

**FLOOD RISK ASSESSMENT**

**for**

**OAKMERE HOMES**

**PROPOSED RESIDENTIAL DEVELOPMENT**

**on**

**LAND AT CHATBURN ROAD**

**CLITHEROE**

**MAY 2020**

**REFORD**

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## 1. INTRODUCTION

- 1.1 This flood risk assessment has been produced on behalf of Oakmere Homes in support of a planning application for a proposed residential development comprising 17 dwellings on land adjacent Chatburn Road, Clitheroe. The location of the site is shown below.



- 1.2 This flood risk assessment is to be read in conjunction with the drainage strategy that has been produced in support of the application.

## 2. SITE DETAILS

- 2.1 The proposal relates to land (approx. 0.82 hectares) that lies to the north of Chatburn Road to the east of the centre of Clitheroe. Access to the site is available from Chatburn Road.
- 2.2 The existing site comprises grassland.
- 2.3 The adjacent site to the east has a planning permission for 30 residential dwellings, which has been granted by Ribble Valley Borough Council and is under construction

- 2.4 The proposed development will comprise 17 residential dwellings.
- 2.5 Along the northern boundary of the site lies an ordinary watercourse that flows to the west. The watercourse becomes Main River just to the west of the site's western boundary.
- 2.6 The site falls steeply from Chatburn Road towards the watercourse, into which surface water runoff from the site discharges.
- 2.7 The development site lies within Flood Zone 1 as shown on the Environment Agency's Flood Map for Planning, except for an area along the line of the watercourse channel that lies within Flood Zones 2 and 3. An extract from the flood map for planning is shown below.



- 2.8 There is no record of the site previously flooding on the Environment Agency historical flood mapping.
- 2.9 The online Soilscales viewer has identified that the geology encountered will be slowly permeable seasonally wet acid loamy and clayey soils with impeded drainage. The ground is, therefore, not likely to be conducive to infiltration of surface water.

- 2.10 This is supported by a site investigation that has been carried out on the adjacent site. The exploratory holes encountered cohesive deposits of low permeability across the site and concluded that the use of soakaway drainage is not considered feasible at the site.

### **3. SOURCES OF FLOODING AND FLOOD RISK TO THE DEVELOPMENT**

#### Tidal and Fluvial

- 3.1 The development is a significant distance from the nearest tidal estuary and is, therefore, not at risk of flooding from the sea.
- 3.2 Along the northern boundary of the site lies an ordinary watercourse that flows to the west.
- 3.3 The development site lies within Flood Zone 1 as shown on the Environment Agency's Flood Map for Planning, except for an area along the line of the watercourse channel that lies within Flood Zones 2 and 3.
- 3.4 The proposed development will comprise 17 residential dwellings. The site falls steeply towards the watercourse that lies along its northern boundary. All of the proposed development is to lie only within the Flood Zone 1 area and the dwellings will have floor levels that are significantly higher than the ordinary watercourse. The risk from fluvial flooding is therefore low.
- 3.5 As all of the proposed development will lie only within Flood Zone 1, a sequential, risk-based approach to the location of the new development within the site has been taken and the development would be considered sequentially preferable in this location.

#### Canals, reservoirs and other artificial sources

- 3.6 There are no canals or other artificial sources local to the site.
- 3.7 The risk from canals, reservoirs and other artificial sources is low.

### Groundwater

- 3.8 There are no recorded incidents of flooding associated with groundwater levels within the site. The risk from groundwater is low.

### Sewers

- 3.9 United Utilities sewer records show a public foul sewer flowing to the south within Chatburn Road that lies along the site's southern boundary.
- 3.10 The ongoing operational and maintenance responsibility of any sewers within the area are with United Utilities. The risk of flooding from sewers is low.

### Pluvial

- 3.11 The Environment Agency Risk of Flooding from Surface Water map indicates the site is at a very low risk of surface water flooding. A very low risk means that each year this area has a chance of flooding of less than 0.1%. The risk of pluvial flooding is low.

### Development drainage

- 3.12 In line with common practice, surface water runoff from the proposed development should mimic those from the existing site. It is therefore intended that surface water runoff from the developed site will be attenuated and discharge into the ordinary watercourse that lies along the northern boundary of the site.
- 3.13 The surface water flow from the development will be controlled such that the peak surface water runoff for the 1 in 1 and the 1 in 100 year rainfall events will not exceed the pre-development runoff rate for the same event, allowing surface water runoff generated by all rainfall events up to the 100 year critical rain storm plus 30% on stored volumes to discharge into the watercourse. The additional 30% is to allow for climate change and has been included in the surface water volume.
- 3.14 As such there will therefore be no change to the flood risk upstream or downstream of this location and the risk of flooding from the development drainage is low.

### *Foul water*

- 3.15 Foul water discharges from the site will be to the onsite foul pumping station located at the end of the access spine road within the adjacent site to the east and the foul water pumped to the public foul sewer that runs within Chatburn Road.

## **4. MITIGATION MEASURES**

- 4.1 As the development is to be located only within the Flood Zone 1 area of the site, no mitigating measures are identified.

## **5. CONCLUSIONS**

- 5.1 This flood risk assessment has been produced on behalf of Oakmere Homes in support of a planning application for a proposed residential development comprising 17 dwellings on land adjacent Chatburn Road, Clitheroe.
- 5.2 This Flood Risk Assessment confirms that the development proposals would be acceptable from a flood risk perspective. In addition there will be no change to the flood risk upstream or downstream of the development site.
- 5.3 It is therefore concluded that there are no issues relating to flood risk or drainage of the site that would prevent the proposed development proposals.