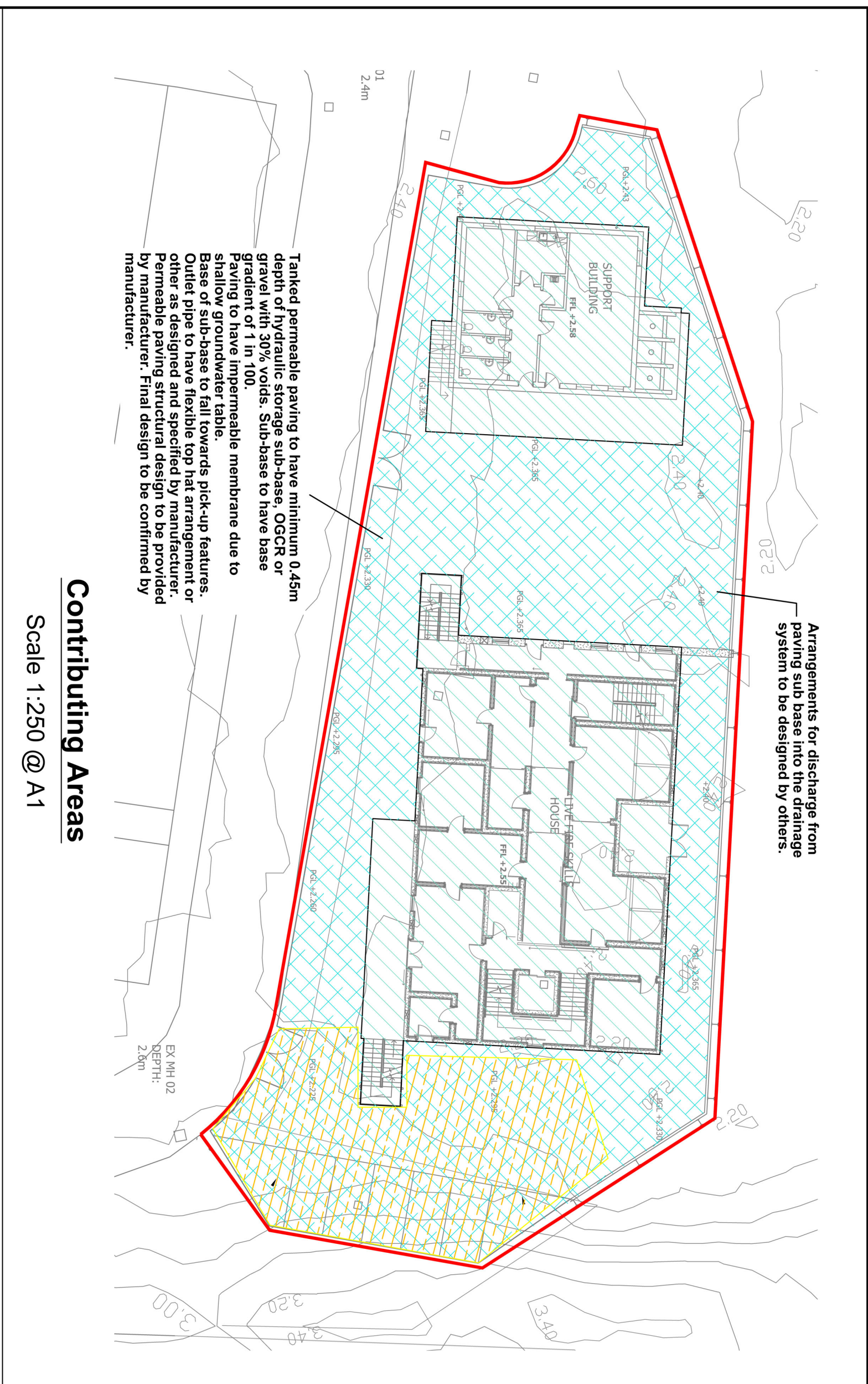




Arrangements for discharge from paving sub base into the drainage system to be designed by others.

Tanked permeable paving to have minimum 0.45m depth of hydraulic storage sub-base. OGCR or gravel with 3% voids. Sub-base to have base gradient of 1 in 100.

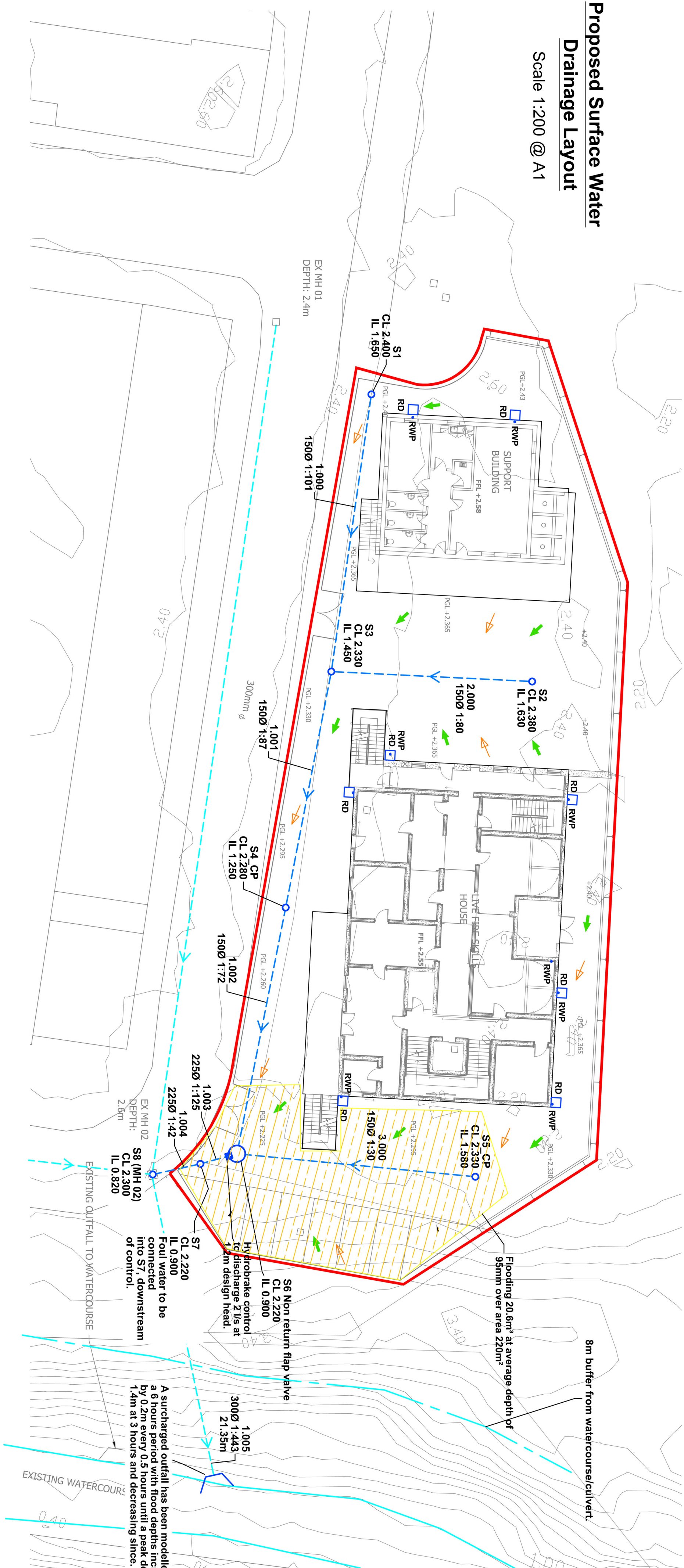
Paving to have impermeable membrane due to shallow groundwater table.

Outer pile of sub-base to fall towards pick-up features. Buttle pile to have flexible top lid arrangement or other as designed and specified by manufacturer.

Permeable paving structural design to be provided by manufacturer. Final design to be confirmed by manufacturer.

Contributing Areas

Scale 1:250 @ A1



Proposed Surface Water Drainage Layout

Scale 1:200 @ A1

Key:

Symbol	Meaning
	Rain water pipe
	Watercourse/culvert
	Watercourse/culvert 8m buffer
	Flooding extent
	Reference number
	Cover level
	Invert level
	Outfall
	Overland flow routes
	Spot level, assumed
	Catchpit

Key:

Permeable paving (Type
non infiltrating) (824m²)

Building roof (604m²)

Pollution hazard indices (Table 26.2 SUDS Manual)				
Land Use	Pollution hazard level	Total suspended solids	Metals	Hydrocarbons
Non residential roofs	Low	0.3	0.2	0.05
Individual property driveways, residential car parks, low traffic roads	Low	0.5	0.4	0.4

Indicative SUDS mitigation indices (Table 26.4 SUDS Manual)			
SUDS component	Total suspended solids	Metals	Hydrocarbons
Permeable paving	0.7	0.6	0.7
Total	0.7	0.6	0.7

Drainage Strategy:

- Design based on strategy supplied by Adkins.
- Drainage strategy consists of permeable paving and an attenuation tank with controlled discharge to an existing surface water manhole which then discharges via an existing connection into the nearby watercourse.
- Permeable paving will discharge via perforated pick up drains or top hat type outlets. Base of storage sub-base to fall towards pick up / discharge points, all as manufacturer's design.
- Surface water will discharge to watercourse via existing outfall connected to the existing MH10 manhole, subject to agreement by sewer/water authority and third party landowners.
- Discharge rate will be controlled by hydrobrak to 2 l/s, subject to approval.

Notes.

2. All inquiries are in consultation with other relevant parties.
3. The drawing is the final in compliance with all other relevant drawings.
4. All drawings to be submitted to SSS Design and Construction/Guidance, current building standards and building regulations and other relevant standards.
5. The drawings shall be submitted to SSS Design and Construction drawings shall be confirmed by architect / M&E engineer, internal S&E and other internal focal points to be designated by M&E engineer. Rain water drains to be confirmed by SSS Design and Construction.
6. Contractor to confirm decisions of designing by M&E engineer.
7. Commitment on site and working to any necessary drawings.
8. All special/detailed drawings components such as illumination fixtures, flow control and pumping stations to be designed and confirmed by SSS Design and Construction.
9. Cover levels to be confirmed by landscape architect. Cover levels and floor levels are in meters unless otherwise stated / cover levels change from assumed their drainage level to ground level.
10. To be confirmed by SSS Design and Construction to extreme events.
11. Assumed their drains not required at building thresholds, to be confirmed by external waste consultant.
12. To be confirmed by SSS Design and Construction to minimum fall of 1:350 unless otherwise stated.
13. Permissible paving and outlets to be a manufacturer design and recommendations.
14. The drawing shall influence the storage capacity of the permissible paving and the position of the drainage rack up fixtures. When proposed ground levels are complete the sufficient storage is provided and that the drainage rack up features are positioned correctly.
15. Permissible paving sub-base should show the drainage layout and the drainage point.
16. Minimum cover to thermoplastic pipe in garden or patio areas 60mm in driveway 100mm in road 120mm otherwise as shown.
17. As shown, cover for drains 415 for garden and patio 610 for driveway, 650 for light fittings or roads or similar pavement surfaces.
18. Drainage has previously been developed on existing drainage.
19. Discharge to be in accordance with a surveyed drain has been confirmed.
20. Design is to be planning purposes only and not for construction. Design should be confirmed prior to construction to ensure all available information is considered.
21. Design should be reviewed in light of any additional information or a variation or otherwise at any assumptions.

Signed on by:
Mehrdad Bahari, PhD, CEng, MICE
For Construction
13/01/2023

Rev	Date	Detail	Drwn	Chkd
P02	16.01.23	amended position of text	DS	MG
P01	13.01.23	Initial Issue	DS	MG

Consultants Ltd.
Surveying, Administration & Management
for the Construction Industry

Specialist Firearms Command
SCO19, Wharf Road, Gravesend

Drawin

Proposed Surface Water Drainage Layout

Geosmart
Information

Suite 9-11, 1st Floor, Old Bank Buildings, Bellstone, Shrewsbury, SY1 1HU

DS	MG	Jan. 2023
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Scale:	Status:
As shown	Preliminary

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