

4.0 Proposed Development

4.1 Building Form & Layout

The proposed plan echoes the existing one, taking the form of an H-shaped dwelling with a central arrival courtyard and two wings connected by a central spine.

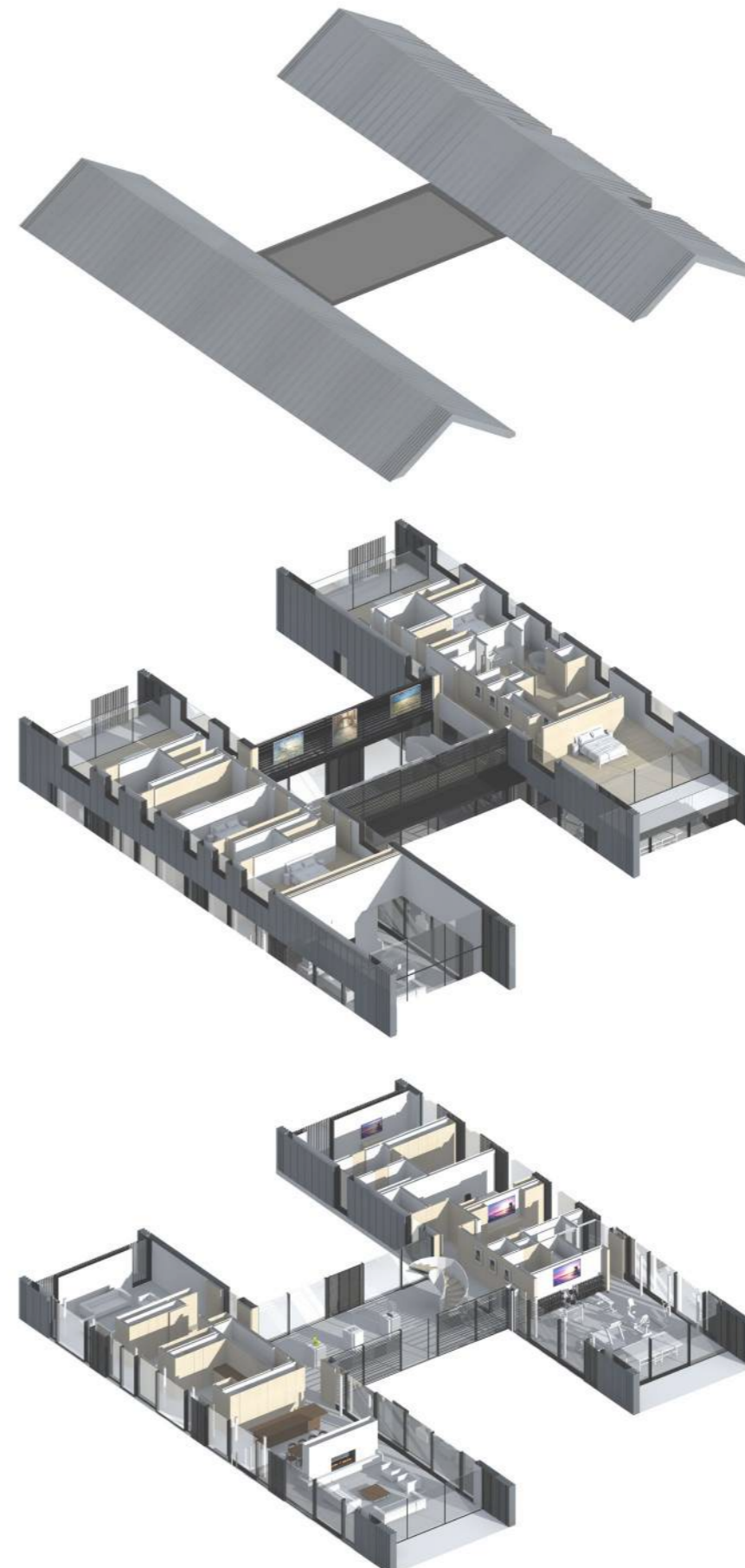
The proposal is repositioned further to the east to realign the property with the existing pool, bring the property further from Pennymead Lake and its flood zone, and offer the client greater views of the Surrey landscape. The footprint of the existing building measures 550m², whilst the proposed measures 565m². The great hall is at the heart of the proposal, measuring 6x14m and providing a link between the front arrival courtyard, the rear deck, and the West and East blocks.

The property is entered through the great hall, a double-height, light-filled connecting block housing a sculptural spiral staircase. On the ground floor, the proposal presents a dichotomy; the north end of the property is more closed off and solid, housing a separate guest apartment in the east wing; the west wing houses the snug and boot room. The south end of the east and west wings have glazed gable ends to maximise the amount of natural light and view towards the Surrey landscape. The East wing houses the Gym and two home offices; the west wing houses the central family kitchen and dining room, which opens into a double-plan Living space.

The first floor becomes more closed and intimate, housing all seven principal bedrooms. Both wings are linked via a central bridge within the great hall.

The roofs of both wings are pitched to echo that of the existing scheme, with the central link finishing below the eaves height to be clearly seen as a secondary member of the composition.

The proposal features a basement below the great hall to house the plant room and wine cellar.



Axonometric: Ground, First and Roof axonometric showing the internal layouts of the proposed building

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4.2 Building Massing

The building massing has been carefully considered from the onset of the scheme, and different massing have been proposed and investigated for the site.

As a result, the massing of the proposal is derived from a complex set of factors: the site constraints, the need to preserve the privacy of both the occupants and neighbours, maximising daylight and views and the intention to create a striking building with a high level of architectural ambition.

The proposal's massing echoes that of the existing building, which is an H-shaped dwelling centred around a central arrival courtyard flanked by two wings connected by a central spine.



CGI: Proposed view from west end of the site, on the bank of Peenymead Lake.

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4.3 Building Height

The height of the proposed building is dictated by the height of the existing building, the neighbouring building and the surrounding trees.

The existing building is a single-storey building with a partly inhabited roof space comprising three distinct elements. The central element features a higher ridge than the two flanking elements and incorporates three dormers.

The new building is arranged over ground and first floor, with the parapet of the central block and eaves of the two wings roughly matching the ridge height of the flanking elements on the existing building.



Key:
 Existing Building Outline

CGI: Proposed view from South end of site looking at the rear elevation, with existing building outlined in red.

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4.4 Precedent



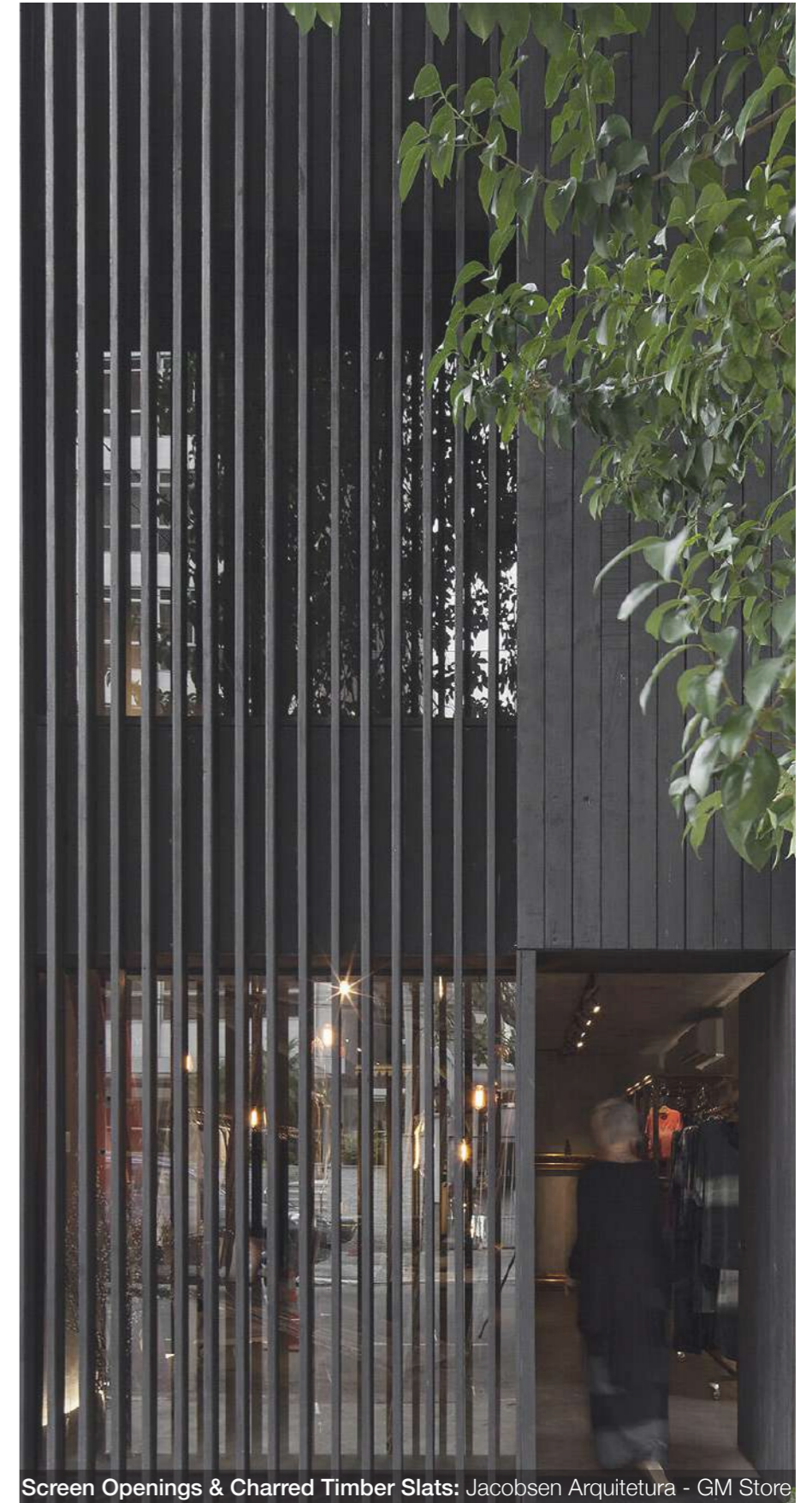
'Boat House Blue' Zinc Cladding: Ann Nisbet Studio - Newhouse of Auchengree



Modified wild meadow landscape: Marcus Barnett - Oxfordshire Barn



'Boat House Blue' Zinc Cladding: Ann Nisbet Studio - Newhouse of Auchengree



Screen Openings & Charred Timber Slats: Jacobsen Arquitetura - GM Store

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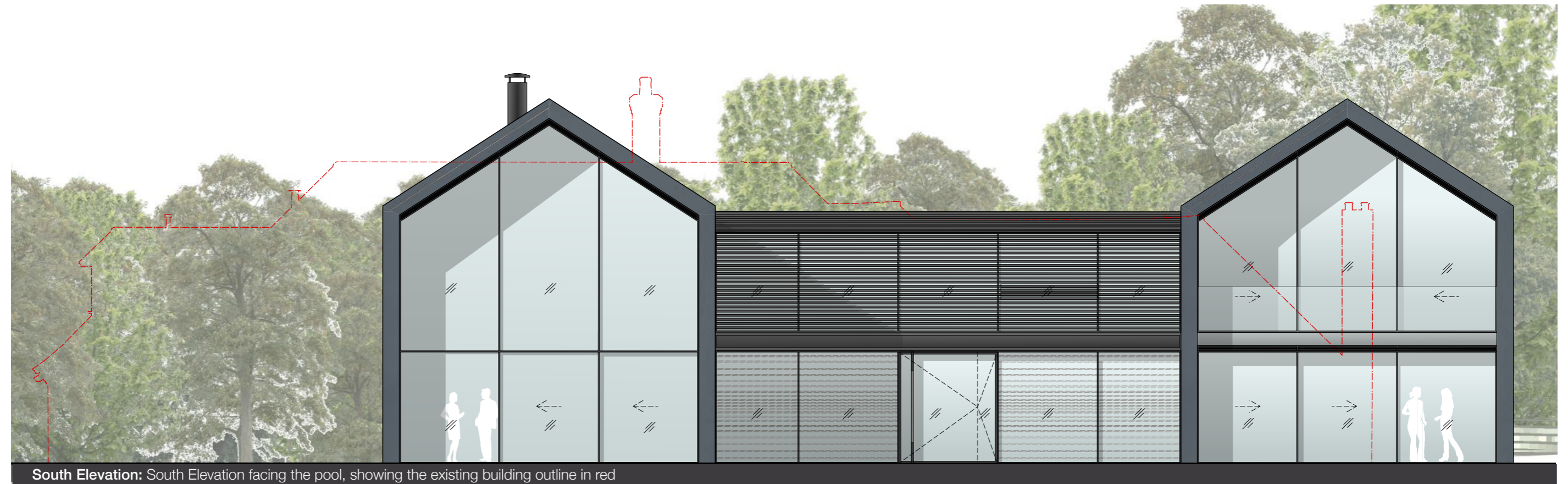
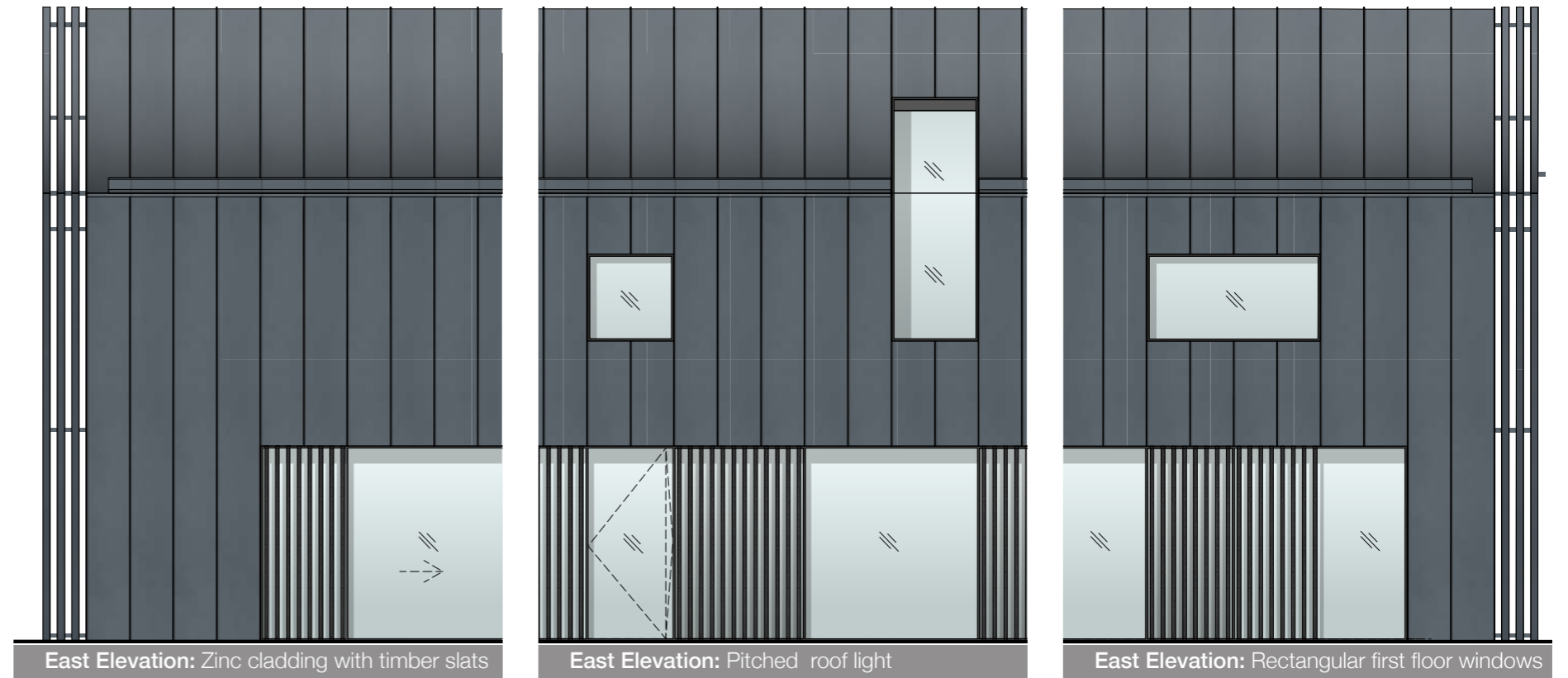
4.5 Elevations

The proposed building will be split into three distinct elements to echo the existing Innisfree house. The predominant elevation treatment for the two main wings will be standing seam zinc panelling and glazing, with the north gable facades being clad in ebonised timber slats. The central space will be glazed with black metal louvres to aid in reducing solar gain.

The wings feature glazed gable ends to maximise natural light and allow the client to immerse themselves in the beauty of the natural surroundings while ensuring a well-lit interior. To address solar gain, the design incorporates double-height brise-soleil clad in zinc and faced with light timber to provide effective solar shading.

Combining well-considered material choices and thought-out design elements results in a building whose elevations are both functional and aesthetic and create a harmonious and sustainable architecture.

Key:
- - - Outline of existing building



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4.6 Material Palette

Externally, the elevations blend functionality and aesthetics, mainly clad in standing seam 'Boat House Blue' zinc panels that seamlessly span both walls and roof. The extensive use of glazing provides the interiors with natural light, while the gable ends, with distinct dark timber insets, introduce a touch of contrast. The central link will be a glazed box enveloped in dark horizontal louvres.

The external floor is covered by permeable paving at the front, and permeable paths meander around the site, providing a route to the rear decking.

Internally, the design uses light timber accent walls and light-coloured stone flooring, crafting a serene and cohesive interior ambience that complements the architectural excellence of the exterior.



Material Palette: Standing Seam 'Boat House Blue' Zinc, Charred Timber, Anodized Metal, Triple Glazing, Natural Timber, Limestone

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4.7 Site Access

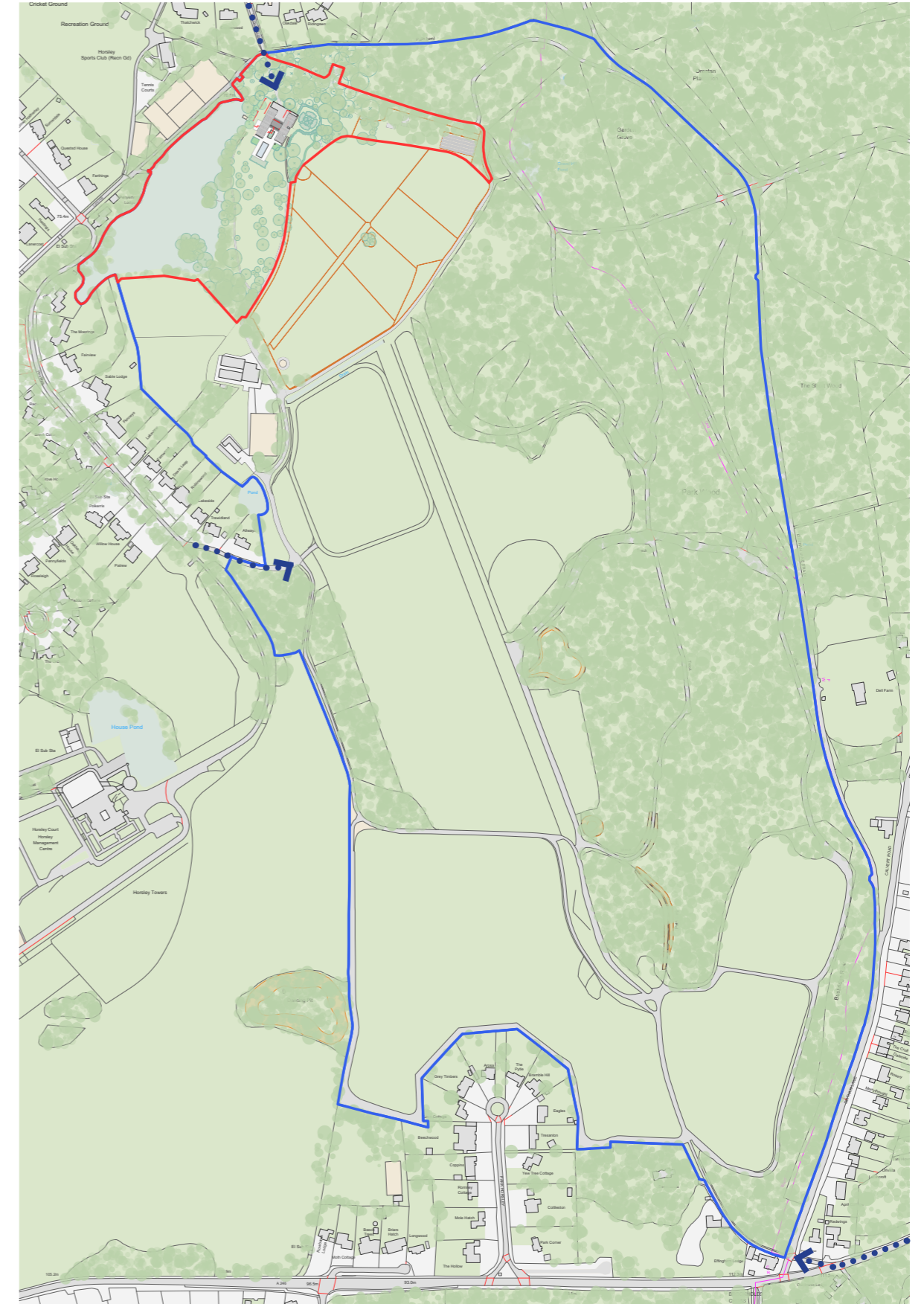
There are several approaches to the Innisfree estate, which is nestled within its surroundings. The primary access to the property is via Woodland Close, a serene and tree-lined road that culminates in a discreet private gate. This route is primarily reserved as an ingress point for the client and their guests.

Pine Walk offers a secondary access point with the ability to accommodate the needs of larger vehicles, such as delivery lorries and services essential for the property.

Dirtham Lane offers a third access point conveniently linked to Guilford Road (A246). This alternate approach enabled large goods to be delivered to the property directly off of a mainly through fare.

The proposal will retain the existing entrance arrangement, with the primary route off Woodland Close remaining unaltered.

During the construction phase, it is envisioned that either Pine Walk or Dirtham Lane will be used as the ingress of construction vehicles. However, this will be determined at a later date once a construction strategy has been produced.



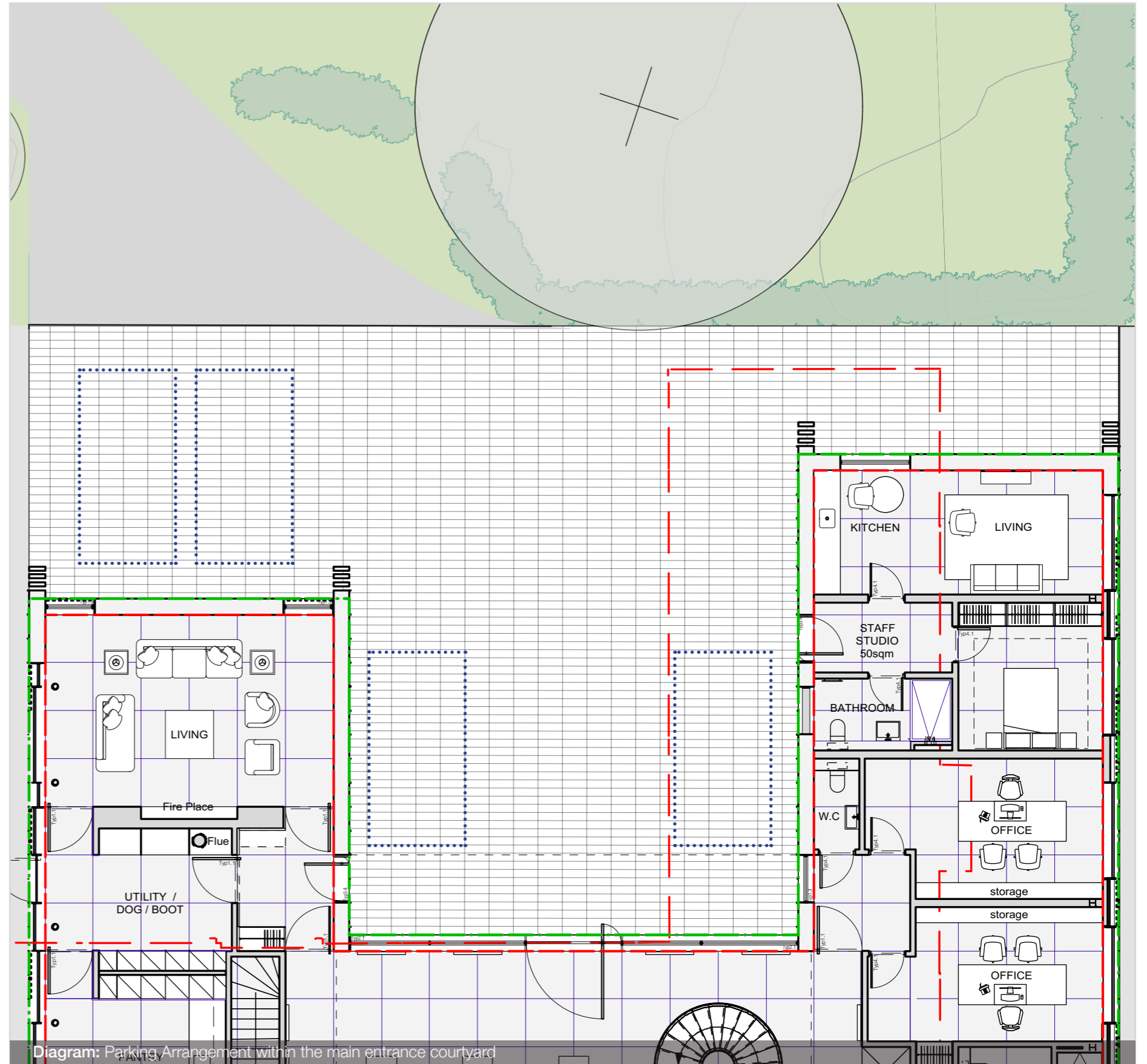
Key:
••➔ Site Entrances

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4.8 Car Parking

Currently the parking provisions for Innisfree falls primarily within the entrance courtyard, with additional space in the dedicated garage and adjoining parking area to the east. The proposed house will retain this configuration with the courtyard accommodating five standard 2.4x4.8m parking. The existing supplementary parking in the garage and eastern area remains unaltered.

Key:
 Indicative standard 2.4x4.8 parking spaces



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4.9 Refuse

The refuse strategy is to remain unaltered, with wheelie bins being taken by the client to the entrance gate at the end of Woodland Close and collected by Guildford Borough Council on collection day. The wheelie bins are then collected by the client and brought back to the property.

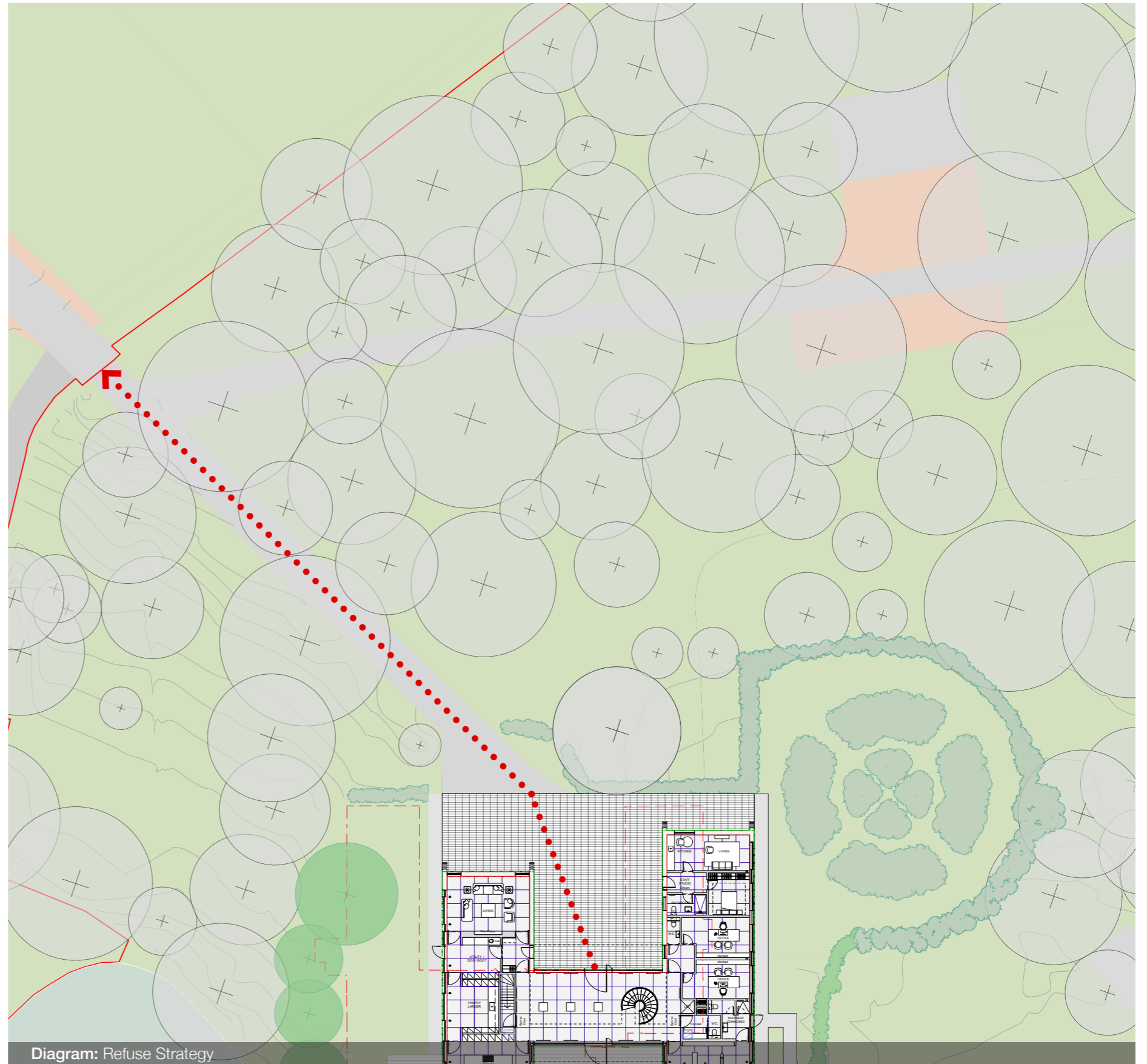


Diagram: Refuse Strategy

Key:
.....➔ Refuse Route

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4.10 Accommodation Schedule

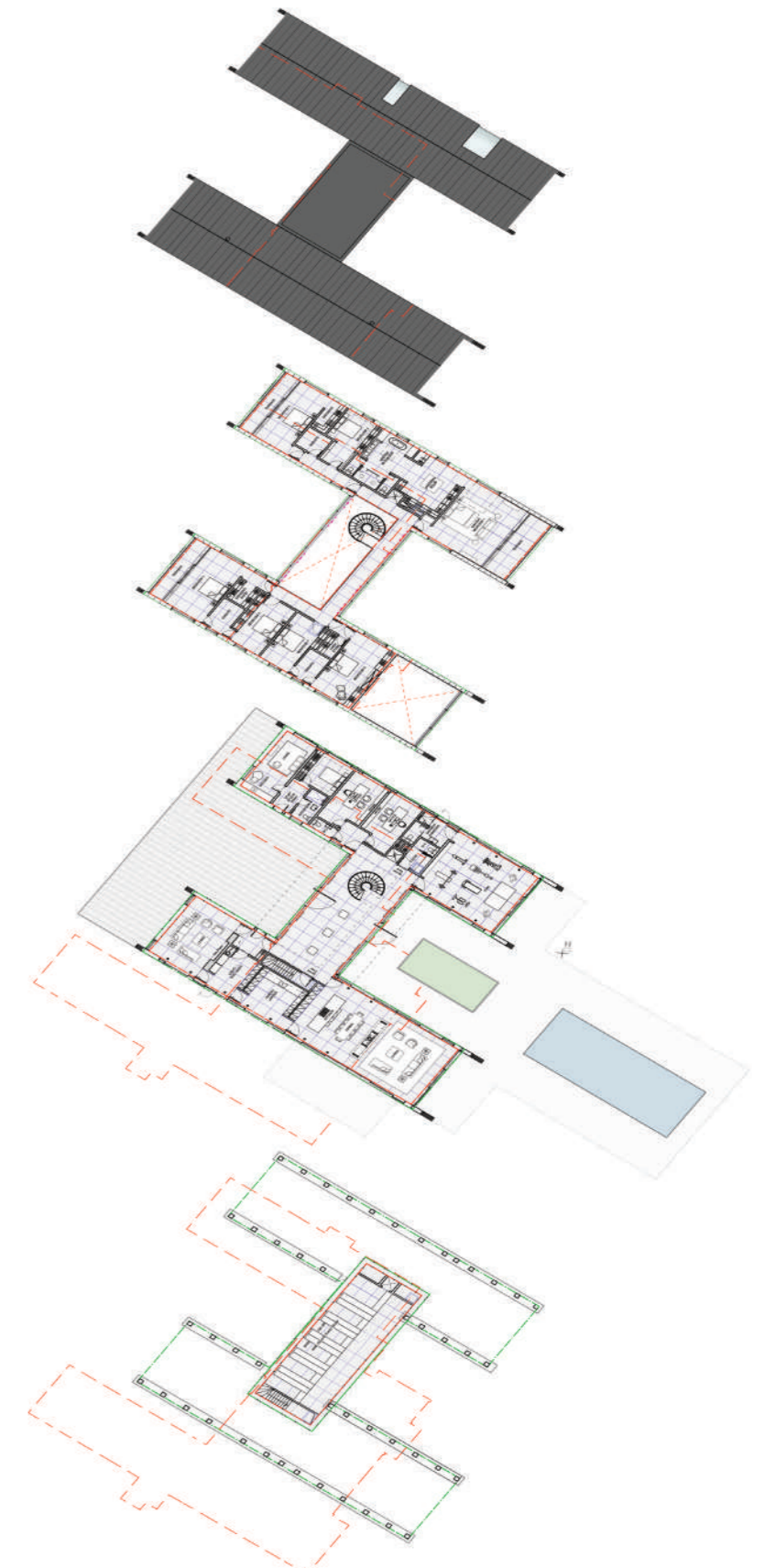
The below accommodation schedule outlines that the proposed building has a 17% larger footprint than that of the existing building.

The gross external area has increased by 31%, primarily due to expanded usable space on the proposed first floor.

Additionally, the proposed building is around 29% larger in terms of volume than the existing structure.

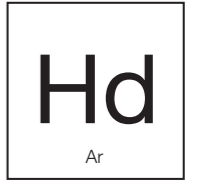
The increase in usable space will enable Innisfree to meet the needs of the client's growing family and future-proof the house by providing well-designed and accessible accommodation.

HdAr_HDDA Ltd.					
HdAr Fourth floor 104-110 Goswell Road London EC1V 7DH					
Tel: 020 7490 7674					
Job number	1153_Innisfree				
Site Address	Woodland Drive East Horsley, Inn Innisfree KT24 5AS				
Doc Ref:	1153_sA_300 - Area Schedule				
Revision:	P1				
Date:	05/02/2024				
Existing					
	GIA (m2)	GIA (ft2)	GEA (m2)	GEA (ft2)	Volume (m3)
Basement	19.50	209.92	39.46	424.75	
Ground	510.18	5,491.53	549.71	5,917.09	
First	232.91	2,506.99	253.82	2,732.06	
Total (Minus Basement)	743.08	7,998.52	803.53	8,649.15	2,992.00
Proposed					
	GIA (m2)	GIA (ft2)	GEA (m2)	GEA (ft2)	Volume (m3)
Basement	61.10	657.68	80.60	867.58	
Ground	460.80	4,960.05	521.00	5,608.04	
First	366.50	3,945.01	530.60	5,711.38	
Total (Minus Basement)	827.30	8,905.06	1,051.60	11,319.42	3,868.00
Total		9,562.74			
		% increase (Above ground GIA) =		11%	29%
		% increase (Above ground GEA) =		31%	



Axonometric: Basement, Ground, First and Roof Plans

5.0 Technical Assessment



5.1 Ecology Assessment

A Biodiversity Net Gain assessment has been conducted by a competent ecologist and recommendations have been made to ensure the projects achieves a net gain. This is in-line with local and national planning policies. Recommendations have also been made in relation to protected and notable species.

There is an opportunity to enhance areas of existing modified grassland and create a more ecologically diverse grassland that will be classed as 'other neutral grassland'. New areas of neutral grassland will also be created in an areas formerly occupied by developed ground. Pockets of introduced shrubs and modified grassland will be added to the site around the new house.

Native trees will be added to the grassland areas and around the new house. Adding the trees and creating a more ecologically diverse grassland will help to create conditions for woodpasture habitat to develop, in the long term, on site. The new habitats will help to complement the habitats on the wider estate and priority habitats found in the area.

The proposed development will involve installing a water source heat pump that uses a closed-loop coil within the adjacent lake. This will require a 'coil' of water filled pipes to be set into the lake. There would be no pumps or filters affecting the water in the lake – it is simply the transfer of heat between the water in the lake and the water in the pipe that would be used to heat/cool the house. The temperature fluctuations within the lake will be no more than +/- 1 degree, as the water acts as a solar collector, so the surface area is the driving factor to balance the energy taken out with energy in.

The impacts to the lake habitat will be minimal and unlikely to cause significant impacts, there will be no permanent installation within the water body.

The biodiversity metric (further details are in available in the submitted Preliminary Ecological Assessment & Biodiversity net Gain), show that the proposed project will achieve a net gain of over 30% for habitat units. Hedgerow units will be increased by over 40%. This would meet the aim of achieving a 20% net gain.

The net gain is largely achieved by retaining and enhancing habitats on site, in particular grassland habitats, and planting new trees. The hedgerow units show a significant increase due to the enhancement of existing tree lines on site. These habitats will help to provide an ecological benefit on site as well as providing additional bat foraging and commuting habitat.

Please refer to the accompanying Preliminary Ecological Assessment & Biodiversity net Gain which contains a more detailed review and assessment.

5.2 Sustainable drainage systems (SuDS) 5.3 Fire Assessment

It is proposed that surface water runoff would discharge to the Thames Water surface water sewer network at a proposed runoff rate of 2.0 l/s. In order to restrict runoff it is proposed that a below ground cellular attenuation tank would be provided at the site. This has been sized to accommodate the 1 in 100 year plus 40% climate change event with no flooding.

Appropriate treatment would be incorporated into the surface water drainage system to ensure that the quality of water discharged is acceptable. This would be achieved through the incorporation of a treatment train of SuDS including permeable paving. If required proprietary treatment systems would be incorporated, this would be confirmed at the detailed design stage.

The proposed drainage network and SuDS would be privately managed and maintained for the lifetime of the development, ensuring that they remain fit for purpose and function appropriately. The management company/operator would be appointed post-planning.

It is considered that the proposed development would be manage surface water runoff appropriately through the incorporation of SuDS. It is considered that the information provided within this report satisfies the requirements of the NPPF, and local policy.

Please refer to the accompanying Drainage Strategy document which contains a more detailed review and assessment.

Innisfree is a single-family, two-storey residential building proposed to replace the existing two-storey building currently located on-site. The proposed building is roughly in the same location as the existing one. Access to the proposed replacement building will be unaltered from the current conditions, being accessed through a private gate and tree-lined drive coming off Woodland Drive.

The ground floor has two wings containing the main family spaces: the kitchen, living and dining room, snug, boot room, home office and gym. The two wings are connected by a central glass link containing the main stair and gallery space. The upper floor includes sleeping accommodation, bathrooms and linen stores. The first floor finished floor level sits below 4.5m and is served by only a single stair.

The fire strategy means of escape consists of providing an emergency escape window or door in the event of a fire directly to the outside from all habitable rooms including at first floor level. All windows and doors have been designed to allow a minimum clear opening of 0.33 sq.m, a minimum width and height of 450mm and the bottom of the window is maximum 1100mm from the floor.

A proposed basement will house non habitable sapces including a wine cellar and plant room and will be accessed via a secondary stair that will only serve the basement only.

No fire compartmentation is proposed in order to maintain an open plan layout to the dwelling.

The house is deemed as a large dwelling in relation to part B of the building regulations and therefore a Grade A Category LD3 fire detection and alarm system, as described in BS 5839-6 will be fitted.

The building is a steel frame construction. All structural elements will be fire protected by internal linings to achieve the required fire rating.

Emergency vehicles will have access to the property through Woodland Drive and the drive leading to the house. The front drive and courtyard will enable emergency services to stop within 18m of the property.

5.0 Technical Assessment

5.4 Energy and Sustainability

The recommended sustainability features for the development, resulting from a dynamic energy model, will allow for an 100.37% reduction in carbon emission from a base Part L 2021 compliant build, this is anticipated through the incorporation of water source heat pumps (WSHP) and passive energy efficiency measures.

The sustainability features used will allow for over 100% regulated energy used on site sourced from renewable means such as PV and WSHP. A total of 79.13 kWp PV has been proposed for the development, which is in line with the local planning policy.

The energy and carbon savings are to be achieved through passive design, energy efficient measures incorporating design features such as energy efficient lighting, sub metering of relevant areas, upgrading of 'U' values and occupancy sensing in relative areas, as well as the incorporation of Water Source Heat Pumps.

The proposed heating source for this development is 100% electric through use of WSHP. To reduce the energy demand of the development as well as help to conserve water resources within the local area, it is anticipated that the fit-out works will provide for sanitary fittings which will be water efficient through measures such as dual flush toilets and low flow taps.

The development is located within East Horsley and as such is in proximity to public transport nodes, as well as a range of primary local amenities such as food outlets. These features allow for the reduction of car-based travel and transport related pollution.

The incorporation of these sustainability measures allows for the proposed development to be deemed sustainable whilst targeting compliance with local and national policy.

Please refer to the accompanying Energy and Sustainability Statement which contains a more detailed review and assessment.

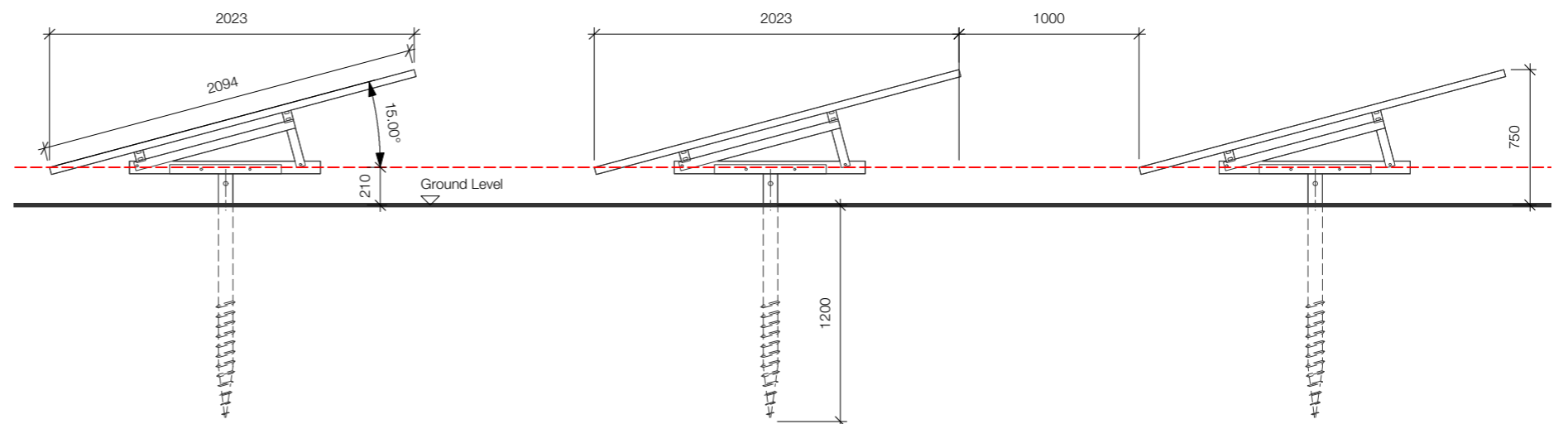
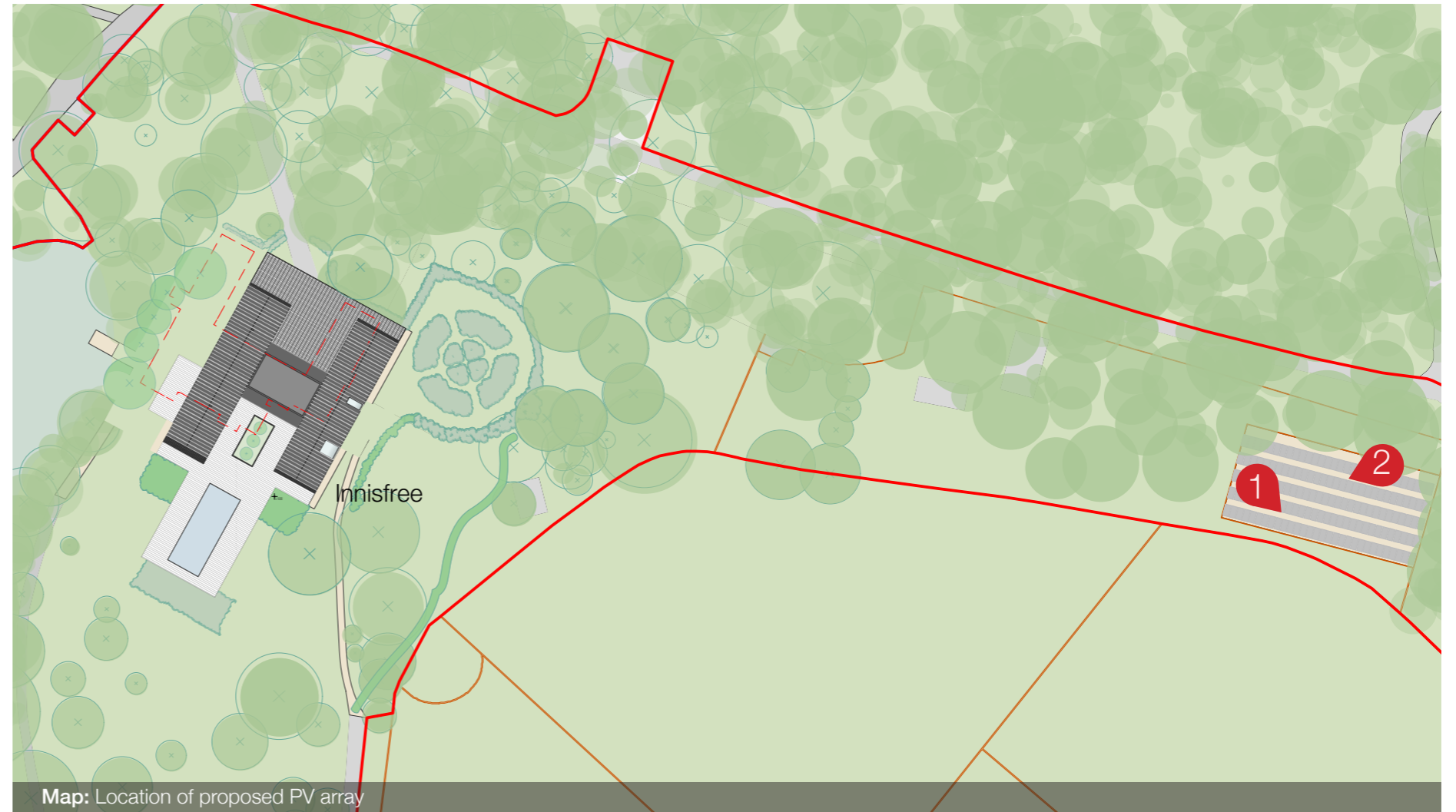


Image: Proposed PV layout and associated vegetation

6.0 Summary

6.1 Conclusion

In conclusion, the current residence is nearing the end of its design life, lacks energy efficiency, and fails to meet the client's requirements.

Renovation and partial reconstruction were initially considered but dismissed due to limitations of the existing site and design constraints of the existing structure.

Leveraging the site's advantages, including its seclusion, panoramic Surrey views, and a plethora of mature trees, the proposed building at Innisfree, mirrors the existing house in massing and form. Its primary aim is to relocate the building away from the flood zone area, creating an energy-efficient, carbon-neutral, and light-filled home while preserving the lush green surroundings.

The proposed building's strategic positioning optimises the views from the expansive rear glazing, maximising natural light and fostering a seamless connection between the interior and the picturesque outdoors.

Employing contemporary construction methods minimises construction time and disruption to neighbours. The final design seamlessly blends tradition and modernity, utilising standing seam zinc cladding for an efficient and visually captivating structure.

This transformative approach not only enhances functionality and sustainability but also ensures Innisfree evolves into a residence that harmoniously integrates with its natural setting while meeting the contemporary needs of its occupants.

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CGI: Proposed view from rear of property looking north from the edge of the pool.



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