Denham Youd

CHARTERED PRACTICE

Pre-Application Enquiry Document

Proposed - Sustainable Holiday Home

June - 2024

Contents

The Brief

Brief / Design Consideration:

- To create and prepare a Pre-Application design document.
- Assess the proposed site and create a site plan that best utilises the existing space and buildings.
- Proposed uses for the existing buildings include new boutique accommodation and living spaces along with kitchen, toilet, dining and outdoor areas.
- Improvements to the existing courtyard spaces.
- Upgrade the existing jetty, boat store and self-accommodation bothy

Client's Vision:

Our plan for Pladda is to develop a sensitively designed, ecologically and economically self-sufficient home and destination for low impact sustainable tourism.

We aspire to create an island living experience which is based on entirely self-sufficient off-grid living through the use of renewable energy sources, and working towards the goal of creating a carbon neutral development.

Although the island will be a destination in its own right, it will also compliment and provide an extension to the well established tourist economy on Arran, given the inextricable physical, cultural and economic links between the two islands. The intention is to service the island directly from Arran and to form links to the Southern end of Arran, which will be the principle embarkation point for those visiting Pladda. This will help to strengthen supply links between the two islands and create additional activity for the visitor economy on Arran.

The vision is an enjoyable and educational experience for visitors who share a love of marine wildlife, rugged landscapes, maritime history and want to experience that in a sustainable low impact manner.

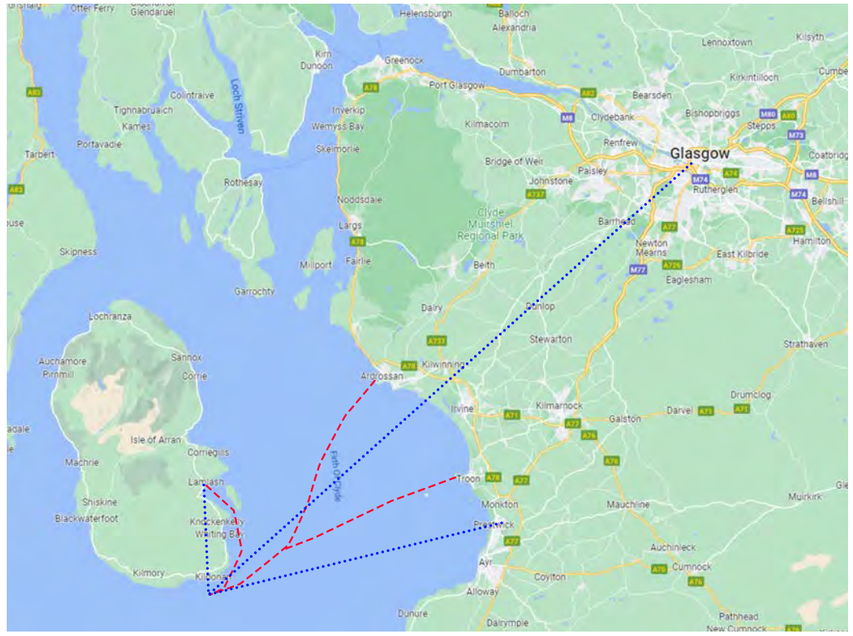
In delivering this vision we hope to inspire others by demonstrating how green technologies can be used in the 21st century to harness the bountiful renewable resources of Scotland.

Site Context

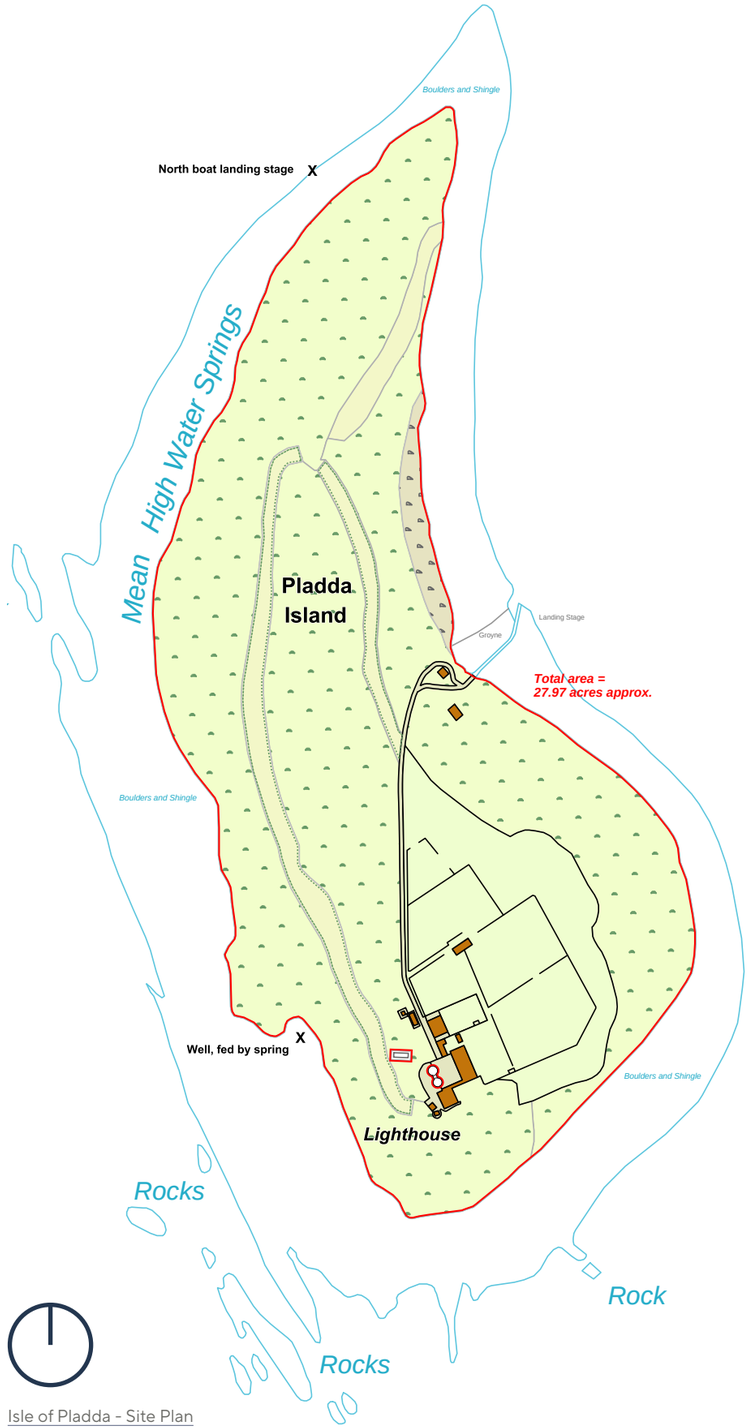
Pladda Rock or Pladda Isle lies off the South Coast of the Isle of Arran; 28 acres nestled in the Firth of Clyde. The island is dramatic and remote, lying approximately a kilometre off the South Coast of Arran. From Silver Sands beach, the journey across the reef and through the race tides takes approximately 15 minutes.

The closest range of services are on the Isle of Arran in the small village of Kildonan, which lies on the South East coast and contains a village shop, post office, campsite and hotel. Additionally, there are a number of other villages accessible around the Isle of Arran, Including the two larger villages of Brodick and Lamlash, both which have a more extensive range of services; including a supermarket, golf clubs and the islands hospital in case of emergencies.

Transport for the visitors to the island will predominantly be by boat from Lamlash harbour to the island. Visitors can reach the Isle of Arran by sailing on the commercial ferry from Adrossan to Brodick. Alternatively they can charter a private boat or Helicopter.



Red Dashed line signifies Boat routes too and from the island.
Blue Dotted line signifies Helicopter routes too and from the island.



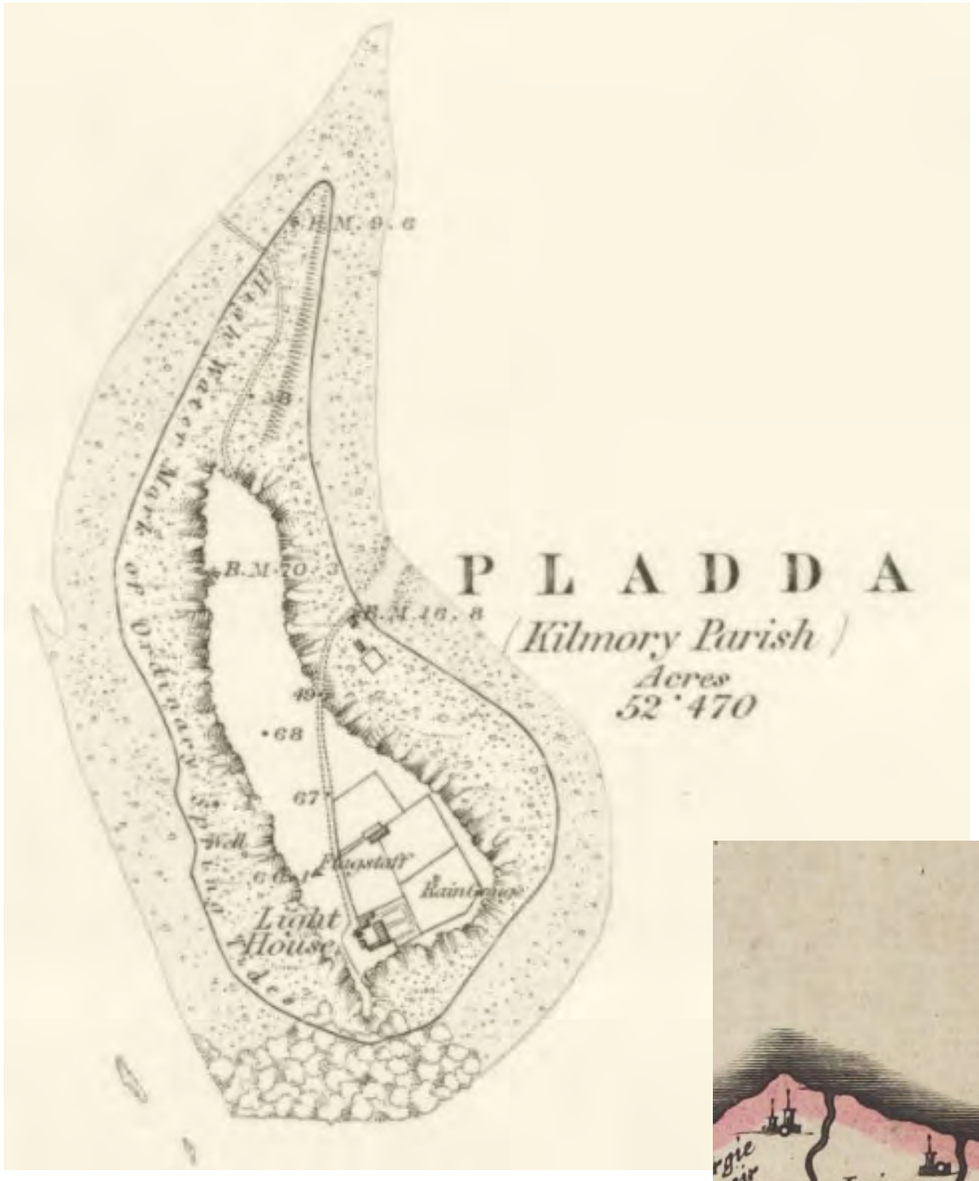
Isle of Pladda - Site Plan

Site History

Pladda Isle has been the site of a lighthouse since 1790, joining the lights of the Mull of Kintyre, of Little Cumbrae in the Firth of Clyde, and of Copeland light on the Irish Coast. The present lighthouses were built between 1821 and 1830. To allow mariners to distinguish it from the other nearby lighthouses, including Holy Isle, Pladda illuminated a lower light from a small lantern 20 feet lower than the original one; this arrangement became permanent and proceeded to operate for more than 100 years.

Trials were carried out at Pladda in 1870 with paraffin; the Commissioners ordered sirens driven by hot air engines from America in 1874; and in 1876, Pladda became about the third station to have a fog signal. In 1901 fixed lights were no longer regarded as suitable for the great landfall, therefore coastal lights and a powerful group flashing light were installed. The lower tower was then made redundant. Boatmen permanently attached to the station were brought provisions and other light stores, but these visits were limited to four times a month, two of which landed on Sundays to allow light keepers to attend church.

Everything then changed in 1972 when the helicopter was introduced as a method of transporting the keepers. This method was used until 1990 - the year that saw the automation of the lighthouse and the withdrawal of the lighthouse keepers; the lighthouse is now monitored remotely from Edinburgh and the island is unoccupied. The traditional lantern and lens have been replaced by a couple of solar powered LED lights strapped on either side of the



Isle of Pladda - 1864 (above)
Isle of Pladda - 1654 (right)

Site Plan - Existing

The Site is an existing walled area on the isle of Pladda off the coast of Arran. The island already has many existing buildings and until a few decades ago was regularly occupied

The existing site is what appears to be grazing land that has walled fields, tractor sheds and includes the helicopter pad for the island.

Our proposal utilises these stone walls and already developed areas to house the proposed lodges, sheltering them from the elements just enough without compromising the outstanding surrounding scenery.

Total Site Area - 12580m^2 - 1.25 Hectares

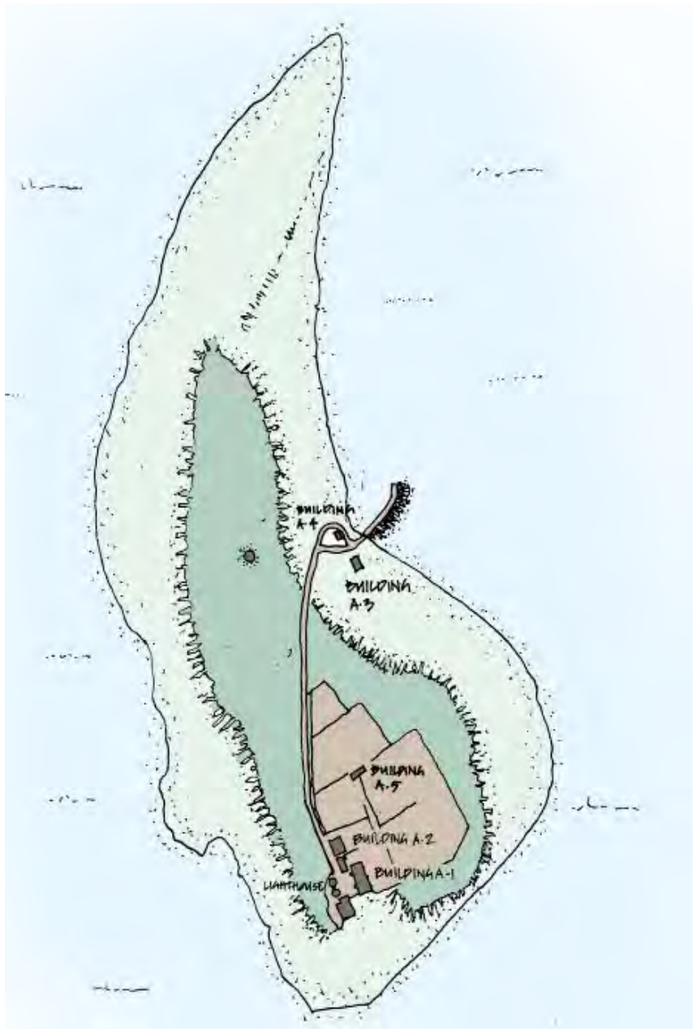
Existing Buildings - Ancillary Buildings 1 - 5

The isle of Pladda plays host to an array of buildings; including The lighthouse, Lighthouse keeper accommodation, both, boat house, tractor shed and another dwelling. All of various shapes and sizes, the buildings have been left to succumb to the elements and are in need of refurbishment works to bring them back to life and intended use.

Sited next to the existing lighthouse operators quarters is a symmetrical peaked roof building. This houses a discontinued generator. This building is to be stripped out and refurbished to be used for on site living accommodation for the workers that will live on site and manage the holiday lodges.

The two buildings that are situated next to the jetty are set to be refurbished and used as a boat shed and cafe for local seamen to visit the island and will be utilised for the islands visitors/inhabitants

Lastly, the building attached to the existing lighthouses is set to be a communal area for visitors to relax and might include an eatery or bar area for patrons use.




Building A-1


Building A-1


Building A-2


Building A-3


Building A-4


Building A-5

Existing Buildings - The Lighthouse

Pladda lighthouse is located on the South-end side of the island and was believed to be constructed here in 1790. In accordance with the Commissioners of Northern Lights' Nation Establishment policy, it was one of five rebuilt between 1821 and 1830.

Trials of paraffin oil illumination were conducted at Pladda after 1870, and a foghorn was installed after 1876. The 'double lights' formerly fitted were replaced by a powerful group flashing system in 1901. The light was automated in 1990.

The lighthouse is currently maintained by the North Coast Lighthouse association. It is fully automated and is controlled from the station in Edinburgh. The lighthouse is out with the development and will be excluded from all renovation and refurbishment works carried out to the island.

Source: https://canmore.org.uk/site/40074/pladda-lighthouse

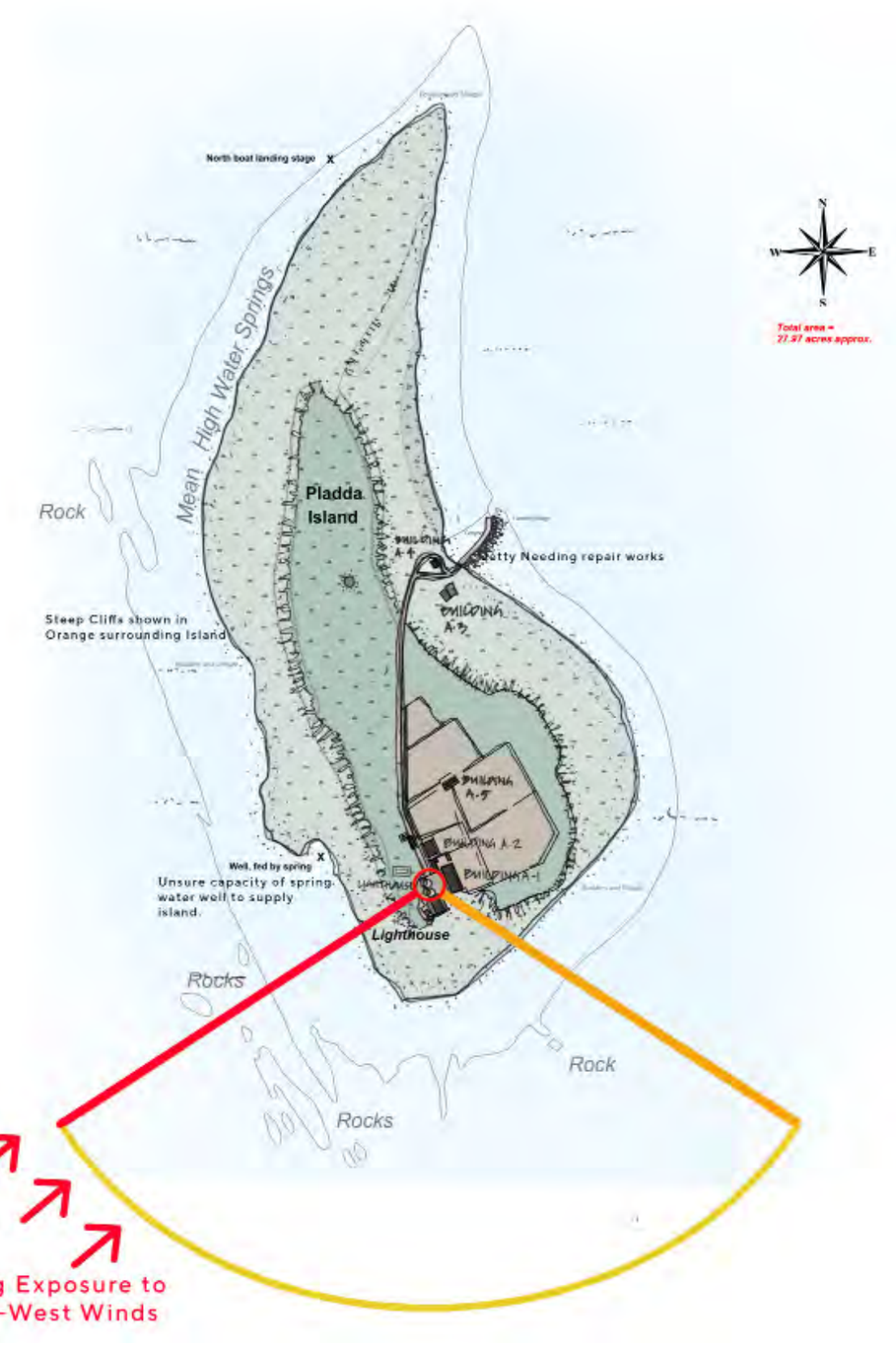
Site Constraints

The site by nature has many constraints due to its location, landscape and exposed sitting. The nature of the development being on a remote island poses challenges from early stages.

Connecting services, transportation to and from the island of machinery and materials, and recruiting contractors will be challenging and need thoughts through to implement practical measures to combat the site constraints.

Transport to and from the island will be carried out either by boat or helicopter. It would be impractical to build a road to the island. Transport would be best carried out using a landing craft to transport all machinery and materials to the island. Utilising the existing Jetty, the boat can dock and offload all equipment before making the return journey to Lamlash.

Services:- There is a fresh water spring on the west coast of the island that will be used to feed fresh water to each of the proposed lodges. The waste water connection currently serving the existing buildings will be check for capacity to take the waste from the development. However, should the existing waste pipe not have the capacity, Reed Beds have been proposed on the island to aid in the breakdown and waste management process.



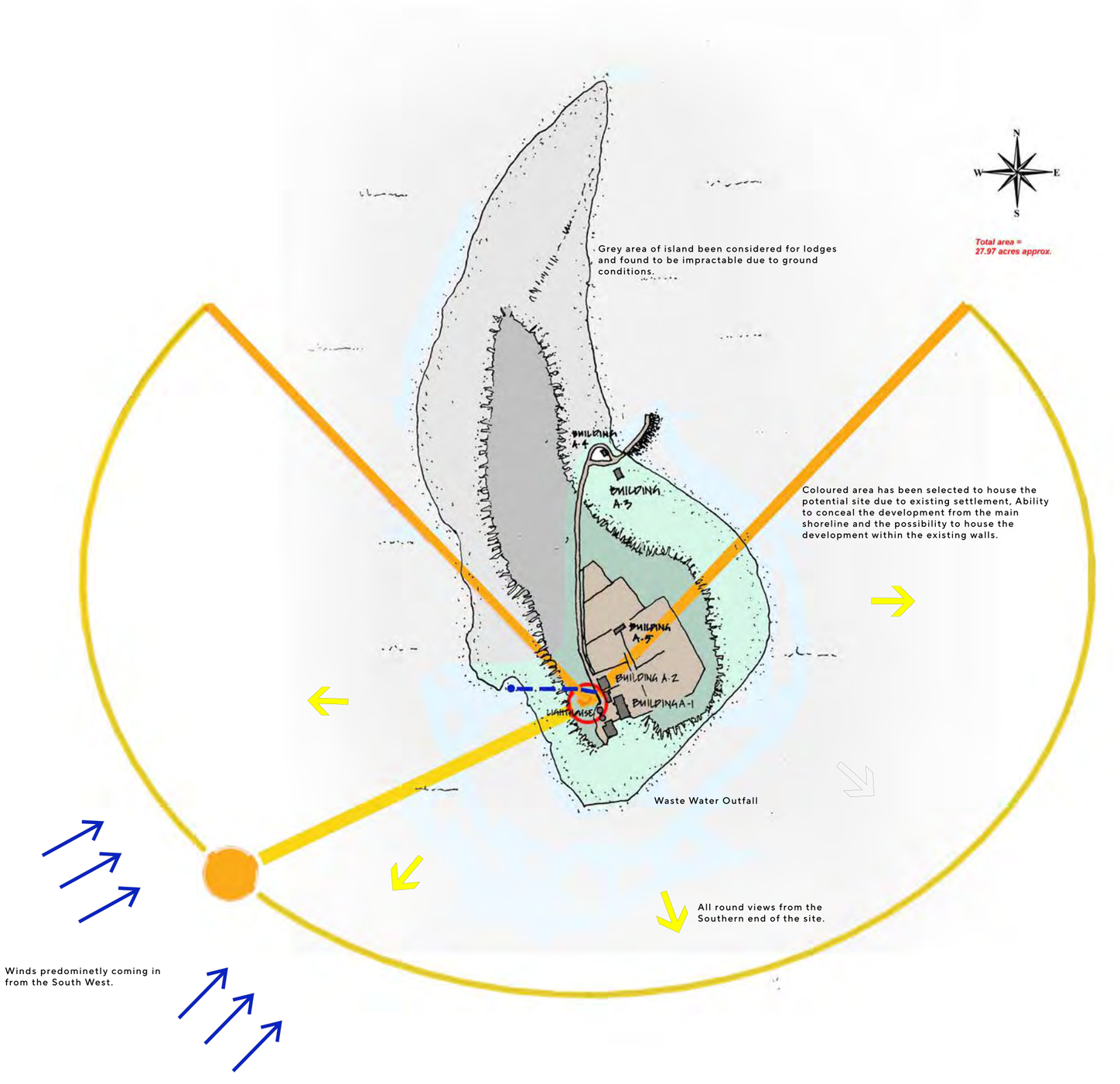
Site Opportunities

The isle of Pladda benefits from a vast number of opportunities for developments of this kind. The illustrated map to the right highlights key area and area's deemed advantageous to the development on the island.

The prevailing winds are naturally broken by the cliffs on the south west side, sheltering the proposed development from the harsh coastal winds.

The sites existing buildings already have waste water and fresh water connections. The current waste water solution is will be maintained for the existing buildings and the fresh water is to be manipulated to feed in to the proposed development in the adjacent fields.

It is proposed that the existing jetty on the east coast is to be refurbished & extended and will be the primary access point for visitors and clients of the holiday lodges.

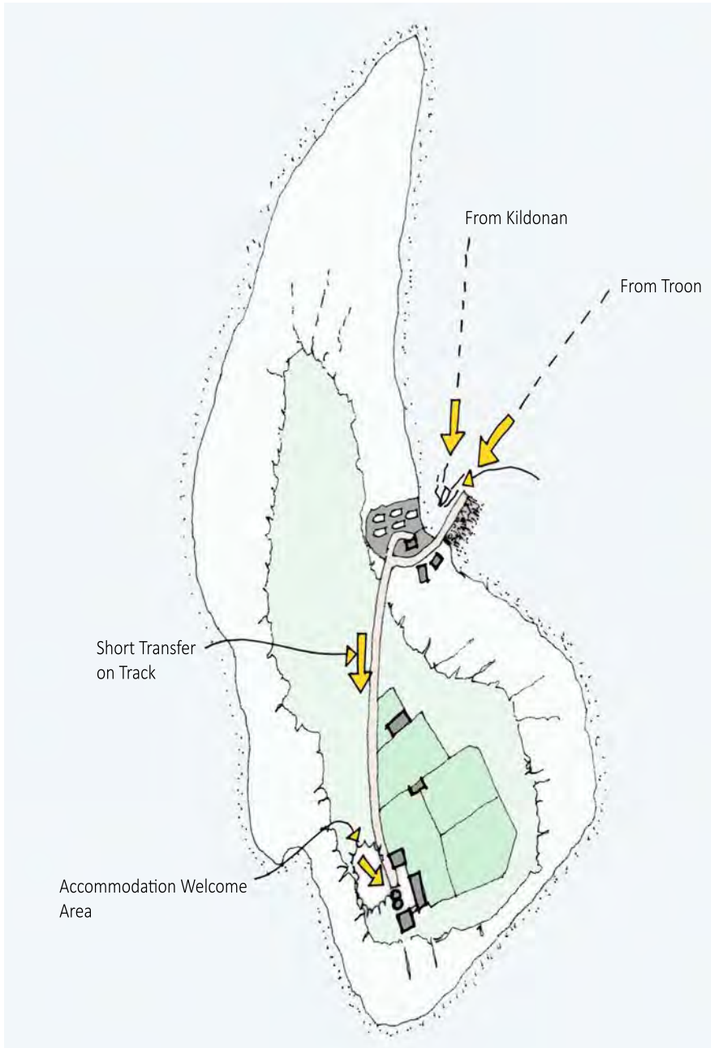


Arrival, Journey & Facilities

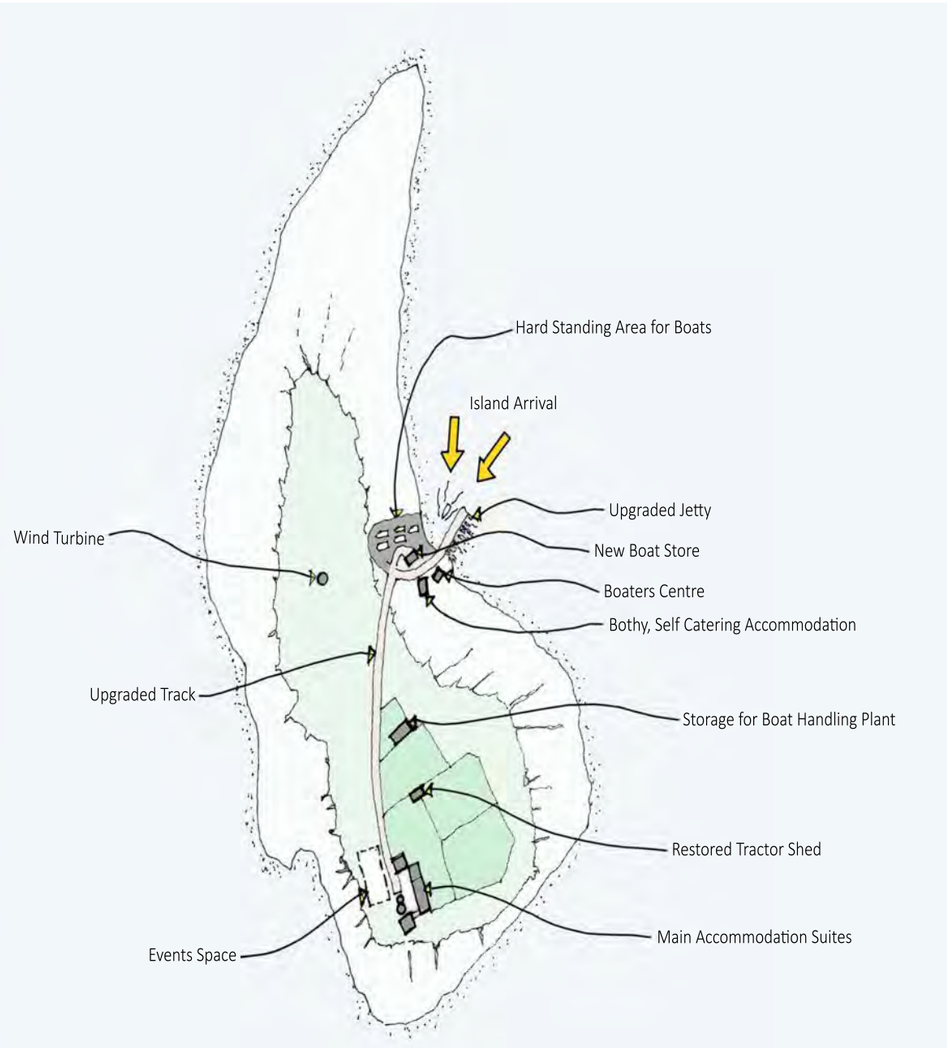
The isle of Pladda is accessible directly from both Kildonan on the Isle of Arran, or from the port of Troon and Ardrossan. Upgrades to the existing jetty will allow for the ease of disembarkation for visitors, guests and getting materials onto the island.

Two existing structures, located just as you arrive onto the island, will be upgraded and improved and a further proposed boat store erected. A wind turbine will provide a sustainable energy solution for the island.

The existing vehicle track, which will be overhauled and upgraded, will take guests to their accommodation.



Arrival & Journey



Facilities

Consolidated Plan

Plan showing the main alterations and additions to the isle of Pladda

1 Improved jetty for island access. Excavated foreshore for 14m work boat. New access pontoon and gangway. New rubble breakwater with capping access blocks to replace existing breakwater wall. 40m pre cast concrete slipway blocks. For further details refer to Jetty drawings.

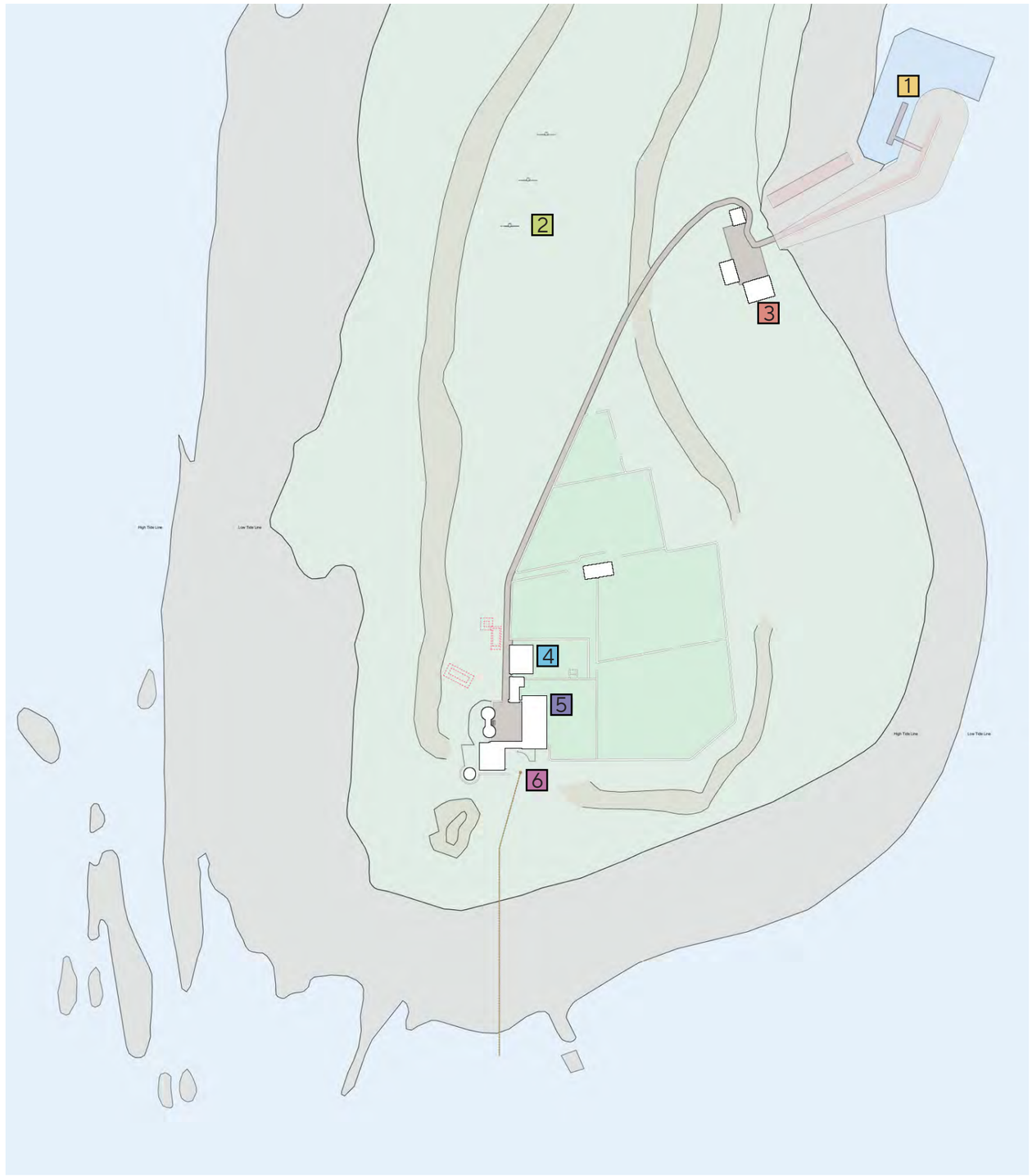
2 Wind Turbine to provide power for the island. 12 - 15 Kv Turbine approximately 15m high. Identified positions where two future turbines could be if the islands power needs to be increased.

3 New outbuilding to house equipment for jetty and battery storage for wind turbine and solar panels. Murray steel buildings 8.32m x 11m x 4.1m to eaves with a 10 degrees mono pitch to 2.7m at the low end. please refer to p13 for further inforamtion

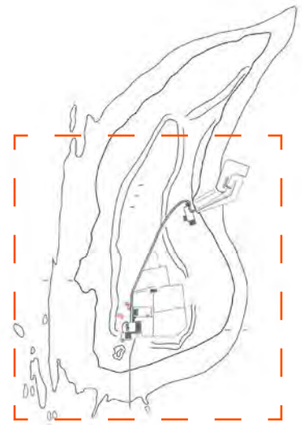
4 Solar panels on West and East roof pitches of the existing ancillary building shown. 20 x 2m x 1m panels mounted to existing roof. Panel and supplier tbc

5 Existing lighthouse accommodation to be developed with a sensitively designed, ecologically and economically self-sufficient home and destination for low impact sustainable tourism

6 Location of existing septic tank and outfall to be replaced with new septic tank and outfall.



Consolidated Plan

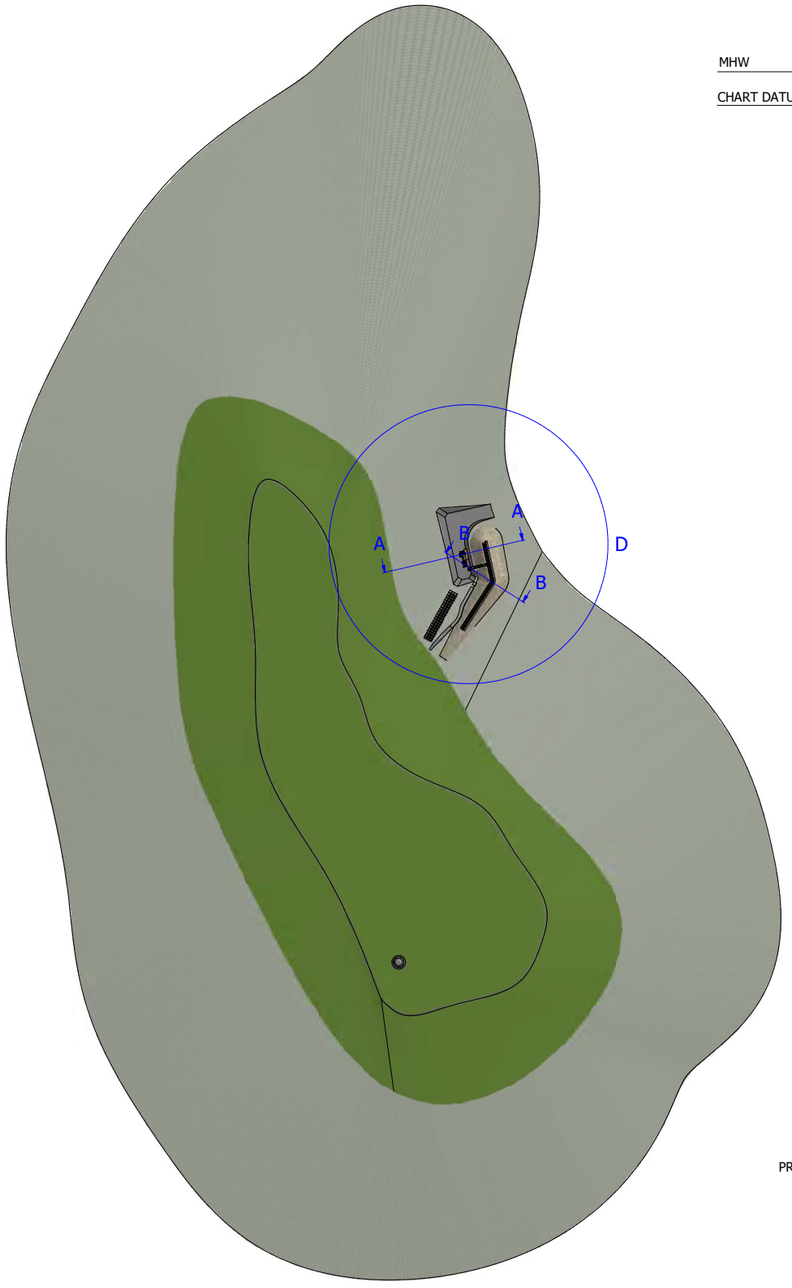


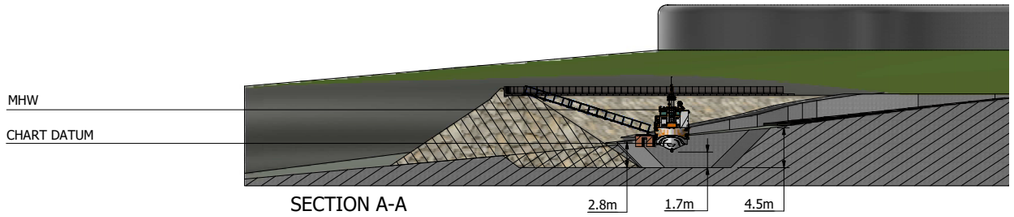
Plan Key

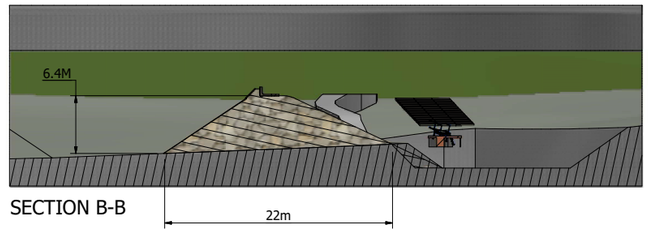
Jetty Access Information

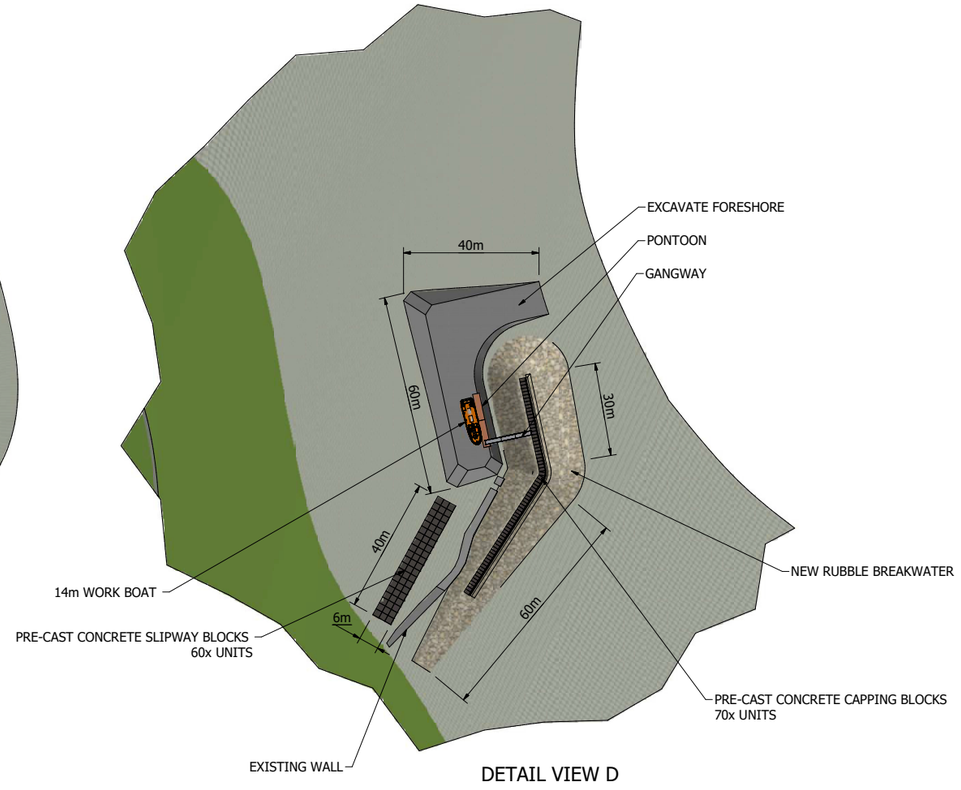
A new jetty is proposed to improve the access to the island. This is to include a new pontoon, gangway, concrete slipway blocks and new rubble breakwater with pre cast concrete capping blocks to provide a walkway atop the breakwater.

The new breakwater replaces the existing jetty wall to the east side of the island. The design is to accommodate 14m working boats and excavates some of the foreshore for safe access. Please refer to Jetty information for further details.









Example image of rubble breakwater

Plans and Sections of Proposed Jetty

Renewable Infrastructure

Due to the islands nature and sighting, running services to the island will not be cost effective and pose problems for the development.

Our proposal will harness entirely self sufficient off grid living and power. We propose using entirely renewable energy sources to power the existing and proposed buildings.

The development will draw on natural resources of the islands nature to power the development. The key technologies used in the development will be:

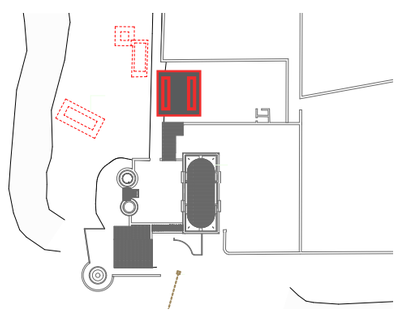
- Wind turbines
- Photovoltaic panels

A wind turbine situated to the north of the site will provide power to the proposed and existing buildigns. The location of the turbine is shown on the consolidated plan along with two identified positions for furtehr turbines if the islands power needs where to be increased. The photograph is an example image of the 12 -15Kv wind turbine proposed approximately 15m high

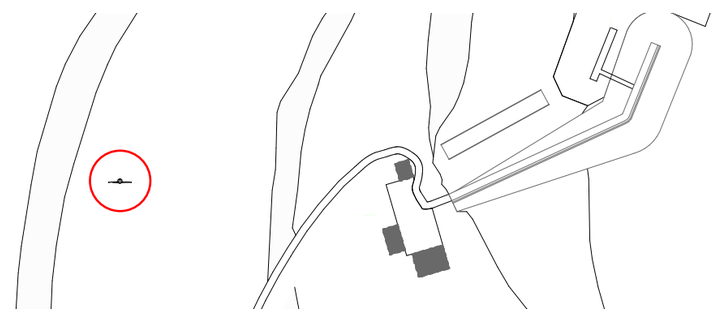
Solar panels on West and East outside facing roof pitches of the existing northern ancillary accommodation for the lighthouse. Location of panels shown on consolidated plan. Panels to be mounted onto existing slate roof.

Example image of proposed solar panels

12-15kV turbine. Approx. 15m high.



Proposed location of solar panels outlined in red

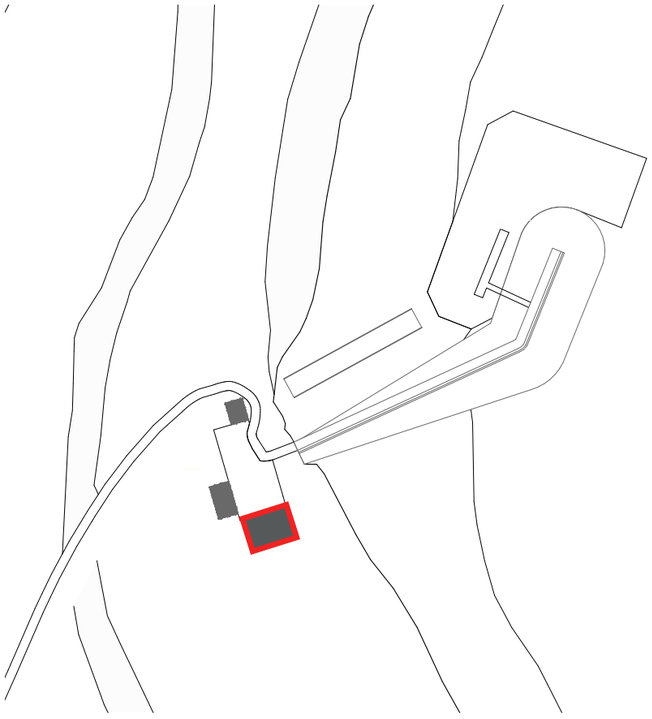


Proposed location of wind turbine outlined in red

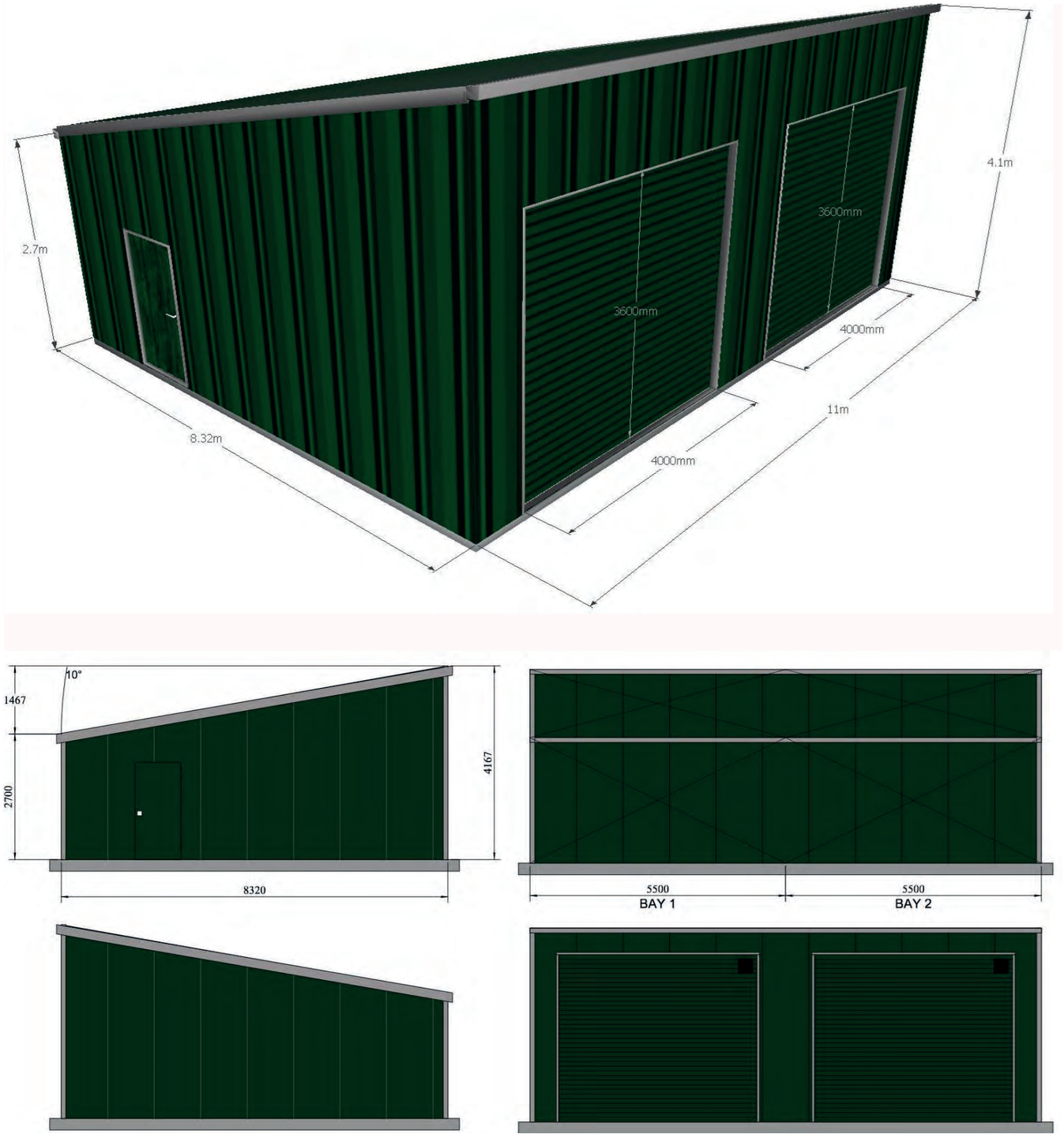
New Boat Store

To accommodate the boat and battery storage for the solar and wind turbines a new boat store is proposed southeast of the existing jetty buildings. Shown on the consolidated plan The outhouse is to have two 4m wide garage doors and to be clad in Juniper green plastisol coated steel sheeting. A mono pitch roof 10 degrees from 4.1m high to 2.7m at the rear of the building maintains the low impact simplicity of the structure

Refer to the Murray Steel Buildings full quotation for further information.



Proposed location of Boat Store outlined in red



Elevations and 3D of proposed Boat Store

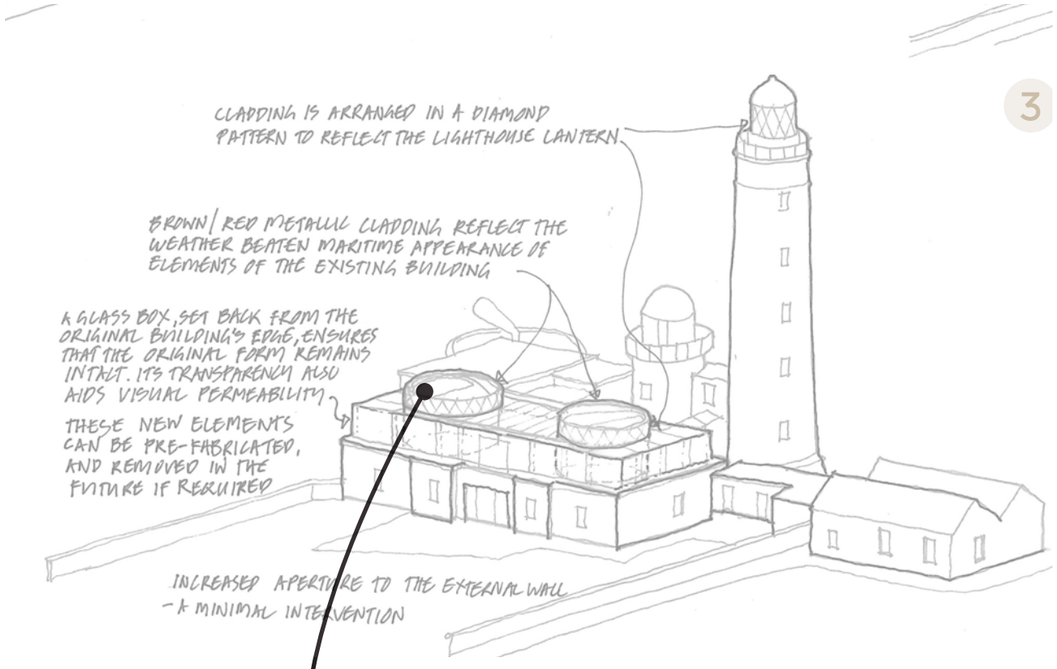
Design Development - Responding to Planners Comments

An initial pre application meeting was held based on the design shown in the images below. The main concerns raised; the effect of light polution through the glazed roof structure and the form of the roof addition accommodation, following the drum shape of the lighthouses. The revised scheme seeks to address this feedback alongside icreasing the usuable internal space on the upper floor.

1.

Issue: Planners raised concerns about light pollution.

Solution: Reduce the amount of glazing. Add a roof on top?



2.

Issue: Planners raised concerns about the form of the drums.

Solution: Review floor plan

Principle of development

Guidance taken from the Local Development Plan for North Ayrshire confirms that the local authority is generally supportive of tourism related development. In this respect, LDP2 policy 6 (Supporting Sustainable Tourism) states that "we will, in principle support the creation and enhancement of tourism and related activities."

The site carries a 'countryside' land use designation and is also a 'special landscape area':

- LDP2 Strategic Policy 1 outlines a number of circumstances where development in countryside locations ARE acceptable in principle, including those which assist to develop and strengthen North Ayrshire's coastal economy and marketability, improve accessibility to visit and explore North Ayrshire's coast and island, and provide jobs to North Ayrshire communities. The proposed development is considered to comply with these requirements

- The 'special landscape area' designation is covered by LDP2 policy 15 which outlines that proposals will only be supported in such locations if they would not have an unacceptable impact on the special character, qualities and setting of the site. Proposals will need careful planning and achieve a high-quality sensitive design in order to ensure that there would not be an unacceptable impact on the special character, qualities and setting of the area.

Whilst Policy 4 is applicable to Arran, the principles are relevant to development on Pladda, given its inextricable physical, cultural and economic links, to Arran.

"In principle, we will support development for a range of leisure, retail and other tourism-related development on Arran, subject to the proposal demonstrating:

- Integration with the existing settlement form, or

- Significant social or economic benefit to the island while having no unacceptable adverse environmental impacts, or

The proposals on Pladda form part of, and would benefit, an established tourist destination.

Policy 6 notes that the Council will "in principle support the creation and enhancement of tourism and related activities that are in accordance with the Tourism Framework for Scotland and with the Council's current Tourism Strategy, including development and expansion of:

- Chalets, static and touring caravan, and other camping sites.

- Hotels, boarding houses, hostels, bed and breakfast facilities and guest houses.

- Destination clusters (for example cafés, visitor shops, views, starts of walks and so on).

- Associated staff and seasonal accommodation.

Development should be sited to take into account the details contained with the flood risk management policy, in particular for uses described as being most vulnerable by SEPA

In conclusion, the relevant national and local planning policies indicate that the proposed development ought to be acceptable in principle. The detail of the layout and proposals will now need to be considered to ensure that the proposal can be supported by the Local Authority.

Concept design considerations

The guiding design principle, informed by the constraints and opportunities analysis, has been to locate the proposed development within the confines of the existing walls and to refurbish the existing buildings, so as to maintain the uniqueness of the setting and constrain the development footprint to areas of the island that have been previously developed. The redevelopment of brownfield land is supported by both national (SPP 40) and local adopted planning policy (LDP2 policy 2), in addition to emerging NPF4 policy 9a.

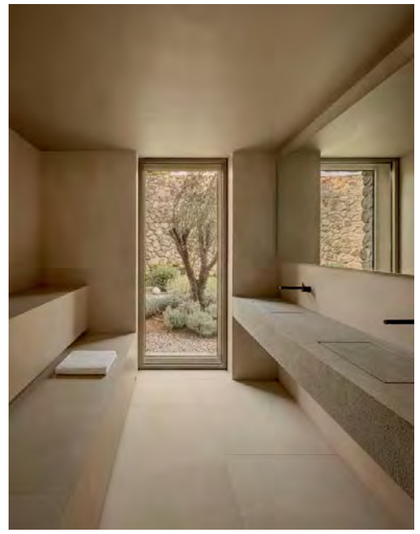
In relation to the proposed wind turbine of <20m, Strategic Policy 1 and the supporting North Ayrshire Landscape Wind Capacity Study (October 2018), indicates that this would be acceptable in principle on the site. The scale and appearance will be subject to further consideration given the sensitivities of the site.

Any scheme will need to be sensitively designed to ensure that it does not have an unacceptable impact on the special character, qualities and setting of the site. The draft plans and drawings contained within this document adhere to this principle and describe a low density site layout and proposed lodge design which takes inspiration from the precedents and the natural setting of the island (including the timber cladding and sedum blanket green roofs).

Precedents

External precedents look to suggest suitable materials relating to the islands history and utilitarian use as a lighthouse. Metal cladding, appropriate to the harsh weather conditions both stands the new development proud from the existing buildings on the island whilst a homage to the use and heritage.

Examples such as the Dune house by Jarmund and Vigsneas architects provided an impression of how the interior of the scheme may look. The material palette focuses on natural materials; wood, metal and ceramic finishes intend to create warm spaces.

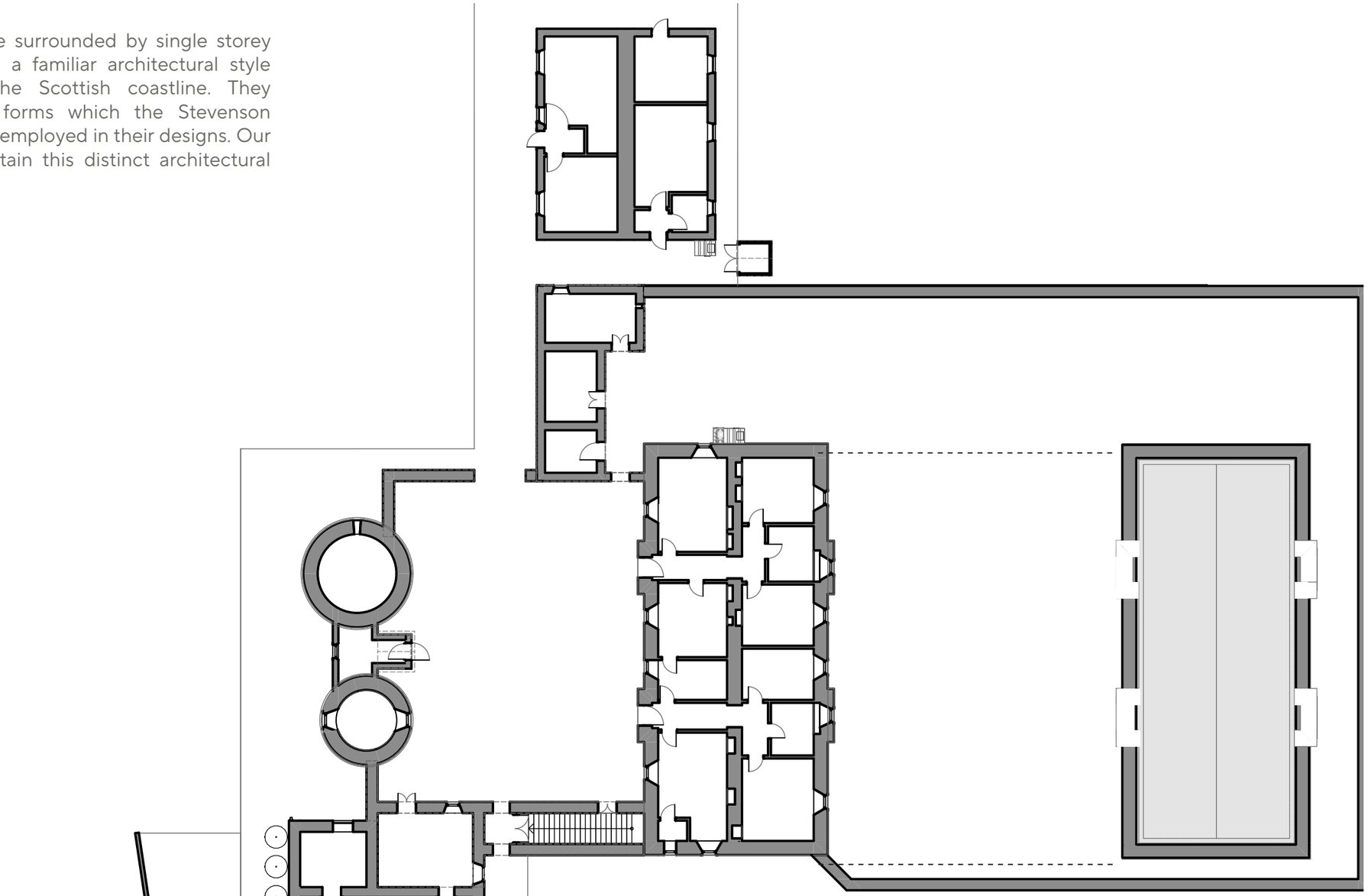


External Precedents

Internal Precedents

Existing Block Plan

The Existing lighthouses are surrounded by single storey ancillary accommodation in a familiar architectural style recognisable throughout the Scottish coastline. They demonstrate the classical forms which the Stevenson family of engineers regularly employed in their designs. Our proposal would strive to retain this distinct architectural maritime heritage.



Ground Floor Plan

Upper Floor Plan

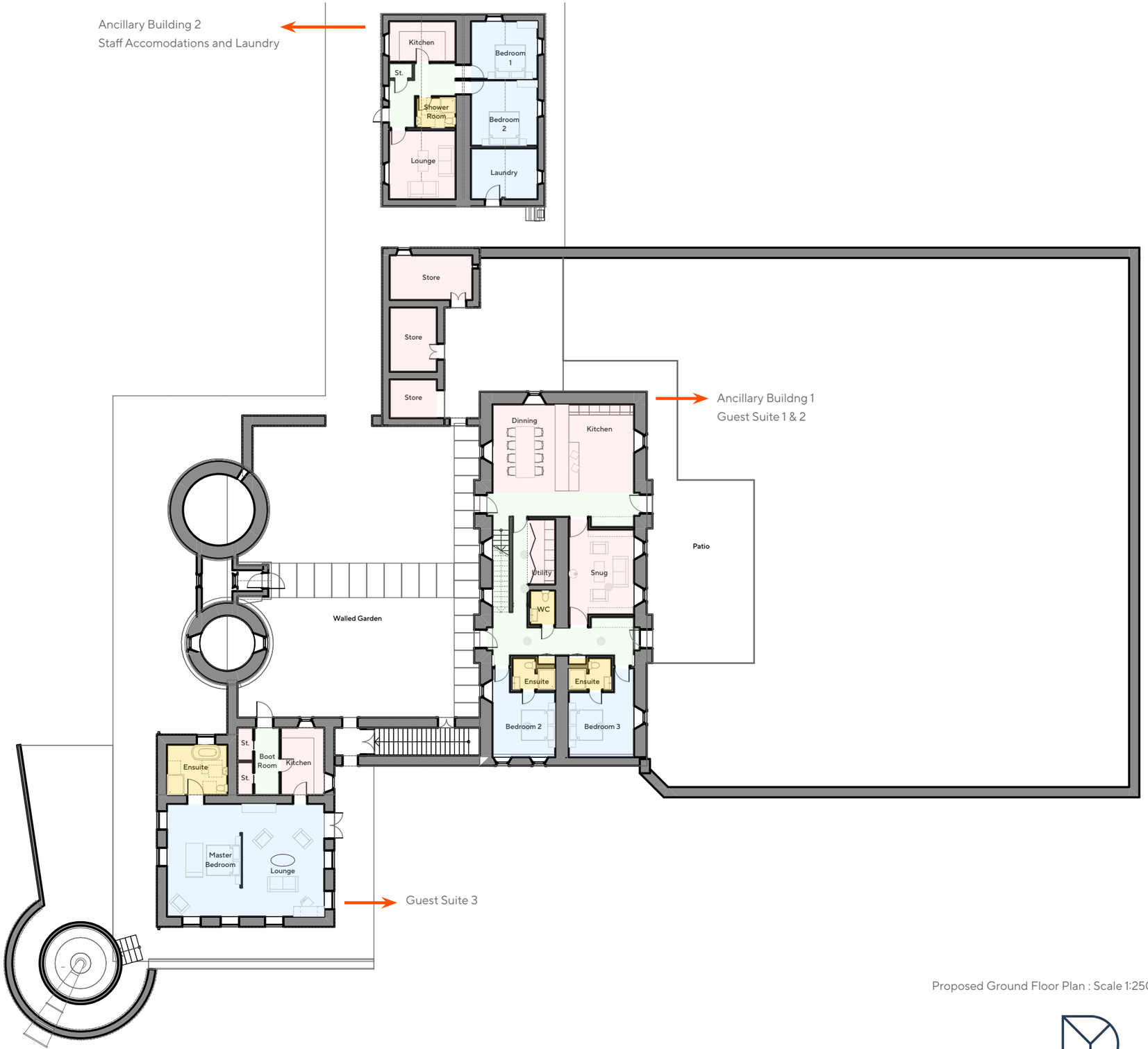
Scale 1:250

Site Plan - Proposed

The proposed block plan indicates the arrival point at the northern edge of the walled garden. It is proposed that guests would stay in one of the three suites which occupy the footprint of the existing lighthouse accommodation buildings. A master suite is located at the southern most building; within the larger building a double storey and a single storey suite are proposed.

The changes to ancillary building 1, are our most distinct intervention of the scheme. A contemporary upper floor extention supports the tranformatuion of the building into two combined suites that can be made seperate to accomodate the group size. Both guest suites have kitchen facilities and living spaces.

Ancillary building 2 is proposed to have accomodation for staff on the ground floor and an externally accessible laundry facility from the south of the building.



Living

Sleeping

Circulation

WCs and Bathrooms

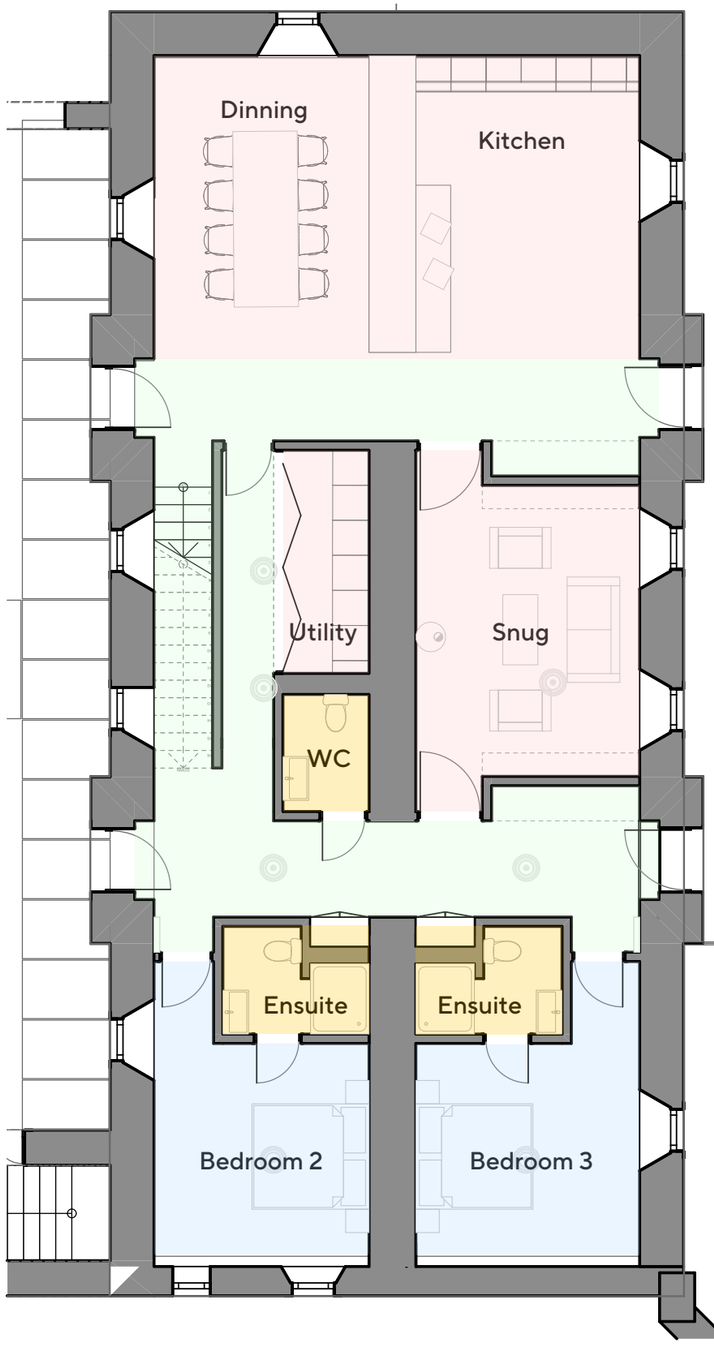
Storage

Proposed Ground Floor Plan : Scale 1:250

Proposed Floor Plans - Ancillary Building 1 Accomodation

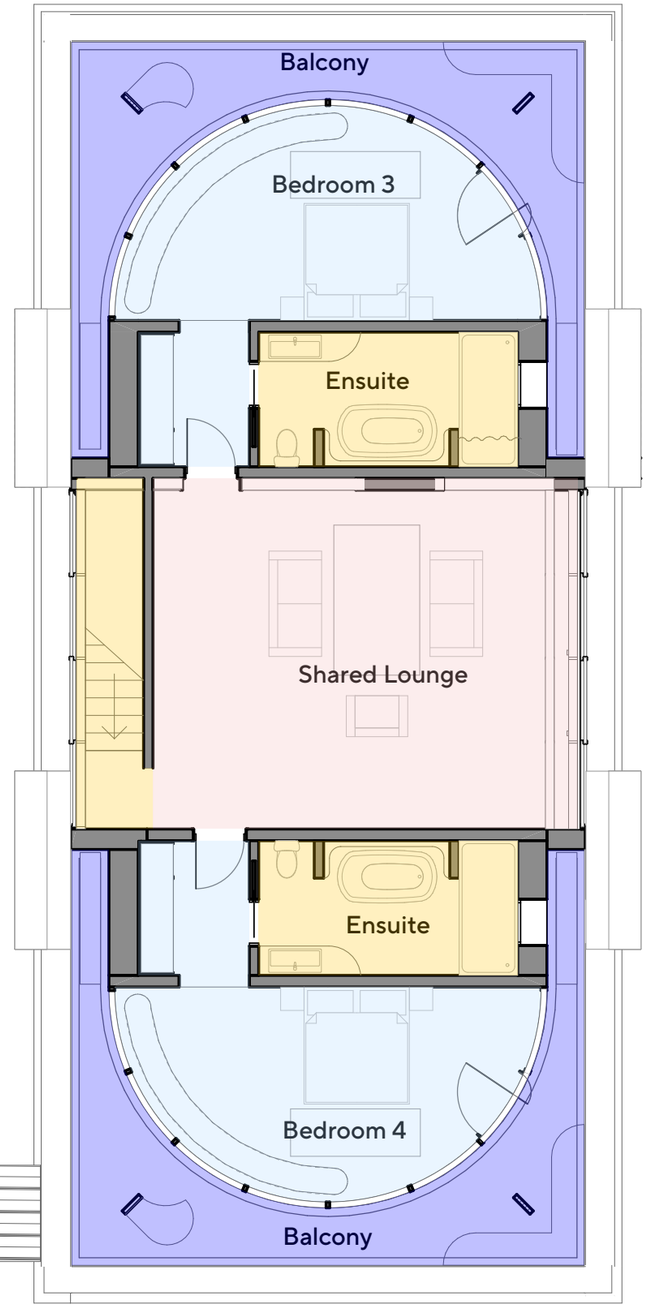
Floor plans demonstrating in greater detail the flow of the accommodation. Two entrances allow seperate groups to use the accomodation. The ground floor center of the plan holds a utility core and circulation that connects the two suites. The circulation also looks to rationalize the connection between the two courtyards and the kitchen spaces allowing sunny patios to be used as a dinning expirience.

The upper floor boasts a generous living space designed as a lookout room maximizing the islands views. This space provideds access to two further master bedrooms with ensuites and one hundred and eighty degree views.



Ground Floor Plan

Scale 1:100



First Floor Plan

Scale 1:100

Living

Sleeping

Circulation

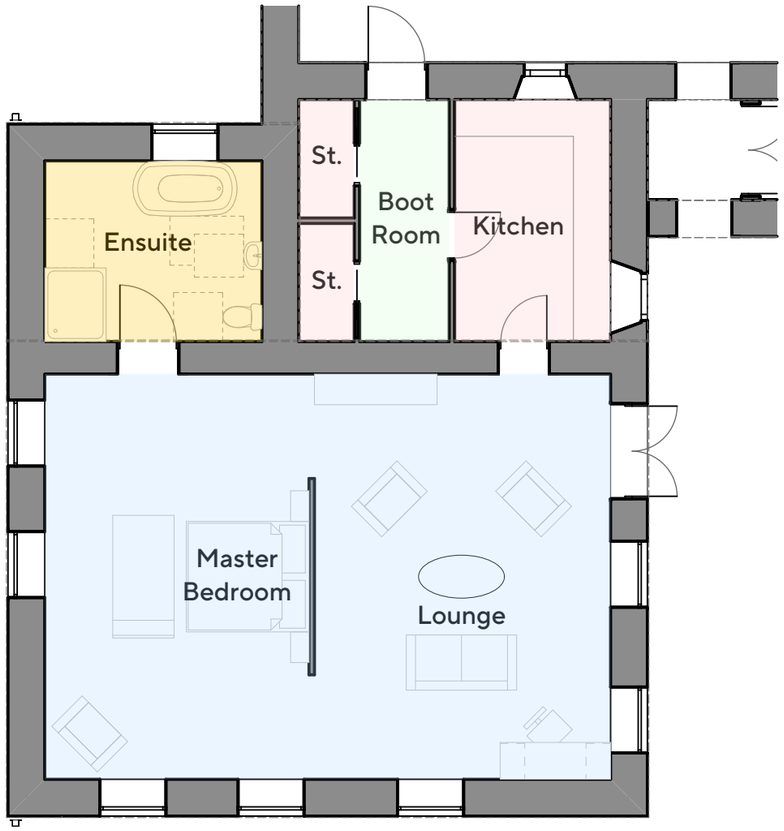
WCs and Bathrooms

Storage

Proposed Floor Plans - Accommodation Suite 3 and Ancillary Building 2 Accommodation

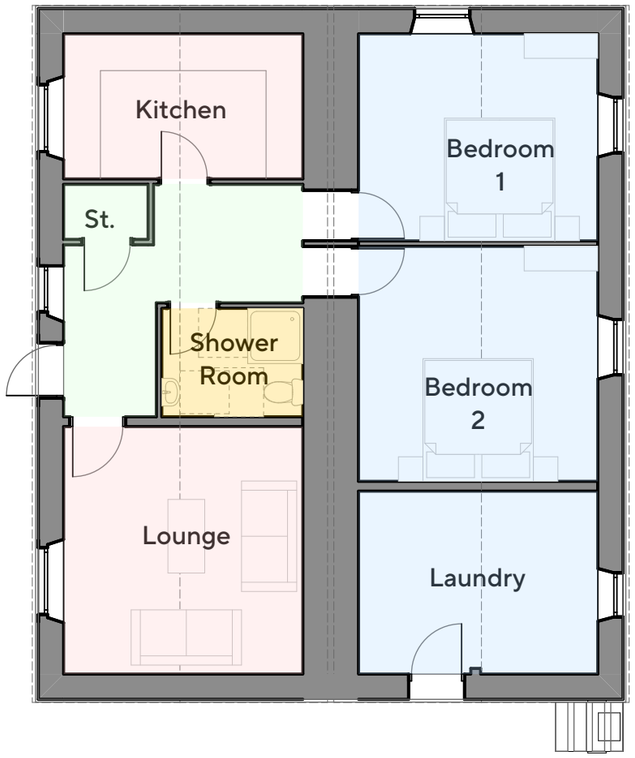
Suite 3 is a self-contained unit which will have access to the shared spaces across the walled garden. It is contained entirely within the existing building and does not seek to alter its form.

This existing building to the north is to be re-purposed as staff accommodation, and also a laundry.



Suite 3. South-West Building Plan

Scale 1:100



Staff Accommodation Plan

Scale 1:100

Living

Sleeping

Circulation

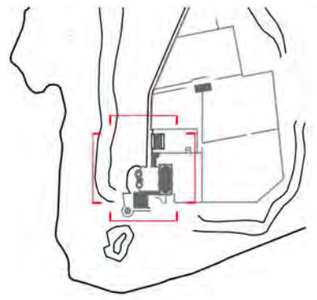
WCs and Bathrooms

Storage

Proposed Elevations

North Elevation

East Elevation



Elevation Key

South Elevation

West Elevation

Proposed Perspective 1

Front Courtyard Visualisation

Proposed Perspective 2

Back Courtyard Visualisation

Thumbnail Perspectives

Main house bedroom visualisations

South east view of new proposal

Courtyard view of new proposal

Lookout room visualisation

Courtyard view of new proposal