Land North of Wycke Hill, Maldon, Essex
Storm and Foul Water - Position Statement
8th June 2016

1 Introduction

1.1 Brookbanks Consulting Limited is appointed by Dartmouth Park Estates Ltd to complete a Flood Risk Assessment in support of a proposed residential and mixed use development on Land North of Wycke Hill, Maldon, Essex.

1.2 The purpose of this Technical Note is to provide a position statement in relation to the key storm and foul water findings as defined in Planning Application OUT/MAL/15/01327.

2 Foul Water Drainage

2.1 The foul water drainage study for the development has identified no prohibitive engineering constraints in developing the proposed site for the proposed residential usage.

2.2 Means to discharge foul water drainage have been established that comply with current guidance and requirements of Anglian Water. Foul water will discharge to the existing Anglian Water network.

2.3 Consultation with Anglian Water confirmed that the Maldon Water Recycling Centre, located in the town has sufficient capacity to accommodate the development. At the time of Reserved Matters/detailed planning application stage, Anglian Water will undertake a further modelling exercise to establish an optimised strategy for collection of foul water from the site to convey to the Recycling Centre. For all newly created onsite foul water sewers, Anglian Water will adopt and maintain in perpetuity through a Section 104 Agreement, under the Water Industry Act 1991.

2.4 It has been determined that using ‘Sewers for Adoption 7th Edition’, the development will have a design peak discharge of approximately 17.13 litres per second. This discharge rate has been provided to Anglian Water who have confirmed via a pre development modelling report that the Maldon Water Recycling Centre has current capacity to accommodate the flows.

2.5 The site is fully able to comply with NPPF guidance together with associated local and national policy guidance.

3 Storm Water Drainage

3.1 The storm water drainage study for the development has identified no prohibitive engineering constraints in developing the proposed site for the proposed residential usage.

3.2 Assessment of fluvial flood risk shows the land to lie in Flood Zone 1 and hence be a preferable location for residential development when considered in the context of the NPPF Sequential Test. Assessment of other potential flooding mechanisms shows the land to have a low probability of flooding from overland flow, ground water and sewer flooding.

3.3 Storm water discharged from the development will be directed to the ditch to the south of the site.
3.4 Impermeable surfaces collect pollutants from a wide variety of sources including cleaning activities, wear from car tyres, vehicle oil and exhaust leaks and general atmospheric deposition (source: CIRIA C609). The implementation of SuDS in this development drainage strategy provides a significant benefit in removal of pollutant from development run-off. In this instance, both open channel swales and attenuation basins are proposed which provide a robust water treatment train.

3.5 This SuDS system relies on the infiltration of water through the ground layer into permeable sub soils or through sedimentation in low flow storage basins. This settling and filtering of contaminated run off through a fine grained matrix separates the suspended contaminated sediment from the body of water subsequently causing the water to leave the SuDS device in a more polished form than how it entered.

3.6 Furthermore, by implementation of SuDS features it is possible to optimise overall pollutant removal as water will undergo this process of filtering before being discharged to an appropriate receptor.

3.7 At present, the site and surrounding area does not benefit from any additional measures of stormwater treatment. Due to the need to provide wider sustainability benefits and view the development at a strategic level, SuDS will be implemented as described above to passively treat run off from the development so as to have a positive impact on the surrounding natural environment.

3.8 As the site is not presently served by any means of storm water treatment mechanisms, by providing the afore mentioned SuDS within the proposed development it will be possible to maintain present water quality in the area and thus the development can be seen to be having no significant environmental impact in relation to water.

3.9 In respect of storm water discharge rates, these are provided in the Flood Risk Assessment. It is demonstrated that through the use of storm water attenuation using SuDS, the development is able to retain some 85% of the present day site run-off, thereby greatly benefiting the downstream catchment in times of high rainfall intensity.

3.10 The site is fully able to comply with NPPF guidance together with associated local and national policy guidance.

4 Summary

4.1 The technical note has been prepared to set out the position of storm and foul water drainage provision for the proposed development at Wycke Hill.

4.2 The Flood Risk Assessment which accompanied planning application OUT/MAL/15/01327 provides the in-depth detail of the above position statement.

4.3 Third party information has been used in the preparation of this report, which Brookbanks Consulting Ltd, by necessity assumes is correct at the time of writing. While all reasonable checks have been made on data sources and the accuracy of data, Brookbanks Consulting Ltd accepts no liability for same.

4.4 Brookbanks Consulting Ltd excludes third party rights for the information contained in the report.