



AV ARCHITECTS

Mr & Mrs Thrower

Design and Access Statement

Replacement Dwellings at 47 Greenhill Road, Otford, Kent, TN14 5RR

July 2021



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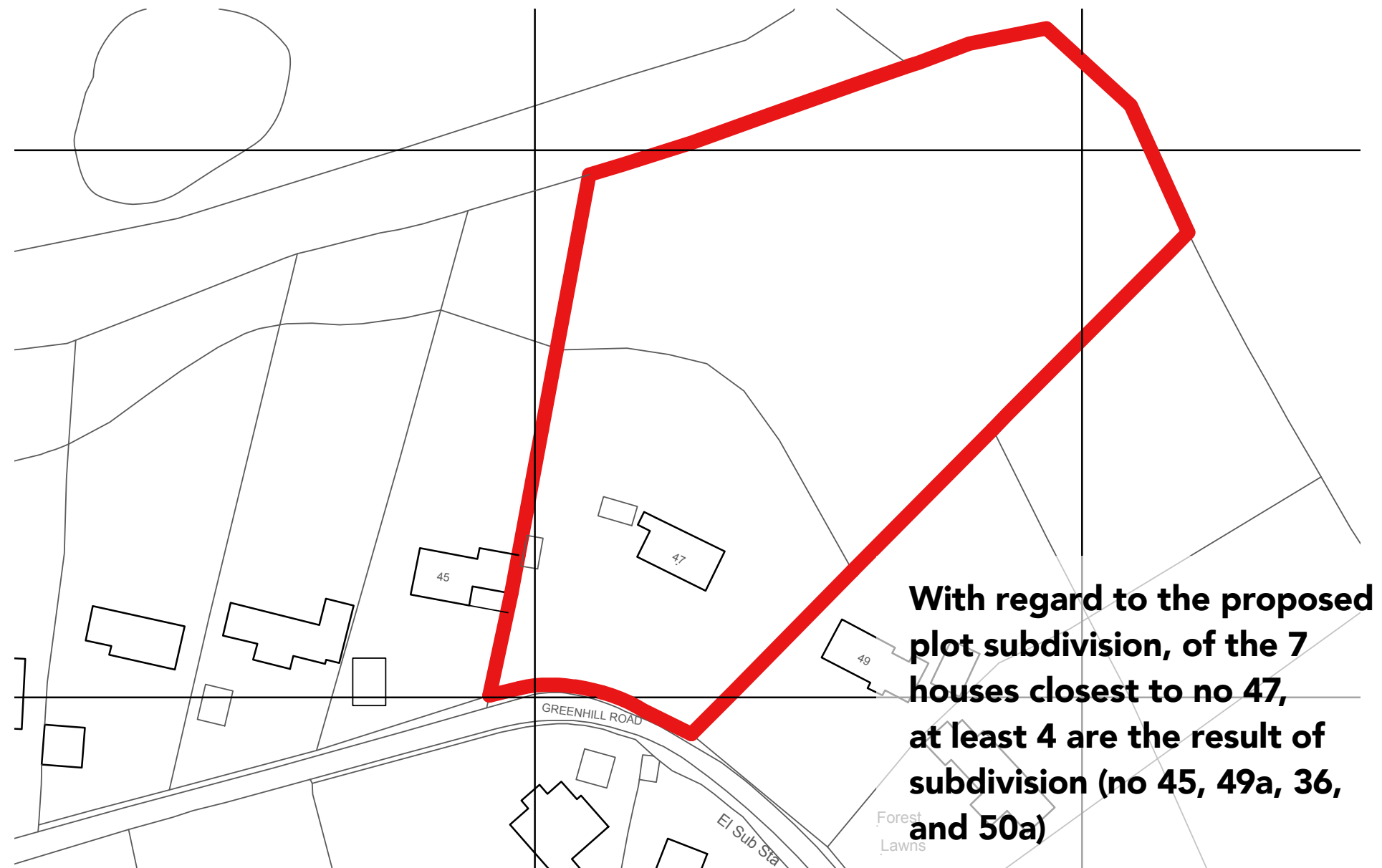
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To be read in conjunction with

- 20003 - SIT - 001 - Location plan
- 20003 - SIT - 002 - Existing and proposed site block plans
- 20003 - SIT - 003 - Existing part site plan and street scene
- 20003 - SIT - 004 - Existing site sections
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- 20003 - SIT - 006 - Proposed site section A-A
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- 20003 - EXT - 001 - Existing house floor plans
- 20003 - GEA - 001 - House A - Proposed lower ground floor plan
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- 20003 - GEA - 004 - House A - Proposed roof plan
- 20003 - GEA - 005 - House A - Proposed South and West elevations
- 20003 - GEA - 006 - House A - Proposed North and East elevations
- 20003 - GEA - 500 - House B - Proposed lower ground floor plan
- 20003 - GEA - 501 - House B - Proposed upper ground floor plan
- 20003 - GEA - 502 - House B - Proposed first floor plan
- 20003 - GEA - 503 - House B - Proposed roof plan
- 20003 - GEA - 504 - House B - Proposed South and West elevations
- 20003 - GEA - 505 - House B - North and East elevations

1.0 Introduction

- The proposed development would consist of the demolition of the existing dwelling and its replacement with two new dwellings. Both new dwellings would be self build, one for the applicant and the other for another family member.
- Two very different designs proposed to retain the differing character homes in the streetscape
- The existing building is currently used as a residential family dwelling with our clients being the sole occupants.
- The scale, orientation and detailing of the proposed properties have been carefully considered to respect the existing context. Taking into account the impact of the topography, the designs have been embedded in the landscape making an elevation that is sympathetic to the adjacent properties and adheres to existing build lines.
- Site is within built confines of Otford so is not in Greenbelt but is within Kent Downs AONB.
- Plot subdivision has been approved on smaller plots on the road.
- Various replacement dwellings have been approved in the area.



Above: 47 Greenhill Road curtilage of project 20003 highlighted in red.

This Design and access statement has been prepared to accompany the drawings listed on the previous page.

The proposals are for:

- Demolition of existing dwelling and its replacement with two new family homes.

The plot is unique, being significantly larger than surrounding plots, and the proposed subdivision would bring it in line with average plot widths of neighbouring properties to west, and still lower density than exists on the opposing bend on Greenhill/Hillydeal. Therefore the plot is sufficient to accommodate two dwellings. With regard to the frontage of each dwelling once the site is split in two, each would be similar to other existing properties on Greenhill Road.

There is a clear benefit to creating one more dwelling in the district to help the council meet their housing target.

2.0 Site location and Description

2.1 Site Description

Located about 1.5km to the North of the village of Otford the site extends to approximately 2.2 Acres (0.9 Ha) and can be accessed from the private Greenhill Road.

The proposed development site is located within the built confines of Otford and therefore is not within the Greenbelt however it is within the Kent Downs AONB.

The dwellings along Greenhill Road have a variety of architectural styles, form, scale bulk and massing. The main characteristic is the large plots with detached dwellings. Garages can be observed forward of the principal elevation of the dwellings as can be seen at numbers 43 and 41 on the adjacent location plan. Permission was recently granted for a 3 car garage in front of number 45 which has now been built.

The proposed dwellings would be detached and would be set in from the side boundaries by a greater extent than the existing neighbouring properties. The scale and design of the buildings in combination with the separation from the boundaries would prevent the appearance of terracing especially as the ridge heights are lower than the existing dwelling on the site.

The properties along Greenhill Road tend to be set back from the street scene but do front the road. The proposed dwellings would be set back into the plot similar to the existing dwelling and work with the building lines of the neighbouring properties on each side of 47 Greenhill Road.



2.2 Site Features

The site itself is steep as can be seen from the adjacent site section which shows the existing house on the site. The gradient from Greenhill Road to the approximate middle of the site is 18%. From the middle of the site the gradient increases up into the woodland.

There are two plateaus on the site. The first was created for the construction of the dwelling itself. The other which is further up the site was created for a grass tennis court.

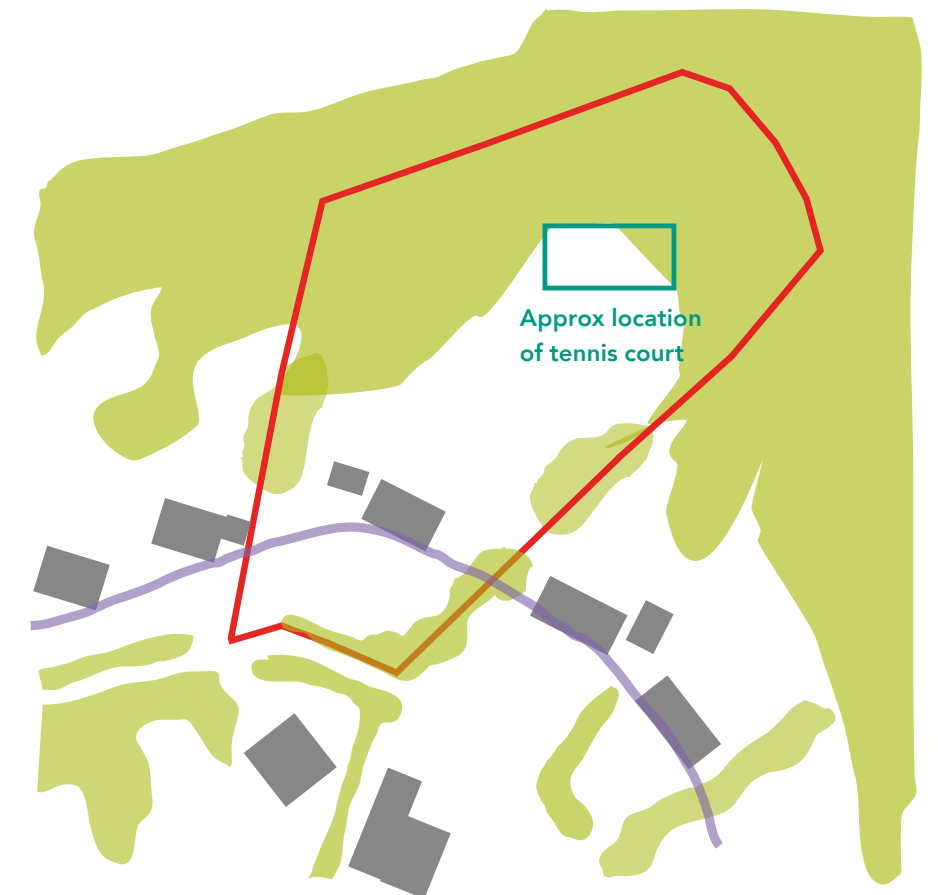
The elevated position of the house means that it offers wonderful views towards Sevenoaks as can be seen from the below photograph.



Above: Site section



Above: Photograph taken from the tennis court plateau.



Above: Graphic of site context

Greenhill Road rises from the junction with Shoreham Road relatively straight until it reaches the proposed development site where it curves around to form a crescent and returns back to Shoreham Road as Hillydeal Road.

The building lines to Greenhill Road have been superimposed over the below aerial photograph with the site highlighted with the number 47. As can be seen the building lines respond to the curvature of the road so that each home from 47 Greenhill Road runs reasonably perpendicular to the road.

The proposed design respects the existing building lines to ensure that the proposed design site comfortably within the establish built environment.



Above: Existing view towards 45 Greenhill Road



Above: Aerial photograph with building lines superimposed over.

The main site features that had an impact on the design development other than the site gradient were:

- ① Mature tree at front of site to be unaffected by proposals
- ② Mature Cyprus Fir tree at front of site to be unaffected by proposals
- ③ Due to the distance from the existing home to West Hill, 48 Greenhill Road at over 40m, the existing boundary screen planting (which will be unaffected by the proposals) and that the proposal respecting the established building line there would be no adverse impact on West Hill.
- ④ Long vista to countryside
- ⑤ Relationship to 45 Greenhill Road to be considered in regard to set in from site boundary, scale and massing.
- ⑥ Relationship to 49 Greenhill Road to be considered in regard to set in from site boundary, scale and massing.



Above: Photo A - looking from Greenhill Rd back to existing dwelling



Above: Photo B - View down boundary with number 49



2.3 Planning History

The planning history for the site held by the council are listed as:

Ref. No: 99/02324/FUL | Status: Approved

- Removal of end-of-life prefabricated garage and base erection of new garage on new base.

Ref. No: 77/00423 | Status: Refused

- Demolition of existing garages and erection of a detached dwelling and garage construction of a cesspool



Above: Following completion of construction work at number 45 boundary planting has been re-instated by the applicant..



Above: View of the existing dwelling from Greenhill Rd. There are limited views of the property due to the mature planting around the site that will all be retained.

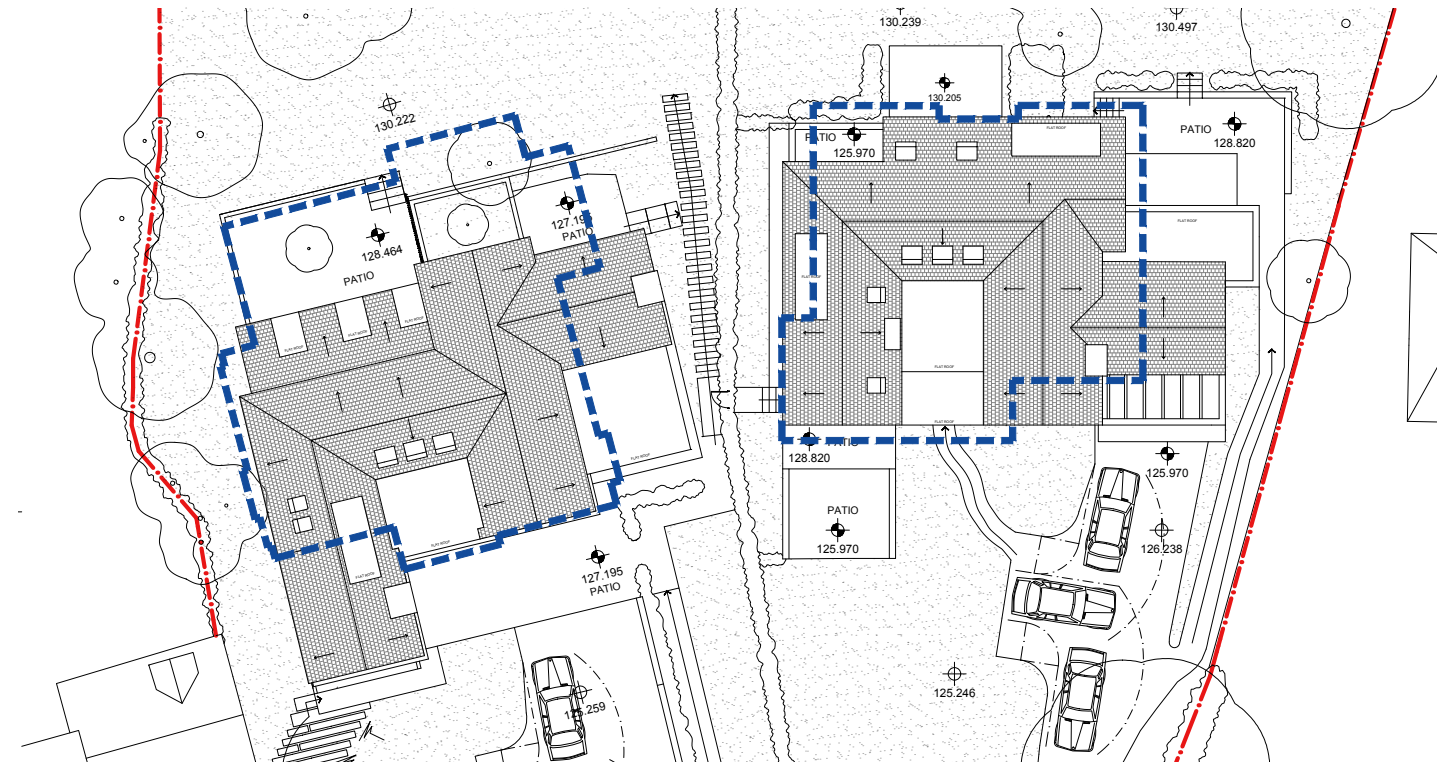
3.0 Response to Pre-app consultation comments

A pre-app for the replacement of the existing dwelling with two new family homes was submitted to the council for which the response was received in August 2020.

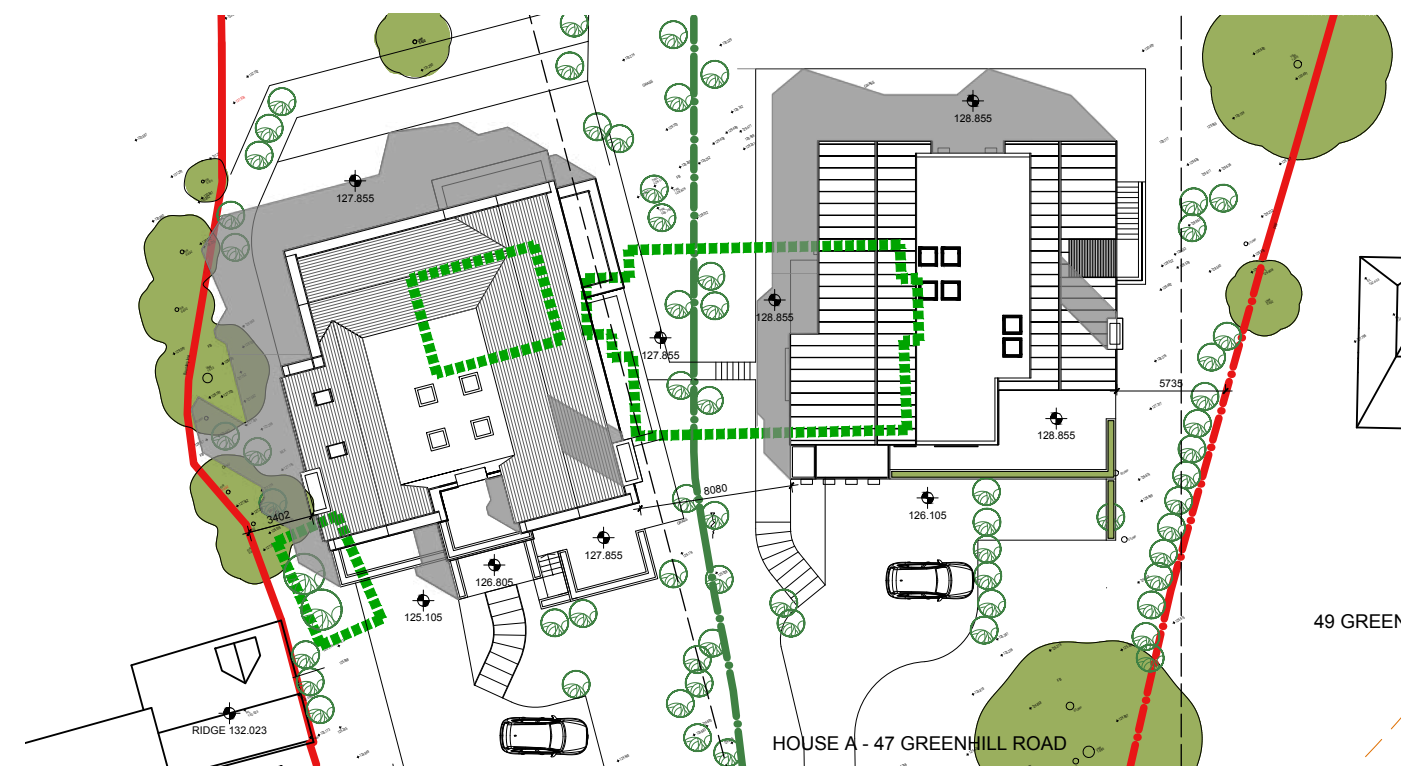
Although no concerns were raised in regard to the plots sub-division in principle there were concerns with the submitted pre-app generally in regard to scale, mass and the impact of the proposals on the wider street scene.

The response to this shown in the planning submission has been:

- 1. Lower ridge heights** - The homes have been fully redesigned so ridge heights of the homes have been lowered by 1m. Both are now below the height of the existing dwelling.
- 2. Massing reduced** - The massing is lower to the side boundaries with the higher masses located centrally to the site.
- 3. Greater variety of form** - The forms of the buildings has been fragmented more than the pre-app design with differing ridge heights and house B having different materials to greater emphasis the different scales at the rear.
- 4. More compact plans** - The plan forms of the homes has been changed to make them more compact and less sprawling. This means that a green corridor can be added between the new homes so that they integrate more comfortably to their setting.
- 5. Better relationships** - The projecting bay of house B that ran parallel to number 45 has been removed to remove the risk of overlooking number 45.
- 6. Two very different architectural styles** - The proposed homes are for the applicant and the applicants sisters family. The architectural style has been developed to result in two very different homes. This reduces the possibility of visual dominance as the homes are now so different.
- 7. More greenery around the homes** - The homes have been designed to integrate more comfortably with their setting due to increased space for landscape enhancements. The homes design has been narrowed from the pre-app to ensure good separation at the sides from the existing neighbours but also to provide space for a green corridor between the properties to allow the woodland at the rear of the site to flow through the centre of the site.
- 8. No loss of light** - Due to the orientation of the homes facing south and south west there is very little shadows that effect neighbours with existing mature planting having a greater impact on 45 than the proposed new dwelling. This can be seen in the adjacent site plan.



Above: Overlay of the pre-app site plan with the new designs overlaid in blue dotted lines showing the more compact homes proposed.



Above: Site plan showing the shadows cast by the buildings in summer



Above: The ridges of the two proposed dwelling have been lowered by 1m from the pre-app so that both are below the ridge of the existing dwelling on the site. Lower forms are placed to the side boundaries with the higher masses located centrally to the site. Number 47 is around the highest point of Greenhill Road so the existing dwelling is naturally higher than those around it.



Above: Better spacing of the homes leaves greater opportunities for boundary planting that when combined with existing retained mature planting ensures privacy for the existing dwellings as well as the proposed family homes

**Higher masses
located more
centrally to site**

**No windows to
habitable rooms on
flank walls above
ground floor**

**Existing mature
boundary planting
in filled where
necessary to ensure
privacy**



**No windows to
habitable rooms on
flank walls above
ground floor**

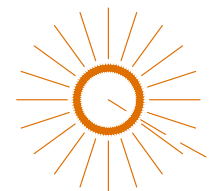
LEGEND

■■■■■ INDICATES LOCATION AND SHAPE OF
EXISTING BUILT FORMS ON THE SITE

○ INDICATES NEW TREE PLANTING

SHADOWS OF HOUSES SHOWN ON
PLAN ARE BASED UPON 61.9 DEG
SUMMER SOLSTICE

**New green corridor linking the
rear woodland through the site**



SUNSET IN WEST

**The site orientation naturally
limits the possibility of over
shadowing**

The pre-app showed two very similar houses both of which were taller and of greater bulk than the designs contained within the planning submission



Planning application - House B



Planning application - House A



Not only due to their considered scale and massing but also due to the fact that the homes are very different in their architectural style means that they will integrate sympathetically into the streetscape.

4.0 Planning Policy

Colin Smith Planning were commissioned to prepare a document in regard to the possible sub-division of the land into two to allow for two family homes to be created.

- According to the development plan Proposals Map, the site is not within the Green Belt, but is within an Area of Outstanding Natural Beauty (AONB).
- There are no Neighbourhood Plans for the area.
- The site is not within the Green Belt, and therefore the tight restrictions on development do not apply.
- Although within the AONB, and with landscape features such as trees and hedges generally dominating over built form, the character of Greenhill Road is one of almost suburban typology, with the detached houses set relatively close together. No. 47 is almost unique in that it has a wider frontage and plot, being set on the corner at the top of the road. However, the frontages and plots on the other corner (turning into Hillydeal Road) are narrower, and it would appear that historically, there have been infill plots developed here.

The relevant development plan policies are as follows;

Core Strategy

LO 1 Distribution of Development- identifies that New Ash Green, Otford and Westerham will be locations for limited development in accordance with Policy LO7.

LO 7 Development in Rural Settlements- sets out that within the settlement confines of New Ash Green, Otford and Westerham development on a modest scale will be permitted where it can take place in an acceptable manner consistent with local character.

SP 1 Design of New Development and Conservation- sets out that all new development should be designed to a high quality and should respond to the distinctive local character of the area in which it is situated. Account should be taken of guidance adopted by the Council.

SP 5 Housing Size and Type- requires development to contribute to a mix of different housing types in residential areas taking into account the existing pattern of housing in the area, evidence of local need and site specific factors. It will seek the inclusion of small units (less than three bedrooms) in new development schemes in suitable locations to increase the proportion of smaller units in the District housing stock.

Allocations and Development Management Plan

EN1 Design Principles- this is a criteria based policy setting out the requirements for good design. In particular, the form of the proposed development would respond to the scale, height, materials and site coverage of the area, and the layout of the proposed development would respect the topography and character of the site and the surrounding area and sensitively incorporate natural features such as trees, hedges and ponds within the site.

EN2 Amenity Protection- sets out that proposals will be permitted where they would provide adequate residential amenities for existing and future occupiers of the development and would safeguard the amenities of existing and future occupants of nearby properties by ensuring that development does not result in, and is not located in areas where occupiers of the development would be subject to, excessive noise, vibration, odour, air pollution, activity or vehicle movements, overlooking or visual intrusion and where the built form would not result in an unacceptable loss of privacy, or light enjoyed by the occupiers of nearby properties.

EN5 Landscape- sets out that the Kent Downs and High Weald Areas of Outstanding Natural Beauty and their settings will be given the highest status of protection in relation to landscape and scenic beauty. Proposals within the AONB will be permitted where the form, scale, materials and design would conserve and enhance the character of the landscape.

T1 Mitigating Travel Impact- requires new developments to mitigate any adverse travel impacts, including their impact on congestion and safety, environmental impact, such as noise and tranquillity, pollution and impact on amenity and health.

T2 Vehicle Parking- sets out that vehicle parking provision, including cycle parking, in new residential developments should be made in accordance with the current KCC vehicle parking standards in Interim Guidance Note 3.

T3 Provision of Electrical Vehicle Charging Points- requires all new houses with a garage or vehicular accesses to include an electrical socket with suitable voltage and wiring for the safe charging of electric vehicles.

The site is not within the Green Belt, and therefore the tight restrictions on development do not apply. Development plan policies identify Otford is a location where development, within the built confines, on a modest scale will be permitted where it can take place in an acceptable manner consistent with local character. Other policies require all new development to be designed to a high quality and respond to the distinctive local character of the area in which it is situated. Although the site is within the AONB, development will be permitted where the form, scale, materials and design would conserve and enhance the character of the landscape.

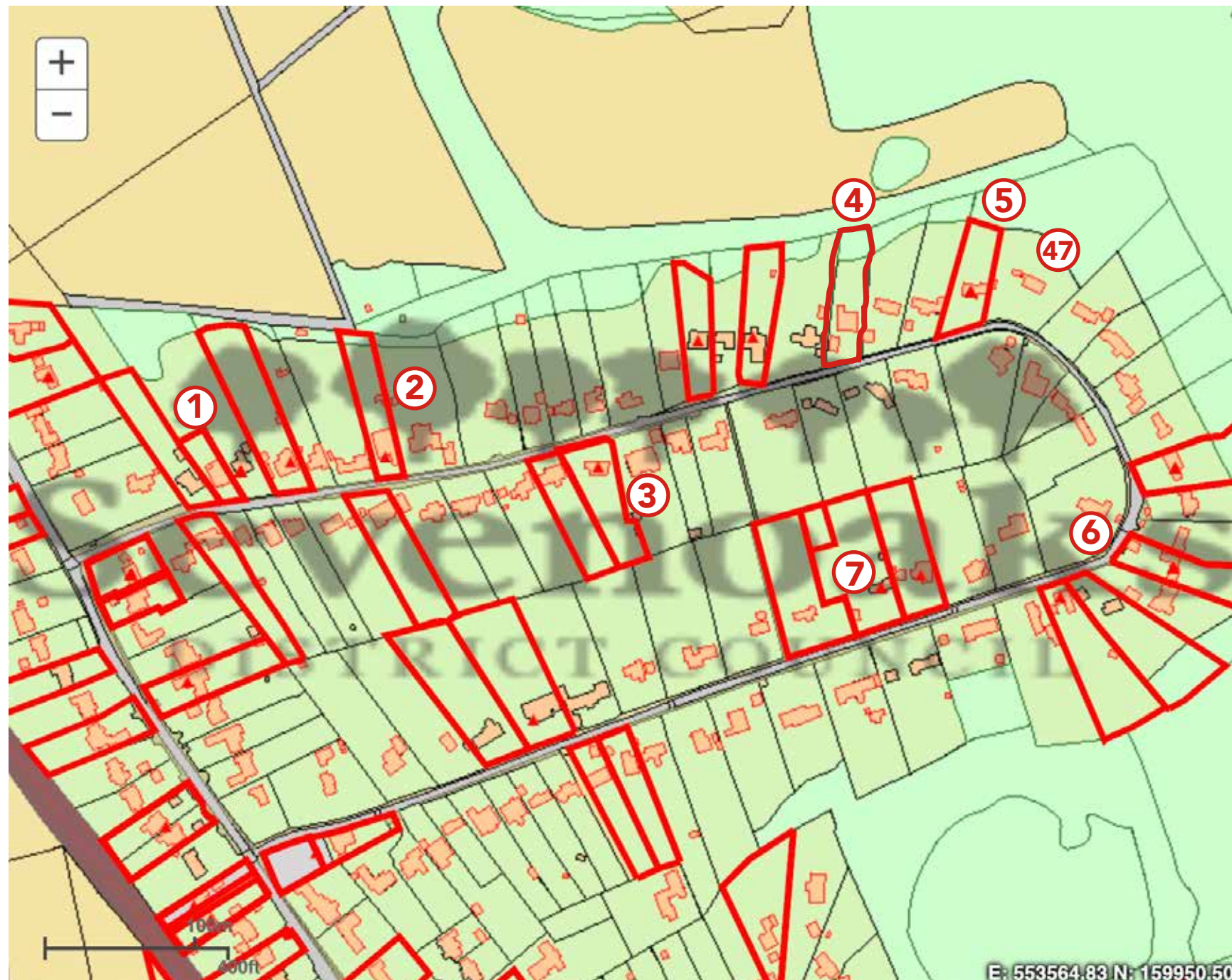
As a starting point therefore, it is essential to establish the character of the surrounding area. Although within the AONB, and with landscape features such as trees and hedges generally dominating over built form, the character of Greenhill Road is one of almost suburban typology, with the detached houses set relatively close together. No. 47 is almost unique in that it has a wider frontage and plot, being set on the corner at the top of the road. However, the frontages and plots on the other corner (turning into Hillydeal Road) are narrower, and it would appear that historically, there have been infill plots developed here.



Above: Aerial view of Greenhill Rd. As can be seen the character of the area is one of almost suburban typology, with detached houses set relatively close together.

The principle of infill development has relatively recently been reinforced with the granting of permission for a new dwelling at no.7 Greenhill Road. The case officers report for this development (reference 15/01372) addresses the impact on the AONB at paragraph 22 as follows;

“As previously mentioned, the site lies within an Area of Outstanding Natural Beauty (AONB). However, it also lies within the confines of Otford, forming a part of existing linear development within this part of Greenhill Road. As such the visual impact of the proposal would not be widespread. As a consequence, it is considered that the development would preserve the character and appearance of the AONB.”



Apart from 7 Greenhill Road establishing the principle of subdividing a plot on the road there have also been a number of permissions granted for replacement dwellings that are listed below. The neighbouring property at 45 Greenhill Road has received permission for a triple garage and other works including construction of a front extension and elevated terrace wall against the shared boundary with No. 47, which have recently been completed on site.

LEGEND

1. SE/15/01372/FUL - 7 Greenhill Road - Construction of a new detached dwelling accessed from Greenhill Road comprising subdivision of 7 Greenhill Road plot.
2. 13/00687/FUL - 15 Greenhill Road - The erection of detached dwelling with rooms in roof with roof lights to front, rear and side elevations, rear balcony, basement with light well, attached garage with room in roof, retaining walls to gardens, parking and landscaping.
3. 18/03531/FUL - Christiania 28 Greenhill Road - Demolition of existing dwelling and erection of replacement dwelling with attached garage, alterations to access, landscaping works.
4. 07/01180/FUL | Erection of a replacement dwelling (Revised scheme to that permitted under SE/06/00944). | 39 Greenhill Road Otford Sevenoaks Kent TN14 5RR. **This granted scheme is very similar in regard to the footprint as our proposed design and has a flat roof section to maximise the accommodation available at the upper floor between two gables.**
5. 18/03110/HOUSE - South Meadow 45 Greenhill Road - Single storey front extension, loft conversion, terrace entrance gates/fence and triple garage with drive. New dormer, alterations to fenestration.
6. 10/00098/FUL - Merlins 42 Hillydeal Road - Demolition of existing dwelling and erection of a two storey four bed roomed detached property with room in roof and detached garage to be built within previously approved footprints (SE/09/00531/FUL)
7. 18/01912/FUL - 29 Hillydeal Road - Construction of replacement dwelling with attached garage.

5.0 Proposed Design

5.1 Response to the site

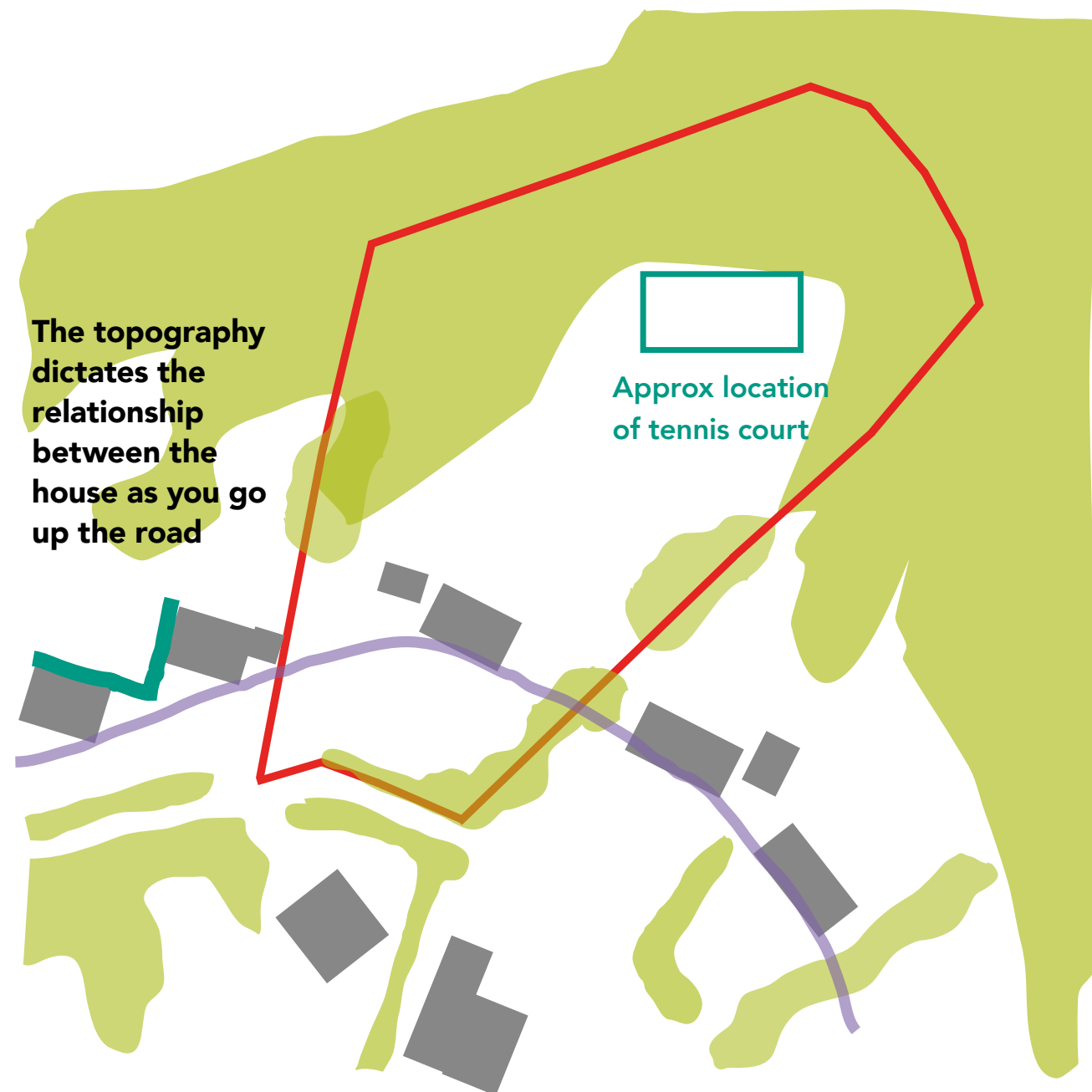
The proposed replacement dwellings have been considered in relation to the adjoining properties and neighbourhood so that the proposals work within the streetscape.

The drawing to the right highlights how the proposed design works with the existing building lines on the site to integrate the homes into the landscape.

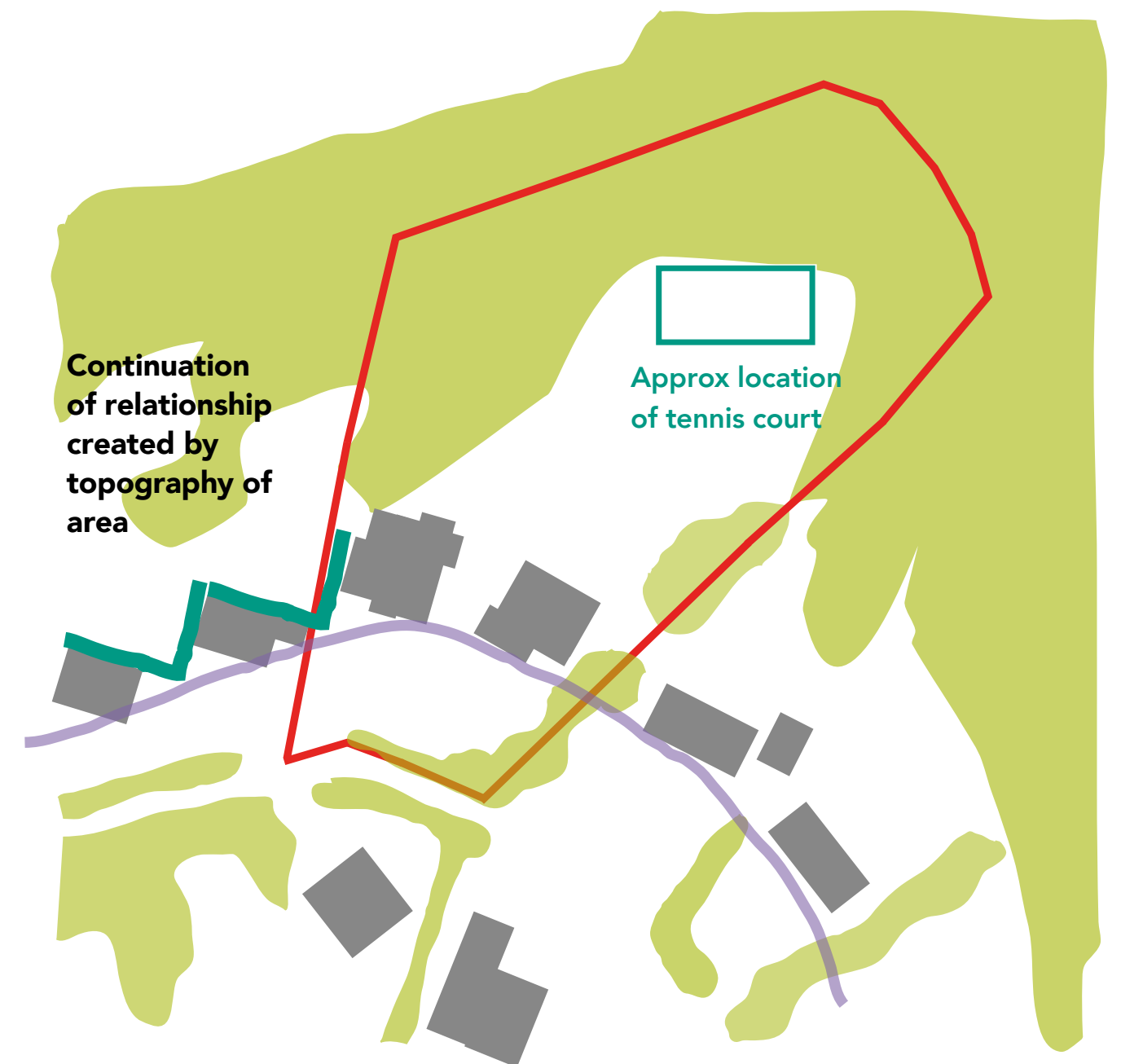
The desire is to create new dwellings that are embedded into the existing landscape. Sitting low into the topography, this gives the property a solidity with the reference to traditional construction complementing the context. The subdivision of the plot provides a plot width in line with properties 39-45 Greenhill road and provides a lower density of housing than that existing on the opposing bend at Greenhill / Hillydeal junction.

The plot benefits from views across the landscape at the front and many established trees at the rear, these shall be taken advantage of at the ground floor. The existing driveway will be replaced with a new ones leading to double garages that assures adequate space to accommodate two car parking spaces for each proposal on 47 Greenhill Road.





Above: Graphical representation of existing urban context showing all buildings over single storey



Above: Graphical representation of proposed urban context showing all buildings over single storey



Above: Photograph taken from rear patio of existing house looking up towards woodland with old tennis court plateau highlighted



Above: Photograph taken from old tennis court

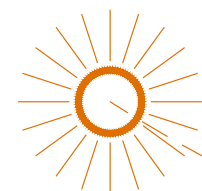
Sunpath and boundary planting

The site orientation and locations of the proposed new dwellings means that there will be no increase in over shadowing.

Mature planting to the boundary with number 45 will be retained and reinforced further up as the applicant wishes to define the boundary at the rear between numbers 45 and 47



Mature planting retained



SUNSET IN WEST

The site orientation naturally limits the possibility of over shadowing





Screen planting to boundary with number 45 to minimise the visual impact of the recently constructed front extension and terrace wall against the boundary, and address the associated loss of privacy.



Above: View down the boundary with number 49 with mature tree at corner which is unaffected by the proposals.



Above: Screen planting to the boundary with number 49.

House B



The designs have been developed to react to the immediate characteristic context, referencing traditional and contemporary architectural styles to produce dwellings which are enjoyable to its occupants and is sympathetic to its context.

Each elevation has been carefully considered with relation to natural light, views out, articulation of elements and materials.

The main considerations when developing the designs have been:

- Development of the brief and space requirements with the client.
- Location of the dwelling on the site to respect existing site topography, privacy of existing and proposed dwellings and the homes comfortable integration into the existing streetscape.
- Views from the site and maximising natural light
- Access to the site and the circulation of vehicles on the site

House A



Each dwellings has a proportioned appearance comprising two gable projections at the front facade.

The character of each dwelling is very different but the proposed material palate is similar in nature adjusted to the different sensibilities of each household and thus have unique qualities.

5.2 Proposed Materiality

The two homes are proposed to share the same buff brickwork and have cast stone used in traditional and contemporary ways. The roof of house A is proposed to be of zinc which is referenced in the mansard roof section of house B within the central part of the roof.

We feel it is important to acknowledge the characteristic context of the dwelling but also convey the time at which the building was constructed. Therefore we harmonise traditional forms with contemporary elements where appropriate to do so.

Since the typologies of Greenhill Road vary with each property, we feel the proposed appearance would sit comfortably amongst the streetscape. The houses proposed elevations are shown on drawing reference 20003-GEA-010, 20003-GEA-011, 20003-GEA-504 and 20003-GEA-505.



House A - Materials



Buff coloured facing brickwork



Cast stone facade cladding



Double / Triple glazed aluminium framed windows and surrounds.



Zinc metal roofing and rainwater goods



Glass panels integrated into the facade for Juliet balconies and to provide safe access to flat roofs



Natural slate roofing

House B - Materials



Buff coloured facing brickwork



Cast stone window surrounds and double glazed traditional windows



Cast stone facade cladding



Cast stone external balustrades



Zinc metal roofing and rainwater goods

5.3 Scale and Massing

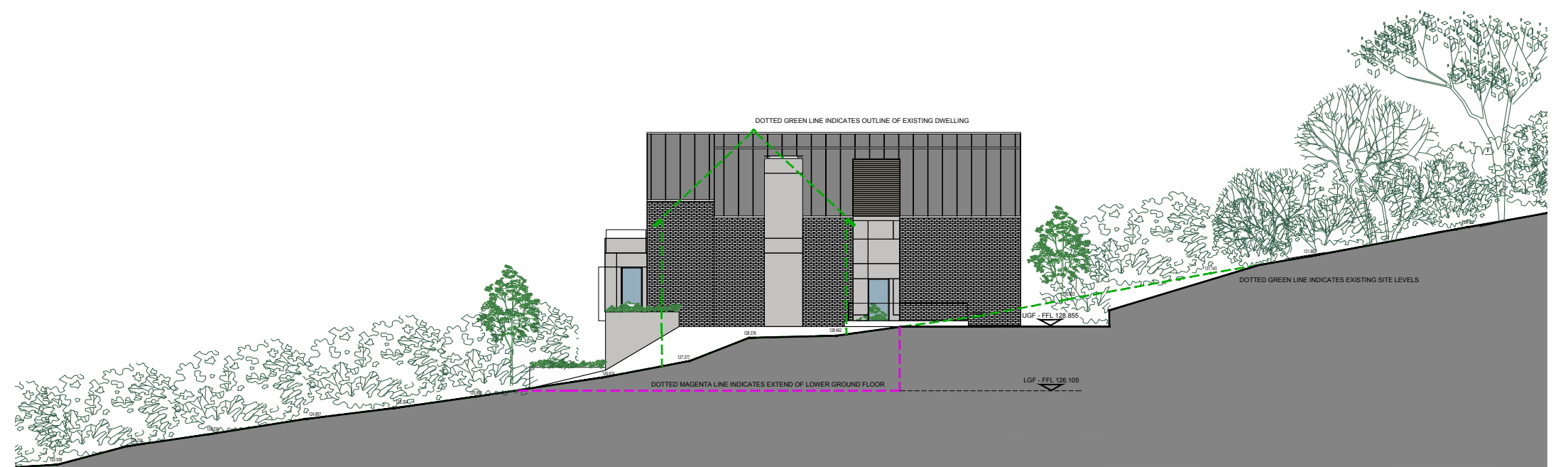
Cutting into the existing site to reduce the ridge heights of each property, careful consideration has been taken into giving views out to the landscape without overlooking neighbouring properties.

House B runs parallel to 45 Greenhill Road and House A parallel to 49 Greenhill road with minimal glazing on these sides to create greater privacy for all parties. The design ensures a good separation between the existing properties and the new homes and between the two new homes themselves where the green corridor links to the woodlands behind.

To reduce the appearance of a large property exaggerated by the topography, the bulk of each property has been distributed to push the dwelling further into the landscape. Garages that are typically built as large detached dwellings adjacent to the road in the existing context, have been buried into the design to reduce the footprint of the proposed. This, paired with the established foliage lining the street, which if removed will be reintroduced, ensure that the new dwellings do not impose themselves upon the streetscape and existing context. Demonstrated by the drawings on the right.



Above: Proposed street view



Above: Proposed south-east elevation showing house A

Existing Dwelling

5.4 Layout, Use and Amount

The two proposed dwellings have been developed in conjunction with each other in order to ensure they share a relationship in scale but don't overlook one another or the neighbouring properties.

The dwellings are to be used as family homes with House A providing potential lower ground floor level accommodation for elderly relatives.

The existing property has an impressive view to the south as well as a mature woodland to the rear. The layout is arranged to encourage assembly in places that take advantage of these views, placing secondary spaces and bathrooms in areas that face neighbouring properties to increase levels of privacy in the site.

GEA Footprints on the site

Existing

The existing dwelling consists of 151m² gross external area at ground floor with 2 outbuildings adding a gross external area of 35m² and 21m².

Total 207m²

Proposed

At ground floor the proposed accommodation consists of 236m² gross external area for house A and 277m² for house B.

Total 513m²



Above: Proposed footprints for house A and B on site

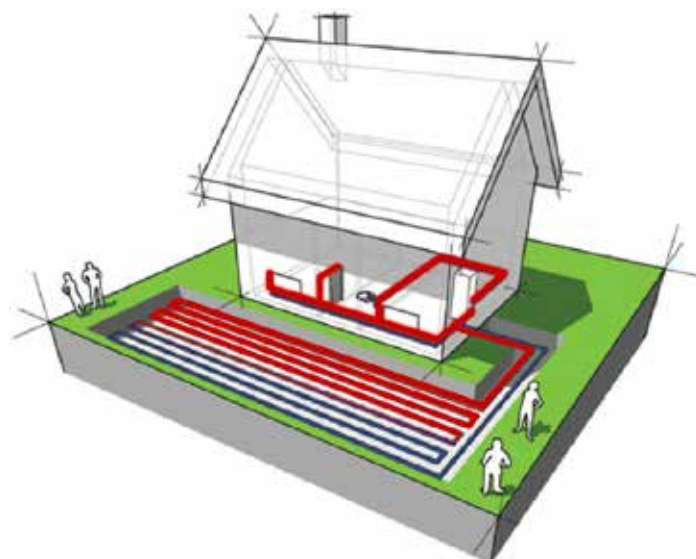
5.5 Renewable Energy and Energy Efficiency

Ground Source Heat pump

There is sufficient land on the site to install a Ground source heat pump that could be used by both houses with minimal impact. Once the installation process is complete after a short period of time the lawn will return to its previous natural state so it will be impossible to know that there is a renewable energy system below the ground.

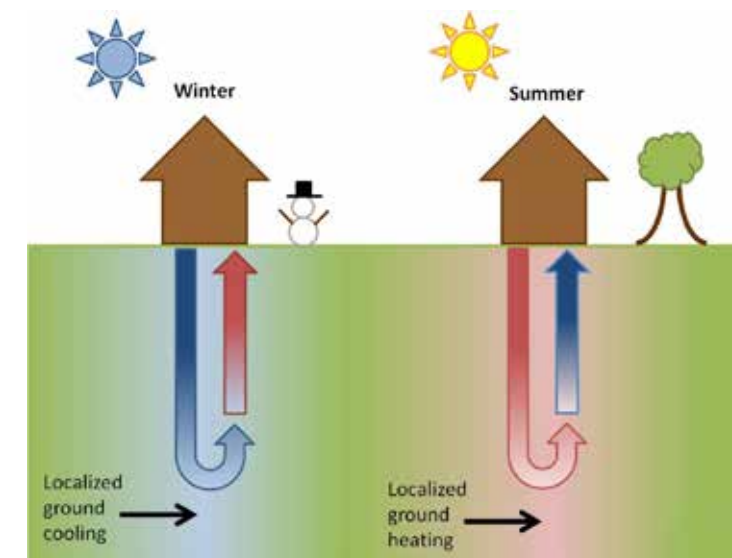
A Ground Source Heat Pump transfers heat from the ground into buildings. Radiation from the sun heats the earth. The earth then stores the heat and maintains, just two metres or so down, a temperature of around 10°C even throughout the winter. A ground source heat pump uses a ground heat exchange loop to tap into this constantly replenished heat store to heat buildings and provide hot water. The technology used is the same as that used in refrigerators. Just as a fridge extracts heat from the food and transfers it into the kitchen, so a ground source heat pump extracts heat from the earth and transfers it into a building.

For every unit of electricity used by the heat pump, three to four units of heat are captured and transferred. In effect this means a well installed Ground Source Heat Pump can be 300-400% efficient in terms of its use of electricity. At this efficiency level there will be 70% lower carbon dioxide emissions than for a gas boiler heating system. If the electricity is provided by renewable energy, then carbon emissions can be reduced to zero.



Photovoltaic panels

An array of PV (photovoltaic panels) are proposed to be hidden on flat roof sections of the building orientated to maximise solar PV gain. The panels will be laid on the roof and will not be visible from the ground.

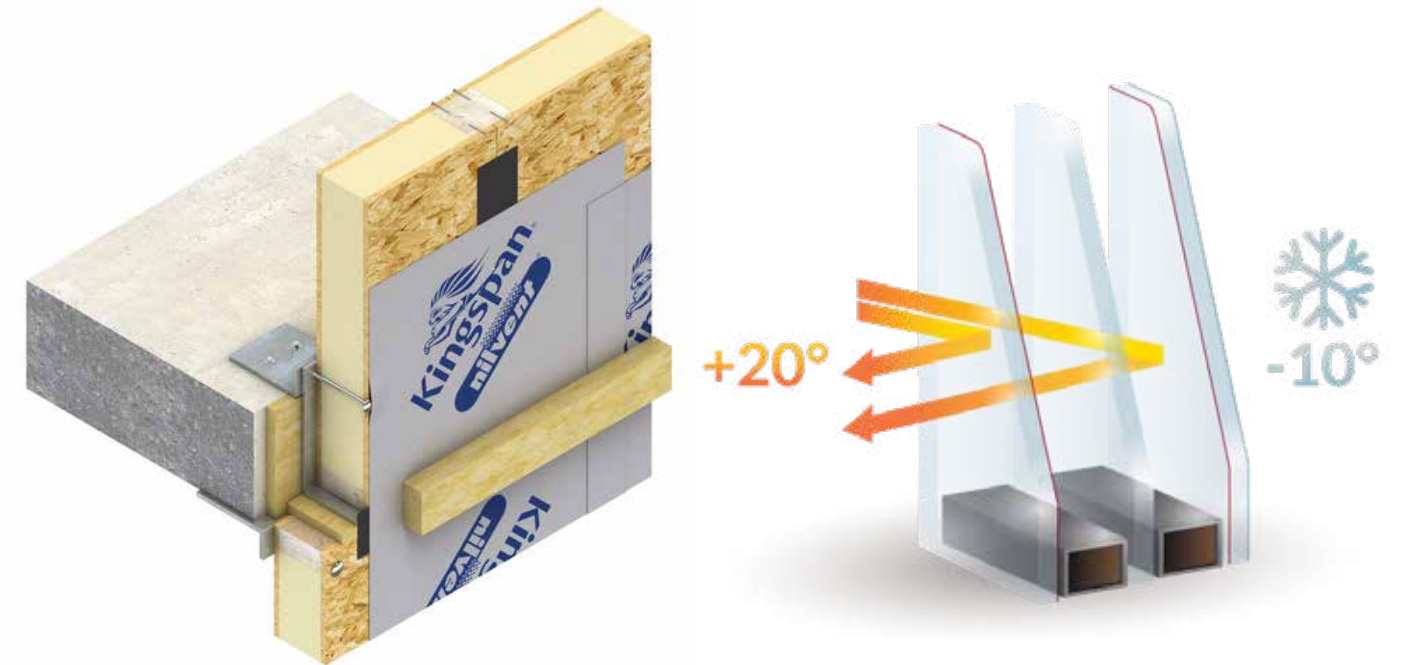


5.6 Thermal performance and Heating

The PV is not intended as providing any heating of the home. The PV is intended to supplement charging for electric vehicles with energy stored on site via batteries in the lower ground floor parking garage. The main source of heating for the house will be provided via the ground source heat pump installation.

The house will be kept warm using super-insulation and passive solar gains through the south, east and west windows. The benefit of the ground source heat pump is that it can be put in reverse in the summer to provide chilling of the floors.

The semi subterranean aspect of the building with the lower ground floor accommodation means that thermal massing becomes a key feature, helping to keep the interior warm in winter and cool in summer.



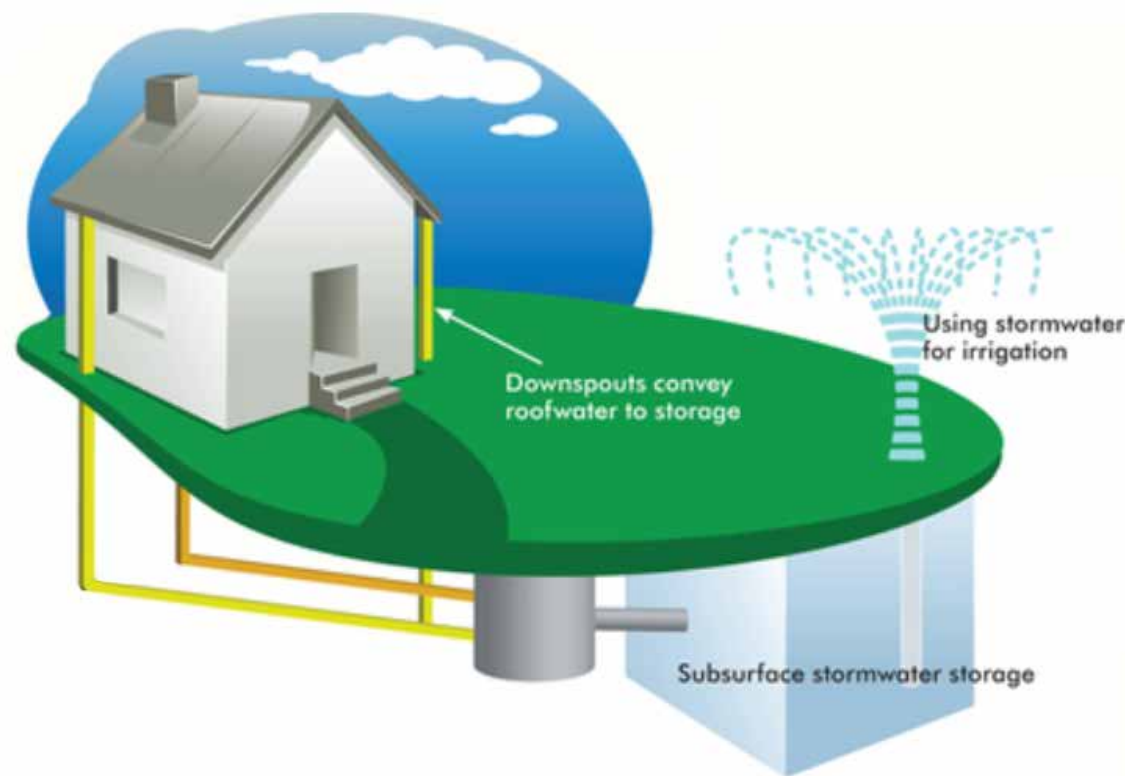
Thermal envelope

- Glazing**
 It is proposed that all glazing shall be triple glazed to the north facade as a minimum.
- Walls**
 The construction method is still to be considered whether to use ICF (Insulated Concrete Formwork) or SIP (Structurally insulated panels) that offer U-values as low as 0.10 w/m²k, limited cold bridging and providing superior air tightness.
- Roof**
 The roofs will be highly insulated. All the roof's insulations shall be linked thermally to the walls to offer a continuous highly insulated thermal envelope.



5.7 Water and Drainage

With the use of efficient A rated white goods, dual flush WC cisterns and taps with flow restrictors and aerators, internal potable the intension is that water consumption will be kept at 80 litres per person. In order to reduce treated potable water use, rainwater harvesting is proposed so that rainwater from roof surface areas can be used for the irrigation of the Landscaped Garden areas.



5.8 Health and well-being

The orientation of the home to make the most of the sun path and high use of glazing to the spaces used during the daytime reduces the need for artificial lighting to the dwelling.

Research has shown that there is a big positive impact on human beings of good natural day lighting. Adequate access to daylight will contribute to the Health and Well-being of the dwelling occupants providing them with a pleasant living environment.

The provision of secure private space is an effective way to improve the quality of the occupier's life. The varied private spaces around the dwelling and wider site offer multiple types of environmental stimulation. External spaces can be used by the occupant as a secure playing space for children, for horticultural purposes or simply as a convenient place to relax and take in the fresh air and enjoy the scenery.



5.9 Artificial lighting strategy

External lighting

- Site considered to be an E1 Environmental Zone. The ILP describes this as “Dark environment, relatively uninhabited rural area, National Park, Area of Outstanding Natural Beauty, International Dark sky Association buffer zone”.
- Upward light must be kept to a minimum or, preferably, avoided altogether.
- Only LED light sources which emit little, or no, UV should be used. This is one of the main recommendations in the Bat Conservation Trust, BCT, document “Bats and Lighting in the UK” 2018. This will ensure that the outdoor lighting is sympathetic to the ecology of its surroundings.
- The main external lighting will be provided by bollards which emit no upward light.
- Recommend LED light sources with a colour temperature, CCT, of Warm White, preferably 2700K
- Where there are steps or changes of level, recessed wall (or in the stepped stone terraces), mounted units with horizontal louvres should be used. This will block any upward light and provides extra security to the residents where the ground is uneven.

Internal lighting

- Much of the internal illumination at night will not be seen due to the setback of the windows
- Rooms are controlled by PIR presence or absence detectors to limit lights being left on accidentally
- The natural setting of the house and the move towards lighting that follows the pattern of daylight means that the use of variable colour temperature (CCT). Rooms can appear cooler in the morning and have a softer, warmer appearance with lower levels of illumination in the evening. Programming and scene setting can be linked to an astronomical clock which thus alters the timing throughout the seasons of the year and length of day.

6.0 Access

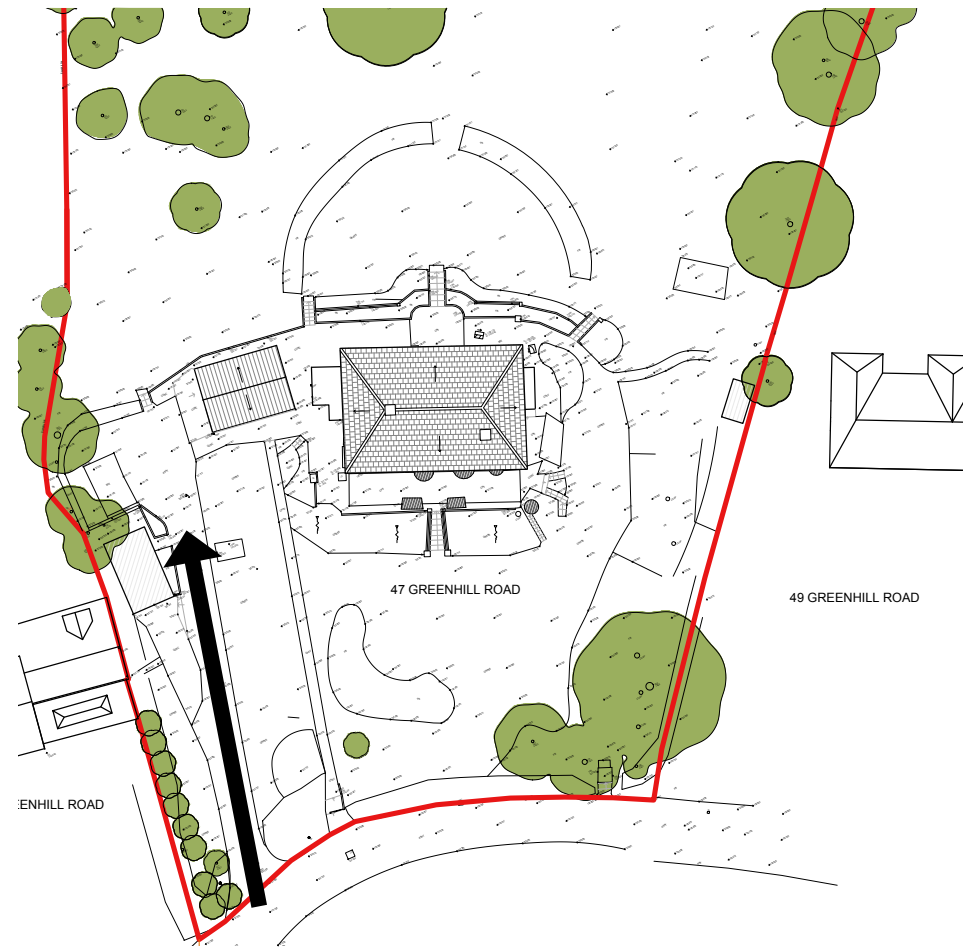
The site currently has one access point onto Greenhill Road. This will be retained with another new access created for House A

Unlike the existing, a turning point will be introduced on each drive to prevent cars from having to reverse onto the main road. Shown in orange on the adjacent proposed site plans.

There is more than adequate space within the site to accommodate the minimum two car parking spaces required to accord with council parking standards and to receive and store building materials during the construction period without encroaching onto the street.

Individual bin storage within screens areas for refuse and recycling bins will be located close to the entrance from Greenhill Road onto the drives. The areas will be screened from view with new screen planting.

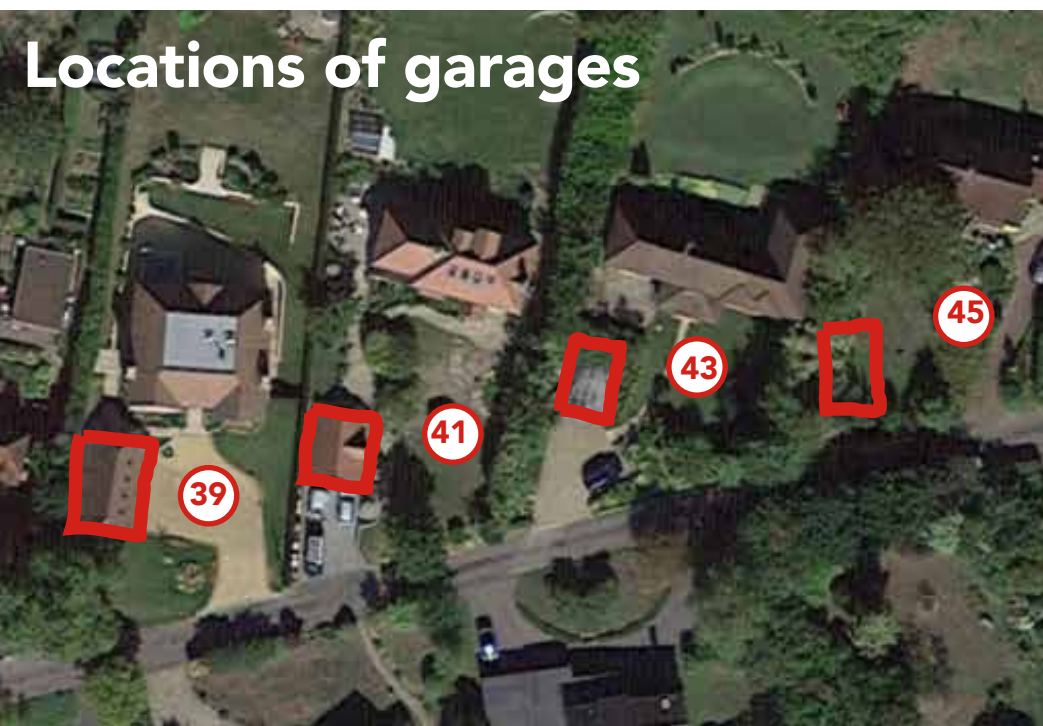
Car charging points will be accommodated within each parking garage.



Existing Access Point Leading to Garage



Proposed Access Points Leading to Garages



Locations of garages

The 4 houses to the east of 47 Greenhill Rd all have very large garages in front of their principle facades highlighted in red here.

We have decided to use the existing topography of the site to locate the garages below the proposed dwellings to enhance the openness and scenic beauty of the AONB.

Locating the garage below the homes has not created dwelling that dominate the streetscape due to their increased height because, the ridge heights of the proposed dwellings have been intentionally limited to be respectful to the scale and mass of the neighbouring homes and are below the ridge height of the existing property on the site.

7.0 Landscape and Ecology

7.1 Landscape

The proposal involves landscape works in order to create more managed landscape zones through terraces and planting borders and to offer to the occupants more comfortable outdoor areas.

Retaining walls create pockets of space used as patios to ground the user in their environment with planting beds defining the pathways and zones of the design. Landscaped steps integrate the man made introductions to the natural beauty of the site.

As listed below there are area where the boundary planting needs to be reinforced. This would be achieved using native species that would aid in enhancing the environment and scenic beauty of the AONB landscape.

Legend

1. The mature planting to the boundary, and existing fencing would be retained, with additional planting to provide necessary security, privacy and green aesthetic
2. The boundary planting was recently re-instated by the applicant following the completion of building works at 45. Some taller trees will be added to increase the character and beauty for benefit of both properties and provide good nesting habitats for birds.
3. Mature planting at the boundary with Greenhill road will be adjusted and filled in where necessary due to the access points changing.
4. There will be a fence / hedge to separate the plot into two.
5. Mature tree and hedge retained.
6. Boundary planting reinforced.
7. The creation of a "Green corridor" through the site which links the woodlands to the rear of the site with the front of the site

No existing trees need to be removed for the development to take place



- ① Drives up to vehicle parking / circulation zone to be finished in permeable tarmac.
- ② The vehicle circulation / parking areas are to be finished in permeable block pavers.
- ③ Areas to consist of a combination of lawn and flowering meadow (80% locally occurring wildflowers and 20% meadow grass).
- ④ New trees will be planted to add to the scenic beauty of the site and how it integrates into the landscape.
- ⑤ Patio areas around the building would be finished in natural stone slabs.
- ⑥ Green corridor to link woodland at the rear of the site through the middle of the site to create a visual link through the site. Native species would be used for all hedge planting and trees.
- ⑦ As with most house along the northern side of Greenhill road the site benefits from having woodlands to the rear further up the steep site.



7.2 Ecology

In order to increase opportunities for ecological variety the proposals would include for wild flowers seeding of some grass areas and the proposals would include for the addition of:

1. Bee hotels as breeding places by cavity-nesting solitary bees like Mason bees, Leafcutter bees and Yellow-faced bees which naturally nest in hollow stems, earth banks or old beetle holes in dead wood. From spring through summer, different species of bee will hopefully build cells inside the canes and lay eggs.
2. Bat boxes located in trees to create artificial roosts designed to encourage bats into areas where there are few roosting sites.
3. Hibernaculum created around the site to create places in which creatures can seek refuge, such as insects, toads, lizards, snakes, bats, rodents, and primates of various species.



8.0 Response to main planning policies

8.1 AONB & Policy EN5

There are two considerations directly related to a site's AONB status when determining a planning application. Firstly, does the application conserve the AONB and secondly, if it does conserve the AONB does it result in an enhancement. A failure to achieve both of these points will result in a conflict with the requirements of the Act. Proposals within the AONB will be permitted where the form, scale, materials and design will conserve and enhance the character of the landscape and have regard to the relevant Management Plan and associated guidance.

The site is located in the Kent Downs Area of Outstanding Natural Beauty, and is located on the outskirts of the existing settlement of Otford. In the immediate vicinity of the site the impression of this area from a wider landscape is of residential development. The settlement and dwellings form part of the character of the AONB in this location.

The residential development along Greenhill Road varies in scale and form. The proposed dwelling would have a similar scale to that of the neighbouring dwellings. A number of dwellings in the surrounding area are large in foot print, bulk and massing. The proposed dwelling would be in keeping with the character of development and would not feature as a prominent addition in the wider landscape.

The proposed dwellings due to their high quality and considered use of materials and detailing would enhance and conserve the character of the AONB in this location.

The plans include landscaping along the boundaries and within the site. The use of hedging and native species would aid in enhancing the environment and scenic beauty of the AONB landscape and we believe that the proposed dwellings comply with Policy EN5.

8.2 Policy SP1 and EN1

Policy SP1 of the Core Strategy and Policy EN1 of the ADMP state that all new development should be designed to a high quality and should respond to and respect the character of the area in which it is situated.

The dwellings along Greenhill Road have a variety of architectural styles, form, scale bulk and massing. The main characteristic is the large plots with detached dwellings. Garages can be observed forward of the principal elevation of the dwellings.

The proposed dwellings would be detached and would be set in from the side boundaries. The scale and design of the buildings in combination with the separation from the boundaries would prevent the appearance of terracing. To reduce the appearance of a large property exaggerated by the topography, the bulk of each property has been distributed to push the dwelling further into the landscape. Garages that are typically built as large detached dwellings adjacent to the road in the existing context, have been buried into the design to reduce the footprint of the proposed. This, paired with the established foliage lining the street, which if removed will be reintroduced, ensure that the new dwellings do not impose themselves upon the streetscape and existing context.

The homes being two very different high quality designs ensure that there is variety within the streetscape.

The properties along Greenhill Road tend to be set back from the street scene but do front the road. The dwelling would extend further to the rear of the plot than dwellings to the east and west but respect the established building line at the front and the site topography. The buildings are deeper as they work with the topography of the site with the buildings being pushed into the landscape. The scale of the properties at the rear are more two than three storey. The overall scale would fit comfortably in the plot, with generous side setbacks from the boundary to the buildings. The dwelling would predominantly have a pitched roof. This would be in-keeping with the character of the roofs in the area. The dwelling would have a formal two storey linear appearance on an landscaped plinth due to the site topography. The windows and doors are proportionate and the elevations appear balanced.

The proposed materials are sympathetic in tone and character to materials that can be seen in the vicinity. The driveway would be finished in a porous tarmac with gravel finish and the paths and patios would be constructed with natural stone. The hard standing would not overwhelm the plot and would be porous to the frontage of the site. We believe that the proposed development would be in keeping with the character of the area, and would comply with policy EN1 of the ADMP.

8.3 Policy EN2

The policy requires proposals to provide adequate residential amenities for existing and future occupiers of the development. The Residential Extensions SPD recommends that a 45 degree test is undertaken for a loss of light to neighbouring dwellings, based on BRE guidance.

45 Greenhill Road:

45 Greenhill Road is located to the west of the site, and is a two storey detached dwelling. There are no windows facing towards the proposed development site. The first floor windows of the proposed House B would be obscure glazed, have opening restrictions and only serve non-habitable spaces. The proposed dwelling would be generally 3.5m or more from the boundary. Due to the overall distance, existing and proposed vegetation along the boundaries is more than possible. The siting of the dwelling we believe means there would be no loss of privacy. Due to the separation of 3.5m from elevation to elevation, significant visual intrusion would not occur. The side elevation of 45 Greenhill Road closest to the proposed dwelling is east facing and thus receives direct sunlight but there are no windows in the elevation and if there were the proposed siting of the dwelling would not result in a loss of light.

49 Greenhill Road:

49 Greenhill Road is located to the east of the site, and is a two storey detached dwelling. There is dense planting to the boundary as can be seen from the adjacent photograph. To our knowledge there are no windows to habitable rooms facing towards the proposed development site at the first floor. There are no first floor windows of the proposed House B that would face 49 Greenhill Road. The proposed dwelling would be over 5m from the boundary. Due to the overall distance, existing and proposed vegetation along the boundaries, and siting of the dwelling we do not believe that it would result in any loss of privacy. Due to the separation of nearly 13m from elevation to elevation, no visual intrusion would occur. The side elevation of 49 Greenhill Road closest to the proposed dwelling is west facing and therefore the proposed works would not result in a loss of light due to the orientation.



Above: 45 Greenhill Road to the left of the photograph



Above: 49 Greenhill Road to the right of the photograph

48 Greenhill Road:

48 Greenhill Road is located on the other side of the road to the proposed dwellings. It is significantly lower than the proposed dwellings, is orientated so that it is not perpendicular to the proposed dwellings and is over 40m away elevation to elevation. Therefore no visual intrusion would occur or a loss of light.

Other dwellings are located at sufficient distance that they would not experience a loss of amenity. The proposed development would not result in a significant loss of amenity.

We therefore believe that the proposed works comply with policy EN2 of the ADMP.

8.4 Policy EN1, T2 & T3

Policy EN1 states that all new development should provide satisfactory means of access for vehicles and pedestrians and provide adequate parking. Policy T2 of the ADMP states that dwellings in this location with 4 or more bedrooms require 2 parking spaces. Policy T3 of the ADMP states that electrical vehicle charging points should be provided within new residential developments to promote sustainability and mitigate climate change.

The proposed developments would have more than 4 bedrooms each and sufficient space for the parking of 2 vehicles in the garages with further external parking.

The proposal would revise the existing single access point to create an access point to each of the proposed dwellings. The narrow and residential nature of the road means traffic speeds are naturally lower than on a more formal road. Vehicles emerging onto this road are expected due to the residential nature of the road.

Electric vehicle charging would be provided to each dwelling within their respective garages.

8.5 Policy EN2

Policy SP11 of the Core Strategy states that the biodiversity of the District will be conserved and opportunities sought for enhancements to ensure no net loss of biodiversity. The proposal has a long rear garden with trees, hedges, grasses and vegetation. The proposal would include bio-diversity enhancements including bee hotels, bat boxes and native plant species. We believe that no detrimental impact will occur as a result of the proposal.



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