

Introduction

The proposed development received planning consent reference 128960/FO/2020 with a number of conditions attached to the consent, including Condition 12(a) that states:

12. The development hereby approved shall not be occupied until:

- (a) Evidence demonstrating maximized consideration of green SuDS components has been submitted to and approved by the City Council as Local Planning Authority

Proposed Development

The proposed development comprises a new building, rear playground, and additional permeable paved car parking within the existing Connell Co-op College grounds. Undeveloped areas are to remain grassed to provide amenity to the students at the college. The local ground conditions are impermeable, so it was not possible for the SuDS design to include any large-scale surface infiltration features such as a landscaped infiltration basin.

A large proportion of the available site area was required to fulfil the college building development requirements, so it was not possible to include any open surface water features with associated aquatic landscaping due to the restricted amount of space.

The use of a green roof was considered by the client but was determined not to be viable for this proposed infill development. The increased roof loading would have required deeper roof beams that would have affected either the internal ceiling height or the overall height of the building. The larger foundations and additional steel would have impacted on the project construction budget and a green roof would have increased the college's future maintenance costs.

The main SuDS design features are therefore provided by the external permeable paving areas assisted with catchpit and filter drains to attenuate the flows within the site and to provide sufficient filtration to enable suitable water quality discharge.

Additional Green SuDS Proposals

Following the comments received from the LLFA via the Planning Authority, the proposals have been further investigated together with the project landscape architect for the possible use of additional bio-retentive green SuDS components. It has been determined that the following measures may be added and/or confirmed for the development.

1. The proposed scheme includes the transplant of 4No apple trees set into new tree pits.
2. An increased total of 22No new trees will provide a more varied landscape.
3. Space has been found for a new rain garden on the north-east elevation of the new building and this will be fed with 2No rainwater downpipes from the building.

These green SuDS components can offer marginal benefits including transpiration, tree canopy interception and encourage some ground infiltration around root growth but are not suitable to manage or control any larger-scale surface water run-off from the site.

Given the restricted space available, and the remaining grass areas that the college desire to remain as grass, these green SuDS components will maximise the green use of the available space. The proposed SuDS drainage details and soft landscape plan have been amended to suit and are attached for reference.

Amended Design Drawings

20-315-DR-001-03: Preliminary Drainage Layout

20-315-DR-004-01: Preliminary Drainage Details 2

1235-01-E: Soft Works