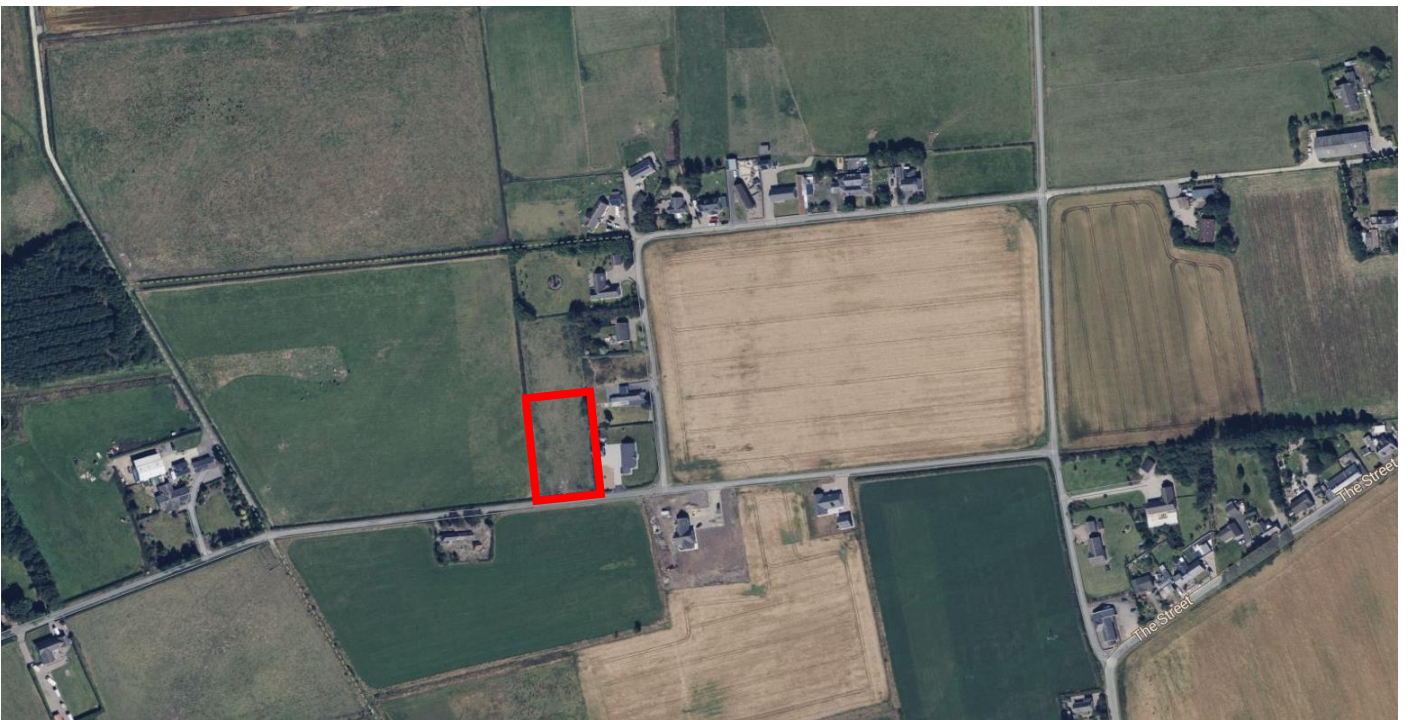




DESIGN STATEMENT

PROPOSED DWELLING HOUSE AND DETACHED
GARAGE AT LAND TO THE WEST OF BALVENIE
COTTAGE, RORA, PETERHEAD, AB42 4UX



Aerial View of Site Plan © GoogleMaps

Design Statement

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Planning Permission in Principle

The site has previous planning permission for the erection of a dwelling house at the land West of Balvenie Cottage, under application number: APP/2023/0291 dated 28 February 2024.

Pre-application Advice

At the time of submission, no informal pre-application advice has been sought from The Aberdeenshire Council.

Background

The proposed site lies directly West of Balvenie Cottage, Rora, highlighted below in red. The site lies perpendicular to the public road, adjacent to, and with similar design to, the existing access to Balvenie Cottage

For local services and amenities, the villages of St. Fergus and Mintlaw lie approx. 2.5miles (5mins. drive) to the north-east and approx. 5 miles (10 mins. drive) to the south-west, respectively. The town of Peterhead is approx. 6 miles (12 mins. drive) to the south-east. The city of Aberdeen is approx. 37 miles (1 hr 12 mins. drive) south.



Site Location Plan © BingMaps

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Site Location Plan (NTS)

Site

The site extends to approximately 0.2759 Hectares (0.682 Acres). The land is currently a vacant plot and Planning Permission in Principle currently exists for the development of the plot (APP/2023/0291).

The site will be accessed from the existing entrance, off the public road and lead to the driveway, turning and parking area to the rear of the dwelling and adjacent garage.

The site boundaries will remain unchanged, as currently post + wire fencing, with a mix of beech and mixed species hedging outlining. The rear of the proposed site will have a beech and hawthorn mixed hedge with an inner post and wire fence to act as the North boundary. The proposed house is to sit within the given topography, natural features and ground conditions of the site. The topography of the site is essentially flat. The only existing trees on or adjacent to the site are the hedging around the perimeter, which is to remain.

The dwelling is situated in a fairly exposed position with views across the open countryside, particularly to the South and West, and has been orientated to take advantage of the surrounding views, while also respecting the pattern of the surrounding venacular.

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Site Layout Plan (NTS)

Drainage

A drainage assessment was undertaken at Planning Permission in Principle application stage to fully assess ground conditions. Please refer to the Foul Water Soakaway Certificate for information on the proposed foul water soakaways.

The foul drainage system will comprise of a sewage treatment plant that can serve a discharge from a population PE of 5. This will discharge from the treatment tank and into a full land soakaway with a minimum base area of 25m² as calculated and certified in the Foul Water Soakaway Certificate.

It is proposed that the surface water from the roof area will be disposed through a full land soakaway, in accordance with BRE 365, SEPA regulations.

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Dwelling Design Proposal / Solution

The applicant intends to build a 3-bedroom dwelling with detached garage, which is appropriate for its location on the site and will be used as a family home. The dwelling has been designed to provide the required accommodation on one floor, as a bungalow. Consideration has been given to gable widths, roof pitches and window proportions to be in keeping with the properties in the countryside. This dwelling house will follow the same footprint as the existing Balvenie Cottage directly East of the proposed site.

The proposed construction is to be insulated timber frame with concrete blockwork and dry-dash render finish. The dwelling is to be designed to achieve a high performance in terms of heat loss and energy efficiency; with modern techniques used to limit heat loss and provide low running costs. Renewable technologies are to be utilised in the proposal; with an air source heat pump providing heating and hot water for the dwelling.



Floor Plan (NTS)

A detached domestic garage is proposed to the rear of the site (North). This ancillary building is to mimic the same aesthetic language as the main house, with matching finishes, and has proposed PV Panels on the south facing roof face.

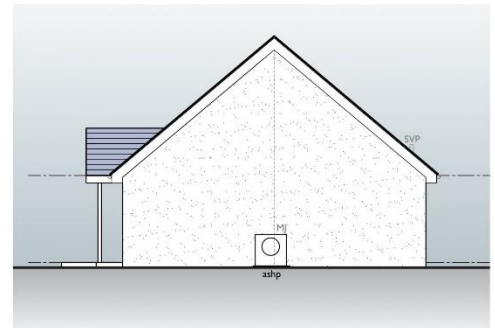
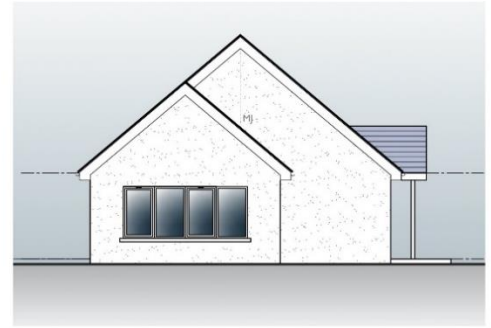
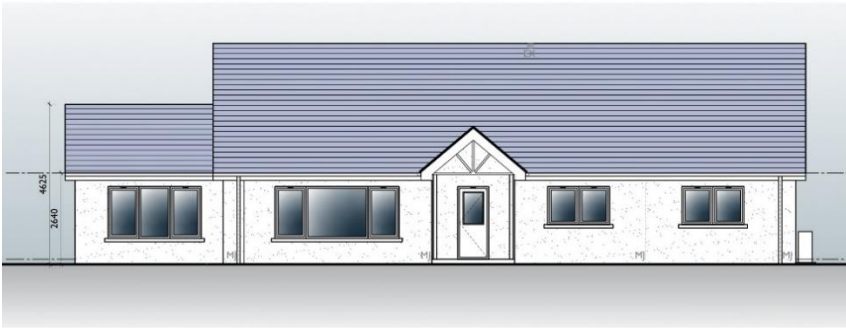
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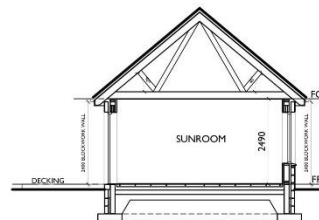
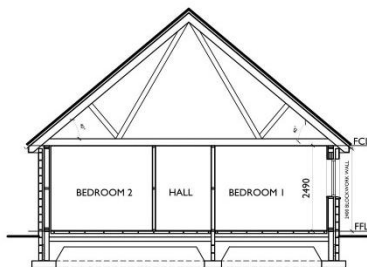
Material Selection

The following external finishes are proposed:

- Marley Modern Concrete Roofing Tiles (Grey)
- Dry Dash Concrete Render
 - Tuscany Beige to Main Walls
 - Kemnay Grey to Sub-Structure Walling / Basecourse
- Grey uPVC Windows & Doors
- uPVC (Grey) Facias and soffits
- Upvc Rainwater Goods



Elevations (NTS)



Sections (NTS)

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Building Regulations & Environment

NPF4 Policy 2 (*Climate Mitigation and Adaptation*) encourages, promotes and facilitates development that “minimises emissions and adapts to the current and future impacts of climate change”. The six qualities of successful places have also been considered with specific regards to sustainable and adaptable qualities to help with climate mitigation. With all new builds, compliance with the current building regulations is essential. This is in terms of space and activity requirements, in addition to meeting performing targets in respect of heat loss, energy efficiency and sustainability.

The proposed house has been designed on the principles of passive design. Openings to the North have been minimised, with large glazing areas focused on the South elevation; providing valuable solar gains to the internal spaces. The Heat & Cooling Policy (19) and Energy Policy (11) of NPF4, encourage the use of renewable energy and decarbonised solutions to meet heating and cooling demand. It was determined the most suitable systems for the site would be an air source heat pump; as a high rated energy system which generates minimal carbon emissions. To ensure comply with NPF4 Policy 13 (*Sustainable Transport*), an electrical vehicle charging point will be provided (fuelled by the PV panels), located on the garage East elevation.

The dwelling will at least meet the Bronze Active standard as prescribed in the building regulations and it is envisaged that this will be achieved with the use of an air source heat pump as a means of providing hot water to reduce CO2 emissions and heat loss, the following may be incorporated:

- High efficiency Air Source Heat Pump
- Low air permeability build
- High standard of insulation build
- Electrical Vehicle charging point located within garage for alternative fuel types

The dwelling will be fully assessed at the building warrant stage and an SAP calculation with supporting EPC will be produced to meet the necessary regulations.

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Existing Site Photos



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Climate & Future Mitigation

Policy 2 (*Climate Mitigation and Adaption*) of NPF4 promotes the reduction in lifecycle greenhouse gas emissions in new development in preparation for transitioning to net-zero.

Overall, this is to be achieved through the selection of construction materials which are more resilient, longer lasting, and contain lower amounts of embodied carbon. Consideration has also been given to the recyclability of construction materials and selecting materials which are widely recyclable at the end of the building's life. While resulting in lower levels in embodied carbon, this also has the potential to reduce costs associated with material maintenance, repair and replacement.

The construction is to be of a locally produced, high-quality timber construction using modern technologies to limit heat loss and provide low running costs:

- As a material with high embodied energy, the use of steel for structural purposes has been reduced in the design. This has been achieved by designing to the structural capabilities of timber in terms of span and loading.
- The building will also use low-carbon concrete mixes and when possible, reuse certain materials e.g., disused stones to create hardcore etc.
- The floorplan has also been arranged to minimise construction waste from drainage. This has been achieved by locating rooms with a drainage requirement towards the rear of the dwelling which in turn, feeds directly into the proposed treatment tank.

The proposed design of the site and the new dwelling has also been designed to assist with the lifelong wellbeing of its users:

- In accordance with Domestic Building Regulations 2023, the dwelling has been designed to ensure any future adaptations to improve accessibility can be easily undertaken without significant or invasive alterations to the dwelling. This is in aim of providing a safe and convenient environment which caters to the lifelong needs of its users while also contributing to an overall more sustainable and accessible housing stock.
- While the proposal is for a 3-bedroom dwelling house, it is anticipated some of these spaces can be utilised for other purposes including: study spaces for home working, prayer rooms and additional living spaces; depending on the specific needs of its users.

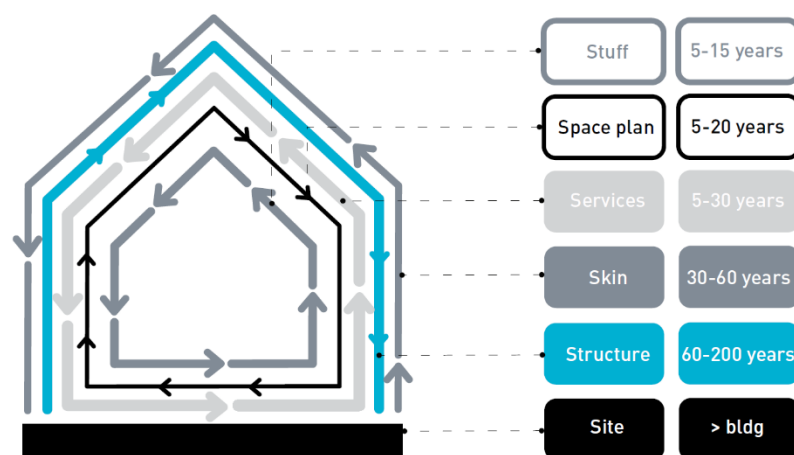
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Re-use of Construction Materials

The whole life cycle of the building for use and deconstruction is strongly linked to the design for re-use and recovery, which allows for materials to be re-used at the end of their life.

The conceptual diagram below has formed the basis for which re-use and recycling efforts have focused. It demonstrates the building as a series of 'shearing layers'; with each layer performing a different function. Those with faster anticipated replacement or repair cycles, are placed closer to the surface, allowing access without disruption to longer-lasting elements behind.



Above: A building as a series of 'shearing layers' by John Gilbert Architects

A significant number of the proposed construction materials are able to be recycled to some extent:

- Timber can be crushed, shredded, and used to make particle boards such as chipboard or MDF.
- The rigid insulation could also be re-used as it would suffer no depletion overtime.
- The copper pipes and wires that are used for the heating and electrics can be recycled.
- The concrete and blockwork can be crushed and created to be used as aggregate of reuse.
- Plasterboard can be de-papered, crushed and small quantities used as a soil improver which promotes better drainage and soil structure.
- The bathroom sanitaryware can be salvaged for resale or donation to community build projects.