STOCKLEY



New Islington Phase 3 Social Housing 'Guts' Flood Risk Assessment

July 2011

New Islington Phase 3 Social Housing 'Guts'
Flood Risk Assessment

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1.0 INTRODUCTION

Mansell have appointed Stockley to prepare a Flood Risk Assessment for a proposed development consisting of 18 new dwellings on a site at New Islington, Manchester.

This report covers the flood risk and drainage aspects, also the BREEAM Code for Sustainable Homes Sur 1 and Sur 2 elements.

2.0 BREEAM Sur1

The existing sites are adjacent to Cardroom Road and were both existing housing until at least December 2005 (see Google aerial views and photographs in Appendix A). There are existing public sewers in Cardroom Road and the former housing connected to the public network.

The project started in 2010 which is less than 5 years following demolition and the proposed drainage will be via a separate system with surface water attenuation provided to meet with United Utilities discharge criteria; all new drains will be put forward for adoption.

The proposals consist of two distinct subareas:

The Terrace:
6 units are proposed in this area and the hard areas pre and post development will be as follows:

Gross area 1144m2
Existing hard area 926m2
New hard area 897m2

As this area of the site will have less hard area than before The Terrace units comply with Sur 1.

The Patchwork:
12 units are proposed in this area and the hard areas pre and post development will be as follows:

Gross area 3306m2
Existing hard area 2613m2
New hard area 3006m2

This area will have a slightly greater hard area post development and as such whilst the proposals comply with the peak rate of runoff Sur 1 criterion the new volume of runoff will be 15% greater than before, and such rainwater recycling would be required to meet the mandatory runoff volume element of Sur 1.

3.0 BREEAM Sur 2

Environment Agency Flood Zone Maps show both the Terrace and Patchwork sites to lie within **Flood Zone 1** and as such they have a **low probability of flooding** (less than 1 in 1000 years) from river or sea.

The proposed residential end use is classed as **'more vulnerable'** in Table D2 of PPS25.

Based on the above the proposed use is **appropriate** in accordance with Table D3 of PPS 25.

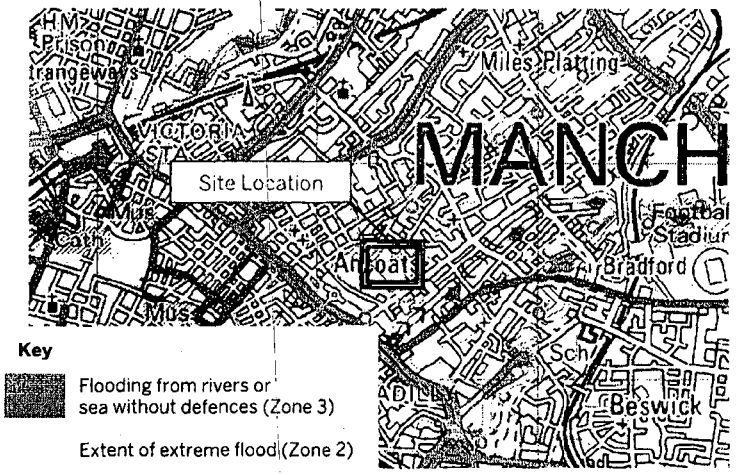

Figure 1: Extract from the Environment Agency Flood Map

Risk of Flooding from All Sources

The site is at low risk from all forms of flooding as described in Annex C off PPS25.

Source	Risk	Justification
C4 Flooding from Rivers	**Low**	There are no rivers in the vicinity of the site.
C5 Flooding from the Sea	**Low**	The site is not located near to the sea.
C6 Flooding from Land	**Low**	No un-drained land slopes towards the site.
C7 Flooding from Groundwater	**Low**	There are no springs or weep areas visible in the area or on site and the development is not set at a level whereby it would be subject to flooding from groundwater.
C8 Flooding from sewers	**Low**	There are no reports of public sewer system surcharge local to the site. Recent infrastructure works have been undertaken across New Islington and the sewer infrastructure in the area has been either been replaced or upgraded in line with requirements to accommodate foul and surface water flows from across the New Islington development site including the Phase 3 Social housing site.
C9 Reservoirs/ Canals	**Low**	There are no reservoirs in the vicinity of the site. The Rochdale and Ashton Canals are adjacent to the site however they are not considered to present a significant risk to development given their inherent features for controlling water levels; both canals have lock structures close to the site which connect to downstream sections and so serve to control canal water levels. There is no risk of flooding from the Ashton or Rochdale Canal.

4.0 CONCLUSION

The Terrace proposals comply with Sur 1 as the new hard area is less than existing.

The Patchwork proposals comply with the peak rate of runoff Sur 1 criterion but the new volume of runoff will be 15% greater than before, so to meet the mandatory element of Sur 1 rainwater recycling would need to be installed.

The Assessment shows that the Development is located within Flood Zone 1 which means that it has a low probability of flooding and that there is a low risk of flooding from all sources and as such the proposals for both the Terrace and Patchwork comply with Sur2.

Appendix A

1. Proposals and landscaping
2. Proposed drainage
3. Google aerial view, historic December 2005 aerial view, Cardroom Road existing houses photo showing part of the Terrace site.
4. BREEAM template forms for the terrace site and the patchwork site
5. ReFSR/FEH printouts giving rain data.
6. UU correspondence