

From: Laura Gibbons <Laura.Gibbons@arun.gov.uk>
Sent: 03 November 2020 12:08
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Cc: Simon Davis <Simon.Davis@arun.gov.uk>
Subject: Y/72/20/RES

Simon,

The comments below in italics are from our original consultation response on the 22nd September. Our latest comments are shown below in red. We maintain our holding objection at this time.

Engineers Comments Regarding Surface Water Drainage

The application includes details that appear to be attempting to discharge the surface water drainage conditions under this reserved matters application. I have broken my comments down into those relevant to the RM submission and those relevant to a future DOC application.

Reserved Matters Comments

*The below comments are based upon the level of information required to demonstrate that the proposed layout can be adequately drained. **Until the below points are resolved we wish to raise a holding objection to this application.** It is essential to establish if there is adequate space for surface water drainage prior to agreement of site layout. Drainage should be a fundamental consideration in design. Failure to secure a robustly evidenced implementable drainage strategy at this stage will likely unduly prejudice the drainage design and result in proposals failing to meet policy requirements.*

- 1. The checklist has been corrupted as part of the scanning process. However, it is understood from previous dialogue and the adjacent site that all infiltration devices are kept to a maximum of 600mm depth. Yet many areas of permeable paving have a sub-base proposed beyond 600mm depth. Please review or provide evidence that all features are located above peak recorded groundwater level, i.e. put groundwater levels on the drainage plan. The basin has been removed from proposals and replaced with a large blanket crate area. The invert level of the proposed crates is above the peak recorded groundwater level at the two*

neighbouring monitoring locations. Please can the applicant specify the cover depth being provided over these crates.

2. *It is understood that the permeable paving areas will not have a flat sub-base, please provide spot levels on the drainage layout showing finish and formation levels of permeable paving.* Okay.
3. *Please provide impermeable areas plans that clearly show the areas draining to each surface water drainage feature. Preferably provide these in dwg to facilitate paperless review.* Provided.
4. *Please provide network calculations in mdx format to facilitate paperless review due to restrictions on working as a result of Covid.* Provided.
5. *A full review of calculations will be completed once this information is supplied.*
 - a. Please provide cover levels on drainage layout drawings.
 - b. Pipes must achieve 1m/s self-cleansing velocity. There are currently numerous pipes that do not achieve this.
 - c. Half drain time results for lesser events for the permeable paving network must be provided.
 - d. A half drain time of less than 1440minutes must be provided for the 1 in 10 year plus climate change event, with urban creep allowance. This does not appear to be being achieved.
 - e. All permeable paving areas have been modelled with a sub-base depth of 600mm. Yet on plan different road types are specified that have a sub-base depth less than this. Please ensure consistency between drawings and calculations.

DOC comments

We do not recommend discharge of the drainage conditions at this time. A separate application should be made.

1. *Successful resolution of the above reserved matters points.* Awaited.
2. *Please provide two perpendicular site specific cross sections of the proposed infiltration basin. These should show invert level, maximum water level, bank level, construction including connection between sub-base and basin.* Not required- construction drawing of tank provided. Please state minimum cover depths on drawings. Please include bed and surround material on drawings.
3. *Please provide construction detail drawings of pipe bed and surround.* Okay.
4. *Please clearly indicate on plans where the different permeable paving types shown on the construction drawing are proposed.* See comment 5e above.
5. *The maintenance manual will be reviewed once the design has been agreed.* Will be reviewed once design is more finalised.
6. *Further comments are likely once details are further reviewed.*

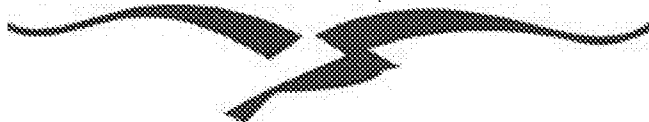
Regards,

Laura Gibbons

Drainage Engineer

Engineering Services

Please note that I work Tuesdays 08:00-16:00 for Arun only.



T: 01903 221374

E: laura.gibbons@arun.gov.uk o [REDACTED]

Arun District Council, Civic Centre, Maltravers Rd, Littlehampton, West Sussex, BN17 5LF