

Design note

Project	Date	By	Reference
Abbey School, Reading	12.12.2019	dp/JY	4072 DNT BGDI [0]

Title
Below Ground Drainage Intent

Introduction

This design note is to be read in conjunction with the following documents :

- Drawing 4072-600

The purpose of this document is to outline the design intent for the drainage prior to receiving the results of the CCTV survey and geotechnical investigation.

Existing foul and surface water drainage

Although no intrusive survey has yet been carried out it is assumed that the existing below ground drainage is served by separate systems. A CCTV survey of the existing below ground drainage systems should be carried out. This will indicate how the existing facilities and rainwater downpipes are connected to the existing network. A CCTV survey should also indicate any defects such as damages or blockages and their need to be repaired.

It is assumed that the existing foul water is discharged to the north of the site into the local water authority asset.

It is unclear how the existing surface water is discharged. There is a possibility of some localised soakaways and there is a presence of a local water authority asset to the north east of the site.

Current topographical survey information indicates manhole locations although drain runs below building footprint require full confirmation by survey.

Foul water proposals

The existing drainage system may need to be adapted to suit connection points from the proposed works. Additional facilities are proposed and these will require connection to the existing.

The existing systems will need to be assessed for any increase in discharge rates.

It is assumed that the increase in peak foul rate is negligible at this point as Momentum have not been given the proposed discharge rates by the MEP consultants.

Surface water proposals

There will be an increase in surface water runoff from additional impermeable roof structures.

Subject to site infiltration tests, a soakaway located beneath the new parking area should be considered as the preferred option for surface water disposal.

An alternative option would be to discharge to the local water asset via flow controlled attenuation.

Discharge rate to the sewer will require a pre-development enquiry made to local water authority at the next stage of the project to clarify if this is an acceptable approach.

Rainwater downpipes will require co-ordination from the new roof structures in order to re-connect into the existing system. The MEP consultants should advise on this element of the design and co-ordinate with the below ground drainage.

Recommendations

It is recommended the following work will be required during the next stage of the project :

- Further survey work should be carried out to establish the current condition, layout and discharge points.
- Confirmation of flow rates from MEP consultants.
- Confirmation of all foul discharge points and rainwater downpipes.
- Submission of proposals in order to obtain relevant local authority consents.