

The Beach House, 16 Manor Way, Elmer Sands, Bognor Regis, West Sussex, PO22 6LA

Flood Resilient Construction:

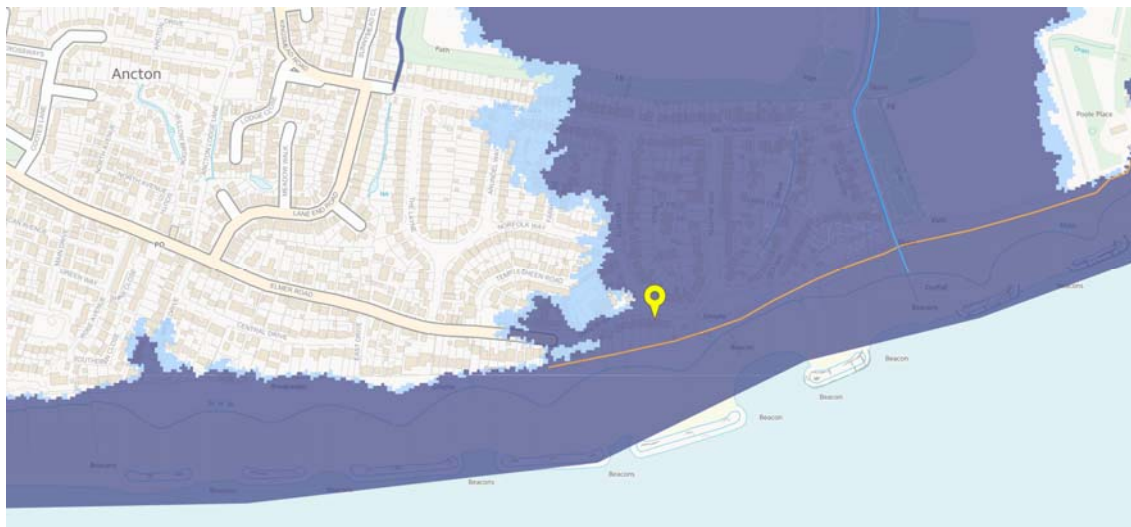


Figure: 01 EA Flood Map Extract

The site lies with Flood Zone 3

Generally

The construction of the new extension shall generally be carried out in accordance with the recommendations contained in CLG Improving the Flood Performance of New Buildings 2007.

It should be noted that the proposed works comprise a modest extension to an existing chalet bungalow. The new accommodation comprises a garage and garden room at ground floor level and a study at first floor level. The new integral garage replaces an existing separate structure.

The existing chalet bungalow has a suspended floor located a minimum of 540mm above finished ground level.

The existing garage has a floor level slightly above finished ground level

The existing house dpc is 560mm above finished ground level.

New ground floor and dpc levels of the garden room shall match that of the house (minimum 540mm and 560mm respectively above finished ground level).

The new garage floor level shall be 25mm above finished ground level.

It is proposed that the intended construction will prevent entry of water up to finished floor level; however, above that level water, in the event of a flood, would enter via doors and other openings.

Construction above finished floor level will therefore be designed to dry out as quickly as possible with minimal replacement of the fabric required.

Foundations:

Foundations shall be designed and constructed in strict accordance with the recommendations of the Structural Engineers.

It is anticipated that the foundations shall be of concrete strip formation; the precise design and detail of the foundations shall suit the conditions encountered on site and to the approval of the Local Authority.

Sub-Structure:

Substructure cavity walls to be built from foundation to dpc level.

Substructure walls shall be constructed with an external leaf of 100mm dense concrete blocks and an internal leaf of 140mm concrete blocks with a strength of 7.0N/mm² to BS 6079 laid in 1:3 cement mortar, incorporating a min 100mm cavity.

External leaf dpc to habitable rooms shall be a minimum of 560mm above finished ground level, stepped as necessary. The new dpc shall adequately lap with the existing.

The cavity between leafs shall be filled with lean mix concrete to a height of 215mm below the lowest dpc level, sloped towards the outer leaf.

Substructure below internal load bearing walls and sleeper walls shall be built from foundation to upper dpc level in dense concrete blocks to the same specification as blockwork in the external wall and sized as indicated on the drawings.

Ground Floor Slab:

The new habitable ground floor area shall be formed to match the finished level of the existing floor comprising: min. 75mm sand/cement screed incorporating a light mesh reinforcement as appropriate, laid in accordance with BS 8204 Parts 1 and 2, on min 125 micron/500 gauge polythene vapour control membrane, on a rigid closed cell insulation board, with joints tightly butted to prevent cold bridging; with 20mm perimeter insulation for the full depth of the screed.

The boards shall be laid on 2 No coats of RIW LAC brush applied damp proof membrane or equal approved damp proof membrane (to be applied in strict accordance with the recommendations of the manufacturers), dressed up wall faces and well lapped and sealed with DPC's/cavity tray to provide a continuous damp proof junction. Care should also be taken to ensure that the new DPM adequately laps the existing floor membrane and DPC's.

The DPM must be compatible with the insulation and allowed to completely dry prior to laying the boards.

The DPM shall be applied to a levelled 150mm thick precast concrete suspended floor slab, with a fully ventilated and drained sub floor beneath.

The complete installation shall be in accordance with the recommendations of the Structural Engineers/Local Authority

External Masonry Walls:

The external cavity wall at ground floor level shall be 300mm overall thickness comprising an outer leaf of 100mm 7.0N/mm² concrete block; 100mm cavity, partially filled with a closed cell rigid insulation board; with a 100mm lightweight blockwork inner leaf, Celcon Standard or equal approved; finished internally with 12.5mm plaster. Mortar shall be 1 part cement: 4 parts sand and ½ part lime.

The compressive strength of the blockwork shall accord with the Structural Engineer recommendations.

The two leaves shall be tied together with stainless steel wall ties to BS 5628 Pt 3 and DD140-2, spaced at 450 mm centres vertically and at 750 mm horizontally. Wall tie centres shall be doubled at jambs, junctions, movement joints, corners etc. in accordance with good practice. All ties shall slope downwards towards the outer leaf. No less than 3 ties per m².

Cavities shall be closed at door, window cill and jamb positions with a fully insulated proprietary cavity closer in accordance with the manufacturer's recommendations.

Damp Proof Course:

Damp proof courses shall be continuous to BS 743 with min. 150mm end laps and shall be provided to all internal and external walls passing through or past the damp proof membrane. DPC's to the outer skin of external walls shall be positioned min. 560mm above adjacent finished ground level, projecting through the external render finish and stepped as appropriate.

2 No coats of RIW LAC shall be dressed up the external face of the inner skin from dpc level to finished floor level to provide a watertight barrier

Vertical DPC's shall be provided at all reveals in external walls.

Drainage:

No changes to the foul drainage system are proposed

It is intended that the existing surface water downpipes shall be used to drain the roof of the new extension

Fittings and Fixtures:

All reception rooms are located at first floor level, therefore there will be no delicate fixtures or fittings located within the new garden room.

All furniture of within the new garden room shall be movable.

Sockets and other electrical sockets, including aerial and satellite sockets etc, shall be positioned as high as possible but within the requirements of the Building Regulation approved documents.

External doors shall be PVCu

Windows shall be PVCu

External Hard Paving:

The extent of external hard paving will be reduced by the of the extension footprint.

Early Warning:

The building owners are fully aware of the potential flooding issues relating to the property and monitor EA and Met Office early warning notifications. They also have a flood plan in place to minimise any dangers or damage that may be caused by flooding issues.