposed from Orient Way, at the ground floor of the Courtyard Building.

10.337 For Site 3, the cycle lane beneath the railway bridge (lining Sites 1 and 3) is to be upgraded. Access for vehicles would from Orient Way towards the southern end of the site. A new pedestrian and cycle crossing is proposed between Sites 2 and 3.

Trip Generation

10.338 The submitted Transport Assessment (TA) sets out the net trip generation to the site. In order to forecast an accurate trip generation associated with the proposed development, the TRICS trip rate database has been reviewed, the Applicant has also considered trip generation assumptions used in the assessment of the Lea Bridge Gas Works planning application. Trip generation was also informed by Census information and from the Department for Transport (DfT).

10.339 The Applicant also undertook traffic surveys in 2021 to ascertain actual traffic numbers. The transport assessment considers trips generated by future residents and the non-residential elements of the scheme. The Council also required the Applicant to examine traffic information prior to the pandemic to inform trip rates.

10.340 Concerns have been raised in objections to the age of the Applicant's TRICS trip rate data base information. However, it should be noted that the Applicant has necessarily looked for comparable developments within the TRICS trip rate data base. The Applicant's advice is that there are not more recent comparable developments to choose from. The data used is considered to err towards worst case, rather than being out of date.

10.341 In relation to construction traffic, Chapter 5 (Demolition and Construction) of the ES states that the peak construction vehicles per day when combined with the New Lea Bridge Station Entrance development, would be 53 vehicles a day (106 two way vehicle movements).

10.342 The proportion of future trips to be undertaken by car drivers takes account of the fact that the scheme is largely car free. The proportion of car driver trips has therefore been aligned with the proposed blue badge parking. Across the three sites (not including servicing trip) there would be 95 daily trips in vehicles (including taxis etc). In the morning peak hour, there would be 17 vehicular trips.

10.343 The TA states that proposed development would generate a total of 86 delivery and servicing vehicle daily trips, with the busiest time being between 10am to 11am.

10.344 Concerns have been raised in objections that the number of residential deliveries assumed within the submitted material is likely to have been under-estimated given online shopping increases due to Covid 19.

10.345 Whilst it may be reasonable to conclude that the use of online shopping has increased in recent years and likely spiked during the height of the Covid-19 pandemic, no objection is raised to the trip rates utilised within the TA. The reason no objection is raised is that as the use of online shopping services increases, it is reasonable to conclude that logistics and courier companies will make better use of capacity rather than simply send another vehicle to the same location. That means, for example, a van arriving at a development site will carry more goods on the same vehicle than it would have previously. The number of trips does not therefore necessarily increase.

10.346 Transport for London (TfL) released their latest Travel in London report (at the end of 2021), which provides a detailed analysis of the implications that the COVID pandemic has had on travel in London including delivery and servicing patterns, taking into consideration changes to online consumption trends. The report states:

"*Of all vehicle types, weekly goods vehicle flows were impacted the least by the third lockdown at the start of 2021 but returned slowly during the first quarter of the year. By mid-April, HGVs stood at 75 per cent of pre-pandemic levels, and the figure was 80 per cent for LGVs. Goods vehicle activity declined slightly through the summer, following a peak of 81 per cent of 2019 levels in May for HGVs and 87 per cent for LGVs. At the start of November 2021, HGV flows were 20 per cent below pre-pandemic levels, and the figure for LGVs was 23 per cent below. This shows that the growth in online shopping over the past 18 months has not led to an increase in LGV traffic."*

10.347 TfL's Travel in London report indicates the assumptions presented in the Applicant's Transport Assessment, submitted in support of the planning application, were in line with trends recorded by TfL.

10.348 There are indications that the use of vans in London could be reduced in favour of cargo bikes. The proposal encourages a shift to sustainable freight through the provision of an on-site cargo loading/unloading bay for each of the sites. The shared space service area/parking area also provides additional space, should moped/motorbikes, cargo bikes, electric scooters/bikes arrive to the site, when a cargo bike loading bay is occupied.

10.349 A change towards more sustainable, faster freight choice (i.e., cargo bike, e-cargo bikes) is likely to result in a reduction in delivery vehicles.

10.350 While there is not a concern with the Applicants analysis, the Council requested that the Applicant undertake sensitivity testing to see whether impacts would be acceptable if trip rates were higher (as suggested in objections). This analysis does not raise cause for alarm. The Applicant has also undertaken an analysis which shows that it is unlikely that there would be multiple servicing vehicles at the sites at the same time.

10.351 The Council's Highway team requested that construction traffic not be directed along Lea Bridge Road, and as such the Applicant does not propose to use Lea Bridge Road, rather traffic would be directed along Orient Way.

10.352 In the context of the EIA regulations, IEMA guidance identifies thresholds for when effects would be considered significant, this include where traffic movements would increase by 30% or more. In terms of increases during construction, the ES identifies that increases in vehicle movements (including HGV movements) would be below 30% (the threshold for a significant effect).

10.353 Concerns are raised in objections that if all of construction the vehicles are routed via Orient Way, then there would be a higher impact on pedestrians and cyclists than assessed when compared to a scenario when construction HGV are dispersed. However, the Applicant has assessed the impact of vehicles being directed to Orient Way, and the analysis confirms that the increase in traffic would still be less than 30% (i.e., below the threshold for a significant effect in the context of IEMA guidance).

10.354 Construction impacts occur during construction (i.e., not permanent impacts). The potential for there to be additional traffic and a degree of disruption during construction is the reason that conditions are recommended to secure a Construction Logistics Plan. Pedestrians and cyclists would be separated from vehicles, and the pedestrians and cyclists would be on footpaths and cycle ways (not the road). Locations where pedestrians and cyclists cross the roadways near the site are signalised, to allow safe crossing. The Application proposes to enhance and promote pedestrian and cycle routes and facilities.

10.355 Subject to the mitigation proposed being secured by way of conditions and planning obligations, no significant adverse effects have been identified as a result of traffic associated with the demolition and construction works.

10.356 In terms of when the development is operational, again the ES identifies that increases in overall traffic movements (including HGV movements) would be below a 30% increase.

10.357 Concern has also been raised in relation to the absence of assumptions in relation to traffic growth that may have occurred since the Applicant undertook surveys in early 2021. However, analysis of DfT count data, including the 2021 data, shows a declining trend for Lea Bridge Road traffic between 2000 and 2019. Based on this historical trend, the Applicant's approach is reasonable (there is no compelling reason to predict an increase in background traffic growth).

10.358 It is also worth noting that the Mayor of London's Transport Strategy aims for 80% of all trips in London to be made on foot, by cycle or using public transport by 2041. Planning for an increase in vehicular traffic over time would run contrary to the strategy.

10.359 The proposals are largely car free, swept path analysis shows vehicles entering and leaving the site can do so in a forward direction, reducing disruption to traffic flows and being safe.

10.360 Objections state that the Applicant has failed to demonstrate that the proposed development will not adversely impact the surrounding transport network, and therefore the application should be refused. However, the NPPF states that development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.

10.361 The increase in the peak hour and traffic at other times would not result in a severe impact, and subject to a robust travel plan, and promotion of sustainable forms of transport, trip generation could well be reduced over time. In view of the situation, it would not be reasonable to refuse planning permission on the basis of traffic impacts.

Car Parking

10.362 Accessible parking spaces are proposed for residents, with, Site 1 accommodating 3 spaces, Site 2 including 6 spaces and Site 3 providing 3 spaces. This level of provision (3%) accords with the London Plan (2021) policy T6.1. The policy also seeks passive provision for the equivalent a further 5%. In this case the site constraints are such that further parking spaces could not be provided.

10.363 The supporting text to London Plan (2021) policy T6.1 is clear that through Parking Design and Management Plans, applicants should provide details of how provision of disabled persons parking spaces will be made, managed and enforced. Parking Design and Management Plans should show where these spaces will be located and demonstrate how their availability will be made clear to residents prior to occupation to inform their housing decision. A condition is recommended to ensure Parking Design and Management Plans are submitted to for approval to the Council ahead of each phase of development coming forward.

10.364 London Plan (2021) policy T6.5 states that all non-residential elements should provide access to at least one on or off-street disabled persons parking bay. In this case, the constrained nature of the sites is such that it is not possible to provide additional car parking spaces.

10.365 Concerns have been raised in objections that future residents will own cars and simply park them in surrounding streets. The nearby residential streets are already in a controlled parking zone (CPZ) In this regard a planning obligation is to recommended to secure contributions to fund a review of CPZs in the area with a view to either creating new CPZ's or extending existing ones. In this way, it will simply not be possible for future residents to obtain parking permits or to park in surrounding areas.

Active Travel Initiatives and Walking and cycling

10.366 Cycle parking facilities for staff, as well as residents and their associated visitors, are proposed to be provided within the Site. London Plan (2021) policy T4 states where mitigation is appropriate a financial contribution will be required to reduce the cumulative impacts of development on public transport infrastructure including walking and cycling. The TA forecasts that there would be 644 pedestrian and 128

cycle trips daily. Such an increased usage of cycle and pedestrian trips would put a strain on existing infrastructure

10.367 The Council's Highway Officer has advised that a contribution of A contribution of £188,000 towards Active Travel and Walking and Cycling, to achieve behaviour change and improving the pedestrian and cycling links.

10.368 The planning obligation is necessary to mitigate the impacts that the development will have as a result of increased pedestrian and cycling movements as well as the increased servicing and delivery presence that the proposal will generate.

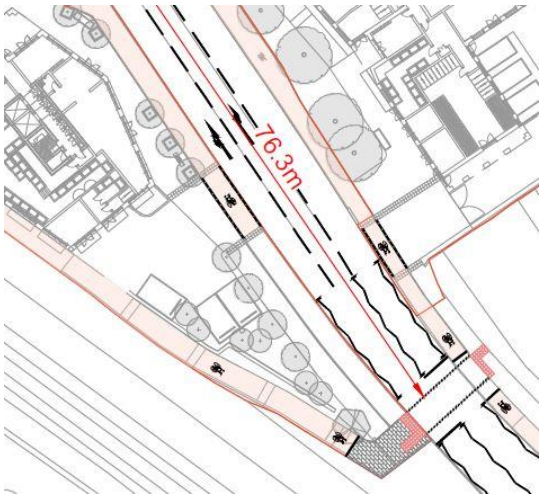
10.369 While street lighting is adequate for the population living near the site at present, with the uplift in residents proposed means that street lighting would need to be improved, and a contribution of £60,000 is required to fund the enhancements necessary.

10.370 If approved, a contribution of £14,000 would be secured towards wayfinding in the surrounding area.

10.371 The development must be classified as car-free with future residents not being entitled to parking permits (a planning obligation is recommended to secure this).

10.372 A Toucan crossing is proposed across Orient Way. A Toucan crossing means "two can" cross – both pedestrians and cyclists are allowed to use the crossing to get from one side of the road to the other.

10.373 Concerns have been raised in objections that future residents would cross roads, and that this would disrupt the flow of traffic. However, the existing signalised junction has pedestrian crossing points, and these are to be retained. No changes are proposed to increase pedestrian crossing times (there would not be greater periods of time when cars would be stopped to allow pedestrians to cross).



10.374 The Toucan crossing represents offsite highway works and the final detailed design and any other relevant approvals would need to be secured as a part of the S278 agreement.

Cycle Parking

10.375 London Plan (2021) Policy T5 and Table 10.2 set out the minimum standards for new development cycle parking provision. The total provision of 635 long-stay residential cycle parking spaces is compliant with the London Plan (March 2021).

10.376 The cycle parking stores are adequately sized with a choice of four cycle stand types (Two-tier, Sheffield stands, enlarged Sheffield stands and combined single

tier/Sheffield stands, such as the Broxap “Hi-Rise Two Tier Cycle Rack Storage System”) to enable them to be fully used by future residents.

10.377 Signage is proposed to be provided in the cycle stores where the combined single tier/Sheffield stands are located that will advise residents to be considerate of others and leave the lower stands, Sheffield stands and enlarged Sheffield stands (with clear headroom) for those who cannot use the upper racks.

10.378 On Sites 1 and 3, cycle parking is proposed within the building at basement level and on the upper level which also accommodates indoor amenity space. For Sites 1 and 3, the access to the cycle storage is via a dedicated lift in each building. The lifts are large enough to accommodate 2 cyclists (and their bikes) at a time and meet the size requirement for disabled cyclists.

10.379 Concerns were initially raised by internal Highway Officers in relation to basement parking. The concern being that basements can be dark and uninviting, or insecure places for cycle storage.

10.380 The Applicant has provided a series of precedents where basement cycle parking has been successfully implemented in London. Subject to conditions to ensure, adequate lighting, CCTV, access and signage it is considered that basement cycle storage would be acceptable. The Metropolitan Police have not raised objection to the basement cycle storage areas. The sites are constrained and, in this case, the efficient use of space within the buildings basements is acceptable.

10.381 To gain entry to the cycle lift lobby for Sites 1 and 3, double doors are proposed. TfL requested double doors to ensure the overall opening would be wide enough for cyclists. The Metropolitan Police have raised concern over the use of double doors in case one door was to be left open (which could then be used by criminals to access the building). Officers have tried to strike a balance between the conflicting requests from TfL and the Metropolitan Police, and conditions are recommended to ensure access to the cycle lift lobby is wide enough and secure.

10.382 Cycle storage on Site 2 is proposed at ground level and can be accessed directly from external areas. TfL had raised concern that this may be insecure, however the Metropolitan Police advice is that the arrangement is acceptable, subject to adequate lighting, surveillance (CCTV) and doors being secure and locks adequate. In view of the advice from the Design Out Crime officer no objection is raised. Conditions are recommended to ensure the security and safety of cycle storage areas.

10.383 Supporting facilities will be provided for the commercial land uses in line with the London Plan (March 2021), including:

- Shared accessible shower/changing room per site;
- Maintenance facilities (i.e., repair stands) within cycle stores (both residential and commercial); and
- Lockers (at two per three long-stay spaces) in a communal employee area for each site.

10.384 The proposed development will deliver a total of 50 short-stay visitor cycle parking spaces across the three sites for residential and non-residential uses, in line with the London Plan (2021).

10.385 Cargo bike parking bays will be provided to facilitate and encourage last-mile deliveries by foot or cycle. Each site will provide a cargo bike loading bay (i.e., 3.0m x 1.0m), provided within the public realm, accessed via the proposed vehicle access and within proximity of the ground floor entrances for the residential and commercial/community uses.

Electric Vehicle Charging Points (EVCP)

10.386 London Plan (2021) Policies T6.1 and T6.5 set out EVCP requirements. This is one charging unit for 20% of spaces, with the remaining spaces provided with passive provision.

10.387 The Application proposes to deliver this level of provision Conditions should be imposed on any consent to ensure that EVCP are provided along with a Parking Design and Management Plan.

Travel Plan

10.388 A draft residential Travel Plan has been prepared in support of the planning application. This has been reviewed by TfL and the Council's Highway Development team and considered acceptable for this stage. The final Travel Plan should be secured by way of as planning obligation on any consent. A financial contribution towards Travel Plan monitoring should also be secured.

Public Transport

10.389 The application proposes up to 345 homes, as well as non-residential space and is largely care-free. As such there would be an increase in the use of public transport as a result of the additional population living at the site.

10.390 The site is well located in respect of the public transport network. It is next to Lea Bridge Station, which is served by Greater Anglia services. Trains connect to Stratford Station one stop to the South (with connections to over and underground services) and to Tottenham Hale one stop to the north (again with connections to the underground). The TA has assessed spare capacity in trains against the forecast increased usage, and it is clear that sufficient capacity exists to accommodate additional train users.

10.391 The site is close to a comprehensive level of bus provision. The nearest bus stops are situated on Lea Bridge Road immediately to the west of the site, which provide access to bus routes 55, 56, N38 and N55. To the north of the site, bus stop AS on Staffa Road provides access to bus route W19. Looking at increases in persons using buses, the Applicant's modelling shows that at peak time, the development would add no more than additional 6 passengers to a bus (capacity would not be exceeded).

Construction Logistics Plan

10.392 London Plan (2021) Policy T7 set out the policy for assessing the effects of development on transport capacity.

10.393 Policy DM13 of the WFLP DM Policies (2013) states that the Council will ensure that development is properly integrated with the transport network by requiring development proposals to submit Construction Logistics Plans, Delivery and Servicing Plans and the uptake of the Freight Operators Recognition Scheme where appropriate in accordance with the London Freight Plan and coordinated with travel plans.

10.394 Policy DM15 of the WFLP DM Policies (2013) states that the Council will ensure the most efficient use of the borough's available highway network by requiring development to connect to the highway network in a way that encourages road users to use the most appropriate road in accordance with Waltham Forest's road hierarchy and discouraging through-traffic from using local roads and avoiding individual access direct to the Transport for London Road Network, Strategic Road Network and district distributor roads.

10.395 The application is supported by an outline Construction Logistics Plan (CLP), which considers the construction programme and vehicle routing. The route proposed for

construction vehicles will be Orient Way for access and egress to the sites, via the A106 and A12 TfL road network. The A12 will then facilitate construction traffic access/egressing from either the south, or the A406 leading to the M11 to the north of the site.

10.396 The outline CLP examines access to each site for construction related vehicles and measures to reduce impacts. Vehicle movements have been estimated and proposals for implementation, monitoring and updating the CLP are included. The outline CLP provides a good early indication as to the approach to the approach being taken in relation to construction logistics. In line with the London Plan (2021) Policy T7, a full Construction Logistics Plan (CLP) will be secured through condition.

Highways works S.278 and highway adoption and 'stopping up'

10.397 Extensive discussions have been held between the applicant and the Council's Highways Development team to establish the approach to the highways works and general arrangement.

10.398 A small section of land along the Orient Way frontage of Site 2 would need to be adopted. Most of the land on all three sites is currently adopted highway land. Except for foot and cycle ways the remaining areas of the site would need to be stopped up (i.e., cease to be adopted highway land).

10.399 The existing station entrance is currently owned by the Railway, and once the new station entrance is open this land would be subsumed into Site 1 and the ownership of that land transferred.

10.400 The Section 106 legal agreement will require the applicant to enter into a separate Section 278 agreement with the Local Highway's Authority, as appropriate. The extent of works would include:

Site 1

- Renewal of the footway on all frontages of the site including Lea Bridge Road, Argall Way.
- Renewal and repositioning of the cycle track on Lea Bridge Road and Argall Way and any accommodation works in relation to the traffic signals
- Construction of the rerouted cycle track along Network Rails boundary fence.
- Construction of a dropped kerb to facilitate vehicular access on Argall Way
- Review of the waiting and loading restrictions on Lea Bridge Road and Argall Way
- New lighting design
- Any highway reinstatement works made necessary as a result of damage caused during construction.

Site 2

- Renewal of the footway on all frontages of the site including Lea Bridge Road and Orient way
- Construction of the rerouted footway on Orient Way
- Renewal of the cycle track along Lea Bridge Road and Orient Way subject to feasibility designs meeting acceptable parameters in relation to lighting and level standards.
- Construction of a dropped kerb to facilitate vehicular access on Orient Way
- Review of the waiting and loading restrictions on Lea Bridge Road and Orient Way
- New lighting design

- Construction of a new Toucan crossing on Orient Way
- Any highway reinstatement works made necessary as a result of damage caused during construction.

Site 3

- Renewal of the footway on all frontages of the site including Lea Bridge Road and Orient way
- Renewal of the cycle track on Lea Bridge Road and Orient way
- Construction of the rerouted cycle track along Network Rails boundary fence.
- Repositioning of the width of the footway and cycle track along Orient Way as discussed and agreed with Highways at the pre application stage
- Construction of the repositioned footway and cycle track along Orient Way
- Construction of a dropped kerb to facilitate vehicular access on Orient Way
- Review of the waiting and loading restrictions on Lea Bridge Road and Orient way
- New lighting design
- Construction of a new Toucan crossing on Orient Way
- Any highway reinstatement works made necessary as a result of damage caused during construction.

10.401 The works would be carried out by the Local Highway Authority and funded by the developer.

Delivery and Servicing

10.402 The outline Delivery and Servicing Management Plan submitted with the application confirms a commitment to ensuring that delivery and servicing requirements of the proposed development can be properly integrated into the scheme.

10.403 A detailed Delivery and Servicing Management Plan (DSP) should be secured by condition and would cover the detailed design and waste collection arrangements for both residential and private waste collection associated with the other uses. Conditions are recommended to secure this.

10.404 The Applicant's ES (chapter 16) sets out several key mitigation and monitoring measures, including in relation to servicing.

10.405 The Applicant proposes that the development and monitoring of the DSP will be conducted by on-site management personnel via a dedicated nominated DSP co-ordinator. The DSP co-ordinator role will be appointed by on-site management personnel one month prior to the occupation of the development and the details will be supplied to LBWF upon their appointment.

10.406 The main responsibilities of the DSP co-ordinator will be to manage the delivery, servicing and refuse activity generated by the development, and liaise closely with estate management company in regard of their delivery and servicing requirements. They will be required to:

- To take ownership of the DSP and implementation of the servicing strategy for the development;
- To ensure that refuse is brought to the collection points each week for collection and that containers are returned to the storage unit thereafter;
- To establish and maintain a delivery and servicing schedule for the development to ensure that the delivery and servicing requirements of all occupiers can be met without conflict within the site;
- To monitor deliveries and ensure that they occur in accordance with the servicing strategy;

- To as far as possible programme deliveries so as to avoid waste/recycling collections;
- To inform drivers that vehicle engines must be switched off whilst goods are being loaded/unloaded (i.e. when their vehicle is stationary);
- To ensure the occupiers, employees and residents aware of delivery and servicing arrangements;
- To ensure the time spent in on-site by delivery vehicles is minimised, help direct deliveries to the right location and ensure vehicles are not parked up in non-designated delivery areas or obstructing vehicular access throughout the site;
- To monitor the DSP in line with the monitoring methodology as set out in this DSP;
- To provide the main liaison between LBWF and TfL, the occupiers and their suppliers;
- To inform the occupiers and residents of any road works that may affect access to the development so that they may inform suppliers in relation to any alternative arrangements that need to be made; and
- To meet with LBWF where necessary should any issues associated with delivery and servicing of the site occur in the future.

10.407 The management of the site's accesses will be essential to minimise the unnecessary presence of vehicles on-site and prevent idling vehicles on Orient Way and Argall Way.

10.408 A concierge service is proposed to control access and egress from the development and arrange and direct delivery and servicing vehicles when necessary. The provision of consolidated delivery stores (or post-rooms) is proposed to prevent deliveries to individual residential front doors.

10.409 The Applicant proposes way finding signage, accurate addressing, and resident welcome packages (including information on deliveries for new tenants and employees.

10.410 It is proposed that there be on-site management personnel responsible for managing and co-ordinating the servicing of the development. On-site management personnel will have overall responsibility for the day to day management of deliveries, servicing, and refuse. The aim is that these staff be on hand to provide any necessary assistance during refuse collection/deliveries.

10.411 Occupiers, employees and residents will be made aware of delivery and servicing arrangements prior to purchase and occupation. Suppliers and delivery companies will be made aware of the servicing requirements, the access location and online delivery booking system.

10.412 In terms of mitigation, planning obligations are to be secured to review the existing CPZ, extending this if necessary. If approved funding would be secured to install enforcement cameras to cover the servicing areas on each of the 3 sites. The Applicant proposes to use on-site automatic number plate recognition (ANPR) CCTV to monitor the on-site servicing and parking areas. Drivers misusing the on-site area will be moved-on by on-site management personnel and captured via ANPR CCTV.

10.413 A Delivery and Servicing Management Plan would be secured by planning condition on any consent. This would require monitoring and surveys to be undertaken**,** with the aim being to reduce delivery vehicle generation. Through the Delivery and Servicing Management Plan, all occupiers of the non-residential uses will be required to use a booking delivery system (to plan ahead) and prospective

residents will be required to use a booking system for move in/move out/long duration delivery/servicing requirements.

10.414 The delivery and servicing provisions are considered acceptable and would accord with Policy DM32 of the WFLP Development Management Policies (2013) and London Plan (2021) Policy T7.

Healthy Streets Assessment

10.415 In accordance with the Mayor's Healthy Streets framework, the applicant has undertaken an Active Travel Zone assessment to assist the understanding of the proposed development potential to contribute to promote sustainable travel. The Applicant has also undertaken an initial assessment of the scheme against the 'healthy streets' indicators.

10.416 A S106 contribution of £25,000 is required to improve wayfinding in the surrounding area.

I. WASTE MANAGEMENT

10.417 WFLP Core Strategy Policy CS6 promotes the prevention and reduction of waste and requires new developments to provide adequate and well-designed internal and external storage facilities for residual waste and recycling. Policy DM32 of the WFLP Development Management Policies (2013) states that new developments should ensure that the provision of adequate facilities for the storage, collection and disposal of refuse is well secured.

10.418 The outline servicing plan submitted with the application shows where refuse storage will be provided at the ground floor level of each site. Swept path analysis shows that bin lorries could enter and leave the sites in forward gear. The residential waste will be collected by LBWF waste collection operatives who will wheel out the bins to the refuse vehicle parked in the designated bay.

10.419 The application is also supported by an Operational Waste Management Strategy (WMS). The WMS considers the potential impacts that may arise from waste generated during the operational phase of the Proposed Development, with the overall aim of developing a strategy for legislative compliance and good practice in the separation, storage and collection of waste arising.

10.420 Estimated volumes of residential waste generated at the Proposed Development once operational have been quantified using a waste generation metric for weekly waste arising detailed in LBWF's Waste and Recycling Guidance for Developers. The Applicant's approach is acceptable and would ensure sufficient waste and recycling storage is provided for future occupiers.

10.421 Residents in Tower 1 and Tower 2 will have a raised parapet within the residential waste store, surrounded by bins to allow wheelchair users or those with mobility issues to easily deposit their segregated waste. Bins accessed by the parapet will be rotated on a regular basis (as they become full) by the on-site Facilities Management (FM) team. Non-disabled residents will be encouraged through signage to deposit their segregated waste at the lower level, to ensure all residents have access to empty bins.

10.422 The residential waste stores would be designed to British Standard BS5906:2005 *Waste Management in Buildings – Code of Practice standards*. In summary, the waste facilities will include the following:

- A suitable water point in close proximity to allow washing down;
- All surfaces will be sealed with a suitable wash proof finish (vinyl, tiles etc.);
- All surfaces will be easy to clean;
- Suitable floor drain; and

- Suitable lighting and ventilation

10.423 Commercial occupiers have also been provided with separate waste storage areas within the building. The commercial tenants will provide temporary internal waste storage within their commercial area that allows for the segregation of waste at source. It is proposed that the commercial tenants or the on-site FM team will transfer the segregated waste from their temporary internal waste storage to the commercial waste store.

10.424 On collection days, the collection operatives will collect the waste directly from the non-residential bin stores.

10.425 While the Operation Waste Management Strategy submitted with the application provides a good direction of travel, there are matters of detail which can't be known at this stage of the planning process. As such a condition is recommended to secure a detailed Operation Waste Management Strategy, prior to above ground works, subject to this no objection is raised in terms of waste and recycling proposals.

J. FLOODING AND DRAINAGE

10.426 London Plan (2021) policy SI12 relates to flood risk and states that development proposals should ensure that flood risk is minimised and mitigated, and that residual risk is addressed. This should include, where possible, making space for water. The policy also notes that natural flood management methods should be employed in development proposals due to their multiple benefits including increasing flood storage and creating recreational areas and habitat.

10.427 Policy SI13 relates to sustainable drainage and states that development proposals should aim to achieve greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible. Drainage should be designed and implemented in ways that promote multiple benefits including increased water use efficiency, improved water quality, and enhanced biodiversity, urban greening, amenity and recreation.

10.428 WFLP Core Strategy (2012) policy CS4 relates to minimising and adapting to climate change and states that developments should be designed in a manner that minimises the use of water, protects the water environment and minimises the potential for flooding. The policy goes on to direct development away from areas at high risk from flooding.

10.429 WFLP Development Management Policies (2013) policy DM34 relates to flood risk and requires that flood risk be managed by ensuring that development does not cause a reduction in the volume of floodplain storage or increase flood risk elsewhere. The policy also requires development to achieve greenfield run-off rates through the maximisation of Sustainable Urban Drainage Systems (SuDS) where possible.

10.430 The River Lee Flood Relief Channel is 290m west of the site and the Dagenham Brook is 500m west of the site.

10.431 Concerns have been raised in objections that the sites may well be at risk of tidal flooding. However, flooding from the sea is managed by the Environment Agency (EA) through the Thames estuary flood defences. The Thames estuary's most significant flood risk is from a tidal surge event and therefore a system of defences has been constructed to reduce the risk of tidal flooding.

10.432 This includes the Thames Barrier, other smaller barriers, 350 kilometres of flood walls and embankments, pumping stations and flood gates.

10.433 The EA is constantly reviewing the situation to take account of increasing pressures, including climate change. The Thames Estuary 2100 (TE2100) Plan was developed by the EA to provide strategic direction for managing tidal flood risk in the Thames estuary to the end of the century and was approved by Defra in 2012. It sets out how the Environment Agency, working with partners, will continue to protect 1.25 million people and £200 billion worth of property from tidal flood risk.

10.434 The application was referred to the EA who have not raised concern in relation to tidal flooding. While the site is not affected by tidal flooding, but parts of the site are at risk of fluvial flooding.

10.435 The majority of Site 1 is located in Flood Zone 2 with the south western boundary partially in Flood Zone 3. Site 2 is predominantly located in Flood Zone 1 with the south eastern boundary partially in Flood Zone 2. Site 3 is predominantly located in Flood Zone 1 with the south western boundary partially in Flood Zones 2 and 3.

10.436 The Government's Planning Practice Guidance (PPG) provides guidance to LPAs to ensure effective implementation of the planning policies set out within the NPPF regarding development in areas at risk of flooding. The PPG also includes advice on flood risk vulnerability and flood zone compatibility. Flood risk vulnerability is split into five classifications, residential development is classed as 'more vulnerable'.

10.437 Given the flood zones effecting the site and the vulnerability, the application must be assessed against the sequential and exception tests. In terms of the sequential test, it is noted that the Site is located within the Lee Valley Opportunity Area, Northern Olympic Fringe Housing Zone and has an emerging Lea Bridge Station Sites Strategic Site Allocation (ref. SA07) including a minimum of 300 new homes and 3,000 sqm of non-residential floorspace. On this basis it is considered that the Sequential Test has been passed.

10.438 In relation to the exception test, the Development includes a number of sustainability measures, outlined in the Sustainability Statement, which are considered to outweigh the risk of flooding. These include:

- Soft landscape proposals to enhance the overall green infrastructure network by creating a series of interconnected green spaces, including biodiverse amenity beds, wildflower areas, climbers, green open space and both linear and clustered tree arrangements.
- The application is supported by an Energy Statement which details how net carbon zero will be met, through a mixture on on-site energy efficiencies, low emission heat sources (heat pump), renewable energy (photovoltaics array) and a carbon offset payment for any emissions which are infeasible to reduce any further on site.
- The Energy Strategy Report confirms that the proposed heat network will achieve good practice design in line with CIBSE Code of Practice CP1 or equivalent.
- Fixed noises sources within the new development will be limited to the plant within the energy centre, roof-top ASHP plant, and ventilation plant for the car parks, commercial space and other ancillary space.
- A range of water conservation measures will be implemented to reduce the calculated water consumption to below 105 litres per day for each resident.
- Light pollution will be minimised by designing the external lighting so that light spill from the proposals is below the limit outlined 'Institute of Light Engineers Guidance Notes for the Reduction of Obtrusive Lighting'. Installed lighting shall be controlled via photocell detectors and time-clocks in order to minimise operation and reduce energy use

10.439 It is also necessary for the proposals to demonstrate it would be safe and not increase flood risk to others.

Management and mitigation of flood risk

10.440 In order to protect the proposed buildings from fluvial flooding all the access to the building are set above the design flood level.

10.441 To ensure protection during a flood event on Sites 1 and 3 there would be no external entrances at the lower ground level effectively bunding these areas and preventing the ingress of flood water. Safe routes of egress/access would be available from all three Sites during a flood event.

10.442 In order to ensure no loss of floodplain storage during a flood event as a result of the development floodplain compensation calculations have been undertaken. These calculations informed mitigation and flood water storage proposals. The proposals would ensure no loss of storage and provide a net increase in flood storage available at the Site of 86m3, providing a benefit in terms of flood risk to the local area. The boundary wall adjacent to the properties fronting Elm Park Road would be set at a minimum of 300mm above the design flood level and no lower than existing levels to ensure that any flood water in the compensation area onsite would not affect these properties.

10.443 Site 1 and Site 3 have areas of low and medium risk of surface water flooding along their south western boundary associated with the lower railway. As the buildings are all accessed from the ground floor at the same level as Lea Bridge Road there would be no ingress route for surface water from the adjacent railway line to affect the Sites.

10.444 The risk of flooding to the application Site has been assessed and can be considered at low risk of flooding from tidal, pluvial, groundwater and artificial sources. Parts of the Site are at a medium and high risk of fluvial flooding, however with the proposed mitigation measures the risk can be managed appropriately.

10.445 The development also needs to ensure that flood risk is not increased on or off-Site through an increase in surface water runoff. The most sustainable way to drain surface water runoff is through the use of Sustainable Urban Drainage Systems (SuDS). SuDS mimic the natural drainage system and provide a method of surface water drainage, which can decrease the quantity of water discharged, and hence reduce the risk of flooding.

10.446 In this case, the use of the following SuDS is proposed:

- Permeable paving (lined)
- Rain gardens (lined)
- Rainwater harvesting
- Below ground geo-cellular storage tanks

10.447 Surface water runoff would be restricted as close to the greenfield runoff rate as possible on Sites 1 and 3 and would be restricted to the greenfield rate on Site 2. Due to a range of constraints pumped outfalls would be required on all three sites. Runoff would be discharged to the Thames Water public sewer network. Attenuation would be provided in the form of below ground tanks and permeable paving.

10.448 The proposed foul drainage strategy would discharge flows to the Thames Water sewer network by gravity

10.449 Appropriate treatment would be incorporated into the drainage system through the use of SuDS, to ensure that the quality of water discharged is acceptable. This would be achieved through the incorporation of green roofs, rain gardens and permeable paving. While the Applicant's flood risk assessment sets out the principles of the sustainable drainage scheme, the final proposed Sustainable Drainage Systems would be confirmed at the detailed design stage, and a condition is recommended to secure this.

10.450 The Application was referred to the Council's Lead Local Flood Authority and the Environment Agency who raised no objection, subject to conditions (which are recommended). The Applicant's Flood Risk Assessment and Drainage Strategy demonstrate that the development can manage the risk of flooding appropriately. It also confirms that surface water runoff from the site can be managed through the incorporation of Sustainable Drainage Systems to ensure that flood risk is not increased elsewhere.

10.451 Overall, Officers consider the submitted drainage strategy has sufficiently considered the drainage hierarchy and generally satisfies Policy SI.13 of the London Plan (2021), WFLP Core Strategy Policy C5, and WFLP Development Management Policy DM34.

K. TREES, LANDSCAPING AND ECOLOGY

Loss of Existing Trees

10.452 Section 197 of the 1990 Town and Country Planning Act places a duty on planning authorities to ensure, whenever it is appropriate, that in granting planning permission for any development, adequate provision is made, by the imposition of conditions, for the preservation or planting of trees.

10.453 London Plan (2021) Policy G7 expects development proposals to ensure, wherever possible, that existing trees of value are retained, particularly Category A and Category B trees (BS5837- 2012).

10.454 Policy G7 also states that if planning permission is granted that necessitates the removal of trees there should be adequate replacement based on the existing value of the benefits of the trees removed, determined by, for example, CAVAT or another appropriate valuation system.

10.455 Policy CS5 of the WFLP Core Strategy (2012) seeks to protect existing healthy trees and encouraging the planting of new trees as well as protecting and enhancing biodiversity.

10.456 Policy DM35 of the WFLP DM Policies (2013) states:

"The loss or damage of trees should be avoided where possible. And where this cannot be achieved mitigation and compensation measures should be outlined and implemented."

10.457 In terms of compensation measures, it is noted that the Council requires that for every tree lost, there by 5 new trees planted. A Tree Survey and Impact Assessment has been submitted and reviewed by the Council's Nature Conservation and Tree Preservation officer, who advised that the survey meets the required standards of BS5837- 2012.

10.458 Details of the existing trees on the site are recorded on up-to-date tree survey undertaken by the Applicant's consultant on the 9 November 2021. The combined effect of the level changes, hard surfaces and proposed buildings means that most of the trees on site would need to be removed.

10.459 The tree loss would occur for several reasons. Trees located where development is proposed have to be removed to make way for the development. The topography of the sites undulates, it is proposed to ensure access through the sites and around buildings is level (facilitating access for all). In some cases, existing trees are at the lower level of undulations meaning they would need to be removed if levels are to be consistent. Some trees are also of a quality and health that they need to be removed.

10.460 Site 2 is contaminated, and remediation is needed before the sites could be used, and as part of that work some trees would be impacted.

10.461 There is one tree on site subject to a tree protection order (a sycamore tree). Paragraph 180 of the NPPF states that development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists.

10.462 The NPPF states the following in terms of the definition of ancient and veteran trees:

Ancient or veteran tree: A tree which, because of its age, size and condition, is of exceptional biodiversity, cultural or heritage value. All ancient trees are veteran trees. Not all veteran trees are old enough to be ancient, but are old relative to other trees of the same species. Very few trees of any species reach the ancient life-stage.

10.463 In this case the Sycamore subject to a tree protection order doesn't display the features of an ancient or veteran tree. The Council's Tree Officer advised that the tree in question is an example of an early mature sycamore. Early mature trees are trees that are considered to be between youth and maturity in the life cycle of a tree.

10.464 In this case the protected tree has been identified as being early mature (not ancient), with a life expectancy of between 20 to 40 years. The overall assessment is that the tree is a Grade 'C' category tree.

10.465 Veteran trees would typically have features associated with advanced age, increasing its features as a wildlife habitat such as dead wood, cavities. They are often referred to as 'a tree that is of interest biologically, culturally or aesthetically because of its age, size or condition' though age is not the only factor.

10.466 In this instance the Tree Officer has confirmed that in the absence of age or other relative factors typically associated veteran trees, the sycamore in question would not be considered to be a veteran tree.

10.467 The Applicant had been advised to try and translocate this sycamore tree, however the chances of the translocating being successful is low and outweighed by the more certain success of the new tree planting.

10.468 Consideration has been given to the translocation of other trees on the site. The aim being to uplift trees and hold these in a remote location and returned to the sites once construction work was complete. However, the existing trees have grown for several years and all the fine roots they need to sustain them are at the very extremity of the root system, often at a distance of two to three times the height of the tree from the trunk.

10.469 To be successful a translocated tree needs to retain as much of its rooting as is possible in order to service the new tree in its new environment. Capturing those essential roots, keeping them intact and moving them with the tree is not possible.

All the fine roots the trees need to sustain them would be lost when the tree is uplifted.

10.470 With time it is possible to encourage new fine roots within a distance of the trunk that could be moved. This is done by cutting some roots each year and allowing the new roots to grow from the cut ends. Industry guidance recommends cutting no more than a quarter to one third of the roots in any one year. As a result it will take 3 to 4 years before a tree could be moved.

10.471 The success rate of translocated trees is much lower than those prepared in a plant nursery. The success rate, once translocated, is not high. 50% failure rates should be anticipated. Added to the prolonged timescale the translocation of these trees on these sites is not a viable proposition.

10.472 There are three palms on the site. Palms, being members of the grass family, are able to be relocated more successfully than trees (and with minimal preparation). It is proposed that the three palms be uplifted, stored and planted as part of the landscaping proposals.

10.473 In total there are 133 trees across the sites (not counting palms and shrubs). 3 of the existing trees are being retained resulting in the loss of 130 trees.

10.474 As stated, it is proposed to retain 3 existing plane trees (numbers T26, T27 and T28 which are category B trees) on the Orient Way frontage. These three trees can be retained and safeguarded during construction. A condition is recommended to ensure these trees are safeguarded with tree protection measures.

10.475 The trees to be removed are Category B, C or U (these categories relate to a British Standard methodology for tree classification, which as an established part of the development process). The categories of the trees to be removed are set out below:

- 12 Category B trees,
- 107 Category C trees,
- 11 Category U trees (i.e., trees with characteristics (e.g. unhealthy) that are such that they should be removed).

10.476 The majority of trees to be removed are low quality and relatively young. Capital Asset Valuation of Amenity Trees (CAVAT) is regarded as one of the principal methods of tree valuation in the UK. It allows the value of a single tree to be expressed in monetary terms.

10.477 The Council's Tree Officer has calculated the CAVAT value of trees that would be lost from the site. A planning obligation to secure a financial contribution equivalent to this value towards off site tree planting.

10.478 The Applicant has also made a commitment to extensive tree replacement. The number of proposed trees to be planted (not counting relocated palms or shrub planting) is as follows:

- Site 1 – 36 new trees
- Site 2 – 84 new trees
- Site 3 – 30 new trees

10.479 This gives a total number of 150 new trees being planted across the site (a net gain over the existing situation). The tree strategy seeks to ensure that 1 in every 5 trees is a semi mature tree (which would help to provide a more immediate effect. This would be secured by way of a condition on any consent and accord with the Council's recently adopted tree replacement policy.

10.480 The Council's Tree officer has advised that there is opportunity to increase diversity and support for biodiversity throughout the site. While the submitted survey and AMS provide a good outline indication of what is proposed, conditions requiring a detailed Root Protection Plan and a detailed Arboricultural Method Statement are required. Conditions are also required to ensure that the design process takes proper consideration of protecting the existing trees which surround the site during construction works.

10.481 A condition is recommended to secure a tree replacement strategy. In addition to there being a net gain in trees replaced on the sites, 500 trees are to be planted locally to ensure 5 trees are planted for every 1 tree removed as per the Council's policy on Climate Emergency Action. Further, 1 of every 5 replacement trees is to be a semi mature tree. The CAVAT value (to be secured as a planning obligation in any legal agreement will be utilised by the Council to fund off site planting, and ensure delivery of the replacement planting.

10.482 Concerns have been raised that offsite tree planting may not be successful with many new trees dying. Offsite trees will be maintained by the Council. Some failures are to be expected, however once young trees are established, they grow more quickly and are resilient. Where trees do fail, the Council will replant annually. In some cases where survival is higher than expected, it can be necessary to thin out overcrowded trees to enable better specimens, but this is all part of the ongoing maintenance. This approach is standard practice when planting trees, the gains long term is generally better.

10.483 It should be noted that in the existing situation the trees on Site 2 are planted close to one another, and this limits the crown spread of the existing trees. The proposed tree planting would ensure trees are located and spaced to allow the new trees to flourish as they mature (and ensure no loss of canopy cover over time). The proposals would also increase species and diversity of both trees and associated soft landscape planting on site post development.

10.484 The Applicant has undertaken exhaustive testing to try and retain or relocate trees rather than remove them and has established that this is not possible.

10.485 Many of the replacement trees would be significant in size, for instant impact and underpinned with a varied age class of multi-functional soft landscaping to increase biodiversity and amenity on the site where possible.

10.486 If the scheme is approved, off-site replacement planting would be undertaken at an early stage, with the aim being not to wait until post completion, but to plant off site trees early so the trees would have a couple of years to become more established by the time the development is completed.

10.487 The Tree Officer advised that these factors would need to be weighed in the overall planning balance before concluding on the acceptability of tree loss in the context of the overall planning application proposals. While the impact of tree removal is regrettable, there are factors which moderate the weight that should be afforded to this impact.

Landscaping

10.488 Policy G1 of the London Plan (2021) states that development proposals should incorporate appropriate elements of green infrastructure that are integrated into London's wider green infrastructure network. Policy G4 states that development proposals should, wherever possible create areas of publicly accessible open space.

10.489 Policy DM12 of the WFLP Development Management Policies (2013) states that development proposals should optimise physical and visual access between the

built environment and open space. The policy also seeks to enhance green infrastructure and maximise access to open spaces within the borough by improving connectivity within the green infrastructure network.

10.490 The proposals would deliver green infrastructure that is integrated into London's wider green infrastructure network, aligning with London Plan (2021) policy G1.

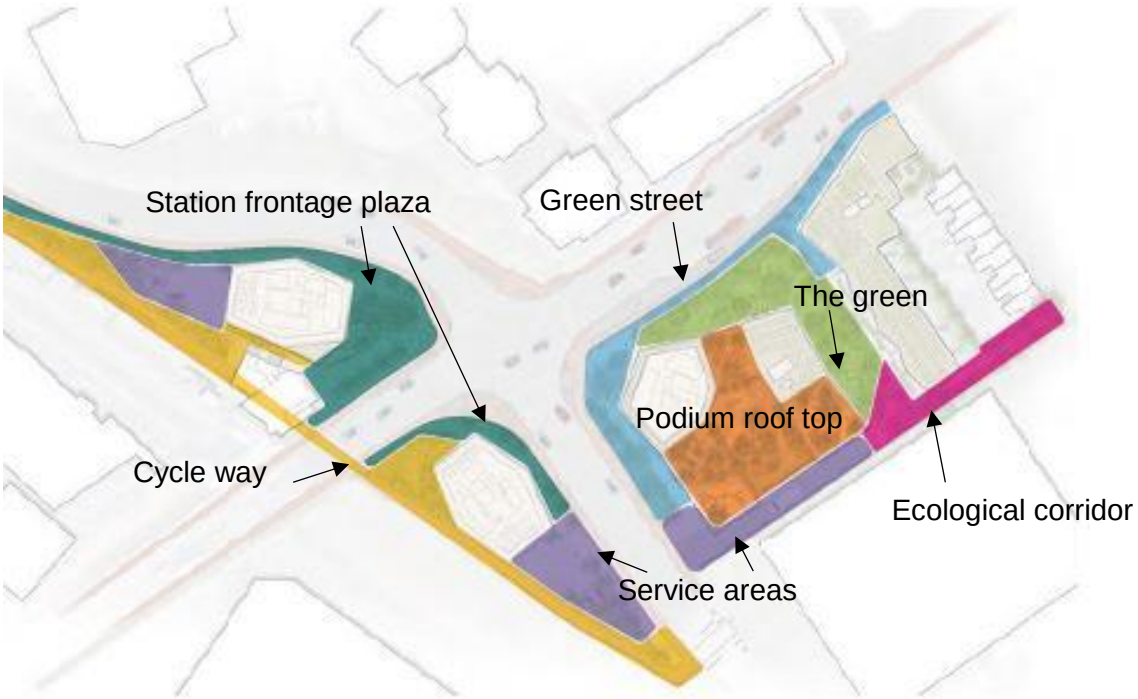
10.491 The scheme has been designed to provide new publicly accessible open space to benefit the new and existing residents of the local area and is compliant with London Plan (2021) policy G4 in this regard.

10.492 The sites are constrained through existing site levels, requirements for service access, and the pedestrian and cycle connections that need to be maintained and introduced, there is also the connection to the proposed station entrance which needs to be considered in terms of landscaping and public realm proposals.

10.493 The proposed arrangement of buildings allows opportunities to create an active public realm alongside pedestrian paths and connections. With active building interfaces at the proposed station entrance, and on site two in the form of the proposed community / cultural provision, the landscape proposals aim to allow spill-out areas and maximise greenery against the roadway.

10.494 The Applicant's landscaping vision is to create a distinctive, tree-lined and well-vegetated public realm which prioritises pedestrian and cycle movements and creates an inviting entrance to the Borough. The proximity to Lea Valley Regional Park and other ecological centres and green spaces has helped inform the landscape proposals.

10.495 To distinguish between landscape typologies and purpose, the Applicant's approach has been for the public realm to be divided into a series of Landscape Character Areas. These create spatial variety within the public realm.



10.496 As part of the design intent of the landscape at Site 1 is the integration of the pedestrian area in front of the proposed station building (the station plaza), and the creation of a usable transitional space. This area has a civic function and the

approach to landscaping is formal. It is proposed to use large planters at the front of the building this serves the purpose of protecting the proposed café from pedestrian movements, creating a space for café customers. An elevated seat deck would provide an area for people waiting for trains etc outside of the station entrance.

10.497 To rationalise the changing levels on Sites 1 and 3 (between the cycle way running alongside the railway and the service and parking areas), the proposal is to utilise walls that terrace down to the cycleway from street level. These terraces would be well-vegetated and create a green edged cycleway.

10.498 On Site 2, there would be a 790sqm green open space as a central component of the landscaping proposals located between the Courtyard building and Terrace building, with other landscape elements acting to frame, activate or complement this area. The green space is crossed by a pathway leading towards the entrance of the Community Space in the Courtyard building, providing level access to users (accessible for persons with disabilities). It is proposed that this space is framed with trees and wildflower lawn.

10.499 Within the green space and wildflower lawn edges it is proposed to install timber natural play elements. Seating is provided along the edges of the green space. Play elements are also proposed towards the end of the Terrace building. This location is likely to be quieter. The area would be visible by residents of both the terrace and courtyard blocks.

10.500 On Site 2, the private gardens and outdoor residential amenity areas within the Terrace building back onto the gardens of dwellings fronting Elm Park Road.

10.501 There is a communal podium space and roof terraces proposed on the Courtyard building. This external landscaped area on Site 2 is desirable given the greater amount of family accommodation proposed at this site. These roof terraces on the Courtyard building provide an alternative amenity space for residents other than private balconies to each flat.

10.502 The external amenity space at podium level would include mounded playspace including slide and climbing elements on play turf. It is proposed that there be timber edged planters with in-built seating. The podium would include lawn space for picnics.

10.503 For Site 3, it is proposed to utilise a similar landscaping approach to Site 1. Terraced gabion walls and planting are proposed to rationalise levels at the interface with the cycleway running adjacent to the railway. It is proposed to employ a similar form of furniture and planting palette as for Site 1.

10.504 It is noted that there a setback is proposed between Tower 2 on Site 3 and Lea Bridge Road. Beneath this area would be a utility service corridor (for electrical and gas infrastructure).

10.505 The supporting text to London Plan (2021) policy G4 (open space) states that new provision or improved public access should be particularly encouraged. It states that it is important to secure appropriate management and maintenance of open spaces to ensure that a wide range of benefits can be secured and any conflicts between uses are minimised. Conditions should be imposed on any consent requiring details of management and maintenance arrangements for proposed landscape character areas.

Planting

10.506 The Council's Tree and Landscaping officer advised that the proposed planting selection should be informed by the following principles:

- Fast growing species - which store the most carbon during their first decades, often a tree's most productive period.
- Species with longevity - Long-lived trees can keep carbon stored for generations without releasing it in decomposition.
- Species with large leaves and wide crowns - enable maximum photosynthesis.
- Native species - will thrive in the soil and best to support local wildlife.
- Low-maintenance, disease-resistant species - will generally do better

10.507 The Council's Tree and Landscaping officer has examined the planting proposals for Site 1 and considers the position of trees and evaluated the suitability of the proposed species for the location. In many cases the advice is that an alternative species would be preferable. In terms of amenity planting (planter beds) it is recommended that more diverse range of species be included.

10.508 At Site 2 the Council's Tree and Landscaping officer advised that some proposed tree species should be reconsidered, in addition the advice is that in replacing the sycamore tree, which is the subject to a TPO, this tree is replaced with a landmark tree (to be agreed). Again, in terms of amenity planting it is recommended that more diverse range of species be included.

10.509 At the podium level of the Courtyard building, further advice was provided indicating some proposed species should be reconsidered. Further suggestions for using alternative species at Site 3 were also made.

10.510 In summary, the proposed soft landscaping appears in principle to be a good scheme overall, though some improvements are required, including more varied species selection. Opportunities for vertical greening should be explored as this would provide further greening in what is a key, landmark gateway site for the borough. Notwithstanding the submitted details, a condition is recommended to ensure detailed landscaping proposals are submitted to and approved in writing by the Local Planning Authority.

Ecology, Epping Forest SAC, and Site of Special Scientific Interest

10.511 The Conservation of Habitats and Species Regulations 2017 as amended (the Habitat Regulation) sets out the criteria a site must meet to be able to be a protected European site (e.g., a SAC). Epping Forest meets the criteria and is designated as a Site of Special Scientific Interest (SSSI) with 1,605ha of that area also designated as a SAC. A proportion of the SAC lies within the London Boroughs of Waltham Forest (LBWF), as such the Council is a Competent Authority.

10.512 The Habitat Regulation was changed in 2019 to reflect the fact that the U.K. has left the EU. However, the obligations of a competent authority in the 2017 Regulations for the protection of sites or species do not change as a result of Brexit.

10.513 As a Competent Authority, the Borough has a statutory duty to:

- Help protect, conserve and restore the designated features of the site to meet their conservation objectives,
- Prevent the deterioration of the site's habitats from human activity or natural changes, including habitats that support designated species,
- Prevent significant disturbance of the site's designated species from human activity or natural changes

10.514 The duty applies when taking a decision (including a planning decision) that might affect the SAC. The Epping Forest SAC also has SSSI status and further

consideration is therefore required by the Local Planning Authority to check risks to the SSSI are minimised. This can potentially include securing mitigation or compensation measures as conditions or planning obligations associated with any planning permission.

10.515 The Habitat Regulation states that a competent authority, before deciding to give any consent for a project must make an appropriate assessment (also known as a Habitat Regulation Assessment (HRA)) of the implications of the project for the SAC in view of that protected site's conservation objectives, if:

- The proposal is likely to have a significant effect on a SAC (either alone or in combination with other plans or projects), and
- Is not directly connected with or necessary to the management of that site.

10.516 The Council may agree to the application only after having ascertained that it will not adversely affect the integrity of the SAC.

10.517 The NPPF (2021) echoes the Habitat Regulation and states that planning decisions should contribute to and enhance the natural and local environment. It goes onto state that when determining planning applications that might impact an area designated as a SAC or having a SSSI designation, local planning authorities should apply the following principles:

- If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.
- Development on land within or outside a SSSI, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of SSSI.
- Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

10.518 London Plan (2021) Policy G6 sates 'Development proposals should manage impacts on biodiversity and aim to secure net biodiversity gain'.

10.519 The WFLP Core Strategy (2012) policy CS5 relates to biodiversity and nature conservation and states that the Council will endeavour to protect and enhance green infrastructure and biodiversity and to maximise access to open spaces across the Borough, including by protecting, promoting and enhancing Epping Forest.

10.520 Policy DM35 of the WFLP Development Management Policies (2013) relates to biodiversity and is clear that proposals which would have an adverse direct or indirect effect on any land or area within the identified Sites of Special Scientific Interest (SSSI), Sites of Importance to Nature Conservation (SINC), Special Areas of Conservation (SAC), RAMSAR sites, Special Protection Areas or to protected or priority species will not normally be granted planning permission. It goes onto state

that in exceptional circumstances where such a proposal is permitted any damaging impacts should be prevented by appropriate mitigation measures or use of conditions. The site has SSSI status

10.521 Construction traffic will be routed along roads which don't adjoin the Epping Forest SAC. As such emissions from construction vehicles would not have the potential to adversely impact on the health of the Epping Forest SAC. The proposal is largely car free and sufficiently far from the Epping Forest SAC that when operational emissions would not harm the integrity of the SAC.

10.522 The site is within a zone of influence in terms of the potential for future residents to use Epping Forest SAC. Epping Forest is heavily used by the public for leisure purposes, so much so that the health of the forest is under threat. There is the potential for future occupiers of homes proposed in this application to utilise Epping Forest for leisure purposes, exacerbating existing issues. The proposal therefore has the potential to give rise to effects upon a site that is protected under the Habitat Regulations.

10.523 A shadow Habitat Regulations Assessment (HRA) has been prepared. This assessment mirrors the legal process that the Council must follow under Regulation 63 of the Habitats Regulations in completing a HRA. The assessment submitted with this application follows the relevant case law associated with the Habitats Regulation. The proposed development includes a range of mitigation measures that are specifically designed to mitigate impacts upon the Epping Forest SAC.

10.524 The measures include contributions towards the provision of Suitable Accessible Natural Green Space (SANG) designed to divert potential increased recreational pressure away from the Epping Forest SAC. The Lee Valley Regional Park is close to the site and as such represents an alternative location for residents to go for recreational purposes. Discussions have taken place with the Lee Valley Regional Park Authority (LVRPA) and Natural England over proposals to improve access and biodiversity in the park, making it more attractive to visit, and at the same time more robust in the face of increased usage from future residents living in the scheme.

10.525 A contribution of £250,000 would be secured as a planning obligation on any consent, to be transferred to the LVRPA, to fund proposals in the park.

10.526 The shadow HRA concludes that adverse effects of increased recreation upon the SAC could also be mitigated by the implementation of a Strategic Access and Management & Monitoring (SAMM) Strategy. The Applicant has agreed to a contribution of £34,500 towards SAMMS.

10.527 An appropriate assessment of the implications of the proposal for the SAC in view of that site's conservation objectives has been carried out. This accords with the Habitat Regulations and subject to the proposed mitigation measures are to be secured and delivered, there would not be any significant adverse impact on the SAC or SSSI.

Ecology and protected species

10.528 NPPF paragraph 173 states planning decisions should minimise impacts on and providing net gains for biodiversity. London Plan (2021) policy G6 relates to biodiversity and access to nature. The policy requires plans to support the protection and conservation of priority species and habitats. The policy states that development proposals should manage impacts on biodiversity and aim to secure net biodiversity gain. This should be informed by the best available ecological information and addressed from the start of the development process.

10.529 WFLP Core Strategy (2012) policy CS5 also seeks to seeking to protect and enhance biodiversity. Policy DM35 of the WFLP Development Management Policies (2013) states that development proposals must provide measures to support species and habitats through the use of landscaping on or adjacent to buildings. This may involve the inclusion of living roofs and walls or other measures which provide space for species to nest, roost or hibernate.

10.530 Policy DM35 also states that development proposals will not normally be granted planning permission where they pose adverse direct or indirect effects to protected species.

10.531 The application is supported by an ecological assessment, which examines the potential for the sites to accommodate protected species. For Site 1, the results of the assessment show the habitat is of low ecological value and has no features which would support protected or species of principal importance (those listed on S.41 of the Natural Environment and Rural Communities Act (HMG, 2006)).

10.532 For Site 2, the habitat is generally of low- moderate ecological value, mainly due to the number of trees on site which provide habitat for nesting birds. No features suitable for roosting bats were observed. Species of principal importance (i.e. those set out in S.41 of the Natural Environment and Rural Communities Act) such as hedgehog might utilise the site as the north-eastern boundary backs onto residential gardens.

10.533 The Applicant's ecological assessment recommends that measures be secured to protect bats and birds, installation of bird and bat boxes, recommendations for habitat improvements, Sensitive Working Practices, including:

- Minimising lighting,
- Limiting construction dust,
- Reducing construction noise,
- Appropriate disposal of waste
- Managing surface Run-off

10.534 A condition is recommended to ensure the development is undertaken in accordance with the mitigation measures set out in the ecological assessment.

Urban Greening Factor and Biodiversity net gain

10.535 London Plan (2021) Policy G1 and G5 require new development to incorporate urban greening features such as street trees, green roofs, green walls, raingardens and wildflower meadows.

10.536 The London Plan sets out UGF should be based on the factors set out in the London Plan (2021). The Mayor recommends a target score of 0.4 for developments that are predominately residential.

10.537 Various surface cover types (such as green roofs) are given different weighting towards achieving the UGF. The Applicant has identified that the site could accommodate at least 11 different surface cover types. The Applicant has provided appropriate evidence to show that the development would meet an UGF target of 0.4. The Commitment to achieving this will be secured as a condition on any consent.

10.538 London Plan (2021) policy G6 relates to biodiversity and states that development proposals should manage impacts on biodiversity and aim to secure net biodiversity gain.

10.539 Planning permission should only be granted on the condition that a development enhances the biodiversity value of the site to a better state. Specifically, the

biodiversity value of the site should be enhanced "in a measurably better state than it was beforehand".

10.540 To achieve biodiversity net gain, proposals must follow the 'mitigation hierarchy' which compels planning applicants to avoid harm in the first instance, then mitigate or finally compensate for losses on-site, off-site or through a combination of the two solutions

10.541 The primary tool that which is typically used to measure biodiversity gains and losses as the result of land development projects is the DEFRA biodiversity metric. Other than bird nesting habitat within the semi mature trees and patches of scrub, Lea Bridge Road is of low ecological value.

10.542 The landscaping design proposed would incorporate a number of opportunities for biodiversity gain as well as avoiding impact. These would include:

- Extensive Tree Planting;
- The use of predominately native and pollinator plant species;
- The creation of a new living roofs;
- Installation of bird and bat boxes across the site.

10.543 The Applicant's biodiversity net gain calculation indicates that the scheme would deliver 123% net gain in biodiversity (a significant net gain). The calculation has been checked by the Council's Nature Conservation Officer and the GLA's Green Instructure team who have raised no concern over the calculation and no objection to the scheme in terms of bio-diversity net gain.

Metropolitan Open Land

10.544 There is land to the west of the site (beyond the railway line and industrial uses to the west) which is designated a Metropolitan Open Land (MOL). Policy G3 of the London Plan (2021) states that MOL is afforded the same status and level of protection as Green Belt.

10.545 In this case no development is proposed on MOL, and taking account of the existing context, along with the distance between the proposal and MOL, officers do not consider that the proposal would not cause any undue harm to MOL.

L. SUSTAINABLE DESIGN AND ENERGY EFFICIENCY

Policy context

10.546 The NPPF (2021) establishes a presumption in favour of sustainable development. It encourages proposals, which support renewable and low carbon energy and associated infrastructure. It further states that, in determining planning applications, LPAs should expect new development to comply with any development plan policies on local requirements for decentralised energy supply unless it can be demonstrated that it is not feasible or viable; and take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption.

10.547 Policy SI2 of the London Plan (2021) sets out a carbon dioxide reduction target for regulated emissions of 35% against Building Regulations 2013. This policy also requires major developments to be net zero-carbon. This means reducing greenhouse gas emissions in operation and minimising both annual and peak energy demand in accordance with the following energy hierarchy:

- Be lean: use less energy and manage demand during operation.
- Be clean: exploit local energy resources (such as secondary heat) and supply energy efficiently and cleanly.

- Be green: maximise opportunities for renewable energy by producing, storing, and using renewable energy on-site.
- Be seen: monitor, verify and report on energy performance.

10.548 Policy SI3 of the London Plan (2021) states 'where a heat network is planned but not yet in existence the development should be designed to allow for the cost-effective connection at a later date'.

10.549 Policy CS4 of the WFLP Core Strategy (2012) requires new developments to minimise carbon emissions in accordance with the London Plan (2016) energy hierarchy and requires developers to investigate opportunities for linking into existing or proposed decentralised energy networks. The policy also requires developments to be designed in a manner that minimises the use of water.

10.550 Policy DM7 of the WFLP Development Management Policies (2013) states that all major developments are required to be designed to be able to connect to a Decentralised Energy Network (DEN)'.

10.551 Policy DM10 of the WFLP Development Management Policies (2013) seeks to secure sustainable management and high environmental standards by requiring development to be designed to achieve the Council's stepped targets towards zero-carbon.

10.552 Policy DM11(A) of the WFLP Development Management Policies (2013) states 'Requiring development of one or more units or greater than 100sqm located in the proximity of an existing or committed future Decentralised Energy Network to assess opportunities for, and to implement links into, existing or future committed decentralised energy networks, unless it can be demonstrated that an efficient connection is not feasible in accordance with the following thresholds;

- Development of one or more units or greater than 100sqm located within 200m of an existing or committed future Decentralised Energy Network,
- Major development located within 500m of an existing or committed future Decentralised Energy Network, and
- Development of more than 50 units located within 1000m of an existing or committed future Decentralised Energy Network.

10.553 Policy DM34 of the WFLP Development Management Policies (2013) states that residential development proposals should implement water efficiency measures to achieve usage of less than or equal to 105 litres per person per day.

10.554 The application proposes an all electric system as the energy source. The application was assessed by the GLA's Energy team and the Council's Energy and Sustainability Consultant, who provided detailed observations in relation to carbon emissions, sustainable design, energy reduction and low carbon energy supply measures, water efficiency, overheating. A number of obligations, conditions and informatives have been requested.

Carbon Emissions

10.555 The London Plan requires a carbon reduction on site of at least 35% beyond Building Regulations (2013) is required. In this case the Applicant's energy strategy demonstrates that an onsite saving of 57% would be achieved (exceeding the policy requirement).

10.556 The Applicant's energy strategy has been reviewed by the Council and GLA energy officers who advise that it is acceptable. It demonstrates that the zero-carbon

target cannot be fully achieved on-site, and as such the shortfall should be provided through a cash in lieu contribution to the borough's carbon offset fund.

10.557 The Energy and Sustainability Strategy indicates a contribution of £514,846 which would be required to achieve a 100% reduction (zero carbon) for the proposed development. This contribution is to be secured by s.106 legal agreement associated with any consent.

10.558 A condition requiring details of how the scheme will achieve the reductions in carbon dioxide emissions will be placed on the permission if approved.

Sustainable design

10.559 GLA Sustainable Design and Construction SPG sets out the sustainable design principles are integral to proposals including construction and operation and must be incorporated from the beginning of the design process.

10.560 WFLP Development Management Policies (2013) Policy DM10 requires non-residential development greater than 100sqm to achieve BREEAM 'very good' or equivalent standards and encouraging major non-residential developments to achieve BREEAM' excellent' or equivalent.

10.561 Establishing a BREEAM rating involves looking at a range of factors, including management, health and wellbeing, energy, transport, water, materials, waste, land use and ecology, pollution and innovation.

10.562 The Energy Statement references the full BREEAM Pre-assessment which has been carried out and a copy has been provided covering the non-residential units;

- The offices - 75.9% and 76.6%
- Retail - 76.6%
- Community and cultural space - 77.35%

10.563 All of the above units have been based on a 'Shell only' or 'Shell and core' assessments. Each unit is anticipated to exceed the 'Excellent' rating threshold of 70%. A condition is recommended to ensure the rating is achieved.

Energy – Demand Reduction (Be Lean) and Overheating

10.564 The London Plan (2021) Policy SI4 requires development proposals to minimise adverse impact on the urban heat island through design, layout, orientation, materials and the incorporation of green infrastructure. WFLP Development Management Policies (2013) Policy DM10 requires new developments to be designed with regard to sustainable principles.

10.565 Developments are expected to achieve carbon reductions from energy efficiency measures to reduce energy demand as far as possible. The measures are those which reduce the demand for energy within buildings, without consuming energy in the process. These are the most robust and effective measures for reducing CO2 emissions as the performance of the solutions, such as thermal insulation, glazing and light transmittance, natural daylight and lighting strategies. These sorts of measures don't deteriorate significantly with time.

10.566 The London Plan requires states that residential development should achieve 10% reduction in carbon emissions over Part L of the Building Regulations (2013) and non-residential elements should achieve a 15% reduction.

10.567 The energy statement shows that demand reduction measures deliver a 10% saving for the residential element and a saving of 27% for the non-residential. The proposals are compliant with London Plan (2021) policy in this regard.

10.1 In terms of affordability, it is proposed that all billing is broken down to be transparent for the occupant, therefore the standing charge shall clearly identify the maintenance and capital costs.

10.2 The heat network is to be designed to the latest British Standards and also to the CIBSE:CP1 Code of Practice for Heat Networks 2020, this would ensure a quality design and also ensure that distribution losses and running costs are kept as low as possible.

10.3 The energy demand has been reduced via the GLA Hierarchy. The system utilises thermal stores to reduce the peak energy demands, these thermal stores would be controlled in such a way as to maximise the usage of the renewable energy generation from the PV arrays via the Air Source Heat Pumps. This will reduce running costs further and therefore the cost to the occupant.

Overheating

10.4 The Applicant's overheating assessment states that overheating would be mitigated via either opening windows, acoustically attenuated passive louvres, or mechanical ventilation.

10.5 In relation to external noise, it should be noted that the residential dwellings are located above street level, and even at the lowest residential balcony, the Council's noise officer has advised that the noise levels experienced by future residents would be within acceptable limits.

10.6 The overheating assessment shows that in some scenarios (e.g., in a hot year), if windows to residential rooms are kept closed, some residential rooms would overheat (in summer at night). This can be mitigated by residents opening windows or alternatively the rooms could be mechanically ventilated.

10.7 A condition is recommended for further assessment to be undertaken at a more detailed design stage, to establish if the performance of the development can be improved in terms of overheating. This would allow the Applicant to investigate and adopt further passive measures to avoid the risk of overheating now and under future climate scenarios. It is noted that the overheating concern relate to a limited number of rooms when there is an unusually hot summer.

10.8 The non-residential units would be built to 'shell and core', with future tenants fitting the space out to suit their needs. These 'shell and core' areas were not assessed for overheating. This is because the end tenant and final fit out along with occupation densities, equipment gains and other such items that are required to carry out an overheating assessment are not known at this stage. Due to the nature of the use, it is expected that cooling will be required. A condition should be imposed on any consent to ensure that overheating assessments (which would identify any necessary mitigation) are undertaken when more is known about the future occupiers on the non-residential units.

Energy - Low Carbon Supply (Be Clean)

10.9 London Plan (2021) Policy S12 and S14 states that major development proposals should select energy systems in accordance with the following hierarchy:

- Connection to existing heating or cooling networks;
- Site wide CHP network; and
- Communal heating and cooling.

District Heating and Cooling Networks

10.10 This stage of the energy hierarchy includes consideration of connection to available district heat networks, or the use of on-site heat networks and decentralised energy production such as Combined Heat and Power (CHP) in order to provide energy and reducing consumption from the national grid and gas networks, through the generation of electricity, heating and cooling on-site.

10.11 London Plan (2021) Policy SI3 set out the policy for decentralised energy within development proposals. WFLP Development Management Policies (2013) policy DM11 echoes the London Plan and requires large developments located in the proximity of an existing or committed future Decentralised Energy Network (DEN) to assess the feasibility of connecting to a DEN, and to connect if feasible.

10.12 The Energy report confirms that it is not feasible to connect to an existing DEN, but as the development is within a Heat Network Priority Area (HNPA) a community heating system is proposed. The nearest proposed heat network is the Upper Lea Valley network (around 800m away). The development is therefore required to be designed to facilitate a potential future connection should one become available during the operational lifetime of the building.

10.13 An updated energy statement should be provided prior to completion and this should reassess the feasibility of connection, on the basis that the situation (in terms of heat network development in the area) may have changed by the time of completion. This would need to be secured as a planning obligation.

10.14 The development will be provided with heating and hot water via a communal heat network, served by air source heat pumps. The heat load will be provided by three separate energy centres due to the physical obstacles (roads) that exist between the sites.

10.15 The communal heat network shall be designed in such a way, as to allow for efficient connection to a future district scheme, should one become available. The sites are physically separated (by roads) and this complicates creating links to neighbouring developments or buildings in terms of shared energy networks.

Energy - Renewable Energy (Be Green)

10.16 Policy SI2 of the London Plan (2021) and Policy DM11 of the WFLP Development Management Policies (2013) states that major development should seek to reduce the site's carbon emissions through on-site renewable energy, to ensure that the proposed renewable system is appropriate to the location and does not significantly adversely affect the development, or local amenity of neighbourhoods, and the environment, including air quality.

10.17 A solar PV installation of outputs and Air source heat pumps (ASHPs) are proposed for the development. The PV is projected to generate approximately 63,000k Wh/yr. The Applicant has provided plans to show that no additional PV panels could be accommodated.

Energy – Monitoring (Be Seen)

10.18 London Plan (2021) policy SI2 states that developments must "be seen: monitor, verify and report on energy performance" and that the move towards zero-carbon development requires comprehensive monitoring of energy demand and carbon emissions to ensure that planning commitments are being delivered.

10.19 Major developments are required to monitor and report on energy performance, such as by displaying a Display Energy Certificate (DEC), and reporting to the Mayor for at least five years via an online portal to enable the GLA to identify good practice and report on the operational performance of new development in London.

10.20 London Plan guidance in relation to energy states that Applicants will be expected to consider the estimated costs to occupants of the energy assessment and outline how they are committed to protecting the consumer from high prices. In line with the energy hierarchy, applicants should prioritise energy demand reduction.

10.21 The process to be followed as part of the 'Be Seen' post construction monitoring requirement is another critical element of the energy hierarchy that will play an important role in keeping running costs low. The guidance sets out appropriate quality assurance mechanisms and commitments that should be considered as part of the energy strategy.

10.22 The requirement for post construction monitoring, including the requirement to demonstrate they are committed to protecting the consumer from high prices is to be secured as a planning obligation, as part of a requirement for providing updated energy reports.

10.23 A comprehensive monitoring strategy will be critical to the operation of a net zero carbon facility, and the Applicant has committed to this. This would be secured by way of a planning obligation.

Water Efficiency

10.24 Policy SI5 of the London Plan (2021) require new developments to demonstrate how it will achieve water reduction. Non-residential development should achieve the equivalent of an 'Very Good' rating on the water elements for BREEAM. Water reuse should be considered for inclusion in the development to meet both water efficiency and sustainable drainage requirements.

10.25 WFLP Development Management Policies (2013) DM34(c) states that development proposals should:

- Implement water efficiency measures to achieve usage of less than or equal to 105 litres/person/day for residential developments.
- Incorporate water saving measures and equipment for any new development of greater than 100sqm.

10.26 These requirements can be met through the capture and re-use of surface, greywater and rainwater. The Application includes discussion on the approaches to water efficiency. No more information is required at this stage; however, a condition requiring details of how water consumption will be restricted is recommended. Subject to the condition, the proposal is considered to accord with Policy DM34 WFLP Development Management and Policy S15 of the London Plan (2021).

Circular Economy

10.27 London Plan (2021) policy D3 states that the principles of the circular economy should be taken into account in the design of development proposals in line with the circular economy hierarchy. London Plan Policy SI7 requires major applications to develop Circular Economy Statements.

10.28 A Circular Economy Statement was included as part of the application submission, this was updated following consultee feedback. A condition is recommended to ensure that detailed Circular Economy Statement is provided which include the relevant key commitments set out in Chapter 16 (mitigation and monitoring schedule) of the ES. Prior to occupation a Post Completion Report must be submitted to the Council to identify actual performance against all numerical targets.

Whole life-cycle carbon emissions

10.29 The London Plan (2021) policy SI2 states that development proposals referable to the Mayor should calculate whole lifecycle carbon emissions through a nationally recognised Whole Life-Cycle Carbon Assessment and demonstrate actions taken to reduce life-cycle carbon emissions.

10.30 A Whole Life-Cycle Carbon Assessment was submitted with the application and updated following consultee feedback. The information is acceptable for this stage, however the Applicant would need to submit post-construction Whole Life-Cycle Carbon (WLC) Assessment. The post-construction assessment should provide an update of the information submitted at planning submission stage. The assessment should be submitted along with any supporting evidence as per the guidance and should be received three months post as-built design completion.

M. ENVIRONMENTAL IMPACT

Noise and Vibration

10.31 The London Plan (2021) policy D14 requires development to manage noise by mitigating and minimising the existing and potential adverse impacts of noise on, from, within, as a result of, or in the vicinity of new development without placing unreasonable restrictions on existing noise-generating uses.

10.32 Policy DM24 of the WFLP DM Policies (2013) states that all major developments should aim to minimise the adverse impacts of noise through sensitive design, management and operation.

10.33 Noise and vibration have been scoped into the Environmental Statement (ES) and these issues are discussed in full detail in Section 11 of this report in the context of Environmental Regulations.

10.34 Concerns have been raised in objections that third party observations of HGV movements show that these have increased, and this may impact on noise and air quality impacts (i.e.the concern in objections is that the noise and air quality assessments may be poorly informed). However, the Applicant's Highway consultant has advised that the proportion of HGVs on the road has not gone above 5% of total traffic in the past eight years of traffic count data. Whilst variations between individual traffic counts is to be expected, the analysis of the DfT count data does not give reason to disregard the Applicant's commissioned survey results.

Construction noise and vibration

10.35 Noise and vibration created during construction would need to be mitigated though the implementation of a range of best practises (discussed in greater detail in section 11 of this report).

10.36 There would be short-term adverse effects to the closest residents caused by piling and other construction activities. While the impact would be temporary, conditions are recommended to limit impacts and ensure the applicant engages with residents and that monitoring arrangements are agreed between the building contractor and Council.

10.37 Conditions are recommended to secure a Construction Environmental Management Plan (CEMP) as well as a Demolition and Construction Logistics Plans (CLP). The CEMP and CLP conditions require noise and vibration limits to be set and corresponding remedial actions to be implemented in the event noise or vibration limits are exceeded (or complaints are made).

Operational noise and vibration

10.38 The application involves locating non-residential uses at the ground floor level of residential blocks, a condition is recommended to ensure there is sound insulation between residential and non-residential uses. Conditions are also recommended to control hours of operation and servicing of non-residential uses.

10.39 The Noise Officer is satisfied that noise and vibration issues can be mitigated through the imposition of conditions on any consent (requiring; details of noise mitigation measures; noise levels controlled from plant; sound insulation between residential and non-residential uses). With these conditions in place, it is considered that the proposed development would mitigate adverse impacts on new and existing receptors.

Air Quality

10.40 Paragraph 174 of the NPPF (2021) seeks to prevent new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of air pollution.

10.41 The London Plan and the Mayor's Air quality Strategy (2010) seeks to minimise the emissions of key pollutants and to reduce concentrations to levels at which no, or minimal effects on human health are likely to occur.

10.42 London Plan (2021) Policy SI1 sets out the requirement for new developments to tackle poor air quality. All new developments must be at least air quality neutral.

10.43 Policy DM24 of the WFLP DM Polices (2013) states that new developments should neither contribute to, nor suffer from unacceptable levels of air pollution. On major applications, this should be demonstrated through an Air Quality Assessment and, if necessary, proposed mitigation measures.

10.44 Draft Policy 90 of the WFLP Local Plan Part 1 (2021) sets out that major developments which are not air quality neutral would be expected to make a financial contribution.

10.45 In the London Borough of Waltham Forest, a borough wide air quality management area (AQMA) has been declared.

10.46 Air Quality has been scoped into the Environmental Statement and is discussed in detail in Section 11 in the context of the Environmental Regulations. Section 11 of this report also sets out responses to concerns raised in consultation responses in relation to air quality (including PM10 and PM205).

10.47 The Air Quality Assessment submitted within the Environmental Statement has been assessed by the Council's Environmental Health Officer and found to be satisfactory. The Council's Environmental Health Officer has requested conditions and informatives pertaining to details of boilers; emissions from Non-Road Mobile Machinery (NRMM); and Air Quality and Dust Management Plan.

10.48 The scheme has demonstrated that it meets adopted and draft planning policy with regard to being air quality neutral.

Construction and operation

10.49 Concerns have also been raised in objections in relation to Non Road Mobile Machinery (NRMM). NRMM is a broad category which includes mobile machines, and transportable industrial equipment or vehicles which are fitted with an internal combustion engine and not intended for transporting goods or passengers on roads.

10.50 The Mayor and London has powers to control emissions from NRMM used on construction sites. Emissions from NRMM would be limited and have to accord with GLA requirements, and a condition is recommended to secure this.

10.51 The demolition and construction works would give rise to a risk of dust impacts during demolition, earthworks and construction, as well as from trackout of dust and dirt by vehicles onto the public highway. An Outline Construction Environmental Management Plan has been submitted in support of the planning application which outlines the overarching details and principles in order to minimise, manage and/or mitigate the effects of the works associated with the development.

10.52 A condition is recommended to secure a detailed Construction Environmental Management Plan. This is also discussed in greater detail in section 11 (The Environmental Statement) of this report.

10.53 Predicted contributions from vehicle movements during construction to annual mean concentrations of NO2, PM10 and PM2.5 have been estimated. The contributions to annual mean NO2, PM10 and PM2.5 concentrations are less than 0.1µg/m3 at all existing sensitive receptors (high sensitivity), this means the increase in emissions relative to the annual mean criteria for all pollutants (including the WHO guideline for PM2.5) are negligible.

10.54 Emissions have been modelled when the development is operational and this shows that annual mean NO2 concentrations would still be below the government's objective for this pollutant.

Particulate Matter

10.55 PM2.5, also known as fine particulate matter, refers to particles or liquid droplets in the air that have a diameter less than 2.5 micrometres across (one 400th of a millimetre). Some PM2.5 is manmade, such as particulates from vehicle exhausts. Based on current evidence PM2.5 is thought to be the air pollutant which has the greatest impact on human health.

10.56 The World Health Organization (WHO) set a guideline limit to an annual mean concentration to 10 micrograms per cubic metre of air. In October 2017 London joined the World Health Organization's (WHO) "Breathe Life" campaign. The campaign asks cities to commit to meeting the WHO recommended guideline limit (10) for PM2.5 by 2030. The Council has joined the GLA and has committed to reducing levels of PM2.5 to meet the WHO guideline.

10.57 The air quality assessment shows that changes in vehicle movements during operation would not have a significant impact on air quality (including on levels of PM2.5) experienced by nearby receptors. While levels would still be above the WHO guideline, they would be lower than the baseline position and would be the same with or without the development.

10.58 It remains key to Boroughwide health that measures are taken across the borough to improve air quality, and in this regard, it is acknowledged that there would be a reduction car parking associated with the proposed development. Additionally, a car free development is to be secured, along with a contribution towards implementing measures in the Councils Air Quality Action Plan to continue to introduce measures that will help reduce levels of pollutants and improve air quality in Waltham Forest.

10.59 The following measures are proposed to help to ensure minimal impacts from traffic emissions:

- A Travel Plan for residential occupants and the workplace,
- A Delivery and Servicing Management Plan,

- A Car and Cycle Parking Management Plan.

10.60 Conditions and planning obligations should be imposed on any consent to secure the above mitigation measures.

Contaminated Land

10.61 Paragraph 183 of the National Planning Policy Framework are clear that planning decisions should ensure that:

- A site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination. This includes risks arising from natural hazards or former activities such as mining, and any proposals for mitigation including land remediation (as well as potential impacts on the natural environment arising from that remediation);
- After remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990; and
- Adequate site investigation information, prepared by a competent person, is available to inform these assessments.

10.62 Relevant London Plan (2021) policies include Policy SD1 which states that planning decisions should take appropriate measures to deal with contamination that may exist. Policy E7 states that development proposals must ensure that appropriate design mitigation is provided in any residential element with particular consideration given potential contamination.

10.63 WFLP Core Strategy (2012) CS13, WFLP DMP (2013) Policy 24 and Draft Policy 92 of the WFLP (2021) seek to ensure that appropriate site investigations are undertaken in line with guidance, contamination risks are fully explored and remediation proposals are agreed to deal with any identified contamination.

10.64 The Applicant's contamination consultant has investigated the site, making an assessment of the potential sources of contaminants. The assessment forms part of the ES, and a detailed discussion on contamination and ground conditions is set out in Section 11 of this report.

10.65 The study identifies potential sensitive receptors who could be impacted by contaminants (including human health, controlled waters, and ecological receptors).

10.66 Concerns have been raised in objections that the site was historically in use as a gas works. As set out in more detail in Section 11, part of Site 2 formed part of the Lea Bridge Gas Works site. The contaminated land assessment identifies this, and other industrial and transport activities across all three sites and beyond as potential sources of contamination, which need to be further investigated and dealt with.

10.67 The Application sets out mitigation measures which are necessary to ensure contamination is prevented from impacting on receptors. Subject to the mitigation being secured by way of conditions then potential danger from contamination would be mitigated.

10.68 The application has been reviewed by the Council's Contamination officer who raised no concerns with the Applicant's assessment of contamination at the site. The Environment Agency (EA) were consulted during the pre-application and application stages and advised that the Site is not designated as a Special Site under Part 2a of the Environmental Protection Act 1990, nor did they raise any

objection in relation to contaminated land issues, subject to conditions being imposed on any consent.

10.69 The condition is recommended, this covers a 4 stage investigation process, with each of the latter stages in the remediation strategy being bespoke depending on what is found in early investigation stages.

10.70 Ground conditions also form a part of the ES, and the remediation strategy must be informed by the mitigation measures set out in ES Chapter 12 (Ground conditions and contamination) and Chapter 16 (Mitigation and Monitoring Schedule). This is discussed in greater detail in Section 11 (The Environmental Statement) of this report.

N. SAFETY AND SECURITY

Fire Safety

10.71 The London Plan (2021) Policy D12 'Fire Safety' states that all major development proposals should be accompanied by a Fire Statement. Fire statements should be submitted with all major development proposals. The Government has also introduced a requirement to consult the Building Safety Regulator (Health and Safety Executive) on residential developments of 7 storeys/18m high or more, and for nationally prescribed Fire Statements to be produced for such developments.

10.72 The new requirements, known as planning gateway one, will ensure that high-rise developments consider fire safety at the earliest stages of planning. Developments involving high-rise residential buildings must demonstrate they have been designed with fire safety in mind before planning permission is granted – including through their site layout – and with access provided for fire engines. This information is required to be submitted as part of the planning application in a fire statement.

10.73 These should be produced by a third-party, independent and suitably qualified assessor. This should be a qualified engineer with relevant experience in fire safety, such as a chartered engineer registered with the Engineering Council by the Institution of Fire Engineers. In this case the Fire Statement was prepared by the Associate Director, Fire Engineering, WSP UK Ltd, whose qualifications include: BEng(Hons), IEng, FIFireE, MIFSM (which are appropriate qualifications).

10.74 The Fire Statement includes proposed details of materials, means of escape, fire safety features and means of access for fire service personnel. The details also include smoke clearance, fire extinguishers, fire stopping and cavity barriers, compartmentation, escape signage, emergency lighting, fire alarms and smoke detection systems, and disabled persons evacuation. The fire strategy includes fire fighting lifts in each building core.

10.75 The maximum travel distance in the corridor from the furthest apartment entrance door to the fire protected stair core meets requisite standards. The corridors will be served by a Mechanical Smoke Ventilation System (MSVS) with the replacement / make-up air sourced from the head of the stair vent, through the stair door, which is oriented to open into the common corridor. The corridors are proposed to be sufficiently wide so that the stair door swing will not impact on the minimum space required in the corridor. The buildings would be sprinklered, including to all apartments.

10.76 Under current regulations guidance tall residential buildings are allowed to have single staircases alongside other fire safety measures including smoke ventilation, firefighting lifts and sprinklers.

10.77 The Fire Strategy was referred to the Health and Safety Executive (HSE), who requested revisions. The revised Fire Statement was then referred back to the

HSE who advised that it was acceptable for the planning application stage, with further work being required if the scheme is approved, and the design progresses to the Building Control Stage.

10.78 The Application was referred to the London Fire Brigade also and no objection was made to the proposals.

10.79 The application is considered acceptable with regard to fire safety and is generally in accordance with London Plan (2021) Policy D12, and CS16 of WFLP Core Strategy (2012).

Crime Prevention

10.80 Policy D11 of the London Plan (2021) set out policy which requires all new developments to design out crime and incorporate an acceptable level of safety and security measures and ensure development is resilient to emergency.

10.81 Policy CS16 of the WFLP Core Strategy "Making Waltham Forest Safer" set out the Council's aspirations to improve community safety and cohesion by working on minimising opportunities for criminal behaviour. Policy DM33 of the WFLP Development Management Policies (2013) seeks a safe environment with appropriate levels of natural surveillance.

10.82 In their response on the formal application, the Met Police have set out a number of amendments the scheme could make to further reduce opportunities for criminal activities and anti-social behaviour.

10.83 The safety and security measures which the Met Police have provided advice on include active street frontages, active and passive surveillance, lighting, external CCTV, secure access points and other measures.

10.84 To gain entry to the cycle lift lobby for Sites 1 and 3, double doors are proposed. TfL require the overall opening would be wide enough for cyclists, to achieve a wide opening requires either a very wide single door or double doors. The Applicant has explained that very wide single doors are hard to source, heavy and hard to open, as such double doors are proposed. The Metropolitan Police have raised concern over the use of double doors in case one was to be left open (which could then be used by criminals to access the building). Officers have tried to strike a balance between the conflicting requests from TfL and the Metropolitan Police, and conditions are recommended to ensure access to the cycle lift lobby is both wide enough and secure.

10.85 Cycle storage on Site 2 is proposed at ground level and can be accessed directly from external areas. TfL had raised concern that this may be insecure, however the Metropolitan Police advice is that the arrangement is acceptable, subject to adequate lighting, surveillance (CCTV) and doors being secure and locks adequate (conditions are recommended to secure this). In view of the advice from the Design Out Crime officer no objection is raised.

10.86 The advice provided by the Met Police has been sent to the Applicant directly and informatives are recommended to be imposed on any consent which set out the advice. Subject to conditions the application would accord with Policy D11 of the London Plan (2021) and Policy DM33 of the WFLP DM Policies (2013).

O. SOCIAL VALUE AND INFRASTRUCTURE

10.87 Policy CS8 of the WFLP Core Strategy (2012) seeks to maximise employment opportunities available to local people. Policy CS10 seeks to ensure provision is made within new developments to recruit and train local residents to serve its needs. The policy supports infrastructure improvements that enhance residents' access to employment areas via public transport, foot and bicycle.

10.88 The proposals would see the delivery of considerable social value. In terms of employment, during the construction period there would be approximately 568 FTE jobs supported during the demolition and construction phase. This employment would include a broad range of job types and occupations.

10.89 The proposal would deliver approximately 91 permanent 'end-use jobs' as a result of the non-residential (including cultural) space. There would also be other jobs associated with the completed residential development (likely to consist of maintenance or building service roles).

10.90 The application proposes up to 345 homes, with 50% being affordable. This would be a direct, permanent, long term beneficial effect for Borough residents.

10.91 The Council's Business, Investment & Employment advisor has requested a suite of measures to ensure there are training opportunities, work placements and apprenticeships for residents on site.

10.92 The measures set targets to ensure a good proportion of all jobs during the Construction Phase are fulfilled by Local Residents. Local Residents defined as residents of Waltham Forest. This definition extending to include residents of Enfield, Haringey, Hackney, Tower Hamlets, Newham, Redbridge, Havering, (Essex) in the event no residents of Waltham Forest are found to fill roles.

10.93 The employment and training opportunities to be secured include:

- To ensure that 35% of all jobs available for the construction or fit-out of the Development during the Construction Phase are fulfilled by Local Residents. Apprenticeships - Provide a minimum of 75 Apprentice Posts
- To provide a minimum of 15 Work Placements, paid at London Living Wage (LLW)) in the construction trade during the Construction Phase of the Development with such posts being first offered to Local Residents through the Council's Employment, Business and Skills Service.
- To ensure that as a minimum, 20% of suppliers during the construction, fit out and end user Phases of the Development to be local to the London Borough of Waltham Forest.

10.94 Officers are of the view that the proposals have the potential to deliver significant benefits and social value. Subject to conditions and planning obligations, the application would accord with policies CS8 and CS10 of the WFLP Core Strategy (2012).

<u>Health</u>

10.95 WFLP Core Strategy (2012) Policy CS3 (Providing Infrastructure) states that the Council will seek to maximise opportunities to deliver new and improved health services and facilities. Policy CS13 promotes health and well-being and requires new development to consider how it will contribute to improving health and reducing health inequalities. Where adverse impacts are identified, the development will be expected to demonstrate how it will address or mitigate against these impacts.

10.96 WFLP Development Management Policies (2013) policy DM17 relates to social and physical infrastructure and the need for development to contribute towards supporting upgrading or enhancing existing facilities or providing for new facilities where the development generates additional need for social infrastructure. Policy DM23 relates to health and well being and notes that the Council will support major applications with positive health impacts on the health and well-being of communities. The Council will support major applications with positive health impacts on the health and well-being of communities demonstrated through the use of Health Impact Assessments (HIA).

10.97 The Applicant provided an HIA, which identifies that the proposed development will give rise to an increase in the population living in the area. The scheme would generate increased pressure on existing primary healthcare services, where GP's are already operating at higher than the UK average Patient to GP ratio.

10.98 The Council prepared a Joint Strategic Needs Assessments, with the support of other analysis and predictive tools such as the Healthy Urban Development Unit (HUDU) model. This looked at geographic differentiation in levels of health care needs across different areas or communities in the borough, so that service, and supporting estates requirements, can be planned for accordingly.

10.99 The site sits within the Leyton/Leytonstone area as assessed by the Joint Strategic Needs Assessments. The development in this location is part of the Council's planned growth strategy as set out in the draft Local Plan and therefore to understand the position more clearly, reference should also be made to the Council's Infrastructure Delivery Plan (IDP), which identifies the infrastructure necessary to support planned growth and sources and funding. The social infrastructure chapter of the Council's Infrastructure Delivery Plan (IDP) looks at need across acute care (e.g. services provided in hospitals), intermediate care (for example day care following an operation), primary care (e.g. GP surgeries) and mental heath care.

10.100 The supply, demand, the ability to expand existing and create new facilities has been considered. The outcome of this work is that it establishes that additional provision of health care (acute, intermediate, primary and mental health) is needed. The IDP identifies that funding is to be secured from developments generating demand via planning obligations secured through S106 legal agreements. For the Leyton/Leytonstone area, some £5,600,088 is needed to 2030.

10.101 This funding need is driven by expected population increase. The IDP forecasts growth of 41,533 residents to 2040. The average cost of capacity enhancements to health care facilities as a result of increased population, per person is £222. Utilising the GLA population forecast information and knowledge of the proposed mix of units, approximately 792 residents may live at the site by 2030. Based on the average cost per person a contribution of £175,908 would be appropriate.

10.102 The funding to be secured via S106 contributions relates to the entire Leyton/Leytonstone area (i.e. not bespoke to the application site).

Education

10.103 WFLP Core Strategy (2012) policy CS9 promotes better education and states that the Council and its partners will ensure that all residents, especially young people in the Borough have access to high quality educational facilities by providing enough primary, secondary and further education places so that all young residents in the Borough can be educated to a high standard.

10.104 WFLP Development Management Policies (2013) policy DM17 relates to social and physical infrastructure and states that the Council will seek development schemes that result in any unmet additional need for social infrastructure to contribute towards supporting upgrading or enhancing existing facilities or providing for new facilities.

10.105 Policy DM36 of the WFLP Development Management Policies (2013) relates to planning obligations and states that where existing and planned provision of infrastructure, facilities and services are inadequate to meet the needs generated by a proposal, the Council will negotiate planning obligations to secure measures to meet those needs.

10.106 In terms of demand and supply of early years education in the Lea Bridge Ward, the Council's Early Years advisor advised that there is evidence of a need for full day care and term time provision across all age groups. The evidence of need is based on the Council's Childcare Sufficiency Assessment (CSA) which is updated at least annually in line with government statutory requirements. The CSA provides information as to whether there is a deficit or surplus of early years childcare places.

10.107 The early year child yield from the development is estimated at 81 children between the ages of 0, 1, 2, 3 & 4 years. There is not sufficient capacity in existing early years educational facilities and as such a financial contribution of £105,000 is sought to increase capacity in order to cope with the additional demand.

10.108 The funding would be used to cover the cost of creating additional space for term time places in local schools.

10.109 As with health impacts, given the development in this location is part of the Council's planned growth strategy as set out in the draft Local Plan reference should also be made to the Council's Infrastructure Delivery Plan (IDP), which identifies the infrastructure necessary to support planned growth and sources and funding. This advises that changes in primary Pupil Admission Numbers (PANs) over recent years (for a number of reasons including but not limited to, a transition to universal credit, rising house prices, the impact of the 2016 referendum and more recently COVID19) and following a previous period of sustained increases in the need for reception/primary school places, there is now a surplus in reception and primary places in the borough.

10.110 For secondary schools the situation is different. Projected housing growth is not spread evenly across the borough and certain areas (such Lea Bridge) will need to be carefully considered. The IDP indicates that capacity enhancements for schools are to be funded from various sources which may include the Capital Delivery Programme (CPD), with CPD projects having multiple funding streams.

10.111 The Application was referred to the Council's Education team who advised in this instance funding would not be sought from the developer, with reference being made to seeking funding for expansion as part of national funding.

Play space

10.112 London Plan (2021) Policy S4 seek to ensure that development proposals include suitable provision for play and recreation and incorporate good-quality accessible play provision for all ages, of at least 10sqm per child. This quantum is also referenced in the LBWF Development Management Policies (2013).

10.113 The application proposes to provide onsite play space for children aged up to 11 years old and is policy compliant in this regard. For older children it is proposed that play space need be met off site.

10.114 Considering the nature of the buildings and the site constraints, for older children (over 12 years old), it is proposed to rely on existing offsite play space within 400-800 metres of the site, including at Hackney Marshes; Leyton Jubilee Park; St. James' Park; and North Millfields Recreation Park.

10.115 To ensure off site play space is able to cope with additional usage, a contribution of £250,000. The funding would build capacity in Leyton Jubilee Park. In addition, a contribution towards enhancements in Lee Valley Regional Park would also be secured.

10.116 Taking account of nearby open spaces, the site constraints and subject to funding of enhancements to Leyton Jubilee Park, no objection is raised to the proposals in terms of play pace.

11 THE ENVIRONMENTAL STATEMENT

11.1 The Environmental Statement (ES) has been prepared by the Applicant's consultant, in support of the planning application. The Council appointed an independent, appropriately qualified, 3rd party consultant to undertake a review of the ES on behalf of the Local Planning Authority to confirm whether or not it is compliant with the requirements of the EIA Regulations.

11.2 The need for an EIA is determined by the definition and criteria provided in Schedule 1 or Schedule 2 and Schedule 3 of the EIA Regulations. The Development proposed in this application is of a type described in Schedule 2 (10b) of the EIA regulations. That is:

"10. Infrastructure projects … (b) urban development projects, including the construction of shopping centres, and car parking, sports stadiums, leisure centres and multiplex cinemas."

11.3 The thresholds which determine the need for a development to be screened for the potential for environmental effects include where the development would involve 150 dwellings or more. In this case 335 units are proposed and as such the proposals represent EIA development.

Scope of the ES

11.4 Analysis undertaken by the Council's independent consultant confirmed that the scope of the ES is adequate, and that the ES has been undertaken in accordance with the scoping opinion.

Outcome of the ES Review

11.5 Regulation 26 of the EIA regulations require the Local Planning Authority to:

- Examine the environmental information,
- Reach a reasoned conclusion on the significant effects of the proposed development on the environment,
- Integrate that conclusion into the decision as to whether planning permission is to be granted, and
- If planning permission or subsequent consent is to be granted, consider whether it is appropriate to impose monitoring measures.

11.6 The Council must not grant planning permission for EIA development unless satisfied that the reasoned conclusion is that the proposal would address the significant effects of the proposed development on the environment that are likely to arise as a result of the proposed development.

Assessment criteria

11.7 The classification of each effect identified in the ES has been assessed based on the magnitude of change (or impact) due to the proposed development and the sensitivity/value of the affected receptor to change, as well as a range of other factors. The ES describes the likely significant environmental effects of the Proposed Development during demolition, construction and upon subsequent completion and operation.

11.8 For clarity, effects have been classified in the following manner:

- **Major effect:** where the Proposed Development could be expected to have a substantial improvement or deterioration on receptors,

- **Moderate effect:** where the Proposed Development could be expected to have a noticeable improvement or deterioration on receptors,
- **Minor effect**: where the Proposed Development could be expected to result in a perceptible improvement or deterioration on receptors,
- **Negligible:** where no discernible improvement or deterioration is expected as a result of the Proposed Development on receptors, and
- **No change:** where no change is expected as a result of the Proposed Development on receptors.

11.9 The predominant approach in the ES is to classify effects that are moderate or above as being significant. Effects classified as minor and below are considered not to be significant. In accordance with schedule 4 of the EIA regulations, the ES sets out measures to avoid, prevent or reduce and, if possible, offset any likely significant adverse effects on the environment.

11.10 Each of the technical topic areas that have the potential for significant effects consider the following scenarios within their assessments:

- The demolition and construction works associated with the Proposed Development;
- The completed and operational Proposed Development; and
- Cumulative – the Proposed Development with other surrounding development schemes, often referred to as 'cumulative schemes.'

11.11 The approach and methodology used to assess impacts is logical, in line with legislative requirements, best practice and as such are acceptable.

11.12 The following paragraphs briefly describe the likely effects of the proposed development with regard to various topics within scope of the ES, during the construction works and once the development is complete and operational.

Traffic and Transport

11.13 Chapter 6 of the ES reports the outcome of the assessment of likely significant effects arising from the proposed development in terms of the highways and transport effects of the Proposed Development, both during demolition and construction and once the Proposed Development is complete and occupied / operational.

11.14 The assessment considers the potential for the Proposed Development to effect: Severance, Delay (Driver, Cycle, Pedestrian and Public Transport), Amenity, Fear and Intimidation, Accidents and Safety and Hazardous Loads (in accordance with the Institute of Environmental Assessment (IEMA) Guidance).

11.15 While this chapter considers potential effects set out above, a Transport Assessment (TA) has also been submitted as part of the Planning Application which provides a separate but related assessment of the implication of the Proposed Development on the transport network.

11.16 The assessment in the ES considers the potential interaction between the Proposed Development and the consented New Lea Bridge Station Entrance scheme during the construction phase, using a separate assessment scenario.

11.17 In terms of categorising the magnitude of impact, the ES describes these as follows:

- Substantial: Changes which are likely to be perceptible and which would significantly change conditions which would otherwise prevail to the extent that it would significantly affect travel behaviour.

- Moderate: Changes which are likely to be perceptible and which would materially change conditions which would otherwise prevail to the extent that it may affect travel behaviour to some degree.
- Slight: Changes which are likely to be perceptible but not the extent that it would materially change conditions which would otherwise prevail.
- Negligible: Changes are unlikely to be perceptible.

11.18 The ES then sets out the conditions when effects would fall into the above categories, this involves looking at absolute increases in vehicles trips and also as a percentage of traffic flows. By way of an example, where the additional traffic would represent less than a 30% change in the flow of traffic the effects would be negligible. These criteria reflect the guidance set out in the IEMA Guidelines and are appropriate. During construction and when the development is completed the changes to traffic flows are all below 30%.

11.19 The increases in overall vehicle movements and specifically HGV movements are below 30%. No significant adverse effects have been identified by the assessment of the demolition and construction works and therefore no additional mitigation is necessary over and above the CLP(s).

11.20 The Council requested that construction traffic not travel along Lea Bridge Road, and as such the Applicant amended the construction proposals directing construction traffic to Orient Way.

11.21 The use of Orient Way by construction vehicles preferable in terms of reducing amenity impacts associated with vehicle movements and facilitating efficient movement of vehicles to motorways, and not disrupting traffic flows along Lea Bridge Road or encouraging vehicles (and associated emissions) from driving close to Epping Forest.

11.22 Analysis shows that even with construction vehicles directed to Orient Way (as opposed to being dispersed), the increase would not exceed 30% (the threshold for a significant effect).

11.23 At this point it is important to note that consideration must be given to Regulation 25 of the Environmental Impact Assessment regulations (EIA regulations). Regulation 25(3) states that the recipient of further information or “any other information” must be publicised and consult on such. “any other information” is defined in Regulation 2(1) as

“any other substantive information relating to the environmental statement and provided by the applicant or the appellant as the case may be”.

11.24 The NPPF states:

“Additional information of a substantive nature submitted voluntarily by an applicant must be treated in the same way as information required by the local planning authority”.

11.25 In this case, the revised traffic arrangements, which direct construction vehicles to Orient Way (rather than Lea Bridge Road) are not considered to be a substantive change, in that the increase would still be less than the threshold for a significant effect, when considering the IEMA Guidelines. Therefore, the changed construction traffic routing does not require re-consultation under Regulation 25 of the EIA regulations.

11.26 In terms of when the development is operational, again the ES identifies that increases in overall traffic movements (including HGV movements) would also be

below a 30% increase. No significant adverse effects have been identified in the assessment of the completed Proposed Development.

11.27 Objections have been received which indicate that the Applicant has underestimated the forecast increase in traffic. However, Officers do not agree, the approach is logical and robust, informed by DfT, census and trip rate data base information, as well as actual observations from a survey of traffic movements.

11.28 Subject to conditions and planning obligations to secure a Travel Plan and Delivery and Servicing Plan for the sites. These documents accompany the TA and are submitted part of the planning application as outline documents and obligations and conditions are recommended to secure these.

11.29 Cumulatively, scenarios were examined which considered cumulative effects should the following developments also come forward:

- Lea Bridge Gas Works, 78 Perth Road, E10 7PB;
- Bywaters Leyton Ltd, Gateway Road, E10 5BY;
- Coronation Square, Leyton, E10 5JY (The Score Centre);
- Land at 9 Osier Way, Leyton, E10 5SB; and
- Lea Bridge Station, Argall Way, Leyton, E10 7PG.
- Whipps Cross Hospital (Application Ref. 211244 and 211245) for the creation of a new hospital with associated buildings and a change of use of part of the site for up to 1,500 residential units and 5,000m2 of Use Class E floorspace.

11.30 Demolition and construction traffic is an important component of traffic flow on the strategic and local primary road network. This includes both through traffic and traffic with local destinations.

11.31 Each site would be required to adhere to a Construction Logistics Plan (CLP), including details of management strategy and vehicular routes. Subject to this the ES concludes that the combined cumulative schemes are expected to have an insignificant direct, temporary, short term, reversible and negligible to minor adverse (not significant) effects. Due to the location of the cumulative schemes, the impact of the combination of these with the Proposed Development would remain insignificant as a direct, temporary, short term, reversible and negligible adverse (not significant) effect.

11.32 The assessment in the ES does not indicate any residual significant effects with regards to traffic and transport for both the demolition and construction phase, nor once the Proposed Development is completed and operational. Similarly, no cumulative significant adverse effects have been established. The ES has been independently assessed by the Council's independent expert and found to be accurate.

Air Quality

11.33 Chapter 7 of the ES relates to air quality. The London Borough of Waltham Forest (LBWF) has declared the entire borough as an Air Quality Management Area (AQMA), due to the exceedances of the annual mean nitrogen dioxide (NO2) and the 24-hour mean particulate matter (PM10) objectives. Consequently, the Proposed Development Site is located within the AQMA. The Proposed Development Site is also partially located within the 'Leyton Lea Bridge Road from Orient Way to Avondale Road Air Quality Focus Area' (an area which exceeds the EU annual mean limit value for NO2).

11.34 Activities associated with the demolition and construction works of the Proposed Development would give rise to a risk of dust impacts during demolition, earthworks and construction. Measures to mitigate dust emissions will be required during the

demolition and construction works of the Proposed Development in order to minimise effects upon nearby sensitive receptors.

11.35 The ES refers to the GLA's SPG on 'The Control of Dust and Emissions During Construction and Demolition'. This describes measures that should be employed, as appropriate, to reduce the impacts, along with guidance on what monitoring should be undertaken during the construction phase.

11.36 The mitigation measures included within the draft CEMP submitted with the application would need to be secured as a condition of any consent via a dust management plan (DMP). The DMP could be integrated into a Code of Construction Practice or within the detailed CEMP and may require monitoring. Automatic monitoring of particulate matter (as PM10) would be required.

11.37 The traffic modelling for scenarios with and without the development incorporate traffic flows associated with all cumulative schemes, which would affect flows on the roads included in this assessment.

11.38 The Proposed Development would include back-up generators, should main power fail, the emissions from which have been considered. Annual mean concentrations of NO2, PM10 and PM2.5 will be below the objectives with the development, and all impacts resulting from additional road traffic emissions associated with the Proposed Development will be 'not significant'.

11.39 The Air Quality chapter of the ES has been independently reviewed to ensure the chapters comply with the relevant environmental legislation. Conditions and obligations are recommended to ensure mitigation measures are implemented.

Noise and vibration

11.40 Chapter 8 of the ES relates to Noise and vibration. An environmental noise and vibration survey was conducted to establish the baseline conditions around the Proposed Development Site and at key receptor locations. Noise surveys have been undertaken in line with the guidance contained in BS 7445:2003 and BS 4142:2014. Vibration surveys have been undertaken in line with guidance contained BS 6472-1.

11.41 A computer model of the Proposed Development Site and surrounding roads has been developed using CadnaA (Computer Aided Noise Abatement) which is software for the calculation, assessment and prediction of noise. This takes into account reflections from the Proposed Development, road geometry, gradients and average traffic speed. The results from the model have been used to assess the likely change in ambient noise levels at the identified receptors due to the operation of the Proposed Development. Given the inter-related nature of the Proposed Development and the consented New Lea Bridge Station Entrance development (in relation to the construction phase), the potential effects associated with the two schemes has been considered.

11.42 Due to the phasing a "time slice" approach to the assessment has been taken. This approach identifies the specific points in time in the construction programme where there is the potential for construction activities to be taking place at the same time, so that the modelling tests the worst case scenario in terms of construction noise.

11.43 It has been predicted that significant noise effects (if unmitigated) have the potential to occur at several receptor locations during the period of demolition and construction works, and could represent intermittent, temporary significant effects.

11.44 Through implementation of mitigation measures (such as a construction logistics plan (CLP) and construction environmental management plan (CEMP)), construction noise effects could be reduced. Conditions are recommended to secure a CEMP and CLP.

11.45 The ES concludes that the residual construction noise effect ranges from negligible to major adverse (significant). It is important to note that these effects will only be experienced temporarily whilst the peak construction activities take place.

11.46 With mitigation applied the ES identifies that significant adverse noise effects would still occur at the following receptors:

- Elm Park Road
- Site 2 Terrace.

Elm Park Road

11.47 The residual significant adverse effects at Elm Park Road are predicted to occur during:

- Time slice 2 (Major Adverse)
- Time slices 3 and 4 (Moderate Adverse).

11.48 The activities that would be undertaken in Time Slice 2 include piling/excavation works at Site 2. The assumptions include equipment close to the properties at Elm Park Road. This equipment (piling rig and other plant associated with piling) is modelled at the closest and therefore a worst-case scenario. Piling will take place at other locations across the site, this will inherently result in lower noise levels at the Elm Park Road properties during these periods.

11.49 Reducing noise at the closest positions to the piling positions is not always feasible, though potential impacts could be managed by the contractor such as alternating between piling at the closest positions with locations further away and time management, while also keeping in regular contact with the residents. Other solutions such as higher perimeter barriers may be needed.

11.50 The activities undertaken in Time slices 3 and 4 include the superstructure works. Again, reasonable worst-case assumptions have been applied, with these resulting in borderline moderate adverse effects (i.e. 1 dB lower and the effect would be minor adverse).

Site 2 Terrace Building

11.51 The construction programme, at this stage identifies that the Terrace Building on Site 2 could be completed before the most noise generating activities associated with the Courtyard building is complete. If the Terrace building was occupied while construction of the Courtyard building is underway, the ES identifies that a moderate adverse effect could occur during the time.

11.52 The impact is associated with the superstructure works at Site 2 Courtyard building. The impacts could be reduced through measures in the CEMP and CLP such as control over the times when noisy works can occur. Taking account of the limited duration of the impact and subject to other mitigation measures no objection is raised.

11.53 Other features that may be adopted include continuous noise/vibration monitoring during the construction. This would allow the contractor to review their practices in real-time and respond accordingly.

11.54 During the operational phase, subject to conditions (which are recommended) to control hours of operation and noise from plant and equipment, the assessment in the ES concludes that there would be no significant effects.

11.55 The ES evaluates the worst-case in all scenarios and presented a robust assessment to evaluate the highest/worst potential effects. Specific mitigation measures such

that Best Practicable Means should be implemented to reduce impacts during construction, secured by way of conditions (CLP and CEMP).

11.56 The Chapter has been independently checked by the Council's expert consultant and found to be accurate.

Archaeology

11.57 The Proposed Development Site lies within an 'Archaeological Priority Zone' (APZ). The APZ defines an area associated with the River Lea valley and its tributaries and is an area characterised by alluvial deposits which have been shown to preserve important archaeological remains dating from the Prehistoric period and later.

11.58 The alluvial deposits also preserve palaeo-environmental remains which indicate changing environmental conditions during Prehistoric and historic periods. The Proposed Development Site's location within a broad area of landscape-scale archaeological potential does not in itself indicate the presence of archaeological remains at the Proposed Development Site.

11.59 Chapter 9 of the ES assesses the likely significant effects of the Proposed Development upon below ground archaeological heritage assets on and near the Proposed Development Site, and the settings of any below ground archaeological assets within close proximity. The ES Chapter sets out the assessment methodology and baseline conditions, examines potential effects, and presents mitigation measures to prevent, reduce or offset (where possible) any significant adverse effects to buried heritage assets. The likely residual effects once these mitigation measures have been implemented are presented and their significance assessed.

11.60 This ES chapter was prepared in accordance with the standards and guidance issued by the Chartered Institute for Archaeologists (CIfA), the requirements of the EIA Regulations, guidance in The National Policy Planning Framework (NPPF) and the National Planning Practice Guidance (NPPG), Historic England guidance (Good Practice Advice Documents 2015 & 2017), Greater London Archaeological Advisory Service (GLAAS) guidance, and current best practice.

11.61 There are no designated archaeological assets within the Proposed Development Site or within a 750m radius of the Proposed Development Site (a study area deemed sufficient to model the archaeological potential of the Proposed Development Site itself).

11.62 Any effects on known below ground archaeological remains (non-designated) outside of the Proposed Development Site would be negligible (not significant) as all works will be confined to the Proposed Development Site and are therefore not considered further.

11.63 The construction works associated with the development would have the potential to have a direct impact on below ground remains through site enabling works as well as the construction of new basements, foundations and services.

11.64 An Archaeological Desk-Based Assessment and a Geoarchaeological Deposit Model been undertaken. This will inform discussions with GLAAS to agree a scope of appropriate archaeological mitigation, which would comprise a phased programme of geo-archaeological and archaeological investigation in areas of archaeological potential. The application was referred to GLAAS who advised that subject to a condition being imposed on any consent to secure a Written Scheme of Investigation, any impacts would be appropriately mitigated. An appropriate condition is recommended. Subject to this there would be no significant effects in relation to archaeology.

11.65 The Chapter has been independently checked by the Council's expert consultant and found to be accurate.

Wind Microclimate

11.66 Chapter 10 of the ES assesses the effects of the Proposed Development on wind microclimatic conditions, establishing if the resulting changes in wind speeds would be suitable, with regards to comfort and safety.

11.67 Key wind microclimate considerations associated with the Proposed Development are:

- The creation of undesirable wind speeds (resulting in effects to pedestrian comfort and safety) during the demolition and construction works; and
- The creation of undesirable wind speeds (resulting in effects to pedestrian comfort and safety) at ground level (specifically at building entrances, pedestrian thoroughfares and within amenity spaces with outdoor seating) n on-site, as well as balcony, podium and roof terrace levels, and within nearby areas (including open space, roads, bus stops, pedestrian junctions and railway platforms).

11.68 To test the impact of the Proposed Development, a scale model of the buildings comprising the completed Proposed Development has been constructed. Wind speed measurements within and around the site were established using 'Irwin probes'. These are sensors which measure the mean and gust wind speeds. The wind speed was measured at up to 290 locations under six scenarios for all wind directions.

11.69 The wind testing then examined a series of scenarios, including with cumulative schemes and without mitigation measures such as landscaping. Testing wind speeds without any mitigation, identified areas where mitigation should be introduced. Mitigation measures were developed in the wind tunnel during an iterative wind mitigation workshop.

11.70 It is noted that construction activity is less sensitive to wind conditions (due to protection from site hoarding, and site access being restricted to site workers) than when the development is complete and operational. In addition, there would be appropriate health and safety measures implemented to ensure that the construction workers were adequately protected. The ES concludes that there would not be a significant effect during the construction phase.

11.71 In terms of mitigation when the scheme would be built and operational, the wind testing established that this would take the form of canopies with would extend off the side of Tower 2 (Site 3), which would stop wind sheer (down drafts), and landscaping and trees around the site at ground level (slowing wind travelling around the side of the buildings on all 3 sites).

11.72 The final scenario modelled included existing and proposed development, including landscaping and additional mitigation established through the iterative mitigation testing. The ES concludes that subject to the mitigation, there would not be significant effects. The Chapter has been revised by the Council's independent expert and found to be accurate.

Sunlight, Daylight, Overshadowing and Solar Glare

11.73 Chapter 11 of the ES reports the outcome of the assessment of likely significant effects arising from the proposed development in terms of daylight, sunlight and overshadowing (DSO) of existing and proposed buildings. Alterations to daylight and sunlight amenity to key sensitive surrounding receptors on completion of the Proposed Development have been examined including:

- Changes to sunlight and daylight to neighbouring properties,
- Changes to overshadowing of key surrounding public and/or private amenity areas,
- Adequacy of light within the proposed residential units, and
- The potential for solar glare effects to key sensitive viewpoints surrounding the Proposed Development Site, particularly road users and train drivers, once the Proposed Development is complete.

11.74 When assessing impacts associated with planning applications, Local Authorities are guided by the tests laid out in the Building Research Establishment (BRE) document 'Site Layout Planning for Daylight and Sunlight', A guide to good practice, Second Edition.

11.75 The BRE includes 3 key tests in relation to impacts to neighbour properties, namely:

- Vertical Sky Component (VSC)
- No Sky Line (NSL) which is also known as Daylight Distribution (DD)
- Annual Probable Sunlight Hour (APSH)

11.76 These tests are described in further detail below.

Daylight

11.77 The BRE Guidelines stipulate that… "the diffuse daylighting of the existing building may be adversely affected if either:

- The Vertical Sky Component (VSC) measured at the centre of an existing main window is less than 27%, and less than 0.8 times its former value.
- the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value." (No Sky Line / Daylight Distribution).

11.78 The BRE Guidelines state (paragraph 2.1.4) that the maximum VSC value achievable is almost 40% for a completely unobstructed vertical wall. At paragraph 2.2.7 of the BRE Guidelines it states:

"If the VSC is greater than 27% then enough skylight should still be reaching the window of the existing building. Any reduction below this level should be kept to a minimum. If the VSC, with the development in place is both less than 27% and less than 0.8 times is former value, occupants of the existing building will notice the reduction in the amount of skylight. The area lit by the window is likely to appear more gloomy, and electric lighting will be needed more of the time."

11.79 The VSC test involves assessing available of daylight in the centre point of the window. It is a spot measurement it does not consider the size or number of windows serving a room (this is a limitation to this test and one reason that all three tests need to be considered together).

11.80 At paragraph 2.2.8 the BRE Guidelines state:

"Where room layouts are known, the impact on the daylighting distribution in the existing building can be found by plotting the 'no sky line' in each of the main rooms. For houses this would include living rooms, dining rooms and kitchens. Bedrooms should also be analysed although they are less important… The no sky line divides points on the working plane which can and cannot see the sky… Areas beyond the no sky line, since they receive no direct daylight, usually look dark and gloomy compared with the rest of the room, however bright it is outside".

Sunlight

11.81 The BRE Guidelines (2011) state in relation to sunlight at paragraph 3.2.11:

"If a living room of an existing dwelling has a main window facing within 90° of due south, and any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sunlighting of the existing dwelling may be adversely affected. This will be the case if the centre of the window:

- *Receives less than 25% of annual probable sunlight hours, or less than 5% of annual probable sunlight hours between 21 September and 21 March and*
- *Receives less than 0.8 times its former sunlight hours during either period and*
- *Has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours."*

11.82 The BRE Guidelines) state at paragraph 3.16 in relation to orientation:

"A south-facing window will, receive most sunlight, while a north-facing one will only receive it on a handful of occasions (early morning and late evening in summer). East and west-facing windows will receive sunlight only at certain times of the day. A dwelling with no main window wall within 90 degrees of due south is likely to be perceived as insufficiently sunlit."

11.83 The guidelines go on to state (paragraph 3.2.3):

"… it is suggested that all main living rooms of dwellings, and conservatories, should be checked if they have a window facing within 90 degrees of due south. Kitchens and bedrooms are less important, although care should be taken not to block too much sun".

11.84 Where these guidelines are exceeded then sunlighting and/or daylighting may be adversely affected. The BRE Guidelines provide numerical guidelines, the document though emphasises that advice given is not mandatory and the guide should not be seen as an instrument of planning policy, these (numerical guidelines) are to be interpreted flexibly since natural lighting is only one of many factors in site layout design.

Overshadowing

11.85 The BRE Guidelines state that it is good practice to check the sunlighting of open spaces where it will be required and would normally include:

'gardens to existing buildings (usually the back garden of a house), parks and playing fields and children's playgrounds, outdoor swimming pools and paddling pools, sitting out areas such as those between non-domestic buildings and in public squares, focal points for views such as a group of monuments or fountains'.

11.86 The assessment of overshadowing uses the Sunlight Hours on Ground (SHOG) method described in the BRE guidance. The BRE recommends that at least 50% of an external amenity area should be able to receive at least 2 hours of direct sunlight on the Equinox. This is an indicator of a reasonable quantity of direct sunlight throughout the year. At paragraph 3.3.17 the guidance states:

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

Overshadowing 2-18 Elm Park Road (evens inclusive)

11.87 Of the nine gardens assessed, all nine experience a negligible magnitude of change in that over 50% of the gardens receive at least 2-hours of sunlight when assessed on the 21st March. In the context of the EIA regulations, the results show that a negligible effect (not significant) is anticipated to the gardens at 2-18 Elm Park Road (even numbers inclusive).

Solar Glare

11.88 There are two types of categories in terms of reflected glare. Discomfort glare causes visual discomfort without necessarily affecting the ability to see. Disability glare happens when a bright source of light (such as the reflected sun) impairs the vision of other objects.

11.89 Outdoors, disability glare is the more serious problem, as it can affect motorists' ability to drive safely, for example. It is especially important at locations where a driver has to make a key decision, for example approaching a road junction, traffic signal or pedestrian crossing. It can also affect train drivers, particularly if they are looking at illuminated signals.

11.90 The closer the instance of glare is to the centre of the line of sight, the worse the effect becomes with the increased likelihood that the glare will have a disabling effect on vision. The Applicant's assessment highlights the stereoscopic view of the 3 degree radius (the most critical vision) from the centre line of sight and the 30 radius from the centre line of sight (almost to the point at which glare would be peripheral).

11.91 There are no quantitative criteria within the BRE Guidelines regarding acceptable levels of solar glare. There is, however, research which suggests that the scale of a glare occurrence is largely dependent upon its angle from the line of sight and the relevance of this with respect to the human field of vision. The ES utilises this research in assessing solar glare.

11.92 The ES examines solar glare from 8 viewpoints, assessed in all directions of travel as the train driver approaches Lea Bridge station, and as car drivers approach the A104 (Lea Bridge Road) junction with Argall Way and Orient Way.

11.93 For train drivers approaching Lea Bridge Station from the north and the south, there is the potential for glare within the 30° view throughout most of the year. However, this is predominantly restricted to early morning and late afternoon/evening times when the sun is lower in the sky and therefore likely to have a lower intensity. The largest potential for solar glare is shown when the driver is furthest away from Lea Bridge Station giving the driver more time to slow down before Lea Bridge Station if necessary.

11.94 For car drivers, there is the potential for glare within the 30° view throughout most of the year and this is restricted to the morning before 8am and the evening times after 16:00. The instances are minor and last for short period of time.

11.95 The assessment shows there is no potential for solar glare within proximity of the 3° radius vision area (the most critical vision) when viewed from any of the eight test point areas. Therefore, the effects assessed for the 3° radius vision area at the eight test points considered would be negligible.

11.96 The ES concludes that the overall effects from the Proposed Development would be considered minor adverse (not-significant).

Sunlight/Daylight Approach

11.97 The ES firstly identifies existing properties which could be impacted, in this case these include:

Ref:	Address
1	2,4,6,8,10,12,14,16,18 Elm Park Road
2	1,3,7,13 Elm Park Road
3	162-168 Lea Bridge Road
4	160 Lea Bridge Road
5	Motion (Beck Square) blocks C,D,E,F,G

11.98 The baseline conditions have been assessed to the windows using the Vertical Sky Component (VSC) as well as the No Skyline (NSL) (also known as Daylight Distribution) tests.

11.99 The ES states that internal layout plans for sensitive receptors were sourced from online research including estate agents' websites and online planning records. Where plans were not available, the Applicant estimated internal layouts based on external observation and plans of similar properties nearby. It is accepted that it will not always be possible to identify the exact layouts of neighbouring properties (estimation is a conventional approach).

Daylight Assessment (VSC and DD)

11.100 A total of 359 rooms served by a total of 603 windows have been tested for availability of daylight. A total of 312 rooms (87%) experience negligible change using the daylight distribution test and 317 windows (53%) experience negligible magnitude of change using the VSC test.

11.101 Appendix 1 to this report sets out the detailed table of results for the windows and rooms which do not pass the BRE tests.

11.102 When determining the scale of the effect to each property in consideration of daylight and sunlight, judgement should be applied to assign the likely effect scale / significance based on all evidence available.

11.103 Windows that have low existing levels of sky visibility are vulnerable to large percentage alterations, which are often unavoidable with even modest proposed massing. Consideration also needs to be given to the number or rooms/windows affected; the nature of room uses affected (bedrooms, kitchens, or living rooms); the percentage change to daylight levels, the absolute changes to daylight levels; existing daylight levels, retained daylight levels; window orientation; and the presence of balconies, overhangs or other existing architectural features.

11.104 Paragraph 124 of the NPPF (2021) states that when considering applications for housing, authorities should take a flexible approach in applying policies or guidance relating to daylight and sunlight, where they would otherwise inhibit making efficient use of a site (as long as the resulting scheme would provide acceptable living standards). The Mayor's Housing SPG also encourages a similar approach to flexibly applying BRE guidance.

11.105 The BRE guidance advises that it should not be applied mechanically in determining the scale of an effect (a range of factors should be taken into account).

Motion Development (Beck Square) Block F and G

11.106 These blocks are located north-east of the corner with Argall Way and Lea Bridge Road. A total of 296 windows and 178 rooms have been assessed.

11.107 Using the VSC test, 172 of the 296 assessed windows (i.e., 58%) pass this BRE test (and would experience a negligible magnitude of change).

11.108 There would be 124 window which would not pass the VSC test. Of these 33 (i.e., 11%) windows experience a small magnitude of change. That is to say these windows would see reductions between 21% to 30% (this is considered to be a minor transgression).

11.109 For 48 windows (16%) there would be a medium magnitude of change and 43 (15%) a large magnitude of change.

11.110 Using the daylight distribution test, 159 of 178 rooms assessed (89%) experience a negligible magnitude of change, 11 (7%) rooms experience a small magnitude of change, 4 (2%) a medium magnitude of change and 4 (2%) a large magnitude of change.

11.111 Using the VSC test, all but one of the assessed living/kitchen/dining rooms (LKDs) at each level from 1st up to 4th floors receive light through more than one window and one window serving each LKD either experiences a negligible magnitude of change or retains a good level of VSC (from 5th floor up this is true for each LKD).

11.112 The exceptions are for 4 flats below the 5th floor. Here, the LKDs are served by one window, which is set back beneath a balcony to a flat above and the availability of light is restricted by the design of the existing building. These four LKDs experience ratio reductions of 0.48 and 0.57 from the current VSC values. The absolute reduction is relatively modest, however as these windows have limited light in the existing situation the percentage reduction is amplified.

11.113 In understanding the impact of the VSC reductions, the results of the daylight distribution test are important. All the assessed LKDs experience negligible magnitude of change using the daylight distribution test, with only bedrooms experiencing change beyond that degree.

11.114 The bedrooms in question are restricted in the existing situation due to the proximity of neighbouring blocks within the wider Motion Development (Beck Square) itself and consequently have a heightened sensitivity to any form of development nearby.

11.115 The BRE Guidelines (Paragraphs 2.2.11 and 2.2.12) acknowledge that balconies and projecting wings to existing neighbouring buildings artificially limit the available daylight and, as a consequence, larger relative reductions in light may be unavoidable.

11.116 Considering the results of both tests, together with associated BRE guidelines, noting consideration to conditions and locations of rooms that can influence the sensitivity of results and not necessarily only attributable to impacts from new development, it is assessed that the Proposed Development will result in an effect of no greater than minor adverse (not significant) upon Motion Development (Beck Square) Block F and G.

Motion Development (Beck Square) Block E

11.117 This block is also within the wider Motion Development (Beck Square). The south elevation overlooks Lea Bridge Road (and faces Site 2 of the Proposed Development) and the west elevation overlooks Argall Way (faces towards the gap between Site 1 and Site 3 of the Proposed Development). A total of 143 windows and 82 rooms have been assessed.

11.118 Using the VSC test, 74 of the 143 assessed windows (52%) experience a negligible magnitude of change, 17 (12%) windows experience a small magnitude of change, 41 (28%) a medium magnitude of change and 11 (8%) a large magnitude of change.

11.119 Using the daylight distribution test, all 82 rooms assessed (100%) experience a negligible magnitude of change (they would comply with the BRE guidance).

11.120 The ES considers retained levels of VSC and DD and in a number of cases relating to main living areas, the retained value, while below the levels set in the BRE guidance, would still be reasonable for an urban location. Rooms are often served by 2 windows which tends to mean rooms would remain well lit.

11.121 Where VSC reductions go beyond a negligible magnitude of change it is noted that the windows in question are located beneath balconies serving floors above or facing other existing buildings at a close distance. To demonstrate the effect of the balconies, windows that are obstructed by balconies receive half the light received by windows which are unobstructed.

11.122 The fact that the DD results for the rooms in this block are BRE compliant reflects the different nature of the VSC and DD tests. For example, the DD test takes account of the fact that some rooms are served by multiple windows. While transgressions against the BRE guidelines weigh against the scheme, the weight afforded to these effects should be moderated by the understanding that rooms would remain well lit.

11.123 Considering the results in the round, together with associated BRE guidelines, the ES concludes that the Proposed Development will result in a minor adverse (not significant) effect upon Motion Development (Beck Square) Block E.

Motion Development (Beck Square) Block C and D

11.124 These two blocks are located within the same rectangular built form. Block C is on the eastern half and Block D is on the western half of the building.

11.125 The building is located north of Lea Bridge Road and east of Motion Development (Beck Square) Block E. The south elevation of the building faces Site 2 of the Proposed Development. A total of 88 windows and 52 rooms have been assessed.

11.126 Using the VSC test, 38 of the 88 assessed windows (43%) experience a negligible magnitude of change, 9 (10%) windows experience a small magnitude of change, 14 (16%) a medium magnitude of change and 27 (31%) a large magnitude of change.

11.127 Using the daylight distribution test, 45 of 52 rooms assessed (86%) experience a negligible magnitude of change.

11.128 The results of the daylight distribution test show that 2 (4%) rooms experience a small magnitude of change, 4 (8%) a medium magnitude of change and 1 (2%) a large magnitude of change).

11.129 The results for the 7 rooms are discussed in greater detail below:

- Three rooms are at 1st floor including a bedroom which is categorised as a small magnitude of change, one Living Kitchen Diner (LKD) would see a medium magnitude of change and one LKD a large magnitude of change. The two LKDs are 6.8m and 8.5m deep respectively. It is often harder for daylight to reach the back of deep rooms. The rooms are single aspect and windows are beneath balconies (this also limits daylight distribution to the rooms).
- Two LKDs on the 2nd floor would experience medium magnitude of change. The two rooms are also single aspect with windows beneath balconies serving deep rooms.

- There are 2 LKDs on the 3rd floor again. One would experience small magnitude of change and the other medium magnitude of change.

11.130 The results demonstrate that the design of the windows beneath balconies, proximity to neighbouring buildings and significant depth of rooms contributes to the reported impacts.

11.131 Considering the results of both tests, together with associated BRE guidelines, the ES concludes that there would be a minor adverse (not significant) effect Block C and D.

160 Lea Bridge Road

11.132 This property is located towards the north-east corner of the proposed Site 2, on the corner of Lea Bridge Road and Elm Park Road (west side). A total of four windows and two rooms have been assessed.

11.133 Using the VSC test, 3 of the 4 assessed windows (75%) experience a negligible magnitude of change, with one experiencing a small magnitude of change (retaining 0.73 of the existing value). The window retains a VSC in excess of 25% (which is a considered a minor transgression against the BRE's 27% target).

11.134 Using the daylight distribution test, both of the assessed rooms (100%) experience a negligible magnitude of change.

11.135 The ES concludes that the effect would be negligible (not significant) effect on 160 Lea Bridge Road.

2 Elm Park Road

11.136 A total of four windows and four rooms have been assessed. The assessment assumes all rooms are habitable (i.e., a worst case).

11.137 The four assessed windows at ground and first floor experience large magnitude of change (reduction) in VSC. Retained levels of VSC range between 11% to 16%, while below the BRE guidance such levels are not uncommon for urban areas.

11.138 Using the daylight distribution test, the four assessed rooms at ground and first floor experience large magnitude of change, retaining areas with a direct view of sky from 27% to 54%.

11.139 The property currently has an open aspect over vacant land and as a consequence receives uncharacteristically high levels of daylight in the existing conditions. The ES notes that for this reason, reductions beyond the BRE guidance are considered largely unavoidable if development is to take place.

11.140 Taking into account the existing situation, the retained values, the fact that some rooms face onto Elm Park Road and would not be impacted, the ES concludes that there would be a moderate adverse (significant) effect on 2 Elm Park Road. That said, the impact to this property weighs against the scheme in the planning balance.

4 Elm Park Road

11.141 A total of seven windows (including a sky light) have been assessed using the VSC test. The skylight serving what is assumed to be a kitchen at ground experiences a negligible magnitude of change (i.e., would pass the BRE VSC test). Two windows serving the same room experience large magnitude of change.

11.142 One bedroom window at first floor and one bedroom window at second floor experience small magnitude of change in terms of the VSC test. A further window at first and second floor level would experience a large magnitude of change.

11.143 A total of five rooms have been assessed using the DD test. Two rooms would meet the BRE guidance in terms of DD (the assumed kitchen at ground and a bedroom at 2nd floor). In relation to the assumed kitchen, although some windows fail the VSC test, the room would remain well lit. A bedroom at first floor experiences a small magnitude of change. Two rooms (one at first and one at second) would experience a large magnitude of change.

11.144 In relation to the assumed kitchen (ground floor) and bedroom at the 2nd floor which would see a negligible change for DD, this suggests access to adequate daylight is likely to remain for these rooms. This moderates the overall weight afforded to the impacts to these rooms in the planning balance. The other bedrooms either experience negligible or small magnitude of change for one of the two tests. These two bedrooms also retain VSC levels of 16% and 22% (the retained VSC helps to moderate the weight that should be afforded to the impact).

11.145 The results have been considered alongside the BRE Guidelines and the ES concludes that there would be a moderate adverse (significant) effect on 4 Elm Park Road.

11.146 The impact to this property weighs against the scheme in the planning balance.

6 Elm Park Road

11.147 A total of five windows and four rooms have been assessed. Using the VSC test, two ground floor windows, would experience large magnitude of change - one is reduced from a very low existing VSC value and in contrast the other currently achieves a very high value due to the open outlook over vacant land.

11.148 The ground floor dining room window experiences a large magnitude of change, and the first-floor bedroom window experiences a medium magnitude of change. The final window at first floor would also experience a large magnitude of change.

11.149 Using the daylight distribution test, the ground floor kitchen experiences a large magnitude of change and the dining room a small magnitude of change. The bedroom at first floor experiences a medium magnitude of change and the final room would see a large magnitude of change.

11.150 The ES notes that the two kitchen windows are reduced, firstly, from a low existing VSC (due to facing the return extension of the neighbouring 4 Elm Park Road) and the other from an uncharacteristically high existing VSC (unrestricted outlook over the vacant site land). This is relevant in that the windows restricted by return extensions achieve low values in the existing situation and even the relatively small absolute change in VSC (only 3% in this case) results in transgression against the BRE guidance. Conversely, where very high values are achieved because of an aspect over vacant land, it is often impractical to expect full BRE adherence following the introduction of any reasonable increase in massing on the adjoining land.

11.151 Three of the windows currently achieve very high VSC values and retain at least 17% VSC which is often considered commensurate with that achieved in urban environments.

11.152 The results of both the tests for daylight have been considered alongside the BRE Guidelines and the ES concludes that there would be a moderate adverse (significant) effect on 6 Elm Park Road is anticipated as a result of the Proposed Development.

11.153 The impact to this property weighs against the scheme in the planning balance.

8 Elm Park Road

11.154 A total of seven windows and four rooms have been assessed. Using the VSC test, two windows serving the ground floor kitchen would be BRE compliant and the other

two windows a medium magnitude of change. The dining room window at ground experiences a medium magnitude of change. At first floor, the bedroom window experiences a small magnitude of change, and the other window experiences a large magnitude of change.

11.155 Using the daylight distribution test, three of the four rooms assessed experience a negligible magnitude of change.

11.156 The results of both the tests for daylight have been considered alongside the potential room uses impacted as well the BRE Guidelines, and the ES concludes that there would be a minor adverse (not significant) effect upon 8 Elm Park Road.

10 Elm Park Road

11.157 A total of five windows and four rooms have been assessed. There are a total of three windows at ground floor serving two rooms.

11.158 Using the VSC test, the two windows serving the ground floor kitchen experience small and large magnitude of change, respectively. The dining room window at ground experiences a medium magnitude of change. At first floor, the bedroom window experiences small magnitude of change, and the other window (potentially a bathroom) experiences a medium magnitude of change.

11.159 Using the daylight distribution test, two of the four rooms assessed experience a negligible magnitude of change (dining room and bedroom). Two rooms (one at ground and one at first floor level would experience large magnitude of change.

11.160 The ES concludes that there would be a moderate adverse (significant) effect on 10 Elm Park Road. This adverse impact weighs against the scheme in the planning balance.

12, 14 and 16 Elm Park Road

11.161 Windows and rooms were tested against the BRE guidelines for VSC and DD and the ES concludes that there would be a minor adverse (not significant) effect upon these properties. It is noted that in March 2020 planning permission was granted for a ground floor rear extension at 12 Elm Park Road, and the ES examines the potential impact to the extended property. This impact was also assessed and minor adverse (not significant).

18 Elm Park Road

11.162 A total of five windows and four rooms have been assessed. Using the VSC test, the ground floor dining room window experiences negligible magnitude of change and the other two would experience medium magnitude of change. At first floor, the bedroom window experiences negligible magnitude of change, and the other window experiences a small magnitude of change.

11.163 Using the daylight distribution test, two of the four rooms assessed experience a negligible magnitude of change (one dining room and one bedroom). The two rooms (one at ground floor and one at first floor) would experience a large magnitude of change.

11.164 The results of both the tests for daylight have been considered alongside the BRE Guidelines, and the ES concludes that there would be a moderate adverse (significant) effect on 18 Elm Park Road.

11.165 This impact weighs against the scheme in the planning balance.

162-168 Lea Bridge Road

11.166 The development at 162 to 168 Lea Bridge Road was also tested and the ES concludes that there would be a negligible (not significant) effect.

Sunlight Assessment (APSH)

11.167 A total of 581 windows to residential properties have been tested in relation to the availability of annual and winter sunlight. Of the windows tested, 374 (64%) pass the APSH test. The remaining 207 (35%) windows do not pass the test.

11.168 Turning to windows which did not pass the test it should be noted that in some cases, the windows are self-obstructed in the existing situation by balconies to flats above. The BRE guidance notes that in these cases the existing obstruction may mean a transgression is not avoidable. In several cases the rooms are served by more than one window, and while one window may be impacted in a number of cases the other passes the APSH test. This is relevant in that the room the windows serve may still maintain reasonable levels of light.

11.169 Where rooms are lit by more than one window it is sensible to consider the aggregate amount of sunlight reaching the room, though care should be taken to avoid double-counting. The BRE guide advises as follows:

"If a room has multiple windows on the same wall or adjacent walls, the highest value APSH should be taken. If a room has two windows on opposite walls, the APSH due to each can be added together."

11.170 In line with the BRE guidance the Applicant has calculated the room based aggregate APSH, which provides a more in depth understanding of impacts than just considering individual results for each window.

11.171 In terms of rooms, a total of 358 rooms have been tested for availability of annual and winter sunlight. A total of 287 rooms (80%) experience negligible magnitude of change for annual sunlight availability and 341 (95%) for winter sunlight after introducing the Proposed Development.

11.172 While some minor adverse effects have been identified, none would be significant in the context of the EIA regulations.

Conclusion

11.173 As would be expected with a scheme of this scale, there are likely significant environmental effects to some of the neighbouring residential properties, particularly localised moderate adverse effects on the daylight amenity to the properties at 2-18 Elm Park Road (even numbers inclusive), located to the east of Site 2.

11.174 The proportion of properties out of the total assessed that experience any adverse effects with the Proposed Development in place is low. Where impact does result in transgressions of the BRE Guidelines, in some cases the retained values are commensurate with alternative targets discussed in the BRE Report Guidelines, and this tends to moderate the weight that should be afforded to the adverse impacts.

11.175 There are instances where the results of the daylight distribution test show little change to the rooms and although not to be considered in isolation of the VSC test results, it does demonstrate that rooms would continue to be reasonably well lit, even if a window is impacted, again this tends to moderate the weight that should, be afforded to the impacts. For the Elm Park Road homes, in some cases the habitable room windows face towards Elm Park Road and these elevations would not be impacted by the proposal.

11.176 The ES Chapter has been independently checked by the Council's expert consultant and found to be accurate.

Ground conditions

11.177 Chapter 12 of the ES presents an assessment of the likely significant effects of the Proposed Development with respect to ground conditions and contamination. In particular, consideration is given to the likely significant effects of any ground contamination on human health, built structures and the environment.

11.178 In terms of historical uses of the sites, railway sidings were present on Sites 1 and 3 from the 1890s until the 1990s. A warehouse and several small (potentially industrial) buildings were present on Site 1 around 1910 to 1950. A yard is indicated on Site 3 from around the 1930s up to the 1990s. Site 1 also comprised a goods depot and an electricity sub-station between the 1950s and 1990s.

11.179 Historical mapping shows Site 2 was developed as part of Lea Bridge Gas Works around the 1890s. Development of gas works structures is indicated to have occurred on Site 2 until the 1970s. Clearance of gas works structures is denoted between the 1970s and 1990s.

11.180 National Gas Archive layout plans for Lea Bridge Gas Works indicate Site 2 comprised a gasholder (Gasholder No.3) in the central portion and part of a second gasholder (Gasholder No.4) in the south. Offices, an institute, an access road and weigh bridge were in the north and north-east of Site 2 and a car park present in the west. A tar tank and tar store were in the adjacent southern boundary. A historical well may also have been on Site 2.

11.181 The ES identifies the following historic uses of the sites as potential contaminating uses which may have resulted in contamination of the underlying soils and groundwater at the sites:

- Demolition and fill materials on Site 2;
- Historical Gas Works infrastructure (Gasholders, tar tanks, and potential underground pipework) on Site 2;
- Historical railways and railway land on Sites 1 and 3;
- Historical builder's yard on Site 3;
- Historical electricity sub-station on Site 1;
- Historical warehouse and goods depot on Site 1;
- Various current industrial land uses off-site;
- Current railways off-site;
- Historical Lea Bridge Gas Works off-site;
- Historical railways and railway land off-site;
- Historical fireworks manufactory off-site; and
- Various historical industrial land uses.

11.182 As with all potentially contaminated sites, without mitigation there could be unacceptable impacts and as such mitigation is essential to sever potential contaminant linkages. These include effects to human health (off-site residents and users, demolition and construction workers), Secondary Aquifers in superficial deposits, Secondary A and Principal Aquifers at depth.

11.183 In terms of mitigation the ES examines what mitigation is likely to be required during the construction phase and operational phases. It is anticipated that a multi stage remediation strategy will be required. This would involve a Stage 1 (Risk Assessment) and Stage 2 (Options Appraisal) would be undertaken in advance of Demolition and Construction work commencing. A Stage 3 (Remediation and Verification) assessment would be undertaken as part of the Demolition and Construction process. Validation demonstrating the remediation objectives have

been met would be completed in advance of occupation of the Proposed Development. Conditions are recommended to secure a remediation strategy.

11.184 While the detail will need to come forward as a requirement of the recommended condition, the scope of ground investigation will likely include the following:

- Procuring an Unexploded Ordnance (UXO) desk-based assessment in advance of intrusive works;
- Targeting of historical footprints of buildings and industrial infrastructure to confirm their presence, nature, contamination status, and extent;
- An investigation of the location of the historical well on Site 2. Should the abstraction well be present, it will require decommissioning in accordance with Environment Agency guidance on decommissioning redundant wells.
- Geotechnical boreholes, geotechnical sampling and laboratory analysis of soils and in-situ geotechnical testing;
- Permeability testing of shallow soils to inform controlled water risk assessment;
- Environmental soil sampling and chemical analysis to inform human health risk assessment;
- Installation of groundwater and vapour monitoring wells;
- Ground gas risk assessment;
- Groundwater sampling and chemical analysis to inform controlled waters and vapour risk assessment;
- Vapour monitoring to inform vapour risk assessment;
- Preliminary waste classification assessment of soil chemical analysis; and
- Assessment of likely suitable foundations types for the Proposed Development.

11.185 The ES also examines potential effects post construction. The Completed Development cannot be occupied until it is suitable for use and, as can no longer be defined as Contaminated Land as defined by Part IIA of the Environmental Protection Act 1990. Therefore, on completion of appropriate remediation works undertaken at the demolition and construction stage, effects to potential receptors would negligible.

11.186 Chapter 12 of the ES was reviewed by the Council independent expert and found to be accurate.

Green House Gases

11.187 Chapter 13 of the ES reports the outcome of the assessment of likely significant effects arising from the Proposed Development upon greenhouse gas emissions (GHG).

11.188 The assessment methodology encompasses several different forms of legislation and calculations. Consideration has been given to the planning policy and guidance/best practice from IEMA. Current best practice is reflected in IEMA's EIA Guide to assessing Greenhouse Gas Emissions and Evaluating their Significance.

11.189 The assessment has taken a whole life approach to develop a GHG footprint for the Proposed Development. The footprint sources considered include GHG emissions:

- Embedded in the material used in the construction of the Proposed Development;
- From construction site activities (e.g. construction plant, site offices, welfare facilities etc.);
- From traffic movements during construction of the Proposed Development;
- From energy consumed by the operation of the Proposed Development;
- From water used by the operation of the Proposed Development;

- From the operational Repair, Maintenance and Refurbishment of the Proposed Development;
- From transport associated with the operation of the Proposed Development; and
- From demolition/deconstruction and disposal of the building at the end of it's life.

11.190 Mitigation measures are proposed to avoid emissions:

- During construction:
  - Reuse material on site where possible. Minimising waste to landfill. Good practice measures to minimise energy use from construction activities, including the implementation of a Construction Environmental Management Plan (CEMP).
  - Implementation of an Outline Construction Logistics Plan (CLP) containing measures to reduce the environmental impact from the construction stage and to optimise the efficient delivery and collection of goods and materials to site. Promotion of sustainable forms of transport for construction staff, such as walking and cycling, and no car parking provision.
- Operational phase – transport
  - Car free development, provision of cycle parking and improved pedestrian access to the Proposed Development.
  - Implementation of a Travel Plan to promote sustainable travel methods for future staff, visitors and goods deliveries to and from the site, as well as the implementation of a Delivery and Servicing Plan (DSP).
- Operational phase – Energy
  - Suite of on-site measures to be lean, be clean and be green will lead to a 56.9% reduction of regulated GHG emissions compared to the Part L Baseline energy consumption. Measures include ASHP and PV technology, openable windows and low energy photocell lighting throughout.
- End of life
  - Assumed that at least current recycling rates will be maintained in 60 years' time. Approximately 56% of building material will be returned to building construction.

11.191 In terms of residual effects, the ES examines the residual greenhouse gas emissions in the context of mitigation and policy targets. The mitigation measures would be implemented to avoid, reduce and compensate the emissions during construction and throughout the lifetime of the Proposed Development, however, a net increase in GHG emissions against the baseline GHG emissions will remain in the first year of occupation.

11.192 The emissions resulting from the development are very small in the context of local and regional emissions, contributing a maximum of 0.02% to London-wide emissions and 0.2% to local emissions from either of the construction or operational phases.

11.193 Overall, the Proposed Development contributes a small amount to GHG emissions and will employ commensurate mitigation measures to ensure policy compliance and minimise its contribution to climate change where possible to ensure that likely significant effects associated with the Proposed Development itself are avoided

11.194 Chapter 13 of the ES has been independently reviewed by the Council's consultant who raised no concerns with the baseline information or inputs, methodology or results set out in the chapter.

Heritage, Townscape and Visual Impact Assessment (HTVIA)

11.195 The application is submitted with an Environmental Impact Assessment ('EIA') and the HTVIA forms Volume 2 of the Environmental Statement ('ES'). The HTVIA has been prepared in accordance with the EIA Regulations (2017) and relevant legislation, policy and guidance.

11.196 The HTVIA identifies the likely effects of the Proposed Development on the built features of the historic environment, local townscape character and visual amenity. The overarching assessment framework for all topics follows a four step process which are discussed below:

- Baseline assessment of value;
- Assessment of sensitivity;
- Assessment of magnitude; and
- Assessment of likely effects

11.197 The assessment methodology is based on best practice and industry guidance. It relies on a mix of quantitative information (such as the location and grade of listed buildings) and qualitative professional judgements which are based on research and experience

11.198 The HTVIA examined potential effects to heritage assets (designated and non-designated, and did not identify any significant adverse effects. Further discussion of the individual assets and impacts are discussed in section 10C (Impact on Heritage Assets) of this report.

11.199 The assessment of effects to visual receptors (from verified views) was also tested in the context of the EIA regulations. 19 views were tested, and no significant adverse effects were identified. Further discussion of the individual assets and impacts are discussed in section 10B (Layout, Scale and Design of the Development) of this report.

11.200 Volume 2 of the ES has been independently reviewed by the Council's consultant who raised no concerns with the baseline information or inputs, methodology or results set out in the volume.

Effect interactions

11.201 Chapter 14 of the ES draws together the findings from the individual topic chapters in the ES; defines interrelationships between the Proposed Development and Committed Developments in the surrounding area and establishes whether there are any cumulative effects on sensitive receptors identified in this ES.

11.202 The ES examines intra-project cumulative effects (i.e. where multiple issues (e.g. noise and air quality) may impact a receptor) and inter-projects cumulative effects (where impacts from multiple development may effect a receptor).

11.203 In terms of intra-project cumulative effects during the demolition and construction phase there is some potential for interaction of effects on existing residential development and areas of amenity and open space. The interaction of adverse effects relate to noise, vibration and overshadowing.

11.204 The effects on existing residential receptors as a result of noise and vibration during demolition and construction will be short term and temporary. These effects are not unusual for the construction of a major redevelopment and will be managed thorough site-specific management plans and strategies, including a Construction Environment Management Plan (CEMP), Construction Logistics Plan (CLP), and a Neighbour and Public Relations Strategy.

11.205 In terms of impacts to daylight, sunlight, overshadowing, the potential impacts would vary throughout the demolition and construction phases and gradually increase to the potential effects identified for the completed development.

11.206 During the operational phase there will be a mixture of positive and negative effects on existing occupiers. It is those effects relating to daylight, sunlight and overshadowing which will result in negative effects. It is not expected that the interaction of these effects would cause any increase in significance over and above the level of significance individually reported.

11.207 Chapter 14 of the ES has been independently reviewed by the Council's consultant who raised no concerns with the baseline information or inputs, methodology or results set out in the chapter.

Mitigation and monitoring

11.208 Chapter 16 of the ES deals with mitigation measures and monitoring and sets out the environmental mitigation and monitoring measures. Conditions and planning obligations are recommended to secure the mitigation and monitoring identified in the ES.

12 PLANNING OBLIGATIONS

12.1 Section 106 Legal Agreements are a material consideration in the determination of a planning application. The purpose of such an agreement is to make otherwise unacceptable development acceptable and they should only be sought where they meet all of the following tests: i) Necessary to make the development acceptable in planning terms, ii) Directly related to the development and iii) Fairly and reasonably related in scale and kind to the development.

12.2 In terms of the legal agreement the required Heads of Terms, having regard to planning Policy, the WFLP "Obligations" (2017) and the Supplementary Planning Document "Affordable Housing and Viability" (2018), for this development relate to:

- Affordable housing,
- Local labour and employment,
- Healthcare provision,
- Education,
- Play space,
- Transport and highways,
- Replacement planting,
- Retention of scheme architect,
- Sustainability (carbon off-set and other energy related obligations),
- Air quality,
- Epping Forest SAC,
- Lee Valley Regional Park,
- Monitoring and Implementation,
- Legal Fees.

12.3 The details of these requirements are set out in the recommendation section of this report.

13 ADDITIONAL CONSIDERATIONS

Public Sector Equality Duty

13.1 In making your decision you must have regard to the public sector equality duty (PSED) under s.149 of the Equalities Act. This means that the Council must have due regard to the need (in discharging its functions) to:

A. Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Act

B. Advance equality of opportunity between people who share a protected characteristic and those who do not. This may include removing or minimising disadvantages suffered by persons who share a relevant protected characteristic that are connected to that characteristic; taking steps to meet the special needs of those with a protected characteristic; encouraging participation in public life (or other areas where they are underrepresented) of people with a protected characteristic(s).

C. Foster good relations between people who share a protected characteristic and those who do not including tackling prejudice and promoting understanding.

- The protected characteristics are age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex and sexual orientation.
- The PSED must be considered as a relevant factor in making this decision but does not impose a duty to achieve the outcomes in s.149 is only one factor that needs to be considered, and may be balance against other relevant factors.
- It is considered that the recommendation to grant permission in this case would not have a disproportionately adverse impact on a protected characteristic.

Human Rights

13.2 In making your decision, you should be aware of and take into account any implications that may arise from the Human Rights Act 1998. Under the Act, it is unlawful for a public authority such as the London Borough of Waltham Forest to act in a manner that is incompatible with the European Convention on Human Rights.

13.3 You are referred specifically to Article 8 (right to respect for private and family life), Article 1 of the First Protocol (protection of property). It is not considered that the recommendation to grant permission in this case interferes with local residents' right to respect for their private and family life, home and correspondence, except insofar as it is necessary to protect the rights and freedoms of others (in this case, the rights of the applicant). The Council is also permitted to control the use of property in accordance with the general interest and the recommendation to grant permission is considered to be a proportionate response to the submitted application based on the considerations set out in this report.

14 CONCLUSIONS

14.1 This report provides Officer's comprehensive consideration of the planning application and its supporting documentation, including the further/additional information submitted and any representations received.

14.2 The conditions set out in the agreed S106 Heads of Terms would ensure that any adverse impact of the scheme is mitigated against and the positive aspects of the proposal advanced by the applicant are carried out through the implementation.

14.3 This Report has considered the proposals in light of the adopted development plan policies and other material considerations or representations relevant to the environment effects of the proposals.

Planning balance

14.4 Views to the site from the surrounding area would be impacted. Impacts from construction and operation of the development (such as noise and disturbance) would have an adverse impact on amenity. Concerns have been raised over the potential for construction traffic to impact on the free flow of traffic. Trees would be removed. In some instances, nearby neighbours would be impacted by a loss of sunlight and/or daylight. Such impacts weigh against the scheme in the planning balance. In understanding what weight to afford to these impacts, it should be noted that in some instances there are material considerations that moderate the weight that should be afforded to, for example, sunlight/daylight impacts. A suite of mitigations measures would be secured through conditions and planning obligations, which would reduce the weight carried by such disbenefits in the planning balance.

14.5 Parts of Site 1 are designated as strategic industrial land, and residential development is proposed on that land. The application would introduce tall buildings at a site where current development plan policy does not promote them. Town centre uses would be introduced in an out of centre location. The application does not accord with the development plan in this regard. However, in this case, taking account of emerging policy as well as view and microclimate testing, and the nature of development proposed, the departure can be justified, reducing weight afforded to the misalignment with existing policy.

14.6 The impacts that weigh against the scheme must be considered against the benefits the proposals would bring forward. If approved the application would deliver significant regenerative benefits, not least including:

- Delivery of housing, including much needed affordable housing,
- Community and cultural spaces,
- Jobs and training (during both construction and operational phases),
- Remediation of contaminants,
- Improvements to drainage and measures to alleviate flooding,
- Improvements to play space, benefiting the wider community,
- Promotion of walking and cycling, improvements to surrounding foot and cycle ways, way finding and lighting,
- Delivery of a new train station entrance,
- An energy efficient and sustainable form of development.
- Significant replacement planting (on and off site).
- Public realm improvements.

14.7 Officers have been mindful of the weight afforded to disbenefits. However, in this instance, mitigation is proposed to reduce impacts. In this case the benefits are considerable, and compelling. Officers are of the view that they carry such significant weight as to clearly outweigh impacts.

14.8 Extensive pre-application discussions have been held between the Local Planning Authority and the applicant, the GLA, TfL and other relevant specialists. The planning application is supported by an Environmental Statement which has been reviewed by and independent qualified Environmental Impact Assessor.

14.9 The application has been the subject of a robust public consultation regime and concerns have been taken into account. Overall, officers have carefully considered the submitted Environmental Statement and where impacts are forecast to arise from the proposed development, adequate mitigation measures have been introduced to make the proposed development acceptable in planning terms.

These would be secured through conditions or planning obligations if the application was to be approved.

15 RECOMMENDATION

15.1 That authority to be given to the Assistant Director of Development Management and Building Control in consultation with the Council's Legal Services for the sealing of the Legal Agreement and to agree any minor amendments to the conditions or the Legal Agreement on the terms set out above.

15.2 In the event that the Section 106 legal agreement is not completed within a reasonable timeframe following the date of Planning Committee, the Assistant Director of Development Management and Building Control is hereby authorised to refuse the application in consultation with the Chair. In the absence of the legal agreement the Council would not be able to ensure that:

- Affordable housing would be delivered;
- The integrity of the Epping Forest SAC is not compromised;
- The aims of policies seeking the creation of employment opportunities and jobs growth are met;
- Sufficient capacity exists in educational, health and play facilities to cope with additional demand from the development;
- Necessary highway works are undertaken;
- Impacts to Epping Forest SAC and the Lee Valley Regional Park
- Measures are in place to improve the public realm and promote sustainable travel options and reduce car use;
- The development is car free;
- Carbon emissions are offset and the site is sustainable; and
- Tree loss and air quality impacts are appropriately mitigated.

CONDITIONS

1 TIME LIMIT

The development hereby permitted shall begin before the expiration of 3 years from the date of this permission.

REASON
To comply with Section 92 of the Town and Country Planning Act 1990 (As Amended)

2 DEVELOPMENT IN ACCORDANCE WITH DETAILS HEREBY APPROVED

The development shall not be carried out otherwise than in strict accordance with the plans and supporting information hereby approved.

Plans:

2061-EXA-00-ZZ-DR-L-0101 P0
2061-EXA-00-ZZ-DR-L-0601 P0
2061-EXA-00-ZZ-DR-L-0602 P0
2061-EXA-00-ZZ-DR-L-0603 P0
2061-EXA-00-ZZ-DR-L-0604 P0
2061-EXA-00-ZZ-DR-L-0605 P0
2061-EXA-00-ZZ-DR-L-0606 P0
2061-EXA-00-ZZ-DR-L-0607 P0
2061-EXA-00-ZZ-DR-L-0608 P0
2061-EXA-00-GF-DR-L-0701 P0
2061-EXA-00-GF-DR-L-0702 P0
2061-EXA-00-GF-DR-L-0703 P0
2061-EXA-00-GF-DR-L-0710 P0

Existing
LEABR-HBA-00-00-DR-A-08-0100 P2
LEABR-HBA-00-RF-DR-A-08-0101 P2
LEABR-HBA-00-XX-DR-A-08-0000 P2
LEABR-HBA-00-XX-DR-A-08-0010 P2
LEABR-HBA-00-XX-DR-A-08-0320 P2
LEABR-HBA-00-XX-DR-A-08-0230 P1
LEABR-HBA-00-XX-DR-A-08-0231 P1

Bay studies
LEABR-HBA-CY-XX-DR-A-08-0265 P2
LEABR-HBA-CY-XX-DR-A-08-0266 P2
LEABR-HBA-T1-XX-DR-A-08-0255 P2
LEABR-HBA-T2-XX-DR-A-08-0285 P2
LEABR-HBA-TE-XX-DR-A-08-0275 P2
LEABR-HBA-TE-XX-DR-A-08-0276 P2

Block Elevations
LEABR-HBA-CY-XX-DR-A-08-0260 P2
LEABR-HBA-CY-XX-DR-A-08-0261 P2
LEABR-HBA-CY-XX-DR-A-08-0262 P2
LEABR-HBA-CY-XX-DR-A-08-0263 P2
LEABR-HBA-T1-XX-DR-A-08-0250 P2

LEABR-HBA-T1-XX-DR-A-08-0251 P2
LEABR-HBA-T2-XX-DR-A-08-0280 P2
LEABR-HBA-T2-XX-DR-A-08-0281 P2
LEABR-HBA-TE-XX-DR-A-08-0270 P2
LEABR-HBA-TE-XX-DR-A-08-0271 P2
Block plans site 1
LEABR-HBA-S1-00-DR-A-08-0149 P2
LEABR-HBA-S1-0M-DR-A-08-0150 P2
LEABR-HBA-S1-01-DR-A-08-0151 P2
LEABR-HBA-S1-02-DR-A-08-0152 P2
LEABR-HBA-S1-03-DR-A-08-0153 P2
LEABR-HBA-S1-04-DR-A-08-0154 P2
LEABR-HBA-S1-05-DR-A-08-0155 P2
LEABR-HBA-S1-06-DR-A-08-0156 P2
LEABR-HBA-S1-07-DR-A-08-0157 P2
LEABR-HBA-S1-08-DR-A-08-0158 P2
LEABR-HBA-S1-09-DR-A-08-0159 P2
LEABR-HBA-S1-10-DR-A-08-0160 P2
LEABR-HBA-S1-11-DR-A-08-0161 P2
LEABR-HBA-S1-12-DR-A-08-0162 P2
LEABR-HBA-S1-13-DR-A-08-0163 P2
LEABR-HBA-S1-14-DR-A-08-0164 P2
LEABR-HBA-S1-15-DR-A-08-0165 P2
LEABR-HBA-S1-16-DR-A-08-0166 P2
LEABR-HBA-S1-17-DR-A-08-0167 P2
LEABR-HBA-S1-18-DR-A-08-0168 P2
LEABR-HBA-S1-19-DR-A-08-0169 P2
LEABR-HBA-S1-20-DR-A-08-0170 P2
LEABR-HBA-S1-21-DR-A-08-0171 P2
LEABR-HBA-S1-22-DR-A-08-0172 P2
LEABR-HBA-S1-23-DR-A-08-0173 P2
LEABR-HBA-S1-24-DR-A-08-0174 P2
LEABR-HBA-S1-25-DR-A-08-0175 P2
LEABR-HBA-S1-26-DR-A-08-0176 P2
LEABR-HBA-S1-27-DR-A-08-0177 P2
LEABR-HBA-S1-B1-DR-A-08-0148 P2
Block plans site 2
LEABR-HBA-S2-00-DR-A-08-0180 P2
LEABR-HBA-S2-01-DR-A-08-0181 P2
LEABR-HBA-S2-02-DR-A-08-0182 P2
LEABR-HBA-S2-03-DR-A-08-0183 P2
LEABR-HBA-S2-04-DR-A-08-0184 P2
LEABR-HBA-S2-05-DR-A-08-0185 P2
LEABR-HBA-S2-06-DR-A-08-0186 P2
LEABR-HBA-S2-07-DR-A-08-0187 P2
LEABR-HBA-S2-08-DR-A-08-0188 P2
LEABR-HBA-S2-09-DR-A-08-0189 P2
LEABR-HBA-S2-10-DR-A-08-0190 P2
LEABR-HBA-S2-11-DR-A-08-0191 P2
LEABR-HBA-S2-12-DR-A-08-0192 P2
Block plans site 3
LEABR-HBA-S3-00-DR-A-08-0200 P2
LEABR-HBA-S3-01-DR-A-08-0201 P2
LEABR-HBA-S3-02-DR-A-08-0202 P2
LEABR-HBA-S3-03-DR-A-08-0203 P2

LEABR-HBA-S3-04-DR-A-08-0204 P2
LEABR-HBA-S3-05-DR-A-08-0205 P2
LEABR-HBA-S3-06-DR-A-08-0206 P2
LEABR-HBA-S3-07-DR-A-08-0207 P2
LEABR-HBA-S3-08-DR-A-08-0208 P2
LEABR-HBA-S3-09-DR-A-08-0209 P2
LEABR-HBA-S3-10-DR-A-08-0210 P2
LEABR-HBA-S3-11-DR-A-08-0211 P2
LEABR-HBA-S3-12-DR-A-08-0212 P2
LEABR-HBA-S3-13-DR-A-08-0213 P2
LEABR-HBA-S3-14-DR-A-08-0214 P2
LEABR-HBA-S3-15-DR-A-08-0215 P2
LEABR-HBA-S3-16-DR-A-08-0216 P2
LEABR-HBA-S3-17-DR-A-08-0217 P2
LEABR-HBA-S3-18-DR-A-08-0218 P2
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LEABR-HBA-S3-20-DR-A-08-0220 P2
LEABR-HBA-S3-21-DR-A-08-0221 P2
LEABR-HBA-S3-22-DR-A-08-0222 P2
LEABR-HBA-S3-23-DR-A-08-0223 P2
LEABR-HBA-S3-24-DR-A-08-0224 P2
LEABR-HBA-S3-B1-DR-A-08-0199 P2
Entrances
LEABR-HBA-CY-XX-DR-A-08-0267 P2
LEABR-HBA-CY-XX-DR-A-08-0268 P2
LEABR-HBA-T1-XX-DR-A-08-0256 P2
LEABR-HBA-T2-XX-DR-A-08-0286 P2
LEABR-HBA-TE-XX-DR-A-08-0277 P2
Site wide
LEABR-HBA-00-00-DR-A-08-0119 P2
LEABR-HBA-00-00-DR-A-08-0119b P1
LEABR-HBA-00-0M-DR-A-08-0120 P2
LEABR-HBA-00-01-DR-A-08-0121 P2
LEABR-HBA-00-02-DR-A-08-0122 P2
LEABR-HBA-00-03-DR-A-08-0123 P2
LEABR-HBA-00-04-DR-A-08-0124 P2
LEABR-HBA-00-05-DR-A-08-0125 P2
LEABR-HBA-00-06-DR-A-08-0126 P2
LEABR-HBA-00-07-DR-A-08-0127 P2
LEABR-HBA-00-08-DR-A-08-0128 P2
LEABR-HBA-00-09-DR-A-08-0129 P2
LEABR-HBA-00-10-DR-A-08-0130 P2
LEABR-HBA-00-11-DR-A-08-0131 P2
LEABR-HBA-00-12-DR-A-08-0132 P2
LEABR-HBA-00-13-DR-A-08-0133 P2
LEABR-HBA-00-14-DR-A-08-0134 P2
LEABR-HBA-00-15-DR-A-08-0135 P2
LEABR-HBA-00-16-DR-A-08-0136 P2
LEABR-HBA-00-17-DR-A-08-0137 P2
LEABR-HBA-00-18-DR-A-08-0138 P2
LEABR-HBA-00-19-DR-A-08-0139 P2
LEABR-HBA-00-20-DR-A-08-0140 P2
LEABR-HBA-00-21-DR-A-08-0141 P2
LEABR-HBA-00-22-DR-A-08-0142 P2
LEABR-HBA-00-23-DR-A-08-0143 P2

LEABR-HBA-00-24-DR-A-08-0144 P2
LEABR-HBA-00-25-DR-A-08-0145 P2
LEABR-HBA-00-26-DR-A-08-0146 P2
LEABR-HBA-00-27-DR-A-08-0147 P2
LEABR-HBA-00-B1-DR-A-08-0118 P2
LEABR-HBA-00-XX-DR-A-08-0020 P2
Sections
LEABR-HBA-00-XX-DR-A-08-0240 P2
LEABR-HBA-00-XX-DR-A-08-0241 P2
LEABR-HBA-00-XX-DR-A-08-0340 P2
LEABR-HBA-00-XX-DR-A-08-0341 P2
Unit layouts
LEABR-HBA-CY-XX-DR-A-08-0292 P2
LEABR-HBA-CY-XX-DR-A-08-0293 P2
LEABR-HBA-CY-XX-DR-A-08-0298 P2
LEABR-HBA-CY-XX-DR-A-08-0302 P1
LEABR-HBA-T1-XX-DR-A-08-0290 P2
LEABR-HBA-T1-XX-DR-A-08-0291 P2
LEABR-HBA-T2-XX-DR-A-08-0296 P2
LEABR-HBA-T2-XX-DR-A-08-0297 P2
LEABR-HBA-TE-XX-DR-A-08-0294 P2
LEABR-HBA-TE-XX-DR-A-08-0295 P2
LEABR-HBA-TE-XX-DR-A-08-0299 P2
LEABR-HBA-TE-XX-DR-A-08-0300 P1
LEABR-HBA-TE-XX-DR-A-08-0301 P1
Landscape plans
2061-EXA-00-ZZ-DR-L-0100 SITE PLAN P3
2061-EXA-01-GF-DR-L-0111 GENERAL ARRANGEMENT PLAN - SITE ONE P3
2061-EXA-01-GF-DR-L-0211 PLANTING PLAN - SITE ONE P3
2061-EXA-01-GF-DR-L-0311 LEVELS PLAN - SITE ONE P1
2061-EXA-02-01-DR-L-0122 - SITE TWO – PODIUM P2
2061-EXA-02-01-DR-L-0222 PLANTING PLAN - SITE TWO – PODIUM P2
2061-EXA-02-GF-DR-L-0112 GENERAL ARRANGEMENT - SITE TWO P2
2061-EXA-02-GF-DR-L-0212 PLANTING PLAN - SITE TWO P2
2061-EXA-02-GF-DR-L-0312 LEVELS PLAN - SITE TWO P2
2061-EXA-02-GF-DR-L-0322 LEVELS PLAN - SITE TWO STOPPED UP SK01
2061-EXA-02-RF-DR-L-0132 - SITE TWO - ROOF TERRACES P2
2061-EXA-02-RF-DR-L-0232 - SITE TWO - ROOF TERRACES P2
2061-EXA-03-GF-DR-L-0113 - SITE THREE P3
2061-EXA-03-GF-DR-L-0213 PLANTING PLAN - SITE THREE P3
2061-EXA-03-GF-DR-L-0313 LEVELS PLAN - SITE THREE P1

Documents:
Application form (16/8/2021)
Design and access statement (16/8/2021)
Planning statement (16/8/2021)
Statement of community involvement (16/8/2021)
Environmental Statement, Non-technical summary, Vol 1, 2 and 3 (16/8/2021)
Sustainability statement SUS86888-Lea Bridge (16/8/2021)
Response to Sustainability comments (10/12/2021)
Residential overheating assessment OHA 86888-Lea Bridge.I05 (10/12/2021)
Energy strategy EST86888 – Lea Bridge (16/8/2021)
Typical ASHP Plant Schematic (10/12/2021)
Energy statement appendices C, G, H, I, J, K, L, M, N, Q (10/12/2021)
Energy memo response (10/12/2021)

BREEAM Pre-assessment (16/8/2021)
Whole life carbon assessment (16/8/2021)
Response to GLA Comments on Whole Life Carbone WLC Report (10/12/2021)
WLC GLA Spreadsheet Revised (10/12/2021)
Circular Economy Statement (16/01/2022)
GLA circular economy spread sheet (10/12/2021)
Shadow Habitats Regulations Assessment v0.9 (21/01/2022)
SANG strategy v0.3 (21/01/2022)
Biodiversity Net gain Calculation (10/12/2021)
Urban greening factor (10/12/2021)
Fire Statement Issue 3 (15/9/2021)
Daylight and Sunlight Assessment RC/ROL00369 (16/8/2021)
Solar glare assessment RC/ROL00369 (16/8/2021)
Flood Risk and Drainage Strategy WIE16553-100-R-4-2-3- FRA (16/8/2021)
London Sustainable Drainage Proforma (10/12/2021)
Utilities Statement A (16/8/2021)
Transport Assessment 3760 / 1220 DOC NO. D002 V1 (16/8/2021)
Response to GLA transport comments (10/12/2021)
Response to TfL transport comments (10/12/2021)
3760-1220-T-060-B (10/12/2021)
3760-1220-T-061-C (10/12/2021)
Technical note: Areas of stopping up (10/12/2021)
RSA Stage 1 designers response 3760-1220 1 (10/12/2021)
Pedestrian Comfort Level (PCL) assessment (10/12/2021)
Arboricultural impact assessment D (10/12/2021)
1629-KC-XX-YTREE-TCP01Rev0 (10/12/2021)
1629-KC-XX-YTREE-TPP01RevA (10/12/2021)
External lighting assessment (16/8/2021)
Structural survey and basement impact assessment (16/8/2021)
Basement impact screening (16/8/2021)
Ventilation statement (16/8/2021)

REASON
For the avoidance of doubt and in the interests of proper planning. To ensure that the external appearance of the development is satisfactory and to protect residential amenity of nearby occupiers, the visual amenities of the area as well as protecting the environment and to accord with London Plan (2021) policies D1, D2 and D3, WFLP Core Strategy (2012) policies CS15 and CS5 WFLP Development Management Policies (2013) Policies DM29, DM30 and DM35.

3 ELEVATIONS AND MATERIALS

Prior to commencement of each phase, elevational detail, including materiality of the development stall be submitted to and approved in writing by the Local Planning Authority. The detail shall include all materials, colours and finishes to be used on all external surfaces of the buildings in the relevant phase of development.

The detail shall also include (and shall not be limited to):

- Bay studies at a scale of 1:20, through key points on the elevations, as agreed with the Local Planning Authority.
- Details and samples of materials for windows, areas of glazing, terrace areas, building entrances, soffits and any other materials, presented on a materials

palette board, accompanied by elevations indicating exactly where the materials are to be used.
- Design of lower floor elevations of non-residential units an appropriate scale.
- Mock-ups of areas of the façades (areas to be agreed with the Local Planning Authority) to be used in the carrying out of this permission.
- Detailed drawings at a scale of 1:5 or 1:10 through:
  - Typical facade variations; and
  - Shop fronts and residential entrances; and
  - All parapets and roof edges; and
  - All balcony details; and
  - Heads, cills and jambs of all openings

The relevant phase of development shall be carried out in accordance with the approved details and shall be fully implemented prior to the development hereby approved first being brought into use and shall thereafter maintained as such for the lifetime of the development.

REASON
To ensure that the development presents a satisfactory appearance in accordance with London Plan (2021) Policies D1, D2 and D3, WFLP Core Strategy (2012) policies CS15 and CS5, WFLP Development Management Policies (2013) policies DM29, DM30 and DM35

4 FLOORSPACE

Unless otherwise agreed in writing, the maximum floorspace in each respective use granted by this permission largely accord with the following:

Use	**Use Class**	**Sqm (GIA)/Units**
Residential (site wide)	C3	345
Non-residential (by site)		
Site 1	E	1,055
Site 2	E	407
Site 2	F/E	743
Site 3	E	218
Total non-residential		2,423

REASON
To ensure an appropriately balanced and complimentary range of residential and uses on site, and to ensure that the development is carried out in accordance with the approved plans and other submitted details and to ensure that the quantum of floorspace keeps within the parameters assessed pursuant to the EIA in relation to the development and to accord with London Plan (2021) policy SD6 and WFLP Core Strategy (2012) policy CS14.

5 TREE STRATEGY

Prior to removal of any trees, a Tree Strategy shall be submitted to and approved in writing by the Local Planning Authority. The Tree Strategy shall include:
- Details of replacement tree planting
- Evidence that more trees than are being removed are to be replanted
- Evidence that at least 20% of replacement trees on site are semi mature
- The phasing for tree removal and replacement.
- Replacement tree planting.

REASON:
To ensure a satisfactory appearance and in the interest of local amenity and biodiversity in accordance with Policies CS15 of the WFLP Core Strategy (2012), and Policies DM23, DM32, DM35 of the WFLP Development Management Policies (2013).

6 LANDSCAPING

Prior to above ground works in any phase, details of landscaping for the relevant phase shall be submitted to and approved in writing by the Local Planning Authority. The plans and details of landscaping shall include:

- Planting plans (at not less than a scale of 1:100),
- Proposals for a landmark tree to replace the Sycamore, subject to a TPO.
- Written specification of planting and cultivation works to be undertaken,
- Schedule of plants giving species, plant sizes, and proposed numbers/densities where appropriate,
- Implementation programme,
- Proposals for appropriate management and maintenance of open spaces and landscape character areas,
- Proposed finishing levels or contours,
- Means of enclosure and boundary treatments including the siting, design and height and finish of all new walls, gates, fencing, railings, and other means of enclosure. Generally, the boundary treatment shall ensure that adequate pedestrian visibility splays are provided,
- External amenity spaces,
- Landscaping of podium and roof terrace areas.
- Green roof areas
- Car parking layouts (including landscaping around car parking areas),
- Other vehicle and pedestrian access and circulation areas,
- Hard surfacing materials proposed,
- Minor artefacts and structures (such as cycle stores and outdoor furniture)
- Existing and proposed functional services above and below ground (e.g. drainage, power cables or communications equipment, indicating lines, manholes or associated structures),
- Wind mitigation tree planting in accordance with ES Volume 3, Appendix Wind Microclimate, Annex 2. Retesting of wind impacts in the event that changes are made to the landscaping strategy which exclude the wind mitigation tree planting.
- Ecological enhancement measures et out in ES Volume 1, Chapter 4 (The Proposed Development) and Volume 3, Appendix: Ecology.

The development shall achieve an Urban Greening Factor target of a 0.4.

Prior to occupation the approved plans and details of landscaping shall be implemented in accordance with the approved details.

REASON:
To ensure a satisfactory appearance and in the interest of local amenity and biodiversity in accordance with Policies CS15 of the WFLP Core Strategy (2012), and Policies DM23, DM32, DM35 of the WFLP Development Management Policies (2013).

7 TREE PROTECTION

Prior to the commencement of any phase of the development hereby approved (including demolition and preparatory work), a scheme for the protection of the trees to be retained within the relevant phase, in accordance with BS 5837:2012, including a tree protection plan(s) (TPP) and an arboricultural method statement (AMS) shall be submitted to and approved in writing by the Local Planning Authority.

Specific issues to be dealt with in the TPP and AMS:

a. Location and installation of services/ utilities/ drainage,
b. Clearly illustrate the root protection areas.
c. Illustrate existing ground levels at the base of trees, where nearby changes in level or excavations are proposed, especially where they fall within the Root Protection Area (RPA) of trees to be retained.
d. Illustrate the positions and details of protective fencing or hoardings, prohibited areas and other physical means of protecting trees.
e. Measures to ensure no storage of materials within the RPA.
f. A specification ground protection within tree protection zones.
g. Tree protection during construction including construction activities clearly identified as prohibited in this area.
h. Reporting of inspection and supervision

The development thereafter shall be implemented in strict accordance with the approved details.

REASON:
To ensure the well-being of the trees and in the interest of biodiversity, in accordance with policy CS5 of the WFLP – Core Strategy (2012) and Policy DM35 of the WFLP – Development Management Policies (2013). The objectives and purposes of this condition are such that it is required to be complied with before commencement. As such, those objectives and purposes would not be met if expressed other than as a pre-commencement condition.

8 ARCHAEOLOGY

No demolition or development shall take place until a stage 1 written scheme of investigation (WSI) has been submitted to and approved by the local planning authority in writing.

For land that is included within the WSI, no demolition or development shall be take place other than in accordance with the agreed WSI, and the programme and methodology of a site evaluation and the nomination of a competent person(s) or organisation to undertake the agreed works.

If heritage assets of archaeological interest are identified by the Stage 1 WSI, then for those parts of the site which have archaeological interest, a Stage 2 Excavation and Mitigation WSI shall be submitted to and approved by the local planning authority in writing.

For land that is included within the Stage 2 Excavation and Mitigation WSI, no demolition or development shall take place other than in accordance with the agreed Stage 2 Excavation and Mitigation WSI,which shall include:

A. The statement of significance and research objectives, the programme and methodology of site investigation and recording and the nomination of a competent person(s) or organisation to undertake the agreed works.

B. Details of a programme for delivering outreach and related positive public benefits during the project.

C. The programme for post-investigation assessment and subsequent analysis, publication & dissemination and deposition of resulting material. This part of the condition shall not be discharged until these elements have been fulfilled in accordance with the programme set out in the stage 2 WSI.

The development be undertaken in accordance with the Stage 2 Excavation and Mitigation WSI.

REASON:
In order to protect historic assets of Archaeological interest that may be present on site, which the Local Planning Authority seeks to ensure investigated and conserved, in compliance with Policy HC 1 of the London Plan (2021), Policy CS12 of the adopted WFLP Core Strategy (2012) and Policy DM28 of the adopted WFLP Development Management Policies (2013). The objectives and purposes of this condition are such that it is required to be complied with before commencement. As such, those objectives and purposes would not be met if expressed other than as a pre-commencement condition.

9 PHASING AND CIL

Before commencement of each phase of development, a detailed phasing and implementation plan, including the order and timing of development of individual buildings, landscaped areas, play space, bicycle parking and car parking areas and surface water drainage within the relevant phase, shall be submitted to and approved in writing by the Local Planning Authority.

The phasing and implementation plan shall set out how access to the Lea Bridge Station will be maintained during construction and the timing for delivery of development approved in permission ref: 202850.

Thereafter the scheme shall be completed in accordance with the approved details and thereafter maintained for the life of the development.

For the purposes of the Community Infrastructure Levy Regulations 2010 (as amended) this is a phased development. Prior to commencement of each Phase a CIL Phase Plan establishing the extent of the phase shall be submitted to and approved by the Council. Each CIL phase approved by this condition shall be considered a separate chargeable development for the purposes of calculating Community Infrastructure Levy. A CIL phase may consist of enabling and site preparation works, non-chargeable landscape and access works, construction of a block or blocks, construction of a plot or plots.

REASON
To ensure the development proceeds in a satisfactory manner and to accord with London Plan (2021) Good Growth Objectives GG1, GG2, and GG3 and to ensure CIL liability payments are phased and that each phase of the development is treated as if it is were a chargeable development for levy purposes in accordance with Regulation 8(3A) as amended by The Community Infrastructure Levy

(Amendment) Regulations 2014. The objectives and purposes of this condition are such that it is required to be complied with before commencement.

10 SOUND INSULATION

Prior to above ground works in any phase, details of sound insulation to be installed between the non-residential premises and residential premises for the relevant phase, in order to manage noise and disturbance in the relevant phase shall be submitted to and approved in writing by the Local Planning Authority.

The scheme of sound insulation measures shall be prepared by a suitably qualified consultant/engineer and shall demonstrate that the proposed sound insulation will achieve a level of protection which is at least +5dB above the Approved Document E standard (Dwelling houses and flats) for airborne sound insulation and -5dB for impact sound insulation. The insulation shall be designed to prevent noise from adversely impacting residential occupiers in the development.

The development shall be carried out in accordance with the approved scheme and shall be fully implemented prior to the development hereby approved first being brought into use and shall thereafter maintained as such for the lifetime of the development.

REASON
To protect the amenities of occupiers and the surrounding area, in order to comply with Policies CS13 of the adopted Waltham Forest Local Plan – Core Strategy (2012) and Policies DM24 and DM32 of the adopted Waltham Forest Local Plan – Development Management Policies (2013).

11 HOURS OF OPERATION

Prior to first occupation of any part of the non-residential development, details of hours of operation shall be submitted to and approved in writing by the Local Planning Authority. Such details as approved shall be retained unless otherwise agreed in writing by the Local Planning Authority.

REASON:
To protect the amenities of adjoining occupiers in order to comply with Policy CS13 of the Waltham Forest Local Plan Core Strategy (2012) and Policies DM24 and DM32 of the Waltham Forest Local Plan Development Management Policies (2013).

12 LIGHTING

Prior to above ground works in any phase, a Lighting Strategy for the relevant phase which accords with the Code of Practice for the Reduction of Light Pollution issued by the Institute of Lighting Engineers shall be submitted to and approved by the Local Planning Authority. The lighting strategy shall set out:

a) Any lighting proposed for amenity spaces and external communal areas,
b) The proposed external building lighting.
c) Details of measures to adequately mitigate light pollution affecting ecological receptors (such as Bats) and neighbouring residential properties. Measures

to be considered should include internal blinds for residential units on site 1 and 3 facing towards the Lee Valley Regional Park.

There after the relevant phase of development shall accord with the approved Lighting Strategy for the phase. Any blinds shall be retained, operated and maintained as approved.

REASON
To ensure the development is adequately lit in order to minimise the risk and fear of crime, whilst ensuring that the proposed lighting would not unduly impact on local character, amenity or biodiversity in accordance with Policies CS5 and CS16 of the adopted WFLP Core Strategy (2012) and Policy DM35 of the adopted WFLP Development Management Policies (2013).

13 USE OF BIODIVERSE ROOF AREAS

Access to biodiverse roof areas associated with the Terrace Building (Site 2) shall be accessed for maintenance purposes only and shall not be used as external amenity space or for any other purpose.

REASON:
To prevent overlooking of neighbouring properties and to protect biodiverse roof planting and accord with London Plan (2021) Policy D3 and Policy DM32 of the WFLP Development Management Policies (2013).

14 CONSTRUCTION SITE WASTE MANAGEMENT PLAN

Prior to the commencement of development, a Site Waste Management Plan (SWMP) shall be submitted to and approved in writing by the Local Planning Authority. The SWMP shall set out:

- Details of the amount and type of waste that will be produced on a construction site and how it will be reused, recycled or disposed of.
- How the SWMP will be updated during the construction process to record how waste is being managed and to demonstrate that any materials which cannot be reused or recycled are disposed of at a legitimate site.
- Agreements with material suppliers to reduce the amount of packaging, to use reusable packaging or to participate in a packaging take-back scheme;
- Implementation of a 'just-in-time' material delivery system to avoid materials being stockpiled, which would increase the risk of their damage and disposal as waste;
- Attention to material quantity requirements, to avoid over-ordering and generation of waste materials;
- Re-use of materials wherever feasible;
- Segregation of waste at source where practical; and
- Re-use and recycling of materials off-site, where re-use on-site is not practical (e.g. through use of an off-site waste segregation facility and re-sale for direct re-use or re-processing).

In order to reduce potential risks throughout the demolition and construction phases, the SWMP shall include the following waste management measures:

- Skips will be colour coded and signposted to reduce risk of cross contamination;

- Skips will be covered to prevent dust and debris blowing about the site and immediate environment;
- Burning of waste or unwanted materials will not be permitted on-site;
- All potentially hazardous materials will be properly sealed and securely stored when not used;
- Food waste from the welfare facilities on-site will be suitably packaged and stored for collection by the authorities to reduce the risk of infestation by pests or vermin. Where there is a local infestation then the local environmental health officer will be consulted about the action to be taken; and
- All hazardous materials, including chemicals, cleaning agents, solvents and solvent containing products will be properly sealed in sealed containers at the end of each day prior to storage in appropriately protected and bunded storage area

Thereafter the development shall accord with the approved SWMP.

REASON
To protect the amenities of the neighbouring properties and to accord with WFLP Core Strategy Policy CS6 and Policy DM32 of the WFLP Development Management Policies (2013).

15 OPERATIONAL WASTE MANAGEMENT PLAN

Prior to above ground works in each phase, details of waste and recycling facilities for the relevant phase shall be submitted to and approved by the Local Planning Authority. The details of waste and recycling facilities shall set out:

- The storage and disposal arrangements for covered, secured and signposted refuse and recycling, including waste associated with proposed public realm areas;
- The hours of proposed waste collection; and
- Detailed drawings and supporting information for the management and collection of waste and recycling for all other non-residential uses.
- The residential waste stores will be designed to British Standard BS5906:2005 Waste Management in Buildings – Code of Practice standards.
- Arrangements for cleaning and maintenance of bin store areas
- For Site 2, details of how on-site facilities management staff will present the bins from the Terrace building, for collection in the service area of the Courtyard building.

Prior to occupation of the relevant phase the approved refuse and recycling facilities shall be completed in accordance with the approved details and thereafter be maintained for the life of the development.

REASON
To ensure that adequate refuse storage and disposal facilities are provided, in the interests of local character and amenity in accordance with Policy CS6 of the WFLP Core Strategy (2012) and Policy DM32 of the WFLP Development Management Policies (2013).

16 DRAINAGE AND SUSTAINABLE URBAN DRAINAGE SYSTEMS (SUDS)

Prior to above ground works in any phase, details of Drainage & SUDS for the relevant phase shall be submitted to and approved by the Local Planning Authority. The details of Drainage & SUDS shall set out:

a) The proposed use of Sustainable Urban Drainage Systems (SUDS) to manage surface water run-off. No infiltration based sustainable drainage systems shall be constructed on land affected by contamination.
b) The detailed design of surface water attenuation, storage and disposal works, including relevant supporting calculations; and
c) Works for the disposal of sewage associated with the development.
d) Details of design, implementation, adoption, maintenance and management.
e) Details of green roofs, pervious surfaces, rainwater harvesting, bio-retention systems.
f) Underground attenuation storage tanks.

The approved drainage and SUDS details for each relevant phase shall be installed and operational prior to the occupation of the relevant phase of development.

REASON:
To ensure that the development has adequate drainage facilities, to reduce and mitigate the effects of flood risk, in accordance with Policy CS4 of the WFLP Core Strategy (2012) and Policy DM34 of the WFLP Development Management Policies (2013).

17 FLOOD WARNING AND EVACUATION PLAN

Prior to any part of the permitted development being occupied, a flood warning and evacuation plan (based on the submitted Flood Risk Assessment) must be submitted to and approved in writing by the Local Planning Authority. The plan must detail the rescue and evacuation arrangements, emergency plan, provision of and adequacy of temporary refuge, and details of flood proofing and other building level resistance and resilience measures. The commitments explicitly stated in the Flood Emergency Plan shall be binding on the applicants or their successors in title.

The measures set out in the flood warning and evacuation plan shall be implemented upon the first occupation and shall be maintained for the life of the development.

REASON:
To ensure the safety of the residents of the development against the risk of flooding, in accordance with London Plan (2021) Policy SI 12; WFLP Core Strategy (2012) Policy CS4 and WFLP DMP (2013) Policy DM34.

18 PLAY SPACE AND AMENITY SPACE

Prior to above ground works in any phase, a Play and Amenity Space Strategy for the relevant phase shall be submitted to and approved by the Local Planning Authority. The details of Play and Amenity Space Strategy shall include the location, size, design and type of play space.

Prior to occupation of each phase, details of security, management and maintenance arrangements for internal and external play and amenity spaces in the relevant phase shall be submitted to and approved in writing by the Local Planning Authority.

There after the development shall accord with the approved details.

REASON
To ensure that the development makes adequate provision for children's play in accordance with Policy D6 of the London Plan (2021), Policy CS2 of the WFLP Core Strategy (2012) and Policy DM7 of the WFLP Development Management Policies (2013).

19 DISABLED ACCESS

Prior to commencement of each phase of development hereby approved, detailed drawings and supporting documentation for the relevant phase shall be submitted for approval in writing by the Local Planning Authority in consultation with the Centre for Accessible Environments (or other appropriately qualified, independent third-party organisation), which demonstrate that the design of the scheme is inclusive and accessible to all persons, including persons with disabilities, including:

- The internal layout of buildings,
- All unit layouts at 1:50 and 1:20 plans and elevations of kitchens and bathrooms.
- External areas (including car parking areas).
- All residential units shall be built to The Building Regulations (2010) Access to and use of Buildings, Approved Document M (2015 as amended), Volume 1: Dwellings, M4(2): Accessible and adaptable dwellings.
- At least 10% of new housing must meets Building Regulation requirement Part M4 (3) 'wheelchair user dwellings'.
- Communal doors and circulation areas in blocks accommodating M4(3) dwellings shall be built in full accordance with Part M4(3).
- Details of utility cupboard doors with min 850mm clear door opening widths and minimum 1200mm approach, showing washing machines placed within cupboard so as to be easily accessible once door opened.
- Accessible car parking provision equivalent to 3% of residential units.

Thereafter and prior to occupation of each phase of development, the scheme shall be completed in strict accordance with the approved details for the relevant phase and thereafter maintained for the life of the development.

REASON:
To ensure inclusive development in accordance with Policy CS15 of the Waltham Forest Local Plan Core Strategy (2012) and DM Policies DM7 and DM9 of the Development Management Plan (2013). The objectives and purposes of this condition are such that it is required to be complied with before commencement. As such, those objectives and purposes would not be met if expressed other than as a pre-commencement condition.

20 SIGNPOSTING FOR PEOPLE WITH DISABILITIES

Prior to occupation of each phase, sign plates, incorporating a representation of the Universal Wheelchair Symbol, should be displayed to indicate the location of convenient facilities to meet the needs of people with disabilities. Such sign plates should identify or advertise accessible entrances to buildings, reserved parking spaces, accessible lifts and lavatory accommodation, manageable routes through buildings and availability of special services. Signs for direction and location should have large characters or numerals and clearly contrast with the background colour.

Thereafter these features shall be retained and maintained for the life of the development.

REASON
To ensure that people with disabilities are aware of the location of convenient facilities in accordance with London Plan (2021) policy D5, WFLP Core Strategy (2012) policy CS8 and WFLP Development Management (2013) policy DM14.

21 DETAILS OF AIR SOURCE HEAT PUMPS (ASHP)

Prior commencing development in any phase, full details of the ASHP for the relevant phase shall be submitted to and approved in writing by the Local Planning Authority. The details shall include:

- An estimate of the heating and/or cooling energy (MWh/annum) the heat pumps would provide to the development and the percentage of contribution to the site's heat loads. They should demonstrate how the heat fraction from heat pump technologies has been maximised.
- Details of the Seasonal Coefficient of Performance (SCOP) and/or Seasonal Energy Efficiency ratio (SEER) and how these have been calculated. This shall incorporate the expected heat source and heat distribution temperatures (for space heat and hot water) and the distribution loss factor, which shall be calculated based on the above information and used for calculation purposes.

Thereafter the development of the relevant phase shall be carried out in accordance with the approved details.

REASON:
In the interests of the sustainability and energy efficiency of the development and to meet the requirements London Plan (2021), policy CS4 of the Waltham Forest Local Plan Core Strategy (2012) Policy DM10 of the Waltham Forest Local Plan Development Management Policies (2013). The objectives and purposes of this condition are such that it is required to be complied with before commencement. As such, those objectives and purposes would not be met if expressed other than as a pre-commencement condition.

22 CARBON REDUCTION

Prior to the occupation of any phase of development hereby permitted, a report shall be submitted to and approved in writing by, the Local Planning Authority demonstrating how the relevant phase complies with the following:

- Carbon dioxide emissions of the development are reduced by at least 35% compared to the 2013 Building Regulations shall be submitted to, and approved in writing by, the Local Planning Authority.
- Evidence to show the non-residential elements will achieve a minimum emissions reduction of at least 15% through energy efficiency measures and the residential elements achieving a 10% reduction through energy efficiency measures.
- Energy costs to occupants have been minimised and outline a commitment to protecting the consumer from high prices. This should cover the parameters set out in the GLA guidance and include a confirmation of the quality assurance mechanisms that will be considered as part of the strategy.

The report shall include an assessment of the U-values for the floor and roof. Evidence shall be set out in the report to show that the installation of photo voltaic panels has been maximised.

The report shall reference the measures set out in the Energy Statement accompanying the planning application and shall explain what measures have been implemented in the construction of the development. The development and energy efficiency measures shall thereafter be retained.

REASON:
In the interests of the sustainability and energy efficiency of the development and to meet the requirements London Plan (2021), policy CS4 of the Waltham Forest Local Plan Core Strategy (2012) Policy DM10 of the Waltham Forest Local Plan Development Management Policies (2013).

23 OVERHEATING AND COOLING

Prior to above ground works in each phase of development, details showing how any potential overheating risk to residential and non-residential units will be mitigated in line with the Cooling Hierarchy for the relevant phase shall be submitted to and agreed in writing by the Local Planning Authority. This shall include:

- A Dynamic Overheating Assessment, which assess the overheating risk for any naturally ventilated spaces. This shall follow the CIBSE TM52 and TM59 methodology for the London Design Summer Year 1 (DSY1) weather file: 2020s, High emission, 50% percentile scenario. The assessment shall also investigate the risk of overheating using the DSY 2 & 3 weather files.
- Confirmation that guidance will be provided to occupants on minimising the risk of overheating in line with the energy hierarchy. The overheating guidance document shall be submitted.
- Openable windows and balcony doors, internal blinds as well as acoustic louvres where feasible. Any required blinds shall be provided as part of the development.
- Details of mechanical ventilation where required.
- Evidence that any active cooling provision is lower than the notional MJ/m2 cooling demand.

The approved measures shall be incorporated into the final design of the relevant phase of development and implemented prior to first occupation of the relevant phase.

REASON:
In the interests of the sustainability and energy efficiency of the development and to meet the requirements London Plan (2021), policy CS4 of the Waltham Forest Local Plan Core Strategy (2012) Policy DM10 of the Waltham Forest Local Plan Development Management Policies (2013).

24 BREEAM

The non-residential floor space hereby permitted shall be constructed to achieve not less than BREEAM ‘Excellent’ in accordance with the submitted Energy Report. Within 12 months of occupation of the non-residential floor space a formal certification confirming that the relevant non-residential unit has achieved not less

than ‘Excellent’ shall be submitted to, and approved in writing by, the Local Planning Authority.

REASON
In the interest of sustainability, energy efficiency and to provide a high quality development in accordance with Policy CS4 of the Waltham Forest Local Plan Core Strategy (2012) and Policy DM10 of the Waltham Forest Local Plan Development Management Policies (2013).”

25 HOME QUALITY MARK (HQM)

The residential units hereby permitted shall be constructed to achieve not less than HQM ‘three star, with performance indicators of at least three for Costs and at least two for Wellbeing and Footprint’ in accordance with the submitted Energy Report (or the equivalent standard in such measure of sustainability for non-residential building design which may replace that scheme).

The units shall not be occupied until formal certification has been issued confirming that not less than HQM ‘three star has been achieved for each, and this certification has been submitted to, and approved in writing by, the Local Planning Authority.

REASON:
In the interest of sustainability, energy efficiency and to provide a high-quality development in accordance with Policy CS4 of the Waltham Forest Local Plan Core Strategy (2012) and Policy DM10 of the Waltham Forest Local Plan Development Management Policies (2013).”

26 WATER REDUCTION

Prior to the commencement of above ground works in any phase, a scheme detailing measures to reduce water use within the relevant phase of development shall be submitted to and approved in writing by the Local Planning Authority.

The scheme shall demonstrate that the development will achieve at least the BREEAM excellent standard for the ‘Wat 01’ water category160 or equivalent for non-residential development and maximum indoor water consumption of 105 litres per person per day for residential development.

The scheme shall include water efficient fittings, water meters, and leak detection systems.

The development shall be constructed in accordance with the approved scheme.

REASON:
To minimise the water use of the development, in accordance with the requirements of policy SI5 of the London Plan (2021).

27 WHOLE LIFE-CYCLE CARBON EMISSIONS

Prior occupation of the development, a post-construction Whole Life-Cycle Carbon (WLC) Assessment shall be submitted to and approved by the GLA at: ZeroCarbonPlanning@london.gov.uk

The WLC assessment shall be completed using the post construction tab of the GLA's WLC assessment template and this shall be completed in line with the criteria set out in the GLA's WLC Assessment Guidance. The post-construction assessment shall provide an update of the information submitted at planning submission stage (RIBA Stage 2/3), including the WLC carbon emission figures for all life-cycle modules based on the actual materials, products and systems used. The assessment shall be submitted within three months of completion.

REASON:
To ensure whole life-cycle carbon is calculated and reduced and to demonstrate compliance with Policy SI 2 of the London Plan (2021).

28 CIRCULAR ECONOMY

The development shall accord with the relevant Circular Economy key commitments set out in Chapter 16 (mitigation and monitoring schedule) of the ES.

Prior to occupation of any phase of development a Post Completion Report for the relevant phase shall be submitted to and approved by the Local Planning Authority. The report shall set actual performance against all numerical targets set out in the approved Circular Economy Statement and provide updated versions of Tables 1 and 2 (the Recycling and Waste Reporting form and Bill of Materials.) of the GLA Circular Economy Statement Guidance.

REASON:
To demonstrate how the development will reduce waste and support the circular economy in accordance with Policy SI7 of the London Plan (2021).

29 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

Prior to the commencement of the separate development workstreams, including enabling works, demolition and site clearance, a Construction Environmental Management Plan (CEMP) for the relevant workstream shall be submitted to and approved in writing by the Local Planning Authority. The method statement shall include details of the following:

- Works of demolition and construction shall be carried out during normal working hours, i.e. 08:00 to 18:00 hours Monday to Friday, and 08:00 to 13:00 hours on Saturdays, with no noisy working audible at the site boundary being permitted on Sundays or Bank Holidays.
- Likely noise levels to be generated from plant
- Details of any noise screening measures, in particular adjacent to the boundary of properties fronting Elm Park Road. Measures shall include details of the frequency and timing of periods of very noisy activity.
- Proposals for monitoring noise and procedures to be put in place where agreed noise levels are exceeded
- Where works are likely to lead to vibration impacts on surrounding residential properties, proposals for monitoring vibration and procedures to be put in place if agreed vibration levels are exceeded. Note: it is expected that vibration over 1mm/s measured as a peak particle velocity would constitute unreasonable vibration.
- The method statement shall make reference to and comply with The Mayor of London's supplementary planning guidance (SPG) 'The control of dust and emissions from construction and demolition'

- Measures for controlling and monitoring noise, air quality and vibration (to comply with BS 5228: 2009 part 2) to ensure effective implementation of mitigation measures throughout the construction phase. Monitoring shall include visual inspections and real-time monitoring of noise or vibration levels and concentrations of pollutants (including PM10) with an alert system in the event of action trigger levels being exceeded.
- Materials Management Plan ensuring appropriate storage of materials (including fuel and chemicals are stored in bunded containers). Materials shall not be stored in areas susceptible to flooding. Handling and storage of fuels, chemicals and other potentially hazardous substances shall accord with the Control of Substance Hazardous to Health (COSHH) Regulations 2002. Use of bunded areas, drip trays and spill kits shall be included.
- Hoarding to a height of 2.4m around the sites.
- Where works are likely to lead to vibration impacts on surrounding residential properties, proposals for monitoring vibration and procedures to be put in place if vibration levels are exceeded. Note: it is expected that vibration over 1mm/s measured as a peak particle velocity would constitute unreasonable vibration.
- The Best Practice Measures set out in Volume 1, Chapter 8 (Noise and Vibration) of the ES (see para 8.123 to 8.126).
- The measures to be implemented to mitigate effects from windborne potential contaminated dust and odours to demolition and construction workers, and off-site residents set out in ES Chapter 12 (ground conditions section 12.95) and relevant measures set out in ES Chapter 16 (mitigation and monitoring schedule).

REASON:
To ensure considerate construction and to protect the amenities of the nearby residents from excessive noise and dust and to comply with Policies CS7 and CS13 of the adopted WFLP Core Strategy (2012) and Policies DM14, DM15, DM24 and DM32 of the adopted WFLP Development Management Policies (2013) and comply with the London Plan and the GLA NRMM LEZ.

30 DEMOLITION AND CONSTRUCTION LOGISTICS PLAN

Prior to commencement of each phase, detailed drawings and supporting documentation for the relevant phase shall be submitted to and approved in writing by the Local Planning Authority in consultation with TfL and Network Rail in respect of the following:

(i) A Demolition and Construction Logistics Plan (CLP) which shall include:

- Traffic management and access arrangements during the development process (including construction traffic routes (avoiding roads adjacent to the Epping Forest Special Area of Conservation) and site access.
- Measures to reduce the number of construction vehicles accessing the site during peak hours, banksman and parking provisions for contractors,
- Vehicle holding areas should the Sites be unavailable.
- A 3-tier assessment of the site area to ensure the community impacts are fully considered and designed especially for disabled people (Equality Act 2010).
- The phasing of construction work,

- Measures to prevent mud and dirt tracking onto footways and adjoining roads (including wheel washing facilities),
- Measures to ensure that pedestrian access past the site on the public footpaths is safe.
- Details of the location of a large notice board on the site that clearly identifies the name, telephone number and address for the site manager.
- Arrangements for appropriate communication with (including regular meetings (virtual or otherwise)), and the distribution of information to, the local community and businesses. Arrangements for monitoring and responding to complaints relating to demolition and construction.
- Details of cranes, locations, installation and dismantling plans and indication of abnormal loads.
- All works be situated at least 3 metres from Network Rail's boundary fence, no entry or encroachment onto Network Rail's land without written permission from Network Rail.
- Any works which impact the Station, including the operation and access to the Station, are to be communicated with the train operating company (Greater Anglia), and access to and from the Station is to be maintained at all times in times of operation and emergencies.
- Evidence that any proposals for works to be delivered at the Station have been communicated and coordinated with Network Rail and Greater Anglia.
- Evidence that the detailed matters in the Network Rail Consultation Response (dated 4/10/2021) have been considered and all issues agreed with Network Rail, Greater Anglia.

(ii) The CLP shall be prepared using the TfL template and guidance found here: http://content.tfl.gov.uk/construction-logistics-plan-guidance.pdf

Thereafter and during the construction of each phase, the relevant phase shall be completed in strict accordance with the approved details unless otherwise agreed in writing by the Local Planning Authority.

REASON
To ensure considerate construction and to protect the amenities of the nearby residents from excessive noise and dust and to comply with Policies CS7 and CS13 of the adopted Waltham Forest Core Strategy (2012) and Policies DM14, DM15, DM24 and DM32 of the adopted Waltham Forest Local Plan – Development Management Policies (2013)) and comply with Policy T7 of the London Plan (2021). The objectives and purposes of this condition are such that it is required to be complied with before commencement. As such, those objectives and purposes would not be met if expressed other than as a pre-commencement condition.

31 CONDITION SURVEY

Prior to the commencement of development, a highway condition survey which assesses the condition of the existing highway before construction works (including roads, footways, cycle lanes, site access / egress locations) in the vicinity of the site, shall be submitted to and approved in writing by the local planning authority.

A further highway condition survey shall then be carried out after construction, which shall assess the condition of the existing highway after construction and shall be submitted to and approved in writing by the Local Planning Authority before any part of the development is occupied.

Any damage to the highway incurred as a result of the construction works, will have to be re-instated by the Council but funded by the developer, in accordance with the timescales and details agreed as part of the survey.

REASON:
In the interest of pedestrian and highway safety, to comply with Policy CS7 of the WFLP Core Strategy (2012) and Policy DM14, DM15 and DM32 of the WFLP Development Management Policies (2013). The objectives and purposes of this condition are such that it is required to be complied with before commencement. As such, those objectives and purposes would not be met if expressed other than as a pre-commencement condition.

32 CYCLE PARKING

Prior to the commencement of above ground works in each phase of the development a schedule showing the number and location of all cycle parking spaces and details of secure and sheltered cycle storage facilities (including security measures, design and materials) for that phase has been submitted to and approved in writing by the Local Planning Authority.

The cycle parking details shall include signage, lighting, maintenance facilities (repair stands), security measures and demonstrate how provision will comply with the London Cycling Design Standards.

For basement parking, details of cycle parking specification and design including lighting, CCTV and signage shall be provided.

The approved facilities shall be fully implemented prior to first occupation of the development and shall be permanently retained thereafter.

REASON
In the interest of security and sustainable development, in compliance with Policies CS6, CS15 and CS16 of the Waltham Forest Local Plan – Core Strategy 2012 and Policies DM13, DM14, DM23 of the Waltham Forest Local Plan – Development Management Policies (2013).

33 DELIVERY AND SERVICING PLAN

Prior to commencement of above ground works in each phase of development, a detailed Servicing and Delivery Plan for the relevant phase shall be submitted for approval in writing by the Local Planning Authority. The detailed delivery and servicing plan(DSP) for the relevant phase shall include:

- A concierge/reception service for the relevant site to control access and egress from the development and arrange and direct delivery and servicing vehicles when necessary.
- Secure parcel delivery room for each relevant site.
- Details of a delivery booking system including monitoring measures and an action plan if monitoring identifies changes are required.
- The types of vehicle (including size and weight), the routes which service vehicles will take to/from the site,

- Measures to minimise the impact of noise, traffic and vibration associated with lorry movements on residential amenity, and measures to minimise deliveries during peak hours.
- Deliveries shall be combined where possible in order to reduce numbers and frequency and the use of quieter and less polluting vehicles should be promoted.
- The DSP shall make reference to safety measures that will be in place to reduce conflicts between service vehicles manoeuvring and other users and shall also include details on how delivery vehicles are restricted during peak periods.
- No servicing (collections or deliveries) of non-residential units shall be taken to, or dispatched from, the site other than between the hours of 08.00 and 18:00 Mondays to Saturdays, and at no time on Sundays, Bank Holidays or Public Holidays.
- Appointment of a DSP co-ordinator and preparation of a delivery and servicing schedule the based on the regular deliveries anticipated by the occupiers. Residents shall be notified that they must give advance notice of when deliveries are anticipated which require vehicles larger than a motorbike courier. Refuse and recycling collections will be included in the schedule.
- A commitment to future delivery and servicing surveys to document and monitor servicing once the development is operational.
- The relevant measures set out in ES Chapter 16 (mitigation and monitoring schedule).

Thereafter and prior to occupation of each relevant phase, the scheme shall be completed in accordance with the approved details for the relevant phase and thereafter maintained for the life of the development.

REASON
To ensure deliveries and servicing activities are safe, properly co-ordinated to reduce on and offsite traffic conflicts, to reduce overall traffic movements associated with servicing and deliveries and to accord with Policies CS6, CS7, CS15 and CS16 of the Waltham Forest Local Plan - Core Strategy 2012 and Policies DM13, DM14, DM23 of the Waltham Forest Local Plan – Development Management Policies (2013).

34 PARKING DESIGN AND MANAGEMENT PLAN

Prior to commencement of each phase, a detailed Parking Design and Management Plan for each relevant phase shall be submitted to and approved in writing by the Local Planning Authority. The Parking Design and Management Plan shall include:

- Detailed information on the lighting, design, location and security arrangements, and maintenance of all vehicular and cycle parking; and how access to parking spaces will be controlled and managed.
- Materiality of Ground Floor plan shared spaces including marked parking and servicing bays and demarcated pedestrian routes
- Details on how manage of the use of the authorised bays will be enforced;
- Details on how unauthorised parking and loading will be prevented and enforced;
- Secure electric vehicle charging points for all car parking spaces, including the details of the type of device, location and installation.

- Car Parking layout and how it will be allocated.
- Details on how residents will be charged for the use of the electric vehicle charge points, which should be an individual charge for each use of the charge point, in line with other public network charges.
- How the blue badge car parking spaces shall be laid out and allocated in accordance with the approved Management Plan and shall be made available for the purposes of parking vehicles in association with the development and for no other purpose.

Thereafter and prior to occupation of each relevant phase, the scheme shall be completed in accordance with the approved details for the relevant phase and thereafter maintained for the life of the development.

REASON
In the interest of pedestrian and highway safety, to comply with Policy CS7 of the Waltham Forest Local Plan – WFLP Core Strategy (2012) and Policy DM14, DM15 and DM32 of the Waltham Forest Local Plan – Development Management Policies (2013). The objectives and purposes of this condition are such that it is required to be complied with before commencement. As such, those objectives and purposes would not be met if expressed other than as a pre-commencement condition.

35 ACCESS MANAGEMENT PLAN

Prior to commencement of each phase an Access Management Plan covering the relevant phase shall be submitted to and approved in writing to the Local Planning Authority.

The plan shall set out how access to and from the site for pedestrian, cyclists and vehicles will be co-ordinated and controlled when Servicing takes place. Details shall include how future access and egress will be co-ordinated and facilitated during peak servicing times. The plans shall set out how loading will be managed, including action to be taken if any parked vehicles become blocked in.

The development shall thereafter accord with the approved Access Management Plan.

REASON
To ensure the suitable management of access to and from the site for all users and to impact on the surrounding area in accordance with Policies CS7 and CS13 of the WFLP Core Strategy (2012) and Policies DM14 DM15, DM24 and DM32 of the WFLP Development Management Policies (2013). The objectives and purposes of this condition are such that it is required to be complied with before commencement. As such, those objectives and purposes would not be met if expressed other than as a pre-commencement condition.

36 TRAFFIC / HIGHWAYS

Prior to commencement of each phase of development, detailed drawings and supporting documentation for the relevant phase shall be submitted for approval in writing by the Local Planning Authority in respect of the following:

i) Traffic arrangements for the relevant phase, including:

- The means of ingress and egress and new road junctions, the closure of existing access (where appropriate),
- Stopping Up Plan prior to commencement
- Details of all traffic arrangements (including where appropriate footways, turning space, swept path analysis, safety strips, visibility splays, sight lines at road junctions, kerb radii, car parking areas and marking out of spaces, loading facilities for all non-residential uses, closure of existing access if necessary and means of surfacing),
- Modelling of impacts arising from the creation of new accesses into the 3 sites including stage 1, 2 and 3 safety audits.

ii) The means of construction and surfacing of all roads, drives, parking areas, cycle ways and footpaths, for the relevant phase.

Thereafter and prior to occupation of each relevant phase, the scheme shall be completed in accordance with the approved details for the relevant phase and thereafter maintained for the life of the development.

REASON
To encourage sustainable travel. To ensure that people in wheelchairs are provided with adequate car parking and convenient access to building entrances To ensure that adequate sight lines are provided and thereafter retained in the interests of highway safety. To ensure pedestrian and vehicular safety and the free flow of traffic and conditions of general safety within the site and on the local highway network and to ensure adequate facilities are provided for cyclists, to ensure highway construction is adequate and to accord with Policies CS7 and CS13 of the WFLP Core Strategy (2012) and Policies DM14 DM15, DM24 and DM32 of the WFLP Development Management Policies (2013). The objectives and purposes of this condition are such that it is required to be complied with before commencement. As such, those objectives and purposes would not be met if expressed other than as a pre-commencement condition.

37 WAYFINDING

Prior to practical completion of the development, a wayfinding strategy prepared in accordance with the Enjoy Waltham Forest: Cycle Wayfinding Planning Guidelines (March 2017) will be submitted to and approved in writing by the Local Planning Authority in conjunction with Highways and the Enjoy Waltham Forest team.

Thereafter the development shall accord with the approved Wayfinding Strategy.

REASON:
To ensure the safe movement of pedestrians and cyclists in accordance with WFLP CS7, CS13, and WFLP DM Policy DM14.

38 AIR QUALITY AND DUST MANAGEMENT PLAN

No phase of development shall commence until full details of the proposed mitigation measures for impact on air quality and dust emissions, in the form of an Air Quality and Dust Management Plan (AQDMP), have been submitted to and approved in writing by the local planning authority.

In preparing the AQMDP the applicant shall

- Focus the assessment on emissions of nitrogen oxides (NOx), PM10 and PM2.5, (noting that it is the nitrogen dioxide (NO2) component of NOx that is of primary concern) from construction vehicles.
- Include an Air Quality (dust) risk assessment, management measures and monitoring programme
- Comply with the Mayor's SPG Control of Dust and Emissions | London City Hall and BRE four part Pollution Control Guides 'Controlling particles and noise pollution from construction sites' and BS 5228: Noise and vibration on construction and open sites
- Follow the recommendations outlined in the guidance on mitigation measures for sites set out in Appendix 7 of the Control of Dust and Emissions during Construction and Demolition SPG 2014. Both 'highly recommended' and 'desirable' measures should be included.
- Include the relevant measures set out in ES Chapter 16 (mitigation and monitoring schedule).

The development is located in an air quality focus area as such the guidance on mitigation measures for Medium Risk shall be included and include automatic dust monitoring.

The development shall thereafter proceed in accordance with the approved AQDMP.

REASON:
To manage and mitigate the impact of the development on the air quality and dust emissions in the area and London as a whole, and to avoid irreversible and unacceptable damage to the environment in accordance with London Plan (2021) Policy SI1 and Policy DM24 of the WFLP DM Polices (2013). The objectives and purposes of this condition are such that it is required to be complied with before commencement. As such, those objectives and purposes would not be met if expressed other than as a pre-commencement condition.

39 AIR QUALITY NEUTRAL

Prior to commencement of development, an Air Quality Assessment report, written in accordance with the relevant current guidance, for the existing site and proposed development shall be submitted to and approved by the Local Planning Authority. The development shall be at least 'Air Quality Neutral' and an Air Quality Neutral Assessment for both buildings and transport shall be included in the report. The assessment shall have regard to the most recent air quality predictions and monitoring results from the Authority's Review and Assessment process and London Atmospheric Emissions Inventory. The report shall include all calculations and baseline data and be set out so that the Local Planning Authority can fully audit the report and critically analyse the content and recommendations.

REASON:
To ensure that the amenities of occupiers are protected from the poor air quality in the vicinity in accordance with Policy SI 1 of the London Plan (2021), Policy CS15 of the Waltham Forest Local Plan Core Strategy (2012) and Policies DM24 and DM32 of the Waltham Forest Local Plan Development Management Policies (2013

40 EMISSIONS FROM NON-ROAD MOBILE MACHINERY (NRMM)

No NRMM shall be used on the site unless it is compliant with the NRMM Low Emission Zone requirements (or any superseding requirements) and until it has been registered for use on the site on the NRMM register (or any superseding register).

REASON
To ensure that air quality is not adversely affected by the development in line with London Plan (2021) Policy SI1 and Policy DM24 of the WFLP DM Polices (2013).

41 FLUES

No hot food catering shall take place on site until a scheme for odour management is submitted to and approved in writing by the Local Planning Authority. The scheme shall specify the fume extract arrangements. Flues must terminate at roof level or an agreed high-level location which will not give rise to nuisance to other occupiers of the building or adjacent buildings.

Proposals should incorporate high level discharge and that anything extracting at lower levels would be an exception and would need to be fully justified.

Details of the flue for the life safety generator in the Courtyard building (site 2) shall be submitted to and approved in writing by the Local Planning Authority ahead of installation. The details shall include siting and stack height and shall ensure there would be no impact on nearby residential receptors on Elm Park Road of Lea Bridge Road.

There after the development shall accord with the approve details.

REASON:
To protect amenity and ensure that air quality is not adversely affected by the development in line with London Plan (2021) Policy SI1 and Policy DM24 of the WFLP Development Management Polices (2013).

42 CONTAMINATION 1

No phase of development shall take place until a remediation strategy that includes the following components to deal with the risks associated with contamination of the site shall each be submitted to and approved, in writing, by the local planning authority:

1. A preliminary risk assessment which has identified:
   - all previous uses
   - potential contaminants associated with those uses
   - a conceptual model of the site indicating sources, pathways and receptors (including risk of contaminants reaching controlled waters via piling or any historic wells)

2. Based on (1) above to prepare a Generic Quantitative Risk Assessment, where the risk to an individual receptor (including controlled water) cannot be concluded as low, then a site investigation scheme, to provide information for a Detailed Quantitative Risk Assessment (DQRA) to all relevant receptors and for controlled water that may be affected, including those off site. The DQRA shall be informed by the results of the site investigations (including investigation into the potential location of the historical abstraction well at the earliest opportunity

during the Demolition and Construction works if earlier ground investigation does not establish its location) with consideration of the hydrogeology of the site and the degree of any existing groundwater and surface water pollution shall be carried out. The DQRA report shall be prepared by a "Competent Person" e.g. a suitably qualified hydrogeologist.

3. The results of the site investigation and the DQRA referred to in (2) and, based on these, an options appraisal and remediation and controlled water contamination prevention strategy giving full details of the remediation and contamination prevention measures required and how they are to be undertaken.

4. Prior to Occupation, a verification plan providing details of the data that will be collected in order to demonstrate that the works set out in the remediation strategy in (3) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action. The verification plan shall include proposals for a groundwater monitoring programme to encompass regular monitoring for a period before, during and after ground works e.g. monthly monitoring before, during and for at least the first quarter after completion of ground works., and then quarterly for the remaining 9-month period.

The remediation strategy shall be informed by the mitigation measures set out in ES Chapter 12 (Ground conditions and contamination) and Chapter 16 (Mitigation and Monitoring Schedule).

Any changes to these components require the express written consent of the local planning authority. The scheme shall be implemented as approved.

REASON
To ensure that the development does not contribute to, or is not put at unacceptable risk from/adversely affected by, unacceptable levels of water pollution in line with London Plan (2021) Policy SI 1; WFLP Core Strategy (2012) Policy CS7 and WFLP DMP (2013) Policy DM24. The objectives and purposes of this condition are such that it is required to be complied with before commencement. As such, those objectives and purposes would not be met if expressed other than as a pre-commencement condition.

43 CONTAMINATION 2

Prior to commencement of piling, a Foundation Works Risk Assessment to identify environmental risks associated with the preferred piling methodology and appropriate mitigation measures to ensure the Secondary A and Principal Aquifers at depth are not adversely impacted by shallow contamination shall be submitted to and approved in writing by the Local Planning Authority.

Thereafter the development shall accord with the approved Foundation Works Risk Assessment.

REASON
To ensure that the development does not contribute to, or is not put at unacceptable risk from/adversely affected by, unacceptable levels of water pollution in line with London Plan (2021) Policy SI 1; WFLP Core Strategy (2012) Policy CS7 and WFLP DMP (2013) Policy DM24.

44 VERIFICATION REPORT

Prior to occupation of each phase, a Verification Report for the relevant phase, demonstrating the completion of works set out in the approved remediation strategy and the effectiveness of the remediation for the relevant phase shall be submitted to, and approved in writing, by the local planning authority. The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met.

REASON
To ensure that the site does not pose any further risk to human health or the water environment by demonstrating that the requirements of the approved verification plan have been met and that remediation of the site is complete. This is in line with London Plan (2021) Policy SI 1; WFLP Core Strategy (2012) Policy CS7 and WFLP DMP (2013) Policy DM24.

45 PREVIOUSLY UNIDENTIFIED CONTAMINATION

If, during development, contamination not previously identified is found to be present at the site then a remediation strategy detailing how this contamination will be dealt with shall be submitted to, and approved in writing by, the local planning authority. The remediation strategy shall be implemented as approved.

REASON
No investigation can completely characterise a site. To ensure that the development does not contribute to, is not put at unacceptable risk from, or adversely affected by, unacceptable levels of water pollution from previously unidentified contamination sources at the development site. This is in line with London Plan (2021) Policy SI 1; WFLP Core Strategy (2012) Policy CS7 and WFLP DMP (2013) Policy DM24.

46 ASBESTOS

Prior to demolition either evidence shall be submitted to demonstrate that the site building(s) were built post 2000 or an intrusive pre-demolition and refurbishment asbestos survey be provided in accordance with HSG264 supported by appropriate an appropriate mitigation scheme to control risks to future occupiers.

The scheme must be written by a suitably qualified person and submitted to the Local Planning Authority (LPA) for approval, before commencement. The scheme as submitted shall demonstrably identify potential sources of asbestos contamination and detail removal or mitigation appropriate for the proposed use. Detailed working methods are not required but the scheme of mitigation shall be independently verified to the satisfaction of the LPA prior to occupation.

REASON:
To ensure that the development does not contribute to, is not put at unacceptable risk from Asbestos and to accord with London Plan (2021) Policy SI 1; WFLP Core Strategy (2012) Policy CS7 and WFLP DMP (2013) Policy DM24.

47 SAFETY AND SECURITY

1. Prior to above ground works in each phase, details of the measures to be incorporated into the development demonstrating how the development can achieve Secure by Design Certification, shall be submitted to and approved in writing by the Local Planning Authority, in consultation with the Metropolitan

Police Designing Out Crime Officers. Each relevant phase of development shall be carried out in accordance with the agreed details and maintained thereafter.

Details shall include measures relating to the entrances, including door widths, gates, entry control system, display of postal numbers and position of letter box facilities.

2. Prior to occupation of each phase and site, the development shall achieve a Certificate of Compliance to the relevant Secure by Design Guide(s) submitted to and approved in writing by the Local Planning Authority in conjunction with the Metropolitan Police.

The development shall be carried out in accordance with the approved details and thereafter shall be fully retained and maintained as such for the lifetime of the development

REASON
In the interests of safety and security and to accord with Policy D11 of the London Plan (2021), Policy CS16 of the WFLP Core Strategy (2012) and Policy DM33 of the WFLP Development Management Policies (2013).

48 CLOSED CIRCUIT TELEVISION

Prior to commencement of above ground works each phase of development a scheme for the provision of Closed Circuit Television (CCTV) for the relevant phase/relevant component of the full planning element shall be submitted to and approved in writing by the Local Planning Authority. The scheme for the provision of CCTV shall include the following:

i) Details of CCTV cameras, including type and specification;
ii) Details of the location of CCTV cameras to be mounted on and/or around the buildings, amenity areas and bicycle storage areas.

The development shall be completed in strict accordance with the approved details and thereafter maintained for the life of the development.

REASON:
In the interests of safety and security and to accord with Policy D11 of the London Plan (2021), Policy CS16 of the WFLP Core Strategy (2012) and Policy DM33 of the WFLP Development Management Policies (2013).

49 NOISE FROM PLANT

Noise from all new building services plant, shall be controlled to a level not exceeding 10dB(A) below the typical underlying background noise level (LA90) during the time of plant operation at a position one metre external to the nearest noise sensitive premises.

Prior to occupation details of noise mitigation measures to protect the proposed flat occupiers from train and vehicular traffic noise shall be submitted to and approved in writing by the Local Planning Authority.

Thereafter and prior to occupation of each relevant phase, the scheme shall be completed in accordance with the approved details.

REASON:

To ensure the new buildings in the development have adequate protection against noise and vibration from existing sources and within the development in accordance with Policy CS13 of the Waltham Forest Local Plan Core Strategy (2012) and Policies DM24 and DM32 of the Waltham Forest Local Plan Development Management Policies (2013).

50 FIRST PLANTING AND SEEDING SEASONS

All planting, seeding or turfing comprised in the approved details of landscaping shall be carried out not later than the first planting and seeding seasons prior to the first occupation of any of the residential units in the relevant phase, or the completion of that phase of the development, whichever is the sooner. Any new trees or shrubs which, within a period of 5 years from the completion of the development, die, are removed, or become seriously damaged or diseased, shall be replaced in the next planting season, with others of a similar size and species, unless the Local Planning Authority agrees any variation in writing.

REASON:
To ensure a satisfactory appearance and in the interest of local amenity and biodiversity in accordance with Policies CS15 of the Waltham Forest Local Plan Core Strategy (2012), and Policies DM23, DM32, DM35 of the Waltham Forest Local Plan Development Management Policies (2013).

51 HABITAT BOXES

Prior to the occupation of any phase of the development bird and bat boxes shall be installed into buildings in the relevant phase and shall thereafter be maintained in accordance with the approved details for the life of the development.

REASON:
In the interest of biodiversity and local amenity, in accordance with Policy CS5 of the adopted WFLP Core Strategy (2012) and Policy DM35 of the adopted WFLP Development Management Policies (2013).

52 ECOLOGY

The development shall accord with the ecological mitigation measures to protect bats and birds, improve habitats and the Sensitive Working Practices set out in ES Volume 3 Appendix Ecology (pages 20 and 21), including:

- Appointment of an ecological clerk of works.
- Bird and bat surveys undertaken by a suitable qualified and licensed ecologist.
- Minimising lighting,
- Limiting construction dust,
- Reducing construction noise,
- Appropriate disposal of waste,
- Appropriate management surface Run-off.

REASON:
To protect and enhance biodiversity and to accord with WFLP Core Strategy (2012) policy CS5 and Policy DM35 of the WFLP Development Management Policies (2013).

53 FOUL WATER AND SURFACE WATER

Prior to occupation of each phase, details of the points of connection for foul and surface water be provided as well as flow rates and discharge method (gravity or pumped) along with confirmation for the relevant phase shall be submitted to and approved in writing by the Local Planning Authority, in consultation with Thames Water, to show either:

1. Foul water and surface water infrastructure capacity exists off site to serve the development, or
2. A Development and Infrastructure Phasing Plan (DAIPP) has been agreed with the Local Authority in consultation with Thames Water. The development shall then be carried out in accordance with the approved DAIPP, or
3. All wastewater network upgrades required to accommodate the additional flows from the development have been completed.

REASON:
Network reinforcement works may be required to accommodate the proposed development. Any reinforcement works identified will be necessary in order to avoid sewage flooding and/or potential pollution incidents, and to accord with Policies CS4 and CS13 of the WFLP Core Strategy (2012) and Policies DM23, DM24 and DM34 of the WFLP Development Management Policies (2013).

54 WATER SUPPLY

Prior to occupation of each phase of development, confirmation for the relevant phase shall be submitted to and approved in writing by the Local Planning Authority, in consultation with Thames Water, to show either:

1. All water network upgrades required to accommodate the additional flows to serve the development have been completed; or
2. A Development and Infrastructure Phasing Plan (DAIPP) has been agreed with the Local Authority in consultation with Thames Water. The development shall then be carried out in accordance with the approved DAIPP.

REASON:
The development may lead to no / low water pressure and network reinforcement works are anticipated to be necessary to ensure that sufficient capacity is made available to accommodate additional demand anticipated from the new development, and to accord with Policies CS4 and CS13 of the WFLP Core Strategy (2012) and Policies DM23, DM24 and DM34 of the WFLP Development Management Policies (2013).

55 WATER MAINS

No development shall take place within 5m of the Thames Water strategic water main. Prior to commencement, information detailing how the developer intends to divert the asset / align the development, so as to prevent the potential for damage to subsurface potable water infrastructure, must be submitted to and approved in writing by the local planning authority in consultation with Thames Water.

Any construction must be undertaken in accordance with the terms of the approved information. Unrestricted access must be available at all times for the maintenance and repair of the asset during and after the construction works.

REASON:

The proposed works will be in close proximity to underground strategic water main, utility infrastructure and to accord with Policies CS4 and CS13 of the WFLP Core Strategy (2012) and Policies DM23, DM24 and DM34 of the WFLP Development Management Policies (2013). The objectives and purposes of this condition are such that it is required to be complied with before commencement. As such, those objectives and purposes would not be met if expressed other than as a pre-commencement condition.

56 SOURCE PROTECTION STRATEGY

Development here by approved shall not commence until a Source Protection Strategy detailing, how the developer intends to ensure the water abstraction source is not detrimentally affected by the proposed development both during and after its construction has been submitted to and approved by, the local planning authority in consultation with the water undertaker. The development shall be constructed in line with the recommendations of the strategy.

REASON:
To ensure that the water resource is not detrimentally affected by the development and to accord with Policies CS4 and CS13 of the WFLP Core Strategy (2012) and Policies DM23, DM24 and DM34 of the WFLP Development Management Policies (2013). The objectives and purposes of this condition are such that it is required to be complied with before commencement. As such, those objectives and purposes would not be met if expressed other than as a pre-commencement condition.

57 PILING 1

No piling shall take place until a piling method statement (detailing the depth and type of piling to be undertaken and the methodology by which such piling will be carried out, including measures to prevent and minimise the potential for damage to subsurface water infrastructure, and the programme for the works) has been submitted to and approved in writing by the local planning authority in consultation with Thames Water.

Any piling must be undertaken in accordance with the terms of the approved piling method statement.

REASON:
The proposed works will be in close proximity to underground water utility infrastructure. Piling has the potential to impact on local underground water utility infrastructure. And to accord with Policies CS4 and CS13 of the WFLP Core Strategy (2012) and Policies DM23, DM24 and DM34 of the WFLP Development Management Policies (2013). The objectives and purposes of this condition are such that it is required to be complied with before commencement. As such, those objectives and purposes would not be met if expressed other than as a pre-commencement condition.

58 BOUNDARY TREATMENT

Prior to the construction of roof slab level, details relating to the siting, design and height and finish of all new walls, gates, fencing, railings and other means of enclosure shall be submitted to and approved in writing by the Local Planning Authority. The development shall be carried out solely in accordance with the approved details, prior to the first occupation of the use hereby approved and

thereafter shall be fully retained and maintained accordingly for the lifetime of the development.

REASON:
In the interest of general visual amenity, and amenity of neighbouring occupants, in accordance with Policies CS13 and CS15 of the adopted Waltham Forest Local Plan – Core Strategy (2012) and Policies DM29 and DM32 of the adopted Waltham Forest Local Plan – Development Management Policies (2013).

Informatives

1. To assist applicants the Local Planning Authority has produced policies and written guidance, all of which is available on the Council's website and which offers a pre planning application advice service. The scheme was submitted in accordance with guidance following pre application discussions and the decision was delivered in a timely manner.

2. DEFINITION OF 'ABOVE GROUND WORKS' AND 'PRACTICAL COMPLETION'

   A number of conditions attached to this permission have the time restrictions 'prior to above ground works commencing on site' and/or 'following practical completion'. The council considers the definition of 'above ground works' as having its normal or dictionary meaning, which is: the part of a building above its foundations. The council considers the definition of 'practical completion' to be: when the work reaches a state of readiness for use or occupation even though there may be outstanding works/matters to be carried out.

3. Construction and demolition works audible beyond the boundary of the site should only be carried out between the hours of 0800 and 1800 hours Mondays to Fridays and 0800 and 1300 hours on Saturdays, and not at all on Sundays or Public/Bank Holidays.

4. You are advised that in relation to condition 3, the Council expects a full review of the strategy for the design of and materials to be used on elevations (i.e. not illustrative detail).

5. The submitted Construction Environmental Management Plan shall include details of:
   - Site hoarding
   - Wheel washing
   - Dust suppression methods and kit to be used
   - Bonfire policy
   - Confirmation that all Non Road Mobile Machinery (NRMM) comply with the Non Road Mobile Machinery (Emission of Gaseous and Particulate Pollutants) Regulations 1999
   - Confirmation if a mobile crusher will be used on site and if so, a copy of the permit and indented dates of operation

- Site plan identifying location of site entrance, exit, wheel washing, hoarding, dust suppression, location of water supplies and location of nearest neighbouring receptors
- Copy of an asbestos survey.
- Unexploded Ordnance Survey

6. The proposed demolition of existing structures and redevelopment of three land parcels poses risks to Network Rail, and will necessitate an agreement with ASPRO via a Basic Asset Protection Agreement.

7. You are advised of the potential for there to be buried services crossing under the railway tracks. Some of the services may be owned by Network Rail or Statutory Utilities that may have entered into a contract with Network Rail. It is the responsibility of the Network Rail operative to undertake detailed services survey to locate the position, type of services, identifying any buried services within the vicinity of the proposed works. Confirmation of such services will be discussed with the Senior Asset Protection Engineer (SAPE) to obtain clarification of asset owner. The SAPE will confirm and specify what protection measures along with cost, including re-locating/termination (if possible), including additional any other asset protection measures to be implemented by the OP.

8. The application is subject to both the Mayoral and the Waltham Forest Council Community Infrastructure Levy.

9. A phase of development relates to a phase defined by planning condition (Phasing and CIL condition), or any subsequent construction sub-phase agreed with the Local Planning Authority.

10. Circular Economy - The applicant is required to submit a Post Completion Report to the relevant local authority and the GLA at ce&wastestatement@london.gov.uk.

11. Written schemes of investigation will need to be prepared and implemented by a suitably qualified professionally accredited archaeological practice in accordance with Historic England's Guidelines for Archaeological Projects in Greater London. This condition is exempt from deemed discharge under schedule 6 of The Town and Country Planning (Development Management Procedure) (England) Order 2015.

12. It is the developer's responsibility to ensure all signage associated with the proposed development i.e. street nameplates, building names and door numbers are erected prior to occupation, as agreed with the Councils Street Naming/Numbering Officer.

13. For information on the NRMM Low Emission Zone requirements and to register NRMM, please visit "http://nrmm.london/".

14. The AQDMP can form part of the Construction Environmental Management Plan (CEMP). The AQDMP shall include the following for each relevant phase of work (demolition, earthworks, construction and trackout):
    a) A summary of work to be carried out;
    b) Proposed haul routes, location of site equipment including supply of water for damping down, source of water, drainage and enclosed areas to prevent contaminated water leaving the site;

c) Inventory and timetable of all dust and NOx air pollutant generating activities;
d) List of all dust and emission control methods to be employed and how they relate to the Air Quality (Dust) Risk Assessment;
e) Details of any fuel stored on-site;
f) Details of a trained and responsible person on-site for air quality (with knowledge of pollution monitoring and control methods, and vehicle emissions);
g) Summary of monitoring protocols and agreed procedure of notification to the local authority; and
h) A log book for action taken in response to incidents or dust-causing episodes and the mitigation measure taken to remedy any harm caused, and measures employed to prevent a similar incident reoccurring.

PM10 Dust monitoring should be carried out on site. Baseline monitoring should commence before the commencement of works and continue throughout all construction phases. Details of the equipment to be used, its positioning, additional mitigation to be employed during high pollution episodes and a proposed alert system should be submitted to the Council for approval.

No demolition or development shall commence until all necessary pre-commencement measures described in the AQDMP have been put in place and set out on site. The demolition and development shall thereafter be carried out and monitored in accordance with the details and measures approved in the AQDMP. The IAQM "Guidance on Air Quality Monitoring in the Vicinity of Demolition and Construction Sites" details appropriate monitoring for the scale of the site or project.

15. In relation to odour management, the Council provides the following advice:

- The design of an odour control system needs to any 'kitchen' exhaust; particulate (grease, smoke, hydrocarbons/VOCs) and gaseous (odour). The design requires an adequate level of particulate and odour control but also stack dispersion. Overall performance will be based on the arrestment plant and where the system discharges. As a rule, the more complicated the arrestment plant the more onerous the future maintenance (required to ensure it continues to work effectively).
- Dispersion through stacks increases initial atmospheric mixing and spread. Stacks are inherently simple and in effect this simplicity provides a reliable and lower input method of mitigating odour with less maintenance and management. Well-designed stack dispersion can even allow for some short-term reduction in the performance of any odour abatement plant. For these reasons high-level dispersion is always advocated where practicable. Optimising stack height and dispersion arrangements should be one of the first design decisions.
- Where suitable high-level dispersion is not possible a much higher level of odour abatement plant will be required; this is likely to be expensive and require a significant commitment to ongoing maintenance.

16. The applicant must seek the advice of the Metropolitan Police Service Designing Out Crime Officers (DOCOs). The services of MPS DOCOs are available free of charge and can be contacted via docomailbox.ne@met.police.uk or 0208 217 3813.

17. In relation to CCTV, the strategy should be informed by comments of the Met Police, which are set out below:

    Data logging and CCTV will needed to mitigate the permeability of the site. A CCTV strategy for the site should be discussed with the Met Police at the earliest. This should be installed to BS EN 50132-7:2012+A1:2013 standard, co-ordinate with the planned lighting system, contained within vandal resistant housing, to record images of evidential quality (including at night time) that are stored for a minimum of 30 days on a locked and secure hard drive or a remote cloud system. Appropriate signage should also be included highlighting its use.

18. In relation to cycle storage the strategy should be informed by the comments of the Met Police, which are set out below:

    Bike stores/hire lockers should be robust in design, be in areas covered by data logging CCTV. Access should only be granted to those who register their bikes to the relevant bike store and should be block/building/use-type specific to avoid a resident/visitor having access to staff bikes. Bike stands should have three points of locking and signage put up advising people to lock them securely. External signage should not advertise the usage of bike stores to try and reduce theft.

19. The Metropolitan Police provided detailed comments safety and security This information has been provided to the Applicant. You are advised to consider the advice in detail ahead of preparing condition discharge applications

20. In relation to conditions relating to foul and surface water drainage infrastructure you are advised that you can request information to support the discharge of this condition by visiting the Thames Water website at thameswater.co.uk/preplanning.

21. There are public sewers crossing or close to the development. If you're planning significant work near Thames Water sewers, it's important that you minimize the risk of damage. We'll need to check that your development doesn't limit repair or maintenance activities, or inhibit the services we provide in any other way. The applicant is advised to read our guide working near or diverting our pipes. https://developers.thameswater.co.uk/Developing-a-large-site/Planning-your-development/Working-near-or-diverting-our-pipes

22. The proposed development is located within 15 metres of Thames Waters underground assets and as such, the development could cause the assets to fail if appropriate measures are not taken. Please read our guide 'working near our assets' to ensure your workings are in line with the necessary processes you need to follow if you're considering working above or near our pipes or other structures.https://developers.thameswater.co.uk/Developing-a-large-site/Planning-your-development/Working-near-or-diverting-our-pipes. Should you require further information please contact Thames Water. Email: developer.services@thameswater.co.uk Phone: 0800 009 3921 (Monday to Friday, 8am to 5pm) Write to: Thames Water Developer Services, Clearwater Court, Vastern Road, Reading, Berkshire RG1 8DB.

23. There are water mains crossing or close to your development. Thames Water do NOT permit the building over or construction within 3m of water mains. If you're planning significant works near our mains (within 3m) we'll need to check that your development doesn't reduce capacity, limit repair or maintenance activities during and after construction, or inhibit the services we provide in any other way. The applicant is advised to read our guide working near or diverting our pipes.

https://developers.thameswater.co.uk/Developing-a-large-site/Planning-your-development/Working-near-or-diverting-our-pipes

24. Piling has the potential to impact on local underground water utility infrastructure. Please read our guide 'working near our assets 2' to ensure your workings will be in line with the necessary processes you need to follow if you're considering working above or near our pipes or other structures. https://developers.thameswater.co.uk/Developing-a-large-site/Planning-your-development/Working-near-or-diverting-our-pipes

    Should you require further information please contact Thames Water. Email: developer.services@thameswater.co.uk Tel: 0800 009 3921

25. As you are redeveloping a site, there may be public sewers crossing or close to your development. If you discover a sewer, it's important that you minimize the risk of damage. We'll need to check that your development doesn't limit repair or maintenance activities, or inhibit the services we provide in any other way. The applicant is advised to read our guide working near or diverting our pipes.

26. A Trade Effluent Consent will be required for any Effluent discharge other than a 'Domestic Discharge'. Any discharge without this consent is illegal and may result in prosecution. (Domestic usage for example includes - toilets, showers, washbasins, baths, private swimming pools and canteens). Typical Trade Effluent processes include: - Laundrette/Laundry, PCB manufacture, commercial swimming pools, photographic/printing, food preparation, abattoir, farm wastes, vehicle washing, metal plating/finishing, cattle market wash down, chemical manufacture, treated cooling water and any other process which produces contaminated water. Pre-treatment, separate metering, sampling access etc may be required before the Company can give its consent. Applications should be made at https://wholesale.thameswater.co.uk/Wholesale-services/Business-customers/Trade-effluent or alternatively to Waste Water Quality, Crossness STW, Belvedere Road, Abbeywood, London. SE2 9AQ. Telephone: 020 3577 9200.

27. Thames Water would recommend that petrol / oil interceptors be fitted in all car parking/washing/repair facilities. Failure to enforce the effective use of petrol / oil interceptors could result in oil-polluted discharges entering local watercourses.

28. As per Building regulations part H paragraph 2.21, Drainage serving kitchens in commercial hot food premises should be fitted with a grease separator complying with BS EN 1825-:2004 and designed in accordance with BS EN 1825-2:2002 or other effective means of grease removal. Thames Water further recommend, in line with best practice for the disposal of Fats, Oils and Grease, the collection of waste oil by a contractor, particularly to recycle for the production of bio diesel. Failure to implement these recommendations may result in this and other properties suffering blocked drains, sewage flooding and pollution to local watercourses. Please refer to our website for further information : www.thameswater.co.uk/help

29. The development has the potential to impact on local underground water utility infrastructure. Please read our guide 'working near our assets' to ensure your workings will be in line with the necessary processes you need to follow if you're considering working above or near our pipes or other structures. https://developers.thameswater.co.uk/Developing-a-large-site/Planning-your-development/Working-near-or-diverting-our-pipes Should you require further information please contact Thames Water. Email: developer.services@thameswater.co.uk

30. To the south of the site are easement and wayleaves. On the Map yellow dashed lines show the easements and wayleaves and the proposed development area is identified by a red outlined box. The company will seek assurances that it will not be affected by the proposed development. The applicant should contact Thames Water to discuss their proposed development in more detail. All enquiries from developers in relation to proposed developments should be made to Thames Waters Developer Services team. Their contact details are as follows:

    Thames Water Developer Services Reading Mail Room
    Rose Kiln Court
    Rose Kiln Lane
    Reading RG2 0BY
    Tel: 0800 009 3921 Email: developer.services@thameswater.co.uk

31. You are advised that the Environment Agency (EA) recommend that the requirements of the National Planning Policy Framework and National Planning Policy Guidance are followed. This means that all risks to groundwater and surface waters from contamination need to be identified so that appropriate remedial action can be taken. The EA expect reports and Risk Assessments to be prepared in line with their Approach to Groundwater protection (commonly referred to as GP3) and the updated guide Land contamination: risk management (LCRM). LCRM is an update to the Model procedures for the management of land contamination (CLR11), which was archived in 2016.

32. The applicant should refer to the following (non-exhaustive) list of sources of information and advice in dealing with land affected by contamination, especially with respect to protection of the groundwater beneath the site:

    1. Follow the risk management framework provided in the updated guide LCRM, when dealing with land affected by contamination.
    2. Refer to the Environment Agency Guiding principles for land contamination for the type of information we require in order to assess risks to controlled waters from the site. The Local Planning Authority can advise on risk to other receptors, such as human health.
    3. Consider using the National Quality Mark Scheme for Land Contamination Management which involves the use of competent persons to ensure that land contamination risks are appropriately managed. The Planning Practice Guidance defines a "Competent Person" (to prepare site investigation information) as: “A person with a recognised relevant qualification, sufficient experience in dealing with the type(s) of pollution or land instability, and membership of a relevant professional organisation." For this definition and more please see here.
    4. Refer to the contaminated land pages on Gov.uk for more information.
    5. We expect the site investigations to be carried out in accordance with best practice guidance for site investigations on land affected by contamination e.g. British Standards when investigating potentially contaminated sites

33. A Detailed Quantitative Risk Assessment (DQRA) for controlled waters using the results of the site investigations with consideration of the hydrogeology of the site and the degree of any existing groundwater and surface water pollution should be carried out. This increased provision of information by the applicant reflects the potentially greater risk to the water environment. The DQRA report should be prepared by a “Competent Person” e.g. a suitably qualified hydrogeologist. More

guidance on this can be found at: https://sobra.org.uk/accreditation/register-of-sobra-risk-assesors/.

34. Following the DQRA, a Remediation Options Appraisal should be completed to determine the Remediation Strategy, in accordance with the updated guide LCRM.

35. The verification plan should include proposals for a groundwater monitoring programme to encompass regular monitoring for a period before, during and after ground works e.g. monthly monitoring before, during and for at least the first quarter after completion of ground works, and then quarterly for the remaining 9-month period. The verification report should be undertaken in accordance with in our guidance Verification of Remediation of Land Contamination.

36. In relation to the Construction Logistics Plan and liaison with local businesses, you are advised that this shall include the Argall BID and Capital Industrial.

Appendix 1. Daylight

Details				VSC			DD			
Address, floor, Room ref	Dwelling	Room use	Window ref	Existing %	Proposed %	Reduction %	Room Area sqm	Existing DD sqm	Proposed DD	Reduction %
Motion Block F and G										
F01										
R1	136	Bed	W1	8	6	21%	13	5	3	45%
R2	137	Bed	W2	11	7	35%	13	9	9	3%
			W3	10	5	48%				
R3	137	LKD	W4	10	5	44%	25	25	25	0.3%
			W5	39	25	35%				
R4	137	Bed	W6	39	25	35%	12	12	12	1%
R5	133	Bed	W7	39	25	34%	14	14	14	1%
			W8	8	8	6%				
R6	133	LKD	W9	16	10	36%	24	24	24	1%
			W10	8	8	2%				
R7	134	LKD	W11	8	5	41%	27	27	27	1%
			W22	19	19	0%				
R8		LKD	W12	9	4	52%	30	19	18	4%
R9	191	Bed	W13	10	5	53%	13	9	7	26%
			W14	10	5	46%				
R10	191	LKD	W15	10	5	47%	25	25	25	0.2%
			W16	39	28	N/A				
R13	192	LKD	W20	16	13	22%	24	24	24	0.0%
			W21	32	32	N/A				
F02										
R1	141	Bed	W1	9	7	19%	13	5	3	44%
R2	142	Bed	W2	11	8	33%	13	9	9	3%
			W3	10	5	48%				
R3	142	LKD	W4	10	5	44%	25	25	25	0.2%
			W5	39	25	35%				
R4	142	Bed	W6	39	25	35%	12	12	12	1%
R5	138	Bed	W7	39	26	34%	14	14	14	1%
			W8	8	8	6%				
R6	138	LKD	W9	16	10	36%	24	24	24	1%
			W10	9	8	2%				
R7	139	LKD	W11	8	5	41%	27	27	27	1%
			W22	22	22	0%				
R8		LKD	W12	9	4	52%	30	19	18	4%
R9	195	Bed	W13	10	5	53%	13	9	7	26%

Details				VSC			DD			
Address, floor, Room ref	Dwelling	Room use	Window ref	Existing %	Proposed %	Reduction %	Room Area sqm	Existing DD sqm	Proposed DD	Reduction %
			W14	10	5	46%				
R10	195	LKD	W15	10	5	47%	25	25	25	0%
			W16	39	28	N/A				
R13	196	LKD	W20	17	13	22%	24	24	24	0%
			W21	37	37	N/A				
F03										
R1	146	Bed	W1	9	8	18%	13	5	3	43%
R2	147	Bed	W2	12	8	31%	13	9	9	3%
			W3	10	5	48%				
R3	147	LKD	W4	10	6	43%	25	25	25	0%
			W5	39	26	34%				
R4	147	Bed	W6	39	26	34%	12	12	12	1%
R5	143	Bed	W7	39	26	34%	14	14	14	1%
			W8	8	8	6%				
R6	143	LKD	W9	16	10	36%	24	24	24	1%
			W10	9	9	2%				
R7	144	LKD	W11	8	5	41%	27	27	27	1%
			W22	25	25	0%				
R8		LKD	W12	9	4	52%	30	19	18	4%
R9	199	Bed	W13	10	5	52%	13	9	7	26%
			W14	10	6	44%				
R10	199	LKD	W15	10	5	47%	25	25	25	0%
			W16	39	28	N/A				
R13	200	LKD	W20	17	13	21%	24	24	24	0%
			W21	39	39	N/A				
F04										
R1	151	Bed	W1	10	9	16%	13	5	3	41%
R2	152	Bed	W2	13	9	29%	13	9	9	3%
			W3	10	5	47%				
R3	152	LKD	W4	10	6	42%	25	25	25	0%
			W5	39	26	34%				
R4	152	Bed	W6	39	26	34%	12	12	12	1%
R5	148	Bed	W7	39	26	33%	14	14	14	1%
			W8	8	8	6%				
R6	148	LKD	W9	16	10	36%	24	24	24	1%
			W10	10	9	2%				
R7	149	LKD	W11	17	11	32%	27	27	27	1%
			W22	28	28	N/A				

Details				VSC			DD			
Address, floor, Room ref	Dwelling	Room use	Window ref	Existing %	Proposed %	Reduction %	Room Area sqm	Existing DD sqm	Proposed DD	Reduction %
R8		LKD	W12	18	10	43%	30	19	19	3%
R9	203	Bed	W13	10	5	52%	13	9	7	25%
			W14	11	6	40%				
R10	203	LKD	W15	10	5	47%	25	25	25	0%
			W16	39	28	N/A				
R13	204	LKD	W20	17	13	21%	24	24	24	0%
			W21	39	39	N/A				
F05										
R1	155	Bed	W1	11	10	14%	13	5	3	40%
R2	156	Bed	W2	14	10	26%	13	9	9	3%
			W3	10	5	47%				
R3	156	LKD	W4	10	6	42%	25	25	25	0%
			W5	39	26	33%				
R4	156	Bed	W6	39	26	33%	12	12	12	1%
R5	153	Bed	W7	39	26	33%	14	14	14	1%
			W8	8	8	6%				
R6	153	LKD	W9	16	10	36%	29	28	28	1%
			W10	11	11	2%				
R7	207	Bed	W11	10	5	51%	13	9	7	25%
			W12	12	8	34%				
R8	207	LKD	W13	10	5	46%	25	25	25	0%
			W14	39	29	N/A				
R11	208	LKD	W18	17	13	21%	24	24	24	0%
			W19	39	39	N/A				
R12	210	Bed	W20	9	7	29%	13	5	5	10%
F06										
R1	159	Bed	W1	13	11	13%	13	6	3	39%
R2	160	Bed	W2	15	11	24%	13	9	9	3%
			W3	10	5	46%				
R3	160	LKD	W4	10	6	41%	25	24	24	1%
			W5	39	27	32%				
R4	160	Bed	W6	39	26	32%	12	12	12	1%
R5	157	Bed	W7	39	26	32%	14	14	14	1%
			W8	8	8	6%				
R6	157	LKD	W9	16	10	36%	29	28	28	1%
			W10	12	11	2%				
R7	211	Bed	W11	10	5	51%	13	10	7	25%
			W12	12	8	33%				

Details				VSC			DD			
Address, floor, Room ref	Dwelling	Room use	Window ref	Existing %	Proposed %	Reduction %	Room Area sqm	Existing DD sqm	Proposed DD	Reduction %
R8	211	LKD	W13	10	5	46%	25	25	25	0%
			W14	39	29	N/A				
R11	212	LKD	W18	17	13	21%	24	24	24	0%
			W19	39	39	N/A				
R12	214	Bed	W20	10	7	27%	13	5	5	10%
F07										
R1	163	Bed	W1	14	12	11%	13	6	4	36%
R2	164	Bed	W2	16	13	21%	13	9	9	3%
			W3	10	6	44%				
R3	164	LKD	W4	10	6	40%	25	25	25	0%
			W5	39	26	32%				
R4	164	Bed	W6	39	27	32%	12	12	12	1%
R5	161	Bed	W7	39	27	31%	14	14	14	1%
			W8	8	8	6%				
R6	161	LKD	W9	17	11	36%	29	28	28	1%
			W10	12	12	2%				
R7	215	Bed	W11	10	5	50%	13	10	7	23%
			W13	13	9	31%				
R8	215	LKD	W12	10	5	46%	25	25	25	0%
			W14	39	29	N/A				
R11	216	LKD	W18	17	13	21%	24	24	24	0%
			W19	39	39	N/A				
R12	218	Bed	W20	10	8	25%	13	5	5	9%
F08										
R1	167	Bed	W1	16	15	9%	13	6	4	34%
R3	168	LKD	W3	11	7	39%	25	24	24	0%
			W4	39	27	31%				
R4	168	Bed	W5	39	27	31%	12	12	12	1%
R6	165	LKD	W8	16	10	36%	29	28	28	1%
			W9	12	12	1%				
R7	219	Bed	W10	14	10	28%	13	9	7	23%
			W11	10	5	50%				
R8	219	LKD	W12	10	5	46%	25	25	25	0%
			W13	39	30	N/A				
R11	220	LKD	W17	17	13	21%	29	29	29	0%
			W18	39	39	N/A				
R12	222	Bed	W19	11	9	23%	13	5	5	9%
F09										

Details				VSC			DD			
Address, floor, Room ref	Dwelling	Room use	Window ref	Existing %	Proposed %	Reduction %	Room Area sqm	Existing DD sqm	Proposed DD	Reduction %
R1	171	Bed	W1	20	19	7%	13	7	5	26%
R3	172	LKD	W3	16	12	29%	25	25	25	0%
			W5	39	27	N/A				
R6	169	LKD	W8	16	10	36%	29	28	28	1%
			W9	13	13	1%				
R7	223	Bed	W10	15	11	26%	13	9	7	22%
			W11	10	5	49%				
R8	223	LKD	W12	10	5	45%	25	24	24	0%
			W13	39	30	N/A				
R11	224	LKD	W17	17	13	21%	29	29	29	0%
			W18	39	39	N/A				
F10										
R3	176	LKD	W3	19	15	23%	24	23	23	0%
			W4	39	28	N/A				
R6	173	LKD	W8	16	10	36%	29	28	28	1%
			W9	14	13	1%				
R7	227	Bed	W10	16	12	23%	13	9	8	19%
			W11	10	5	48%				
R8	227	LKD	W12	10	6	43%	25	25	25	0%
			W14	39	30	N/A				
R11	228	LKD	W17	17	13	21%	29	29	29	0%
			W18	39	39	N/A				
F11										
R5	177	LKD	W7	16	10	36%	29	28	28	1%
			W8	15	14	1%				
R6	231	LKD	W9	11	7	39%	25	24	24	0%
			W11	39	30	N/A				
R7	231	Bed	W10	18	15	19%	13	8	6	22%
R10	232	LKD	W15	17	13	21%	29	29	29	0%
			W16	39	39	N/A				
F12										
R5	181	LKD	W7	16	10	36%	29	28	28	1%
			W8	16	16	1%				
R6	235	LKD	W9	16	11	31%	25	25	25	0%
			W12	39	30	N/A				
R10	236	LKD	W15	17	13	21%	29	29	29	0%
			W16	39	39	N/A				
F13										

Details				VSC			DD			
Address, floor, Room ref	Dwelling	Room use	Window ref	Existing %	Proposed %	Reduction %	Room Area sqm	Existing DD sqm	Proposed DD	Reduction %
R5	185	LKD	W7	17	11	36%	42	42	41	1%
			W8	18	18	1%				
			W18	16	16	1%				
R7	239	LKD	W10	19	14	26%	24	23	23	0%
			W11	39	31	N/A				
R10	240	LKD	W15	17	13	21%	29	29	29	0%
			W16	39	39	N/A				
F14										
R5	188	LKD	W7	22	16	27%	42	42	41	1%
			W8	20	20	1%				
			W17	18	18	1%				
R7	243	LKD	W10	23	18	21%	28	28	28	0%
			W11	39	32	N/A				
R9	244	LKD	W14	16	13	21%	29	29	29	0%
			W15	39	39	N/A				
F15										
R4	248	LKD	W6	16	13	21%	29	29	29	0%
			W7	39	39	N/A				
F16										
R4	252	LKD	W6	17	13	21%	42	42	42	0%
			W7	39	39	N/A				
			W8	39	39	N/A				
Motion Block E										
F01										
R1	93	Bed	W1	10	9	6%	12	9	8	9%
			W2	7	4	38%				
R2	93	LKD	W3	7	5	34%	27	27	27	2%
			W4	38	24	37%				
R3	93	Bed	W5	38	23	40%	13	13	12	7%
R4	94	Bed	W6	38	23	41%	13	13	12	5%
			W7	11	5	54%				
R5	94	LKD	W8	17	7	62%	25	25	25	0.2%
			W9	39	25	36%				
R6	94	Bed	W10	39	25	35%	12	12	12	1%
R7	91	Bed	W11	39	25	35%	14	14	14	0.1%
			W12	8	6	29%				
R8	91	LKD	W13	16	10	40%	29	28	28	0.5%
			W14	11	9	22%				

Details				VSC			DD			
Address, floor, Room ref	Dwelling	Room use	Window ref	Existing %	Proposed %	Reduction %	Room Area sqm	Existing DD sqm	Proposed DD	Reduction %
F02										
R1	97	Bed	W1	8	5	32%	12	9	9	1%
			W50	16	15	3%				
R2	97	LKD	W2	8	6	25%	27	27	27	1%
			W3	39	26	34%				
R3	97	Bed	W4	39	25	37%	13	13	12	6%
R4	98	Bed	W5	39	24	38%	13	13	12	4%
			W6	11	5	53%				
R5	98	LKD	W7	17	7	60%	25	25	25	0%
			W8	39	25	35%				
R6	98	Bed	W9	39	26	35%	12	12	12	1%
R7	95	Bed	W10	39	25	35%	14	14	14	0%
			W11	8	6	29%				
R8	95	LKD	W12	16	10	40%	29	28	28	0%
			W13	11	9	21%				
F03										
R1	101	Bed	W1	9	7	22%	12	10	10	0%
			W50	24	24	1%				
R3	101	Bed	W4	39	26	33%	13	13	12	6%
R4	102	Bed	W5	39	25	35%	13	13	12	4%
			W6	11	5	52%				
R5	102	LKD	W7	17	7	58%	25	25	25	0%
			W8	39	26	34%				
R6	102	Bed	W9	39	26	34%	12	12	12	1%
R7	99	Bed	W10	39	26	34%	14	14	14	0%
			W11	8	6	29%				
R8	99	LKD	W12	16	10	40%	29	28	28	0%
			W13	11	9	20%				
F04										
R4	106	Bed	W5	39	27	32%	13	13	12	4%
			W6	11	5	51%				
R5	106	LKD	W7	17	8	56%	25	25	25	0%
			W8	39	26	34%				
R6	106	Bed	W9	39	26	33%	12	12	12	1%
R7	103	Bed	W10	39	26	33%	14	14	14	0%

Details					VSC		DD			
Address, floor, Room ref	Dwelling	Room use	Window ref	Existing %	Proposed %	Reduction %	Room Area sqm	Existing DD sqm	Proposed DD	Reduction %
			W11	8	6	29%				
R8	103	LKD	W12	16	10	40%	29	28	28	0%
			W13	12	10	19%				
F05										
R5	110	LKD	W6	19	9	52%	25	25	25	0%
			W7	39	26	33%				
R6	110	Bed	W8	39	26	33%	12	12	12	0%
R7	107	Bed	W9	39	27	32%	14	14	14	0%
			W10	8	6	29%				
R8	107	LKD	W11	16	10	40%	29	28	28	0%
			W12	12	10	19%				
F06										
R5	114	LKD	W6	25	15	41%	25	25	25	0%
			W7	39	26	32%				
R6	114	Bed	W8	39	27	32%	12	12	12	0%
R7	111	Bed	W9	39	27	32%	14	14	14	0%
			W10	8	6	29%				
R8	111	LKD	W11	16	10	40%	29	28	28	0%
			W12	13	11	18%				
F07										
R5	118	LKD	W6	25	16	37%	24	24	23	1%
			W7	39	27	N/A				
R7	115	Bed	W9	39	27	N/A	14	14	14	0%
			W10	8	6	29%				
R8	115	LKD	W11	16	10	40%	29	28	28	0%
			W12	14	11	16%				
F08										
R5	122	LKD	W6	25	17	33%	28	28	28	0%
			W7	39	27	N/A				
R6	119	Bed	W8	39	27	N/A	14	14	14	0%
			W9	8	6	29%				
R7	119	LKD	W10	16	10	40%	29	28	28	1%
			W11	15	12	15%				

Details				VSC			DD			
Address, floor, Room ref	Dwelling	Room use	Window ref	Existing %	Proposed %	Reduction %	Room Area sqm	Existing DD sqm	Proposed DD	Reduction %
F09										
R5	126	LKD	W6	24	16	30%	26	26	26	0%
			W7	39	28	N/A				
R6	123	Bed	W8	39	28	N/A	14	14	14	0%
			W9	8	6	29%				
R7	123	LKD	W10	16	10	40%	29	28	28	1%
			W11	16	14	13%				
F10										
R5	129	LKD	W6	25	19	25%	32	32	32	0%
			W7	39	28	N/A				
R6	129	Bed	W8	39	28	N/A	17	17	17	0%
			W9	8	6	28%				
R7	127	LKD	W10	17	10	40%	42	42	40	3%
			W11	18	16	12%				
			W12	16	14	11%				
F11										
R7	130	LKD	W10	22	15	30%	42	42	41	2%
			W11	20	18	10%				
			W12	18	17	10%				
Motion Block C and D										
F01										
R1	42	LKD	W1	38	38	N/A	24	23	23	0%
			W2	16	10	35%				
R3	43	studio	W5	14	7	50%	29	28	26	7%
			W6	38	28	N/A				
R4	44	Bed	W7	38	27	N/A	12	12	9	22%
			W8	8	3	63%				
R5	44	LKD	W9	15	6	62%	23	23	15	36%
R6	39	LKD	W10	12	5	58%	27	27	12	55%
R7	66	LKD	W11	13	5	59%	27	27	23	16%
R8	67	LKD	W12	15	7	55%	23	23	21	9%
R9	67	Bed	W13	8	6	32%	12	12	12	0%
			W14	38	27	N/A				
R10	68	studio	W15	38	27	N/A	29	28	26	6%

Details				VSC			DD			
Address, floor, Room ref	Dwelling	Room use	Window ref	Existing %	Proposed %	Reduction %	Room Area sqm	Existing DD sqm	Proposed DD	Reduction %
			W16	10	3	65%				
R11	69	Bed	W17	39	27	N/A	12	12	12	1%
			W18	8	2	73%				
R12	69	LKD	W19	15	7	52%	23	23	20	10%
R13	63	LKD	W20	16	7	57%	27	27	23	14%
			W21	7	4	41%				
			W22	4	2	41%				
F02										
R1	48	LKD	W1	39	39	N/A	24	23	23	0%
			W2	17	13	24%				
R3	49	studio	W5	14	9	36%	29	28	27	4%
			W6	39	31	N/A				
R4	50	Bed	W7	39	30	N/A	12	12	10	15%
			W8	8	4	58%				
R5	50	LKD	W9	15	8	48%	23	23	15	32%
R6	45	LKD	W10	15	8	44%	27	27	17	37%
R7	73	LKD	W11	15	8	48%	27	27	23	14%
R8	74	LKD	W12	15	9	44%	23	23	21	7%
R9	74	Bed	W13	9	7	24%	12	12	12	0%
			W14	39	30	N/A				
R10	75	studio	W15	39	30	N/A	29	28	28	0%
			W16	10	5	54%				
R11	76	Bed	W17	39	29	N/A	12	12	12	0%
			W18	8	3	70%				
R12	76	LKD	W19	15	8	45%	23	23	21	6%
R13	70	LKD	W20	17	8	51%	27	27	24	11%
			W21	8	5	37%				
			W22	4	3	37%				
F03										
R3	55	studio	W5	15	11	21%	29	28	28	0%
			W6	39	33	N/A				
R4	56	Bed	W7	39	33	N/A	12	12	12	0%
			W8	8	4	52%				
R5	56	LKD	W9	15	10	34%	23	23	18	23%
R6	51	LKD	W10	13	9	30%	27	27	17	38%
R7	80	LKD	W11	13	8	37%	27	27	25	9%

Details				VSC			DD			
Address, floor, Room ref	Dwelling	Room use	Window ref	Existing %	Proposed %	Reduction %	Room Area sqm	Existing DD sqm	Proposed DD	Reduction %
R8	81	LKD	W12	16	10	33%	23	23	23	1%
R10	82	studio	W15	39	32	N/A	29	28	28	0%
			W16	10	6	43%				
R11	83	Bed	W17	39	31	N/A	12	12	12	0%
			W18	8	3	66%				
R12	83	LKD	W19	15	10	38%	23	23	22	2%
R13	77	LKD	W20	17	9	45%	27	27	25	5%
			W21	8	5	34%				
			W22	4	3	32%				
F04										
R4	62	Bed	W7	39	35	N/A	12	12	12	0%
			W8	8	5	46%				
R5	62	LKD	W9	15	12	22%	23	23	23	0%
R7	87	LKD	W11	15	11	25%	27	27	27	0%
R8	88	LKD	W12	16	12	22%	23	23	23	0%
R10	89	studio	W15	39	33	N/A	29	28	28	0%
			W16	10	7	33%				
R11	90	Bed	W17	39	32	N/A	12	12	12	0%
			W18	8	3	62%				
R12	90	LKD	W19	15	10	32%	23	23	22	1%
R13	84	LKD	W20	17	10	39%	27	27	27	0%
			W21	8	6	30%				
			W22	5	3	27%				
160 Lea Bridge Road										
F01										
R2		unknown	W3	30	30	N/A	20	19	19	0%
			W4	35	26	27%				
2 Elm Park Road										
F00										
R1		unknown	W1	29	11	63%	9	9	2	73%
R2		unknown	W2	32	11	67%	8	8	2	71%
F01										
R1		unknown	W1	34	15	57%	7	7	3	58%
R2		Bed	W2	31	16	50%	9	9	5	44%
4 Elm Park Road										
F00										
R1		Kitchen	W1	30	10	69%	9	9	9	3%

Details				VSC			DD			
Address, floor, Room ref	Dwelling	Room use	Window ref	Existing %	Proposed %	Reduction %	Room Area sqm	Existing DD sqm	Proposed DD	Reduction %
			W2	33	10	68%				
			W3	82	64	N/A				
F01										
R1		Bed	W1	23	16	30%	8	7	5	29%
R2		unknown	W3	34	17	51%	7	7	3	58%
F02										
R1		Bed	W1	32	22	30%	8	8	7	11%
R2		unknown	W2	36	20	43%	6	6	4	43%
6 Elm Park Road										
F00										
R1		unknown	W1	34	17	50%	8	8	4	53%
			W2	7	4	44%				
R2		Diner	W3	16	8	48%	9	8	6	25%
F01										
R1		unknown	W1	35	20	44%	8	8	4	50%
R2		Bed	W2	30	20	35%	9	8	6	34%
8 Elm Park Road										
F00										
R1		unknown	W1	34	18	47%	8	7	7	1%
			W2	34	18	46%				
			W3	18	16	14%				
			W4	13	11	16%				
R2		Diner	W5	19	13	33%	9	8	8	4%
F01										
R1		unknown	W1	35	21	41%	8	7	4	47%
R2		Bed	W2	33	24	29%	9	9	9	0%
10 Elm Park Road										
F00										
R1		unknown	W1	34	20	43%	8	8	5	41%
			W2	12	9	22%				
R2		Diner	W3	19	12	38%	9	8	8	5%
F01										
R1		unknown	W1	35	22	37%	8	8	4	52%
R2		Bed	W2	34	24	30%	9	9	8	10%
12 Elm Park Road										
F00										

Details				VSC			DD			
Address, floor, Room ref	Dwelling	Room use	Window ref	Existing %	Proposed %	Reduction %	Room Area sqm	Existing DD sqm	Proposed DD	Reduction %
R1		unknown	W1	34	20	41%	7	7	7	1%
			W2	34	20	41%				
			W3	18	16	10%				
			W4	13	11	12%				
R2		Diner	W5	19	13	31%	9	8	8	4%
F01										
R2		Bed	W2	34	25	26%	9	9	9	2%
14 Elm Park Road										
F00										
R1		unknown	W1	34	21	38%	7	7	5	28%
			W2	17	14	20%				
			W3	12	10	18%				
R2		Diner	W4	20	13	36%	9	8	8	1%
F01										
R1		unknown	W1	35	24	32%	7	7	4	41%
R2		Bed	W2	34	25	27%	9	9	8	3%
16 Elm Park Road										
F00										
R1		unknown	W1	34	22	35%	7	7	5	35%
			W2	34	22	35%				
			W3	5	4	15%				
R2		Diner	W4	10	6	36%	9	6	6	2%
F01										
R1		unknown	W1	35	24	31%	7	7	4	43%
R2		Bed	W2	25	19	27%	9	8	8	1%
18 Elm Park Road										
F00										
R1		unknown	W1	33	22	33%	6	6	3	46%
			W2	33	22	32%				
F01										
R1		unknown	W1	34	24	28%	6	6	3	56%

Appendix 2. Sunlight

PROPERTY			WINDOW					
			ANNUAL SUNLIGHT (%APSH)			WINTER SUNLIGHT (% APSH)		
Room ref.	Window ref.	Room use	Existing (%)	Proposed (%)	Factor of former value	Existing (%)	Proposed (%)	Factor of former value
Motion Block F and G								
1st Floor								
R1	W1	Bed	24	14	0.58	12	5	N/A
R2	W2	Bed	30	18	0.60	15	7	N/A
R2	W3	Bed	19	11	0.58	15	9	N/A
R3	W4	LKD	15	9	0.60	15	9	N/A
R5	W8	Bed	24	16	0.67	5	2	0.40
R6	W9	LKD	22	14	0.64	13	6	N/A
R6	W10	LKD	21	16	0.76	4	2	0.50
R7	W11	LKD	11	6	0.55	7	2	0.29
R8	W12	LKD	12	7	0.58	11	6	N/A
R9	W13	Bed	19	11	0.58	15	7	N/A
R9	W14	Bed	29	13	0.45	15	7	N/A
R10	W15	LKD	15	8	0.53	15	8	N/A
R13	W20	LKD	22	17	0.77	13	8	N/A
2nd Floor								
R1	W1	Bed	26	16	0.62	12	5	N/A
R2	W2	Bed	31	19	0.61	15	7	N/A
R2	W3	Bed	19	11	0.58	15	9	N/A
R3	W4	LKD	15	9	0.60	15	9	N/A
R5	W8	Bed	24	16	0.67	5	2	0.40
R6	W9	LKD	22	14	0.64	13	6	N/A
R6	W10	LKD	21	16	0.76	4	2	0.50
R7	W11	LKD	11	6	0.55	7	2	0.29
R8	W12	LKD	12	7	0.58	11	6	N/A
R9	W13	Bed	19	11	0.58	15	7	N/A
R9	W14	Bed	29	13	0.45	15	7	N/A
R10	W15	LKD	15	8	0.53	15	8	N/A
R13	W20	LKD	22	17	0.77	13	8	N/A
3rd Floor								
R1	W1	Bed	27	17	0.63	12	5	N/A
R2	W2	Bed	32	20	0.63	15	7	N/A
R2	W3	Bed	19	11	0.58	15	9	N/A

PROPERTY			WINDOW					
			ANNUAL SUNLIGHT (%APSH)			WINTER SUNLIGHT (% APSH)		
Room ref.	Window ref.	Room use	Existing (%)	Proposed (%)	Factor of former value	Existing (%)	Proposed (%)	Factor of former value
R3	W4	LKD	15	9	0.60	15	9	N/A
R5	W8	Bed	24	16	0.67	5	2	0.40
R6	W9	LKD	22	14	0.64	13	6	N/A
R6	W10	LKD	21	16	0.76	4	2	0.50
R7	W11	LKD	11	6	0.55	7	2	0.29
R8	W12	LKD	12	7	0.58	11	6	N/A
R9	W13	Bed	19	11	0.58	15	7	N/A
R9	W14	Bed	29	13	0.45	15	7	N/A
R10	W15	LKD	15	8	0.53	15	8	N/A
R13	W20	LKD	22	17	0.77	13	8	N/A
4th Floor								
R1	W1	Bed	28	18	0.64	12	5	N/A
R2	W2	Bed	32	21	0.66	15	7	N/A
R2	W3	Bed	19	12	0.63	15	9	N/A
R3	W4	LKD	15	9	0.60	15	9	N/A
R5	W8	Bed	24	16	0.67	5	2	0.40
R6	W9	LKD	22	14	0.64	13	6	N/A
R6	W10	LKD	21	16	0.76	4	2	0.50
R7	W11	LKD	24	13	0.54	7	2	0.29
R8	W12	LKD	29	15	0.52	13	7	N/A
R9	W13	Bed	19	11	0.58	15	7	N/A
R9	W14	Bed	29	13	0.45	15	7	N/A
R10	W15	LKD	15	8	0.53	15	8	N/A
R13	W20	LKD	22	17	0.77	13	8	N/A
5th Floor								
R1	W1	Bed	28	19	0.68	11	5	N/A
R2	W2	Bed	33	22	0.67	14	6	N/A
R2	W3	Bed	19	12	0.63	15	9	N/A
R3	W4	LKD	15	9	0.60	15	9	N/A
R5	W8	Bed	24	16	0.67	5	2	0.40
R6	W9	LKD	22	14	0.64	13	6	N/A
R6	W10	LKD	21	16	0.76	4	2	0.50
R7	W11	Bed	19	11	0.58	15	7	N/A
R7	W12	Bed	31	15	0.48	15	7	N/A
R8	W13	LKD	15	8	0.53	15	8	N/A
R11	W18	LKD	22	17	0.77	13	8	N/A

PROPERTY			WINDOW					
			ANNUAL SUNLIGHT (%APSH)			WINTER SUNLIGHT (% APSH)		
Room ref.	Window ref.	Room use	Existing (%)	Proposed (%)	Factor of former value	Existing (%)	Proposed (%)	Factor of former value
R12	W20	Bed	27	14	0.52	12	6	N/A
6th Floor								
R1	W1	Bed	32	22	0.69	11	5	N/A
R2	W2	Bed	36	24	0.67	14	6	N/A
R2	W3	Bed	19	12	0.63	15	9	N/A
R3	W4	LKD	15	9	0.60	15	9	N/A
R5	W8	Bed	24	16	0.67	5	2	0.40
R6	W9	LKD	22	14	0.64	13	6	N/A
R6	W10	LKD	21	16	0.76	4	2	0.50
R7	W11	Bed	19	11	0.58	15	7	N/A
R7	W12	Bed	31	16	0.52	15	7	N/A
R8	W13	LKD	15	8	0.53	15	8	N/A
R11	W18	LKD	22	17	0.77	13	8	N/A
R12	W20	Bed	27	14	0.52	12	6	N/A
7th Floor								
R1	W1	Bed	33	24	0.73	11	5	N/A
R2	W3	Bed	20	13	0.65	16	9	N/A
R3	W4	LKD	15	9	0.60	15	9	N/A
R5	W8	Bed	24	16	0.67	5	2	0.40
R6	W9	LKD	23	15	0.65	13	6	N/A
R6	W10	LKD	21	16	0.76	4	2	0.50
R7	W11	Bed	20	12	0.60	16	8	N/A
R7	W13	Bed	31	17	0.55	15	7	N/A
R8	W12	LKD	15	8	0.53	15	8	N/A
R11	W18	LKD	23	18	0.78	13	8	N/A
R12	W20	Bed	28	17	0.61	12	6	N/A
8th Floor								
R3	W3	LKD	18	11	0.61	18	11	N/A
R5	W7	Bed	24	16	0.67	5	2	0.40
R6	W8	LKD	22	14	0.64	13	6	N/A
R7	W10	Bed	33	20	0.61	14	7	N/A
R7	W11	Bed	19	12	0.63	15	8	N/A
R8	W12	LKD	15	9	0.60	15	9	N/A
R11	W17	LKD	22	17	0.77	13	8	N/A
R12	W19	Bed	28	15	0.54	11	5	N/A
9th Floor								

PROPERTY			WINDOW					
			ANNUAL SUNLIGHT (%APSH)			WINTER SUNLIGHT (% APSH)		
Room ref.	Window ref.	Room use	Existing (%)	Proposed (%)	Factor of former value	Existing (%)	Proposed (%)	Factor of former value
R3	W3	LKD	30	23	0.77	21	14	N/A
R5	W7	Bed	24	16	0.67	5	2	0.40
R6	W8	LKD	22	14	0.64	13	6	N/A
R6	W9	LKD	21	16	0.76	4	2	0.50
R7	W10	Bed	36	23	0.64	14	7	N/A
R7	W11	Bed	19	12	0.63	15	8	N/A
R8	W12	LKD	15	8	0.53	15	8	N/A
R11	W17	LKD	22	17	0.77	13	8	N/A
R12	W19	Bed	32	21	0.66	11	5	N/A
10th Floor								
R5	W7	Bed	24	16	0.67	5	2	0.40
R6	W8	LKD	22	14	0.64	13	6	N/A
R6	W9	LKD	21	16	0.76	4	2	0.50
R7	W11	Bed	20	13	0.65	16	9	N/A
R8	W12	LKD	15	9	0.60	15	9	N/A
R11	W17	LKD	23	18	0.78	13	8	N/A
R12	W19	Bed	33	22	0.67	11	5	N/A
11th Floor								
R4	W6	Bed	23	16	0.70	5	2	0.40
R5	W7	LKD	22	14	0.64	13	6	N/A
R6	W9	LKD	18	11	0.61	18	11	N/A
R10	W15	LKD	22	17	0.77	13	8	N/A
12th Floor								
R4	W6	Bed	23	16	0.70	5	2	0.40
R5	W7	LKD	22	14	0.64	13	6	N/A
R5	W8	LKD	21	18	0.86	4	2	0.50
R6	W9	LKD	30	22	0.73	21	13	N/A
R10	W15	LKD	22	17	0.77	13	8	N/A
13th Floor								
R4	W6	Bed	24	16	0.67	5	2	0.40
R5	W7	LKD	23	15	0.65	13	6	N/A
R10	W15	LKD	22	17	0.77	13	8	N/A
14th Floor								
R4	W6	Bed	24	16	0.67	5	2	0.40
R5	W7	LKD	31	23	0.74	13	6	N/A
R9	W14	LKD	22	17	0.77	13	8	N/A

PROPERTY			WINDOW					
			ANNUAL SUNLIGHT (%APSH)			WINTER SUNLIGHT (% APSH)		
Room ref.	Window ref.	Room use	Existing (%)	Proposed (%)	Factor of former value	Existing (%)	Proposed (%)	Factor of former value
15th Floor								
R4	W6	LKD	22	17	0.77	13	8	N/A
16th Floor								
R4	W6	LKD	23	18	0.78	13	8	N/A
Motion Block E								
1st Floor								
R4	W7	Bed	25	10	0.40	18	6	N/A
R5	W8	LKD	27	13	0.48	21	8	N/A
R7	W12	Bed	24	15	0.63	5	3	0.60
R8	W13	LKD	22	13	0.59	13	7	N/A
R8	W14	LKD	21	9	0.43	4	1	0.25
2nd Floor								
R4	W6	Bed	25	11	0.44	18	6	N/A
R5	W7	LKD	27	14	0.52	21	9	N/A
R7	W11	Bed	24	15	0.63	5	3	0.60
R8	W12	LKD	22	13	0.59	13	7	N/A
R8	W13	LKD	21	9	0.43	4	1	0.25
3rd Floor								
R4	W6	Bed	25	11	0.44	18	6	N/A
R5	W7	LKD	27	14	0.52	21	9	N/A
R7	W11	Bed	24	15	0.63	5	3	0.60
R8	W12	LKD	22	13	0.59	13	7	N/A
R8	W13	LKD	21	9	0.43	4	1	0.25
4th Floor								
R4	W6	Bed	25	11	0.44	18	6	N/A
R5	W7	LKD	27	15	0.56	21	10	N/A
R7	W11	Bed	24	15	0.63	5	3	0.60
R8	W12	LKD	22	13	0.59	13	7	N/A
R8	W13	LKD	21	9	0.43	4	1	0.25
5th Floor								
R5	W6	LKD	30	18	0.60	24	13	N/A
R7	W10	Bed	24	15	0.63	5	3	0.60
R8	W11	LKD	22	13	0.59	13	7	N/A
R8	W12	LKD	20	8	0.40	4	1	0.25
6th Floor								
R7	W10	Bed	24	15	0.63	5	3	0.60

PROPERTY			WINDOW					
			ANNUAL SUNLIGHT (%APSH)			WINTER SUNLIGHT (% APSH)		
Room ref.	Window ref.	Room use	Existing (%)	Proposed (%)	Factor of former value	Existing (%)	Proposed (%)	Factor of former value
R8	W11	LKD	22	13	0.59	13	7	N/A
R8	W12	LKD	21	9	0.43	4	1	0.25
7th Floor								
R7	W10	Bed	24	15	0.63	5	3	0.60
R8	W11	LKD	22	13	0.59	13	7	N/A
R8	W12	LKD	21	9	0.43	4	1	0.25
8th Floor								
R6	W9	Bed	23	14	0.61	5	3	0.60
R7	W10	LKD	22	13	0.59	13	7	N/A
R7	W11	LKD	21	9	0.43	4	1	0.25
9th Floor								
R6	W9	Bed	23	14	0.61	5	3	0.60
R7	W10	LKD	22	13	0.59	13	7	N/A
R7	W11	LKD	21	10	0.48	4	1	0.25
10th Floor								
R6	W9	Bed	24	15	0.63	5	3	0.60
R7	W10	LKD	23	13	0.57	13	7	N/A
R7	W11	LKD	22	11	0.50	4	1	0.25
R7	W12	LKD	19	9	0.47	4	1	0.25
11th Floor								
R6	W9	Bed	24	15	0.63	5	3	0.60
R7	W10	LKD	31	21	0.68	13	7	N/A
R7	W11	LKD	22	12	0.55	4	1	0.25
R7	W12	LKD	18	8	0.44	4	1	0.25
Motion Block C and D								
1st Floor								
R1	W2	LKD	17	12	0.71	11	6	N/A
R3	W5	STUDIO	12	6	0.50	11	5	N/A
R4	W8	Bed	8	2	0.25	8	2	0.25
R5	W9	LKD	13	4	0.31	12	3	0.25
R6	W10	LKD	10	3	0.30	8	1	0.13
R7	W11	LKD	10	5	0.50	10	5	N/A
R8	W12	LKD	13	4	0.31	11	4	0.36
R10	W16	STUDIO	7	1	0.14	7	1	0.14
R11	W18	Bed	8	2	0.25	8	2	0.25
R12	W19	LKD	13	4	0.31	12	4	0.33

PROPERTY			WINDOW					
			ANNUAL SUNLIGHT (%APSH)			WINTER SUNLIGHT (% APSH)		
Room ref.	Window ref.	Room use	Existing (%)	Proposed (%)	Factor of former value	Existing (%)	Proposed (%)	Factor of former value
R13	W20	LKD	16	5	0.31	14	4	0.29
2nd Floor								
R3	W5	STUDIO	12	7	0.58	11	6	N/A
R6	W10	LKD	13	7	0.54	11	5	N/A
R7	W11	LKD	12	6	0.50	12	6	N/A
R8	W12	LKD	13	6	0.46	11	5	N/A
R11	W18	Bed	8	2	0.25	8	2	0.25
R12	W19	LKD	13	5	0.38	12	4	0.33
R13	W20	LKD	16	9	0.56	14	7	N/A
3rd Floor								
R11	W18	Bed	8	2	0.25	8	2	0.25
R12	W19	LKD	13	8	0.62	12	7	N/A
R13	W20	LKD	16	11	0.69	14	9	N/A
4th Floor								
R11	W18	Bed	8	3	0.38	8	3	0.38
R13	W20	LKD	16	11	0.69	14	9	N/A
2 Elm Park Road								
Gnd Floor								
R1	W1	unknown	43	22	0.51	10	2	0.20
6 Elm Park Road								
Gnd Floor								
R1	W2	unknown	12	3	0.25	2	0	0.00
R2	W3	Diner	20	8	0.40	4	0	0.00
8 Elm Park Road								
Gnd Floor								
R2	W5	Diner	36	29	N/A	9	3	0.33
10 Elm Park Road								
Gnd Floor								
R1	W2	unknown	12	5	0.42	2	0	0.00
R2	W3	Diner	20	11	0.55	4	0	0.00
12 Elm Park Road								
Gnd Floor								
R2	W5	Diner	36	30	N/A	9	3	0.33
14 Elm Park Road								
Gnd Floor								
R1	W2	unknown	13	5	0.38	2	0	0.00

PROPERTY			WINDOW					
			ANNUAL SUNLIGHT (%APSH)			WINTER SUNLIGHT (% APSH)		
Room ref.	Window ref.	Room use	Existing (%)	Proposed (%)	Factor of former value	Existing (%)	Proposed (%)	Factor of former value
R1	W3	unknown	12	6	0.50	2	0	0.00
R2	W4	Diner	20	12	0.60	4	0	0.00
16 Elm Park Road								
Gnd Floor								
R1	W3	unknown	20	15	0.75	6	2	0.33
1st Floor								
R2	W2	Bed	34	24	0.71	5	1	0.20