



- Legend**
- Site Boundary
 - Proposed Storm Drainage
 - Proposed Foul Drainage
 - - - Proposed Surface Water Diversion
 - - - Proposed Foul Drainage Diversion
 - Proposed Permeable Paving
 - Proposed Raingarden
 - Proposed Cellular Storage
 - Proposed Linear Drainage Channel
 - Proposed Rainwater Harvesting Tank
 - Proposed Green Roof
 - Proposed Perforated Pipe (Raingarden and Filter Drain Underdrains)
 - ⊗ Proposed Flow Control

- Notes**
1. Do not scale from this drawing.
 2. This drawing is for planning and subject to full SAB approval.
 3. The topographic survey detail shown on this drawing is based on a survey carried out by 'HSP Consulting' in July 2020 and updated in February 2024. No responsibility can be taken for the accuracy of this survey.
 4. Internal foul drainage not shown. To be coordinated in future design stage.
 5. Drainage and attenuation has been designed based on attenuating surface water run-off from return periods up to 1:100 year event + 40% climate change to an agreed discharge rate with DCWW.
 6. Proposed sewer diversions shown will require agreement from DCWW for adopted foul and surface water sewers, and VoG for culvert.

Runoff generated in carpark to be collected and treated by a combination of permeable paving, filter drains, raingardens and linear drainage channels (outfalling to SuDS features)

Linear drainage channel to outfall to raingarden at surface level

Extended drainage layer under raingarden to provide attenuation

Indicative location of downpipe from proposed PV canopy, outfalls to raingarden. Flow spreader or erosion control required for downpipe. To be coordinated in future design stage

Indicative PV canopy outline

Proposed diversion route of existing combined gravity sewer

Proposed filter drain

Proposed 50m³ rainwater harvesting tank. Manhole arrangement to be confirmed with manufacturer. Pedestrian loading only

Proposed attenuation cells, minimum volume 211m³. Cell thickness = 1.5m. Minimum CL = 8.6m, IL = 6.5m AOD. Pedestrian loading only

Proposed flow control chamber

Proposed foul outfall to DCWW combined sewer. New chamber to be installed upstream of manhole ST11671303

Indicative route of proposed combined sewer diversion due to building being located within easement. Further survey to be undertaken to confirm location and depth of sewer. To be discussed with DCWW.

Proposed surface water outfall to existing DCWW storm sewer. Maximum proposed flow rate 50 l/s, see note 4

Permeable paved parking bay locations limited by underground utility locations and easements. Further permeable paving could be added if utilities are diverted or proved not to be located as per paper records

Surface water runoff from sprinkler tank compound to drain to raingarden

Foul connection for sprinkler tank drain down. Drain down activities to be undertaken outside of peak hours

Linear drainage channel to outfall to raingarden at surface level

Linear drainage channel to outfall to raingarden at surface level

Proposed surface water sewer diversion. Assumed constant gradient along diverted route

Linear drainage channel to outfall to raingarden at surface level

External paved area outfalls to raingarden

Runoff from northeastern half of roof outfalls raingardens on building perimeter

Runoff from southwestern half of roof outfalls to rainwater harvesting tank

Rainwater downpipes from terrace to outfall to linear drainage channel via ACO Hexdrain or equivalent.

End of proposed diversion shown indicatively. Further investigation required to determine location and condition of existing DCWW manhole ref. ST1167319. CCTV survey indicates that existing manhole in Ffordd y Milenwm is buried and partially collapsed requiring repair

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|---------------------|----------|----|------|------|
| P02 | 25/03/24 | CL | IA | DL |
| Issued for Planning | | | | |
| P01 | 12/03/24 | CL | IA | DL |
| Issued for Planning | | | | |
| Issue | Date | By | Chkd | Appd |

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Client
WEPCo
Cardiff and Vale Colleges

Project Title
Barry Waterfront Campus (BWC)

Drawing Title
Proposed Drainage Layout

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|-------------|--------------------------------------|------|------------|
| Scale at A1 | 1:500 | Role | Civils |
| Suitability | S3 - Suitable for Review and Comment | | |
| Job No | 287279 | Rev | P02 |
| Drawing No | SK002 - Drainage Schematic | | |