

Detailed Proposal for a
Dwelling
with workshop facilities for
education & care;

Lakeside View, Penistone.

February 2013

Appendix A

architecture:m

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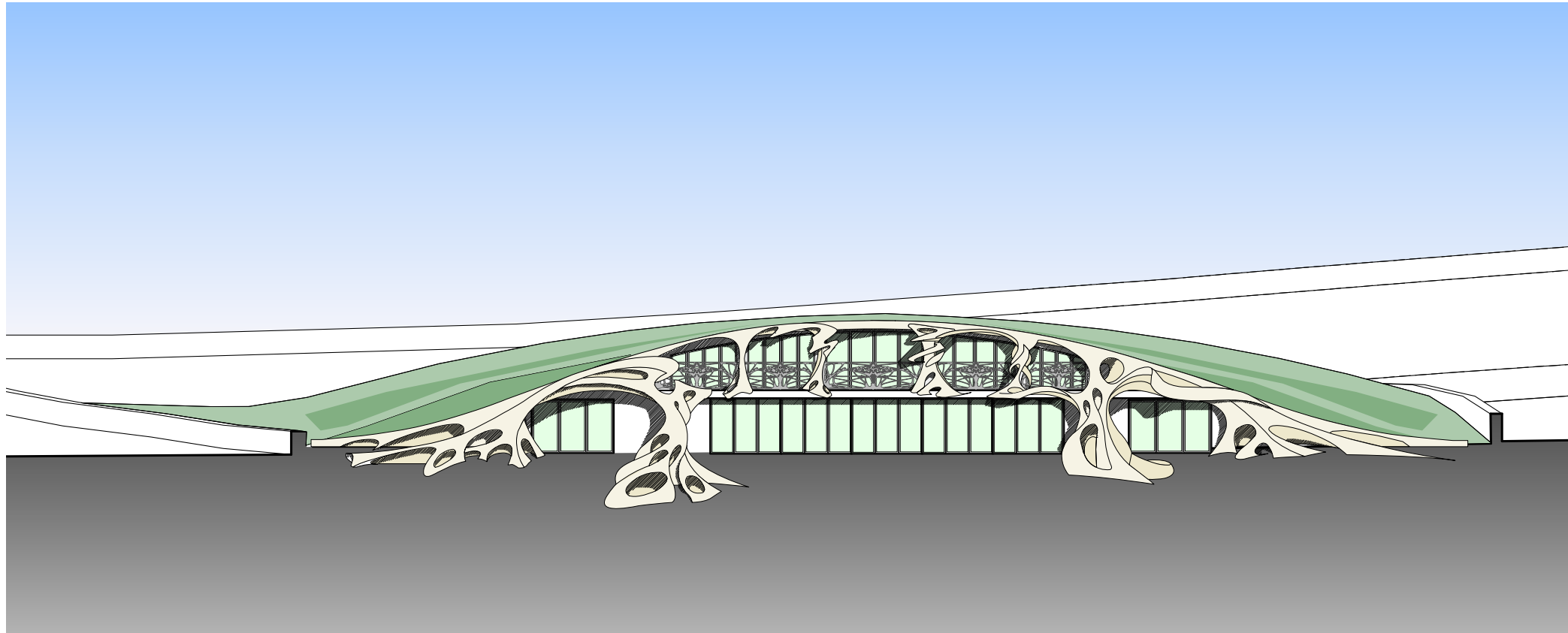
Introduction to Appendix

This document is for the design proposal for a scheme involving the development of a new single family home with workshop facilities for education and care, with associated hard and soft landscaping.

The proposed house is of an exceptional design quality and fully accords with the requirements of the old PPS7 'Sustainable Development in Rural Areas'. The house's design and its use of renewable technologies will enable the house to comply with level 5 of the Code for Sustainable Homes, whilst also enabling the house to achieve zero carbon status. Furthermore, the house has been designed to integrate into the surrounding environment and encourage biodiversity.

Very occasionally, the exceptional quality and innovative nature of the design of a proposed, isolated new house may provide this special justification for granting planning permission. [It] should be truly outstanding and ground-breaking, for example in its use of materials, methods of construction or its contribution to protecting and enhancing the environment, so helping to raise standards of design more generally in rural areas. The value of such a building will be found in its reflection of the highest standards in contemporary architecture, the significant enhancement of its immediate setting and its sensitivity to the... characteristics of the local area.'

- Planners are interested in integration and innovation.
- Proposals should require limited connection to the national utilities infrastructure and not draw heavily on local resources.
- Understand the site's ecology. Working with a landscape specialist is essential.
- Select interesting, low-carbon-footprint materials.
- The Code for Sustainable Homes is the standard for design and construction elements – include a code pre-assessment to back up your proposals.



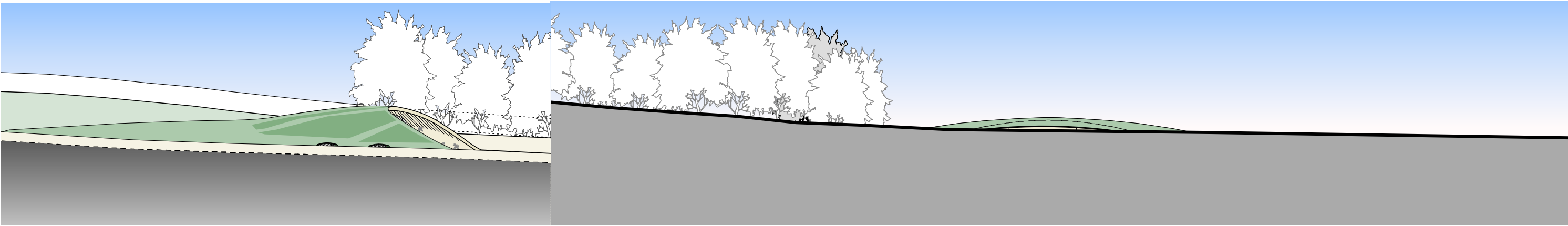
Architectural Design Statement

At the outset of the design of the project we have prepared a family home and educational/care facility with cutting edge technologies.

We have striven through the design process to achieve outstanding architecture. What we are delivering here is something truly exceptional in terms of a use of artisan skills, against a robustly detailed and durable building.

We have sought to create a curved and sensual form which befits the site’s setting and landform, and we have ensured it is deliverable working with local contractors.

During investigations of the site, we have found that the stone just under the surface is actually a good dry walling stone, and we will use this apart of the cladding



in the courtyard and the entrance area to the scheme.

The gently flowing landscape created the architecture of the main façade, with its flowing characteristics, with hardly a straight line, this elegant organic design a version of “Modernism”.

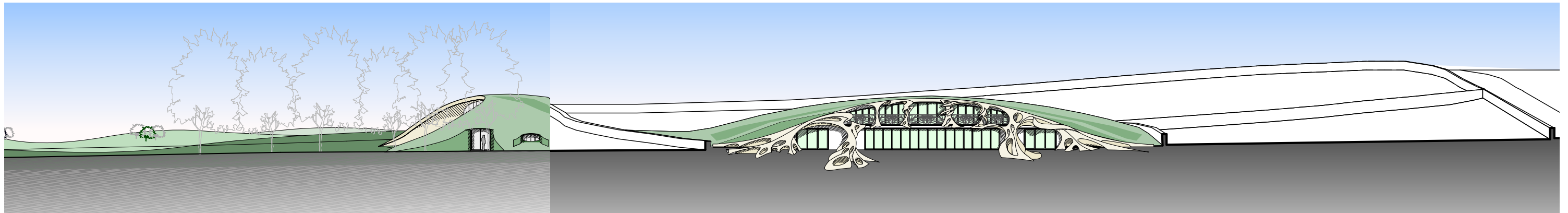
The sculpture that will be working the main lakeside elevation is local and the materials will be brought from

Architectural Design Statement

a local quarry.

Once completed this project will be a celebration of the local materials and also local skills. This will also be enjoyed by visitors to the site, who engage in the therapeutic care and education facility that the development will provide. This is very much a scheme which is local in terms of development and will become a living and functioning part of the community.

In this age of imported materials, computer cutting



of materials we have an exceptional house that will be a showcase of contemporary artisan skills using local materials, both characteristics that many projects aspire, but do not deliver, yet on this project these are fundamentals.

Mark Percival
Director
ArchitectureM

Design & Access

This report has been prepared by Architecture:M in support of the planning application for the construction of a family home and educational/care with associated hard landscaping at Lakeside View, Penistone. It follows guidelines set out in the CABE guidance document, 'Design and Access Statements: How to write, read and use them', and addresses the following points:

- Use, Amount and Scale
- Appearance
- Building Layout
- Landscaping
- Access

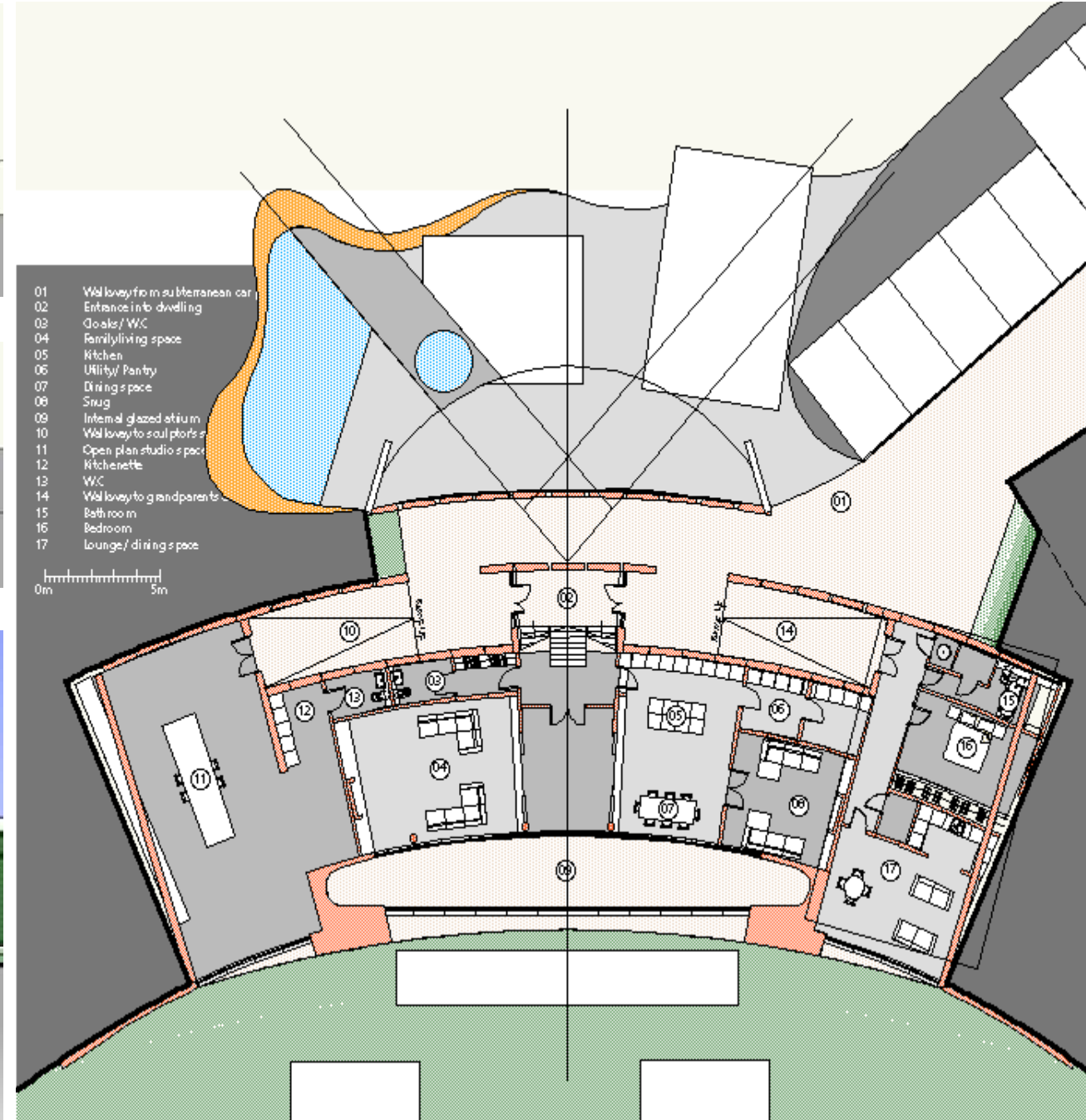
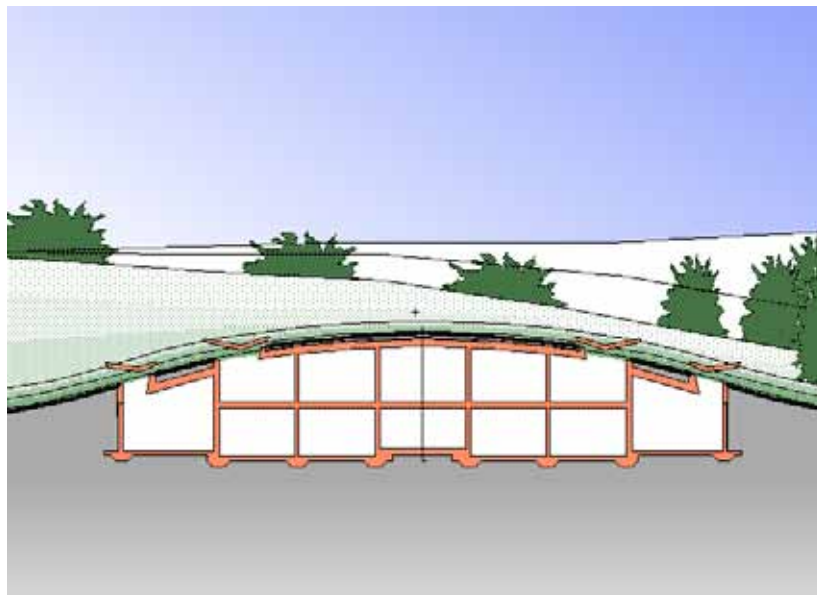
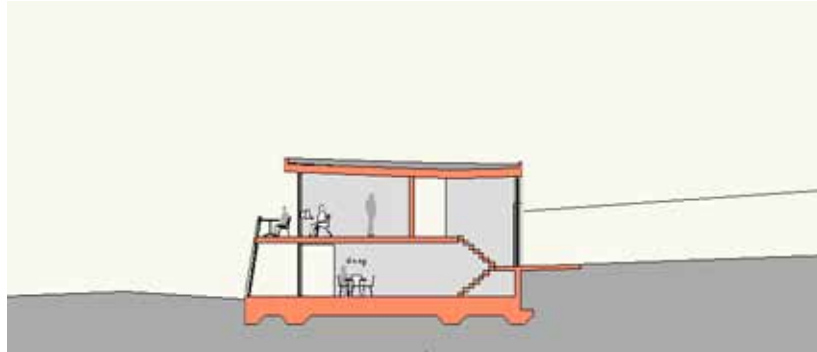
This report describes the objectives, development and design decisions of the proposed house and should be read in conjunction with the other chapters of this document.

Design Development

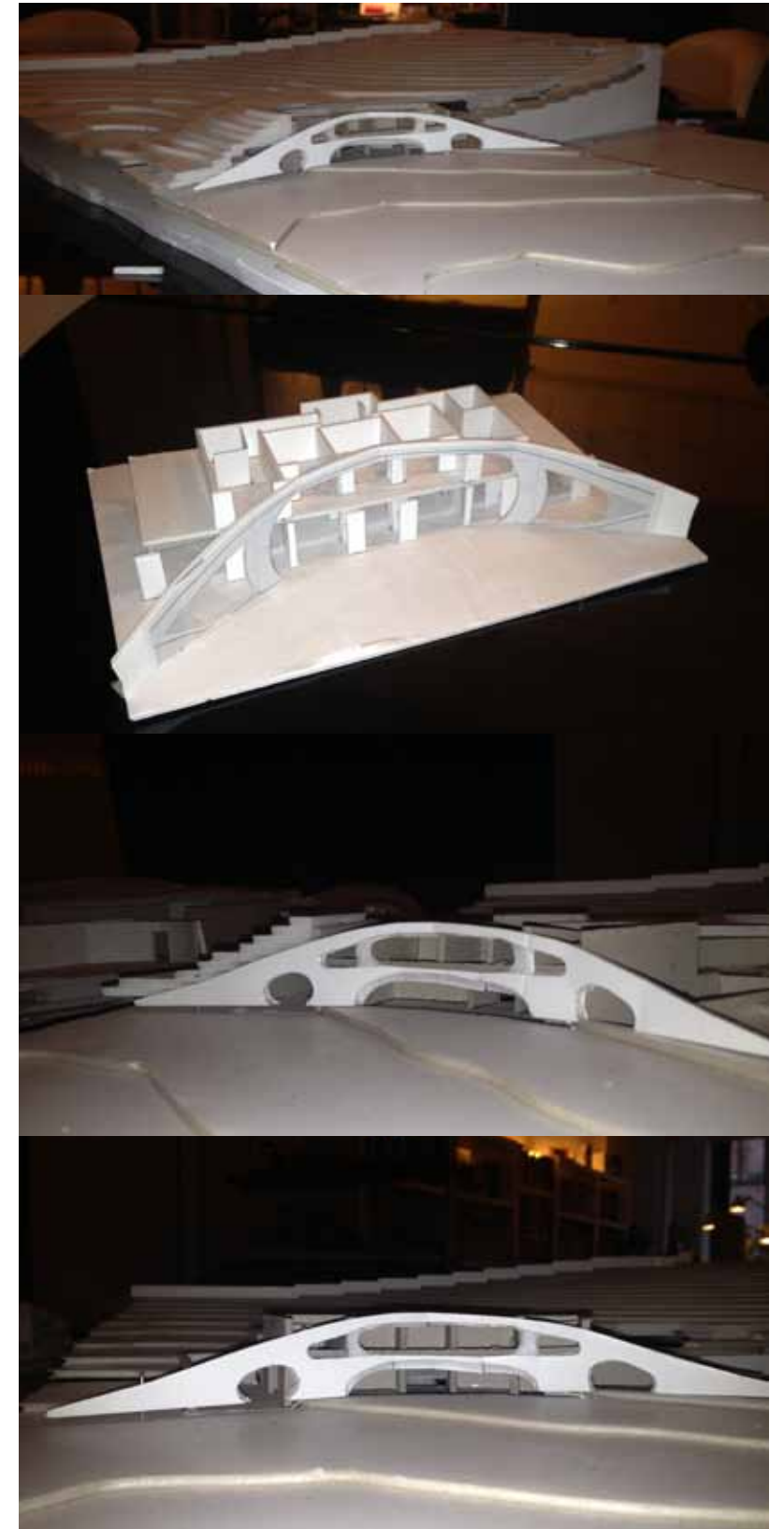
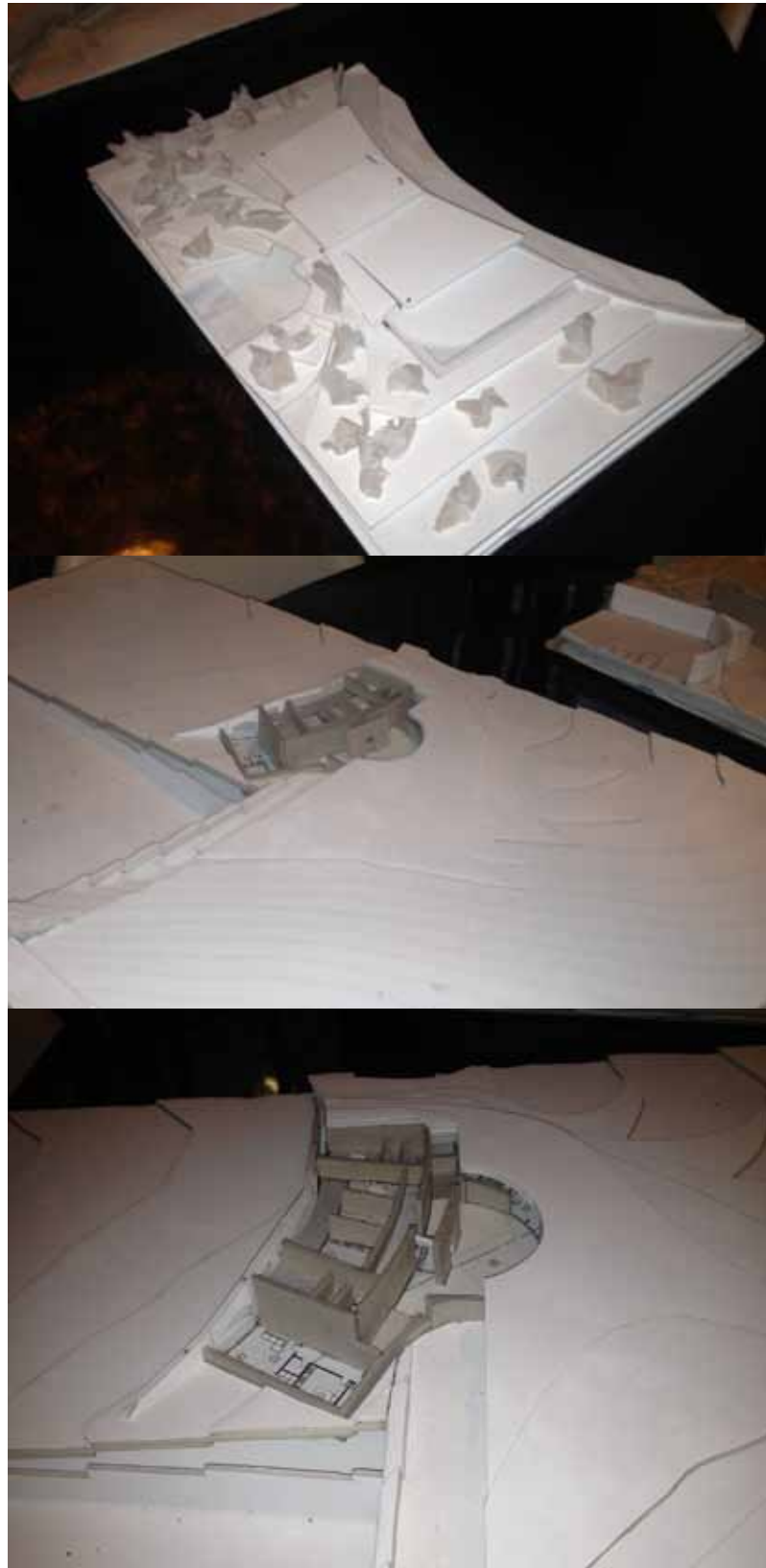
Over the design period, we are looked at numerous layouts on of the building, and the site design.

We've explored the design through paper, card board models, and clay, in addition to numerous visits to the site, exploring the building and the site.

Design Development



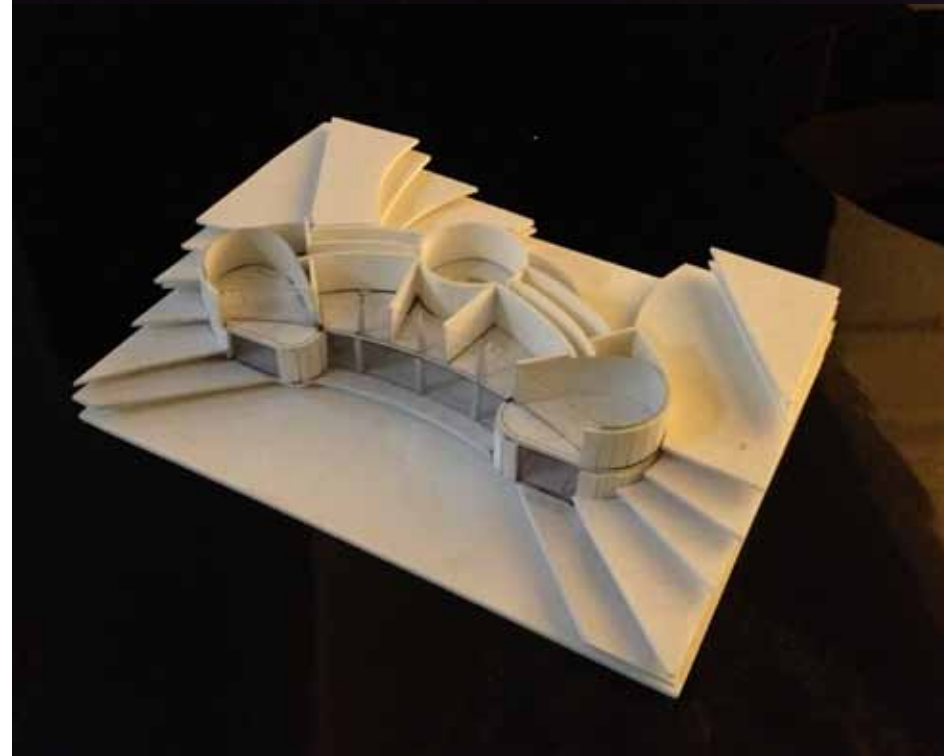
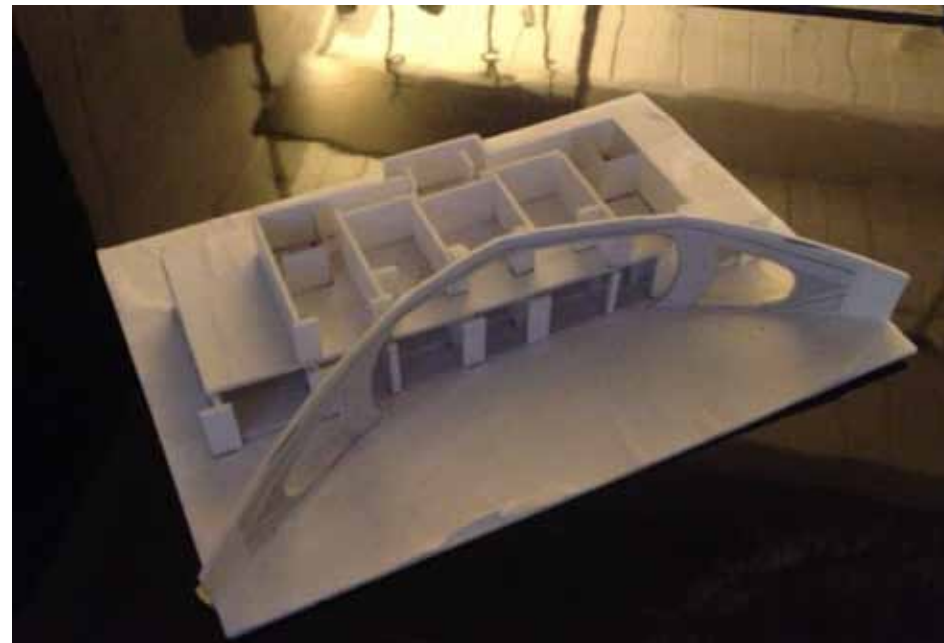
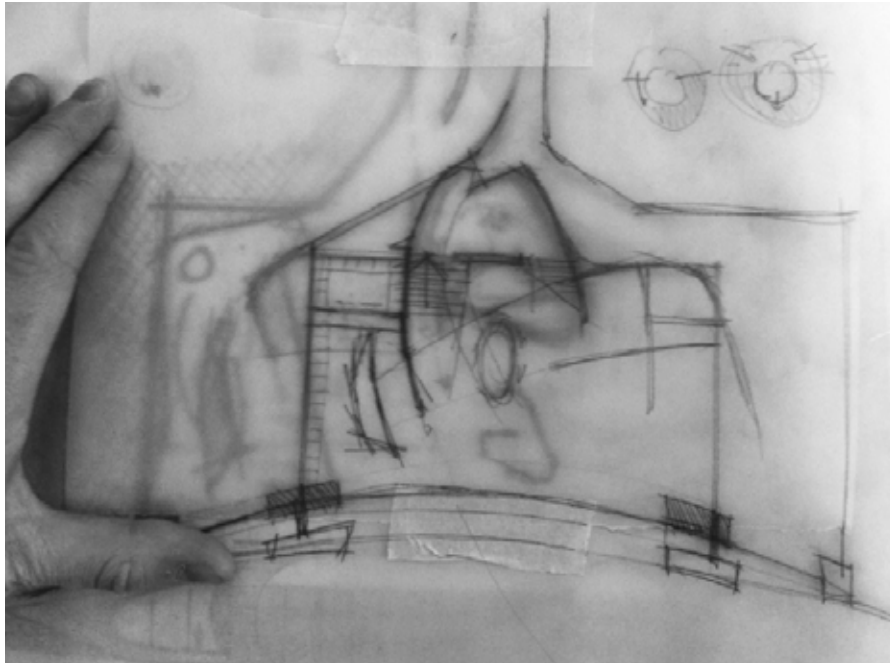
Design Development



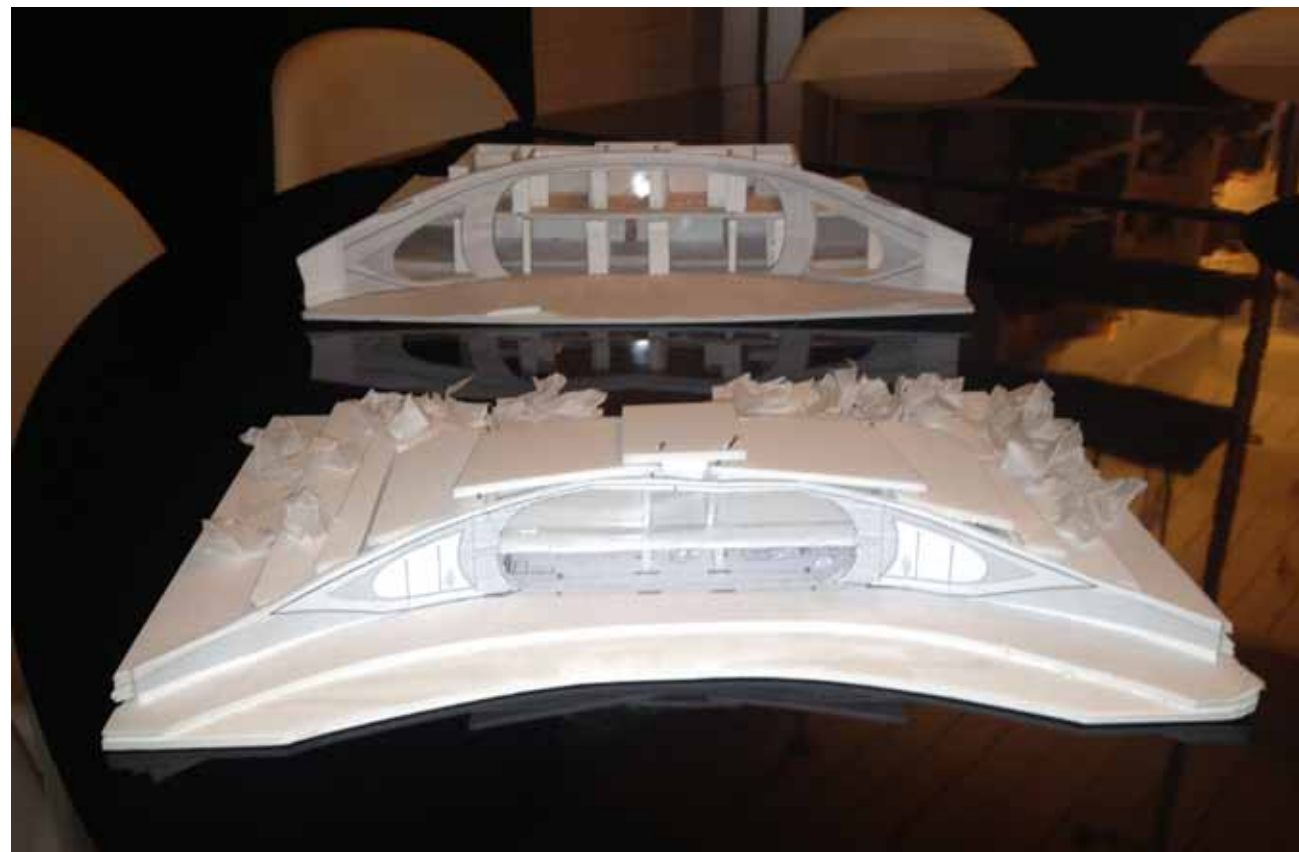
Design Development



Design Development



Design Development



PPS7 House Examples

Corbin House

Location : Etwall, Derbyshire
Architect: Shed KM



Costan Park

Location : Leicestershire
Architect: FCPR Architects

Iden Croft

Location : Staplehurst, Kent
Architect: Eldridge Smerin



Poulton Gorse House

Location : Gloucestershire
Architect: Staunton Williams

Flow House

Location : Bearsted, Kent
Architect: MKA Architects



Lowther Park House

Location :Lowther, Cumbria
Architect: Craig Hamilton Architects

Wilderness House

Location : Darsham, Suffolk
Architect: Paul+O Architects



The Hollins

Location : Bolton
Architect : Make

PPS7 House Examples

Lake House

Location : Ghyllheugh, Northumberland
Architect: Reid Judd Brown



Claffey House

Location : Malvern Hills, Herefordshire
Architect: Aedas

Mines Farm

Location : Weston Green, Cambridgeshire
Architect: 6a Architects



Grafton Hall

Location : Cheshire
Architect: Robert Adam Architects

Farm House

Location : Otmoor, Oxfordshire
Architect: David Chipperfield Architects



Great Canfield

Location : Essex
Architect: Quinlan & Francis Terry

South Farm

Location : Ashby cum Fenby, Lincolnshire
Architect: Fielden Clegg Bradley



Ashley House

Location : Ashley, Hampshire
Architect: Robert Adam Architects

Use, Amount & Scale

Use

The proposals are for a family home and educational/ care facilities for Justin Simms and his family, along with supporting gallery and studio space for his wife Hilary Simms to prepare and share sculpture.

There is more information on both in the following *Artists* chapter of this document.

Amount

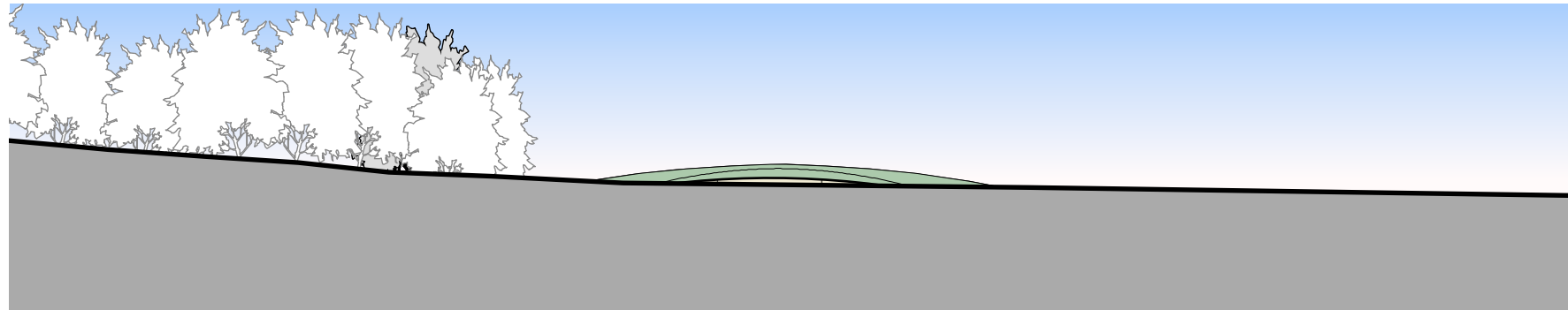
The proposals are for a medium sized dwelling, of approximately 515m² gross floor area, studio and storage, with associated landscaping that includes a driveway from the road.

Scale

The proposals are for a low-lying, two storey dwelling, the scale of which is kept to a minimum by its integration into the hillside. Externally, limiting the presence of the house and its visual impact have been central to the design process, with respect to the surrounding countryside and character of the area.

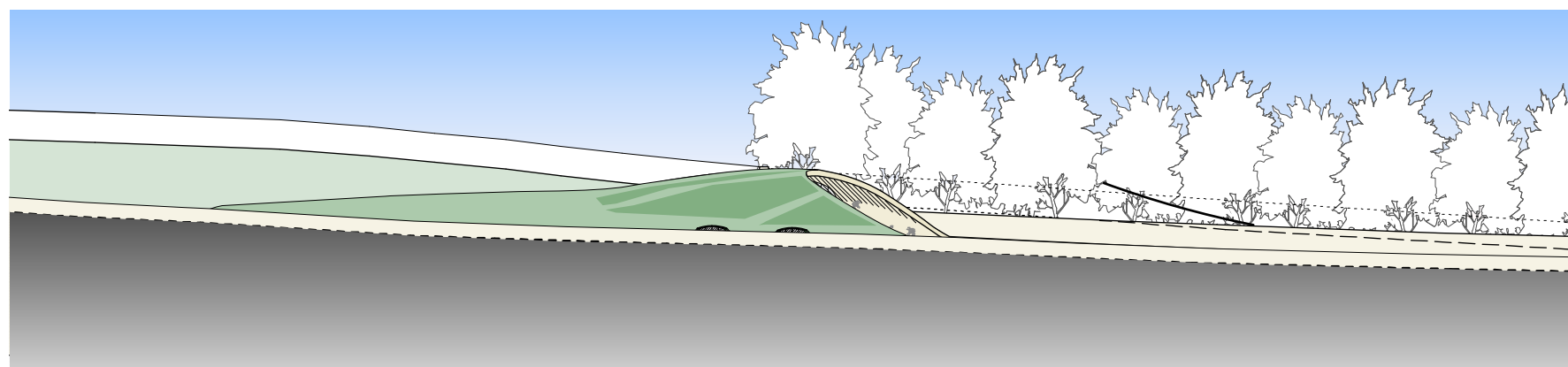
Appearance

The buildings appearance is from the majority of views minimal;



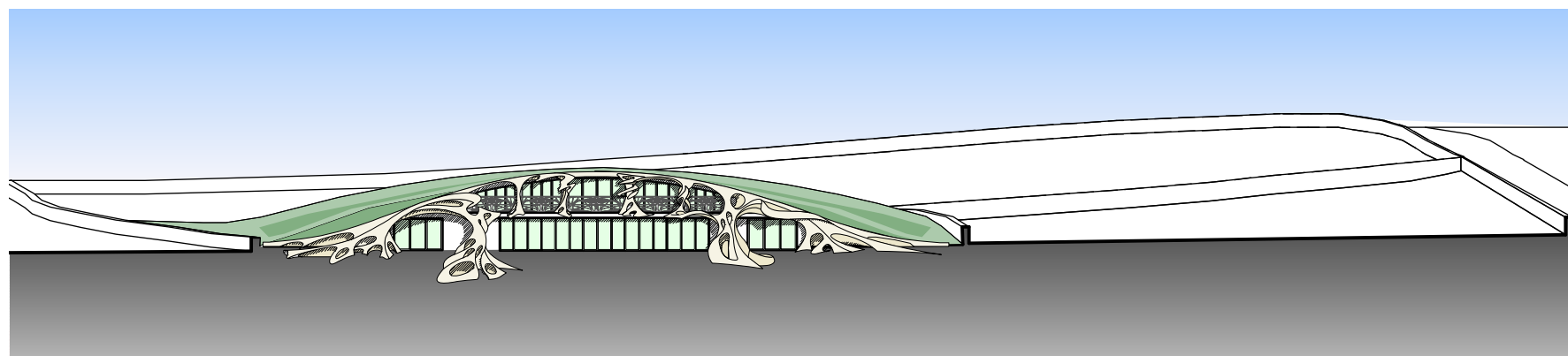
North East Elevation

From the main road a small crescent will be visible, but the intensive grass roof, and the crescent's geometry will blend this into the landscape to create an almost missable change to the landscape.



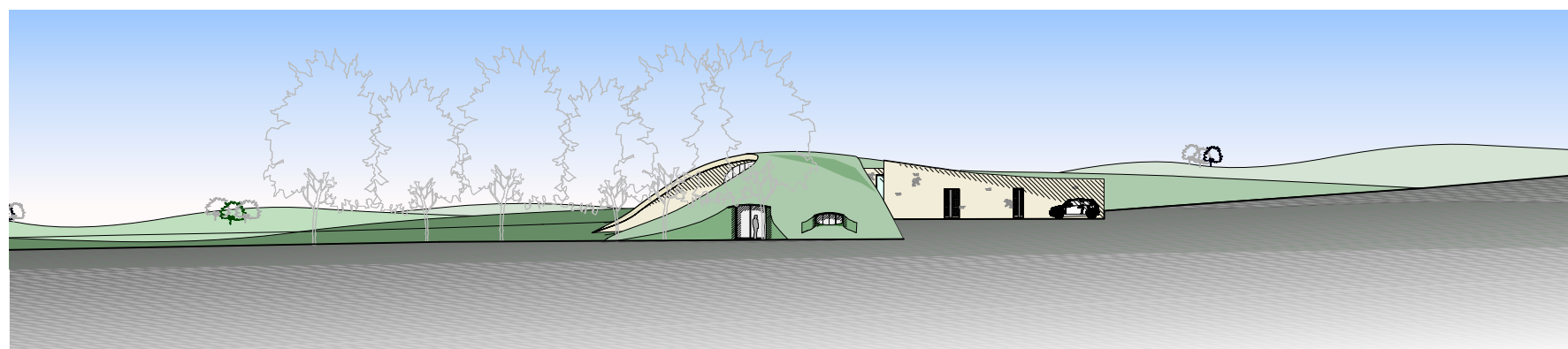
North West Elevation

This elevation that is predominantly viewable from the adjacent fields, will illustrate the rising land that forms the roof. The geometry of the amended landscape flows from the existing landscape.



South West Elevation

This southern elevation opens the building up, creating a form that we will populate with the home. The structural form of the building is created using local stone and crafted in this organic and flowing form, creating a very grounded but exciting architecture.



South East Elevation

Using the visual protection of the trees, and the sunken access route into the house, we have been able to balance the needs of domestic life, with cars, doors and storage, with the need to create minimal impact on the landscape.

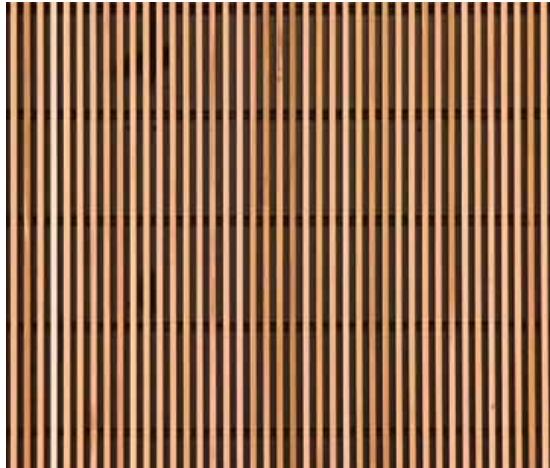
Materials



Locally sourced stone walling



green roof



mid brown oak (main entrance door)

Where possible we aim to use local materials, both organic and inorganic to reduce travel distances and emissions.

When we cannot use local materials, we will make sure that the materials will have a long life span and will be as sustainable as possible.

We are aiming to use a simple pallet of materials which will compliment each other and the context in a contemporary way.



sculpted balustrades on the main facade



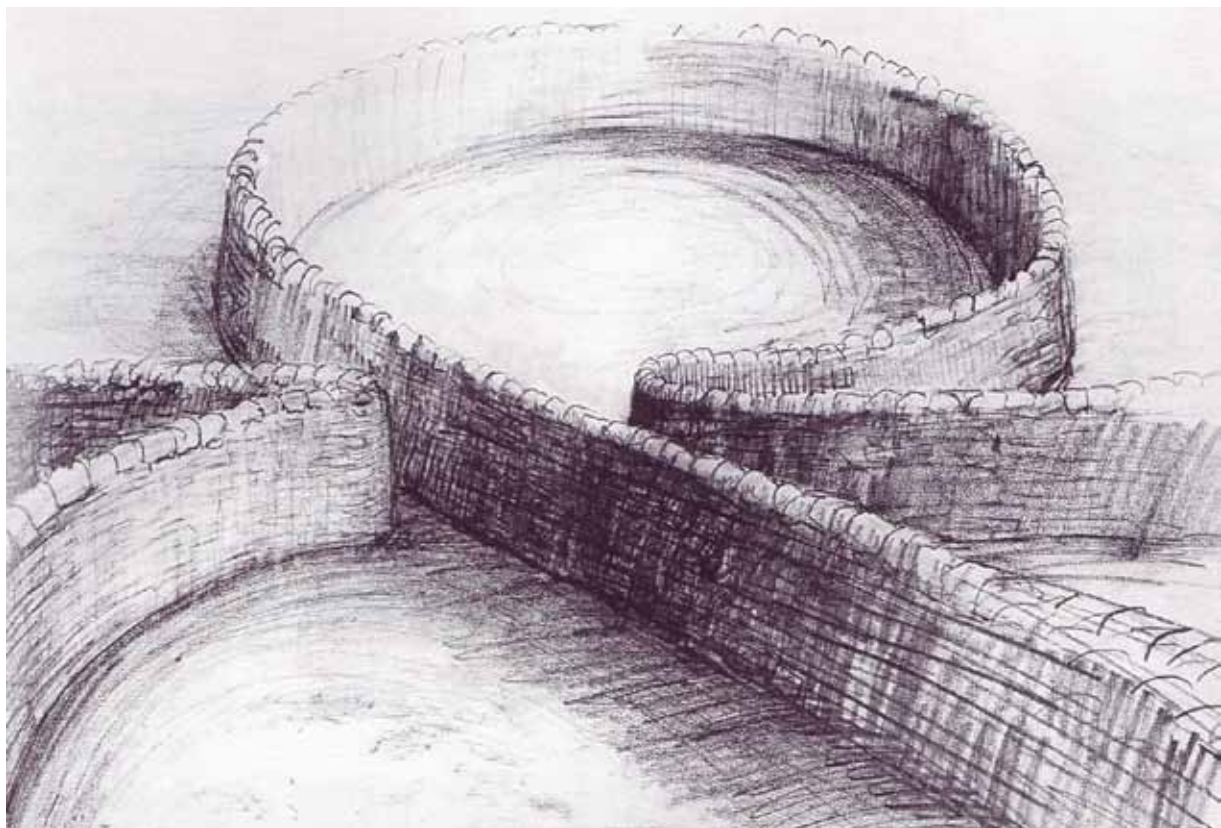
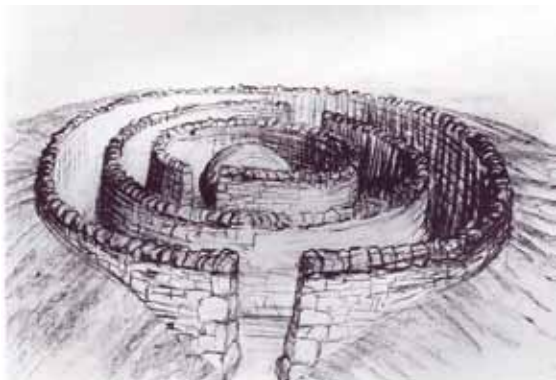
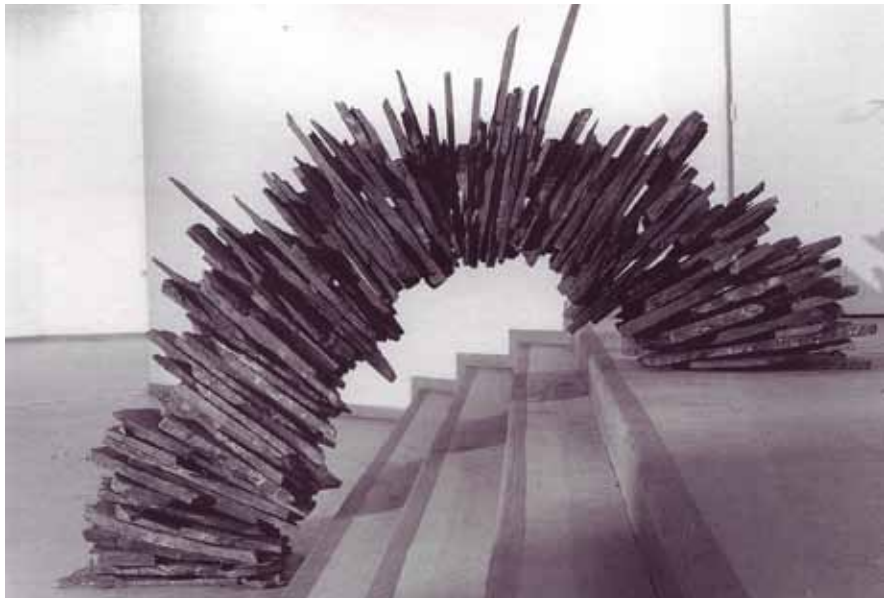
translucent glazing



locally sourced stone to the main elevation

Inspiration

Textures & Shapes
inspired by
Andy Goldsworthy



Inspiration

Sculpture by
Hilary Simms



Inspiration



Inspiration



Inspiration



Building Layout

While the building is designed to nestle within the hillside to minimise its impact on the countryside, equally important are the views to the South of the site that the building is orientated towards. To appreciate panoramic views of the countryside, rooms are positioned along the length of an expansive, South facing facade. Bedrooms are situated along its Southern facing aspect, allowing them to receive day light, and the living area features a large window to fully take in the views.

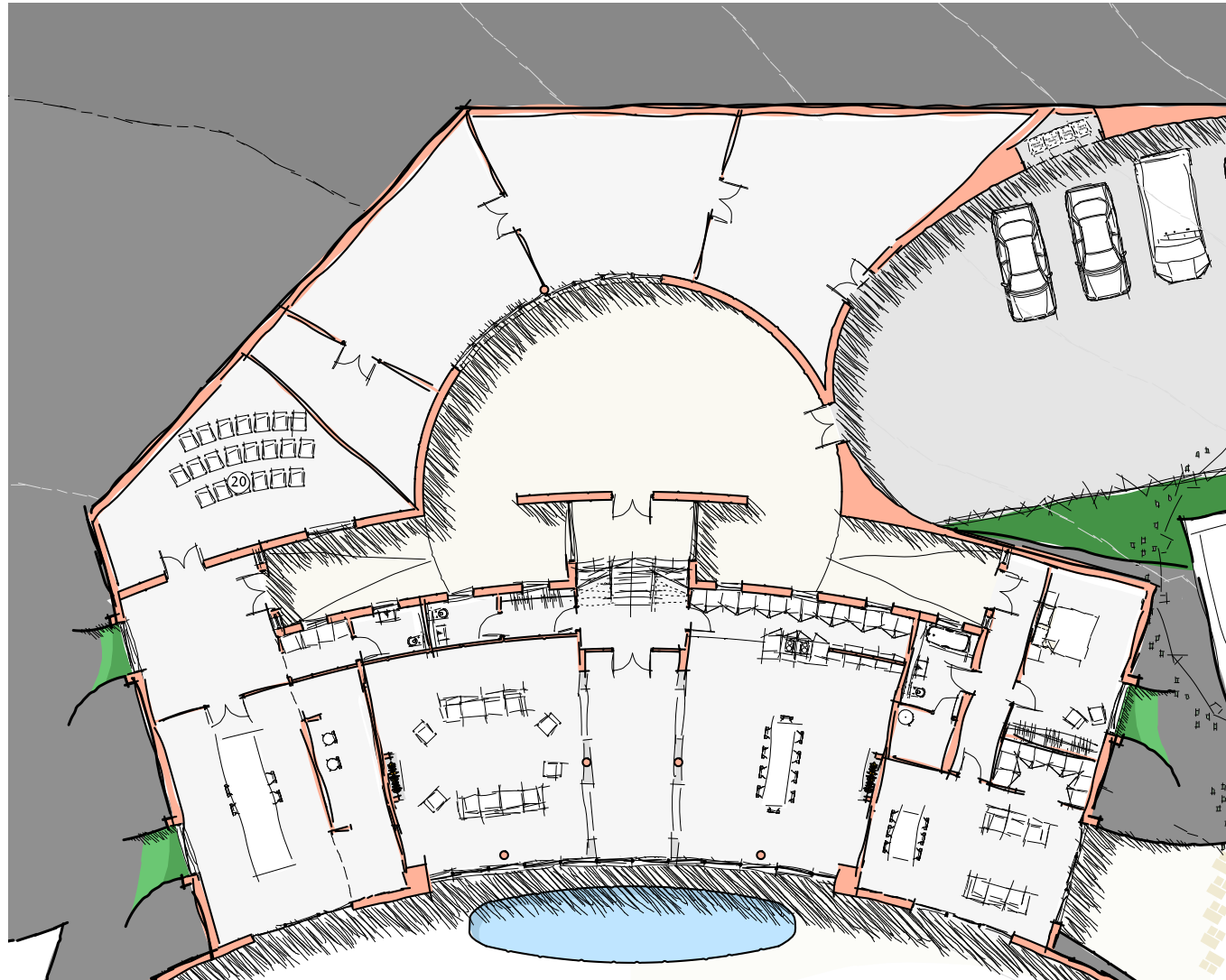
Not only does this afford the home views of the countryside, this performs an environmental role too, heating the spaces through solar gain and naturally lighting the building. This reduces demand to heat the property and is integral to the building's environmental strategy. To let light in to the buried part of the building, a small courtyard is set into the newly restored landscape. This serves as a light well to these spaces, ensuring good levels of natural day lighting. Both this and the South facing orientation of the property reduce its reliance on artificial lighting.

The central courtyard is a private outdoor space that the rest of the building connects onto. Enclosed and hidden from the road, set into the hillside, it is a space that connects between outside and inside and between the building and the landscape. Overlooking this is the connecting corridor of the home.

The main entrance to the building is by the courtyard. This leads to either the main living area or gallery, providing suitable separation from the rest of home when people visit.



Courtyard



They all entering the house will come into a courtyard at the back of the property. This courtyard is the main external focal point of day-to-day family living. This sheltered courtyard is created in a sunken area where the careful design of the walls together with the choice of dry walling stone enabled this space to act as a sun trap, catching the heat of the sun slowly emitting it in the evening enabling the space to be usable into the evenings. The semi-circular wall mirrors the path of the sun during the day enhances the solar energy collecting potential.

This sunken courtyard enables protection for the family away from the prevailing strong winds of the area. This exposed site is obviously open to the extremes of weather, and so careful selection of materials in addition to the overall design being considered has been extremely important. Blending the house into the landscape will assist the flow of the prevailing winds over the building, and the overhangs and setbacks within the architecture will create shelter.

The creation of the courtyard gives the house focus, and also allows the design to control aspects of domestic life, such as clothes drying and children's toys, can be left in the space without spoiling the architecture and the landscape.

The courtyard pulls together the various uses of this building;

1. The family home,
2. The gallery and studio space/ educational/care facilities

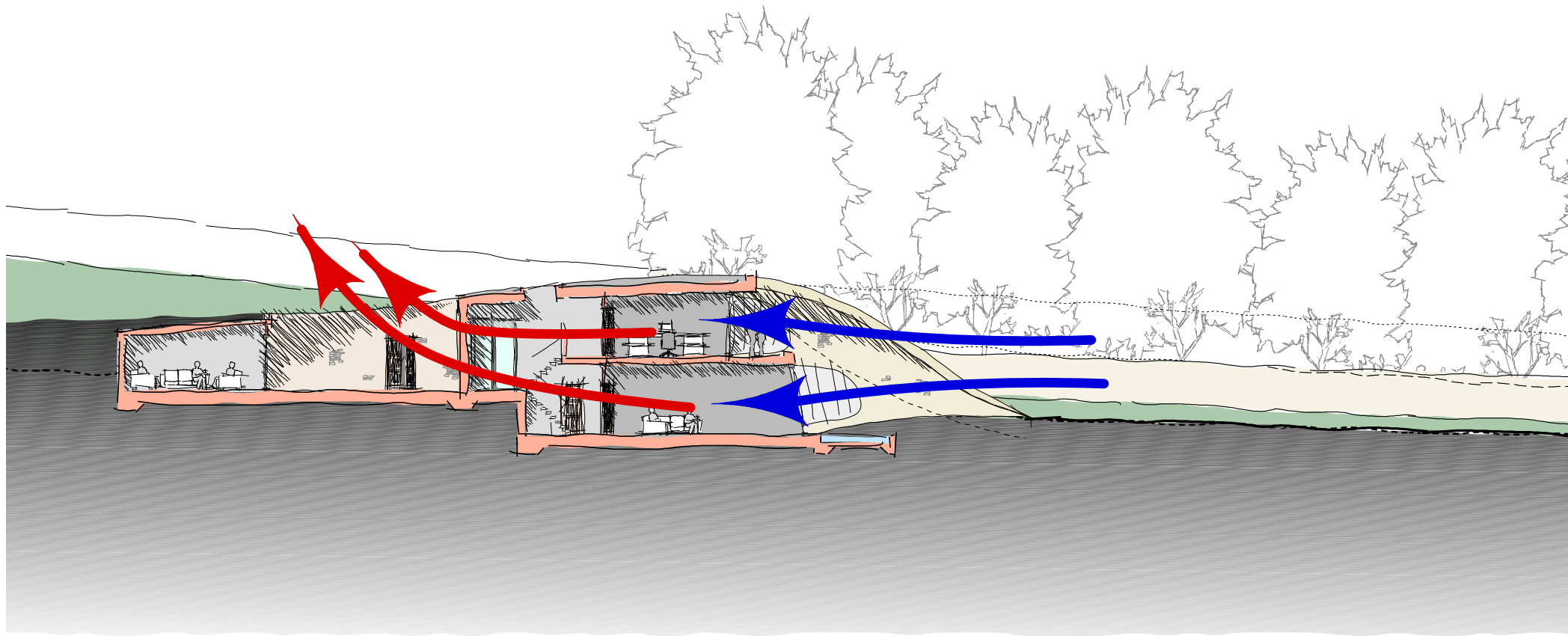
Environmental Design

The a family home and educational/care facilities has been carefully designed to maximise the solar gain in winter, with generous south facing windows, but the overhang over these windows protects the house from excess sun light when the sun is higher in the summer.

The shallow cross section through the house allows for natural cross flow of ventilation in the summer via the secure courtyard

With much of the building having direct access to the courtyard, natural light and air can permeate the building unaided.

The sheltered courtyard space creates an area that will be protected from wind, collecting the suns warmth. The space can be used in the spring, summer, through to autumn, and longer than a traditional open patio space.



House Design

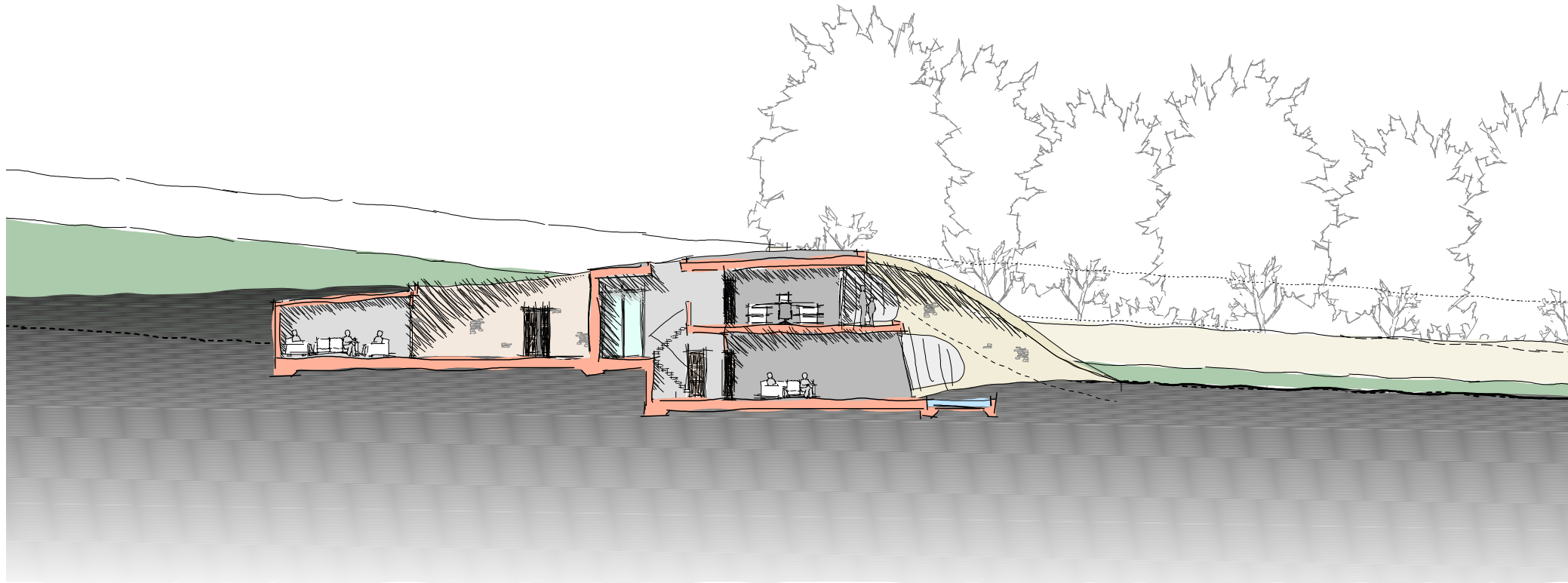
The internal hallway to the house has views that open out towards the lake and it is only at this point that one understands the relationship between the house and the lake. Up until this moment views of the lake are not possible and the architecture creates this sense of surprise and delight. Effectively only people invited into the building will be allowed to see this Yorkshire landscape meet the building.

Entering the house on the half landing there is a short number of steps up to the first floor as well as the lower floor, each one of the bedrooms has a magnificent view out towards the countryside, and the family day rooms - kitchen living dining also enjoy this view.

The geometry of the house as viewed from the lake elevation is a subtle curve. This curve creates shelter, but also creates a sense of togetherness with all the rooms focused towards the one point, illustrating the inclusivity of the overall development.

As part of the appraisal of the site we had looked at how the dwelling sits on the site. We considered how the of the contours of the land relatively flat towards like and then in the middle section of the site the contours stepen, allowing a two-storey building to be cut into the landscape with minimal impact to the natural flow of the land. The relatively flat area in front of the house towards the Lake generates long uncluttered views, suitable for landscaping, and that the land above the dwelling towards the main road can continue to be meadowland.

These long views together with the use of contemporary insulated glazing and the overhanging balconies and roof line allow the house privacy even with generous usage of glass on the leg side elevation.



House & Landscape

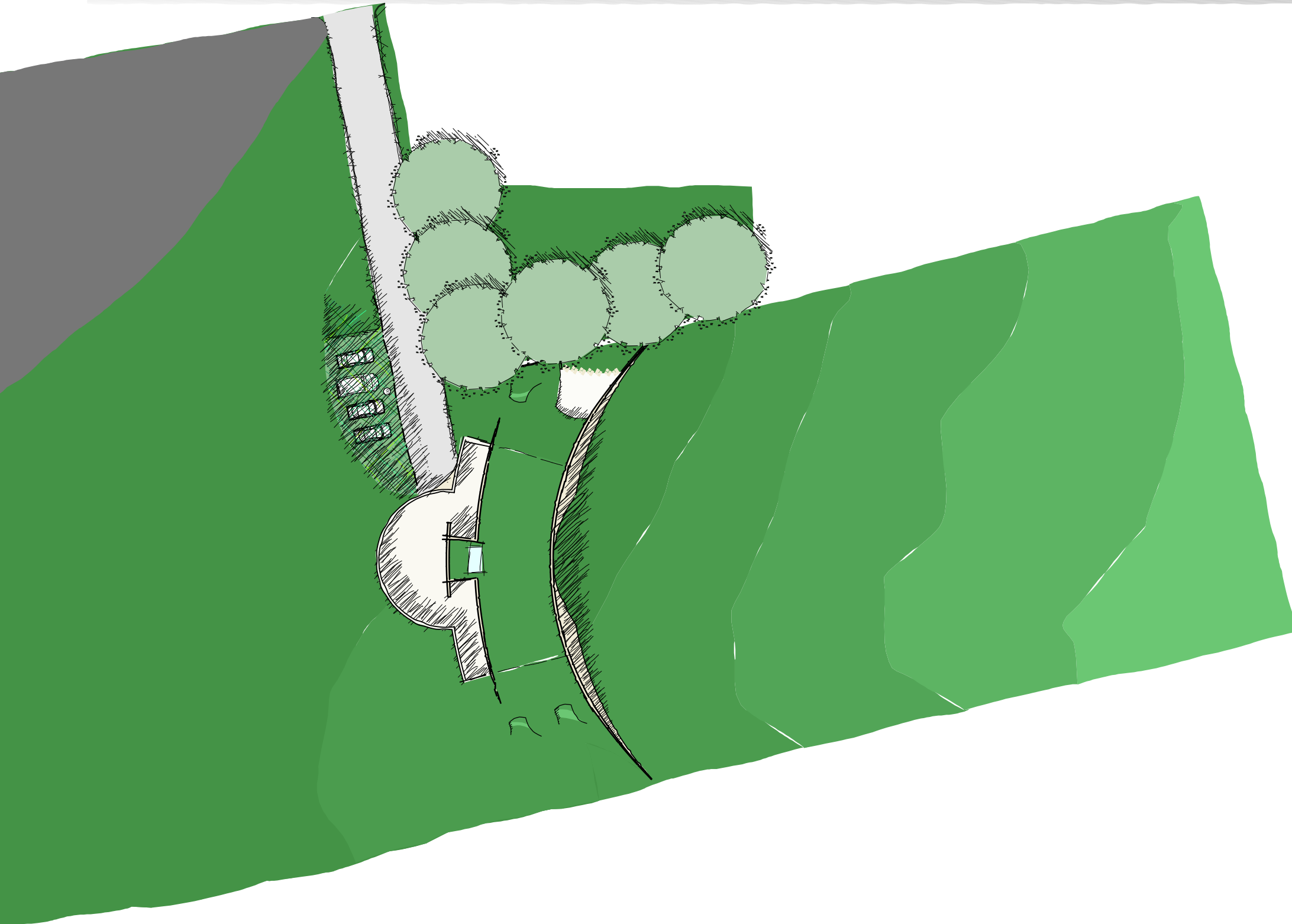
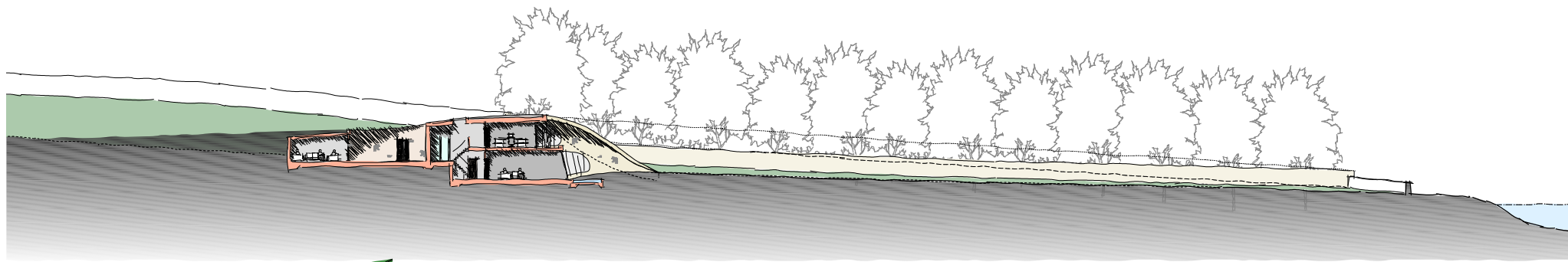
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Uniqueness & Innovation

The building will be unique to the area, featuring innovation in both its design and construction. The building will use Insulated Concrete Formwork to form curving organic walls, with an undulating grass roof, and be clad in both natural dry wall stoning, and in sculptured stone.

It will be set into the hillside, merge with the natural landscape, and make the most of panoramic views over the rural countryside. Passively heated by the sun, with supplementary heating being provided by a ground source heat pump, the building will be innovative in its environmental operation.

Because of its architectural aspirations, the proposed building will become a research project for the Manchester School of Architecture. Student learning will be encouraged through involvement in the scheme.

Construction & Materials

Main Structure

We are proposing using insulating concrete form work (ICF) for the sub and superstructure as it is an innovative modern method of construction, which combines the inherent strength of concrete with the excellent thermal insulation properties of polystyrene to produce cost-effective and durable structures. The polystyrene is used as permanent form work for the concrete and is available in a variety of configurations and a number of proprietary systems.

The basic structure is typically erected by a team of three or four site operatives and filled by pumping a very workable concrete in storey-height lifts. In addition to providing a strong structure, the concrete provides excellent sound insulation, fire resistance and the ability for thermal capacity.

The normal method of constructing load-bearing concrete elements is to place the concrete into temporary form work or moulds, which are then removed once the concrete has attained sufficient strength, which makes for a slow process that is wasteful on materials.

ICF develops this method further by using economic permanent insulating form work or systems to replace the conventional metal or wood-based materials and has become an established, mainstream method of construction in Germany, France, the USA and Canada, since its introduction in the 1960s.

This product is ideal for this location as it provides excellent U-values, of up to 0.2 W/m²K that are air tight and structurally very strong, reducing heating costs and waste of natural resources over time, leading to 'Passivhaus' standards.

Further to this, the house has been designed in accordance with the modules of the form work meaning that there will be little to no waste of materials on site.



Glass

Highly efficient double glazed windows; we are intending on using low-e argon filled window units throughout the property. These units use the thermal and acoustic insulating properties of a gas contained in the space formed by the unit and provide good insulation without sacrificing transparency. Low-Emissivity Glass has a thin coating, often of metal, within its airspace that reflects thermal radiation or inhibits its emission reducing heat transfer through the



High-Efficiency Double Glazing

glass. A basic low-e coating allows solar radiation to pass through into a room. Thus, the coating helps to reduce heat loss but allows the room to be warmed by direct sunshine. With the use of spacers between lites and thermal breaks between frames it is realistic to achieve a U-value of 1.3 W/m²k for units, which is much improved than regular double glazed units.

Whole house ventilation; increasing demands for energy conservation have led to more efficient insulation, with the virtual elimination of draughts and ‘natural’ ventilation in modern buildings. Whilst providing major economic and environmental benefits, these improvements have highlighted the importance of ventilation in providing a healthy living environment. Inadequate ventilation leads to problems

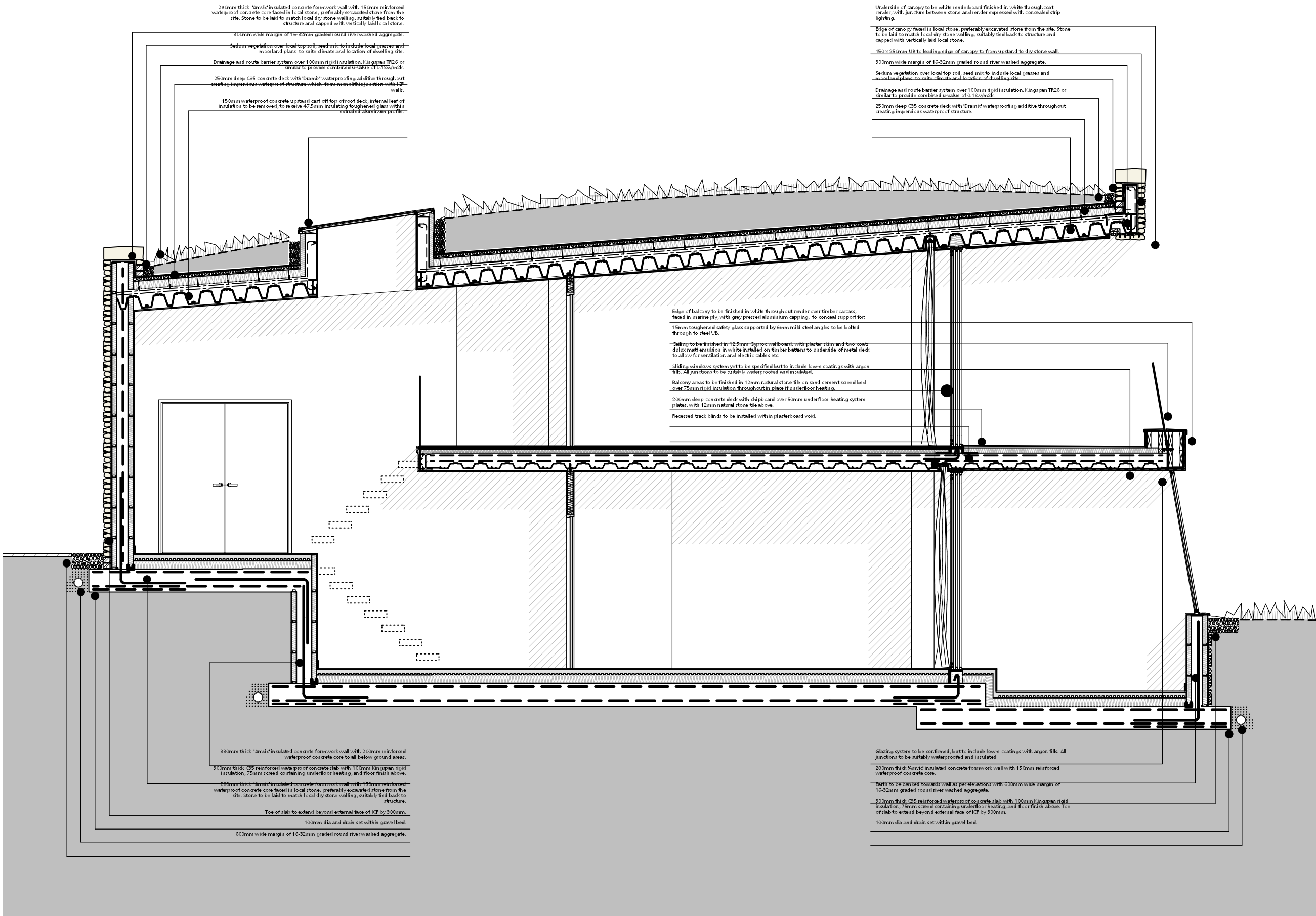
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Planning Application for a new dwelling at Lakeside View, Penistone

Glass

Improvements have highlighted the importance of ventilation in providing a healthy living environment. Inadequate ventilation leads to problems of condensation and, in extreme cases, to damp and mould growth as the result of normal living activities such as cooking, washing and showers.

In order to provide a healthier and more comfortable living environment free from the problems of condensation and air borne pollutants, it is necessary to balance three factors: heating, insulation and ventilation. The ideal is therefore to provide adequate ventilation in an energy efficient manner. Mechanically Assisted Ventilation Systems eliminate many of the disadvantages associated with traditional methods of ventilating buildings. Designed to ventilate the whole dwelling and not just individual rooms, MAVS is unobtrusive, does not cause draughts and is energy efficient. Passive Stack Ventilation employs natural air movement within a dwelling and the induced pressure differences caused by air flow over roof terminals, eliminating or reducing the need for moving components



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Any discrepancy found between information given on this drawing and that given elsewhere or recorded on site shall be notified immediately to the project architect in writing

Do not scale from this drawing or derive dimensions from digital media

All dimensions are to be checked prior to works commencing on site

Status Key
S: Survey
F: Feasibility
P: Planning
D: Detailed Detail
T: Tender
C: Construction
B: As Built

Rev:	Date:	By:	Note:

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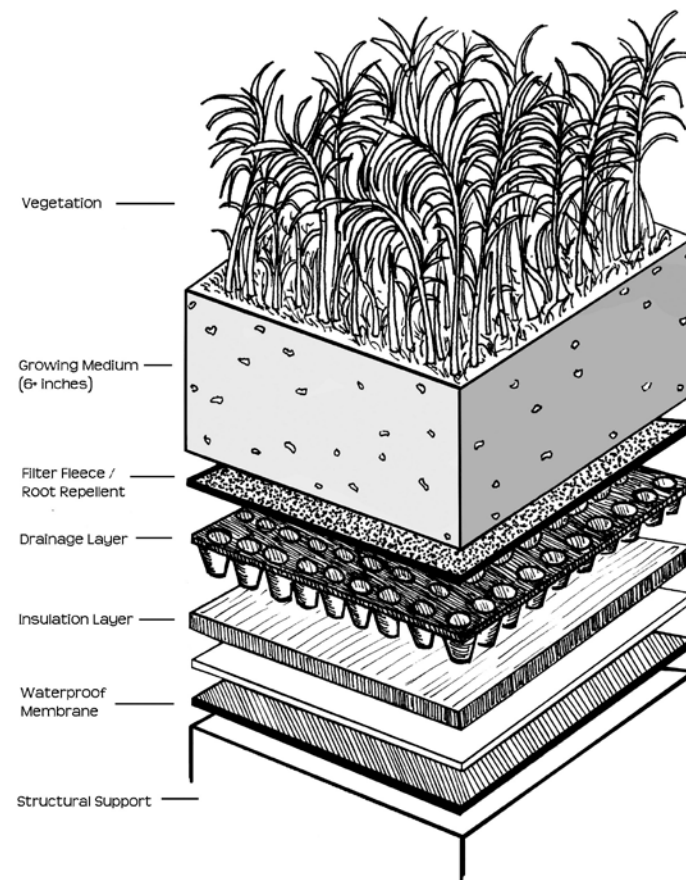
Planning Application for a new dwelling at Lakeside View, Peniston.

Grass Roof

The grass roof of the building will be intensively planted, with a substantial growing medium that will support a range of planting. Initially to be planted with grass, the roof will support the spread of local wildflowers, becoming more fully integrated with the surrounding countryside over time. This will minimise the visual impact of the building on the surrounding area, with grasses and herb species such as Yorkshire Fog, Creeping Bent, Cock’s Foot and Red Clover, included in the grass roof planting strategy.

A grass mix containing the following is proposed:

- Achillea millefolium (Yarrow)
- Calluna vulagris (Heather)
- Campanula rotundifolia (Harebell)
- Conopodium majus (Pignut)
- Galium verum Lady’s (Bedstraw)
- Lotus corniculatus (Birdsfoot Trefoil)
- Plantago lanceolata (Ribwort Plantain)
- Prunella vulgaris (Self Heal)
- Ranunculus acris (Meadow Buttercup)
- Ranunculus repens (Creeping Buttercup)
- Sanguisorba minor (Salad Burnett)
- Stachys betonica (Betony)
- Agrostis capillaries (Common Bent Grass)
- Cynosurus cristatus (Crested Dogstail Grass)
- Deschampsia caespitosa (Tufted Hair-Grass)
- Festuca ovina (Sheeps Fescue)
- Festuca rubra ssp litoralis (Slender Creeping Red Fescue)
- Poa pratensis (Smooth-Stalked Meadow Grass)



Transport Assessment & Travel Plan

Access Road

The site is accessed from Lakeside View which runs off Huddersfield Road. The access road will cut into the landscape within the site boundary and be hidden by the hillside gradient.

Pedestrian Access

Footpaths are close to the site and run along Huddersfield Road connecting to the local school and town of Ingbirchworth. There is also a network of footpaths that run around the Scoutdike Reservoir and connection to the main roads.

Public Transport

Bus services follow a route over Huddersfield Road that connects to Penistone, Barnsley and Sheffield.

Local train stations; Penistone and Denby dale have train connections to Huddersfield, Barnsley and Sheffield.

Vehicular Access

The main road to the site is Huddersfield Road which has connections the the M1 via Barnsley



Waste

Nearly two-thirds of all household rubbish can be recycled, saving energy and avoiding waste going to landfill. Taking action on waste is essential. We consume natural resources at an unsustainable rate and contribute unnecessarily to climate change. Each year we generate about 100 million tonnes of waste from households, commerce and industry.

Most of this ends up in landfill, where biodegradable waste generates methane, a powerful greenhouse gas. And much valuable energy is used up in making new products which are later disposed of, also contributing to climate change.

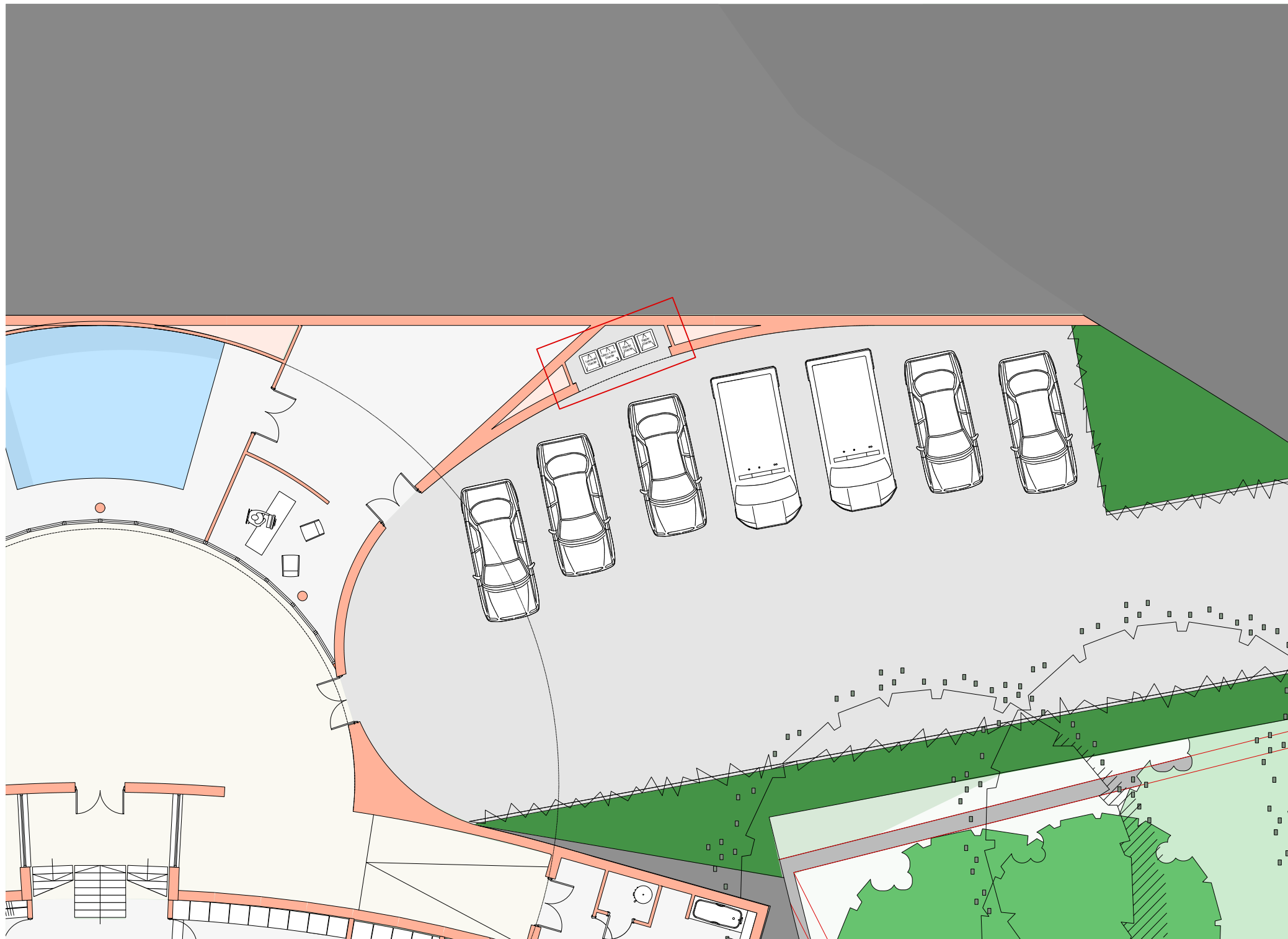
In line with Defra's Guidance for Waste Collection Authorities on the Household Waste Recycling Act 2003 we will be providing four permanent bins for our client to recycle the following forms of waste;

- 1 General and food waste
- 2 Glass
- 3 Plastic
- 4 Paper products

The bins will be positioned by the garage adjacent the property to provide straight forward access to the council waste collection service.

Due to their infrequent volumes, our clients will recycle the following forms of waste as and when required;

- 5 Garden waste
- 6 Wood
- 7 Metals
- 8 Textiles and shoes
- 9 Batteries
- 10 Waste electronic equipment



Environmental Design

“We need to radically increase our use of renewable electricity, heat and transport for us to meet our legally binding target to ensure 15% of our energy comes from renewable sources by 2020”

Environmental Design Policy

The Government has set ambitious targets for the generation of renewable energy by 2020 with the strategy suggesting:

- More than 30% of our electricity generated from renewable sources. (Up from about 5.5% today)
- 12% of our heat generated from renewables. (Less than 1.0% today)
- 10% of transport energy from renewables. (Up from the current level of 2.6%)

All new homes are to be zero carbon by 2016. The Government is looking to Local Planning Authorities to implement this approach to ensure Government targets can be achieved.

Environmental Design Principles

The intent is that the property will be zero carbon, in that it consumes less energy than it generates and does so independent of any resources external to the site.

The underlining design approach to the scheme has been:

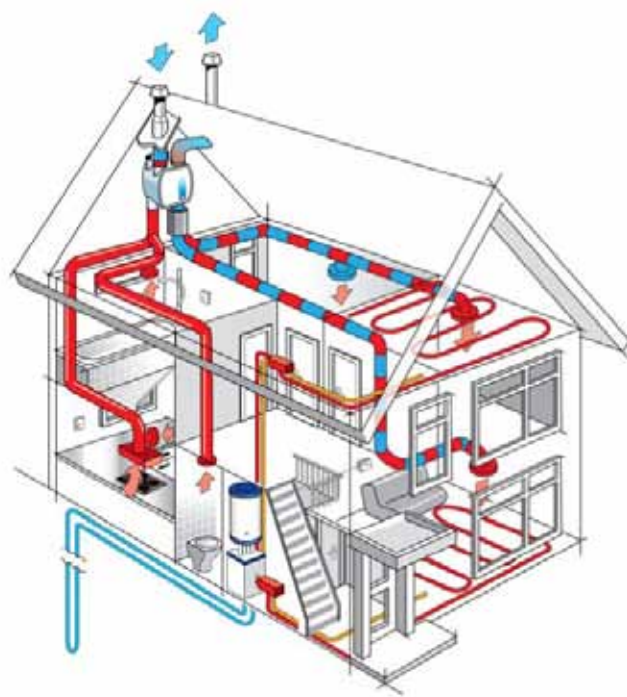
- Be lean
- Be clean
- Be green

Be Lean

Energy reduction by design is achieved by consideration of:

- Orientation
- Glazing amount, type and shading
- Thermal insulation of the fabric envelope
- Thermal weight of the building fabric
- Provision of natural ventilation

Heating & Energy

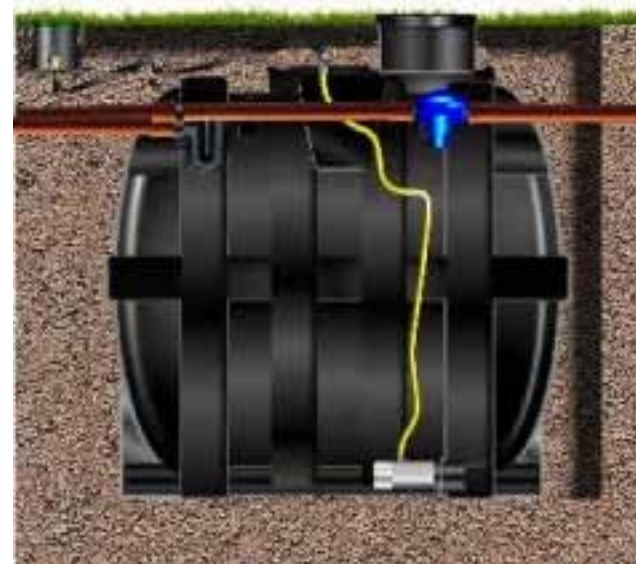


Heat recovery ventilation system

Heat recovery system; are an energy recovery ventilation system, using equipment known as an air-to-air exchanger, that employs a counter-flow heat exchanger between the inbound and outbound air flow. This provide fresh air and improved climate control, while also saving energy by reducing the heating (or cooling) requirements. As building efficiency is improved with insulation and weather-stripping, buildings are intentionally made more air-tight, and consequently less well ventilated. Since all buildings require a source of fresh air, the need for HRVs has become obvious.

Air source heat pumps; use outside air as a heat source or heat sink. A compressor, condenser and refrigerant system is used to absorb heat at one place and release it at another. Outside air, being above absolute zero, is a heat container. An air-source heat pump moves, or 'pumps' some of this heat to provide hot water or household heating. This can be done in either direction, to cool or heat. The main components of an air-source heat pump are a heat exchanger, over which outside air is blown, to extract the heat from the air compressor, which acts like a refrigerator but in reverse and raises the temperature from the outside air a way to transfer the heat into a hot water tank or heating system, such as radiators or under-floor heating tubes.

Rain Harvesting



One of the most effective ways of reducing potable water consumption is by using a Rainwater Re-cycling or “Harvesting” system. By storing and then utilising rainwater which drains from the new property via roofs and surface areas, we can effectively store rainwater in quantity.

The system is sited outside the property below ground. Once the rainwater from the roof and surface areas fills the tank, then the system is ready to be used. Water is supplied via a pumped system which terminates in a hose fitting for easy connection to a hose.

In all systems the roof water or surface water is filtered before entering the storage tank. The underground system feature overflows that will skim off surface pollen and algae and for the main septic tank. This stops solids back flow and prevents vermin entering the tank from the outlet sewer.



Code Assessment

The Code for Sustainable homes

The Code for Sustainable homes reviews dwellings on a number of categories; the points attained on each of these categories combines to form the Code Level. Credits are awarded on achieving all performance requirements for an issue.

To achieve a code level a development must achieve a set of mandatory issues and a minimum overall score, these are;

- a) Environmental Impacts of Materials (Mat 1)
- b) Surface Water Run-off (Sur 1)
- c) Storage of Non-recyclable and Recyclable Household Waste (Was 1)
- d) Construction Site Waste Management (Was 2)

Once the mandatory standards have been satisfied developers and designers can chose tradable credits The primary categories are as follows, each category is then divided into a number of issues.

- 1) Energy & CO2 Emissions
- 2) Water usage
- 3) Materials
- 4) Surface water run off
- 5) Waste
- 6) Pollution
- 7) Health and well-being
- 8) Management
- 9) Ecology

Mark Percival from architecture:m has undergone Code for Sustainable Homes training and will soon be a qualified assessor, for this reason we feel that architecture:m are suited to appraise and comment on the approved and proposed dwellings.

Unlike other practices the design and the assessment of projects is done by the same architect, allowing a more holistic approach to the company.

Review of the mandatory issues

Environmental Impacts of Materials, linked to the Materials Category

Credits are awarded for using materials, which have a low environmental impact over their life cycle. The unsustainable sourcing and transportation of construction materials is resulting in serious environmental damage. To gain credits a minimum of three elements of the building envelope must achieve a Green Guide rating of between A+ and D.

Not all materials have been specified to the proposal, but the entirety of the primary structure of walls, floors and roof is to be constructed from an Amvic ICF system which achieves an A+



Code Assessment

The Code for Sustainable homes

rating in the Green guide. We would also look to use similarly rated materials in other areas of the construction to achieve the maximum 3 credits.

Surface Water Run-off, linked to the Surface Water Run-Off Category

Credits are awarded for developments, which avoid, reduce and delay the discharge of rainfall to public sewers and watercourses – thus reducing the risk of flooding and other environmental damage. Around 5 million people, in 2 million properties, now live in flood risk areas in England and Wales.

Much of the site is remaining untouched and therefore able to absorb surface water. The extent of the roof areas will be covered in an intensive grass roof, will drain rainwater off the roof slowly. We will try and capture rain water via the hard standing areas, and we will need drainage in these areas, and we can collect this rain for watering the garden.

In a similar way we will be only specifying permeable hard landscaping, such as the resin bound ‘Sureset crushed rock’ paving to the car parking areas and the ‘Marshalls Piora’ permeable block paving to the hard landscaped areas.

Storage of Non-recyclable and Recyclable Household Waste, linked to the Waste Category

Credits are awarded for the provision of internal and external storage space for recyclable and non-recyclable household waste. Storage must be adequate and accessible. Credits can also be awarded where there is provision of a local authority recycling scheme – or combinations of the above.

We are looking to provide space for at least four external bins, these being; General and food waste, Glass, Plastic, Paper products. There will be similar bins within the kitchen of the house, allowing waste to be transferred regularly and conveniently. The garage will also contain storage for occasional waste such as Wood, Metals, Textiles, Batteries and Waste electronic equipment. Separately we will also be providing a position for the composting of garden waste, drastically reducing the quantity of green waste leaving the site, whilst providing planting material for the continued landscape management strategy. This will ensure maximum credits within this issue.

Construction site waste management, linked to the Waste Category

Credits are awarded for managing and reducing construction waste through the use of a Site Waste Management Plan. Site Waste Management Plans monitor and record construction site waste

Code Assessment

The Code for Sustainable homes

groups, in order to reduce and recycle construction waste, and divert waste from landfill.

Further information will be provided on this when further information relating to the construction materials is available in the Post Construction Stage.

Review of the categories

1 Energy & CO2 Emissions

The proposed building has been designed with these issues in mind and can attain a large number of credits to aid the Level 4 status.

- 1.1 Dwelling emission rate (mandatory) – this will be completed at a later date, once materials are finalized.
- 1.2 Building fabric – The heat loss parameter has not been calculated, but given the high u-values we are looking to achieve and monolithic construction we expect to receive 2 credits.
- 1.3 Internal lighting – 75% of all fixed internal lighting to be energy efficient, thus reducing the Co2 emissions of the dwelling and achieving 2 credits.
- 1.4 Drying space – A clothes drying space of 6m+ will be provided adjacent to the house to reduce energy means of drying clothes and achieve 1 credit.
- 1.5 Energy labelled white goods – All new white good to be A+ rated under energy efficiency labelling scheme, washing machines and dryers to achieve at least a B rating to achieve an overall credit of 2.
- 1.6 External lighting – All common lighting to external spaces to be energy efficient, all security lighting to have movement detectors and daylight cut-off sensors to achieve 2 credits.
- 1.7 Low or Zero Carbon Technologies – Further information to follow, site to look to use solar panels and air source heat pumps.
- 1.8 Cycles storage – Specific storage for 4 bicycles in a lockable and accessible location to achieve 2 points.
- 1.9 Home office – Specific location for home office to be in separate room adjacent to Master bedroom to achieve 1 credit.

2 Water usage

We will look to achieve maximum credits for Code level 5 status, this is achieved through:

- 2.1 Indoor water use – to achieve a Level 5 status, the water consumption will be limited to no more than 80 litres per day per person for the household,
- 2.2 External water use – To encourage the recycling of rainwater and reduce the amount mains potable water, we will be looking to install a rainwater butt, which will be used to water all

Code Assessment

The Code for Sustainable homes

planting which is not part of the soft landscaping, provide 1 credit.

3 Materials

3.1 Environmental impact of materials – this is a mandatory field as discussed above.

3.2 Responsible sourcing of building materials – Further information to follow, we will be looking for all materials to be responsibly sourced to attain maximum credits.

3.3 Responsible sourcing of finishing materials – Further information to follow, we will be looking for all materials to be responsibly sourced to attain maximum credits.

4 Surface water run off – this is a mandatory field as discussed.

5 Waste – this is a mandatory field as discussed.

6 Pollution – further information to follow pending specification of insulates.

7 Health and wellbeing

This is an essential subject, which affects the daily life of the buildings occupants, we have evolved the approved scheme to cater for these areas, to ensure that the occupants receive maximum daylight levels, sensible living conditions and can live in a space that is adaptable for future needs.

7.1 Daylight – maximum credits of 3 available for daylight ratio to kitchen and living rooms. Kitchen designed to receive direct daylight onto worktop.

7.2 Sound insulation – Looking to achieve a substantial increase on the standards given in the Approved Document E – this is a detached semi submerged dwelling, constructed from monolithic concrete, there should be no issues in achieving maximum credits.

7.3 Private space – a number of secluded outside spaces will be provided, accessible only to the buildings occupants, achieving the accreditation.

7.4 Lifetime homes – The dwelling has been designed with large internal spaces, with level thresholds etc, the internal spaces can be easily adapted to cater for any future needs of the occupants, the points of the lifetime homes criteria will be reviewed further to ensure that all points are

Code Assessment

The Code for Sustainable homes

addressed.

8 Management

- 8.1 Home user guide – this will be compiled upon completion of the post-construction stage, when all aspect of the building are installed.
- 8.2 Considerate constructor scheme – a minimum of Best Practice will be adhered to, although we will clearly indicate our keenness of contractors that go beyond those principles.
- 8.3 Construction site impacts – further information to follow
- 8.4 Security – An ALO has not consulted on this scheme, the office has had numerous seminars on the principles of crime prevention and secure by design, and instigate this philosophy into the designs.

9 Ecology – further information to follow.

Conclusion

From reviewing the above categories we believe that the proposed scheme will achieve at least a Code Level 5 status. Through understanding the Code level categories, we have been able to develop the scheme into a building that is efficient to construct by capable contractors who follow best practice principled. We look to use locally sourced durable materials that are highly efficient and impact as little as possible on the environment. This approach encompasses the very basics of developing the most thermally efficient wall construction, to the specification of energy efficient lighting and use of renewable.

As well as looking at limiting the buildings impact on the environment, We have considered how the building will impact on its users, developing the scheme where required to make the spaces as usable and adaptable for future needs as possible. This idea encompasses everything from providing a space for the drying of clothes, specifying a quiet area for use as a home office, or locating the bins in the house so that they actually get used properly. Through considering the categories and acknowledging the issues, we understand that if the building is designed correctly, then constructed properly, that the occupants can live in the property appropriately, and this makes for an efficient, sustainable and healthy future for the building and the greater environment which merits the Code for Sustainable Homes Level 5 status.

“A good project will continue to provide value for money and meet user needs throughout its lifetime.” National Audit Office,



Housing for Life

A well-designed home will need to take account of changing demands and lifestyles of the future by providing flexible internal layouts and allowing for cost-effective alterations. Housing should be able to respond to changing social, technological and economic conditions.

The main consideration is adaptability. For houses, the design could accommodate a downstairs toilet, wider doorways, level entrances and allow for a lift or stair lift to be fitted in the future. The potential to extend back or upwards, or to open up between rooms to allow open-plan living, is valuable, as is garden space and the space to allow a conservatory to be added.

With this in mind we would incorporate design features including;

- Good and level access at front door, with a canopy.
- A spacious hallway, and corridor that allows storage of prams, buggies or wheel chairs.
- A kitchen with good access around the units, without tight spots for turning a wheel chair.
- A variety of heights of kitchen units to allow seated food preparation, and the ability to sit in the kitchens in a wheel chair
- Good and level access throughout the property without the need for ramps or lifts, for all users
- Long-term flexibility and future proofing (able to accommodate changing lifestyle demands) of a home.
- Generous sized bathrooms allowing full access for either bathing children, assisting people with restricted movement or enabling the fitting of handrails.
- Long-term flexibility and future proofing (able to accommodate changing lifestyle demands) of a

Housing for Life

home.

- Easy access onto the rear terrace areas, through level access and hard surfaces
- Under floor heating throughout the property will enable good and even heating, and avoid “hot” radiators
- Integration of study/office space, along with good telecommunications will allow the home to function as a workplace
- The garden design features raised beds, enabling people with reduced movement to look after the planting



Secured by Design

Secured by Design is one of the government's key objectives for the planning of new housing, with the aim of high quality sustainable places where people will choose to live. To achieve this, the government recognises that much greater emphasis needs to be placed on quality of design and planning. Designing for community safety is a central part of this.

It is an initiative to encourage the building industry to adopt crime prevention measures in the design of developments. These have the aim to reduce the opportunity for crime and the fear of crime, helping to create safer and more secure environments. Secured by Design is owned by the Association of Chief Police Officers (ACPO) and has the support of the Home Office Crime Reduction & Community Safety Group and The Office of the Deputy Prime Minister (ODPM).

We have designed this property with an integrated approach that has considered the following points:

- Environmental quality and sense of ownership by creating a well-designed environment with the included role of landscape design
- Natural surveillance through windows, minimising blind spots
- Access and footpaths to the dwelling, making it simpler to approach a property, and minimizing public access to private areas of a house.
- Lighting of the entrance and the driveway, ensuring there are no dark spots around the property for people to hide at night
- Clear entrance areas – allowing visitors to arrive at the house, and the homeowner to see without blind spots all people approaching the house
- Access Points to the house are strong, with the use of strong frames; secure doors, quality locks and bolts and laminated/toughened glass on larger windows, in addition to locks on all of the

Secured by Design

windows, in addition to locks on all of the windows

- Strong edges to the site with maintained fences and hedges
- Integrated alarm system with remote monitoring
- The garage and external storage areas are fitted with quality locks and integrated with main house alarm system
- windows, in addition to locks on all of the windows
- Strong edges to the site with maintained fences and hedges
- Integrated alarm system with remote monitoring
- The garage and external storage areas are fitted with quality locks and integrated with main house alarm system

Artisan Skills

Hilary Simms

Artist in Residence

Hilary Simms

Artist in Residence



I studied ceramics at Penistone Grammar School, it was here that my interest started they had an excellent ceramics department. After this I attended Barnsley Art College for a more intensive course, started selling my work in Yorkshire and Derbyshire. I had exhibitions of my ceramics in three Galleries in Yorkshire.

I gave up making hand built ceramics when I had my children. When my daughter started school I decided to offer to teach her class during Artweek. The children over the years made something out of clay using different techniques, these pieces were fired and returned to the children so they could keep them as a permanent reminder of the school. I did the same for my sons class throughout his time at primary school.

Hilary Simms

Artist in Residence

About six years ago I created my own studio in my cellar at home and started making hand built ceramics again. About three years ago I was invited to work with other artists at the Sculpture Lounge in Holmfirth, where I now have full time studio space. During this time I have assisted in another sculptors workshops teaching adults. Last year I was asked to do a three day workshop at Harrogate Ladies College. The children were to study me and my way of working and make a piece of Naked Raku fired sculpture for their GCSE.

These teaching experiences gave me the idea of possibly running workshops for school children from the site. The idea would be for the children to enjoy the outside spaces then be inspired to create something using clay. We approached a number of schools and received a good response.

My sister Valerie had suffered from schizophrenia for many years but refused to take medication, when my parents died I felt the responsibility passed to me. I tried to get help for her and mental health professionals from the NHS would try to get to see her in her flat but eventually she would refuse them entry and they would give up trying. This happened numerous times.

After this she became very ill and was sectioned so that she could be treated. I had to insist that I wasn't able to take care of Valerie, she wouldn't take medication for me and the situation was impossible. Valerie now has the care she always needed, someone makes sure she regularly takes her medication, she has permanent sheltered accommodation. It was too difficult to get what she so obviously needed and she had to become very ill to get it.



Hilary Simms

Artist in Residence



It is a very worrying thought that there may be many people out there with difficulties like the ones I faced and many people suffering from mental illness unable to be helped.

I feel that on this site I can offer respite to people suffering from mental health problems and carers suffering from the stress of dealing with mental illness or disability. I decided to approach Greenacres School for disabled children, occupational therapy at Kendray Hospital, James Brunt at Barnsley Council and AIM in Huddersfield to see if there was a need for therepeutic workshops where working with clay could be done in a countryside setting. I was overwhelmed by the response, it seems there is a need for such a thing in the community.

Hilary Simms

Artist in Residence

The pathways through the outside areas will be made accessible to disabled children. Firing workshops will take place outside and when the weather permits areas outside will be able to be used for making clay sculpture. We intend to make the outside space into a small sculpture park that all students and passers by will be able to enjoy.



Hilary Simms

Artist in Residence



FULL DAY OR PART DAY ARTISTS WORKSHOP EXPERIENCE.

An experience of working in an ceramic artists workshop to create a ceramic sculpture.

Agenda.

- Short tour around the workshop and the grounds.
- Artist talk and demonstration of techniques.
- Break for juice and fruit. (supplied)
- Hand building sculpture with artist.
- Lunch. (bring packed lunch)
- Continuing hand building sculpture until finished.
- ALL MATERIALS AND EQUIPMENT PROVIDED.

1/2 Day Raku firing.

To finish the sculpture an additional half day session will be available for the Raku firing technique finishing their piece of sculpture.



Design Team Overview

Part 1
Architect

Part 2
Engineer

About the Architect

Architecture:m is an established, dynamic and creative architectural studio with a proven track record of high quality architectural projects. Innovative, aspirational design, with a simple aesthetic, underpins the studio's design ethos, and is evident in our built works.

Central to our approach is the relationship we develop with our clients. From the planning stage onwards, understanding their wishes and needs is paramount. Through open, honest dialogue, and a process of design and redesign, we arrive at a solution together. Dialogue with planners is equally important. Throughout all of our projects communicating the proposals, working out solutions that meet local needs, has ensured the delivery of schemes that realise the clients' vision while responding to their context.

As a chartered architectural practice established over ten years ago, with experience designing private houses, commercial, leisure, retail, and other mixed use projects, the practice has cultivated strong relationships with contractors, engineers, and other consultants throughout the country. Such relationships ensure that we can deliver projects efficiently from our home in Manchester, to Folkestone and Inverness alike. Our team is multi-talented, and our aspiration for high quality architecture runs throughout all aspects of our work, from our detail design, model-making, 3D modelling, interior design, masterplanning, and in the management of the project on site itself.

Sustainability, protecting our natural resources and considering the effect of construction on the environment is a priority. We recognise this responsibility and strive to reduce the environmental impact of our work. We are registered with the Green Register and are a Certified Code for Sustainable Homes Assessor, which allows us to both assess and design the construction of high performance sustainable architecture.

The practice has a good understanding of conservation

architecture:m

Planning Application for a new dwelling at Lakeside View, Penistone



About the Engineer

STL Projects Ltd was established in 2010 by Jonathan Hayes, a Chartered Structural Engineer who has over 20 years experience in the Construction Industry. Their expertise is in the appraisal and design of low rise structures of all types of building materials. It is for this reason that we have brought stl on board as they are able to believe stunning homes of all styles and designs. We have worked closely with Jonathan on numerous successful projects and we have the knowledge that together we can deliver a successful project.

