Design Brief

Serviced Sites

Kilcash, Co Tipperary.

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Content

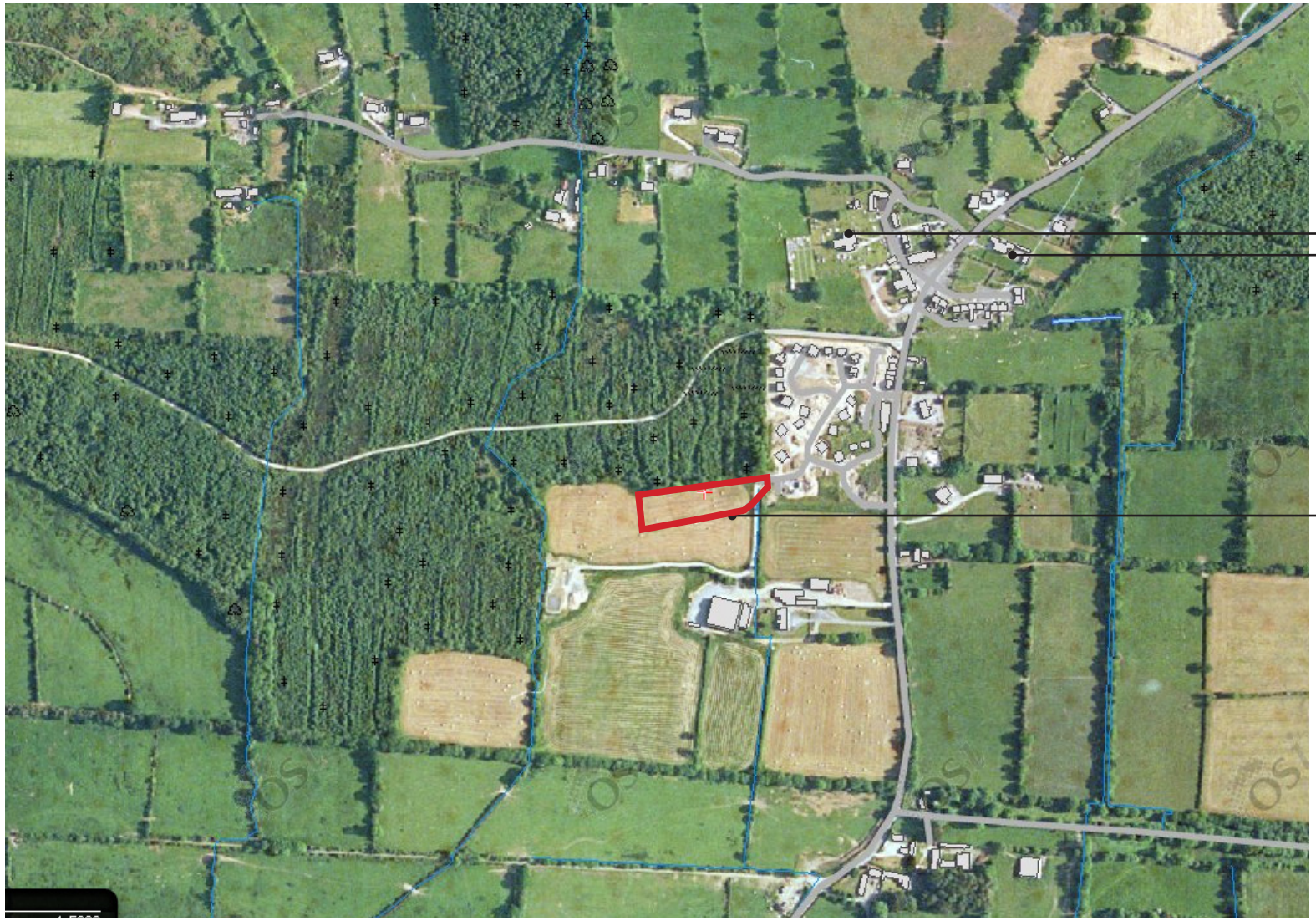
1.0 SCHEME DESIGN

1.1
Site Location

This site is located in the center of the Golden Vale, almost mid point between Clonmel, Waterford City and Kilkenny, 10 miles from Clonmel, one of Irelands largest growth centers and 2.5 miles off the main Kilkenny / Clonmel Road.

The site, which is very picturesque, is in the village center of Kilcash with mature tree lined boundaries and elevated countryside views sitting at the foot of Slievenamon.

1.2
Aerial



1.3
Site Analysis

2.0 DESIGN BRIEF

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2.1 Design Philosophy

The future development of the individual units will be the promotion of Long Life/Loose Fit/Low Tech (LL/LF/LT) Design Philosophy foremost. This approach is an attempt to ensure that the design of any building anticipates and incorporate at some level future needs. A fundamental underlying expectation of this approach is that buildings designed with this approach would be "light on the earth" i.e light in terms of their use of materials to construct, use and adapt.
This design approach envisages that all buildings will be inherently more sustainable, by virtue of the fact that they are not obsolete should their function, or part of it change.

"Long life", quite simply, means just that: that the building will withstand the passage of time, be resistant to conventional wear-and-tear, and the impact of the elements.

"Low tech" implies that the materials and methods used in the construction and maintenance of the home are not dependent upon technologies that are expensive &/or "bolt on" technologies specified with a view to greening the sustainability credentials of a building. Specifically this design philosophy envisages that sustainability is integral to the design and doesn't rely on technological solutions or fixes.

"Loose fit" means that the structure can accommodate more than only the primary use that it was originally intended for, as it might be called upon to serve other needs in the future. In the context of a house it means that it is relatively easily adaptable without major alterations to the changing circumstances of its occupants.

2.2 Design Brief

Characteristics of Individual Units

The following signature characteristics should be adopted in the design of any future individual units on the serviced sites:

- Simplicity of form
- Well proportioned windows and doors
- Quality in materials
- Simple detailing to window openings
- Minimal ornate decoration
- Limited variation to front elevation

The following alien characteristics should be avoided:

- Complexity of shape
- Poorly proportioned
- Busy
- Unsuitable or unnecessary 'frills'
- Proliferation of white plastic
- Suburban site treatment

Detail of Individual Units

All individual housing units will be designed in complete compliance with all relevant building regulations, codes and standards;

1. **Height**: Maximum height of individual housing units will be 7.5m

2. **Size**: Maximum size of individual housing units shall be suitably proportioned to reflect other dwellings in the estate.

3. **Location on site**: All individual units will be suitably proportioned on site, retaining a minimum of 2m from the common boundary of any non- adjacent detached dwelling unit and a minimum of 4 m between the gables of non-attached adjoining dwellings. The unit will be located a minimum of 5m from the kerbline.

4. **Car-parking**: All individual units will include space for parking of two vehicles within the curtilage of the individual site. All hardstandings footpaths, driveways , patios must be permeable materials to omit the need for rainwater collection. Individual garden irrigation systems should be considered.

5. **Materials and Finishes** – **elevational treatment**-

- Walls: Walls will be render finish. Red Brick is permissible but should be kept to a minimum. Other appropriate materials may also be considered
- Windows: Windows will be A-Rated energy efficient.
- Front Door: Front door will be hardwood finish
- Roof: Roof will be blue/black slate. Pitch will be consistent but minimum 40 degrees;
- Chimney: Proportions and details will be appropriate to the size and style of house
- Gutters and down pipes: colour & finish to match windows
- Elevational treatment will be of simple with low eaves and, vertical emphasis to windows where distance between ground and first floors is minimised. Gable ends will benefit from a lower ratio of opening to wall. The size of openings will reflect the function of the room.

6. **Private Open Space**- Private gardens will be suitably grass seeded with a minimum of 65 sqm from the rear building line for a three bed house, increasing by 10 sqm for each additional bedroom.

7. **Boundary Treatment** - Common boundary treatment between rear gardens will consist of 2.1m high concrete post with timber panel infill. To front of individual dwellings, common boundaries can be 1.2m high timber post and rail fence with suitable hedging leylandii trees are not permissible.

8. **Garage**- The scale and detail of garages should match the balance of the house and be subservient to it. Detached garages will be located discreetly to the rear or side of the main building.

9. **Service Connections** - All service connections – foul sewer, surface water sewer and water main – must be carried out in a technically satisfactory manner under the supervision of a qualified engineer.

10. **Future Extensions** - Notwithstanding the provisions of Article 6, Part 1 of Schedule 2, Planning and Development Regulations 2001 (exempted development) any future extensions will be suitably scaled so as to not impact on the residential amenity of adjacent dwellings. They will be built in similar materials to the existing house. Conservatories or sun rooms will not be added to front elevations or appear too suburban or elaborate in style. Location on gable end or rear elevations will be more appropriate.

11. **Sustainability -** A variety of features should be included in individual dwellings, including a mix of the following to secure the sustainability and low energy requirements of the dwellings:-

- Draught lobbies to all units accessed externally.
- High levels of thermal insulation.
- High performance windows and external doors.
- High efficiency (condensing boilers with a seasonal efficiency of at least 86%).
- Good space heating regulation controls with emphasis on programmable time and temperature control.
- South facing passive solar heat gain/increased natural daylight to reduce lighting demand. All of the units will have large expanses of glazing to maximise natural daylight to all south facing walls. Solar heat collectors will be located on south facing roof areas
- Reduced North facing glazing, wherever possible.
- An energy efficient lighting design with minimal light pollution.
- Balanced mechanical ventilation with heat recovery.
- Draught sealing.
- Reducing thermal/cold bridges.
- Airtight Construction.
- A minimum of 20% of the house-build will be made up of renewable energy elements. Examples include:

Passive Solar Design & Other Features

- Glazing Factors

The Design of windows for primary living spaces will be at a low angle so sun light can penetrate very easily into each room because of the effective height of the respective windows and the interior spaces. Glazing on northern elevations should be reduced to the absolute minimum.

- Air-tightness

The issue of air-tightness can be addressed through the adoption of the so called "Accredited Construction Details" also referred to as robust thermal details.This document addresses insulation & air barrier continuity, and specifies that air & insulation barriers are explicitly identified during the detailing stage of the design process.

- Thermal Mass

The extent of the thermal Mass inherent in the structure should be assessed with respect to passive solar gains, once detailed design commences.

- Building Services

The design of the house with respect to the layout of serviced rooms would be as to facilitate the rational installation of domestic water, heating &/or ventilation services. This will ensure that there are no very long Domestic HWS pipe runs, which often lead to waste as taps are run while users wait for the hot water to come through.

- Sewage

The use of low flow dual flush appliances, in conjunction with recycled grey water and the specification of water efficient fittings will reduce demand for treated Mains water, which in turn will significantly reduce the Potable Water demand associated with this development.

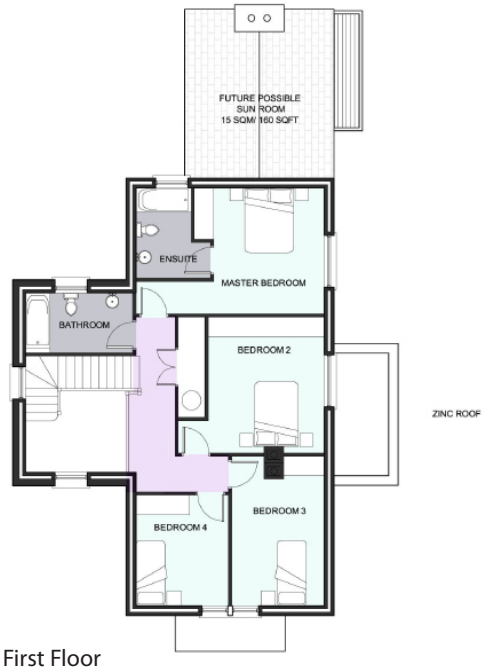
- Materials

The sustainability of materials will be taken into account by choosing materials:

- That are locally sourced where possible.
- With Low embodied energy content where possible such as timber
- Products that minimise future maintenance requirements with respect to use of aggressive chemicals &/or maintenance processes.
- With Zero Depleting Potential (ZDP) i.e. Insulants, and prohibition on use of blown insulating products and other products know to off vent VOC or other such harmful gases.

Sample House Type

Ground Floor



First Floor

window ral colour

Zinc Dormer detail

Zinc Dormer detail

flush roof detail

Serviced Sites - 3D

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