



Title: Civils Constraints Summary

Date: 12th August 2020

1.0 Introduction

- 1.1 Jubb Consulting Engineers (Jubb) have been appointed by Rainier Developments Ltd to provide flood risk and drainage advice in relation to the proposed development at Land at Keeley Lane, Wootton.
- 1.2 This technical note provides a summary of the findings.

2.0 Flood Risk

- 2.1.1 The proposed site is identified as lying outside of the fluvial and tidal flood risk zone according to the Environment Agency's published flood map for planning. The EA flood risk for planning map identifies the site within Flood Zone 1 – very low probability of flooding (land assessed as having a less than 1 in 1000 annual probability of river or sea flooding).
- 2.1.2 The National Planning Policy Framework planning practice guidance states that all types of development are suitable for this flood zone.
- 2.1.3 A small area within the north-east corner of the site is identified as being at low-high risk of surface water flooding. It is anticipated that this is a result of modelled run-off being conveyed and retained within the north-east corner due to the existing topographical profile of the existing land. However, this is not a significant risk to the site, and it is expected that the development proposals and drainage strategy will alleviate these areas of flood risk.
- 2.1.4 No other sources of flooding have been identified for the proposed site. This includes flooding from existing sewers, groundwater and artificial sources.

3.0 Drainage

- 3.1.1 Anglian Water own and operate the existing local public foul and surface water sewer networks supplying the local area. Anglian Water asset plans confirm there is no existing drainage apparatus located within the proposed site boundaries.
- 3.1.2 Within the surrounding area, Anglian Water asset plans show there is an existing foul sewer network running immediately to the north of the site within Keeley Lane.
- 3.1.3 As the site is not currently positively drained, a new foul and surface water sewer network will be designed to collect and convey flows from the proposed development.

- 3.1.4 Current legislation and guidance require developers to manage surface water run-off from new developments, to mitigate flood risk to the site and the surrounding area and provide a sustainable means of disposing of run-off from impermeable areas of the site. Surface water run-off from the new development should be managed via the design of a sustainable drainage system (SuDS). The possible drainage options considered for the site include the use of infiltration methods and discharging to a local watercourse.
- 3.1.5 Due to the characteristics of the underlying ground conditions, it is anticipated that the use of infiltration methods will not be suitable for the discharge of flows from the site. Consequently, an alternative option of discharging to a local watercourse is the preferred option.
- 3.1.6 An existing drainage ditch runs along the northern site boundary, running parallel to Keeley Lane. This ditch currently accommodates flows from Keeley Lane and the existing undeveloped site, before conveying flows to the east.
- 3.1.7 It is proposed to attenuate flows onsite, before discharging flows at a restricted predevelopment rate. Onsite attenuation will be provided via an attenuation basin which will also provide ecological and water quality benefits through the dilution, filtration and settlement of pollutants. Additional SuDS features will be included throughout the development where possible, to provide further ecological, water quality and amenity benefits.
- 3.1.8 It is proposed that the new development will discharge foul flows to the existing public sewer infrastructure located within Keeley Lane.