

Chris Banks <bankssolutionsuk@gmail.com>

7 February 2017 at 19:46

## Adur Local Plan ID 15 - Hyde New Homes Response to Ref:ALP023

1 message

**Dinny Shaw** <DinnyShaw@boyerplanning.co.uk> To: "bankssolutionsuk@gmail.com" <bankssolutionsuk@gmail.com> Cc: "ben.daines@adur-worthing.gov.uk" <ben.daines@adur-worthing.gov.uk>

Hi Chris

Please find in the email below our response on behalf of Hyde Homes to the Adur Engineer's comments (ref ALP023: https://www.adur-worthing.gov.uk/media/media,143184,en.pdf) on the FRA for New Salts Farm

We trust these can be passed to the Inspector to inform our session tomorrow. I have also copied in Ben Daines at Adur for information.

Kind regards

Dinny

**Dinny Shaw** MRTPI Principal Planner

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From: Andrew Picton [mailto:ajp@tullydeath.com]
Sent: 07 February 2017 18:08
To: Dinny Shaw
Cc: Tom Shaw; Sarah Poulter; Andrew Williams; Julian Turner
Subject: Flood Risk Assessment Issue 4- New Salts Farm – Shoreham 11649 For The Hyde Group - Tully De'Ath Response

Dinny

I have attached our responses to the recent queries raised by Adur's Engineer.

I have endeavoured to answer them in the same order as they are raised.

The modelling of the Lancing ditches undertaken by JBA covers those ditches which affect the NSF site. The diches to the north of the railway line flow both south (towards NSF) and north (away from NSF), we have made allowances for those which flow towards the NSF. The modelling of the diches to the north should be picked up as part of the New Monks Farm or the Shoreham Airport assessment.

We know there will be times when the ground water levels will be high and there will be areas where we will avoid

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locating any housing – such as the area around WSL5. What the water monitoring is telling us is that most of the time infiltration is possible – but if it can't during a specific high tide events then it is managed by directing water to ditches, swales and bioretention areas which can hold water for 1 in 100 +CC events.

The high tide event mentioned in WSL6 was not included in Fig 5 as this diagram only covers the time between December 2015 and February 2016. The graph for the whole of the monitoring period is included in one of the later diagrams.

WSL1 did not have a data logger installed. The on-going monitoring of the new data loggers either side of WSL1 will provide more detail on the characteristics of the ground water in this area, however this does not change the strategy. Generally where infiltration is appropriate it will be used, and on those occasion when it doesn't it will connect to the ditch system

We have reviewed the photo's and it appears to replicate those areas which are already known to get wet and as a consequence the dataloggers were specifically located in these areas. The on-going monitoring will advise on the frequency of ponding but it is our intension that these areas which are susceptible to ponding will be used for open space/bioretention areas.

The dataloggers for the ditches both above and below are still in place and are recording, so there is no real loss on the data collected.

The diches were modelled with two general scenarios, tide locked and non-tide locked. During a tide lock situation the restriction plays no part as the model assumes no out-flow. As requested by Adur we are looking to provide an additional channel adjacent to the road bridge and as a consequence the non-tide lock scenario were found to remain in channel.

The cement is directly applied under pressure which will create a cementitious bond between the soil particles and the natural ground. The proposed piling method is specifically designed for use in high ground water areas and is generally the preferred method of piling by the EA in contaminated ground as it stops the migration adjacent to the piles. Consequently this method of piling is ideally suited for this site.

Refer to our response to WSCC regarding the foul drainage and the safe means of escape.

In accordance with standard practice water butts are not allowed for in the detailed design of any drainage system as they are always assumed to be full, but they do form part of the SuDS features proposed for the site.

Permeable paving is a standard method of surface water disposal where ground water levels are high. We have used this method at other developments with high ground water, to the satisfaction of the EA. The EA regard the permeable structure as part of the normally required unsaturated zone due to hydrocarbons being removed as water passes through the structure.

Fig 6 is a record of the data collected when Southern testing were on site. The design of the drainage system will not be reliant on any time tag.

Regards

## Andrew Picton | Associate Director



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