

**115-117 Sea Road,
East Preston, West
Sussex**

**Flood Risk
Assessment**

Issue A

Date: 2nd March 2011

Prepared By: M. Blenkharn Date: 2nd March 2011

Client Ref

Verified By: S. Barnes Date: 2nd March 2011

Scheme No 5132

MEL 70 Issue 3 Approved 28 April 99

EXECUTIVE SUMMARY

This flood risk assessment has been completed in support of a planning application to construct a development of 12 apartments at Sea Road, East Preston, Littlehampton, West Sussex.

The site is situated in flood zone 1 as indicated on the Environment Agency map included in Appendix B. The development is also less than 1 hectare and therefore a flood risk assessment should not normally be required. However, The Local Planning Authority has requested a flood risk assessment to accompany the planning application as they require evidence that all flood risks have been considered for major developments.

The Sequential Test is deemed to be passed if the proposed development is in flood zone 1 and this is the case at this location. The Exception Test is not required for developments in flood zone 1.

Arun District Council has produced a Strategic Flood Risk Assessment (SFRA) and the flood maps within this report have been reviewed. These again indicate there is no risk of flooding from either fluvial or tidal sources. The flood risks associated with groundwater, flooding from land and flooding from sewers have also been considered. The only risk is associated with groundwater flooding where the SFRA indices that the site could be at risk from groundwater flooding. The majority of Littlehampton and East Preston falls within this category as the land is below the area where groundwater could emerge from the chalk substrata. The risk to properties will only occur if groundwater can gather in low pockets of land or if buildings are constructed with basements. Properties constructed with solid concrete floors and with the minimum 150mm elevation above ground level will not be affected. The ground floor of this development will be constructed in this manner.

The area around the development is also shown to be in flood zone 1 so there is therefore no issue with safe access as this can always be achieved.

Surface water will be discharged to soakaways, so there will be no increase in surface water run-off due to the development.

In conclusion, the site is situated in flood zone 1 and is not at risk from fluvial or tidal flooding. Other forms of flooding have been considered and the only risk is associated with groundwater flooding which can be mitigated using standard building methods.

The additional run-off generated by the development will be discharged to soakaways so will not result in any increase in flood risk to adjoining properties.

1.0 INTRODUCTION

Monson have been requested to provide a flood risk assessment for the proposed development of 12 apartments at Sea Road, East Preston, Littlehampton, West Sussex.

The development is shown to be in flood zone 1 on the EA flood map and is less than 1 hectare. Paragraph E9 of PPS25 indicates that development proposals of 1 hectare or greater in flood zone 1 should be accompanied by a site specific flood risk assessment but as this site is less than 1 hectare we would not normally have expected to produce an FRA for this proposal. However, the Planning Authority has requested that a flood risk assessment is completed and this report satisfies this requirement.

This report will follow the guidance in PPS25 updated in March 2010 and the accompanying Practice Guide. The format of the report will also follow the FRA proforma included in the PPS25 Practice Guide.

2.0 DEVELOPMENT DESCRIPTION AND LOCATION

2.1 Development type and location

The proposed development is the construction of 12 apartments dwelling at Sea Road, East Preston, Littlehampton, West Sussex. West Lawn, Lydd Road, New Romney, Kent. The site is located in the heart of the urban area of East Preston/Littlehampton included in Appendix A.

2.2 Development classification

Residential development is classified as "More Vulnerable" as defined in Table D2 of PPS25. New development should be directed to areas of lower flood risk. It also states that the developer and Local Authority should seek to reduce the overall level of flood risk in the area through the layout and form of the development, and the appropriate application of sustainable drainage techniques.

The site is located in flood zone 1 as indicated on the EA flood map which is included in Appendix B and therefore meets the criteria of directing development to areas of low flood risk. We will concentrate on the application of sustainable drainage to reduce the impact of new development on the surrounding area.

2.3 Sequential Test

The principle of the Sequential Test is to direct development towards areas of low flood risk.

Paragraph 17 of PPS25 states: " In areas at risk of river or sea flooding, preference should be given to locating new development in flood zone 1. If there is no reasonable available site in Flood Zone 1, the flood vulnerability of the proposed development can be taken into account in locating development in Flood Zone 2 and then Flood Zone 3. Within each Flood Zone new development should be directed to sites at the lowest probability of flooding from all sources as indicated by the SFRA."

The Environment Agency flood map for the area show the site is within flood zone 1 and in accordance with the diagram in figure 4.1 of the PPS25 Practice Guide, a site that is located in flood zone 1 automatically passes the Sequential Test

2.5 Exception Test

The Exception Test does not need to be applied as the site is situated in flood zone 1.

3.0 DEFINITION OF THE FLOOD HAZARD

3.1 Flood sources

Flooding from the Sea

The site is approximately 220m inland from the sea at East Preston.

The predicted sea level for Littlehampton for the 1 in 200 year event as stated in the Strategic Flood Risk Assessment is 4.33m ODN. The ground level at the site is in excess of 6.4m ODN so is significantly above the extreme flood level. The SFRA has also considered the risk due to tidal flooding, taking in to account the impact of climate change and the analysis indicates there is no risk from tidal flooding. The relevant maps are included in Appendix C.

Flooding from Rivers

There are no watercourses close to the site and when the flood maps within the SFRA are reviewed they indicate no flood risk from this source. Again the relevant maps are included in Appendix C.

Flooding from Land

The maps from the SFRA again indicated there is no risk associated with flooding from land. The relevant map is included in Appendix C.

Flooding from Groundwater

The SFRA has identified the lower parts of Littlehampton and East Preston as being at risk from groundwater. This is because the land is below the area at which groundwater could emerge from the chalk substrata. The map is included in Appendix C and the mitigation proposed is included in Section 10.

Flooding from sewers.

There are no recorded incidents of flooding from sewers as included in the SFRA. Again the relevant map is included in Appendix C.

Flooding from Reservoirs, canals and other artificial sources.

There are no such sources of flood risk that could affect this application.

3.2 Surface water drainage

There is no public surface water drainage system serving the existing site. The existing surface water drainage is to soakaways.

4.0 PROBABILITY

4.1 SFRA and other relevant data

The site is situated in flood zone 1 as indicated from the Environment Agency's flood map.

The outputs from the SFRA have been reviewed and these confirm that the flood risk is limited to that from groundwater.

5.0 CLIMATE CHANGE

The maps produced for the SFRA and included in Appendix C do include the impact of climate change.

6.0 DETAILED DEVELOPMENT PROPOSALS

Details of the development proposals are included in Appendix D.

7.0 FLOOD RISK MANAGEMENT MEASURES

The proposal should be considered in respect of the flood risk management hierarchy which is: assess – avoid – substitute – control – mitigate.

Assess:

This FRA is an appropriate flood risk assessment for a development at this location.

Avoid:

The Sequential Test has been considered and this site is situated within flood zone 1. This is in accordance with the principles of PPS25.

Substitute:

Not applicable as the whole site is within flood zone 1.

Control:

Surface water will be discharged to soakaways, so there will be no additional surface water discharge from the site.

Mitigate:

Surface water will be discharged to soakaways so that there is no additional run-off from the site. Mitigation measures will be introduced to prevent potential flooding from groundwater which will be detailed in Section 10.

8.0 SURFACE WATER DRAINAGE

Surface water from the properties will be connected to soakaways so that there will be no increase in the run-off from the site.

Any hard standing areas, such as car park spaces should be constructed using permeable paving to ensure no additional run-off is generated from these areas.

9.0 SAFE ACCESS

The site is within flood zone 1 so safe access to and from the properties is always available.

10.0 MITIGATION MEASURES

All flood risks have been considered and only one risk has been identified and that is from groundwater. The whole of the lower parts of Littlehampton and East Preston are considered to be at risk as these areas are below the land where groundwater can emerge from the underlying chalk substrata. This is clearly shown in the map included in Appendix C.

Flooding from groundwater will occur at low points where the water can gather or affect basements if water flows past buildings. This site is on a road which has a gentle fall towards the sea and does not have any basements. Any groundwater would therefore flow past the site. However, in order to safeguard the property from this eventuality, the floor should be constructed as a solid concrete floor and the finished floor level should be a minimum of 150mm above the ground level. These are standard construction details for new buildings.

No further mitigation measures are proposed as the properties will be above any flood water.

11.0 CONCLUSION

This flood risk assessment has been completed in support of a planning application to construct a development of 12 apartments at Sea Road, East Preston, Littlehampton, West Sussex.

The site is situated in flood zone 1 as indicated on the Environment Agency map included in Appendix B. The development is also less than 1 hectare and therefore a flood risk assessment should not normally be required. However, The Local Planning Authority has requested a flood risk assessment to accompany the planning application as they require evidence that all flood risks have been considered for major developments.

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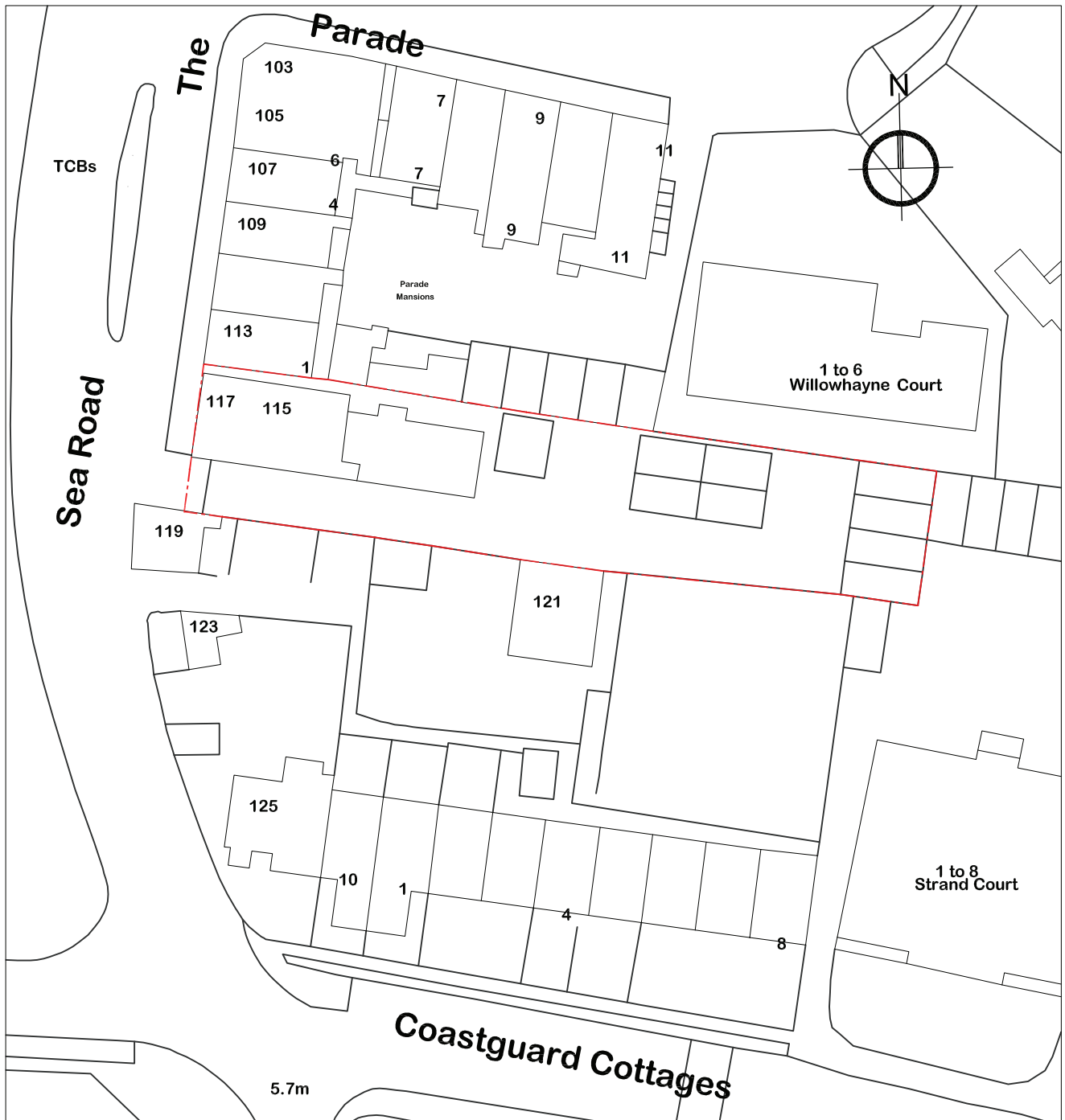
The additional run-off generated by the development will be discharged to soakaways so will not result in any increase in flood risk to adjoining properties.

12.0 RECOMMENDATION

It is recommended that the Local Planning authority accept the findings of this flood risk assessment and that no objection is raised to the proposal on flood risk grounds.

APPENDIX A

SITE LOCATION



project: **115-117 Sea Road, East Preston**

client: **Oakhurst Development Ltd**

drawing: **Site Location Plan**

scale: **1:500**

date: **Jan '11**

number: **3279/P001**

rev:

drn: **tw** chkd: **gve** appd: **ge**

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APPENDIX B

ENVIRONMENT AGENCY FLOOD MAP

A A A

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1 March 2011

Risk of Flooding from Rivers and Sea

Enter postcode or place name:

Overview map:



Other topics for this area...

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Map of X: 507,657;Y: 101,807 at scale 1:10,000



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[view text version of all results](#)

Flood Mapping of the Manchester Ship Canal in Trafford, Salford and Warrington may be subject to revision in our May 2011 update as a result of representations.

For further information please contact us on 08708 506 506.

Users of the Flood Zone Map should be aware that we have received a judicial review challenge to the mapping of the Manchester Ship Canal at Trafford, Salford and Warrington on the ground that the preparation of the map is flawed in respect of our consideration of the role of the sluice gates in preventing flooding.

We are defending the challenge and believe and are advised that it is ill-founded. Nevertheless, pending determination of the challenge, users of the map need to consider whether the existence of the challenge, and the basis of it, affects the weight they judge may be given to the zoning of the Manchester Ship Canal within the Flood Map.

More about flooding:

Understanding the flood map

A more detailed explanation to help you understand the flood map shown above.

Current flood warnings

We provide flood warnings online 24 hours a day. Find out the current flood warning status in your local area.

Flood map - your questions answered

Answers to commonly asked questions about the flood map.

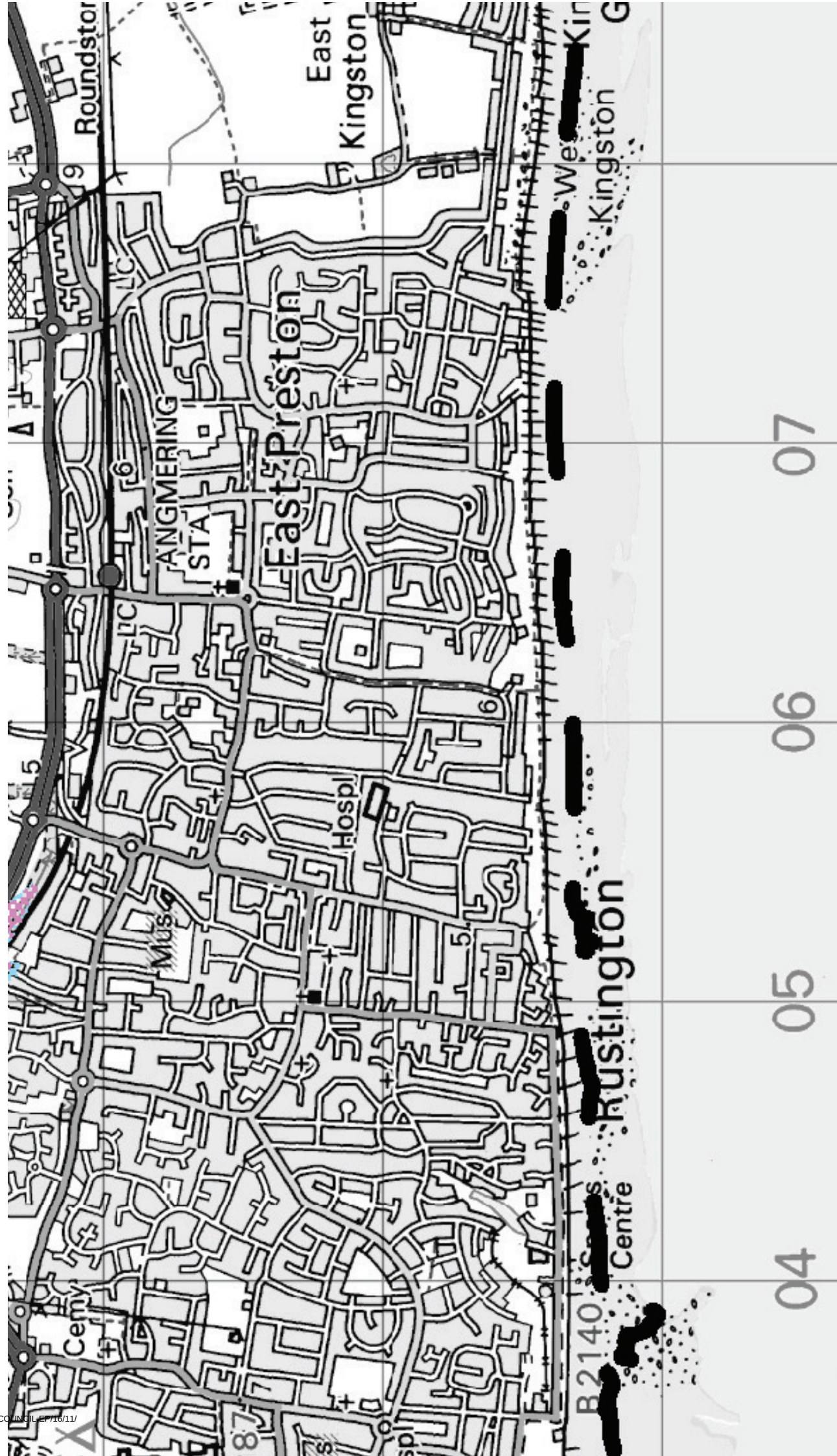
creating a better place

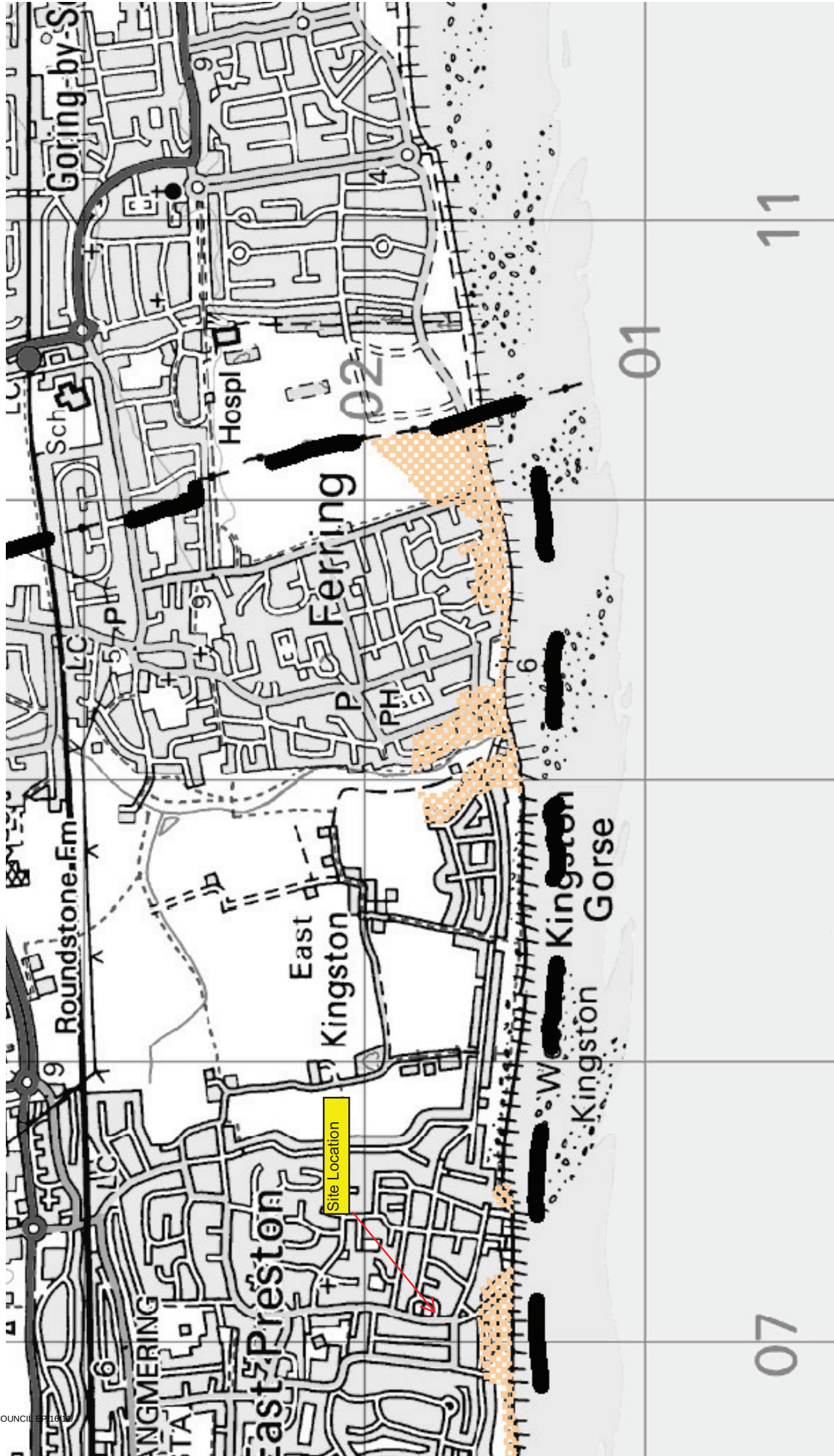
Author: The Environment Agency | enquiries@environment-agency.gov.uk

Last updated: 20 January 2009

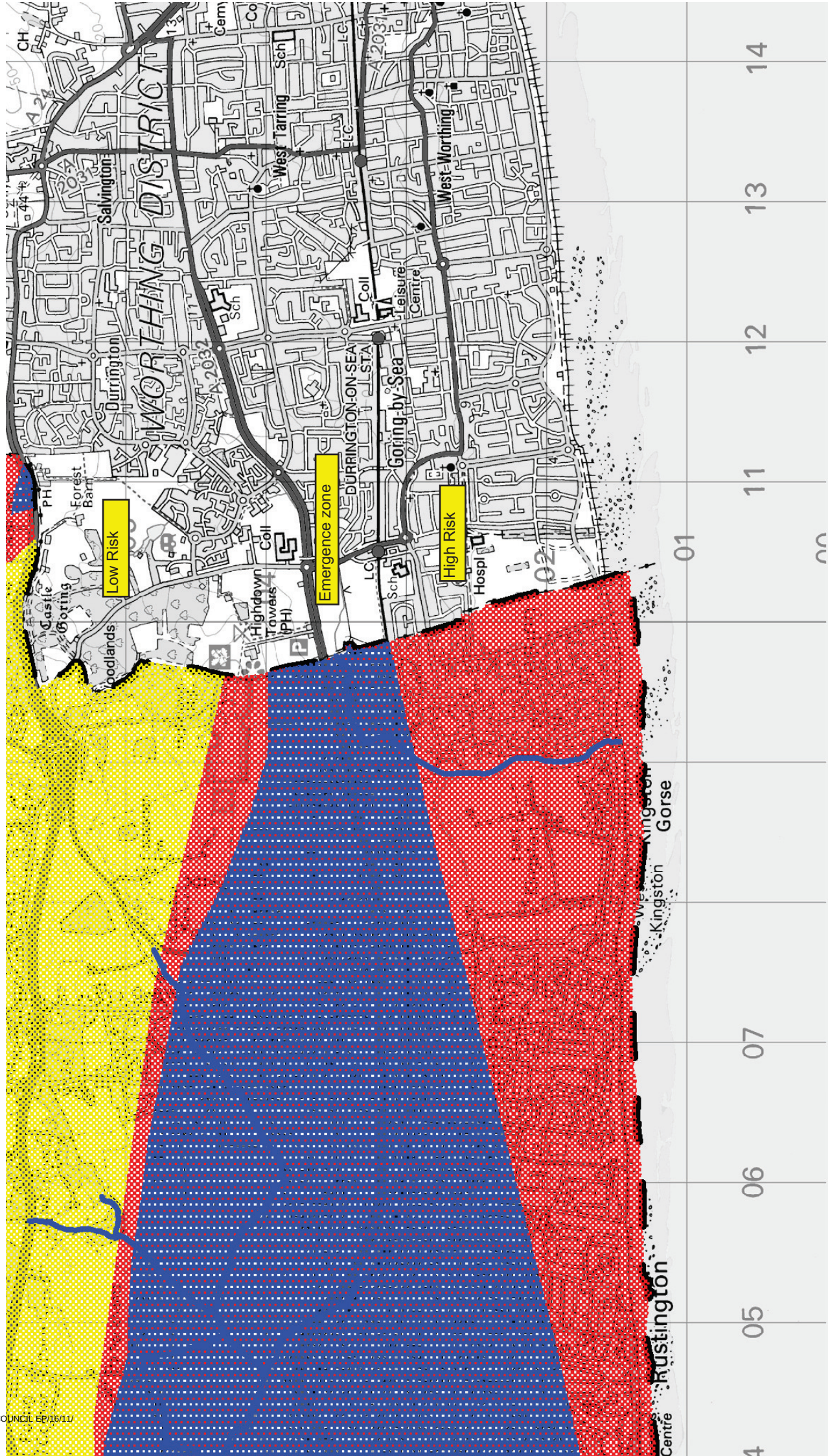
APPENDIX C

RELEVANT MAPS FROM ARUN SFRA

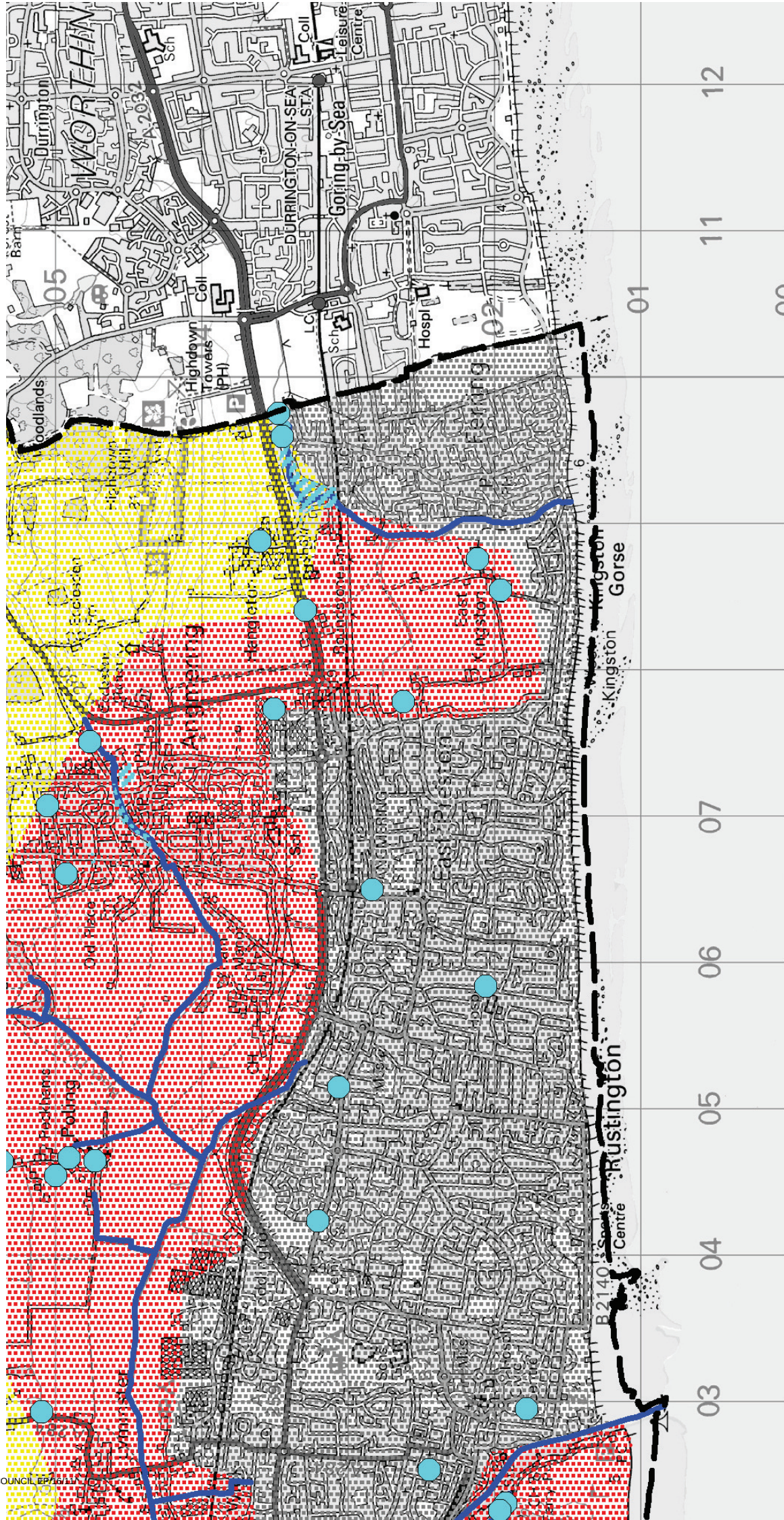




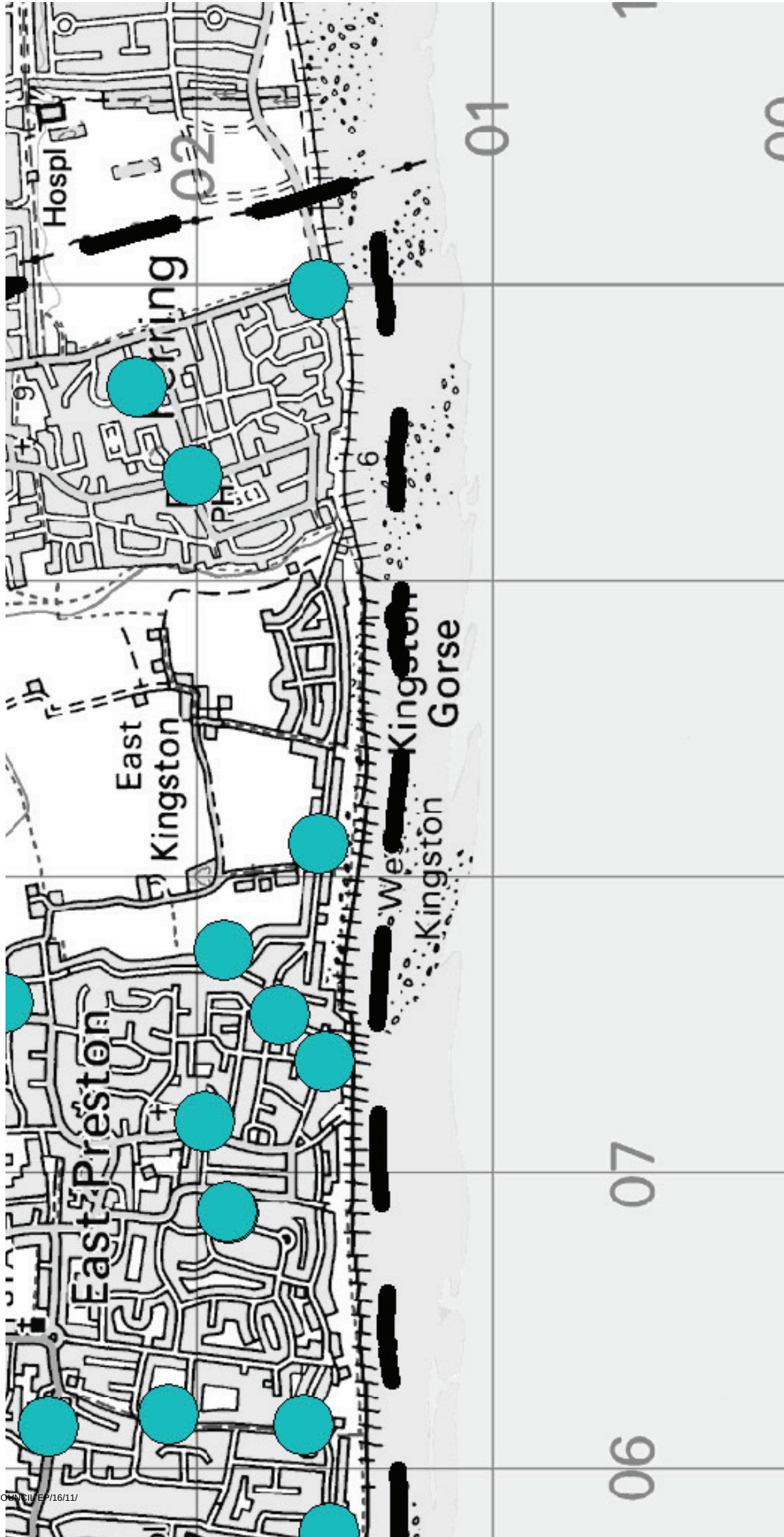
Risk Of groundwater Flooding



Flooding from Land



Flooding from sewers



APPENDIX D

DEVELOPMENT PROPOSALS



PLANNING ISSUE

by and LA approvals

project: 115-117 Sea Road, East Preston
client: Oakhurst Developments ltd
drawing: First Floor Plan

number: 3279

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PLANNING ISSUE

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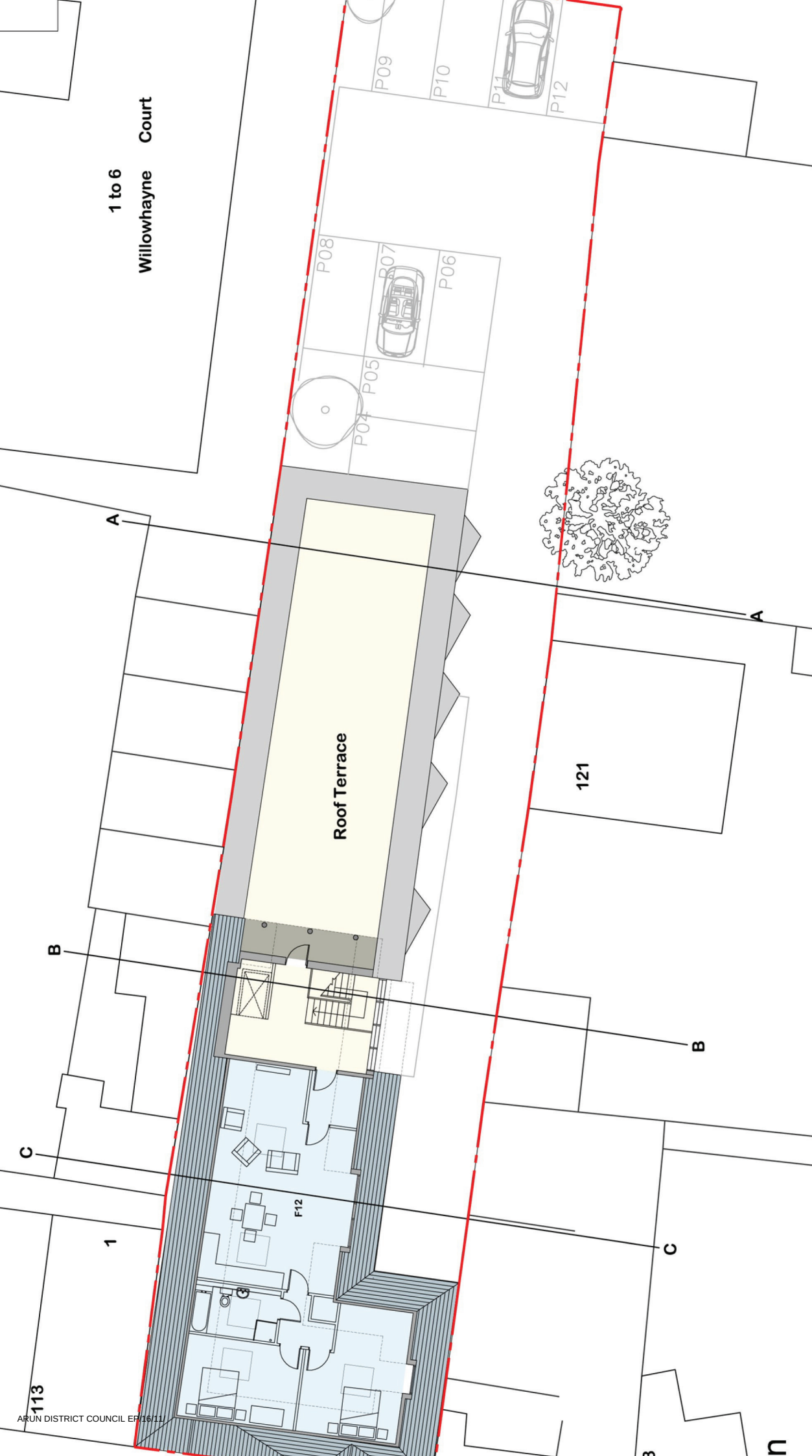
project: 115-117 Sea Road, East Preston
client: Oakhurst Developments ltd
drawing: Second Floor Plan

number: 3279

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1 to 6
Willowhayne Court

PLANNING ISSUE

project: 115-117 Sea Road, East Preston
client: Oakhurst Developments Ltd
drawing: Third Floor Plan

number: 3279

by and LA approvals

by: date:

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