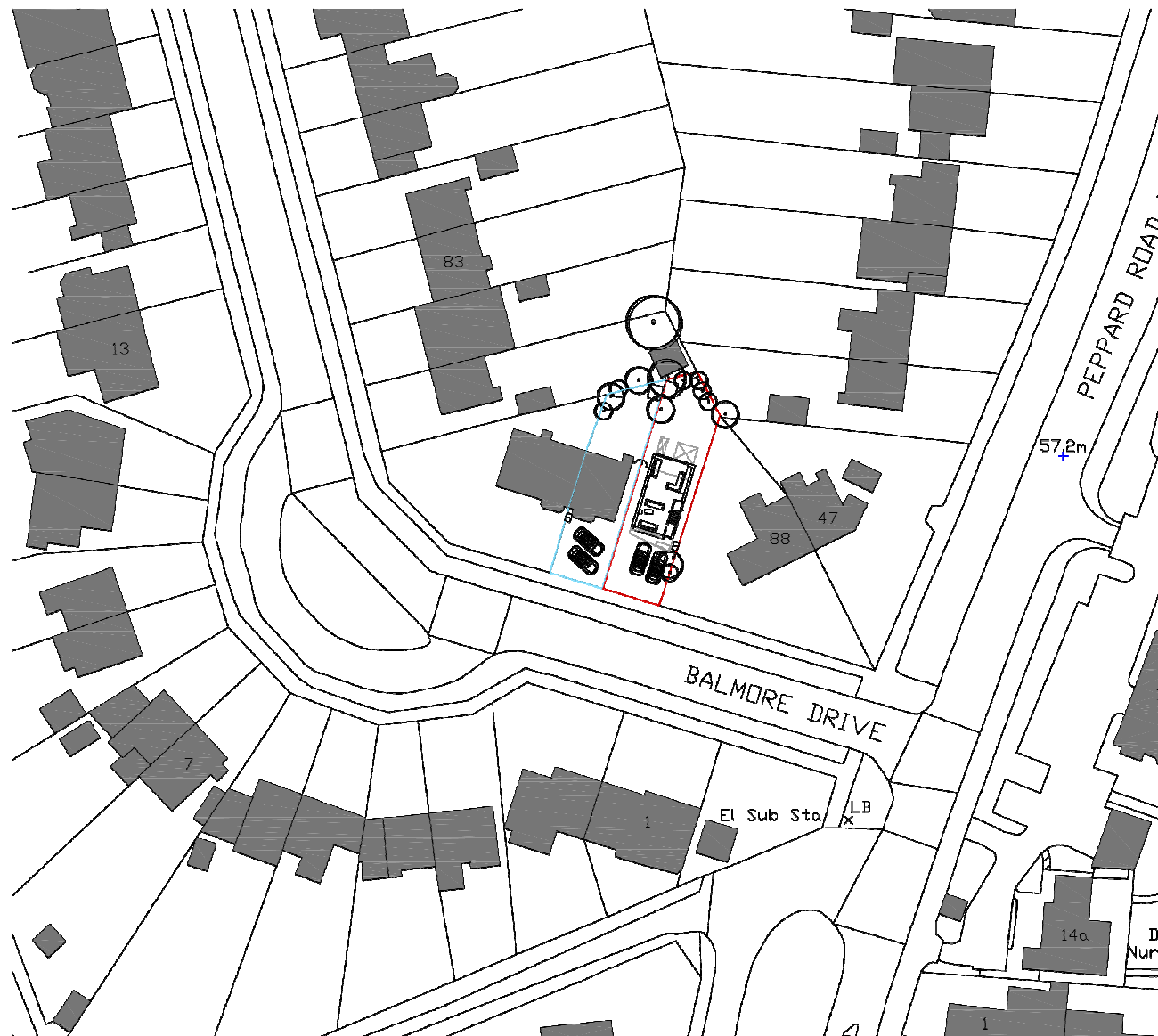


**DESIGN & ACCESS
STATEMENT**

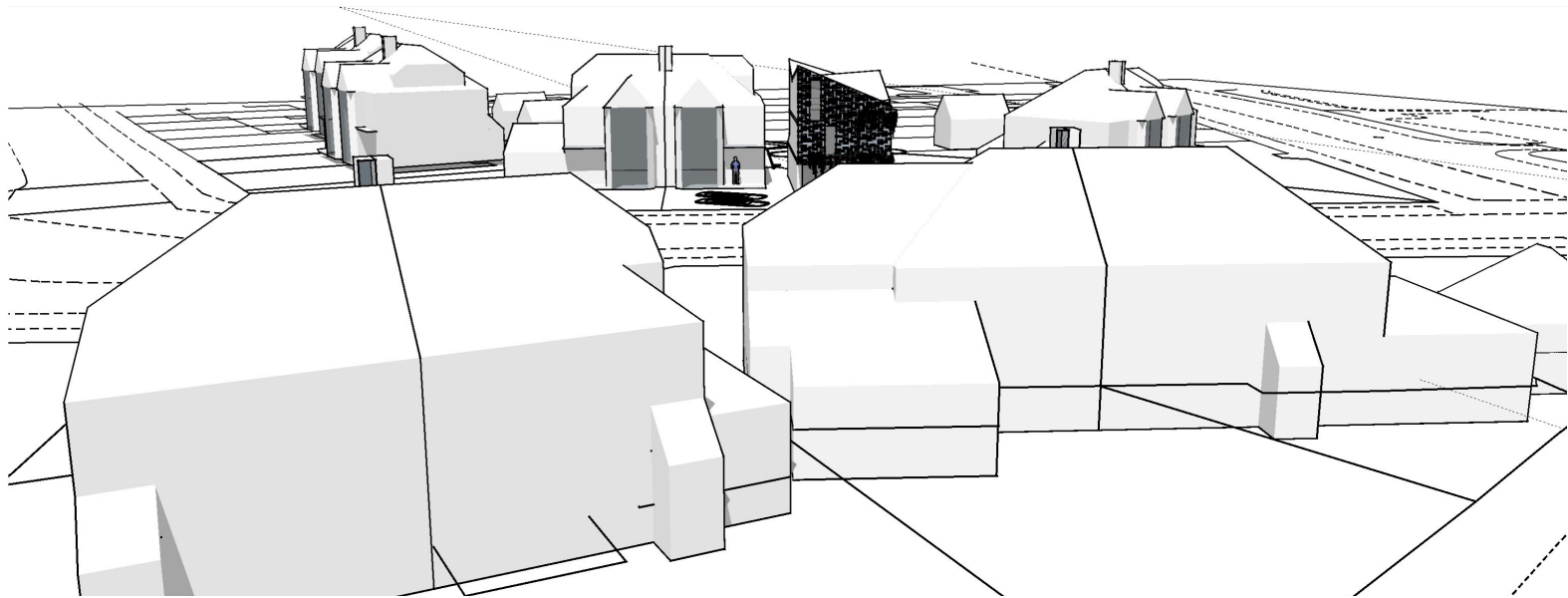
June 2020

Rev. A 27 July 2020



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1.0 INTRODUCTION

1.01 Scope

This statement has been prepared in support of a full planning application for the demolition of an existing double garage and replacement with a sustainable detached dwelling. The process behind the development of the scheme is explained and how the project team and client have developed the proposal, including its suitability within the context of its site and positive environmental credentials. A detailed pre-application was also received and has been central to the decision making and design development.

1.02 Brief

The project aims to construct a high quality contemporary new home in place of the current large double garage and concrete hard standing, which is inefficient, of poor construction quality and largely redundant. The high quality design will have minimal impact upon neighbouring properties and deliver a 'future proofed' family home with outstanding environmental credentials. The existing oversized plot is currently over twice the width of neighbouring properties and therefore provides a great opportunity to introduce a new dwelling without impacting the local street rhythm or reducing the future occupier's amenities of both the new and existing property.

2.0 CONTEXT

Located towards the lower end of the private Road, Balmore Drive, the site comprises of 473.4sqm of gently sloping ground towards the B481 Peppard Road. Balmore Drive consists of private dwellings only, with a covenant enforcing this. The architectural style largely reflects the 1930's vernacular, reflecting the decade in which the road was constructed, however a large number of architectural interventions have taken place over the years and most properties are now of 3 stories with a varied layout and building form.

The land to the front of the property is consistent in its sloping topography and would ensure the proposed dwelling was subservient to the existing property and lower in ridge height which will offer a visual hierarchy and timeframe when reading the overall site. Importantly, the site does not fall within the flood plain, areas of Outstanding Beauty, Conservation areas, nor is it listed.

Caversham itself is an attractive village suitably located for London commuters with ample public transport including a 2 minute walk to a frequent bus stop and 25 minutes' walk to Reading train station. The village also consists of a buzzing centre including a post office, butcher, gym, pubs and restaurants to name a few of its amenities. Within Caversham there is a wide variety of dwelling types, architectural style and design from different periods.

The site follows the same format as the other existing properties whereby the front garden is largely used as car parking and has a notable sense of openness, with the rear garden much more private with 2m close boarded fences bounding the perimeter and to the northern edge large trees providing privacy to the well tended garden. It is also located to the end of a private roadway which further reduces the plots impact on neighbours. The front sees two notable mature trees along the border with no.88 which are pivotal to providing visual screening to the proposed dwelling and most certainly to be retained, along with much of the planting to the front garden.

3.0 PLANNING CONTEXT & POLICY

8.2.2 There remains potential for infill development and development involving residential gardens.

Reading Borough Local Plan 2019

The following policies have been closely referenced throughout the design and carefully considered at all stages of approach, design, overriding philosophy and material/ contextual choice and integration. Some of them include the Reading Borough Council Local Plan (2019), National Planning Policy Framework (NPPF), National Planning Policy Guidance, Revised Parking Standards and Design (2011), Revised Sustainable Design and Construction (2011), Planning Obligations Under S106 (2015) to name some of the most central documents.

3.01 Reading Borough Council Local Plan (2019)

CC1 (Presumption in favour of sustainable development) – Unfortunately with the collapse of the Code for Sustainable Homes this policy becomes more subjective, however as an Architectural practice we have very good experience with new homes during this time and following, with new dwellings being carbon positive and formerly accredited to meet CfSH level 6. We have used this wealth of experience and approach the design in exactly the same way and is felt this proposed dwelling would achieve the same standard as the old CfSH level 6.

CC2 (Sustainable design and construction) – There are many aspects of this scheme that shall be discussed over the course of this document, but the following seeks to mention just a few of the key principles which create a highly efficient and sustainable design. The scheme seeks to generate electricity and hot water with the use of photovoltaic panels and air source heat pump. The current amount of 'hard' area will be reduced and replaced with a Sustainable drainage systems (SuDS) to reduce surface water run-off. The building itself shall incorporate a sophisticated passive ventilation system to ensure the amount of energy required to heat/ cool the building is kept to a minimum and a mechanical

ventilation with heat recovery system (MVHR). The insulation levels to all elements of the property shall far surpass the current building regulations and work to an extremely high level of air tightness ensuring potential heat loss is reduced. Heating shall incorporate high levels of thermal mass within the solid floors thus requiring a much lower running temperature and the ability to store heat during the day and release slowly at night. The building detailing shall meet the highest standards and use Passivhaus design principles throughout.

CC3 (Adaptation to climate change) – Natural heating and ventilation is achieved via the orientation and use of a passive heating/ cooling strategy. As mentioned above there are a number of principle elements that reduce the carbon footprint and allow for the building to help reduce the energy demand. This is further achieved by the use of climbing, edible plants to the south elevation that ensure solar shading, cooling in the summer months via 'evapotranspiration' (a combination of evaporation of water and release of water vapor) by plants, as well as providing a food source for the owners and neighbouring households. The extensive retained plants shall also be added to further creating a sense of a 'living oasis' surrounding and interacting with the built environment, alongside the water usage and reduction of surface water run-off.

CC5 (Waste minimisation and storage) – The proposal has ample external space which shall be used to provide the separation and storage of waste/ recycling and composting of organic waste. The construction of the property will also reduce the need for excessive use of materials by utilising a contemporary open plan layout, reducing walls/ doors and materials whilst providing maximum flexibility in floor layout both immediately and many years ahead should the demands of a family home change. Materials shall utilise elements such as zero ODP insulation, energy efficient kitchen/ bathroom, LED lighting throughout as well as locally sourced materials and labour where possible.

CC6 (Accessibility and the intensity of development) – The proposed development has very high levels of accessibility via a wide range of transportation methods. The house is situated only 2 minutes' walk from a primary bus stop with regular access into Reading and the surrounding area. The residents can access Caversham town centre in less than 10 minutes by foot, and the train station in less than 25 minutes' walk away. There are 2 off road parking spaces for both the existing and the proposed dwelling, alongside 2 secure cycle spaces for both properties. An electric car charger shall be integrated within the new scheme to ensure a sustainable mode of transport can be achieved should a car be required. Finally the level of development is considered proportionate to the location and levels of accessibility.

CC7 (Design and the public realm) – The proposed scheme is considered of high design quality, creating a dialogue with its local street scene and using materials in a clear contemporary way that honour and respect the surrounding vernacular. Design and material references are clear and crisp, including the visible reference to the bay window, matching brickwork and pitched roof form.

CC8 (Safeguarding amenity) – This section has been discussed and developed throughout this document but some of the key elements listed below work to ensuring the positive living environment for the proposed users of the property as well as the minimal disturbance to the neighbours. The external and internal floor space to both the existing and proposed property far surpass the requirements for the amenity space, ensuring a varied use of space. The primary impact to no.87 is minimal with the neighbouring windows located towards the east only being used for secondary means including circulation space and a bathroom, no impact is made on the primary living accommodation. The windows in question utilise obscured glazing and the proximity of the property shall not cause a reduction in natural light received. The impact onto no.88 to the east is reduced further with the design of the geometric sloping roof and mass of the building to reduce any impact on natural light (Please also refer to appendix 2 'sun path study'). No windows are located to the west elevation to ensure no risk of overlooking, and the glazed element to the staircase to the east is obscured and partly covered with the brickwork cladding and climbing plants. The height of the building is lower and therefore subservient to

the 'host' property and reduced in width following pre-application advice to ensure the visual openness is not compromised. Finally the high specification of design and materials ensure the impact of noise, dust, fumes etc are negligible and far surpass the necessary modern requirements. With high levels of natural light and low energy lighting coupled with minimal glazing to neighbouring properties the impact of artificial light shall be minimal.

CC9 (Securing infrastructure) – The impact on the infrastructure as a result on this development is considered extremely low. The property is located on a private road which requires an annual payment from each property, which this new residence shall also contribute to. With ample space internally and the requirement for a family to reside here, the owners can indeed work from home when possible and greatly reduce the impact or increase on both the local road network and public transport. This property is planned as a self-build by the new owner and therefore a CIL will be completed as such. It is understood that a section 106 agreement shall be required and this will be negotiated with the planning department.

EN12 (Biodiversity and the green network) – Due to its location and existing residential nature, the green network shall not be affected at all, indeed the planting and design shall enhance the biodiversity potential and encourage insects such as bees to migrate and pollenate and well as birds to nest and feed. The transformation of a predominantly concrete hard standing the front and side of the existing plot and the large redundant garage will ensure this goes from a low value site to a green fusion of garden and built environment with a net increase in biodiversity.

EN14 (Trees, hedges and woodland) – The proposed plan seeks to retain as much of the existing flora as possible, as noted within the pre-application response this is not only part of the street scene and character, but also important in the retention and increase of the sites biodiversity. Alongside the existing retained plants, proposed planting around and directly onto the property will ensure an increase in opportunity for wildlife and insect variety to take hold and use this site as a migration route as well as a way of collecting food, water and respite from the elements.

H1 (Provision of houses) – This scheme provides a fantastic opportunity to subtly add a unique new dwelling into the fabric of Reading's tapestry, without the need for dramatic changes or impact on neighbouring properties, infra-structure or street scape, this dwelling will nestle into the organic nature of the site and surpass the environmental credentials often only marginally met by mass housing. The opportunity for architectural exploration and interest is achievable with a bespoke self-build and adds to the diversity of building stock within the surrounding area.

The dramatic housing shortage can be managed and helped by each road playing its own small role, regardless of class distinction, age or location and go some way to offer much needed accommodation to a variety of eventual owners.

H2 (Density and mix) – It is considered all of the key elements are achieved, including high quality design, appropriate character, mass and use of materials along with the supportive infra-structure framework and the efficient nature of this specific plot.

H3 (Affordable housing) – This contribution shall be discussed with the planning officer's and it is fully understood a contribution shall be required as a result of this property.

H5 (Standards for new housing) – All noted standards within this section are not only achieved, but in many cases greatly surpassed.

H10 (Private and communal outdoor space) – The proposal has ample levels of external amenity space, which is subsequently broken into outside seating areas, children's play area, home food production, organic waste composting, bin storage and cycle storage. It is important to note the existing plot size is over twice the size of the neighbouring plots and as a result can be successfully divided into two substantial sized plots with a new dwelling constructed and still match the property/ plot sizes noted along the existing road. In fact the smallest garden and outside space created is still much greater than that of the neighbour directly next door at no.86.

H11 (Development of private residential gardens) – It is strongly considered this dwelling shall make a positive contribution to the area in terms of built form, layout and arrangement, provision of hard and soft landscaping, mass, elevational treatment, fenestration and rhythm. The size and layout is more than adequate to accommodate the proposed scheme, does not interfere or seek to change its interaction with the highways and certainly does not lead to tandem development. The design and layout minimises its exposure to public areas and avoids the need for additional security intervention. The proposal does not cause detrimental effect to the amenity of adjacent or nearby occupants and it provides a family sized dwelling. As discussed earlier biodiversity is fundamental and shall be abundant. The proposal does not prejudice the satisfactory development of a wider area.

TR3 (Access, traffic and highway related matters) – The new scheme simply uses the existing access to and from the highways. A small area of shared access on site enables this to be achieved simply and safely.

TR5 (Car and cycle parking and electric vehicle charging) – The proposal shall include 2no. on-site parking spaces and 2no. secure cycle spaces for both the new and existing property. The site is within Zone 3, Secondary Core Area, of the Councils Revised Parking Standards and Design SPG 2011 which characterises this area as containing a variety of land uses, within 400m walk of high frequency bus services. An electric vehicle charging point has been incorporated within this design.

3.02 Siting and Design

The innovative and highly sustainable nature of the proposed dwelling's design is reflective of both Reading Council's and the National Planning Policy Framework (NPPF) desire for this type of high quality, sustainable architecture. The range of ages and types of dwellings in Caversham has resulted in an exciting blend of architectural style ranging from the historic timber framed structures through the Victorian and to the most contemporary, thus a house offering a subtly contemporary aesthetic will not be out of keeping with the precedent set and represents an approach that highlights architecture of today.

The existing plot is over twice the width of the average plot along Balmore Drive. This provides a fantastic opportunity to split this incongruous looking plot into two, thus bringing the frontage in line with all other existing plots. It is also worth noting the proposed addition would be 1m away from the neighbouring boundary to no. 88 and over 2.2m from no.87 which again matches the existing house arrangements and relationships with neighbouring properties. The neighbouring property is angled and much further away than many other properties in this arrangement and therefore the openness to this neighbour is not only retained, but far exceeds many of the existing property relationships.

The location of the property at the end of a private road ensures an incredibly private setting where disruption and distraction on neighbours or the public shall be kept to a considerably low level, if noticed at all. The overgrown nature of the gardens also adds to this visual seclusion. The front of the plot is visibly bounded by mature trees and shrubs. Through the detailed pre-application response significant changes to the scheme have been made, including the full retention of these large trees and shrubs to aid the screening of the proposed dwelling and retain the character and natural influence on the site. As can be seen from the images below this will be with great effect, nearly hiding the entirety of the proposal. Retaining these mature trees and indeed encouraging flora is considered central to this scheme.

87 BALMORE DRIVE, CAVERSHAM, RG4 8NN

The impact on existing and proposed amenity space substantially surpasses any requirements and allows for car parking, cycle parking, bin store/ composting and a range of external uses such as clothes drying, hard landscaped areas for outside living and soft gardens for children's play and gardening. The site layout ensures the amenity space is usable to both the front and rear of the properties, ensuring economic use of space, as well as enforcing the notion of privacy and security.

Please see photographs of the existing screening observed, largely hiding the proposal from view. This has become a central theme whereby the proposed building has minimal impact on the street scene, neighbouring properties and works with the existing site to create a dwelling that works harmoniously with the existing flora, integrating the built and natural environment.



3.04 Biodiversity

The existing garage building to be demolished has closed eaves and verges with no evidence to suggest that the building is occupied by protected species. Likewise, the closely tended garden, substantial amounts of concrete hard standing and surrounding area does not support such species. The proposed site shall be fully landscaped and designed to encourage flora and fauna to thrive, creating an abundant oasis. The nature of building over the existing footprint further reduces the impact on plants and animals on the site.

Note 1 no. apple tree located directly behind the garage shall be removed to make space for the proposed scheme, however as noted on the proposed block plan, a number of trees shall be planted to not only replace the existing poor quality apple tree, but also provide biodiversity on the site and create a source of food for the occupants.

The eaves and roof space has been investigated to ensure bats are not present (please refer to images below) and consider the assumption that bats are not be present is acceptable.

The hit and miss brick cladding has been carefully specified for its ability to encourage an urban natural habitat for small birds and insects whose natural environment is being slowly eroded over time. This seeks to offer an opportunity and solution whereby the natural environment and the built environment can live in harmony.

Please find below photographs showing the existing garage. This has been investigated to determine the potential risk of roosting bats and no evidence has been discovered. The garage is regularly used and disrupted, along with an entirely open roof space between the joists. This reduces the potential opportunity for cracks and crevices that create the required environment for bat habitation. The abundance of cobwebs also detract from the likelihood of bat roosts and would further deter them. This information leads to the informed view that bats are not present and are unlikely to colonise the existing structure.



Photo. 1 Extensive cobwebs between every roof joist



Photo. 2 Large expanse of open space and frequently used garage with door opened/ closed multiple times a day

87 BALMORE DRIVE, CAVERSHAM, RG4 8NN



Photo. 3 Internal exposed roof joists



Photo. 4 Cobwebs between every joist and open joists reducing tighter gaps favoured by local bat species

3.05 Highways

The driveway is accessed from the private roadway, Balmore Drive, which is in turn accessed from the B481 Peppard Road. The proposal provides commensurate levels of parking for both properties. The new driveway shall be of permeable sustainable SUDS design to ensure the surface water is retained and disposed of within the site. This will notably reduce the current levels of water run-off whereby the concrete hard standings and existing garage create a larger 'hard area' than that proposed.

3.07 Consultation

Pre-Application Advice

The feedback from the pre-application process was detailed and has greatly influenced the final proposed scheme. Every aspect of each recommendation has been influential and the following provides a summary of the key points changed, but not all. Please also refer to the formal response.

- *...“the application site does benefit from a wider plot than neighbouring properties”*. This is a fundamental aspect of the proposal and as can be seen from the location/ site plans and visually the proposed site is in fact more than twice that of the neighbouring properties, in some cases even more than this.
- *“When considering the components of good design, it is important that the development relates to its surrounding context and identity of the locality, as noted in the National Design Guide.”* The design is considered to be of high quality and specification, which has been developed whilst working closely with the planning department. The final proposal reflects some fundamental changes that help ingratiate the new dwelling into the context and identity of the locality using size, mass, scale, levels of openness and amenity space as well as form and materiality.
- *“the introduction of this dwelling would be considered a cramped addition”*. Please refer to appendix 1, 'openness study'.
- *“the road as a whole has a distinct and unformed character in terms of design which starts as one enters the road.”* Some fundamental changes have been undertaken to this revised scheme to really sit the proposal

harmoniously into the context through the use of a number of changes. These include a change from flat roof to pitched, a change in roof material to match the existing, a reduction in building width, reduction in building height and mass, and a change of external cladding from white gabion to matching red brick.

- *"Living accommodation at basement level can raise concerns regarding the amount of light that would be enjoyed by occupiers. However it appears as though the terrace area at the front and rear would allow for some natural light in to this space."* This is indeed correct, the basement level enjoys a fantastic amount of natural light and cross ventilation. Terraces are enjoyed at both the front and rear of the property, with the front measuring 8.4sqm and finished with full height glazing. Whilst the rear has 10.3sqm of carefully stepped terrace to ensure natural light is not reduced at a steep basement wall, but rather allowed to enter deeper into the floor plan as a result of this angle created. The stairwell is also fundamental to the natural light and passive ventilation strategy and again further enhances the lower level environment.
- *"it is considered that enough amenity space would be retained for both properties to enjoy. There are also some examples of other properties on the road which have smaller rear amenity spaces".* Agreed.
- *"In relation to no. 86, the development is unlikely to cause adverse impact to this neighbour due to its positioning on the east of the site."* Agreed.
- *"However, no. 87 benefits from a side dormer (see planning history), and the window of this would face onto a blank façade (western elevation of the new dwelling) which may conflict with Policy CC8 in terms of disturbing outlook from this window."* This window is part of the vertical circulation and houses a staircase with multiple other sources of light. It is obscure in nature and provides access to 1no. bedroom only which does not in turn use this window. Another window is located to the first floor to the same elevation but again this is obscured and only provided the a bathroom. None of the windows therefore to this elevation are for primary living accommodation that would be affected by a new dwelling.
- *"No. 88 Balmore Drive is set at an angle to the application site with the rear amenity space for the property backing on to the existing garage."* The angle and width of the plot to no.88 actually helps enormously with both the impact on natural light and sense of openness. The house is located far away from the proposal (over 7.4m at the closest point), with the proposed shadows never reaching this or blocking the windows. The amenity space is

also large and extends far beyond the new building parameters whilst minimal shadow shall enter the garden (similar to the current situation when taking into account the garage and existing trees) it does not at any point in the day or year cast such a shadow that would interfere with the private garden space. The significant changes have gone a long way to achieve this whereby the pitch of the roof at this side of property is steep, allowing a reduction in mass as well as an increase in solar gains to the garden. In practical terms this ensures the impact of the proposal above ground is more similar to a two storey property with a room in the roof than that of a three storey. Please also refer to appendix 2 'sunpath analysis'.

- *"The majority of the side elevation facing no.88 would also be a blank façade".* This has been closely considered and the revised scheme is almost incomparable to the original. The changes are dramatic and seek to provide not only an acceptable elevation for the neighbour, but something that's is interesting and functional for them. The roof pitch as noted earlier is much improved and greatly reduces the mass, bulk and impact of the building, especially from the top floor. The material is matching brick which will have edible plants encouraged through the fixing system to provide an ever changing tapestry of colour, food and habitat for flora and fauna. The glazed elements are subtle with a hit and miss cladding over elements to again soften the dialogue between the structure and the glass, the building and wildlife.
- *"Lastly, the proposed roof terrace is likely to result in a loss of privacy to all the neighbouring residential gardens mentioned above, contrary to Policy CC8."* This roof terrace has been omitted entirely, along with a reduction in roof height building width and mass at this level.
- *"All new houses with dedicated off street parking should provide electric charging points".* This has been added.
- *"A Construction Management Statement will be required for this development."* Agreed, this would be drawn up and agreed with the planning department prior to commencement on site.
- *"a reasonable level of soft landscaping would need to be maintained to the front of each of the residential dwellings and converting the entire frontage of both the existing and new dwellings to hard standing for parking would be unacceptable in principle."* This is a key driver central to the revised scheme. The existing landscape shall be retained as fully as possible, the proposed required parking spaces shall be located more central to the plot and further planting shall be added to ensure the soft landscaping character is enhanced. All parking areas

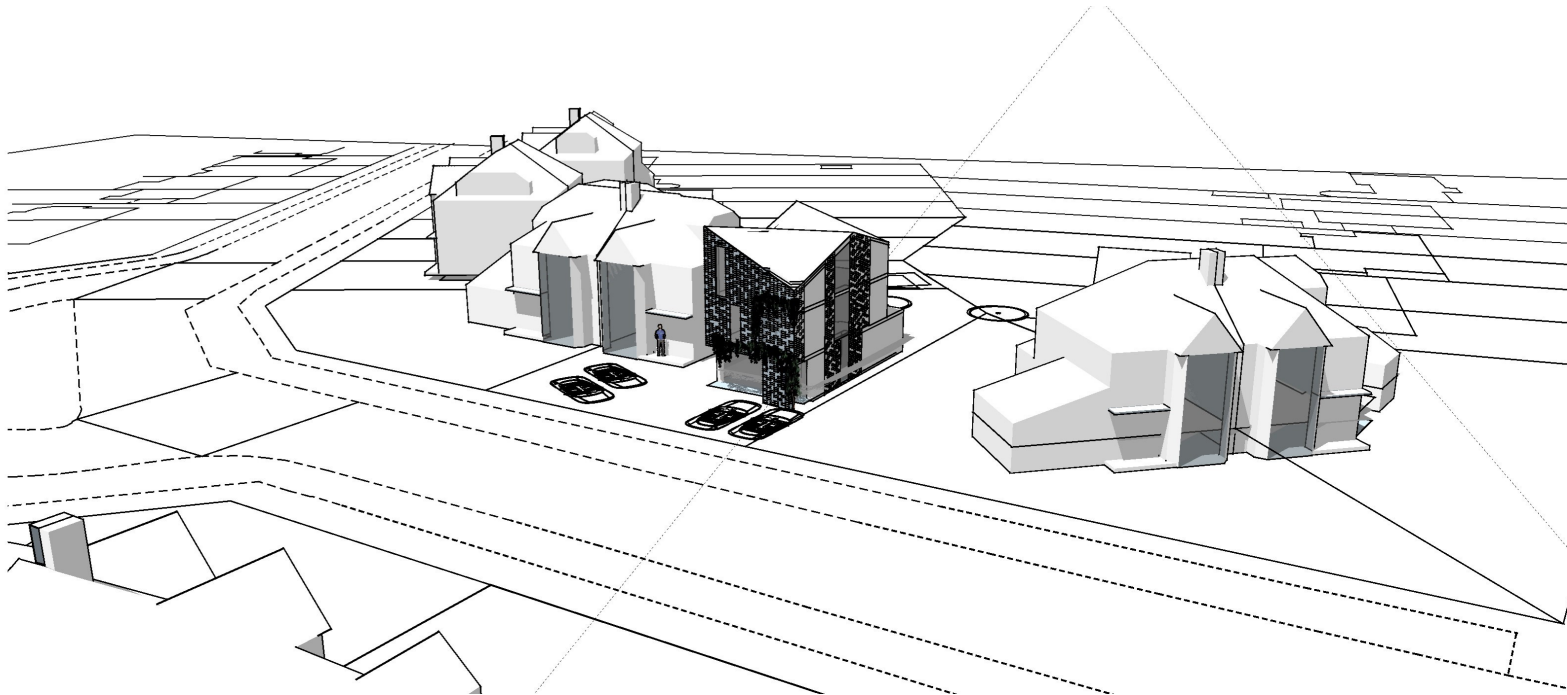
shall be SuDS and therefore present a reduction in the amount of hard standing currently observed on site.

- *"There are no photos of the garage and it may have features that are suitable for use by roosting bats."* Please refer to section 3.04.

Community Consultation

The local community, both directly with the neighbours either side of the proposal and the wider community of Balmore Drive will be consulted with to inform them of the proposals and seek feedback. Consultation shall be continued throughout the planning process and beyond to ensure all local parties are kept up to speed with the project.

The massing model below shows the proposed scheme from the entrance of Balmore Drive. The impact is minimal and should be read in conjunction with existing trees and natural screening on site, this further reduces the amount visible from the public highways and neighbouring properties, almost hiding the building entirely.



4.0 DESIGN

4.01 Design Concept

The use of simple forms articulated through a system of key elements and limited palette of materials delivers the requisite degree of variety in a coherent architectural language. The overall form and massing is designed to minimise impact on the surrounding area, which combined with the chosen materials looks to create a house that sits comfortably within its context.

A pitched roof form reflects one of the key changes following feedback at the pre-application stage, whereby the original scheme presented a flat roof which was considered too incongruous to the existing street. Following a detailed analysis of the existing and varied roof forms, a revised scheme is submitted which seeks to reflect the complex geometric nature of the existing roofs, with a clear analysis on the junctions between hips, valleys, dormers and gables that interact with one another, yet retain a unique identity for each plot. The result is a sympathetic yet original thesis on what a roof is and can be. A sculptural expression of functionality.

The rise and fall of the pitch has been carefully explored to ensure usable internal roof space that reflects the original properties and form, whilst reducing the impact of shadow on neighbouring properties. Please refer to appendix 2 'sunpath analysis' for a detailed representation of the proposed shadows cast throughout the year and just how little this effect shall be.

The functional aspect of creating such a high performing energy efficient dwelling is fundamental to the final design solution whereby photovoltaic panels are confidently incorporated into the roof form and whose effectiveness will be fully realized without any shadows being cast from neighbouring properties or trees. An air source heat pump which will be sized to be more than sufficient for the demands of such a highly insulated house and an automated rooflight ensuring high quality natural light is cast all the way down the stairwell (further enhanced as a result of the landings and staircase being perforated steel) and allowing the best use of passive ventilation via the stack effect and automated sensors.

Articulation in the elevations and choice of materials maximises the use of natural daylight while creating an aesthetic that sits confidently, yet respectfully within the site and wider context.

With regards to fenestration, the dwelling has been orientated north-south to ensure the best quality light is obtained without the risk of overlooking onto the neighbouring properties. This is further enhanced by siting the house within the centre of the new plot, away from both boundaries and over the footprint of the existing double garage. The gradual hit and miss nature of the matching brick cladding over the glazing softens the change from structure to fenestration and ties the existing materiality tightly into the proposal. Another fundamental change following pre-application advice.

The mass, height and width of the building has been substantially reduced, again following feedback and now is considered to reflect that of the existing and neighbouring properties, whilst retaining the sense of openness observed along Balmore Drive, ensuring a cohesive and appropriate level of intervention. To further ensure the soft integration the proposed roof is lower than that of the existing dormer and the geometric nature greatly breaks up the mass, ensuring the property is much less bulky and seen as subservient to the original structure.

4.02 Building Elements

The design seeks to create a simple form using subtle references to the existing language of the neighbouring properties, but evolve this existing 90 year old design into something that is contemporary and reflects the progressive architecture of today. The bay windows are seen as an important design driver and is therefore utilised in a way that is reflective of this within the proposed scheme. The overhanging form generated at the first floor level is generated to reflect this and provide a functional purpose by providing solar shading to the large expanses of glazing to the ground and basement floor levels and protection from the elements during inclement weather. This further enhances the driving principle of environmental sensitivity through the orientation, design and layout.

4.03 Materials

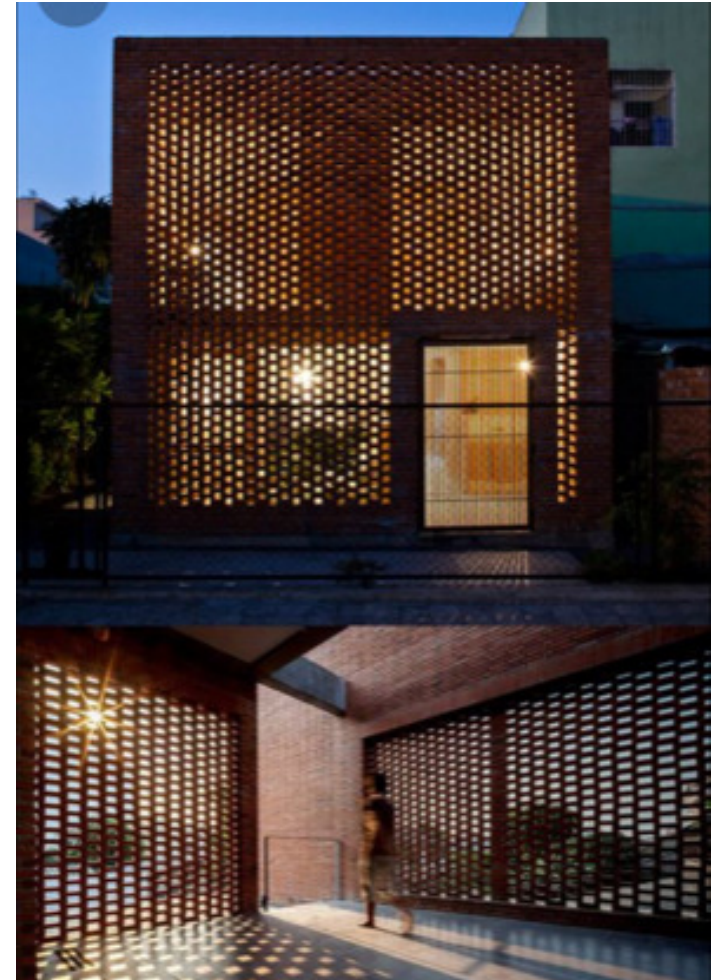
A palette of external materials has been carefully revised and developed following pre-application advice to compliment the site, providing links in material, colour and texture. The materials have been selected to help deliver a warm and robust home that combines a contemporary aesthetic in terms of light, space and volume while respecting the character of the area. The building's materiality has been chosen to weather, thus knitting the building into the site and harmonise with the natural colours and textures of the site and surrounding context.

Matching brick cladding

This represents a shift from the original proposal following the pre-app feedback where matching brickwork was considered much more appropriate to tie the new property with the existing. Following much design exploration in form and materiality, it is considered this current scheme sits comfortably with the existing houses, with an approach that offers a gentle and subtle nod to contemporary, sustainable design.

The hit and miss nature of the brickwork over the glazed areas creates the perfect habitat for insects and birds facing decline to find sanctuary in the townscape and encourage a dialogue between the built environment and the natural environment. The style of brickwork also highlights this importance of an environmentally progressive design whereby the cladding offers solar shading and passive cooling whilst still allowing large amounts of natural light to enter deep into the floor plan. The low maintenance nature of the brickwork makes this ideal cladding, coupled with its thermal and acoustic benefits due to its high density and fragmented nature of the arrangement.

Aesthetically the cladding allows the eye to explore the irregularity within its natural pattern and varied texture. This ties the house with the environment, blurring the lines of architecture and landscape, structure and nature. A fundamental element following feedback was regarding to the interest value to property no.88.



The previous scheme was considered minimal in interest value due to a single glazed strip central to the large monolithic expanse of wall. This has been carefully considered and now the neighbouring wall offers far greater value to the neighbour including a much reduced mass and faded 'edges' thanks to the dramatic pitched roof, glazing and hit and miss cladding working harmoniously together to create blurred areas of solidity and fenestration and the matching of the brickwork to reference the very material used in the construction of no.88. It is felt the final scheme greatly adds variety and interest with a planting strategy takes hold and starts to camouflage the residence, offering edible plants on site for the owner and a visually softened appearance to the neighbour.

The use of matching brickwork is a reinterpretation of the ancient use of brickwork into a contemporary skin, semi opaque in nature to allow natural light to flood the internal space, provide ample natural ventilation and a low energy demand. Ancient meets modern, function meets expression.

Glazing

High performance triple-glazing is employed throughout, ensuring natural light enters deep into the building, adding architectural interest and capitalising on the views of the surrounding landscape. The building has been designed to ensure excessive solar gain does not increase the need for mechanical heat extraction by subtly fading the cladding over the glazed elements thus providing quality passive protection.

The environmental strategy ensures quality north light, solar gains used through thermal mass and windows to maximum use of natural light to office space, work surfaces and living areas. The glazing will be frameless with a slim profile and maximum u-value. The external aluminium face of the glazed units offers high weather-resistance and low maintenance.

Ultimately, the simple palette of materials will provide an exciting yet smoothly integrated solution within its context.

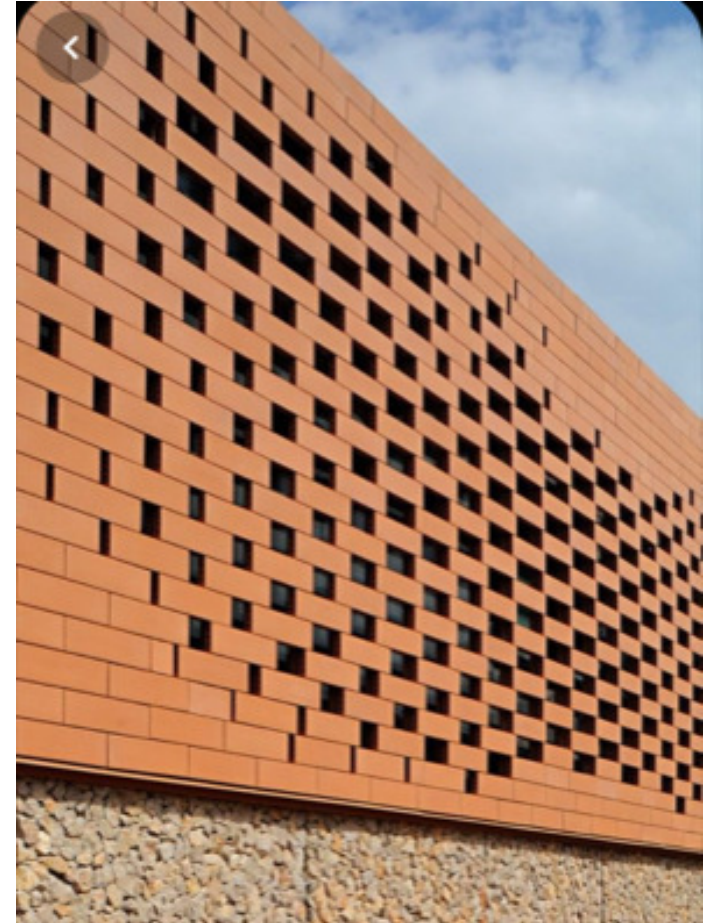




Photo 1 (Page 23)



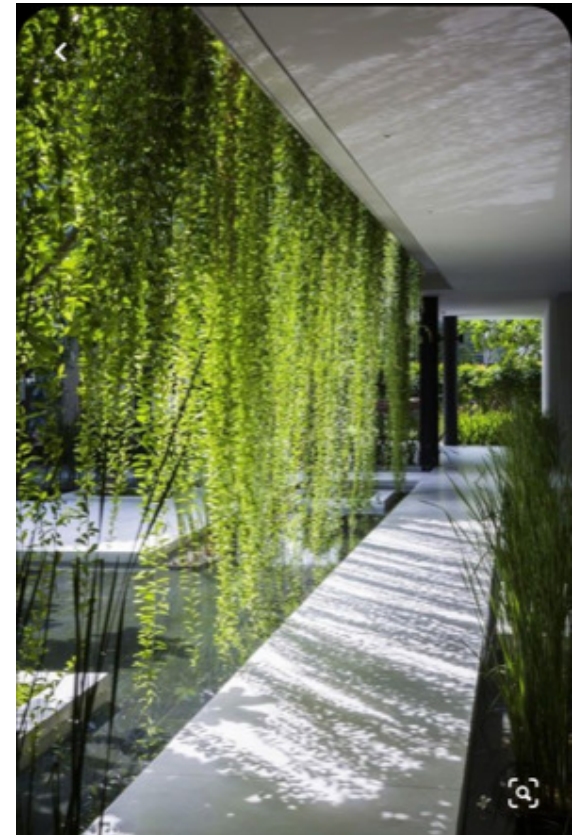
Matching red brickwork cladding helping to diffuse the change from solid to glazed, reduce solar gains and improve the quality of natural light internally

Photo's 2 & 3 (page 24 & 25)

Example of cladding support system to double up as framework for climbing edible plants

Photo's 4 & 5 (page 25)

An example of the integration between the natural and built environment, aiding passive natural cooling, wildlife and insect habitats as well as a food source for the owner and neighbouring properties



4.04 Basement Floor Layout

Kitchen
Dining
WC
2no. Terraces

4.05 Ground Floor Layout

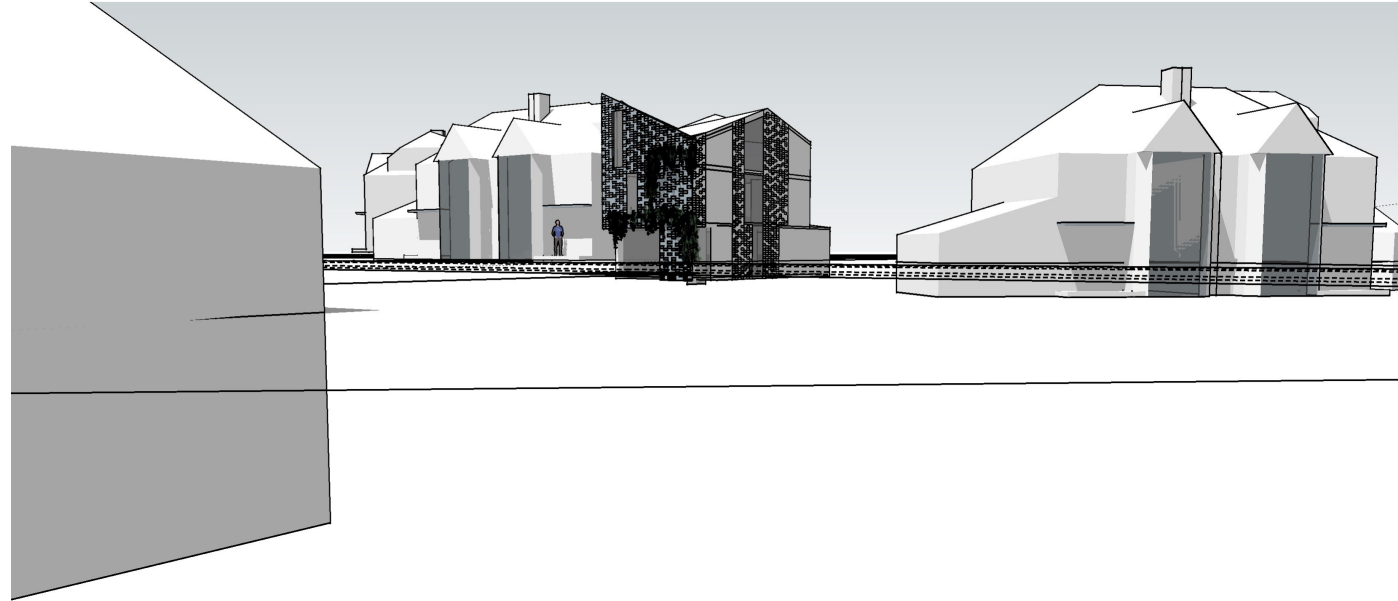
Main entrance
Cloak room/ WC
Living room & snug
Terrace

4.06 First Floor Layout

Master bedroom & en-suite
Bedroom 2
Bathroom

4.07 Second Floor Layout

Bedroom 2 & en-suite
Bedroom 3 & en-suite



3D massing model showing the minimal impact of the proposal on the street scene as one enters from the B481 Peppard Road. This image should be read alongside the existing site where the mature natural screening will largely hide the proposal from sight, ensuring the level of openness is not impeded.

4.08 Site Strategy

The landscaping design proposal is based on the following key principles:

- (i) To successfully integrate the building into its landscape - the garden is to reflect the architecture of the house and the house to reflect the abundance of nature, creating a single cohesive dialogue.
- (ii) To create a garden that is sensitive to its context, utilising the existing topography and flora where possible.
- (iii) To create a landscape that is multi-functional, responding to the orientation and arrangement of accommodation in the house. The landscaping, like the building will be composed of a simple palette of materials.
- (iv) To provide appropriate cycle accommodation and waste/ recycling bin storage as well as usable amenity space.
- (v) To use the landscaping to soften the building boundary and create a sustainable edible selection of plants to use throughout the year by the owner and neighbours.
- (vi) Use the climbing plants to aid natural cooling via physical shading and 'evapotranspiration' (a combination of evaporation of water and release of water vapor) by plants also helps cool walls.

A planting strategy will be developed that uses local and indigenous planting and shrubbery to soften edges and help integrate the building into the landscape. Existing trees and hedgerows are to be kept where appropriate and enhanced with additional planting. The existing site retains a good degree of screening through mature trees to both the front and rear of the site.

4.09 Landscaping

The following provides a summary of the primary elements within the proposed landscape plan:

- fruit trees and bushes for human and animal consumption promoting enhancement of animals and insects
- permeable SUDS roadway provides vehicular access to the site, whilst having minimal impact it will be planted to meld into the landscape
- there will be diverse planting, including trees, shrubs and flowering species to the existing and proposed plot
- composting heaps provide biodegradable waste for the garden and excellent recycling
- bird boxes to encourage indigenous species.

4.10 Total Development

The amount of **total development** proposed is as follows:

Site area: 473.4sqm

Footprint of proposed house: 63.8sqm

Total gross internal floor area (GIA) of proposed house: 190.3sqm

5.0 ACCESS

5.01 Vehicular Access

Vehicular access to the proposed site will be via the existing dropped curb on Balmore Drive. This is substantial in size and shall be shared between the existing and proposed dwelling. The new driveway shall be constructed from lightweight permeable SuDS, ensuring no surface water is displaced elsewhere on or off the site.

Both properties shall have 2no. off road parking spaces to the front of their respective houses. Please refer to the proposed block plan.

5.02 Inclusive Design

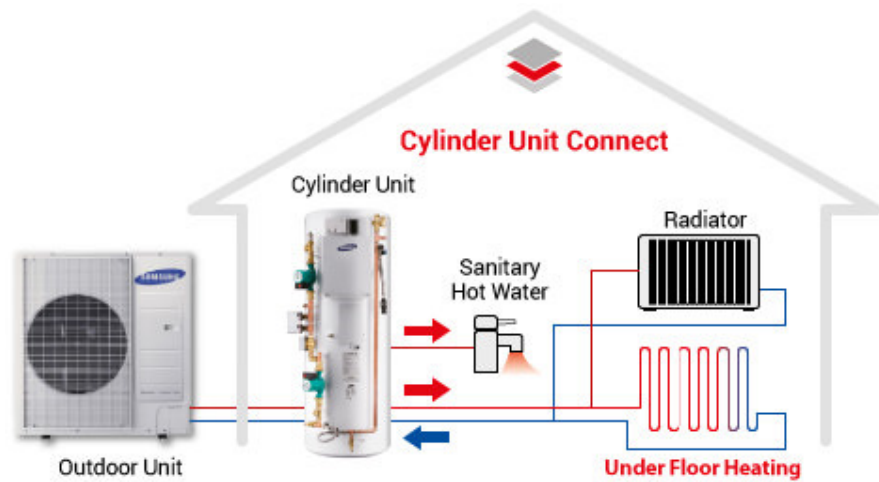
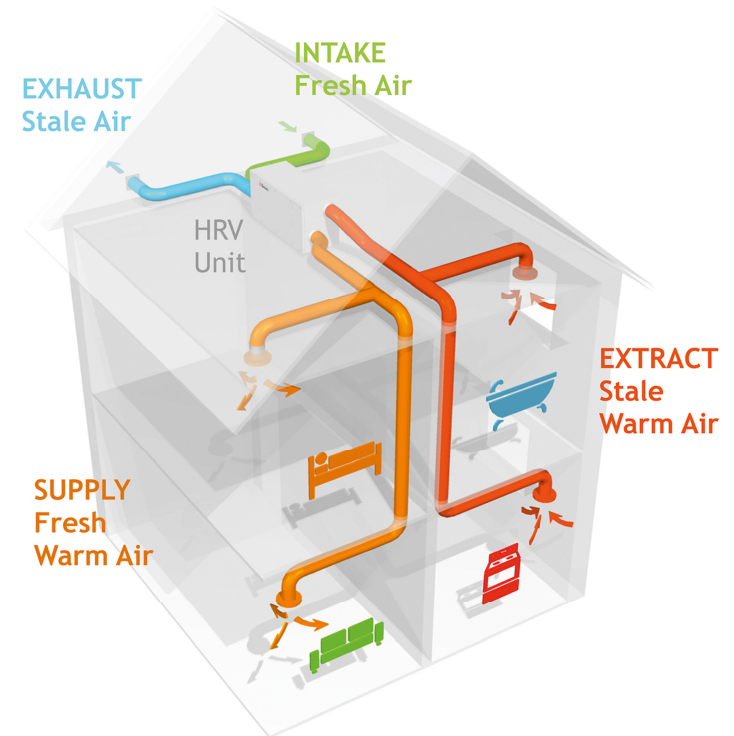
Pedestrian access to the house will also be from Balmore Drive as it currently exists. Emergency escape is achieved on all floor levels by the use of opening windows and escape routes in full compliance with current building regulations. It is important to note all circulation within and around the building is designed to meet both approved document M and the DDA regulations. The ground floor offers an ambulant toilet with an outward opening door and room for sleeping accommodation. Level thresholds are to be used throughout the project.

6.0 SUSTAINABILITY

To ensure the building performs as well as possible during its entire life cycle, all aspects of its operation in terms of its energy have been considered throughout the design process. The following have been implemented within the design:

- Orientation and building location, maximise passive solar gain, natural light and ventilation/ cooling
- Maximise insulation to reduce heat loss and minimise heating requirements
- Mechanical ventilation with heat recovery (MVHR) introduces fresh air and replaces stale air via a heat transfer plate which ensures air coming in is pre-heated and reduce energy demand
- High levels of air-tightness and insulation greatly surpassing current requirements
- Electric charging point shall encourage the use of electric vehicle use. Something the client is very keen to upgrade to once the house is complete
- Thermal mass of exposed solid floors will moderate internal temperature
- Solar PV panels shall be utilised to the flat roof
- Air source heat pump greatly reduces the energy requirement of the entire house throughout the year
- Hit and miss brick cladding provides solar shading whilst allowing natural light to enter deep into the floor plan
- The use of passive ventilation reduces the requirement for mechanical ventilation, which is used sparingly and only in support of passive design
- Ample high-performance glazing reduces the electrical lighting requirement and provides a healthy environment
- Non-concussive taps and dual-flush toilets reduce water consumption
- Insulation material with zero rated ODP and timber sourced from managed forests (FSC/ PEFC)
- Under-floor heating ensures efficient heating and full use of thermal mass

- Supplementary heating is achieved through a wood-burning stove
- Reduce rainwater run-off from the site using SuDS
- 2 cycle storage spaces encourage sustainable modes of transport
- Local materials and labour will be used where possible
- Low-energy lighting is employed throughout
- Recycled materials will be used whenever feasible
- A+ rated kitchen appliances
- Green roof to single storey element at rear



7.0 CONCLUSION

The proposed dwelling at Balmore Drive provides the opportunity to create a home which is both architectural and progressive. It directly responds to its environment and respects its surrounding architectural styles, history and context. This project adopts the local values of community and environmental sensitivity in order to create something inspirational.

By carefully selecting materials, an unsuitable and disused garage will be demolished to lay way to a hard-working, self-sufficient home suitable for the modern family. The material choice is the most appropriate and 'greenest' for this site and the simplicity in design shall see this new home become the heart of the family for many years to come.

