

**SUPPLEMENTARY
FLOOD RISK ASSESSMENT**

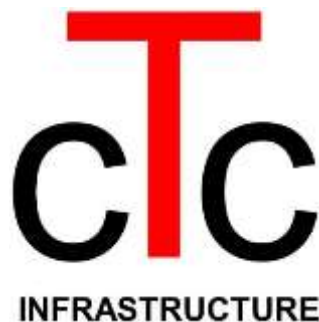
for

OAKMERE HOMES (NW) LTD

PROPOSED RESIDENTIAL DEVELOPMENT

at

**CHATBURN ROAD
CLITHEROE**



www.tonks-consulting.co.uk

CONTENTS

SECTION	TITLE	PAGE
1	INTRODUCTION	3
2	DESCRIPTION OF THE SITE	4
3	SUPPLEMENTARY FLOOD RISK ASESMENT	5
4	CONCLUSIONS	8

APPENDICES

A Location plan

1. INTRODUCTION

- 1.1 This supplementary flood risk assessment has been produced on behalf of Oakmere Homes (NW) Ltd in support of a Full Planning Application for the development of land off Chatburn Road, Clitheroe for residential use. A location plan is included within Appendix A.
- 1.2 The site currently has an outline planning permission (reference number 3/2013/0981) for a residential development comprising 20 dwellings (including 6 units of social housing), 3 close care apartments and a 60 bed care home (all matters reserved for subsequent approval).
- 1.3 A flood risk assessment produced by Thomas Consulting (P4558, July 2013) was submitted in support of the extant planning permission and agreed with the Environment Agency. This supplementary note should be read in conjunction with the Flood Risk Assessment.
- 1.4 Condition 11 on the decision notice stated:
- The development hereby permitted in outline shall only be carried out in accordance with the approved Flood Risk Assessment (FRA) (Ref: P4558-Rev003 dated 5 July 2013) and the following mitigation be filled within the FRA:*
- *Limiting the surface water run-off from the site to a maximum of its 17 l/s so that it will not exceed the run-off from the undeveloped site and shall not increase the risk of flooding off site.*
- 1.5 This Supplementary Flood Risk Assessment will make reference to the previously agreed FRA, and should be read in conjunction with it, and will provide an update where required.
- 1.6 A surface water and foul water drainage strategy has been produce separately to this document.

2. DESCRIPTION OF THE SITE

Existing site

- 2.1 The proposal relates to a roughly rectangular shaped piece of land (approx. 2.62 hectares) off Chatburn Road, to the north east of Clitheroe town centre.
- 2.2 The site is accessed from Chatburn Road.
- 2.3 The site comprises green fields. The south eastern boundary of the site is Chatburn Road. On the south western boundary lie the residential properties that lie on Kiln Court and Cringle Way. To the northeast are green fields and along the north western boundary is a watercourse that runs to the southeast.
- 2.4 The site falls from Chatburn Road towards the watercourse into which surface water runoff from the site discharges.

Proposed development

- 2.5 It is proposed that the development site will comprise 28 Nr. residential dwellings.
- 2.6 The proposed site layout plan is shown on drawing 016/P/01 Revision D accompanying the planning application.
- 2.7 It is proposed that access into the developed site will be from Chatburn Road.

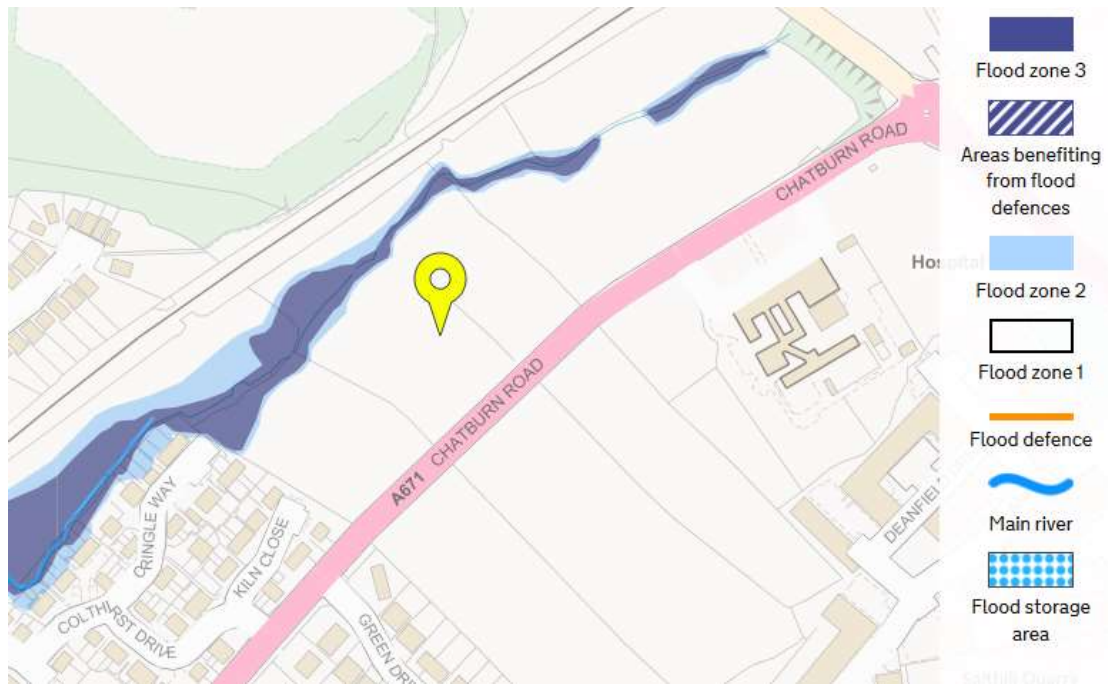
3. SUPPLEMENTARY FLOOD RISK ASSESSMENT

Flood risk planning policy

- 3.1 The National Planning Policy Framework (NPPF) sets out the Government's national policies on different aspects of land use planning in England in relation to flood risk. Supporting Planning Practice Guidance is also available.
- 3.2 The NPPF sets out the vulnerability to flooding of different land uses. It encourages development to be located in areas of lower flood risk where possible, and stresses the importance of preventing increases in flood risk offsite to the wider catchment area.
- 3.3 The NPPF also states that alternative sources of flooding, other than fluvial (river flooding), should also be considered when preparing a Flood Risk Assessment.
- 3.4 As set out in NPPF, local planning authorities should only consider development in flood risk areas appropriate where informed by a site specific Flood Risk Assessment.
- 3.5 This document is a supplement to the Flood Risk Assessment (Ref: P4558-Rev003 dated 5th July 2013), produced by Thomas Consulting that was submitted in support of the extant planning permission and agreed with the Environment Agency.

Flood zones

- 3.6 In investigating the flood risk relating to the site, the Environment Agency flood zone mapping identifies the proposed development site lies within Flood Zones 1, 2, and 3. The majority of the site lies within Flood Zone 1. The Flood Zones 2 and 3 areas are confined to the watercourse and dwellings are only proposed in Flood Zone 1.
- 3.7 An extract from the current Environment Agency's Flood Zone Map for Planning is shown below.



Historical Flooding

3.8 There were no previously recorded instances of flooding of the site found and have been no instances of flooding of the site since the initial flood risk assessment was written.

Climate change

3.9 Revised Flood Risk Assessments: Climate Change Allowances were published February 2016 and are available on the GOV.UK website. They advise when and how to use climate change allowances in flood risk assessments and strategic flood risk assessments.

3.10 The Flood Risk Assessment that was submitted in support of the extant permission stated that:

Whilst climate change scenarios are likely to increase peak flows within the existing watercourse on site, it is noted that the site is located at the head of the watercourse. Climate change increases are likely to be limited to increases in peak rainfall intensity only.

Where detailed climate change information is unavailable, current Environment Agency guidance suggests that an increase in peak flood levels of 300mm should be allowed.

- 3.11 The situation is unchanged for the revised application. Dwellings are only proposed in Flood Zone 1 and the Environment Agency should remain satisfied that the proposal will not pose a risk to life and property.
- 3.12 The surface water drainage design has catered for surface water runoff generated by all rainfall events up to the 100 year critical rain storm plus 30% on stored volumes. The additional 30% is to allow for climate change and has been included in the surface water volume.

4. CONCLUSIONS

- 4.1 This supplementary flood risk assessment has been produced on behalf of Oakmere Homes (NW) Ltd in support of a Full Planning Application for the development of land off Chatburn Road, Clitheroe for residential use.
- 4.2 The site currently has an outline planning permission (reference number 3/2013/0981) for a residential development comprising 20 dwellings (including 6 units of social housing), 3 close care apartments and a 60 bed care home (all matters reserved for subsequent approval).
- 4.3 The current proposal is for a development comprising 28 Nr. residential dwellings.
- 4.4 A flood risk assessment produced by Thomas Consulting (P4558, July 2013) was submitted in support of the extant planning permission and agreed with the Environment Agency.
- 4.5 The Environment Agency flood zone mapping identifies the proposed development site lies within Flood Zones 1, 2, and 3. The majority of the site lies within Flood Zone 1. The Flood Zones 2 and 3 areas are confined to the watercourse.
- 4.6 Dwellings are only proposed in Flood Zone 1.

Summary of the flood risk to the site

- 4.7 The Flood Risk Assessment (Ref: P4558-Rev003 dated 5th July 2013) produced by Thomas Consulting that was submitted in support of the extant planning permission and agreed with the Environment Agency summarises the flood risk to the site as follows:

<u>Source of flooding</u>	<u>Flood risk to the site</u>	<u>Mitigation measures</u>	<u>Comments</u>
Streams & rivers (Fluvial)	Varies	Development within the currently highlighted flood risk areas should be avoided.	Alterations to ground levels within the current flood risk area should not be undertaken.
Groundwater	Low	None required	

Tidal	Low	None required	
Sewers – foul	Low	None required	
Sewers – surface water	Low	None required	
Reservoirs / Canals	Low	None required	
Overland flows (Pluvial)	Low	None required	
Climate change	Low	None required	

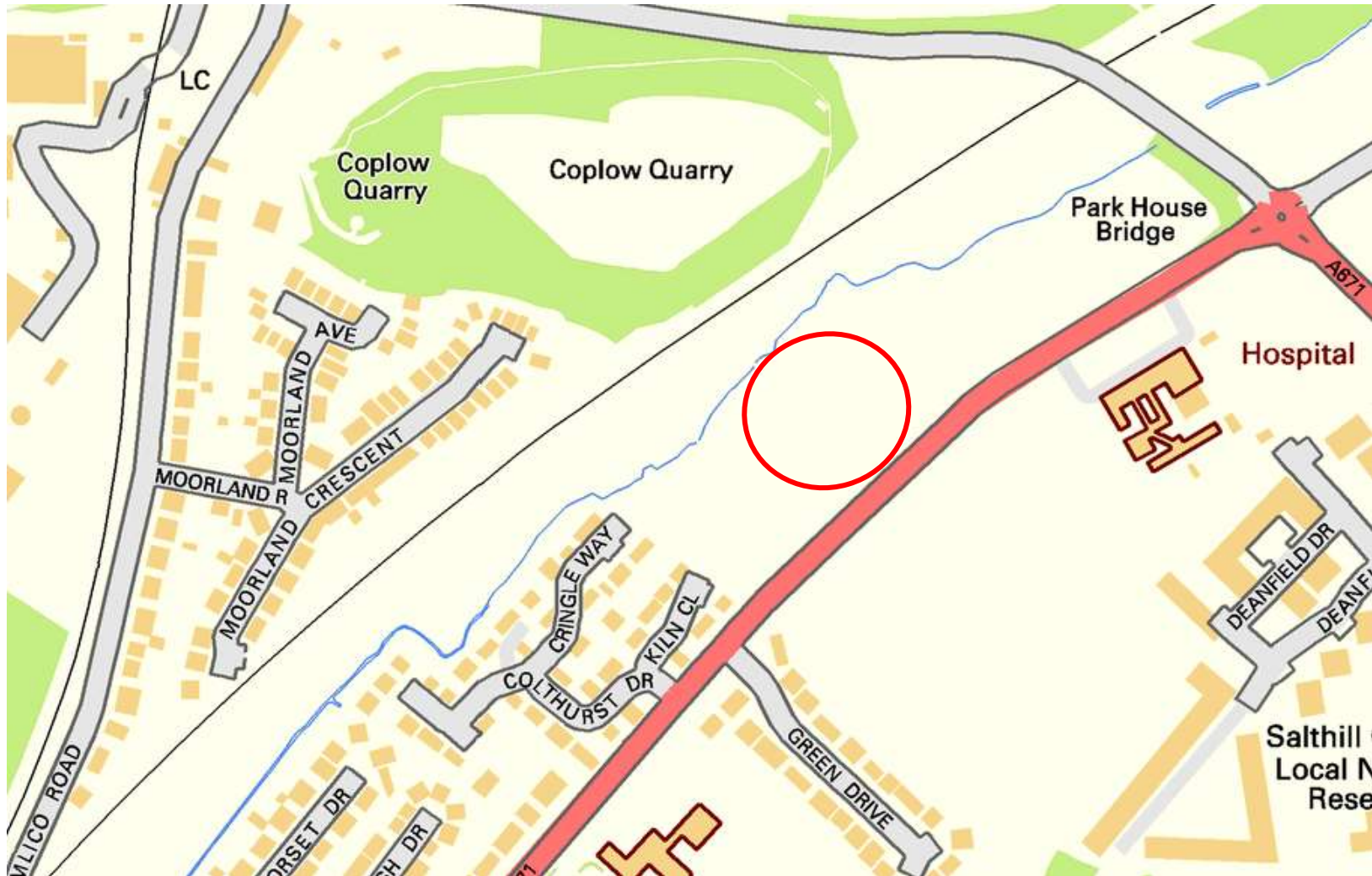
4.8 The conclusions were as follows:

- Areas of the site in close proximity to the existing watercourse are noted as being at high (greater than 1% annual probability) risk of flooding. The relatively steeply sloping banks to the watercourse indicate that this zone of flood risk is relatively constrained within the lower portion of the site.
- In order to ensure that any development proposals would not be at an unacceptable level of fluvial flood risk, proposed dwellings should be limited to the areas of the site not currently falling within Flood Zones 2 and 3.
- Detailed layout proposals should ensure that the current extents of flood zones 2 and 3 remain unaltered by any proposed earthworks on site, however there may be scope to extend private gardens into the areas of the site designated as being within Flood Zone 2.
- Surface water discharges from the site are likely to be directed to the existing watercourse, subject to the agreement of the local Sustainable Urban Drainage Approval Body. In order to ensure that the risk of flooding to properties downstream is not increased, surface water discharges should be attenuated to Greenfield flow rates.
- The underlying soil type for the site results in relatively high peak discharges at Greenfield rates. As such, it is recommended that peak flow rates be limited to the calculated Qbar value. (17.1 l/s). Such a restriction would effectively provide a net reduction in flood risk downstream of the site for extreme (greater than 1 in 30 year) storm events.

4.9 This Supplementary Flood Risk Assessment confirms that the flood risk to the development site is unchanged and the development proposals would be acceptable from a flood risk perspective.

Client:		Oakmere Homes (NW) Ltd	
Project Name:		Chatburn Road, Clitheroe	
Project Number:		2016-C-1165	
Report Title:		Supplementary Flood Risk Assessment	
Created by:	Bob Ford	Date:	July 2016
Proofed By:	Sarah Buckley	Date:	July 2016
Approved by:	Bob Ford bob@tonks-consulting.co.uk	Date:	July 2016

APPENDIX A



CHATBURN ROAD – LOCATION PLAN