

Robert Clark Associates Ltd.

Chartered Civil Engineers



Willow Cottage, Herne Lane, Rustington, West Sussex BN16 3EE
E-Mail: rca-ltd@ukonline.co.uk

Tel : 01903 778945
Fax : 01903 778967

Proposed Development

2 Admiralty Road, Felpham

Bognor Regis

West Sussex

Flood Risk Assessment

On behalf of

Oyster Estates UK Limited

**July 2008
1225-R1**

© This Report is copyright and may not
be copied or reproduced without the written
consent of Robert Clark Associates Limited.

2 ADMIRALTY ROAD, FELPHAM, WEST SUSSEX**PROPOSED RESIDENTIAL DEVELOPMENT****Flood Risk Assessment****1. Background**

- 1.1 This report has been produced on behalf of Oyster Estates UK Limited in support of a planning application for extensions and alterations at No. 2 Admiralty Road, Felpham.
- 1.2 The report concerns flood risk and has been prepared generally in accordance with the recommendations of Planning Policy Statement 25 – Development and Flood Risk (PPS 25).
- 1.3 The drawings supporting this report are as follows:
Dwg. No. 1225/1.1 – Flood Risk Survey

2 Proposed Development

- 2.1 The development comprises extensions and alterations to the existing building in order to amend the accommodation from 1 No. 1-bed and 2 No. 2-bed flats to provide 4 No. 1-bed flats and 2 No. studio apartments. The outline proposals are indicated on the supporting drawing.
- 2.2 Floor levels for the dwelling will remain as existing.

3. The Site

- 3.1 The site is located in a residential area, at the junction of Felpham Road and Admiralty Road and has an area of approximately 457m². The existing building is a residential dwelling with self contained flats. The OS Grid Reference for the site is SZ 9486 9952.
- 3.2 The site is approximately 200 metres from the foreshore to the south and 170 metres from the Aldingbourne Rife to the west.

4. Topography

- 4.1 Ground levels in the area fall generally towards the Aldingbourne Rife. Levels in Admiralty Road outside the site entrance are in the region of 3.22m AOD. Levels on the site itself vary from 3.66 to 4.76m AOD. Existing floor levels are at 4.636m AOD.
- 4.2 Road levels rise along Admiralty Road in an easterly direction, ranging from 3.22m AOD outside the site entrance, up to 4.9m AOD at the junction with Blakes Road.
- 4.3 The site is below the 1 in 200 year off-shore sea level of 5.20m AOD currently predicted by the Environment Agency for the year 2115, but is protected by a substantial concrete

sea wall and rear wave wall, the top of which is at 5.75m AOD and above. The current coast protection works and sea defences are maintained to a high standard by Arun District Council and the Environment Agency.

- 4.4 To the west of the site lies the Aldingbourne Rife, which is a major land drainage channel. The outflow from the Rife is locked at high tide and requires pumping to maintain a discharge and prevent upstream flooding. From previous correspondence with the Environment Agency, a high water level of 1.90m AOD would be considered reasonable for assessing fluvial flood risk here.

5. Flooding History

- 5.1 The site is shown to lie on the edge of Flood Zone 2/3 on the Environment Agency's flood map, indicating that it may be vulnerable to tidal flooding. There are, however, no known recorded flooding incidents at the site.
- 5.2 An extract from the Environment Agency's current Flood Zone map is included below.



- 5.3 Coast Protection Works in the immediate area south of the site are administered by Arun District Council who have permissive powers to carry out works to prevent erosion and inundation by the sea. Arun DC currently has a 'hold the line' approach and will thus carry out works here that have a positive cost/benefit ratio with the aid of government grant and will maintain the existing defences.
- 5.4 Wave overtopping rates are not considered to present a significant problem, although during extreme events there may be some wind-borne spray and minor splash over close to the sea wall. This would not be significant at the site due to its distance from the foreshore and the levels of the site and surrounding road network. Any overtopping that did occur would drain naturally in a westerly direction towards the Aldingbourne Rife corridor.
- 5.5 The site is well above the extreme fluvial flood level of 1.9m AOD for the Aldingbourne Rife, as indicated earlier.

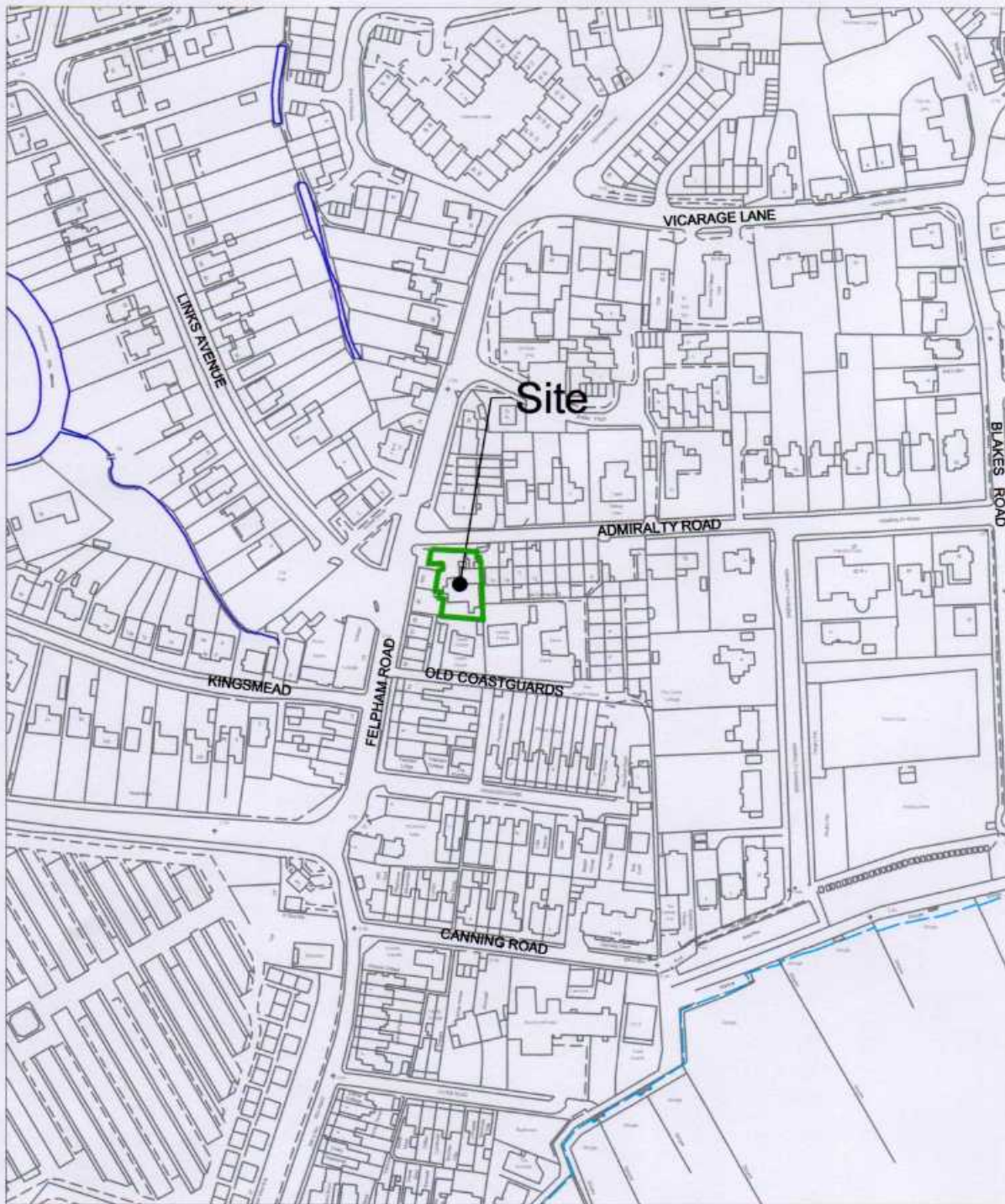
6. Foul and Surface Water Drainage

- 6.1 The new building will be drained to the public foul water sewer in Admiralty Road.
- 6.2 Surface water from the new extensions will drain to the existing public surface water sewerage system.

7. Conclusions and Recommendations

- 7.1 The site is shown to lie on the edge of Flood Zone 2/3 on the Environment Agency's Flood Map and a Flood Risk Assessment has been carried out in accordance with PPS 25.
- 7.2 The Flood Risk Assessment has shown that the site is at a level of between 3.66m and 4.76m AOD, with floor levels of 4.636m AOD. Whilst this is below the current prediction for long-term sea levels, the area is protected by substantial sea walls and not considered to be at risk from tidal inundation. Some wind borne spray would be expected close to the foreshore but this would not affect the site.
- 7.3 An extreme fluvial flood level of 1.90m AOD could be expected for the Aldingbourne Rife but the site is in excess of 1.76 metres above this level.
- 7.4 Access to the site is available from the east along Admiralty Road for use by emergency vehicles during an extreme flooding event.
- 7.5 New surface water drainage will be taken to the existing public surface water sewerage system and foul drainage to the public sewer in Admiralty Road.
- 7.6 We consider that the site has a low risk of flooding and that safe emergency access/ egress is available if required during an extreme event.

1225/RTFC-R1



Location Plan - Scale 1:2500

All levels are given to Ordnance Datum

Project

Proposed Development
2 Admiralty Road, Felpham
Bognor Regis, West Sussex

Client

Drawing
Title

-	Original	RTFC	PT MY	PC	27.6.08
Rev.	Description	App.	Chk.	Dm.	Date



Plan - Scale 1:500

Client

Oyster Estates UK Limited

Drawing
Title

Flood Risk Survey

Robert Clark Associates Ltd

Chartered Civil Engineers

Willow Cottage, Heme Lane, Rustington

West Sussex BN16 3EE

Tel: 01903 778945 Fax: 01903 778967

© This drawing is the copyright of Robert Clark
It may not be copied or reproduced without written permission

Scale

As Shown

At original

Drawing
Number

1225/1.1