

10. Interior Design

Interior design will be led by the respective project architects with support from specialist consultants, including the office space planner (refer to the previous section Stakeholder Engagement: Design and Planning), lighting designer and Buro Happold, who will provide

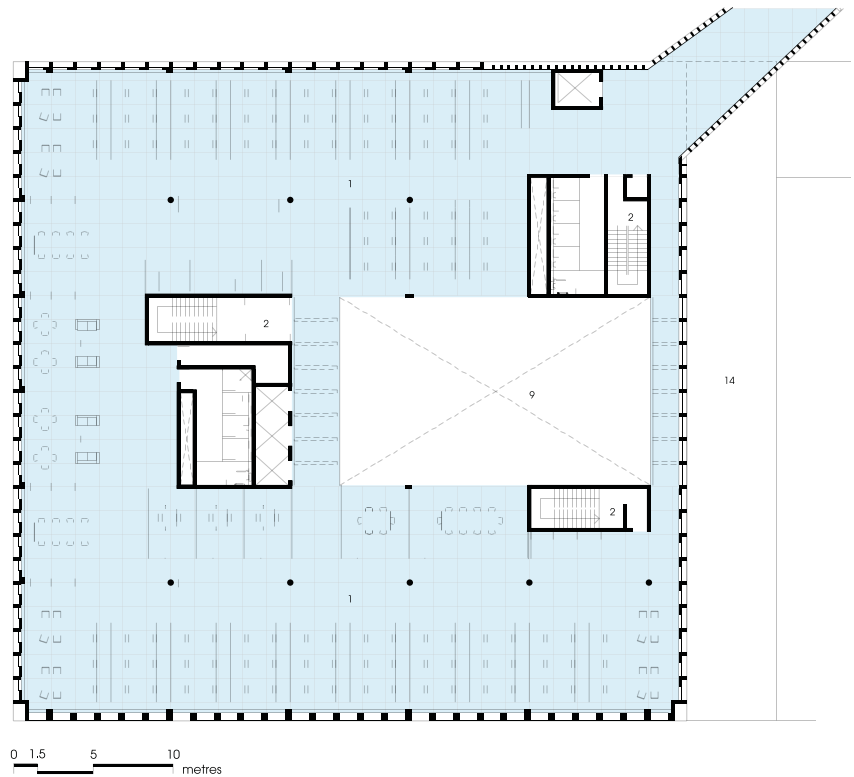
all the required technical services.

The interior design strategy will carefully and creatively distinguish between fixed permanent elements and movable or adaptable elements – see section on Flexibility.

KEY

- 1 OPEN PLAN OFFICE SPACE
- 2 CORE
- 3 BUILDING RECEPTION
- 4 CUSTOMER SERVICE ENQUIRIES DESK
- 5 CUSTOMER SERVICE CENTRE
- 6 YOUTH OFFENDERS SERVICE
- 7 OFFICE CONFERENCE
- 8 CAFE
- 9 ATRIUM
- 10 GREEN ROOF
- 11 BROWN ROOF
- 12 ETFE ROOF LIGHT
- 13 PV PANELS
- 14 ROOF LIGHTS OVER STREET GALLERY

New Office Building



**Fig 10.01 NEW COUNCIL BUILDING FURNITURE STRATEGY TYPICAL LAYOUT
ILLUSTRATING OPTIMIZED ZONING : FID SPACE**



*precedents for new office
BUILDING Interiors*

Town Hall

The interior design of the Town Hall will include the use of heritage specialists as necessary to ensure that the historic fabric is preserved, restored or reinstated where appropriate.

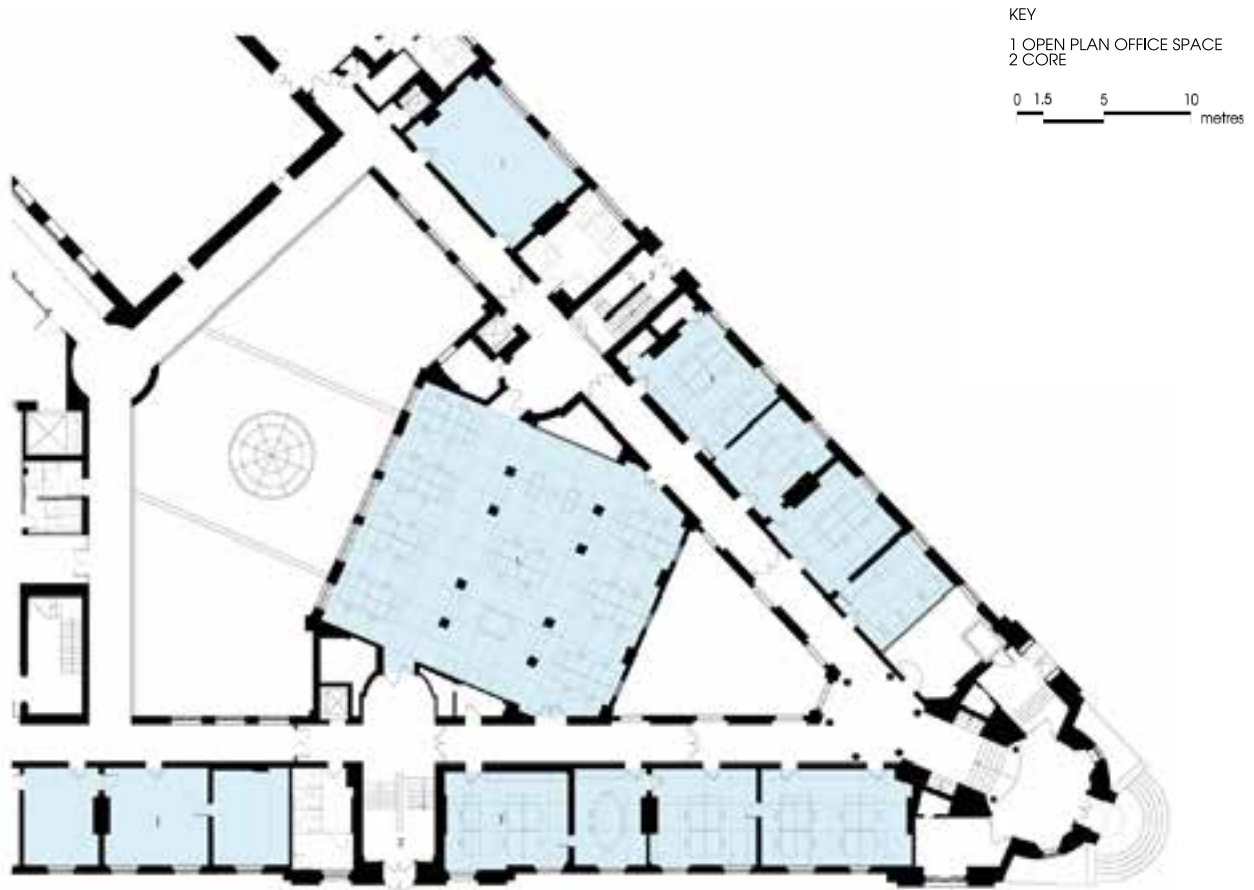


Fig 10.02 TOWN HALL FURNITURE STRATEGY, TYPICAL LAYOUT ILLUSTRATING EFFICIENT PLAN WITH A GOOD BALANCE OF SUPPORT SPACE : FID SPACE



precedents for Town Hall Interiors

Ivor House

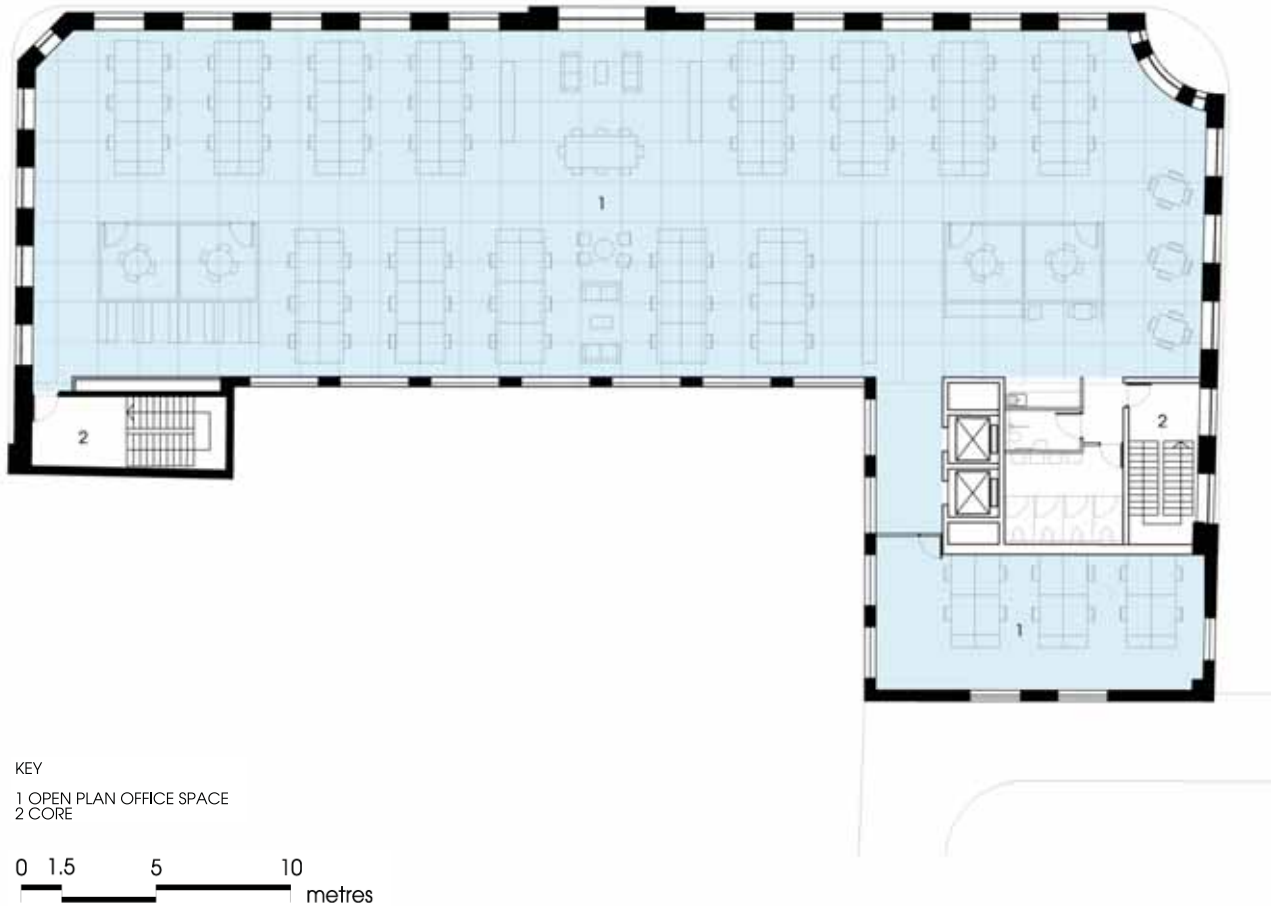


Fig 10.03 IVOR HOUSE FURNITURE STRATEGY, TYPICAL LAYOUT
ILLUSTRATING LESS DENSE OPTION : FID SPACE



precedents for ivor house Interiors

Interior Design (Examples of Signage)



Fig 10.04

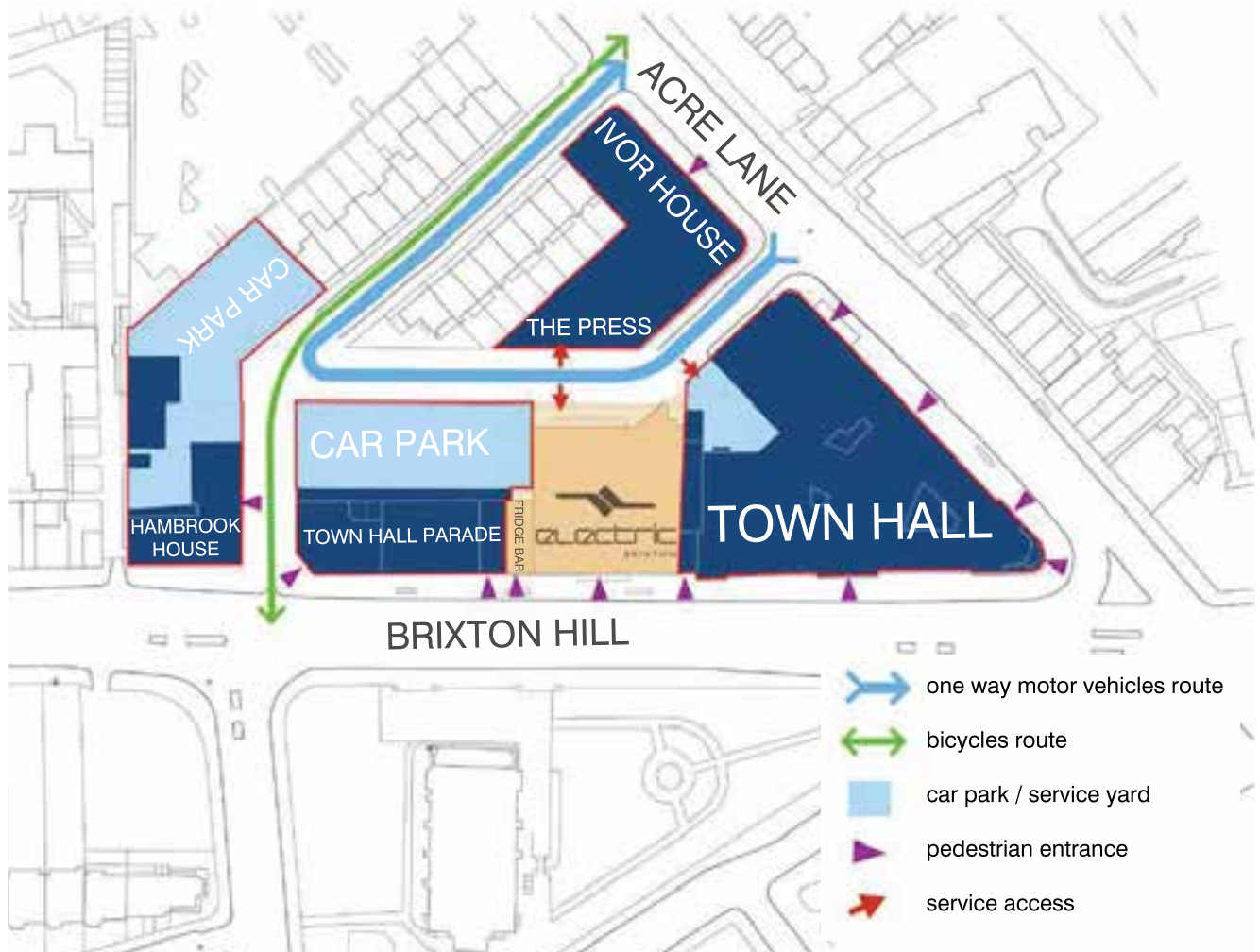
11. Site Analysis and Design Development

In support of the item entitled The Site covered in the preceding Design section please find the following excerpts of the site analysis which was carried out for the Stage 1 ISOS submission and updated to reflect the approach adopted for the Stage 2 ISDS submission.



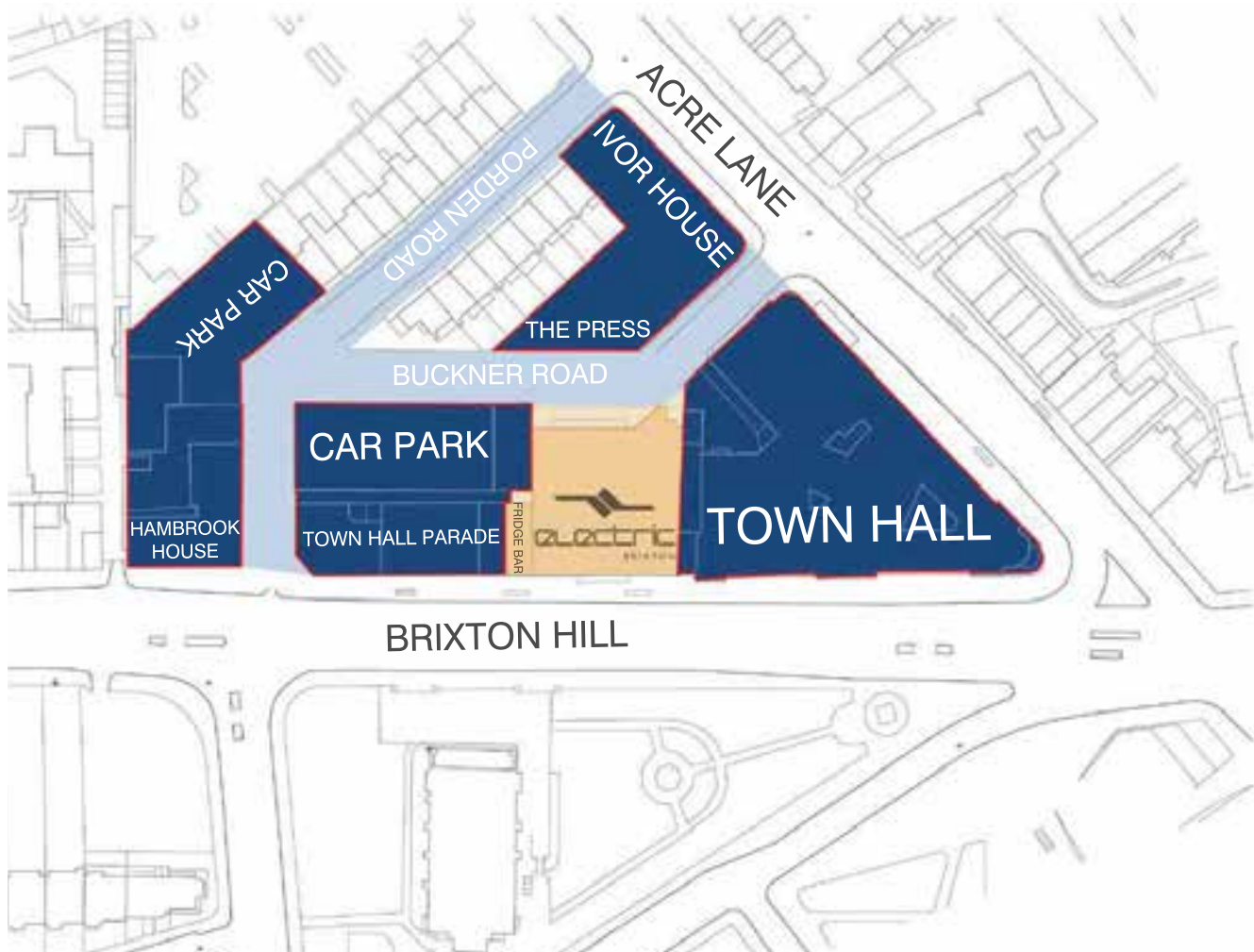
existing

Fig 11.01



existing movement

Fig 11.02



DISCONNECTION

Fig 11.03



site opportunities

Fig 11.04

Design Development - October 2012

Lambeth Council's Requirements

- *Submissions should clearly show how the designs have evolved from the ISOS stage in response to the dialogue sessions*

The design for the Town Hall site has evolved since the Stage 1 ISOS submission in response to Lambeth Council's remarks and observations offered at a series of Design Dialogue Meetings during the Stage 2 ISDS process. As a result of these sessions the following plans, diagrams and massing models serve to illustrate the evolution of the design:



Option A



Option B



Fig 11.05



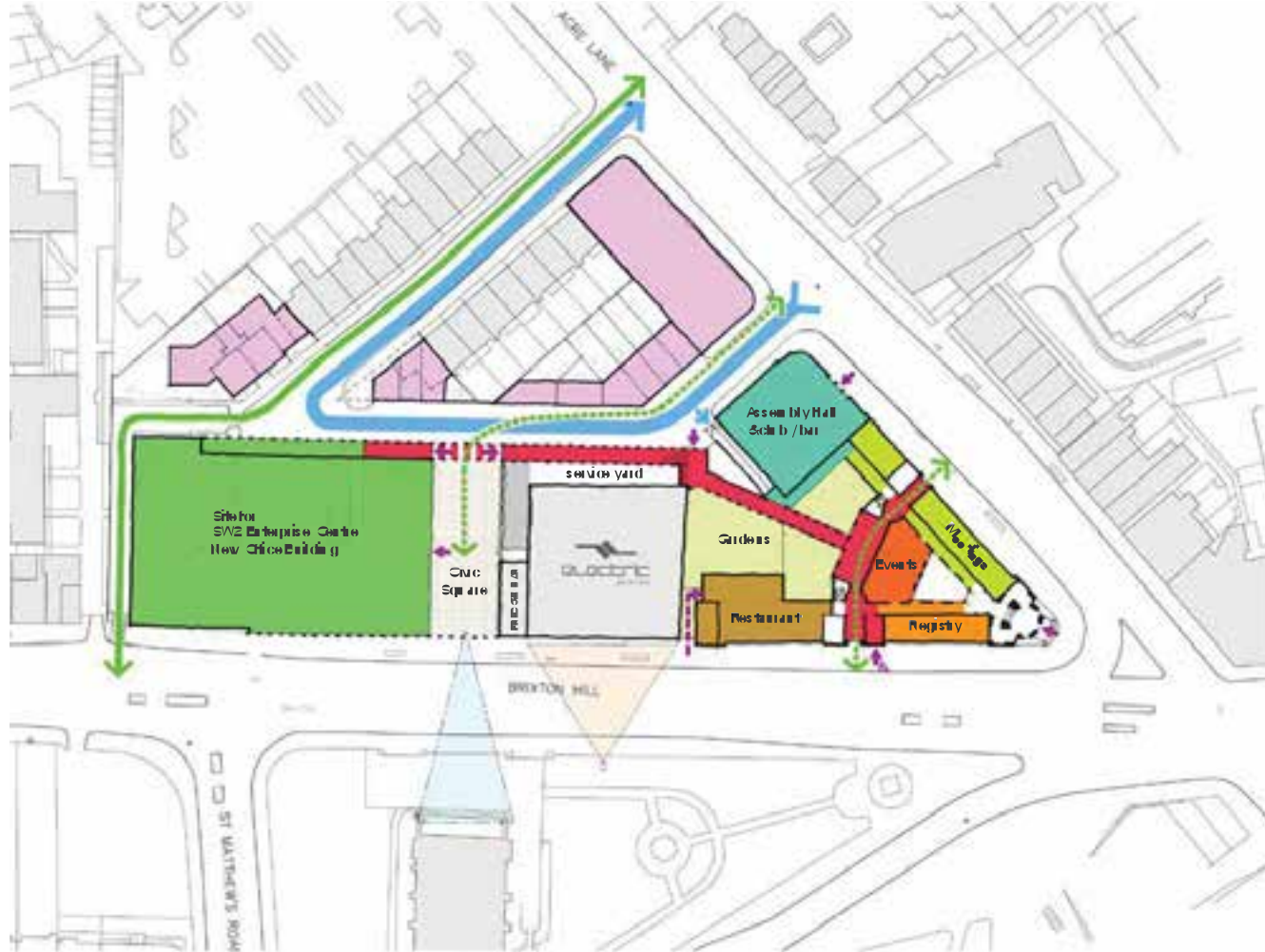
Option C



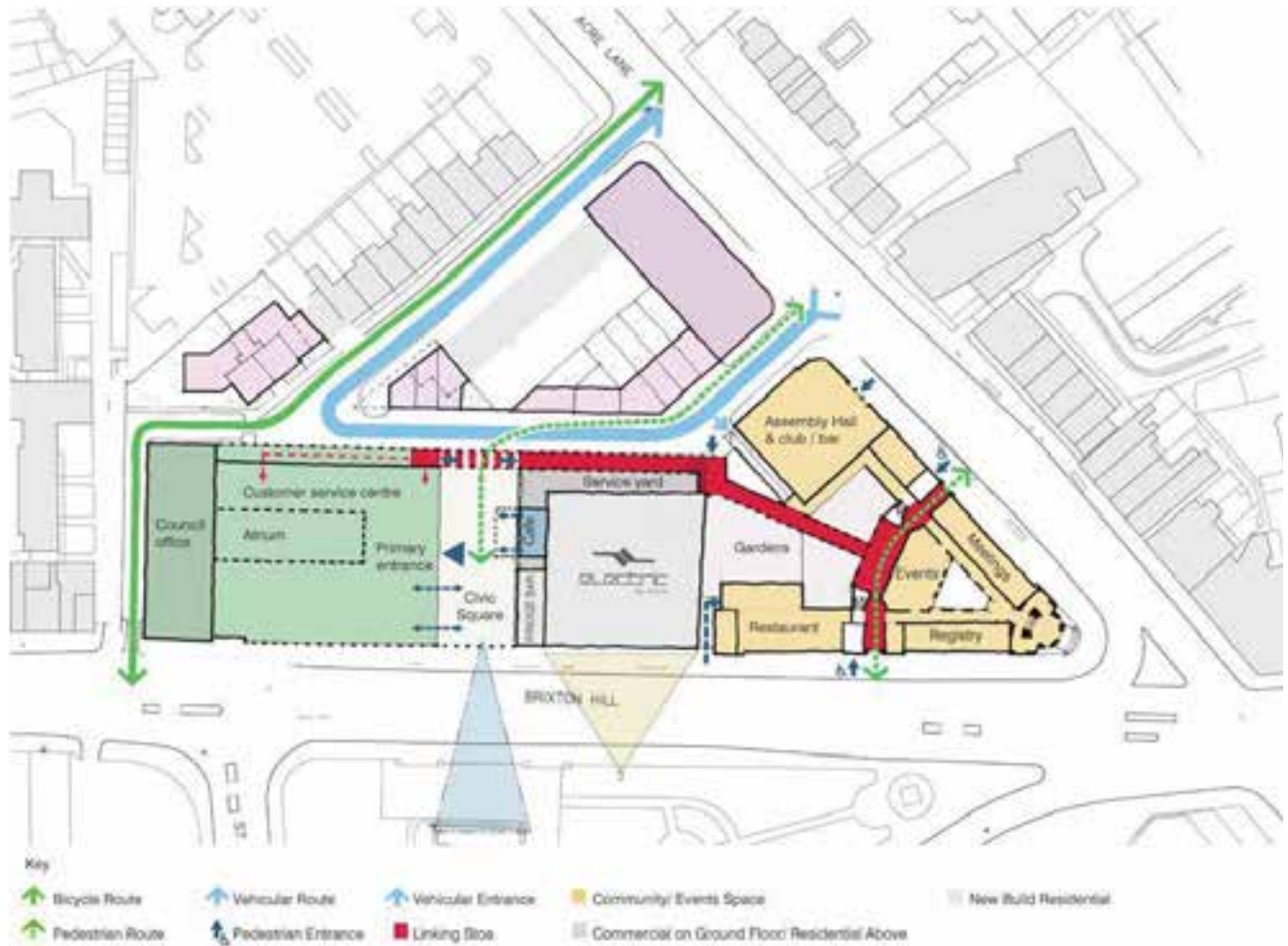
Option D

Fig 11.06





Design Development - November 2012

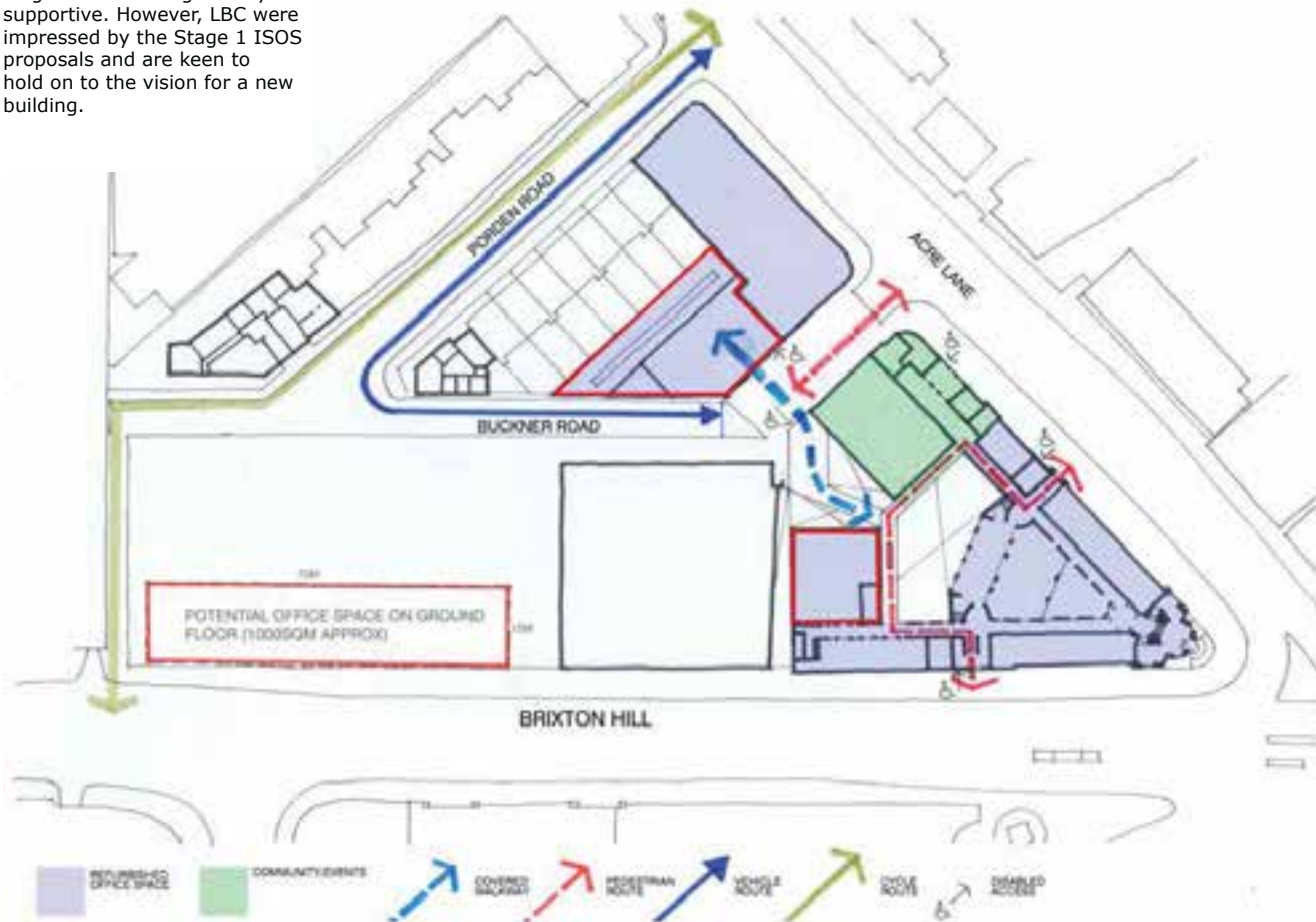


concept diagram

Fig 11.08

Design Development - March 2013 (Design Dialogue Meeting)

A revised space strategy was presented to representatives of Lambeth Council who expressed an acceptance of the logic the diagram and were generally supportive. However, LBC were impressed by the Stage 1 ISOS proposals and are keen to hold on to the vision for a new building.



revised space strategy

Fig 11.09

Design Development - April 2013 (Design Dialogue Meeting)

Public Realm and New Office Building

Alternative diagrams were presented to representatives of Lambeth Council who considered Option 3 as the most appropriate approach. Emphasis was placed on the ability of the proposed scheme to support and improve continued access to the rear of the Brixton Electric, however the triangular outdoor space should first and foremost be considered an attractive seating area served by a cafe in the proposed event space to the rear of Ivor House. The team progressed and tested the proposals on this basis. Lambeth requested that the New Office Building allow for a set-back between the entrance and public footway, and that the main reception back onto the feature wall facing the main atrium. Lambeth endorsed the proposed stoa link between the three office buildings.

Town Hall

Lambeth Council endorsed the revised proposals for the rear, including retained elements, the team noted retention of specific stairs and that new lifts needed reconfiguring. It was agreed that new links would not be required at second floor level. Care is required with existing subdivision of historic rooms on ground and first floor frontages to Brixton Hill and Acre Lane, these are to be restored with minimal remodelling. It was noted that there should be more scope for changes to basement and second floors.

Ivor House

It was agreed to remove the main staircase but Lambeth Council may still want to use the main entrance from Acre Lane to ground floor. Lambeth were supportive of the proposed office space within the basement.

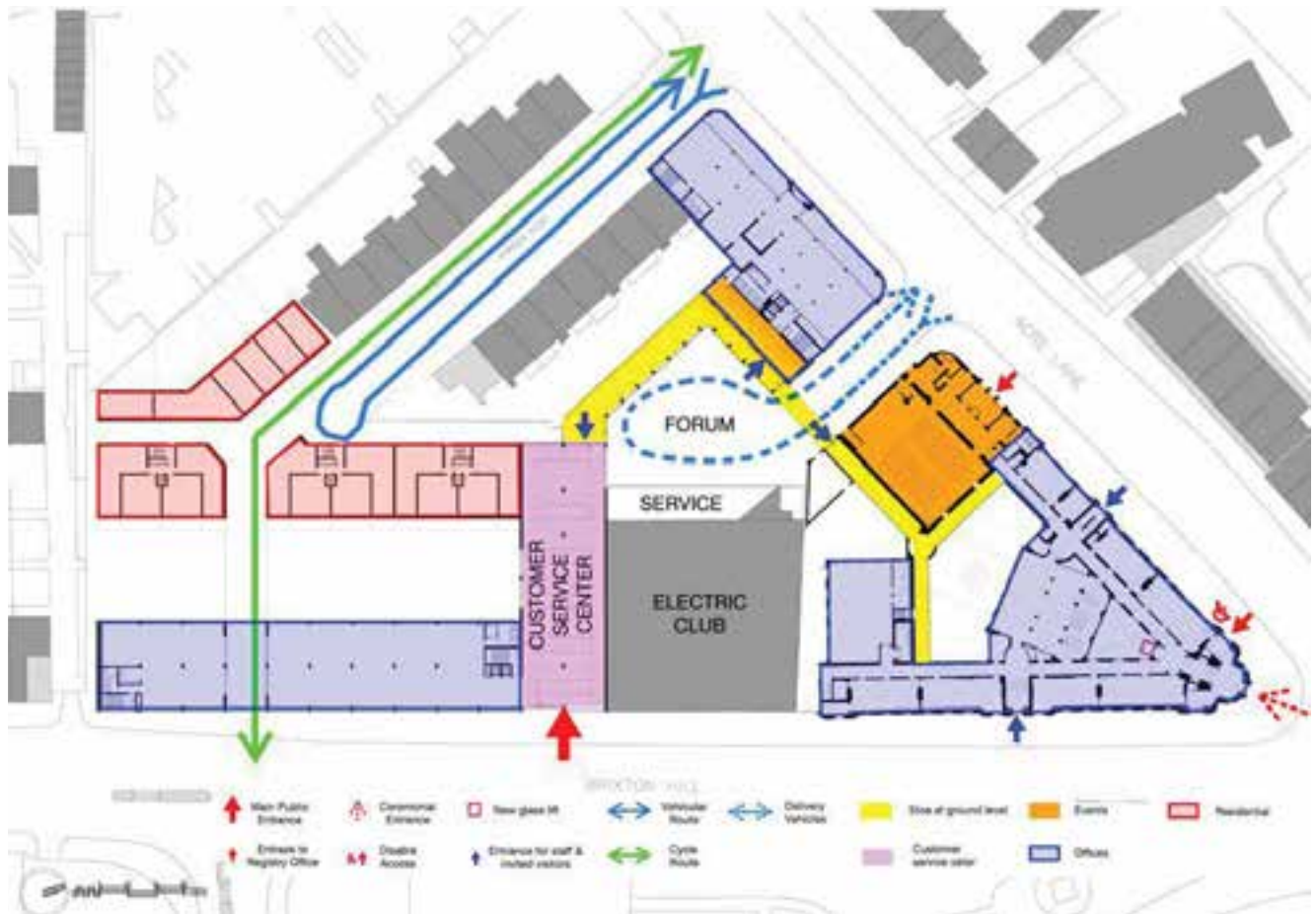
Hambrook House Residential

The proposed layout was generally welcomed by Lambeth Council, although care required in approach to solutions for dealing with privacy and noise to Brixton Hill.

Design Development - April 2013 (Design Dialogue Meeting)

*option 1 - masterplan**Fig 11.10*

Design Development - April 2013 (Design Dialogue Meeting)



option 1 - access diagram

Fig 11.11

Design Development - April 2013 (Design Dialogue Meeting)



option 1 - massing

Fig 11.12

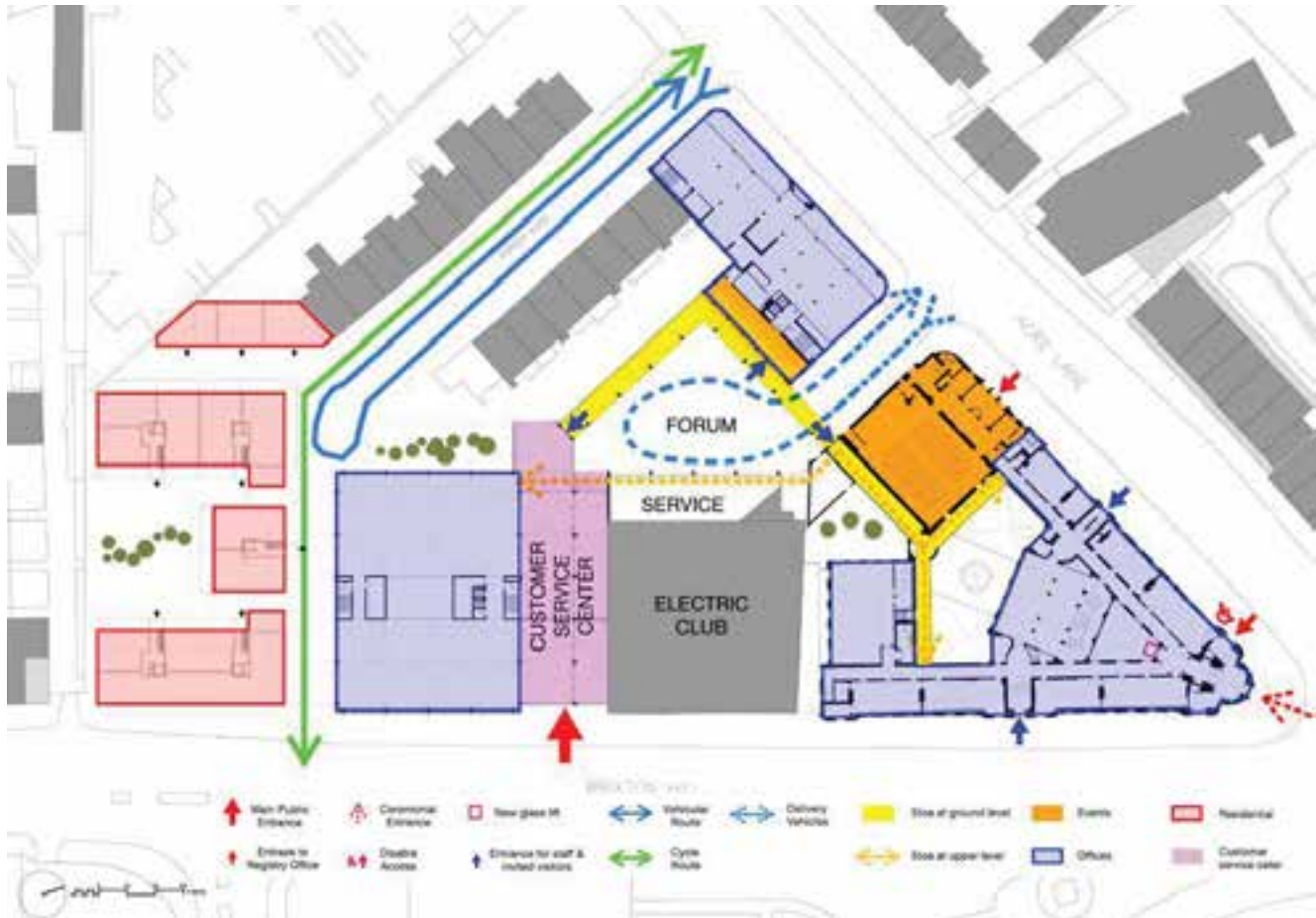
Design Development - April 2013 (Design Dialogue Meeting)



option 2 - masterplan

Fig 11.13

Design Development - April 2013 (Design Dialogue Meeting)



option 2 - access diagram

Fig 11.14

Design Development - April 2013 (Design Dialogue Meeting)



option 2 - massing

Fig 11.14

Design Development - April 2013 (Design Dialogue Meeting)

*option 3 - masterplan**Fig 11.15*

Design Development - April 2013 (Design Dialogue Meeting)



option 3 - massing

Fig 11.16

Design Development - May 2013 (Design Dialogue Meeting)

Public Realm and New Office Building

Proposal to park large event trucks residual street behind new offices. It was accepted that Buckner Road would remain adopted, but be radically remodelled with controlled access via retractable bollards. Lambeth requested indicative layout of customer service centre and typical layout of office floor, also servicing access.

Ivor House

Lambeth Council commented on proposed section in relation to rear of Porden Road houses, ie privacy, outlook, sunlight and daylight but considered that it looked generally acceptable. The proposed option to retain the facade and rebuild the interior of the building received no adverse comment.

Town Hall

Lambeth Council were enthusiastic about the idea of a second floor room above Assembly Room entrance for events, seminars and general social space. Any extension here should be designed to limit visual impact from street. Lambeth were keen on the proposed cycle hub but they also need showers in the other two buildings. Entrance to the registry office could be existing main entrance below clocktower, with reception / security in small room on Brixton Hill side.

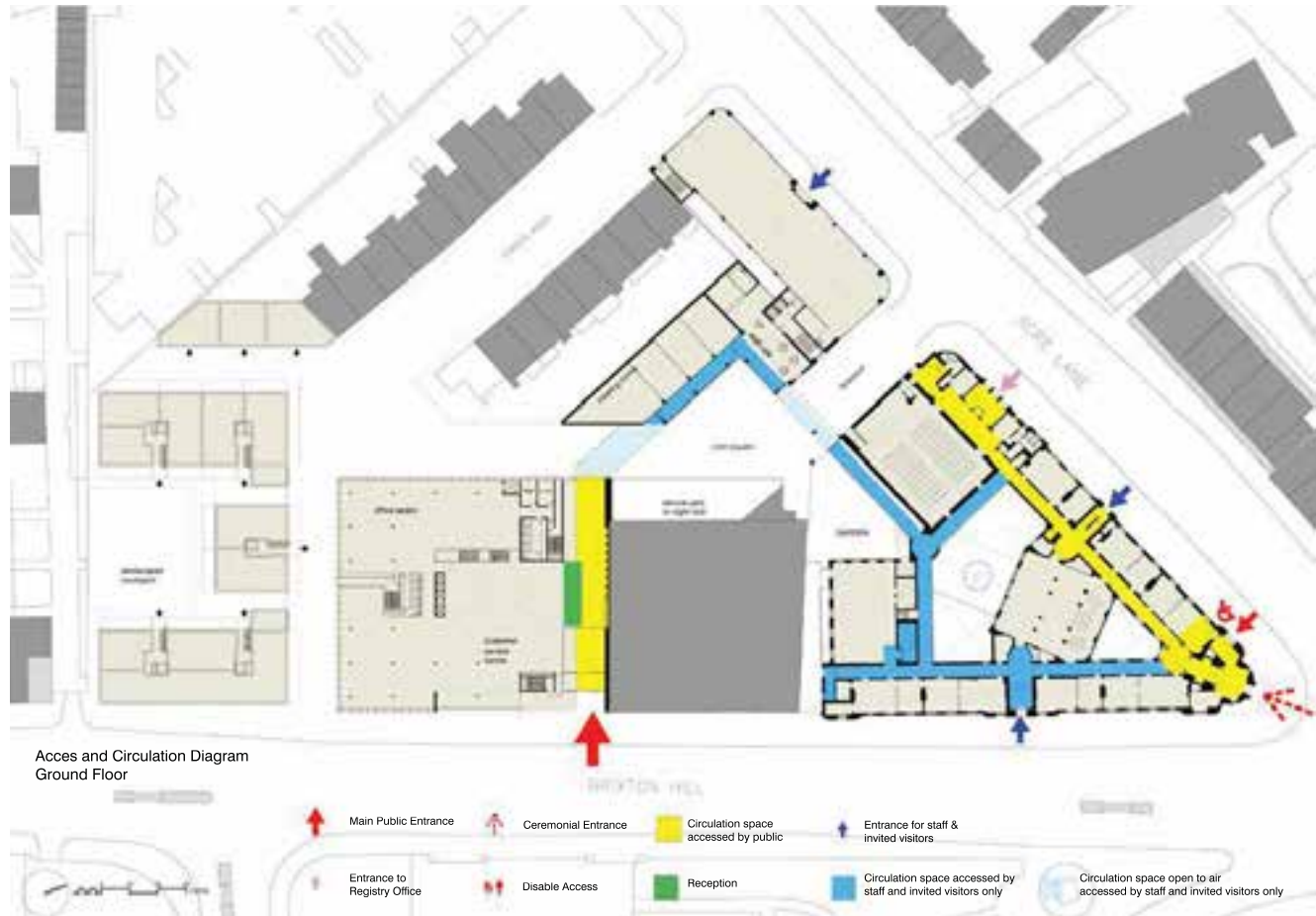
Design Development - May 2013 (Design Dialogue Meeting)



building uses diagram

Fig 11.17

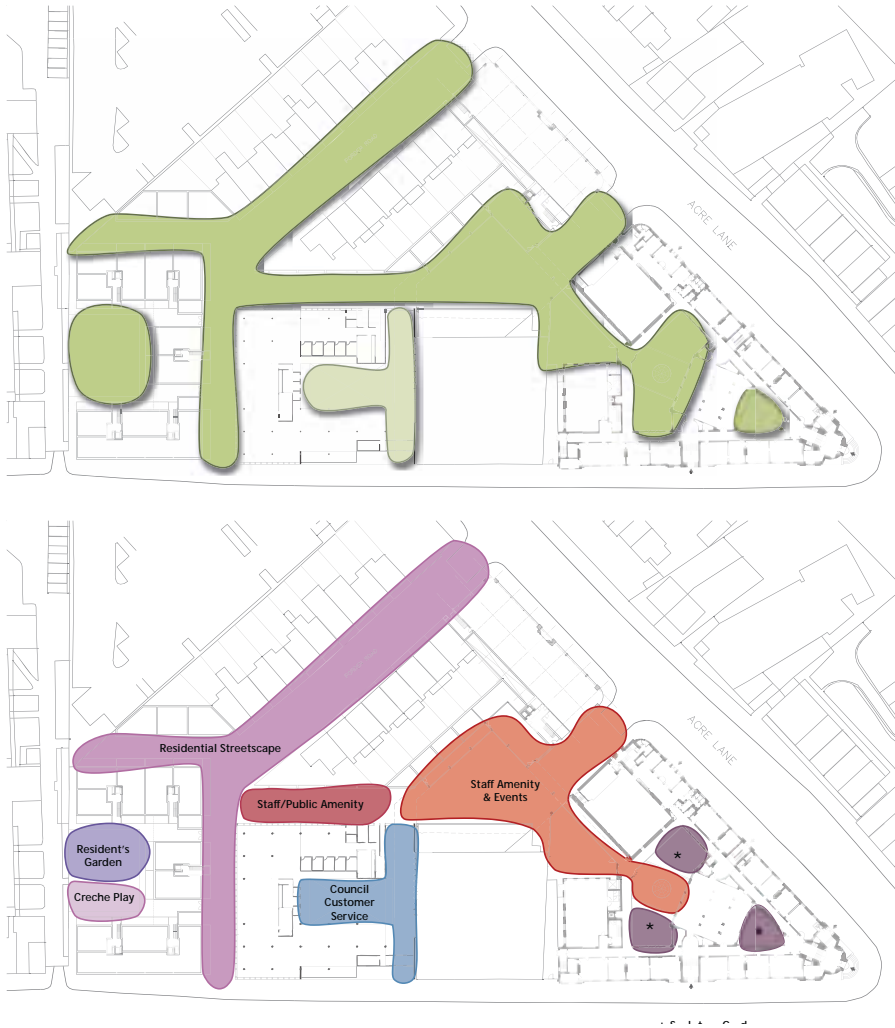
Design Development - May 2013 (Design Dialogue Meeting)



Access & circulation diagram

Fig 11.18

Design Development - May 2013 (Design Dialogue Meeting)



landscape strategy

Fig 11.19

Design Development - May 2013 (Design Dialogue Meeting)



physical scale model

Fig 11.20







12. Hambrook Gardens

Residential Sites:

Introduction

The following sections 12-15 describe our proposals for the four residential sites: Hambrook Gardens, Olive Morris House, International House and Wanless Road.

Hambrook Gardens (which roughly corresponds to the existing Hambrook House and associated car park site) is also described within the main body of our text under **Section 2: Design**. The proposal forms an integral part of the regeneration and urban design strategies for the Town Hall Triangle. In this section we provide more detail on the housing provision and design.

All new homes will comply with the design standards set out in the London Plan, London Housing Design Guide (LHDG) and relevant local planning policy. This compliance therefore covers issues such as: internal and external amenity space standards, Lifetime Homes, Wheelchair housing, Code for Sustainable Homes, Secured by Design etc.

Proposals for the conversion of existing buildings (International House and part of Wanless Road) will also be expected to comply with new build standards unless otherwise agreed: for example an alternative amenity space strategy is proposed for International House.

The proposals for all four sites are flexible in respect of housing tenure and mix of dwelling sizes, and this will be subject to financial appraisal and pre-application planning discussions. However, it is proposed that Hambrook Gardens would be the first choice for the incorporation of affordable housing into the group of sites. It is assumed that the sites will be assessed collectively rather than individually.

Hambrook Gardens

Context

Hambrook Gardens roughly corresponds to the existing Hambrook House and associated car park site. Hambrook House today is an inter-war office building occupied by the Council with a six-storey frontage to Brixton Hill, reducing to five on Porden Road. At the rear, also on Porden Road, there was an annexe building (Hambrook House West) of part-two and part-four storeys, which has been demolished recently.

Hambrook Gardens is also described within the main body of our text under **Section 2: Design**, where we discuss the urban design context. The proposal forms an integral part of the regeneration and urban design strategies for the Town Hall Triangle, including Porden Road and Buckner Road.

In addition, the site has a sensitive relationship to Arlington Lodge to the south. This six-storey inter-war mansion block has a frontage to Brixton Hill and also stretches back alongside the boundary to the Hambrook site, forming an access courtyard, which is set above the Hambrook site level. There is an opportunity to create a more attractive and mutually beneficial relationship around this boundary.

Arlington Lodge has shops on its lower storey facing Brixton Hill. There is scope to develop non-residential street level frontage on the adjoining Hambrook Site. Indeed the combination of traffic on Brixton Hill and the relatively narrow footway at this point make the ground level an unattractive location for residential.

Amount and mix of accommodation

We propose to demolish Hambrook House and replace it with a new residential development containing:

- 11 one-bedroom flats
- 47 two-bedroom flats
- 5 three-bedroom flats
- 3 three-bedroom houses
- 66 homes in total

At street level fronting Brixton Hill we propose a community use, which we have designated as a crèche.

Layout, height and massing

The new apartments are arranged around five compact stair and lift cores creating separate, but adjoining contemporary mansion blocks. This layout follows guidance in

the LHDG and several successful precedents by Pollard Thomas Edwards architects. The advantages include:

- Nearly all flats are dual aspect, and especially those facing the busy road on Brixton Hill.
- There are a small number of flats sharing each entrance and landing, which is preferred for security and positive social interaction.
- There are several ground floor entrances animating the street frontage and improving overlooking and casual surveillance.

The five blocks form a u-shape enclosing a shared south-facing garden. This shape complements the corresponding recess on Arlington Lodge and creates the potential for a co-ordinated landscape scheme (although our proposals do not rely on that).

There are two large openings at street level offering views from Porden Way into the courtyard. These are enclosed by gates and railings and also provide secure sheltered cycle parking.

The Brixton Hill frontage rises to six storeys. The blocks to the rear have four full storeys plus a set-back penthouse floor.

To the rear of the main apartment development we propose an intimate mews street lined on its west side by three wide-frontage mews houses. At only two storeys, these reduce the scale of the development where it meets the existing low-rise houses on Porden Road.

Amenity space

The gardens provide shared amenity and play space for all residents, plus an enclosed area for the crèche.

In addition every apartment will have a private patio, balcony or roof terrace in accordance with LHDG standards. Many of the apartments, including those facing Brixton Hill, have the potential to have two balconies with different orientations. It may be preferable to design the Brixton Hill balconies as enclosed winter gardens, to provide sound insulation.

Parking and servicing

No on-site parking is proposed. There is scope for disabled parking on street. The number and arrangement of spaces are to be agreed in the course of pre-application discussions. The servicing and drop-off arrangements are covered in **Section 2: Accessibility**.

Hambrook Gardens

SITE PLAN- EXISTING (prior to demolition of Hambrook House West)



Fig 12.01

Hambrook Gardens



Fig 12.02

Hambrook Gardens



Fig 12.03

Hambrook Gardens



Fig 12.04

Hambrook Gardens

GROUND FLOOR.



Fig 12.05

Hambrook Gardens

1ST FLOOR.

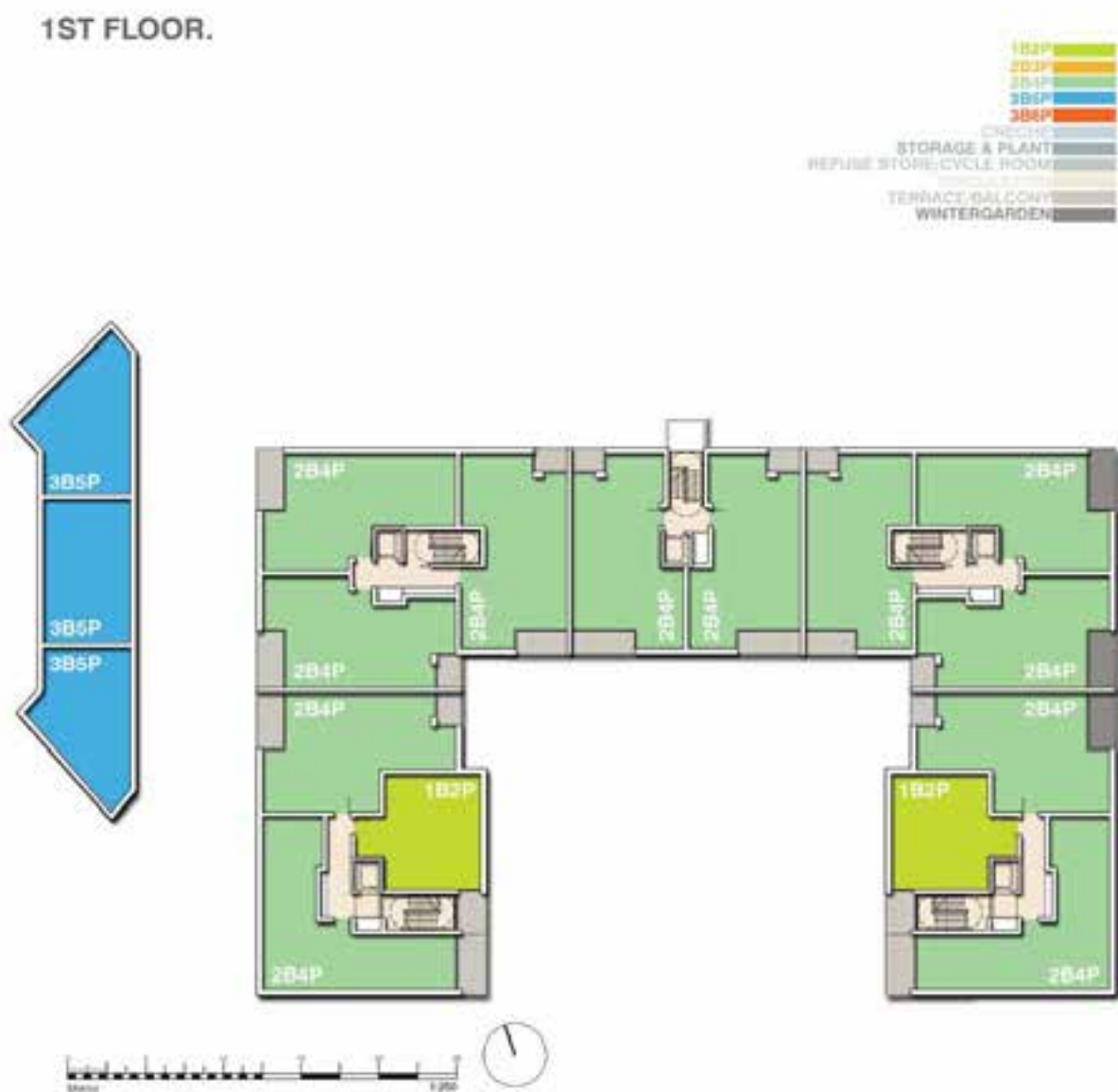


Fig 12.06

Hambrook Gardens

TYPICAL FLOOR.

- 1B2P
- 2B3P
- 2B4P
- 3B5P
- 3B6P
- CRICKET
- STORAGE & PLANT
- REFUSE STORE, CYCLE ROOM
- COMM. KITCHEN
- TERRACE, BALCONY
- WINTERGARDEN

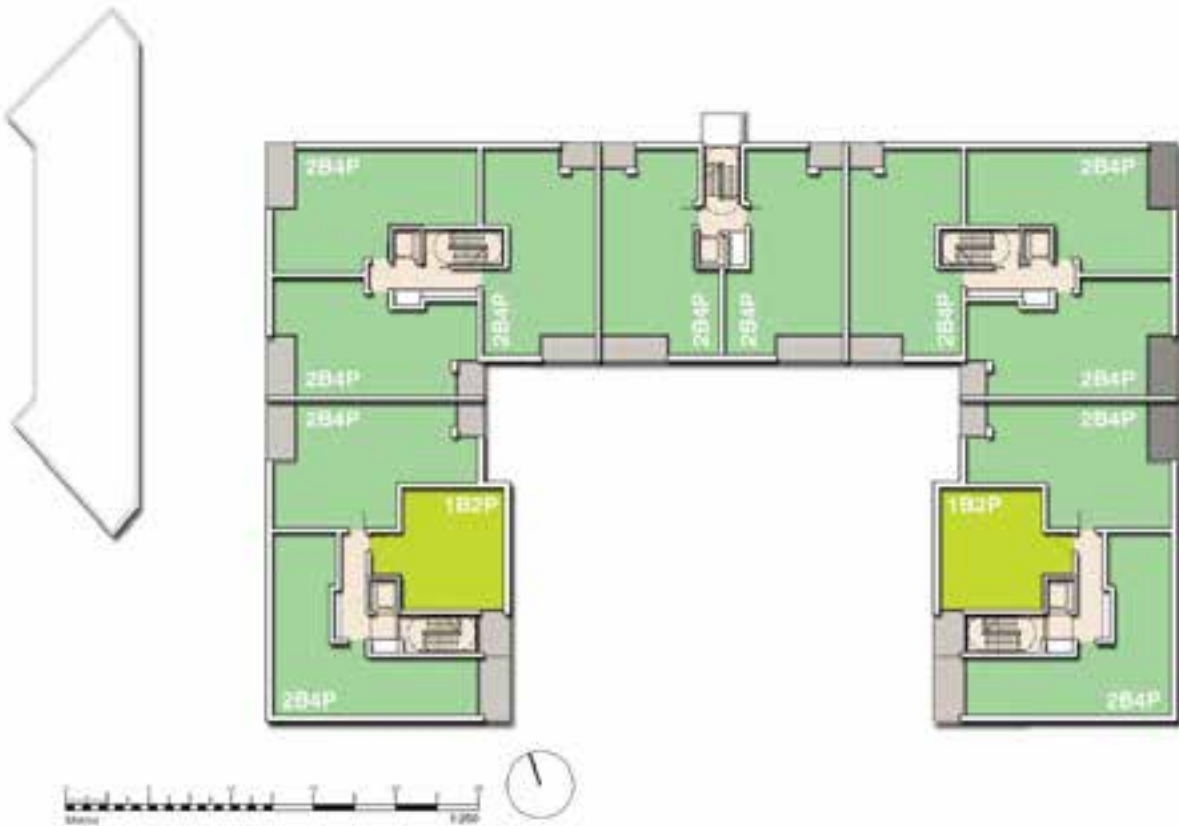


Fig 12.07

Hambrook Gardens

4TH FLOOR.



Fig 12.08

Hambrook Gardens

5TH FLOOR.

- 1B2P
- 2B3P
- 3B4P
- 3B5P
- 3B6P
- CORRIDOR
- STORAGE & PLANT
- REFUSE STORE/CYCLE ROOM
- TERRACE/BALCONY
- WINTERGARDEN

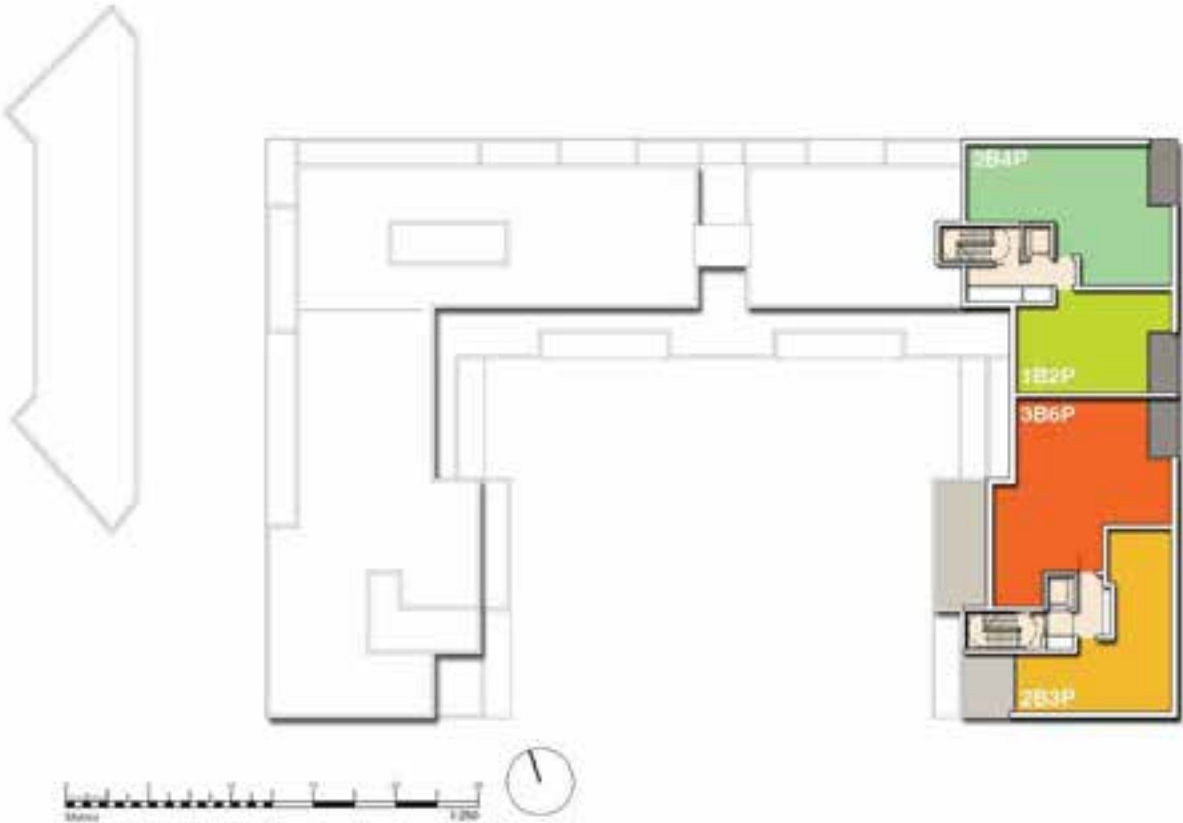


Fig 12.09

Hambrook Gardens

	Floor	1B2P F (50 sqm)*	2B3P F (61 sqm)*	2B4P F (70 sqm)*	2B4P F (71.5 sqm)*	2B4P F (75sqm)	3B6P (97 sqm)*	3B5P H (102 sqm)*	1B2P W/C (57 sqm)*	2B4P W/C (79 sqm)*	Total no. Units	Total no. Rms
	HabRm.	2	3	3	3	3	5	5	3	3		
	GF	1						3	2	4	10	35
	1	2		4	8						14	40
	2	2		4	8						14	40
	3	2		4	8						14	40
	4	1	1	2	2		4				10	37
	5	1	1			1	1				4	13
	Units	9	2	14	26	1	5	3	2	4	66	
	Habitable rooms	18	6	42	78	3	25	15	6	12		205
	TOTAL AREA (sqm)*	450	183	980	1859	75	485	306	114	316		4768

*Approximate areas

Fig 12.10

13. Olive Morris House

Context

Olive Morris House (OMH) is a 1970's office building with a 90m frontage to Brixton Hill, overlooking Rush Common open space to the east.

The building has four storeys of office accommodation, including the Council's Customer Service Centre at street level. The upper floors project over the footway and have a very strong horizontal emphasis formed by cantilevered terraces with brick parapet walls. The main circulation core is expressed as a five storey tower.

The rear of the building scales down towards the rear of the neighbouring houses in Beverstone Road, but still has quite a dominating impact.

The building has a full basement containing car parking, storage and plant. This is accessed by ramps from the side streets, Hayter Road and Sudbourne Road. Consequently there is a high retaining and boundary wall enclosing the Beverstone Road rear gardens.

The access ramps are bridged by a single storey of office accommodation above.

The adjoining urban blocks on Brixton Hill to north and south contain six storey residential mansion blocks with brick facades and very limited articulation.

Amount and mix of accommodation

At Stage 1 we were advised to assume that OMH would be retained as Council offices, although we did submit indicative proposals for potential mixed-use redevelopment. In the course of the Stage 2 Dialogue sessions, it has become clear that there is a realistic prospect of vacating OMH and acquiring the freehold interest, which would allow conversion or redevelopment for other uses.

Our Stage 2 proposals are therefore based on demolition and redevelopment for residential use. We consider that this strategy will optimise the financial return, the amount and quality of new housing and the wider regeneration impact. We consider that the existing building is not well suited to conversion.

Our Stage 1 indicative scheme assumed that the ground floor would be redeveloped for commercial use. We now consider that it is possible to create high quality flats at street level, given the very wide footway at this point, the scope to create a landscaped buffer from the road and the pleasing outlook over Rush Common. Our Stage 2 proposals are therefore for a wholly residential development.

We therefore propose the following accommodation:

- 18 one-bedroom flats
- 46 two-bedroom flats
- 12 three-bedroom flats
- 76 homes in total

Layout, height and massing

The footprint of the new development is similar to the existing OMH, but significantly set back both from the main street and the rear boundary. This creates space for attractive private and shared gardens at the rear and for a landscaped front garden with street trees, to be communally maintained by the management. It also enhances privacy and daylight impacts on the neighbouring properties.

The layout of apartments follows similar principles to the Hambrook Gardens proposal, located further north on Brixton Hill.

Five adjoining mansion blocks contain only two to four flats per floor, and every flat is dual aspect. Apart from the corner flats, which have outlook over Brixton Hill and the side roads, all the flats have a through-plan, with outlook both east over Rush Common and west over the quiet gardens at the rear.

The building has five full storeys and a set-back top storey, with the overall height being roughly equivalent to the estimated

height of OMH – see overlay section. The existing side links over the access ramps are not reproduced in the new development.

Amenity space

Ground floor flats have private gardens. Upper floor flats have balconies or roof terraces. There is scope for a small shared garden at the rear if required, but given the proximity of Rush Common we feel this would probably not be well-used.

Parking and servicing

The existing basement will be retained and adapted to suit the new building above. Unlike the other residential sites this development will therefore contain off-street parking for residents, with around 50 spaces including disabled parking.

The balance of the basement will contain cycle stores, refuse stores and plant. Refuse will be stored in the basement near to each core and moved to street level by the management for collection. This eliminates the visual impact and loss of floorspace to refuse stores at street level.



olive morris house - Existing building

Olive Morris House



Fig 13.01

Olive Morris House



Fig 13.02

Olive Morris House

*Fig 13.03*

Olive Morris House

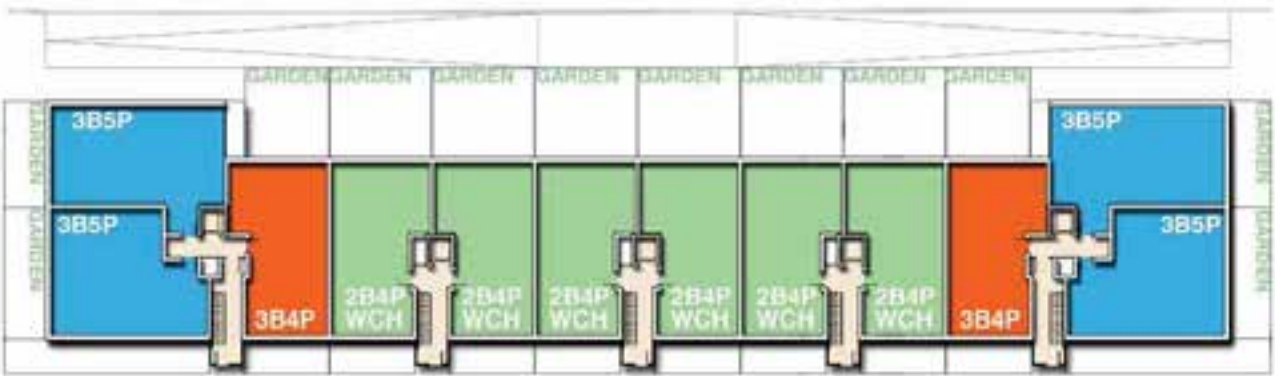
MASSING- PROPOSED

Fig 13.04

Olive Morris House



basement

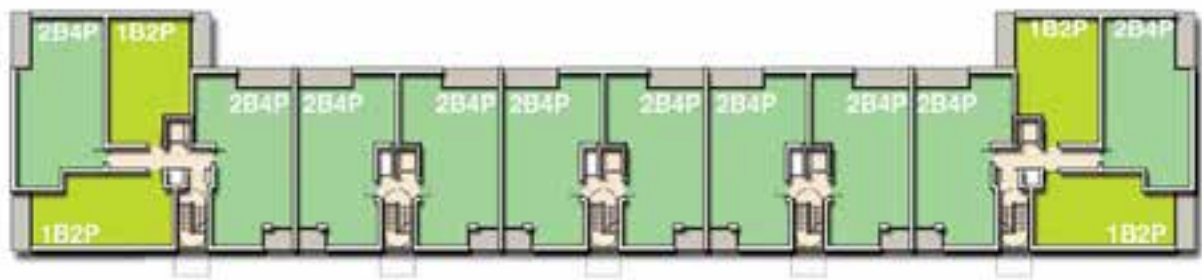


ground floor

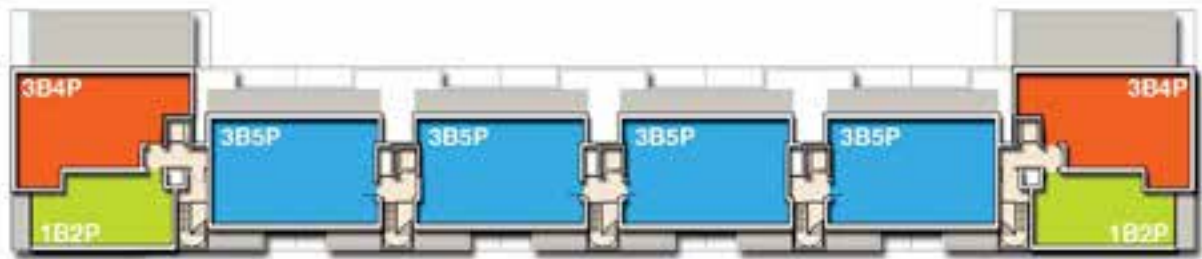


Fig 13.05

Olive Morris House



typical floor



fifth floor



Fig 13.06

Olive Morris House
SECTION.



Fig 13.07

Olive Morris House

	Floor	1B2P F (50 sqm)*	2B4P F (70 sqm)*	2B4P F (71.5 sqm)*	3B4P F (79 sqm)*	3B4P F (81 sqm)*	3B5P (90sqm)*	2B4P W/C (79 sqm)*	Total no. Units	Total no. Rms
	HabRm.	2	3	3	5	5	5	3		
	GF				2		4	6	12	48
	1	4	2	8					14	38
	2	4	2	8					14	38
	3	4	2	8					14	38
	4	4	2	8					14	38
	5	2				2	4		8	34
	Units	18	8	32	2	2	8	6	76	
	Habitable rooms	36	24	96	10	10	40	18		234
	TOTAL AREA (sqm)*	900	560	2288	158	162	720	474		5262

*Approximate areas

Fig 13.08

14. International House

Context

International House is a 1970's office building located within five minutes walk of Brixton underground station.

The building has 12 storeys of accommodation (including a set-back top storey) and two further levels of plant rooms above that, making 14 storeys in all.

The building has a concrete/steel frame and shear walls, and a central core containing two escape stairs, three lifts and service ducts. Based on visual inspection and the limited information currently available, Buro Happold has advised that there is sufficient redundancy and flexibility in the structure to allow remodelling of the core and the addition of further accommodation at the top of the building.

The external appearance consists of continuous ribbon windows at each storey, separated by red brick spandrel panels.

The base of the building contains two-storey cut-backs to create the main entrance and a rear service yard.

The building forms an integral part of the wider development including the leisure centre, and therefore proposals for International House may be affected by the future of the leisure centre, which we understand to be uncertain

at present. In particular the ground, first and second floors facing the leisure centre have very restricted outlook, and are unsuitable for residential use. Our understanding is that no land will be transferred with International House beyond the actual building footprint.

The building is highly visible from a distance and has outstanding views from the upper levels. A townscape assessment will be required for any significant change to the building, especially at high level, and distant views from Brockwell Park will require careful consideration.

Amount and mix of accommodation

Our Stage 2 proposals are similar to our Stage 1 proposals, but have been refined in a number of areas in response to feedback from the Council and to maximise development potential.

It is considered that demolition of the existing building and re-development of the site would not provide a substantial increase in accommodation and site value to make this a viable approach. Therefore, the existing building is to be retained and converted to provide new residential accommodation. We have been advised by the Council that an increase in height to a maximum of 15 storeys may be acceptable, subject to a full

analysis of the visual impact.

The proposed accommodation is shown in the schedule and totals:

- 38 one-bedroom flats
- 38 two-bedroom flats
- 8 two-bedroom penthouse duplexes
- 84 homes in total

Although the proposed homes could suit any tenure, the current assumption is that they are especially well-suited to the private market rent. For obvious reasons of building height and amenity space, the development is less well suited to larger family homes, and these are not proposed.

Layout, height and massing

We have prepared a detailed layout for the typical upper floors showing that these can be converted into eight spacious and high quality flats: four with two bedrooms and four with one bedroom. To enable the most efficient use of space, the core has been substantially remodelled, while retaining sufficient structure, and contains one escape stair and two passenger lifts (including a fire fighting lift) as required for residential use.

We propose to remove the existing set-back top floor of accommodation and replace it with a full floor replicating the typical layout. Above that we

propose eight set-back duplexes with large roof terraces.

Above these is the shared 'walled garden' – see below.

The ground floor is substantially remodelled to create a glamorous double-height foyer facing Canterbury Crescent. This will contain a staffed concierge reception desk and have the option of a direct connection into a corner retail unit for use as a cafe, florist and newsagent. The remainder of the ground floor is allocated to refuse and cycle stores and plant.

The first and second floors have partially restricted outlook – see above. This area is proposed for a gym / health club, aimed principally at residents, but potentially with a wider membership. Alternatively for office accommodation.

Amenity space

In the Stage 1 proposals the ground and first floors were shown opened up to provide amenity/ play space for the development, it was also proposed that balconies would be fixed back to the existing structure to provide private amenity space to each home.

For Stage 2 we have modified this approach as shown.



international house - Existing building

International House

SITE PLAN- EXISTING



Fig 14.01

International House

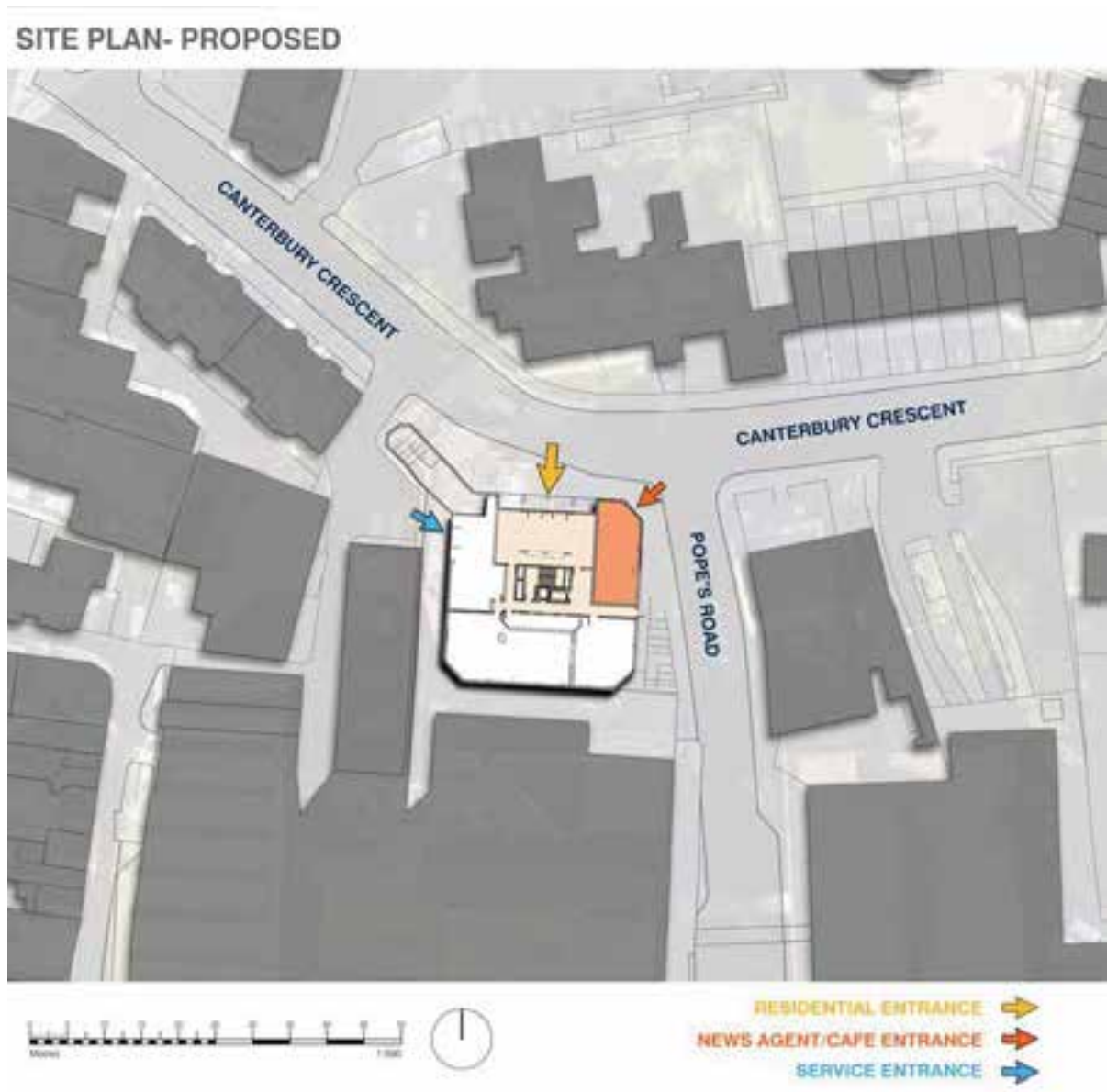


Fig 14.02

International House



Fig 14.03

International House



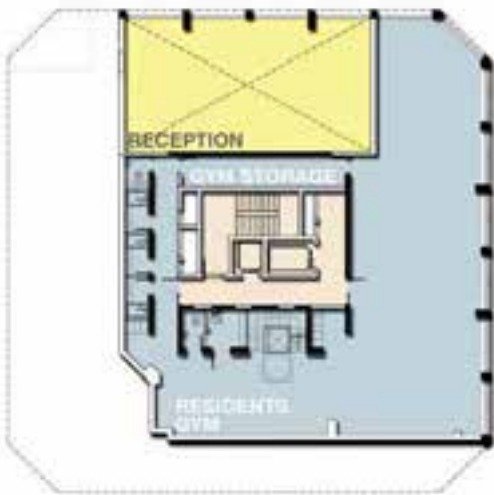
Fig 14.04

International House

Fig 14.05



Ground floor



first floor



second floor



typical floor /
third to eleventh

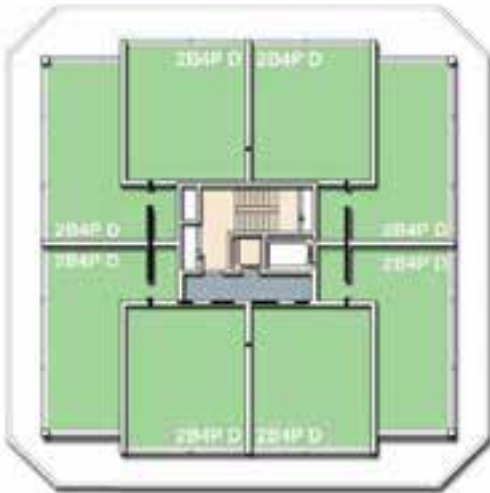


International House

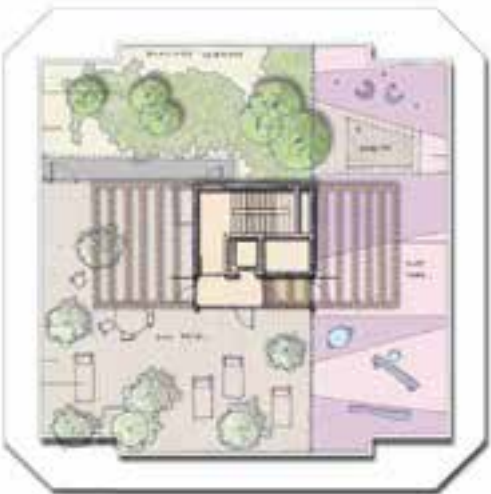
Fig 14.06



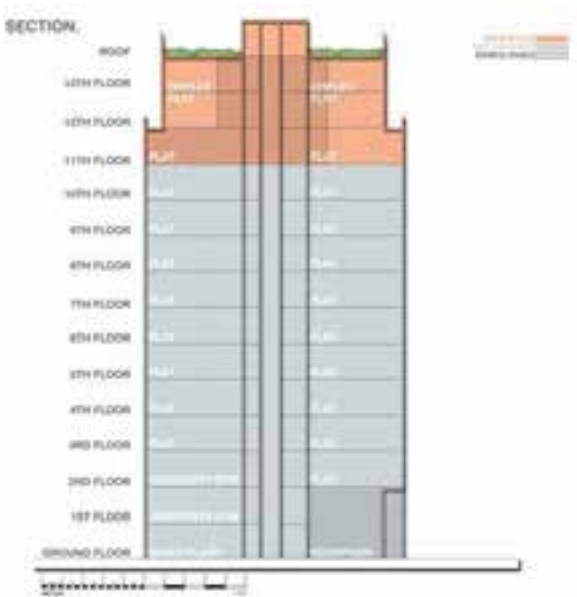
twelfth floor



thirteenth floor



roof



section

International House

	Floor	1B2P (55 sqm)*	1B2P (57 sqm)*	2B3P (70 sqm)*	2B3P (72 sqm)*	2B4P D (86 sqm)*	2B4P D (88 sqm)*	2B4P D (92 sqm)*	2B4P D (96 sqm)*	Total no. Rms	Total no. Units
		55	57	70	72	86	88	92	96		
	HabRm.	2	2	3	3	3	3	3	3		
	0									0	0
	1									0	0
	2	2		1	1					10	4
	3	2	2	2	2					20	8
	4	2	2	2	2					20	8
	5	2	2	2	2					20	8
	6	2	2	2	2					20	8
	7	2	2	2	2					20	8
	8	2	2	2	2					20	8
	9	2	2	2	2					20	8
	10	2	2	2	2					20	8
	11	2	2	2	2					20	8
	12					2	2	2	2	24	8
	13										
Units		20	18	19	19	2	2	2	2		84
Habitable rooms		40	36	57	57	6	6	6	6	214	
TOTAL AREA (sqm)*		1100	1026	1330	1368	172	176	184	192		5548

*Approximate areas

Fig 14.07

15. Wanless Road

Context

This small site contains an early Victorian house fronting Wanless Road and a variety of low-rise buildings around a rear yard, including two which appear to date from around 1910.

The buildings are much altered and are currently used by the Council's pest control department. Our understanding is that they have no formal heritage designation. However, the frontage building and one of the courtyard buildings are attractive, and we have agreed with planning officers that they should be retained.

The site is generally surrounded by the back gardens of low-rise houses. However, on one side the boundary is formed by the back wall of a small factory. The frontage house has a neighbouring twin, which is occupied by the Society of Modelmakers.

Amount and mix of accommodation

Generally this is an attractive area and there is scope for a successful residential conversion and redevelopment scheme.

We propose to retain the frontage house and convert it into four flats. We propose to retain one of the rear annexe buildings and convert it into a single house, and to build four new houses in the yard.

The total accommodation will therefore be:

- 4 one-bedroom flats
- 5 three-bedroom houses
- 9 homes in total.

Layout, height and massing

The converted frontage building will be served by a new staircase at the rear, allowing each floor of the original building to be converted into one flat, reinstating the principal rooms facing the street.

The converted and new mews houses back on to the boundaries and look into a central landscaped courtyard and into private courtyard gardens. The indicative plans show how privacy, outlook and good daylight can be achieved within this intimate and tight-knit development.

The new houses will be two storeys generally, with an additional 'pop-up' penthouse level backing on to the less-sensitive factory boundary.

Amenity space

Each house has a private walled garden. The ground and lower ground flats will have gardens. The upper flats will have balconies at the rear.

Parking

Each house has an integral garage, and there is space for informal visitor parking within the courtyard. No parking is proposed for the flats. The vehicle tracking in the courtyard has been tested.



wanless road - Existing frontage building

Wanless Road

SITE PLAN- EXISTING



Fig 15.01

Wanless Road

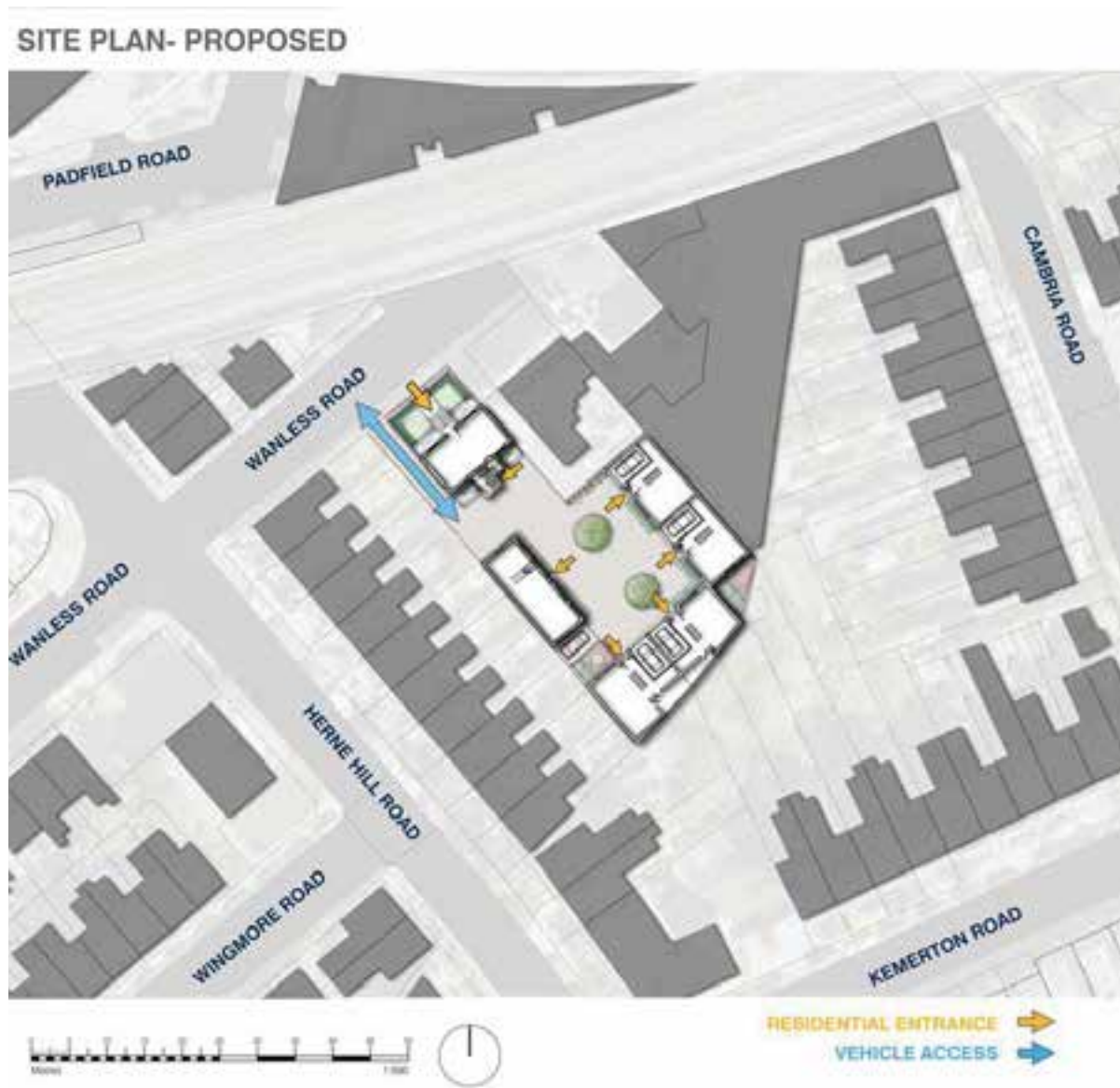


Fig 15.02

Wanless Road



Fig 15.03

Wanless Road

MASSING- PROPOSED



Fig 15.04

Wanless Road



Fig 15.05

Wanless Road



landscape plan



Fig 15.06

Wanless Road

	Floor	1B2P (64 sqm)*	1B2P (58 sqm)*	3B5P D (122sqm)*	3B5P D (134 sqm)*	3B6P D (133 sqm)*	3B6P D (140 sqm)*	Total no. Rms	Total no. Units
		64	58	122	134	133	140		
	HabRm.	2	2	4	4	4	4		
	-1	1						2	1
	0		1	1	1	1	2	22	6
	1		1					2	1
	2		1					2	1
Units		1	3	1	1	1	2		9
Habitable rooms		2	6	4	4	4	8	28	
TOTAL AREA (sqm)*		64	174	122	134	133	280		907

*Approximate areas

Fig 15.07

Technical

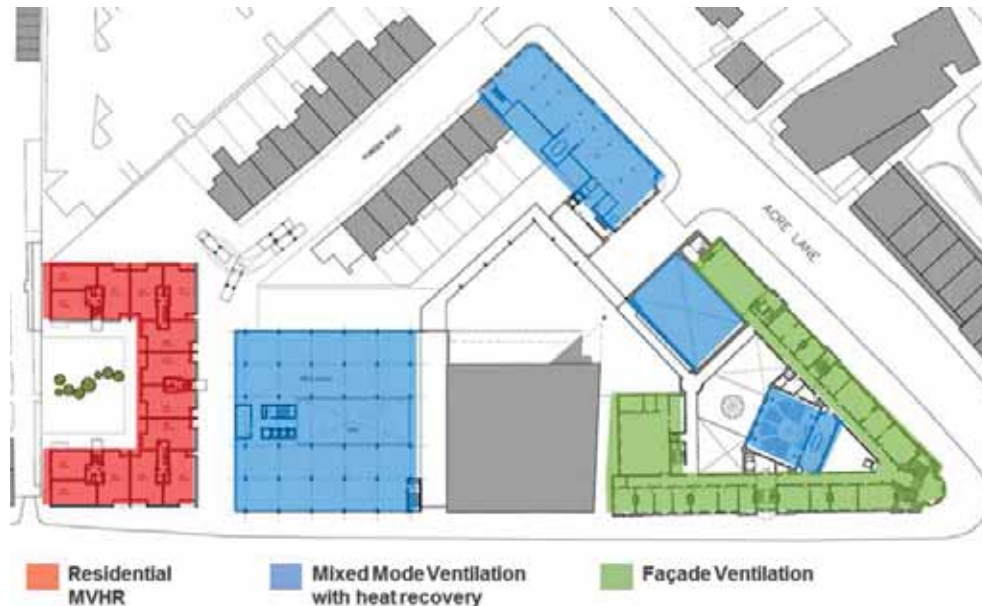
M&E

- **Detailed strategies, management and system selections, including full equipment type, sizing and layout details. Flexible and adaptable schemes and systems which are easily maintainable, provide low cost in use solutions and support and enhance existing (retained) systems) and meet the ERs and sustainability requirements. This should include:**
 - **Fire Strategy**
 - **Energy Management**
 - **Solar shading**
 - **Acoustics**
 - **Ventilation & Energy**
 - **Lighting**
- **An understanding of the IT Strategy and specification with proposals that provide a clear, robust, secure and future-proofed design and are clearly aligned to the requirements in the ERs. Proposals should be affordable, with good quality standard equipment which can be easily maintained.**
- **An understanding of the Telecommunications specification and proposals provide a clear, robust, secure and future-proofed design and are clearly aligned to the requirements in the ERs. Proposals should be affordable, with good quality standard equipment which can be easily maintained.**

MEP - Ventilation and Energy

Utility record information of site infrastructure services both in and around the proposed Town Hall site has been obtained as part of this dialogue stage. The information contained on the record drawings will need to be verified during the design development stages of the project along with on-going dialogue with the utility providers in order to define the precise scope of works and associated budgets. In general there does not appear to be any significant issues relating to the capacity of site services and the electrical services, specifically the temporary sub-stations and services along Buckner Road will

require the greatest focus. The mixed use nature of the SW2 Enterprise Centre presents an opportunity to consider a site wide energy strategy. Overall this site is driven by its cooling demand and not the heating demand. By utilising a mixed mode strategy, this cooling load will be very much reduced. The commercial nature of these buildings means that there is a negligible domestic hot water load and with the introduction of new and enhanced glazing and building insulation, the base heating demand will also be reduced and peaking for a short time, making a site wide network less efficient from its demand profile and less attractive from an operational perspective.



Triangle Development showing building services strategies

We recognise the future aspiration of Lambeth for a Brixton wide heat network and have therefore allowed space for a future incoming heat exchanger to each building. This would help contribute to the authorities long term zero carbon target and One Planet Living objectives. As an alternative to a centralised energy system, we are recommending a de-centralised system strategy. Utilising heat pump technology will enable heat recovery

to provide efficient and controllable heating and cooling to the workplace buildings via a water cooled 4 pipe heat pump chiller providing simultaneous cooling water and low grade heating water with the following benefits.

- Efficient space planning (footprint) compared with other heat pump technologies such as VRF when larger capacities are required.
- Internal chiller units provide

flexibility space planning, suitable for existing buildings or where external plant provision is limited.

- Higher efficiencies than air cooled systems and traditional boiler and chiller installations. Significant amount of free cooling required during mid-season operation
- Although heat rejection may be required at certain times of the year, this can be achieved through the use of low profile, quiet and

light weight condenser units which are more flexible when looking for plant locations.

- Water cooled heat pumps have the capability in interfacing with ground source heat pumps for both heating and cooling.
- Low maintenance requirements and costs
- Capital cost savings on traditional installations
- Compatible with AHU's and both chilled beams, fan coil units and perimeter trenches for flexible fit-out options.
- An all-electric plant can be used integrate with other suitable renewable technologies such PV and the future de-carbonisation of the national grid.

The electrical demands for cooling can either be offset by green electrical tariffs, a borough wide CHP system(as described above) or on-site generation, eg PV panels. These opportunities will be explored during the next design stages as part of the One Planet Living sustainability approach. The challenge for this new office development will be to provide a low energy but comfortable environment which responds to the site and the requirements of the Council. Our aim was to provide a flexible infrastructure which will enable the building to respond to different uses, fit-out options and working cultures. The proposed site is next to a busy road which will present a challenge in terms of acoustics

and fresh air.

Although the aforementioned represent challenges, so do they provide us with opportunities from an environmental perspective such as passive pre-heating to the easterly elevations in the morning and the ability to provide heat recovery and hence very efficient supplementary heating and cooling to the building.

Design Approach:

The development of the engineering designs will be developed in a holistic and collaborative way to ensure that the inputs and requirements of the Authority and other design consultants are adopted. Our proposals also work within the constraints of the retained buildings on site to maximise the opportunities presented by the existing fabric of these buildings.

Our designs will also be tested with the supply chain to ensure that the required quality and performance can be achieved within the cost budget. This will be of specific concern in the Town Hall where the appearance of any new plant or equipment will be scrutinised by the Planners. Although the architectural layouts will vary between the different buildings on the site, the overall objective of the design will be to create a harmonious set of buildings with similar environmental

performance such that no-one building will be seen as being better than the others.

- Good quality office space with high levels of natural light
- Solar and day lighting controls of prevent glare / overheating
- Low energy servicing solutions (heating, cooling and lighting)
- Opportunities for short, medium and long term flexibility
- Availability of natural ventilation depending on individual choice
- High quality exposed concrete soffits to maximise on ceiling heights and provide thermal mass to temper the internal environments.
- Flat soffits with no downstand members to maximise flexibility for service distributions
- Well positioned cores and risers to reduce length of service runs.
- The use of raised floors throughout to provide low level service distribution of data, power and fresh air.

The designs will be developed to incorporate the collective experience from the team on past project and feedback from what works well. This will be combined with our own post occupancy evaluations that not only look at how the building function technically, but how

they perform as office spaces in term of productivity and wellbeing. We will engage with our team of post-doctorate engineers who are undertaking this research to gain best learning in this area.

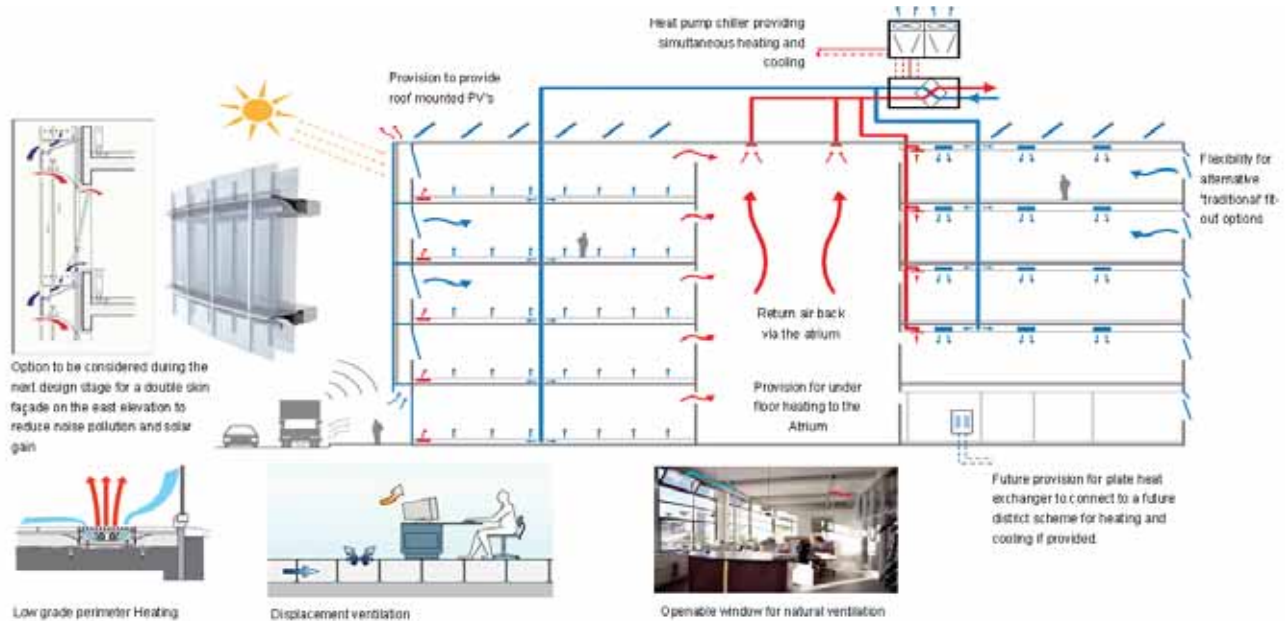
Building from our past experiences, our designs will include in-depth analysis of actual anticipated energy usage over a complete year, that can also include un-regulated power loads. This will ensure that the systems adopted are fully compatible with each other to achieve the most efficient and optimised outcome, rather than just sizing them for the peak demands. These systems will be controlled by the Energy Management System described later. A detailed "soft landing" programme will be initiated to educate the building users and maintenance staff to ensure the building is used efficiently.

The challenge for the refurbished office of Ivor House and the refurbishment of the Town Hall is the target of BREEAM Excellent. Our ability to achieve this will greatly depend on our opportunities both practically and financially to enhance the buildings fabric include glazing, external walls and roof and improved air tightness. A large number of BREEAM objectives overlap with the One Planet Living objectives, and these will be given higher priority as described in detail in the

sustainability section. The MEP systems proposed here are all compatible with a BREEAM Excellent rated building. Throughout the design development of the MEP strategy for the proposed scheme we have been mindful to incorporate every aspect of the SW2 Enterprise Centre – Invitation to Participate in Competitive Dialogue, Stage 1 Outline Solutions, Volume 2 Employer's Requirements and particularly Section 14 and 16.

New Office and Ivor House

The MEP strategy for the new office and Ivor House will consist of a mixed mode ventilation strategy, utilising where possible openable windows and vents to the perimeter façade.



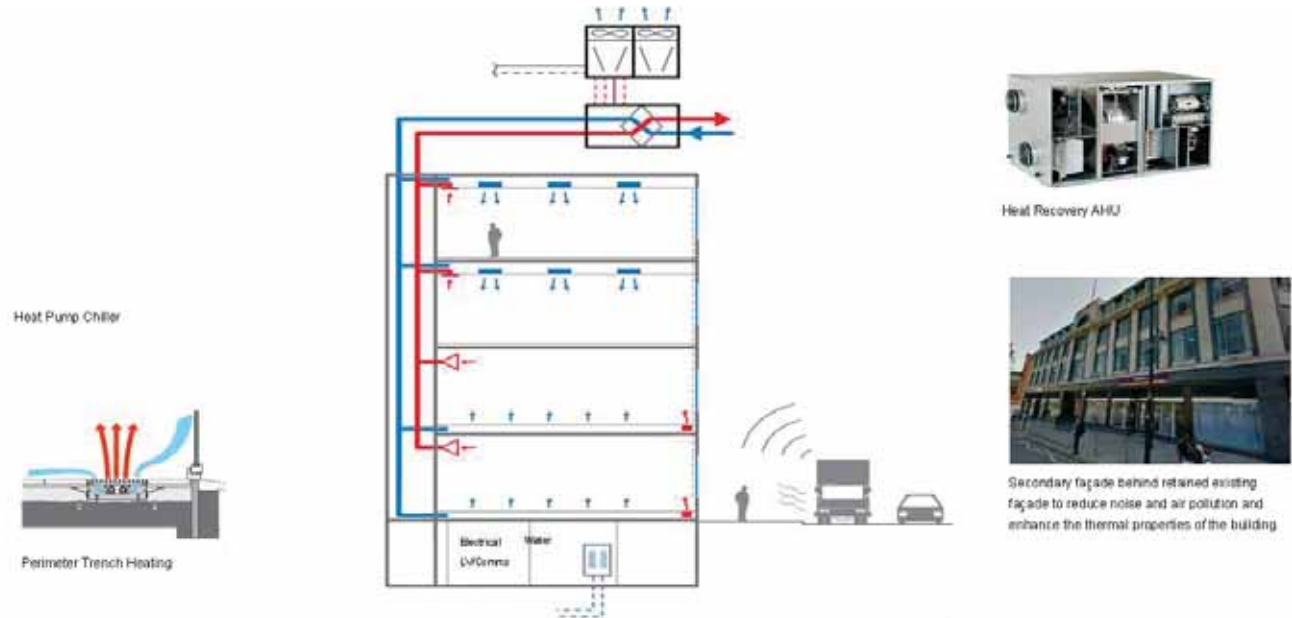
Overall strategy for the New Office building

The natural ventilation will be supplemented throughout the year and in areas of the building that cannot be treated naturally by a centralised ducted heat recovery air handling system which will supply tempered fresh air via the central core risers to the floor plates. Return air will be via the central atrium and the cores/risers. Free cooling will be utilised wherever possible and consideration given to the use of adiabatic cooling provided by the rain water harvesting system.

The preferred on floor solution would be to provide the fresh air via a raised floor system, whilst utilising the thermal mass of the exposed concrete soffits combined with a night time cooling strategy to reduce the internal heat loads within the office areas.

We have provided the flexibility within the building and associated space planning to provide the option for a traditional HVAC solution incorporating a ceiling with fan

coils or chilled beams should the building user require it.



Overall strategy for Ivor House

Town Hall

The MEP strategy for this refurbished Town Hall and associated offices will consist of a mixed mode ventilation strategy, utilising where possible openable windows and vents to the perimeter façade.

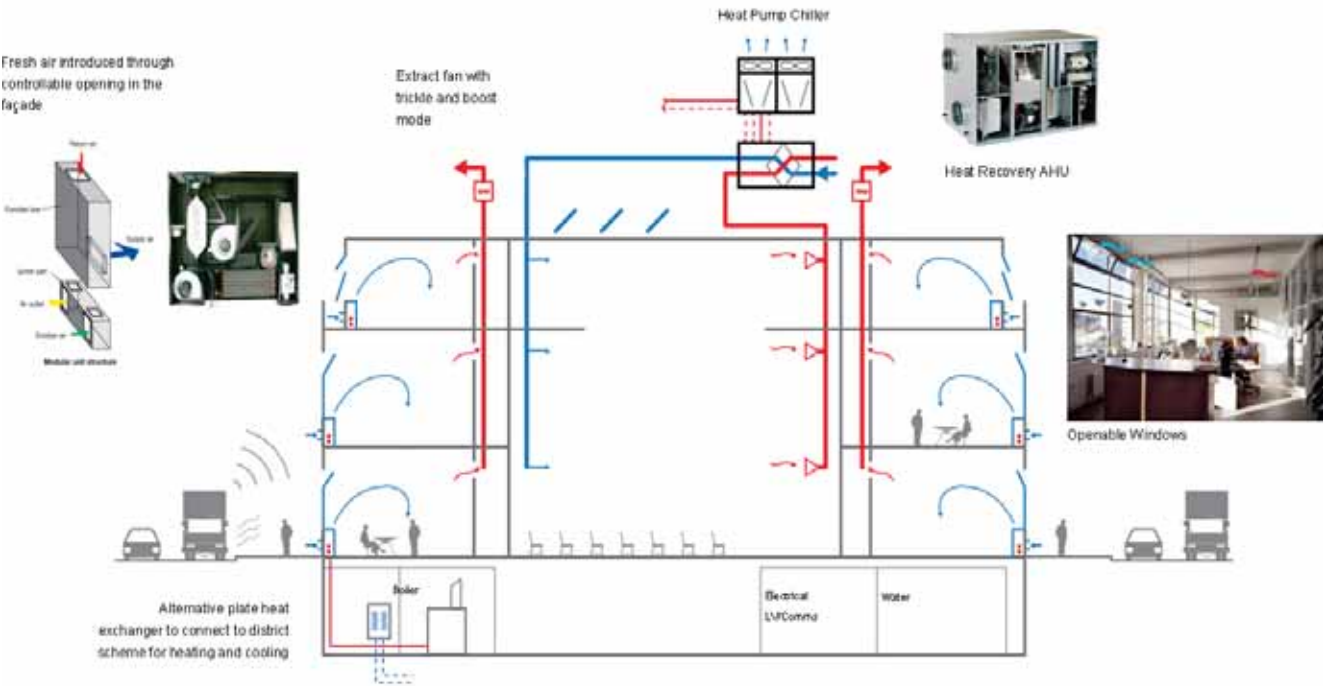
The proposed system will look to utilise and enhance the original ventilation strategy for the building. Fresh air will be introduced

through the original perimeter architectural grilles within the fabric of the building mounted behind state of the art floor standing heat recovery units providing tempered demand controlled fresh air.

The fresh air ventilation will be balanced with the return air ducted system which will draw stale air from high level in each perimeter office via the decorative corridor coffered ceilings. Mid-season periods these perimeter units will be

supplemented via openable windows and in the summer the option for comfort cooling via the perimeter heat recovery units could be provided in higher density office areas. A centrally ducted full fresh air system will be provided to the larger conference/seminar and Chambers rooms where sole reliance of natural ventilation may not be achievable. In principal the level of works within the Town Hall will be a full strip-out of services and re-conditioning of any retained

features (lights, radiators etc..) We also assume this would include a full strip out of toilet and other "back-of house" areas with a complete replacement (but retaining any cast-in drains etc..)



Overall strategy for the Town Hall

Proposed equipment schedules

The project will incorporate many building services systems, a few of which are indicated on the diagrams above.

The exact specifications for each item will be developed during the detailed design stages and will depend on the

agreed performance criteria and specific design requirements. At this stage we anticipate that the following systems will be incorporated into the design.

The following mechanical and public health services systems will be provided:

- Incoming gas services, (metered at point of entry

and as required by Part L of the Building Regulations)

- Incoming water services, (metered at point of entry and as required by Part L of the Building Regulations)
- Heating, ventilation and comfort cooling installations, as necessary
- Toilet extract ventilation installations
- Specialist ventilation

installations

- Cold water storage and distribution
- Hot water generation and distribution
- Rainwater harvesting systems
- Specialist water features (if required)
- Above-ground and below-ground soil and waste systems

- Surface water drainage
- Rainwater harvesting
- Building Energy Management System (BEMS)
- Smoke control (if required)
- Fire fighting installations
- Passenger and goods lifts

The following electrical systems will be provided:

- Incoming electrical services, (metered at point of entry and as required by Part L of the Building Regulations)
- External/security lighting installations
- Emergency lighting installations
- Fire detection and alarm systems
- Lightning protection
- Earthing and bonding
- Car parking barrier and access controls, if applicable
- LV switchgear
- Small power distribution
- General lighting installations
- Feature lighting installations
- Public address (if required)
- Electronic security and access control
- Internal CCTV extending to building perimeter external areas
- Disabled WC alarms
- Refuge alarms
- Panic alarms

Of these system, the ventilation and cooling systems are probably the most critical for the buildings.

The buildings will be designed to provide considerable flexibility

for future fit-out HVAC options. The following systems have been considered to meet the required compliance criteria both in terms of Part L and EPC.

- Under floor supply system
- 4 Pipe Fan Coil Units
- Active Chilled Beams

All plant will be sized taking into consideration summer and winter loads, with optimisation and compensation, frost protection and night set back facilities, or equivalent to achieve the specified internal temperatures at the stated external design temperature. The installed plant will be capable of heating the building to the desired temperatures within 2 hours of start-up. Heat emitters will be selected to maximise the effective use of space.

The building will be zoned to allow for areas of different occupancy levels and durations of occupation. These zones will be controlled by the Building Energy Management System (BEMS) to reflect the occupancy levels and their duration, and have the capability to be adjusted if these change during the operational life of the building. Heating and cooling set points must be capable of being adjusted for each zone and for operating hours to be extended.

The rating and efficiency of any plant will be compliant with the

requirements specified in Part L of the Building Regulations, and will be high efficiency in accordance with BREEAM requirements.

The buildings core/riser, structural solutions and overall plant space provision has been designed with the flexibility to accommodate either of these systems.

Under Floor supply system

Roof or Basement mounted air handling units will supply tempered fresh air via vertical and horizontal ductwork distribution to each floor plate. The heating and cooling will be via a roof or basement mounted high efficiency air to water or water to water heat pump chillers which will distribute chilled water and low grade heating water via a pumped 4 pipe system.

Air will be distributed to the occupied work place via a sealed pressurised floor void system approximately 350 to 400mm deep and recessed swirl floor grilles complete with balancing dampers and dirt baskets. The floor voids will be divided into zones with ductwork distributed to each zone via the primary risers.

Trench heaters will be provided along the entire perimeter of the offices supplied from the low grade heating system.

Pipe Fan Coil Units

Roof or Basement mounted air handling units will supply tempered fresh air via vertical and horizontal ductwork distribution to each floor plate. The heating and cooling will be via a roof or basement mounted high efficiency air to water or water to water heat pump chillers which will distribute chilled water and low grade heating water via a pumped 4 pipe system. Localised heating and cooling would be provided by ceiling void mounted fan coil units providing conditioned air via ceiling mounted diffusers to the occupied office space. The fan coil units would be equipped with EC/DC variable speed fan technology.

No additional heating and cooling is proposed to the central air handling units as all pre-heating and

Active Chilled Beams

Roof or basement mounted air handling units will supply conditioned fresh air via vertical and horizontal ductwork distribution to each floor plate. The heating and cooling will be via a roof or basement mounted high efficiency air to water or water to water heat pump chillers which will distribute chilled water and low grade heating water via a pumped 4 pipe system. Localised heating and cooling would be provided by active chilled

beams recessed into a lay in or plasterboard tiled ceiling. The system will utilise the latest variable air volume beams and consider the utilisation of pre-fabricated multi-service beams.

The central air handling units will reduce the preheating and cooling loads through the use of hygroscopic thermal wheel heat recovery and adiabatic spray coil on the return.

Fire Strategy

The fire strategy will be developed based on the provisions of BS 9991:2011 Fire Safety in the Design, management and use of residential buildings – code of practice for the residential aspects of the scheme and BS 9999 Code of practice for fire safety in the design, management and use of buildings for the remainder of the development including the existing town hall.

The main approach for the existing town hall will be to make improvement to the standard of fire safety where deemed necessary and where practical. Alternative fire engineered solutions will be adopted where necessary and where they will offer a clear benefit of the scheme. All fire engineered solutions will be developed in close co-ordination with the design team and approving authorities throughout the design process

to reduce the risk to the project. Currently the Town Hall is well served with stairs and potential egress routes, and the proposed new circulation routes only increases this provision, thereby minimising the risk of any significant works to bring the building upto modern compliance requirements. The new elements of the scheme will all be designed to be fully compliant with all current codes and regulations. Some of the likely key fire safety systems to be included are:

- Automatic Detection and Alarm (anticipated to be a minimum of L2 standard)
- Dry fire mains to buildings with limited building perimeter access (e.g. a number of residential building and the new office)
- Fire fighting cores.
- Fire lifts will be provided for the new buildings greater than 18m in height
- Natural smoke venting from the office atrium.

Based on a top floor height of the new offices being limited to no more than 30m above ground, it is currently not anticipated that sprinklers will be required anywhere in the Enterprise Centre redevelopment.

Energy management

An integrated Building Energy Management System (BEMS)

designed in accordance with the CIBSE Guide H: Building Control Systems is to be provided to monitor and control plant and engineering services within the building. The BEMS will be open protocol and will interface with the building ICT system.

The BEMS is to utilise localized, intelligent, stand-alone microprocessor based outstations that incorporate distributive intelligence and direct digital control (DDC) methodology. The outstations are to be fully networked. The completed network will be engineered such that it forms an overall integrated knowledge based management system. Outstations fitted within motor control centres (MCC) panels will be programmable devices and will supervise associated items of main plant and equipment. Terminal units will typically be provided with devices linked via a network. Outstations will share data and operate in conjunction with one another, via the communications network, but are to be capable of stand-alone operation, in the event of network failure. The BEMS will control and/or monitor the mechanical, electrical, public health and fire systems.

Graphical representation will be provided at the head end that can be web-accessed from any authorised terminal for read only access.

The network communication link and BEMS are to be designed to have sufficient versatility, diversity and UPS back-up such that in the event of a mains power failure or the loss of a particular section of the network installation it continues to operate and communicate with no adverse affects.

The BEMS will include an uninterruptible power supply (UPS), to protect the software and control logic from unforeseen interruptions in the power supply.

The BEMS will be designed to ensure optimum usage of energy resources. The BEMS is to have the facility to be interrogated locally and also to be interfaced with other remote monitoring facilities. The system should be capable of supporting BACnet browser-based web access and Modbus over TCP/IP at management level with support of Modbus and BACnet at Field level. The energy management system must include zone control, time clocks, weather compensation and space temperature sensors.

Solar shading

The challenge for this new office development will be to provide a low energy but comfortable environment which responds to the site and the requirements of the Council.

The proposed site is next to a

busy roads which will present a challenge in terms of acoustics and fresh air. The building is also orientated primarily on an East / West axis which will require careful consideration of low angle solar gain and glare can be controlled via external shading, high performance glazing and internal blinds for glare control.

The external shading on these elevations are generally either vertical elements or combinations of horizontal and vertical shading elements generally in the region of 400 to 450mm deep when working in line with a 1.5m structural planning grid. Further shading devices, or other solar control methods such as fritting, will be developed for the roof lights. Although the aforementioned represent challenges, so do they provide us with opportunities from an environmental perspective such as passive pre-heating to the east elevation and the ability to provide heat recovery and hence very efficient supplementary heating and cooling to the building. The full details of all solar shading devices to the façade and roof lights will be developed in the next design stage as these elements form an important component of the sustainability / energy strategy as well as the architectural expression of the building.

Acoustics

External Acoustics:

The external acoustic performance of the building services installation will be designed in accordance with the recommendations of CIBSE, BCO and BREEAM for the activities and usage of each individual space.

The acoustic design of the services to meet the design criteria will consider the following plant selection:

- System design (i.e. velocities, location of equipment, etc.)
- Equipment / terminal device selection (i.e. Fans, grilles, emitters, etc.)
- Attenuation / acoustic louvres
- Anti-vibration connections (i.e. flexible)
- Anti-vibration mountings for plant

External plant will be selected to meet the local planning requirements at the site boundary. All designs will be required to achieve the requirements of BREEAM Excellent.

The building services will be designed and installed such that the noise ratings are not exceeded in the occupied space as stated by a specialist acoustic consultant.

Internal Acoustics

The internal acoustic performance to the office will be designed to limit and control both:

- Acoustic reverberation
- Acoustics transfer

The reverberation will be controlled by incorporating suitable acoustic absorption panels to the surfaces of the public and office spaces. These can either be expressed architecturally, or incorporated into the furniture and finishes or integrated into suspended lighting fittings.

Noise transfer between spaces will be controlled by the acoustic performance of the partitions and doors. Detailed assessments will be done of the required acoustic performance between spaces, with the partition walls and doors design appropriately.

The offices will generally be designed to meet the BCO guidelines, but specific acoustic measures will be adopted for critical spaces, such as confidential interview rooms etc..

Lighting Internal Areas

Office accommodation

We would use different lighting elements within each space to address both the visual

performance requirements and respond to the interior design, whilst also considering issues such as lamp life, energy consumption and maintenance. Scene setting lighting controls will be used to adjust the lit environment to suit the current task in each space. In addition the use of solar time clocks will allow automatic operation of common areas; absence/presence detectors will switch off lights in areas left unoccupied after a set time; and daylight sensors will dim the lighting when there is sufficient illumination from natural light or raise/lower blinds automatically to avoid glare from direct sunlight. These controls will not only enhance the visual comfort of the spaces, they will also provide operational energy savings.

Residential accommodation

Here we will use a number of different lighting layers, including accent lighting to pictures, downlighting to tables and work surfaces, and ambient lighting in the form of table lamps, free standing lamps and feature pendants.



Lighting External Areas

The principal aim of the exterior lighting design will be to encourage the recreational use of the external spaces after dark and to enhance views of, and into, the space from the surrounding area.

Both daytime and night time surveys will be undertaken of the area and existing lighting installations, building upon the work previously undertaken as part of the Brixton Lighting Masterplan produced by dpa

lighting design in March 2010. The lighting scheme will provide a cost effective, energy efficient and sustainable lighting system in terms of efficacy, colour appearance and colour rendition and will incorporate a low maintenance philosophy by careful consideration of lamp rationalisation (minimising the number of lamp types), lamp life (mortality) and lumen depreciation. The quantity of lighting equipment installed will be minimised whilst ensuring that the required illumination are achieved. Equipment will

be installed in locations that do not encroach upon the daytime activities or pedestrian and vehicular movement.

Civic Square, landscaped areas and circulation

The overall design will be clutter free, with exciting functional and decorative lighting elements. The lighting will be flexible and adaptable and suited to the varying uses of the space throughout the evening, night time and during any special events and festivals.

The daytime appearance of the lighting equipment and any CCTV networks will also be considered.

Building facades

The illumination of the existing Grade 2 listed Lambeth Town Hall building will aim to reveal the architecture of this important landmark, promoting its location on key viewpoints and vistas, whilst reinforcing the building's presence within the centre of Brixton at night. Informal lighting trials will be

carried out at an early stage in the project, to inform our design development and demonstrate our ideas to the client and design team. The lighting of the new office building's facades will also be carefully considered as part of the development of the façade design.

IT & Telecoms

Space provision has been provided at basement level for the incoming comms and fibre optic connections (assumed to be provided by the Council). We have also made space provision for a server / comms cabinet installation also at basement level along with suitable vertical and horizontal riser and containment throughout the office building via IT basket and cable trays both within accessible risers, raised floors and at high level where required.

This flexible infrastructure will allow for the Council to provide its own hardware and cabling up to Cat 6 standard to fit out the building to their own requirements.

Provision for UPS and back up generation have also been made within the base design.

Post Occupancy Evaluation

Post-occupancy evaluation (POE) evaluates how occupied buildings use energy and presents building users with valuable information on how to improve energy efficiency. It also provides the design team with knowledge which can be used to optimise their design on future projects. POE can be viewed as a central part of the building lifecycle, which can inform decisions at all stages of a building's life, from design to demolition. POE is central to improving the performance of low and zero carbon buildings, as without it the sustainability of occupied buildings can only be assumed.

As POE relates to occupied buildings the behaviour of the people within the building is an important factor. Engaging users within the building can help change unsustainable behaviours and make the building more effective.

As building designers we are often led by the constraints of a project as it unfolds but continual learning and dissemination of acquired knowledge holds the key to shaping the future of our projects and the practice alike.

The process of POE can be visualised as part of the building lifecycle, where information learnt from an operational (and occupied) project can be used to inform decisions at all of the stages in the design (and operational life) of a building. The concept originally surfaced in the 1970s, and the drive towards tighter environmental targets, new regulations and the focus on a more sustainable approach is driving a resurgence in POE. There is a strong capability for post occupancy evaluation within the practice, with ongoing research by the SAT team and a number of successful projects under our belt.

POE is central to improving the performance of low and zero carbon building design which are vital for sustainable construction. Without POE, the sustainability of buildings in occupation may only be assumed.

Buro Happold have become market leaders in the development and undertaking of Post Occupancy Evaluations and have been instrumental in provide high level advice to central government and local authorities across the globe in this process. By combining this knowledge at Fit-out stage with the established processes of 'Soft landings' we believe that Buro Happold can assist Lambeth in designing, providing and maintaining a highly efficient flagship development which will deliver significant operational savings and superior thermal comfort and environmental control.



Security

SECURITY

- a clear understanding of the security issues across the site and that they have been incorporated into the design
- provision of a secure facility, supporting staff safety. Management of the proposals affordable, with good quality equipment which can be maintained.
- An understanding of existing systems and clearly defines enhancements, improvements and future-proofing.

Introduction

Our security approach involves the incorporation of appropriate crime prevention measures in the design process as early as possible. Our methodology starts with the production of a Threat and Risk Assessment (TARA). This often involves liaison with the Metropolitan Police, Counter Terrorism Security Advisor (CTSA) and Crime Prevention Design Advisor (CPDA). The TARA identifies the vulnerabilities which may then be removed or reduced to an acceptable level during the design process.

It is recognised that the aspiration for the Enterprise Centre is to not only deliver core business but also to be able to support other income generating operations. This involves a large and eclectic group of people, functions and ventures. Consequently, the development will be exposed to a wider variety of risks. It is therefore necessary to realize an acceptable overall risk level. This will be achieved through the recognition and utilisation of best practice, based upon principles such as those outlined in Secure by Design and Crime Protection through Environmental Design

National Counter Terrorism Security Office and Home Office guidance will also be considered. This advice, together with the benchmarking

of security measures aligned with our experience of other similar developments will inform the design of the security strategy and infrastructure for this multi-use development.

General

Below is a brief summary of the way in which the design of the Enterprise Centre will respond to the aforementioned principles, guidance and standards that will be successfully accommodated and integrated to achieve an efficient and effective safe and secure environment for all users:

Access

All access and movement routes within the development will be designed to be convenient, efficient and well defined.

Entrances to the building will be obvious and based upon good signage. Access control from public spaces will be aided by the maximisation of natural surveillance and enhanced with technological measures.

Control of vehicle access to the Enterprise Centre will be achieved through pro-active vehicle management, including barriers and search strategies proportionate to the security threats identified in the TARA.

The development will accommodate a number of different compatible users, who will have been carefully considered to ensure a useful harmonious safe and secure environment. Despite different users being sharing common access routes, each use will be zoned (drawings will be colour-coded to identify use) to enable appropriate security and access control measure to be applied. This will enable an appreciation as to how individual areas will be treated and also inform the design of the evacuation strategy.

Public and private areas will be clearly defined and supported with appropriate security features which be integrated and controlled from a single control room.

Surveillance

The height, scale and position of the buildings will be considered to ensure the potential for natural surveillance and technological surveillance is maximised.

Security technologies such as cameras and personal identification linked to access control and intruder detection will be incorporated. Examples security equipment placement are shown on the security mark-up diagram.

Ownership

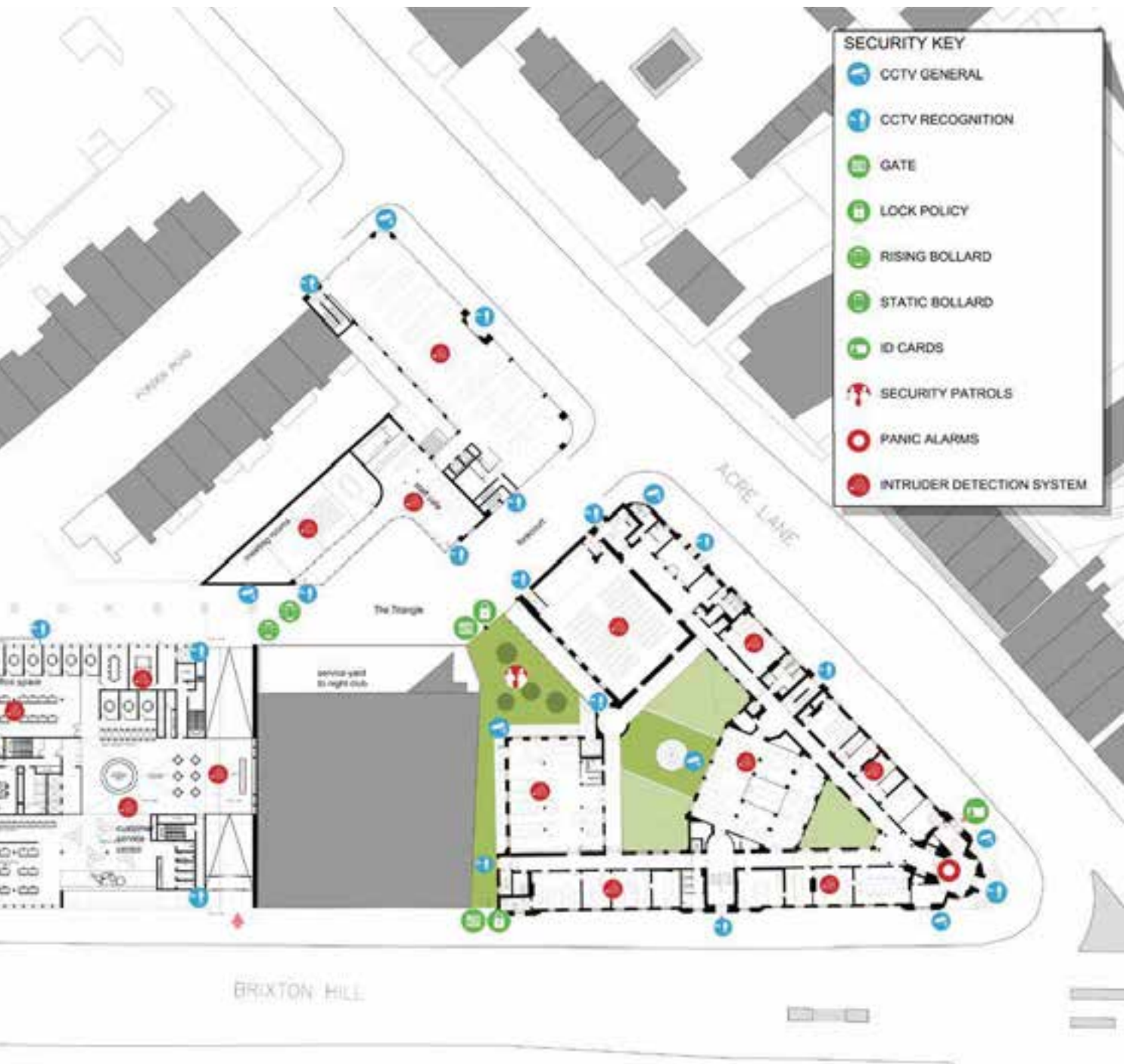
All areas will be designed to encourage a sense of ownership and foster a sense of community and support day-to-day business. This will apply to the building space and also to the design of landscaped spaces and routes that will provide shared semi-private amenity space. This space will benefit from surveillance and secure entry points from public spaces. Again, this is indicated on the security mark-up diagram.

Physical protection

All points of access into the building will be designed to provide the necessary security without compromising the aspiration to provide a high quality environment for all users of the building.

Outside Activity

The landscape design for the outside areas will be designed to complement and support a safe and secure environment. The landscape strategy will encourage and support legitimate activity within public spaces to reduce the risk of crime and inspire confidence.



Counter Terrorism Measures

Due to the requirement for relatively unrestricted public access, the development is vulnerable to the threats posed by terrorism; although the risk is considered to be low in relation to other 'more attractive' sites in London. However, it is recognised that an attack could be person-borne, vehicle-borne, placed by hand, or delivered by courier or post.

Vehicle bombs have the greatest potential to cause maximum structural damage and large scale casualties, including wider public and infrastructure disruption. Blast stand-off distance is an important factor in limiting the extent of damage which can be caused by a vehicle bomb. Wherever possible, stand-off will be used as the primary method to reduce the damage caused by the blast effects; however, the surrounding perimeter road means that any load-carrying vehicles will remain a potential threat. The vehicle control measures will utilise a complementary mix of static barriers, sculptural elements, landforms, walls, fences, raised planters and street furniture with due regard to aesthetics and the level of risk. Obviously, the potential use of such measures must be commensurate with the limited stand-off resulting from the immediate proximity of

the public roads. The facade glazing design, materials and specifications will reflect Home Office guidance standards. Vehicle entry into the development will be controlled.

Conclusion

It will be possible to provide a security infrastructure and strategy which will allow the New Town Hall to function economically, socially and environmentally. It will be a well-designed place where people will feel safe and secure; where crime and disorder, or the fear of crime, does not undermine quality of life or business.

Sustainability

PART 1

Details of how each of the ten One Planet Living principles, as set out in the Employers Requirements, will be embedded in your development proposal, segmenting each principle into specific action points where relevant. You are encouraged to provide specific reference to how these sustainability principles will be intrinsic, rather than additional, to your development. You may wish to do this by cross-referencing other sections within the Sustainability section (e.g. M&E details may be relevant to the zero carbon principle).

Where relevant please include an explanation of how incorporating these principles and targets will ensure that the development is 'future proofed' (i.e. one which is flexible and able to respond to future demands and stresses including a changing climate, energy cost and security, food security etc.) outlining the potential resource efficiency benefits of your designs.

You are encouraged to suggest delineation between developer and Council responsibilities (i.e. developing a travel plan may sit more readily with the Council).

PART 2

A statement outlining how you will ensure that the incorporation of OPL principles will be managed at all stages of design, construction, commission, handover and operation. Please include details of how you will ensure an integrated approach of all contractors in order to maximise sustainability potential. You may wish to explain this in terms of project management, roles and responsibilities, monitoring and evaluation, reporting etc.

In addition to the statement you may provide case studies of projects where you have demonstrated a commitment to sustainability at all stages of the process.

Understanding of the brief

Buro Happold's Sustainability team are proposing to take the role of Sustainability Champions on this project. Specifically this would involve attending all Design Team and Project Team meetings promoting the integration of resource efficient design solutions; developing the Sustainability Statement for the planning submission including CO2 and thermal comfort simulation modelling for Building Regulations; and leading the integration and management processes required to deliver the One Planet Living Action Plan, spanning across its 10 principles.

It is our understanding that embedding sustainability into the design, construction and operational phases of the SW2 Enterprise development is of paramount importance to the Council. This was evident in both the Stage 1 and Stage 2 briefing packages and most recently, at the progress meeting held with the Council on 10th May 2013. As a result, we now understand that all new buildings and major refurbishments should achieve minimum sustainability standards:

- CSH Level 4 for domestic new build, looking to exceed this standard wherever possible
- BREEAM "Excellent" for non-domestic new build

- BREEAM "Excellent" for refurbishments

The sustainability credentials for the overall scheme must also be supported by an all-encompassing "One Planet Living Action Plan" detailing targets and strategies for against of its ten principles as set out in the Council's briefing document. At this outline stage, a draft action plan has been provided. It is likely that a stakeholder engagement process with the Council will be required to deliver the operational elements of this scheme. Further consultation will be required to align objectives/aspirations regarding design decisions with a cost element attached.

In addition to this, requirements such as the London Plan will need to be considered. This includes taking a 'lean, clean, green' approach to fabric improvements and system efficiency, calculating both regulated and unregulated energy demand and CO2 emissions and providing future proofing proposals e.g. allowing additional space in plant rooms for district energy connections, providing on-site renewable energy in the order of 20% CO2 savings and providing carbon offsetting strategies to achieve zero carbon in line with the One Planet Living principles.

This report demonstrates and summarise the work that has

been done since the ISOS bid stage that includes the following key points:

- How each of the One Planet Living principles is mapped against BREEAM and CSH. It is shown that several requirements are intrinsically part of BREEAM and CSH, whereas others may require additional resource to achieve.
 - Pre-assessments for BREEAM and CSH. We demonstrate that CSH Level 4 is achievable for the residential units and BREEAM excellent is achievable for the new build offices. The key challenge will be to achieve a BREEAM excellent rating on the refurbished buildings (i.e. the Townhall and Ivor House) without significant building fabric improvements.
 - How each of the ten One Planet Living principles, as set out in the Employers Requirements, will be embedded in the development proposal, segmenting each principle into specific action points where relevant. A preliminary action plan has been produced with ownership of each element identified. This will be reviewed and monitored during the design stages.
 - The processes to implement and manage BREEAM, CSH and the One Planet Living action plan. We
- have experience delivering bespoke frameworks, most notably through our experience on the Arup Building refurbishment in Cambridge. We also have experience delivering BREEAM and CSH, e.g. University of Edinburgh Scottish Centre for Regenerative Medicine (BREEAM excellent) and the TIQ residential towers in Stratford targeting CSH level 5.. A continual reporting, measuring and validation process will then be utilised during the design and construction stages. In order to manage the pre and post occupational phases of the project a management plan with governance structure will be developed in consultation with the Council.
- Further details of how the building services and energy demands of the building will be reduced in line with the OPL and BREEAM targets are included in the Technical section.

Part 1

Mapping One Planet Living Principles to BREEAM and CSH

One of the key factors to consider in this project will be managing any additional resources required to achieve

BREEAM and CSH, alongside the One Planet Living principles. In order to manage this process, the first step we have taken is to map the themes of BREEAM and CSH to the ten One Planet Living Principles, as shown in Figure 1.1 and Figure 1.2.

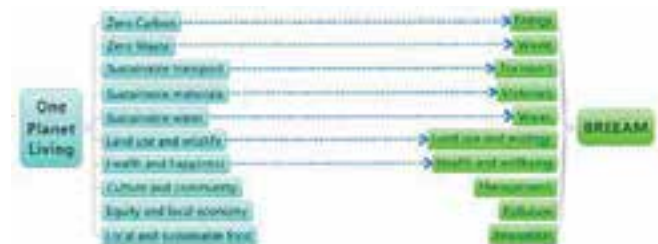


Figure 1.1 Mapping One Planet Living to BREEAM



Figure 1.2 Mapping One Planet Living to CSH

Through this exercise it can be seen that there are potentially several intrinsically linked themes, most notably those related to building design (e.g. energy/carbon, water, waste, materials); albeit, further resource may be required to achieve the 'zero' status. By comparison, there are several principles e.g. sustainable

food, culture and community, which BREEAM and CSH does not cover, therefore additional resource, e.g. in the form of stakeholder consultation etc. may be required.

BREEAM and CSH pre-assessments

Preliminary BREEAM and CSH pre-assessments have been conducted for the new-build residential units, new-build non-domestic buildings and refurbished non-domestic buildings. The purpose of these studies was to provide a preliminary indication as to whether the targets are feasible and provide an initial strategy for the design team to pursue if successful into the next stage. In short, the pre-assessments demonstrate that CSH Level 4 is achievable for the residential units and BREEAM excellent is achievable for the new build offices. The key challenge will be to achieve a BREEAM excellent rating on the refurbished buildings (i.e. the Townhall and Ivor House) without significant building fabric improvements.

CSH pre-assessment (new build residential buildings)

Figure 1.3 contains a summary of the CSH pre-assessment undertaken. The dark green bars represent targets that can be comfortably achieved, the lighter green bars represent targets that require further commitment (i.e. having an adding cost implication), and the orange bars represent the additional points required if

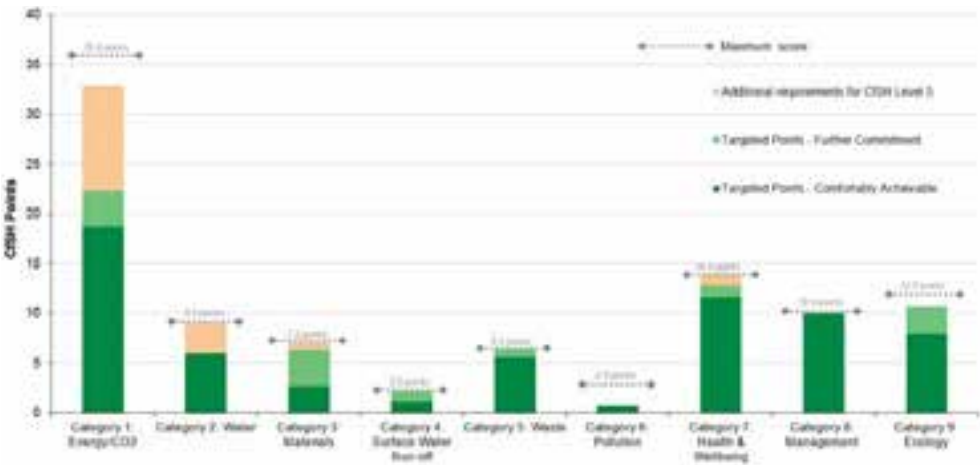


Figure 1.3 CSH pre-assessment results for new build residential units

Code Level 5 is being targeted. In order to achieve Code Level 4, a minimum of 68 points must be achieved; for Level 5, this increases to 84. According to the pre-assessment, the sum of the targeted points (i.e. both green bars) is 77, indicating that CSH Level 4 is achievable and with further investment in energy demand reduction or renewable energy, Level 5 may be feasible.

The added cost involved in achieving code level 5 will be investigated in the next stage so that the additional investment can be evaluated for its worth. Typically, the key targets to be aware of when making this step up in performance are:

- Ene1 – Dwelling Emission Rate. A minimum of 25% reduction in regulated CO₂ emissions is required for Code Level 4. This increases to 100% for Code level 5.
- Ene2 – Fabric Energy Efficiency. The level of fabric energy efficiency must be less than 39 kWh/m²/year for mid-terraces/apartments and be less than 46 kWh/m²/year for end-terraces.
- Wat1 – Internal potable water consumption. Predicted water consumption must be less than 105 l/p/d for Code Level 4. The target is <80 l/p/d for Code level 5.

BREEAM pre-assessment (new build non-domestic buildings)
Figure 1.4 displays a summary of the BREEAM pre-assessment

results conducted through the 2011 New Construction Methodology. In order to achieve the BREEAM 'excellent' rating, a score of 70% or above is required in addition to achieving a series of mandatory requirements. At present an indicative score of 75% has been targeted. Table 1.1 outlines the minimum standards required. Later in this report an overview of target responsibilities & timings through RIBA stages is provided.

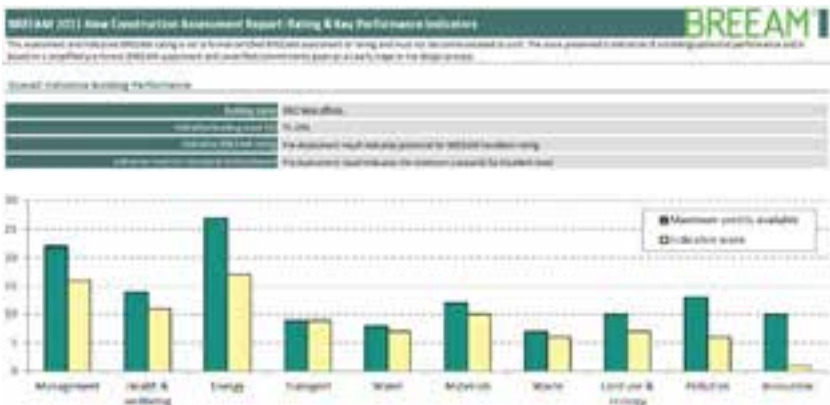


Figure 1.4 BREEAM new construction pre-assessment results for new build non-domestic buildings

BREEAM issue	Minimum standards by BREEAM rating level				
	PASS	GOOD	VERY GOOD	EXCELLENT	OUTSTANDING
Man 01: Sustainable procurement	One credit	One credit	One credit	One credit	Two credits
Man 02: Responsible construction practices	None	None	None	One credit	Two credits
Man 04: Stakeholder participation	None	None	None	One credit (Building user information)	One credit (Building user information)
Hea 01: Visual comfort	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only
Hea 04: Water quality	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only
Env 01: Reduction of CO ₂ emissions	None	None	None	Six credits	Ten credits
Env 02: Energy monitoring	None	None	One credit (First auto-monitoring credit)	One credit (First auto-monitoring credit)	One credit (First auto-monitoring credit)
Env 04: Use of zero carbon technologies	None	None	None	One credit	One credit
Wat 01: Water consumption	None	One credit	One credit	One credit	Two credits
Wat 02: Water monitoring	None	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only
Mat 03: Responsible Sourcing	Criterion 3 only	Criterion 3 only	Criterion 3 only	Criterion 3 only	Criterion 3 only
Wat 03: Construction waste management	None	None	None	None	One credit

Table 1 1 Mandatory requirements for each BREEAM level

BREEAM pre-assessment (non-domestic refurbishments)

Two BREEAM pre-assessments under the 2008 BREEAM Offices Major Refurbishment criteria were conducted for the non-domestic refurbishments. The first pre-assessment represented a 'base' score equivalent to a 'very good' rating. The second pre-assessment aimed to push the design further to investigate what would be required to achieve an 'excellent' rating. A summary of the results is given in Figure 1.5 and Table 1 2 below. At this time, the total score achieved in the Base assessment is 61.3, equivalent to a 'Very Good' rating. An aspirational score of 74.6 has also been set, however in order to achieve this, significant fabric improvements or investment in renewable energy would be required.

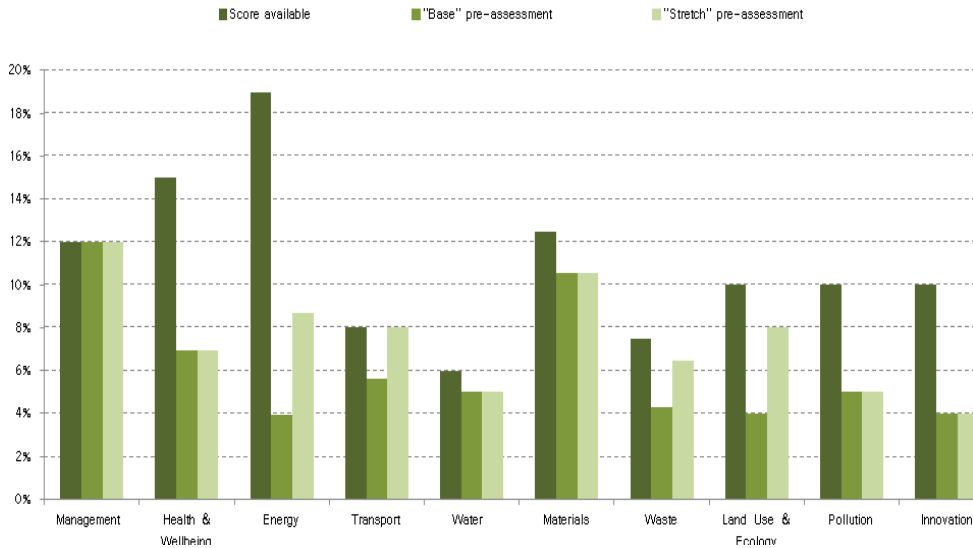


Figure 1.5 Graphical summary of results from 'base' and 'stretch' pre-assessment

			BASE PRE-ASSESSMENT			STRETCH PRE-ASSESSMENT		
	Weighting	Credits available	Credits achieved	% Achieved	Weighted Score	Credits achieved	% Achieved	Weighted Score
Management	12.0%	19	10	100.0%	12.0%	10	100.0%	12.0%
Health & Wellbeing	15.0%	16	6	46.2%	6.9%	6	46.2%	6.9%
Energy	19.0%	34	5	20.8%	4.0%	11	45.8%	8.7%
Transport	8.0%	13	7	70.0%	5.6%	10	100.0%	8.0%
Water	6.0%	7	5	83.3%	5.0%	5	83.3%	5.0%
Materials	12.5%	15	11	84.6%	10.6%	11	84.6%	10.6%
Waste	7.5%	7	4	57.1%	4.3%	6	85.7%	6.4%
Land Use & Ecology	10.0%	10	4	40.0%	4.0%	8	80.0%	8.0%
Pollution	10.0%	12	6	50.0%	5.0%	6	50.0%	5.0%
Innovation	10.0%	10	4	40.0%	4.0%	4	40.0%	4.0%
Total score					61.3%	Total score		74.6%
					VERY GOOD			EXCELLENT

It should be noted that 2 additional credits under Ene 1 may be awarded if a full member of the Institute of Historic Building Conservation undertakes a specialist study to investigate the implications of improving building fabric performance whilst minimising the potential negative impacts on both the historic character of the building and the condition of the building fabric. The report must make specific recommendations for potential improvements to the building fabric in accordance with the guidance given in English Heritage's "Balancing the needs for energy conservation with those of building conservation: an Interim Guidance Note on the application of Part L". Each element of the building must be considered. The study must have been carried out at or prior to concept design stage (equivalent to RIBA stage C or earlier).

If BREEAM 'excellent' is not achievable due to this limiting requirements, it may be that the agreed route going forward is to pursue BREEAM at a Very Good level with an aspiration to achieve an 'Excellent' level of performance i.e. >70% points, combined with a suitable carbon off-setting approach aligned with One Planet Living. It should be noted also that BRE Global are currently developing a new standalone scheme for assessment of non-domestic building refurbishment

titled 'BREEAM Non Domestic Refurbishment 2014'. This is due to be released in early 2014

One Planet Living Action Plan

The following table contains a preliminary One Planet Living Action Plan for the scheme. This action plan has been developed further since the original bidding stage of the competition so that it incorporates comments at different stages in the design process alongside the identification of 'owners' for delivering each target. This framework has also been embedded into the cost plan for the project.

		ONE PLANET / LIVING TARGETS	OWNERSHIP	IMPLEMENTATION PLAN / PROJECT TIMING			
				Design stage	Construction	Post-occupation	Post-occupation
ZERO CARBON 	A.1	Zero carbon by 2025	Build process and sustainability. Design team & Council committees	The opportunity to be fully carbon neutral and carbon free using carbon capture technology to produce	Design team will set carbon footprint through out construction process		
	A.2	Passive design & ventilation	Architect & Building Services	This will be embedded in design, ventilation systems to be designed to maximise natural lighting and harness low carbon sun that providing passive ventilation			
	A.3	Efficient systems	Building Services & Civil Consultants	How will be made at 2025 at least, other will not be made until after the design of information			
	A.4	Renewable & community heating	Building Services	Renewable heat (community, geothermal, solar) energy source that should be used as much as possible, ensuring the best use of the land			
	A.5	Renewable power supply	Sustainability & Building Services	Renewable energy is to be used as much as possible, ensuring the best use of the land			
	A.6	Temporary systems	Building Services	Design, efficient and temporary, should be used as much as possible, ensuring the best use of the land			
	A.7	Climate change adaptation	Building Services	Climate change adaptation should be considered, ensuring the best use of the land			
	A.8	Fast occupancy reduction	Sustainability				Carbon footprint should be reduced as much as possible
ZERO WASTE 	B.1	Construction waste	Architect & Contractor	To be reduced as much as possible			
	B.2	Household waste	Architect & Council committees	Design team to reduce as much as possible, ensuring the best use of the land		Design team to reduce as much as possible, ensuring the best use of the land	Design team to reduce as much as possible, ensuring the best use of the land
	B.3	Commercial waste	Architect & Council committees	Design team to reduce as much as possible, ensuring the best use of the land		Design team to reduce as much as possible, ensuring the best use of the land	Design team to reduce as much as possible, ensuring the best use of the land
	B.4	Overseas waste minimising	Council committees			Design team to reduce as much as possible, ensuring the best use of the land	Design team to reduce as much as possible, ensuring the best use of the land

		most domestic waste can be recycled; in offices, 80% can be utilised for recycling, recycling and composting.					
<div><div>SUSTAINABLE TRANSPORT</div><div></div></div>	E.1	Travel plan	A travel plan that promotes and sustains sustainable transport lifestyle to be developed. This to cover the strategies to make the wide delivery more efficient, together with a consultation system to low carbon emissions of individual travel plans.	Transport officer	Transport plan to be approved by Transport officer according to the conditions.	Sustainable engagement officer to assist the management plan.	Research to monitor performance and provide feedback for building plans.
	E.2	Local transport	Workplace agreement with information on walking route to be incorporated into workplace health and safety. Transport with bicycle racks provided, parking facilities and bus stops all within 500 metres walking distance.	Architect & Transport officer	Agreement on local transport and integration into a travel and efficiency.		
	E.3	Home working	Flexibility of systems and system requirements to be specified to maximize the flexibility of home working. This to include the provision of secure data sharing facilities and teleconferencing equipment to maximize productivity from home working.	Building Services & Council's procurement	Home working to work with system to ensure secure data sharing requirements.	Sustainable engagement officer to assist with the agreement plan.	
	E.4	Car sharing	The high use of virtual notice boards, an office car club can be set up to be developed for residential and commercial use. Only shared users parking to be available for the use to maximize the use of the car sharing service.	Council's committee		Sustainable engagement officer to assist with the management plan.	Research to monitor performance and provide feedback for building plans.
	E.5	Promoting walking & cycling	Walking and cycling routes from the site to be encouraged through provision of on-site routes, showers and lockers in the commercial office spaces as well as adequate individual cycling facilities. Commercial access for "Bike Share" service to be provided.	Architect & Transport officer		Sustainable engagement officer to assist with the management plan.	Research to monitor performance and provide feedback for building plans.
	E.6	Sustainable fuel	Provision for use of fully renewable waste cooking oil and possibly renewable electricity to run the vehicles to be investigated & incorporated where feasible. Charging stations for electric vehicles to be investigated.	Architect & Council's committee	Provision to investigate feasibility of charging stations for electric vehicles.		
	E.7	Travel monitoring	Regular online travel survey to be in place to monitor and report on sustainable travel. Systems to be encouraged to complete short task, but measures to build up a dataset which can be benchmarked and encourage for continual improvement.	Council's committee		Sustainable engagement officer to assist with the management plan.	Research to monitor performance and provide feedback for building plans.
<div><div>LOCAL AND SUSTAINABLE MATERIALS</div><div></div></div>	B.1	Site audit	A pre-demolition audit to be carried out for the whole site in line with the Institute of Civil Engineers' Pre-demolition Protocol. Opportunities to reuse existing internal materials and structural elements to be documented to reduce the environmental impact of new build / refurbishment.	Structural engineer & Architect	Completion of pre-demolition audit.	To be written into construction management plan.	
	B.2	Pre-demolition materials	A list of pre-demolition materials to be created for the project. Where possible, high impact or valuable materials (for example PVC and aluminium) to be avoided from the demolition. All materials to be removed from the site.	Architect	Architect to produce list of pre-demolition materials to be removed from the site and then.	To be written into construction management plan.	
	B.3	Design for deconstruction	The refurbishment and construction phases to be designed using consideration to deconstruction and documentation at the end of the building life. All materials that can be returned and recycled to be documented.	Architect & Contractor	To be written into design and construction phases.		
	B.4	Responsibility sourcing	All materials should be responsibly sourced. 80% the value of construction materials should be sourced within 50 miles of the site. New timber should be FSC, certified or PEFC, C1 or M1 certified with a Chain of Custody Certificate. Other materials should be certified (concrete BS8117, etc.) 100% responsible sourcing of construction products scheme. 100% the value of construction materials should be recycled or reused.	Architect & Structural engineer	Source all of the construction materials, structural and engineering (including precast concrete) to be sourced to be used for the construction of the building.	To be written into construction management plan.	
	B.5	Embedded CO ₂	The embedded carbon in the parking structure to be documented so that it can be compared against the embodied carbon in an equivalent new build. The embodied carbon in the materials and components to be documented so that it can be compared against the embodied carbon in an equivalent new build.	Sustainability & Structural engineer	Embedded carbon assessment to be carried out for parking structure and structural elements to be documented.		
	B.6	Green guide specification	Pre-demolition developments should achieve an A or B rating from the BREEAM Green Guide to Material Specification in at least 1 of the following: soil, natural walls, internal walls (including separating walls), upper and ground floors (including separating floors), and windows. The same target apply to new residential developments, but including upper floor slabs, floor-to-ceiling coverings, and windows.	Architect	Materials to be specified and documented.	To be written into construction management plan.	

 LOCAL AND SUSTAINABLE FOOD	E.1 Food sources	It is vital to engage the site that provides long-term situation of local and sustainable food habits to be evaluated. This to cover both resident food sourcing and workforce food sourcing during construction and operation.	Local committee			Sustainable engagement and support for external management plan of sustainable policy.	Consider to provide information packs for residents and visitors.
	E.2 On-site food growing	On-site food growing to be encouraged in the design process where it remains feasible. Due to the limited external space on this scheme to be explored this includes more allotments on roof tops and window boxes, along with raised beds growing in communal areas.	Architect	Architect to investigate using soil systems for growing on site.			
	E.3 Local markets	Partnership with local markets, markets and producers to be sought to be sought to reduce the environmental footprint of food delivered to the site. Where possible, emphasis to be placed on local businesses with green credentials.	Local committee			Sustainable engagement and support for external management plan.	Consider to work closely with local markets and produce suppliers.
	E.4 On-site parking	During construction, facility going to be provided to workers by providing secure parking facilities on-site that follow the Local and Sustainable Food provide. Encouraging and helping facilities for food waste to be in place to encourage waste sent to landfill.	Contractor		To be written into construction site contract.		
	E.5 Sustainable cooking	Residents and office workers to be encouraged to actively reuse cooking services to their about food waste cooking and low carbon food choices. Only food and waste to be used at these services. Effort to be encouraged for this part.	Local committee			Sustainable engagement and support for external management plan.	Consider to provide information packs for residents and visitors.
 SUSTAINABLE WATER	F.1 Efficient equipment	Throughout the site, water efficient appliances, watering and leak detection systems are to be installed. Residential developments should meet the water standards of the L30 level 4. Non-residential developments and major refurbishments should meet the water standards required for BREDEM "Greenleaf".	Building services	Provide for all installed appliances and all water saving technology.			
	F.2 Sustainable supply	To encourage the use of sustainable water capture and usage, rainwater harvesting systems to be investigated. Rainwater to be used for toilet flushing. Grey water collection systems to also be investigated to capture and reuse water from hand basins and showers.	Building services	Where water is captured in and storage of rainwater harvesting tank.			
	F.3 Demand reduction	Low-flow fixtures and fittings to be specified throughout the site to minimise water demand. Residential developments should meet the water standards of the L30 level 4. Non-residential developments and major refurbishments should meet the water standards required for BREDEM "Greenleaf".	Building services	Provide for all installed appliances and all water saving technology.			
	F.4 Sustainable drainage	Run-off to be absorbed using sustainable urban drainage systems should not be discharged into the sewer. Green roofs to be installed where possible to reduce surface water run-off. Use of drought resistant species of plants to avoid irrigation. Allow for permeable paving in order to reduce the risk of flooding.	Landscaping architect	Landscaping architect to provide for all installed water saving technology.			
	F.5 Water monitoring	Sub-monitoring of water usage through the site to be installed throughout the site. Work and consumption to be reported back to the building users together with strategies to continuously improve their water consumption.	Building services	Provide for all installed appliances and all water saving technology.		Sustainable engagement and support for external management plan.	Consider to provide information packs for residents and visitors.
 LAND USE AND WILDLIFE	G.1 Land use sustainability	Develop a strategy to improve biodiversity on the long term across the site. Address a set gap in biodiversity and meet relevant requirements of the L30 and BREDEM standards. Ensure that public green spaces are maintained, managed and monitored to high standards.	Architect & Local Committee	Provide for all installed appliances and all water saving technology.		Sustainable engagement and support for external management plan.	Consider to provide information packs for residents and visitors.
	G.2 Natural habitats	Incorporate natural habitats into design of development e.g., bat boxes, bird boxes, bat houses, include a natural habitat and biodiversity management plan, working in collaboration with professional ecologist and project landscape architect.	Landscaping architect	To be provided for a natural area following sustainable strategy.			
	G.3 Green roofs and living walls	Where technically feasible (i.e. loading, drainage, ventilation and weight restrictions etc), install green and/or brown roofs on the roof of the building or living walls on the facade. Encourage visitors to interact responsibly with the installations to maximise their educational, biodiversity and social benefits.	Architect	To be provided for a natural area following sustainable strategy.		Sustainable engagement and support for external management plan.	Consider to provide information packs for residents and visitors.
CULTURE AND COMMUNITY	H.1 Our Planet Living	A "Our Planet Living Centre" to be incorporated within the community centre to encourage visitors and residents to engage and understand the 10 principles of the Our Planet Living.	Architect & Local Committee	Architect to provide for a natural area following sustainable strategy.		Sustainable engagement and support for external management plan.	Consider to provide information packs for residents and visitors.

		Framework: all clients install, office workers and residents should receive a Formal On-Site Panel Consultation.				Management plan & operation	Control strategy
	R.2	Community engagement	Regular community activities to be set up to support cohesion and interaction strengthening neighbourhood & supporting diversity. These resources can also be used to educate the community on more sustainable life style choices related to their daily lives.	Client's committee			
	R.3	Public art	Public art is to be displayed within building + both those local children and greenwashing street artists. The use of low impact materials, panels, canvases and props etc to be employed to highlight the sustainable credentials of the school & site.	Client's committee		Stakeholder engagement plan to support management plan	Control strategy agreed
	R.4	Education	Internal and external areas of the building to be of good to provide educational resources for visitors and localities. Visualise the environmental credentials of the project, as well as display post occupancy evaluation data.	Architect & Client's committee		Stakeholder engagement plan to support management plan	Control strategy with Best Practice in sustainable office and strategy
		Information on sustainability related goals e.g. Green Deal, community charitable projects etc. to be made available to local businesses and residents. Community workshops should be set up on a regular basis to discuss details of any new or existing schemes.	Client's committee			Stakeholder engagement plan to support management plan	Control strategy with Best Practice in sustainable office and strategy
	R.2	Local green economy	Where feasible local contractors and suppliers to be employed on the project both in construction and operation. If feasible, local unemployed people to be hired and recruited to work on the scheme to provide employment, skills & business opportunities.	Client	To be agreed with Client's representatives for local businesses, local residents	Stakeholder engagement plan to support management plan	Control strategy with Best Practice in sustainable office and strategy
	R.3	Entrepreneurs and start-ups	Price ranges for private properties to be encourage first time buyers and local entrepreneurs or start-ups. A proportion of the private units priority be made available to local people / businesses.	Client's committee		Stakeholder engagement plan to support management plan	Control strategy with Best Practice in sustainable office and strategy
	R.4	Sustainable businesses	The scheme is aim to support the use of 'ethical' goods by organisations that sell healthy products that provide environmental and social sustainability at an affordable and fair made price and bringing value to the local community.	Client's committee		Stakeholder engagement plan to support management plan	Control strategy with Best Practice in sustainable office and strategy
		Buildings and infrastructure to designed in a way that promotes well-being in the internal environment (day, reducing unwanted noise, glare, pollution, etc). Current systems to be integrated into commercial grade to maximize local comfort with minimal excessive energy consumption.	Architect & Building Services	Be in respect to the project in internal systems and building plan support etc.			
	R.1	Internal environment		Client's committee		Stakeholder engagement plan to support management plan	Control strategy with Best Practice in sustainable office and strategy
	R.2	Social media	Working with existing community groups, a community network to be set up to facilitate social activities within the local community. The network to provide (On-Site) using principles & be used as a channel for community events and information.	Client's committee		Stakeholder engagement plan to support management plan	Control strategy with Best Practice in sustainable office and strategy
	R.3	Accessibility	The building both internally and externally to be designed following inclusive design codes for smart physical accessibility to all (e.g. wheelchair access, provision for blind people).	Client's committee	Access to public areas will be provided		
	R.4	Community well	Working with existing community groups, a community hub to be established that to become a key vehicle to establish and promote a 'community spirit', support residents to adopt healthier lifestyles etc.	Client's committee		Stakeholder engagement plan to support management plan	Control strategy with Best Practice in sustainable office and strategy
	R.5	Sustainable initiatives	The achieved standards of the UK and BREEM criteria to be showcased within the building alongside this, visual display to be installed to highlight the main & energy related data figures for the site together with renewable energy generation.	Client's committee		Stakeholder engagement plan to support management plan	Control strategy with Best Practice in sustainable office and strategy
	R.6	Feedback	Through the community hub, the ongoing building performance and residents' satisfaction to be monitored, with results fed back on a regular basis to encourage continual improvement. Sustainable behaviour to be promoted & any local improvements to operations to be highlighted accordingly.	Client's committee		Stakeholder engagement plan to support management plan	Control strategy with Best Practice in sustainable office and strategy

A	B	C	D	E	F	G	H	I	J
Man 00: BREEM Assessment on Accredited Professional on board Minimum Standard/Mandatory									
Man 01: Client, building accounts, design team and contractor define their roles, responsibilities and contributions for all phases of project Minimum Standard/Mandatory									
Man 02: Appointed AP is engaged to monitor and report progress against the BREEM targets Minimum Standard/Mandatory									
LE 04: A qualified ecologist appointed to carry out site survey of existing site ecology and confirm all relevant UK & EU legislation has been complied with Mandatory									
		Man 03: As the latest performance targets have been contractually agreed between the client and design/build team Minimum Standard/Mandatory							
		Man 04: Consultation with the suitably qualified security consultant Minimum Standard/Mandatory							
		Ena 05: Heritage assessment Optional study							
		Ena 06: Feasibility study for LCC carried out Minimum Standard for Excellent & Outstanding							
		Man 05: Life Cycle Cost (LCC) analysis carried out based on the protocols							
			Man 06: Model outlined in the first LCC study is updated						

Table 1 4 Mandatory requirements of BREEAM through the RIBA stages

Implementation of One Planet Living

Buro Happold’s Sustainability team have extensive experience delivering bespoke sustainability frameworks and are aware of the resources required to deliver a successful end product, integrated into design team and contractor requirements and meeting client aspirations. An example of this is the Arup Building refurbishment for the University of Cambridge, where Buro Happold Sustainability are acting as lead developers and independent assessors of a ‘Bespoke Sustainability

Framework’ setting 50 targets for the Contractor led design team and future building occupants across 10 themes of sustainability. The approach has been developed through a process of consultation with the University of Cambridge Energy, Environment and Facilities Management teams and a steering committee of future building users. Its novel approach is fully supported by the Cambridge City Council Planning Authority.

To support this process Buro Happold Sustainability have developed a ‘framework

handbook’ outlining all of the responsibilities, targets and evidencing criteria across the design, construction, post-construction, pre occupation and post occupational phases of the project. ‘Trackers’ have been developed for the Contractor to manage the production of evidence and identify design criteria to be resolved. Imperatively, at an early stage, all requirements were written into the Contractors Stage 1 tender returns. To enable movement towards delivering user related targets, such as food procurement, sustainable purchasing, visitor education,

monitoring of travel choices and energy/water/waste monitoring etc, we have run a series of Focus Groups with future building users to develop Management and Governance Plans.



Figure 2.3 Arup Building in Cambridge



Figure 2.1 Co-operative headquarters (BREEAM outstanding) and Elmswell Affordable Housing (CSH Level 4 & Ecohomes Excellent)



Figure 2.4 Stakeholder workshop to inform development of bespoke sustainability framework

Quality Plan

United House Quality Policy

United House Limited is a construction developer, contractor and investor committed to the delivery of utmost quality in our projects from start to completion. Our sole purpose is to achieve customer satisfaction without compromise by adhering to ISO 9001:2008 stipulations in line with our company integrated management system.

Senior management together with all of our staff are determined in delivering a quality product and service to our clients through:

- Frequent monitoring and measurement of our site work and corporate departments
- Maintaining constant involvement of our suppliers for procurement of premium materials at minimal cost
- Timely detection of substandard work or service through internal and external auditing



- Minimising the number of snags by implementing non conformance processes to foster continuous quality improvement and corporate practice
- Training of our personnel and subcontractors in order to deliver our projects within the client specification and on time

When appointed the first thing the project manager do is to complete a site specific construction phase quality plan.

The purpose of this document is to:

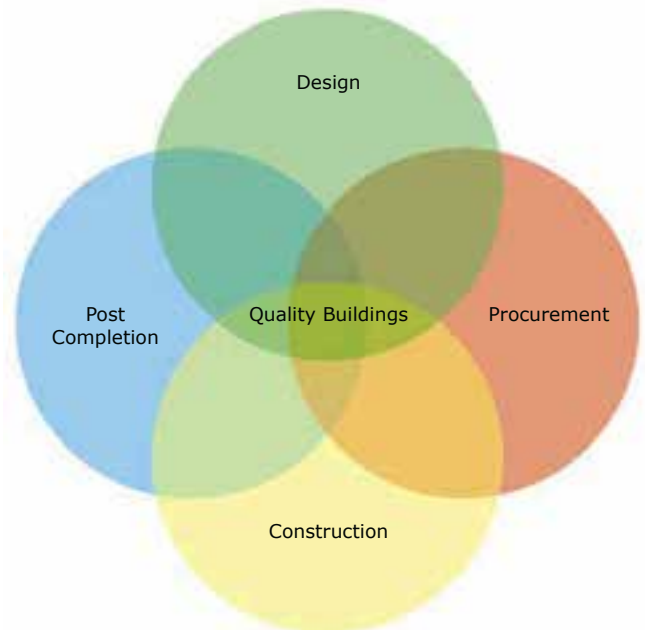
- Comply with the Construction (Design and Management) Regulations 2007
- Outline the management arrangements of the project,
- Set out the environmental controls that will be implemented to manage the environmental risks and aspects of the project, and
- Act as a basis for the safe running of the project.

This document will be developed throughout the project, initially from the pre-construction information in accordance with Regulation 10 of the Construction (Design & Management) Regulations 2007, and there after by the Principal Contractor. The document is subject to continual development as the project progresses.

Delivering Quality

United House will manage the control of quality through the pre-construction, construction and post construction stages of the project.

United House have realised that the only way to achieve Quality Buildings are to have a linked up plan comprising design, procurement, construction and post completion.



Control Measures

United House will implement the below control measures on Enterprise House to ensure quality is maintained and quality buildings achieved:

- **Programmes**
There will be a linked up programme for construction, procurement and design to ensure a unified approach and quality excellence.
- **Design Due Diligence**
United House have a due diligence tool that will be utilised by the design manager to ensure that all design diligence took place. This will also ensure that nothing gets forgotten or missed during the pre construction phase.
- **Procurement Strategy/ Schedule**
As part of the control measure the commercial manager will also complete a procurement schedule. This schedule will be closely linked with the design programme and also the construction programme.
- **Information Release Schedule**
The design manager will complete an IRS to ensure all required information is released at the correct stage in the process.
- **Package Reviews**
The project manager will call package review meetings on

time with the programmes and release schedules above.

- **Quality Assurance Management**
Kevin Owen – Health, Safety, and Environmental & Quality Manager - Kevin is United House's HSEQ and welfare champion and heads up our Business Support department. Kevin holds a range of HSEQ qualifications including Chartered Quality Institute (CQI) certification. Kevin is supported by three further HSEQ advisors, Gerald Brines, Brian Berkery and Peter Jones.
- **Supply Chain Management**
To ensure that our supply chain remains focussed on the project objectives and strives towards high levels of performance our key partners will be invited to sit on a regular Supply Chain Forum for the project chaired by United House.
- **Test and Inspection Plan**
An Inspection and Test Plan (ITP) is a summary of tests and inspections to be preformed on a given project. It will be drawn up by the Contracts and / or Site Manager whilst reading through the contract specification and drawings and cross-referenced to the contract programme.
- **Hold Points**
In the ITP there will be Hold points identified. If there is a hold point this Inspection or Test must be done before work

proceeds beyond that stage. The hold point box should also be initialised after the successful test or inspection.

- **Inspection Checklists**
As part of the quality system inspection checklists will be utilised to ensure sequence is maintained and quality achieved.
- **Defect Management (iSnag)**
We utilise iSnag as part of our defect/snagging system.
- **Benchmarking**
At a very early stage a benchmark flat will be complete to ensure customer satisfaction and uniform standards.
- **Handover Management**

Post Completion Customer Care

Part of achieving quality in excellence and customer satisfaction we have the following items/systems in place:

- Client or Resident Handover Pack
- Health & Safety File
- Customer Service Manager
- Defect Remedy System/ Strategy



Project Management

United House Group has a long history of completing complex projects with Local Authority partners. We detail below our tried and tested methods to ensure clear responsibilities and risk management.

A subsidiary of United House Developments Ltd (UHD) our Development company will be the Developer under the Development Agreement. They will have responsibility for complying with the Development Agreement and the Development of the ancillary sites.

UHD's responsibilities are split in the following ways:

Legal

██████████ is our in house solicitor who manages our external solicitors, ██████████ of Ashurst on this project. ██████████ deals with all legal issues, including acquisitions, funding agreements appointments and residential and commercial lease sales.

Project and Development Management

This headed by ██████████ our Development Director. ██████████ has responsibility for running the projects and ensuring that all of our obligations and aspirations are met. ██████████ team manage the day to day project management from a client's perspective.

Sales and Marketing

██████████ heads our Sales and Marketing for the Group. ██████████ will be involved right from the start with the Sales and Marketing Strategy and will be very influential on the design development of the project to ensure that we are making the most of our opportunities to generate the best values for our sales. ██████████ is assisted by ██████████ for the specification of the residential dwellings, ██████████ for marketing the site and by ██████████ who manages our external sales agents.

UHD and UHL Interface

UHD are responsible for procuring the construction of the development by United House Ltd (UHL). UHD will place an all risk lump sum Design and Build Contract with UHL for the construction of the entire project. This procurement ensures responsibilities are clearly defined as UHD as the Employer and UHL as the Contractor. In addition to formalising the responsibilities it serves as a risk mitigation measure for our funders.

In addition to the actual construction, UHL retains an in house Design department led by our Head of Design, ██████████ department manages all of the external consultants on the project. This ensures that all of the

statutory regulations and all of the employer's requirements are met.

Operations

Operationally, this project will be run by our Major Projects Division headed by ██████████. We will have a Construction Manager responsible for the entire project. We will have within each phase a Project Manager for the commercial construction and a separate Project Manager for the residential construction. The construction teams will have support from construction planning, surveying and health and safety. We have indicated a project team but it is obviously not possible to guarantee these individuals will be the actual personnel involved because of the lengthy period of time between now and start on site.



Development Structure

Construction Structure

The project risks will be managed by UHD's Development Manager. All the risks will be identified on the Project Risk register and responsibility to manage each risk will be delegated to identified individuals in the project team. By managing the risks in this way we ensure that no risks are missed by falling in between the Development and Construction elements of the project.

All United House operational staff have a vast amount of experience in the residential new build and refurbishment sector, and any change of personnel will be on a 'like for like' basis.

This management structure has been selected based on our extensive experience in these types of projects. We are confident we will provide the level of strategic planning, financial and quality control required to successfully deliver the project on time, on budget and with high levels of client satisfaction.

Each of the members of staff we propose to use for this project is suitably qualified and highly experienced within the residential sector.

Construction Sequence

The construction sequence has been carefully considered to reduce any disruption as best possible. The decanting of the Phase 2 sites is the biggest challenge that we have considered carefully.

The crux of the sequence can be found below:

Phase 1 Works:

- New Office Building
- Wanless Road

Phase 2 Works (Ivor House, Town Hall, Hambrook House, Olive Morris House):

- Decant Phase 2 Sites
- Phase 2 Construction

Project Plan

On every project we undertake, the Project Plan forms the basis of how we manage the project. This plan will be prepared in accordance with the appropriate management procedure. The Project Plan defines the method and documented procedures for dealing with both on- and off-site operations, and also designates individuals who will be responsible for their implementation and co-ordination. The contents of the Project Plan will be tailored to the contract arrangements and will be updated, as/when appropriate, during the contract to reflect any changes.

A key section of the Project Plan is Resource Management. A schedule of resources required to successfully deliver the project will be developed. This approach avoids situations at hand-over from pre-construction to construction, whereby operations feel that adequate personnel have not been allocated for the project. This in turn ensures quality of construction is maintained.

The Project Plan and target programme will be used to monitor progress on the project. Project Team meetings are held weekly where performance against the

target programme is reviewed. If required, the Project Plan is then amended to address performance issues highlighted by performance against the target programme.

This could be:

- the requirement for increased staffing levels,
- changes of responsibility, or
- focus on defects
- and inspection and test plans.

The Project Plan will outline the project team and define specific responsibility, point of contact and lines of communication.

Supply Chain Management

Contractor & Consultant Supply Chain

United House Group is a full service Contractor, Developer, Investor. As such, we already have our contractor selected in-house (UHL). During this procurement period we have selected the majority of our design consultants based on their suitability to carry out the project. We have selected:

PTE – Lead Architect

Stanton Williams – Commercial Architect

Buro Happold – Structural and M&E

Area – Landscape Architects

UHL retain an in-house Design department staffed by our technical and design managers. The design department is headed up by [REDACTED]

[REDACTED] is to assemble and appoint successful design teams at procurement stage and to manage the design development process to ensure compliance with the ER's, and to provide direction for award winning proposals.

At construction stage, one of [REDACTED] team will undertake a full time design manager role, which will involve coordination of the design team, management of the design programme and will drive value engineering.

An integral part of the design development phase will include design workshops with the client in order that the client is fully appraised of design decisions, that their input is provided and that the overall project team (including client) are all working towards a common goal.

Value Creation Meeting - We would also propose to hold a Value Creation Meeting with the Council and the Employers agent. We constantly strive to deliver added value and these meetings are used to agree the "targeted areas" where value need to be realised. Our Design and Commercial Teams working in conjunction with the Consultants and Supply Chain Sub Contractors will satisfy themselves as to the benefits that can be achieved.

Change Control - The management of change will be agreed with the Council, but the UHL system of change control utilising Design Change Control Variation Request / Instruction Form and RFI process, is robust and proven and could be simply adapted for use on this project.

Changes can be instigated by the Council or contractor and should be regarded as an essential mechanism of controlling the design, not as a contractual notification.

Requests for Information Sheet and Request Information Log

The purpose of the RFI process is to formally record and manage questions raised by UHL during both the tender and post-tender phases of a project.

Subcontractor Supply Chain

At United House, the process of building an integrated supply chain takes on four key stages, as follows:

1. Identify the specialist / supply chain need and define the scope of the service provision (quality and cost)
2. Procure supply chain partners
3. Integrate the team (contractually and culturally)
4. Develop the team

Our Supply Chain members are engaged through a stringent and robust formal system of vetting in terms of quality, customer service, health & safety and commercial history, including the taking up of references and Client approval, before they enter or are retained on our Approved Subcontractor Database system. Although a majority of our key staff and subcontractor base has worked with us for many years, we proactively work to maintain and improve quality standards with both new and existing Supply Chains. We do this by using regular Quality Control Workshops, Subcontractor

Forums and Continuous Improvement Groups to develop a 'right first time' customer focused service delivery, which is consistent whatever projects are being worked on.

To ensure that our supply chain remains focussed on the project objectives and strives towards high levels of performance our key partners will be invited to sit on a regular Supply Chain Forum for the project chaired by United House. We suggest this forum should also include representation from the client side and other stakeholders, where products and services would be kept under review, allowing innovative ideas to blossom from the inclusion of the Supply Chain. We are committed to the concept of 360° performance appraisals and United House actively seeks and encourages feedback from all sections of the Supply Chain on our own performance on a regular basis. The feedback would be focused on key areas as follows;

- Timely Payments
- Helpfulness
- Timely decision making
- Continuous working
- Communications
- Health and Safety Management
- Site Facilities

The ongoing performance of our subcontractors and suppliers is constantly monitored and regularly reviewed through

a formal monitoring system by our senior contracts management team and graded in terms of quality, products, workmanship, management, safety, adherence to programme, customer service and delivery of contract KPI's. The results of these reviews are fed back and our Approved Subcontractor / Supplier Database amended accordingly. If a Supply Chain partner's performance consistently falls below agreed benchmark criteria their forward workload is reviewed and further training implemented. The object of these procedures is to develop an ongoing ethos of 'right first time' quality and pride in the works carried out rather than to penalise.

Any failure of a supply chain partner will impact the overall United House team performance. Our attitude is one of 'collaborative problem solving' and not 'blame'. By identifying any issues and solving the root cause we will collectively and continually improve overall performance.

Subcontractor Supply Chain Management

We have in place contractual arrangements with our supply chain in order to mitigate potential failures. For example:

- 3rd party warranties on our subcontractor's design

partners. This allows us to retain designs in the event of subcontractor failure

- Subcontract damages. This allows us to enforce damages where subcontractors fail to perform (usually programme related) and allows us to mitigate any negative impact.

Our Commercial Manager, Chris Lincoln is tasked with managing relationships with supply chain partners and ensuring best value.

Programme

Please refer overleaf for our Tender Programme.

Risk Management

Risk or uncertainty may manifest itself in many ways on any project. In recognition of this United House employs a structured risk management process during the development, design, construction and operation of the project.

Our risk management approach is applied on a project wide basis with input from all participants, from client and consultants to sub-contractors. The process starts with defining the objectives of the project followed by the preparation of a project specific risk matrix that identifies the key risks. Identifying risks is a collaborative activity and may involve audit interviews and brainstorming workshops. Risks are then rated and prioritised using weighted probabilities and impacts, with impact being assessed using appropriate categories that include safety, security, the environment and others, as well as cost and programme. Following the identification and rating process, risks are allocated to appropriate project team members to mitigate.

The initial project risk register, developed at briefing stage, will focus on design and technical issues. This will develop to include areas such as operational considerations, site parameters, access, programme, approvals and design.

The project risk register is the key tool for active management of the risks and it is updated throughout the project. Project Risk and Health and Safety are reviewed at every project and design team meeting (first item on monthly design report - attached). The quantification of the risks takes into account realistic assessments of the potential consequences/impacts on time and cost. These are adjusted to account for existing controls and mitigation measures developed through the risk management process.

Each risk owner is required to develop action plans to ensure the effective management of the risks, which are implemented by allocating separate action owners and appropriate action review dates.

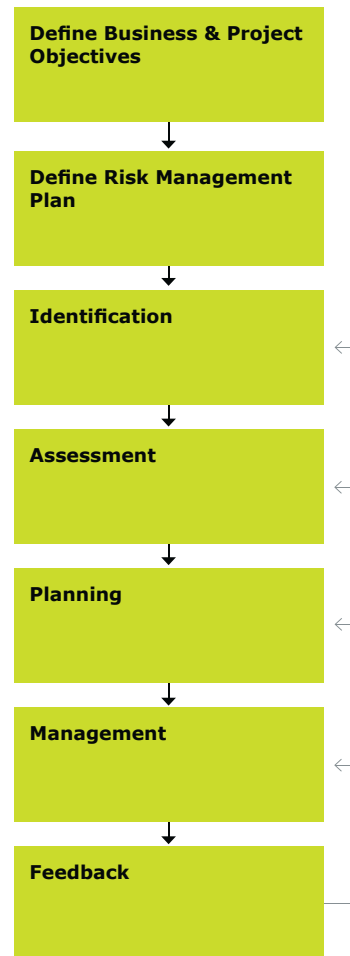
The elimination, or successful management, of risks and optimisation of opportunities will depend upon the development and implementation of the above actions. To facilitate the success of this objective, United House monitor, in conjunction with the nominated member of the project team responsible for the risk register, the management of the risk throughout the duration of the project at every design and project review session.

At the close of the project, a risk management debriefing session is carried out to assess the effectiveness of the risk

management process and feed any successes or failures back into the Client's, United Houses and other project company's management systems for future use. A register of any residual risks will be issued to the building manager/business operator at handover.

United House recognises the importance of managing risks inherent in the business of construction. As part of our annual Management Review process, and/or following audit of our whole Management System, United House will carry out a review of its risk management process.

A copy of the current Risk Register for SW2 Enterprise Centre Brixton is attached at the end of this section.



Business Continuity and Emergency Planning

Our project planning is predicated on the understanding that Lambeth have agreed that United House will be given vacant possession of each building in accordance with the project programme and that Lambeth will retain responsibility for their business continuity planning.

United House will, prior to mobilisation for site works:

- Interfacing with the existing Lambeth Town Hall emergency response Strategy.
- Identify and complete the Emergency Response Plans required for the project.
- Preparing a Site Fire Safety Plan and the site specific Fire Risk Assessment in conjunction with the Construction Phase Health & Safety Plan.
- Prepare of Project Traffic Management Plan and liaise with the local highways authority (and TfL as adjacent to Red Route bus lane).
- Prepare and implement a project site security plan and liaise with local law enforcement regarding proposed security control measures.
- Appointing the competent people (Site Fire Safety Co-ordinator, deputy and fire wardens) who will be

responsible for assessing the degree of fire risk and updating the Fire Safety Plan as the project develops.

- Liaison with the local emergency services to ensure we maintain access and comply with any local area strategies or directives they may have.
- Assisting and supporting the Site Manager and Site Fire Safety Co-ordinator to carry out their tasks in a timely manner.

Following mobilisation the United House's appointed Site Manager is responsible for:

- Ensure local day to day liaison Lambeth Town Hall facilities Manager.
- Implementation of the Emergency Response Plans.
- Implementation of the Site Fire Safety Plan and the site specific Fire Risk Assessment.
- Implementation of Project Traffic Management Plan and liaison with local highways authority.
- Implementation of the project site security plan, Liaise with local law enforcement.
- Appoint the competent people (Site Fire Safety Co-ordinator, deputy and fire wardens) who will be responsible for assessing the degree of fire risk and updating the Fire Safety Plan as the project develops.

- Liaison with the local emergency services to ensure we maintain access and comply with any local area strategies or directives they may have.
- Reviewing the Emergency Response Plans every month.
- Assisting the site Fire Safety Co-ordinator to carry out the tasks allocated in the Site Fire Safety Plan and Fire Risk assessment.
- Reviewing the Site Fire Safety Plan.
- Ensuring that emergency drills are carried out in accordance with the frequency specified in the Site Fire Safety Plan and Lambeth Town Hall protocols.

Outline Business Continuity Plan

For our major projects we prepare project specific Business Continuity Plans. This enables the actions to be specifically tailored to the individual circumstances of the project and best protect our clients' interests. We summarise below the areas that the plan would address on this project:

Introduction

The plan will be developed as part of the project risk management process. This plan will ensure that local factors are taken into consideration when preparing our response to any situation.

To ensure that we are prepared and ready to react to any situation, our plans detail how United House will respond in the event of selected emergency scenarios as well as our general approach to ensuring the continuation of the project. The plan has, at its heart, a focus on the following critical success factors:

- Strong leadership
- Quick decision making
- Proactive action on behalf of any people affected
- Proactive action to mitigate any environmental impact
- Clear, proactive and continuous communication
- Robust crisis planning
- Well trained staff
- Good stakeholder relationships

Project Impact Analysis

Critical activities and people within United House are identified so that the plans can be put in place to make us more resilient to potential incidents. This detailed process is carried out by undertaking a Business Impact Analysis. This identifies, quantifies and qualifies the business impacts of a loss, interruption or disruption of business processes so that management will be able to determine at what point in time these become intolerable (after an interruption). An example is shown over the page:

Risk		Likelihood			Impact			Notes
		H	M	L	H	M	L	
1	Pandemic affecting staff and the wider community		✓			✓		Impact increases if pandemic continues for extended period
2	Fatality on Site		✓		✓			
3	Major disruption to our supply chain including loss of key supplier		✓		✓			
4	Major Incident in the area, affecting ability to undertake our work for example a terrorist incident			✓		✓		Likely to be localised, short term impact
5	Major Gas Incident			✓	✓			
6	Major IT failure affecting core United House systems and the Orchard / Flag link			✓	✓			
7	Severe weather conditions	✓			✓			

Having identified the above as high and medium impact risks to the project, each of the items will be detailed as to how we would react should any of these situations arise. We have shown below how one of these items would be addressed:

Scenario 3	Major disruption to our supply chain including loss of Key Supplier	
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Affect on United House operation:

First 24 hours	<ul style="list-style-type: none">• Safety of United House staff and warehouse site priority• Requirement to activate back-up supplier procedures• Limited effect on site as materials already there	
24 – 48 hours	<ul style="list-style-type: none">• Necessary to assess current stock on site and reallocate where possible• Plans for future supplies and materials necessary• Limited effect on site as materials already there	
Up to 1 week	<ul style="list-style-type: none">• Materials and supplies ordered directly by project team• Back-up collection and distribution procedures in operation• Long-term supply issues switched to new suppliers	
Up to 2 weeks	<ul style="list-style-type: none">• Materials and supplies ordered directly by sites• Back-up collection and distribution procedures in operation• Long-term supply issues switched to new suppliers	

Resource Requirements for Recovery:

Time	No. of staff	Relocation?	Resources required	Data required
First 24 hours	Site staff and buying department	Possibly for materials and supplies	<ul style="list-style-type: none">• Staff• Materials• Labour	<ul style="list-style-type: none">• Stock inventory lists• Back-up procedure
24 – 48 hours	Site staff and buying department	Possibly for materials and supplies	<ul style="list-style-type: none">• Staff• Materials• Labour	<ul style="list-style-type: none">• Stock inventory lists• Back-up procedure
Up to 1 week	Site staff and buying department	Possibly for materials and supplies	<ul style="list-style-type: none">• Staff• Materials• Labour	<ul style="list-style-type: none">• Stock inventory lists• Back-up procedure
Up to 2 weeks	Site staff and buying department	Possibly for materials and supplies	<ul style="list-style-type: none">• Staff• Materials• Labour	<ul style="list-style-type: none">• Stock inventory lists• Back-up procedure

Planning for Disruption

To ensure that we are able to respond to the impact of the scenarios identified, it is imperative that United House operates in an environment where our staff are trained to be able to deal with any eventuality by providing the most effective solutions to enable our operations to continue even under the most extreme circumstances. To ensure that this is able to take place, we provide the following support across the company:

Role Sharing

To ensure that United House is able to continue operating in the event of staff absenteeism above normal levels, we have identified key roles across the organisation which must be filled at all times. Colleagues are therefore trained to cover other jobs, across departments if required and a documented chain of staff responsibilities maintained.

Quality Assurance

United House have created and maintained a stringent series of policies and procedures which govern the way we work and operate. This approach has been recognised by establishing integrated management systems accredited to ISO9001, ISO14001 and OHSAS 18001 standards. These allow us to respond more effectively to high and medium impact events.

Standard Processes

United House have in place standard methods for ensuring that all key processes are documented and recorded, as well as providing training for all relevant staff regarding those processes with staff guidance made available through our company intranet, with hard copies available on site in the event of an IT failure.

Information Technology

The United House IT infrastructure utilises replicated VM Ware virtual servers co-located at the Head office in Swanley and our Docklands Hosting Centre. The current configuration has provided 100% availability for the last four years. Disaster recovery drills are run annually and are conducted both internally and externally by CCE our hardware maintenance and DRP consultants.

Web-based version

Web-based Version

Web-based Version

— 454 —

Health & Safety

Introduction

Prior to mobilisation of site works the Contracts Manager and UHL Health and Safety Department are responsible for:

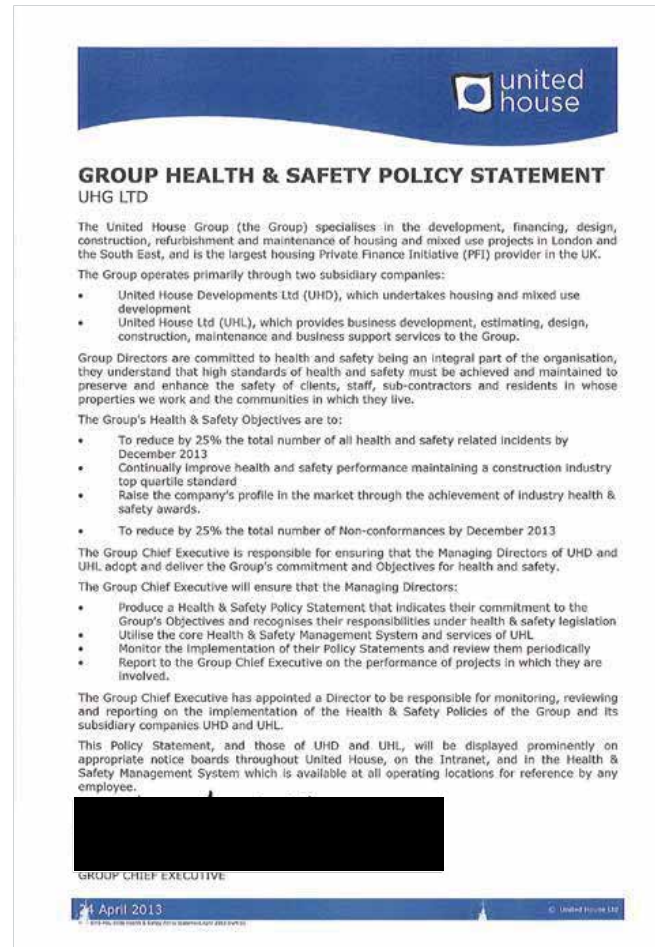
- Interfacing with the existing Lambeth Town Hall emergency response Strategy
- Identifying and completing the Emergency Response Plans required for the project
- Preparing a Site Fire Safety Plan and the site specific Fire Risk Assessment in conjunction with the Construction Phase Health & Safety Plan,
- Preparation of Project Traffic Management Plan and liaison with local highways authority
- Prepare and Implement the project site security plan, Liaise with local law enforcement regarding proposed security control measures,
- Appointing the competent people (Site Fire Safety Co-ordinator, deputy and fire wardens) who will be responsible for assessing the degree of fire risk and updating the Fire Safety Plan as the project develops,
- Liaison with the local emergency services to ensure we maintain access and comply with any local area strategies or directives they may have,
- Assisting and supporting the Site Manager and Site Fire Safety Co-ordinator to carry out their tasks in a timely manner.

Following mobilisation the UHL Site Manager is responsible for:

- Ensure local day to day liaison Lambeth Town Hall facilities Manager
- Implementation of the Emergency Response Plans
- Implementation of the Site Fire Safety Plan and the site specific Fire Risk Assessment
- Implementation of Project Traffic Management Plan and liaison with local highways authority
- Implementation of the project site security plan, liaise with local law enforcement
- Appoint the competent people (Site Fire Safety Co-ordinator, deputy and fire wardens) who will be responsible for assessing the degree of fire risk and updating the Fire Safety Plan as the project develops
- Liaison with the local emergency services to ensure we maintain access and comply with any local area strategies or directives they may have
- Reviewing the Emergency Response Plans every month
- Assisting the site Fire Safety Co-ordinator to carry out the tasks allocated in the Site Fire Safety Plan and Fire Risk assessment
- Reviewing the Site Fire Safety Plan
- Ensuring that emergency drills are carried out in accordance with the frequency specified in the Site Fire Safety Plan and Lambeth Town Hall protocols

As requested we have included our H&S Policy Statement. We have previously provided our Policy Manual which contains full details of our Organisation and Arrangements of the policy

which is a fairly large document. If you require a further copy we would be pleased to forward this to you.



Construction Fire Strategy

This report outlines the proposed and necessary fire and life safety measures required for the construction site to ensure the safety of the occupants and fire services that may be affected by any fire. This construction site fire strategy follows the guidance given by the HSE Guidance 168 Fire Safety in Construction and (FPA) Fire Protection on Construction Sites 8th Edition. This fire strategy puts forward key fire safety issues that need to be addressed prior to the construction of SW2 Enterprise Centre. This document, at this early stage, details alternative arrangements that need to be considered and incorporated within the construction sequence and design. It is intended that the fire safety proposals will satisfy the requirements of the relevant legislation. Where discussed within this document, some relaxations of the guidance may be achievable, but ultimately the final decision as to whether the proposals satisfy the requirements rests with the approving authority.

The strategy should be seen as a live document that may evolve during further discussions within the design team and with the approving authorities.

The building will be subject to control under the following pieces of legislation:

- Regulatory Reform (Fire Safety) Order 2005 (RRO)
- The Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR)
- Fire Safety (Employee's Capabilities) (England) Regulations 2010. (These Regulations require that employers must take account of an employee's capabilities as regards fire safety in entrusting tasks to them.)
- The Construction (Design and Management) Regulations 2007 (CDM)

The Fire Safety Order is the primary piece of legislation relating to fire safety in existing, non-domestic premises, and is usually enforced by the local fire authority.

The duty of ensuring that the requirements of the Order are met rests with the Responsible Person, who must undertake a risk assessment for the purpose of identifying the fire precautions he needs to take. Legislation requires a suitable and sufficient fire risk assessment to be carried out by a responsible person (the employer or persons in control). The FSO places responsibility for compliance on the 'responsible person'. Article 3 defines the responsible person as:

- The employer (for a workplace to any extent under the employer's control); or
- A person who has control of a premises in connection with them carrying out any trade, business or other undertaking (for profit or not); or
- The owner, where the person in control of the premises does not have control in connection with the carrying on by that person of any trade, business or other undertaking.

As with assessments of risk from other hazards, the fire risk assessment should be based on the following approach:

- Step 1 – identify the hazards.
- Step 2 – identify people at risk.
- Step 3 – evaluate, remove, reduce and protect from risk.
- Step 4 – record, plan, inform, instruct and train.
- Step 5 – review.

The following items outline the main fire safety considerations as set out in HSG168 that will be considered:

- Escape routes and fire exits
- Raising the alarm
- Fire-fighting equipment
- Making emergency plans, and
- Limiting the spread of fire (compartmentation).

The construction site will operate a 'simultaneous' evacuation regime, where all operatives will leave the building via the protected stair or final exits upon hearing the fire alarm.

The following will be considered when finalising the fire strategy:

- Horizontal Escape
- Exits and Occupancy Load
- Vertical Escape
- Fire Alarm and Detection System
- Assembly Point
- Storage
- Hot Works
- Escape Lighting
- Escape Signage
- Fire Instruction Notices
- Internal Fire Spread

It will be necessary to develop an emergency action plan for the site. It is to be clear, unambiguous and clear to all persons on the site. The following considerations should be taken when compiling the plan:

- Where will workers gather after evacuation from the site?
- Who will be in charge of the situation and what will be their role? What information and/or training will that person need to carry out those functions? Fire wardens may need to be appointed to assist the person in charge.
- How will the people in

charge communicate with each other?

- How will you check that everyone has reached the assembly point, e.g. head counts or checking off against site security logs brought to the assembly point? (Possible use of sweep techniques.)
- Who will contact the emergency services and how?
- Who will meet the emergency services when they arrive and provide them with information? They will need to know of any particular risks, such as the location of LPG cylinders and the likely whereabouts of anyone unaccounted for who may still be on site. Is the fire service aware and are up-to-date details available?
- Consider adjacent premises may need evacuation and how this might be done.
- The fire service should be informed of any items in the risk assessment (or changes through the building process) that could affect fire fighting or emergency operations, eg changes to access or water supplies.
- If the fire and rescue service is called to a fire when the site is unoccupied, or only occupied by security staff, how will the fire and rescue service obtain relevant information to enable them to work safely and effectively? Even if the site is unoccupied, they will

still need to know of any particular risks, such as the location of LPG cylinders.

- Consider workers whose first language may not be English.

Traffic Management Strategy

This procedure defines requirements for Traffic Management Plans and for control of traffic on sites. The primary objective in the planning and design of traffic management is always to maximise the safety of the workforce and the public. The secondary objective is to keep traffic flowing as freely as possible and reduce the impact of the construction works to a minimum.

The Contracts Manager is responsible for undertaking a traffic and pedestrian movement risk assessment and compiling a Traffic Management Plan, Form 388, and appropriate Method Statements.

The Contracts Manager must ensure all managers and sub-contracting companies that are responsible for or undertaking vehicle movements/deliveries on behalf of United House are trained, competent and experienced to do so.

The Site Manager is responsible for implementing the Traffic Management Plan and associated safe systems of work and for communicating the planned arrangements to the staff, operatives and visitors. When completing the site Traffic Management Strategy the following considerations will be

taken in to account:

- Pedestrian Routes
- Vehicle Routes
- Loading & Storage Areas
- Public Protection
- Information (Signage)