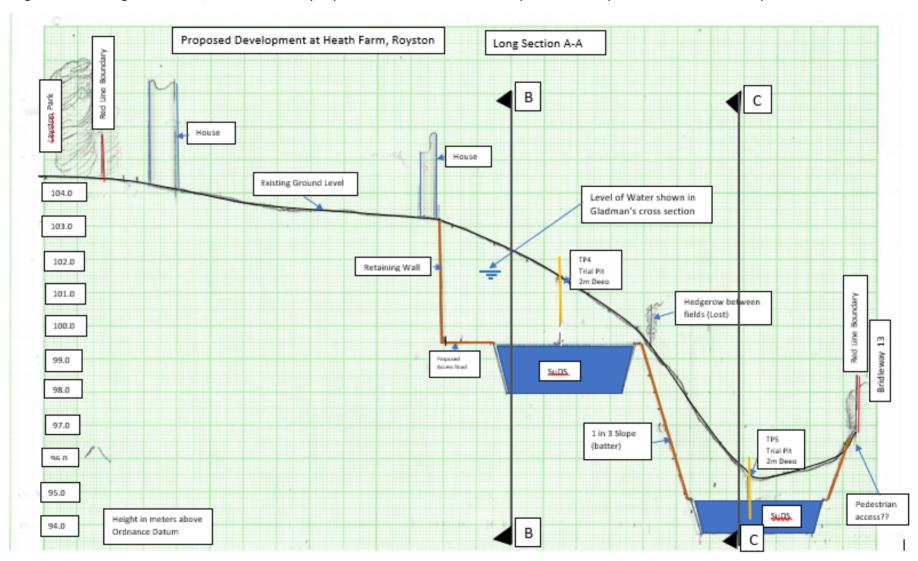
Plan of Sustainable Drainage System (SuDS) - lagoons on the North West Boundary, showing Contours and Cross Section Locations



## The above plan was created by overlaying the drawings below

- i) Site layout copied from Gladman's application Chapter 4 page 43 'Illustrative Masterplan'
- ii) Outline of Sustainable Drainage Systems (SuDS) copied from MLM Flood Risk Assessment & Surface Water Drainage Strategy, page 39 drwg 6101152-MLM-ZZ-XX-DR-C-0110
- iii) Site Contours copied from MLM Flood Risk Assessment & Surface Water Drainage, page 17, drawing by JPL Surveys Limited Drwg S16-132-1
- iv) Long Cross Section from Gladman's application Chapter 7 Page 73
- v) Levels for the access road were taken off Royal HaskoningDHV drawing ref PC1534-RHD-GE-SW-DR-R-0001 applying the 5% maximum grade for access roads
- vi) Trial Pit 4 (TP4) 0.300m to 2.00m Structureless Chalk (MLM Flood Assessment Page 68), no insitu test sampling carried out, assumed base level of SuDS 1.53m Below Ground Level (BGL). Ground Level was approximately 102.00 AOD, SuDS invert 98.00 AOD a difference of 4m?
- vii) Trial Pit 5 (TP5) 0.250 to 1.600m very sandy gravelly clay, 1.600m to 2.00m Structureless chalk (MLM Flood Assessment Page 69), no insitu testing carried out, assumed base level of SuDS 1.35m below ground level. Ground level was approximately 96.00 AOD, SuDS invert 93.75 AOD a difference of 2.250m
- viii) Referenced Ciria 768 Construction of SuDS, a 1.5m wide berm should be allowed at freeboard level
- ix) Gladman Site Investigation Pt 3 Page 40 records borehole information from 1960's soft chalk

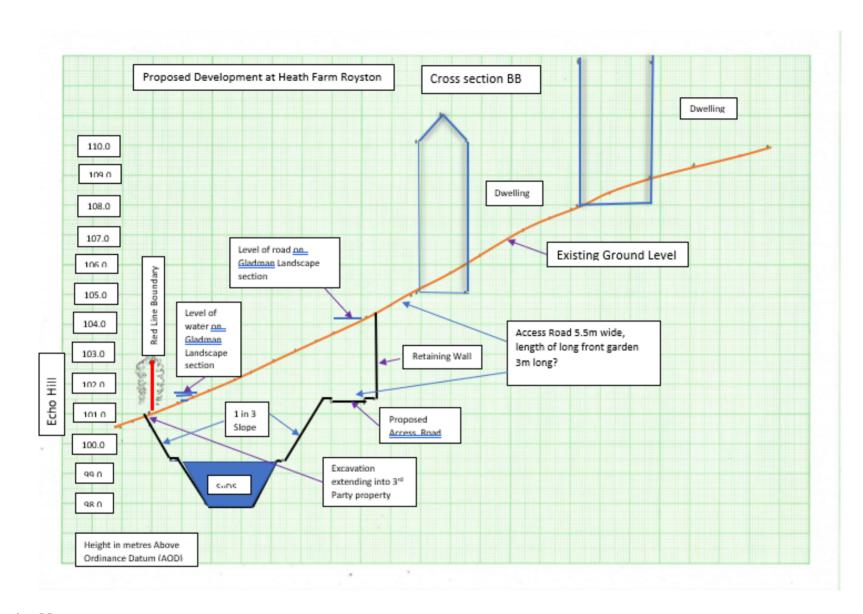
Long Section running east to west, - Site bounded by Layston Park on the east boundary and Bridleway 13 on the west boundary



### Cross Section AA

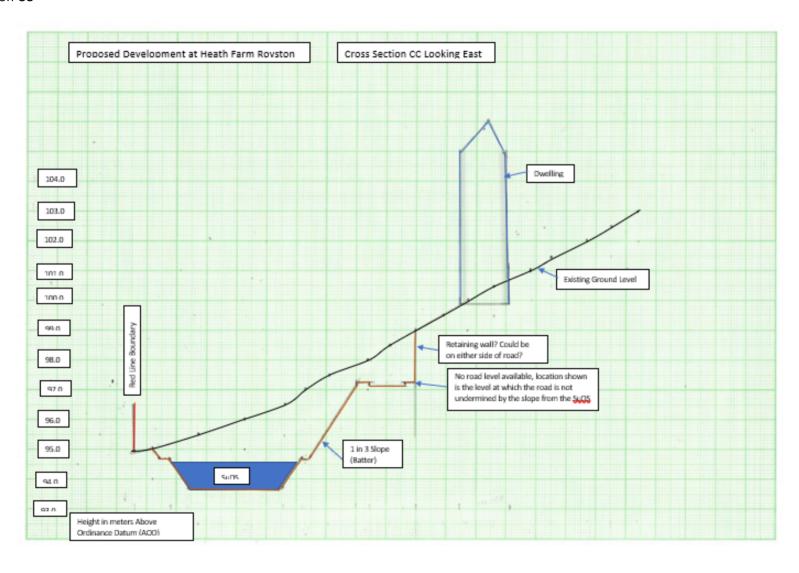
- i) Retaining wall to the left of the proposed access road is in excess of 3.5m high
- ii) Top of freeboard coincides with cross section comment
- iii) Discharge into the SuDS off the access road to be through an interceptor tank before being discharged into the SuDS
- iv) No proposal as to how the Zone 1 water protection zone is being protected below this point (in iii )
- v) Lower SuDS undermining upper SuDS
- vi) No access into lower SuDS to maintain it
- vii) Batter running up to the Red Line on Bridleway 13 removes any access into site
- viii) Hedgerow between SuDS removed
- ix) View from Icknell Way would see the 1.5m bank to the SuDS, 3.5m+ high retaining wall and the "Maximum dwelling height stated by Gladman of 8.5m" making a minimum height of 13.5m
- x) Excavaton for SuDS in excess of 4m

Cross Section BB



- i) Height of retaining wall approximately 2.8m (this is using the 5% gradient stated by Hertfordshire Highways)
- ii) Width of road 5.5m, but Gladman state a long front garden is 3.0m long?
- iii) Batter (slope on north side (left) of SuDS not only removes the hedgerow but also extends into 3<sup>rd</sup> Party Properties
- iv) Levels shown in Gladman cross section are not representative of actual proposed levels (water in the SuDS is sloping!)
- v) No retaining walls shown in Gladman proposal

# **Cross Section CC**



### **Cross Section CC**

- I) Retaining wall 2m high not shown
- II) No access to maintain SuDS
- III) Retaining wall could be located on the left of the road, but this would result in a 2m vertical drop onto the 1:3 slope to the SuDS
- IV) Retaining wall could be located on the right of the road, but this would result in an unacceptable steep road running south

#### Conclusion

- i) Excavation of the Suds involves huge volumes of material to be moved, no estimation as to the volumes and where it would be dumped
- ii) The batter for the SuDS in the north west corner runs up to/under the hedgerow running along Bridleway 13, this removes any possible access of Bridleway 13
- iii) The stability of the SuDS is compromised by their close proximity and the unsuitability of the material being used i.e., structureless weak chalk
- iv) No reference is made as to the extensive use of retaining structures
- v) No proposals are made as to where Zone 1 water protection measures will be located

It is quite clear that the SuDS are undeliverable on this site