

[illegible]

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, ENGINEERS AND SPECIALIST DRAWINGS AND SPECIFICATIONS
2. DO NOT SCALE FROM THIS DRAWING IN EITHER PAPER OR DIGITAL FORM. USE WRITTEN DIMENSIONS ONLY.

— FW — FOUL WATER DRAIN
 — SW — COMBINED WATER DRAIN (FOUL AND SURFACE WATER)
 — SW — SURFACE WATER DRAIN

Rev	Date	Description	Drawn	Check
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Drawing Status
PRELIMINARY

Title	Engineer	SR
APPROXIMATE EXISTING DRAINAGE		
Project No		200996

Drawing No **200996-SK-001**

RAINWATER HARVESTING TANK (PUMPED)

COMMON GARDEN HOSE = 0.7 l/s
1m² OF LAWN REQUIRES APPROXIMATELY 20 LITRES EVERY 10 DAYS - CHAPEL LAWN IS APPROXIAMTELY 16,500m²

CAPACITY OF 10m x 10m TANK SHOWN = 100m³ (100,000 litres)

TANKS SHOWN PROVIDE:
- APPROXIMATELY 3 WORKING DAYS OF IRRIGATION THROUGH A STANDARD GARDEN HOSE
- ENOUGH WATER FOR 5000m², OR APPROXIMATELY A THIRD OF THE CHAPEL'S LAWN

TIME TO REFILL TANK

THE WORST STORM EVERY YEAR (1 IN 1 YEAR STORM) WOULD REFILL THE TANK IN APPROX 40 MINUTES.

AN AVERAGE STORM WOULD REFILL THE TANK BY 14,972 LITRES. IF CAPTURING ALL RAINWATER THE TANK WOULD REFILL 22 TIMES A YEAR.

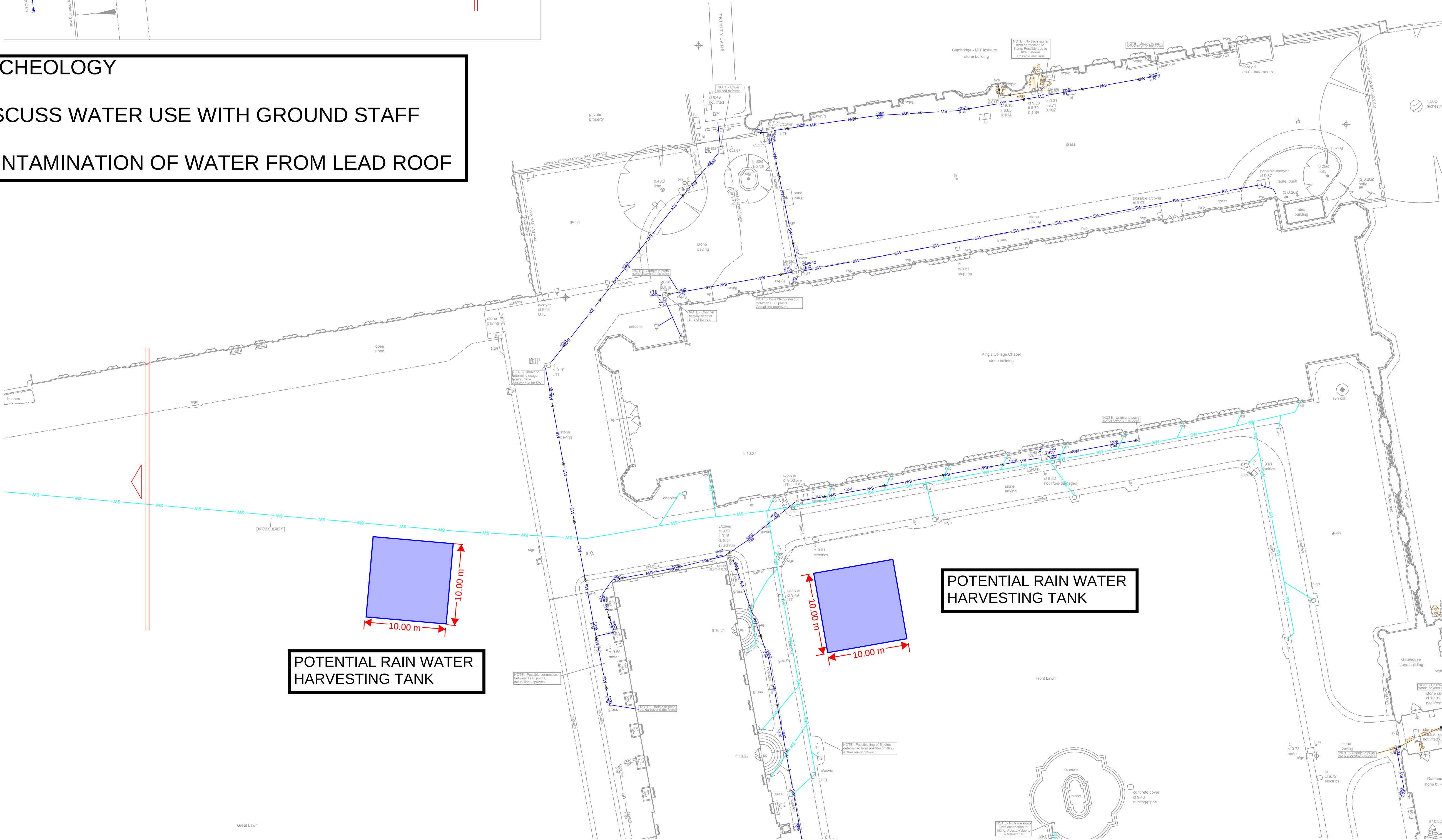
GENERAL NOTES

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LEGEND

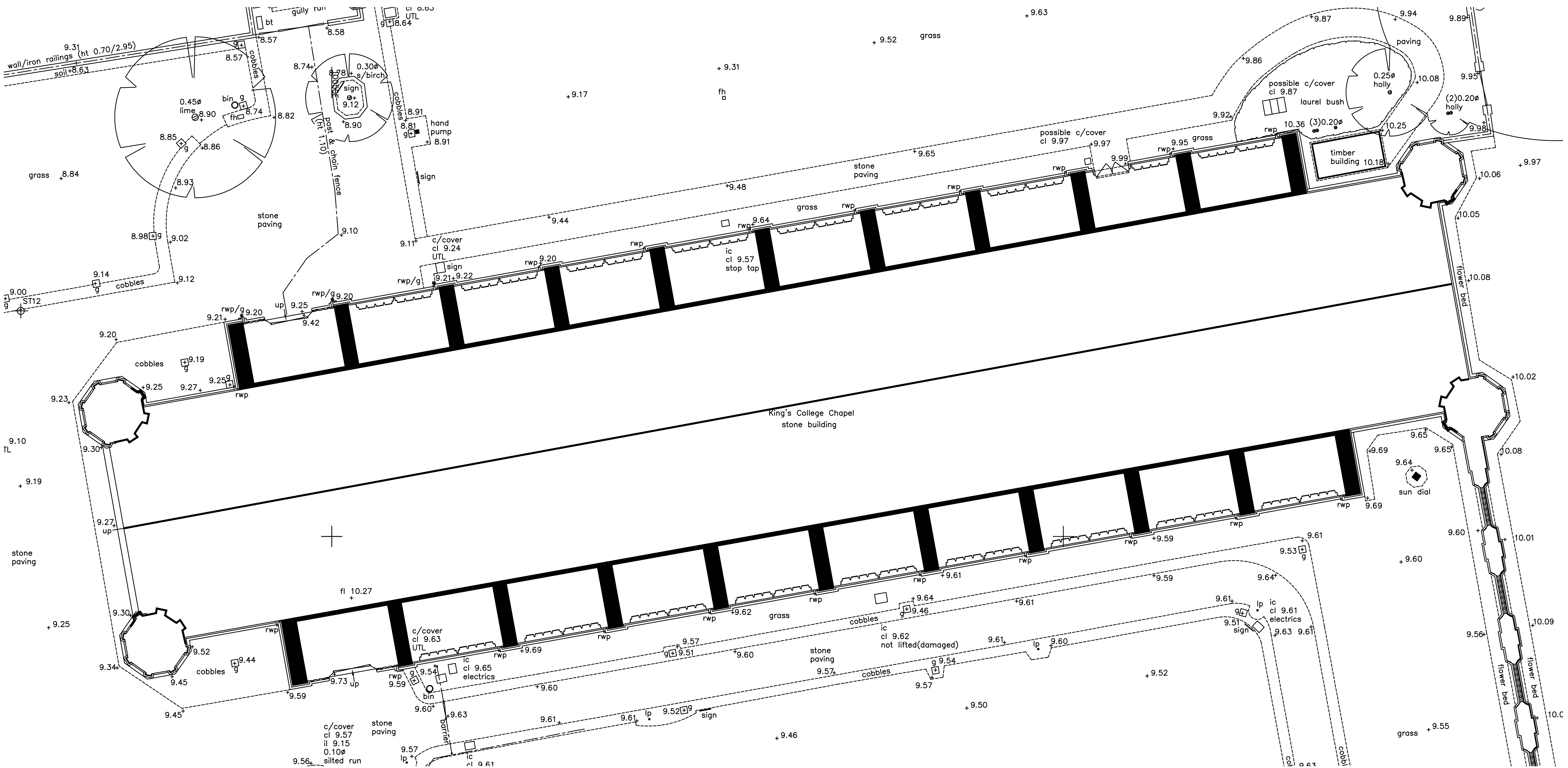
- FW FOUL WATER DRAIN
- SW COMBINED WATER DRAIN (FOUL AND SURFACE WATER)
- SW SURFACE WATER DRAIN

ARCHEOLOGY
DISCUSS WATER USE WITH GROUND STAFF
CONTAMINATION OF WATER FROM LEAD ROOF



NOT FOR CONSTRUCTION

Rev	Date	Description	Drawn	Check
conisbee Consulting Structural Engineers Consulting Civil Engineers London • Cambridge • Norwich 1-5 Offord St London N1 1DH Telephone 020 7700 6666 www.conisbee.co.uk				
Drawing Status PRELIMINARY				
Project KINGS COLLEGE CHAPEL CAMBRIDGE			Date JUNE 21	
Title APPROXIMATE EXISTING DRAINAGE			Scale	
Drawing No 200996-SK-001			Drawn SR	
			Engineer SR	
			Project No 200996	
			Revision P1	



30/07/21
Kings College Chapel

TOTAL ROOF AREA: 2250m²
22 RWP FROM HGH ROOF TO SIDE VAULT ROOFS
22 RWPs FROM SIDE VAULTS TO GROUND
CLIMATE CHANGE ALLOWANCE = 40% RAINFALL

EXISTING RWP FROM SIDE VAULTS TO GROUND
- UNKNOWN DAMETER CIRCULAR RWP (100mm ASSUMED) WITHIN 150mm SQUARE CASING
MAXIMUM CAPACITY: 10.7 l/sec

EXISTING RWP FROM HIGH ROOF TO SIDE VAULT ROOFS
- 150mm SQUARE RWP
MAXIMUM CAPCITY: 31.0 l/sec

APPROXIMATELY 100m² CATCHMENT
1 in 1 YEAR RUNOFF: 2.1l/s
1 in 5 YEAR RUNOFF: 3.5 l/s
1 in 50 YEAR RUNOFF: 5.5 l/s
w/ CLIMATE CHANGE: 7.7 l/s
1 in 500 YEAR RUNOFF: **8.8 l/s**
MAXIMUM EVENT: **16.0 l/s**

APPROXIMATELY 95m² CATCHMENT

SIDE VAULT AREA: 350m²

HIGH ROOF AREA: 1,550m²

SIDE VAULT AREA: 350m²

APPROXIMATELY 138m² CATCHMENT
RWP CAPACITY: 10.70 l/s
1 in 1 YEAR RUNOFF: 2.90 l/s
w/ CLIMATE CHANGE: 4.06 l/s
1 in 5 YEAR RUNOFF: 4.90 l/s
w/ CLIMATE CHANGE: 6.90 l/s
1 in 50 YEAR RUNOFF: 7.60 l/s
w/ CLIMATE CHANGE: **10.70 l/s**
1 in 500 YEAR RUNOFF: **12.20 l/s**
w/ CLIMATE CHANGE: **17.10 l/s**
MAXIMUM EVENT: **22.10 l/s**
w/ CLIMATE CHANGE: **31.00 l/s**

1 in 500 YEAR (60 MINUTE STORM)
RUNOFF FROM HIGH ROOF: 136 l/sec
FROM TOTAL ROOF: 198 l/sec

1 in 1 YEAR (60 MINUTE STORM)
RUNOFF FROM HIGH ROOF: 34 l/sec
FROM TOTAL ROOF: 50 l/sec

1 in 5 YEAR (60 MINUTE STORM)
RUNOFF FROM HIGH ROOF: 56 l/sec
FROM TOTAL ROOF: 81 l/sec

1 in 50 YEAR (60 MINUTE STORM)
RUNOFF FROM HIGH ROOF: 87 l/sec
FROM TOTAL ROOF: 126 l/sec

MAXIMUM EVENT (60 MINUTE STORM)
RUNOFF FROM HIGH ROOF: 248 l/sec
FROM TOTAL ROOF: 360 l/sec