

[REDACTED]

From: planning applications
Sent: 28 February 2020 10:11
To: Data Scanning
Subject: FW: 20/00062/FUL Castle Point and Rochford Adult Community College, Rocheway- additional SUDS information
Attachments: N005JGW - 160953 Technical Note Runoff Calculations.pdf

From: Arwel Evans <Arwel.Evans@Rochford.gov.uk>
Sent: 27 February 2020 10:23
To: planning applications <planning.applications@Rochford.gov.uk>
Subject: FW: 20/00062/FUL Castle Point and Rochford Adult Community College, Rocheway- additional SUDS information

RE: Applicant's Further Submission of Technical Details to be scanned against the case file and Public Access

The attached document is submitted by the applicant to address the objection of Essex C.C SuDS. Can I request that the attached e mail received from the agent and the document is uploaded against the case file and onto public access undertaking any redaction of personal / sensitive information as required.

I thank you for your co-operation.

Arwel Evans
Senior Planning Officer
Planning & Regeneration
Rochford District Council
Tel:01702318037
arwel.evans@rochford.gov.uk

From: [REDACTED]
Sent: 27 February 2020 09:44
To: Arwel Evans <Arwel.Evans@Rochford.gov.uk>
Cc: [REDACTED]
Subject: 20/00062/FUL Castle Point and Rochford Adult Community College, Rocheway- additional SUDS information

Arwel,

Please find attached the technical note requested by the LLFA.

Should you have any queries on the attached, please do not hesitate to get in contact.

Kind Regards
Harriet

BIDWELLS

Harriet Wooler
Planner, Planning

Bidwell House, Trumpington Road, Cambridge. CB2 9LD
DD: [REDACTED] | M: [REDACTED] | [REDACTED]

A CLEAR VIEW A WELL INFORMED APPROACH

Bidwells LLP, a limited liability partnership trading as Bidwells, is registered in England & Wales (registered number OC344553). The registered head office is Bidwell House, Trumpington Road, Cambridge, CB2 9LD, where a list of members is available for inspection.

To read our full disclaimer please click [here](#) To read our Privacy Notice please click [here](#)

Purpose: Technical Note Confirming Runoff Calculations

1.0 Existing Site

Pre-development Brownfield runoff rates

The proposed site is representative of a brownfield site, with the majority of the site 80% identified as impermeable paved car park, and roof areas of the former adult learning centre. In-order to determine the existing discharge rates, the modified rational method has been used for this brownfield site. This states: $Q(l/s) = 3.6I \times C_v \times I \times A$

where:

C_v = Volumetric Runoff Coefficient = 0.84

3.6I = Constant

i = rainfall intensity – (30mm/hr2)

A = Existing site area = 0.3411 ha (hard paved)

A = Existing site area = 0.0811 ha (soft landscaping)

Using the above parameters, the existing runoff rate for the hard paved areas in the 1 in 1 year rainfall event is therefore;

$$Q = 3.6I \times 0.84 \times 30 \times 0.341$$

$$Q = \underline{31.02 \text{ l/s.}}$$

For the soft landscaped areas the runoff rate in the 1 in 1 year rainfall event is;

$$Q = 3.6I \times 0.84 \times 30 \times 0.081$$

$$Q = \underline{7.37 \text{ l/s.}}$$

2.0 Proposed Site

The Proposed development has an approximate 50/50 split of soft landscaped and hard surfaced areas.

The hard surfaced areas consist of adoptable highway, private road and drives and roof areas.

The private paved and roof areas drain to soakaways, the private road is of porous construction and drains to ground.

The remaining hard paving, the adoptable highway is the only area now draining to a piped system outfalling into the river.

The predicted discharge from the highway (0.125 ha) using microdrainage for the 1 in 1 year rainfall event is 13.6 l/s.

The proposed contributing impermeable area has been reduced by 63% over the existing site. This is well in excess of that normally required.

The constraints placed on the design of adoptable highway by Essex CC Highways and the physical size of the site has resulted in the proposed design being the maximum available use of sustainable drainage.