Rotherlea



Design and Access Statement

20 January 2024

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01 In troduction

Executive Summary

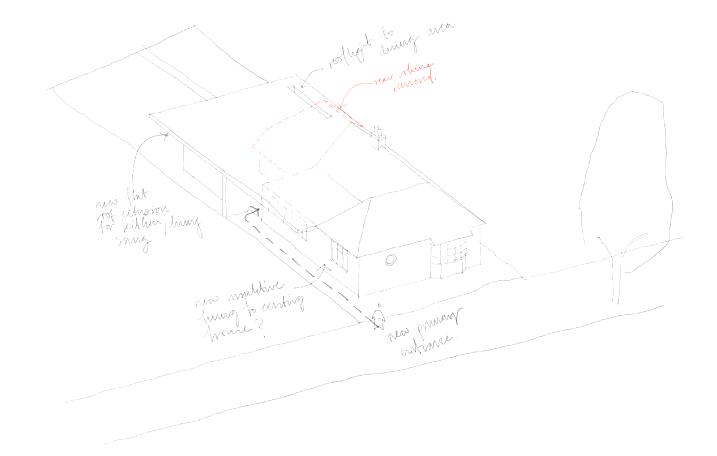
This Design and Access statement accompanies a Householder Application prepared by Residence on behalf of the applicants, Rupert and Gemma Gregory of:

Rotherlea, Highfield Avenue, Twyford, Hampshire SO21 1QP

The submission relates to the address above, a residential property currently occupied by the applicants and their two young children.

The proposal for Rotherlea is to part demolish and extend the house to enable internal reorganisation and the provision of living accommodation suitable for a young family and contemporary models of living. The submitted plans also detail the improvement of thermal efficiency, and the re-cladding of the existing structure to prolong its life and utilise the embodied carbon therein.

This application follows an intensive period of design development and refinement, the resultant design responds to the specific challenges of the clients brief and the technical constraints of building a contemporary sustainable home in a South Downs village.





Client Brief

Rupert and Gemma approached Residence with a very clear idea of the type of project they had in mind:

'An expanded, refreshed, comfortable, highly energy efficient, light, airy, robust, fresh, flexible, grounded family home'

Further to this high level ask the renovated house was required to deliver a sustainable home which would support and frame family life for years to come with the following features:

- + 3 Double bedrooms
- + Utility / laundry room
- + Open plan kitchen living dining
- + Generous hallway / porch / canopy
- + Snug / Playroom
- + Suitable storage
- + Comfortable indoor environment
- + Window seats

Throughout the process Rupert and Gemma have requested the low carbon routes can be taken wherever possible to limit the impact of the project on the local and wider environment.

All these elements have been synthesised and incorporated into the resulting design, this will be demonstrated within this Design and Access Statement.

02 Context

Site Location

Rotherlea is located in the Hampshire village of Twyford, close to the city of Winchester and on the outskirts of the South Downs National. The property itself is just outside the Twyford conservation area and located on an unmade road close to the Hunters Park recreation area.

Local Area

Twyford is a predominantly residential village with a varied and diverse housing stock. Two pubs, Two schools, two village halls, two parks are accompanied by a shop, dentist and GP Surgery to complete the relatively bucolic scene of the village. Despite being located along the M3 corridor the village is rural in nature with string connections into the South Downs National Park.

Designations

- + The site is within the Twyford Settlement Boundary
- + The site is within the South Downs National Park
- + The site is <u>not</u> within an AONB or SSSI.
- + The site is <u>not</u> within a conservation area, nor does it contain any listed buildings or scheduled monuments.
- + The site is within Flood Zone 1 and has a low probability of flooding from rivers and the sea.
- + There are no significant habitat designations for the site
- + There are no trees on site and the site is not in close proximity to woodland, ancient or otherwise.

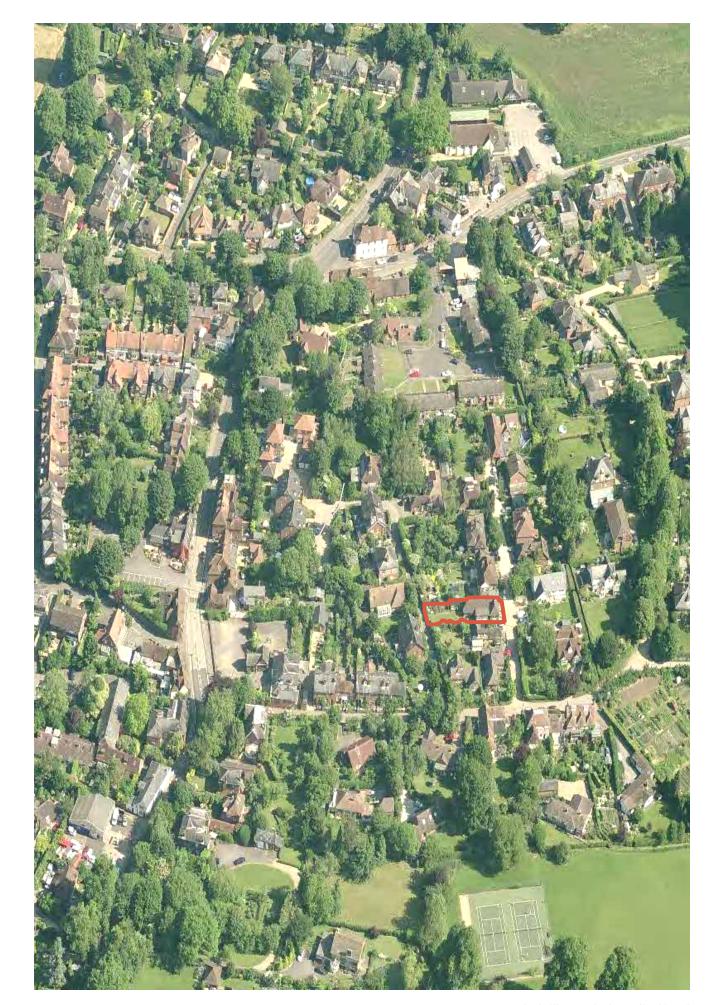
Planning Context

It is our understanding that the application will be considered against the policies in the following guidance:

- + National Planning Policy Framework (NPPF)
- + South Downs Local Plan (July 2019)
- + The Twyford Neighbourhood Plan

The property has been subject to two previous applications extending the property to the rear on both occasions:

- + Ref. No: 750214-75_00374_OLD
- + Ref. No: 801117-87_00131_OLD



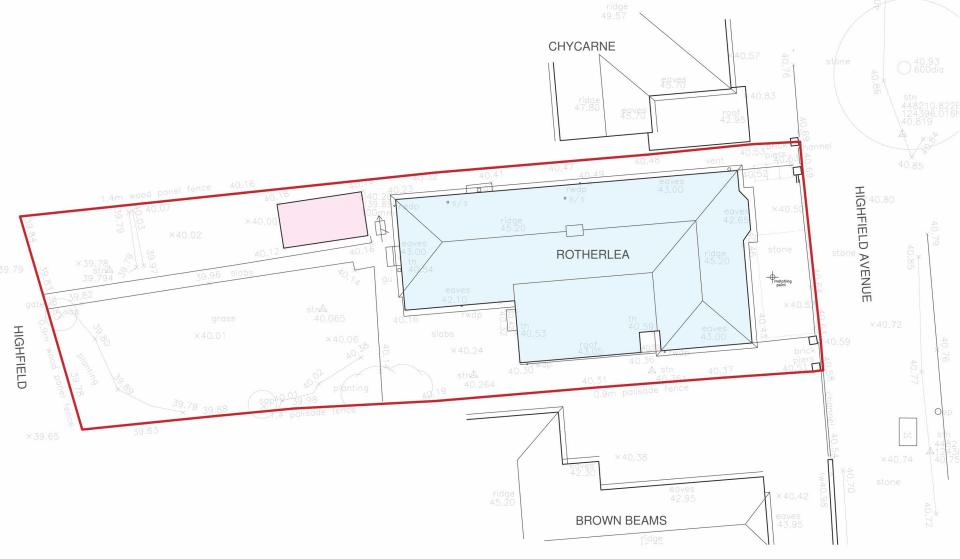
Twyford Village, Rotherlea outlined in red

Existing Building

The current house at Rotherlea is an extended bungalow with some remnants of the original property defining and restricting the use of the home. The primary elevation of the property is parallel to and in close proximity to the road itself. Two previous extensions to the house have enlarged the property to the rear, one flat roof extension and 1 pitched roof extension has resulted in a slightly disjointed form and layout.

The character of the house is defined largely by the slightly imposing roof mass and a distinctive oculus window to the front elevation.

A garden is sited to the rear which contains a timber outbuilding originally constructed in the 1990's.



Existing Site/Block Plan NTS

Existing House
Existing Outbuilding
 Site Boundary

Area Data	Existing
Gross Internal Area - House (GIA)	100sqm
Gross Internal Area - Pre 1999 Outbuildings (GIA)	8sqm
Site Area	370sqm



The existing front aspect



The existing rear aspect

Built Context

Highfield Avenue features a number of different housing forms and characters, the road is largely single storey bungalows to the South with larger two storey detached and semi detached houses to the North. Constructed and later developed in a piecemeal fashion there is no dominant aesthetic to the architecture. However it can be seen that the buildings are individually at home in the semi-rural context.

In the broader area many materials and finishes sit side by side to provide the distinctive village tapestry which gives Twyford its character. Included within this tapestry are a number of contemporary refurbishment or new build properties which demonstrate how the village can support a diverse a number of architectural styles without damaging the character of Twyford.

Interfaces and boundaries with the road varies along the length of HIghfield Avenue, no definitive hard boundary is present to many of the properties, this is the case for Rotherlea in particular. This contributes to an open informal character to the road.













 ${\it Built context on High field Avenue \ and \ wider \ Twyford}$

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Ground Floor Plan

The existing ground floor plan (opposite) is a rather convoluted set of spaces. The primary access is 'hidden' within an overhang to the side of the house and once inside the narrow entrance hall terminates at 2 No. bedrooms and the living room. This is not ideal for noise transfer, occupant movement and welcoming guests.

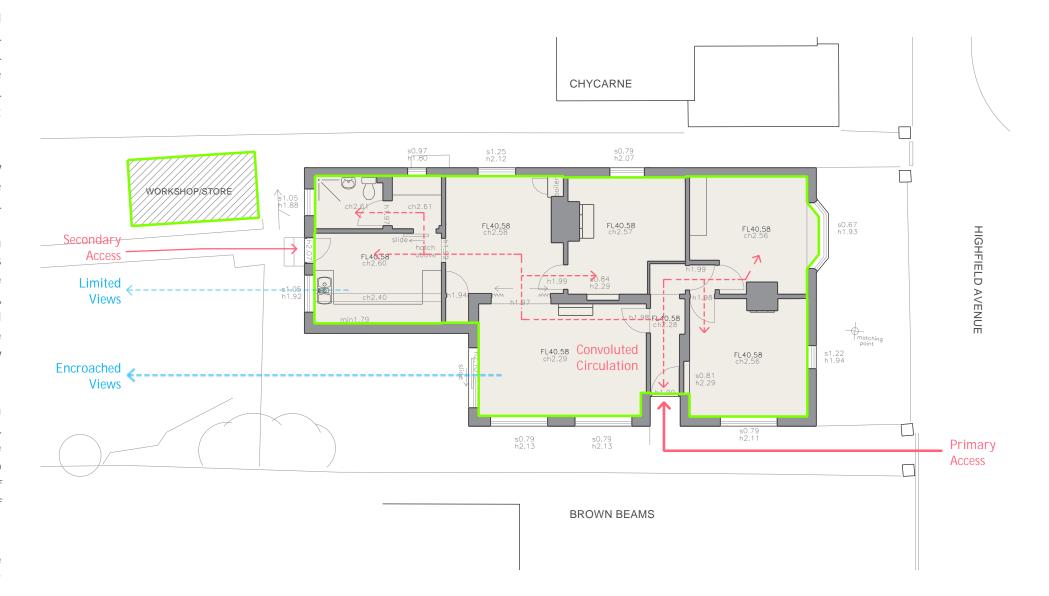
The dining room is accessed from the living room and itself opens onto a further bedroom and the kitchen. The kitchen itself leads onto the bathroom and utility. This broken and indirect circulation is not ideal for use of the individual spaces or navigating between them. Secondary access is directly into the kitchen space past the workshop building located in the garden.

This sub-optimal spatial arrangement is a primary driver for a redesign at Rotherlea, the current space does not function well as a contemporary family home.

The spaces themselves are not ideal for use by a growing family, the kitchen, dining and living spaces are best described as functional providing little of the liminal and flexible spaces required for entertaining, relaxing and thriving. The house is minimally insulated and air tightness is lacking; the thermal enclosure would benefit from an upgrade for comfort and energy efficiency.

Finally Rotherlea has weak visual connections with one of its best features - the enclosed private garden. The later flat roof extension has attempted to resolve this, with some success, by installing sliding doors to the living area. Being set back behind the extremity of the kitchen the view is limited by the encroachment of the house.

Owing to the factors described above it is appropriate to redesign Rotherlea to provide a house suitable for family life now and for years to come.



Silhouette and Massing

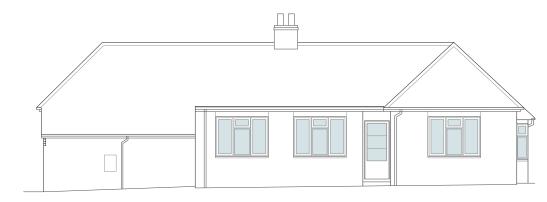
A single storey bungalow Rotherlea is neighboured by a bungalow to the South (Brown Beams) and two storey home to the North (Chycarne). The ridge height of the property is +45.20 AOD which is approximately 4.8m above the external ground level. The presence of the house on Highfield avenue is modest with a small street frontage (East Elevation) announcing the presence of the house.

This elevation contributes significantly to the houses character a charming oculus window providing a friendly face to the house. The significant mass of roof weighs heavy on the elevations of the property making up nearly 50% of the presented elevation, the utilitarian clay tile roof is perhaps not the best choice of material for such a volume, resulting in a heavy aesthetic for such a small property. Any new design should embrace and improve the existing character of the house sensitively. The longer South and North Elevations face onto neighbouring properties so any window treatments will need to bear in mind the potential impact on the relevant stakeholders.

The rear elevation is functional in appearance, smaller kitchen windows do not make the most of the garden access and the stepped form of the house breaks the garden up into zones that are too small to landscape effectively. A corridor is formed between the living and garden rather than a usable patio.



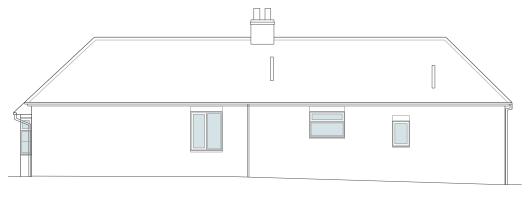
East Elevation



South Elevation



West Elevation



North Elevation

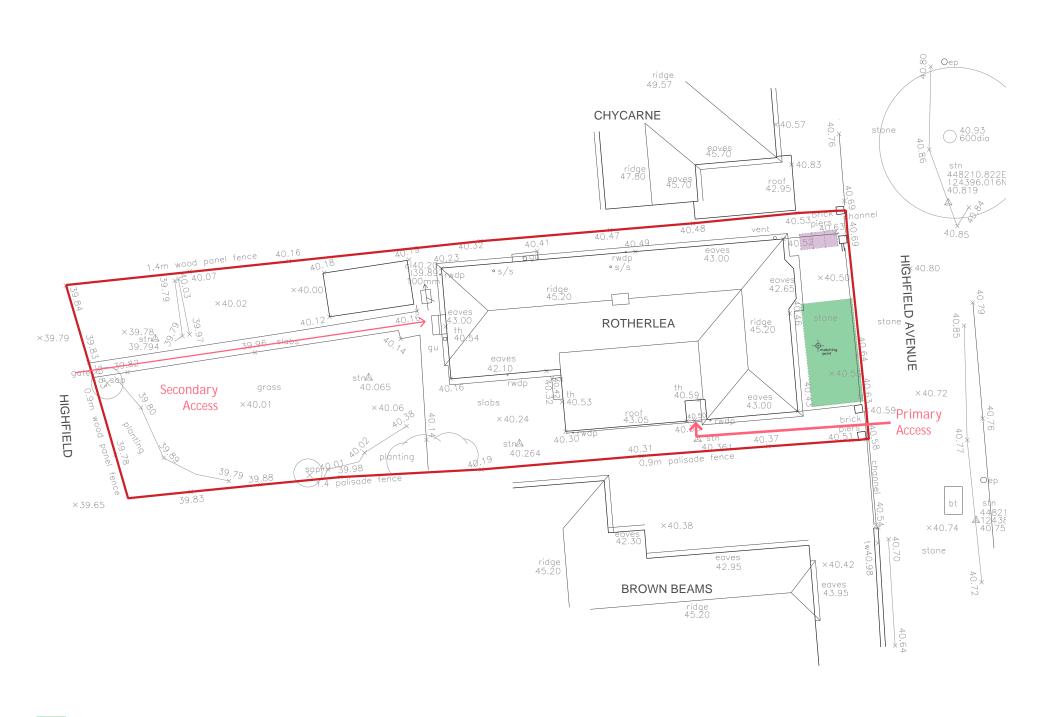
0m 1m 2m 3m 4m 5m

Access, Transport & Services Highfield Avenue is an unadopted road with a gravel finish running between the site boundaries of the various properties. This is the primary site access which leads to the front door located approximately halfway down the South Elevation.

> Rotherlea itself has a small front garden which is used as a driveway and is where the various refuse bins are stored. These are collected form the front of the property by the local authority waste management team.

> Arear gate leads onto 'Highfield' - providing a secondary access to the site which is used predominantly as a pedestrian access.

> The house is served by gas and electric mains with drains running to the mains sewer at the front of the property.



Vehicular Parking

Bin Store/Collection

Existing site access plan

04 Design

Analysis of the existing site and context has justified that development of the site is appropriate to improve the thermal efficiency of the property and address the convoluted internal layout which is not suitable for modern ways of living.

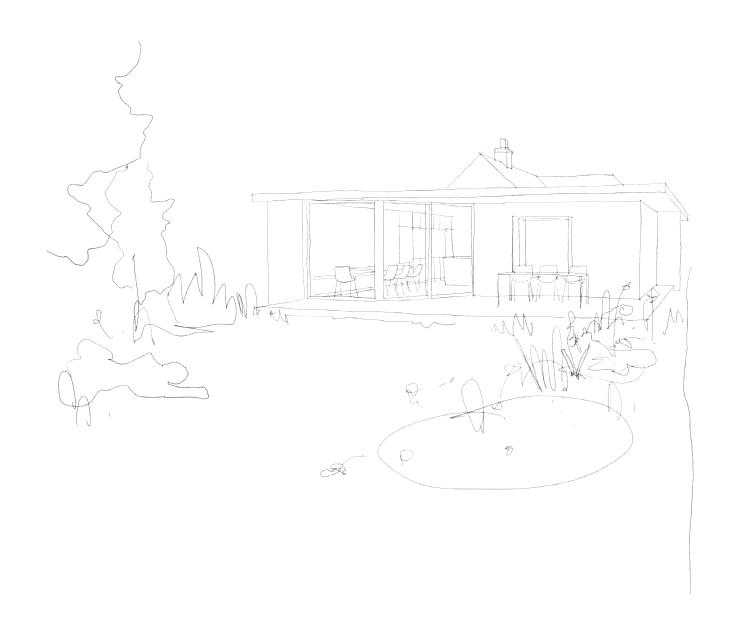
Through this analysis and the design process the brief for the project has evolved and refined. The design as submitted is presented here as the most appropriate form of development for the site and to meet the needs of the client.

Developed Brief

A re-imagining of the existing structure and house to provide a house which is thermally efficient and organised to provide a rational flow between spaces and allow for open plan living with opportunity for privacy and quiet when required. A small extension should connect the main living space with the garden both physically and visually to make the most of the tight plot. Renovation of the existing structure is key to utilise the embodied carbon of the house wherever possible.

Design Philosophy

The design of the house must be justifiable from an efficiency perspective. Efficient use of space and efficient use of materials have been considered with each design choice and the most suitable path for development followed.



Initial Sketch - Rear Garden View

Proposed Site Plan

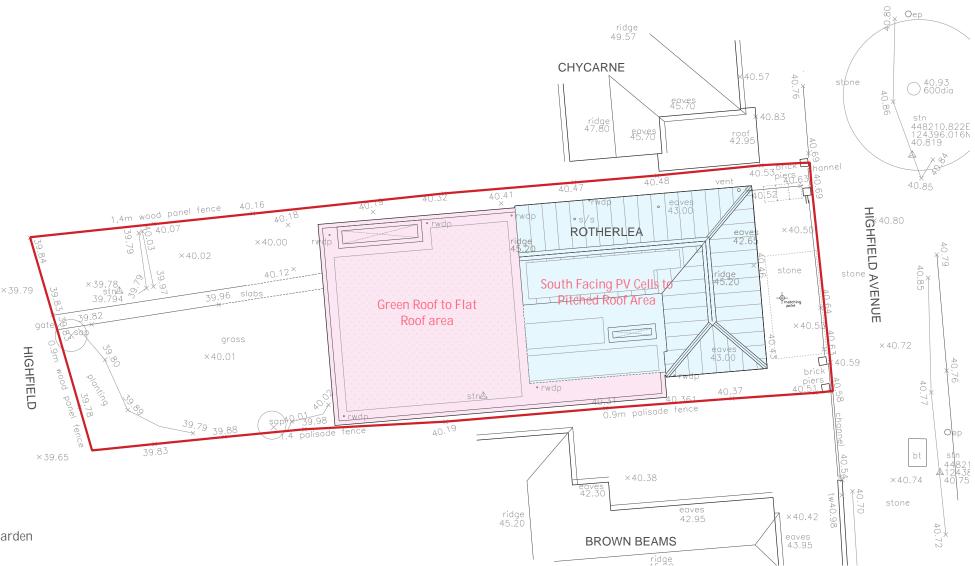
In developing a proposal for Rotherlea there were certain 'must have' elements of the brief, these items have provided the defining parameters of the project, helping to steer the outcome of the design process.

Sustainability and efficiency have been key, the client is passionate about reducing their carbon footprint in daily life and pursuing a low carbon model for any building work they do embark on. The existing envelope will be wrapped with a new layer of insulation and cladding whilst the new build areas will utilise timber frame construction where practical and possible. Materials with low embodied carbon and long lifespans have been chosen. PV Cells will provide electricity to the house whilst an Air Source Heat Pump will provide hot water.

On a local scale thought has been given to being a 'good neighbour' to Twyford Village and the wider South Downs; the flat roof will include a sedum finish to encourage biodiversity; bat and bird boxes will integrate with the timber cladding to encourage wildlife to occupy the site with the family.



Area Data	Existing
Gross Internal Area - House (GIA)	138sqm
Gross Internal Area - Pre 1999 Outbuildings (GIA)	N/A
Site Area	370sqm



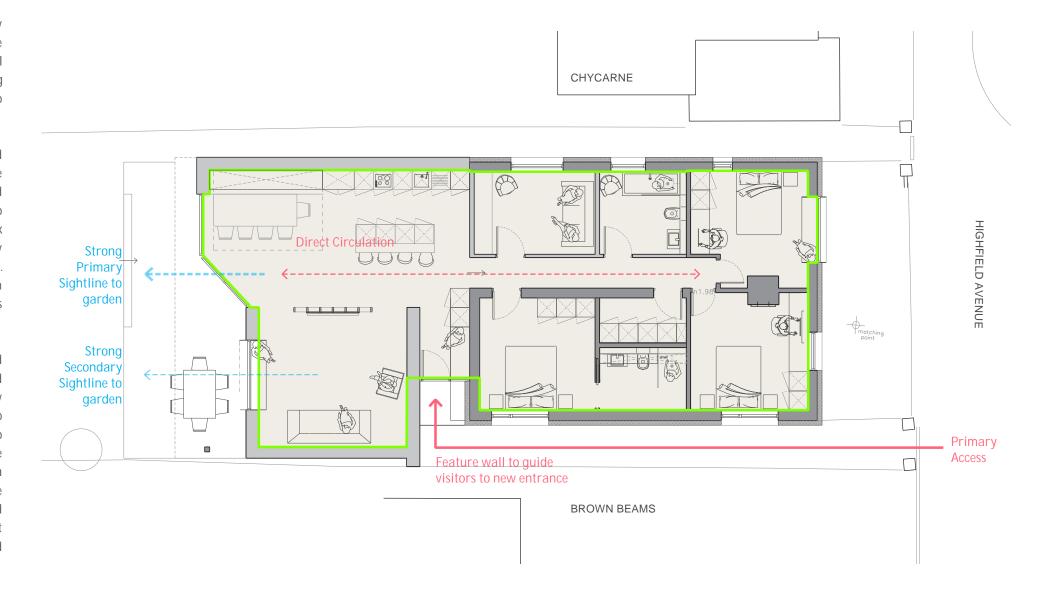
Proposed Site/Block Plan

NTS

Proposed Ground Floor Plan The replacement of the kitchen area with a new rear extension has allowed a subtle yet complete reorganisation of the floor plan. The entrance still follows the same path as the existing yet a strong feature wall at the point of entry will allow signage to naturally direct visitors to the entrance.

> The once convoluted circulation has been rationalised into a single central axis with long views into the garden. The two front bedrooms are largely untouched except for the window treatments, the ambition is to replace the existing bay with a contemporary box window seat feature and enlarge the oculus window to make the most of the existing quality in this room. The existing living room becomes the master bedroom and ensuite with the third bedroom and dining areas utilised as a snug and family bathroom.

> The new extension is one step lower than the retained rooms to create a clear delineation between old and new whilst providing additional height to the new rooms. Efficient in its use of space, floor area is kept to a minimum to; reduce cost, impact on the site and to allow living, kitchen and dining areas good views of the garden. A partially open structural partition provides a degree of privacy and acoustic buffering between the kitchen and living spaces without losing the open and light qualities of the volume. A second box window seat feature provides further seating in the living area and contemplative views into the garden.









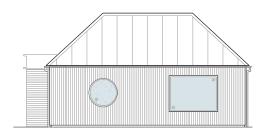
Proposed Elevations

Improving the thermal efficiency of the existing house requires an appraisal of the elevations and aesthetics of the house. The existing masonry walls will be lined with high performance insulation and finished with timber cladding to help protect this new warming envelope. The roof will be stripped to enable insulation at rafter level and the loft void to be used for a Mechanical Ventilation and Heat Recovery unit and other ancillary equipment. The roof will then be refinished in a light grey standing seam metal to compliment the timber cladding.

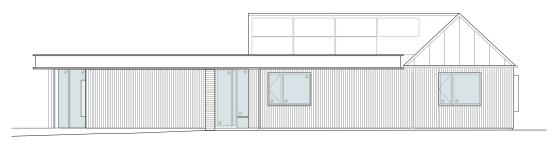
The primary elevations to the front and rear have been enhanced, the bay window to the front of the house will be replaced with a contemporary box window and window seat, to provide this feature with an additional use. The circular window is recognised as the houses most distinguishing feature and as such it has been retained and enhanced to provide greater balance to the front elevation.

Larger areas of glazing are reserved for the rear elevation, protected from overheating by a deep overhang sliding doors will open onto the garden whilst another box window seat provides views form the living room.

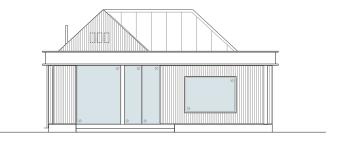
To the side elevations work is intended to the existing windows and openings, where practical existing opening have been retained with new glazing fitted. To the South elevation one of the existing windows will be blocked and replaced with a rooflight to allow privacy to the shower room behind. A window will be removed from the North elevation where kitchen units are proposed internally. To the same elevation 1 No. existing opening has a lowered cill height to provide greater access to light for the proposed snug and a new opening has been added to the front bedroom to act as a fire escape. All glazing to the North elevation will be obscured to protect privacy in both directions.



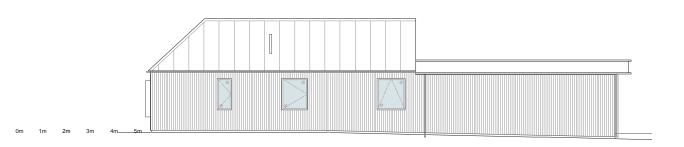
Front / East Elevation



Side / South Elevation

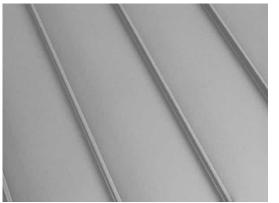


Rear / West Elevation



Side / North Elevation







1. Light grey/natural metal standing seam roof





2. Vertical timber cladding and metal edge profile flat roof





3. Horizontal timber cladding

Materiality

Natural weathered timber and metal roofing is a common and discrete feature of the South Downs National Park. When considering the materiality for Rotherlea a number of different options and samples were considered, the final choice was dictated by a number of key factors:

- + The quiet and soft nature of the materials would not compete in the relatively dense setting of Highfield Avenue
- + The materials have a relatively low embodied carbon, the roofing material also being highly recyclable
- + Timber and metal feature significantly across the SDNP and is becoming increasingly common within Twyford village
- + The malleable and easily worked nature of the materials offer the opportunity to insulate the existing building and use light touch construction detailing so as not too overcomplicate the relatively small elevational area

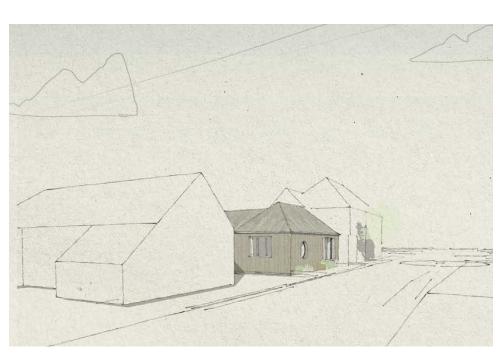
The precedent images opposite demonstrate the qualities of the materials chosen and the aesthetic intention for the project.

- 1. By choosing a light grey/natural metal roof finish the volume of the roof will appear reduced and less heavy compositionally.
- 2. Vertical timber cladding will be applied generally to the external walls of the property an open rainscreen arrangement will provide depth and interest to the elevation. The flat roof will be terminated by a metal edge profile to define the roof construction against that of the walls and glazing.
- 3. The cladding will be turned horizontally to differentiate the entrance/welcome wall and guide visitors into the house.

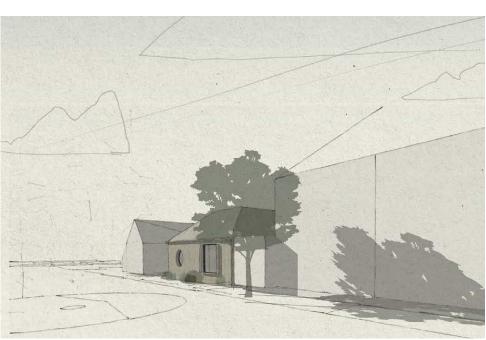
Visualisations

Sketch visuals have been completed to approximate the appearance of the house in context. These demonstrate the intended materiality and form against the neighbouring buildings.

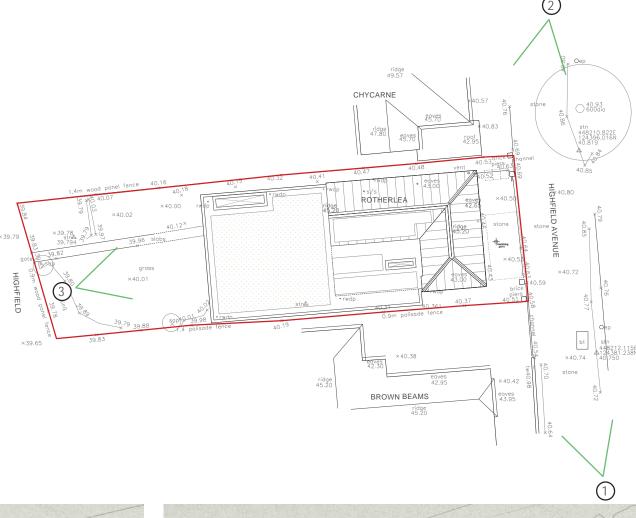
These views are shown at a larger scale over the next three pages and are displayed alongside the existing views from similar angles.







2. Proposed Approach from North





3. Proposed Rear View

Sketch visuals and illustrative key plan





Proposed Approach from South





Proposed Approach from North



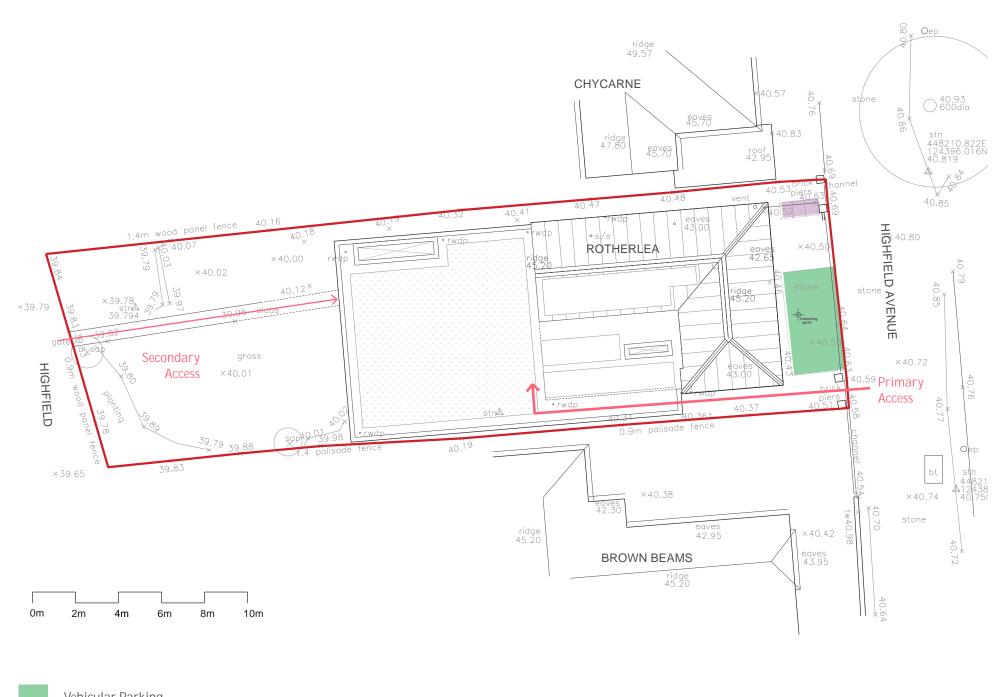


Proposed Rear View

amendment is the relocation of the primary entrance point. This has moved further along the South elevation although a feature wall will now allow signage to direct pedestrian traffic towards the entrance.

> Parking and refuse collection is as existing, the number of bedrooms is unchanged and so there will be no additional demand on these facilities.

> Services will utilise existing connections throughout the intention is for the property to move towards electricity as the primary source of energy and so the gas supply to the property will be capped.



Vehicular Parking Bin Store/Collection

Proposed site access plan

05 Impact

Area and Massing

When considered alongside the demolition of the proposed outbuilding there is an overall increase in floor area to provide the enlarged space desired by the client. Overall an increase of 30sqm from a total GIA of 108sqm to 138sqm. This increase should be considered acceptable when viewed in the context of planning policy:

+ SDNP allows a circa 30% uplift of GIA in extensions as outlined in the SDNP 'Extensions and Replacement Dwellings Technical Advice Note' (August 2019) this includes outbuildings constructed prior to 2002, if their inclusion will result in the outbuildings being 'rationalised to improve the appearance of the site'.

The workshop to the rear garden is a work space which will be provided for in the main house through the extension and rationalisation of the floor plan. This workshop is visible on satellite imagery from December 1999

+ A larger proposal may be permitted where it can be clearly demonstrated that there will be no harmful intrusive impact in the landscape and that there is an enhancement in the appearance of the host dwelling.

The views provided in this document clearly demonstrate the extension does no harm to the landscape and there is a visual enhancement where the current piecemeal extensions are rationalised into a cohesive whole.

Area Data	Existing	Proposed
Gross Internal Area (GIA)	108sqm (inclusive of workshop)	138sqm
Percentage Uplift		28%



December 1999, Workshop outlined in white



Current condition, Workshop outlined in white

Satellite images of Rotherlea showing development context

















Sustainability measures integrated into the design as recorded in the ESS

Ecology and sustainability

As described throughout the document sustainability has been the key design driver for the project. This is also demonstrated in the 'Ecosystems Services Statement' submitted as part of the application. The measures taken to advantage and support the local ecology as well as the wider environment are listed below to evidence the credentials and ambitions of the design for Rotherlea.

- + Bat Boxes to be installed and integrated within the cladding
- + Swift Boxes to be installed and integrated within the cladding
- + New sedum roof to the extension will add to local biodiversity and store and filter water
- + Permeable hard landscape surface to be installed in areas of new hard surface within the garden
- + New wildflower and native planting will be added to the garden
- + A new array of Photovoltaic panels to be installed on the south facing roof
- + Heating and hot water will be provided via an ASHP unit installed in a discreet location on the roof
- + A rainwater capture system is to be installed to retain brown water on site for use in the garden
- + A new composting system is to be installed in the garden to collect household food waste and garden waste to improve soil quality and nutrient content
- + Electric Car Charging will be installed, improving local air quality and reducing overall emissions
- + Improved level of thermal efficiency to the envelope will reduce operational carbon cost of the building
- + Timber cladding as well as structural timber to be used in order to reduce the embodied carbon of the project by using products which sequester carbon across their lifetime



Consultation

Once designs had been agreed upon informal neighbourhood consultation has taken place to allow feedback and comments from neighbouring properties. This has resulted in positive feedback as noted below:

"Thanks for sending these over and being so open with your process. The plans look amazing" Neighbour Comment

"Looks very nice guys and I love the environmental aspects."

Neighbour Comment

Supporting statement

The carefully considered proposals for Rotherlea, will provide a great improvement in the performance and utility of the house. Time has been taken to arrive at a design which is complementary to and comfortable within its context whilst fulfilling the brief for a future proof home which is thermally comfortable and energy efficient.

It is considered that the proposals fulfil the requirements of the National Planning Policy Framework (NPPF), South Downs Local Plan and the Twyford Neighbourhood plan in providing a discreet and sensitive proposal.



Residence

Residence Architects Limited connor@residencearchitects.co.uk www.residencearchitects.co.uk