

# DESIGN PROPOSAL

## Concept Design Approach

The design proposals stem from a strong conceptual starting point built upon the original design brief and demands of the local setting.

### Develop A Strong Rural Character

- Fundamental to the setting and goals of local planning policy.
- Use of a traditional building form and natural cladding materials.
- Explore and combine the *rural barn* and *workers cottage* aesthetic.
- Appropriate scaling of building mass in response to neighbouring houses.

### A Building Planted in its Landscape

- Strong inside / outside connection. Blurring of boundaries inside and out.
- Reaching out to landscape and inviting nature in / casting views out.
- Ground floor plan form more organic and permeable to garden spaces.
- Respond to and flow with site levels.
- Orientate to the paddock to strengthen relationship with landscape.

### The Building as Guide

- Using the building to set up a journey through landscape.
- Layout used to control and frame views out and through the building.
- Set up a more intimate relationship between building and landscape.

### East as Anchor

- The Paddock pulls views out and offers a sense of openness.
- The church tower offers a strong visual anchor back to the town.

### Stone Walls in Landscape

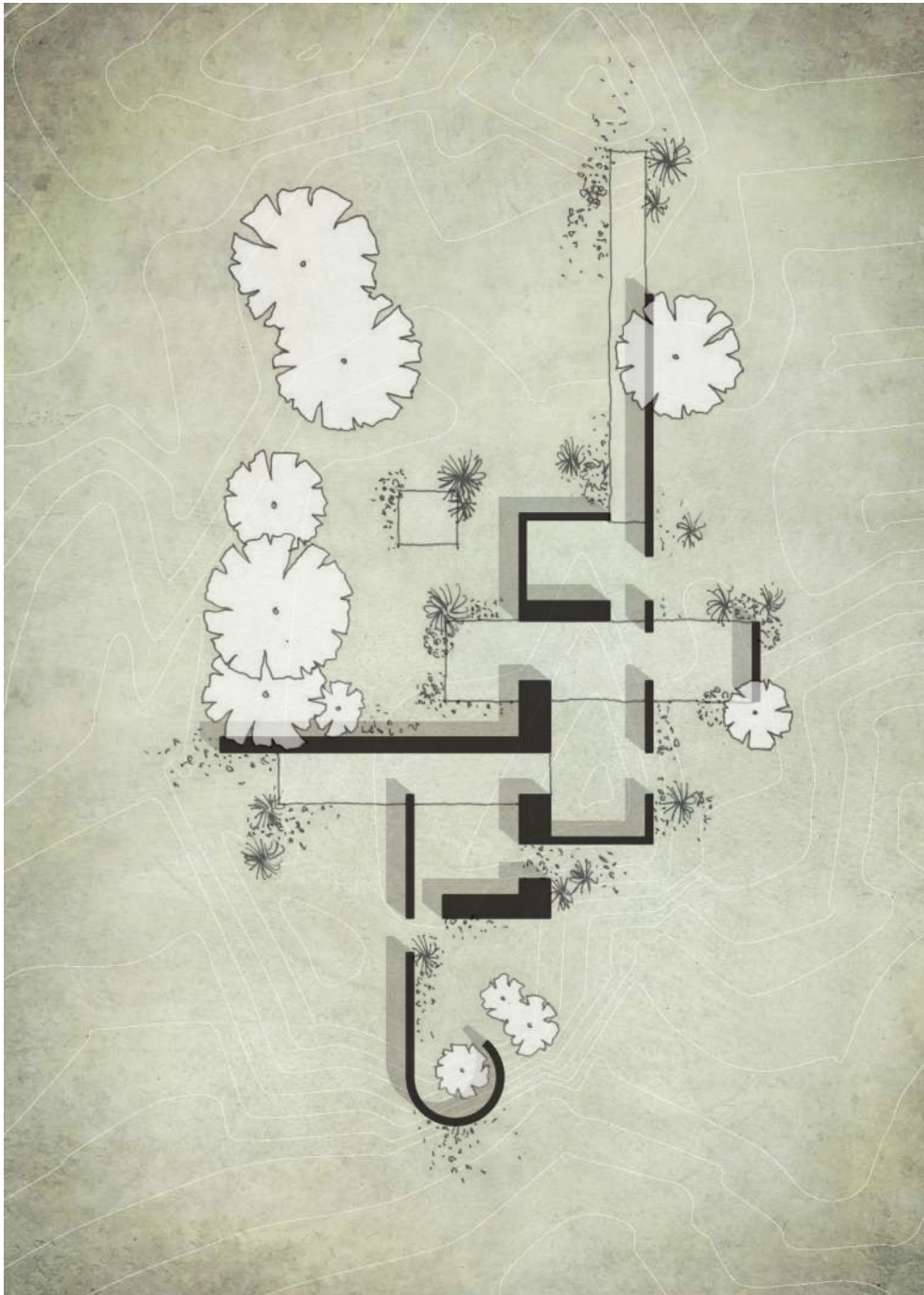
- Stone walls are core to local identity, but may be more cost effective and efficient if used to create bold landscape features and character.
- This heavier material will lend the building a greater sense of permanence and help anchor the building to site.

### Efficient Planning

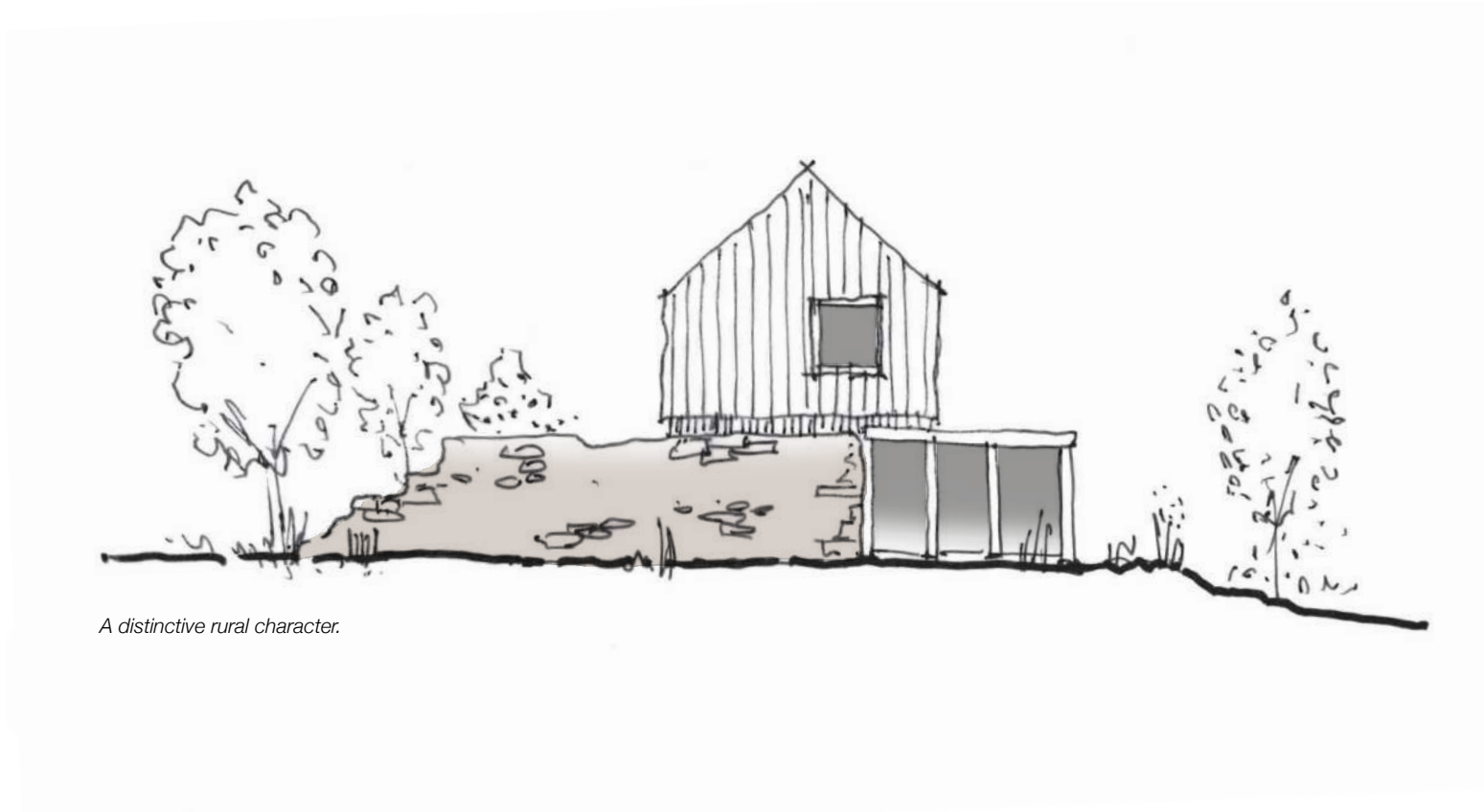
- Seek to achieve compact planning, especially with the first floor bedrooms.
- Ground floor to use views out into landscape to lend greater sense of space.
- Smaller more controlled window openings opposed to expansive glazing.

### Kitchen as Heart

- This is the central space, the heart and hub of the home.
- Along with dining area, to benefit from a strong connection to the garden and outdoor space.



Sketch plan illustrating the concept of a 'building planted in landscape'.



*A distinctive rural character.*

An initial sketch design for the new building illustrating a building embedded in landscape with a distinctive rural (and agricultural) character. Using the offset of ground and first floor spaces and differential materials to help break-up the building massing.

# DESIGN PROPOSAL

View to Principal Elevation

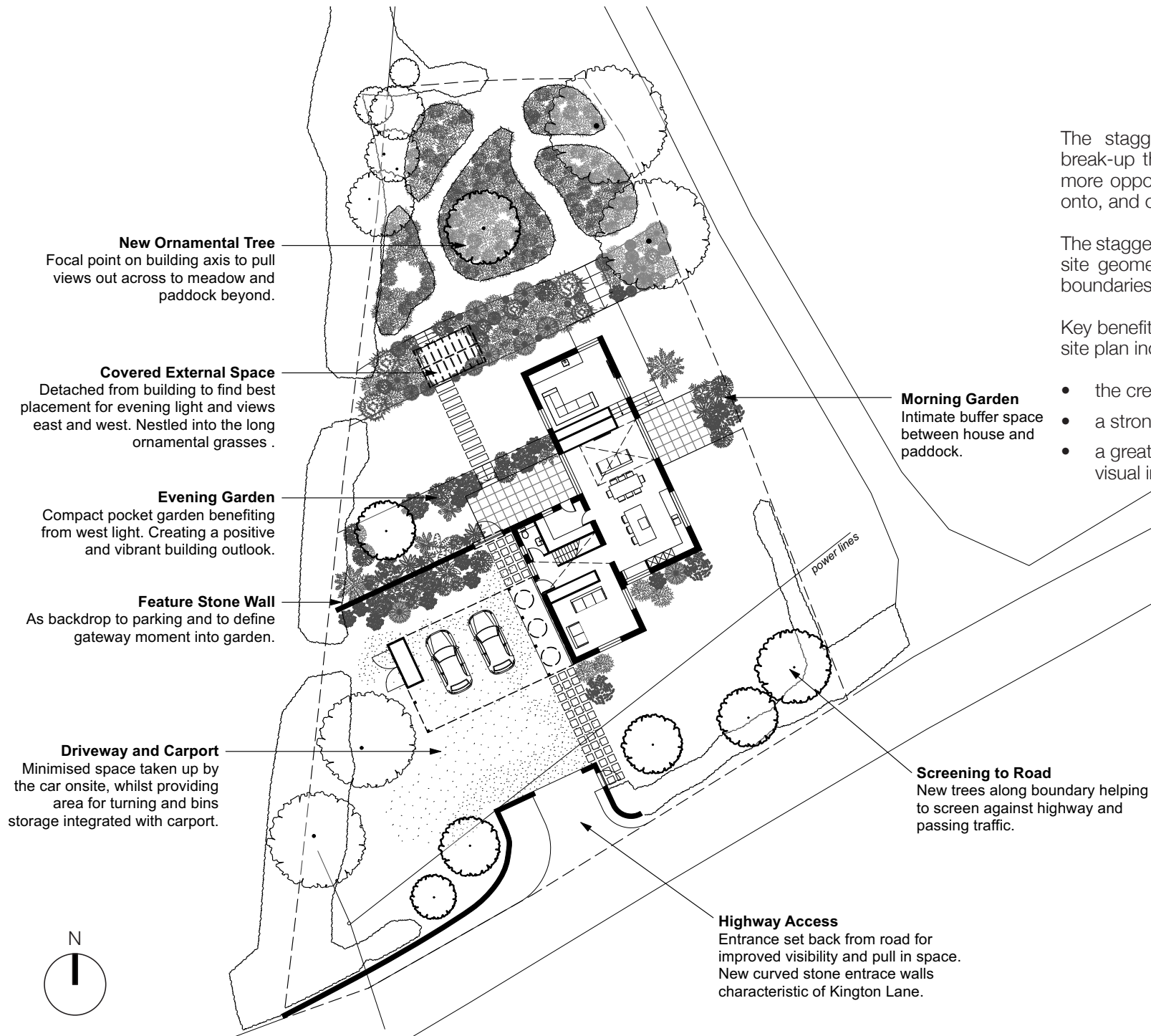
Visualisation of proposed building as viewed from Kington Lane, presenting a staggered double-gabled building form more in-keeping with the character of the neighbouring houses (and listed building).

Differential cladding materials reduce the overall sense of massing and the single-storey open sided carport reaches out to help anchor the building on its site, whilst framing views through its structure towards the landscape spaces beyond. Planting is taken up to meet the building edge helping to embed the structure in its landscape.



# DESIGN PROPOSAL

## Site Plan



The staggered building plan works to effectively break-up the overall building massing whilst offering more opportunities for dual-aspect spaces that face onto, and connect with, the surrounding garden.

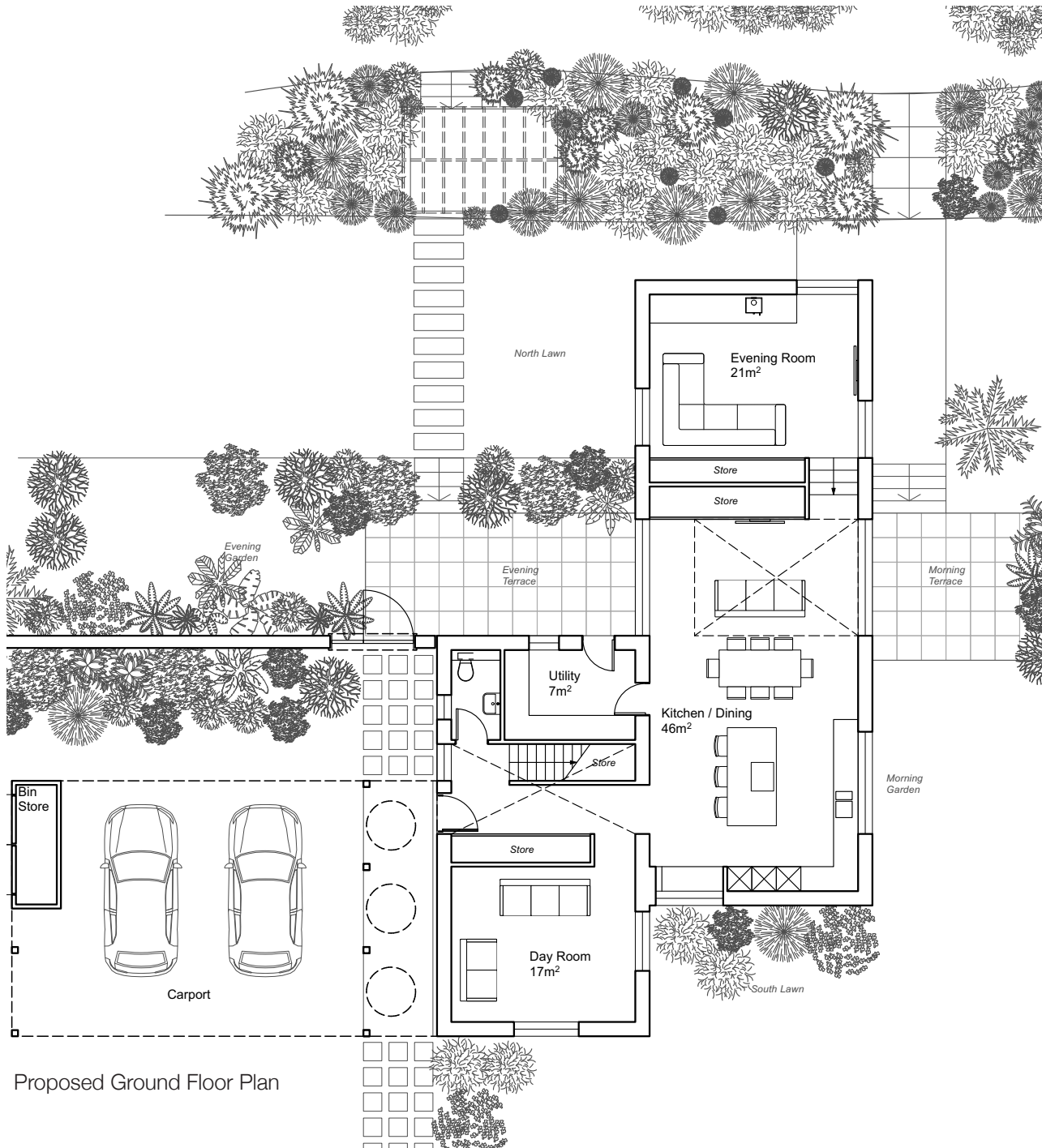
The staggered form responds positively to the tapered site geometry, narrowing down to the north as the boundaries begin to converge.

Key benefits over the existing building placement and site plan include:

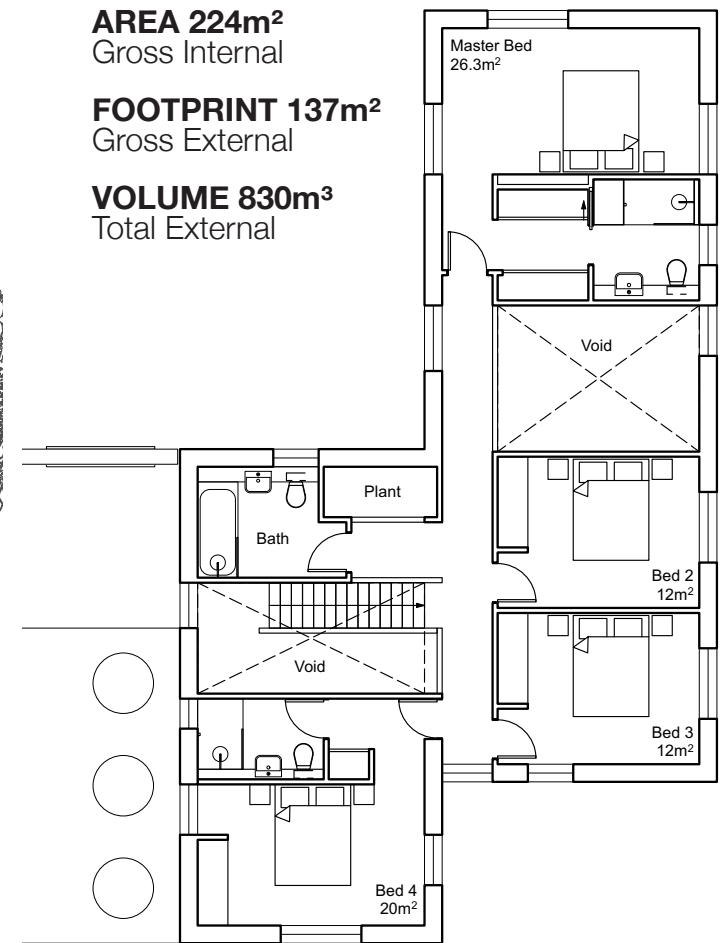
- the creation of positive west facing garden space
- a stronger relationship with the paddock
- a greater setback from the highway to reduce its visual impact as viewed from the approach.

# DESIGN PROPOSAL

Building Plans



Proposed Ground Floor Plan



Proposed First Floor Plan

**AREA 224m<sup>2</sup>**  
Gross Internal

**FOOTPRINT 137m<sup>2</sup>**  
Gross External

**VOLUME 830m<sup>3</sup>**  
Total External

# DESIGN PROPOSAL

## External Cladding Materials & Precedent

These precedent images help illustrate the external cladding material and character the proposal seeks to achieve. This would employ a calm palette of silver corrugated metal to the roof and upper storey, and a vertical timber board cladding to the ground floor. Both are in response to the distinctive rural character and identity of the setting, with the metal cladding selected to help with softening of the building lines and mass, becoming more visually recessive against the skyline.

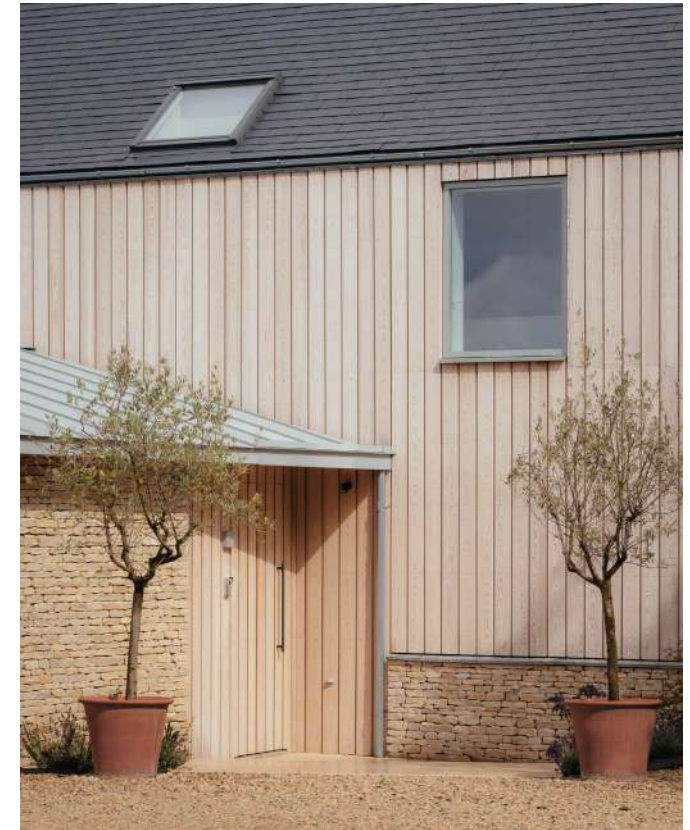
Some limited use of natural stone walling is included in the landscape design to help anchor the building into site and in response to the material character of Kington Lane moving further back towards the town.



*Example of silvery corrugated metal cladding to upper storey over timber clad ground floor.*



*Example of pale natural timber cladding with light grey corrugated metal roofing.*



*Example of natural stone walls.*

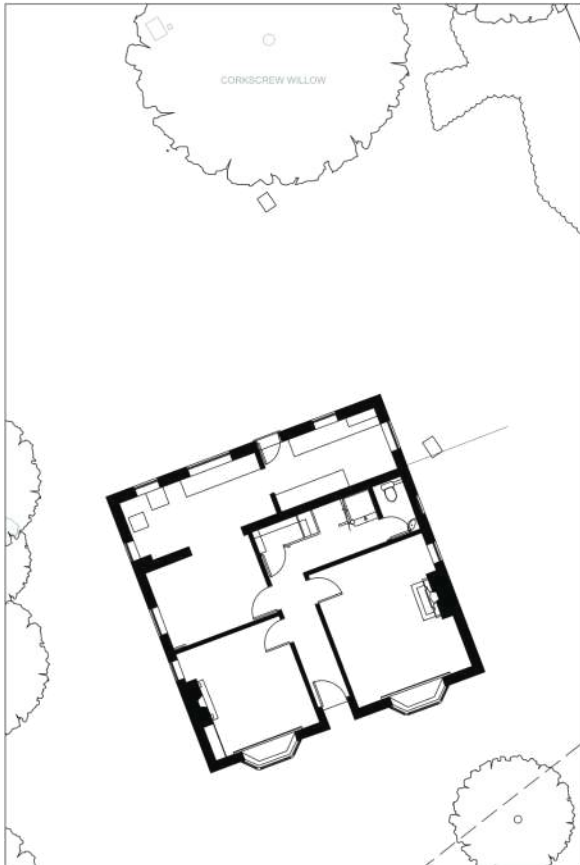
The proposed building, although larger than the existing one, remains significantly smaller than the alternative permitted development scheme that could be implemented. It represents a 60% increase in overall building volume and a 44% increase in overall footprint compared to the current dwelling. However, this scale of development is considerably reduced compared to what would otherwise be allowed through the applicant's permitted development rights.

The staggered plan form is not only designed to improve the building's relationship with the site and enhance natural lighting, but also serves to reduce the overall perceived scale of the main building elevation. This is achieved by breaking it into smaller component parts and visually offsetting it in the plan form.

It's important to emphasise that the proposed building is not of an inappropriate scale for this larger site.

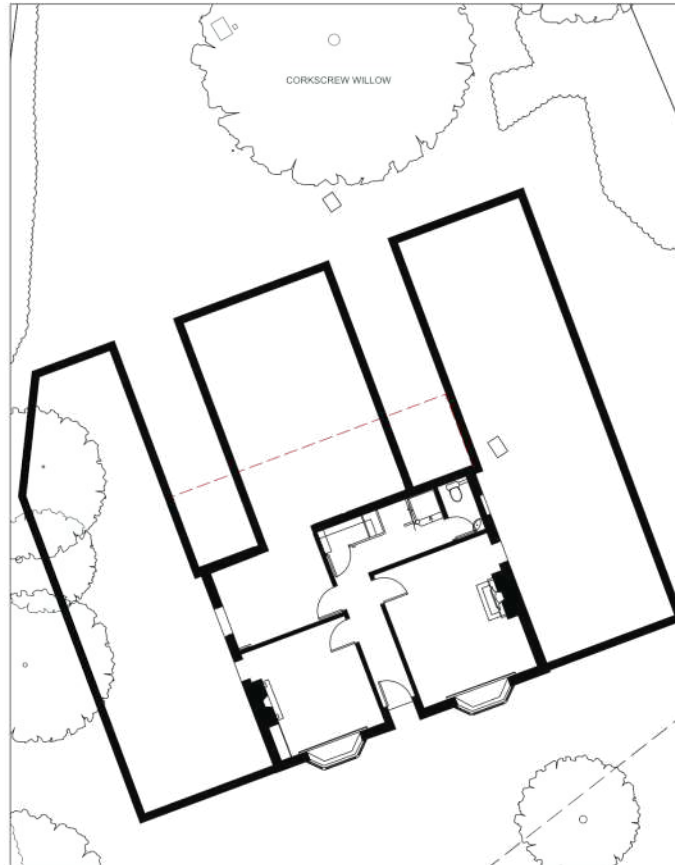
### Existing Dwelling

Footprint - 95m<sup>2</sup>  
External Volume - 520m<sup>3</sup>



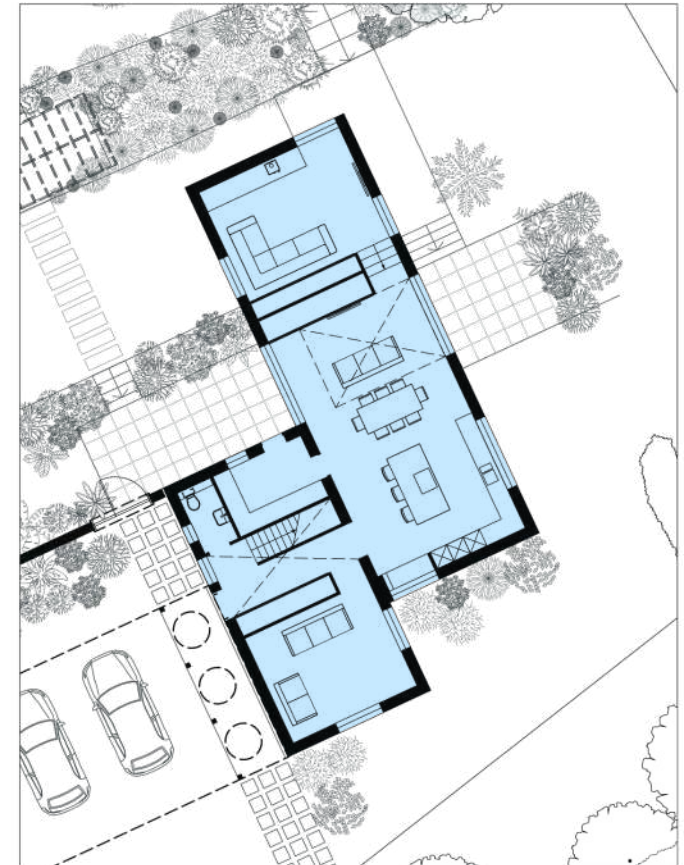
### Fallback Position (using permitted development)

Footprint - 260m<sup>2</sup> **174% increase**  
External Volume - 1316m<sup>3</sup> **153% increase**



### Proposed Dwelling

Footprint - 137m<sup>2</sup> **44% increase**  
External Volume - 830m<sup>3</sup> **60% increase**



# DESIGN PROPOSAL

## Assessment of Impact on Views to Site

Referring to the site views outlined in the site analysis section of this report (pages 12-16), it has been demonstrated that there are limited views of the building from the east and west highway approach due to the screening of the building from the east and west highway approach due to the screening of existing hedgerow and tree planting. These effectively conceal the entirety of the current structure within the landscape, and with proposals to lower the ridge height, this visual impact will be further reduced.

As previously outlined in our building analysis (pages 8-9), the most prominent view of any building onsite is from the front highway. Here it exerts the greatest visual impact with little to no natural screening, however, with the proposed changes, this front elevation view is significantly diminished in apparent scale and size.

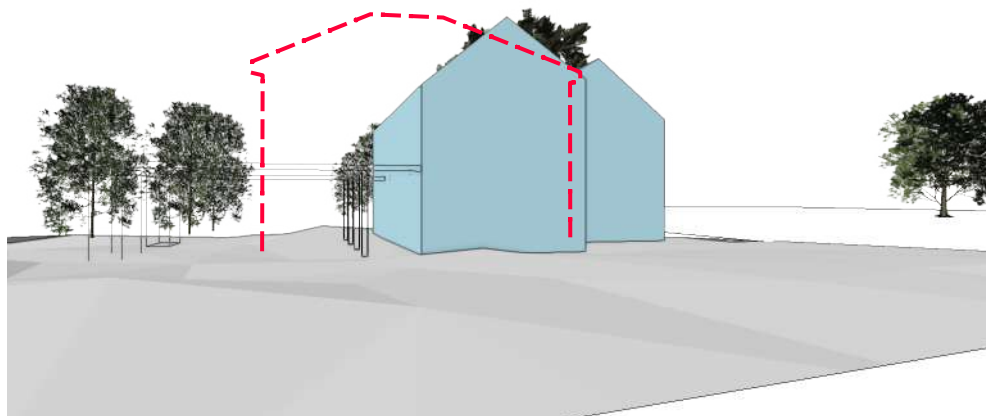
Whilst a direct overlay of the existing and proposed elevations may make the scheme appear slightly wider by comparison (see top left image with proposals shown in blue), the new building placement, rotation, and setback in relation to the present dwelling has been sensitively considered to result in a narrower perspective view from the highway. This has the effect of reducing its overall impact on the surrounding scenery as viewed from this angle as illustrated below (see bottom left image).

It's important to emphasise here how the impact of the proposal is considerably less than what would otherwise be permissible through extending the current dwelling using permitted development rights (as illustrate on page 8).

In summary, and in reference back to initial concerns raised at the pre-application stage with regard to *Policy SPS40 of the Policies, Sites and Places plan* that requires development to minimise its visual intrusion the countryside, there is sufficient evidence presented to demonstrate that the proposals actively reduce the visual impact of a dwelling onsite (compared with both the existing building and potential alternative schemes) relative to views from the highway in all directions.



Front elevation: Proposal (blue) overlaid with existing dwelling (red).



Front model view: True angle view showing proposed massing (blue) behind existing dwelling frontage (red).



# LANDSCAPE DESIGN PROPOSAL

## Tree Removals



ET.7 - Corkscrew Willow (9m high)



ET.1 - Hazel (4.5m high)



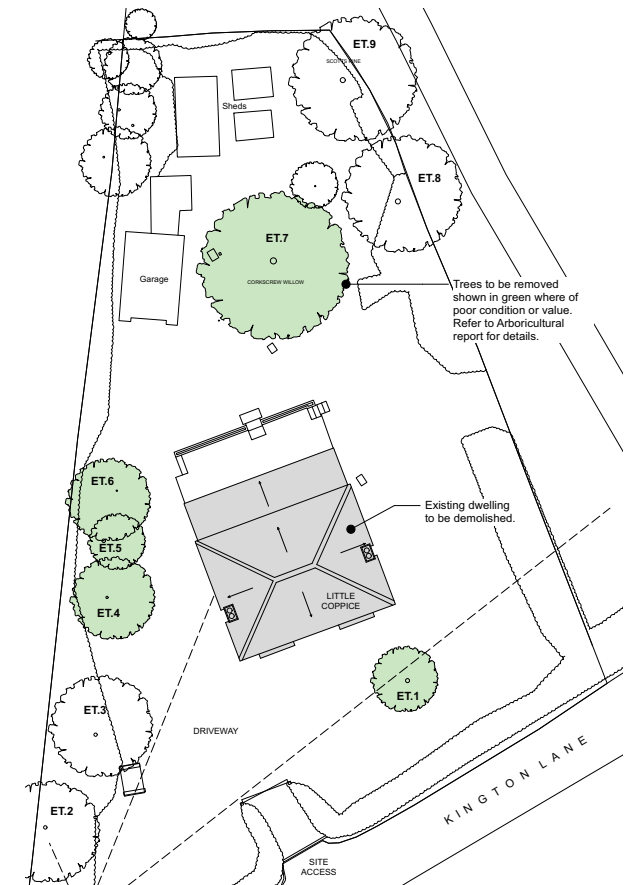
ET.4 - Mahonia Shrub (3.7m high)



ET.2 & ET.3 - Shrubs (3-5m high)

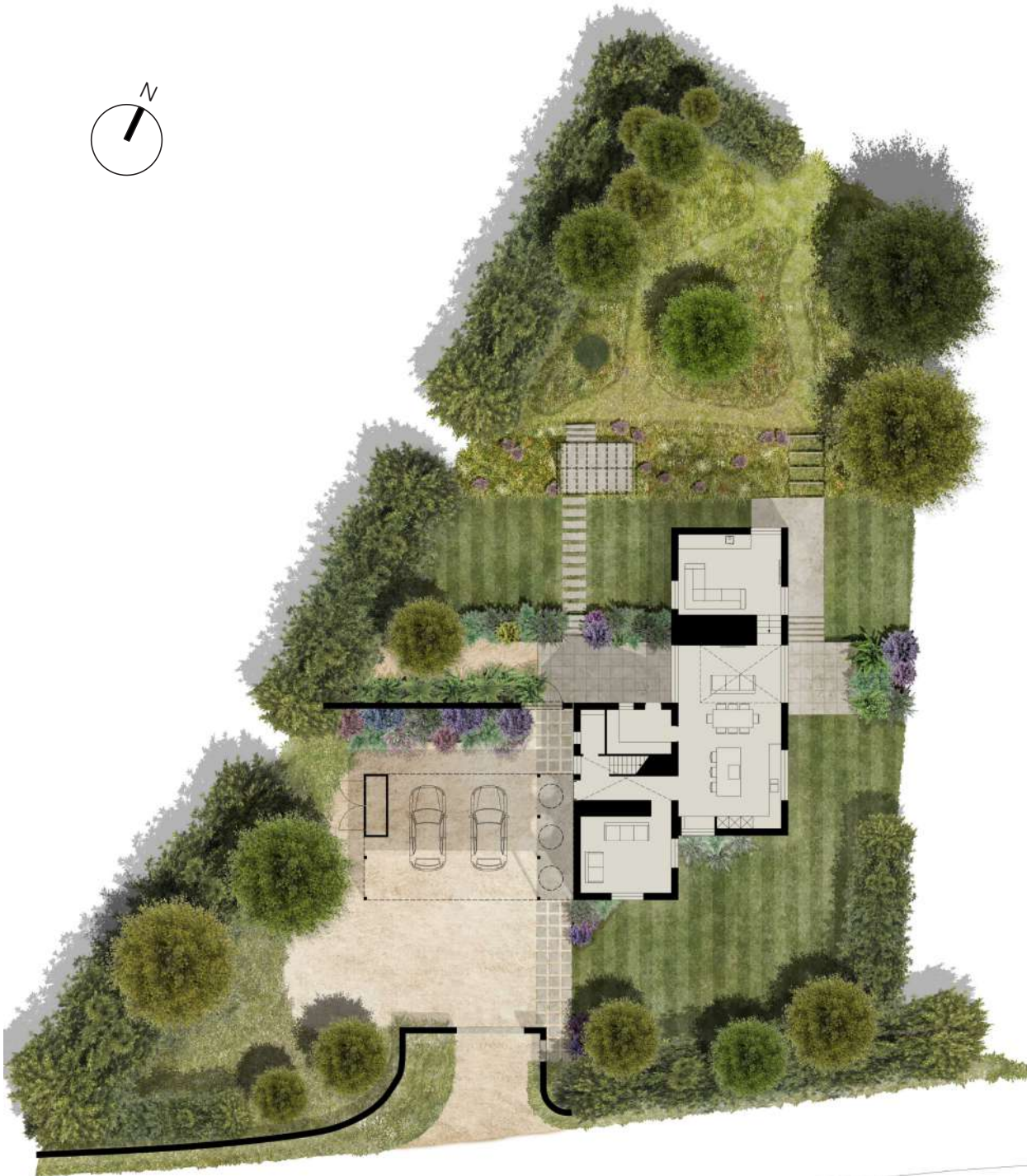
Proposals include the removal of two trees (ET.1 & 7) and a number of shrubs (ET.4, 5 & 6) as highlighted on the below plan. There are no TPO's on the site and all removals are considered to fall under permitted development. These trees are of low quality with removal being supported in the arboricultural report.

Note that the proposals include the planting of 7no. new trees on the site to replace those lost, whilst significantly enhancing the provision and diversity of trees around the building.



# LANDSCAPE DESIGN PROPOSAL

Design Approach



The design proposals for the landscape surrounding the new dwelling embody the initial design concepts to foster a seamless connection between the building and its natural surroundings, thereby minimising the building's impact on the setting. The design brief actively seeks to enhance the relationship between the built environment and the surrounding natural elements, blurring the boundaries between inside and outside spaces, whilst avoiding large expanses of glazing.

The positioning of the building within the site is carefully planned to establish a direct relationship with the adjacent paddock aspect, ensuring a strong positive connection. The structure is enveloped by wrap-around gardens and feature planting that responds to core viewing corridors in the building plan, for an altogether stronger integration of the building with its landscape.

The architectural layout is designed to optimise access to the surrounding landscape, offering dual-aspect views and establishing clear visual lines and viewing corridors that respond to the landscape design and planting scheme. The orientation of the building is thoughtfully considered to capture the changing sun patterns, further reinforcing the connection with nature.

External spaces are married with the building language, featuring a progression from more formal garden rooms adjacent to the structure, gradually transitioning to a more organic and less controlled design approach towards the south and north. The design journey begins with formal planted borders surrounding patio areas and living space windows, gradually evolving into wilder, more naturalistic spaces that blend harmoniously with the surrounding hedgerows and paddock setting.

This juxtaposition of formality and playfulness, as well as controlled lines and organic forms, underscores the overarching design philosophy, demonstrating a balanced approach that fosters a deep integration between the built environment and its natural context.

# LANDSCAPE DESIGN PROPOSAL

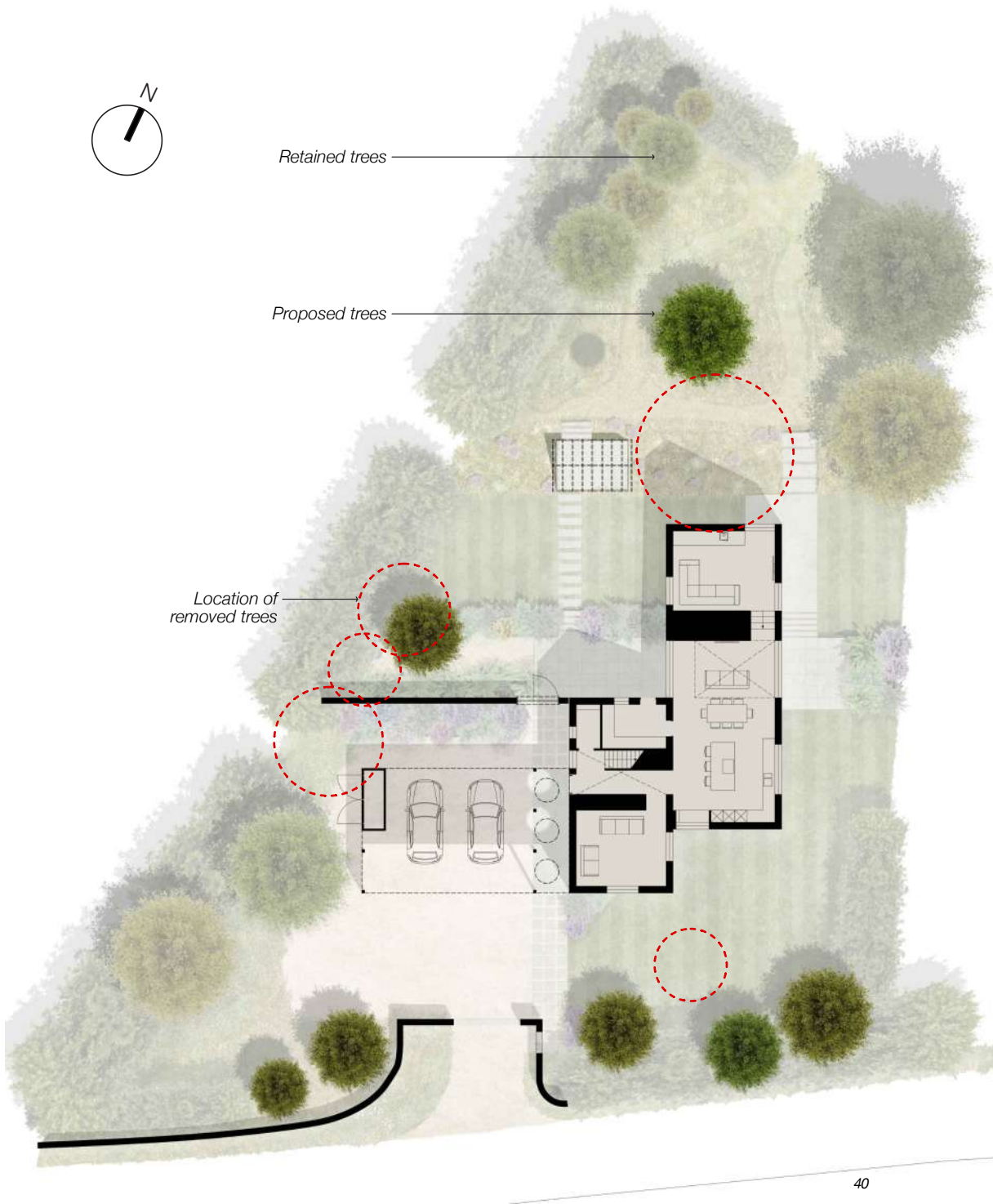
New Trees



Retained trees

Proposed trees

Location of removed trees



7no. new trees are proposed to both offset those being removed and to enhance the diversity on site, with many of the existing trees of poorer quality. Species selected offer good seasonal colour and support local bird life. Trees planted along the southern boundary will also serve to screen the building from the road offering greater privacy and breaking up views back into site towards the building.



Bird Cherry (*Prunus padus*)



Hawthorn (*Crataegus monogyna*)



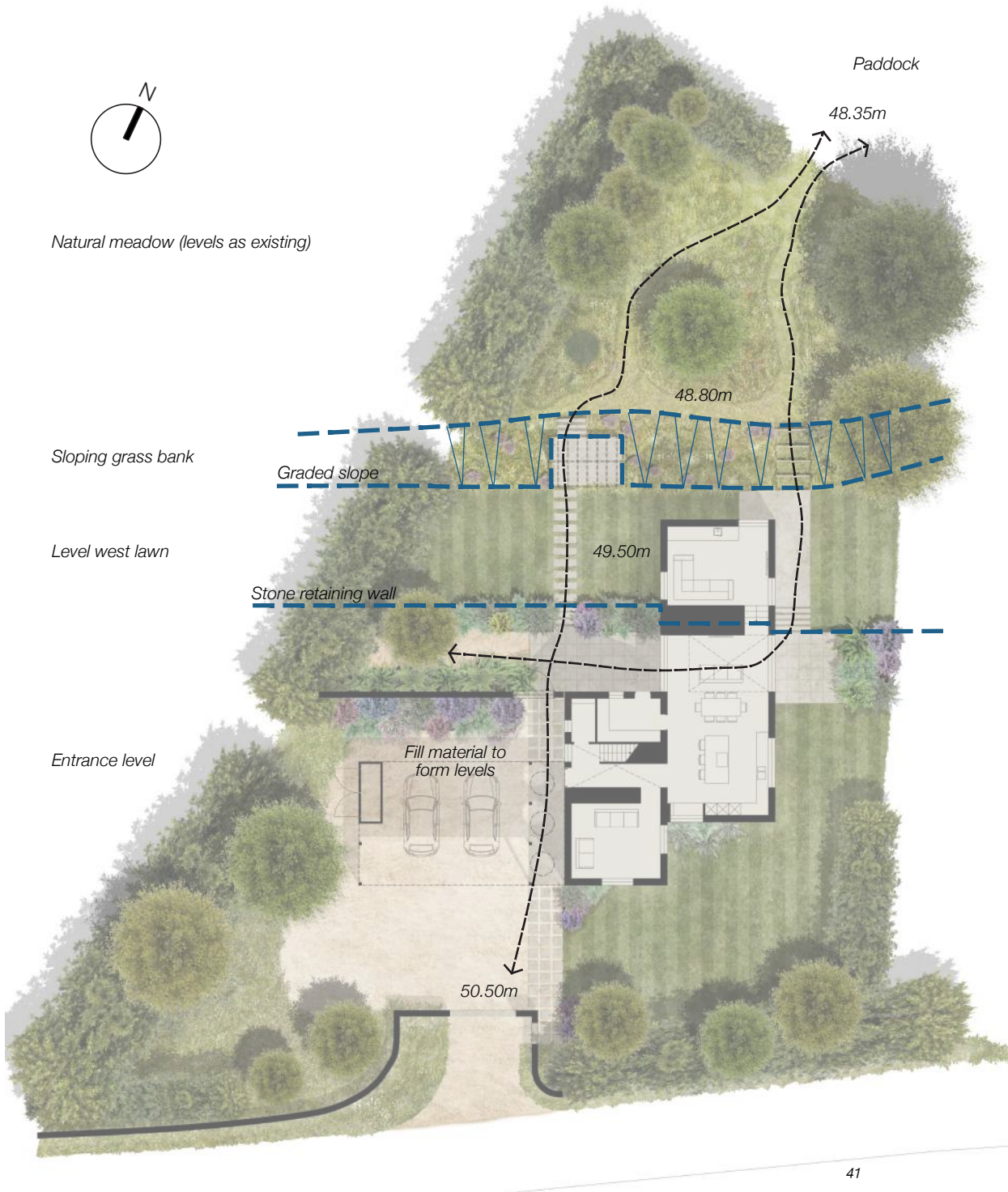
Silver birch (*Betula pendula*)



Rowan (*Sorbus aucuparia*)

# LANDSCAPE DESIGN PROPOSAL

## Managing Site Level



The natural site levels have been thoughtfully incorporated into the design approach to minimise its impact on the landscape while infusing the garden with a distinctive local character and introducing elements of play and exploration.

The gradual slope of the site down towards the north, featuring an approximate 2.1 meter level change, has also been addressed in the building layout. A sunken evening room at the rear of the plan ensures a seamless flow of spaces that connect out with the natural contours of the land.

Externally, the garden levels have been managed to create a series of stepped lawns and gently sloping planes. This design not only celebrates the topography of the site but uses it to create captivating walks and views through the landscape. Natural stone retaining walls, reminiscent of the traditional stone walls found along Kington Lane, add character and authenticity to the design, reinforcing a strong sense of place.

These level changes serve a dual purpose, also enhancing the sense of journey and exploration within the landscape. Users are invited to traverse through gateways in the walls and descend via flowing grass steps carved into the embankment, adding an element of adventure to the garden experience.

Moreover, the flatter area adjacent to the southern end of the building (housing the carport and front door access) presents an opportunity for sustainable construction practices. By utilising fill material from the ground excavations of the dwelling, we avoid the need to transport spoil material off-site, further reducing our environmental footprint and reinforcing our commitment to responsible design practices.

# LANDSCAPE DESIGN PROPOSAL

Character Areas - Wild Meadow and Sloping Bank



*Sloping bank with ornamental grasses.*



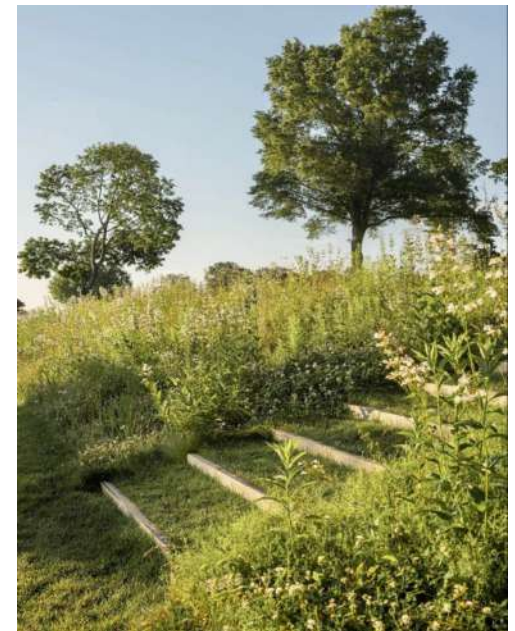
*Wild meadow and flowers.*



*Exit to  
paddock*

*Informal mown paths*

*Ornamental grass bank*



# LANDSCAPE DESIGN PROPOSAL

Character Areas - Formal Lawns, Ferns and Feature Borders



*Shaded fern garden against wall.*



*Low level retaining stone walls.*



*Sun loving perennials....*



*colour...*



*Scented herbs and planting.*



*Pocket garden with mixture of shade and sunlight throughout*

*Morning terrace with views to paddock.*

# LANDSCAPE DESIGN PROPOSAL

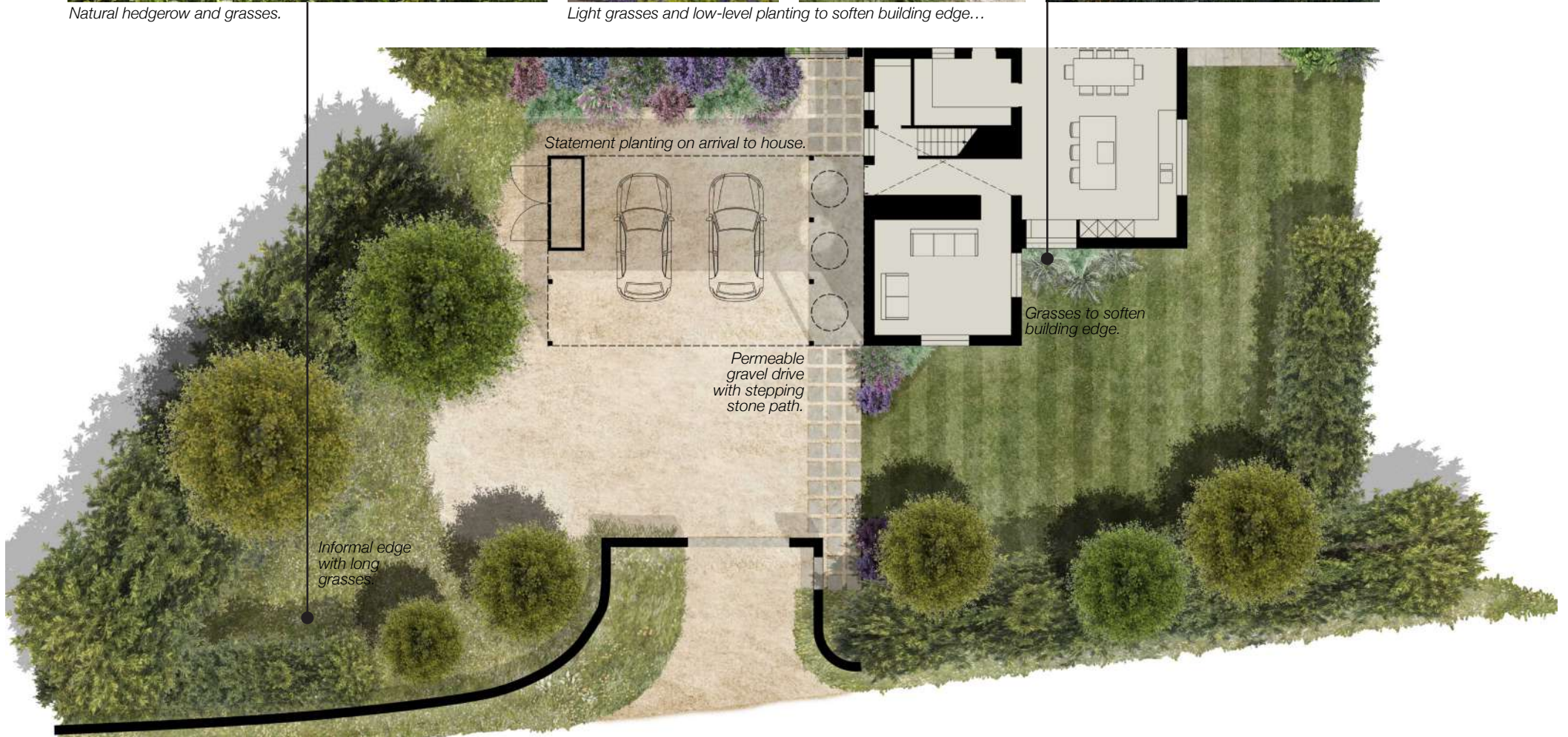
Character Areas - Driveway and Front Lawn



Natural hedgerow and grasses.



Light grasses and low-level planting to soften building edge...

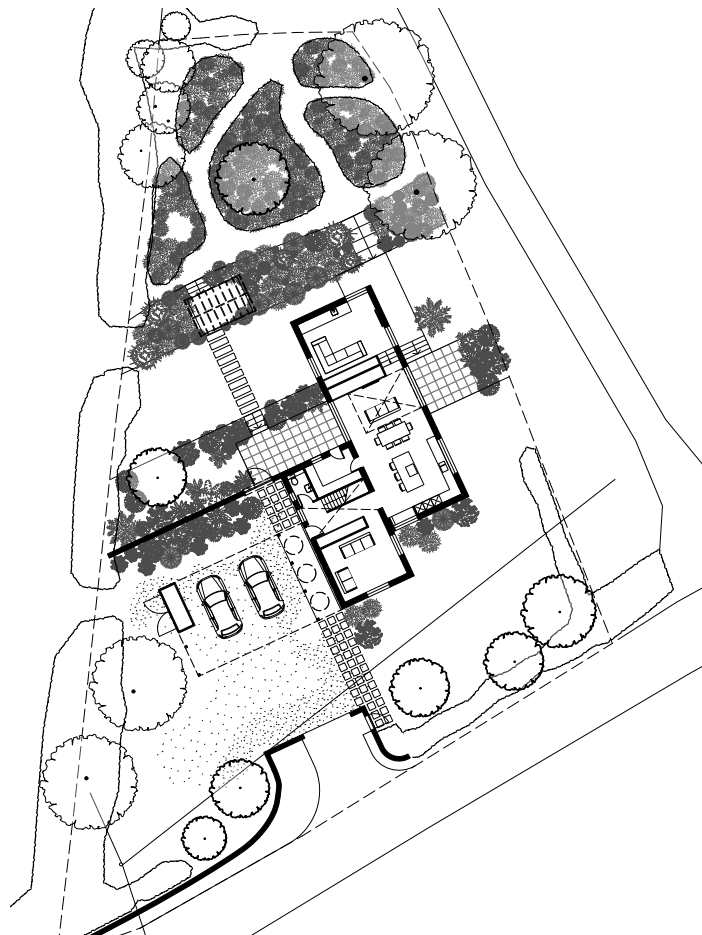


# SUSTAINABILITY DESIGN

## Sustainability Statement

Principles of sustainable building design, construction, and use are at the very core of the proposals, with a design brief centred around using innovative, efficient and clean construction technology, onsite renewables and waste management, and above all else, establishing a strong bond between the building and its landscape for the benefit its inhabitants.

The core strategies deemed appropriate to the scheme are outline opposite, which includes measures that significantly improve upon the existing building conditions.



### Innovative and Clean Construction

Proposals are developed to use a cross-laminated timber (CLT) construction allowing for greater off-site production for an altogether faster and cleaner construction process. This approach reduces the amount of concrete-based products and relies on sustainably sourced timber in production.

### Energy, Heating and Onsite Renewables

Where the existing property uses an oil fuelled boiler, the proposals include for a full air sourced heat pump heating and hot water setup, partnered with onsite renewables in the form of an innovative solar-tracking photovoltaic array. The 'SmartFlower' solar panel (pictured over) provides a 2.5KW array which through its ability to track the sun's path performs as well as a traditional array nearly twice its size. Refer to the following page for details on its positioning on the site.

### A Fabric First Approach

Building insulation levels above the minimum requirements are to be used in addition to the mass timber structure (which has its own inherent insulating properties) to ensure a high efficiency of building fabric, enhanced thermal comfort and lower overall heating and energy demands in use. CLT construction is also well suited to forming more air tight buildings to reduce secondary heat losses and enhance thermal comfort. High performance triple glazed windows are proposed throughout the building.

### Building Form and Orientation - lighting, solar gains and ventilation

Although the building is primarily orientated to the paddock, its staggered plan form allows for a greater surface area to ensure excellent natural lighting levels to all building spaces. The dominant east-west aspect also reduces the amount of south facing glazing to control for excessive solar gains in summer, whilst being able to rely on good levels of cross-ventilation to purge cool the building owing to its staggered plan form.

### Water Drainage, Management and Treatment

A new package sewage treatment plant will replace the existing septic tank setup of the old house, with its drainage field integrated with the lower meadow gardens to the rear of site. Surface water will be taken to a soakage system consistent with the existing property. Proposals seek to limit hard surfaces to a few small patio spaces otherwise promoting naturally free-draining surfaces around the site to avoid excessive runoff.

### Ecology and Biodiversity

The proposals include for an ambitious landscape proposals that promises to enhance the quality and variety of planting on site, and to provide a wealth of habitat types ranging through wild hedgerow, meadow grasses and flowers, dense planted borders, planted green roofs and increased tree coverage. In addition to this, bat and bird nesting boxes are positioned on the building and within the larger trees (as per the recommendations of the ecology assessment) to encourage greater future nesting potential on the site. Refer also to notes on pages 49-50 for additional reporting on ecological considerations in the proposals.

### EV Car Charging

Electric car charging stations are to be incorporated within the carport structure, with the applicant already owning an EV.



# SUSTAINABILITY DESIGN

## Position of Solar PV Array

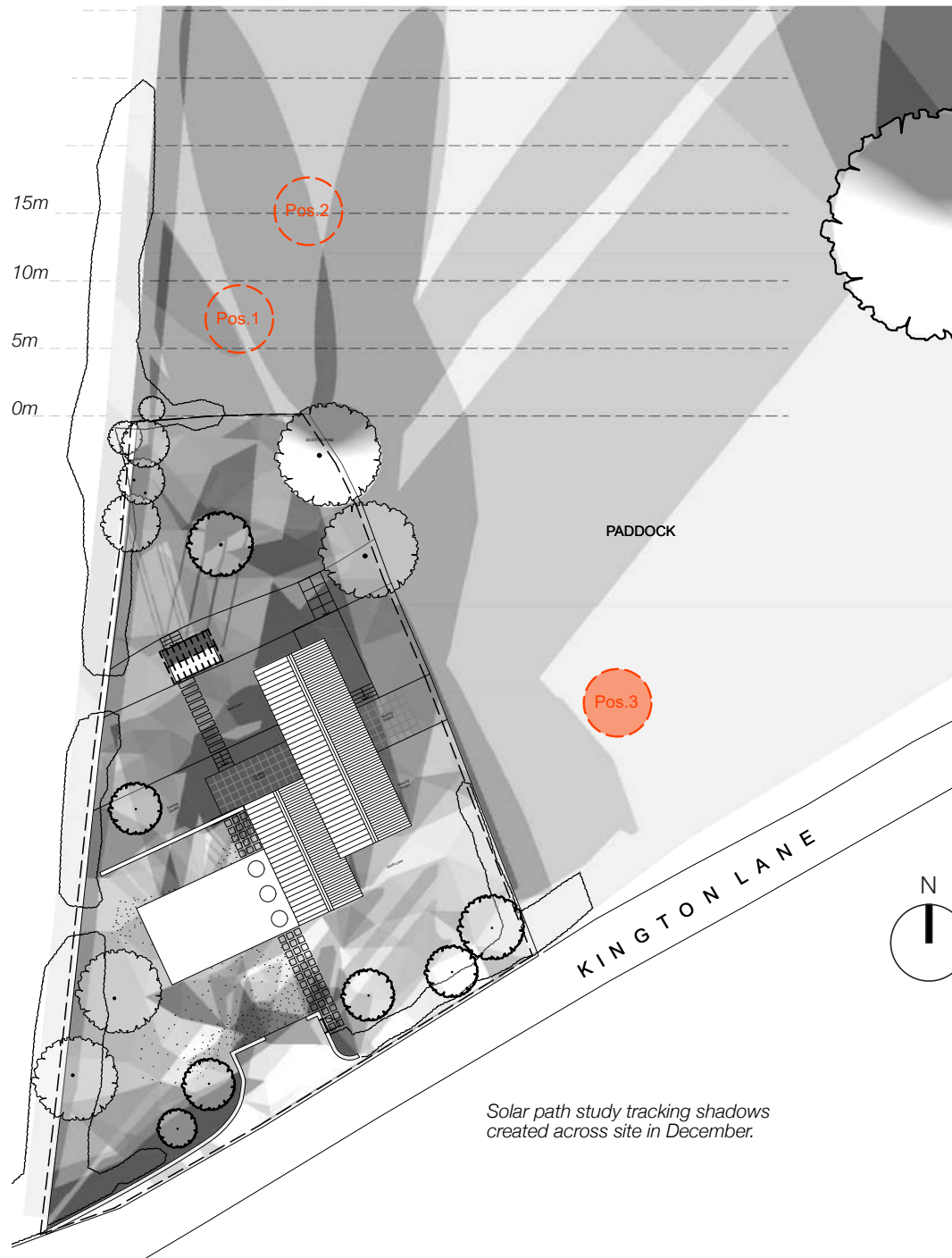
The 'SmartFlower' array tracks the sun to ensure the panels are always directly facing the light for optimum performance of an otherwise extremely compact setup. The unit measures only 5m in diameter when open, and between 5m-5.5m in height depending on its angle and elevation throughout the day.

Appropriately locating the unit is key to maximising its performance, with a solar path study carried out to assess the risk of overshadowing in the three positions shown left. The shadows shown are an extreme condition as would be present on 21<sup>st</sup> December.

**Position 1** - The original preferred location at the rear of the garden (as described in the pre-app), but overshadowed by the west boundary hedge (approx 4m high) by the early afternoon.

**Position 2** - The adjusted position intended to better avoid shadows from the Scotts pine and hedge for the most part of the year, although still affected in the winter months.

**Position 3** - The current proposed location placed clear of shadows created by the trees and building. This places the unit in a more visually prominent area relative to both the house and highway, although is in-keeping with the more sculptural nature of this product, designed to showcase and celebrate the use of innovation onsite renewables.



The SmartFlower solar array.

# SUSTAINABILITY DESIGN

## A Cross-Laminated Timber Structure



The proposal replaces an existing 1950's building with a substantially higher performing dwelling that takes significant steps towards reducing its carbon footprint and utilising innovative building technologies. Whilst it is acknowledged there can be advantages to retrofitting an existing building to reduce embodied carbon, the works required to adapt this particular property are too great and it is considered more cost effective and practical to deliver an efficient new build with innovation and renewable energy integrated from the outset.

### Cross Laminated Timber Construction:

The main structure is to be built from CLT taking advantage of the efficiencies this brings in the speed of construction whilst offering significant reductions in embodied carbon. As with any timber product its main advantage is it locks in the carbon sequestered from trees and prevents its release to atmosphere.

The main advantages of using this innovative building approach are:

- Reduces the size of foundations and amount of concrete required.
- Reduces (even replaces) the need for secondary steel structures which is another carbon intensive building material here in the UK.
- Reduces the need for extra finishes and materials in the building shell where it is a self-finished product. Materials such as plasterboard are otherwise relatively carbon intensive to produce and transport.
- Reduces the overall time of construction, storage and deliveries of materials.
- Results in an overall more efficient, quieter and cleaner construction process.

In addition to the above, cross-laminated timber is an innovative and exciting building material, that when used correctly, makes for extraordinary and more wholesome building spaces.

The application is seeking to provide Thornbury with an exemplar project for a high quality, self-built dwelling, in-keeping with the adopted local plan and planning policies.

# SUSTAINABILITY DESIGN

Building Services and Renewables

The core strategies we see being appropriate to the scheme include:

## Highly insulated building fabric

Adopting a fabric-first approach and providing a highly insulated building envelope, in-line with the Passivhaus approach, to reduce the heating demand.

## Air Sourced Heat Pumps (ASHP)

To be adopted as the primary heating source tied in with onsite solar power generation and storage.

## Mechanical Ventilation & Heat Recovery (MVHR)

The principle means of ventilating the building whilst reducing any heat losses. An initial schematic for routing of ducting has been considered from this early stage, as shown left.

## Onsite renewables

Proposals include for a solar photo-voltaic array to be positioned in the paddock, refer to drawing 68-P-02. Use of a solar tracking system is proposed to maximise on the array efficiency whilst keeping its size to a minimum. This is to be paired with battery storage to maximise on its utility.

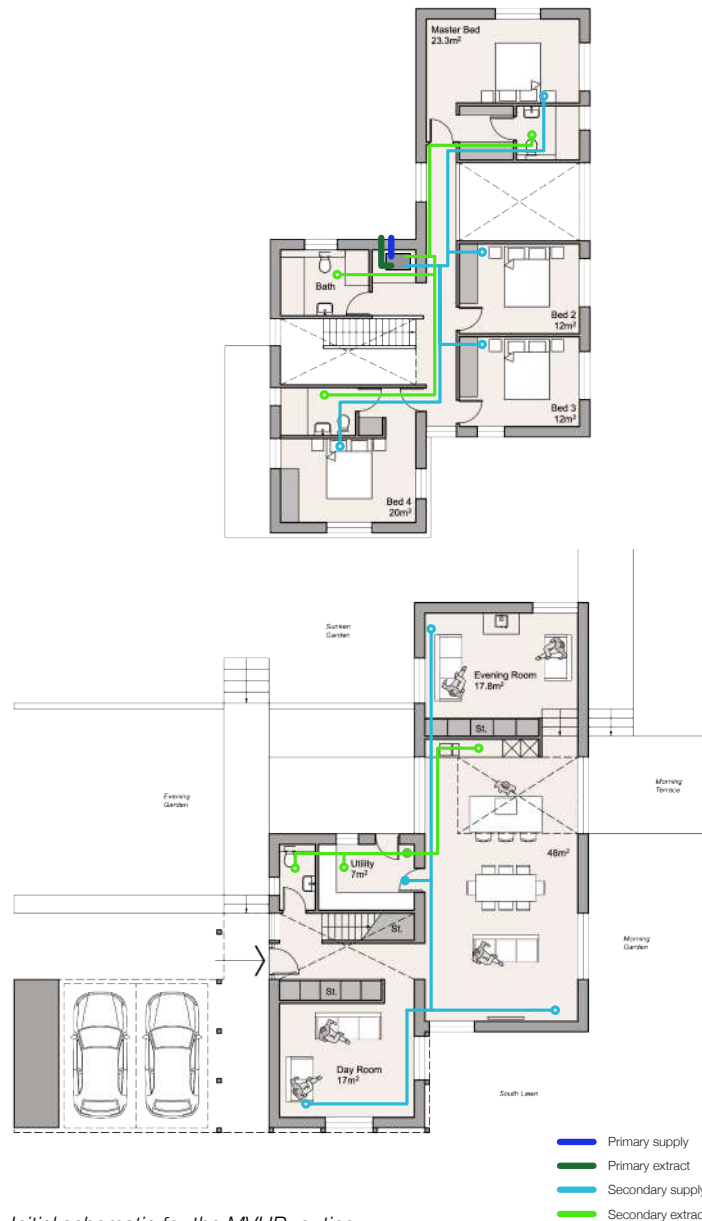
## Good solar design

The building orientation and layout seeks to minimise on large areas of south facing glazing, to reduce the building's potential for overheating in summer. The proposal seeks to utilise the thermal mass of exposed concrete floors to help modulate any remaining solar heat gains.

The internal spaces are planned relative to the most appropriate source of daylight, ensuring good levels of natural lighting at the times most suited to that space.

## Waste management.

A package waste treatment plant is proposed to manage all foul water from the house, and steps taken to harvest rainwater for re-use outside.



Initial schematic for the MVHR routing.

### Transport and Highways

The proposed residence includes an additional bedroom, which does not significantly increase the site's occupancy. Sufficient onsite parking is offered, featuring a dedicated carport for two vehicles and sufficient driveway space for visitors.

The plans aim to maintain and repurpose the existing vehicle entry point while enhancing highway safety. Presently, the site access is constrained, with limited space for vehicles to pull off the road due to a narrow driveway entrance and dense hedge planting.

The proposed site entrance enlarges the pull-in area from the highway and enhances visibility when exiting onto the road. This is achieved through a curved and set-back boundary wall and reduced hedging on the west flank where visibility is most impaired.

### Conservations Issues

The Grade II listed 'Wellfield' property lies 70m east of the proposed building. Due to its considerable distance from the new house, positioned further down and across the road, it is deemed that the proposals will not adversely affect this listed building.

It's important to highlight that the proposed building's design, featuring a double gabled massing, is intentionally responding to this listed structure. This approach ensures that the proposed dwelling is in-keeping with, and respectful of, the local architectural character and conservation assets.



Wellfield (Grade II Listed)

### Refuse Strategy

A refuse and recycling store has been integrated with the carport structure, within close reach of both the front door and road-side collection point. This is a 1.2m x 3.2m enclosure (refer to elevation drawing 68-P-05) with a concrete pad base and hit-and-miss timber cladding. A set of double access doors open to the west side.

### Ecology and Biodiversity

The proposals represent a significant enhancement to the local ecology, with measures aimed at not only minimising but enhancing the ecological impact of the site. These measures include the introduction of new green roof finishes, extensive tree planting, the retention of existing hedges, high-quality planting, the establishment of wild meadow grassland and a diverse planting strategy throughout the site. Additionally, nesting boxes will be integrated as both mitigation and enhancement measures.

To address water management, the proposals advocate for greater permeable and free-draining ground surfaces, the implementation of soakaway drainage systems, green roof attenuation strategies, and onsite water treatment facilities. These initiatives aim to reduce surface runoff and effectively manage water on and around the site.

The construction approach, utilising a prefabricated timber structure, promises to shorten the construction duration while significantly minimising ecological disruption. This method ensures a cleaner, quieter, and less polluting form of building, thereby reducing the impact on the ecology during the construction phase.

An arboricultural survey has been conducted, supporting the removal of certain trees deemed of lower quality or lifespan. This survey also advocates for the planting of new trees specifically selected to enhance biodiversity and complement the proposed onsite planting.

While the preliminary bat roost survey indicates low suitability for bat roosting in the existing buildings, it's important to note that further emergence surveys are scheduled for May to further assess potential risks associated with the development. As we seek a determination on planning before these surveys are conducted, it is understood that exact mitigation measures cannot yet be outlined and specific conditions will need to be set. However, once the emergence surveys are completed its findings can be promptly incorporated into the planning permission and proposals to ensure suitable implementation to protect and support any local bat populations later identified.

### Impact on Neighbouring Properties Amenity

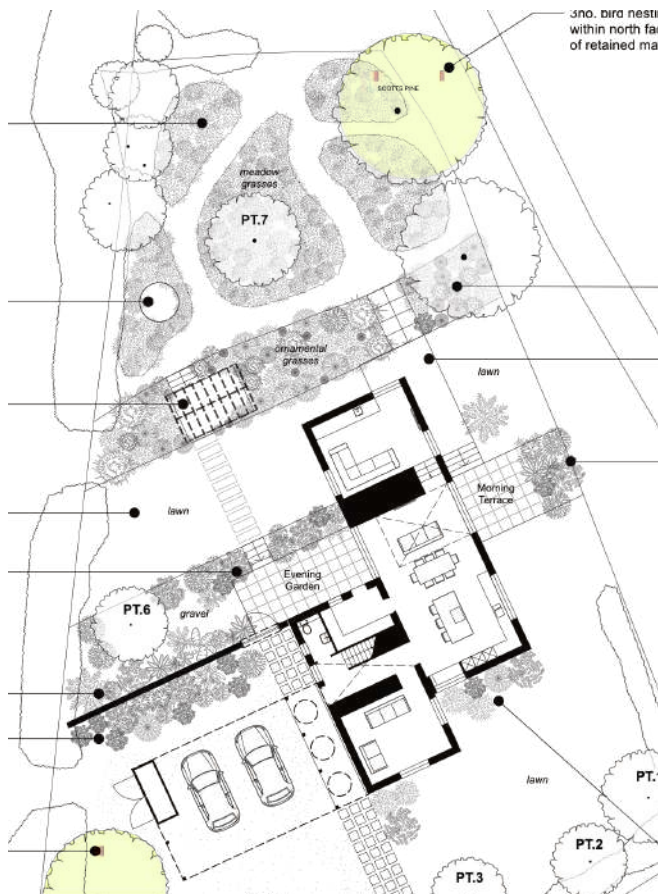
With the nearest residential property boundary more than 60m from the site, it is not anticipated that the proposals will have any adverse impact on the amenity of neighbours.

# SUSTAINABILITY DESIGN

## Ecological Enhancement & Mitigation Measures



Extract from Drawing 68\_P\_05 - Location of integrated bat boxes (shown in orange)..



Extract from Drawing 68\_P\_06 - Location of bird nesting boxes in trees.

As per the the recommendations of the ecological appraisal carried out by Enzygo Ltd, the proposals include for bird and bat nesting boxes to be incorporated into the building facade, and within the appropriate mature trees retained on site.

### Bats:

Installation of 2no. Vivara Pro Build-in Woodstone Bat Boxes (or similar), are to be incorporated within the upper metal cladding void of the new building, to provide additional roosting opportunities. These are to be situated on the west facing elevations as shown left.

### Birds:

Installation of Schwegler 1B boxes (or similar) are to be placed on the north facing aspects of the retained mature trees as indicated left in green (boxes shown in orange). A minimum of 3 nesting boxes are to be installed, although with further opportunities available in the adjoining paddock if deemed necessary, with a large oak in the centre of the field.

### Retention of existing hedgerows and mature trees:

As per the recommendations of the ecological report, existing mature hedgerow is being retained onsite with the exception of a short area along the souther road boundary which is to be altered to make the necessary enhancements to highway safety and site access. This constitutes a minor portion of the existing hedge, and the works can be carried out a suitably sensitive and managed way to prevent harm to any wildlife.

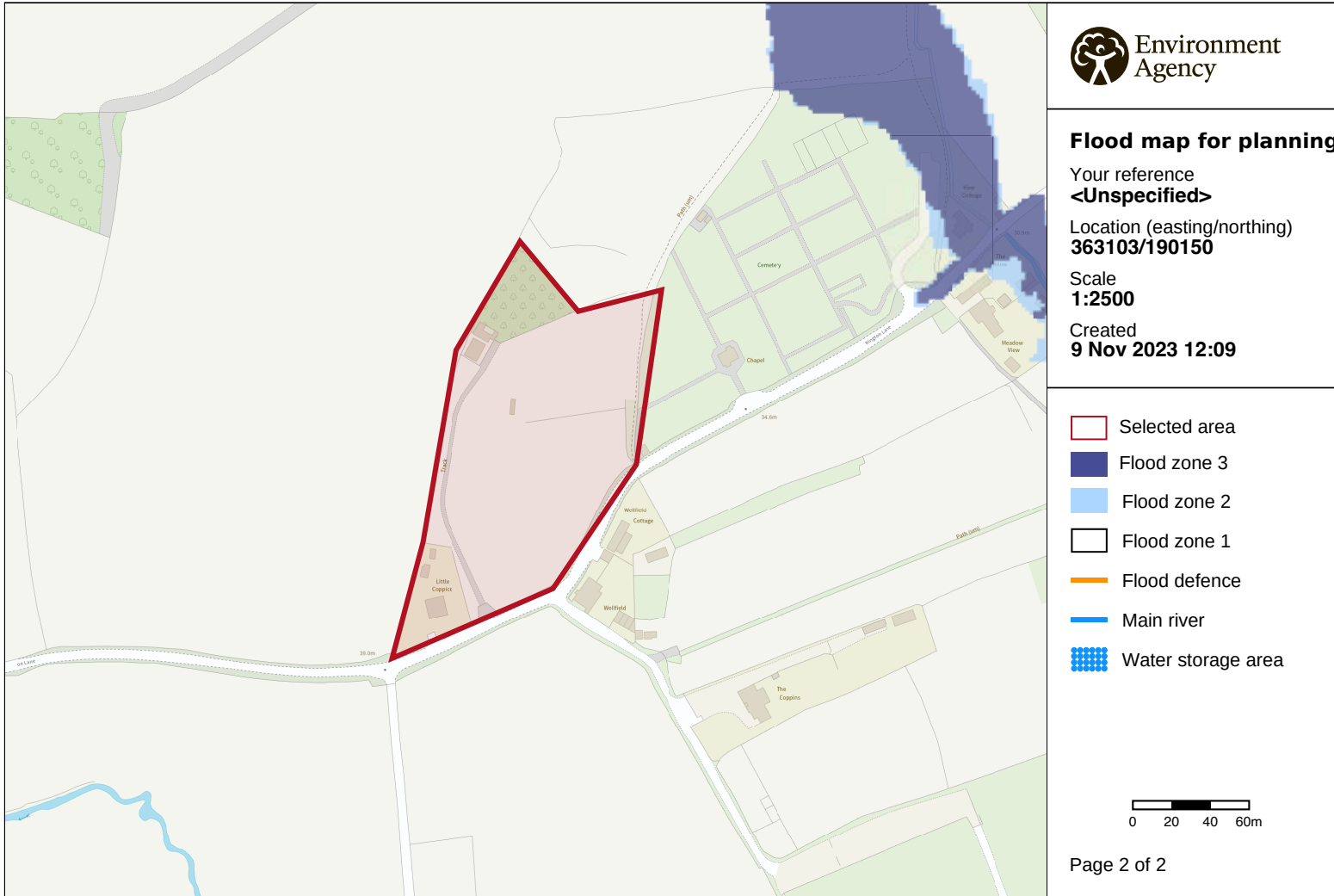
The larger mature trees along the west and northern boundaries are also to be retained as per the recommendations of the ecology appraisal. This includes the large Scotts Pine, Oaks an Hawthorn. Trees that are to be removed are of a poorer quality and limited lifespan as supported in the arboricultural report. A significant number of new trees are being planted providing an overall net gain in ecological value of the site.

### Negligible disruption to site ecology:

Much of the existing site consists of 'modified grassland', 'developed and sealed surfaces', and 'built up areas and garden' - all of which the ecology appraisal reports as being of 'negligible ecological importance'. The building works and landscape proposals therefore pose little to any threat of disturbing ecology during works to reform and enhance these ground areas.

It can be further considered that the new areas created through the development will constitute an **overall net gain in ecological importance.**

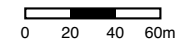
# FLOOD RISK ANALYSIS



## Flood map for planning

Your reference  
**<Unspecified>**  
 Location (easting/northing)  
**363103/190150**  
 Scale  
**1:2500**  
 Created  
**9 Nov 2023 12:09**

-  Selected area
-  Flood zone 3
-  Flood zone 2
-  Flood zone 1
-  Flood defence
-  Main river
-  Water storage area



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The site sits within a Zone 1 flood risk area, and as such flooding presents a low risk to the proposals.

### **Land designations and Relevant Policy:**

The site is located outside the northern boundary of the Greenbelt and does not fall within the Thornbury Conservation Area. Located outside of the town development boundary, the proposals are being assessed as development in the open countryside.

Specific designations and their policies that do relate to site include the following:

#### Made Neighbourhood Plan Areas:

Thornbury Neighbourhood Plan Area

#### Policies, Sites and Places Plan

Policy PSP1 - Local Distinctiveness.

Policy PSP8 - Residential Amenity.

Policy PSP38 - Development within Existing Residential Curtilages, including Extensions and New Dwellings.

Policy PSP40 - Residential Development in the Countryside.

Policy PSP43 - Private Amenity Space Standards.

#### South Gloucestershire Local Plan Core Strategy

Policy CS1 - High Quality Design

Below provides commentary around how the design proposals have been developed alongside the core ambitions and aims of local planning policies, with particular emphasis drawn to the Thornbury Neighbourhood Plan during our initial design process.

Text taken from policy is highlighted as such.

Our commentary is provided in blue.

### **Thornbury Neighbourhood Plan**

Our community wants to retain the existing fingers of green space that bring the countryside into our town and thus allow the town to 'breathe'. We also need to ensure that the size, form and location of new buildings does not cut us off from the views we enjoy of our surrounding landscape or detract unduly from the views that people enjoy when they view Thornbury from the surrounding areas.

Our proposal similarly prioritises the connection between building and landscape, seeking to strengthen this relationship whilst being sensitive and responsive to key views into the landscape and helping to connect the building (and its users) with its setting.

#### 4.1 What Matters Most to our Community (a few key points)

- The historic character of Thornbury and the importance of its 'rural feel'.
- The spirit of 'community' in Thornbury with the active involvement of so many residents in clubs, learning, festivals and markets which all create a sense of belonging and connection.
- The need for Thornbury to retain its own identity and to avoid becoming part of an urban sprawl on the outer fringes of the large city of Bristol.
- Sustainability and the desire for the town to reduce its carbon emissions and be resilient to the impact of climate change.

Our proposals seek to emulate the 'rural feel' of Thornbury and have developed a rural character for the new architecture. The design looks to mirror qualities found in the immediate neighbouring buildings and agriculture, as to align with the pre-existing identity of place. The strong sustainable design drivers of the scheme align well with the town's desire to reduce its emissions and become more resilient against climate change through its building stock.

#### 5.4.1 Character

The Neighbourhood Plan boundary includes Thornbury and a number of surrounding hamlets and villages. Each of these areas has its own identity and character which is, in part, defined by its rural landscape setting and separation from the main built up areas of the town. There was a concern amongst the community that the continuing expansion of developments around the edge of the town threatens the individual setting and identity of these hamlets/villages to the detriment of the rural character of the area as a whole. The intention of Policy 1 is therefore to seek to ensure that new development preserves and

enhances the identity and setting of the hamlets/villages surrounding Thornbury through the use of appropriate buffers, strategic landscaping and good design. Although this policy is more geared towards larger scale developments, it is worth noting how the application site (and Kington Lane) does occupy a place in Thornbury very much on the transitional fringe from town to countryside. Despite this, the proposals have made strong moves to anchor the new building back to Thornbury, in an attempt to combat its association with the neighbouring villages that might otherwise threaten this buffer condition discussed above.

#### 5.4.2 Setting, Views and Panoramas

Thornbury, as a market town in a rural setting, benefits from visual links to the surrounding countryside and gains some of its individuality from these views including expansive vistas over the Severn Vale and the escarpment. Preserving these countryside and architectural views, including towards Thornbury Castle and the 12th century St Mary's church, will help to maintain the essential character of its market town ethos and history.

Whereas the town benefits from looking out towards the countryside, the site is very much about looking back in towards Thornbury to reciprocate this relationship. In doing so it still benefits from views out to countryside, whilst also engaging with architectural views back to the Church tower, its market town and history.

The building plan itself also seeks to open up to, and engage with, its garden spaces on all sides, capturing controlled viewing corridors as well as wider landscape scenes, in a manner very similar to the town itself.

#### Policy 1 - Rural Character and Landscape Setting

The rural character and the landscape setting of Thornbury Parish should be protected. • Be sensitive to and reflect the character and identity of nearby and adjacent villages and hamlets and avoiding visual coalescence.

Although this policy is generally more applicable to larger scale developments, our proposal has been sensitive to this when working to avoid the site being entirely swallowed by the surrounding countryside and effectively disassociated with the town - considering the site occupies a space in transition between the two.

#### Policy 2 - Neighbourhood Development Frameworks

##### HOUSING

##### 6.3 Objectives

The objectives for housing are:

- To ensure housing and its associated infrastructure is well planned and of high-quality.
- To make best use of the latest sustainable design and technology to create homes that minimise the use of environmental resources, mitigate against and be resilient to the impact of climate change.

Although generally more applicable to larger scale developments with wider spreading infrastructure, the proposals do make significant moves towards well planned high quality house design, using innovative design practice and technologies to build resilience to climate change.

#### Policy 3 - High-quality Design

Development proposals must reflect principles of high-quality, sustainable design, in particular, it should:

- Contribute to the creation of high-quality places through a design-led approach underpinned by good design principles and reflecting a thorough site appraisal
- Ensure all buildings, spaces and the public realm are well-designed and display a high level of architectural quality which responds positively to local context, paying particular attention to traditional local character.
- Demonstrate how they respond to the landscape, local and longer-views, the environment and historic assets and market town character.

The proposals demonstrate creating a well-planned and high-quality building and landscape spaces that have been developed through a thorough design-led process taking into account the specific opportunities and constraints of the given site.

Although a relatively contemporary style of architecture has been adopted, the external building form has been developed to respond in a respectful and meaningful way to the immediately surrounding houses, tradition and local character. In particular taking note of the double-gabled pitched volumes of the neighbouring properties.

The proposed layout creates a strong relationship between building and landscape, that seeks to benefit from views out into the local and distant landscape to all elevations. Similarly, the building placement and orientation has been considered relative to key long-views existing in the landscape, in particular towards the historic asset of St Mary's Church.

#### Policy 4 - Design Review

A policy more geared towards larger scale developments, although it promotes driving towards a higher standard of design which the applicant is keen to support - having engaged an architect to conduct a thorough design process, and prioritising a route to development through planning permission, opposed to permitted development rights. The permitted development route does not of course promote high quality design.

#### 6.6 Sustainable Design and Construction

Opportunities to develop housing using sustainable and innovative building techniques and materials, and which take account of the best of technologies to reduce energy consumption, are a desire of Thornbury residents which are reflected in policy. However, residents also noted that re-using existing buildings is more sustainable than replacing them.....Residents were clear that it is more cost effective to deliver efficient new buildings with renewable energy integrated from the outset than to retrofit them once they are built.

The proposal replaces an existing 1950's building with a substantially higher performing dwelling that takes significant steps towards reducing its carbon footprint and utilising innovative building technologies. Whilst it is acknowledged there can be advantages to retrofitting an existing building to reduce embodied carbon, the works required adapt this particular property are too great and it is considered more cost effective to deliver an efficient new build with innovation and renewable energy integrated from the outset.



Survey responses particularly drew attention to the current potential for solar energy generation within new developments.

The proposals have identified this opportunity and are seeking permission to integrate a solar PV array within an adjoining site owned by the applicant.

Buildings should be designed to maximise solar gain in winter and shading in summer and incorporate technologies that maximise the use of energy from renewable sources. The building orientation and layout seeks to minimise on large areas of south facing glazing to address the main concern of excessive solar heat gains in summer.

The predominant east west aspect of the building is largely a response to the site characteristics and relationship with the wider landscape, but will also help to capture a broader spectrum of natural lighting conditions in winter, with still sufficient south facing glazing within the main living and kitchen spaces to benefit from solar heat gains in winter. Utilising the thermal mass of concrete floor surfaces on ground level is also fundamental to being able to capture and moderate these solar gains effectively in winter, absorbing morning solar heat gains which are slowly released throughout the day.

The use of air sourced heat pump and MVHR technologies are also well suited to energy from renewable sources, and onsite energy generation.

Proposals for new development are encouraged to incorporate the following:

- Solar photovoltaic panels
- Solar thermal panels
- Air source heat pumps
- Ground source heat pumps
- Combined heat and power
- Other domestic small-scale renewable technologies, including community delivered renewable schemes
- Shading

Proposals for new buildings that achieve zero or near zero net energy consumption (Passivhaus standards) are encouraged.

The proposals include for the integration of solar photovoltaics, air source heat pumps, mechanical ventilation with integral heat recovery and appropriate window design to manage issues with shading.

#### Policy 5 - Sustainable Design and Construction

Encourages:

- On-site renewable forms of energy
- Waste and recycling during construction and operation
- Rainwater harvesting, SUDs i.e. green roofs
- Choosing appropriate materials with consideration for the type, lifecycle and source
- Flexibility and adaptability, allowing for future modification of use and layout, facilitating future refurbishment and retrofitting.
- Biodiversity measures, i.e. green roofs etc...
- Demonstrate higher standards than set by regulations for thermal performance.
- Mention to Passivhaus standards

- Mention to resource efficiencies and climate change adaptation measures, such as layout, orientation, massing, landscaping and building materials.

- Waste, recycling and storage areas should be carefully designed

The proposals have made provisions that cover all of the above mentioned criteria.

#### Policy 6 - Energy Efficiency

The wording of this policy is again geared more towards larger scaled developments, but the proposals do make significant steps towards surpassing the minimum standards required in the building regulations for thermal performance and airtightness.

#### Policy 7 - Renewable Energy

Proposals for small scale renewable energy installations, particularly domestic solar provision within new and existing residential and commercial development, will be supported in accordance with Core Strategy Policy CS3: Renewable and Low Carbon Energy Generation.

The proposals are seeking permission for onsite provision of a solar PV array within the adjoining paddock site.

### **Policies, Sites and Places Plan**

#### Policy PSP1- Local Distinctiveness

Development proposal(s) will be acceptable where the proposals demonstrate an understanding of, and respond constructively to the buildings and characteristics that make a particularly positive contribution to the distinctiveness of the area / locality. Innovative architectural responses will be favourably considered, where this would result in a high quality design that would in itself contribute positively to the distinctiveness of a place.

The proposals actively seek to address issues where the existing dwelling is less than in-keeping with the area, and the new building developed in direct response to the neighbouring agricultural barn aesthetic and material approach, and characteristic vernacular and roof form of the near by listed building. The use of natural stone wall within the landscape proposal is another direct and positive response to the distinctive character and identity of Kington Lane further afield and towards the town. The rural character is another distinctive feature of the immediate area, with the retention and addition to the green infrastructure of site proposed to further enhance this local attribute. Further in-keeping with the local architecture, the design favours punctured window openings over larger expanses of glazing to more closely align with the vernacular of the neighbouring C16th and C17th masonry built structures. The design employs an innovative approach to building construction and onsite renewables, further promoting high quality design and its positive contribution to the area.

#### Policy PSP8 - Residential Amenity.

Development proposal(s) will be acceptable provided that they do not create unacceptable living conditions or have an unacceptable impact on the residential amenity of occupiers of the development or of nearby properties.

With no adjoining properties or gardens, the scheme presents no threat to the residential amenity of neighbours.

Policy PSP38 - Development within Existing Residential Curtilages, including Extensions and New Dwellings.

In the urban areas and rural settlements with defined settlement boundaries, development within existing residential curtilages, including extensions and new dwellings, and residential extensions elsewhere, will be acceptable where they:

1) respect the building line, form, scale, proportions, window and door shape and reveals, alignment of openings, architectural style/detailing and external materials and boundary treatments, and hard and soft landscaping of the street and surrounding area;

The existing building placement is set back further from the road than neighbouring properties with the proposal matching this condition. The proposed building form and proportions (with its double gable roof form) draw most closely on the neighbouring properties (including the listed 'Wellfield' dwelling) compared to that of the existing house, where they are considered to be more characteristic of the local area than the present dwelling. Furthermore, the proposed footprint almost exactly matches that of the listed building. External material treatments are selected to be appropriate with the rural character of site, and take inspiration from the nearby Lower Marlwood Farm structures. One of the defining features of the Kington Lane area is its natural stone walls, prominently visible closer to Castle Street and surrounding the cemetery. This characteristic is embraced in the landscape proposals and boundary treatments of the design.

2) would not prejudice the amenities of neighbours;  
Proposals have no impact in this regard.

3) would not prejudice highway safety or the provision of an acceptable level of parking provision for existing and any new buildings, where appropriate;

There are adequate onsite parking provisions and proposals actively seek to enhance the highway safety with greater visibility splays and pull in space from the road.

4) would not prejudice the provision of adequate private amenity space, or lead to the loss of trees and vegetation that provide valuable relief in highly built up localities or garden(s) that form part of a settlement pattern that contributes significantly to local character.

A thoughtful garden design has been developed with enhanced provision of trees and planting.

In assessing the acceptability of proposal(s), the Council will have regard to the efficient and sustainable use of land.

As the building plans will demonstrate, the plan form of the building is made to be as efficient as possible whilst meeting the client brief, with bedrooms sized to meet good practice standards without being excessive, and an interior driven approach to the layout seeking to ensure appropriate scaling of the main living spaces and efficient circulation. The building has been sensitively placed to ensure a positive relationship with the surrounding gardens and landscape, good orientation to natural light and all whilst seeking to correct for short comings in the original building form and placement relative to site.

By contrast to the proposals, this report outlines an alternative approach to providing an enlarged dwelling on the site through permitted development rights. However, as demonstrated this approach would not allow the applicant to address these policies as successfully with regard to the appropriateness of building form, massing, character and efficient use of land, being severely constrained by the existing dwelling.

Policy PSP40 - Residential Development in the Countryside.

This has been addressed in detail at the start of the report, looking to demonstrate that despite an enlargement in building volume compared to existing, the proposals do in fact make a significant positive contribution to the local area and have no significant adverse visual impact on the area. Furthermore, it has been argued that proposals even work to lessen the visual impact compared with the existing structure.

Policy PSP43 - Private Amenity Space Standards.

All new residential units (including those created by the change of use, development or sub-division of existing buildings), will be expected to have access to private amenity space.

Substantial private amenity space is provided onsite.

### **South Gloucestershire Local Plan Core Strategy 2006-27**

15.10 Two of the primary aims of Policies CS32 and CS33 are to increase the vibrancy of Thornbury's town centre and the viability of its primary schools and other community facilities. Encouraging an increased number of younger families to live in Thornbury, and therefore increasing the number of children attending the town's primary schools, will help to achieve these objectives.

The proposal is seeking permission for a larger home suitable for a younger and growing family of 4, with room and utility to expand on this in the near future adding to the number of younger families in Thornbury.