

POROUS PAVING DESIGN

Porous pavements have been designed as storage pavements with controlled outfalls to new drainage network. Storage in the sub-base layer has been calculated as follows:

Total area of porous pavement sub-base x depth (400mm) x 30% porosity

Porous Pavement Storage:

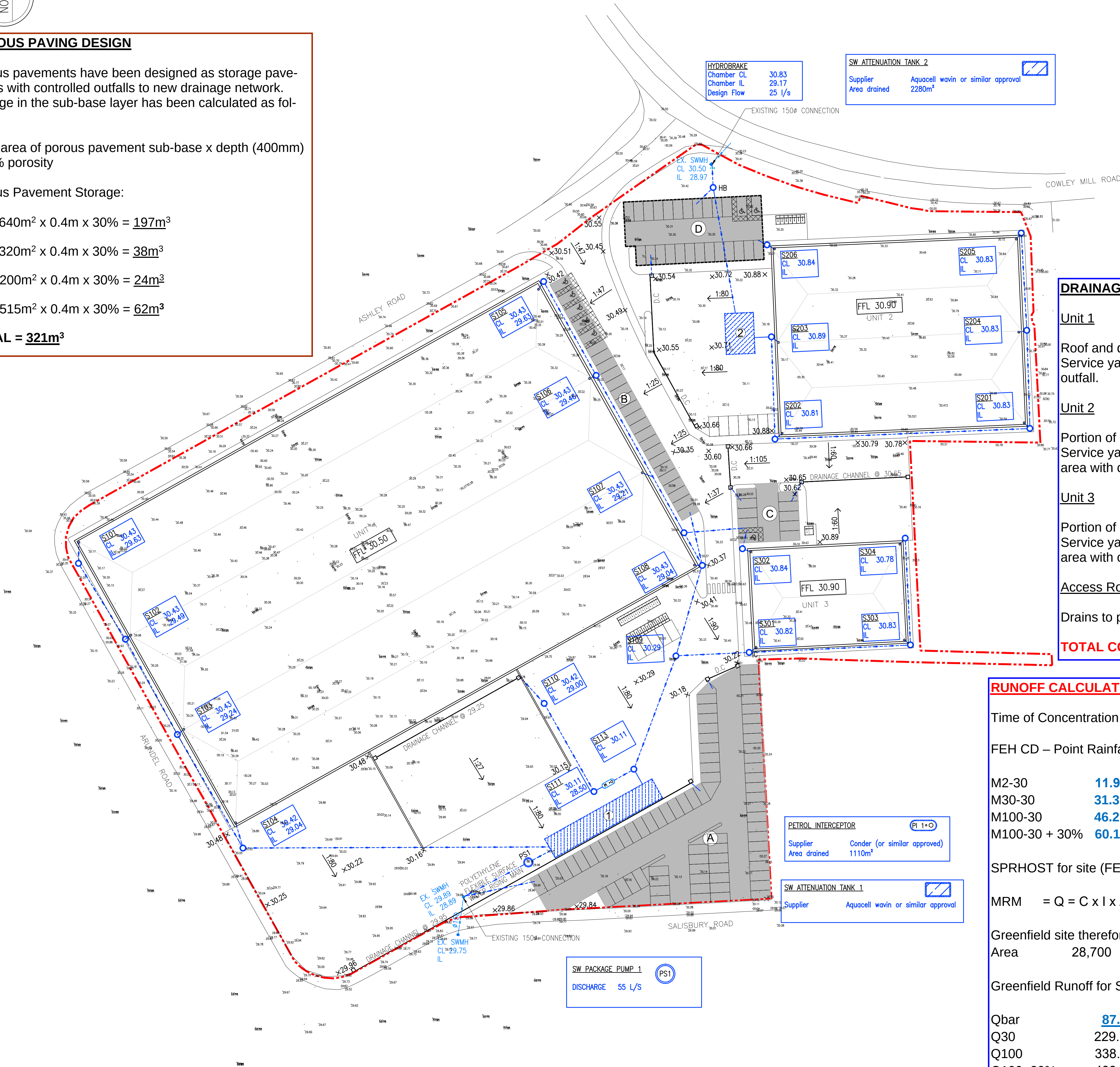
$A = 1640\text{m}^2 \times 0.4\text{m} \times 30\% = 197\text{m}^3$

$B = 320\text{m}^2 \times 0.4\text{m} \times 30\% = 38\text{m}^3$

$C = 200\text{m}^2 \times 0.4\text{m} \times 30\% = 24\text{m}^3$

$D = 515\text{m}^2 \times 0.4\text{m} \times 30\% = 62\text{m}^3$

TOTAL = 321m³



NOTE:
1. FOR SITE RUN OFF AND FLOOD RISK CALCULATIONS PLEASE REFER FRA REPORT No: 15-129_001R-FRA_Ashley Rd, Uxbridge-rev A

- LEGEND**
- New surface water run
 - S101 — Surface Water Manhole
 - PI 1+0 — Petrol Interceptor.
 - Gatic Castslot Drainage channel or similar With Roddable access chamber
 - Site boundary
 - rwp — Rain water down pipe
 - + 30.03 — Existing levels
 - + 30.15 — Proposed levels
 - Porous pavement

DRAINAGE STRATEGY

- Unit 1**
Roof and dock leveller area discharges to pipe network and storage tank 1 with PS outfall
Service yard and parking drains to porous paving A located under parking area with controlled outfall.
- Unit 2**
Portion of roof, discharges to pipe network and storage tank 2 with flow control outfall
Service yard, parking and small portion of roof drains to porous paving D located under parking area with controlled outfall.
- Unit 3**
Portion of roof, discharges to pipe network and storage tank 1.
Service yard, parking and small portion of roof drains to porous paving C located under parking area with controlled outfall.
- Access Road**
Drains to porous paving B with controlled outfall.

TOTAL CONTROLLED DISCHARGE FROM SITE = 80 L/s

RUNOFF CALCULATION

Time of Concentration relevant for this size site and slope 30min

FEH CD – Point Rainfall at Trimite Site (TQ 047 831)

M2-30	11.9mm
M30-30	31.3mm
M100-30	46.2mm
M100-30 + 30%	60.1mm

SPRHOST for site (FEH) **45.9**

$MRM = Q = C \times I \times A$

Greenfield site therefore **C = SPRHOST** (45.9%)

Area 28,700 m²

Greenfield Runoff for Site

Qbar	87.16 L/s
Q30	229.25 L/s
Q100	338.39 L/s
Q100+30%	439.90 L/s

PRELIMINARY

P1	NM	14.04.16	PRELIMINARY ISSUE
Rev	Tech	Date	Description
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Bradbrook			
Client STRETFORD LTD			
Job site TIRMITE UXBRIDGE			
Drawing title DRAINAGE STRATEGY			
Purpose of issue Information Preliminary Approval Tender Construction Record Copy			
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