

FOR CONTINUATION SEE DRAWING 101

Car Park

North Wood

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LEGEND

- PERMEABLE ASPHALT TO PERMANENT CAR PARK ONLY
- COMPACTED GRAVEL
- GROUND REINFORCEMENT GRID SYSTEM WITH GRAS PLANTING
- PROPOSED PERFORATED SW DRAIN
- SURFACE WATER MANHOLE
- PROPOSED HYDROBRAKE MANHOLE
- CATCHPIT CHAMBER/MANHOLE
- OVERLAND FLOW
- PROPOSED SW PIPE RUN
- EXISTING ROOF RUNOFF CATCHMENT
- PROPOSED FW PIPE RUN
- EXISTING SW PIPE RUN
- EXISTING FW PIPE RUN
- GEOCELLULAR STORAGE
- CELLPAVE HD SURFACING
- CELLPAVE SO SURFACING

P06	Updated layout and LLFA comments	29/10/25	MN	JR
P05	For comment	20/03/25	KB	MN
P04	Issued for information	25/02/25	KB	MN
P03	Issued for information	12/02/25	KB	MN
P02	Issued for information	10/12/24	KB	MN
REV	DESCRIPTION	DATE	BY	APP

QED
structures

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QED PROJECT No.
24-164

CLIENT
International Association of
Scientists

PROJECT
Saint Hill Site 2 - New temporary
structure + North & West extensions
and new toilet block

TITLE
Proposed Drainage Layout

DRAWN	ENGINEER	CHECKED BY	APPROVED BY
IW	KB	MN	MN

DATE APPROVED 20/03/25 SCALE @ A1 1:500

STATUS
S3 - Suitable for Review and Comment

DRAWING No.
24-164-QED-XX-XX-DR-C-201

REVISION
P06

FLOW CONTROL MANHOLE
ORIFICE PLATE AT INVERT - 85mm DIA
SECONDARY ORIFICE AT 120.65mAOD
- 94mm DIA

FLOW RATE:
1IN2YR+CC = 11.6L/S
1IN30YR+CC = 23.7L/S
1IN100YR+CC =30.8L/S
MINIMUM OUTLET DIAMETER: 0.225m

TURNING AREA ATTENUATION

CONTRIBUTING AREA:5500m²
ATTENUATION TANK PLAN AREA:400m²
ACO HD GEOCELLULAR CRATE DEPTH: 0.92m
POROSITY: 97%
STORAGE VOLUME NEEDED:345.6m3

LEVELS AND SUBSEQUENT PIPE ROUTES ARE TO BE
CONFIRMED AT LATER DESIGN STAGE

OUTFALL TO
WATERCOURSE IN
WOODED AREA IN
AGREEMENT WITH
ADJACENT LANDOWNER.

DETAILS OF DISCHARGE
LOCATION TO BE
CONFIRMED AT LATER
DESIGN STAGE

RELEVANT PERMISSIONS
TO BE ASCERTAINED PRIOR
TO CONSTRUCTION

MARQUEE PAD FLOW CONTROL

ORIFICE PLATE AT INVERT - 69mm DIA

FLOW RATE:
1IN2YR+CC = 7.1L/S
1IN30YR+CC = 8.5L/S
1IN100YR+CC =9.4L/S
MINIMUM OUTLET DIAMETER: 0.225m
FOR OVERFLOW/EXCEEDANCE

RESURFACED/GRADED AREA TO BE OF PERMEABLE
CONSTRUCTION INCLUDING A SUB-BASE AS
ATTENUATION
MARQUEE PAD 14 in calcs

SUB-BASE TO BE UNLINED (TYPE B) TO ENCOURAGE
INFILTRATION HOWEVER HAS BEEN CONSIDERED TO
BE IMPERMEABLE TO BE CONSERVATIVE

650mm SUB-BASE DEPTH NEEDED ACCORDING TO
CAUSEWAY FLOW CALCULATIONS DURING THE 1 IN
100 YEAR +40%CC RAINFALL EVENT

SUB-BASE TO BE 30% POROSITY
SUB BASE TO BE LAID FLAT TO MAXIMISE STORAGE

STORAGE DESIGNED TO ACCOMMODATE EXISTING
BUILDING RUNOFF (THAT CURRENTLY DRAINS TO
SOAKAWAY IN MARQUEE PAD AREA) AND AN
ALLOWANCE FOR POTENTIAL EXTENSIONS

STORAGE PROVIDED 1950m3

LEVELS TO BE CONFIRMED AT
DETAILED DESIGN STAGE.

PATHWAY TO HAVE NOMINAL
SUB-BASE TO CAPTURE AND
ATTENUATE SURFACE WATER.

DEPTH TO BE CONFIRMED AT
DETAILED DESIGN STAGE.

EXTENDED CATCHMENT
INCLUDED IN NETWORK
CALCULATIONS TO MAKE
ALLOWANCE FOR POTENTIAL
FUTURE DEVELOPMENT

NEW FOUL WATER CONNECTION
TO BE MADE FROM PROPOSED
WEST EXTENSION TO EXISTING
FOUL WATER DRAINAGE ON SITE

CAPACITY OF EXISTING DRAINAGE
NETWORK TO BE CONFIRMED AT
LATER DESIGN STAGE

SITE 2 DESIGN PHILOSOPHY

TO BE READ IN CONJUNCTION WITH MCEC REPORT MC0536 QED Saint
Hill Sites 1,2,3 and 4 SWDS FWDS.

INFILTRATION TESTING HAS BEEN UNDERTAKEN ON-SITE AND SHOWS
INFILTRATION NOT TO BE A FEASIBLE MEANS OF SURFACE WATER
DISCHARGE.

EXISTING LEVELS (ASCERTAINED VIA TOPOGRAPHICAL SURVEY & LIDAR
DATA) SHOW AN OVERALL FALL TO THE WEST. OUTLINE LEVELS
DRAWINGS ARE PROVIDED SEPARATELY. FINAL DETAILED PROPOSED
LEVELS ARE TO BE CONFIRMED AT DETAILED DESIGN STAGE.

AS SUCH, THE PROPOSALS ARE TO UTILISE TYPE B (PARTIAL
INFILTRATION) PERMEABLE PAVING IN CONJUNCTION WITH
ATTENUATION STORAGE BEFORE DISCHARGING INTO A
WATERCOURSE WEST OF THE SITE AT AS CLOSE AS FEASIBLE TO
GREENFIELD RUNOFF RATES (FOR THE 1IN2yr, 1IN30yr and 1IN100yr
PREDEVELOPMENT RAINFALL EVENTS) VIA GRAVITY.

THE TOILET BLOCK IS PROPOSED TO DRAIN SURFACE WATER INTO THE
MARQUEE PAD SUB-BASE.

NO INFILTRATION HAS BEEN ALLOWED FOR IN THE STORAGE
CALCULATIONS AT THIS TIME DUE TO FAILED INITIAL INFILTRATION
TESTING. FURTHER INFILTRATION TESTING SHOULD BE UNDERTAKEN
ACROSS THE AREA AT FORMATION LEVEL ONCE WORKS COMMENCE
TO CONFIRM IF ANY INFILTRATION IS VIABLE.

ALL FOUL WATER DRAINAGE FROM TOILET BLOCK IS TO BE ROUTED
INTO EXISTING FOUL DRAINAGE ON SITE - LOCATION, FEASIBILITY AND
CAPACITY ARE TO BE CONFIRMED AT LATER DESIGN STAGE.

AN AREA OF EXISTING MAIN BUILDING ROOF RUNOFF AND POTENTIAL
FUTURE EXTENSION IS PROPOSED TO DRAIN INTO THE SITE 2 MARQUEE
SUB-BASE ATTENUATION. FEASIBILITY AND CAPACITY OF SURFACE
WATER DRAINAGE TO BE CONFIRMED AT LATER DESIGN STAGE.

NEW TOILET BLOCK ASSUMED TO
ALSO SERVE TEMPORARY
STRUCTURE

NEW TOILET BLOCK TO ROUTE
INTO CLOSEST FEASIBLE FOUL
WATER MANHOLE

EXISTING FOUL SEWAGE SYSTEM
CAPACITY TO BE CONFIRMED AT
LATER DESIGN STAGE