

Chalkstream House



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Overview

A contemporary, environmental forever home designed in response to Ickleford's rich local character, with special regards given to the relationship between chalk and water, as analysed through the lens of the Hicca and Icknield Ways.

Client Statement

My father purchased Pinchgut Hall in the 1960s and ran it as a pub for a while, and also as a transport cafe as the house is situated on the main road from Bedford - I believe it was called "The Jackpot Cafe". He then built sheds at the back of the yard which he rented to local tradespeople. They are still there.

The pub was called "The White Hart" and although I never knew it as a pub, it retained that sort of feel, with open-plan elements, a large inglenook fireplace and black beams.

Pinchgut Hall was the only home I knew until I went to university at 19. Apart from three years at University, and three more living in London, my whole life has been spent in this area - I love it, it's close enough to London to commute, but green enough to feel rural.

I now live less than two miles away, in Hitchin, where I also went to secondary school (Hitchin Boys's school), and still go to the local pubs in Ickleford, especially "The George".

My dad died in 1984 in Pinchgut Hall after battling cancer, so the place retains a lot of memories and sentiment for me.

My Mum lived there until 2006 when she sold up and moved locally to downsize. We retained the fields behind as they held many childhood memories for me and we always wanted to do something with them. The fields were where my sister and I played as kids, I had a homemade football goal in the larger field, and learnt to drive there in an old banger. We picked blackberries in the field in the late summers.

- Stewart Scott



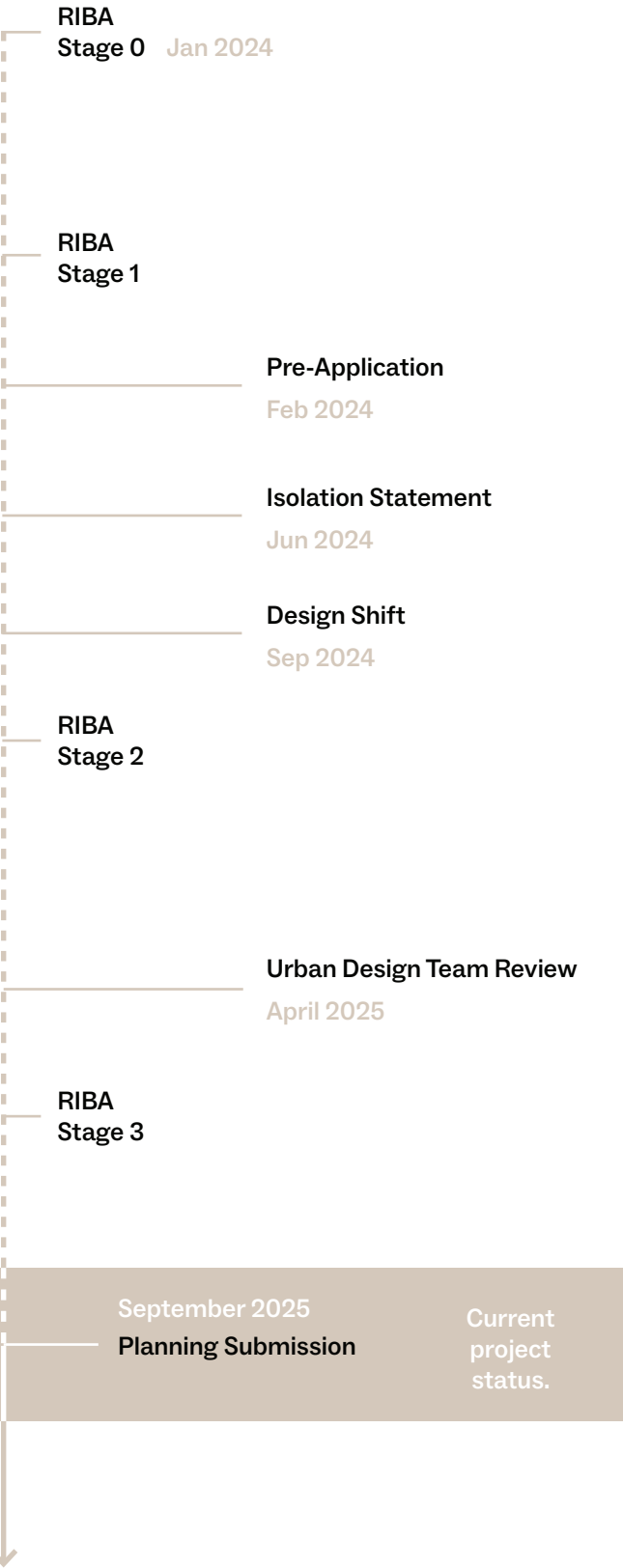
Chalkstream House is a contemporary response to Ickleford’s rich local character, with special regards given to the strong presence of chalk and its historical relationship with water.

The proposal aims to respond to local characteristics through a sense of journey and setting, form and material. Whilst contemporary, the home remains thoughtful and sensitive with a distinct connection to the underlying geology and above ground landscape.

The site is currently an empty field bounded by unmanaged trees and hedgerows; by creating a very special home on the site, we not only set an example of exemplary design in the area, but also provide opportunities for biodiversity to flourish.

Site Address:
Land off Bedford Road,
Ickleford,
Hertfordshire,
SG5 3RS
Coordinates: 51.976398, -0.287216

Project Timeline



Cooperative Approach

The design for Chalkstream House has developed extensively, with a number of proactive **early pre-application** submissions and meetings helping to refine and clarify the conceptual approach, relationship to context and alignment of the proposal with planning policies.

The table illustrates the history of pre-applications, the comments received and the response from the design team to address these.

	Pre-App 24/00417/PRE	Isolation Statement 24/01512/PRE	Design Shift 24/02111/PRE
Comments	<i>“I am not convinced that this site can be classed as isolated for the purposes of paragraph 84.”</i> <i>“It was felt that the architecture was not shown as being ‘truly outstanding’ at this stage - nor that it would significantly enhance its immediate setting.</i> <i>It was also felt that the design of the house was not sensitive to the defining characteristics of the local area.”</i>	<i>“As such, whilst I was unconvinced of this matter in the previous submission and having regard to the extensive work carried out by the agents to evidence their argument, it is my opinion that the application site is physically and visually separated from the nearest settlement. Therefore, the site can be considered isolated for the purposes of paragraph 84 of the NPPF in my judgement.”</i>	<i>It was felt that the historic routes were an interesting narrative, with the intersection of the routes and the play between water and chalk potentially resulting in an interesting relationship between architecture and landscape design.</i> <i>Whilst it was agreed that ‘outstanding’ did not necessarily have to be grand, it would need to meet high standards of design.</i> <i>Consideration would need to be given to Very Special Circumstances, ideally outlined in a planning statement.</i>
Response	An Isolation Statement was submitted to justify why the site could be considered as isolated. A Design Shift illustrated how the themes presented in the pre-app could be refined to provide stronger narratives, linking the proposal more closely to its context and resulting in a more thoughtful, sensitive design. A landscape led approach would be taken to ensure that there would be significant enhancements to the site.	N/A	Proposals were redesigned, heavily informed by the Hicca and Icknield Ways in terms of journey, massing and materials. The design is much more sensitive to the local character, taking inspiration from the rural vernacular and material palette. A landscape scheme, integrated into the theme and working holistically with the architecture was presented. An upfront carbon study, along with initial energy modelling was undertaken to illustrate the building’s environmental credentials.

Feedback and Response

The fourth and final round of pre-application was a review with the planning case officer and the Urban Design Team.

The table opposite outlines the responses and changes made to the design in response to the feedback received.

Working with the council’s planning team and Urban Design Team has led to a proposal that is ultimately considered to meet the requirements of both Paragraph 84e and Green Belt Very Special Circumstances.

	Ecology	Sustainability/ Environment	Design	Paragraph 84 & VSC
Comments from Urban Design Team Review 25/00596/ PRE	<i>“Overall, the applicant appears to have addressed the ecological constraints of the site with sensitivity and I would have no objection to the proposal subject to the satisfactory submission of a reptile survey, BNG metric and lighting strategy”</i>	<i>“My only issue is the space heating demand which seems high by LETI/ Passivhaus standards... I could not find info on fabric parameters in terms of insulation/ air tightness but expect these will be provided at the next stage.</i> <i>The document implies a whole life carbon assessment will be provided(?) which is positive</i> <i>ensure there are no adverse impacts in terms of run off, physical changes to stream and need to include sufficient buffers between new development and existing water bodies as per LP/ SSPD requirements”</i>	<i>“The resultant form and materiality is architecturally interesting and I consider would be ‘of exceptional quality’ as required by the NPPF’s para84</i> <i>indicate clearly... where the day-to-day private amenity activities will take place</i> <i>submit a lighting plan... giving clear indications of any adverse impact on the surrounding ecological assets</i> <i>[Highways] have their own design guidance which may suitably answer any queries</i> <i>change in tone from dark timber to light is potentially confusing and creates a jarring interface on some corners, where three material concepts meet</i> <i>showing [playroom] being adaptable to a ground-floor bedroom</i>	<i>“the proposed development would constitute a Paragraph 84 dwelling with considerable benefits. Furthermore, it is my opinion that the proposed development, by virtue of its exceptional quality of design, high standard of sustainability and considerable localised benefits which would see it constitute a Paragraph 84 dwelling, would attract significant weight. Taken together, these matters would constitute Very Special Circumstances that are considered to outweigh the substantial weight that is attached to Green Belt harm.”</i>
Response	– All additional surveys and reports requested have been submitted with the application.	– Space heating demand, EUI, fabric parameters and a whole life carbon assessment have been provided in the Sustainability Statement. – Surface and foul drainage considerations have ensured no adverse impact on existing waterways.	– Landscape plan developed to include private amenity space. – Lighting strategy submitted. – Site access designed in accordance to guidance. – Materiality refinements made to improve coherence and detailing. – Adapted ground floor plan included.	– Design, Access and Planning Statement clearly outlines how the project satisfies the requirements of the NPPF policies, and explains its benefits and mitigations. – Case study examples provided.

National Policy

As an environmentally sensitive site in the Green Belt we believe the following exception policies to be applicable:

NPPF Paragraph 84

NPPF Paragraph 153

Other national policies that are considered relevant include:

Paragraph 138:

Local planning authorities should ensure that they have access to, and make appropriate use of, tools and processes for assessing and improving the design of development. [...] In assessing applications, local planning authorities should have regard to the outcome from these processes, including any recommendations made by design review panels.

Paragraph 139b):

Development that is not well designed should be refused, especially where it fails to reflect local design policies and government guidance on design, taking into account any local design guidance and supplementary planning documents which use visual tools such as design guides and codes. Conversely, significant weight should be given to: [...]

(b) outstanding or innovative designs which promote high levels of sustainability, or help raise the standard of design more generally in an area, so long as they fit in with the overall form and layout of their surroundings.

Paragraph 151:

Once Green Belts have been defined, local planning authorities should plan positively to enhance their beneficial use, such as looking for opportunities to provide access; to provide opportunities for outdoor sport and recreation; to retain and enhance landscapes, visual amenity and biodiversity; or to improve damaged and derelict land. Where Green Belt land is released for development through plan preparation or review, the ‘Golden Rules’ in paragraph 156 below should apply.

Relevant Local Policy

Alongside national exception policies we seek to address local policies in relation to high quality of design, sustainability and biodiversity:

Policy SP5: Countryside and Green Belt

Policy SP9: Design and Sustainability

Policy SP12: Green Infrastructure, Landscape and Biodiversity

Climate Emergency Declaration

North Hertfordshire District Council declared a climate emergency in 2019 and produced the Climate Change Strategy 2022-2027 outlining the measures they will aim to take to achieve their goals.

The council have stated that they aim to be net zero in their operations by 2030, and for North Herts to be a net zero district by 2040. In order to achieve this, a Climate Hive has been set up for the public to engage with ideas and activities related to reducing carbon footprint.

Within their strategy they have also identified further measures that can inspire the community, including:

- Enabling residents to assess their carbon emissions
- Informing them of more environmentally friendly options
- Encouraging alternative models of working and travelling
- Running waste reduction workshops
- Working with the HCCSP to promote low carbon construction
- Exploring awards for tree planting and Green/ Sustainable businesses
- Raising awareness of the benefits of retrofitting

The proposal will aid the council's achievement of these goals through the delivery of a whole life carbon design, and a landscape strategy that focuses on enhancing biodiversity and tree planting.



Flowchart of proposed actions from council's Climate Change Strategy

Paragraph 84

Being located in an isolated site within the Green Belt, Chalkstream House is submitted to North Herts District Council under Paragraph 84e):

84. Planning policies and decisions should avoid the development of isolated homes in the countryside unless one or more of the following circumstances apply:
- e) the design is of exceptional quality, in that it:
 - i. is truly outstanding, reflecting the highest standards in architecture, and would help to raise standards of design more generally in rural areas; and
 - ii. would significantly enhance its immediate setting, and be sensitive to the defining characteristics of the local area.

Paragraph 153

Green Belt policy is clear that development in a Green Belt will only be permitted if very special circumstances apply, and that they can outweigh the harm.

153. When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt, including harm to its openness. Inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. ‘Very special circumstances’ will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations.

How Chalkstream House meets the high bar of Paragraph 84e and satisfies the very special circumstances required by Paragraph 153 is evidenced within the submitted documents and appendices.





Outstanding Design

Chalkstream House is an example of exceptional design driven by an invested client who wants to create a family home for life. Designed in direct response to the site and local area, the proposals are wholly bedded into their context and are exactly suited to the family who have deep, long-term connections to the site.

Chalkstream House is the result of a collaborative and iterative design process, ensuring that the landscape design, ecological constraints and enhancements, and the architecture all work together harmoniously to present a holistic proposal.

All elements of the design respond to the thematic focus which has been informed by research from concept through to developed design. It also achieves the highest standards of sustainability in line with the council's SPD.

Raising Standards

There are very few examples of outstanding, modern architecture in the district, and as such, Chalkstream House will be an exemplary project for the area and council, helping to raise the bar of design. Clipped views of the house from the A600 and adjoining public footpath will ensure that there is a heightened awareness of outstanding, environmental design.

Local suppliers and contractors will be used where possible to help boost local economy and invest in upskilling new generations.

The scheme has directly contributed to the testing and development of Studio Bark's carbon tool, funded by Innovate UK. The tool will raise standards of sustainable design nationally by demystifying carbon counting and equipping architecture practices to measure carbon in-house as part of the early design process.

Significant Enhancement

The approach to the design considers the landscape, ecology and architecture as a whole, resulting in a significant enhancement to the existing context. The considered use of natural materials reflects both the local vernacular and natural setting, ensuring the home blends into its setting and enhancing the site ecology.

The design also restores and improves natural features, significantly enhancing the ecological value of the site, and mitigating harm caused to the green belt through the development. Over triple the mandatory 10% BNG has been achieved.

Ongoing site stewardship will ensure that the site is maintained and that the ecology and biodiversity on site thrives.

Sensitive Design

Chalkstream House is a contemporary interpretation of the rural vernacular for North Herts, informed by the surroundings and driven by zero carbon design. It responds directly and is sensitive to the local character in its form, materials and construction techniques. It is tied to the wider context without becoming a pastiche.

The scheme is landscape and ecology led, creating an experiential journey through the site which informs the building's location and layout. The proposed massing and materials help to bed the house into the landscape, creating a more seamless and harmonious feel.

The house is also located within the 12m ecological buffer zones, ensuring that there is minimal harm to the existing ecology, and that dark zones are maintained around the site.

Selected Paragraph 84 Approvals

Studio Bark have eleven Paragraph 84 approvals that have all been voted unanimously in favour of at committee.

For our team, Paragraph 84 is an exciting piece of policy. We are pleased that it exists to protect the countryside, whilst also offering the chance to showcase some of the best homes in the country.

As a studio, we place high importance on working collaboratively with local authorities and design review panels. We believe this iterative process facilitates the highest quality design.



Black Barn

Suffolk Coastal District Council - Approved 2015 - Complete

RIBA East Awards Winner – 2019

‘ The benefit of this NPPF test and of such high quality schemes as the submitted one is that they continuously develop the language of rural design and help create a twenty-first century vernacular ... It easily raises the bar for the quality of design in rural areas.’
– Robert Scrimgeour, Senior Design and Conservation Officer, Suffolk Coastal District Council



Periscope House

Broadland District Council - Approved 2013 - Complete

Grand Designs - Season 14 Episode 6

‘ We should be building more modest, super-sustainable houses like this – a lot more. We need more Natasha’s to employ more Wilf’s... We need to be braver.’
– Kevin McCloud



Grain House

Horsham District Council - Approved 2017

2018 Architects’ Journal: The Grain House

“Research into the character and history of the wider area has provided a rich background of information to base design proposals upon... The proposed house makes a successful diagram, with strong linear elements enclosed to form interior spaces.”
– Design Review Report



Water Farm

Suffolk County Council - Approved 2018 - Complete



U-Build House

Breckland District Council Approved 2018 - Complete



Cliff House

Forest of Dean District Council - Approved 2020 - Complete

Existing Condition



Whilst the site is located in the Green Belt, it is currently fully enclosed in boundary trees and hedgerows. As such, the site is restricted in openness and offers limited long distance views across neighbouring fields.



The site also lies adjacent to the A600 Bedford Road. Although the site is deemed isolated, this road can be a high traffic thoroughfare which takes away from the serenity of the area.



The surrounding local area is relatively dilapidated and neglected, with litter found along the A600 verges.



There is limited ecological and biodiversity value within the site itself. It is currently vacant, unmanaged modified grassland bounded by largely unmanaged native hedgerows and trees. The site is inaccessible to the public and therefore does not provide any recreational benefits either.

Harm Resulting From Proposal

We accept that the proposed development can be considered harmful to the Green Belt by definition of being inappropriate.

Whilst the site is enclosed and largely shielded from view, there will be a loss to openness when developing on the vacant field. This also represents encroachment into the Green Belt as the land is undeveloped and was previously used for grazing cattle.

Aside from Green Belt harm, there will be an ecological loss to the modified grassland with the introduction of the building footprint and associated hard landscaping.

Green Belt Purpose

The table illustrates how the proposal responds to and addresses each of the purposes of the Green Belt as outlined in Paragraph 143.

Paragraph 143 Purpose	Proposal Response
(a) to check the unrestricted sprawl of large built-up areas	The site is considered isolated, and so developing on the land limits harm to these aspects as there is no clear, direct connection between the site and neighbouring towns. Ickleford itself is a village, and whilst Hitchin, a larger town, lies to the south of it, the site is located to the north and does not show any sign of merging into any other nearby villages.
(b) to prevent neighbouring towns merging into one another	
(c) to assist in safeguarding the countryside from encroachment	We accept that the development leads to a loss in openness, and that there is a sense of encroachment given that the land is undeveloped. However the harm has been minimised through consideration of location. The site is enclosed and does not offer many long distance, open views. Views into the site are also limited, reducing the visual impact the proposals have on the character of the countryside. Furthermore, the site boundaries are long established, as evidenced in historical maps, and as such the site is naturally restricted from further encroachment into nearby fields.
(d) to preserve the setting and special character of historic towns	The site of the proposal is isolated and as such does not bear any direct impact on the town of Ickleford. However, the design is still sensitive to its context, and is respectful of the historic setting, drawing inspiration from the rural vernacular.
(e) to assist in urban regeneration, by encouraging the recycling of derelict and other urban land	Although the existing site is not urban or considered grey belt, it is unmanaged, disused land with relatively low ecological benefits. While there will be some ecological loss, ultimately the proposals will see significant enhancements with over 30% in BNG.

Minimising Harm

The following considerations and design principles have allowed us to mitigate harm to the Green Belt:

Minimising Visual Impact

- Situating the house in an enclosed field is a conscious decision made to limit the harm to openness.
- Retention of existing boundary trees and hedges is not only beneficial in ecological terms, but helps to reduce the visual impact of the proposal.
- Additional proposed vegetation to help screen the house further and bed it into context.

Sensitive Design

- Proposed materials are heavily inspired by the local area, its geology and vernacular. This ensures that the house is intrinsically specific to the local area.
- The form of the house responds directly to the site and rural vernacular, ensuring that the proposal will be appropriate to the setting and context.
- Sensitive, thoughtful design will minimise the impact and harm created by the proposal as the house will not appear out of character.
- Remaining within a 12m ecological buffer zones ensure that any impact on existing ecology is minimised, and that boundary trees and hedgerows are protected as dark bat corridors.

Outweighing Harm

There are also a number of elements to the project that provide positives beyond just limiting negatives, and that ultimately provide a scheme that is more beneficial than harmful.

Each of these benefits have been considered through all RIBA stages and have impacts and learnings throughout the project's lifetime.

High Quality Design (Para 84)

- As evidenced throughout this document, and endorsed by the Urban Design Team, the proposals meet the high bar of exceptional design.
- The design has come forth from iterative processes and collaborative working with the council.
- There is a clear narrative thread that informs the design which is site specific and results in a contextually sensitive proposal.
- The high quality design helps to raise the standard of design in the North Herts area as well as more generally in rural areas.

Ecological Enhancements

- The existing site has a relatively low ecological value. Introduction of a wider variety of plants, vegetation and habitats will greatly increase the value.
- New wildflower meadows will be introduced and hardstanding kept to a minimum.
- New ponds will greatly enrich the habitat value of the site, introducing a wider variety of biodiversity.
- Whilst existing trees and hedgerows will be retained, new trees, hedgerows and scrub will also be planted.

Disseminating Knowledge

- Investing in upskilling newer generations in terms of sustainable construction through the employment of local tradespeople who are equally ambitious about sharing knowledge.
- The project has directly influenced the development of SmallCarbon, Studio Bark's carbon tool. The tool is aimed at making carbon counting more accessible to small and medium architectural practices. It will make low carbon and natural alternatives easier to understand and access.
- Post-occupancy reviews will help us evaluate the work and improve on outcomes for future projects.

High Sustainability Standards

- The proposals meet six of the council's sustainability gold standards.
- The project will be whole life net zero carbon, exceeding industry standard targets to become carbon positive after 54 years, as opposed to 60 years.
- There is an emphasis on the use of natural, sustainable materials to ensure that the design has low embodied carbon.
- Locally sourced materials will be used as much as possible to reduce carbon impact.

Supporting Local Economy

- Local materials, suppliers and contractors will be used as far as is practicable.
- This will help reduce the project's carbon impact by minimising transport and imports.
- Using local suppliers and contractors will also help boost the local, rural economy.

Site Stewardship

- The clients have a long term connection with the site that has resulted in an emotional investment to better the land.
- Being able to live on the land itself will allow the client to better manage and maintain the site.
- A public footpath runs adjacent to the northern edge of the site, and clipped views through the hedges will offer the public snippets of a more scenic setting created through additional planting.

Thornborough Quarry

Corbridge, Northumberland
Northumberland County Council
Planning Ref - 23/01735/FUL
Approved by council in 2023

Planning permission was granted under delegated powers for a Paragraph 84 country house. The harm caused by the proposals included moderate harm to openness in Green Belt, harm in terms of open countryside location and spatial strategy of development and reduction in public use of the site compared to a previously approved restoration scheme. The benefits were listed as net zero home, exceptional design, learning and research opportunities, improved quarry mitigation scheme and flood risk mitigation.

The report concluded:

‘The design of the dwelling would be of exceptional quality in this policy context [paragraph 80], and the benefits of the scheme, taken as a whole, would amount to considerable weight in the planning balance.

Furthermore, it is not considered that there is one other single aspect that would result in very special circumstances to clearly outweigh the harm. This includes the quarry restoration scheme and the associated BNG benefits, as well as the learning and research opportunities. However, in combination the positive considerations that have been put forward in favour of the scheme are considered to carry very considerable weight in its favour. On that basis, and in the overall planning balance, it is officer opinion that these clearly outweigh the Green Belt and other harm in this instance.’

Hitchambury Farm

Taplow, Buckinghamshire
South Buckinghamshire District Council
Planning Ref - 13/01546/FUL
Appeal Ref - APP/N0410/A/14/2220241
Approved at appeal in 2014

In this case, the very special circumstances cited are exemplary design, and sustainability ambitions to exceed Passivhaus standards. The Inspector also referred to the enhancement of damaged or derelict land favourably.

The Inspector concluded:

‘There is nothing to say that the special circumstances in paragraph 55 should not apply in the Green Belt, even if the planning balance is to be struck differently. On this point, I find that, with regard to the exceptional quality and innovative nature of its design, the proposed house would comply with all four of the tests in the last bullet point to paragraph 55 of the NPPF...

For the reasons given above, and having regard to all other matters raised, I conclude that, collectively, the benefits of the scheme would amount to very special circumstances of sufficient weight to clearly outweigh the harm to the Green Belt, and the conflict with LP policy GB1, such that it would accord with the NPPF and that the appeal should be allowed. No other significant harm has been identified so, even if I had followed the interpretation prior to Redhill, and struck the balance against both Green Belt and non-Green Belt harm, I would have reached the same conclusion.’

Orchard House

Warrington
Warrington Borough Council
Planning Ref - 2016/27228
Approved by council in 2016

Studio Bark’s Orchard House demonstrated VSC through Paragraph 84 (at the time 55), sustainability benefits, design quality, ecological gain, rural economic objectives and the use of locally sourced materials. The committee report stated:

‘The proposal does represent inappropriate development and substantial weight should be given to the harm created by definition. There are also further harms arising from the loss of the sites openness and due to encroachment in the green belt. Nonetheless, the planning system should do everything it can to support sustainable development and LPA’s should not refuse consent for buildings which promote high levels of sustainability because of concerns about incompatibility with an existing townscape, if those concerns have been mitigated by good design. (Paragraph 65, NPPF)

Officers therefore consider the VSC put forward in favour of the scheme do attract significant weight, in particularly to the truly outstanding standard of design that will raise the bar in Warrington and the sustainability benefits of the scheme arising from its well thought through design. Taken together, these VSC are considered to outweigh the substantial weight that has to be given to Green Belt harm.’



Thornborough Quarry, 33 Architecture



Hitchambury Farm, Seymour-Smith Architects



Orchard House, Studio Bark

Croston Hall

Croston, Lancashire
Chorley Borough Council
Planning Ref - 15/00540/FULMAJ
Approved by council in 2015

In 2015, planning permission was granted for a new private dwelling at Croston Hall in the Green Belt. The decision report concluded that:

‘74. It is considered that the development of the site for a dwellinghouse is inappropriate development that would result in significant harm to the Green Belt. The benefits that have been identified by the applicants do not individually amount to very special circumstances however when taken together, cumulatively, they are material. Accordingly weight can be attached to those positive aspects of the development proposal as set out above.

75. The high quality and innovative design [Paragraph 84 (at the time 55)] is not considered to be a very special circumstance in terms of Green Belt but does weigh in favour of the proposal in terms of contributing to sustainable development in respect of the proposal.

76. On balance, it is considered that very special circumstances have been demonstrated that outweigh the harm that would be caused to the Green Belt through inappropriateness and any other harm. Accordingly planning permission is recommended subject to the associated legal agreement.’

The Burrows

Stocksbridge, Yorkshire
Barnsley Metropolitan Borough Council
Planning Ref - 2012/0697
Approved by council in 2012

The Burrows was the first Paragraph 84 (55 at the time) approval in South Yorkshire for an earth sheltered dwelling.

Whilst the officer’s report is unavailable, the submitted planning statement claimed that very special circumstances would comprise of clearing a derelict hillside site previously used for storing building materials and vehicles, constructing a dwelling that blends with the landscape to the highest sustainable standards, and ecological and biodiversity enhancements.

It went on to conclude that:

‘It is considered that the design of the dwelling is truly outstanding and innovative and that it’s location in the hillside is unique and that accordingly, the proposal meets the NPPF policy on isolated homes in the countryside. This, in my opinion, together with the regeneration of a despoiled site, enhancement of local biodiversity with local species planting and the creation of new habitats, combine to provide very special circumstances to outweigh any harm to the Green Belt by reason of inappropriateness and justifies the granting of planning permission in this case.’

Woodfold Villa

Mellor, Lancashire
Ribbles Valley District Council
Planning Ref - 3/2022/0988
Appeal Ref - APP/T2350/W/24/3339770
Approved at appeal in 2024

Planning permission was initially refused for a neoclassical mansion located within the Green Belt. The decision notice stated that the proposal did not meet any of the exception criteria for development outside of a settlement boundary, and within the Green Belt, and that it would be harmful to the its setting.

However, at appeal, the Planning Inspectorate concluded that the proposal would not be inappropriate within the Green Belt under Paragraph 154g, and that it met the criteria of Paragraph 84e due to its exceptional architectural quality and sensitivity to the local context.

‘There is nothing before me which suggests that the proposal would not or could not be successful in integrating into its surroundings. I therefore find that the proposal would and could be successful as a piece of new traditional architecture, with its well-reasoned and well-considered approach to its site and surroundings. This exceptional quality design would raise standards of design in rural areas, by demonstrating the depth of thought, reasoning and background needed to deliver such quality.’



Croston Hall, Shaw & Jagger Architects



The Burrows, Paul Testa Architecture



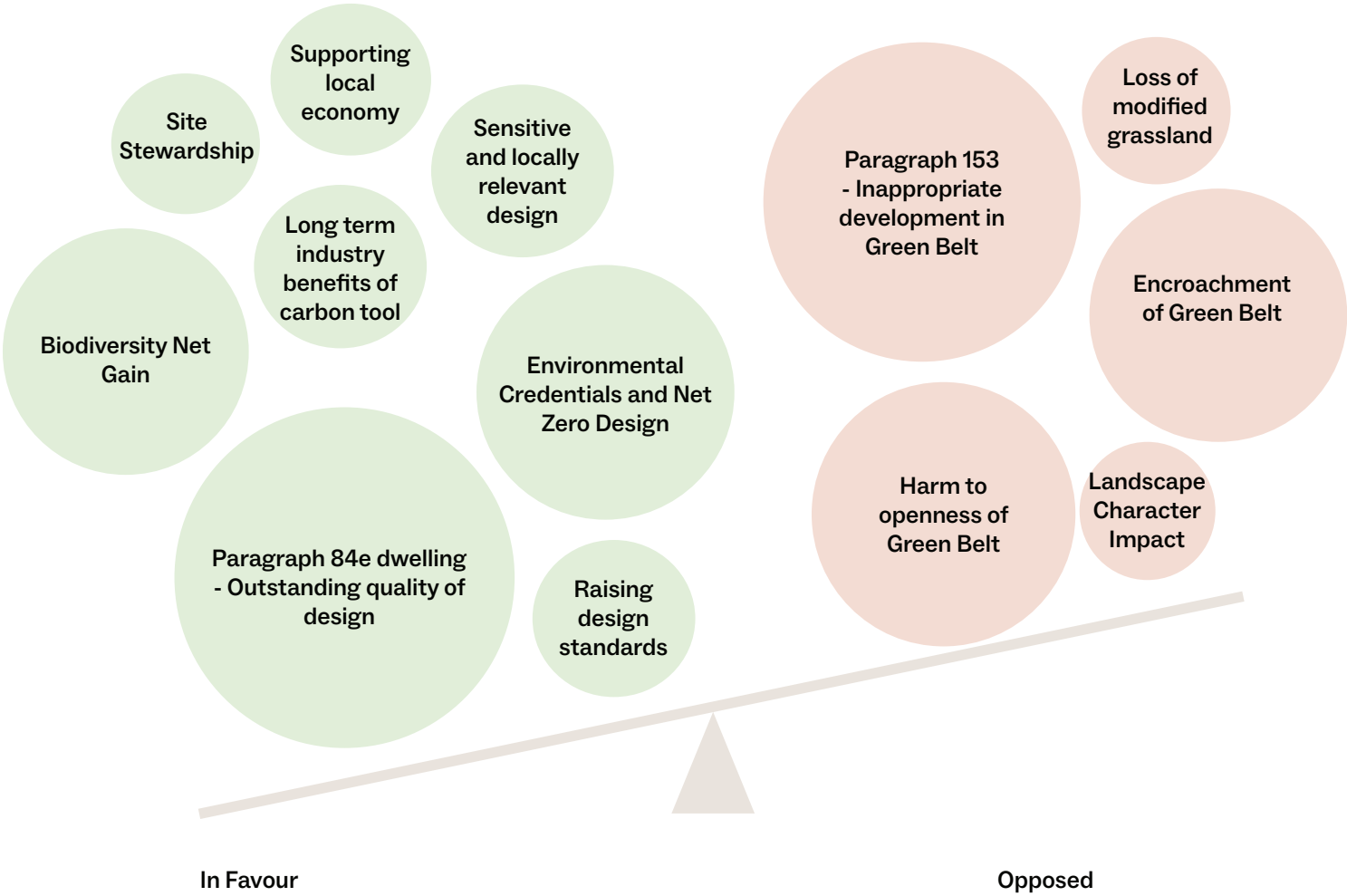
Woodfold Villa, Shaw & Jagger Architects

The Planning Balance

We accept that the proposed development can be considered harmful to the Green Belt, due to a loss of openness and encroachment.

However, the benefits of the proposal, in design, construction and post-construction phases are considered to outweigh this harm. Mitigations and active benefits of the proposal span across social, economic and environmental areas.

It is important to note that the proposal is specific to this site and would not have the same justification on derelict and other urban land which this purpose relates to.



The collaborative, experienced project team have worked closely to create a high quality proposal.



Client - Stewart and Catherine

Chalkstream House is a home for Stewart, Catherine and their three children.

Stewart grew up in nearby Pinchgut Hall and has since remained locally. Whilst the house was sold when Stewart’s mother moved out to downsize, the associated fields have remained in the family to retain all the memories they have with the site.

Now with a young family of his own, Stewart’s ambition is to build a forever home where he can share his memories with his children, and build their own. He has always had the idea of doing something more productive with the field, and feels the ability to stay and live there will give him the best chance to manage and maintain it.

Ecology - The Landscape Partnership

The Landscape Partnership are a substantial team of experienced landscape architects, urban designers, environmental planners, environmental co-ordinators and scientists; landscape managers, ecologists, arboriculturists and graphic designers based in Bedfordshire, London, Norfolk and Suffolk.

They have been instrumental in providing collaborative support which has resulted in a significant enhancement of 33.27% biodiversity net gain for habitats on site.

Architects - Studio Bark

Studio Bark are an RIBA award winning, accomplished architecture practice, with eleven Paragraph 84e approvals .

For our team, Paragraph 84e is an exciting piece of policy. We are pleased that it exists to protect the countryside, whilst also offering the chance to showcase some of the best architecture and design in the country.

Landscape - Studio 31

Studio 31 is an award winning, environmentally conscious landscape architecture practice working across the residential, public realm and commercial sectors.

Studio 31 and Studio Bark have worked collaboratively on a number of projects, with Studio 31 also bringing extensive Paragraph84e experience. Their approach takes research-led design principles to explore the link between nature and health with the aim to create landscapes which are both better for people and better for the planet.

Context

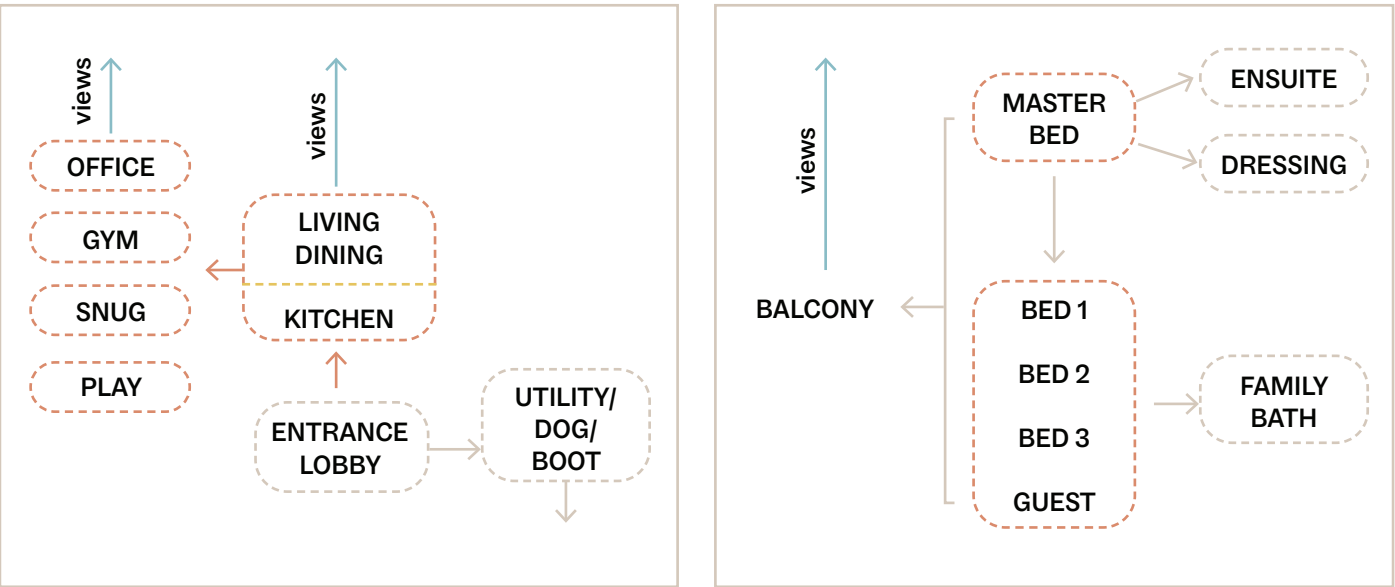
A Family Home

The proposal is for a new environmental home for Stewart and Catherine Scott and their family.

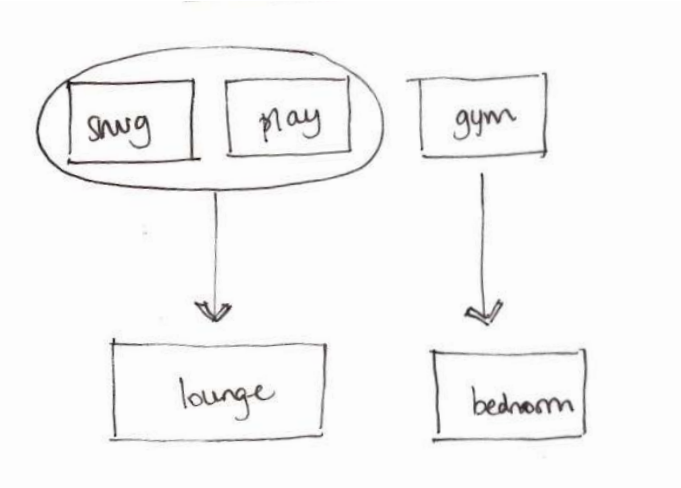
Stewart grew up in Pinchgut Hall to the north of the site, and as such has a strong connection to the land and wishes to build a long-term home for his family to build their own memories together.

The house draws on local and historical influences, resulting in a proposal that is contextually sensitive, yet contemporary and low carbon.

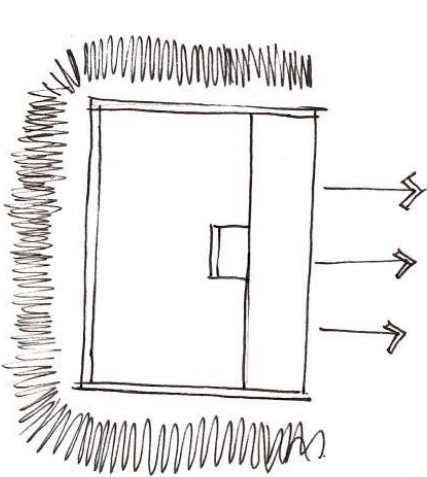
The relationship between architecture and landscape is also important to the clients. A playful relationship between internal and external spaces and views through the elongated site make the most of its unique natural character.



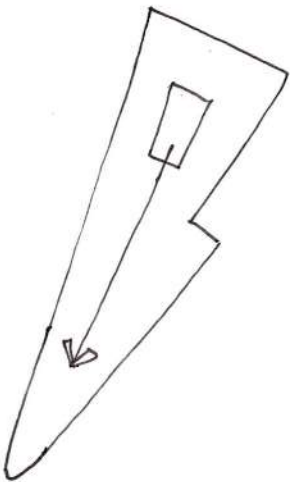
Spatial diagram of initial client brief - Ground Floor (left) and First Floor (right)



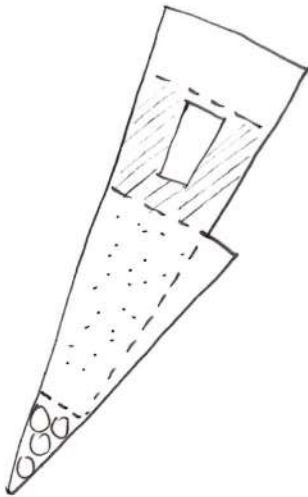
Recreational and ancillary living spaces provide flexibility of use for the whole family, and allow for future adaptability.



Private study/ work space allows for home working environment.



Taking advantage of the elongated site to provide long views southwards.



Variation in garden spaces to allow for recreational and domestic uses, orchards, natural ponds and wildflower meadows.



1



2



3



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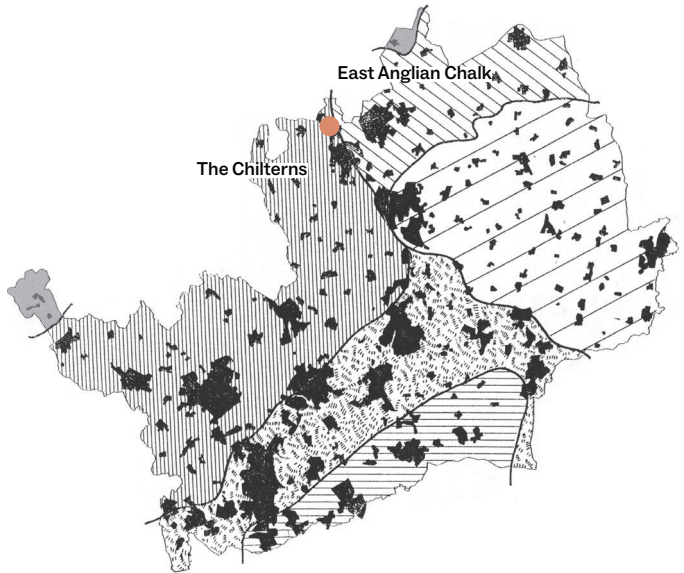


Bordering Characters

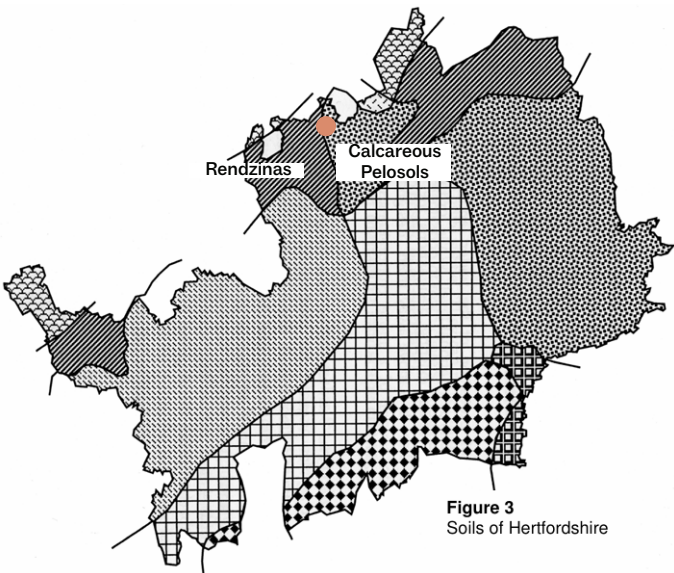
The site lies on the very north-eastern edge of the county based landscape region of ‘The Chilterns’. Immediately adjacent is the ‘East Anglian Chalk’ region. Both areas are characterised by their chalk geology.

More specifically, the site lies within the Pirton Lowlands landscape character area, with the River Oughton and Purwell Valleys character lying close by to the east, and the Arlesey - Great Wymondley area immediately adjacent to that.

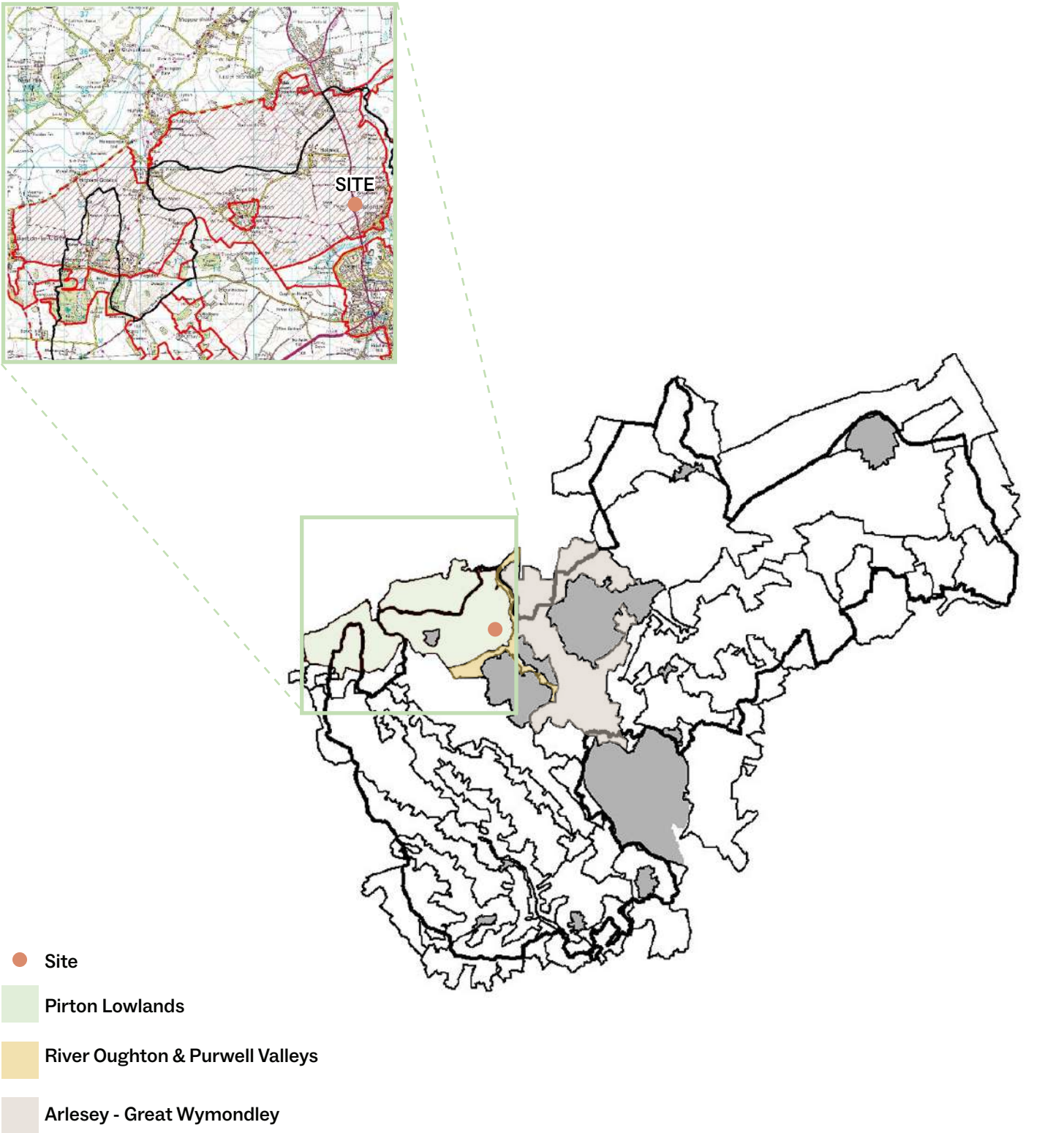
Transitions between character areas tend to be gradual, so it is important to note the distinctive characteristics of all.



Landscape Regions of Hertfordshire from North Herts Landscape Study



Soils of Hertfordshire from North Herts Landscape Study



Landscape Character Areas map

Pirton Lowlands

Features of the landscape area:

- Large scale, open flat farmland.
- Long distance views to water towers, churches and chalk scarp.
- Remnant hedgerows - predominantly hawthorn with occasional mature trees.
- Woodland shelter around settlements.
- A600 Bedford Road prominent in east.

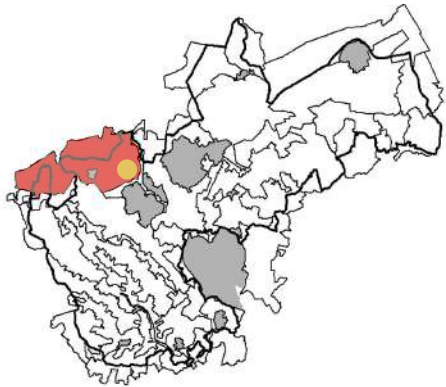
Vegetation & Wildlife:

- Hawthorn hedgerows with ash, willow and poplar; white willows mark water courses.
- Arable plants like pansies and cornsalads becoming rare but found in some locations.
- Mature trees and deadwood important ecologically.
- White clawed cray fish, otters, bats and great crested newts found at various locations.

Geology: free draining, loaming brown soils over chalk and chalk marl below the scarp merge into the Gault Clay plain of Bedfordshire.

Hydrology: local streams rise north from the scarp to minor tributaries of the River Ivel. Spring fed moats and ponds at Pirton, Holwell and Hexton.

Low landscape value with low to moderate visual sensitivity.



River Oughton & Purwell Valleys

Features:

- Grazed water meadows.
- Meandering water course with associated ponds and water bodies.
- Linear woodland belts following the water course.
- Land adjacent to Ickleford changes to paddocks defined by post and wire fencing.

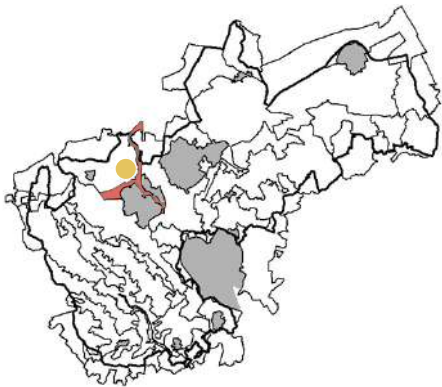
Vegetation & Wildlife:

- Dominant trees of poplar, willow, ash and hawthorn.
- Rivers Hiz and Oughton are of high biodiversity and ecological status.
- Ickleford Common a rare example of traditionally managed grassland and important for great crested newts.
- Sedge-beds, reedbeds, watercress beds, marshes and spring-fed pools occur throughout with typical wetland fauna.

Geology: poor draining gleyed soils over alluvial drift predominate.

Hydrology: Rivers Oughton and Purwell with multiple associated channels and bodies.

Moderate low landscape value with moderate visual sensitivity.



Arlesey - Great Wymondley

Features:

- Large flat arable land to the north gradually merges with rolling arable landscape to the south.
- South is characterised by small scattered plantations and copses, whilst the north features linear shelter belts.
- Well wooded Ivel valley.
- Historic mineral workings at Blue Lagoon.
- Historic settlements at Great Wymondley.

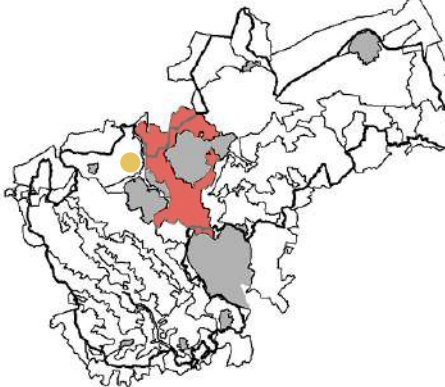
Vegetation & Wildlife:

- Limited woodlands with gappy hedgerows and greater variety of trees along River Ivel.
- Limited marsh and wetland habitats.
- Species-rich road verges with flora typical of chalky substrates.
- Kingfishers and water rails along River Ivel, with bats, great crested newts, lizards and voles present elsewhere.

Geology: free draining loamy brown soils over chalk.

Hydrology: a number of minor water courses flow towards Rivers Purwell and Ivel.

Low landscape value with low to moderate visual sensitivity.



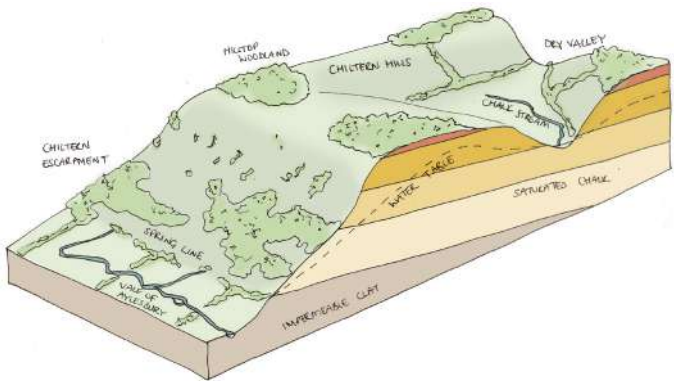
Gault Formation

The **Gault Formation** forms the underlying bedrock geology of the site. It is a sedimentary bedrock formed between 113 and 100.5 million years ago, during the Cretaceous period.

It consists of **pale to dark grey or blue-grey clay or mudstone** with a sandy base. There are **discrete bands** of phosphatic nodules, some pyrite and calcareous nodules.

The Gault Formation forms a continuous area of low-lying ground all along the foot of the Chiltern Hills. In other parts of Hertfordshire it can be found closer to the surface and can be used as a **building material**.

Reclaimed **Arlesey bricks** use local clay and are a distinctive cool white/blue/yellow colour.



Chalk and Flint

Adjacent to the Gault Formation that lies below the site, Ickleford also sits on various chalk formations, including the Totternhoe Stone Member, Zig Zag and West Melbury formations.

Whilst most of the chalk was too soft to build with, some chalk such as Totternhoe Stone provided a **harder chalk and clunch** that has historically been quarried for building stone.

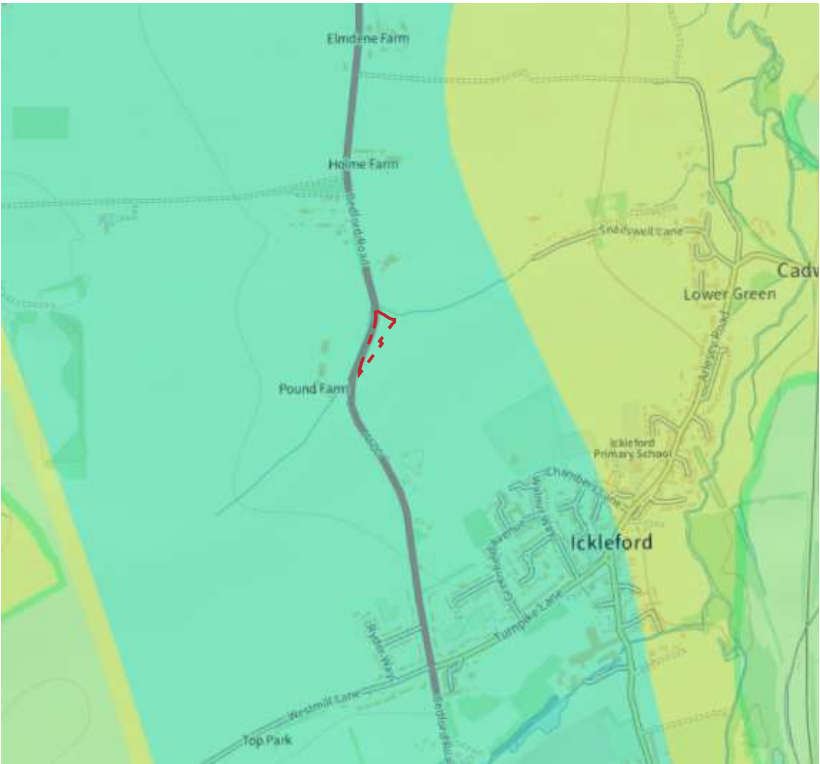
Flints in the clay and chalk, resulting from natural weathering processes, can also be found across the area. This is reflected in the local vernacular architecture.

Puddingstones are another feature of the Chilterns vernacular - a hard mass of flint pebbles cemented by sarsen, a plain grey sandstone.

- Clay with flints
- Seaford (Upper) Chalk
- Nodular (Middle) Chalk
- Marly (Lower) Chalk
- Gault Clay & Greensand



- Oadby Member - Diamicton
- Head - Clay, silt, sand and gravel
- Lowestoft Formation - Diamicton
- Glaciofluvial Deposits - Sand and gravel
- River Terrace Deposits - Sand and gravel
- Alluvium - Clay, silt, sand and gravel



- Totternhoe Stone Member - Chalk
- Zig Zag Chalk Formation - Chalk
- West Melbury Marly Chalk Formation - Chalk
- Gault Formation - Mudstone

Neglect and Dilapidation

The immediate surroundings of the site can be considered relatively **dilapidated and neglected**, with a number of disused buildings falling into disrepair.

The site itself, whilst within the green belt and consisting of grasslands and hedges, has been left largely **unmanaged** with hedgerows and trees becoming **overgrown**.

The A600 Bedford Road, aside from traffic, feels devoid of character with **litter** trailing pathways nearby.

Close to the site, on the approach to Ickleford town, there is a dilapidated timber structure sitting on a low brick wall, remnants of a greenhouse or nursery structure where the **vegetation has now started to grow in and around it**.

Other rural buildings nearby can also be seen to have a similar symbiotic relationship with nature, with ivy, hedgerows and trees **overgrowing and interacting with the architecture**.



A600 Bedford road showing overgrown hedgerows and litter in verges (top) and dilapidated barn structure with ivy (bottom)



Disused nursery structures



Ivy Cottage, Ickleford

Grade II listed house - whilst this is not in disrepair, the ivy and vegetation give the impression of a house well-bedded into its setting and with a harmonious relationship to the landscaped elements.

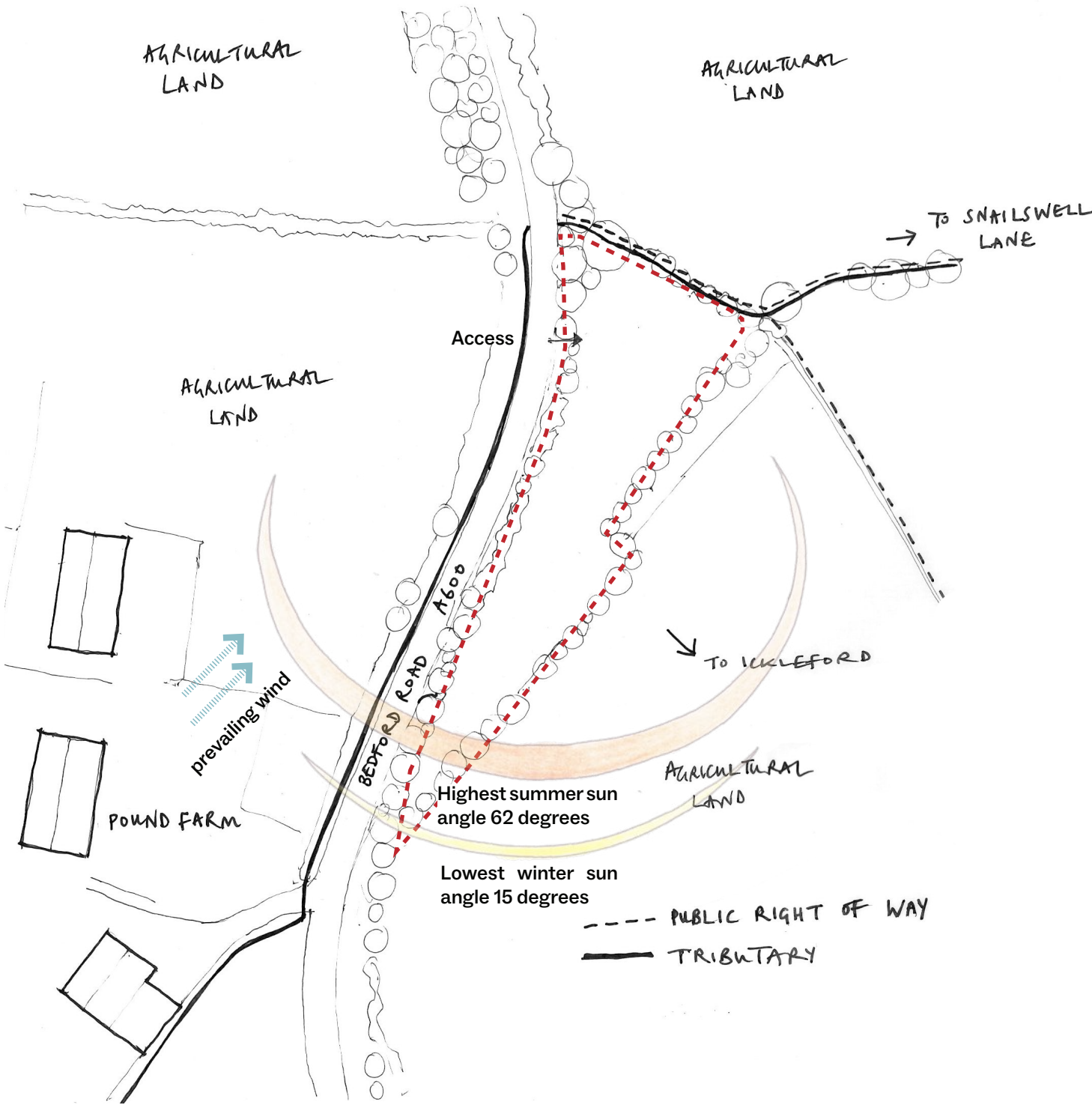
Opportunities & Constraints

There are a number of factors which have influenced the design:

- 1. A 12m ecological buffer zone is required from canopy level around the boundary of the site.
- 2. This buffer also acts as a dark corridor for bats and has affected the glazing design.
- 3. A 6m buffer with no construction to be carried out in this space, is also required along the northern boundary to protect the existing ditch which runs to the River Hiz.
- 4. The pinched nature of the site has driven the landscape design, allowing for a funnelling of views and activity.
- 5. The space created by the buffer creates a logical location for the building, which allows for the domestic curtilage and hard landscaping to be confined to a smaller area, with the remainder of the site dedicated to ecological enhancements.



Site is located within the parish of Ickleford, but outside the settlement boundary. It is also within the London Area Greenbelt and Flood Zone 1 - Low risk (surface water).



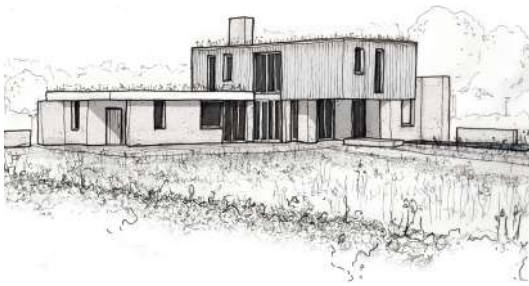
Story

Iterative Design

The timeline below explores how the conceptual approach for the design of Chalkstream House has evolved over time, developing through iterative design processes and a collaborative approach with the council and consultants.



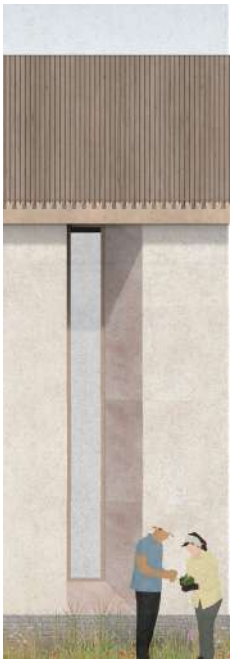
STAGE 0
Inspired by the geological features of the chalk plains, the design is a modernist proposal of linear chalk walls and flat roof slabs.



STAGE 1
Material application is developed further to reflect the site geology and landscape above ground. The proposal is aligned to site axes and historic routes.



STAGE 1B
Design shift development to clarify the narrative in relation to historic routes, materials and reflection of local vernacular.



STAGE 2
Development and refinement of the design to better reflect the influence of the historic routes on the aspects of journey, materials and form.



STAGE 3
Further refinement of the design to better integrate the landscape design with the architecture, and ensure that the quality is reinforced through architectural detailing.



Hicca Way

The Hicca Way traces its origins back to the 8th century when the Hicca Tribe settled in what is now Hitchin. During this time, with Danish settlers nearby at the confluence of the River Hiz and the River Ivel, the Hicca Tribe paid a 'Danegeld' - a tax in the form of baked bread - to the Danes to prevent them from invading Hicca Land.

The path of the Hicca Way winds northward along the River Hiz, a pristine chalk stream. Today, the Hicca Way is a haven for diverse wildlife, including water plants, kingfishers, water voles, and even otters.

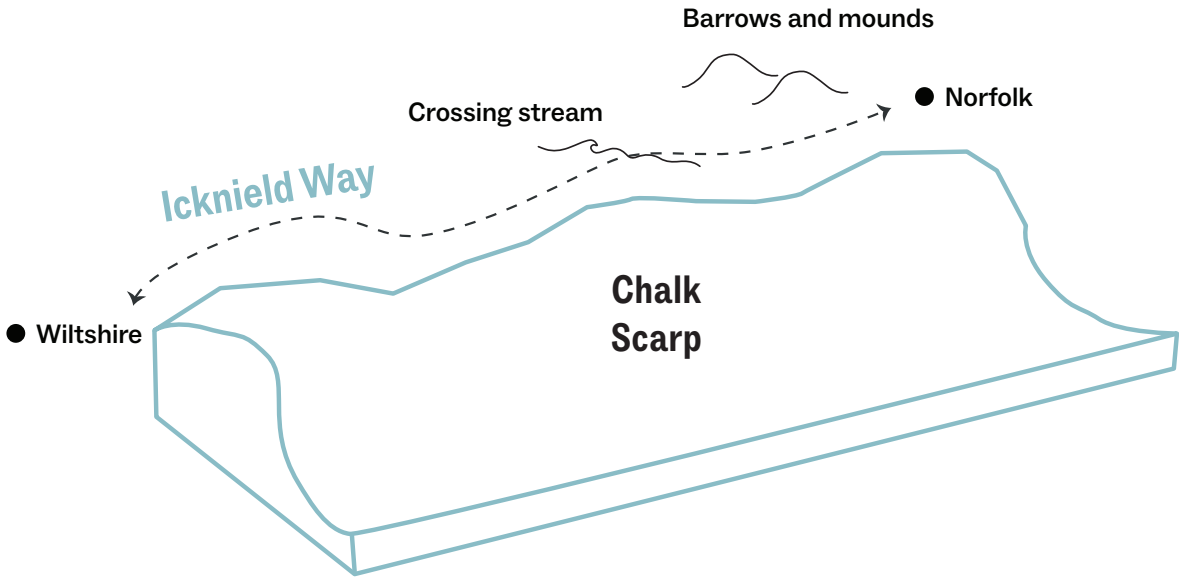
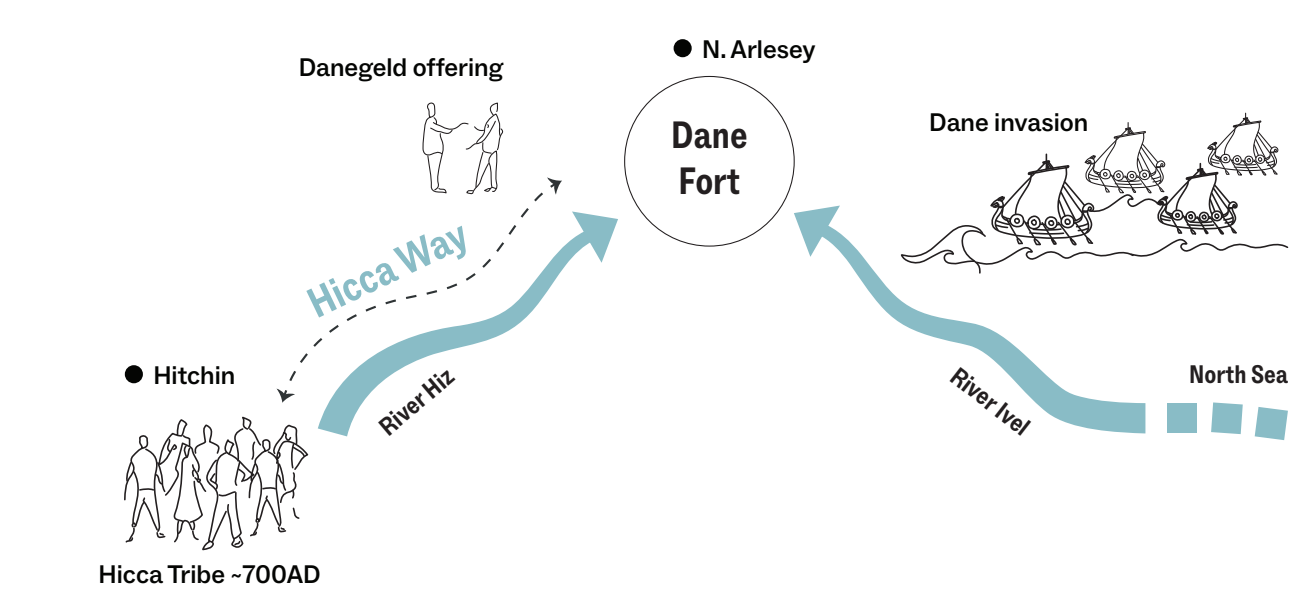


Ickniel Way

The Ickniel Way claims to be “the oldest road in Britain”, having existed before the Romans. It follows the chalk escarpment from the Dorset coast to Norfolk.

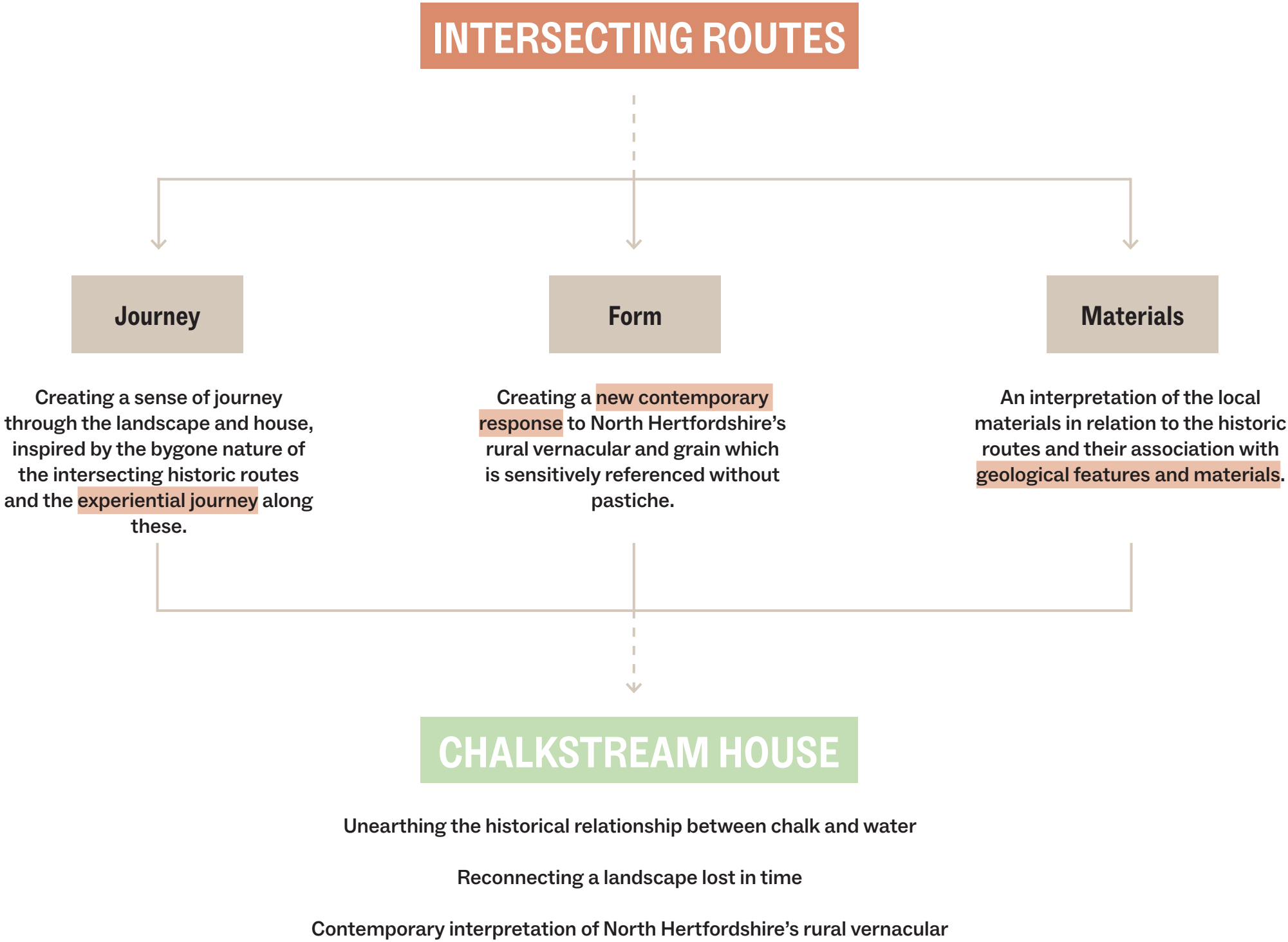
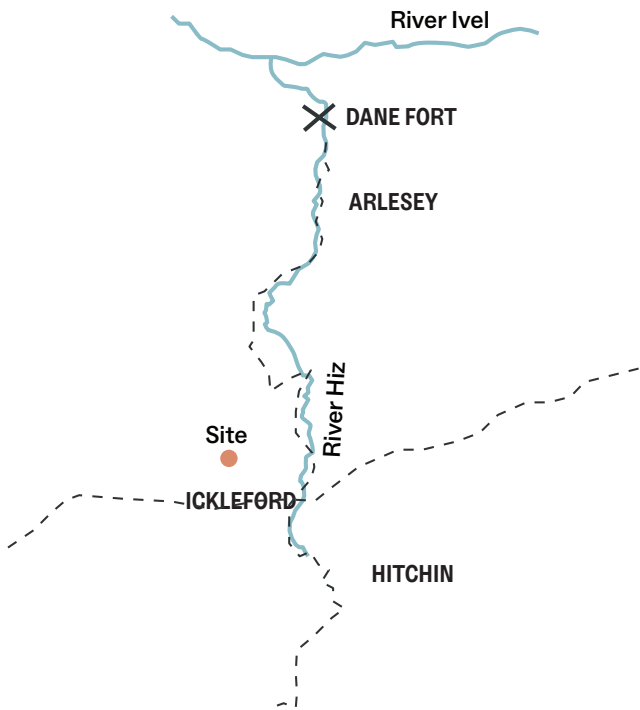
The origins of the way are uncertain, but it has been suggested that it was used for trade by the Iceni tribe of the Iron Age, or even that it has older prehistoric origins.

Dotted with archaeological remains, it survives in tracks and green lanes along the chalk “spine” of England. In and around Ickleford, it is followed by minor roads and marked by features such as barrows and mounds.



A Holistic Proposal

Each aspect of design for the Chalkstream House is inspired and informed by the overarching driver of the historic, intersecting routes.



Journey:

Creating a sense of journey through the landscape and house, inspired by the bygone nature of the intersecting historic routes and the experiential journey along these.

The journey through the house and site plays on the notion of **beauty in neglect**. It aims to retain the sense of a wild, unmanaged piece of land that **slowly reveals** elements of architecture and landscape features as you wander through, reflecting the **remnant nature** of the Hicca and Icknield Ways.

The journey is further inspired by the **experience of the historic routes** as they stand today - the Hicca way remains in rich, biodiverse landscapes associated with the River Hiz, whilst the Icknield Way remains in formal and informal tracks and paths.

The front of the house poses a more **formal arrival**, with hard landscaping elements that reflect the chalkier nature of the Icknield Way. As you continue on through the site, this begins to **soften and become wilder**, reflecting the Hicca Way.

Water features, mown paths and walls in the landscape help to guide through the site



The Hicca Way

Experiencing the Hicca Way



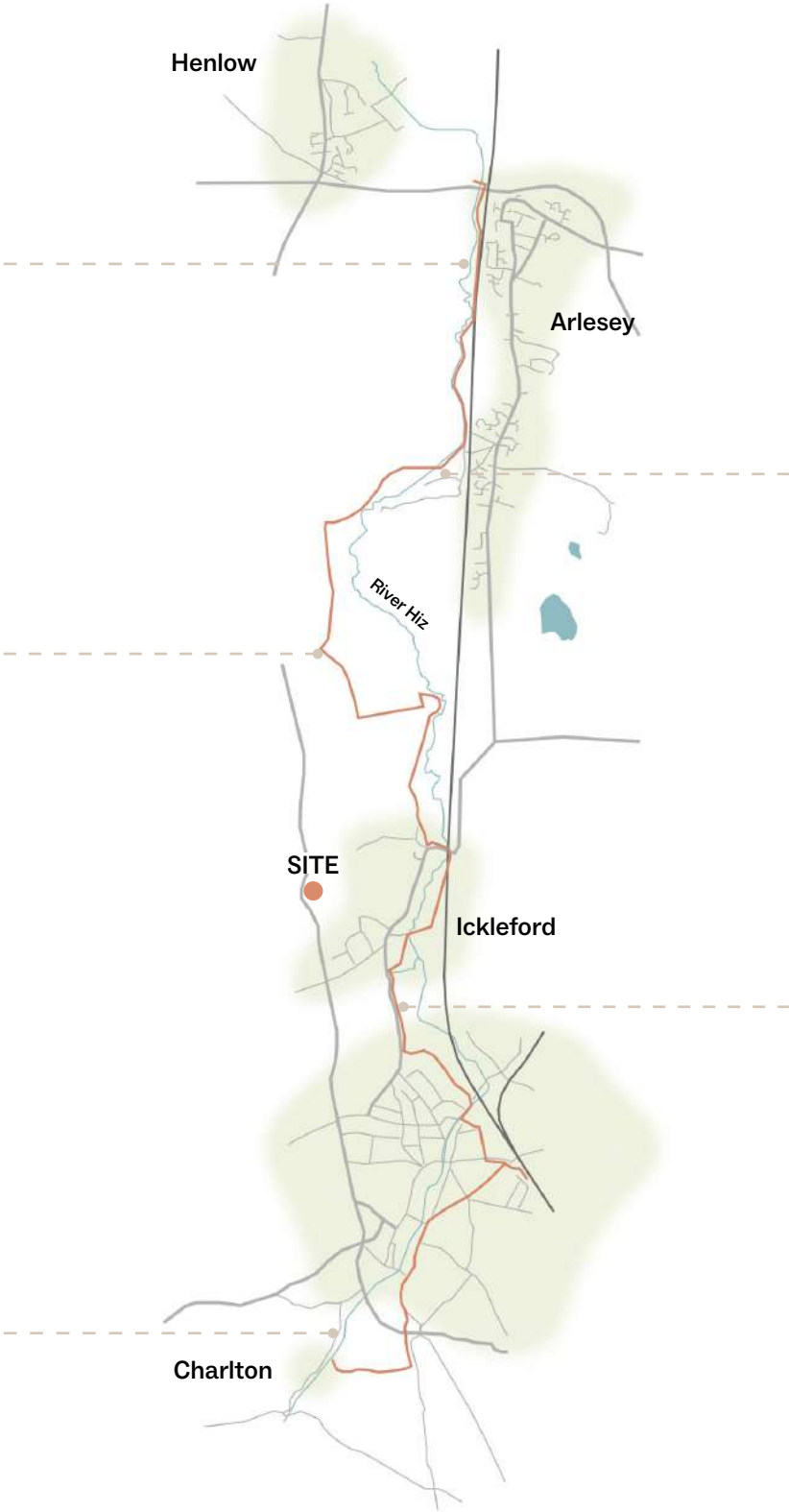
Arlesey Old Moat and Glebe Meadows - a moat with amphibians and dragonflies, with flower rich meadows and a traditionally coppiced woodland.



Footbridge through fields, showing contrasting qualities between dense hedgerows and trees and open fields.



Tree lined riverside with post and wire fencing marking boundaries as is typical of landscape character.



Arlesey Common Footbridge



Contrasting quality between grassland and trees, with Burymead Springs and a cricket bat willow plantation in the distance beyond.

Chalkstream House

Propositional Features



Water and ponds to create peaceful routes within the site and to increase biodiversity.



Wildflower meadows to soften the landscape, and to contrast against the denser boundaries.



Woodlands and landscaping features used to create experiential transitions between zones.

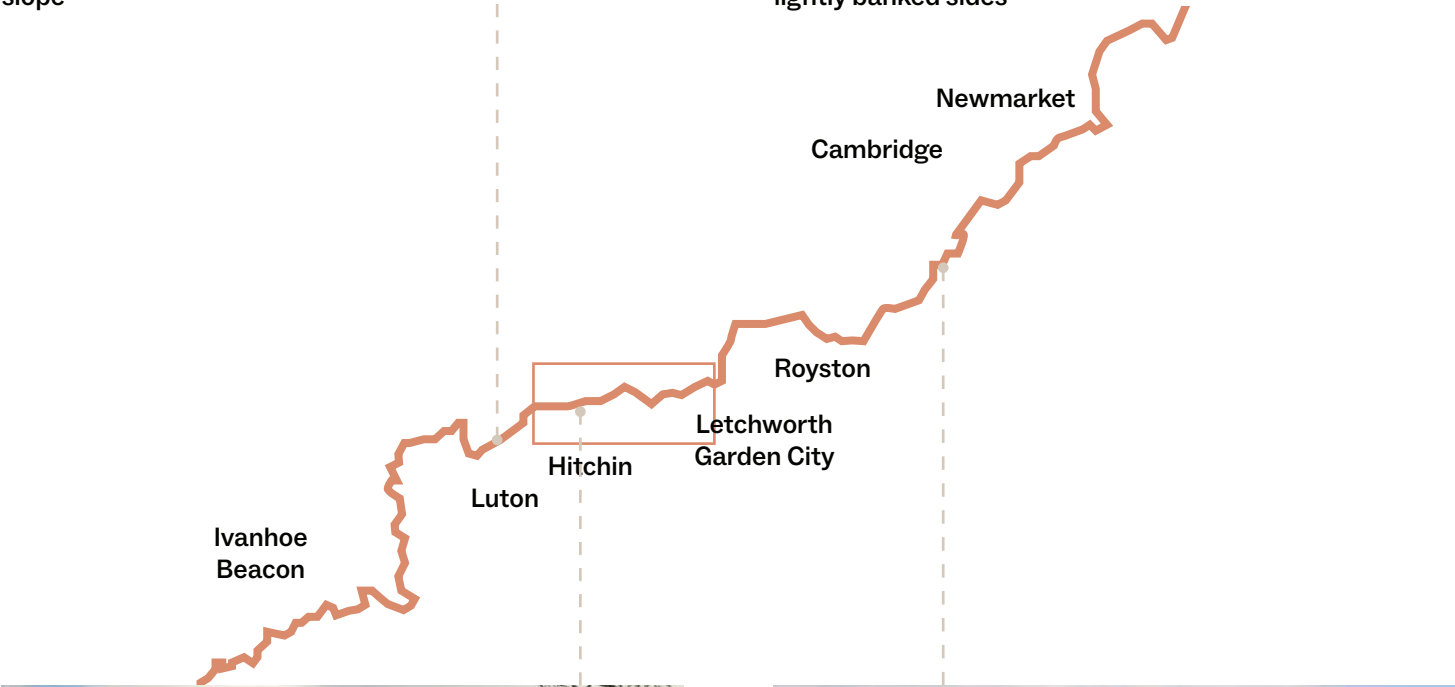
Experiencing the Icknield Way



Deacon Hill, Bedfordshire - informal path across a grassy slope



View towards Ickleford with the narrowest of trails with lightly banked sides

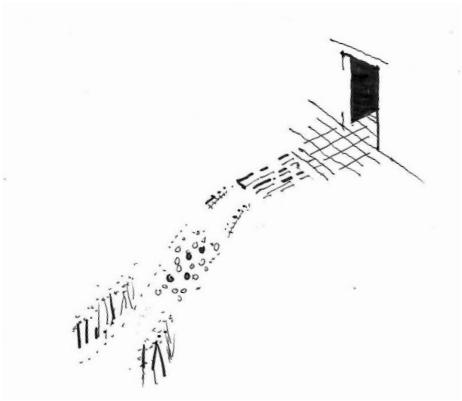


Hambridge Way approaching Ickleford - a slightly raised track through arable land

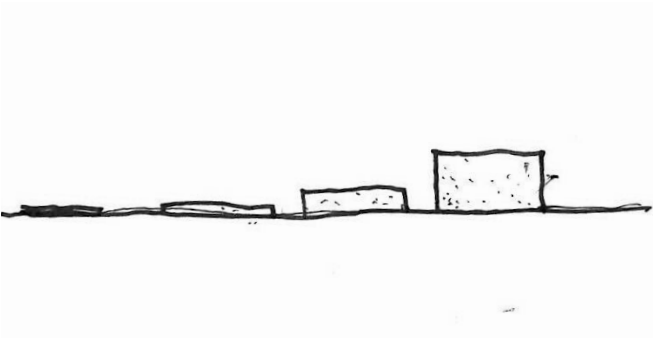


Linton Water Tower - an architectural feature against the woodland

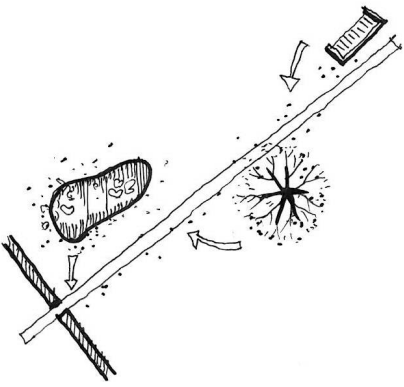
Propositional Features



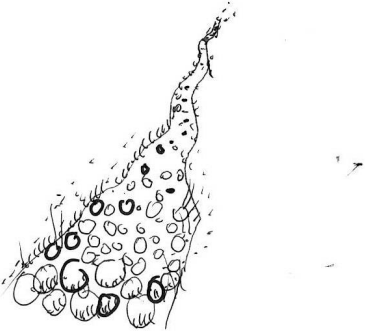
Variation in formal and informal paths and tracks



Blurring of architecture and landscape with 'chalk' walls bleeding from house to garden



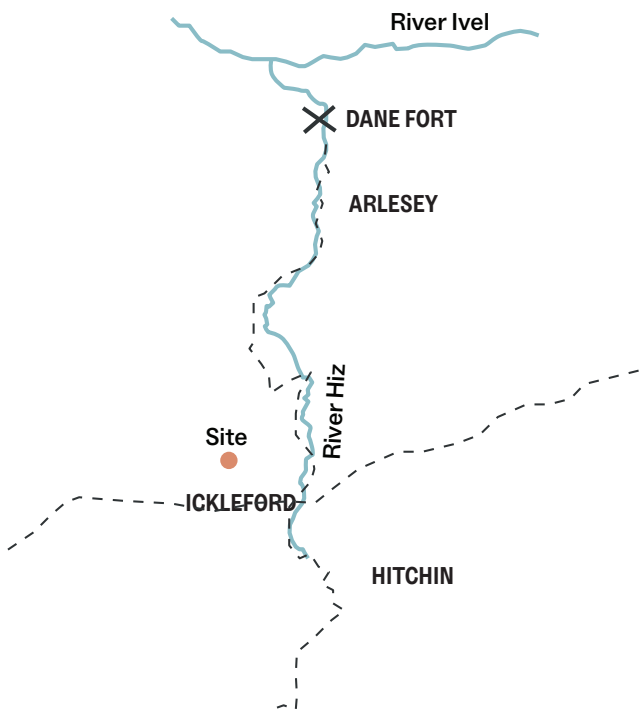
A route following chalk, with distinctive points of interest



Flint-lined tracks through grasses

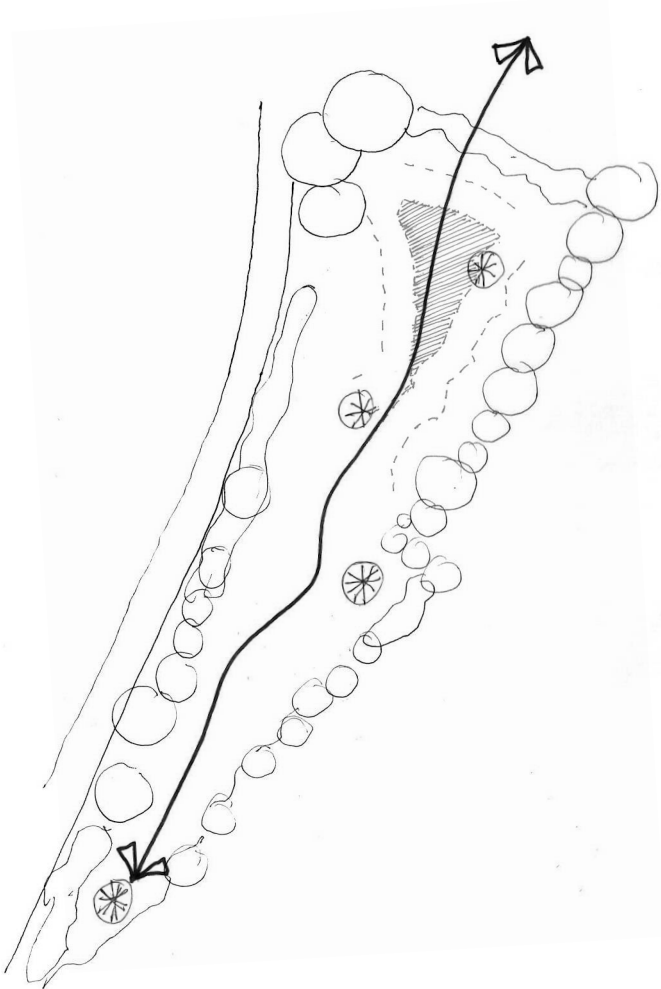
Journey Through the Site

The intersection of the Hicca Way and the Icknield Way is an unassuming point to the East of Ickleford. The two routes as they are followed today are close approximations of those that the Hicca Tribe (and before that Romans, and prehistoric man, may have passed). It is just under a km from our proposal site as the crow flies.



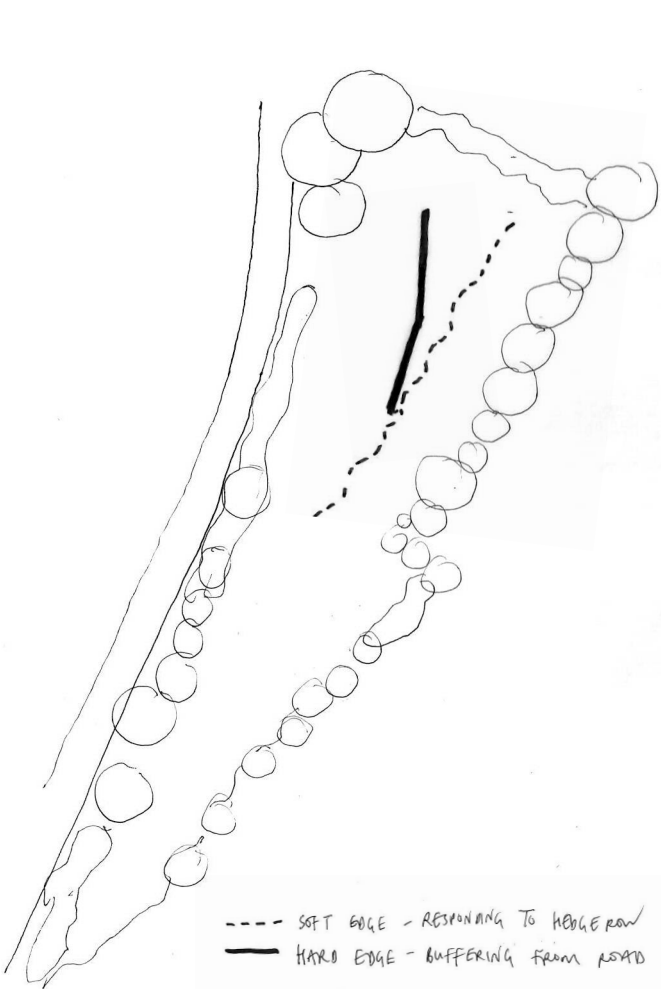
The relationship between the two routes will be explored and represented in the journey through the site and the relationship between architecture and landscape. Each route has a specific character and the interactions of these will inform how the journey and architecture is experienced, thereby presenting a metaphorical intersection between chalk and water.

Indicative journey with key moments



The site presents a journey through space, with the two routes continuing southwards, weaving in and out of each other, blurring the boundaries between hard and soft, and presenting further points of interest along the way.

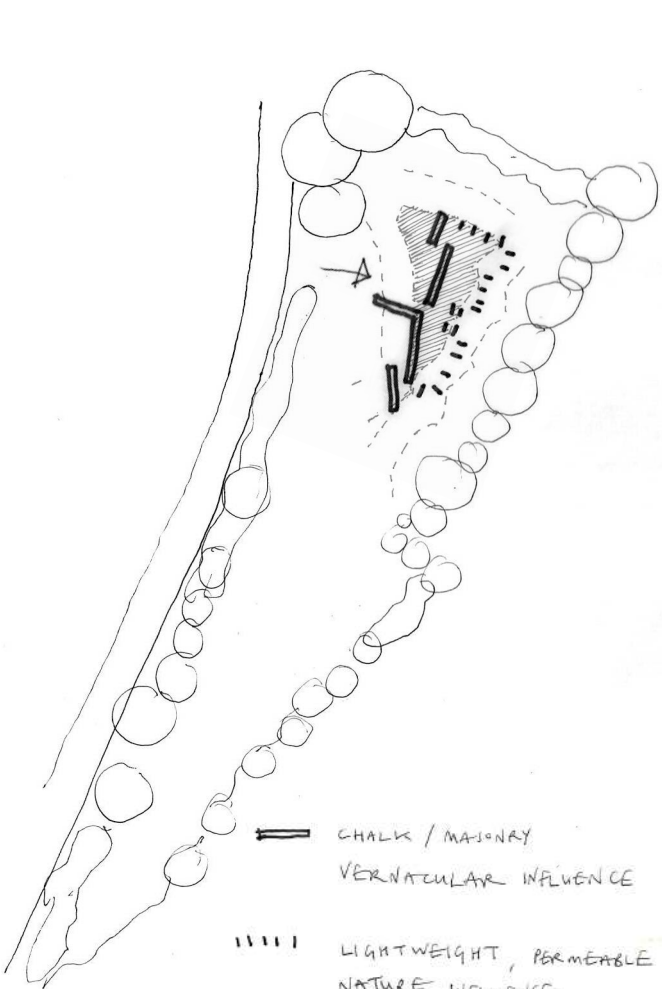
Hard and soft edges



A variation in boundary treatment results in the entrance to the site and house being presented more formally, with harder landscaping elements and a more delineated separation from the road beyond. Chalks and flints will be more prevalent on this side.

The eastern boundary will be softer, more informal and will bleed more naturally into the southern gardens.

Form and material



The house responds to the boundary treatment by presenting a more formal front and a more organic rear. It acts as a point of intersection, bridging the two juxtaposing characters of hard and soft and bringing together the elements of chalk and water.

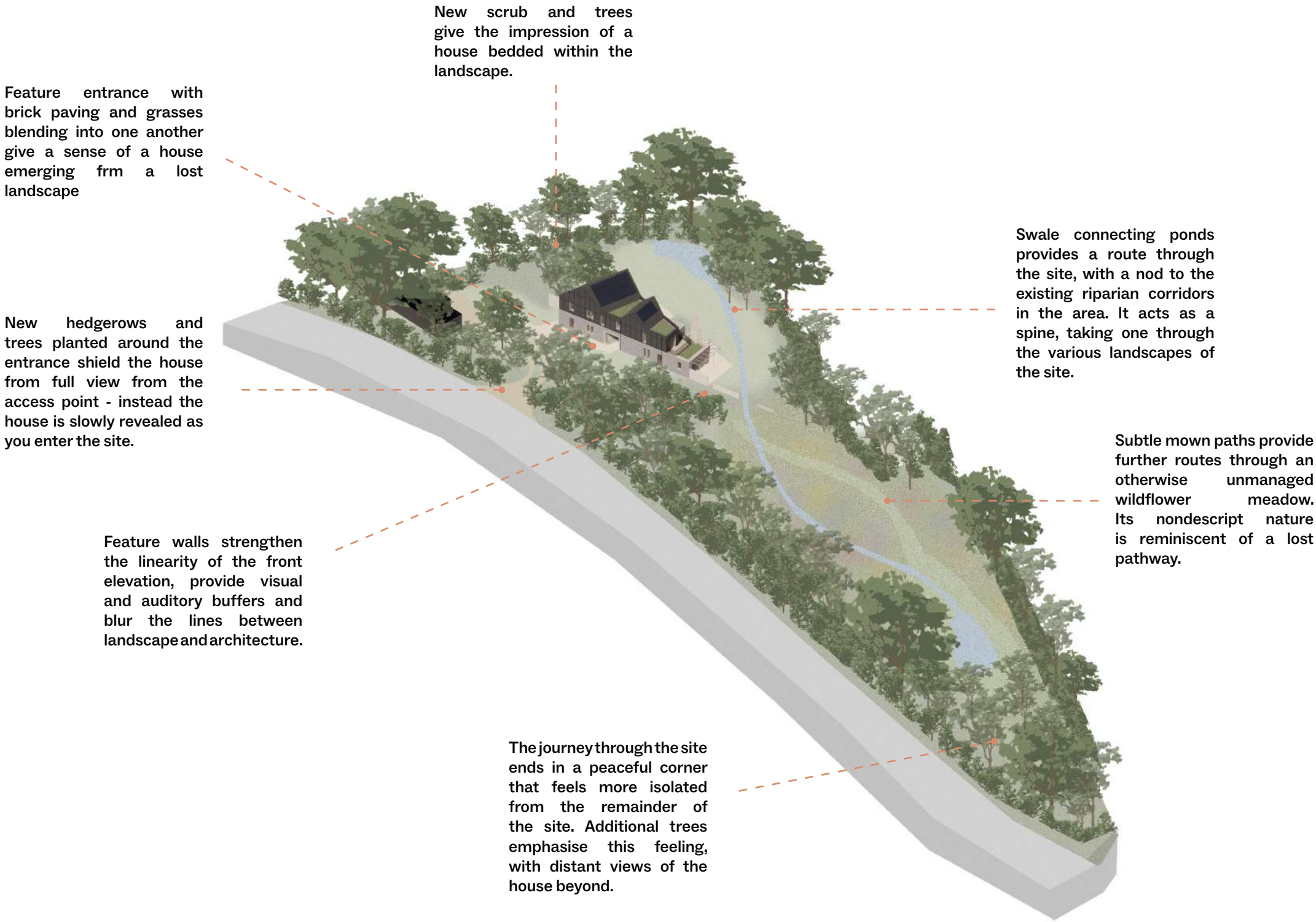
It also acts as a landmark in the site, anchoring itself as a point of destination.

Beauty In Neglect

Whilst individual features of the house and landscape correspond to the two historic routes, the overarching concept of beauty in neglect links the two and allows for a coherence in the design.

Both routes now only remain as remnants of what they once were. They serve as reminders of a bygone time.

The existing site itself has a sense of wilderness and isolation that is retained and amplified through the landscape design and the setting of the house within.



Form:

Creating a new contemporary response to North Hertfordshire's rural vernacular and grain which is sensitively referenced without pastiche.

The footprint of the house responds directly to the site constraints and the ecological buffer zones that dictate the building area.

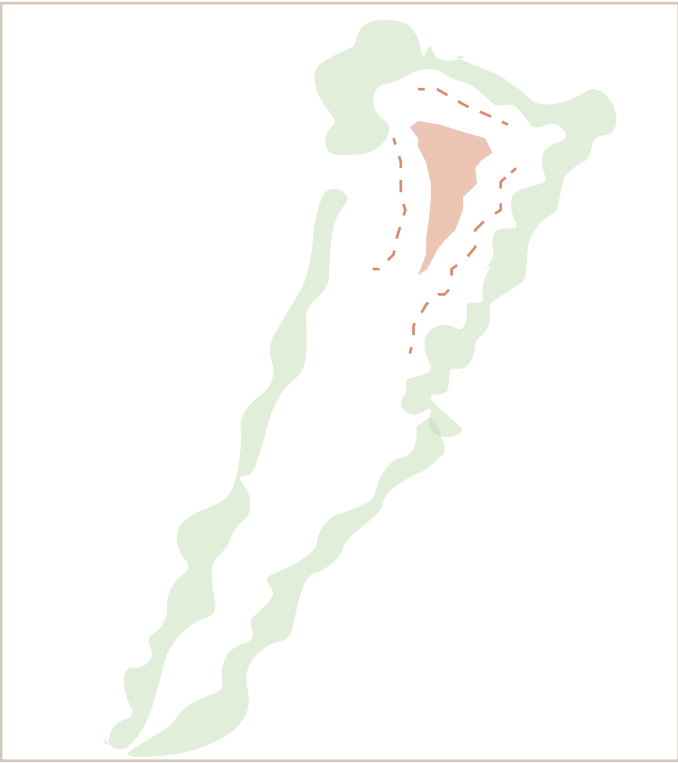
However, the massing and form of the house is a response to the clear, strong architectural vernacular of the area where steep pitched roofs and varying material treatments are used to break up the massing and differentiate between storeys.

The house reads as a contemporary take on this rural vernacular as found along the two historic routes, and also reflected within Ickleford town itself.

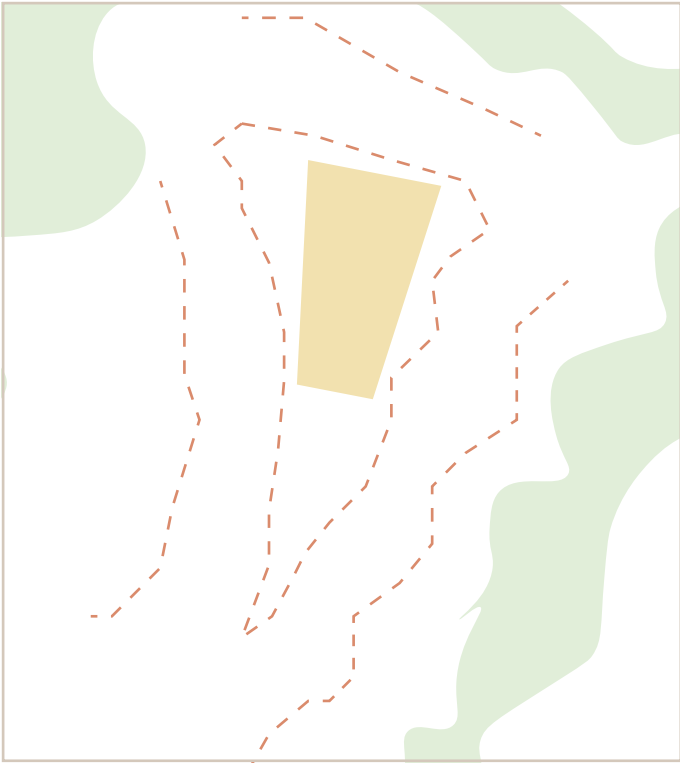
By designing a house that strongly reflects the local character, it reinforces the feeling of a house that is of its place, and one that has always belonged.



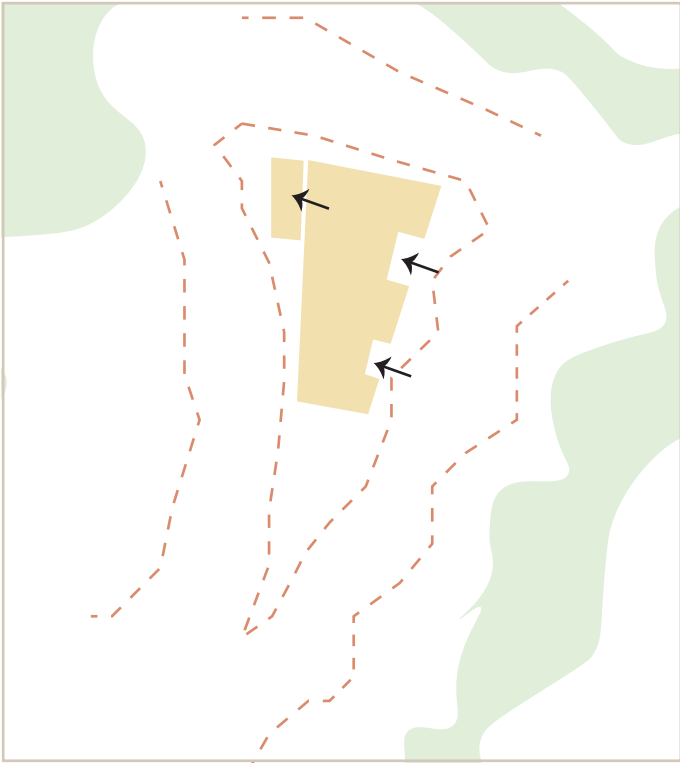
Concept Development



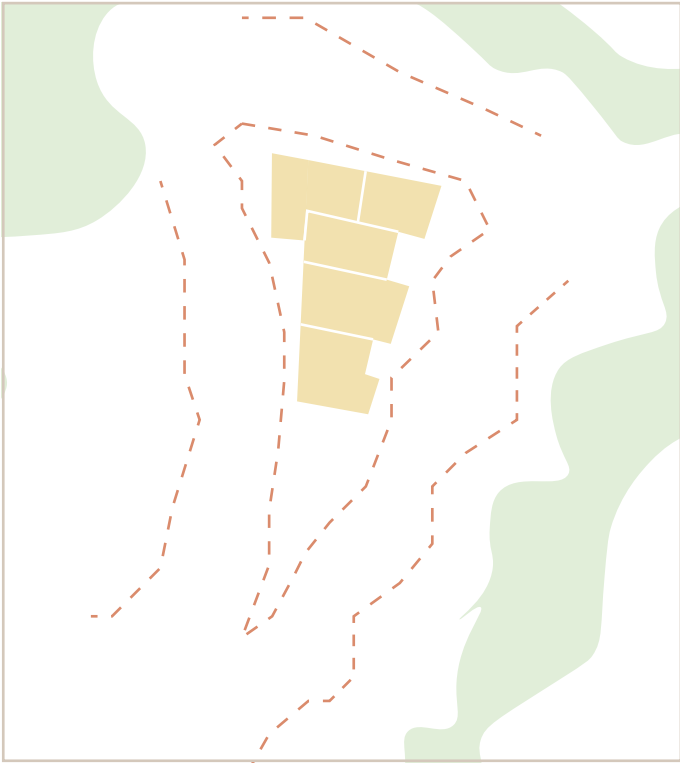
1. Buildable area is dictated by ecological buffer zones



2. Start with a simple form that fits within the constraints of the site.



3. Forms are pushed and pulled in response to the more organic form of the site boundary, canopy and buffer edge.

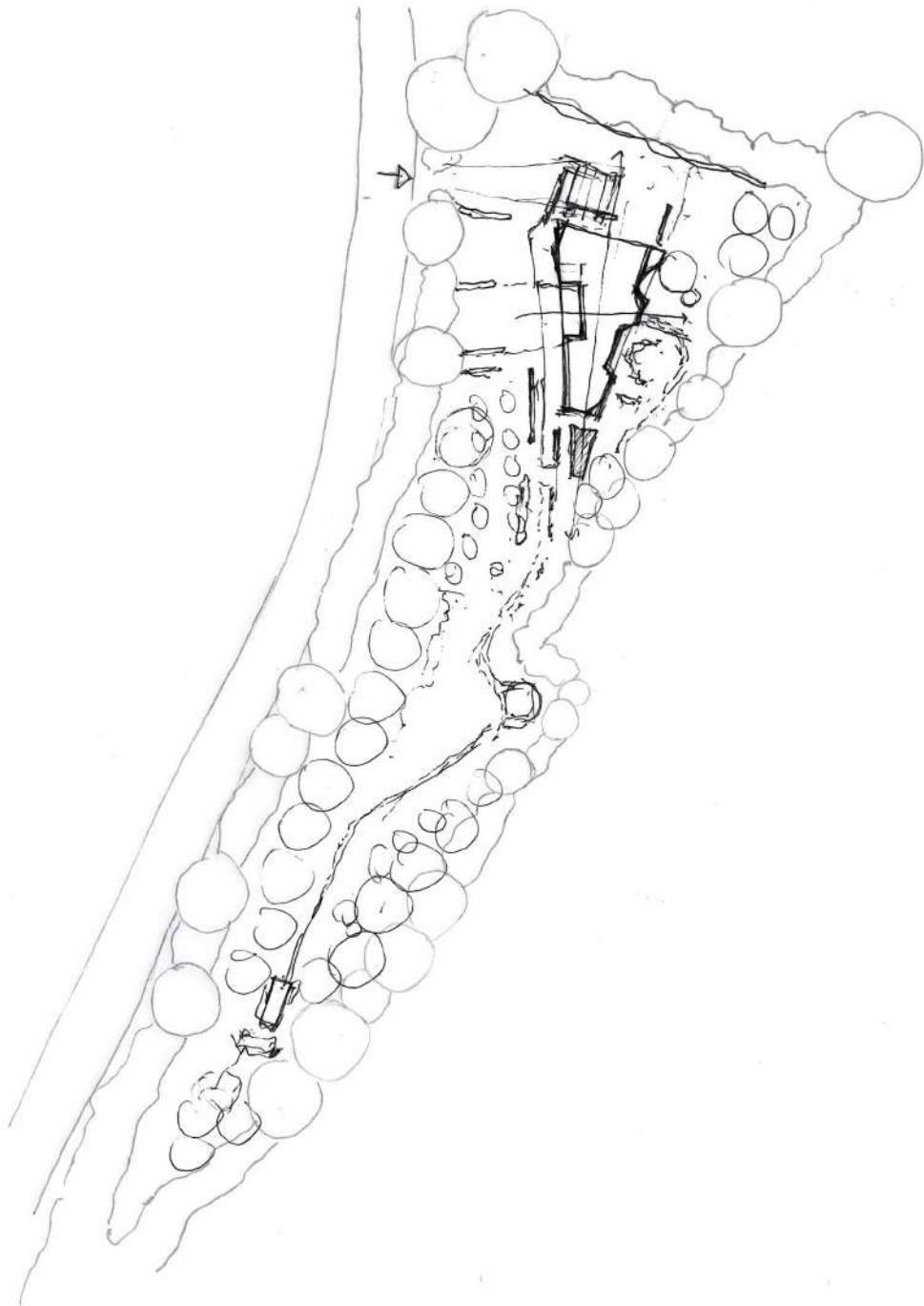


4. Conceptual zoning to understand how the spaces relate to the landscape and the sense of journey.



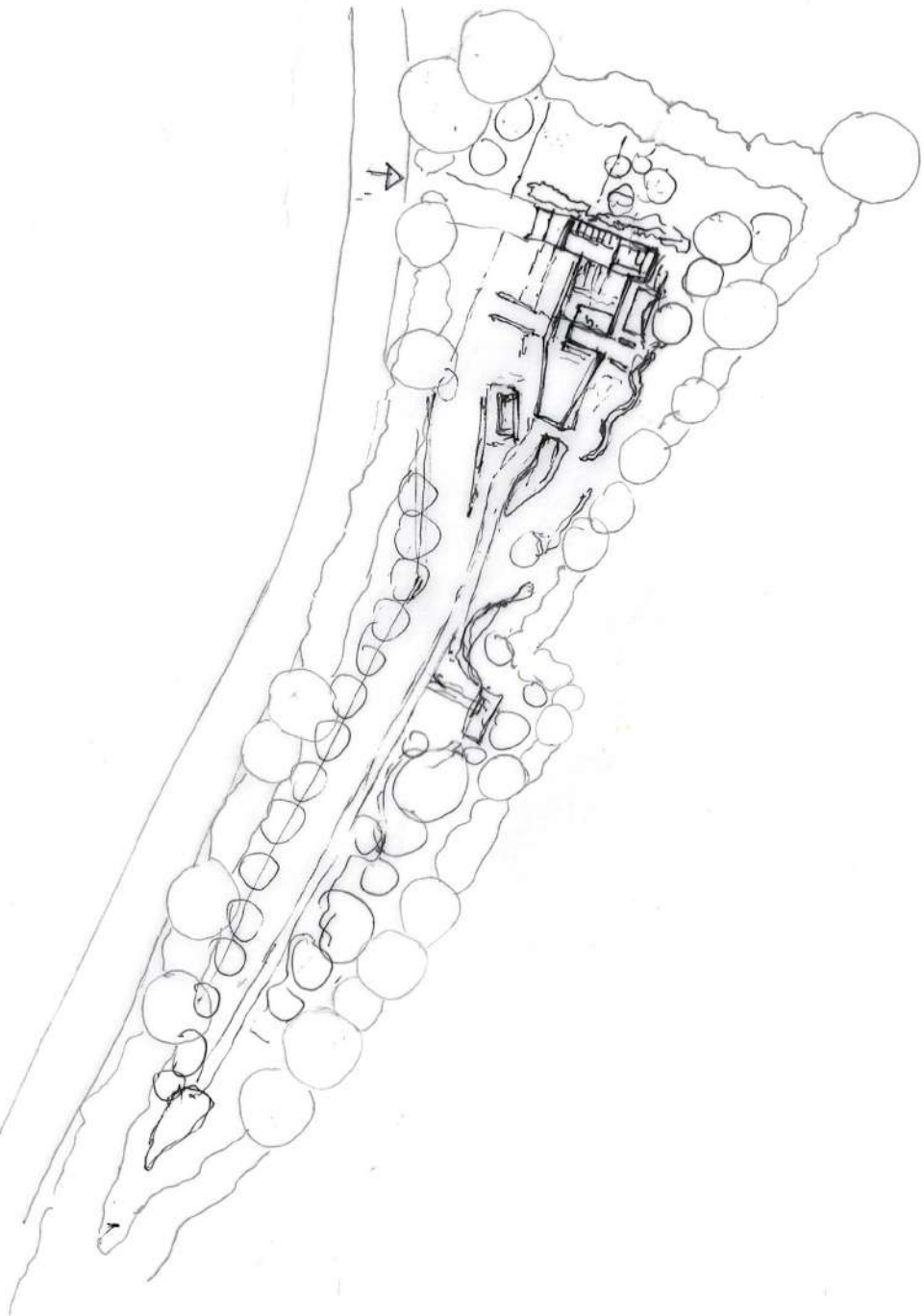
Central core allows for views east-west and acts as a point of intersection connecting the north and south blocks and blurring the boundaries between hard and soft.

Landscaping is more formal and features walls to the western side, whilst the eastern is more organic with meadows and gardens coming right up to the building edge.



Frontage of the house remains very linear with minimal disruption to the facade, which contrasts greatly with the 'rear' of the house where the form is pushed and pulled in response to the buffers.

Tree planting is more formal along the western boundary, whilst winding paths lead to points of interest to the south.

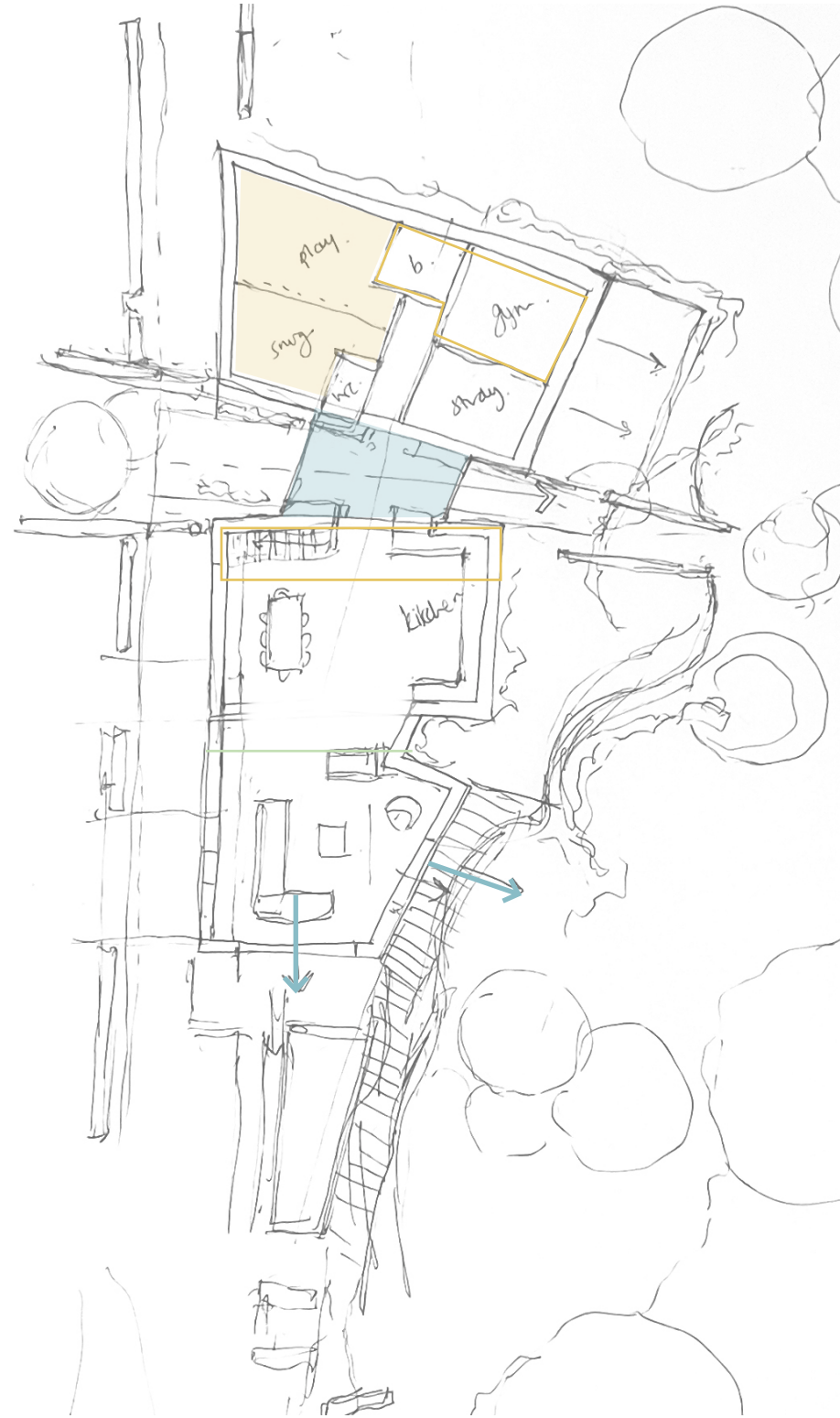
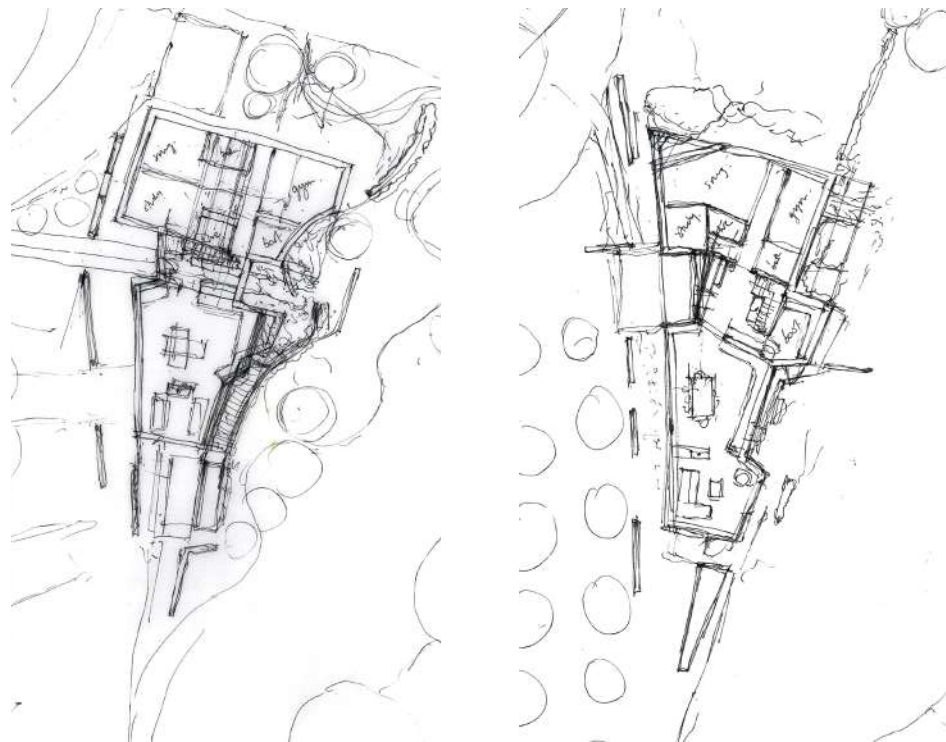


The entrance block is located more centrally to the existing access, creating a dramatic entrance sequence and view through to the eastern side.

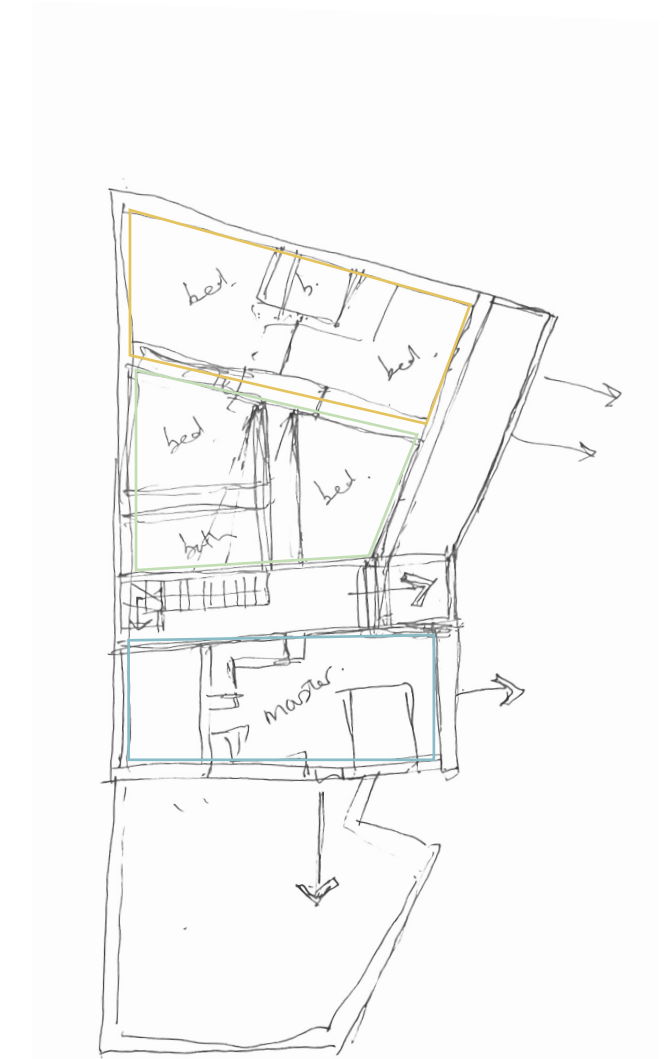
Ponds and water features act as waymarkers through the landscape, weaving in to paths and hard landscaping.

Conceptual Plan

- Central glazed core allows for views through to the rear gardens and acts as a point of intersection, bringing together the chalk and water, hard and soft elements.
- Core separates more communal areas from the more private areas.
- Corridors are generous with future adaptability in mind.
- Open plan kitchen, dining and living space takes advantage of long views to the south.
- Access to gardens through core, living space, utility/ boot room.
- First floor bedrooms make use of views to east and south, with an east-facing balcony.



Ground Floor Sketch Plan



First Floor Sketch Plan

Vernacular Along Routes



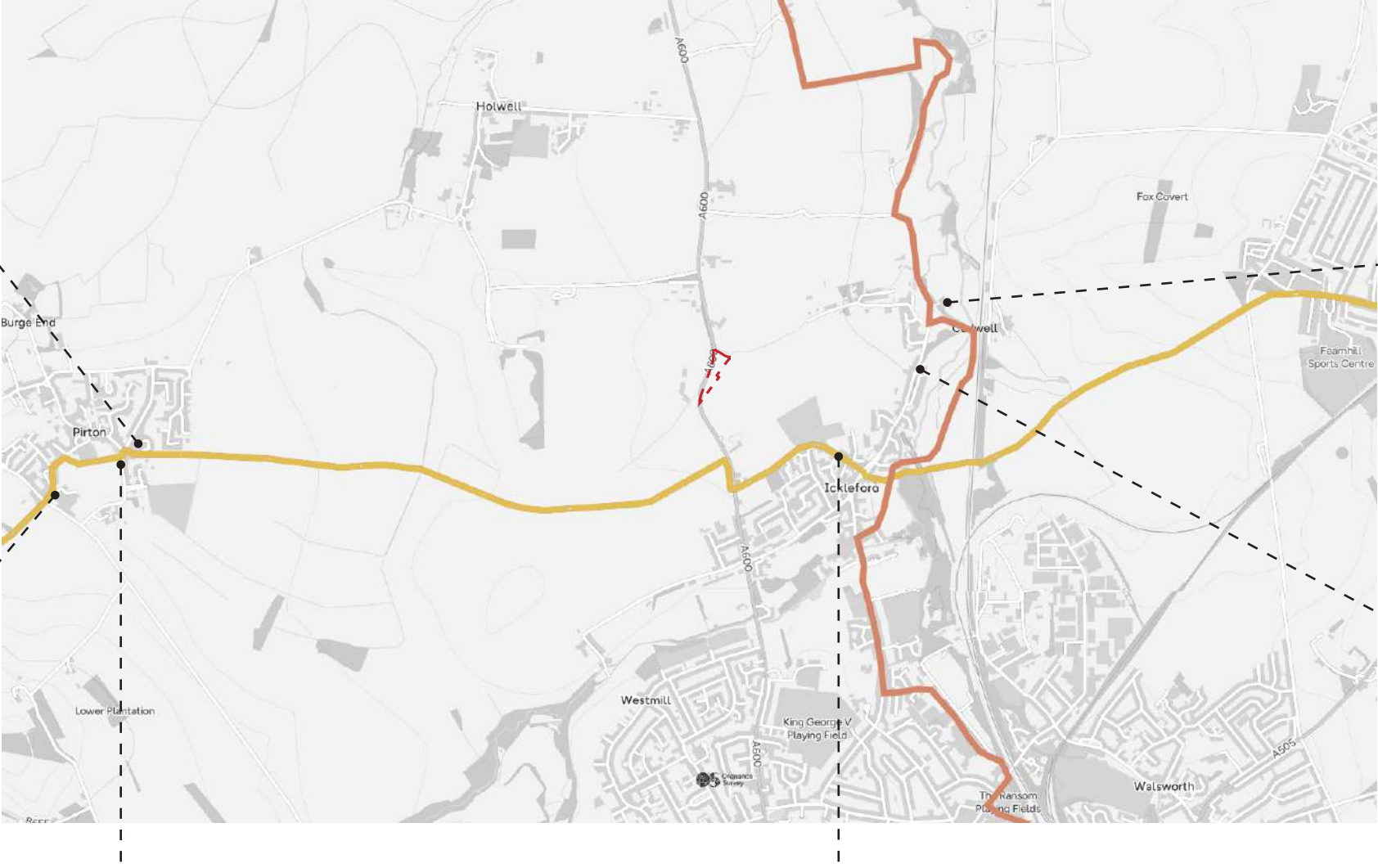
South-East Barn, Elm Tree Farm - Grade II

Timber frame on tarred brick sill with dark weatherboarding and steep roofs. Gabled form with projecting porch central to elevation.



Tudor Cottage - Grade II

Roughcast timber frame with ground floor cased in red brick. Jettying gables to first floor and irregular roof forms to southern elevation.



4-6 Walnut Tree Road - Grade II

Exposed timber frame with plastered panels and distinctive thatch roof.



Arnolds Farm - Grade II

Timber frame roughcast with black stuccoed plinth and steep tiled roof. Gable end presents a stark, monolithic facade to roadside.



Lower Green Farmhouse - Grade II

Timber frame roughcast with varying, steep pitched roofs. White roughcast contrasts against dark weatherboarding to adjacent monolithic listed barn.



Old Farm Cottage - Grade II

Exposed timber frame with plaster panels and red brick ground floor. Steep roofs with large internal chimney.

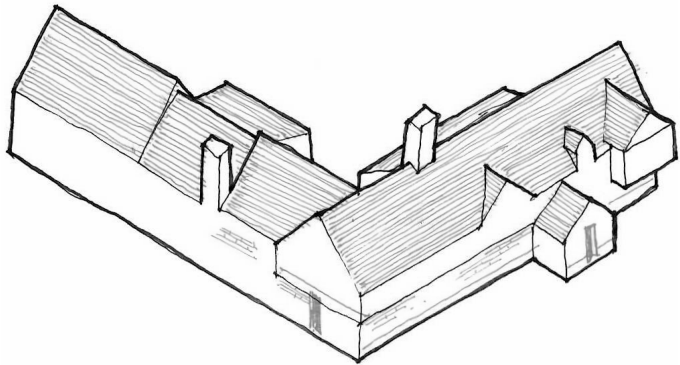
Rural Typology Influences

- Steep pitched roofs
- Pitched dormers and bays
- Prominent chimneys
- Horizontal datums made by material changes
- Timber framing with infill

Reference Massing 1

Tudor Cottage - Grade II

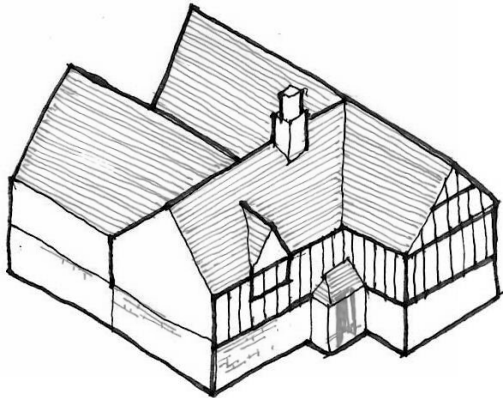
Roughcast timber frame with ground floor cased in red brick. Jettying gables to first floor and irregular roof forms to southern elevation.



Reference Massing 2

Old Farm Cottage - Grade II

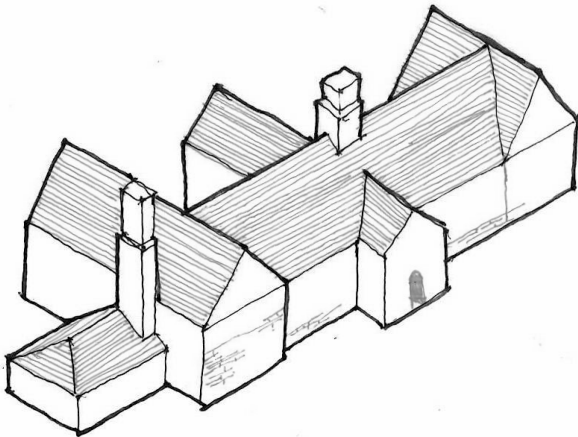
Exposed timber frame with plaster panels and red brick ground floor. Steep roofs with large internal chimney.



Reference Massing 3

Rectory Farm, Pirton

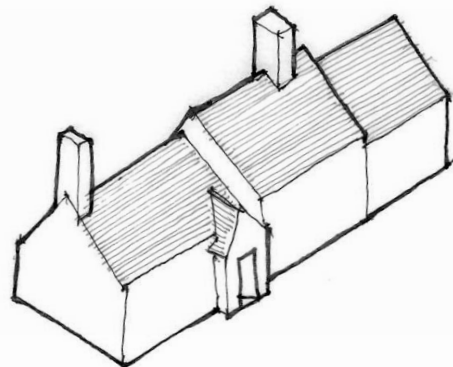
Grade II* listed farmhouse built in clunch and red brick.



Reference Massing 4

Lower Green Farmhouse - Grade II

Timber frame roughcast with varying, steep pitched roofs. White roughcast contrasts against dark weatherboarding to adjacent monolithic listed barn.



Rural Typology Influences

Steep pitched roofs

Pitched dormers and bays

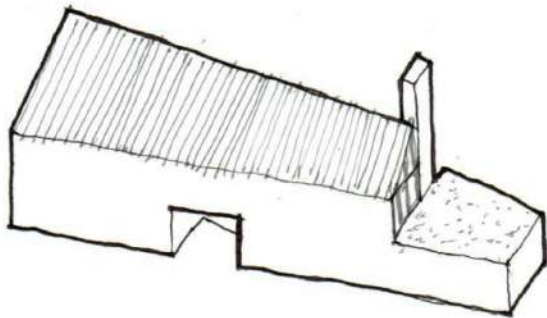
Prominent chimneys

Horizontal datums made by material changes

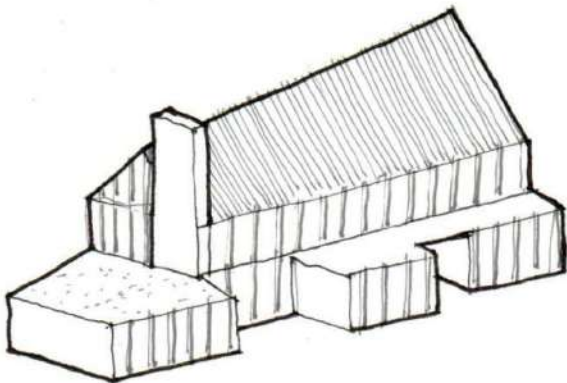
Timber framing with infill

Massing 1

Main roof form gradually pitches down across the two storey part of the home.



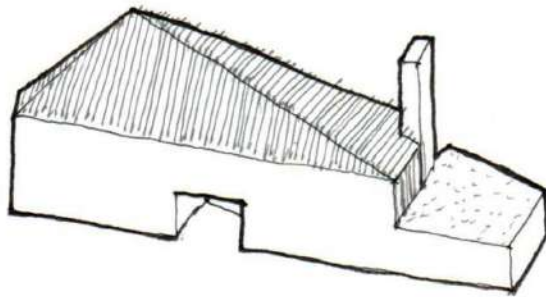
Western Materiality: Masonry (chalk or brick) with complementary roof, possibly of blackened timber.



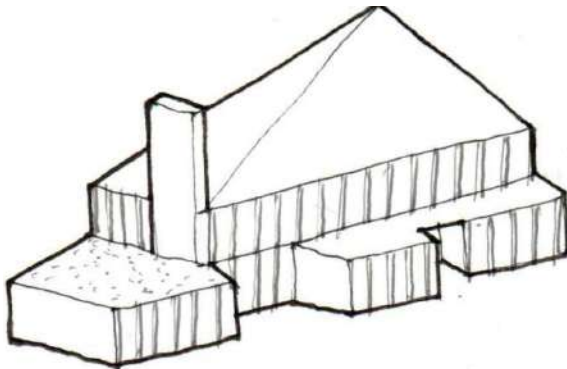
Eastern Materiality: Timber and infill or glazing

Massing 2

Main roof form gradually pitches down to a flat edge across the two storey part of the home.



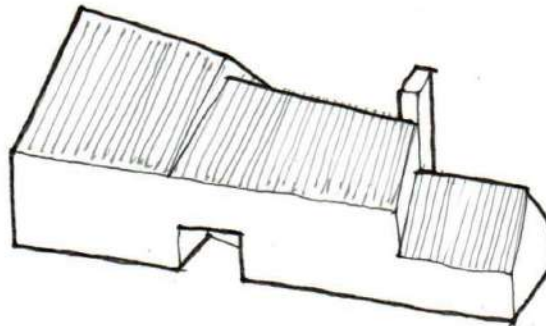
Western Materiality: As above



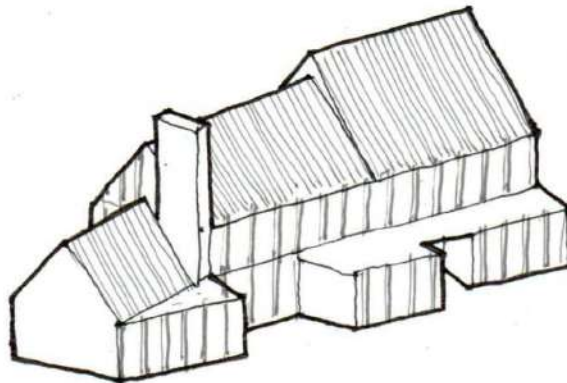
Eastern Materiality: Timber

Massing 3

Main roof steps down in more traditional dual pitch forms, from north to south.



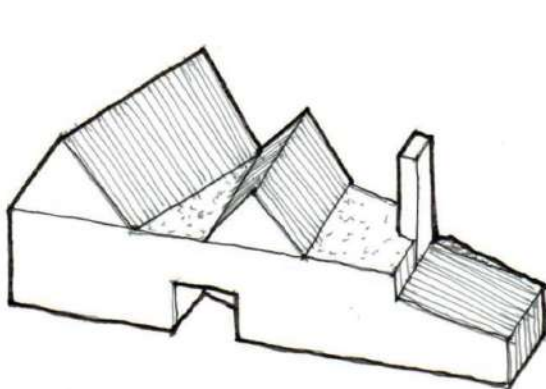
Western Materiality: As above



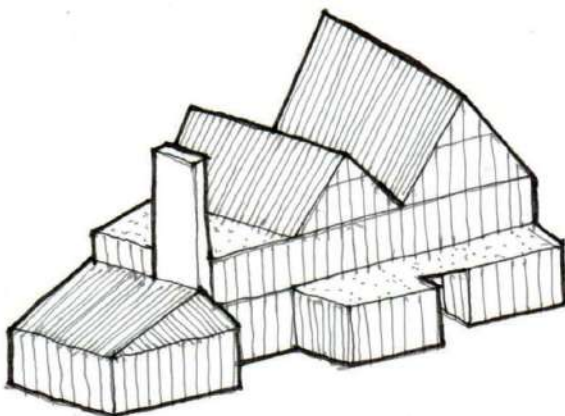
Eastern Materiality: Timber

Massing 4

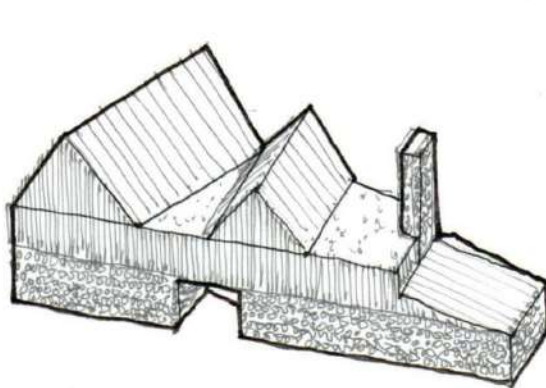
More strongly picking up on Ickleford's vernacular roof forms, with pitched roofs connected by flat green roofs



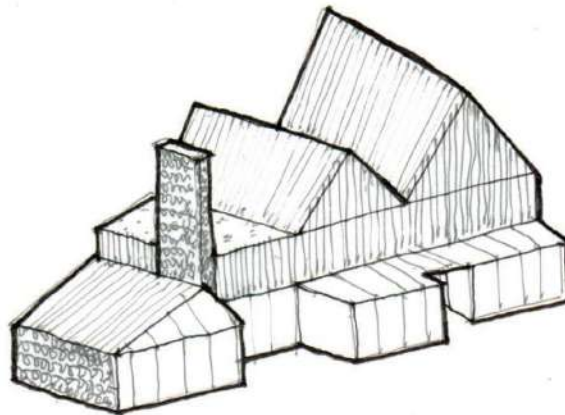
Western Materiality: Masonry (chalk or brick) with complementary roof, possibly of blackened timber



Eastern Materiality: Timber and infill or glazing



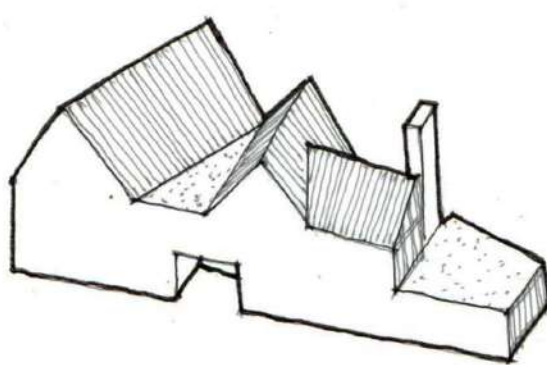
Western Materiality: Creating horizontal datums of flint and timber, with flint chimney stack - picking up on geological strata and woodland



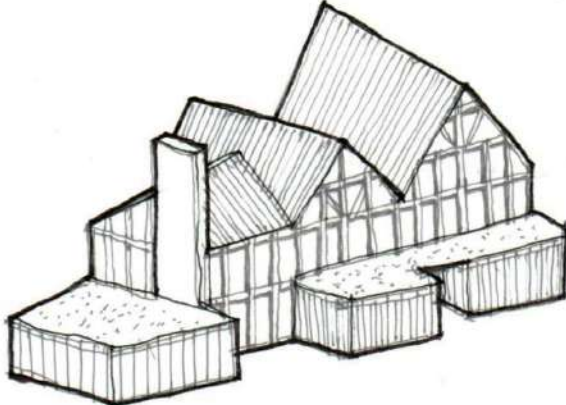
Eastern Materiality: As above, but making more distinction between different layers

Massing 5

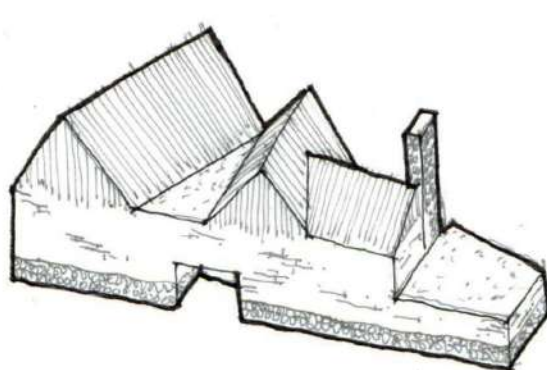
Similar to Massing 4, with counter pitching element, again picking up on vernacular forms



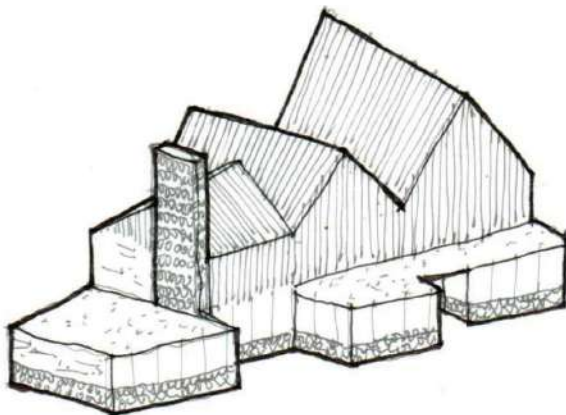
Western Materiality: Masonry (chalk or brick) with complementary roof - a very contemporary take on local vernacular



Eastern Materiality: Timber and infill or glazing, heavily inspired by vernacular



Western Materiality: Creating horizontal datums of flint, masonry and timber, with flint chimney stack



Eastern Materiality: Sticking with the exploration of datums but here a much more contemporary feel is created by limiting timber detailing

Prominent Chimneys

Further consideration was given to the form of the chimney and its relationship to the rest of the massing of the house, with inspiration taken from the local vernacular.

Chimneys in the area tend to be quite large, rectilinear forms, that widen at a singular point and remain largely the same size thereafter.

Taking these principles, chimney massing options were explored.



Option 1
Simple square form with uniform size throughout. This option emphasises the mass of the masonry elements in a simplistic way, and protrudes past the flint walls to create subtle prominence.



Option 2
Rectilinear form of chimney that steps in as it goes higher, reflecting the forms of the chimneys in the local area. Simple horizontal bands relate to the datums of the house.



Stage 2 Design
For reference - Chimney feels too light and not as well incorporated into fabric of building



Option 3
Sloped on one face, the chimney presents a more contemporary take on the stepped nature of the chimneys in the local area. A large base helps to ground the building and provide prominence.



Option 4
Slight variation to option 3, where the base of the chimney retains its shape up to the first floor level where the coping provides a consistent datum level all the way around the house.

A Contemporary Interpretation

1 Steep Pitched Roofs

Whilst the angles are playful and present a more contemporary building, the nature of the steeply pitched roofs reflects the very strong presence of pitched and gabled forms in the area.

2 Central Entrance

Traditional rural buildings in the area have entrances located centrally along the principal elevation. The entrance for the house is also situated centrally along the front elevation, creating a balance in the facade that reflects the local buildings.

3 Expressed Entrance

It is common for rural buildings to have an external, gabled porch. Whilst the proposal does not have this, the idea of expressing the entrance along the facade has been translated into a more contemporary inset porch.

4 Varying Roof Heights

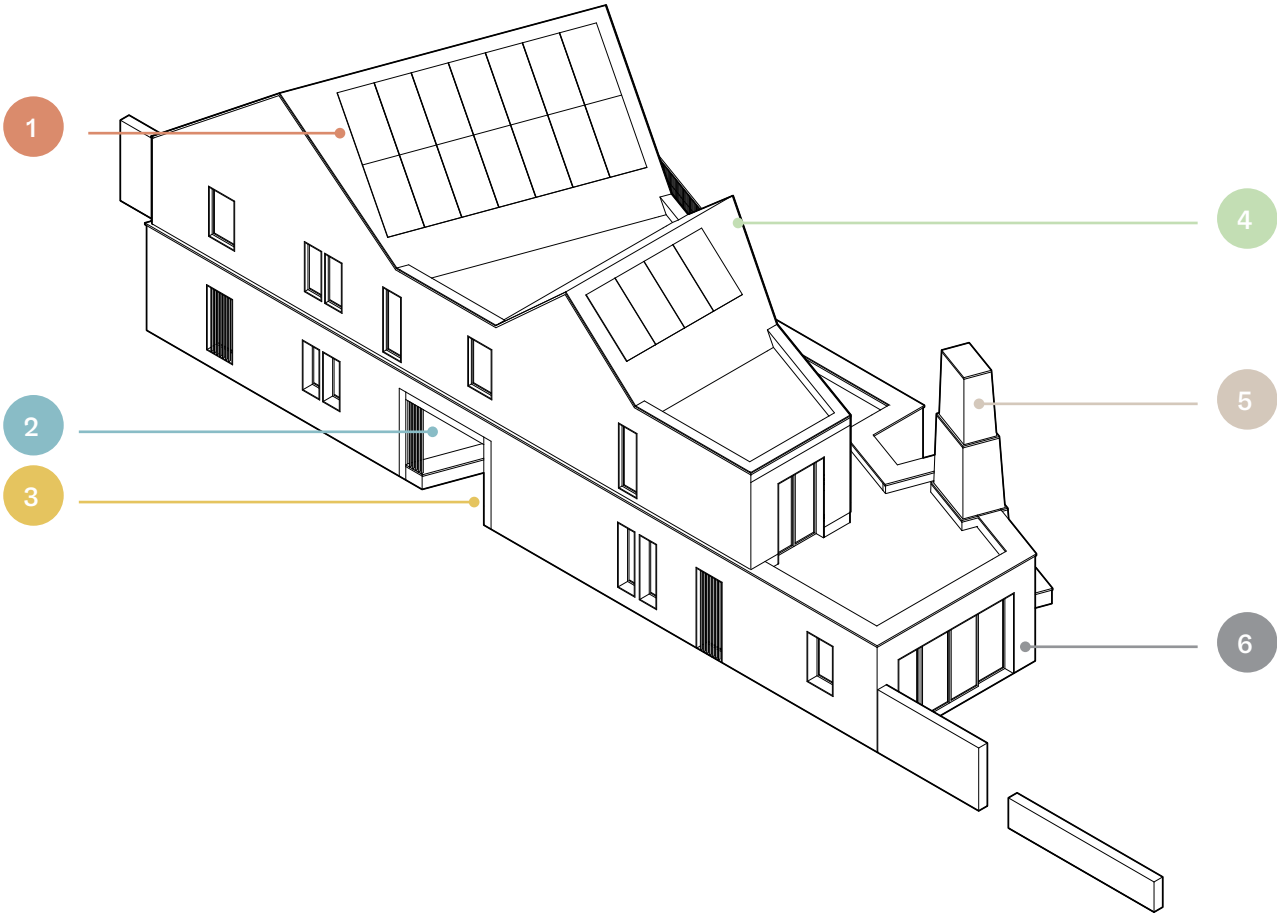
The proposal steps down in volume, responding to the boundaries of the site, whilst also reflective of the local rural typologies of varying roofscapes.

5 Prominent Chimney

Tall, prominent chimneys feature across the local area, usually in a brick or stone finish. The chimney steps inwards as it grows taller to reflect the local vernacular.

6 Elongated Form

Local vernacular homes often have a linearity to them, with elongated forms and strong front facades. The long plan also reflects the constrained buildable area of the long thin site.



Materials:

An interpretation of the local materials in relation to the historic routes and their association with geological features and materials.

The two historic routes are inherently connected to two important **geological features** of the area - the River Hiz and the chalk scarp. These features have also been pivotal in shaping the architecture of the area and the materials commonly found in the vernacular, such as clay, flint and timber.

The proposal draws on these traditional materials to help bed the design into its context, and **reconnect the 'lost' landscape** in a sensitive way. However, the materials are used in a **contemporary, high quality manner**, to avoid creating a pastiche.



River Hiz and Chalk Scarp

The two routes follow two distinct geological features of the area - the River Hiz and the Chalk Scarp.

Historically, the materials of chalk and water have been instrumental in the forming of the land and provide the area with its geological character and vernacular materials.

Chalk forms an extensive strata in Hertfordshire, continuing under the southeast of England before disappearing below the London clay.

The northern edge of the Chalk is represented by the chalk scarp, parallel to which, and mainly in the north of the district, is an exposed band of Gault clay which lies under the Chalk.

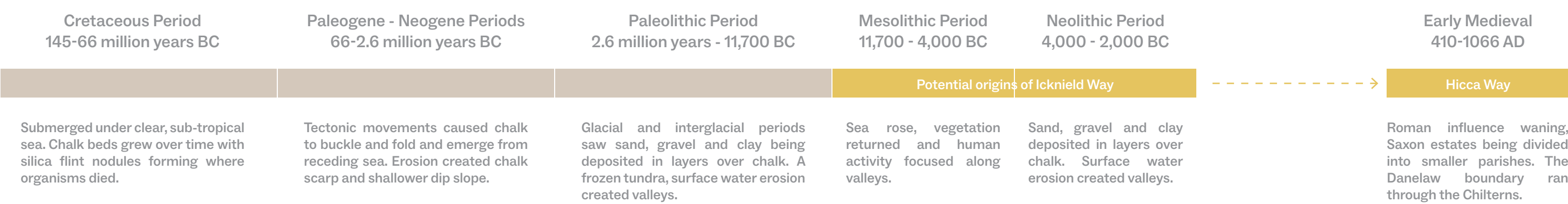
Chalk Streams

In the Palaeolithic period, sand, gravel and clay were deposited over the chalk by glaciers, meltwater and wind. The chalk was frozen and impermeable, meaning surface water eroded the rock and created the valleys that are characteristic of the Chilterns today.

Most of Hertfordshire’s rivers originate as chalk streams in the valleys of the Chilterns, and almost all the water supply comes from the Chalk aquifer. Springs supplying streams occur along the valley floors and near the foot of the Chiltern scarp. The River Hiz, which the Hicca Way winds along, is also a chalk stream.

Chalk streams are clearer and more uniform in temperature than other rivers. However, they rely strongly on winter rainfall to maintain summer flows. These are known as winterbournes.

The rivers historically provided communication routes as well as power for mills. In medieval times these were flour milling and wool fulling; and paper milling from the 15th to 19th century and malting from the 17th to 19th centuries.



Gault Clay



In Hertfordshire the Gault Clay was deposited about 100 million years ago. It forms a continuous area of low-lying ground all along the foot of the Chiltern Hills.

In other parts of Hertfordshire it can be found closer to the surface and can be used as a building material.

Chalk



There are various chalk formations in and around Ickleford.

Whilst most of the chalk was too soft for building, the harder Tottenhoe Stone Chalk provided some building material in the form of clunch. It can be found in a number of examples in the nearby village of Pirton.

Flint



Flint is found within some of Hertfordshire's chalk deposits and this is mirrored in the local architectural vernacular.

Puddingstones are also a feature of the Chilterns vernacular, more commonly seen in East Hertfordshire- a hard mass of flint pebbles cemented by sarsen, a plain grey sandstone.

Red Brick



Red bricks are now commonly found across the area, traditionally used for infill to timber frame structures. Some brick walls are also rendered, providing contrast between upper and lower floors.

Timber



Hertfordshire's chalk strata is wooded along much of its length, with timber framed buildings featuring heavily in the area.

Arlesey/ Polycor Brick



Reclaimed Arlesey bricks use local clay and are a distinctive cool white/blue/yellow colour.

An alternative to reclaimed bricks are low carbon alternatives such as Polycor natural stone bricks, or Seratach bricks made of magnesium silicate rocks, which have a white, chalk-like appearance.

Timber



Black stained timber cladding refers back to the black exposed timber framing seen in the local vernacular. It will pose as a contrast to the whiter brick elements.

Flint



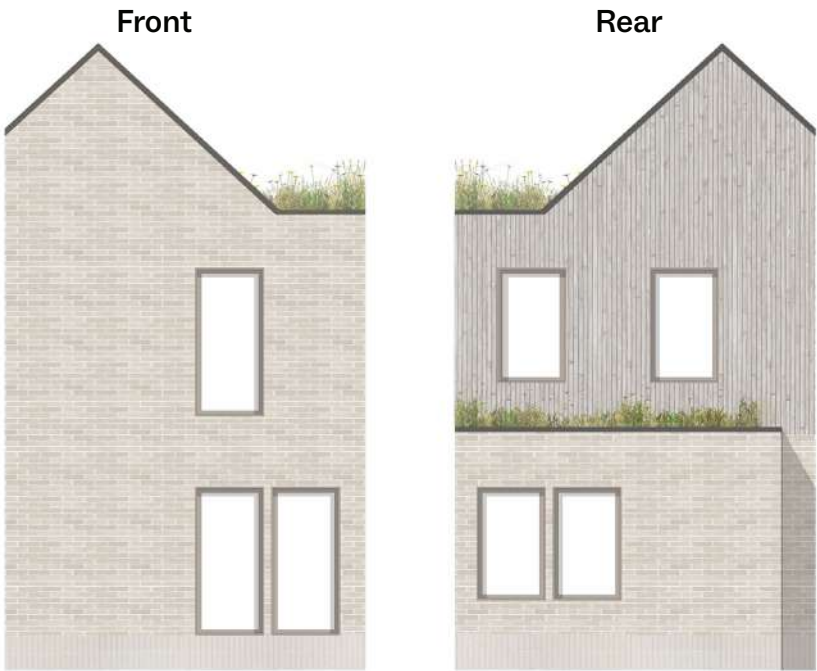
Flint can be used to tie together the visual contrasts of the whiter bricks and the darker timber cladding, whilst also providing further references back to the local vernacular.

Flint will help to break up the massing of the house and create visual and textural interest.

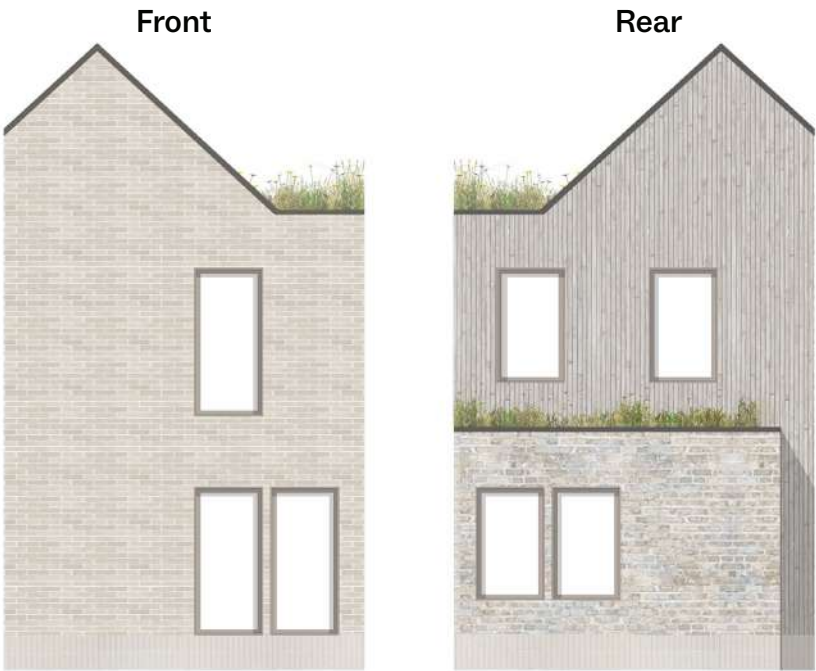
Corrugated Metal



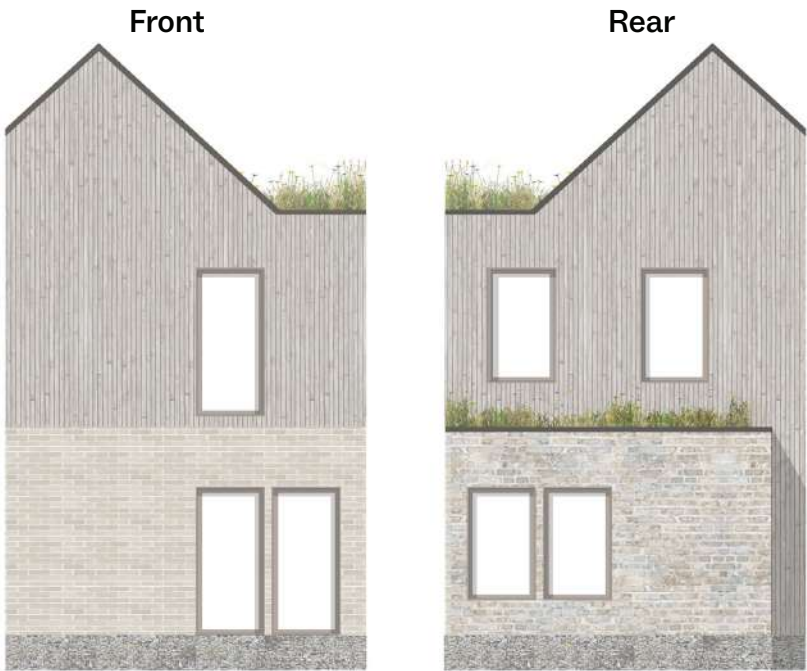
Black corrugated sheet metal will be used for the roofs in a nod to the agricultural nature of the area, and as a more durable finish. The colour and corrugated pattern will also complement the black cladding on the walls.



Option 1
Front - Polycor bricks
Rear - Polycor bricks to ground floor with whitewashed timber cladding above



Option 2
Front - Polycor bricks
Rear - Whitewashed timber cladding with reclaimed Arleseey bricks to ground floor protrusions



Option 3
Front - Flint plinth with Polycor bricks to ground floor and whitewashed timber cladding to first floor
Rear - Flint plinth with whitewashed timber cladding and reclaimed Arleseey bricks to ground floor protrusions



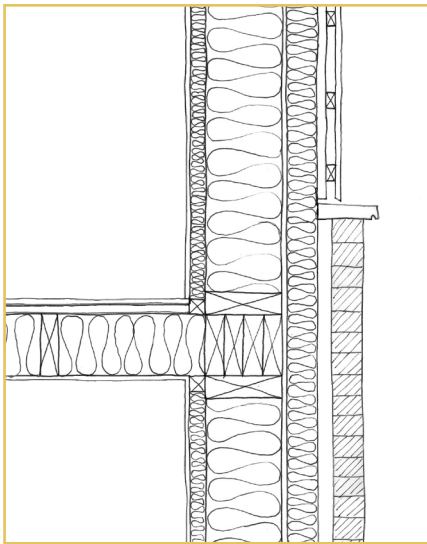
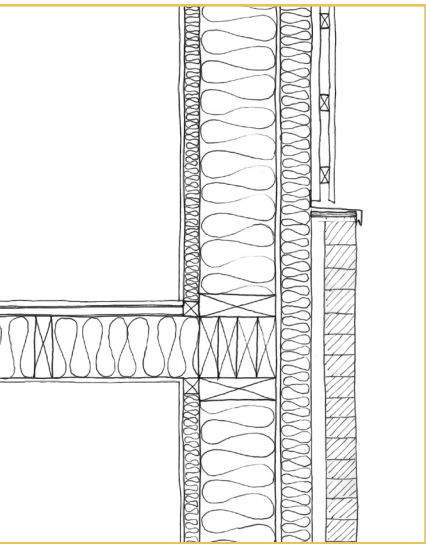
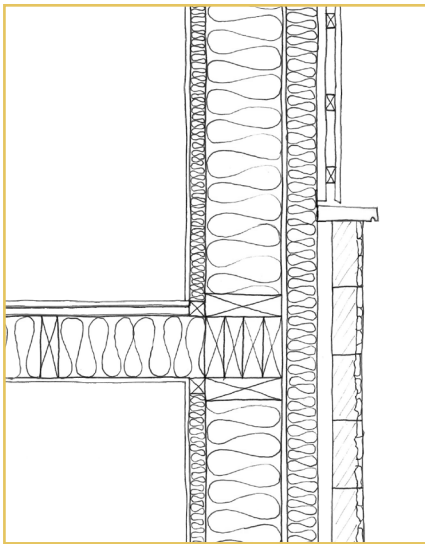
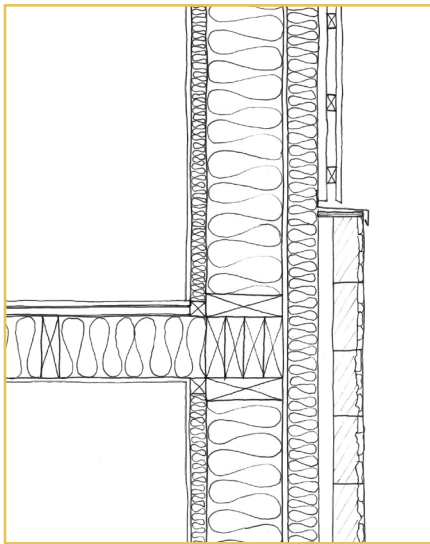
Option 4
Front - Polycor bricks with flint plinth
Rear - Flint plinth with black stained timber cladding and Polycor bricks to ground floor protrusions



Option 5
Front - Flint to ground floor and exposed whitewashed timber frame and Polycor brick infill to first floor
Rear - Flint to ground floor protrusions with black stained timber elsewhere and exposed timber frame to first floor



Option 6
Front - Flint plinth and Polycor brick with whitewashed timber frame exposed at first floor
Rear - Black stained timber cladding and exposed timber frame to first floor with Polycor bricks to ground floor protrusions



Option 1
Special corner flint blocks to have a continuous, sleeker look to the flint elements.

Powder coated aluminium flashing to junction between timber and flint, again providing a sleeker, more contemporary look. Timber cladding set back slightly from flint and flashing edge.

Option 2
Special corner flint blocks to have a continuous, sleeker look to the flint elements.

A stone coping to give a heavier, more grounded feel to the ground floor flint elements and a more traditional finish.

Option 3
Reclaimed Arleseey bricks forming a quoin to flint corners. Bricks complement the flint tonally, and reflect traditional construction techniques.

Powder coated aluminium flashing to contrast with the more traditional quoining, and give a more contemporary feel to the junction between timber and flint.

Option 3
Reclaimed Arleseey bricks forming a quoin to flint corners. Bricks complement the flint tonally, and reflect traditional construction techniques.

A stone coping to emphasise the traditional materials and make more of a feature of the materiality.

