



Design and Access Statement in respect of: Proposed Residential Development at 79 Riddlesdown Road, Purley, CR8 1DH

Re-development of 79 Riddlesdown Road. Including demolition of the existing structure and construction of Croydon's first biophilic designed, Passivhaus Certified residential development, delivering 5 new homes in a range of 2-beds and 3-beds, in addition to all associated hard and soft landscaping and off-street parking.



Contents

Design and Access Statement | 79 Riddlesdown Road

01. Introduction

02. Our Supporting Design Team

03. About the Applicant

04. Passivhaus

05. Planning Refusal

06. The Site + Context

07. Community Engagement

08. The Proposals

09. Technical Considerations

10. Sustainable Development



01. Introduction

Welcome to the Design & Access Statement for Croydon's pioneering residential development at 79 Riddlesdown Road, Purley. This document serves as a comprehensive guide and overview of our innovative project, which stands as **Croydon's first biophilic designed, Passivhaus Certified development**. Our aim is to set a new standard in sustainable and environmentally harmonious living, within the heart of Purley.

The vision for 79 Riddlesdown Road is to create a residential space that is not only in harmony with its natural surroundings but also enhances the well-being of its residents through its biophilic design principles. Biophilic design is an approach that seeks to connect building occupants more closely to nature. This is achieved through the integration of natural lighting, ventilation, and landscape features, creating a living environment that promotes health, well-being, and a sustainable lifestyle. In tandem with our biophilic approach, this development is proud to be targeting Passivhaus Certification, adhering to one of the most rigorous energy efficiency standards in the world. This certification ensures that the development minimises its ecological footprint while providing a high level of comfort and indoor air quality for its residents.

Located at 79 Riddlesdown Road, this development is ideally situated to blend urban living with the tranquillity of nature. The design and access aspects of this project have been meticulously planned to ensure seamless integration into the existing urban fabric of Purley, while enhancing the natural characteristics of the site.

This statement will outline the key design principles, access strategies, and the sustainable methodologies employed in this development. It will provide a detailed overview of the architectural design, landscape integration, material selection, and the innovative features that make this development a beacon of sustainable living in Croydon.

We invite you to delve into the details of this exciting project, which marks a significant step towards a more sustainable and nature-integrated future for residential developments in the region.

02. Our Supporting Design Team



03. About the Applicant

Polaris Passivhaus Developments is an innovative property development company dedicated to shaping the future of residential, commercial, and retail spaces. Our mission is to revolutionise the industry by pioneering carbon positive projects that harmoniously blend biophilic design with Passivhaus (Passive House) or EnerPHit standards (for retrofit projects), setting new benchmarks in sustainable development.

At the heart of our company's philosophy are sustainability, biodiversity enhancement, ecological improvement, community involvement, innovation, and exceptional build quality. These are not just ideals but essential elements embedded in every project we undertake. We are committed to using carbon-positive, sustainably sourced materials, such as timber, wherever feasible and, a key strategy in our development approach is the adoption of off-site manufacturing (or prefabrication) to ensure efficient and high-quality on-site execution.

We believe that Passivhaus principles embody the apex of sustainable design and construction. Harnessing techniques refined over more than twenty-five years, we aim to create energy-efficient, comfortable, healthy, and superior living and working environments. Our vision is to build stunning, sustainable spaces that not only complement but enhance our environment, offering luxurious settings that invigorate, enthuse, and inspire.

What sets Polaris Passivhaus Developments apart?

Our projects offer more than just environmental benefits. They promise significant cost savings for our Clients, potentially eliminating heating and electricity expenses, and in optimal scenarios, generating revenue (e.g., through selling surplus electricity to the grid). Our developments can slash heating costs by up to 90%, translating to substantial financial savings over the building's lifespan whilst mitigating the risk of fuel poverty.

Moreover, our projects are designed to enhance physical and mental well-being. By integrating biophilic design, we reconnect occupants with nature, boosting mental health. Our properties also feature Mechanical Vent Heat Recovery systems (MVHR), a hallmark of Passivhaus design. This system effectively removes stale air, reclaims its heat, and replaces it with fresh, filtered air. This process lowers CO₂ levels and particulate matter, alleviating issues like headaches, dizziness, and fatigue, while regulating humidity and temperature to prevent conditions conducive to dust mites and mould growth.

We take pride in knowing that our developments not only minimise environmental impact over their lifetime but also provide bright, healthy, and unparalleled quality living and work spaces.



Biophilic Designed



Passivhaus Certified



Creators of beautiful sustainable places that truly enhance our environment

03. About the Applicant

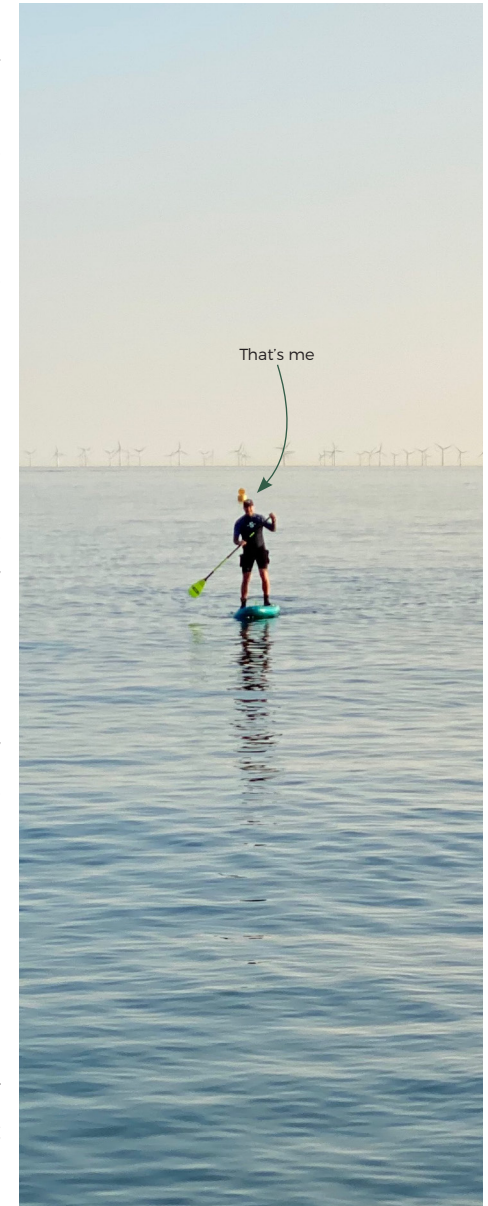
Personal Statement from Liam Brennan MCIOB - Founder and Managing Director:

Raised in the heart of the area targeted for our latest development, specifically in Old Coulsdon, and educated at The John Fisher School on Peaks Hill, I have a deep and personal connection with the landscapes of Purley and Riddlesdown. My professional journey, spanning an illustrious career as a Quantity Surveyor and Project Manager, has seen me contribute to some of London's most notable commercial and residential projects, including the iconic Battersea Power Station. This experience ignited a persistent curiosity in me about how to create homes that are not only better and more sustainable but also highly energy-efficient and comfortable. This quest for knowledge led me to the Passivhaus Standards, culminating in the formation of Polaris Passivhaus Developments in late December 2020, followed by my certification as a Passivhaus Consultant.

In an industry where many developers claim to deliver high-quality homes but adhere only to the minimum energy standards, I often pondered why we don't strive for higher benchmarks in new home construction. Why settle for the bare minimum in energy performance? Why not aim for excellence? These probing questions guided me toward the rigorous Passivhaus Standards, where achieving exceptional quality is not just a promise but a guaranteed outcome. Achieving these standards requires meticulous quality control from the initial design stages through to the completion of construction, as any failure to meet the key requirements results in not receiving certification.

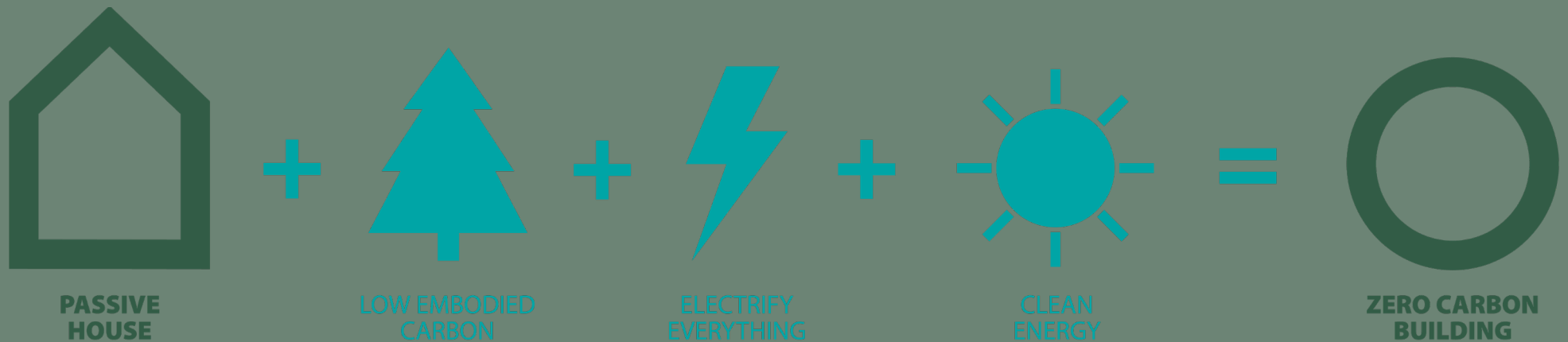
As a fervent advocate for an efficient and sustainable built environment, I firmly believe that our built environment should minimise energy consumption throughout their lifespan, reduce ecological impact and, where possible, enhancing our ecosystems. My commitment to this ethos has already been demonstrated through the successful completion of a 2-bedroom Passivhaus Certified home in Chipstead, Surrey, with another project set to enter the planning stage in late 2024. Currently operating as a micro business under the Small Medium Enterprise classification, I am solely responsible for presenting this planning application to Croydon Council.

With a personal investment exceeding £30,000 in professional and submission fees, not to mention the countless hours dedicated to this project, I am confident that our thorough and comprehensive proposal aligns seamlessly with the Croydon Plan, the London Plan, and National Planning Policies. It is my hope and belief that this thoughtfully designed proposal, poised to deliver Croydon's first Passivhaus Certified residential development, will meet with the approval of Croydon Council and all relevant stakeholders. Thank you for considering our vision.



04. Passivhaus | What is it?

Passivhaus (also known as Passive House) is a scientifically validated design methodology for new construction projects, ensuring exceptionally comfortable and healthy living and working conditions within our built environment. The term 'haus' directly denotes building, implying that the same principles can be applied to non-residential projects as well. Passivhaus structures offer superior occupant comfort while using minimal energy for heating and cooling. They are crafted with meticulous attention to detail and stringent design and construction quality control, aligning with the principles, tools, and training established by the Passivhaus Institute. A further detailed description of the standards and the proposed targets are available within the Passivhaus Stage 3 Design Report that accompanies this planning application.



As Passivhaus gains traction across the UK, Europe, and globally, some projects are surpassing the original Passivhaus standard to meet net-zero targets. Alongside the established 'Passivhaus Classic,' there are 'Passivhaus Plus' and 'Passivhaus Premium' standards that integrate renewable energy generation in the certification assessment. For this particular development, we are targeting the **Passivhaus Plus standards**.

Passivhaus Plus signifies a monumental achievement in building design and energy efficiency. Beyond significantly reducing energy consumption, a Passivhaus Plus certified building demonstrates an exceptional feat—it generates an equivalent amount of renewable energy to match the energy consumed by its occupants. This means the building operates on a net-zero energy balance, producing as much clean, renewable energy as it consumes over the course of a year.

04. Passivhaus | The 12 Key Benefits

Design and Access Statement | 79 Riddlesdown Road



Superior Comfort



Healthier Environment



Affordable



Quiet + Calm Spaces



No Unwanted Moisture



Reduced Dust



No Wild Things



Durable



Resilient



Predictable Performance



Balanced



Energy Efficient

Discover the Future of Sustainable Living

Embark on a journey to explore the revolutionary world of the Passivhaus Standards by simply scanning the QR code below. Dive into the realm of innovative, energy-efficient, and comfortable living spaces that redefine modern architecture. Learn how these properties are setting new benchmarks in sustainability, offering numerous benefits to both the environment and their occupants.

Can't scan the QR code right now? No worries. You can also uncover the myriad advantages of Passivhaus properties by visiting [Polaris Passivhaus - Benefits of Passivhaus](#). This link provides a gateway to understanding how we're transforming living spaces into eco-friendly, cost-effective, and healthier environments for generations to come.

Either way, you're just a step away from discovering how Polaris Passivhaus Developments are leading the way in eco-conscious, high-quality living. Scan, click, and start your journey to a greener future!



05. Planning Refusal | 24/00062/FUL

We have undertaken a comprehensive and thorough review of the Case Officer's report following the refusal of planning application 24/00062/FUL by Croydon Council. While the refusal was naturally disappointing, the feedback provided was invaluable, highlighting several key areas that required attention and improvement.

The Case Officer identified critical concerns regarding the scale, depth, mass, bulk, and height of the proposed building, as well as issues related to the loss of outlook for neighbouring properties, perceived dominance, lack of daylight for proposed basement areas, accessibility, and private amenity space.

Acknowledging the validity of some of these concerns, we have approached the redesign with a commitment to addressing each point meticulously, ensuring that the revised proposal aligns with local planning policies, The London Plan, and other relevant regulations.

These key design changes have been tracked in the document titled 'Design Enhancement Report - Response to Refusal of 24/00062/FUL' (DER) submitted as part of this application. This Design and Access Statement has been reviewed and amended to suit the new proposal.

The DER is intended to be read in conjunction with all other submitted documents that form part of this new planning application. Together, these documents provide a comprehensive overview of the proposed modifications, detailed plans, and justifications for the changes made in response to the previous refusal.

Collectively they demonstrate our unwavering commitment to meeting all relevant planning policies, guidelines, and standards set forth. We encourage the reviewers to consider this report alongside the full suite of supporting documentation to gain a complete understanding of the enhanced design and its benefits.

Our revised proposal incorporates several changes to mitigate the impact on neighbouring properties and improve the overall design summarised below:

Reduced Building Length and Height: The overall length of the building has been reduced by 1 meter, and the height has been lowered. These changes help to minimise the visual impact and better integrate the building with its surroundings.

Adjusted Footprint: The building's footprint has been relocated 500mm closer to the access road,

aligning it more closely with the neighbouring properties at 79a and 81 Riddlesdown Road. This adjustment helps to maintain a consistent building line and reduces the perceived dominance of the new structure. It also allows efficient use of previously underutilised space.

Apartment Size and Layout: The size and layout of the apartments have been revised to ensure compliance with the minimum space standards set by The London Plan and Building Regulations Part M. This includes the removal of one apartment, reducing the total number of units to five, which supports incremental densification without over development.

Reduction in Windows and Removal of Balcony Openings: To address privacy concerns, the number of windows on the south and north elevations have been reduced, with all windows now centrally placed within the building. Balcony openings on the south east corner have been removed, further mitigating privacy issues.

Enhanced Daylight for Basement Apartment: A new light well has been introduced for the basement apartment, significantly enhancing natural daylight to the rear of the proposed basement unit.

05. Planning Refusal | 24/00062/FUL

Increased and Compliant Balcony Sizes: Balcony sizes have been increased to comply with Local Plan Policy DM10.4, and the overall quantum of balconies has been increased. Each apartment now has its own private amenity space, accessible directly from within the units.

Step-Free Access: The access route to the main entrance has been redesigned to incorporate a ramp, providing complete step-free access. This redesign ensures compliance with accessibility standards and enhances the usability of the development for all potential residents

Improved Pathway and Cycle Storage: The pathway from the proposed drop-off point, past the parking bay and bin store, meets the minimum width requirements set by M4(3), starting at 1.2m and widening to over 1.8m between the proposed development and the boundary line. The revised pathway is now wider and more accessible, providing a smoother, more user-friendly transition to the main entrance. The entrance onto the public footpath has been omitted, and cycle storage has been moved internally, further enhancing accessibility.

Revised Car Parking Layout: The car parking layout has been revised however, it still maintains five

car parking spaces, allowing a 1:1 ratio of parking spaces to apartments. This improvement on the previous ratio, further supported by the Transport Consultant ensures compliance with relevant policies. It is also confirmed that there will be no impact on the surrounding highways network.

Enhanced Refuse Storage: The refuse storage area has been completely overhauled. The new design includes provisions for six 240-litre waste bins (three for general waste and three for dry recycling) and a separate 60-litre wall-mounted food waste bin. Each bin has a dedicated storage area, easing waste management and ensuring compliance with Croydon Council's Waste and Recycling in Planning Policy Document and Building Regulations Part H6.

"Design Compliance Report - Part M Building Regulations" (DCR): The DCR has been prepared specifically for the development. Its aims are to respond to the assessment provided by the Case Officer in their report under the refused planning application. This document outlines how the amended scheme addresses the concerns raised, ensuring compliance with relevant planning policies and Part M Building Regulations, with a focus on accessibility and inclusivity.

The report details how the design integrates the mandatory requirements of Part M, with particular attention to ensuring that the development is accessible and usable for all individuals, including those with disabilities. It covers provisions such as step-free access, circulation spaces, and adaptable features, ensuring that the development meets high standards of design quality and inclusivity.

A key section of the report addresses the rationale for excluding a lift from the development, explaining that the introduction of a lift and its necessary overrun would not only be visually intrusive and out of character with the surrounding area but also pose significant financial and design challenges. The inclusion of a lift would compromise the design integrity and spatial efficiency of the development, which has already been carefully planned to meet the required standards while responding to the site's constraints.

Our development still fully complies with the relevant policies of the London Plan and Croydon Local Plan as described further in the Planning Statement, ensuring that the design provides functional and high-quality accommodation for future occupants.

06. The Site + Context



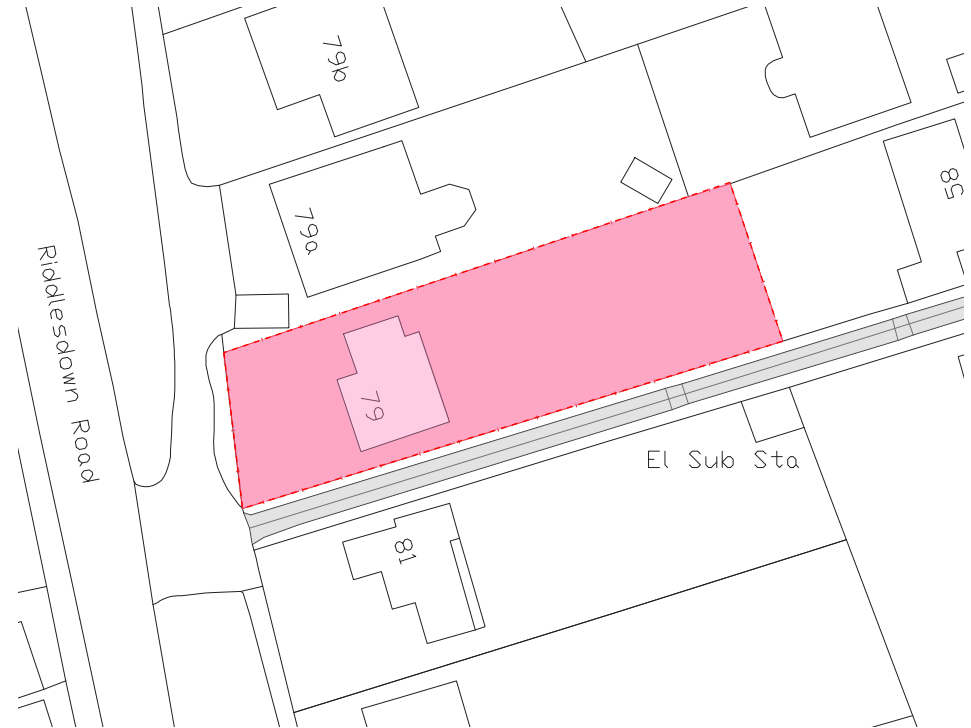
06. The Site + Context | Site Location

The site in question is nestled in the tranquil suburban neighbourhood of Purley, within the bustling borough of Croydon. Occupying a prime location, the site encompasses the address 79 Riddlesdown Road, strategically positioned centrally to Riddlesdown Road, a locale renowned for its harmonious blend of urban convenience and suburban serenity.

Currently, the area holds a Public Transport Accessibility Level (PTAL) rating of 1b, although it is well linked to public transport services. A notable advantage of this location is its proximity to Riddlesdown train station, a mere 7-minute walk away. This station serves as a vital hub, offering efficient and direct transport links to the heart of Central London. Residents and visitors alike can enjoy the ease of connectivity to major city landmarks, business districts, and cultural hotspots, all while residing in a peaceful suburban setting.

The surrounding area of Purley is characterised by its picturesque streets, an array of local amenities, and a strong sense of community. It's a location that harmoniously combines the benefits of suburban living with the convenience of urban accessibility. The area is also home to a variety of schools, parks, and recreational facilities, making it an ideal setting for families and professionals alike.

The strategic location of the site, coupled with its accessibility to key transport links, positions it as an attractive proposition for development, particularly for those seeking a balance between the tranquillity of suburban life and the vibrancy of city living. The potential of this site in Purley, Croydon, represents a unique opportunity to create a living space that encapsulates the best of both worlds.



06. The Site + Context | Neighbourhood

The surrounding properties near the site are primarily situated on expansive plots. These buildings are predominantly detached and semi-detached homes. However, recent developments in the area have shifted towards constructing apartment blocks. These new structures, while larger, are designed to maximise the sites potential through an increased number of units. This has lead to some very large out of character buildings being created.

The local architectural landscape is distinctly suburban, featuring a diverse array of styles. This variety includes mock tudor and arts and crafts style homes alongside other post-war residences, each exhibiting unique designs from one plot to the next. A common characteristic among these properties is their setback from the street, though the angles and distances of these setbacks vary. The Site benefits from scenic distant views due to its raised elevation. However, newer developments tend to have less space between buildings, aiming to maximise the potential.

In terms of building heights, the area is predominantly composed of 2 to 3-story structures. A notable feature of these buildings is their large roofs, which often provide enough volume to be considered as additional full-floor spaces. This mixture of prominent roof forms, set against a backdrop of hedges and greenery, gives the neighbourhood a unique character. It's as if the area is a collage of varied roof shapes rising above a lush, verdant landscape. This blend of architectural diversity and natural elements contributes to the area's distinctive suburban charm.



06. The Site + Context | The Existing Building

The existing building, a small 3-bedroom detached dwelling (GIA: 110m²), distinguished by its flat roof and white exterior, stands in stark contrast to the prevailing architectural vernacular of Riddlesdown Road. It departs from the local character, which is defined by a collection of properties featuring pitched roofs and a variety of façades that harmonise with the natural, verdant backdrop of the area.

Unlike its neighbours, which boast traditional design elements, post-war styles, and a mix of semi-detached and detached houses set back from the road behind lush hedges and gardens, this property presents a more utilitarian appearance. Its flat roof lacks the characteristic eaves and overhangs that contribute to the charm of the surrounding homes. This design choice not only disrupts the rhythm of gable fronted roofs but also the aesthetic cohesion that is a signature of the area.

The dilapidated white render façade of the property also differentiates it sharply from the softer, more muted tones of neighbouring buildings. Most of the local homes blend with the surrounding greenery and use materials that reflect the natural colours and textures of the area. In contrast, the stark whiteness of this property makes it a visual anomaly, drawing attention to its modern, minimalist structure amidst the more ornate and historically resonant homes.

Moreover, the surrounding houses on Riddlesdown Road feature generous gardens and a variety of angles and distances from the street, creating an open and inviting street-scape. This property with its minimalistic landscape treatment, appears more imposing and less integrated into the fabric of the neighbourhood.

In summary, the property's modern, flat-roofed design and white exterior contrast sharply with the traditional, pitched-roof houses adorned with natural materials and colours in the rest of the Riddlesdown Road area. Its presence introduces an old contemporary take that stands out from the established suburban character of the neighbourhood.



06. The Site + Context | Existing Character

The architectural landscape of Riddlesdown Road is a picturesque tableau of residential design that reflects a rich tapestry of English architectural heritage. The most prominent design style that characterises this area is the gable-fronted property, a classic motif that speaks to the traditional sensibilities of the neighbourhood. These homes, with their pitched roofs and distinctive triangular gable fronts, impart a sense of timeless charm and are a testament to the enduring appeal of this architectural approach.

In a thoughtful nod to the prevailing architectural rhythm, even the newer additions to the street, such as a recent block of apartments and a freshly completed house, pay homage to this style. They seamlessly blend into the existing street-scape by adopting the gable-fronted design, ensuring continuity while providing modern living solutions. This choice of design not only respects the architectural narrative of the area but also enhances the visual coherence of the neighbourhood.

The local vernacular showcases a variety of materials and architectural expressions, creating a rich and diverse environment that, while eclectic, is bound by a common thread of craftsmanship and attention to detail. Notably, the arts and crafts and mock tudor buildings, with their intricate brickwork, ornate timber framing, and hand-crafted details, stand as influential precedents, setting a high bar for aesthetic and material quality.

While the area may not subscribe to a singular architectural typology, the variety of heights, materials, and forms contributes to a street-scape that is engaging and full of character. The presence of mature trees and continuous hedges along the roads adds to the green, leafy nature of the area, often giving the impression of a more intimate scale as lower floors meld with the natural foliage.

The gable-fronted houses, often two or three stories high, are typically set back from the road, contributing to a sense of privacy and space. This setback is enhanced by the sloping nature of the street, which affords unique vantage points of the rooftops and allows the architecture to unfold gracefully across different elevations.

The newest buildings on Riddlesdown Road, despite their recent construction, embody the architectural essence of their context. With roofs that echo the slope of their neighbours and materials that reflect the local palette, they stand as respectful contemporaries to the older, gable-fronted homes. These structures prove that new development can harmonise with tradition, offering a fresh interpretation that still resonates with the established character of the area.



06. The Site + Context | Existing Character

Amidst the architectural narrative of Riddlesdown Road, with its predominant gable-fronted homes, there lies a unique subset of properties that offer a subtle divergence in style while maintaining the area's overall character. From 79a Riddlesdown Road onwards, the street-scape introduces charming bungalow-style homes that present a single-story facade to the observer. These homes are deceptively quaint, as they extend into double-story living spaces at the rear, accommodating the natural topography of the area.

These bungalow-style properties contribute to the architectural diversity, adding a layer of intrigue and understated elegance to the neighbourhood. With their low-profile frontage, they maintain a harmonious street level that aligns with the traditional aesthetics of the community. Yet, as one's gaze follows the gentle slope of the land, the homes expand and reveal their additional living quarters, nestled discreetly behind. This design approach allows for spacious living environments without disrupting the visual flow and scale that the street is known for.

In summary, Riddlesdown Road is a celebration of architectural diversity anchored by the prevalent gable-fronted style. It is this harmonious blend of the old and new, the traditional and the modern, that creates a street-scape of rich textures and forms, making this area a treasured part of the local heritage and a delightful place to reside.

The local character and gable-fronted design prevalent on Riddlesdown Road have directly inspired our design proposal in Section 8. We've carefully incorporated the gabled theme to ensure our scheme complements the existing street-scape, reflecting the area's architectural heritage while providing a modern interpretation that resonates with the community's established aesthetic.



07. Community Engagement

We made the pivotal decision early in the planning process to traverse down a community-engaged approach in lieu of seeking pre-application planning advice, recognising the immense value of prioritising direct engagement with the local community. While pre-application planning advice serves as a helpful initial step in understanding technical aspects and formal procedures, community engagement stands out as far more crucial and beneficial throughout the development process.

The Community Engagement Weekend was held on 24th to 26th February 2023. Invitation letters were sent out to over 70 residents (hand delivered by the us), Local Councillors, the Local MP (The Rt Hon Chris Philp MP), and the Riddlesdown Residents Association. From the invited community members, 7 Local Residents (constituting to circa 10% of those invited) and 1 Local Councillor (Cllr Alasdair Stewart) participated in the Community Engagement Weekend. Regrettably, the RRA expressed their apologies for their absence, and no communication was received, nor attendance observed from the Rt Hon Chris Philp MP.

The presence of Local Councillor Cllr Alasdair Stewart further underscored the importance of the event. Cllr Stewart's attendance was not only a testament to the political support for community-led planning but also provided an invaluable opportunity for direct dialogue between us and local government representatives. The engagement weekend facilitated a constructive exchange of ideas, concerns, and aspirations, laying a foundation for a development that truly reflects the community's vision for its future. This positive turnout and the calibre of discussions contribute to a transparent and inclusive planning process, reinforcing the commitment to community integration in the development's design and execution.



07. Community Engagement



During the community engagement weekend, a diverse array of insightful feedback was gathered, reflecting the vibrant tapestry of perspectives within the community. Attendees shared a range of positive comments, applauding various aspects of the Proposed Development and expressing optimism about the project's potential to enhance the local area. Alongside the commendations, there were also constructive concerns raised, providing a balanced view of the community's outlook. These concerns are invaluable, as they offer a clear direction for refining the development plans to better serve the community's needs and expectations. The dialogue was robust and productive, characterised by a collaborative spirit aimed at achieving the best possible outcomes for the neighbourhood.

In response to the valuable insights received during the Community Engagement weekend, the Proposed Development underwent several design modifications to better align with community feedback and preferences. These changes have been meticulously applied to ensure that the development not only meets but exceeds the expectations and needs of the community it will serve. The design revisions have focused on enhancing the aesthetic appeal, improving functional aspects, and ensuring that the development integrates seamlessly into the existing community fabric. These amendments are a testament to our commitment to active listening and collaboration with the local residents, reflecting a dedication to community-centric development.

For a comprehensive overview of the activities and designs presented during the Community Engagement weekend, please refer to the accompanying Planning Statement within this Planning Application.

The Positive Comments:

- » Design is good and in keeping with the local character.
- » Size does not appear to overshadow or overwhelm other properties.
- » Good use of the existing features of the land (using the hill to the advantage of the proposal).
- » Visually appealing when compared to the existing property.
- » There was a consensus that all new developments should be targeting Passivhaus Standards as a minimum.

Constructive Criticisms:

- » Off-street parking. Current design shows x5 parking spaces for x6 units. Considered not enough.
- » Risk of 'overlooking' from the windows on the side of the property.
- » Disabled access to residential amenity space.
- » Immediate neighbour (81) was concerned about the potential impact to views from their property.
- » The height of the building needs reducing so that it steps down (as per the current arrangement of the road).

The Actions Taken:

- » Alternative car parking arrangements were explored however, these were not economical. Therefore, a full Transport Statement was commissioned.
- » Windows to side elevations re-sized
- » Building location on plan was pulled forward slightly and a living wall was introduced to soften the views.
- » Enhancements were made to the overall accessibility of the project.
- » Height of building reduced to follow the stepped character.

08. The Proposals

Design and Access Statement | 79 Riddlesdown Road



Scheme Summary: x2 3B4P Apartments + x3 2B4P Apartments = 5units Total | GIA: 378m²

08. The Proposals | Summary

Design and Access Statement | 79 Riddlesdown Road



1
Elegantly
Designed
Structure

5
Well-Crafted
Residential
Homes

100%
Passivhaus
Standards

40%
3-Bed Family
Homes

Biophilic
Designed

285m²
Beautifully
Designed
Amenity
Space

5
Off-Street
Car-Parking
Spaces

16
Bicycle Parking
Spaces

Improved
Biodiversity
(Net Gain)

08. The Proposals | Design Fundamentals

Site Configuration and Alignment

In the surrounding area, most houses are characteristically set back from the public highway, with front gardens and off-street parking occupying the space in between. While this setback is a consistent feature in the locality, the actual distance between the road and buildings varies. This variation is often due to the presence of garages.

The suburban layout, with its flowing streets, means that buildings are not always aligned parallel to the street or to the property boundaries. The orientation tends to favour a setback more aligned with Riddlesdown Road. Buildings that are not parallel to the street or neighbouring structures create unique angular relationships with the street.

In line with these local characteristics, our design principle aims to maintain parallel alignment with Riddlesdown Road which our project fronts.

Orientation

The site's orientation is a key factor in optimising its conditions and potential. The centralised plot coupled with a substantial rear garden area, ensures favourable sunlight exposure throughout the day.

While the north and south sides of the site will have restricted views, thus avoiding direct overlooking, our design ensures that all apartments will still enjoy ample natural light and engaging vistas. Specifically, the west-facing elevation of the building will offer views overlooking Riddlesdown Road, providing a dynamic urban outlook.

Additionally, the apartments on the southeast side will be treated to scenic views over Purley Downs Golf Club, with its meticulously maintained grounds. These southeast-facing units will also have the added benefit of distant views towards central Croydon and the City of London skyline to the north, creating a unique visual connection with these significant urban landscapes.

In planning the open amenity spaces, the site's orientation will be a guiding factor to maximise sun exposure, creating inviting and well-lit areas for residents. The apartments located at the front of the building, facing north-west, will benefit from ample light, especially in the afternoons and evenings. Conversely, the apartments to the rear, with a southeast orientation, will enjoy morning sunlight.

Moreover, the orientation plays a significant role in the ecological design of the building. The

proposed living walls, positioned on the south-facing elevation of the building and the retaining wall, are ideally situated to thrive. This direction maximises their exposure to sunlight, which is essential for the growth and health of the plants, adding both aesthetic and environmental value to the development.

Overall, the thoughtful consideration of the site's orientation in the design process ensures that not only will the living spaces be bright and welcoming, but also that the external features, like the living walls, will flourish, contributing to the sustainability and visual appeal of the development.

The orientation of the building, with main living quarters facing north-west and southeast, presents certain challenges for the implementation of Passivhaus design principles. Ideally, for optimal energy efficiency in Passivhaus buildings, a southern exposure is preferred. This orientation allows for maximum solar gain, which is a critical component in reducing heating demands and ensuring a stable internal temperature throughout the year. (Cont.)

08. The Proposals | Design Fundamentals

Orientation (Cont.)

A north-west and southeast orientation, by contrast, receives less direct sunlight, especially during the colder months, which can potentially increase heating requirements and impact overall energy efficiency. However, as detailed in the Passivhaus Stage 3 Design Report, appended to this planning application, these orientation challenges have been thoroughly addressed and compensated for in our design strategy. Through innovative architectural solutions and advanced building techniques, we have managed to mitigate the potential downsides of the building's orientation.

Our approach includes enhanced thermal insulation, strategic window placement, and the use of high-performance glazing to maximise natural light while minimising heat loss. Further, we have incorporated efficient mechanical ventilation with heat recovery systems, which play a pivotal role in maintaining comfortable indoor air quality and temperature, regardless of the building's orientation.

The design also leverages other aspects of the Passivhaus standards, such as airtight construction and thermal bridge-free design, to ensure that the building's energy performance is not

compromised. As a result, the impact on achieving Passivhaus standards, despite the less than ideal orientation, is not significantly hampered. This is a testament to the robustness and flexibility of the Passivhaus approach, demonstrating that with careful planning and innovative design, high energy efficiency and comfort can be achieved under a variety of conditions.

Street Scene

In response to the input received during the Community Engagement event, particularly regarding the height of the initial concept design, we carefully revised the scale of our project. The immediate context of the site is characterised by buildings of 2 to 3 stories, with some possessing taller roof forms that effectively create an additional floor.

Our design principle for this project is to create a building that harmoniously steps in scale, mirroring the natural topography of the area. Following the recent refusal, we have adjusted the building's height so that the front of the site aligns with the typical 2-story appearance prevalent in the neighbourhood. In particular, the revised roof line now steps down when compared to the immediate neighbours at 81 Riddlesdown Road. Meanwhile, we have utilised the sloping

terrain to our advantage, cutting into the hill to accommodate the 3 units at the rear.

This strategic approach ensures that the character and appearance of the street are preserved, and the building's height integrates seamlessly from the street perspective. Our design maintains the existing street-scape's aesthetic, ensuring that the new structure is appropriately scaled and respectful of its surroundings.



08. The Proposals | Design Fundamentals



Integration with the Public Footpath

In our architectural planning for the development, special consideration was given to the existing public footpath located to the south of the site. Recognising the value of this footpath as a key community asset, particularly for its connectivity to Riddlesdown train station, our design ensures this will not be impacted in any way. Even through delivery of the construction of this development, as referenced in the Construction Logistics Plan. This decision was driven by the aim to prevent any loss of this essential access route.

The living wall along this section of the public footpath will offer local commuters an opportunity to admire how biophilic design can truly enhance our environment promoting a more pedestrian-friendly setting. This approach aligns with our commitment to sustainable urban living, encouraging residents to opt for walking or public transit over car usage, thereby reducing their carbon footprint.

Further, to enhance accessibility for our residents while maintaining easy access to the footpath, we have included a secure access gate to the communal gardens. This gate ensures controlled entry, providing peace of mind and safety for the community, while still allowing for the enjoyment of the gardens and easy egress to the footpath.

In summary, our design thoughtfully integrates the existing public footpath into the development, offering practical benefits to residents and fostering a connection with the local community. The provision of the secure garden access, reflects our commitment to creating a development that is not only convenient and accessible but also safe and harmonious with its surroundings.