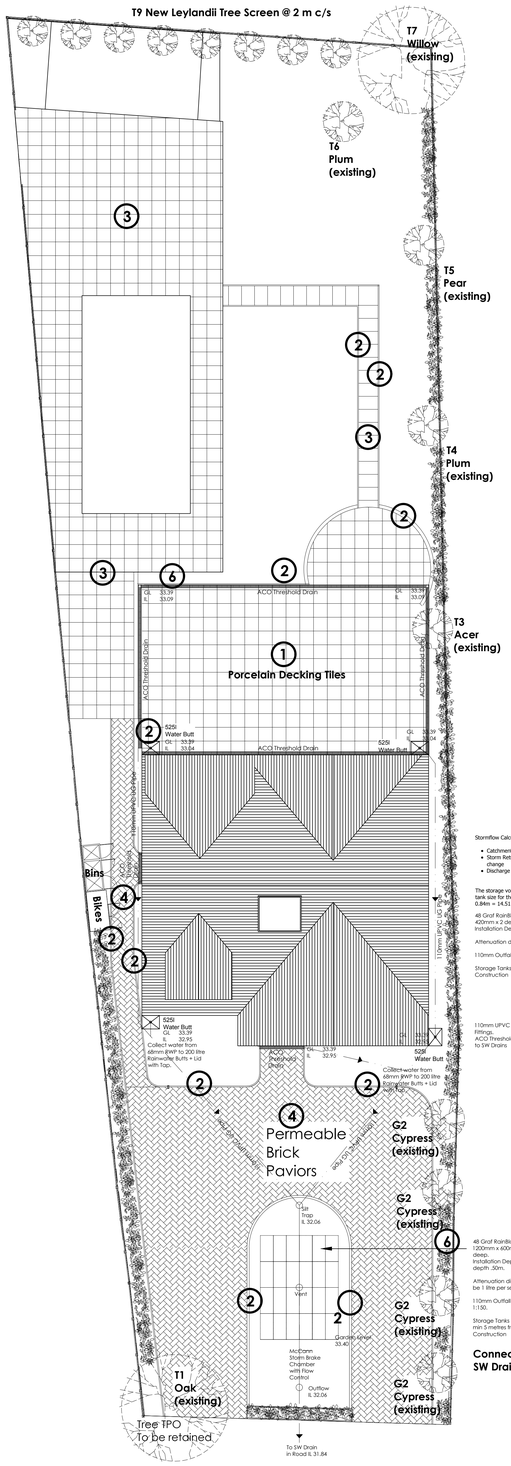

Invert Level 31.84
From IC 9105 - 9106

Site Plan Drainage

Stormflow Calculations

- Catchment area = 171m² building, 112m² dense
- Storm Return Period = 1 in 100 Years + 40% for climate change
- Discharge rate = 1L/s

The storage volume required is 13.64m3, therefore, a suitable tank size for the above using RainBloc would be: 4.8m x 3.6m x 0.84m = 14.51 Gross @ 95% void = 13.78m³ Net

48 Graf RainBloc Storage Tanks 1200mm x 600mm x 400mm x 2 deep.
Installation Depth 1.34m, cover depth .50m.

Attenuation discharge rate to be 1 litre per second

110mm Outfall Pipe laid @ 1:150.

Storage Tanks to be installed min 5 metres from New Construction

110mm UPVC Underground Pipes + Fittings.
ACO Threshold Drain to be connected to SW Drains

48 Graf RainBloc Storage Tanks 1200mm x 600mm x 400mm x 2 deep.
Installation Depth 1.34m, cover depth .50m.

Attenuation discharge rate to be 1 litre per second

110mm Outfall Pipe laid @ 1:150.

Storage Tanks to be installed min 5 metres from New Construction

Connect outflow to existing SW Drain on Site

Maintenance

Regular maintenance is essential to ensure effective operation of the SuDS features over the intended lifespan of the proposed development. The SuDS Manual (C753) (CIRIA, 2015) provides a maintenance schedule for SuDS with details of the necessary required actions as shown in the Table below.

SuDS operation and recommended maintenance requirements

Asset type Maintenance schedule (and frequency)Permeable pavements

Regular maintenance:

- Brushing and vacuuming (three times per year).
- Trimming any roots and surrounding grass and weeds that may be causing blockages (annually or as required).

Monitoring:

- Initial inspection (monthly).
- Inspect for poor performance and inspection chambers (annually).
- Hydro-Brake Flow Control Low amounts of maintenance required as there are no moving parts within the Hydro-Brake® Flow Control.
- Initial monthly inspection at the manhole once the construction phase is over.

If blockages occur they normally do so at the intake.
Hydro-Brake® Flow Controls are fitted with a pivoting by-pass door, which allows the manhole chamber to be drained down should blockages occur.

Inspection should be undertaken annually or when a storm event occurs.

Underground drainage pipe network

Regular maintenance:

- Remove sediment and debris from pre-treatment devices and floor of inspection tube or chamber (annually).
- Cleaning of gutters and any filters on downpipes (annually).
- Trimming any roots that may be causing blockages (annually or as required).

Monitoring:

- Inspect silt traps and note rate of sediment accumulation (monthly in the first year and then annually).
- Rainwater Harvesting Regular maintenance:
- Inspection of tank for debris and sediment build up (annually and following poor performance).

Asset type Maintenance schedule (and frequency)

- Inspection of inlets, outlets, overflow areas, pumps and filters (annually and following poor performance).
- Cleaning of tank, inlets, outlets, gutters, roof drain filters and withdrawal devices (annually of as required).

Remedial actions:

- Repair or overflow erosion damage or damage to tank and associated components (as required)Attenuation tanks

- Regular maintenance:
- Remove litter and debris from inlets and outlets (monthly).
- Trimming any roots and surrounding grass blockages (as required). Monitoring:
- Inspect inlets, outlets and overflows for blockages (monthly or after a heavy storm).
- Inspect inlets and outlets for silt accumulation (half yearly).
- Inspect infiltration surfaces for compaction and ponding (monthly).

Copyright of this drawing is retained by Designed Images.
All dimensions to be verified on Site by the Contractor and all discrepencies and/or omissions to be reported to Designed Images immediately upon discovery.

Surveys have been computed on an arbitrary grid.
All Levels are in metres and relate to Station X1.
Value 100,000m
All direction arrows indicate UP unless otherwise stated.
Vehicle tracks shown in the vicinity of drawn boundaries as shown on this survey, may not represent the extent of legally conveyed ownership.

Notes:

Job No.	119 CHAR
Sheet	1 of 1
Draw No.	119CHAR-PP-Drainage
Rev.	00
Date	January 2023
Scale	1:100 @ A0
Author	BJS
Checked	RMK

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Proposed New House

Drainage Plan

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