

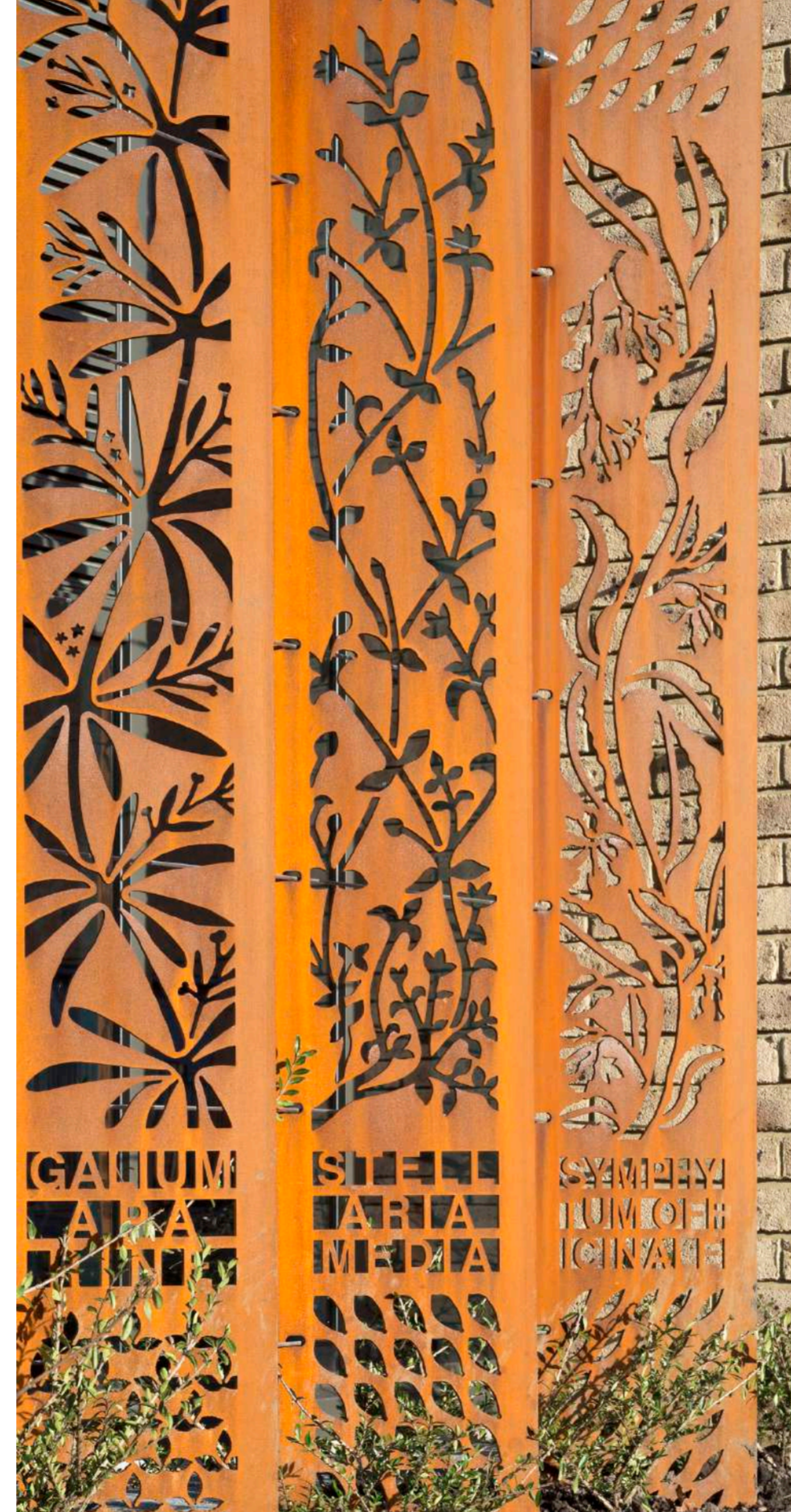
# Bishopton and Dargavel Satellite Facility

Improved Health and Social Care Services for Bishopton and Dargavel

Shields Centre, Glasgow



Shields Centre, Glasgow



Eastwood Health and Care Centre, Glasgow



## The Team

Architect and Lead Consultant  
**Holmes Miller**

Structural and Civil Engineer  
**Cowal Design Consultants**

Mechanical and Electrical Engineer  
**Aecom**

Acoustic Engineer  
**Aecom**

Landscape Architect  
**Sterry Walters Partnership**

Cost Consultant  
**Brown + Wallace**

Main Contractor  
**Fleming Build**

Development Partner  
**Hub West Scotland**

## Introduction

Following the closure of the Royal Ordnance Factory (ROF), BAE Systems PLC developed a masterplan for Dargavel Village, which sees 4,300 new homes built. In 2012, the patient number being serviced by the GP in Bishopton was 6,548. By the development's completion date (estimated to be 2035), the patient number is estimated to at least double.

The site of the existing Bishopton Health Centre is extremely constrained. An extension or redevelopment would require the acquisition of neighbouring land to meet the need of additional floor space and car parking facilities. This possibility was reviewed early, and it was deemed that the best course of action is to develop a new satellite facility in the heart of the new Dargavel Village development, which will complement and support the functions of the existing health care facility.

The new proposed satellite facility sits amongst the recent Dargavel development, which lies between the old settlement and the future Dargavel expansion, at the gateway to the new development and near to the rail station. One of the fundamentals to this project's development is to provide a community aspect, where services can be brought to the community.

The schedule of accommodation seeks to provide five consulting rooms, one treatment room, four multiuse rooms and one community room. These aim to maximise the clinicians' ability to deliver services in as broad a manner as possible.

Project  
Partners



Renfrewshire  
Health & Social Care  
Partnership



# Bishopton and Dargavel Satellite Facility

Improved Health and Social Care Services for Bishopton and Dargavel



● Existing Bishopton Medical Practice ● Proposed Satellite Facility

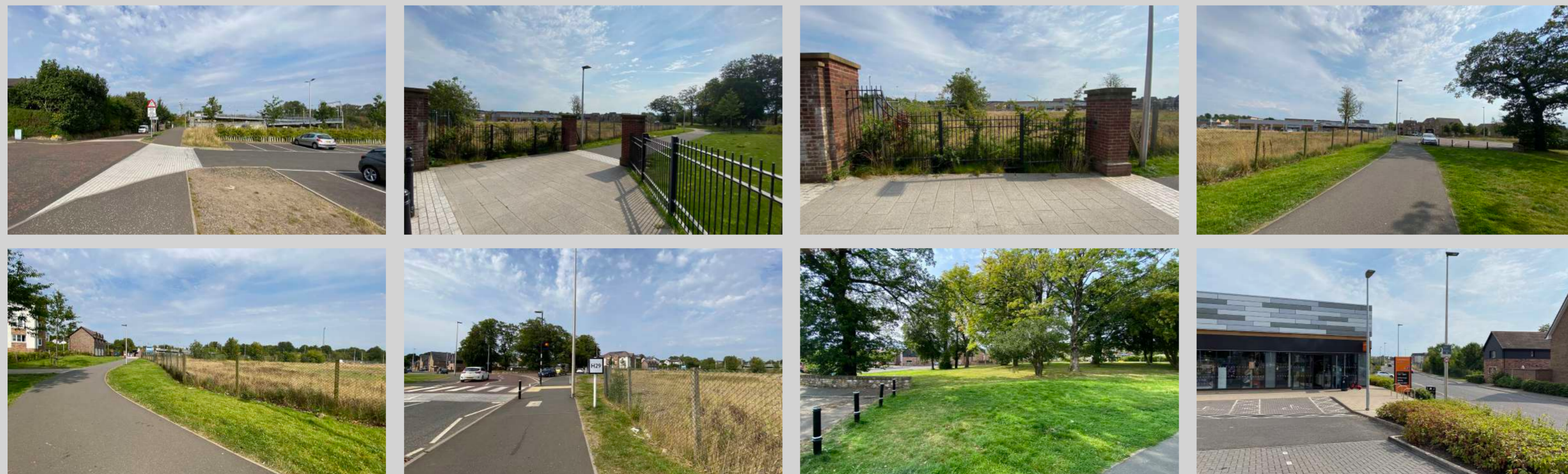
## Proposed Site Location

Bishopton lies within Renfrewshire, two miles west of the Erskine Bridge, which spans the river Clyde. Bishopton lies approximately 11 miles west of Glasgow, and 51 miles west of Edinburgh. It is well served by transport connections - the A8 bisects Bishopton and the M8 runs to the northeast. The Inverclyde railway line also serves Bishopton, providing access to Glasgow Central Station to the east, and Gourock/Wemyss Bay to the west.

The proposed 'Bishopton and Dargavel Satellite Facility' will sit in the Dargavel Village Centre, which lies between the old settlement and the future Dargavel expansion. Within the masterplan for the development this area is zoned for retail and community uses.

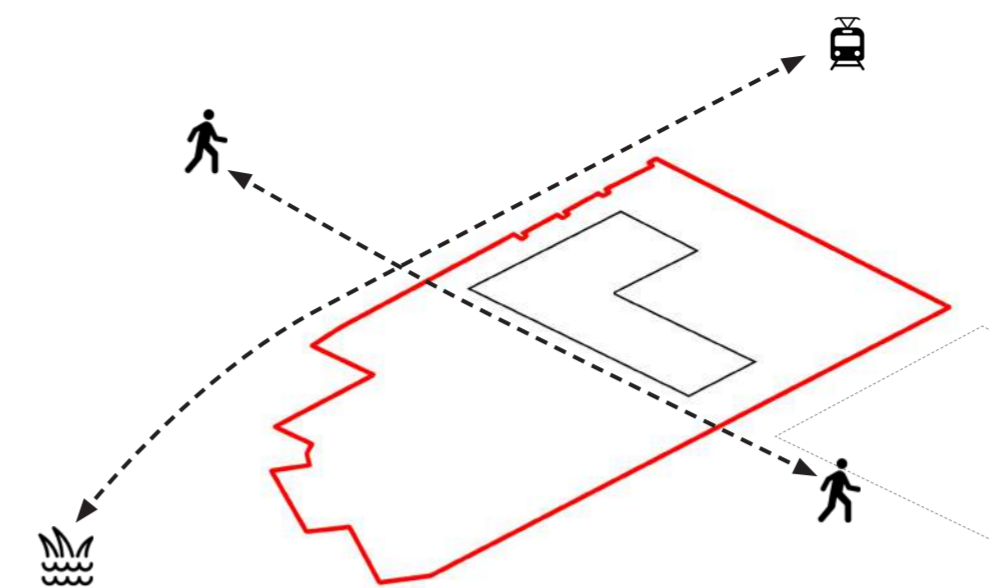
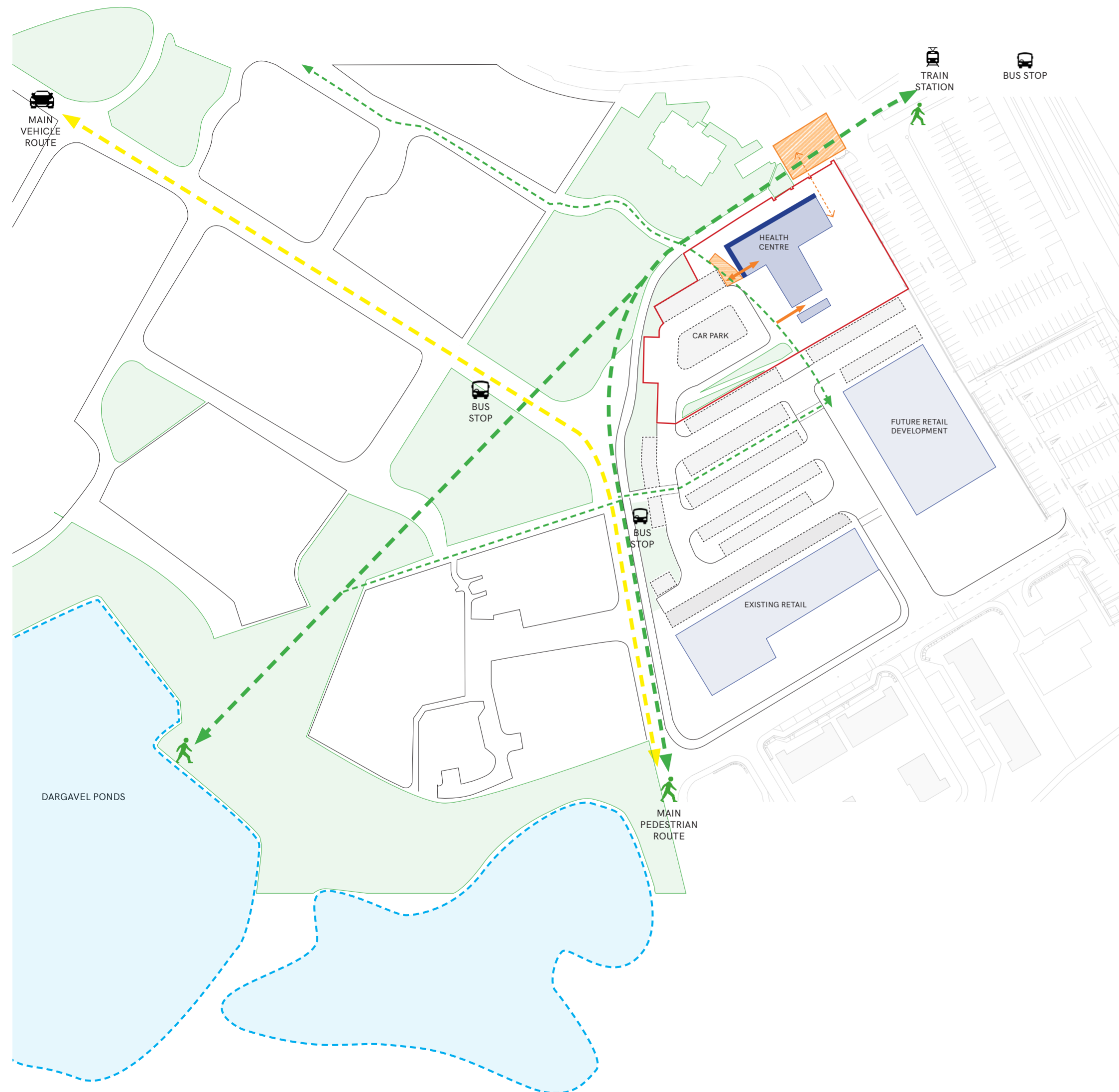
The proposed site for the satellite facility has been prepared for new development. The satellite facility will form a key part of the Dargavel Village Centre. The first phase of the Village Centre is already operational. This includes a neighbourhood food store, a barber, a café and other shops.

Existing site images



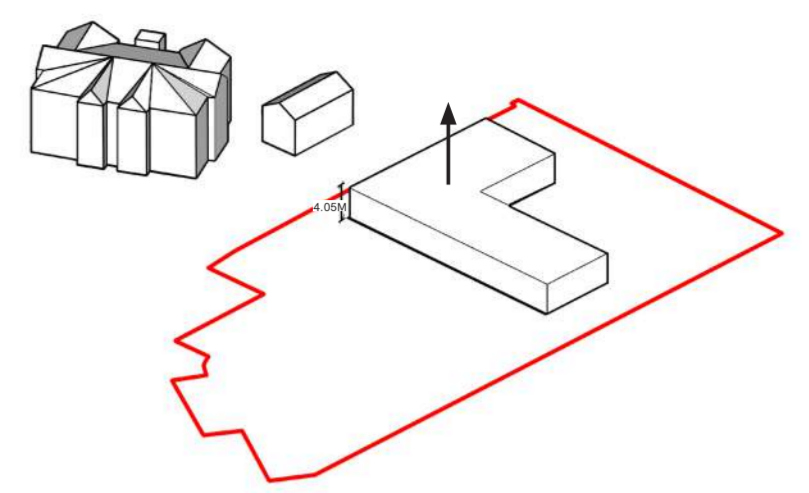
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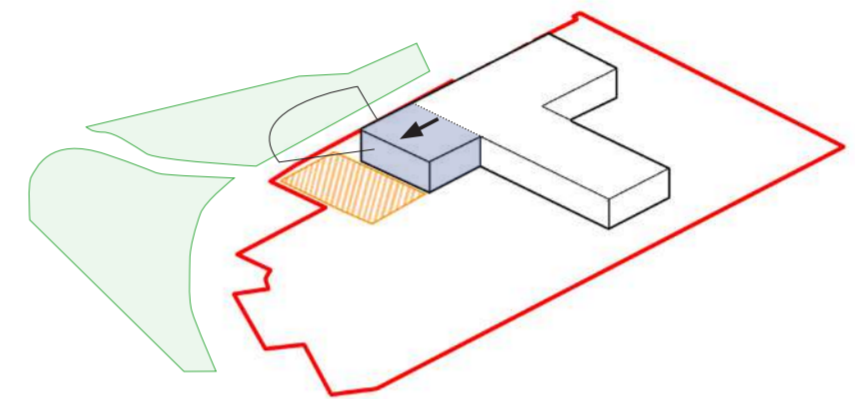
01. Position

The building is positioned at the edge of the main pedestrian route that connects the rail station to Dargavel Village. The layout provides a clear and safe link to this route. Furthermore, the building is conveniently within walking distance of both the train station and the new housing neighbourhoods in Dargavel Village and Dargavel Ponds.



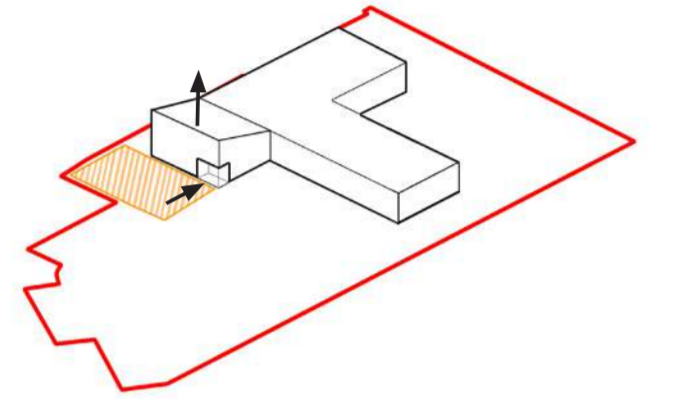
02. Building height to surrounding site context

The height of the building has been designed to blend in with the surrounding building context, which primarily consists of low-rise residential buildings with occasional punctuation provided by higher apartment buildings.



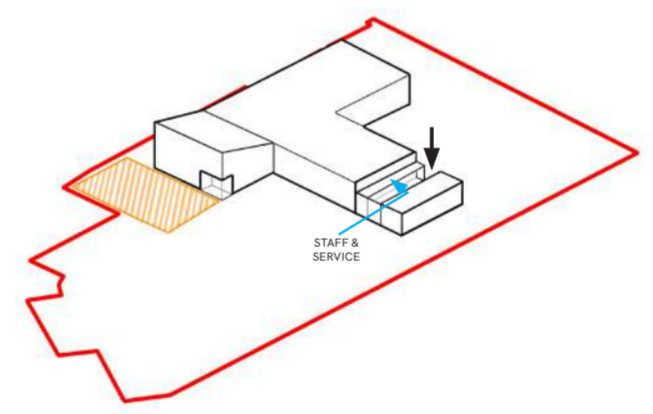
03. Frontage

The frontage of the building has been designed to form a central hub that overlooks and connects to the existing Village Green. Moreover, the waiting area has been positioned to face the surrounding green space, thereby providing a pleasant and calming view to visitors.



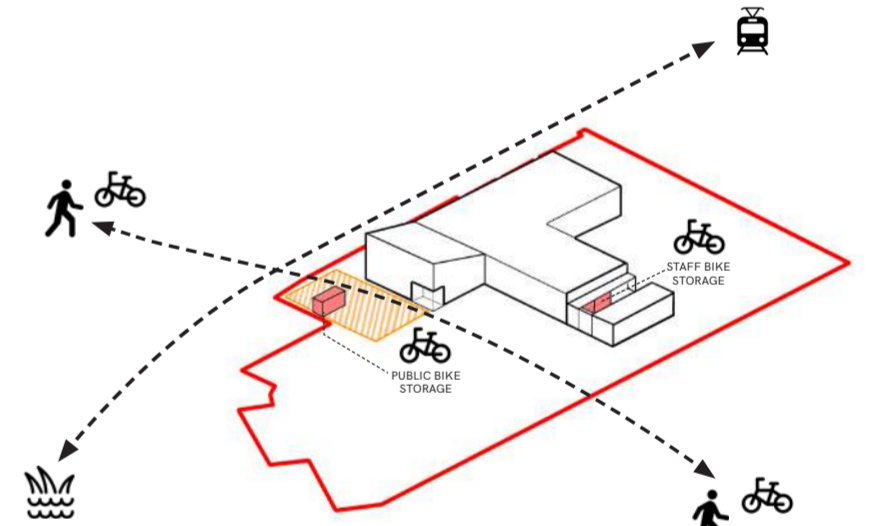
04. Entrance

A prominent entrance to the facility has been carefully designed. The raised entrance creates an identifiable landmark that clearly distinguishes the entrance from the rest of the building.



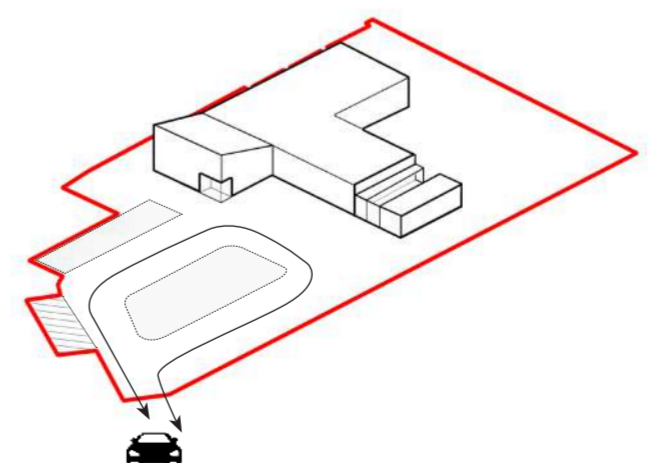
04.1. Staff Entrance

A secondary entrance has been included for staff at the rear of the building. This part of the building has been lowered, providing a secure and private entrance for staff to use which is more human in scale.



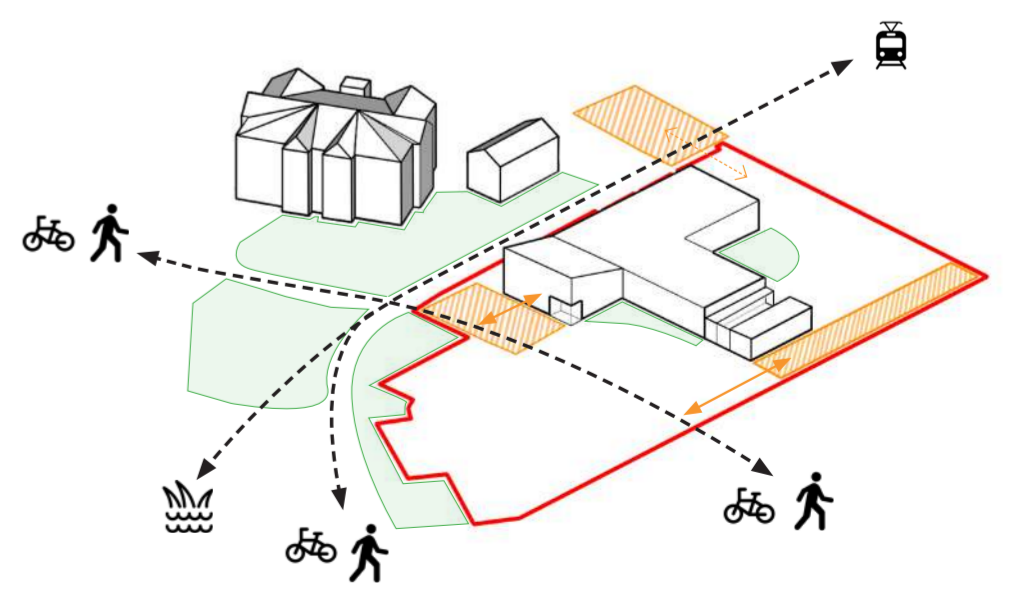
05. Cyclists and Pedestrians

The facility has taken steps to support sustainable or active travel by including bike storage facilities for both staff and visitors.



06. Vehicles

Vehicle access and car parking is located directly outside the facility, with a connection to Aderlady Way to the south.



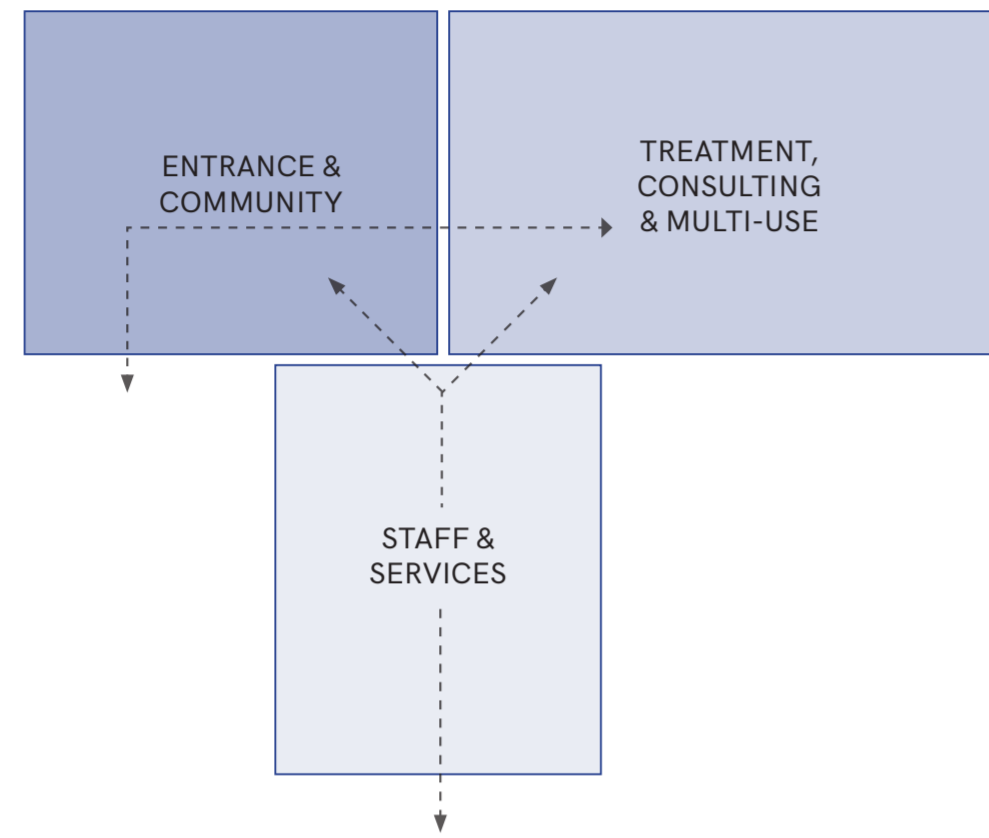
07. Green/Public Space

The building design has been carefully planned to support the creation of green spaces, forming a network of interconnected green areas that extend from the proposed site to the surrounding existing green areas such as the Village Green and Dargavel Ponds.

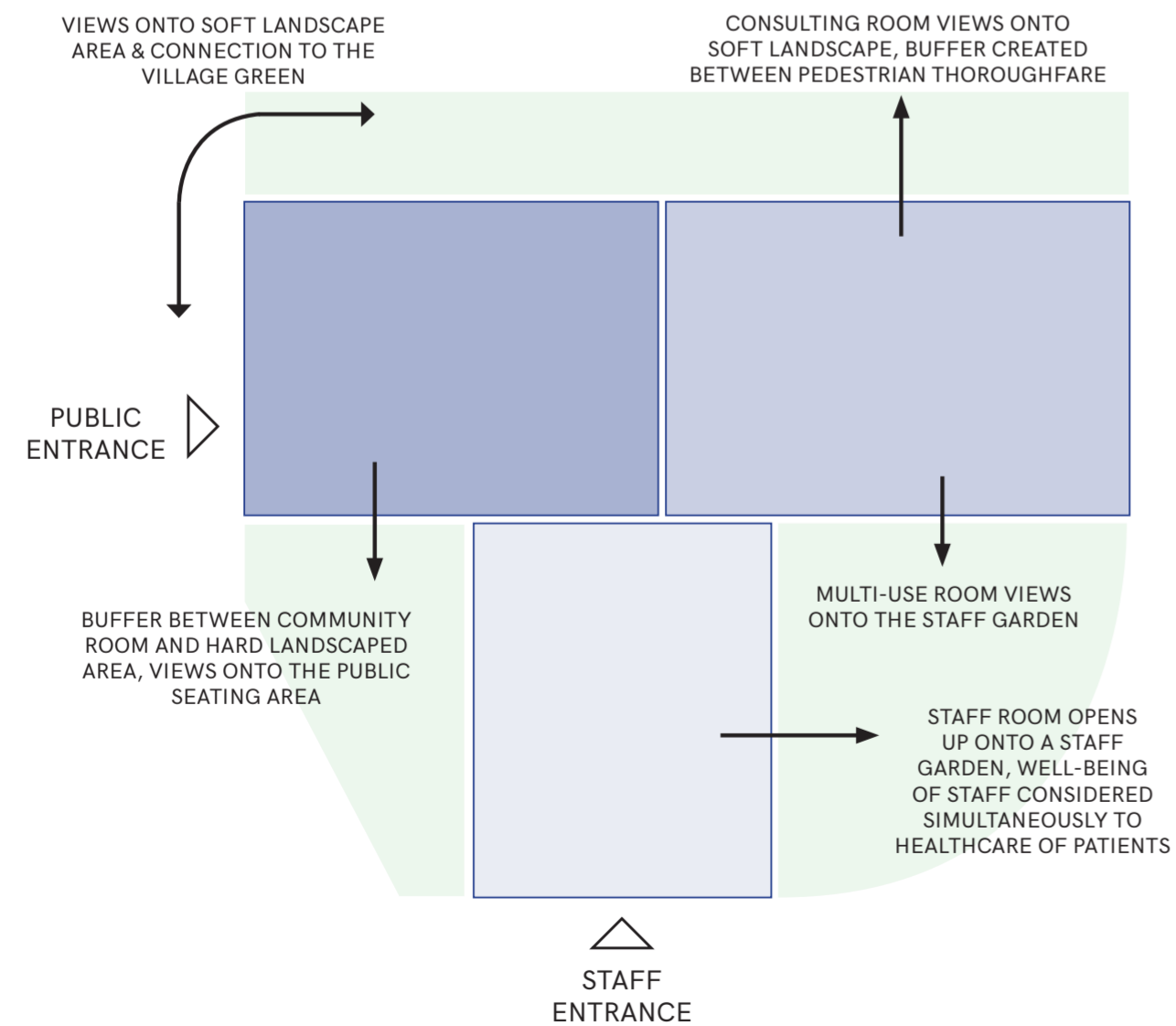
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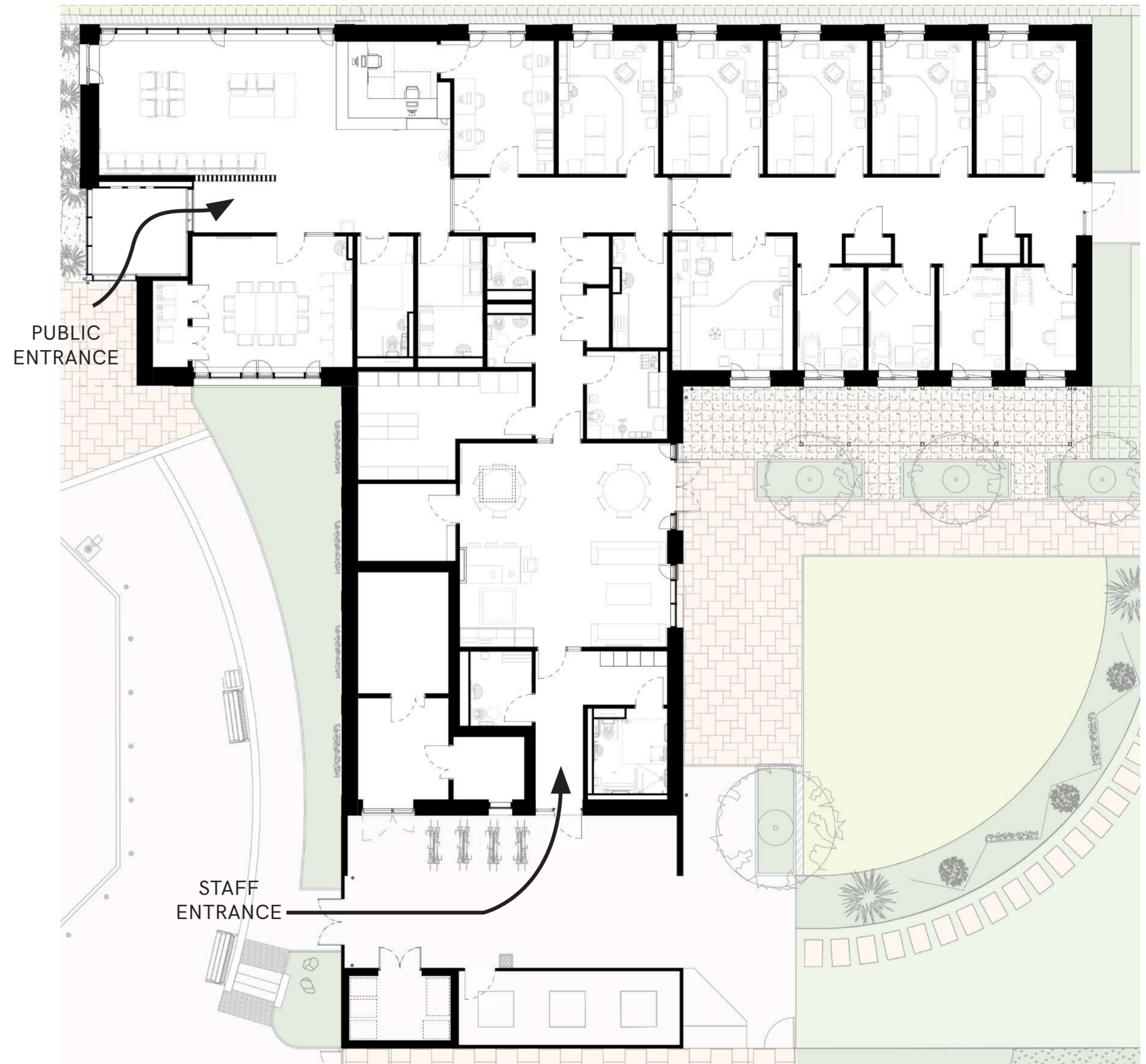
Design Response  
Building Organisation



ACCOMMODATION STRATEGY



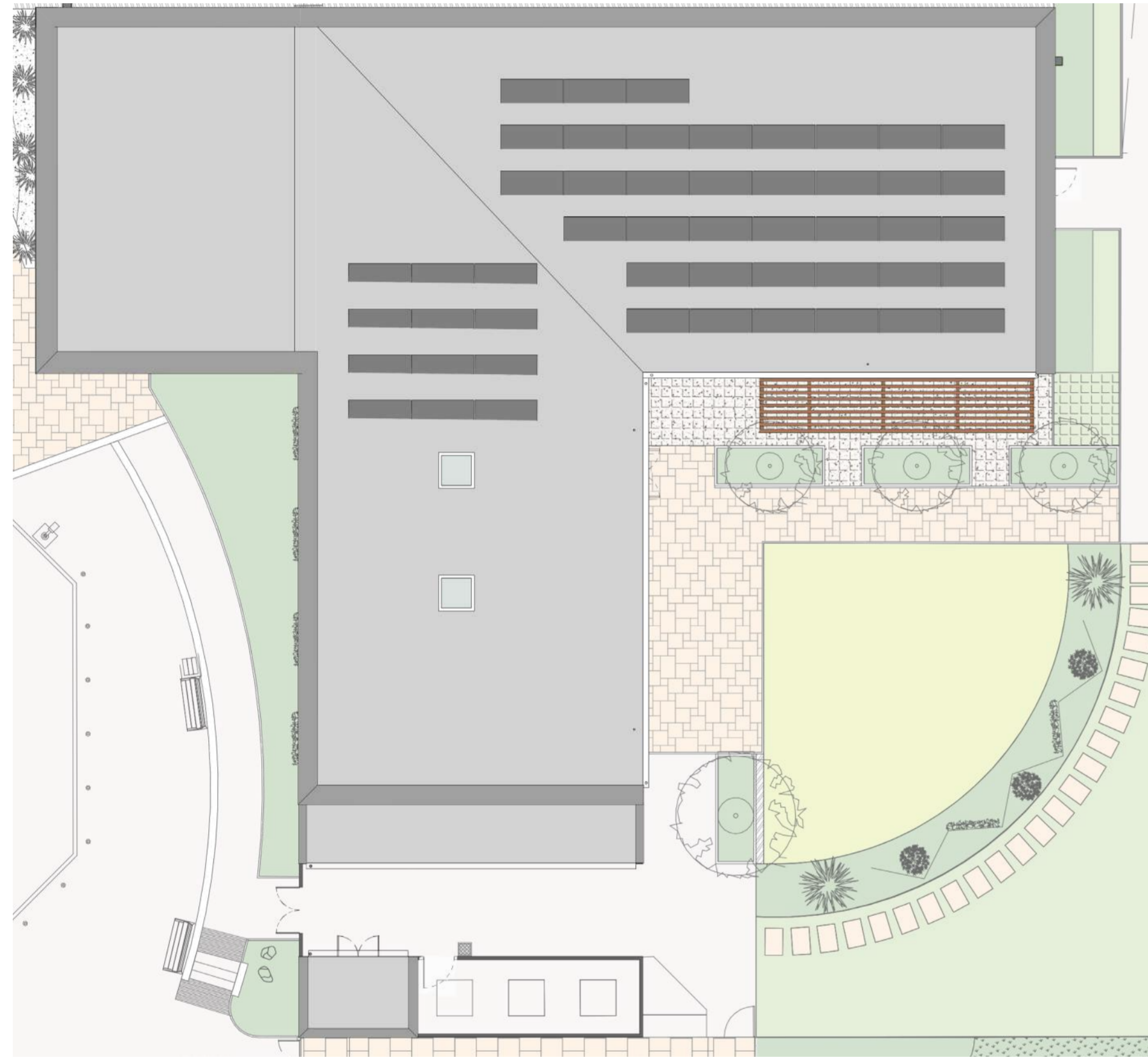
ACCOMMODATION TO SITE RELATIONSHIP



# Bishopton and Dargavel Satellite Facility

Improved Health and Social Care Services for Bishopton and Dargavel

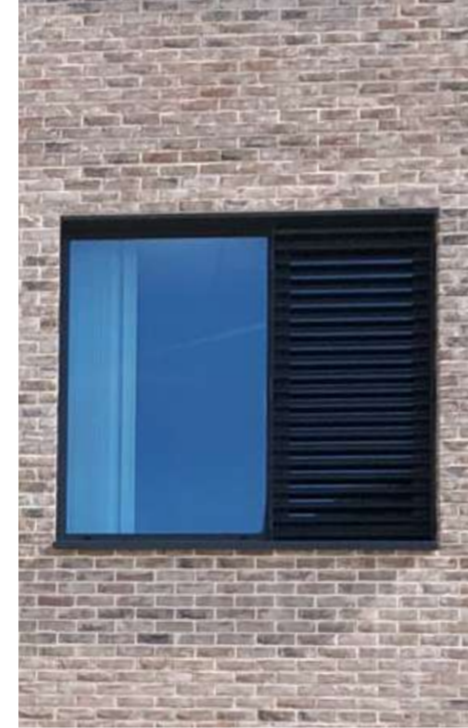
Extent of PV panels



Roof-mounted PV panels



Window louvres



Quality of internal finishes



## Design Response Sustainability

Sustainable Design and Construction has been at the forefront of the design process. Plans for the 'Bishopton and Dargavel Satellite Facility' target passive standards. The use of triple glazing and increased insulation on the building envelope reduces energy demands. The building is naturally ventilated, solar gain is optimised and controlled through the use of openable windows and shading louvres in every room, again reducing lighting and heating energy demands. Low VOC materials have been specified for the internal finishes. The proposed facility has roof mounted photovoltaic panels, which generate solar energy. This omits the building's reliance on non-renewable energy sources. Heating will be provided by use of renewable energy - Air source heat pumps.

Embodied carbon to practical completion Targeting **<600kgCO<sub>2</sub>e/m<sup>2</sup>** for modules A1 - A5.

Embodied carbon mitigation measures are being explored and implemented:

- Optimised use of structural timber, offering embodied carbon savings of up to 70% when compared with traditional steel options.
- Recycled content in concrete has been optimised (assumed 70% GGBS mix for substructure), reducing concrete carbon footprint by 45%, detailed LCA modelling quantifies a saving of 15 tonnes CO<sub>2</sub>e.
- Optimised roof design, detailed LCA modelling demonstrates embodied carbon savings of more than 30% when compared with similar alternative products.
- Significantly enhanced thermal performance and passive design features have significantly reduced the need for additional active systems to meet operational demands.

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Eastwood Health Centre, East Renfrewshire



Eastwood Health Centre, East Renfrewshire



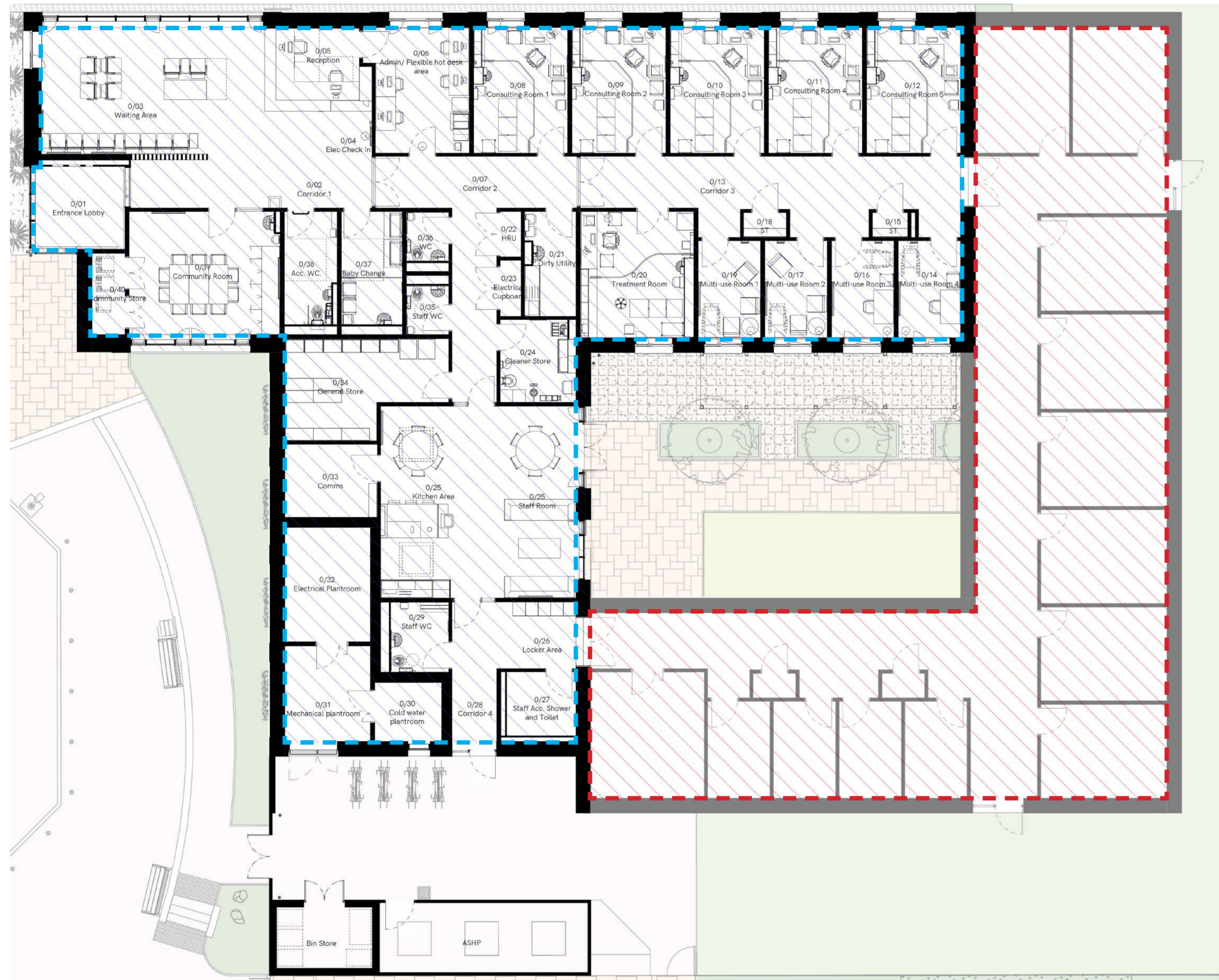
Shields Centre, Glasgow



Woodside Health Centre, Glasgow

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New Satellite Facility, GIFA = 506m<sup>2</sup>

Potential Future Expansion, GIFA = 278m<sup>2</sup>

Forecast in year 2035 and construction of 4,300 new homes would see an expected practice population increase of approx 6,500-7,200 people. The new satellite facility along with the existing Bishopton Medical Practice have enough facilities to support 17,201 - 17,858 people (population projection for 2035).

The proposed satellite facility has furthermore been designed to support a wider expansion of up to 55% if the local housing plans were to expand beyond the currently approved 4,300 dwellings.

## Population Projection Modelling

NHS Greater Glasgow and Clyde undertook a population modelling exercise through the appointment of Higher Ground Health and Care Planning Ltd. They identified key variables for activity modelling purposes, determined an appropriate range for these variables - based on the historic relationship between housing completions and developing list size. They then identified a range of scenarios that presented these variables in different ways and documented the potential impact on future room capacity required. Through this analysis and discussion with the planning department and GP practice, the following conclusions were demonstrated.

- In the base year of 2022 the Bishopton Medical Practice population is noted as 10,602.
- Forecast in year 2035 and construction of 4,300 new homes would see an expected practice population increase of approx 6,500-7,200 people.
- The modelling allows for 3.5 people per new dwelling.
- The modelling shows that 22 rooms in total are required across both facilities with these parameters.
- This is being delivered by 13 practice consulting rooms now in the remodelled existing Bishopton medical centre and five consulting rooms, one treatment room plus four multi-purpose rooms for remote consulting & non examination appointments in the proposed satellite facility, totalling 23 rooms.
- The four proposed multi use rooms are designed to be capable of alteration into two treatment rooms, if working practices changed in the future or the need arose.
- The proposed satellite facility has furthermore been designed to support a wider expansion of up to 55% if the local housing plans were to expand beyond the currently approved 4,300 dwellings.
- Once the proposed satellite facility is complete in 2024 (and before any expansion), by 2035 with a practice population of 17,201 - 17,858, there will be +1.23 rooms per 1,000 practice population.

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Design Response  
Visuals of proposed facility





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