



# Angmering Cresswell Park

Central Public Open Space remedials  
SHC-ANG-RR-02



## Design Decision Log

### Central POS (Cresswell Park, Angmering)

Following dialogue with the local planning officers and some residents in relation to the Cresswell Park development (Angmering) CALA Homes SHC agreed to undertake works. Specifically to mitigate flood risk in the south east of the development (refer to RR-01) and mitigate ponding in the central public open space (RR-02) in addition to undertaking a number of other minor remedials.

Reviewing the original design and ground investigation the decision was made that the geology and location was not suited to infiltration. As per the Water Framework Directive hierarchy the next most desirable option is open alternate Sustainable Urban Drainage Systems (SUDs).

After reviewing the guidance listed below swales were deemed to be a sensible approach balancing flood risk mitigation with land take relative to some alternatives. Some of the below guidance is not directly applicable to the location in question but nonetheless offers good perspective.

- CIRIA C753 SUDs Manual (key document)
- NHBC Technical Requirements
- RP11 Swales (aimed at agriculture)
- Building Regulations Part K (aimed at buildings)

The risks flagged were as follows;

1. Access / egress to play equipment.
2. Retained water / potential drowning risk.
3. Slips, trips and falls.

The first was resolved by locating the swales to ensure an access and egress point remained unimpeded by swales.

The second is deemed low as the swales are not designed to retain water permanently and have live outfalls to the wider network. In the event of a severe event and the network was to back up it is extremely unlikely anyone would be using the space given the weather conditions. Furthermore it could only be caused by throttling at the outfalls as the wider network backing up would charge out the road gullies in a flood event due to the lower level.

The third is a residual risk albeit mitigated throughout the design process. A brief summary of UK national guidance is provided on the following page.



- C753 Chapter 17; states a maximum gradient of 1:3 recommended but 1:4 preferred.
- NHBC; protection required if a vertical drop of more than 600mm is present.
- RP11 Swales (aimed at rural) permits batter gradients of 1:3 maximum to a depth of 750mm.
- Building Regulations Part K (aimed at buildings); handrail required on vertical drops of 600mm (dwellings) and 380mm in buildings other than dwellings.

Consideration was given to the preference of 1:4 by CIRIA C753 but declined due to additional land take. C753 Chapter 13 also states the maximum depth is usually between 400-600mm but can be increased if a H&S risk assessment is completed and deems it appropriate. The design does not exceed the recommended 400-600mm depth hence this was not necessary.

Given a batter of 1:3 is proposed for a shallow depth (less than 600mm) and the swales will not retain water, edge protection is deemed not necessary given the low risk. Worth noting that CIRIA C753 Chapter 36 specifically addresses H&S, highlighting our CDM duties to discharge but also covers slips and fall risk management under 36.3.3. Reviewing this there are no significant residual risks to address regarding the central POS at Angmering.

This document discharges requirements under both the Management of Health and Safety at Work Regulations 1999, article 3 and CDM Regulations 2015 to demonstrate due consideration and assessment of risk appropriate to the level of minor works involved.

Kind regards,

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