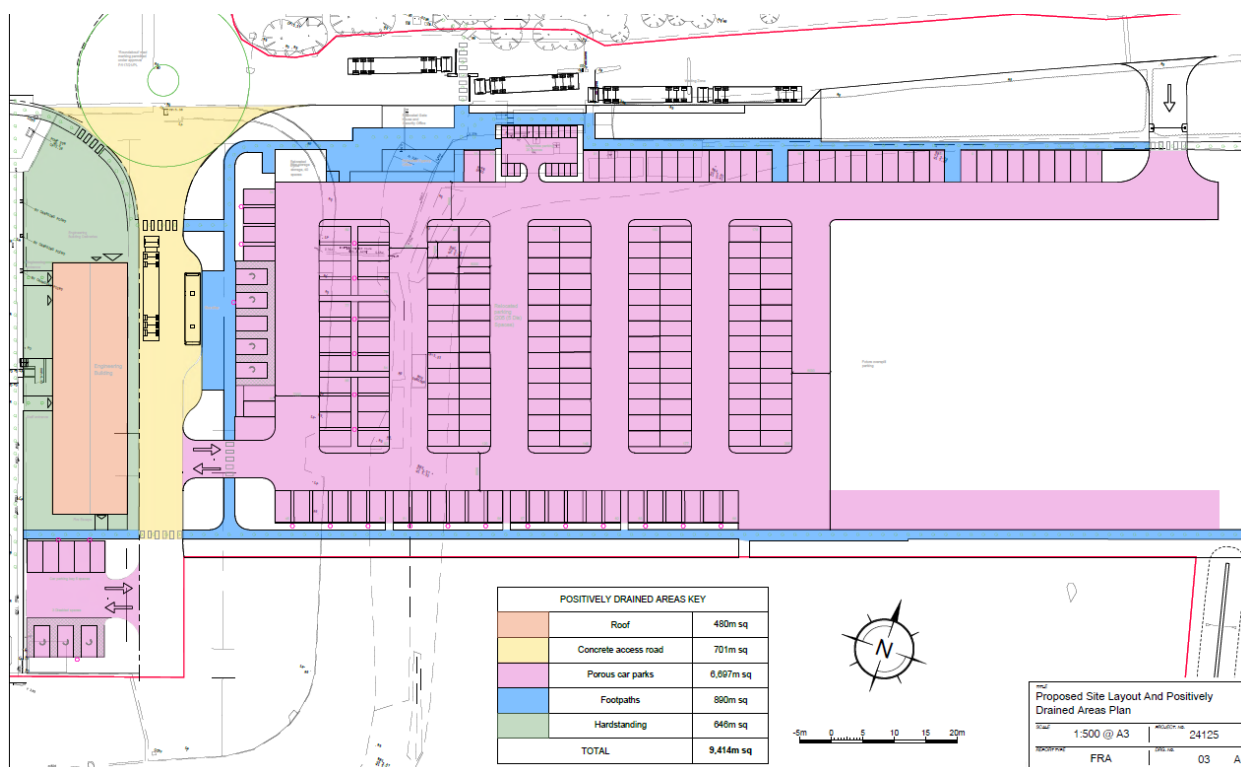


Interception Drainage Note

Project	Sefter Farm Engineering Block
Project Number	24125

1 Interception Drainage

- 1.1 The site investigation has proved it is unviable to infiltrate to ground due to the high winter groundwater levels which have been recorded at shallow depth requiring any proposed storage to be lined to prevent groundwater ingress.
- 1.2 To ensure at least the first 5mm of rainfall for the majority of rainfall events do not result in runoff from the site to the receiving watercourse all surface water from the site is proposed to be reused for irrigation of the wider farm site.
- 1.3 CIRIA 753 The SuDS Manual notes at Table 24.6 'All permeable pavements, whether lined or not, can be deemed to comply, provided there is no extra area drained to the permeable pavement'.
- 1.4 The extract below details the drained area as submitted. The Pink (car park and access) and Blue (footway) areas are permeable pavements. The Yellow (access road), Green (hardstanding) and Orange (roof) area also drain through the permeable paving.



- 1.5 Arun Engineers have confirmed the permeable paved areas (Pink and Blue) above are acceptable to meet interception for those self drained areas.

- 1.6 The Access Road, Hardstanding and Roof areas all drain through the permeable paving. 5mm of rainfall from these areas generates $(701 + 646 + 480) \times 0.005 = 9.135\text{m}^3$ of surface water.
- 1.7 All surface water from the site is captured and reused for irrigation as noted in section 6.2.3 of the Flood Risk Assessment and Drainage Statement v 1.1.
- 1.8 Surface water from the conveyance swale will be discharged to the existing reservoir where water is reused and managed as part of the wider farm sites irrigation system.
- 1.9 The reservoir is currently fed by a borehole extracting 20m^3 per day and also fed from the other irrigation reservoirs within the wider farm site and this is managed on a daily basis. The aim is to reduce reliance on the groundwater feed as that supply is mildly saline.
- 1.10 The surface water collected from the positive drainage system will be pumped to the reservoir and replace as far as possible the 20m^3 per day extracted from the borehole supply.
- 1.11 There is therefore always a greater daily demand than generated by 5mm of rainfall on the non permeable areas of the site.
- 1.12 All surface water collected by the positive drainage systems is to be collected and stored within the reservoir for irrigation with no water leaving the site on the majority of rainfall events.
- 1.13 The first 5mm of rainfall for the majority of rainfall events will not leave the site and interception drainage criteria is met.