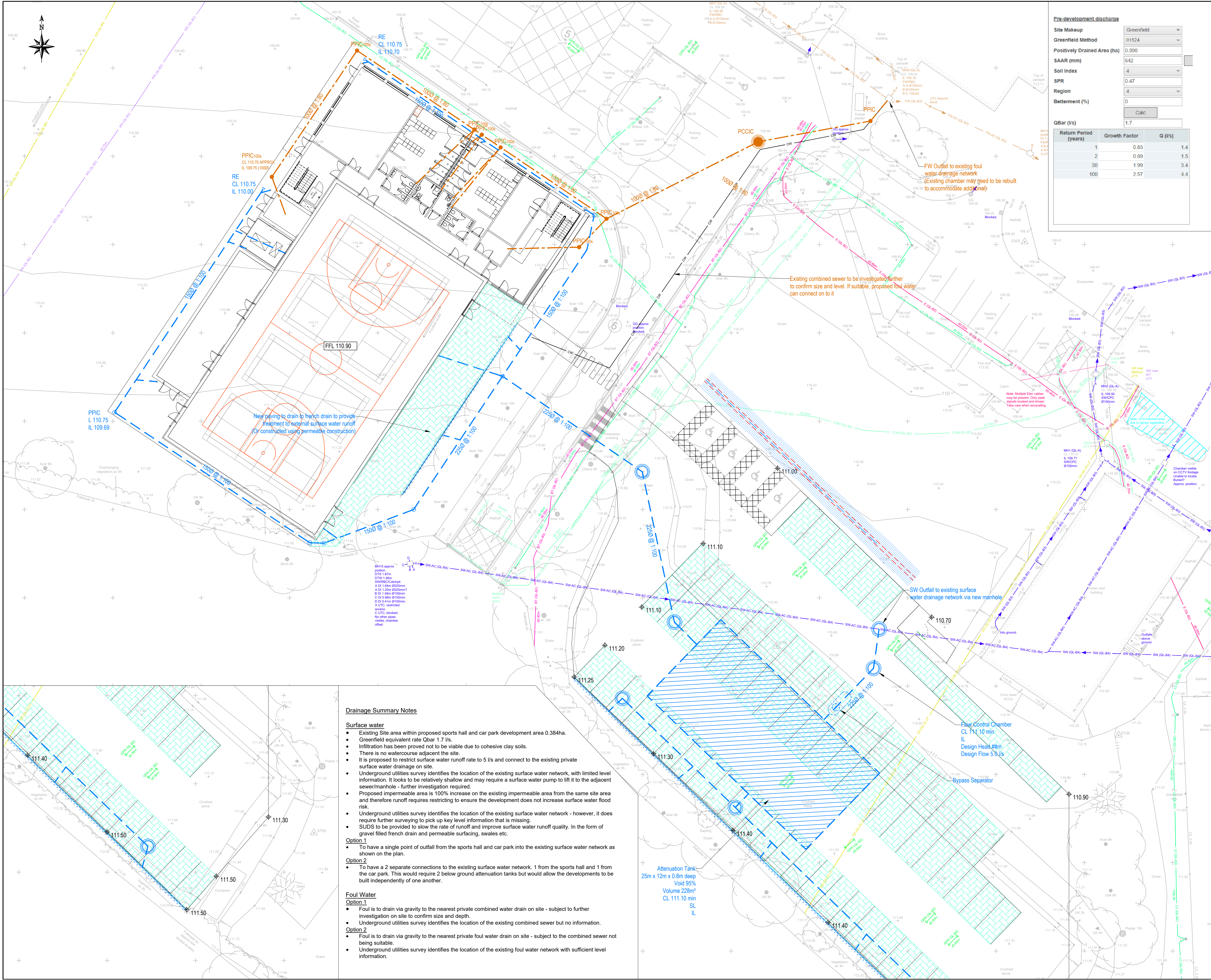




**Pre-development discharge**

Site Makeup: Greenfield  
Greenfield Method: IH124  
Positively Drained Area (ha): 0.390  
SAAR (mm): 642  
Soil Index: 4  
SPR: 0.47  
Region: 4  
Betterment (%): 0

QBar (l/s): 1.7

| Return Period (years) | Growth Factor | Q (l/s) |
|-----------------------|---------------|---------|
| 1                     | 0.83          | 1.4     |
| 2                     | 0.89          | 1.5     |
| 30                    | 1.99          | 3.4     |
| 100                   | 2.57          | 4.4     |

CDM Regulations:  
The reader is notified that CDM regulations may apply to the contract, and that appropriate Health & Safety Risk Assessments and Method Statements will be needed to comply with the Regulations where applicable.

It is the Client's responsibility to make suitable arrangements for managing their project, enabling those carrying it out to manage health and safety risks in a proportionate way.

It is the Client's responsibility in appointing (IN WRITING) as soon as possible, appropriately experienced Contractors and Designers to the project (Including the Principal Designer and Principal Contractor) to carry out tasks as required under the Contract.

Further guidance on CDM Regulations can be obtained from the Health & Safety Executives website: [www.hse.gov.uk/cis41.pdf](http://www.hse.gov.uk/cis41.pdf).

**Notes:**

Proposed finished floor level: FFL 105.660

Proposed external level: 85.90

Proposed surface gradient: 1:30

Proposed private surface water drain: 1500 @ 1:100

Proposed private foul water drain: 1500 @ 1:100

Proposed Private Surface Water Drain (Rodding eye, Mini access chamber, PPIC with 1000 pipework): RE, MAC, PPIC100s

Proposed Private Surface Water Drain (PPIC with 1500 main runs, reduced access chamber PPIC, PCCIC): PPIC150s, RAPPIC

Proposed private geocellular storage crates

Proposed private french drain: SW MH# D400 12000 PCC CL # (1500)

Proposed private surface water gully: G

Proposed private permeable block paving

Proposed private oil separator with high level alarm and vent (indicative turret arrangement)

Proposed private dry swale

Proposed Private Foul Water Drain (Mini access chamber, PPIC with 1000 pipework): MAC, PPIC100s

Proposed Private Foul Water Drain (PPIC150s RAPPIC, PCCIC, FW MH# D400 12000 PCC)

Rev: Date: Comments: By:



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Client: S2E  
Project: REDMOOR ACCADAMY SPORTS HALL

Title: DRAINAGE STRATEGY

|                |                |                     |                          |
|----------------|----------------|---------------------|--------------------------|
| Drawn By: CN   | Sheet Size: A1 | Status: PRELIMINARY | Date: 11.08.23           |
| Checked By: GB | Scale: 1:200   | Revision: -         | Drawing No: 2023_238_301 |

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**Drainage Summary Notes**

**Surface water**

- Existing Site area within proposed sports hall and car park development area 0.384ha.
- Greenfield equivalent rate Qbar 1.7 l/s.
- Infiltration has been proved not to be viable due to cohesive clay soils.
- There is no watercourse adjacent the site.
- It is proposed to restrict surface water runoff rate to 5 l/s and connect to the existing private surface water drainage on site.
- Underground utilities survey identifies the location of the existing surface water network, with limited level information. It looks to be relatively shallow and may require a surface water pump to lift it to the adjacent sewer/manhole - further investigation required.
- Proposed impermeable area is 100% increase on the existing impermeable area from the same site area and therefore runoff requires restricting to ensure the development does not increase surface water flood risk.
- Underground utilities survey identifies the location of the existing surface water network - however, it does require further surveying to pick up key level information that is missing.
- SUDS to be provided to slow the rate of runoff and improve surface water runoff quality. In the form of gravel filled french drain and permeable surfacing, swales etc.

**Option 1**

- To have a single point of outfall from the sports hall and car park into the existing surface water network as shown on the plan.

**Option 2**

- To have a 2 separate connections to the existing surface water network. 1 from the sports hall and 1 from the car park. This would require 2 below ground attenuation tanks but would allow the developments to be built independently of one another.

**Foul Water**

**Option 1**

- Foul is to drain via gravity to the nearest private combined water drain on site - subject to further investigation on site to confirm size and depth.
- Underground utilities survey identifies the location of the existing combined sewer but no information.

**Option 2**

- Foul is to drain via gravity to the nearest private foul water drain on site - subject to the combined sewer not being suitable.
- Underground utilities survey identifies the location of the existing foul water network with sufficient level information.

Attenuation Tank  
25m x 12m x 0.8m deep  
Void 95%  
Volume 228m³  
CL 111.10 min  
SL  
IL