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**SOMPTING COMMUNITY FARM
TEST ROAD
SOMPTING
LANCING
BN15 0EW**

Proposed COMMUNITY FARM

Drainage Strategy Report

Issue	D
Date	11 Mar 2026
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Registered No. FS 37624

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1.00 Introduction

- 1.01 Monson Engineering has been instructed to prepare a Drainage Strategy for the proposed community farm in Sompting Community Farm, Test Road, Sompting, Lancing, BN15 0EW.
- 1.02 The proposed site is bordered by a footpath and green field to the west, a park to the north and south, and residential development to the east, with access to the farm provided via Test Road. The approximate National Grid Reference of the site is TQ 16820 04635 (516820E, 104635N).



Figure 1: Application Site (Google Map)

- 1.03 Development proposal can be found in **Appendix A**.

2.00 Existing Drainage

- 2.01 A topographical survey of the site (**Appendix B**) indicates the presence of several existing ponds in the site. The topographical level of the site naturally falls towards these ponds. The topographical levels of the proposed site are approximately between 4m AOD and 3m AOD.

3.00 Geology

- 3.01 British Geological Survey (BGS) mapping (*Figure 2*) shows that the site is underlain by Tarrant Chalk Member-Chalk – Sandstone.

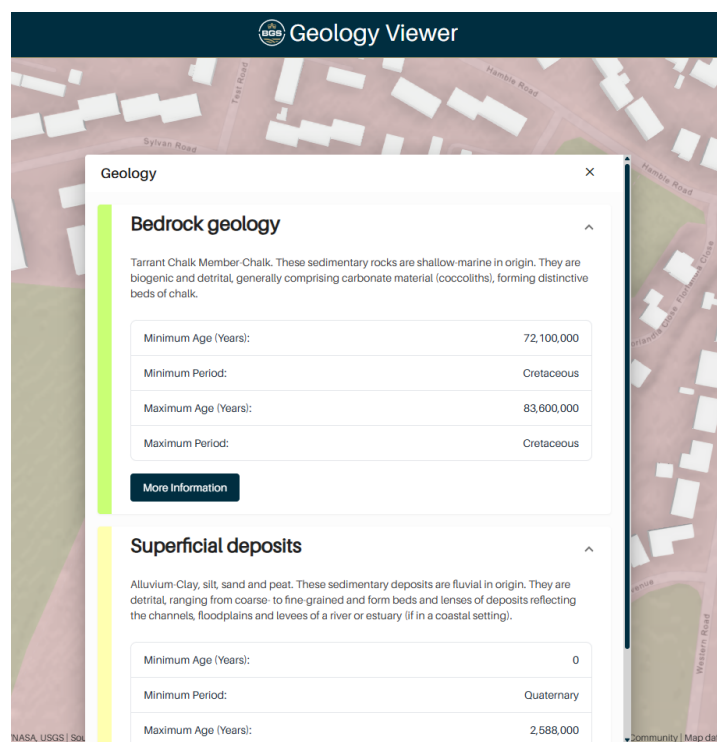


Figure 2: BGS Bedrock Geology

- 3.02 BGS describes the lithology of this bedrock as “*Soft white chalk with relatively widely spaced but large flint seams.*”

- 3.03 Soilscape mapping (*Figure 3*) indicates that the site is 'loamy', freely draining and slightly acid loamy soils.

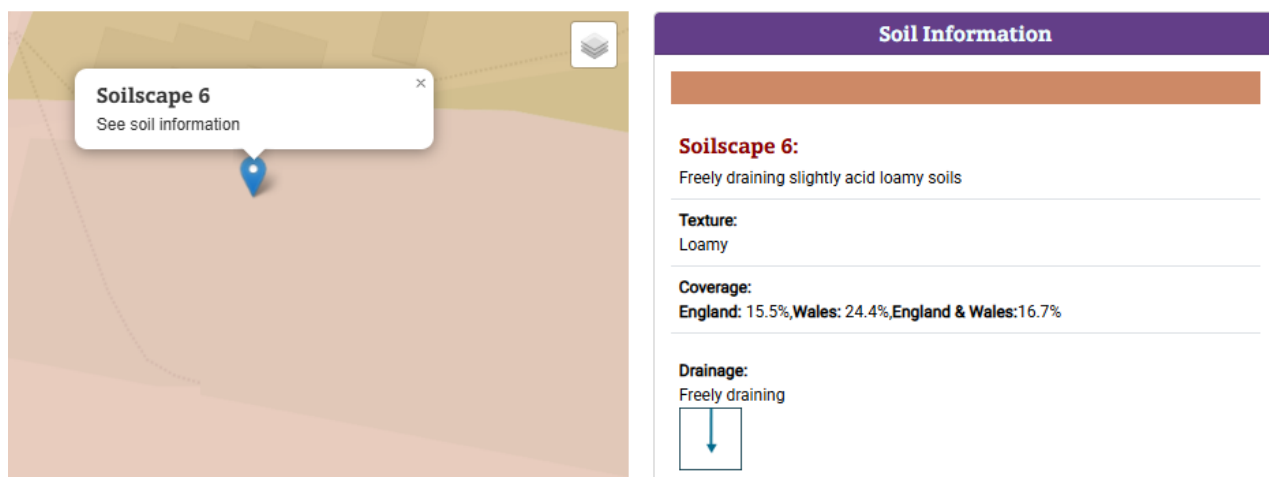


Figure 3: Soilscape Map

4.00 Drainage Strategy

- 4.01 For assessing surface water runoff, the primary contributing areas will include the proposed roofs.
- 4.02 A rainwater harvesting system is proposed for the site to capture and reuse rainfall for farm irrigation, while also ensuring compliance with Sustainable Drainage Systems (SuDS) criteria.

5.00 Drainage Proposals

- 5.01 The proposed site has a total of 3 catchment areas. Phase 1A, Phase 2 and Phase 1B.
- 5.02 Phase 1A comprises an area of approximately 200 m² of contributing area. Rainwater is collected via four downpipes and conveyed to the rainwater harvesting tank through a series of manholes. Any overflow from the rainwater harvesting system is directed to the pond. Two rodding points has been proposed to this building as well for maintenance purposes.
- 5.03 Phase 1B, has two downpipes that are directly connected to the pond. This building has approximately 75 m² roof area.
- 5.04 Phase 2 comprises a total area of approximately 200 m² of contributing area. Rainwater is collected via 6 downpipes conveyed to the rainwater harvesting tank through three number of manholes. Any overflow from the rainwater harvesting system is directed to the farm through an overflow pipe. Two rodding points have been proposed to this building as well for maintenance purposes of the drainage system.
- 5.05 The invert level of the pipe connecting the overflow from Rainwater Harvesting Tank to the pond, is required to be 2.09m AOD.
- 5.06 The invert level of the pipe connecting the overflow from the Tank number 2 is required to be 2.64m AOD.
- 5.07 This connection system is demonstrated in **(Appendix C)**.

- 5.08 A pond was constructed on the site in autumn 2020, prior to the current planning application, specifically to attenuate the additional surface water runoff that will arise from the proposed Community Farm development, including new roofs and areas of hardstanding.
- 5.09 The pond was excavated within an existing pasture field and comprises an attenuation pond formed by a keyed-in clay dam with rock-filled leaky gabion headwalls, designed to temporarily store runoff and control discharge rates downstream.
- 5.10 The Contractor's invoice indicates that approximately 640m³ of material was excavated and that three leaky gabion headwalls (each 2m long × 1m × 1m, with 255mm overflows) were installed to provide controlled attenuation.
- 5.11 At the time of construction, detailed runoff calculations were not available, and the scheme's size was therefore determined by site constraints and opportunities; the updated drainage calculations now demonstrate that the SUDS facility provides more than sufficient attenuation capacity to mitigate the additional runoff generated by the proposed development.
- 5.12 The calculation attached to **Appendix D**, shows that the size of the pond is well above what is required, especially taking into account the two number of rainwater harvesting tanks, each storing 16000L before overflowing to the pond.
- 5.13 Below are some photos of the pond.



Figure 4: Pond view



Figure 5: Pond view

- 5.14 Causeway flow calculations demonstrate the adequacy of the drainage design is up to the 1 in 100 year storm, allowing for 45% increase in rainfall intensity due to climate change without flooding on or off site.
- 5.15 Causeway flow calculations can be found in **(Appendix D)**.

6.00 Conclusion

- 6.01 This Drainage Strategy has been prepared to support the proposed community farm development at Sompting Community Farm, Test Road, Sompting. The strategy has been developed in accordance with best practice guidance and Sustainable Drainage Systems (SuDS) principles.
- 6.02 The proposed drainage design manages surface water runoff primarily from roof areas through a combination of rainwater harvesting and controlled discharge. Rainwater is collected, reused for farm irrigation, and any excess flows are safely conveyed to the farm drainage system.
- 6.03 The strategy takes account of the site's existing topography, geology, and soil conditions, which are conducive to effective surface water management. The proposed drainage measures ensure that post-development runoff rates do not exceed existing conditions.
- 6.04 Drainage calculations demonstrate that the proposed system has sufficient capacity to manage surface water flows up to the 1 in 100 year storm event, including a 45% allowance for climate change, without causing flooding on or off site.
- 6.05 Overall, the proposed drainage strategy is considered robust, sustainable, and compliant with current SuDS requirements, and is suitable to support the proposed development.

APPENDIX A : PROPOSED DEVELOPMENT



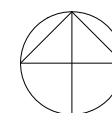
Existing location plan

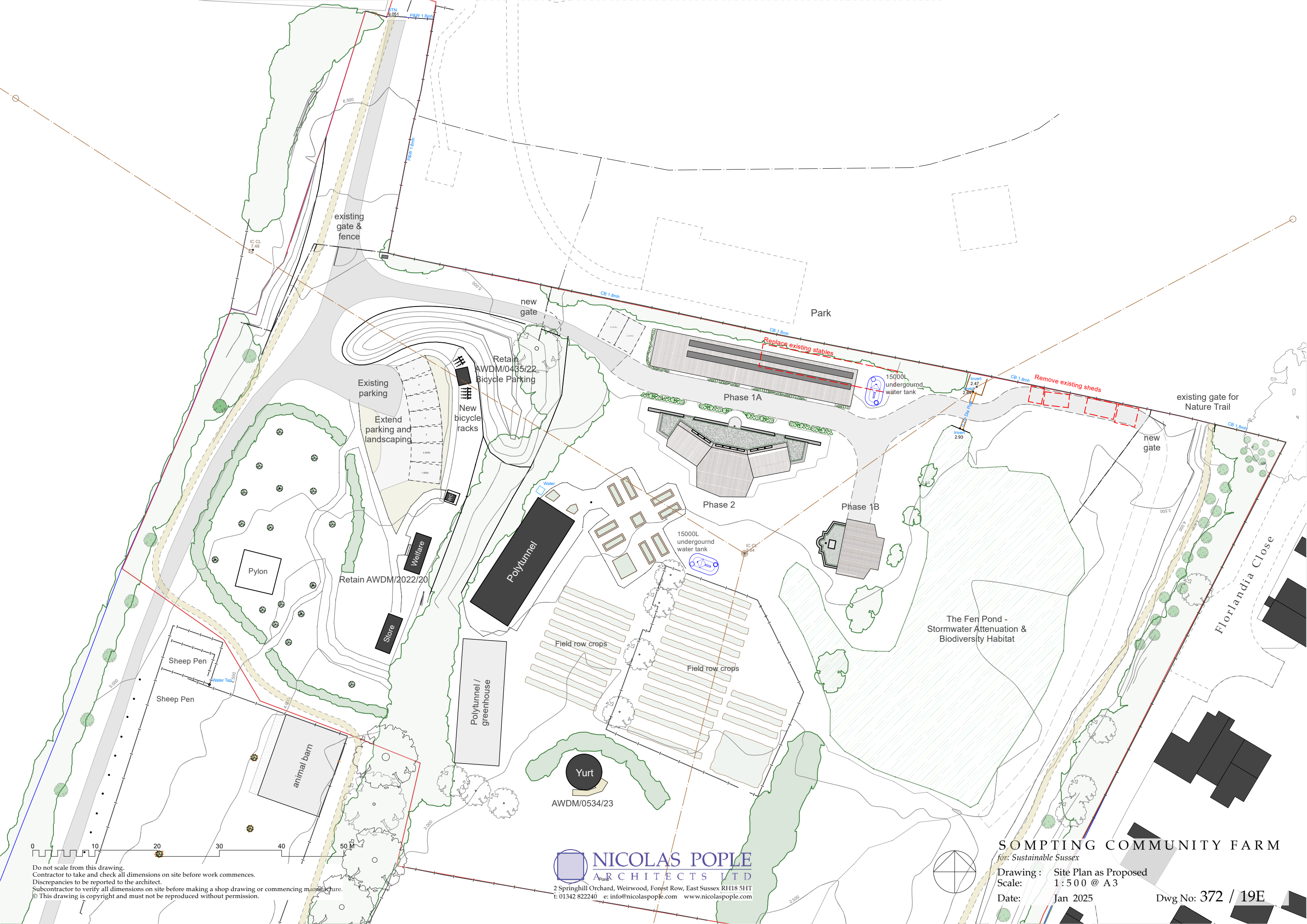


Proposed location plan

0 20 30 40 50 60 70 80 90 100 M

Do not scale from this drawing.
Contractor to take and check all dimensions on site before work commences.
Discrepancies to be reported to the architect.
Subcontractor to verify all dimensions on site before making a shop drawing or commencing manufacture.
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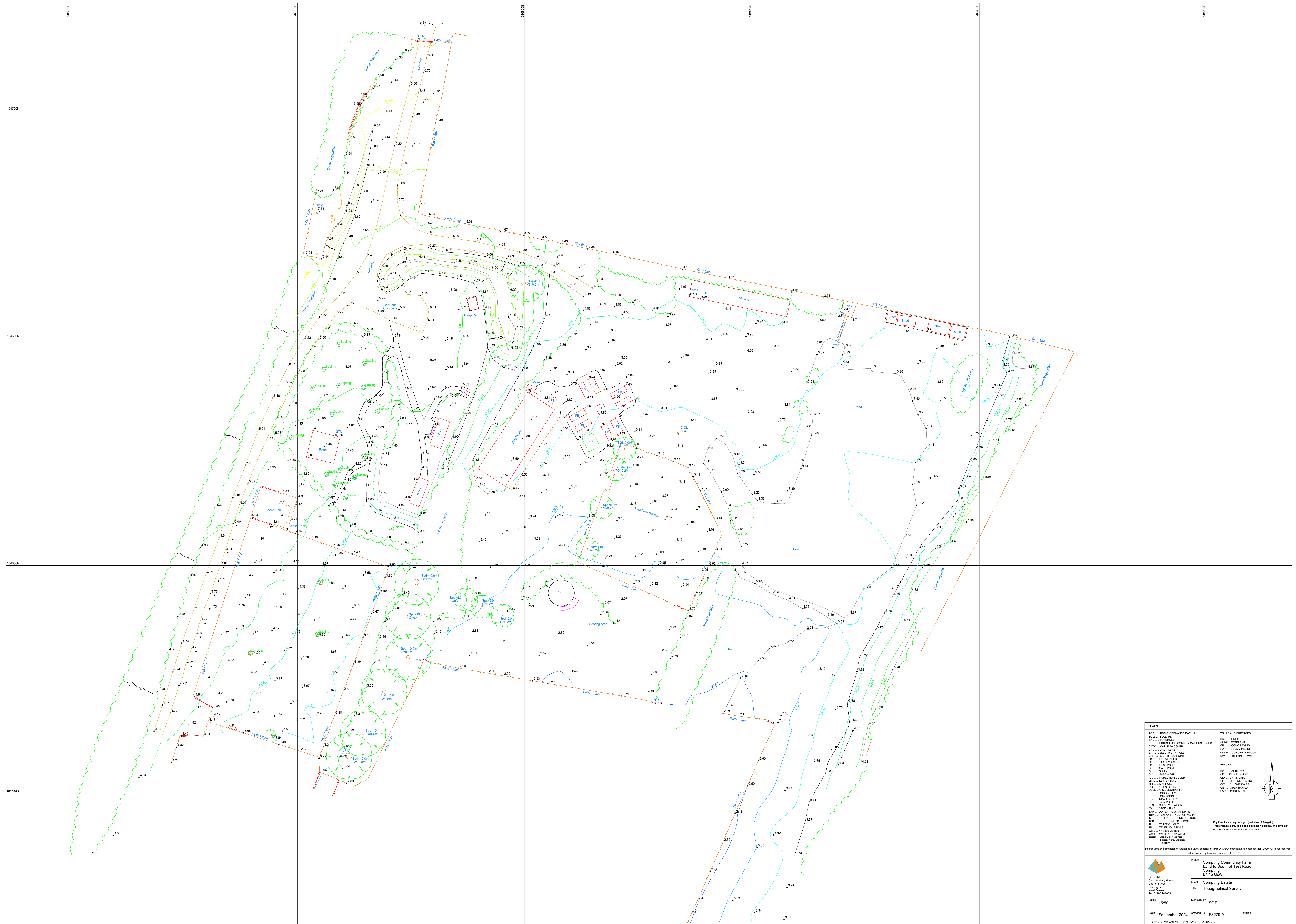


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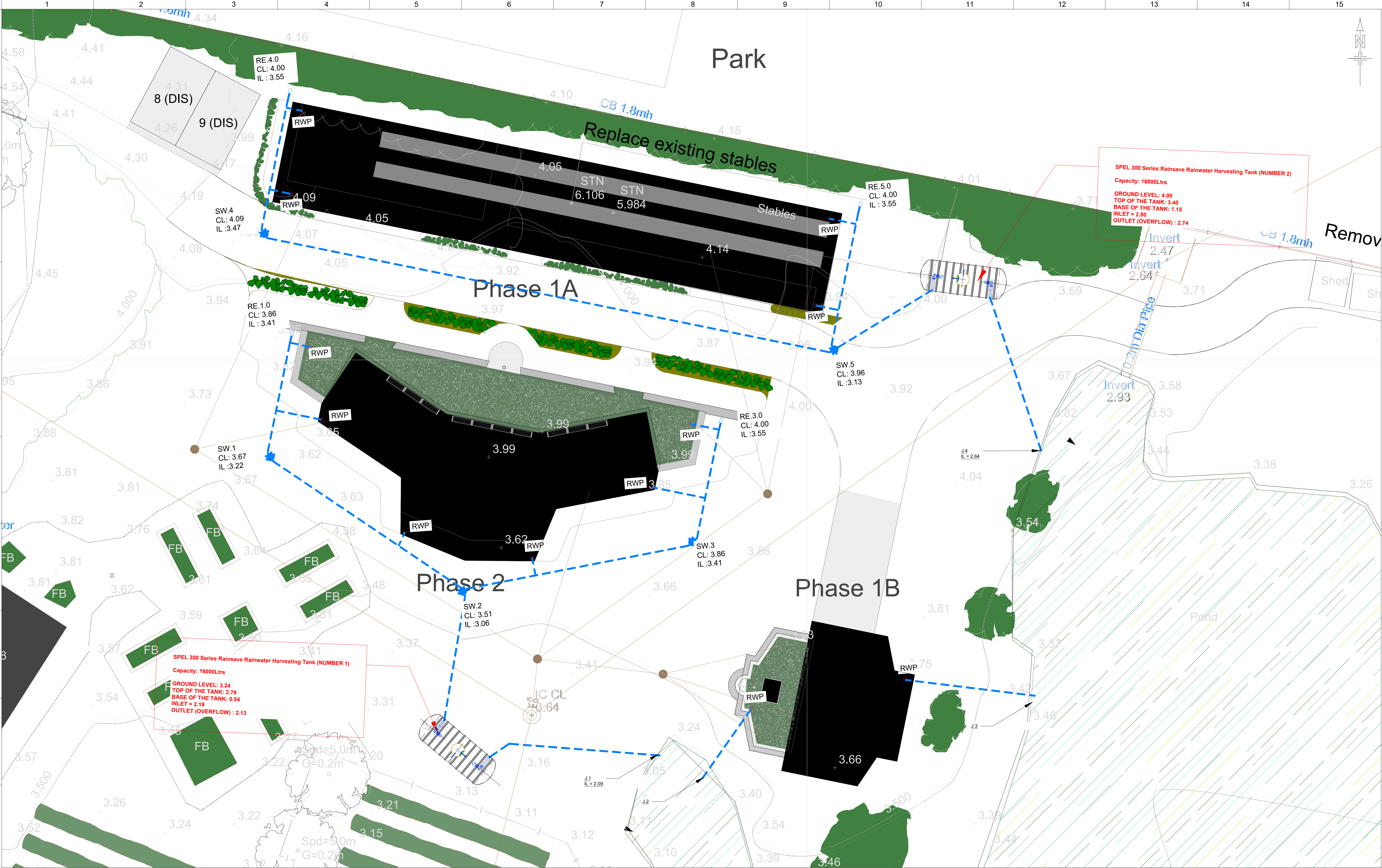
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SOMPTING COMMUNITY FARM
for: Sustainable Sussex
Drawing : Site Plan as Proposed
Scale: 1:500 @ A3
Date: Jan 2025
Dwg No: 372 / 19E

APPENDIX B : TOPOGRAPHICAL SURVEY



APPENDIX C : PROPOSED DRAINAGE LAYOUT



Notes:

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A MA 22/01/26 Original Issue
Issue By Date Amendments

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Project:
SOMPTING COMMUNITY FARM
TEST ROAD, SOMPTING
LANCING
BN15 0EW

Description:
DRAINAGE STRATEGY

Original Drawing: Prepared MA Approved MW
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Scale: Dwg No:
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A

ISSUE SHEET

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APPENDIX D : CAUSEWAYFLOW RESULTS

Design Settings

Rainfall Methodology	FEH-22	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	1.200
Return Period (years)	1	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	✓
CV	1.000	Connection Type	Level Soffits		
Time of Entry (mins)	5.00	Minimum Backdrop Height (m)	0.200		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Depth (m)
RE.1.0	0.004	5.00	3.860	100	0.450
SW.1	0.004	5.00	3.670	450	0.450
SW.2	0.004	5.00	3.510	450	0.450
SW.3	0.004	5.00	3.860	450	0.450
RE.3.0	0.004	5.00	4.000	100	0.450
RE.4.0	0.005	5.00	4.000	100	0.450
SW.4	0.005	5.00	4.090	450	0.620
RE.5.0	0.005	5.00	4.000	100	0.450
SW.5	0.005	5.00	3.960	450	0.830
TANK 1	0.000	5.00	3.240		1.110
TANK 2	0.000	5.00	4.000		1.260
POND	0.000	5.00	3.580	1200	1.490
J.1	0.000	5.00	3.580		1.490
J.2	0.005	5.00	3.400		1.310
J.3	0.005	5.00	3.420		1.244
J.4	0.000	5.00	3.820		1.644
RWP 1 PHASE 1B	0.000	5.00	4.000	100	1.720
RWP 2 PHASE 1 B	0.000	5.00	4.000	100	1.300

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	RE.1.0	SW.1	6.502	0.600	3.410	3.220	0.190	34.2	100	5.08	35.8
1.001	SW.1	SW.2	13.179	0.600	3.220	3.060	0.160	82.4	100	5.34	35.1
1.002	SW.2	TANK 1	7.422	0.600	3.060	2.190	0.870	8.5	100	5.39	35.0
1.003	TANK 1	J.1	10.318	0.600	2.130	2.090	0.040	258.0	100	5.75	34.0
1.100	RE.3.0	SW.3	6.502	0.600	3.550	3.410	0.140	46.4	100	5.10	35.7
1.101	SW.3	SW.2	13.252	0.600	3.410	3.060	0.350	37.9	100	5.27	35.3
2.000	RE.4.0	SW.4	7.688	0.600	3.550	3.470	0.080	96.1	100	5.16	35.6
2.001	SW.4	SW.5	33.652	0.600	3.470	3.130	0.340	99.0	100	5.89	33.6
2.002	SW.5	TANK 2	6.420	0.600	3.130	2.800	0.330	19.5	100	5.95	33.4
2.003	TANK 2	J.4	9.541	0.600	2.740	2.640	0.100	95.4	100	6.15	33.0
2.100	RE.5.0	SW.5	7.840	0.600	3.550	3.130	0.420	18.7	100	5.07	35.8

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	1.323	10.4	0.5	0.350	0.350	0.004	0.0	15	0.683
1.001	0.848	6.7	1.0	0.350	0.350	0.008	0.0	26	0.608
1.002	2.662	20.9	2.5	0.350	0.950	0.020	0.0	24	1.814
1.003	0.474	3.7	2.5	1.010	1.390	0.020	0.0	59	0.506
1.100	1.134	8.9	0.5	0.350	0.350	0.004	0.0	17	0.622
1.101	1.257	9.9	1.0	0.350	0.350	0.008	0.0	21	0.803
2.000	0.784	6.2	0.6	0.350	0.520	0.005	0.0	22	0.511
2.001	0.773	6.1	1.2	0.520	0.730	0.010	0.0	30	0.599
2.002	1.759	13.8	2.4	0.730	1.100	0.020	0.0	29	1.327
2.003	0.787	6.2	2.4	1.160	1.080	0.020	0.0	43	0.738
2.100	1.796	14.1	0.6	0.350	0.730	0.005	0.0	14	0.898

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
3.000	RWP 1 PHASE 1B	J.2	1.000	0.600	2.280	2.090	0.190	5.3	100	5.00	36.0
4.000	RWP 2 PHASE 1 B	J.3	1.000	0.600	2.700	2.683	0.017	58.8	100	5.02	36.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
3.000	3.393	26.6	0.0	1.620	1.210	0.000	0.0	0	0.000
4.000	1.006	7.9	0.0	1.200	0.637	0.000	0.0	0	0.000

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	6.502	34.2	100	Circular	3.860	3.410	0.350	3.670	3.220	0.350
1.001	13.179	82.4	100	Circular	3.670	3.220	0.350	3.510	3.060	0.350
1.002	7.422	8.5	100	Circular	3.510	3.060	0.350	3.240	2.190	0.950
1.003	10.318	258.0	100	Circular	3.240	2.130	1.010	3.580	2.090	1.390
1.100	6.502	46.4	100	Circular	4.000	3.550	0.350	3.860	3.410	0.350

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	RE.1.0	100	Manhole	Adoptable	SW.1	450	Manhole	Adoptable
1.001	SW.1	450	Manhole	Adoptable	SW.2	450	Manhole	Adoptable
1.002	SW.2	450	Manhole	Adoptable	TANK 1		Junction	
1.003	TANK 1		Junction		J.1		Junction	
1.100	RE.3.0	100	Manhole	Adoptable	SW.3	450	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.101	13.252	37.9	100	Circular	3.860	3.410	0.350	3.510	3.060	0.350
2.000	7.688	96.1	100	Circular	4.000	3.550	0.350	4.090	3.470	0.520
2.001	33.652	99.0	100	Circular	4.090	3.470	0.520	3.960	3.130	0.730
2.002	6.420	19.5	100	Circular	3.960	3.130	0.730	4.000	2.800	1.100
2.003	9.541	95.4	100	Circular	4.000	2.740	1.160	3.820	2.640	1.080
2.100	7.840	18.7	100	Circular	4.000	3.550	0.350	3.960	3.130	0.730
3.000	1.000	5.3	100	Circular	4.000	2.280	1.620	3.400	2.090	1.210
4.000	1.000	58.8	100	Circular	4.000	2.700	1.200	3.420	2.683	0.637

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.101	SW.3	450	Manhole	Adoptable	SW.2	450	Manhole	Adoptable
2.000	RE.4.0	100	Manhole	Adoptable	SW.4	450	Manhole	Adoptable
2.001	SW.4	450	Manhole	Adoptable	SW.5	450	Manhole	Adoptable
2.002	SW.5	450	Manhole	Adoptable	TANK 2		Junction	
2.003	TANK 2		Junction		J.4		Junction	
2.100	RE.5.0	100	Manhole	Adoptable	SW.5	450	Manhole	Adoptable
3.000	RWP 1 PHASE 1B	100	Manhole	Adoptable	J.2		Junction	
4.000	RWP 2 PHASE 1 B	100	Manhole	Adoptable	J.3		Junction	

Manhole Schedule

Node	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
RE.1.0	3.860	0.450	100				
					0	1.000	3.410
SW.1	3.670	0.450	450		1	1.000	3.220
					0	1.001	3.220
SW.2	3.510	0.450	450		1	1.101	3.060
					2	1.001	3.060
					0	1.002	3.060
SW.3	3.860	0.450	450		1	1.100	3.410
					0	1.101	3.410
RE.3.0	4.000	0.450	100				
					0	1.100	3.550
RE.4.0	4.000	0.450	100				
					0	2.000	3.550
SW.4	4.090	0.620	450		1	2.000	3.470
					0	2.001	3.470
RE.5.0	4.000	0.450	100				
					0	2.100	3.550

Manhole Schedule

Node	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
SW.5	3.960	0.830	450		1	2.100	3.130	100
					2	2.001	3.130	100
					0	2.002	3.130	100
TANK 1	3.240	1.110		1	1.002	2.190	100	
				0	1.003	2.130	100	
TANK 2	4.000	1.260		1	2.002	2.800	100	
				0	2.003	2.740	100	
POND	3.580	1.490	1200					
J.1	3.580	1.490			1	1.003	2.090	100
J.2	3.400	1.310			1	3.000	2.090	100
J.3	3.420	1.244			1	4.000	2.683	100
J.4	3.820	1.644			1	2.003	2.640	100

Manhole Schedule

Node	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
RWP 1 PHASE 1B	4.000	1.720	100				
				0	3.000	2.280	100
RWP 2 PHASE 1 B	4.000	1.300	100				
				0	4.000	2.700	100

Simulation Settings

Rainfall Methodology	FEH-22	Winter CV	1.000	Drain Down Time (mins)	240	Check Discharge Rate(s)	x
Rainfall Events	Singular	Analysis Speed	Normal	Additional Storage (m³/ha)	20.0	Check Discharge Volume	x
Summer CV	1.000	Skip Steady State	x	Starting Level (m)			

Storm Durations

	15	30	60	120	180	240	360	480	600	720	960	1440
Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)		Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)				
1	0		0		100	0	0	0				
30	0		0		100	40	0	0				
30	40		0									

Node TANK 1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	2.130
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	0

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	37.6	37.6	1.700	37.6	74.6	1.710	0.0	74.6

Node TANK 2 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	2.740
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	0

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	37.6	37.6	1.700	37.6	74.6	1.701	0.0	74.6

Node POND Flow through Pond Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Main Channel Length (m)	43.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	2.090	Main Channel Slope (1:X)	500.0
Safety Factor	2.0	Time to half empty (mins)	0	Main Channel n	0.300

Inlets

J.1	J.4	J.2	J.3
-----	-----	-----	-----

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	40.0	40.0	0.350	75.0	76.2	0.700	150.0	152.3

Results for 1 year Critical Storm Duration. Lowest mass balance: 94.12%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	RE.1.0	10	3.425	0.015	0.5	0.0027	0.0000	OK
15 minute summer	SW.1	10	3.246	0.026	1.0	0.0088	0.0000	OK
15 minute summer	SW.2	10	3.083	0.023	2.3	0.0076	0.0000	OK
15 minute summer	SW.3	10	3.431	0.021	1.0	0.0070	0.0000	OK
15 minute summer	RE.3.0	10	3.566	0.016	0.5	0.0029	0.0000	OK
15 minute summer	RE.4.0	10	3.571	0.021	0.6	0.0047	0.0000	OK
15 minute summer	SW.4	11	3.499	0.029	1.2	0.0093	0.0000	OK
15 minute summer	RE.5.0	10	3.564	0.014	0.6	0.0032	0.0000	OK
15 minute summer	SW.5	11	3.158	0.028	2.2	0.0077	0.0000	OK
480 minute winter	TANK 1	312	2.240	0.110	0.9	4.1342	0.0000	SURCHARGED
120 minute summer	TANK 2	72	2.764	0.024	1.2	0.8840	0.0000	OK
480 minute winter	POND	312	2.091	0.001	0.6	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	RE.1.0	1.000	SW.1	0.5	0.415	0.045	0.0075	
15 minute summer	SW.1	1.001	SW.2	0.9	0.621	0.137	0.0194	
15 minute summer	SW.2	1.002	TANK 1	2.2	1.720	0.108	0.0097	
15 minute summer	SW.3	1.101	SW.2	0.9	0.740	0.094	0.0166	
15 minute summer	RE.3.0	1.100	SW.3	0.5	0.482	0.053	0.0064	
15 minute summer	RE.4.0	2.000	SW.4	0.6	0.377	0.092	0.0116	
15 minute summer	SW.4	2.001	SW.5	1.1	0.603	0.181	0.0613	
15 minute summer	RE.5.0	2.100	SW.5	0.6	0.501	0.041	0.0093	
15 minute summer	SW.5	2.002	TANK 2	2.2	1.269	0.159	0.0111	
480 minute winter	TANK 1	1.003	J.1	-0.4	-0.091	-0.110	0.0807	
120 minute summer	TANK 2	2.003	J.4	0.7	0.535	0.121	0.0134	

Results for 1 year Critical Storm Duration. Lowest mass balance: 94.12%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	J.1	312	2.240	0.150	0.4	0.0000	0.0000	OK
480 minute winter	J.2	312	2.241	0.151	0.2	0.0114	0.0000	OK
480 minute winter	J.3	312	2.240	0.064	0.1	0.0052	0.0000	OK
480 minute winter	J.4	312	2.241	0.065	0.4	0.0000	0.0000	OK
15 minute summer	RWP 1 PHASE 1B	1	2.280	0.000	0.0	0.0000	0.0000	OK
15 minute summer	RWP 2 PHASE 1 B	1	2.700	0.000	0.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	J.1	Flow through Pond	POND	0.6	0.019	0.001	1.4004	5.7
480 minute winter	J.2	Flow through Pond	POND	0.6	0.019	0.001	1.4004	5.7
480 minute winter	J.3	Flow through Pond	POND	0.6	0.019	0.001	1.4004	5.7
480 minute winter	J.4	Flow through Pond	POND	0.6	0.019	0.001	1.4004	5.7
15 minute summer	RWP 1 PHASE 1B	3.000	J.2	0.0	0.000	0.000	0.0039	
15 minute summer	RWP 2 PHASE 1 B	4.000	J.3	0.0	0.000	0.000	0.0000	

Results for 30 year Critical Storm Duration. Lowest mass balance: 97.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	RE.1.0	10	3.438	0.028	1.8	0.0052	0.0000	OK
15 minute summer	SW.1	10	3.274	0.054	3.6	0.0184	0.0000	OK
15 minute summer	SW.2	10	3.107	0.047	8.9	0.0159	0.0000	OK
15 minute summer	SW.3	10	3.452	0.042	3.6	0.0141	0.0000	OK
15 minute summer	RE.3.0	10	3.580	0.030	1.8	0.0057	0.0000	OK
15 minute summer	RE.4.0	10	3.592	0.042	2.3	0.0097	0.0000	OK
15 minute summer	SW.4	10	3.536	0.066	4.6	0.0210	0.0000	OK
15 minute summer	RE.5.0	10	3.577	0.027	2.3	0.0063	0.0000	OK
15 minute summer	SW.5	11	3.192	0.062	9.1	0.0173	0.0000	OK
240 minute summer	TANK 1	148	2.332	0.202	2.5	7.6129	0.0000	SURCHARGED
30 minute summer	TANK 2	21	2.804	0.064	8.0	2.4246	0.0000	OK
180 minute summer	POND	116	2.093	0.003	3.2	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	RE.1.0	1.000	SW.1	1.8	0.585	0.172	0.0200	
15 minute summer	SW.1	1.001	SW.2	3.5	0.887	0.531	0.0526	
15 minute summer	SW.2	1.002	TANK 1	8.8	2.493	0.422	0.0263	
15 minute summer	SW.3	1.101	SW.2	3.6	1.055	0.360	0.0446	
15 minute summer	RE.3.0	1.100	SW.3	1.8	0.698	0.200	0.0167	
15 minute summer	RE.4.0	2.000	SW.4	2.3	0.531	0.370	0.0330	
15 minute summer	SW.4	2.001	SW.5	4.5	0.855	0.740	0.1773	
15 minute summer	RE.5.0	2.100	SW.5	2.3	0.692	0.162	0.0267	
15 minute summer	SW.5	2.002	TANK 2	9.0	1.818	0.650	0.0317	
240 minute summer	TANK 1	1.003	J.1	1.1	0.147	0.309	0.0807	
30 minute summer	TANK 2	2.003	J.4	4.6	0.869	0.749	0.0509	

Results for 30 year Critical Storm Duration. Lowest mass balance: 97.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	J.1	148	2.329	0.239	1.1	0.0000	0.0000	OK
180 minute summer	J.2	116	2.327	0.237	0.7	0.0180	0.0000	OK
180 minute summer	J.3	116	2.327	0.151	0.7	0.0121	0.0000	OK
180 minute summer	J.4	116	2.328	0.152	2.5	0.0000	0.0000	OK
180 minute summer	RWP 1 PHASE 1B	116	2.327	0.047	0.1	0.0004	0.0000	OK
15 minute summer	RWP 2 PHASE 1 B	1	2.700	0.000	0.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute summer	J.1	Flow through Pond	POND	3.2	0.040	0.007	3.6547	21.6
180 minute summer	J.2	Flow through Pond	POND	3.2	0.040	0.007	3.6628	19.3
180 minute summer	J.3	Flow through Pond	POND	3.2	0.040	0.007	3.6628	19.3
180 minute summer	J.4	Flow through Pond	POND	3.2	0.040	0.007	3.6628	19.3
180 minute summer	RWP 1 PHASE 1B	3.000	J.2	-0.1	-0.016	-0.003	0.0057	
15 minute summer	RWP 2 PHASE 1 B	4.000	J.3	0.0	0.000	0.000	0.0000	

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 98.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	RE.1.0	10	3.443	0.033	2.5	0.0062	0.0000	OK
15 minute summer	SW.1	10	3.288	0.068	5.0	0.0229	0.0000	OK
15 minute summer	SW.2	10	3.118	0.058	12.4	0.0195	0.0000	OK
15 minute summer	SW.3	10	3.461	0.051	5.0	0.0172	0.0000	OK
15 minute summer	RE.3.0	10	3.587	0.037	2.5	0.0068	0.0000	OK
15 minute summer	RE.4.0	10	3.601	0.051	3.2	0.0117	0.0000	OK
15 minute summer	SW.4	11	3.558	0.088	6.4	0.0283	0.0000	OK
15 minute summer	RE.5.0	10	3.582	0.032	3.2	0.0075	0.0000	OK
15 minute summer	SW.5	11	3.209	0.079	12.5	0.0222	0.0000	OK
180 minute summer	TANK 1	116	2.383	0.253	4.0	9.4944	0.0000	SURCHARGED
30 minute summer	TANK 2	21	2.826	0.086	11.2	3.2455	0.0000	OK
180 minute summer	POND	112	2.095	0.005	5.2	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	RE.1.0	1.000	SW.1	2.5	0.625	0.239	0.0259	
15 minute summer	SW.1	1.001	SW.2	4.9	0.953	0.742	0.0683	
15 minute summer	SW.2	1.002	TANK 1	12.3	2.697	0.590	0.0339	
15 minute summer	SW.3	1.101	SW.2	5.0	1.138	0.502	0.0577	
15 minute summer	RE.3.0	1.100	SW.3	2.5	0.754	0.279	0.0215	
15 minute summer	RE.4.0	2.000	SW.4	3.2	0.561	0.514	0.0431	
15 minute summer	SW.4	2.001	SW.5	6.2	0.893	1.019	0.2354	
15 minute summer	RE.5.0	2.100	SW.5	3.2	0.742	0.225	0.0347	
15 minute summer	SW.5	2.002	TANK 2	12.3	1.914	0.893	0.0413	
180 minute summer	TANK 1	1.003	J.1	1.9	0.237	0.498	0.0807	
30 minute summer	TANK 2	2.003	J.4	6.5	0.924	1.051	0.0671	

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 98.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	J.1	112	2.374	0.284	1.9	0.0000	0.0000	OK
180 minute summer	J.2	112	2.370	0.280	1.0	0.0213	0.0000	OK
180 minute summer	J.3	112	2.370	0.194	1.0	0.0155	0.0000	OK
120 minute summer	J.4	76	2.376	0.200	4.6	0.0000	0.0000	OK
180 minute summer	RWP 1 PHASE 1B	112	2.370	0.090	0.1	0.0007	0.0000	OK
15 minute summer	RWP 2 PHASE 1 B	1	2.700	0.000	0.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute summer	J.1	Flow through Pond	POND	5.2	0.051	0.011	4.8879	27.1
180 minute summer	J.2	Flow through Pond	POND	5.2	0.051	0.011	4.8879	27.1
180 minute summer	J.3	Flow through Pond	POND	5.2	0.051	0.011	4.8879	27.1
120 minute summer	J.4	Flow through Pond	POND	5.2	0.051	0.011	4.8756	23.1
180 minute summer	RWP 1 PHASE 1B	3.000	J.2	-0.1	-0.022	-0.004	0.0076	
15 minute summer	RWP 2 PHASE 1 B	4.000	J.3	0.0	0.000	0.000	0.0000	

Results for 100 year Critical Storm Duration. Lowest mass balance: 98.29%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	RE.1.0	10	3.442	0.032	2.3	0.0059	0.0000	OK
15 minute summer	SW.1	10	3.284	0.064	4.6	0.0216	0.0000	OK
15 minute summer	SW.2	10	3.115	0.055	11.4	0.0185	0.0000	OK
15 minute summer	SW.3	10	3.458	0.048	4.6	0.0163	0.0000	OK
15 minute summer	RE.3.0	10	3.585	0.035	2.3	0.0065	0.0000	OK
15 minute summer	RE.4.0	10	3.598	0.048	2.9	0.0110	0.0000	OK
15 minute summer	SW.4	11	3.549	0.079	5.8	0.0254	0.0000	OK
15 minute summer	RE.5.0	10	3.581	0.031	2.9	0.0071	0.0000	OK
15 minute summer	SW.5	11	3.204	0.074	11.4	0.0207	0.0000	OK
240 minute summer	TANK 1	148	2.362	0.232	3.0	8.7408	0.0000	SURCHARGED
30 minute summer	TANK 2	21	2.820	0.080	10.4	3.0147	0.0000	OK
120 minute summer	POND	80	2.094	0.004	4.4	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	RE.1.0	1.000	SW.1	2.3	0.616	0.220	0.0242	
15 minute summer	SW.1	1.001	SW.2	4.5	0.937	0.682	0.0638	
15 minute summer	SW.2	1.002	TANK 1	11.3	2.646	0.542	0.0318	
15 minute summer	SW.3	1.101	SW.2	4.6	1.117	0.461	0.0540	
15 minute summer	RE.3.0	1.100	SW.3	2.3	0.741	0.256	0.0201	
15 minute summer	RE.4.0	2.000	SW.4	2.9	0.557	0.468	0.0399	
15 minute summer	SW.4	2.001	SW.5	5.7	0.885	0.938	0.2164	
15 minute summer	RE.5.0	2.100	SW.5	2.9	0.728	0.205	0.0322	
15 minute summer	SW.5	2.002	TANK 2	11.4	1.897	0.824	0.0385	
240 minute summer	TANK 1	1.003	J.1	1.6	0.207	0.435	0.0807	
30 minute summer	TANK 2	2.003	J.4	6.1	0.905	0.982	0.0640	

Results for 100 year Critical Storm Duration. Lowest mass balance: 98.29%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	J.1	80	2.356	0.266	1.6	0.0000	0.0000	OK
120 minute summer	J.2	80	2.355	0.265	1.2	0.0201	0.0000	OK
120 minute summer	J.3	80	2.355	0.179	1.2	0.0143	0.0000	OK
120 minute summer	J.4	78	2.359	0.183	4.1	0.0000	0.0000	OK
120 minute summer	RWP 1 PHASE 1B	80	2.355	0.075	0.1	0.0006	0.0000	OK
15 minute summer	RWP 2 PHASE 1 B	1	2.700	0.000	0.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	J.1	Flow through Pond	POND	4.4	0.047	0.009	4.4301	20.6
120 minute summer	J.2	Flow through Pond	POND	4.4	0.047	0.009	4.4301	20.6
120 minute summer	J.3	Flow through Pond	POND	4.4	0.047	0.009	4.4301	20.6
120 minute summer	J.4	Flow through Pond	POND	4.4	0.047	0.009	4.4301	20.6
120 minute summer	RWP 1 PHASE 1B	3.000	J.2	-0.1	-0.026	-0.005	0.0070	
15 minute summer	RWP 2 PHASE 1 B	4.000	J.3	0.0	0.000	0.000	0.0000	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 98.70%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	RE.1.0	10	3.448	0.038	3.2	0.0071	0.0000	OK
15 minute summer	SW.1	10	3.304	0.084	6.4	0.0283	0.0000	OK
15 minute summer	SW.2	10	3.129	0.069	15.9	0.0232	0.0000	OK
15 minute summer	SW.3	10	3.470	0.060	6.4	0.0201	0.0000	OK
15 minute summer	RE.3.0	10	3.592	0.042	3.2	0.0079	0.0000	OK
15 minute summer	RE.4.0	12	3.738	0.188	4.0	0.0433	0.0000	FLOOD RISK
15 minute summer	SW.4	12	3.710	0.240	7.6	0.0769	0.0000	SURCHARGED
15 minute summer	RE.5.0	10	3.587	0.037	4.0	0.0084	0.0000	OK
15 minute summer	SW.5	11	3.286	0.156	14.0	0.0438	0.0000	SURCHARGED
120 minute summer	TANK 1	80	2.426	0.296	7.0	11.1446	0.0000	SURCHARGED
30 minute summer	TANK 2	22	2.853	0.113	13.6	4.2425	0.0000	SURCHARGED
120 minute summer	POND	76	2.097	0.007	7.6	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	RE.1.0	1.000	SW.1	3.2	0.647	0.307	0.0317	
15 minute summer	SW.1	1.001	SW.2	6.3	0.994	0.950	0.0841	
15 minute summer	SW.2	1.002	TANK 1	15.8	2.835	0.757	0.0424	
15 minute summer	SW.3	1.101	SW.2	6.4	1.194	0.644	0.0705	
15 minute summer	RE.3.0	1.100	SW.3	3.2	0.792	0.358	0.0261	
15 minute summer	RE.4.0	2.000	SW.4	3.7	0.582	0.602	0.0602	
15 minute summer	SW.4	2.001	SW.5	7.0	0.915	1.156	0.2633	
15 minute summer	RE.5.0	2.100	SW.5	4.0	0.771	0.283	0.0408	
15 minute summer	SW.5	2.002	TANK 2	13.7	1.934	0.994	0.0502	
120 minute summer	TANK 1	1.003	J.1	2.4	0.306	0.642	0.0807	
30 minute summer	TANK 2	2.003	J.4	7.1	0.930	1.151	0.0713	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 98.70%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	J.1	78	2.414	0.324	2.4	0.0000	0.0000	OK
120 minute summer	J.2	76	2.408	0.318	1.7	0.0242	0.0000	OK
120 minute summer	J.3	76	2.408	0.232	1.7	0.0185	0.0000	OK
60 minute summer	J.4	42	2.430	0.254	6.8	0.0000	0.0000	OK
120 minute summer	RWP 1 PHASE 1B	76	2.408	0.128	0.2	0.0010	0.0000	SURCHARGED
15 minute summer	RWP 2 PHASE 1 B	1	2.700	0.000	0.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	J.1	Flow through Pond	POND	7.6	0.060	0.016	6.0870	31.0
120 minute summer	J.2	Flow through Pond	POND	7.6	0.060	0.016	6.0870	31.0
120 minute summer	J.3	Flow through Pond	POND	7.6	0.060	0.016	6.0870	31.0
60 minute summer	J.4	Flow through Pond	POND	7.4	0.059	0.015	6.0086	24.9
120 minute summer	RWP 1 PHASE 1B	3.000	J.2	-0.2	-0.030	-0.007	0.0078	
15 minute summer	RWP 2 PHASE 1 B	4.000	J.3	0.0	0.000	0.000	0.0000	