

**FLOOD RISK ASSESSMENT
&
DRAINAGE STRATEGY**

**THE BEACH HUTS
THE BEACHCROFT HOTEL
CLYDE ROAD
FELPHAM
PO22 7AH**



IVON BLUMER ARCHITECTS LTD

1.00 INTRODUCTION

1.01 Ivon Blumer Architects was commissioned by The Beachcroft Hotel to undertake a Flood Risk Assessment [FRA] in accordance with The National Planning Policy Framework on the parcel of land shown below – herein known as ‘The Site’.



Figure 1 Ariel View



Figure 2 Location Plans

- 1.02 The site is located on the sea front in the village of Flepham, on the eastern side of Bognor Regis, West Sussex. The site faces the sea to the east, with the rear boundary backing onto the existing residential properties and the remaining boundary formed by Clyde Road and the Gun Post. See Figure 1 – Location Plan, above.

Clyde Road is a residential cul-de-sac giving access to the existing residential properties, the Beachcroft Hotel and to the promenade. The site sits at a lower level behind the existing sea defense wall at the rear of the promenade, running between Bognor Regis and Felpham.

- 1.03 This report has been written in support of a detailed planning application for a comprehensive re-development of the site.

- 1.04 Terms of Reference

National Planning Policy Framework

National Planning Practice Guidance

Flooding – Engineering Resilience, ICE;

Flood Risks to People – FD2321/TR2 defra

- 1.05 Nothing in this report confers or purports to confer on any third party, any benefit or any right to enforce any term of this report pursuant to the Contract [Rights of Third Parties] Act 1999.

- 1.06 The Beach Huts is a new proposed development of 4 sea front beach huts with sleeping accommodation located at The Beachcroft Hotel, Felpham, Bognor Regis. The huts are to be located on the sea front taking full advantage of the location and amazing views looking to the west along the Felpham promenade and beach. Each hut will have a lounge area, leading to an external deck, sleeping accommodation on a mezzanine floor, ancillary bunk bed room and boutique style bathroom. The accommodation has been designed to appeal to those looking for a traditional seaside family holiday experience.

The Beachcroft Hotel – The Beach Huts.

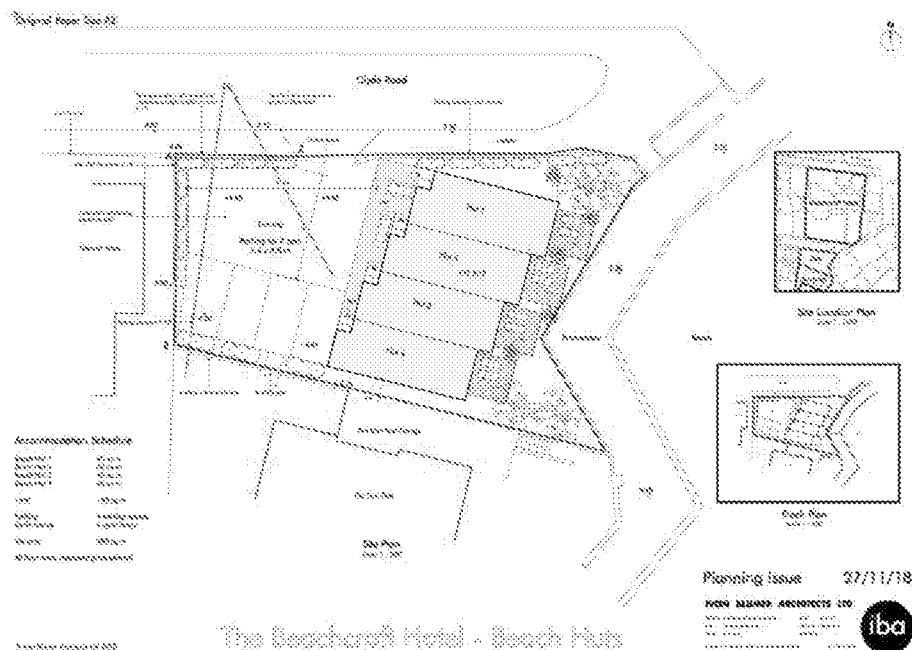


Figure 3 Proposed Site Plan

- 1.07 Vehicular and pedestrian access to the development would be from the existing access on Clyde Road.
- 1.08 According to the Environment Agency's flood mapping the area of proposed development lies within Flood Zone 3. See map below, showing high risk of flooding from the sea.

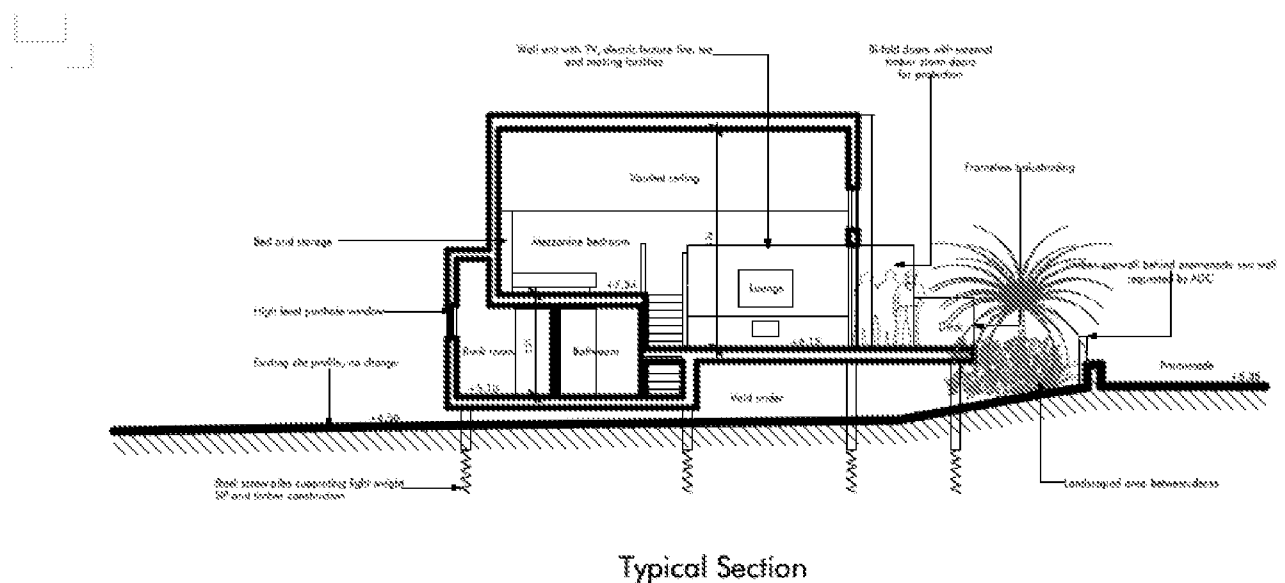


Figure 4 Proposed Section

2.00 SOURCES OF INFORMATION

2.01 Environment Agency

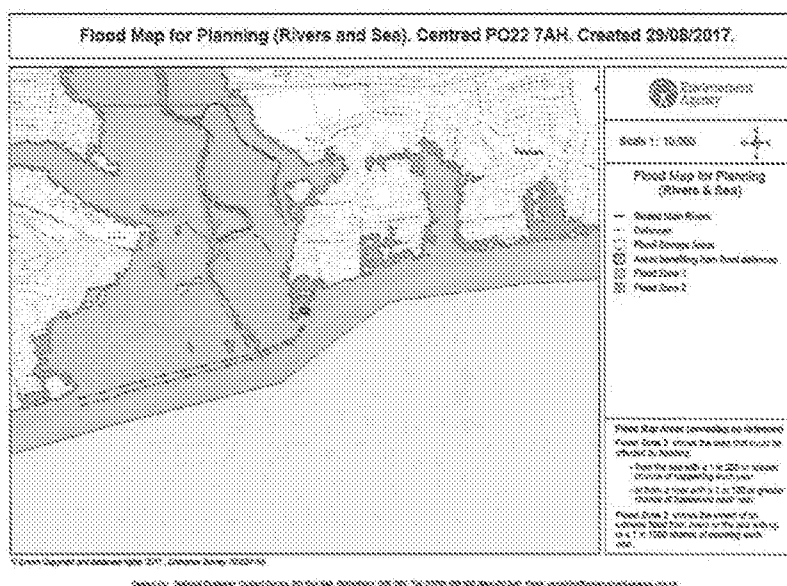


Figure 5 Environment Agency Flood Risk Map

3.00 SITE DETAILS

- 3.01 The Site is located at Clyde Road, Felpham, fronting the promenade.
- 3.02 The site extends to 390 sq. m of hard standing and grassed areas.
- 3.03 The topography of the surrounding built environment is relatively flat with the landform falling away from the sea front/promenade.
- 3.04 Site ground levels are typically 4.1 – 5.0 m AOD behind the promenade which is at 5.3 AOD.

4.00 POTENTIAL FLOOD HASZARDS

- 4.01 Flooding from the sea.
- 4.02 Flooding from rivers, not applicable.
- 4.03 Flooding from groundwater, risk is considered low.
- 4.04 Flooding from sewers, not applicable.
- 4.05 Flooding from the land, the risk is considered low.

5.00 SURFACE WATER RUN OFF ASSESSMENT

- 5.01 The total site area is 390 m² approximately.
- 5.02 Sewers for adoption 7th edition requires that surface water drainage systems for new developments should be designed to prevent pipe surcharging during a 1 in 2 year storm event. The system should also accommodate a 1 in 30 year event without surface flooding. During extreme wet weather events, it should be demonstrated that flood waters would be routed away from buildings and not cause a nuisance elsewhere.
- 5.03 It is proposed that all non-porous external surfaces and roof areas in this development will be designed to prevent surface water flooding above ground level during a 1 in 100 year storm event with an additional allowance of plus 30% for climate change to the year 2115.

6.00 OUTLINE FOUL WATER STRATEGY

- 6.01 A preliminary assessment based on British Water's Cop flows and loads -3 indicates average dry weather flow would be in the order of 0.023 l/s. Such flows are considered low and would be discharged into the local foul water sewer in Clyde Road

7.00 DISCUSSION

- 7.01 The sites primary flood risk is from the sea.
- 7.02 The EA's flood model indicates 0.5% AEP (1 in 200 year event) undefended flood levels within the site in the year 2115 would be in the region of 4.94 AOD.
- 7.03 Whilst the above indicates the worst case undefended 0.5% AEP tidal flood risk, it is noted that the modelled defended site flood levels are 400 mm lower at 4.51 AOD, which suggests a predicted developed on site flood depth of zero mm at the location of the proposed development on site.
- 7.04 The main accommodation is located at the lowest level, at 6.15 m AOD, 1.21 m above the undefended tidal flood level.
- 7.05 Secondary accommodation is located at 5.10 AOD, bathroom and bunk room, 0.16 m above the undefended tidal flood level.

- 7.06 It is to be noted that the beach huts are to be constructed on stilts allowing any tidal flood water to disperse around the proposed development.

8.00 CONCLUSION

- 8.01 As all rooms are above the predicted undefended tidal flood level, they are considered reasonably safe from flooding
- 8.02 Given the proximity and extent of the undefended flood plain to the proposal the most likely course of action to be taken by residents during such an event would be to sit out the flood which would be expected to last no longer than 12 hours.
- 8.03 All site surface water can be managed on site to accommodate the worst case M100 + 40% storm event.